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THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION,

INCLUDING

AN EPITOME OF CURRENT MEDICAL LITERATURE.

EDITED FOR THE ASSOCIATION BY

ERNEST HART.

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BRITISH MEDICAL JOURNAL:

BEING THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EDITED FOR THE ASSOCIATION BY ERNEST HART.

LONDON: SATURDAY, JULY 2, 1892.

THREE LECTURES
ON
CANCER OF THE SCROTUM IN CHIMNEY-SWEEPS AND OTHERS.

Delivered at the Royal College of Surgeons of England.

BY HENRY T. BUTLIN, F.R.C.S.

Professor of Pathology and Surgery at the College; and Surgeon to St. Bartholomew's Hospital.

LECTURE II.—WHY FOREIGN SWEEPS DO NOT SUFFER FROM SCROTAL CANCER.

THE last lecture was employed in showing that sweeps' cancer of the scrotum is a disease which is almost unknown in the large European countries and in the United States of America; that there is no reason to believe that it is becoming less frequent than formerly in this country; to a discussion of the general characters of the disease and of some peculiarities which it presents; and, finally, to proving that the tissues of the scrotum are peculiarly indisposed to cancer unless they are prepared for its occurrence by the work of sweeping chimneys or in some special manner.

Now, what is there in the trade of the sweep which renders him so liable to cancer of the scrotum? The evil influence might of course lie in the clothes of the men, in their generally dirty habits (apart from any special influence of soot), in customs connected with the use of their tools and consequent exposure of the scrotum to accident and injury. But the general opinion of all those who have thought carefully on the subject is that the evil influence lies in some special effect produced by the soot, and the evidence which is brought to bear upon the subject is to confirm this opinion.

First, there is such negative evidence as is afforded by the immunity from cancer of the scrotum enjoyed by men engaged in the various employments in which the whole body, including the scrotum, is dirty and grimy from morning till night—coal porters, dustmen, miners, and the like. The clothes of these men are rough, dirty, and often torn. Their tools and the manner of using them are just as likely to rub and injure the scrotum as are the tools of sweeps; yet they are not liable to cancer of the scrotum.

Secondly, there is the positive evidence of the action of soot afforded by the cases in which squamous-celled carcinoma has occurred in other parts of the body than the scrotum. Two such cases at once recall themselves to the memory of those who are versed in the literature of soot-cancer—the case of the gardener who day after day strewed soot about his garden to protect his plants against the slugs, and whose hand and forearm, amputated on account of extensive epithelioma, are in our hospital museum at the present day. The case is related by Sir James Earle in his edition of the works of Pott (III, 182). The second is also a case of cancer or soot-wart removed from the hand of a woman by Mr. Cusack.[1] She with her two sons carried on the business of chimney-sweeping, and was day by day occupied in handling soot, so that her skin became impregnated with it.

And, thirdly, the condition of many parts of the skin in chimney-sweeps, which is well described by Sir James Paget[2] in these words: "Scaly or incrusted small warts.....are very common in chimney-sweeps. In many of them, even when they are thoroughly cleaned, the whole skin is dry, harsh, dusky; and, before operation for the removal of scrotal cancers in them, it is a common question whether one or more warts or scaly patches near the chief disease should be removed with it. Nor are such warts confined to the scrotum; they may exist on every part of the trunk and limbs, and I have seen sweeps so thick-set with them that a hundred or more might have been counted."

Of the precise manner in which soot acts in relation to the development of cancer there may be several opinions. For instance, whether the soot contains within itself some cancerous element, or whether it directly induces the occurrence of cancer in the tissues of the scrotum, acting as an exciting cause, or whether it merely prepares the tissues of the scrotum for the occurrence of cancer, acting as a predisposing cause.

The very nature of soot renders it highly improbable that it contains within itself a cancerous element, even in suspension. And the facts which have been recorded of the special liability of the scrotum to cancer are wholly opposed to the acceptance of such a theory. If the soot contained within itself a cancer element we should expect cancer to occur in many different parts of the surface of the body, particularly in those parts which exhibit marked pathological changes of the kind described by Paget, particularly also in those parts where the soot is apt to collect, and from which it is difficult to dislodge it, as between the toes, in the folds of the groins, around the anus, and the like; and particularly in the parts which may be said to be predisposed to the occurrence of skin cancer, such as the lower lip and face. The many years, also, during which sweeps are exposed to the contact of soot before they are attacked by cancer may be taken into consideration.

Nor is it probable that the soot directly excites the occurrence of cancer in the tissues of the scrotum. It appears to have the power of exciting various changes, such as those described—dryness and harshness and duskiness, and the formation of warts and scaly patches. But it is highly probable that here its influence ceases. Only one of many sweeps who are thus affected by the soot suffers from cancer, and only one or two spots out of many parts of the body which are the seat of these surface changes become cancerous.

Everything leads to the belief that the effect of the soot is merely to prepare the tissues of the scrotum for the occurrence of cancer, and the preparation is, in part at least, evident to the eye and touch in the coarse changes which have been described. Of the manner in which the soot acts as a preparative, whether by its mechanical or its chemical influence, it may, I think, be further argued that the evidence is strongly in favour of the latter. All that has been said of the immunity from cancer of men in other callings which expose the scrotum to the continual effect of mechanical irritants may be repeated here, and it must be admitted that many substances, such as coal dust, are, owing to their form and hardness, likely to be far more irritating than soot.

Now, here we have a curious kind of experiment which has been conducted before the eyes of surgeons for at least one hundred years, and which continues to be conducted year by year upon the human body, namely, the repeated application of a chemical substance, or of a mixture of chemical substances, to a particular part of the integument, which is not at all predisposed to cancer, with the effect of rendering it pre-eminently disposed to the occurrence of cancer in a certain number of the persons experimented on.

With some of the conditions complied with in these experiments we are familiar. For instance, we know that the soot which contains the chemical substance is actually applied to

[1] *Dublin Journ. Med. Scien.*, xxi, 137, 1847.
[2] *Surgical Pathology*, ii, 464, 1853.

the surface of the scrotum and allowed to remain there for many days at a time without being disturbed even by an attempt to remove it by washing, for the majority of the sweeps in the large towns only take a complete bath once or at the most twice a week, and the soot is often so imbedded in the folds of the scrotum that it is impossible to clear it out completely. In most of the men it is probably rubbed into the integument by the clothes, not merely laid upon the surface.

The disease is scarcely capable of being produced in boys, although the formation of scaly patches and warts has been frequently noted on the scrotum of boys employed in chimney sweeping. Pott, indeed, speaks of the subjects of the disease being young and for the most part in good health at the time they were attacked. But he gives no details of cases in really young subjects, and Earle, who gave a much more detailed account of the disease in 1823, says that it rarely attacked persons under 30 years of age, and that the majority of the patients he had seen were between 30 and 40 years of age. In its relation to age, then, it appears to adhere to the rule of surface-cancer generally, namely, that it is a disease of adult age, and particularly of mature adult age. At the same time, I am inclined to believe that there is probably a larger proportion of cases of the disease occurring in young men than is usual. Earle goes on to say: "I have seen three instances between 20 and 30 and only one at the age of puberty." Seeing that he regarded the disease as one of comparatively rare occurrence, this is probably a decided percentage of the total number of patients which had come under his notice. The ages of the twenty-nine chimney-sweeps admitted into St. Bartholomew's Hospital in the last twenty years with this disease varied from 25 to 65:

From	25	to	30	2
,,	30	,,	35	2
,,	35	,,	40	2
,,	40	,,	45	5
,,	45	,,	50	10
,,	50	,,	55	4
,,	55	,,	60	2
,,	60	,,	65	2
		Total		29

It will be seen that there were six patients under the age of 40, two of them under the age of 30. If these figures be compared with the age statistics of squamous-celled carcinoma (epithelioma) generally, the proportion of cases in young men will appear large. Epithelioma of the lower lip in men under 40 years of age is very rare. Of 80 cases of epithelioma of the tongue, only 2 of the patients were under 30 years of age, and in these 2 the age was 29. Of 54 cases of cancer of the œsophagus, only one occurred in a patient under 35 years old, and not one in a person under 30 years of age. Perhaps the influence of soot as a preparative of the tissues for the occurrence of cancer is even more apparent when the ages of the 29 sweeps are compared with the ages of all the 39 patients who were under the care of the hospital during the period of twenty years. There were only 7 of the whole 39 who were under 40 years of age, and 6 of these 7 were chimney-sweeps.

Of the length of time during which the contact of soot must be continued before the tissues of the scrotum are sufficiently disposed to the occurrence of cancer, it is difficult to form a just conclusion. Even in these days, when the use of "climbing boys" is practically unknown in this country, the contact with soot begins at the age of 16 years—many years, therefore, before the general predisposing influence of age in the development of skin cancer begins to be exercised. There is, however, one observation which may serve to show how rapidly soot can prepare the integument of another part of the body than the scrotum.

Sir James Earle, in the case of the gardener already referred to, gives a careful description of the manner in which the man's wrist and hand became affected by the cancer. It is as follows: "He said he was a gardener; that about five years before (in 1800) he was employed in a garden at Lowlayton, in Essex; that in the spring of that year he was engaged about two hours every morning to strew soot on the ground round the young and tender plants, to preserve them from the slugs; that he carried the soot in an old garden pot, which hung on his left hand by a handle over the top, while he strewed it with the right. About this time he conceived the wart commenced near the knuckles, and continued not very troublesome all that year; the next spring he was again employed to distribute soot; the wart was then increased and ulcerated, and continued growing worse all that year. The spring following he again used soot in the same manner; the sore then spread and grew larger, which made work of any kind very difficult to him." In this case the patient was, at the time when the soot was first applied, 45 years old, and the manner in which it was applied was, as if by design, to induce the occurrence of cancer. The first year the soot was rubbed into the skin by the handle of the garden pot in such a manner that it induced the occurrence of a wart. The second year it was rubbed into the wart until ulceration was produced. And the third year it was rubbed into the ulcer, which, if not already cancerous, soon became so.

To assist us in the discovery of other conditions which are essential to the success of these experiments, we may obtain information of various kinds (1) of the reasons why the chimney-sweeps of other countries do not suffer from cancer of the scrotum; (2) of the immunity from cancer enjoyed by persons engaged in kindred employments; (3) of the liability to cancer of the scrotum of persons engaged in other employments.

A part of the last lecture was devoted to proving the truth of the general impression that the sweeps of foreign countries are not liable to cancer of the scrotum, but no reasons were put forward to account for the immunity enjoyed by foreign sweeps. English and foreign authors are generally agreed that two circumstances have chiefly, if not entirely, served to account for the liability of English sweeps—first, the general use of stone coal throughout this country; secondly, the employment of "climbing boys" in the sweeping of chimneys. How far are these theories borne out by actual fact?

In considering the fuels burnt in this and other countries for the purpose of heating dwellings, it will be convenient to divide them into those which are coal and those which are not coal. Under the first heading may be placed (1) anthracite or smokeless coal, (2) hard coal or stone coal, (3) brown coal, and (4) coke. I have separated the anthracite from the hard coal arbitrarily for my purpose, because the combustion of anthracite is, I believe, infinitely more perfect than that of hard coal, and, consequently, not only furnishes less soot, but probably a soot of a different quality. The brown coal corresponds with what is known as "lignite" in this country. Under the second heading fall (1) wood, (2) peat, and (3) wood charcoal. And it must be understood that I am speaking only of the fuel employed in large towns and cities, for we have really little or no knowledge of the occurrence of scrotal cancer in the country sweeps of Great Britain, much less in the country sweeps of foreign countries.

In *England* hard or stone coal is the staple material employed for the purpose of heating houses. Anthracite is scarcely used at all, and the brown coal of the Continent is practically unknown. In the *United States*, anthracite, wood, and mineral oil are chiefly used. In *Holland*, peat, wood, coke, and some hard coal. In *France*, wood and charcoal are generally employed, but a good deal of hard coal is used in the northern towns. In *Germany* and *Austria*, brown coal and wood, but in the north of Germany hard coal and peat are also largely employed. In *Switzerland*, I learn from Professor Kocher, to whom my thanks are again and again due, that the houses of Bern are heated almost always by the burning of wood and turf (peat), and this is also the case in Bâle, where the burning of hard coal is very unusual. In *Italy*, wood, coke, and charcoal are employed, but very little coal. Dr. Young, who resided many years in Florence, and who now lives in Rome, told me that in Rome it is seldom necessary to light a fire for personal warmth, even in the winter months; but in Florence, wood, coke, and charcoal were much employed.

The machinery in which these various fuels are consumed is as follows: In *England*, the open grate, except in the kitchens, where the grate has of late years given way slowly before the kitchener. In the *United States*, the houses are very often heated by a furnace and an apparatus for carrying steam to all parts of the building. Open grates are, however, employed, but wood is almost always burned in them. In *Holland* stoves are generally employed. Small basins containing peat are frequently used in the summer months for cooking. Open grates are the exception. In *France*, stoves are very largely used, but one meets with many open grates in the hotels, and in these wood is usually burned. *Chauffe-pieds* are much used in France and Holland and other European countries. In *Germany* and *Austria* the well-known stoves are almost invariably seen. If open grates are used, they are usually supplied with wood. In *Switzerland*, also, the houses are generally heated by means of stoves. In the north of *Italy* stoves are used. In the towns more south large pans and pots of charcoal are often seen in the rooms and the people keep themselves warm by means of their *scaldini*, vases of earthenware with a handle and containing a small quantity of smouldering charcoal.

The preceding statements are largely the result of personal observation, supplemented by conversations and correspondence with the inhabitants of the various countries. They are not intended to be exhaustive, but to give a general and sufficient account of fuel burned and of the manner in which the combustion is carried on for the purpose of this inquiry. They result in showing clearly that England is the only one of these various countries in which hard or stone coal is generally used, and that it is the only one of them in which open grates are universal. Consequently, that we, in this country, not only burn hard coal, but that we burn it in such

a manner as to produce the largest amount of soot, for the combustion in open grates is for the most part very inferior to that in stoves.

Thus far, then, inquiry served to confirm the truth of the theory of the evil influence of the soot of hard coal in the production of cancer of the scrotum. And I discovered a singular confirmation of it in a speech by Dr. Baum, of Göttingen, in the course of a discussion in the year 1874, in which he said:—"In Hanover we formerly employed nothing but wood for heating, and only began about ten or twelve years ago to use stone coal; and formerly we never observed cases of cancer in the scrotum. For the first time last autumn, a patient from Celle came with a cancer of the scrotum as large as a two-thaler piece. . . . That is the first case of chimney-sweeps' cancer which I have known actually to occur in Germany."



German sweep's costume

Valuable as this occurrence undoubtedly was, I could not shut my eyes to the fact that it was in the year 1873, some eighteen years earlier, and during that long period the consumption of hard coal in the north of Germany has continued and probably increased. Under these circumstances, cancer of the scrotum in sweeps ought to have become sufficiently common to have been noticed by the principal operating surgeons in the large towns on several occasions, at least. Finding that Dr. Baum was dead, I wrote to Professor König, of Göttingen (the town in which Dr. Baum had resided), and to Professor von Esmarch, of Kiel. I explained the whole matter and the reason of my writing to them, and received from Professor König the following reply, which I will translate:

"During the period of my clinical work in Göttingen (from autumn, 1875, to the present time, January, 1890), in spite of the great increase in the clinical material; in spite of the fact that Hanover, Westphalia, a great part of Hesse and the province of Saxony, send us their unusual surgical cases, so that the number of new growths for operation is very large, no case of chimney-sweeps' cancer has occurred." Professor von Esmarch wrote in a similar strain: "Although a great deal of stone coal has been used here for heating, yet the chimney-sweeps' cancer does not occur, presumably because the chimney-sweeps for the most part do not themselves ascend the chimneys, but sweep with a brush which they let down from above." Professor von Esmarch was evidently under the impression that it is still the custom in this country for the boys to climb the chimneys, hence this remark.

These letters and other information which I received from various persons determined me to pursue the matter farther. And I looked around to see whether there were any country or large part of a country in Europe in which there existed conditions resembling those found in England. Belgium at



Belgian sweep's costume.

once struck me as a favourable field for investigation. The country is small, and there are very few really large towns, but it is thickly populated, and it produces a large quantity of hard coal, which is burned in the country; while its position with relation to Great Britain and the north of Germany is such that the importation of hard coal from these countries is carried on to a considerable extent. In order to discover whether coal is employed for the heating of dwellings, whether it is the staple material used for that purpose, in what form it is employed and other similar matters, I sent an assistant to the Low Countries in the autumn of 1889. Of Holland I shall say but little, because I really have no reliable information regarding the occurrence of chimney-sweeps' cancer in that country.

In Belgium, Antwerp with its 200,000 inhabitants, Brussels with 174,000 inhabitants, Louvain with nearly 40,000, Liége with nearly 140,000, and the smaller towns of Seraing and

Mechlin were visited. In all of them stone coal was found to be the staple material for house heating, although wood, coke, and charcoal were also employed, and *briquettes* made of coal sweepings. Further, although stoves were used in some houses and public buildings, a vast number of open grates with such flues as are built in this country were used, especially in the largest towns, so that it is perfectly correct to say that the heating of houses is largely effected with similar fuel and in a precisely similar manner to that employed in England. The chimneys of private houses are obliged by law to be swept once, but are more commonly swept twice, in each year.

There was very little difficulty in obtaining this information and some other information of value, to which I shall again refer, but I found the greatest difficulty in discovering any reliable facts on the occurrence of cancer of the scrotum in chimney-sweeps. The only observation with which I was acquainted was contained in a paper[3] by Dr. Zoude, of Tournai, who had met with a case of cancer of the scrotum in a chimney-sweep in the civil hospital at Antwerp. Dr. Zoude judged it useful "to report it, so much the more because many old practitioners were obliged to admit that they had never seen a case." And, in his further remarks, he says, "It adds a case to the small number of those which the annals of science possess as having been observed in our country." But this was written in the year 1841, fifty years ago, and it was by no means certain that the conditions of heating houses were the same then as now.

Our London medical libraries did not contain any Belgian textbooks of surgery, and I learned from Dr. William Blanc, of Brussels, that there are not any textbooks of surgery by Belgian authors. He spoke of the country as cosmopolitan, and said that the students read French and German works for their examinations, nor could I find any statistics of the patients in the hospitals of Brussels, Antwerp, and Liége such as are published in this country.

I had been so fortunate as to make the acquaintance of Professor de Roubaix, of Brussels, while he was on a visit to London in the summer of 1889. His long experience as a hospital surgeon and teacher of surgery in the University of Brussels made his opinion most valuable, and I sought it by letter. His answer was: "In reply to your letter I can say that, for my part, I have never met in my long experience with chimney-sweeps' cancer. Some colleagues attached to the hospitals of Brussels have assured me that they have not, any more than I, seen it."

Not content with this, Professor de Roubaix wrote to three gentlemen: Professor von Winiwarter, of Liége; Dr. Gallez, of Châtelet, in the neighbourhood of Charleroi (Member of the Academy of Medicine); and Dr. Urbain, in large practice in the Borinage. Immense quantities of coal are burnt in all these places. Not one of these gentlemen had met with a case of cancer of the scrotum in a sweep, and the disease was so rare generally that the coal miners did not suffer from it. Dr. Gallez's reply deserves particularly to be translated. He said: ".....For thirty-three years I have practised in the vicinity of Charleroi. A register, kept regularly by myself, shows at the present time a figure of 28,020 cases treated among coal miners and *metallurgistes*. I still await the first case of cancer of the scrotum. Nor have I seen it in my foreign and workman *clientèle*. And, what is more, I have never heard speak of it among my *confrères* during this long period of years." Professor de Roubaix also informed me that no regular and serviceable statistics were kept in the hospitals at Brussels which could be useful to me on this matter. I have to thank the learned professor again and again for the interest and trouble he took in my research.

Thinking over the question of Belgium, of the size of the towns, and of the small number of chimney-sweeps in them compared with the number in London, it occurred to me that one or two cases a year in three such towns as Antwerp, Brussels, and Liége, with a total population of rather over half a million of inhabitants, would be as many as one could reasonably expect. If ten cases had occurred in all the hospitals of the three towns in the course of as many years, I should then have thought that the disease might be comparatively as frequent in Belgium as in London. Although one or two of the hospital surgeons in each town might not have met with the disease, other surgeons practising in the same town and serving the same hospitals might have met with an occasional case. In order to obtain further information, I determined to visit Antwerp and Brussels and gather from as many of the surgeons as possible their experience, expecting —and, indeed, almost hoping—that I might hear of a sufficient number of cases to prove the equal liability of Belgium with this country to sweeps' cancer.

Antwerp possesses two hospitals, the Elizabeth and Stuyvemberg, each of which contains about 200 surgical beds. The former is officered by Dr. Dewandre and Dr. Desguin, the latter by Drs. Ceuterick, Willems, and Schoonen. From all these gentlemen, and particularly from Drs. Desguin and Schoonen, I met with the greatest civility. Curiously enough, the first surgeon on whom I called (Dr. Schoonen) at once told me that he had operated on a chimney-sweep for cancer of the scrotum in the previous year. The patient was a man of 50 years of age, in whom the disease had commenced as a wart. The operation had not been performed in the hospital, but at the house of the patient. This was the only case which he had seen. Dr. Dewandre, in the course of twenty-five years' hospital practice, did not remember ever to have seen a case of cancer of the scrotum in a chimney-sweep. Dr. Desguin, in the course of eight months' hospital, and thirteen years' civil, practice in the town, thought he had seen two or three cases of cancer of the scrotum, but he was quite sure that not one of the patients was a chimney-sweep, nor could he remember any case of cancer having occurred in a sweep. Dr. Ceuterick, who had been more than forty years attached to the Elizabeth and Stuyvemberg Hospitals, could only distinctly remember one case, that treated by Dr. Schoonen in the preceding year. He thought he might have seen other cases, but could not remember when or where. Dr. Willems, with an experience of twenty-five years' hospital and civil practice in the town, thought he might have seen a case. He thought it possible the disease might occur, but that it is excessively rare. There were no statistics in either of the hospitals. The combined experience of the five surgeons to the hospitals of Antwerp, an experience extending from a few months to forty years in individual instances, gave then one case of cancer of the scrotum in a chimney-sweep for certain, and, in addition, indistinct impressions of other cases which might have happened in the course of many previous years.

Brussels has also two hospitals, the St. Jean and the St. Pierre. I visited the former under the conduct of Dr. Thiriar, a very active and excellent surgeon, who had about seventy surgical beds under his charge. He told me he had never seen a case of cancer of the scrotum in a chimney-sweep, and appealed to his *chef de clinique*, Dr. Duprez, who, in the course of several years spent in his wards, had never observed a case. I called on Dr. Tirifahy, professor of surgery in the university and a hospital surgeon of very long experience. He said he had seen chimney-sweeps' cancer, but very very rarely; and, he added, that he had found cancer of the scrotum generally a very rare disease. By his advice, I visited Dr. Edouard de Smet, professor of diseases of the skin to the St. Pierre Hospital, who was at once much interested in the subject, but who had never met with a single case of cancer or wart of the scrotum in a sweep. Dr. Thiry, for many years surgeon to the St. Pierre, and practising chiefly in diseases of the urinary organs, in which his experience is very large, told me he had seen cases of cancer of the scrotum, but not often, and never in a chimney-sweep. At the St. Pierre itself I saw Dr. Charon, a surgeon of a good many years' standing, who told me he had never met with a single case of cancer of the scrotum in a sweep. The experience, then, of five surgeons in Brussels—Professors de Roubaix, Thiriar, Tirifahy, Drs. Thiry and Charon—all of whom were in the prime of life or advanced in years, and had been for many years engaged in the service of the two hospitals, could not furnish a single case of cancer of the scrotum in a chimney-sweep, and only one of them, Professor Tirifahy, had any recollection of ever having seen the disease. Dr. Edouard de Smet, with his special experience of diseases of the skin, which might not improbably have brought persons suffering from scrotal warts or cancer to him, was equally unable to recollect ever having seen the disease.

Both in Brussels and Antwerp I questioned the sweeps

[3] *Arch. de Méd. Belge*, vi, 255, 1844.

themselves of their knowledge of cancer, and particularly of cancer of the scrotum as a trade disease. Not one of them had ever heard of such a thing. The difference in this respect between the English and the foreign sweeps is very striking. The former are perfectly cognisant of the special danger which they incur in respect to their calling.

Professor von Winiwarter's experience as a hospital surgeon in Liége was of eleven years' duration, and those who are acquainted with his excellent work on cancer,[4] in the wards of Professor Billroth, will at once recognise that it would be impossible for so careful a surgeon to have overlooked a case of such a disease as sweeps' cancer.

In place then of receiving information of occasional cases of cancer of the scrotum in chimney-sweeps, sufficient to lead to the belief that the disease is not so rare as the first letters I had received implied, I was only able to obtain definite information of one single case in the course of years, that which had occurred in 1889 in the town of Antwerp. And the answer of four-fifths of the surgeons whom I interrogated was, not that they saw the disease from time to time or very rarely, but that they had never seen it in the whole course of their hospital and civil experience. Two of the oldest surgeons, one in Antwerp, the other in Brussels, whose experience in hospital practice was of from forty to fifty years' duration, had some indistinct recollection of having met with the disease, but could give no account of any case in point except that which had occurred in Antwerp in the previous year.

In the face of all this negative information, it was impossible to withstand the conclusion that chimney-sweeps' cancer is practically unknown in Belgium, a country in which cancer generally is sufficiently common, as we learn from papers in the various Belgian medical journals and archives, and from the work of Dr. Bougard;[5] in which the climate and the general conditions are sufficiently like our own; in which the fuel used and the manner of using it almost precisely resemble our own, and in which there appeared every reason to expect that the disease would have been observed with at least tolerable frequency.

How could this exemption from cancer of the Belgian and North German sweeps be explained? After the exclusion of such factors in the production of the disease as have been dealt with, it seemed very difficult to solve the problem, and I could only imagine that there must be some conditions in the lives of these foreign sweeps which differed very largely from those of our English sweeps, but I had really no knowledge on the subject. In order to obtain it I visited or sent a messenger not only to North Germany and Belgium, but to several other European countries, and gained further information from persons inhabiting those countries. Before giving the results of these investigations, it will be well to describe generally the dress of the English chimney-sweep, and as much as I have discovered of his habits and customs.

The ordinary journeyman sweep wears a loose jacket of some thick and strong material, such as moleskin, a waistcoat often of the same material buttoned down the middle like an ordinary waistcoat, but generally short and seldom tight-fitting, trousers which are often made of moleskin, which either button down the front or are provided with a flap, and which are loose around the legs. The trousers are usually kept up by means of a leather belt around the waist. A coarse shirt is worn over the body, and sometimes drawers are worn. But, in the summer especially, this is the exception. The man wears an ordinary cap upon his head, and round his neck is often loosely wound a woollen comforter or large neckerchief. His feet are covered, but not always, with socks or stockings, and a pair of old boots. His clothes are nearly always loose-fitting, if they can be called fitting at all. His coat and even his waistcoat (which he does not always wear) are frequently open, and the front of his shirt admits the air and also the soot to his body. In addition, his clothes are frequently torn, and sometimes large gaps are seen in them, through which dirt of every kind can reach his body. The sweeping of the chimneys is almost entirely accomplished by means of brushes, hand-brushes for the flues and brushes set on long jointed handles for the longer chimneys. In sweeping, the man stands below so that the soot descends and falls in greater or less quantity upon him. But he may also mount to the roof, in order to be sure that the brush has swept the chimney thoroughly. Sometimes an iron ball attached to a long rope is let down from above in cases in which there is special difficulty in sweeping with a brush. The sweeping of chimneys commences very early in the morning, so that the sweeps are some of the earliest risers in the community. But the work is for the most part over in the afternoon, often at a very early hour. Most of the sweeps then take off their sweeping clothes, wash their hands and faces, and sometimes the upper part of the body as well. The whole body is seldom washed more than once, or at the most, twice a week. I have, however, been informed by the daughter-in-law of a sweep, that the "old man" was very clean and had a bath all over every night after his work. But this, so far as I have been able to ascertain from the men or their families, is a great exception to the general rule. The houses of the sweeps and the rooms in which they live are often extremely dirty; the more so because the business of sweep is not infrequently conducted in the same house for two or more generations. The dirt was so great in some of the rooms which I have visited that, in spite of the care and politeness of the people, I found it difficult to stand without soiling my clothes with soot-dirt. The trade is generally considered to engender thirst, and the men are a good deal addicted to strong drinks. Boys are no longer permitted to ascend the chimneys in this country. Indeed, they are not allowed to commence the learning of the trade until they are sixteen years of age. The law against the employment of climbing boys was passed about 1840, and within a few years of that date these boys had practically ceased to be employed. I have quite lately heard it said that boys can still be hired for the purpose in special cases. I can only say that, in the course of my wanderings and inquiries, I have never come across a boy-sweep, and have never seen or heard anything to make me believe that this is possible. And, when there was a question of filling a hole in one of my own chimneys, I was informed that one of the men would have to make the best of his way into the chimney.

In the autumn of 1889 my messenger visited many of the Belgian towns, and I went myself to Antwerp and Brussels in the following spring. A few examples will serve to give an idea of the conditions which prevail generally through the country.

At Mechlin a young sweep in his working clothes was carefully examined. He was clad in a kind of coarse linen. His dress consisted of a loose Garibaldi blouse, with long sleeves which were tied tightly around the wrist, and provided with a hood which was adjusted when he actually swept and tied closely round the neck. The blouse was tucked inside the trousers, which were fastened with a belt tightly round the waist. From the knee downwards he wore gaiters, and over his leather boots were tied "wings" at the ankle. The trousers buttoned down the front. In Antwerp, in the house of a master sweep, I saw two of his journeymen clad in precisely the same fashion. The door of another house—that of M. Jansen, in the Dambrugge Straat—was opened by his daughter, a dressmaker; the mother was an accoucheuse. She said the father was 62 years old and very healthy. As it was a busy time he was taking a little nap after his dinner. She said he wore coarse linen clothes; under them either a shirt or his ordinary clothes, according to the season of the year. The sweeping clothes were washed, but not with the other clothes, which went to wash. Every day after his work he was in the habit of taking off his working clothes and washing himself. The house was very tidy and comfortable. At the house of a master sweep in Brussels there were several sweeps, young men, seemingly in good health and strong. They wore the same blouse with a hood as the sweeps at Mechlin and Antwerp. The blouse was made of coarse linen. The trousers were not all of the same material, for two of the young men wore a coarse woollen stuff. The woman said that the journeymen slept in the house and were obliged to keep themselves clean because clean beds were provided for them. They washed down to the waist every day after work; but some were cleaner than others in this respect. In the Chaussée de Louvain we visited the house of M. Blareau. The room into which we were shown was very clean, and there was there a young journeyman sweep in his working clothes. Blareau was engaged in making a suit of brown holland sweeping clothes, blouse with hood and

[4] *Beitrage zur Statistik der Carcinome*, Stuttgart, 1878.
[5] *Etudes sur le Cancer*, Brussels, 1882.

trousers of the same material. He told us he always made them himself. They were washed every week; some of them were actually hanging on a line in the room to dry. From Blareau's we went to the house of M. Paniels in the Rue Croix-blanche. Neither the master nor his wife were at home, but a young daughter showed us into a dwelling room, the window of which served to display several sweet stuffs—for a little shop of these things was kept by them. Everything was very clean. She showed us a blouse with hood attached, and said her father wore two of them every week; he also wore leggings; and she showed us what we had not previously seen—a piece of clean stuff which her father and all other sweeps there wear over the lower part of the face when they sweep. She demonstrated the manner of wearing the cloth so as to cover the mouth and nose of the wearer. The machines used by the Belgian sweeps are a brush similar to that used in this country, but with a weight in the middle, a broom, a cord, sack, and shovel. In the Brussels Directory there were the names and addresses of twenty-four *ramoneurs-jurés*. We found that it was possible to employ other sweeps than these men; but if a fire occurred in the chimney of a house the last receipt of the *ramoneur* was required, and only that of a *ramoneur-juré* was recognised. In some towns a holly-bush is used for the cleansing of the flues from soot, as it was formerly used in this country.

Of the habits of the sweeps, so far as personal cleanliness is concerned, I believe I am correct in saying that the general custom is to wash down to the waist daily, and to wash the whole body from head to foot once, or at the most twice, a week.

As I was unable to go myself, I sent to the north of Germany during September of last year, and the information obtained was most satisfactory. Hanover, Hamburg, Kiel, and Göttingen were visited. In the first two towns hard coal is generally burned not only in the factories, but for the heating of dwellings; it is brought there from Westphalia, Belgium, and England. In the last two a great deal of stone coal is also burned, but in addition peat and wood. Stoves are used in the dwelling houses of all these towns, and there are few open grates. But the kitchen chimneys are often climbed by the men.

In Hanover a master sweep, Herr Fricke, was visited. He lived on the third floor of a tall house in a small street. The living-rooms were exceedingly clean. The journeymen washed after their work was over in a small room, where there were three or four wooden tubs. They stood in the tubs, and washed with warm water, soap, and even soda, from head to foot every day. The clothes in which they swept consisted of a coat and trousers made of a stout kind of cloth, to which they give the name of "English leather." During sweeping the feet are naked, the trousers fit not very closely, and are not tied around the ankles. They button down the front, and are fastened at the waist by a strong leather belt, and the knees are protected by stout leather patches. The coat also buttons down the front. It fits pretty closely at the neck, and the sleeves, which fit close at the wrists, are made to fit still closer by tying them with tape. The bottom of the short coat is tucked inside the trousers, so that the trouser-belt knits it close around the body. A small skull-cap of coarse linen is worn on the head, and over this a hood, which covers the head, neck and chin, and is fastened closely round the neck; and, during sweeping, the mouth and nose are covered with a cloth after the manner of the Belgian sweeps. The clothes are made in the house, and the suit which I have here was made for my messenger by Herr Fricke's people.

The same make and arrangement of clothes was used in the other towns which were visited, and the same material was employed; and in every house the same excellent arrangements for daily washing in large wooden tubs in a special room were observed. It appeared to be the custom for the journeymen to sleep in the house of the master sweep. In the house of Herr Puschmann, in Göttingen, my messenger was shown the bedroom of one of the journeymen, which opened out of the bathroom. The bed was made, and the sheets and pillow were quite white and clean.

The clothes are only washed from time to time, perhaps not more than once in many weeks. The nature of the material is not favourable to frequent washings. But it was found that the coarse shirt which was worn beneath the jacket was washed every day by some of the men after they had washed themselves.

The dwelling rooms were exceedingly clean in all the houses which were entered, and the furniture was in some of them even handsome, while the master sweeps were a very superior class of men. Herr Puschmann's daughter had been governess in an Irish family for some time. There was not one of them who had ever heard tell of a case of cancer in a sweep. Herr Schikorrer, of Kiel, believed they were among the most healthy of the population because they washed so much more than men in other trades.

The protection afforded by means of clothing and washing was displayed in a manner and to an extent I had not conceived. In the first lecture I told how the supposed decline of chimney-sweeps' cancer has been attributed by some persons—I might almost say by many persons—to the fact that "climbing boys" have not been permitted in this country since the year 1840 or thereabout. It was not that the boys themselves were liable to cancer of the scrotum, but it was suggested, with some show of reason, that the exposure of the scrotum to the daily contact of soot from childhood upwards, beginning when the skin is soft and tender, rendered the sweeps much more liable to the disease than they would otherwise have been; and this belief received support from the fact that warts occurred on the scrotum of some of the boys who were employed in "climbing." To my surprise I discovered that climbing boys are largely employed on the Continent. In the north of Germany boys of 14 years, and sometimes younger, are employed, and in Belgium, perhaps more than in any country in Europe, the employment of climbing boys is of daily occurrence. In Brussels and Antwerp we saw several of these boys, black with soot and dressed like the men. At Mechlin a boy, 7 years old, was seen standing with his mother at the door of the sweep's house. The woman said he was employed in climbing chimneys but, as he was rather delicate, and had a cough, the doctor had advised her not to permit him to "climb" any longer. At one house we were told that the boys began at the age of 4 years to "climb." And the chimney-sweeps' signs in the Belgian towns usually present three figures of sweeps in their working clothes, carrying their implements. Foremost stands a man, next follows a boy of about 15 years of age, and last comes a tiny boy.

THE CROONIAN LECTURES
ON
THE CHEMISTRY AND THERAPEUTICS OF URIC ACID GRAVEL AND GOUT.

Delivered before the Royal College of Physicians of London.

BY SIR WILLIAM ROBERTS, M.D., F.R.S.

LECTURE III.—CHEMISTRY OF URATIC PRECIPITATION IN GOUT.

THE chemistry of gout in its full extension embraces changes of the most diverse character in the blood and tissues. I do not propose to deal with the subject in this comprehensive sense, but to confine myself entirely to the relations of gout with uric acid. By far the most characteristic feature of gout is the formation of chalk-like deposits in certain parts and tissues of the body, especially in and about the joints. The essential component of these deposits is the biurate of sodium, and it is always present in the crystalline condition. The crystals are distributed through the implicated tissue in the form of delicate needles, aggregated into tufts, bundles, and stars. The arthritic incidents of gout may be said, not improperly, to be simply incidents pertaining to the precipitation of these crystals in the structures of the joints. Without the occurrence of this precipitation the gouty paroxysm could not take place, nor could the more chronic changes in the joints, with their train of attendant symptoms, follow after. Were it possible for us to keep the sodium biurate in a state of solution in the bodily fluids, the clinical portraiture of gout would be completely transfigured. Whatever other manifestations of the gouty constitution we might have

to deal with, we should not have to contend with this most grievous outcome of the diathesis. The evidence brought forward by Sir Alfred Garrod on this point appears to me to be conclusive, and justifies the deduction that the deposition of the crystalline biurates is not merely a concomitant, but is the actual cause of the joint troubles of gout.

Hence it is that the history and chemical properties of sodium biurate have acquired a capital importance in the pathology of gout. We are interested to know how this compound arises in the body from nascent uric acid, what are its relations of solubility in diverse media, and more particularly in the blood and lymph and synovia, what are the factors which tend to determine its precipitation in the body, or tend to prevent its precipitation.

I have before adduced evidence to show that the normal or physiological condition of uric acid in the body is that of a quadriurate, and that any departure from this condition must be regarded as pathological. In the last lecture I traced the changes which the quadriurate undergoes in the urine, and which lead up to the separation of uric acid in the free state as gravel and urinary sediments. In the present lecture I shall endeavour to trace the converse changes which the quadriurate undergoes in the blood and lymph, and which lead up to the formation and deposition of sodium biurate in the tissues.

I propose, first, to examine the solubility of the material of gouty concretions, namely, sodium biurate in various media, in the serum of the blood, in synovia, and in diverse saline solutions, then to examine and compare the behaviour of free or combined uric acid with the same media. Upon the basis of the results thus obtained I shall be able to formulate a general theory of uratic precipitation.

Solubility of Sodium Biurate in Diverse Media: (*a*) in Water, (*b*) in Blood Serum and Kindred Media, (*c*) in Various Saline Solutions.

(*a*) *Solubility of Sodium Biurate in Water.*—When sodium biurate is digested at blood heat with pure water, it enters pretty freely into solution. Careful experiments indicated that the solubility of sodium biurate in distilled water, at 100° F., approximated very closely to the proportion of 1 part in 1000. This was taken as the standard of comparison in estimating the solubility of this compound in all other media.

(*b*) *Solubility of Sodium Biurate in Blood Serum.*—Sodium biurate is very sparingly soluble in the serum of the blood, as is shown by the following experiments: Sodium biurate in excess was treated with blood serum of the horse and pig in corked phials. The phials were placed in the warm chamber and frequently agitated. After a digestion of twelve hours the supernatant serum was filtered twice through a threefold filter.[1] The filtrate thus obtained when acidulated with acetic acid gave not the slightest precipitation of uric acid. Nevertheless some slight solution had taken place. For when a portion of the filtrate was evaporated on a watch glass in the warm chamber to near dryness, needles of biurate could be readily detected in it under the microscope; or when the filtrate was tested with Garrod's thread experiment, crystals of uric acid were always found sprinkled on the thread. It thus appears that sodium biurate, although very sparingly soluble, is not altogether insoluble in blood serum. From a number of comparative experiments I estimated that at blood heat the amount dissolved was probably about 1 part in 10,000.

The behaviour of sodium biurate with synovia corresponded exactly with its behaviour with blood serum; only minute traces went into solution. It was ascertained by direct experiment that the behaviour of uric acid and its compounds with blood serum depended entirely on the saline ingredients contained in it, and had no reference to its albuminous constituents. When the serum was deprived of its salts by dialysis, it was found that it reacted with uric acid and the urates like simple water, and the same rule holds good, no doubt, with regard to all the bodily fluids. An examination of the saline components of these fluids is, therefore, of prime importance in the study of the chemistry of gout.

[1] The needles of sodium biurate are so minute and delicate that some of them pass through the filter unless the most stringent precautions are taken.

The serum of the blood, and its derivatives, lymph and synovia, although differing considerably from each other in their albuminous elements, are almost identical in regard to both the quantity and the quality of their saline constituents. These latter are remarkable for the immense preponderance of sodium salts. The subjoined table exhibits the average proportion of the several saline ingredients contained in blood serum.

Table XI.—*Showing the Percentages of the Several Salts in Blood Serum.*

Sodium chloride ...	0.50 per cent.	Sodium salts=0.73 per cent.
Sodium bicarbonate...	0.20 ,,	
Sodium phosphate ...	0.03 ,,	
Potassium salts ...	0.06 ,,	All other salts=0.11 per cent.
Calcium salts	0.05 ,,	
Magnesium salts		

The fact just mentioned—namely, that the reactions of uric acid and the urates with the bodily fluids depend exclusively on the saline ingredients contained in them, suggested the idea that advantage might be taken of this circumstance to facilitate the chemical study of gouty precipitation. If a solution in water of the salines of blood serum were prepared, such a solution might be expected to behave with uric acid and the urates like the serum itself, and this proved on trial to be the case. An examination of the above table shows that the salts of sodium exceed the aggregate of all the other salts of blood serum in the proportion of seven to one. And practically, for the purpose in view, the saline basis of blood serum might be considered as consisting essentially of sodium chloride and sodium carbonate, so greatly do these preponderate over the sum of all the other salts put together. From these particulars it may be deduced that a solution in water containing chloride and bicarbonate of sodium in the proportion specified in the table would be a fairly exact representation of blood serum, in so far as its saline ingredients are concerned. And it was found experimentally that such a solution reacted with uric acid and the urates in the same manner as blood serum itself, and in the same manner as a solution comprising all the salines of the serum in their due proportions, as ascertained by the best analyses. Accordingly a solution was prepared in conformity with these indications, and was designated as the standard solvent or standard solution. Its composition was as follows:

Table XII.—*Showing the Composition of the Standard Solvent.*

Sodium chloride	0.5 grammes
Sodium bicarbonate... ...	0.2 grammes
Distilled water...	100 cubic centimetres.

This solution was much used in the present research, especially as a pioneer. For experimental purposes it possessed certain advantages over serum and synovia. Its composition could be more easily modified by additions to or subtractions from it—the quantities of uric acid and urates taken up by it could be more exactly estimated, and its limpidity permitted the first signs of precipitation to be more readily detected. The behaviour of uric acid and the urates with this solvent was studied in detail, under varying conditions of temperature and time, and with varying modifications of its composition. The results thus obtained were afterwards collated with those obtained with blood serum in similar circumstances, and with parallel modifications of its composition.

The standard solvent was found to behave with sodium biurate in exactly the same way as blood serum. Only the minutest traces of the biurate were taken up by it at 100° F. Such a solution, when carefully filtered, gave no precipitate of uric acid when treated with hydrochloric acid.

(*c*) *Solubility of Sodium Biurate in Saline Solutions.*—The influence of different saline substances on the solubility of sodium biurate has not only a pathological, but also a therapeutical bearing. Saline substances are largely used in the treatment of gout, both in the guise of pharmaceutical preparations and as constituents of mineral springs, under the belief that they promote the holding in solution of the peccant biurate, and thereby hinder its deposition as gouty concretions, and even favour the resolution of concretions already formed. It is, therefore, of practical interest for us to know what kinds of salts, if any, act favourably, and what kinds act unfavourably in this respect. A large series of experi-

ments were undertaken with a view of elucidating this point, and the deductions indicated are, I venture to think, of considerable interest. The salts of which the effects were investigated were those of sodium, potassium, calcium magnesium, and ammonium. The experiments were carried out in the following manner.

Solutions of known strength of the salts to be tested were prepared in distilled water. These solutions were digested at blood heat with excess of sodium biurate in corked flasks. The flasks were then placed in the warm chamber, and maintained at 100° F. with frequent agitation for five hours. The supernatant liquid was then carefully filtered off. In some cases repeated filtration through a threefold filter was required in order to obtain a perfectly transparent product. Finally, the percentage of uric acid in the filtrate was estimated, and calculated as sodium biurate. The results thus obtained are exhibited in the following tables. The solubility of the biurate in distilled water is placed at the head of each table as a standard of comparison.

Salts of Sodium.—The effects of the following sodium salts were investigated, namely, the bicarbonate, chloride, sulphate, phosphate, and salicylate. All these salts showed a powerful influence in diminishing the solvent power of the medium on the sodic biurate, and the adverse influence increased progressively, up to a certain point, with the increasing strength of the solution.

TABLE XIII.—*Showing the Influence of Sodium Salts on the Solubility of Sodium Biurate at 100° F.*

Solvent.		Sodium Biurate Dissolved.*
Water		1.00 per 1,000
Water containing 0.1 per cent. sod. bicarb. ...		0.50 ,,
,, ,, 0.2 ,, ,, ...		0.34 ,,
,, ,, 0.3 ,, ,, ...		0.20 ,,
,, ,, 0.5 ,, ,, ...		0.13 ,,
,, ,, 0.7 ,, ,, ...		0.09 ,,
,, ,, 1.0 ,, ,, ...		0.08 ,,
,, ,, 0.1 ,, sod. chloride	...	0.45 ,,
,, ,, 0.2 ,, ,, ...		0.30 ,,
,, ,, 0.3 ,, ,, ...		0.16 ,,
,, ,, 0.5 ,, ,, ...		0.10 ,,
,, ,, 0.7 ,, ,, ...		0.08 ,,
,, ,, 1.0 ,, ,, ...		0.05 ,,
,, ,, 0.1 ,, sod. sulph. cryst.	...	0.55 ,,
,, ,, 0.5 ,, ,, ...		0.24 ,,
,, ,, 0.1 ,, sod. salicylate	...	0.65 ,,
,, ,, 0.3 ,, ,, ...		0.36 ,,
,, ,, 0.5 ,, ,, ...		0.25 ,,
,, ,, 0.1 ,, sod. phosph. cryst.	...	0.70 ,,
,, ,, 0.5 ,, ,, ...		0.32 ,,

* The estimations in this and the following tables were generally made by the usual gravimetric process with hydrochloric acid. When the quantity dissolved was too small for weighing, it was estimated by a minimetric adaptation of Arthaud and Butte's method.

The table indicates that the degree of alkalescence of the medium, or its neutrality, had not the slightest influence on the result. The carbonate and phosphate, which have an alkaline reaction, acted exactly in the same way as the chloride and sulphate, which have a neutral reaction. It may be observed that the sodium chloride had a more marked effect than the other sodium salts, more than the bicarbonate, but especially more than the sulphate, phosphate, and salicylate. This difference is, however, solely due to the larger percentage of the metal in the chloride. When solutions were prepared of these several salts in such proportion that the percentage of sodium in them was constant, their effect was found to be as nearly as possible equivalent.

Salts of Potassium.—Solutions of the following potassium salts were subjected to examination—namely, bicarbonate chloride, phosphate, and sulphate. The results stand in the strongest contrast with those obtained with sodium salts.

TABLE XIV.—*Showing the Influence of Potassium Salts on the Solubility of Sodium Biurate at 100° F.*

Solvent.		Sodium Biurate Dissolved.
Water		1.00 per 1,000
Water containing 0.1 per cent. potass. bicarbonate ...		0.96 ,,
,, ,, 0.2 ,, ,, ...		1.00 ,,
,, ,, 0.3 ,, ,, ...		1.00 ,,
,, ,, 0.5 ,, ,, ...		0.97 ,,
,, ,, 0.7 ,, ,, ...		1.02 ,,
,, ,, 1.0 ,, ,, ...		0.98 ,,
,, ,, 0.1 ,, potass. chloride	...	0.96 ,,
,, ,, 0.3 ,, ,, ...		1.01 ,,
,, ,, 0.5 ,, ,, ...		1.10 ,,
,, ,, 0.1 ,, potass. phosphate	...	1.01 ,,
,, ,, 0.5 ,, ,, ...		1.00 ,,

The experiments tabulated indicate that the salts of potassium exercise no influence, neither for nor against, on the solubility of the biurate. The results came out, within the necessary limits of error, precisely as with distilled water. The bicarbonate and phosphate, which have an alkaline reaction, behaved exactly in the same way as the chloride, which has a neutral reaction. The varying strengths of the solutions made not the least difference.

The difference between solutions of sodium salts on the one hand and those of potassium salts and distilled water on the other is so conspicuous that it is easily perceived without any resort to quantitative analysis. A 0.7 per cent. solution of any of the sodium salts—reckoned as anhydrous—dissolves so little of the biurate that saturated solutions made at blood heat show no precipitation of uric acid when treated with hydrochloric acid, or at most only a few scattered crystals at the end of forty-eight hours, whereas similar solutions made with potassium salts or with distilled water become almost at once milky when treated with hydrochloric acid, and in a few minutes throw down an abundant deposit of uric acid.

Calcium, Magnesium, and Ammonium Salts.—The addition of calcium, magnesium, and ammonium salts diminished the solvent power of water on sodium biurate. The subjoined table exhibits the results obtained with these three classes of salts.

TABLE XV.—*Showing the Influence of Calcium, Magnesium, and Ammonium Salts on the Solubility of Sodium Biurate, at 100° F.*

Solvent.		Sodium Biurate Dissolved.
Water		1.00 per 1,000
Water containing 0.1 per cent. calcium sulph.	...	0.65 ,,
,, ,, 0.2 ,, ,, ...		0.44 ,,
,, ,, 0.5 ,, calcium chloride	...	0.27 ,,
,, ,, 0.1 ,, magn. sulph. (cryst.)		0.90 ,,
,, ,, 0.1 ,, magnesium chloride		0.85 ,,
,, ,, 0.5 ,, ,, ,,		0.68 ,,
,, ,, 0.1 ,, ammon. chloride	...	0.85 ,,
,, ,, 0.2 ,, ,, ,,	...	0.50 ,,
,, ,, 0.3 ,, ,, ,,	...	0.42 ,,
,, ,, 0.5 ,, ,, ,,	...	0.25 ,,

The table shows that calcium salts exercise a strongly deterrent effect on the solvent power of water on sodium biurate, approaching in this respect, but not equalling, the sodium salts. The magnesium salts, on the other hand, although exhibiting a distinctly deterrent influence, approach more nearly to the indifferent reaction of the potassium salts. The salts of ammonium were found to stand in an intermediate position between those of calcium and magnesium.

Reviewing these results as a whole, the following conclusions may be deduced in regard to the solubility of sodium biurate in simple saline solutions, at the temperature of the body:

a. The influence of a salt depends exclusively on the nature of the base, and has no reference to the acidulous radicle with which the base is combined.

b. Salts with an alkaline reaction, such as carbonates and phosphates, do not differ in the least from neutral reacting salts, such as chlorides and sulphates.

c. Salts of soda exercise a strong deterrent influence, and the deterrent influence increases with the increasing percentage of the salts in solution. Salts of lime, magnesia, and ammonia have also a deterrent effect, but slighter than that of salts of soda. Salts of potash have no effect either way.

Behaviour of Uric Acid with Blood Serum and the Standard Solvent, and with Synovia.

An examination of the behaviour of free or uncombined uric acid with blood serum and kindred media is a necessary part of the study of the chemistry of gout. It is only by knowledge thus gained that we can hope to elucidate the mode in which sodium biurate originates in the body, and learn something of the conditions which control its precipitation in the gouty system.

The reactions of free uric acid with blood serum and synovia, and with the standard solvent and its modifications, are of quite a different kind from those of sodium biurate with the same media. In the latter case there is simply an act of solution. The biurate is taken up substantially unchanged, and the questions we had to decide were as to its degrees of solubility in the several menstrua. But when free uric acid is brought into contact with blood serum and kindred media, there occurs not merely an act of solution, but a series of chemical reactions. Uric acid first enters into combination with the bases contained in the media, and it is this newly formed combination which passes into solution, and which subsequently undergoes certain ulterior changes which it is of much interest to follow.

Behaviour of Uric Acid with Blood Serum and the Standard Solvent.—When uric acid is digested at the temperature of the

body with blood serum or with the standard solvent it passes into solution in combination with a base. In the course of an hour, with due agitation, the liquids will, on analysis, be found to have taken up uric acid in the proportion of about 1 part in 500. The chemical and solvent power of these media on uric acid depends on the sodium carbonate contained in them, and not on the sodium chloride, for a solution of the latter salt alone has no more action on uric acid than pure water. On the other hand, a solution containing sodium bicarbonate alone has precisely the same action on uric acid as when it is associated, as in the serum and standard solvent, with sodium chloride. The question now arose, what is the combination in which uric acid enters into solution? It could not be biurate, because sodium biurate is almost insoluble in these media; nor could it be neutral urate, because the neutral urates cannot arise in the presence of carbonates. The presumption remained that the combination was a quadriurate. It was, however, highly desirable to have direct proof that such was the case. This was obtained by taking advantage of the great difference of solubility of quadriurates at different temperatures. The following experiment appears to be conclusive on this point: Uric acid in excess was digested at blood heat with a 1 per cent. solution of sodium bicarbonate, under constant agitation, for twenty minutes. The filtered product was rapidly cooled on ice. It threw down a copious amorphous deposit, which, when duly washed on the filter with rectified spirit, to free it from adherent carbonate, gave the characteristic reaction of quadriurate, that is to say, it was decomposed by water with abundant emission of uric acid crystals. A corresponding experiment with a 0.5 per cent. solution of potassium bicarbonate yielded exactly the same results.[2]

We may, therefore, conclude with certainty that when uric acid comes into contact with blood serum or the standard solvent it enters into solution in the first instance as a quadriurate. But the process does not stop here. The quadriurate gradually takes up an additional atom of base, and is thereby converted into biurate, and the biurate thus formed is, after some delay, eventually precipitated in the crystalline form.

In order to bring this remarkable succession of events more vividly before your minds I will relate the particulars of two actual experiments.

Experiment I.—Uric acid in excess was digested, with frequent agitation, in the standard solvent, at 100° F. for twenty minutes. The excess of uric acid was then filtered off, and the clear solution was placed in a corked phial in the warm chamber. It remained unaltered for two days. On the third day it began to precipitate, and on the fourth day a copious deposition of crystalline biurate took place. On the fifth day the process was completed, and the supernatant liquor was found on acidulation to contain only traces of uric acid.

Experiment II.—Blood serum of the horse was digested at 100° F., with excess of uric acid for fifteen minutes, with constant agitation. It was then filtered and placed in a corked phial in the warm chamber. In about twelve hours the serum, previously clear, began to lose transparency, and fine needles of biurate were detected in it with the microscope. On the next day copious precipitation took place. On the fourth day the process seemed to be completed, and the supernatant serum was found to be almost free from uric acid.

It was impossible not to be struck with a certain rough resemblance between the results observed in these experiments and the phenomena of the gouty paroxysm. In the gouty subject it is assumed that the blood becomes more and more impregnated with uric acid until, after a certain period of incubation has been accomplished, sudden precipitation of sodium biurate takes place in and about the joints, and the "fit of the gout" is declared. Then follows a process of recovery, with restoration of the blood to a purer state, that is, with a lessened impregnation of uric acid. In the artificial counterfeit we observe a similar succession of events: first, impregnation of the medium with sodium quadriurate; secondly, a period of incubation or maturation, during which the quadriurate passes into biurate; thirdly, somewhat sudden precipitation of sodium biurate in the crystalline form; and lastly, restoration of the medium to comparative purity.

Behaviour of Uric Acid with Synovia.—It is a marked peculiarity of the uratic phenomena of gout, that the deposits occur most commonly in and about the joints; and it was a matter of interest in the present inquiry to ascertain how synovia behaved when impregnated with uric acid; and especially whether synovia, as compared with blood serum and when impregnated to an equal degree, had the property of retarding or hastening the precipitation of biurate. This part of the investigation is hampered by the difficulty of obtaining an adequate supply of materials, and my information thereupon is scanty. I have so far only been able to make satisfactory experiments with synovial fluid drawn from the hip of the ox. From this source about a couple of ounces may be obtained from the two joints. Butchers tell me that the synovia from the hip is thinner as well as more abundant than that obtained from the other joints.

On two occasions I was able to examine and compare the synovial fluid of the hip-joint with the blood serum of the same ox. The behaviour of the two fluids with uric acid was substantially the same, but in both instances I found that, when impregnated with uric acid in an equal degree, precipitation of biurate began distinctly a little earlier in the synovia than in the serum. And my impression is, but it is only an impression, that with the thicker and more concentrated synovia of the smaller joints this difference would be more pronounced. Whether there is in this distinction between serum and synovia a key to the preference of uratic deposition for the joints is a question well worthy of further inquiry. It is at any rate conceivable, supposing the blood and its derivative fluids to be equally impregnated with uric acid, and supposing the synovial fluids to be more largely charged than their congeners with salts, and especially with sodium salts, that precipitation of biurate would take place earlier and by preference in and about the joints than elsewhere. This point will be again touched on in my next lecture when I come to speak of the topographical distribution of uratic deposits.

Gelatinous or Hydrated Modifications of the Urates.

There is a point of considerable interest in connection with the chemistry of the urates which may be conveniently considered in this place, and that is the occurrence of gelatinous modifications of these compounds, which differ both in physical condition and in solubility from the more common granular and crystalline forms.

The existence of these gelatinous modifications was first noted by Dr. Ord in the course of his well-known researches on the influence of colloids upon crystalline form and cohesion.[3] He observed that when hot saturated solutions of the urates of soda or ammonia were mixed with an equal bulk of strong solutions of the alkaline chlorides or phosphates, the urates were thrown down on cooling in a gelatinous state. Dr. Ord further observed that this condition was not a permanent one, and that the gelatinous matter, after a time, changed into a mass of crystals. The interest for us, in our present inquiry, of these observations lies in the probability that these gelatinous modifications of the urates intervene, perhaps importantly, in the succession of changes which lead up to the formation of uratic deposits in gout. I must, therefore, ask your attention to some additional particulars which I have gathered on this subject.

Crystalline sodium biurate is very much more soluble in hot water than in cold water. Nevertheless such a hot solution, fully saturated, does not deposit its surplus biurate on becoming cold; it continues perfectly clear, and remains so. But if the solution be evaporated down on the hot water bath, the biurate is again recovered in the crystalline form. It is obvious, therefore, that the biurate in passing into hot solution undergoes some notable change, whereby its solubility is greatly enhanced. This change consists in the assumption of the gelatinous modification, and herein lies the explanation of the enhanced solubility. These deductions are substantiated by the following experiment: Crystalline sodium biurate is dissolved to saturation in hot water. The filtered solution, when cold, is mixed with an equal volume of a 20 per cent. solution of common salt. A voluminous jelly-like precipitate is thrown down.[4] This is caught on a filter and allowed to drain, and then cautiously washed on the filter with cold

[2] Solutions of the common (dimetallic) phosphates of soda and potash, and of the alkaline acetates, also take up uric acid very freely at blood heat, and the combination formed in these cases in the first instance is likewise a quadriurate, as may be shown by the above-described method of cooling on ice.

[3] *On the Influence of Colloids upon Crystalline Form and Cohesion*, by W. M. Ord. London, 1879. Pp. 72, *et seq.*

[4] The gelatinous biurates may be thrown out of their solutions in several ways. Instead of common salt, a concentrated solution of the phosphate, chloride or acetate of sodium potassium or ammonium may be used, or any of these salts in crystals may be added to saturation to the solution.

water. The gelatinous biurate is thus obtained in a condition of approximate purity. Now when this substance is digested at 100° F. with blood serum, or with the standard solvent, it goes freely into solution—so freely that when the filtered product is treated with acetic acid it throws down, on standing, a considerable deposit of uric acid. But it has before been shown that these same media, when digested under similar conditions with the crystalline sodium biurate, take it up so sparingly that the filtered products do not yield any deposit of uric acid when acidulated.

Dr. Ord noticed, as above stated, that the gelatinous biurate collected as a mass on a filter passes after a time into the crystalline condition. The same transformation occurs when the gelatinous matter is held in solution in blood serum or the standard solvent. Such solutions when set aside continue clear and unchanged for a certain time, but after the lapse of a day or two the biurate is reprecipitated in the crystalline form. The obvious explanation is this. The dissolved gelatinous modification reverts by slow degrees to the anhydrous crystalline condition, and the biurate in this condition is, as we know, almost insoluble in these media. Consequently, when the transformation reaches a certain point, the biurate is necessarily precipitated.

As to the nature of the gelatinous modifications of the urates, Dr. Ord is inclined to regard them as true colloids, and he remarks on their resemblance to the colloidal modification of silica. Their jellylike appearance is certainly strongly suggestive of this idea, but they differ radically from true colloids in passing with ease, and unchanged, through the dialyser. Their real nature is, I believe, that of hydrated salts. The crystalline biurates are anhydrous; the gelatinous modifications are highly hydrated. It is well known that certain salts can be obtained in several degrees of hydration, and that these several hydrations possess diverse degrees of solubility.

The quadiurates likewise readily assume the gelatinous modification. Sodium quadriurate may be obtained in the gelatinous state in the following manner. A 5 per cent. solution of the common phosphate of soda is heated to boiling with excess of uric acid. The mixture is filtered hot. On cooling the filtrate sets into a jelly. The gelatinous substance thus obtained, pressed between blotting paper to deprive it of its mother liquor, possesses the characteristic reaction of a quadriurate—that is to say, it is rapidly decomposed by water with copious emission of uric acid crystals.

Summary of the History of Uric Acid in the Body: (a) in the Normal State, (b) in the Gouty State.—The facts elicited in this and the preceding lectures enable us to obtain a coherent view of the state and destiny of uric acid in the body. It has been shown that in normal urine uric acid always exists as a quadriurate, and that in animals which eliminate their nitrogen as uric acid, like birds and serpents, the urinary secretion is composed entirely of the same combination. Proof has also been furnished that in liquids containing alkaline carbonates—such as the serum of the blood and its derivatives, lymph and synovia—uric acid passes into solution in the first instance as a quadriurate. From these considerations it may be inferred that in the normal state uric acid is primarily taken up in the system as a quadriurate, that it circulates in the blood as a quadriurate, and that it is finally voided with the urine as a quadriurate. In perfect health the elimination of the quadriurate proceeds with sufficient speed and completeness to prevent any undue detention or any accumulation of it in the blood; but in the gouty state this tranquil process is interrupted, either from deficient action of the kidneys, or from excessive introduction of urates into the circulation, or from some other cause, and the quadriurate lingers unduly in the blood, and accumulates therein. The detained quadriurate, circulating in a medium which is rich in sodium carbonate, gradually takes up an additional atom of base, and is thereby transformed into biurate. This transformation alters the physiological problem. The uric acid, or, rather, a portion of it, circulates no longer as the more soluble and presumably easily secreted quadriurate, but as biurate, which is less soluble, and probably also—either for that reason or because it is a compound foreign to the normal economy—less easy of removal by the kidneys. The biurate thus produced exists at first in the gelatinous modification, but with the lapse of time and increasing accumulation it passes on into the almost insoluble crystalline condition, and then precipitation becomes imminent, or actually takes place.

The Conditions which Accelerate or Retard the Processes which Culminate in the Precipitation of Sodium Biurate.—Assuming a real analogy to exist between the processes which go on in serum or synovia artificially impregnated with uric acid and the processes which go on in the blood and synovia of a gouty patient, and which culminate in the deposition of uratic concretions, it is a matter of interest, as bearing on the pathology and treatment of gout, to investigate the conditions which, in the artificial parallel, accelerate or retard these processes.

As already explained, these processes consist of three distinct chemical changes. First the quadriurate originally formed is converted into hydrated biurate; next the hydrated biurate is changed into anhydrous biurate; and finally this anhydrous biurate is precipitated in the crystalline form. For the present purpose it will be more convenient to consider these changes as one continuous process, and for the sake of brevity and ease of expression this process may be designated as "maturation."

The investigation embraced a study of the effects of temperature, percentage of uric acid in the medium, and the addition of various saline and other substances to the maturating medium.

(*a*) *Temperature.*—It was found invariably that the stage of maturation was more quickly accomplished in the warm chamber at 100° than at the temperature of the room; but the ultimate result was exactly the same in both cases. For example, serum charged with 1 part uric acid in 600 began to precipitate in the warm chamber in four hours, and precipitated copiously in six hours. A duplicate specimen kept at the temperature of the room began to precipitate in eight hours, and did not precipitate copiously for sixteen hours. Another sample of serum, impregnated with 1 part of uric acid in 1,000, began to precipitate in the warm chamber in six hours, and deposited copiously in fourteen hours, while a duplicate kept at the temperature of the room only began to precipitate in thirty hours, and copious precipitation did not take place for forty-eight hours.

The absolute constancy of these results led to the idea that maturation would go on more rapidly at a febrile temperature (104° to 105°) than at the normal temperature of the body, and that herein might be found an explanation of the circumstance that gouty outbreaks sometimes follow immediately on the heels of an injury. When, however, this notion was tested experimentally no support was found for it.

It was also conceived that, although maturation itself was favoured by warmth, the terminal act of the process—namely, the act of precipitation—might, on the contrary (seeing that the biurate is more soluble at higher than at lower temperatures), be favoured by cold, and that this might account for the fact that gouty concretions tend to be deposited in the cooler and more exposed parts of the body, in the joints and subcutaneous tissues rather than in the warmer interior regions. I failed, however, to obtain any direct experimental evidence in favour of this conception.

Table XVII.—*Showing the Influence of Percentage of Uric Acid in the Medium on the Speed of Maturation, and the Time of Advent of Precipitation.*

Quantity of Uric Acid contained in the Serum.	Time of Precipitation of Sodium Biurate.
1 in 1,000	Precipitation began in six hours. Copious precipitation in fourteen hours.
1 in 2,000	Precipitation began in thirty-three hours. Copious precipitation in three days.
1 in 3,000	Slight precipitation began in three days, which became a little more copious in twelve days.
1 in 4,000	A few needles of biurate were detected on the sixth day; more needles and a few tufts in twelve days.
1 in 5,000	A few short needles were detected on the thirteenth day. In thirty days the needles were somewhat more numerous.
1 in 6,000	No needles were discoverable in fourteen days; a few were detected in forty days.
1 in 8,000	No needles could be detected after the lapse of forty days.

(*b*) *Quantity of Uric Acid in Solution.*—It was found that no condition exercised so great and decisive an influence on the speed of maturation and the advent of precipitation as the proportion of uric acid in solution. The experiment with blood serum, the results of which are arranged in a tabular form (see p. 10), illustrates these points in a striking manner. The phials containing the serum were placed in the warm chamber for fourteen days, and were afterwards kept at the temperature of the room. Chloroform was added to prevent putrefactive changes.

Assuming that the inflammatory arthritic attacks in gout are directly due to copious and sudden precipitation of crystalline stars and needles of sodic biurate in the cartilages and fibrous structures of the joints, the evidence before me indicates that such copious sudden precipitation can only take place when the fluids bathing these structures are impregnated with uric acid in at least the proportion of 1 part in 2,500. Below this point the precipitation occurs slowly and scantily, and only in the form of short scattered needles. When the proportion of uric acid in the serum was only 1 part in 5,000, the deposited needles were mostly about as long as the diameter of a red blood disc, some were twice this length, and a few three times this length, and all were of extreme tenuity. It is quite conceivable that this slighter precipitation in the tissues, of short scattered needles, might account for certain irritations in the various organs, such as characterise irregular or larval gout; but it could scarcely engender downright inflammatory attacks. It is further conceivable that the presence in the blood of such scattered needles might constitute foci, around which clotting might take place; and that the thrombosis not infrequently observed in gouty cases might thus be accounted for.

The impregnation of the blood in gouty persons with uric acid to the extent of these lesser degrees is within the range of observed actualities. Sir Alfred Garrod obtained, by quantitative analysis from the blood serum of one of his patients, uric acid to the amount of 1 part in 5714; and he remarks that the quantities thus recoverable from the blood are probably much under the actual amounts, as considerable loss is liable to occur from unavoidable causes.

These considerations lead to the suggestion that a microscopical examination of the blood in gouty persons might sometimes reveal the existence of needles of biurate in that fluid. I tested this point in ten cases of chronic gout by examining a drop of blood drawn from the finger, but I failed to obtain positive results.

(*c*) *Influence of Saline Substances.*—The effect of saline substances on the maturating process was tested by adding small quantities of various salts to serum impregnated with uric acid and observing whether these additions accelerated or retarded precipitation. The experiments were carried out in the following manner: Uric acid was dissolved at blood heat in blood serum in the proportion of 1 per 1,000 or 1 per 2,000. A number of phials capable of holding 25 cubic centimetres were charged with the serum thus impregnated. One phial had no further addition made to it—this was the control phial. To the others small quantities, varying from 0.05 per cent. to 0.2 per cent. of the salts to be tested, were added. The phials were then chloroformed to prevent decomposition and placed in the warm chamber. The occurrence of precipitation was noted at two points, namely, at its very onset, as revealed by the detection on microscopical examination of needles of biurate, and, secondly, when precipitation became copious and was recognisable by the naked eye.

A large number of experiments were made on this plan. The state of the medium during precipitation was that of a supersaturated solution, and, consequently, a very slight, often inappreciable, inequality in the conditions of the experiment was sufficient to disturb the time and rate of precipitation. For this reason it was frequently found necessary to repeat the observations once and again to get the correct indication. I need not trouble you with details; the following summary indicates sufficiently the conclusions deduced from the experiments.

(*a*) The addition of sodium salts to the maturating medium hastened precipitation. An idea of the degree of acceleration may be gathered from the following examples. Serum impregnated with uric acid to the extent of 1 part per 1,000 commenced to precipitate in seven hours, and precipitated copiously in 16 hours. A parallel experiment, in which 0.2 per cent. of sodium chloride had been added to the serum, began to precipitate in five hours, and precipitated copiously in twelve hours. Another sample of serum was impregnated with uric acid to the extent of 1 part in 2,000. This began to deposit crystals in 30 hours, and deposited freely in 96 hours. In a parallel experiment, in which 0.2 per cent. of sodium bicarbonate had been added to the medium, precipitation began in 20 hours and free precipitation took place in 40 hours. The alkaline reacting salts—the carbonate and phosphate—had exactly the same effect as the chloride and sulphate which are neutral in reaction.

(*b*) The addition of potassium salts sensibly retarded precipitation, but did not appreciably diminish the eventual amount of it. Here again the carbonate and phosphate, which are alkaline, produced just the same effects as the chloride, iodide, and bromide, which are neutral. Both with potassium and sodium salts the results were entirely dominated by the nature and quantity of the bases added, and had no reference to the acidulous radicle with which the bases were combined.

(*c*) The addition of calcium and magnesium salts appeared to delay precipitation, but their action in this respect was quite insignificant or even doubtful.

ABSTRACTS OF LECTURES
ON THE
TREATMENT OF SURGICAL TUBERCULOUS DISEASES.

Delivered at the Royal College of Surgeons of England.

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LECTURE III.

THE modes of complete removal of the disease in cases of joint affections are three in number, namely: (1) Complete removal of the diseased tissues along with as little as possible of the healthy structures, in other words arthrectomy; (2) removal of the diseased tissues along with certain portions of the ends of the bones, whether diseased or not—excision; and (3) amputation above the affected joint. Intermediate between arthrotomy and arthrectomy we have partial arthrectomy, where only portions of the disease are removed, parts being left behind either intentionally in order to avoid division of ligaments and breaking up of the joint, or unintentionally, where scraping or other imperfect methods are employed. In cases where I formerly would have performed arthrotomy, I have of late done a partial arthrectomy, thus combining the principle of removal of the diseased tissue with that on which we suppose that arthrotomy acts—namely, relief of tension, and consequent diminution of the inflammation. We must now consider the relative advantages and disadvantages of these methods of treatment, and the principles which guide us in making our choice. Many circumstances influence our choice of operative measures, and of these I may refer to the influence of age, of the general condition of the patient, and of the local condition.

Beginning with the influence of the local condition, we may consider it (1) as to chronic suppuration, (2) as to sepsis, and (3) as to the distribution and character of the local disease.

The occurrence of chronic suppuration in connection with tuberculous diseases of bones and joints greatly increases the gravity of the case, and exercises an important influence on the question of treatment. It usually indicates a progressive form of the disease, while the opening of the abscesses, if large and if not performed aseptically, exposes the patient to very great dangers in consequence of the resulting decomposition of the contents and septic inflammation of the wall. So impressed are some surgeons with the unfavourable character of these cases, that they recommend the most radical operations (excision or amputation) in cases where suppuration has occurred. For example, König states that in the case of

abscesses connected with joint disease drainage is hardly ever sufficient, and he limits the drainage of abscesses to those connected with caries sicca and to some cases in children. I suspect that this opinion must be founded on imperfect asepsis of the wounds, for though no doubt the occurrence of suppuration greatly complicates the case, much can be done in many instances by less severe procedures than excision or amputation. Thus, if we take the case of spinal abscesses, where one must persevere to the end with the very rare possibility of complete removal of the disease, I found four years ago, in Sir Joseph Lister's practice and my own, a record of 58 cases of spinal disease with abscess, most of them adults, and in several cases with more than one abscess, and of these 38, or over 65 per cent., had been cured by drainage. Of these 58 cases, however, 9 had become septic, and as in these another important factor is introduced, we obtain the true effect of chronic suppuration by omitting them, thus leaving 49 cases, of which 38, or 77.5 per cent. were cured, 6 were going on well, and 5, or 13.1 per cent., had died. From the result of these cases, in which nothing was done in the way of operation except an incision into the abscess, it follows that a chronic abscess in connection with bone disease is not such a hopeless thing as König thinks. In joint cases we are not restricted to drainage, but can often hasten the cure by various operative measures, and hence the results are not so striking, because if healing did not occur soon, something more was usually done. In our statistics we had 105 cases of disease of the six larger joints with abscess; in 37 of these excision or amputation was ultimately performed, leaving 68 cases, in 42 of which drainage alone was employed, in 18 partial arthrectomy, and in 8 simple arthrotomy. Of these 68 cases, 50, or 73.5 per cent., had healed; and only 3, or 4.4 per cent., had died, all of tuberculous disease elsewhere. Of this list I may mention specially the hip-joint cases, 29 in number. Of these, 4 were excised, and 25 treated to the end by drainage. Of these 25 cases, 18, or 72 per cent., had healed; and 1, or 4 per cent., had died of tuberculous meningitis. We thus see that although the occurrence of abscess undoubtedly increases the gravity of the case, and implies a graver form of the disease, there is no absolute necessity for performing a radical operation at once just because suppuration has taken place. At the same time, we can now as a rule treat these cases in a more satisfactory and rapid manner by other measures than aseptic drainage.

I do not propose to discuss here the treatment of chronic abscess in detail, and shall only shortly refer to the treatment of chronic suppuration in connection with joints, and in so far as it affects the operation to be performed. And I may say at once that simple drainage of chronic abscesses is now almost universally given up in favour of more radical measures. (1) A chronic abscess being, as I showed in my first series of lectures, nothing more or less than a tuberculous tumour with a softened centre, the ideal treatment is to dissect it out like any other cyst, and this is what I always do when the situation and size of the abscess permits. Where the abscess has started from a tuberculous deposit in the bone, the removal of the abscess and the affected bone leaves a clean-cut wound, which heals by first intention, and thus the process is cut short. For example, in chronic abscess connected with a carious rib, a cure is at once obtained by dissecting out the abscess and removing the affected part of the rib. (2) Where it is not possible to dissect out the wall on account of its size and connections, the next best thing is to make a large opening into it sufficient to admit the hand if possible, and to peel or dissect out the wall; and if the original starting point is accessible, that ought also to be removed. (3) Failing the possibility of either of these plans, there remains the method of making a smaller incision into the abscess cavity, and getting rid of the wall as thoroughly as possible by sharp spoons, rough sponges, etc., washing out all the *débris*, perhaps filling the cavity with the 10 per cent. emulsion of iodoform in glycerine, and stitching up the wound. By this means healing is usually obtained quickly, though the process may have to be repeated more than once; the bone deposit, if present, cannot, however, be satisfactorily cleared out by this plan.

Applying these methods to diseases of joints, the treatment of abscesses in connection with joint disease will vary according to the relations of the abscesses and the general extent of the disease. As examples, I may mention the following:

1. The abscess may be unconnected with the joint, having resulted from a tuberculous osseous deposit which has reached the surface of the bone outside the joint, and there may be no synovial thickening. Under such circumstances, where the connections are such as to render it possible, the best treatment is to dissect out the abscess and remove the bone deposit. Where the abscess cannot be dissected out, the second method should be employed.

2. A similar condition may be present, with the exception that there is synovial thickening. Here, so far as regards the abscess and the osseous deposit, the treatment may be the same as in 1. Whether anything further is done as regards the synovial thickening will depend on the local condition and various circumstances which will be alluded to presently.

3. The abscess may have originated in connection with the synovial membrane, and may or may not communicate with the joint. In such a case we generally find caseous patches in other parts of the synovial membrane, and, though from our experience with aseptic drainage, it is clearly possible to get a good result in some cases without any radical operation, I believe it is on the whole best in most cases to look on the presence of such an abscess as an indication for complete removal of the disease, either by excising the abscess and complete arthrectomy in children, or by excision or amputation in adults. This rule holds good in most cases of disease of the knee-, elbow-, and ankle-joints; in the case of the hip and shoulder, however, I should in a good many cases be content with treating the abscess in the second or third way in the first instance, and possibly removing such portions of the diseased tissues as are easily accessible.

4. The pus may be present in the joint alone. In such a case, if the patient be young, the joint should be laid freely open and search made for osseous deposits; if these are found they must be removed, and complete arthrectomy performed. In adults, however, excision, with thorough removal of the synovial membrane, is the best practice, unless the bone is so extensively diseased, or the other conditions such that amputation seems desirable. Here again the decision must vary with the joint affected.

5. Where we have pus in the joint and also abscesses around it, we have usually to choose between excision and amputation, and, considering the great extent of tissue to be removed and the prolonged nature of the operation of excision, amputation is usually the best practice. In some cases in children, however, it may be well in the first instance to try some less radical measure, but that only if the patient is vigorous; if he is weakly, amputation is less dangerous than an extensive arthrectomy.

Another important factor which influences our decision is the condition of the part as regards asepticity. The presence of sepsis aids the spread of tuberculous disease, thus reducing the chances of recovery by expectant means; hence it often necessitates the employment of more severe operative procedures than would otherwise be necessary with the view of effecting a cure. Last year I showed from statistics that there was a very marked contrast between septic and aseptic tuberculous wounds as regards healing, to the great disadvantage of the former. It is not that the wounds do not heal simply because they are septic, for we know that wounds in healthy tissues heal readily enough, though it may be slowly, even though they be septic; it is because the presence of sepsis stimulates the extension of the tuberculous disease, and thus prevents recovery.

Apart also from the fact that when sepsis is present there is much less likelihood of getting a cure without further operative measures, sepsis also increases the risk of dissemination of the disease, and thus increases the necessity for radical measures. For example, tuberculous meningitis seems to be more frequent in septic than in aseptic cases; thus, of sixteen cases of tuberculous meningitis in König's practice eleven affected septic cases; and, further, it is not uncommon to find micrococci in the tubercles in cases of acute tuberculosis, showing that this disease is often a mixed infection. In former times also phthisis seems to have been more frequent after these joint diseases than it is now, and this I am also inclined to refer to some extent to the septic condition of the wound acting both by aiding the extension of the tuberculous disease and diminishing the patient's resisting power. Further, it is no doubt in the main this

tendency of sepsis to render the disease more stubborn, which is at the root of the dislike to partial operations in joint disease.

The presence of septic sinuses also influences the operative treatment, not merely because the disease is more persistent when they are present, but also by introducing the risk of the various septic diseases. It is not always possible to eradicate the septic element during an operation, and hence, in cases of septic sinuses in connection with pure synovial disease where the cartilages are still intact, it is questionable whether we can safely perform arthrectomy on account of the risk of acute suppuration of the joint; and in the case of complete excision also the presence of sepsis greatly increases the risk of the operation, making it decidedly greater than that of amputation above the seat of disease.

Hence in treating a case of tuberculous disease with septic sinuses, some operative measure must as a rule be adopted. When it is not deemed desirable to proceed to radical measures, I believe the best treatment is to lay the sinuses freely open, scrape or clip away the walls, remove as far as possible the starting point of the original abscess, sponge the surface with undiluted carbolic acid, stuff the cavity with iodoform gauze or with cyanide gauze freely sprinkled with iodoform, and allow it to granulate up from the bottom. My experience is that much better results are obtained in this way than by enlarging and scraping out the sinuses and inserting a drainage tube, as was the method formerly employed. Whether Krause's view that iodoform is more active in the absence of oxygen be correct or not, my results as regards healing have very much improved since I began to treat tuberculous sinuses in this way. In cases of joint disease, however, this plan is only rarely applicable, and in most cases where sinuses lead into joints or are multiple, and where the disease is advancing, one of the three radical measures should I think be adopted. At one time I was inclined to think that the presence of septic sinuses excluded arthrectomy, but I have now done several complete arthrectomies in such cases, sponging the surface of the wound afterwards with undiluted carbolic acid, and with good results.

Of the cases where the skin is unbroken when the patients come under observation, and where no suppuration is present, we have a group where the disease of the bone or synovial membrane is limited to one part of the joint, the rest of the structures being healthy. These are the cases which are especially suitable for arthrectomy, though unfortunately it is not always easy to diagnose the osseous lesions in the early stage, nor is it often that one sees the patient before the whole joint has become affected. In these cases the foci of disease can usually be completely removed without seriously interfering with the function of the joint; indeed, with the result that the function of the joint is restored. Three cases were mentioned:

Case I.—Boy, aged 5, disease of external condyle of humerus, of one month's duration. Considerable thickening of the external condyle, diminution of the percussion note at one part; no pain on movement of the joint, and no synovial thickening. Incision over the external condyle, portion gouged away containing soft gelatinous material showing tubercle on microscopical examination. Undiluted carbolic acid applied, wound closed, joint opened but healthy. Healed by first intention except point left open for drainage, which healed in a few days. The result was eradication of the disease and perfect restoration of the joint.

Case II.—Girl, aged 3, soft swelling, size of small marble, over head of radius, slight puffiness of surrounding synovial membrane, limitation of rotation, no pain; duration four months. Swelling dissected out along with a considerable portion of the synovial membrane around—it consisted of tuberculous tissue with a commencing abscess in the centre. The disease extended to the synovial membrane under the orbicular ligament, and this was thoroughly dissected away; the rest of the joint was healthy. The wound healed by first intention and there was complete recovery of the joint.

Case III.—Boy, aged 7. Pain and rigidity of right hip-joint for three months. Complete limitation of movement, great thickening of trochanter and neck of the femur, apparently no synovial thickening, no swelling on inner side of acetabulum, no flexion or shortening. Evidently a tuberculous deposit in the neck of the femur which had probably not yet opened into the joint. Incision over outer part of trochanter, bone trephined, neck of bone scooped out till cheesy mass found and removed, apparently near the epiphysis. Wound sponged out with undiluted carbolic acid and left open. Was nearly six months in closing, showing that I had not succeeded in getting out all the disease, but the free opening probably prevented further extension to the joint. When last seen considerable movement and no disease.

Arthrectomy is also the proper treatment for those cases of pedunculated tuberculous growths of the synovial membrane described by König, Riedel, etc., and Riedel mentions two instances in which these growths have been removed with success; in my statistics there is a record of one such case also successful. While it is self-evident that in these cases with localised patches of disease the removal of the affected tissue is the proper treatment, provided it is done aseptically, it is not so easy to come to a decision as to the nature of the operative treatment in cases where the disease is more diffuse, and which are evidently unsuitable for expectant treatment, or in which expectant treatment has failed. I have already referred to the treatment of cases where chronic suppuration has taken place, and where we have either unopened abscesses or septic sinuses. In the remaining cases, where there is considerable diffuse thickening of the synovial membrane with or without osseous deposits or caries of the surface, we have the choice of four methods of operative treatment, namely, arthrectomy, partial arthrectomy, excision, and amputation. Before proceeding to discuss the advantages and disadvantages of the three radical methods of treatment, I must say a few words as to the advisability of performing partial operations, and as to whether partial arthrectomy, that is, removal of only a part of the diseased tissue, should have a place in our operative procedures.

In joints where subsequent mobility is wanted, such as the elbow and possibly also the knee, a great objection to complete arthrectomy is that the fibrous capsule is often removed, and ligaments must be divided in order to get at the whole of the joint, and thus the strength and mobility of the joint are impaired. When I began to perform arthrectomies systematically I was of opinion that good results ought to be obtainable in some cases by removing only portions of the diseased tissue, and thus not breaking up the joint. This view was founded on the results obtained by expectant treatment, arthrotomy, actual cautery, drainage of abscesses, etc., which showed that very little might turn the scale against the bacillus. Further, in typical excisions as performed up till quite recently, no systematic attempt was made to remove all the diseased tissues, and yet healing occurred in a considerable number of cases, though here it is true fistulæ frequently formed and remained open for a long time. Also, in some excisions, as of the hip as performed at the present time, and in some arthrectomies, scraping, quite an uncertain method as regards removal of the disease is often resorted to, and yet primary union after excision of the hip is the rule rather than the exception. In my statistics I had also a record of several cases of this kind where, in addition to opening the joints, portions were scraped away. Thus 19 cases of knee-joint disease were treated in this way, and of these 13 were cured or much improved by the treatment, though in some of these a good many months elapsed before healing was complete. Since these statistics were made up I have performed partial arthrectomy in several cases, and I may refer to those of the hip and knee.

In the case of the hip-joint a complete arthrectomy is very difficult unless dislocation has occurred and even then a posterior incision must be made in addition to the anterior. In three cases, however, I performed a partial arthrectomy where sequestra was diagnosed in the neck of the femur.

Case I.—Boy, aged 4½, admitted February, 1890. Injury six months previously; limping and starting of limb at night for six weeks. Inversion, adduction, very slight flexion, no shortening, complete rigidity, much thickening about neck of femur, synovial thickening, inner surface of acetabulum normal. On February 7th joint opened by anterior incision, fluid with flakes present, sequestrum found in usual situation just outside epiphysial line and removed, synovial membrane thickened and anterior part dissected out, as much of the rest as possible scraped or clipped away; undiluted carbolic acid applied. Wound healed by first intention except a small point at middle which had quite healed when patient was discharged on April 27th. Six months later sinus again formed and remained open in spite of tuberculin treatment for about six months. Hip now healed, no shortening and a little movement.

Case II.—Boy, aged 4, admitted February, 1890. Disease of six months' standing. Abduction, external rotation, about a half-inch shortening, abscess in front of joint, trochanter thickened, inner side of acetabulum normal. Operation as in No. 1, but head of bone partially dislocated, and some superficial disease of acetabulum. Centre of wound did not heal and rest of the scar again broke down and formed a typical tuberculous ulcer. During the summer of 1890, I was several times on the point of excising the joint, but did not do so. In December, 1890, tuberculin employed and wound healed in about a month and remains healed. Now about three-quarter inches shortening, parts sound, slight movement.

Case III.—Girl, aged 8, admitted December, 1890. Been losing flesh for several months, limped for two months. Complete fixation of joint, no shortening or flexion, slight adduction, thickening about trochanter, but not on inner surface of acetabulum. Tuberculin employed (fourteen injections) but no progress made and therefore operation. Condition found as in No. 1. Wound healed up by first intention, but about a fortnight later a small sinus formed in the middle of the scar which did not heal

till November. Sent home healed at end of November apparently well, but died of tuberculous meningitis three weeks later.

Case IV.—I have also in two other cases performed partial arthrectomy of the hip though no sequestrum was present. One was a case where dislocation occurred suddenly, and where the head of the bone would not keep in place, evidently because the acetabulum was filled up with soft tissue. I therefore cut in by the anterior incision and removed a quantity of soft tissue from the acetabulum along with as much of the synovial membrane as possible, and replaced the head of the bone in position. The wound healed up by first intention, but a sinus subsequently formed and was some months in healing.

Case V.—In the other case an abscess formed and was opened, and at the same time some synovial membrane was removed from the joint. The wound healed up by first intention and the patient was discharged wearing a Thomas's splint. He came back after six months with a sinus, an inch of shortening, and evidently a true dislocation. I excised the head of the bone and cleared out the joint; the wound healed by first intention and the patient remains well.

It is quite a question whether there has been any advantage in these cases in partial arthrectomy over excision. Certainly the immediate result would have been better after excision; but I think that in the first two cases a more useful limb has resulted from the arthrectomy. As regards the relation of the two operations to the growth of the limb, there is no doubt that in many cases where the sequestrum lies just outside the epiphysial cartilage the whole of that cartilage is destroyed or undergoes premature ossification, so that there would be no advantage in arthrectomy over excision from that point of view; but the first case, where there is no shortening after more than two years, shows that this is not always the case.

In five cases of knee-joint disease I have removed the synovial membrane in the anterior part of the joint alone; but of these only one has been a complete success, though a second is well except for a minute sinus, which has not yet closed, but will, I believe, do so eventually. Two had healed and promised well till they caught measles, after which the scars rapidly broke down; in one of these I performed a complete arthrectomy and in the other a rather more extensive operation, really an intra-epiphysial excision, in both with success. The fifth case also recurred and I did what I believed to be a complete arthrectomy, but, recurrence again taking place, I found on opening up the joint recently that I had overlooked a large deposit in the head of the tibia. I may mention the successful case.

A girl, aged 6, admitted June 3rd, 1889. Knee-joint disease of three months' standing, began after a fall; had elbow-joint disease previously. Synovial membrane considerably swollen, especially over internal condyle; no pain; movement to half a right angle. The case was watched for a few weeks, but as the swelling was rapidly increasing and there was commencing tenderness and increasing restriction of movement, the whole of the synovial membrane in front and at the sides of the joint and over the crucial ligaments was dissected away and a hole was gouged in the enlarged internal condyle, but no deposit was found. Wound healed by first intention; sent out on July 19th, 1889, in a waterglass case. All apparatus was left off in the autumn of 1890, and when seen in May, 1892, the joint was quite normal in appearance, free movement up to a right angle, and apparently complete cure.

I must confess that on the whole I am disappointed with the results of partial arthrectomy, and conclude that this operation has only a very limited field, and that in most cases where it is necessary to remove diseased tissue complete removal is preferable. In some cases, however, partial arthrectomy may be of use, as in hip-joint cases similar to the three first mentioned, and also in the knee, where, on cutting into the joint, the synovial membrane is found not to be markedly pulpy, where the disease is in the substance not on the surface of the synovial membrane, where no cheesy spots are present, and where the bone is healthy.

Having determined to remove the disease completely, our choice lies between arthrectomy, excision, and amputation. Amputation is the least dangerous operation; in fact, there is no special danger attached to it. It is possible that here and there a weakly patient may succumb from shock after amputation high up in the thigh, but otherwise, if aseptically done, there is no danger. Hence in weakly patients who cannot stand a prolonged operation, and where a radical operation is necessary, amputation is indicated. So where phthisis is present—at any rate, if it is advancing and the patient going down hill—amputation is best; indeed, it is sometimes remarkable what an improvement takes place in the condition of the patient and of the lungs after amputation above the seat of the disease. Similarly in waxy disease, if a radical operation is possible, amputation is the least dangerous. Again, in adults, where there is much suppuration about the joint or many septic sinuses, amputation is often the best practice. In the young, also, where the disease is extensive, especially in the bone, amputation may in some joints be preferable to excision, and so also where bad recurrence takes place after arthrectomy or excision. In fact, no general rules can be laid down, the decision must depend on the local condition and the general state of the patient.

In discussing arthrectomy and excision, I must first define exactly what I understand by these operations. By arthrectomy I mean all operations by which the whole of the tuberculous tissue is completely removed with as little as possible of the surrounding healthy tissue. The term is a bad one, as is also its substitute, erasion, but it has now come into common use. We may perform a complete arthrectomy without opening the joint at all, as in the hip-joint case mentioned where I tunnelled along the neck of the femur; or without removing any tissue from the joint, as in the elbow case where I removed the deposit from the external condyle; or with the removal of only a limited portion of the synovial membrane, as in the other elbow-joint case mentioned. I term the arthrectomy complete because the disease has been completely removed, not because the whole of the structures of the joint have been cut away. As a rule, however, in complete arthrectomy the operation is a very extensive one, and requires much patience and great care for its satisfactory performance. The diseased tissue must be removed by careful dissection; scraping is quite unsatisfactory, except perhaps as regards small points in the cartilage, and if employed it must be very thoroughly done.

Let me describe a complete arthrectomy of the knee where the whole synovial membrane is involved. The first thing is to expose the capsule very thoroughly, and this I do by means of two free longitudinal incisions, one on each side of the patella and a little distance from it, and I think it is best, in the first instance, not to open the joint. The tissues in front of the synovial membrane are then dissected off, and the whole of the membrane behind the quadriceps is thoroughly exposed. The dissection is then carried to each side over the condyles, remembering that a fold of synovial membrane extends backwards for a considerable distance over the sides of the condyles. The lateral ligaments are then divided, and the synovial membrane separated from them. The dissection is then continued inwards to the edge of the patella on each side and behind the ligamentum patellæ. The membrane is next detached all around where it is reflected on to the cartilages of the various bones and cut away as far back on each side as possible. The joint is thus freely exposed from the front and a fringe of synovial membrane is seen around the edges of the various cartilages. This is carefully removed, and then one may or may not connect the two longitudinal incisions by a transverse one over the patella, sawing that bone transversely. Usually I have not required to do this, but, by dislocating the patella first to one side and then to the other, I have been able to get free access to the whole joint. The crucial ligaments are next thoroughly cleaned and divided, or, if much diseased, removed, and special attention is directed to the condition in the intercondyloid notch. The joint being then bent, the semilunar cartilages are removed, and the dissection of the synovial membrane resumed. It is quite easy as a rule to define the outer part of the synovial membrane on each side, and, having done so, separation is gradually effected by the finger or some blunt instrument between the posterior part of the capsule and the vessels and structures behind, and this is continued till the points of reflection of the synovial membrane on to the femur above and the tibia below are well defined. The synovial membrane is then cut off at these points, and the fringe around the cartilages carefully removed. Having now got away all the synovial membrane, the ends of the bones are easily protruded through the wound and the cartilages carefully examined. If any depressions are seen on the surface they are cleaned out; if they are loose or much thinned anywhere that portion is removed along with a thin layer ($\frac{1}{8}$ inch) of the bone beneath. Very often the cartilages are covered with a thin layer of soft tissue, and this must be got away either by scraping the surface with the edge of the knife or by scrubbing it with a nail-brush. If the cartilage is absent at any part and the surface of the bone carious a thin layer of bone is cut away at that part, remembering that the tuberculous tissue only extends

into the bone for about one-eighth of an inch. This layer can usually be removed with the knife. Of course if at any part the hole in the cartilage or the carious patch are found to lead to a deposit in the bone, that must be thoroughly cleared out. Having satisfied ourselves by fresh inspection that all the disease has been removed the wounds are closed, the crucial ligaments, if left, being stitched and the patella, if divided, being wired. A drainage tube is seldom necessary, or, if it is used, should be removed in two or three days. I think it is best in most cases not to use a tourniquet. Without it, it is easier to distinguish disease, the pulsation of the popliteal artery can be felt, which is of importance in dissecting out the synovial membrane posteriorly, and the oozing from the wound is less. Subsequently no passive motion should be employed, and as there is a very great tendency to flexion in children a back splint should be worn for a long time—sometimes for years.

The same sort of procedure must be followed in the other joints. In the case of the hip it is necessary to add a posterior incision to the ordinary anterior incision for excision.

In the case of the ankle, good access is obtained by a long longitudinal incision in front of each malleolus, then separate and remove the anterior part of the capsule, then either remove the astragalus or divide the malleoli and turn the foot to one or other side, so as to get free access to the sides and back of the joint. In five cases of arthrectomy of the ankle-joint I have removed the astragalus, and thus got perfect access to the joint. In two of these there was a primary deposit in the astragalus, and in the other three it was diseased on the surface. And I may say that in all these cases the result has been most satisfactory, the disease having been eradicated and an excellent movable joint obtained; indeed, it would be difficult to say that the astragalus had been removed.

In the case of the elbow-joint, excellent access is obtained by long incisions on the inner and outer sides of the joint. Some divide the olecranon transversely, but I have never found that necessary. On the inner side the ulnar nerve is at once sought for, cleared, and drawn forwards over the internal condyle, and the capsule then separated in the manner described above. The nerve which is really in danger is the posterior interosseous if the disease is very extensive about the head of the radius, as is often the case, and if the incision is prolonged too far downwards.

I have never attempted arthrectomy of the shoulder-joint, which is rarely affected in children, and in the case of the wrist-joint complete arthrectomy is, of course, impossible. In disease of the tarsus one can sometimes, by removing individual tarsal bones and the affected synovial membrane, cut short the disease at an early stage, and obtain an excellent functional result. I have had several cases, especially of removal of one or more of the cuneiforms, where it would now be impossible to tell that any bone had been taken away.

In performing excision as it must be done in view of our present knowledge, the synovial membrane must be removed with as great care and in the same manner as in arthrectomy; but as the ends of the bones are sawn off, and all the cartilage-covered surfaces freely removed, the operation is considerably shortened, and the chance of disease being left behind is diminished. I need not go into details, but go on to consider the relative value of the two operations, and the points which determine our choice.

The first point is as to the relative danger. The risk of these operations is, on the whole, decidedly greater than that of amputation, the great danger being shock; there is also the further question as to possible dissemination of the disease. As regards shock, the operations I have described are prolonged operations, and there is always a good deal of collapse afterwards, but in none of my arthrectomies has this collapse assumed a dangerous form. In two cases of excision, however, the patients have died of shock. One was a case of extensive disease of the knee-joint in a weakly man, aged 25, where I strongly urged amputation, but the patient insisted on excision. As I expected, the disease, especially in the tibia, was most extensive, and I had to chip away considerable portions of the bone; the patient died of shock the same evening. The other was a case of hip-joint disease in a child where there was also extensive pelvic disease and abscess in the pelvis. The child never rallied. As regards the risk of dissemination of the disease, I do not think there ought to be any risk of that, provided the operation is done by cutting; if there is much scraping or gouging, no doubt there is a chance of tuberculous material being forced into the veins, but as I have already said, scraping should not be employed. We may say, therefore, that the two operations are pretty much on a par as regards mortality, that both are serious operations, and that possibly excision is rather the more dangerous.

The second point is, which is most successful in eradicating the disease. In answer to this, I would say decidedly that recurrence is less likely after excision performed as above described than after arthrectomy. The parts where it is most difficult to get rid of the disease are about the margins of the cartilage, on the surface of the cartilage where small pits containing tuberculous tissue may readily be overlooked, and recesses of the joint such as the intercondyloid notch in the knee, the olecranon fossa and the neighbourhood of the orbicular ligament in the elbow, etc.; and these are parts which are cut away or thoroughly exposed in excision. Further, in arthrectomy, deposits in the bone are more likely to be overlooked than in excision, though in the latter they may also be missed. My own experience is that the greater the care with which the disease is removed the better the results, and that where arthrectomy is thoroughly performed it is a satisfactory operation. Certainly I had more recurrences among the first cases in which I performed arthrectomy than I have now when I take greater pains to remove as far as possible every vestige of the disease.

The third point to be considered is the subsequent utility of the limb, and first as regards mobility. In the case of arthrectomy, where the cartilages are intact, bony ankylosis does not, of course, occur, but if the joint is kept at rest for a long time afterwards there will be much stiffness, sometimes complete; in most cases, however, there is a certain degree of movement which increases on exercise. As a matter of fact, it is not necessary to keep the joint at rest for more than a few weeks in order to allow the ligaments to reunite unless in the case of the knee, where the tendency to flexion is so great that a posterior splint must be continued for a long time.

In excision, the subsequent mobility depends in most cases on the amount of passive motion employed, though in the case of the hip an undesirable degree of mobility often remains after excision. In the knee excision leads to firm stiff joints, and arthrectomy usually also leads to stiff joints, though not so firm. In some cases, however, useful movable joints have been obtained after arthrectomy, but I do not think that is a thing to be aimed at in children. In adults I have never performed arthrectomy of the knee, but Mr. Stanley Boyd showed a case this winter where good movement was obtained. In the ankle a very excellent result as regards movement follows arthrectomy, especially with excision of the astragalus; after excision a stiff joint is the result. In the elbow both operations yield a movable joint, but arthrectomy gives the strongest arm. I have always employed passive motion after arthrectomy of the elbow, but Mr. Clutton showed several cases this winter where very good movement resulted from leaving matters to Nature without forcible passive motion.

Next, as regards subsequent deformity. This question has reference mainly to the knee joint, where, after both operations in young children, there is a marked tendency to flexion, and also rotation outwards and abduction. A child sent out with the bones apparently firmly united after excision will frequently (in something like half the cases) return after some years with more or less flexion or abduction unless special measures have been adopted to guard against the occurrence of these deformities. After arthrectomy this tendency to flexion is even greater than after excision, and retentive apparatus must be persisted in for a long time with the view of preventing it. This flexion is, I think, brought about to a considerable extent by walking, the adhesions becoming gradually stretched in front; in part, also, it is due to too free removal of the fibrous textures, and depends to some extent on the incisions employed.

Lastly, as regards subsequent shortening. This is a question of immense importance in children. In arthrectomy, unless where a deposit invades the epiphysial line, there is no interference with the growing part of the bone, and conse-

quently no shortening, in fact sometimes slight lengthening. In excision, on the other hand, the results as regards shortening are very bad, especially in the knee-joint; hence in children excision of the knee is almost absolutely contraindicated. This also holds good as regards other joints, though no doubt to a less extent. Even after excision of the hip, more especially where the trochanter is interfered with very serious shortening sometimes occurs, and I see a case from time to time where excision of the hip was performed in a boy 4½ years old, and where eleven years later there was 11 inches of shortening. It has been stated, as regards the knee, that if intraepiphysial excision is performed the interference with growth is not great, and Hoffa advocates this operation strongly. His experience is, however, almost unique, and there seems no doubt that in many cases of intraepiphysial excision serious interference with growth results. Thus Petersen showed a specimen where this operation was performed in a boy aged 11, and where six years later there were 5½ inches of shortening although both epiphysial lines could be seen with more than an inch of bone between them. Thus even though the epiphysial cartilages are not actually interfered with, the condensation of the bone in connection with the healing process is apt to extend to them, and lead to their premature ossification. But after excision the limb below also often grows very imperfectly, more so than can in all cases be explained by deficient use of the limb. Neuritis has been suggested as the explanation; certainly disturbances of the nervous mechanism are not uncommon after excision of the elbow for example, the pulse on the affected side being often weaker than on the other, and there being increased growth of nails and hair, increased secretion of sweat, etc. Another cause of shortening after excision of the knee-joint is that unless care is taken that the posterior edges of the bones shall correspond, the larger upper end of the tibia projects backwards into the popliteal space, presses on the vessels, and thus interferes with the circulation in the lower limb.

The conclusion which seems to me most just is that the proper radical operation in children, and up to 15 or 16 years of age, is arthrectomy, and in adults is excision. Let us consider the individual joints.

In the hip a really complete arthrectomy is almost impossible, but in children I think that in many cases partial operations, such as clearing out abscesses, partial arthrectomy, etc., are often preferable to excision as regards the ultimate results, though no doubt there are cases where removal of the head of the bone is desirable. For example, in primary acetabular disease with or without abscess inside the pelvis satisfactory access can seldom be obtained without removing the head of the bone. Again, where the head of the bone is much diseased or the epiphysial line destroyed, it is better to cut through the neck. And also in cases with septic sinuses where operation becomes necessary, slitting up the sinuses, removal of the head of the bone and subsequent stuffing of the cavity with iodoform gauze is probably the best practice. Apart from the question of shortening, which is not so very great, if only the head of the femur is removed, excision leaves a weaker and less stable joint than is obtained in other ways.

In the case of the knee-joint, arthrectomy possesses no advantage over excision as regards the immediate result; on the contrary, if a stiff joint is aimed at, a firmer result will be obtained by excision. But in patients who have not reached their full growth, the interference with growth after excision is so serious that it should not be undertaken. Certainly in young children excision is not to be thought of for a moment; in adults, however, a better ankylosis is obtained by it, and in my opinion it is the preferable operation.

In the case of the ankle-joint, arthrectomy with or without removal of the astragalus—I think in most cases with—is the operation for children, and gives most satisfactory results. I have not had the opportunity of trying it in adults, as the cases of ankle-joint disease which I have lately had have either not been limited to the ankle, or, if so limited and requiring operation, have necessitated amputation; but I should be very much inclined in a suitable case in an adult to perform arthrectomy with removal of the astragalus, instead of excision.

The remarks which I have made as regards the knee apply also in the main to the elbow. Arthrectomy is the operation for children, and very satisfactory movement is thereby obtained. Excision is, however, I think, a better operation for adults; movement is more easily obtained, and the disease more readily eradicated.

As regards the wrist and tarsus, complete arthrectomy is, of course, impossible, and in children it is best to do what one can by partial operations. Fortunately, wrist-joint disease is not common in children, and in adults excision often gives a very good result. In the case of the tarsus in children, it is sometimes possible to get an excellent result by removal of the affected bone and synovial membrane, or of a healthy bone such as a cuneiform, so as to get at the synovial membrane. The shoulder stands, I think, on the same footing as the hip in childhood, but it is essentially a disease of adult life, and in adults excision is the radical treatment.

Time fails me to go into the operative treatment of tuberculous diseases elsewhere. The question, when removal is required, again lies between partial and complete removal; and I must say the more I work at the matter, the more I incline to complete removal where operation is necessary. Further, if complete removal can be done, clean cutting is much to be preferred to scraping. Similar partial operations, laying open sinuses, and stuffing with iodoform gauze, washing out and injecting abscesses, etc., come into play, and must be employed according to the circumstances of the case.

DEPRESSION OF THE EPIGASTRIC AND HYPOCHONDRIAC REGIONS ON DEEP INSPIRATION NOT ALWAYS INDICATIVE OF DIAPHRAGMATIC PARALYSIS.

By THOMAS HARRIS, M.D.Lond., M.R.C.P.,
Physician to the Manchester Royal Infirmary; Consulting Physician to the Manchester Hospital for Consumption, etc.; and Lecturer on Diseases of the Respiratory Organs in the Owens College.

About twelve months ago I had under my care in the wards of the Manchester Infirmary a severe case of general diphtherial paralysis, and was carefully watching for signs of paralysis of the diaphragm, and of the other muscles of respiration. One day I observed that, on a deep inspiration, there was a marked sinking in of the epigastric and hypochondriac regions, and concluded that paralysis of the diaphragm had supervened. Only two days after the above observation I noticed that the intercostal muscles were not acting, but that the diaphragm was acting freely. As the patient gradually recovered, I looked upon the rapid recovery of the diaphragmatic paralysis as most opportune, since had it remained whilst the intercostal muscles became paralysed, death must of course have ensued. This case had been very much impressed upon my mind, and I had repeatedly spoken of it to students as an instance of a lucky coincidence in the recovery of an important muscle where a set of equally important muscles became paralysed.

About six months since I had another severe case of diphtherial paralysis under observation, and impressed upon the clinical clerk the importance of watching for signs of paralysis of the muscles of respiration. One day when examining the patient I told him to take a deep breath, and found very marked sinking in of the upper part of the abdomen when he did so. This repeatedly happened on the occasion when I was examining him, but I noticed that whilst on *deep* inspiration the epigastric and hypochondriac regions sank in, on *quiet* inspiration the same parts became protruded, and on expiration retracted, as one would expect in health. By explaining to this patient how I wanted him to breathe I found that in the course of that examination I could get him to protrude the epigastric and hypochondriac regions on a deep inspiration instead of allowing their retraction as he had done immediately before.

This second case made me very doubtful as to the correctness of my inference in the first case, and also very sceptical as to the value of sinking in of the upper part of the abdomen on a deep inspiration as a sign of diaphragmatic paralysis. My house physician (Dr. E. M. Brockbank) kindly undertook to examine a large number of patients who were in the hos-

pital for various diseases, but in whom there was no suspicion of diaphragmatic paralysis, and no cause for the same. He soon found that the behaviour of the abdominal wall on a deep inspiration varied very much in different persons and that in some few, but yet a considerable number of cases in which there was no diaphragmatic paralysis, the epigastric and hypochondriac regions sank in instead of protruding when a deep inspiration was taken.

Since then I have examined a large number of cases in my own beds, and, through the courtesy of my colleagues, elsewhere in the infirmary, and find that whilst in the majority of cases both during quiet and deep breathing the upper part of the abdomen is protruded on a deep inspiration; in other cases, which are not infrequently met with, that part of the abdomen becomes depressed, sinks in, on a deep inspiration being taken. In other instances we find that, on a deep inspiration, the abdominal movement is a very slight one; it protrudes to a small amount on a deep inspiration, but not very markedly, the chief intake of air being apparently produced by an exaggerated movement of the ribs. In all the cases there was no abdominal pain or other local cause for the abnormal type of breathing.

In some of the cases where the upper part of the abdomen does not protrude on a full inspiration, the sinking in is only an apparent one. The lower ribs are elevated, and especially so much expanded, that the upper part of the abdomen appears to sink in. In other cases the sinking in of the abdomen is not apparent but real on a deep inspiration. These latter cases are very interesting, because, in the majority of them, the upper part of the abdomen on quiet respiration protrudes on inspiration and becomes retracted on expiration exactly as we should expect it to do normally, but the moment the patient is told to take a full breath and does so, then retraction takes place during the inspiratory period. In some of such cases it is possible so to instruct the person that he will after a short time protrude the abdomen during a full inspiration, whereas only just previously retraction had been noticed. With children, however, and in nervous persons, in both of whom the abnormality of retraction of the abdomen on full inspiration has not infrequently been observed, by both Dr. Brockbank and myself, it may be difficult to bring about this result. In such cases, however, I have never noticed that on quiet respiration the upper part of the abdomen became retracted during the inspiratory period.

It is possible that this observation, that in some cases where there is no diaphragmatic paralysis the abdomen becomes retracted on the patient taking a full inspiration, has been noted before. I have, however, never seen any record of it, and as both myself and other medical men of my acquaintance have been misled by it, there will be no harm in calling attention to the fact, even though it may be well known to many physicians.

Vierordt, in his excellent work, *Diagnostik der inneren Krankheiten*, 1888, page 63, states that paralysis of the diaphragm may be met with not only in organic diseases of the nervous system, but also as a functional neurosis (hysteria). Is it probable that in such cases there is an actual paralysis of the diaphragm? For myself, I should think it much more probable that the cases of apparent paralysis of the diaphragm in hysterical subjects were instances of the condition I have referred to in this communication, and that the paralysis was only apparent and not real.

The practical result appears to me to be that it is important in all cases where we are examining for paralysis of the diaphragm not at once to tell the patient to take a deep breath, but to note the movements of the abdomen during quiet respiration first; and if the abdomen moves naturally on quiet respiration, whilst on full and forced inspiration the upper part becomes retracted, it is not to be considered on that indication alone that there is a paralysis of the diaphragm.

ON August 1st a new clinic for skin diseases, with accommodation for seventy-four patients, and the completest possible equipment for clinical and scientific research will be opened in the University of Breslau. A "poliklinik," or out-patient department, will be attached to it, the whole being under the direction of Professor Neisser.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

VESICAL CALCULUS: PERFORATION OF BLADDER.

IN the BRITISH MEDICAL JOURNAL of April 2nd Dr. Farrar relates an interesting case in which a calculus ulcerated through the bladder wall and at the same time acted efficiently as a plug. He then refers to the question of lithotomy in such a case. The following notes may be of interest as bearing on that point:

A single woman, aged 23, was first seen three years ago, when she complained of pain in the abdomen, which was at times very acute; she stated that for some years there had been a discharge of "bloody matter" from the bowel. There was, she stated, no vaginal discharge or trouble with the water. No physical examination was allowed. The patient was not seen again until September, 1891, when she complained of pain across the middle of the abdomen and over the base of the sacrum, also of great frequency of micturition, and that the urine was thick and foul-smelling. These symptoms were said to have existed for six or eight weeks. The patient now for the first time mentioned that a long time ago she had passed a hairpin into her bladder. The urine was putrid and contained a copious deposit of triple phosphates and pus and about $\frac{1}{5}$ of albumen.

On October 1st, 1891, the patient was placed under chloroform by Dr. Dabbs, and, a sound being passed, a calculus was detected. I then introduced my little finger into the bladder and found that the stone was large and very fixed. The bladder was then emptied of urine and as much warm boracic lotion as possible—only a small quantity—injected. The bladder was opened above the pubes in the usual manner and the stone extracted. The bladder was washed out and a drainage tube left with one end projecting from the urethra and the other through the abdominal wound.

The calculus was phosphatic, and weighed $4\frac{1}{2}$ ounces. It measured $3+2+1\frac{1}{2}$ in. It was pyriform, and presented for the most part a roughened surface. The obtuse end of the stone was lying in the fundus of the bladder and was adherent to it; the smaller end was firmly embedded in the bladder wall near the neck. Both ends of the stone, but more especially the lower end, presented a ragged appearance, due to shreds of tissue still adhering to it. On making a section of the calculus, an ordinary hairpin was found in the centre, with its long axis corresponding to the same axis of the stone.

The patient was a good deal collapsed after the operation; but this passed off, and she continued to do well until the third day, when the drainage tube, though a large one, became temporarily blocked by thick mucus, and she complained of sudden pain in the abdomen, which was followed by vomiting. She died of peritonitis on the fifth day.

Post-mortem Examination.—The bladder was much thickened, contracted, and sacculated. The mucous membrane was deeply congested and in places almost black; it was thickened, rough, and granular. At the fundus of the bladder, posteriorly and slightly to the left, there was an ulcer the size of a shilling, with sharply defined edges, and having for its floor only the peritoneum, which latter had a minute perforation in it. Near the right side of the neck of the bladder there was another ulcer, smaller than the above, and perforating the entire bladder wall; it was, of course, below the level of the peritoneum, and, though it closely approached the rectum, no connection could be made out. These two ulcers corresponded respectively to the superior and inferior poles of the calculus. The ureters were much thickened, and there was advanced pyonephrosis on both sides, a greater degree on the left. The suprapubic wound had not apparently injured the peritoneum. There was much recent lymph over the coils of the ileum, and over the fundus of the bladder there were evidences of old peritonitis.

In the above case I am inclined to think, from the sudden onset of pain and collapse on the third evening, that there was no escape of urine into the peritoneal cavity until that time, when I believe a small perforation occurred through the

floor of the ulcer situated in the fundus of the bladder, and that this set up the fatal peritonitis.

J. COWPER, M.B.Ed.

DYSTOCIA: BROW AND FOOT PRESENTATION: RIGIDITY OF LOWER LIMBS.

ABOUT noon on June 4th I saw Mrs. P., who had been in labour all the morning; she was a primipara, 31 years of age. I found the os half dilated, the vertex presenting with the occiput towards the sacrum. The pains occurred every ten minutes, and after waiting two hours the os was found well dilated, but as the head was not descending, the membranes were ruptured. The sutures and fontanelles could be felt distinctly. The occipito frontal corresponded exactly with the antero-posterior diameter of the pelvis, the bregma at the pubes. The head was immovable; neither the occiput nor the brow could be pushed upwards. After waiting for some time without any improvement I made a careful bimanual examination. The right forefinger touched, along the side of the head, five toes rigid and all in a line, and the two lower extremities could be felt by the left hand, with the soles of the feet resting on the brim, thus effectually resisting every expulsive effort of the uterus.

Although the head was large the pelvis was roomy; I therefore resolved to try external pressure on the child's heels from above the pubes. Firm careful pressure was maintained, vigorous uterine action was kept up by the administration of drachm doses of ergot; the head gradually descended, the occiput filling up the sacral curve, and a large caput succedaneum formed on the brow. By 8 P.M. the brow, face and feet were expelled, and with another pain the whole of the doubled-up child was born. The lower limbs were intensely rigid, every joint appeared to be completely ankylosed, hip, knee, ankle, and toe joints, and pointed the reverse way towards the head. A large spina bifida, or rather a hæmatoma, judging from the reddish, purple colour, existed over the lumbar vertebra, indicating recent spinal meningitis, which accounted for the state of the limbs as found.

Kirkwall, N.B. D. MCNEILL, L.F.P.S.G.

PIGMENTED VESICULAR RASH IN AN INFANT.

THE patient, a female child, was born on June 27th, after a normal labour, and for two days seemed perfectly well. The bowels acted freely, and milk and water was taken from the bottle as the mother was unable to nurse it. On the third day one or two small spots began to appear about the arms and hands, which at first appeared like varicella. On the fourth day they appeared on the body and legs, until the child was covered from head to foot. On the sixth day they began to die away, and by the tenth there was not a trace of them.

The characters of the rash were as follows: There was a red spot, papular in appearance, slightly raised, and with a tiny vesicle in the centre containing a bright yellow fluid. The vesicle gradually increased in size until it completely replaced the areola of redness, and eventually attained the size of a split pea; it then went through some process of absorption and disappeared. One or two fresh spots appeared every day the rash was out. The child was perfectly well, had no rise of temperature or disturbed digestion, and the bowels were natural. The urine contained no bile. The contents of the vesicles were, in my opinion, a bile-stained fluid. Those that broke stained the child's linen a bright yellow, and stiffened it.

I can see no account of a similar eruption in either Dr. Liveing's or Dr. Crocker's work on skin disease, and am at a loss to account for the condition, unless it be a modification of infantile jaundice. The skin between the vesicles was perfectly natural in colour.

Bovey Tracey, Devon. H. GOODWYN.

INCUBATION PERIOD OF MUMPS.

IN October 1887 there was an epidemic of mumps in St. John's Foundation Schools. The first case occurred on October 4th; one occurred on October 18th, or 14 days after; one on October 19th, or 15 days after; five on October 20th, or 16 days after; four on October 21st, or 17 days after; seven on October 22nd, or 18 days after; four on October 23rd, or 19 days after; one on October 24th, or 20 days after; two on October 25th, or 21 days after; showing that the larger number of failures are about the 17th and 18th day, while the disease may be developed as early as the 14th day and as late as the 21st.

ARTHUR STEDMAN,
Leatherhead. Medical Officer St. John's Foundation Schools.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

GLASGOW EAR HOSPITAL.

CASE OF AURAL EXOSTOSIS, CAUSING PURULENT RETENTION IN THE DEEP PARTS OF THE EAR, REMOVED WITH THE ELECTRIC SNARE.

(By THOMAS BARR, M.D.)

THE patient, a domestic servant, aged 24 years, was admitted on December 1st, 1891, suffering from severe and constant pain in the left ear and the left side of the head, marked giddiness, distressing noises, and shivering attacks. From the same ear a slight but fœtid discharge had existed for eight years, and during the past year she had felt a hard "lump" just inside the orifice of the ear. The pain had troubled her more or less for two years, but it had during the past six months been much more severe. The hearing of the right ear was normal, but on the left—the affected side—the tick of a watch, which should in normal circumstances be heard 60 inches from the ear, was heard only ½-inch off. In this ear bone-conduction was in excess, by both Rinne's and Weber's tests.

On inspecting the interior of the ear a white, firm, rounded body was seen just inside the orifice. While firm it had not the ivory hardness of many of the exostoses found in the external auditory canal. Although scarcely a chink existed between the tumour and the wall of the canal a small quantity of secretion, having an offensive smell, was evidently escaping. I tried to introduce a wire loop between the tumour and wall of the passage, but had to desist in consequence of the pain. So far as could be made out the growth sprang from the back wall of the canal at about the junction of the bone and the cartilage, but whether this connection was of the nature of a narrow pedicle or of a broad base could not at that time be determined. An effort was made with a fine tube to inject small quantity of a solution of boracic acid into the ear beyond the tumour. By this means some caseous-looking material was brought away. The symptoms pointed no doubt to retention of purulent or caseous matter in the deep parts of the ear, and it was clear that the removal of the tumour by operation was called for without delay.

Soon after admission the patient became very feverish and complained of a sore throat. At first general septic mischief, originating in the state of the ear, was suspected, but white spots appeared on the tonsils and the symptoms were evidently due to follicular tonsillitis, probably caused by exposure to cold while on the journey from the Highlands to Glasgow. This illness delayed the operation for over a week.

Three methods of operating presented themselves—(1) the burr and dental engine, (2) the chisel and mallet, and (3) the electric snare. It was decided to try first the electric loop, and, in the event of failing with this, to dissect the auricle forwards and remove the tumour with chisel and hammer. The patient being placed under chloroform, I succeeded, after a little difficulty, in encircling the growth with a platinum wire loop attached to Schech's universal handle, and, turning on the current and exercising slight traction, the connection of the tumour with the posterior wall of the canal was severed. This connection was found to be of the nature of a pretty slender pedicle. Had it been sessile the snare would probably have failed. After its removal a large quantity of decomposing caseous material was got away by syringing. On inspection marked disease of the middle ear was manifest. The posterior half of the membrane was destroyed, and from the edges of the perforation granulation tissue protruded.

After the removal of the growth, the pain, giddiness, and

noises quickly disappeared, and treatment directed to the cure of the purulent disease of the middle ear was carried out with entire success. The patient was shown at the meeting of the Glasgow Pathological and Clinical Society on March 14th, 1892. I handed the tumour to Dr. Buchanan for histological examination. He found that, with the exception of a thin layer of cartilage on the surface, it consisted of hard dense bone throughout.

Remarks.—In regard to the causes and modes of origin of aural exostosis there are many varieties of opinion. Excluding those cases connected with the development of the osseous part of the external auditory canal, all writers are agreed that, whether there be a predisposing element, such as gout (as held by Toynbee and Pritchard) or syphilis (as believed by Gruber), a considerable number originate locally in irritative or inflammatory processes in the external auditory canal, such as diffused or circumscribed inflammation. These conditions may be secondary to chronic purulent inflammation of the middle ear, or they may be the result of such an irritation as the entrance of water into the ear. In a paper by the late Dr. Cassells, published in the *Transactions* of the International Medical Congress of 1881, on the etiology of aural exostosis, the view is advanced that such growths have their origin in granulation tissue or polypi sprouting from an abscess opening; this granulation tissue being gradually converted into bone by a process of ossification extending from the base. Two cases illustrated by sections made and drawn by the late Dr. Foulis, of Glasgow, were adduced by Dr. Cassells to support this view. I have little doubt that in the case now reported the tumour originated in a process connected with the purulent disease of the middle ear, probably of the nature of periosteal thickening or a small abscess in the external auditory canal. It is significant that a large proportion of cases have, as in this instance, their origin in the posterior or mastoid wall of the canal—a situation more prone than any other, owing to its relation to the mastoid cells, to inflammatory and purulent processes. It is rare for exostosis of the ear to have, as in this case, a layer of cartilage on the surface, although Toynbee refers to a case in which there was such a layer. Most cases, however, are characterised by ivory hardness throughout. Simple chondromata of the ear have not been frequently observed, although Gruber reports one case, and also another in which a chondroma became ossified. From the fact that bone usually develops out of cartilage we might have expected to meet with cartilaginous tumours in the ear more frequently.

As bearing upon the etiology of these bony growths in the canal of the ear, I may refer to the remarkable observations by Blake, of America, upon the crania of the mound builders of the Cumberland Valley in Tennessee, and of Seligman in regard to the crania of the Titicacas. Out of 195 crania of the mound builders examined by Blake, he found exostosis, in one or both canals, in 18 per cent., and these were mostly on the posterior walls. The most likely explanation of this remarkable prevalence is that these aboriginal inhabitants of America, living as they did on river banks, were probably frequently in the water, the irritation caused by the entrance of water being probably the exciting cause. In common with many other observers, I regard the entrance of water into the canal of the ear as a frequent cause of these exostoses. My friend Dr. Duncan, of Melbourne, informs me that aural exostoses are very common among the South Sea Islanders, who are great frequenters of the water. In a note Dr. Duncan remarks that "natives of the South Sea Islands are in many cases almost amphibious in their habits. They are notable divers, remaining under water for prolonged periods. Their ears are thus frequently full of sea water at varying degrees of temperature and pressure. The observations as to this frequency of aural exostosis include chiefly the Fijian and Hawaiian Islanders. Other groups of islanders have not yet been investigated." That the frequent entrance of water into the canal of the ear is an important factor in the causation of these growths is, I think, pretty clearly established.

The executors of the late Mr. R. A. Newbon have transferred to the trustees of the Great Northern Central Hospital £13,491 12s. 8d. Consolidated Stock (£15,000 less duty), being the amount of Consols bequeathed by him to endow a ward to be named the "Newbon Ward."

REPORTS OF SOCIETIES.

BRITISH GYNÆCOLOGICAL SOCIETY.

Thursday, June 9th, 1892.

Fancourt Barnes, M.D., M.R.C.P., Vice-President, in the Chair.

Dermoid Cysts.—Dr. Travers showed three specimens. They were filled with hair and sebaceous matter, and the operations were successful.

Anæsthetics in Gynæcology.—Dr. Dudley Buxton, in opening a discussion on this subject, said that gynæcological operations were peculiar in many respects. The operation of abdominal section might be of a simple nature, or of an unusual degree of severity, and this must be considered before choosing the anæsthetic. It was well known that abdominal sections were associated with considerable shock, mainly due to the manipulation of the abdominal viscera. This shock was often augmented by loss of blood. Chloroform as an anæsthetic for gynæcologists and obstetricians possessed unquestionable merits. Its portability was a feature in its favour, and no apparatus was required for its use. A placid anæsthesia was induced, which did not promote hæmorrhage. Respiration was not interfered with—an advantage in abdominal operations, where violent respiratory movements interfered with the operator. It was said by some to cause less sickness than ether. With regard to hæmorrhage, the difference between ether and chloroform was this: the latter did not increase hæmorrhage at the time of the operation, but it made it more likely to occur after it was over, when reaction took place. Ether promoted bleeding at the operation but not afterwards. Chloroform appeared to cause as much sickness as ether, and it certainly was a powerful heart depressant. It slowed the pulse and also the respiration. Ether was said to produce struggling, pulmonary trouble, nausea, vomiting, and mental distress from the method of administration. Renal complications were said to arise, and brittle arteries might give way. If gas were given first there was no struggling. Bronchitis rarely followed if ether was properly administered, while there was no danger from the slight nephritis that might occur. Dr. Buxton expressed his conviction that the objections to ether had mainly come into being through careless administration.—Mr. Brainé agreed with most of Dr. Buxton's remarks. He was strongly of opinion that when bronchitis or pneumonia followed the administration of ether they arose from careless exposure of the patient to cold air. The best rule to adopt with patients with brittle arteries was not to hold the patients, but let them struggle without restraint.—Mr. Wainewright preferred chloroform to ether. The latter often produced profuse sweating, and sometimes considerable tremor sufficient to interfere with the operation. Rigidity again was a troublesome concomitant.—Dr. Frederic Hewitt quoted Dr. Julliard's statistics of 839,000 anæsthetisations, which showed that death occurred five times more often with chloroform than with ether. In certain cases gas should not be given. Stout, middle-aged, florid women were bad subjects. A great deal depended on the ether used, and he found that there was much less mucus secreted, quieter respiration, and less sickness if it was made from pure ethyl alcohol. He preferred the Ormsby inhaler to Clover's apparatus. The passages in the latter were more narrow than the former, and the bag retained the products of respiration for a longer period. He agreed with Dr. Buxton that it was advisable to keep up a profound narcosis throughout abdominal operations.—Dr. Heywood Smith said he had used ether a great deal, and had never found it necessary to restrain the patient by mechanical means.—Dr. Schacht had given ether in 200 or more cases of abdominal section at the Chelsea Hospital for Women without any trouble arising. He was strongly of opinion that ether was the safest anæsthetic in the hands of an experienced operator.—Dr. Travers for fifteen years had used nothing but ether, and he considered it the safer drug.—Dr. Granville Bantock had a decided preference for chloroform, and was unable to agree with Dr. Buxton that ether was better. He had found that the breathing was quieter, and there was an absence of the lividity, straining, and profuse perspiration found under ether narcosis.

When cardiac disease was present with irregular action of the heart he had found that the pulse improved and became quiet and regular under chloroform.—The Chairman preferred chloroform to ether: the latter made the recti so rigid than in many cases the difficulty of operating was increased.—Dr. Dudley Buxton replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, June 22nd, 1892.

Joseph Bell, F.R.C.S.E., President, in the Chair.

Transfusion of Blood in Pernicious Anæmia.—Dr. Brakenridge read a paper on the treatment of pernicious anæmia by the transfusion of human blood. He had met with nine cases of this disease during the last few years. In every case the ordinary treatment by iron, arsenic, etc., was first fully tried. In four of the cases this treatment was successful, but in five it was deemed necessary to resort to the transfusion of human blood. The cases were about equally distributed as regards sex. The ages varied from 25 to 63. The red corpuscles in some of the cases had fallen to something like 500,000 per cubic millimetre, and the hæmoglobin to 20 or even 16 per cent. There were the usual concomitant symptoms of anæmia: pallor, lemon-yellow skin, dyspnœa, hæmic *bruits*, etc. When it was found that the patients failed to respond to the empirical treatment of anæmia, and the patient was progressively getting worse, transfusion was performed in every case by Dr. John Duncan. The number of transfusions varied from one to four, and the quantity of blood transfused from 2 to 6 ounces. In one of the cases acute miliary tuberculosis set in shortly after the first transfusion, and death followed in something like three weeks. In another case a rigor came on a few hours after the one transfusion; shortly after pain in the arm, swelling, and phlebitis followed. This was found to be due to impure distilled water, which was used as a solvent for the phosphate of soda used to keep the blood liquid. This patient had now recovered from the phlebitis, and his red corpuscles, which had fallen to some 600,000, now numbered 2,000,000; he would, if necessary, be again transfused. Of the three others, marked improvement at once set in after the first and each subsequent transfusion. In some of the cases the red cells had risen to the normal number, and the patients were now practically well. Dr. Brakenridge urged that transfusion must now be considered not only a legitimate, but an obligatory line of treatment.—Dr. Affleck showed a case of a man over 60, whose red cells had fallen to 500,000, and hæmoglobin to under 20 per cent. His condition was urgent: great dyspnœa, pallor, teeth loose in sockets, etc. Transfusion was at once done, and in a comparatively few weeks the number of red corpuscles had risen to about the normal, and the man seemed perfectly well and fit for his ordinary work.—Dr. John Duncan followed with some remarks on the operation of transfusion. Phosphate of soda in distilled water was used to prevent coagulation. The strength varied from 3½ to 10 per cent. The latter was too strong. Hereafter it would be well to use a solution of phosphate of soda of a specific gravity about equal to that of the blood of the patient on whom transfusion was to be performed. The important points in the operation were watchfulness of symptoms, pulse, respiration, temperature. Further, the operation had to be done extremely slowly, inasmuch as giddiness, faintness, pain in the back, pains in the limbs sometimes followed and disappeared if the operation were discontinued or done more slowly. The quantity transfused varied from 2 to 10 ounces. Great tact and patience were required. The distilled water used as a solvent for the phosphate of soda should be boiled several times, and ought to be perfectly clear. The operation seemed to be perfectly safe. Dr. Duncan thought it was well not merely to inject the blood serum, but also the corpuscles.—Dr. James thought that serum alone might be tried as a transfusing agent. He suggested that the pernicious anæmia might be due to some ptomaines in the blood, and that what was wanted was merely some additional nourishment to help the blood to allow these time and pabulum to follow their normal evolution.—Dr. William Russell expressed the opinion that pernicious anæmia was more due to destruction of red corpuscles than to deficient formation of these.—Dr. Brakenridge indicated that he was inclined to think that both factors were at work, and attached more significance to deficient genesis than was usually done.—Dr. Muir concurred in Dr. Russell's view.—Dr. Smart thought evidence of the destruction of red corpuscles, and therefore evidence of the onset of pernicious anæmia, might at an early period be found by careful examination, microscopical and chemical, of the urine. Some other speakers suggested that it might be sufficient to transfuse blood serum as against the view of Dr. John Duncan, who believed in transfusing all the elements of human blood.—Dr. Brakenridge thanked the members for the way in which his paper had been received.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

Monday, May 23rd, 1892.

Sir William Turner, F.R.S., President, in the Chair.

New Members.—Messrs. T. H. Openshaw, M. S. E. Cotterell, F.R.C.S., and A. A. Kanthack, M.B., were elected members of the Society.

Next Meeting.—It was resolved that the next meeting of the Society be held in Edinburgh, on Tuesday, August 2nd, one day prior to the meeting of the British Association for the Advancement of Science in that city.

Specimens.—The following specimens were shown:—Mr. T. E. Lane: A Right Subclavian Artery, passing with the Vein anterior to the Scalenus Anticus.—Mr. T. Bland Sutton: (1) Sections of the Velvet from Stag's Antlers showing Sebaceous Glands; (2) Articulation between the Astragalus and Cuboid Bones.—Dr. A. W. Hughes: Abnormal Obturator and Deep Epigastric Arteries arising from the Profunda Femoris.—Mr. A. S. Grünbaum: Specimens illustrative of the Embryonic Relations of the Femur and Fibula.

Delimitation of Abdominal Regions.—Professor W. Anderson read a paper entitled "A Plea for Uniformity in the Delimitation of the Regions of the Abdomen," which evoked considerable discussion. The matter was referred to a committee consisting of Professor Anderson, Professor Macalister, Professor Cunningham, Dr. Symington, Professor Thane, and the Honorary Secretary, to report to the Society as to the best method for general adoption.

Relations of the Peritoneum to the Descending Colon.—Dr. Symington read a paper on the relations of the peritoneum to the descending colon in the human subject. An exhaustive consideration of published views on this subject was made; and Dr. Symington then gave the results of his own investigations on sections of fœtuses and adults, which tended to show that the frequency of occurrence of a descending mesocolon had been greatly exaggerated. In his opinion the methods adopted for the investigation of the peritoneal relations of the gut had been unsatisfactory, and in some cases had tended to develop a mesentery when it did not exist naturally.—These views were concurred in during a discussion, in which the President, Professor Anderson, and Professor Thane took part; the importance of the degree of distension of the gut at the time of examination being especially dwelt upon.

The Suprarenal Capsules.—Dr. Rolleston communicated a paper on some points in the anatomy of the suprarenal capsules, illustrating his views by preparations and sections for the microscope.

Racial Variation in the Length of the Palate Process of the Maxilla.—Mr. A. Eichholz read a paper on this subject. The results of the measurements showed that the length in the so-called higher races was less than that in the lower races, the variation being gradational. Variations in width, on the other hand, were rather to be regarded as minor fluctuations of a common mean value. It was found, however, that the relative measurements of length and width in the higher races were somewhat the more constant. It was also noted that the higher the race the less steep was the typical palate curve.

Topography of the Rectum.—Mr. R. M. Michell communicated a note on this subject, in which he put forward as the result of the examination of 116 bodies the view that the completeness of the mesorectum to the first part of the gut varied with the amount of distension, as did also the extent to which the bowel crossed to the right side of the pelvis.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

Friday, May 20th, 1892.

Sir W. Stokes in the Chair.

Trephining in Cerebral Meningitis.—Mr. M'Ardle read a paper entitled trephining in cerebral meningitis.—Mr. Tobin referred to a case somewhat similar to that of Mr. M'Ardle's, in which he got a successful result after trephining and draining away a quantity of serum underlying the dura mater, and gave it as his opinion that tuberculous meningitis might, in a considerable number of cases, be successfully treated if they were freely drained at an early stage.—After some remarks from Mr. J. H. Scott, Mr. M'Ardle said he was sorry that he could not elicit an explanation of the change of pulse noted by Mr. Patterson. The speaker's opinion was that the working of the trephine stimulated those centres which the pressure of the fluid prevented from action without strong stimulation. In reply to Mr. Scott, he said he used mercury in this case, because in very many non-syphilitic inflammations, meningeal and otherwise, great benefit resulted. He would not operate on cases in which the meningeal trouble was secondary to some rapidly-progressing fatal affection, or in chronic alcoholism, where fibroid degeneration of important organs was present.

Electrolysis in Affections of the Male Urethra.—Dr. Pearson read a paper on the uses of electrolysis in affections of the male urethra. He described the apparatus required for its employment, and the method of employing it in cases of gleet, stricture, etc. He gave a history of seven cases subjected to electrolytic treatment.—Sir William Stokes could not endorse what had fallen from the author in reference to the permanence of the cure of stricture by electrolysis. In fact, after no method of treatment could it be honestly said that a cure had been effected, and in his experience a return was just as likely to occur as after the treatment by internal or external division or gradual dilatation. In the treatment of gleet, Dr. Pearson's experience should stimulate surgeons to give it a full trial.—Mr. Thomson said he had used the method described by Dr. Pearson in gleet with success. But his experience in stricture was not satisfactory, and he had not pursued the treatment. The question was really, Was stricture of the urethra curable? He (Mr. Thomson) had never seen a case where, no matter what method was adopted, he was able to say to a patient, You are cured—that was, that the person could go on without the periodical use of a bougie. He had never met anyone who claimed such a result. Was it attainable by electrolysis? If it was, they ought all to adopt this plan, but until such a claim could be substantiated he did not think that electrolysis had any advantage over some of the simpler methods.—Mr. Swan said he did not believe in the permanent cure of stricture by electrolysis, any more than he believed in the same result by Holt's method, by gradual dilatation, or by any form of urethrotomy. Only last month he had used Maisonneuve's instrument on a gentleman, the possessor of a tight stricture, who had been cured for a time by electrolysis.—Mr. M'Ardle said the only experience he had of the treatment was that he was obliged to use Maisonneuve very frequently on cases of so-called cures by electricity. As to the good effect of the application of the electric current to patches of granular urethritis and small patches of ulceration there could be no doubt; and if large leaden electrodes, carefully guarded, were used, the healing would be more rapid.—Mr. Tobin said the question of the permanent cure of stricture by electrolysis resolved itself into this—Could electrolysis cause the disappearance of cicatricial tissue? His opinion was that it could not.

The London School of Medicine for Women.—The Duchess of Bedford gave away the prizes at the annual meeting of the London School of Medicine for Women, and a most cheerful and congratulatory report was presented on the existing state of things. Upwards of 130 pupils are in attendance in the classes; and a list was read of high honours taken at final examinations in London, Dublin, and elsewhere, including a gold medal for midwifery at the University of London. Subscriptions and donations to the extent of £5,000 were announced towards a new building.

REVIEWS.

Textbook of the Principles and Practice of Medicine. By the late Charles Hilton Fagge, M.D., and Philip Henry Pye-Smith, M.D., F.R.S. Third Edition. Vols. I and II. London: J. and A. Churchill.

This well-known work has attained a degree of popularity which places it in the front rank of textbooks. Dr. Pye-Smith took advantage of the appearance of a second edition to make many improvements, and the demand for a third has enabled him to bring the text up to date, and to increase the polish of the work. The most considerable changes have been made in the chapters on Diseases of the Heart, but extensive alterations have been made also in those on Diseases of the Nervous System. The book has, in fact, been revised throughout, with the result that it is more compact than formerly, and more evenly balanced. It is superfluous to praise the general scope and performance, the more so that when the original edition appeared we were among the first to recognise and describe its peculiar merits. A good deal has been done to increase the literary excellence of the book, and in this edition Dr. Pye-Smith has allowed himself the luxury of mottoes for each chapter. Some of these are very appropriate. For instance, we find at the head of the chapter on Diseases of the Pleura a line from the *Tempest*,

> Side stitches that shall pen thy breath up.

For intestinal obstruction Horace is made to supply an appropriate motto:

> Horae
> Momento cita mors venit aut victoria laeta.

Dryden appears to have had an inkling of the pathological relationship of two diseases not generally recognised to be related until quite recently when he wrote:

> The throttling quinsey 'tis my star appoints,
> And rheumatisms descend to rack my joints.

The clinical observation is, in fact, more accurate than the rhythm. But perhaps the best quotation is that prefixed to the chapter on Functional Disorders of the Kidney—the Page's reply to Falstaff, who had sent him to a "water doctor." "He said, Sir, the water itself was a good healthy water, but, for the party that owned it, he might have more diseases than he knew for."

Some addition to the amount of space devoted to treatment has been made, but there still seems to be room for a further increase in this direction. The difficulty of finding room for fresh matter without unduly adding to the bulk of a work which already extends to two portly volumes and yet not to omit much which has given to it a special character is no doubt great, and anything which would seriously alter the peculiar qualities of the book as a handbook for students and practitioners who desire to make or renew acquaintance with the teachings of the English school of pathology as applied to clinical medicine would undoubtedly diminish its value.

The Reform of our Voluntary Medical Charities. By Robert Reid Rentoul, M.D. London: Baillière, Tindall, and Cox.

It is perhaps scarcely fair to criticise this work from a literary point of view. Dr. Rentoul assures us that he is a busy man, and we know that authors are men of leisure; but he would have saved trouble to himself as well as to his readers if he had adopted some arrangement of his matter, and had omitted discussion of irrelevant topics. It was surely unnecessary to introduce, in illustration of the truism that hospitals do not touch the ultimate causes of disease, a long disquisition on venereal complaints. Again Dr. Rentoul sometimes defeats his purpose by becoming unintelligible. Here are two consecutive sentences. "It (the provident system) can be placed on a firm financial basis. I would say the provident system cannot be self-supporting." Even a busy man is expected to be accurate in his use of numerical tables, but we fail entirely to comprehend by what system of addition the figures contained in the table on pp. 76 and 77 the total 1,796 is obtained, and we learn for the first time from the same table that "childbirth" is a zymotic disease.

The book contains no index, but the patient reader will be

rewarded by finding that though Dr. Rentoul often mistakes the utterances of public men for evidence, he has succeeded in referring to many of the abuses to which attention has already been drawn in other quarters. We cannot, however, say that the perspective in which the various grievances which he enumerates present themselves to his eye is faultless. There are three different points of view from which our present hospital system may be criticised—those of scientific advancement, of the effect produced upon the character of the poor, and of the interest of the medical practitioner respectively. Dr. Rentoul does not keep these points of view distinct. The first and third especially he is apt to confuse. It cannot be denied that special hospitals have before now been instituted by persons desirous of advertising their own attainments. Dr. Rentoul, however, would like to prohibit the most distinguished surgeons and physicians from holding appointments at more than one institution, and would limit their tenure of office to a very short period. It may be doubted whether such a change would promote science.

The appointment grievance is not the only one aired in the volume before us, but we must turn from these smaller matters to the larger question of the inefficiency of treatment and the pauperisation of the poor caused by the indiscriminate—for the most part gratuitous—administration of medical relief. That the method on which, at present, the out-patient department of the large hospitals is conducted collects a larger number of patients than can be satisfactorily treated is generally admitted, nor can we doubt that the free provision of medical advice and medicine to persons who can, or who could, by proper organisation, pay a reasonable price for it, tends to undermine self-dependence, and induce reliance on charity for the provision of other necessaries of life. No sifting of patients by any system of subscribers' letters is satisfactory, for the obvious reason that the subscriber cannot judge the relative claims of two applicants on medical grounds; nor is he, we might add, as a rule, in a position to guarantee the patient's pecuniary inability. Whether the subscribers' letter is retained as a form or not, the regulation of admissions must rest with the professional staff; and the suitability of applicants for gratuitous treatment can (so long as the out-patient department exists) be effectively checked only by a competent inquiry machinery under their own control, or by some intelligent agency of their own selection. Many remedies are proposed or discussed (for the suggestions are for the most part not new) by Dr. Rentoul.

The advantages of some of these are obvious. The adoption of a uniform system of inquiry into the pecuniary circumstances of all applicants for treatment, the exclusion from voluntary medical charity of those in receipt of Poor-law medical relief, coupled with an improved administration of the Poor-law dispensaries; the opening of all Poor-law infirmaries for clinical instruction; the formation of local voluntary medical boards—these call for no discussion. The suggestion for the institution of a public medical service of England to provide treatment at fixed rates for patients above the charity "wage limit," but unable to pay the usual medical fees, was reported against by the Medical Charities Committee of the British Medical Association in 1890, but it might perhaps be tried as an experiment.

The most radical proposition is the subordination of the voluntary hospitals to a department of the Local Government Board having powers to fix the limits of relief, and to recover expenses improperly incurred. Every man with a scheme would like to see it enforced by a central body with compulsory powers; but the reformer must first convert public opinion, and then perhaps he will find compulsion less necessary than it appeared at first.

If the history of our medical institutions were a *tabula rasa*, if there were no professional traditions or interests and no popular prejudices, and if all the poor were wise, it would be easy to sketch out a scheme of medical charity which would avoid the present abuses and would work well—at least on paper. All who could afford to pay for medical treatment would do so, the poorer members of the middle class forming mutual societies for insurance against exceptionally heavy expenses. Patients who could pay the cost of their maintenance might be admitted to the voluntary hospitals. All the wage-earning classes—except, perhaps, the very poorest—would belong to provident dispensaries, which, if the competition of the free medical charities were removed, would be self-supporting. All dispensary members requiring specially skilled in- or out-treatment would be sent to the hospitals at the cost of their own dispensary. All who belonged to no provident dispensary and were unable to pay for hospital treatment—except, of course, cases of urgency—would be compelled to go in the first instance for treatment to the Poor-law dispensaries and infirmaries. The latter as well as the hospitals would be thrown open for clinical instruction; and all Poor-law dispensary or infirmary cases which required special treatment or presented features of scientific interest would be transferred to the hospitals, the Poor-law authorities contributing for each case so transferred the sum which would have been the cost of the case if left on their hands. Under this scheme science would have a larger net with which to catch interesting cases, though its meshes would be such as to allow the small fry to escape; the strain on the hospitals would be immensely relieved; and their pauperising effects reduced to a minimum.

The sketch we have drawn is Utopian; but if we wish to work in the direction indicated, it is not by seeking compulsory powers that we shall succeed. We must begin by winning over the medical profession as a whole to practical adhesion to our views. When we have done this, we need not anticipate any great difficulty in persuading the Legislature and the Local Government Board to make the requisite changes in the Poor-law institutions.

ESSENTIALS OF PHYSICS. By F. J. BROCKWAY, M.D., Assistant Demonstrator of Anatomy at the College of Physicians and Surgeons, New York. Philadelphia: W. B. Saunders. 1892.

THIS volume, which is intended as a manual of physics for the exclusive use of medical students, will certainly prove extremely useful to many who do not desire to proceed to the study of medicine, and for this reason—the knowledge of physics which is generally required of students of medicine does not comprise any special portions of the science, but rather a general acquaintance with those fundamental principles on which the whole structure of physical science rests. This volume is characterised by the exclusion of more special deductions and minutiæ, and is thus adapted as an introduction to the science for all classes of students.

The subject-matter is arranged throughout in the form of question and answer. This method is certainly open to objection, if only on the score of excessive subdivision. The phenomena which are adduced to explain one question can in nearly all cases be brought to explain other and often remote questions, and the limitation of one experiment to explain one point is apt to produce the impression that this and only this point is elucidated by the particular experiment. The best method of experimental teaching is to repeat often a few experiments, enlarging on the inferences at each repetition—a method which is in principle the precise opposite of the method of teaching here adopted. Apart from this drawback the book is well adapted to the purpose for which it is intended, and by those so inclined may be read, with the occasional interposition of a connecting phrase, continuously, the questions being entirely omitted. Having been read in this manner it might be revised with the inclusion of the questions, and a firmer impression of the main facts thus made.

The work is divided into four books, each after the first, which deals with the general principles of matter, being devoted to a particular branch of the science. In this way heat, light, sound, and finally electricity and magnetism, are successively dealt with. There is little that can be new, and small scope for originality in writing a book of this kind. The chief difficulties met with in its compilation would be matters of inclusion or exclusion, and in methods of explaining there is little that can be improved upon, most of the commoner phenomena of elementary physics having acquired well-known descriptive phrases. With regard to matter excluded, there is rather too little mathematical work to be found in the book. Ability to work out problems in this science is the most certain test of a thorough comprehension, and with this end in view collections of examples might conveniently be added.

The book is well illustrated, most of the plates being taken from Ganot's well-known textbook, and, indeed, the whole book might be described as an arrangement in the form of question and answer of the subject-matter of this work.

GYNÉCOLOGIE: SÉMÉIOLOGIE GÉNITALE (Encyclopédie Scientifique des Aide-Mémoire). Par A. AUVARD, Accoucheur des Hôpitaux. Paris: G. Masson, Gauthier, Villars et Fils.

THE plan of this work is to take the different symptoms which may be produced by disease of the female generative organs, to place before the student concisely the different conditions which may cause each symptom, and to tell him the important signs by which he may identify the conditions spoken of. A book on these lines, if thorough, complete, and accurate, would be a most valuable one for the practitioner. It would be also one which would tax to the utmost the powers of the most experienced and learned specialist to produce—one which if well done would be a great achievement.

The little book before us has the merits of conciseness and clearness, and in some parts it is complete and well arranged. But it is unequal; though some parts are good, others are poor. The enumeration of the possible causes of symptoms is very full, but the directions as to diagnosis are scanty and incomplete, and sometimes not given at all.

It is undoubtedly the fact that occasionally patients with uterine disease come to the doctor with complaints referred to remote parts, and the true diagnosis is only made after an examination which at first sight appeared unnecessary. But these cases are very rare, and the disrepute into which a medical man may fall from not insisting on local examination in a case not presenting local symptoms, is a small thing in comparison with the mischief he may do by wrongly attributing nervous ailments to trifling changes in the pelvic organs. The chapters on extragenital troubles in Dr. AUVARD'S book seems to us not as plain in warning the student against the latter mistake as they might be; indeed, they might lead an unthinking reader into it. In spite of its incompleteness, however, the book is a good and useful one.

NOTES ON BOOKS.

De la Climatologie des Eaux-Bonnes. Par le Dr. MARCELLIN CAZAUX, Médecin Consultant aux Eaux-Bonnes. (Paris: Octave Doin.)—In this pamphlet the author states some well-known facts about the climate of stations in the Pyrenees of the altitude of Eaux-Bonnes—namely, about 2,300 feet: a somewhat large rainfall, a considerable degree of humidity, and a good deal of cloud. Eaux-Bonnes, from its situation in a gorge, protected by high mountains from the prevailing winds, enjoys great stillness of atmosphere; a climate which proves soothing to a certain class of *poitrinaires* and aids the action of its warm sulphur springs. Much of the pamphlet is occupied by a lengthy repetition of well-known climatological generalities.

Nursing and Hygiene. By R. LAWTON ROBERTS, M.D. Second Edition. (London: H. K. Lewis.)—This is a companion book to the author's *Illustrated Ambulance Lectures*, and it embraces the subjects required for the advanced or nursing course of the St. John Ambulance Association. There is little that is original in these lectures, but Dr. Roberts has gone to good sources for his hygienic details, and has selected the information on nursing from the writings of experienced persons. The chapter on Ventilation and that on Food are both very good and complete. The description of appliances used in nursing is made more useful and interesting by the numerous illustrations, which add much to the value of the book. There are surely many more simple and more efficient expedients for keeping the bedclothes from touching tender parts than by the use of corkscrews, as advocated by Dr. Cosgrave and repeated in this and similar books on nursing. In the poorer houses where a cradle cannot be provided it is unlikely that "two or more corkscrews" could be spared. In the chapter on the Infectious Fevers some useful tables are introduced. That which gives the important characteristics of the chief infectious fevers might be rendered more complete by adding a column for the "duration of infectiveness" in each disease. Some extracts from the sanitary laws form an important addition to this chapter. The use of baths of various kinds in the treatment of sickness receives very full consideration, and due attention is devoted to the observation of symptoms. The principles of roller bandaging are described shortly, the author wisely considering that bandaging can only be taught by demonstration and learned by practice. A good index completes a very useful volume, which may be recommended to all who wish to be of use in the sick room.

Land: Its Attractions and Riches. (London: Dowsett and Co.)—This well conceived and interesting volume deals with land, its attractions, amenities, and resources as an investment, and from a social point of view, with great variety, in a very practical way. It is divided into ninety-three chapters, contributed by upwards of fifty well-known authors. We are less concerned with the financial aspects of the question than with its hygienic relations. None can doubt the healthiness of country life, and the vast importance of preventing the migration from country to town, which is one of the great drawbacks of modern commercial progress. A country estate is a luxury to which few medical men can aspire; but so many are interested in country life and so many are cognisant of the pleasure of the study of natural history, botany, forestry, and geology, and of the breeding and the rearing of stock that this book is likely to find many interested readers among them, as well as the general public. It has been written with a special business object, but is none the less eminently readable and instructive.

Guide to the Administration of Anæsthetics. By Henry Davis, M.R.C.S. Second Edition. (London: H. K. Lewis).—Mr. Davis has been called upon to prepare a second edition of his small book on a large subject. We cannot recognise the value of such books, but we readily give the author all credit for his endeavour to cramp the essentials of his subjects into a very small space. The are some additions, notably a chapter upon the relative safety of anæsthetics. The book is pleasantly written and accurate on practical points; but the illustrations and descriptions of apparatus are open to objection on the score of antiquity and want of perspicuity.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

PEPTONIC TABLOIDS.

THESE peptonic tabloids are prepared by Messrs. Burroughs, Wellcome and Co., Snow Hill Buildings, London, E.C. Each tabloid consists of an inner kernel of pancreatin and calcium lactophosphate coated with keratine; upon this is a layer of pepsine, the whole being coated with white sugar. The outer layer is intended to dissolve in the stomach, but the keratine coating is not affected until the tabloid reaches the duodenum, where the pancreatine is set at liberty. We find that the outer portion is quickly removed by water at 100° F., acidulated with hydrochloric acid, and the inner one by alkaline water. The liquids obtained from these gave satisfactory evidence of peptonising power. We consider that the manufacturers have succeeded in preparing a compressed form of pepsin and pancreatin, which undoubtedly allows of these ferments to be liberated at the parts of the intestinal canal where they can act.

"CONCENTRATED" COCOA.

WE have analysed a sample of "Fry's Pure Concentrated Cocoa" and find it to be a cocoa extract powder free from adulteration and of excellent quality. It is easily and rapidly miscible with boiling water and possesses a pleasant aroma and taste. It is manufactured by Messrs. J. S. Fry and Sons, Bristol and London.

MAIZE BREAD.

WE have received from Mr. Gilbert Sutherland, of the "National Food Reform Society," (New Cross, London, S.E.), some samples of bread made with malted maize. The loaves are stated to contain 25 per cent. of malted maize, and to possess the property of keeping moist for a considerable time. The results of our examinations are quite compatible with these claims. The presence of the maize is easily recognised. The samples examined by us were free from adulterants, were well baked, and of very good texture and quality. They remained moist and fresh for a markedly longer period than ordinary bread. No doubt, as stated by Mr. Sutherland, the "maize-bread" submitted by him, marks a new departure in baking. It is, of course, necessary that the bread should always be sold under this particular name.

VICTORIAN VINEYARDS BRANDY.

THE difficulty of obtaining pure and genuine brandy, except at very high prices is well known; and an endeavour on the part of Australian distillers to place on the English market a good brandy made from wine, is deserving of every encouragement. We have examined some samples of "The Victorian Vineyards Brandy," shipped from the distilleries of Messrs. Joshua Brothers, of Port Melbourne. It is a very palatable brandy of undoubtedly high quality, and compares very favourably with real Cognac. The strength of the samples examined by us was rather above 3 over proof; this being the customary strength of all brandies imported in bulk into this country. We consider that the brandy is a pure product and well worthy of the attention of the profession. The London Agents are Messrs. Howes, Edwards, and Sons, 27, Mincing Lane, E.C.

MOSQUERA'S BEEF JELLY.

From the results of the analyses which we have made of the specimens of this preparation which have been sent to us, we are of opinion that it is an unusually well-manufactured article of its class. It is made from lean meat, which has been treated with a vegetable ferment, with the result that it contains a high percentage of peptones. It is claimed that it is, in consequence, easily assimilated, and that it possesses all the desirable features of ordinary beef extracts with the further advantage that it is a concentrated nutrient. We regard these claims as reasonable and justifiable. It has a pleasant taste and flavour, and is free from objectionable preservatives. We notice with pleasure that the preparation is only recommended to be used under professional advice. It is to be obtained from Messrs. Parke, Davis, and Co., Detroit; and 44, Holborn Viaduct, E.C.

CONCENTRATED BEEF OR AUSTRALIAN PEMMICAN.

THIS is a meat food preserved by drying and concentration. It is the invention of, and is prepared by, Dr. Bancroft, of Brisbane, Australia. We consider that it is an excellent preparation. It is free from objectionable preservatives, and may, in consequence of the method of manufacture adopted, be kept unchanged. The concentrated beef may be eaten without further preparation with bread or biscuit, while soup, potted meat, and beef tea can be readily made from it. It is stated to have been used for many months in the Brisbane Hospital.

The results of our examination further show that the food consists of flesh with a very small percentage of moisture and a fairly high proportion of fat, and that it is free from all adulterants. It can be obtained from Mr. James Gray, 116, Queen Victoria Street, E.C.

PURE PEPSINE AND PURE PEPSINE TABLETS.

WE have examined samples of Messrs. Armour and Co.'s powdered pepsine and pure pepsine tablets, which contain three grains of the powdered pepsine. We think very highly of these preparations, and can thorougly recommend them. The proprietors claim for their powdered pepsine that it is an absolutely permanent pepsine, free from foreign odour and taste, that it is non-hygroscopic, that it is free from adulteration, and that its digestive power is 2,500 times its weight, or, to put it differently, that one grain will completely dissolve 2,500 grains of coagulated albumen in six hours at a constant temperature of 104° F. under proper conditions, namely, in presence of a sufficiency of water acidulated with from 0.2 to 0.3 per cent. of hydrochloric acid, with frequent agitation.

As the result of our examination and experiments, we are able to state that the claims made are fully justified. The production of a pepsine of the kind is no doubt due to the facilities possessed by the manufacturers, whose industry is well known to be carried out upon a very large scale.

The pepsine tablets are well made, and afford a convenient means of administration. Messrs. Armour's London address is 59, Tooley Street, E.C.

CARNINE SYRUP.

THIS preparation is made by mixing sugar with the juice expressed from raw meat by hydraulic pressure. It is claimed that this method of preservation is free from objection, and where the use of sugar is not objected to, there can be no doubt that it is more satisfactory than to make use of active antiseptics or so-called "chemical preservatives." The proprietors, Messrs. J. H. Niemann and Co., 12, Major Street, Manchester, claim that the liquid is free from "drugs," and point out the objections to the use of foods containing preservatives of the kind alluded to, by invalids and children. The results of our analysis bear out the statements made as to the composition of the preparation; it is a well-prepared raw-meat extract containing a considerable amount of sugar, and free from drugs; in fact, a nutritious and palatable sweetmeat. It will, we think, be found to be a highly valuable article.

TABLETS OF PANCREATINE AND SODIUM BICARBONATE.

THESE tablets are intended for peptonising milk and other foods for infants and invalids. The makers claim that they contain 2½ grains of Armour's pancreatine and 8 grains of sodium bicarbonate, the object of the latter being to produce the alkaline condition in which pancreatine acts at its best. Our results show that the composition is as stated. Two processes are suggested by the makers for peptonising with the tablets; a "cold" process, and a "quick" process, which when applied to milk we have found to work very satisfactorily. In the "quick" process the milk is kept at a temperature of about 105° F. The tablets will be found both reliable and convenient. They are manufactured by Messrs. Armour and Co., of Chicago, and 59, Tooley Street, London, E.C.

EUCALYPTUS SOAP.

MESSRS. CURTIS AND CO., of Baker Street, London, have prepared this soap with the oil of eucalyptus globulus. This is one of the most agreeable and efficient of deodorising agents, and has the advantage of being of the character of a perfume as well as a deodoriser.

NEW AURAL SOUND REFLECTOR.

MANY deaf persons labouring under chronic and incurable disorders of the middle ear are compelled to augment the sensibility of the damaged organ by artificially increasing the size and altering the direction of the pinna, and it often becomes an important matter for them to determine what is the best reflector for directing the sonorous vibrations towards the entrance of the auditory passage. In advanced disorders of the internal ear, attended with atrophic changes in the auditory nerve, it is useless to suggest any kind of mechanical contrivance, although occasionally the elastic tube is of some service. With other persons, labouring under mixed forms of deafness due to changes in both the conducting and the receiving structures of the organ, the use of some form of trumpet renders near conversation possible when the open end of the instrument is directed towards the speaker. Many patients, however, complain of the fatigue of holding up the trumpet for any length of time. Cases of chronic deafness of less severity, due mainly to middle ear disease, in which conversation is difficult at about 3 or 4 feet and the hearing power deficient in a public assembly, often derive great assistance by using a plain metallic reflector. The surface of the plate is 5 inches in length and 5½ inches in breadth, and with a little practice the patient can easily hold it in the best position for increasing the sensibility of the ear. I have now tested the efficiency of the contrivance in many cases, and the results have been very satisfactory. The sound reflector can be obtained from Messrs. Maw, Son, and Thompson, of

London, or of Messrs. Knight and Lee, of Portsmouth, at a very moderate price. Recently I have had it made in a portable form, consisting of a series of narrow plates, which can be slipped into a case when not in use.



The engraving represents the instrument, and also the method of unfolding it. It must first of all be drawn out of the case completely, and then opened with both hands. For the convenience of carriage, and for the purpose of holding it up to the ear by the aid of a long handle without any fatigue, it can be obtained attached to an umbrella or walking stick.

JOHN WARD COUSINS, M.D.Lond., F.R.C.S.,
Senior Surgeon to the Royal Portsmouth Hospital and the Portsmouth and South Hants Eye and Ear Infirmary.

SPHYGMOGRAPHIC PENS.

MOST persons who have used a Dudgeon's sphygmograph must have anathematised the preparation of smoked paper and the subsequent varnishing of the tracing thereby entailed. It is not a question of time merely, but the necessity of carrying more or less cumbersome accessories in pockets already overloaded. To avoid these difficulties I applied to a firm of sphygmograph makers with the request that they would make a pen similar to those used in recording barometers and in the larger sphygmographs. I was told that the conditions were very different and that one well known sphygmographist had spent a considerable sum in fruitless experiments. Being thus thrown on my own resources, I replaced the style of a Dudgeon's sphygmograph by a capillary glass tube filled with ink, but found the ink flowed too readily or sometimes did not flow at all. To obviate this I made a small hole in the tube near the writing end, and passed a piece of cotton as large as the tube would contain, downwards over the edge of the tube, then upwards to its starting point, where the two ends of the thread were tied together. There was now a thread of cotton about one-tenth of an inch in length inside the tube, and a similar piece outside. When the pen was in position the tube was separated from the paper by the cotton turned over the edge of the tube. The cotton constituted the writing point and was kept moist by the ink contained in the tube. I had pens made after this model in gold and aluminum, and so far have found gold, in spite of its greater relative density, the better metal to work with. These pens travel easily over the paper and make a good tracing, they are filled by capillarity at the open end, and this requires some little skill when the sphygmograph is in position upon the pulse, and therefore I have adopted the following modification.

To the end of the ordinary style is attached a small conical cup about one-tenth of an inch in diameter and the same height. Its apex is perforated and threaded with cotton, so that the perforation is obscured by the thread, the two ends of which are tied together, and the knot pushed into the cup. The cotton thread projecting from the apex of the cup rests upon the paper which takes the tracing. The pen may be charged with any kind of ink, a drop being conveyed to it on a loop of wire or on an ordinary pen. Methylene blue in 2 per cent. solution, such as is used for staining purposes, answers well, or a little solid dye may be placed in a cup and water used; indeed, after using the solution mentioned above a half-dozen tracings may be taken with water alone, so persistent is the tinctorial power of this dye. The instrument is thus always ready. If a strong ink is used, copies of the tracings may be obtained at any time from a jellygraph.

The character of the tracings obtained with these pens differs but little from those taken on smoked paper. I think they are truer, as there is less jerk; but with a feeble pulse there is more difficulty in getting a tracing. An alcoholic ink writes more freely than an aqueous ink. The strips of paper may be fed one after the other without any break until the spring of the sphygmograph runs down, or strips of any length may be carefully drawn through, but of course in this case lose much of their significance. I find the spring of my sphygmograph runs fairly well over a minute, and carries through a strip about a yard long, so that the characters of an irregular pulse can be well shown.

With very little modification the same kind of pen may be adapted to the myograph and similar instruments. Mr. Austin, watchmaker, High Street, St. John's Wood, satisfactorily carried out my instructions, and I have no doubt either he or Messrs. Maw, Son, and Thompson would be pleased to fit this kind of pen to any instrument.

South Hampstead. W. H. SYMONS.

THE REGISTRATION OF MIDWIVES.

THE House of Commons Committee appointed to consider the Midwives Registration Bill held a meeting on Friday, June 17th, Mr. FELL PEASE presiding.

Dr. DANFORD THOMAS stated that during the fifteen years he had been in practice he had been acquainted with three classes of women who attended other women in labour. First, there was the small class called certified midwives with various certificates, some from hospitals, some from the Obstetrical Society, and others from doctors. All of those called themselves certificated midwives. There was a second class, who were less educated and generally ignorant, and they were the more numerous. They were uncertificated, and acquired their knowledge by attending women in labour. The third class were elderly women with little or no knowledge, who might almost be called nurses, but who had occasionally practised among the poor. The poorer portion of the community engaged those midwives, who were very seldom employed by the middle or upper classes. The first class were fairly well educated, and he believed they supplied a want felt by the poor. He did not think they in any way interfered with the medical practitioners; and he believed their number would always be limited, and that there was little ground for the fear that they would injuriously affect the profession. If midwives were educated and registered, there would be but a limited number of them, and that limited number would be of advantage to the community. The poor among whom the midwives practised did not distinguish between the educated and uneducated, and the consequence was that many of them suffered from the midwives' want of education. He had during the last ten years held half-a-dozen inquests upon women or children whose deaths had resulted from the ignorance of the midwives. The ignorant midwife acted under the superstition that all would be right, whereas the educated one would in dangerous cases send for a medical man. He knew of the case of an infant's death caused because the so-called midwife was not able to tie the cord properly. If there were first proper training for the midwives, and then examination and registration, it would all be to the advantage of the community. The medical profession had nothing whatever to fear from those ladies, as under any circumstances they would be extremely limited in number.

The CHAIRMAN: As a professional man, have you met with many cases of injury to women by midwives?—No; not of injury, but of great ignorance. In support thereof, the witness instanced the case of a midwife instructed by the doctor to use a syringe three times a day. Although promising to comply, she did not, and afterwards confessed she had never used one in her life. Asked if he had held inquests upon many children whose deaths were believed to be due to ignorant midwives, Dr. THOMAS replied that he had. In one remarkable case there was a midwife of doubtful character who was frequently certifying stillborn children. Inquiries were made, and she moved from district to district, and at last was lost sight of. It led to the belief that she either allowed them to die, or took other means to cause their death. As to the training of midwives, he considered that three months at a hospital was by no means sufficiently long. They should be required to attend a larger number of cases than now.

In answer to Mr. RATHBONE, the WITNESS said that the examina-

tion for midwives should be as uniform as possible throughout the country. Whether called registration or not, there should be some means of keeping a record of the midwives, so that they might be known, and, if necessary, their names be removed from the register. He believed the poor, when they learned to distinguish between them, would prefer the educated midwife. The members of the medical profession would have no objection to them. He saw sometimes thirty or forty of them in a week, and he had conversed with them on the subject, and had not heard of any reasonable objection in London. He did not know anything about the provinces. Registration usually gave a legality to a practice which certification did not. The Witness further expressed the opinion that registration had raised the tone and status of the medical profession, and that it would place midwives in a better and more certain position than now.

Dr. FARQUHARSON: Do you think there is now a risk to the health of the mother and child sufficient to make out a case for some change in the present procedure?—I do. I think there is a great deal of injury not resulting in death.

Do you think women prefer being attended by their own sex?—I think the majority do not. It is only a small number. The reason women are employed is chiefly because they are cheaper.

The CHAIRMAN: We were told the other day that there was an increasing demand for women doctors—that there were now about 150?—That number may be qualified, but I do not think they are practising.

Mr. RATHBONE: I think that was in India?

The WITNESS: Yes; not in London.

In answer to Mr. STEPHENS, Dr. THOMAS added that he had heard of a case of a midwife who said she would not use a syringe, as she did not allow water to be used for nine days to the lower part of the body of a woman in her confinement. That was one of the superstitions which ignorant women got hold of, but which would disappear as soon as they were educated. He added that he looked upon labour as a natural process except in certain complications. If properly trained and educated, midwives would be less likely than now to undertake difficult cases unassisted by a medical man. He would not encourage them to attempt any obstetrical operations, for they needed all the courage of a medical man.

Mr. GEORGE BROWN, M.R.C.S., L.S.A. (11, Adam Street and 29, Threadneedle Street) said he had been in general medical practice for nineteen years, and was President of the General Practitioners' Alliance, the Council of which had requested him to give evidence against the proposed Bill. Their chief reason was that it would permit women who professed to practise midwifery to assume responsibilities for which they were insufficiently educated and inadequately trained. Whilst not opposing women expecting to be mothers employing persons of their own sex to attend them in labour, they strongly protested against ignorant and partially-educated persons being recognised by law as competent to attend midwifery, as it would be a retrograde step, and fraught with great danger to the public. To be competent to attend obstetric cases, a complete education in medicine and surgery, as well as of obstetric practice, was absolutely necessary. To legalise the registration of midwifery diplomas would be to undo all the good effected by the Amended Medical Act, which was placed on the statute book after many years of agitation and hard fighting by medical reformers. By the proposed Bill a registered midwife would be entitled to attend in cases of natural labour only, in accordance with the prescribed regulations, but he contended it was impossible to draw a line where natural labour ended and unnatural or abnormal labour began, and to prescribe regulations would be utterly futile. A natural or apparently straightforward labour might at any moment become a complicated or unnatural one, and it was just those cases where the skill and judgment of the thoroughly trained medical man, promptly applied, often most certainly saved life. In his own practice he had known cases where everything was going on in the most satisfactory manner up to a certain point, and suddenly a change had taken place such as convulsions, hæmorrhage, cardiac syncope, prolapse of the cord, or other conditions requiring immediate use of the instruments, blood-letting, administration of chloroform, or other measures which only a qualified medical practitioner would be justified in employing. He had no hesitation in saying, after more than thirty years' experience as student and practitioner, that midwifery was the most anxious and trying of all medical work, and its successful practice called for more skill, care, and presence of mind than any other branch of the healing art. Another objection to the Bill was that if women were legally empowered to attend midwifery, it would be impossible to prevent them from giving medicines to their patients both before, during, and after parturition, and hence they would, to all intents and purposes, be medical practitioners. It would be impossible to draw a line where the medical care of a patient should begin or end. And, as a matter of course, the midwife would undertake the care of the newly-born infant, and would not send for a doctor unless death appeared to be imminent. The professed object of the Bill was to provide trained and educated midwives for the public, but it would permit the registration of a woman now practising midwifery, whether she had had any training or not, and it was not intended, if the Bill passed, to prevent any person, male or female, educated or uneducated, from practising as midwives. It only prevented them from assuming the title of midwife, or recovering fees in a court of law. The Bill made no provision for the registration of men who practised midwifery. He failed to see how the man midwife could logically be excluded from the benefits of registration. He strongly impressed on the Committee the necessity of putting every possible obstacle in the way of the practice of midwifery by women not fully qualified in medicine and surgery. Many midwives were engaged by boards of guardians to attend the poor. This should be put a stop to. The poor should be provided with skilled attendance as well as the rich. He desired a law enacted that all parish midwives should be legally qualified medical practitioners. There need be no difficulty in obtaining the services of qualified women to act as parish midwives. Create the demand and the supply would follow. Large numbers of young women were studying medicine in England and Scotland for whom he saw no hope of earning, by the practice of their profession in the United Kingdom, one-half the sums they had paid in fees unless they obtained public appointments such as parish midwives or medical officers to institutions established for the treatment of women or women and children. The Bill would open the door to evasion of the Medical Act by medical men who kept branch practices and employed unqualified assistants. Registered midwives would be placed in charge of branch practices, and it would be impossible to prevent them from being so employed, as, being legally qualified to practise obstetrics, their lawful employment by medical men could not be held to be "infamous conduct" in a professional respect. There would then be the anoinaly that doctors who employed unqualified female assistants could do so with impunity, whilst those who employed unqualified male assistants would be liable to be struck off the *Register*. The practice of midwifery by women was a relic of barbarous times. The profession had no fear of the competition of midwives, but on the grounds of public safety they ought to be thoroughly trained. It was not to be expected that in three months they would be able to learn even the terms applied, much less the physical anatomy of the parts. The public were well able to discern the difference between skill and ignorance; and, except on the ground of economy, he had never in his experience known a woman in confinement to prefer a woman to attend her rather than a man. It would be unjust to put women who were not fully qualified in competition with men who had obtained a medical diploma after a five years' curriculum. It was much more difficult than in years gone by to treat women in confinement successfully, for as the results of civilisation the life of women in town was such that there was a very much larger proportion of difficult cases requiring the use of forceps and other instrumental aids, and that number was increasing with each advancing generation. The Witness then quoted in proof of this statement some statistics from the cases which he had attended within the past ten years.

Dr. W. H. FENTON said that his view was that midwives were a necessity to the poor. Thousands of poor women were unable to pay anything like adequate fees to doctor and nurse. Many well-trained and well-taught women practised midwifery, but side by side with them were numbers of ignorant "Gamps." It was the worst class, not the best, who objected to sending for medical aid when necessary. The ignorant midwife did not know enough to send in time, and from sheer ignorance and obstinacy she was likely to assume responsibilities which otherwise she would not think of. If they were educated and controlled they would then feel their responsibilities more. Medical men would really be the gainers if only properly educated midwives practised. The registered midwife would "improve" the unqualified assistant off the face of the earth, and that would be a good thing. The employment of unqualified assistants led to ruinous competition. At the out-patient department of the Chelsea Hospital for Women he saw upwards of a thousand cases in the course of the year; and he found a very large proportion of those cases were women whose health had been injured by careless or inefficient treatment during their confinement. The carelessness or inefficiency—whether or not forceps or other surgical instruments had been used—had been due to septic mischief arising from the dirt and squalor with which the patient had been surrounded in the time of her labour. By far the greatest number of diseases which happened at confinements were due to septic causes.

In answer to the CHAIRMAN, the WITNESS said he had seen a great deal of mischief arising from bad treatment by inexperienced nurses; and, replying to further questions, he said a great number of the cases which had come before him were the result of evils arising during childbirth and due to preventable causes. If they had a system of registration or of licensing midwives which would ensure their having some reasonable training before they practised, a great part of those evils might be obviated.

Dr. HUGH WOODS stated that medical men engaged in general practice objected very strongly to the legal registration of midwives. By midwives he did not wish to be understood as meaning obstetrical nurses; the two ought not to be confounded. Obstetrical nurses should be trained in the highest manner, and registered legally. A midwife was an anachronism and a relic of the dark ages; and their registration would prevent the very desirable extinction of midwives—women who considered themselves competent to perform the part both of the doctor and the nurse in confinements. Anyone who undertook the duties connected with parturition should have a thorough medical training, and should be well acquainted with the laws of anatomy. There could be no distinction drawn between normal and abnormal labour, and it was in the normal cases that the largest mortality arose. Everything should be done to discourage the idea that normal labour did not require the most skilled treatment. Three months' training was utterly insufficient. He considered that three years' training was necessary. To recognise any woman as capable of attending confinements would be to recognise by law a pernicious doctrine, and one calculated to do great harm. No scientific obstetrician ought to maintain that there was any case of labour which ought not to have the benefit of the skill of a thoroughly-qualified doctor, either male or female; but if a woman, she should have the capacity to go through the medical course before being permitted to practise midwifery.

The CHAIRMAN: Is your objection to the registration of midwives founded upon what is proposed in the Bill, or do you think that under no circumstances it would be desirable to register or give certificates or licences to certain classes of women to perform what they now do without licence?

WITNESS: It would highly objectionable, as it would be giving a legal sanction to their competency, which is non-existent, for they are not competent to attend, and if they could be prevented so much the better.

The Committee have reported as follows:—

Your Committee have sat six times, and have taken most valuable and important evidence from medical men and practitioners in various spheres of practice, both in favour of and opposed to the registration of midwives, and also from trained and experienced midwives. This evidence has shown that there is at present serious and unnecessary loss of life and health, and permanent injury to both mother and child, in the treatment of childbirth, and that some legislative provision for improvement and regulation is desirable. They have also had evidence showing that there is a wide field for training in midwifery now unused, connected with parish infirmaries and home practice in populous places. Their inquiries have been cut short by the approaching early Dissolution of Parliament, and they therefore report the evidence, and recommend a continuation of the inquiry in the next session of Parliament

NOTES ON HEALTH RESORTS.

VII.—SCHWALBACH.

By ARCHIBALD E. GARROD, M.A., M.D.Oxon., F.R.C.P.,
Assistant Physician West London Hospital; Assistant Medical Tutor, St. Bartholomew's Hospital.

THE following brief description of Schwalbach, and of the modes of treatment there carried out, are based upon notes taken upon the spot during a visit in the summer of 1891.

Schwalbach (or, more correctly, Langen-Schwalbach) is about nine miles from Wiesbaden, and is 1,050 feet above the sea level. It may be reached either by railway from Wiesbaden or by a carriage drive of two hours from Eltville on the Rhine. The railway journey is somewhat tedious, although the line runs through beautiful beech woods. The gradient is so steep that the train can only travel at a very slow pace, either up or down, taking an hour and ten minutes to cover the distance.

The town is surrounded, but by no means shut in, by hills belonging to the Taunus range, which are for the most part covered by woods of birch, beech, oak, and fir trees. The air is usually fresh and bracing, especially in the higher parts of the town, in which are situated the Curhaus, Royal Baths, and the most frequented springs. Behind and to the sides of the Curhaus are pleasant grounds, well wooded, and abundantly supplied with seats. The mineral springs, eight in number, are all rich in dissolved carbonic acid, and, with one exception, they contain iron in the form of carbonate.

The springs used for drinking purposes are the Stahl and Weinbrunnen—the once fashionable Paulinenbrunnen, which were so much in vogue when Sir Francis Head wrote his well-known book, *Bubbles from the Brunnen of Nassau*, having fallen into disuse for this purpose, although it still contributes to the supply of water for the baths.

The water when fresh drawn from the springs is cold, colourless, brilliantly clear, and rich in bubbles of carbonic acid gas. The taste, although chalybeate, is by no means very unpleasant. The patients usually drink 6 or 8 ounces three times a day, sipping the water slowly as they walk up and down the paths of the Curgarten, or along the covered promenades which afford protection in rainy weather. The amount taken is gradually increased, as dyspepsia is apt to result if too large quantities are taken at the commencement of the course. The water of the Stahlbrunnen is the richer in iron, containing 0.8 part per 1,000 whereas that of the Weinbrunnen contains only 0.5 part per 1,000. The baths are situated in two establishments—the Royal Bath House, situated in the Curgarten, and the Lindenbrunnen Bath House, in the middle of the town—the arrangements for bathing being very similar in both.

The Royal Establishment is chiefly supplied by the Stahlbrunnen and Weinbrunnen, but the Paulinenbrunnen and other springs help to swell the supply of water. The bath rooms are comfortably appointed, well lighted, and airy. The baths are constructed of brass, and the water in them is heated by coils of piping placed under their floors, through which a current of steam is driven. In this manner the water is easily raised to the required temperature, without dilution, and with the minimum loss of carbonic acid gas. As the temperature of the water rises, this gas is set free in large quantities, and the surface is broken up by the bursting of innumerable minute bubbles. The first baths of the course are taken at a temperature of 88° F., but later on the temperature is gradually lowered by a few degrees, and in some instances even to 79° or 77°.

The patient, who sits upon a small wooden stool and is immersed to the shoulders, remains in the bath from ten to twenty minutes, according to circumstances. If the face be held very near the surface of the water, a slight oppression of breathing is experienced owing to the admixture of a considerable proportion of carbonic acid gas with the respired air, and some headache may follow; but even at the surface of the water the carbonic acid is not sufficiently abundant to extinguish a flame. In spite of the rather low temperature of the bath, a pleasant sensation of warmth is felt over the entire body as long as the patient keeps perfectly still, and the whole surface of the skin becomes coated with a layer of small bubbles. When, however, the limbs are moved these bubbles rise at once to the surface and the water feels distinctly cooler.

Before leaving the bath those who are able to bear it receive a douche of cold mineral water from a shower apparatus. On emerging from the water the skin is found to be reddened, an effect which is probably due to the carbonic acid. The tepid character of the bath may cause a want of reaction on the first few occasions; but this is hardly noticed when one of the large well-warmed towels which are placed in a box by the bath side is immediately wrapped round the body. A brisk walk should be taken immediately after bathing.

Peat baths, which are also provided, are prepared in an outhouse and are wheeled into the bathrooms upon a tramway. These baths are constructed of wood, and into them the peat earth is shovelled after it has been sifted. Heated mineral water is then added until the proper consistency is obtained. During the process of mixing a rather unpleasant odour is given off; but this does not offer any serious drawback to the use of the baths. The temperature of the peat baths is from 95° to 99° F., and the patient remains immersed from twenty minutes to half an hour. When once the natural repugnance to entering them is overcome the sensation which they impart is very comfortable and pleasant. On coming out, a cleansing bath of mineral water is taken, in which the patient remains for a few minutes only.

Of the patients who visit Schwalbach for treatment, a large number are simply chlorotic, and these derive much benefit from drinking the chalybeate waters, which contain a considerable quantity of iron in an easily assimilable form. Since iron is not absorbed by the skin, we must attribute the benefit derived from the baths to the carbonic acid gas contained in the water, and their action probably differs but little from that of non-ferruginous baths containing the same gas, such as those of Homburg. Other forms of anæmia, whether primary or secondary, are also benefited by the Schwalbach course.

Another large class of patients is composed of sufferers from various kinds of uterine disorders, including tendency to abortion and sterility. Nervous troubles also, especially such as are of a functional nature, are also treated with success.

The season commences on May 1st—but the weather is sometimes cold in the early part of that month—and lasts on into October, when the baths are closed. The ordinary duration of the course is six weeks.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

PROFESSOR GOTTLIEB GLUGE, OF BRUSSELS.—On June 18th, Dr. Gottlieb Gluge, of Brussels, one of the oldest of microscopists and pathologists, celebrated the completion of his eightieth year. After studying at Berlin under Rudolphi, Ehrenberg, and Johannes Müller, and, gaining a prize for an essay on "Influenza or Grippe, prepared from Historical and Pathological Sources" (1838), he proceeded to Paris, where he worked under Magendie, Breschet, and Cruveilhier. He was soon afterwards appointed Professor of Physiology and Pathology in the newly-founded University of Brussels, where he has remained ever since. Most of Professor Gluge's work, which includes an *Atlas of Pathological Anatomy*, was done in the precellular era, but he has published a good deal in more recent years, notably *Experimental Researches on the Inoculation of Cancer, the Structure of Hydatids, etc.*, and a paper on Louise Lateau, printed in the *Bulletin de l'Académie Royale de Médecine*, 1875. As a proof how keen his interest in the progress of science continues to be may be mentioned a communication on the microbes of suppuration presented by him to the Belgian Academy of Medicine in 1891. Professor Gluge was in 1851 awarded the Montyon Prize by the Paris Academy of Science for his work on pathological histology.

BERI-BERI AND ANCHYLOSTOMIASIS.

IN the course of an interesting communication on beri-beri which we have received from Dr. Max F. Simon, P.C.M.O., Straits Settlements (which, owing to pressure on our space, we are unable to print *in extenso*), he says, referring to the doctrine of the entozoal origin of the disease, "The use of the word 'beri-beri' in the Ceylon report,[1] though Dr. Kynsey was careful to write 'anæmia or the beri-beri of Ceylon,' was however unfortunate, for it caused practitioners in other countries where kakké (beri-beri) is found, to think it possible that this disease might be of parasitic origin. With reference to this possibility Dr. Kerr, Colonial Surgeon at Penang, and Surgeon Rhodes, of the Army Medical Staff, then stationed at that settlement, made some very careful examinations with, I think, the absolute result of proving that kakké is not caused by the anchylostoma duodenale. They found the ova of this parasite in the stools of kakké patients, and the worms in their bodies after death; but they also found the ova in the stools of patients admitted for dysentery and other diseases totally distinct from kakké, and also in the stools of presumably healthy natives. At length they found two cases of well marked kakké, in the stools of which repeated examinations failed to discover ova. One of these cases recovered, but the other died, and a *post-mortem* examination failed to show a single anchylostoma duodenale or, I believe, a single tricocephalus dispar in his body." With reference to the bearing of anæmia on this disease, he goes on to say, "Of course I do not deny that kakké may attack an anæmic subject, or that anæmia may supervene in the later periods of a long standing kakké case; but the patients we meet with as a rule are well nourished and present no signs of poverty of blood." Speaking of Pekelharing's work on the peripheral neuritis which he and others have demonstrated to be the essential pathological feature of beri-beri Dr. Simon says, "I have verified his microscopical observations as regards the nerves of the extremities, and Mr. von Tunzelmann, late Acting Colonial Surgeon in Singapore, has verified them as regards the laryngeal nerves and nerves of the heart, and I have no doubt other observers have done likewise." Referring to the influence of damp, Dr. Simon remarks that it "seems to make the difference in the prevalence of kakké among agricultural and mining coolies in the Malay peninsula; it occurs among the former, but also, and to a far greater extent, among the latter, who as a rule have to work in wet ground and often in water. The influence of damp on the disease is also shown by the far greater prevalence of the disease in Japan, where it is endemic during the rainy season; and, on a smaller scale, it has been found in Singapore and Penang that more cases occur during wet than dry weather, and also that wet weather exercises a markedly prejudicial effect on cases in hospital and increases the rate of mortality. I am unable, however, to state that œdematous symptoms are more common in wet than in dry seasons."

He does not regard beri-beri as caused by a deficiency of nitrogen in the diet as has been maintained by some writers, but, at the same time, he remarks that "the cessation of the disease in the Singapore gaol on the adoption of an improved scale of dietary also seems to show that as a prophylactic at least a properly proportioned diet is of avail, but there were too many complications in this outbreak, or series of outbreaks, to enable it to be said with certainty that a defective diet was the cause of the disease. During the prevalence of kakké in the gaol here it was never found that an article of diet given as 'extras' had any influence in curing the patients. In some outbreaks that occurred in ships belonging to the 'Cossack' pearling fleet, on board which the crews had run short of food, and had for some time been living on little but rice, and probably deteriorated rice, not only did the outbreaks cease, but the patients who were ill began rapidly to recover after a supply of flour had been procured from a passing ship. With reference to the influence of food on the cure of the disease, results are not yet very definite as far as experience in Singapore goes. The addition of wheat flour to the diet of the numerous beri-beri patients in the pauper hospital here, which has been tried during the past year, seemed at first to exercise a very marked effect in diminishing the mortality but later statistics have not been so satisfactory." Speaking of the use of disinfectants, which Pekelharing urged on the authorities at Acheen, Dr. Simon says: "For a while the measures he recommended met with some success, but I am informed the disease still prevails among the troops at Acheen. It may be taken for granted, I think, that in endeavouring to kill the bacteria in the air, and attached to the barracks in which the troops lived, measures would be taken to insure ordinary cleanliness and to promote, as far as possible, sanitation." In the following sentences Dr. Simon approaches an important point in diagnosis without, unfortunately, throwing much light on its solution. Patients not infrequently present themselves to consultants, even in London, with well-marked symptoms of multiple neuritis who have acquired their disease in a locality where beri-beri and malarial diseases are endemic and where alcoholic excess is too often the rule. In such a case the question comes to be, Is this beri-beri, malaria, or alcoholism? With regard to such cases, Dr. Simon says: "Now it is certain that symptoms of neuritis, absolutely indistinguishable from those of kakké, can be produced by alcohol, and also that similar symptoms will occasionally occur in the course of malarial (notably remittent) fever, and hence may be presumed to be caused by the fever. I have met with cases, certainly the result of alcoholic intemperance, which none of us, to all of whom kakké is familiar, would have been able to distinguish from that disease had not the cause been sure. These cases have been among Europeans, and showed in most cases paralytic symptoms only, but I have seen some with distinct œdema as well. I have never, with one exception, as to which there was some doubt, seen death from alcoholic peripheral neuritis, but I have seen several patients very near death. The fatal case alluded to was one in which the alleged consumption of about a bottle of brandy a day, and some objective symptoms gave good grounds for considering the disease alcoholic, but the patient had come from a newly-opened-up district where fever and kakké were prevalent, so there was room for doubt. This patient died very soon after his admission to hospital from heart failure, and his peroneal nerve showed well-marked neuritic changes under the microscope. I have also seen, both among natives and Europeans, cases of remittent fever, during the course of which symptoms indistinguishable from those of kakké have appeared." We would suggest that in districts such as Dr. Simon refers to there may be a sort of compound poisoning of the nerves, and that in the malarial or kakké-poisoned subject a small dose of alcohol will suffice to produce a serious neuritis. The presence of palpitation and other signs of implication of the heart nerves in beri-beri, the presence of the plasmodium malariæ and pigment granules in the blood in malaria, and the history and gastro-intestinal symptoms in alcoholism seem to us to afford a basis for a differential diagnosis in these difficult cases.

Surgeon-Captain G. M. GILES, M.B., F.R.C.S., I.M.S., writes with reference to a notice of Dr. Leslie's report on beri-beri in Assam, published in the BRITISH MEDICAL JOURNAL on February 27th: "The disease we have to deal with in Assam corresponds exactly to the descriptions of the St. Gothard Tunnel outbreak of anchylostomiasis, and that what is called 'tea garden beri-beri' is anchylostomiasis is a matter on which the profession in Assam, alike officials and private practitioners, are thoroughly agreed. It is only quite recently that Coolie anæmia in Assam has been spoken of as beri-beri. The discovery of the true etiology of the disease was made by Dr. Rudduch, of Meesa, about a year before I was deputed to Assam. All that was left for me was to work out thoroughly the life-history of the parasites, and to demonstrate that a disease of the indigenous population, known as 'kala-azar,' was of the same character. Tea gardens in Assam are under strict official supervision, and have to send in returns of sickness as regularly as regiments and other public institutions.

"Previously to Dr. Rudduch's discovery the cases had been returned as anæmia, ascites, or whatever symptom appeared to be most prominent. When the discovery had been thoroughly confirmed, the administrative medical officer directed that cases of anchylostomiasis should in future be returned

[1] *Report on Anæmia or Beri-beri of Ceylon*, by W. R. Kynsey.

as beri-beri, because Dr. Kynsey had recently shown that a disease so called in Ceylon was of that nature. I look upon it as most unfortunate that the word 'beri-beri' should have been adopted at all; but I found it had already so thoroughly grafted itself upon popular phraseology that I fear it will be difficult now to substitute a less confusing term. Thus, it will be seen that it was after, and simply because, the disease was found to be anchylostomiasis that the word 'beri-beri' came into use at all, and that the matter is not a question of confusing two diseases but of a perhaps unfortunate choice of a name, for which I am not personally responsible.

"I have never seen the beri-beri of Ceylon, but I do not think that anyone can read Dr. Kynsey's pamphlet without seeing that nothing at all resembling the peripheral neuritis of Pekelharing is described there where a pernicious anæmia is the leading symptom, and no indications of nerve lesions are to be met with. Now, Pekelharing lays down most distinctly that in the disease he had to deal with anæmia was a non-essential and moreover uncommon symptom, and devotes considerable space to demolishing the views of Wernich,[2] who describes what is spoken of as beri-beri in Japan as a 'pernicious anæmia.' It is most astonishing that he should never have suspected that he and Wernich were dealing with two entirely different diseases. As to the etiology of any given disease, a variety of hypotheses may be more or less tenable; but symptoms are matters of fact, and it is as little likely that Wernich should overlook the prominent nerve symptoms described by all observers of active beri-beri as that the latter should fail to note pernicious anæmia."

"While it is perfectly clear that the cases described in Dr. Leslie's report are not instances of anchylostomiasis, it seems equally plain that they are quite different from the peripheral neuritis of Pekelharing. Nowhere in Dr. Leslie's report does he express an opinion as to the identity of the maladies in question. He simply gives an abstract of Pekelharing's paper, describes the Burmese outbreak, and leaves the reader to form his own conclusions; in fact, I understand from him that he was intentionally careful to avoid expressing any such opinion, because, out of the cases that came under his own observation, only two at all closely resembled what he speaks of as 'true beri-beri,' by which I take him to mean peripheral neuritis. The disease described in Burmah is an acute epidemic general dropsy, often rapidly fatal. Pareses of any kind are a rare and late complication, and, as pointed out some years ago by Dr. Harvey, of Calcutta, are probably merely due to an extension of the dropsical effusion to the membranes of the cord. An outbreak occurred some years ago in Calcutta, and paralysis (paraplegia) was noted in only two cases. As to the etiology of this disease, we know absolutely nothing; but it is certainly not a peripheral neuritis.

"A careful study of all the references to beri-beri to which I have been able to gain access has convinced me that certainly three, and probably five, distinct diseases have been confused under this pernicious word. I have excluded from the enumeration instances where obviously ordinary diseases —such as, for example, outbreaks of ordinary marine scurvy —have been so described; for, as far as I can see, any tropical diseases which presented any diagnostic difficulties to the observer have been indiscriminately dubbed "beri-beri." Peripheral neuritis has, perhaps, the best claim to the word, and, if this be admitted, I doubt if we ever see the real 'Simon pure' in India."

The name "beri-beri," to which Dr. Giles objects so strongly, possesses certain advantages, more especially as no one seems to know much about its etymology, and we are not thereby hampered with any theory about the disease it may be used to indicate. Its application to a specific form of peripheral neuritis has been made by very many writers, and it was sanctioned by the joint committee of the Royal College of Physicians when they drew up their official *Nomenclature of Diseases* in 1869. To call it "epidemic peripheral neuritis" would only lead to confusion as several forms of peripheral neuritis are liable to become epidemic—for example, post-diphtheral neuritis, the neuritis of plumbism, etc.

It appears that in Ceylon three forms of disease have been lumped together—namely, anchylostomiasis, beri-beri, and anchylostomiasis complicated with beri-beri; while Surgeon-Captain Giles deals with anchylostomiasis, and with anchylostomiasis complicated with ordinary malarial and other disease, but not with beri-beri. It will probably turn out that Dr. Giles is mistaken in allowing his readers to infer that his Assam cases are identical with Kynsey's Ceylon cases, and he would confer a benefit on nosology if, in prosecuting his pathological and clinical researches, he would lend his influence to check the incorrect use of the term beri-beri in popular parlance.

As regards Ceylon, it may be observed that, although Dr. Kynsey himself appears almost to deny the existence of beri-beri in that island, his *Report on Anæmia or Beri-beri of Ceylon* might be quoted as evidence against this position. In the body of his paper Kynsey gives no cases in detail, only a brief description of certain symptoms which might apply very well either to anchylostomiasis or to beri-beri; but in a short note prefixed to the paper he says that certain cases reported by Drs. Slater and Oliver[3] as having occurred on board the Chinese transport *Too-nam*, which were landed at Newcastle, England, exactly resembled his cases in Ceylon. His words are: "The symptoms detailed, with the sudden deaths from syncope, or embolism, agree with the Ceylon disease." It is clear from Drs. Slater and Oliver's paper that these Chinese cases were examples of that specific form of multiple peripheral neuritis which a crowd of writers concur in designating beri-beri. If Kynsey's cases resembled these, then there must certainly be genuine beri-beri in Ceylon at the present day.

Kynsey attributes the Ceylon disease to the anchylostoma and to the anchylostoma only, and he says of the Newcastle Chinese cases that he feels sure "if the anchylostoma duodenale were sought for they would be found in large numbers." From this it would appear that he attributed genuine beri-beri, the endemic multiple peripheral neuritis of Malcolmson, Pekelharing, and others, to the anchylostoma; or, in other words, held that beri-beri is a form of anchylostomiasis.

[2] *Virchow's Archiv*, xxi, p. 290.

[3] *Lancet*, July 23rd, 1889.

ARMY MEDICAL SERVICES.

MEMORANDUM, ON FURTHER DESIDERATA, TO BE SUBMITTED TO THE SECRETARY OF STATE FOR WAR.

IT is proposed by the Chairman of the Parliamentary Bills Committee to submit to the Secretary of State for War and to the Secretary of State for India respectively the following memorandum, relating to points which it is considered require their favourable consideration, with the view of fully carrying out the spirit of the recent Army Medical Warrants. Medical officers of the department who are interested in the questions herein discussed are requested at once to communicate to Mr. Ernest Hart any observations which they would wish to offer on the text of the memorandum, together with any further suggestions under these heads, and facts illustrative of the propositions conveyed in the text.

MEMORANDUM.

1. *The Compound Titles.*— The new compound titles have (with the exception of the anomalous and cumbrous brigade-surgeon-lieutenant-colonel) been well received by the great majority of medical officers, and are recognised as setting forth in intelligible consecutive form their military rank and status. They have been applied to all full-pay medical officers of the Home and Indian Armies, and also of the auxiliary forces, but withheld from officers who had retired before the promulgation of the Warrant, on the ground that there is no precedent so to confer them, and that to do so would somehow be unjust to those on the active list.

We fail to see either the force or fairness of this argument, and, in the interests of the service and the officers concerned, are convinced it is both officially unsound and impolitic.

At present there are about 150 retired medical officers "liable to be recalled to service" up to 55 years of age, but only about twelve who, having retired during the past two

years, bear the new titles. Of this reserve, about 40 are employed under Article 352, Royal Warrant, Pay, etc., as well as 40 more (or 80 in all) of those, who, from being over age, are not liable to recall.

If the new titles are necessary for the status, and of much advantage in the due performance of the duties of medical officers on the active list, then they must equally be so for those who, although retired, are still actively employed. It is, therefore, most desirable that the new titles be extended to all officers employed under Article 352, whether liable to recall or not.

Confusion and friction must result if those with the old misleading and undefined titles are recalled to service with those bearing the new; under such circumstances the anomaly would probably be witnessed of an active surgeon-lieut.-colonel serving under a senior reserve officer having the title of surgeon-major only.

We would even advocate a step further, not on the ground of necessity, but as a wise and politic act, which would be received by the medical profession with much satisfaction, namely, the permissive and optional use of the new titles by all retired medical officers, according to the relative rank they bore on retirement. The public are slow to apprehend the true import of military titles, and retired medical officers find themselves the victims of much misunderstanding in social life when brought into contact with those bearing the new titles. We are not aware that by such a gracious act any essential principle would be violated, because, never before have military titles been changed on such a far-reaching scale by Royal Warrant; and, after all, the new titles create no new ranks, but only give fuller expression to existing rank.

2. *The Full Application of the Warrant to India.*—The new Warrant has been extended to India in all except its financial bearings, and this important omission has been justified in the House of Commons on the ground that the Indian rates of pay are not affected by changes in the home rates. This statement we beg leave to traverse; the medical Warrant of 1858, although tardily, was nevertheless financially applied to India in 1864, when a complete readjustment of medical pay took place and the present rates were fixed; this fact upsets the argument of the unalterable fixity of the Indian rates—a theory which, on the face of it, is absolutely untenable.

But in India, as elsewhere, the scale of pay is governed by military rank; yet the Government have most inequitably refused to give surgeon-captains of the medical staff during their first five or six years' service pay and allowances other than those of subalterns—an indefensible departure from their own regulations which has never been attempted on any class but medical officers. The rank of brigade-surgeon has also never been equitably recognised; although, in view of the seniority it confers, new and responsible duties have been thrust upon it, no extra emolument has been given as in every other portion of the Empire. These undeniable financial inequalities, so apparent to all, call for redress.

3. *Tours of Foreign Service.*—The Camperdown Commission recommended, on data placed before them, that foreign service tours for medical officers should not continuously exceed five years, but this important finding has been set aside. With the great wear and tear which the duties of medical officers necessarily involve, a six years' tour in such a climate as India, for instance, is too long; it tends to break down the health and swell the half-pay and retired lists, does not give the State better service, and has no good practical effect on the foreign roster. Its negative good and positive evil, therefore, call for the speedy adoption of the recommendation of the Commission.

4. *Study Time on Full Pay.*—As the recurrent and prolonged tours of foreign service, together with harassing duties in out-of-the-way places, render professional study difficult or impossible, it is very necessary, if army medical officers are expected to keep abreast in professional knowledge, that study time on full pay should be granted, similarly as in the navy. Study should be allowed at any of the great medical schools of the kingdom, where alone the most recent advances in medicine and surgery can be seen in full practice.

5. *Exchanging.*—The privilege of exchanging is very highly prized by all officers, and is a salutary custom both for individuals and the State; but exchanges between medical officers seem needlessly hampered by restrictions which are looked upon as vexatious. We would press for the removal or modification of two: that, when practicable, they should be allowed to exchange within a reasonable time after being warned for foreign service; and that they should be allowed to exchange abroad any time after return home, if physically fit. The reasonable restrictions of the Queen's Regulations seem equally applicable to medical as other officers, and are all that is necessary.

THE RECENT FATALITY AT MOLESEY LOCK.

A man met with his death at Molesey Lock on June 26th under peculiar circumstances. He fell overboard from a punt and did not rise, but was eventually pulled up after an interval variously estimated at from four to seven minutes. Artificial respiration was resorted to and natural respiration was restored; he, however, did not recover consciousness completely, and after about an hour and a-half sank and died. The *post-mortem* examination showed that the lungs were full of air, but there was congestion of the brain, and Dr. Holberton, who attended him, is, we understand, of opinion that death was due to mixed causes: partial asphyxia and concussion of the brain, combined, perhaps, with the effects of alcohol.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

The following arrangements are announced by Dr. Fletcher Beach for the forthcoming fifty-first annual meeting which will be held, under the presidency of Dr. Robert Baker, on July 21st, at the Retreat, York, in honour of the centenary of the foundation of this institution.

Business.—Council meeting at 9.15 A.M. At 11 o'clock general meeting for receipt of reports, election of officers, and general business. Dr. Urquhart will move: "That a copy of the report of the Care and Treatment Committee be sent to each county councillor and to each member of committee of asylum not managed by county councils within the United Kingdom." Dr. Campbell (Garlands, Carlisle) will move: "That a committee be appointed to consider and report on the subject of public asylums' dietaries, with the view of improving them and rendering them more various." Also "That a committee be appointed to compile and issue a Handbook of Instruction to Nurses and Attendants on the Insane, which shall be published under the authority of the Medico-Psychological Association." To receive the report of the Committee appointed to consider suggestions for the improvement of the rules for the training, examination, and certification of attendants and nurses, and to adopt or otherwise deal with such report. Frederick Needham, M.D., and Dr. Féré, having been recommended by six members of the Association, will be proposed for election as honorary members. Luncheon provided by the Retreat Committee at the Retreat at 1.30 P.M. At 3 P.M. the presidential address will be given by Dr. Baker. On Friday, July 22nd, a train will start from York station at 10.15 A.M. for Helmsley, where luncheon will be provided at the Black Swan Hotel. Brakes will take members from there to Rievaulx Abbey.

GRANTS FOR SCIENTIFIC RESEARCH.

The Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next Annual Meeting should be made without delay to the Honorary Secretary of the Committee, Mr. Ernest Hart, or to the General Secretary, at the Office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

RESEARCH SCHOLARSHIP OF THE BRITISH MEDICAL ASSOCIATION.

A research scholarship of the British Medical Association will shortly be vacant by the resignation of Dr. Ernest H. Starling, who, having been appointed research scholar of the Grocers' Company, will not apply for reappointment. Applications should be forwarded at once to the Honorary Secretary of the Committee, Mr. Ernest Hart, or to the General Secretary of the Association, 429, Strand.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1892.

SUBSCRIPTIONS to the Association for 1892 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, JULY 2ND, 1892.

THE VARIATION IN HOSPITAL INCOMES; AND ITS EFFECTS.

THE financial position of the London general hospitals has long been a cause of anxiety to those entrusted with the care of those institutions. But it is an ill wind that blows no good to any section of the community; and those whose interest has led them to regard the work of our large medical establishments from the social rather than from the purely scientific point of view, have sometimes hoped that the physician's extremity may prove the reformer's opportunity, and that the necessity of retrenchment may ultimately lead to some modification in the system of gratuitous medical and surgical treatment which obtains at present—a system which, in the opinion of many, is one of the most potent causes of pauperisation in the metropolis. How far these hopes are likely to be justified by the event we cannot say; but one fact is tolerably clear: it is extremely difficult to draw from the financial statements published by the different institutions any inference as to the effect which pecuniary embarrassments have hitherto produced upon the policy of the governing bodies.

It is a matter of common experience among the managers of charitable institutions that, in order to appeal with success to the public, they must remain constantly in debt. The beggar who can exhibit the most sores obtains most sympathy. This fact, however, does not account for the great deficits which are shown year after year in the balance sheets of our general hospitals. Take the figures for the year 1887, which were used as the basis of the petition to the House of Lords, and led to the appointment of the Committee whose report was summarised in our last issue. Seven out of the eight general hospitals with medical schools which depend upon voluntary contributions, closed that year with deficits varying in amount from £1,200 in the case of Charing Cross Hospital, to £8,800 in the case of Middlesex. If anything were necessary to convince us that these deficits were not intentionally left unmet in order to ensure the continued support of the public, we should be satisfied by the fact that even of the three great endowed hospitals which do not habitually appeal for subscriptions, two—St. Thomas's and Guy's—ended the year with unmet liabilities of £7,000 and £900 respectively.

Turning to 1890—the last year covered by Mr. Burdett's *Hospital Annual*—we find that four at least of the voluntary hospitals still show deficits varying from £8,000 to £4,000. If London and St. Mary's end the year in a state of comparative solvency, this fortunate position is due to the accidental receipt in each instance of large legacies, amounting respectively to £25,000 and £12,000. University College Hospital, which, according to Mr. Burdett's tables showed no deficit in 1890, is stated in the appeal which has just been issued to have commenced the present year with a debt of £14,000. Even Guy's, whose endowment had been increased in the interval by the £50,000 or £60,000 raised by special appeal, seems to have increased its indebtedness between 1887 and 1890 from £900 to £6,000.

This great variation from year to year in the financial position of the voluntary hospitals is due mainly to the extremely uncertain sources from which the principal items of income are derived. We have already alluded to legacies, which are generally treated as income, and which may in any year amount to £100 or £100,000. Except in the case of the three old endowed institutions and of the London Hospital, the income from investments amounts apparently in no case to more than about £8,000, while the sum raised annually from subscriptions and donations varies from about £5,000 at Charing Cross to about £16,000 at London. Even as between the amounts raised respectively from subscriptions—that is, gifts which will probably be repeated annually for some years to come—and donations, the repetition of which is absolutely uncertain, the contrast is very unsatisfactory. In the case of St. Mary's alone do the subscriptions for 1890 exceed in amount the donations. In most cases the latter amount to about three times as much as the former.

In view of these facts, we cannot be surprised to find that the relative economies of the different hospitals bear little or no relation to their respective incomes. Where the most considerable items are so much a matter of chance that the solvency of the undertaking at the end of any year is a matter of speculation, petty economies are not likely to receive serious consideration. The cost of each occupied bed in a hospital seems to have little reference to the wealth of the institution. The following figures are not easy to explain:

Cost of each Occupied Bed per annum.

	1887.*	1890.†
St. Bartholomew's	£89	£111
St. Thomas's	£146	£99
Guy's	£106	£83
St. George's	£75	£82
Middlesex	£81	£89
King's	£100	£100
	1887.‡	
Westminster	£63	£66
London	£68	£76
Charing Cross	£98	£98
University College	£59	£95
St. Mary's	£70	£82

* Calculated by the Charity Organisation Society. † Calculated by Mr. Burdett. ‡ Stated by the hospital authorities.

In the matter of luxuries provided to the patients there is great divergence of practice. Take the question of alcohol. In 1890 the patients at St. George's consumed the value of £3 4s. 5d. per bed, at London £2 1s. 7d., at Guy's 17s. 9d.

We have, we think, said enough to show that, while hospital incomes are to a great extent a matter of chance and speculation, we cannot anticipate any strong tendency in the direction of economy. It is not very hopeful, therefore, for those who advocate reform in the method by which patients are admitted to appeal to the governors of the institutions on the grounds that the various checks which they propose will save the institution some slight cost. The governing authorities, moreover, seem to think that in the present state of public

opinion they would merely lose support by restricting the freedom with which applicants are received.

The case of Guy's is possibly an exception which proves the rule which we have indicated. The governors are, or believe themselves to be, independent of public support. With them the problem is merely to adjust their expenditure to a tolerably ascertained income. That income, however, has in recent years been gradually but considerably reduced. With them, therefore, we should expect to find that considerations of economy would have some weight. The figures which we have quoted are evidence that this is the case, for example, the cost of alcohol provided at Guy's appears to be less by nearly one-half than that at any other of the hospitals.

Turning, then, to the question of the admission of out-patients, what do we find? Being independent of subscriptions, the governors were able, some years ago, to introduce a rule by which all out-patients are required to pay 3d. for medicine, unless they produce a certificate of poverty from the Charity Organisation Society. This is a small payment, and in 1887 produced only £631, but the step has some social significance. St. George's, London, and King's College hospitals have, it is true, by way of experiment, imposed certain tests upon their out-patients; but these are of little value, and King's College has already relapsed to the old system.

The only conclusion which we can draw from the perusal of a somewhat confused mass of rather uncertain figures is that we must look for such reforms as we desire to see brought about rather to the growing conviction on the part of the medical and surgical profession and of the public that the social effects of hospital administration are worthy of consideration than to any appeals based on the necessity of retrenchment.

MEDICINE IN FICTION.

WE laughed when Mark Twain proposed to deliver a course of lectures upon chemistry before the Royal Society, adding that he was "in a position to do this with greater freedom, because he knew nothing whatever about the science," but the public do not laugh at but take in all seriousness the medical incidents and opinions scattered up and down the pages of the novels and poems which so commonly deal with medical matters. What with the medical books which everybody nowadays feels it his duty to peruse, and the quack advertisements which force themselves upon his attention wherever he turns, it is impossible to avoid collecting a curious amount of medical information of a sort which is certain to find its way sooner or later from the end of the pen of the ready writer. This is perhaps not to be wondered at, considering how large a place ailments and modes of treatment occupy in our thoughts and interests. The freedom with which the novelist discusses these questions is of course due to the principle which led to Mark Twain's droll suggestion, though it is not acknowledged with such charming *naïveté*. As every man is expected to be a fool or a physician at 40, a novelist can hardly be blamed for assuming the latter character, and he usually does assume it with startling confidence.

One of the strange medical things in *Monte Cristo* is the way in which the old revolutionist, Noirtier, manages to live on paralysed in every part of his body except his eyelids, which he winks freely. Yet the old fellow reasons acutely, and finds no difficulty whatever in swallowing food or drink. Dumas seemed absolutely unaware that such a paralytic condition as he describes in Noirtier's case involved of necessity brain damage of the most serious kind. Elsewhere Dumas made a guillotined head speak and weep. In one of his tales in the volume, *Les mille et un Fantômes*, there is a story of a man engaged in making experiments on heads fresh from the guillotine in the Reign of Terror. The doctor is shut up with a sack of fresh heads in a little mortuary chapel, when a voice from one of the heads call him by his name—Albert. "It was the head of Solange, I thought I was going mad. I cried three times, Solange, Solange, Solange! At the third time the eyes opened, looked at me, let two tears fall, and darting forth a dim light as if the soul were escaping, they closed never to open more." Then there was Krook, the "Lord Chancellor," in *Bleak House*, who went off the earthly stage by spontaneous combustion. Dickens might well be excused for falling into an error which was at that time commonly believed in by people who ought to knowbetter. Bulwer Lytton went in for medical marvels in *Zanoni*, but as he was a student of mystic lore, and actually learned magic from a professed thaumaturgist, the Abbe Constant, his wonders were attributable not so much to his ignorance of medical science as to his belief in the elixir of life and the transmutation of metals.

In *Called Back* we have the blindness and subsequent cure of the hero, and the mental aberration and subsequent recovery of the heroine. There really was some medical knowledge displayed in both these "cases." The peculiar blanching of the heroine's skin after her shock was not at all badly conceived; her partial loss of contact with the outer world was not an ill-contrived symptom, though the facility with which she moved about, and posed like a sane person before her lover, quite lifted her case out of the region of the actual medical world as known to physicians.

It is not surprising that even George Eliot, with all her knowledge of the innermost workings of the human mind, should have lost her way when dealing with the morbid changes of mind and brain. Tito's father, Baldassare, had been a great scholar, but after a long illness his memory upon recovery became a perfect blank; he could recall nothing of his scholarship though he had not forgotten who he was; with all this Baldassare is not represented as having lost his reason; he remembers his past life but he can no longer read or write or recall any of his scholarship for which he had been so distinguished. It was not amnesia nor agraphia with which he was afflicted; it was a form of cerebral disease known only to the eminent novelist.

Wilkie Collins made a speciality of his medical knowledge, and it was upon this account that he was induced to undertake an antivivisection novel, which he published under the name of *Heart and Science*. The work was equally unsatisfactory both to the persons who inspired it and to the general public. The vivisector may be clearly enough conceived in the novelist's mind, and if his laboratory were the only stage on which he acted the drama of life would be easily dealt with; but the vivisector in the ordinary relations of life—more especially as the family physician—is another character altogether, and cannot readily be made to fit the circumstances necessary to make a good sensational novel. Wilkie

Collins's effort in this direction was a complete failure, and his medical men and his wonderful drugs could never have existed outside his own imagination.

In Dickens's *Tale of Two Cities*, where Sydney Carton substitutes himself for the condemned Evremonde, we have premonitions of the chloroform which was to be discovered 50 years later—the chloroform of popular imagination, however, and by no means the $CHCl_3$ of the *Pharmacopeia*. The poets are, if possible, even worse offenders in the matter of their death scenes than the novelists. A man pulls a 2-drachm phial of some poison from his breast, swallows the contents, proceeds to make a 200-line speech without a pang or a gasp, staggers gracefully backwards to a conveniently-placed seat, drops upon it, clasps the region of the heart with both hands, and dies after a little convulsive movement of the legs. Another is run through the chest with a sword, he falls after some appropriate "business," but he usually raises himself to a sitting posture and makes a speech full of the most beautiful sentiment, sighs deeply, and dies. Heart disease, too, carries off heroines in a fashion quite unknown to doctors, and, although it is of the variety known as "broken-heart," has characteristics which must not be generally associated with fracture of so important an organ.

The matter has its serious aspects, for novels occupy an important position in the literature of the day, and form almost the sole mental pabulum of half the mothers of England, especially amongst the well-to-do classes.

The twenty-first congress of the French Association for the Advancement of Science will be held this year at Pau, from September 15th to 22nd.

At the fifty-eighth annual general meeting of the Royal Statistical Society, held on June 28th, it was announced that a Howard medal and a gift of £20 would be awarded in 1893 to the author of the best essay on "Perils and Protection of Infant Life; with statistical illustrations where practicable."

A silver bowl, subscribed for by the medical officers of metropolitan fever hospitals, district asylums, Poor-law schools, and workhouses, will be presented to Dr. J. H. Bridges on Monday, July 4th, at 4 P.M., in the Library of the British Medical Association, 429, Strand, W.C.

At the June quarterly meeting of the Court of Assistants of the Society of Apothecaries the following gentlemen were appointed members of the Court: Dr. J. S. Stocker, Dr. T. Dickinson, and Sir George Buchanan, F.R.S., late medical officer of the Local Government Board. Dr. Stocker has been for some years past the Chairman of the Society's Examiners, and has greatly contributed in that capacity to the successful working of the Medical Act of 1886, so far as relates to the granting of a complete qualification by the Society. At the same Court Sir Hugh Reeve Beevor, Bart., King's College Hospital, was elected one of the Society's Examiners in the place of Dr. Stocker.

THE ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH.

The annual meeting of this Association was held on June 27th, Sir Andrew Clark in the chair. The report showed the increasingly good work done by the Association, and that through its instrumentality just facilities were afforded to those who were engaged in scientific work in obtaining licences. It therefore deserved the support of all who were interested in the advance of scientific medicine. The annual working expenses are but small, but as the funds are now nearly exhausted contributions are asked to enable the Association to continue its good work. These may be sent to the Treasurer, Dr. Wilks, or to the Secretary, Mr. Stephen Paget.

ENGLISH SURGERY IN JAPAN.

Mr. William Anderson, of St. Thomas's Hospital, has just received a gratifying tribute from his old pupils of the Naval Medical College in Tokio, most of whom are now leaders of the new Japanese medicine. They have founded in his honour a silver medal bearing his name and effigy, which is to be awarded yearly to senior students of the College as a prize for surgery and surgical anatomy. It is now over twelve years since Professor Anderson left Japan, and it has, we believe, rarely happened that a year has passed without some reminder from his pupils of the kindly recollection of their old teacher. This last commemoration is a thing to be especially proud of, and one which indicates how lasting an impression his teaching and his personality have left among these grateful, intelligent, and appreciative people.

MR. GLADSTONE.

Dr. Grainger, of Chester, reports to us that the bandages were removed from Mr. Gladstone's eye on Tuesday night. The wound of the cornea was healed. Dr. Grainger, who travelled with the right hon. gentleman to Lancaster on Wednesday, states that he was in very good health and spirits, and bore the journey well. As to the precise nature of the injury, Dr. Grainger informs us that when seen an hour after his accident Mr. Gladstone was suffering a good deal of pain from his left eye, the lower lid was bruised, and there was a small wound on the side of the nose. There was an irregular jagged cut or scratch on the outer side of the cornea, about a quarter of an inch in length; the epithelium was stripped from the surface of the cornea to a little beyond the edge of the pupil.

DEATHS UNDER CHLOROFORM.

The *New York Medical Journal* of June 4th contains an account by Dr. J. C. Reeve of a death under chloroform. The patient was a man, aged 30, and the anæsthetic was administered by Dr. Shepherd, of Dayton, Ohio, to facilitate the reduction of a hernia. The chloroform used was Squibb's, the amount given having been, as stated in evidence before the coroner, "about three-quarters of an ounce, with a little ether added to it." The anæsthetic was administered on a cone of sponge without any covering over it. The patient took it well without any struggling. Dr. Kimmel, who reduced the hernia, gave evidence as follows: "When I was examining the tumour I looked at his face and saw he was not breathing very well. I told the doctor (Shepherd) to pull his head off the bed, and he did so. This seemed to be better for him and for me. . . He stopped breathing several times and revived again, and did that several times until it was all over." Dr. Shepherd also testifies to the patient's having stopped breathing several times, and having revived again. Finally, immediately after the reduction, respiration suddenly ceased. Nothing is said of the pulse. Both Dr. Shepherd and Dr. Kimmel stated that the heart was examined before the administration, and that its condition was satisfactory though the pulse was weak, and (according to Dr. Shepherd) 48. The means of resuscitation adopted were artificial respiration (how long continued and method not stated), and the "injection of some whisky." A verdict of "death by nervous shock" was returned.—The *Boston Medical and Surgical Journal* of June 9th states that another death under chloroform has recently occurred in

New York. The patient was a lad, 9 years of age, and the anæsthetic was given in a medical practitioner's office for the performance of a minor operation.

UNSATISFACTORY INQUESTS.

IT is much to be hoped that in the new Parliament someone will take up and carry into effect a very considerable reform in regard to coroners' inquests. Here are samples of the way inquests are at present conducted at Walsall. A child, aged 5, complained of pain in his stomach one Saturday, and was given medicine from a chemist's, after which he appeared relieved; next morning he was sick, became worse in the course of the day, and died suddenly in the afternoon. A neighbour who was present at the death testified that in her opinion it was a case of convulsions, and a verdict was accordingly returned to this effect. When an inquest is thus held, it is an empty farce, and it is perfectly scandalous that such worthless investigations should be possible. Not one tittle of evidence was produced to show whether the child's death was due to natural causes or not. An inquiry was recently held at Tunbridge on the body of an infant who had helped itself to a dose of about a drachm of a solution of chloral, and died some hours later. The death was clearly due to misadventure, and with that we do not concern ourselves; but a medical witness—not the medical man from whom the chloral was obtained six and a-half years previously, who was not called to the inquest at all—is reported to have said that 1 grain of chloral would kill a child (the deceased was 2 years old). The smallest fatal dose we know of is 3 grains, which killed a child of 1 year. The chloral had been prescribed for an older child for toothache, a line of treatment to which, notwithstanding the opinion of the practitioner referred to, we know of no valid objection. We gather that no *post-mortem* examination was made in this case; and, as tracheotomy had been performed, and as the death took place some hours after the poisoning, and when apparently all the narcotic symptoms had passed away, the exact cause could not be determined.

A SCOTTISH UNIVERSITY FOR LONDON.

A NEW association has been formed for promoting the formation of "A Professorial University for London." The promoters consider that it is impossible by means of any federation of colleges, such as was proposed under the Gresham scheme, permanently to improve the condition of higher education in London, and that the real solution of the problem is the "creation of a homogeneous academic body, with power to *absorb*, not to federate, existing institutions of academic rank." Their proposal is to organise such a body, "so far as teaching is concerned, on the broad lines of a Scottish University;" and they contend that as long as numerous colleges, including in that term the medical schools, are engaged in competition, it will be impossible for London to obtain or retain the best teachers and the best students, owing to insufficient salaries in the one case, and inadequate laboratory accommodation in the other. It is contended that it is desirable that there should be but one university in London, and that it should be governed by a Senate, which would consist ultimately of the Professors and a certain number of Crown nominees. It is suggested that the examinations might, if found necessary, be different for those who who have followed the prescribed courses, and for those who have not. A Professor would be an examiner in his own subject; but there would would be other examiners, not professors in the University. The medical faculty would consist of representatives elected by the teachers in the metropolitan medical schools, and a certain number of members of the medical faculty would be nominated University Professors. In order to organise the University it is proposed that a small commission of legal and educational authorities should be appointed by Act of Parliament. Among the members of the committee formed to promote the scheme are Sir Henry Roscoe, Professor Carey Foster, Professor Ray Lankester, and his successor Professor W. F. R. Weldon, and Dr. W. J. Russell. Professor Karl Pearson, Christchurch Cottage, Hampstead, is acting as secretary during the formation of the Association, which already numbers among its members Sir James Crichton-Browne, Professors Max Müller, A. H. Green, Henry Nettleship, H. F. Pelham, and J. J. Sylvester, of Oxford; Professors R. S. Heath and Tilden, of Birmingham; Professor C. Lloyd Morgan, Principal of University College, Bristol; Professor Weiss, of Owens College, Manchester; Professors Campbell Brown and O. J. Lodge, of University College, Liverpool; Dr. W. M. Hicks, Principal of Firth College, Sheffield; Professor G. H. Middleton and the Master of Downing College, Cambridge; Mr. Reichel, Principal of the University College of North Wales; Professor Bower, of Glasgow; Mr. Walter Besant, Mr. Thomas Hardy, and Mr. George Meredith.

CAPITAL PUNISHMENT.

WE have received a Report on Capital Punishment, formulated by a Committee appointed by the Medical Society of the State of New York in 1891, and presented to the Society at the session of 1892. Beginning with an erroneous assertion that those in favour of capital punishment allege the propriety of retaliation, the report practically withdraws from that assertion on the next page. Of course the question of responsibility arises, and "whoever is held responsible for his wrongdoings is termed and punished as a criminal. Whoever is considered irresponsible is no longer a criminal to be punished, but a lunatic against whose vagaries society takes pains to protect itself." Moreover, "responsibility and irresponsibility have but uncertain boundary lines," which cannot always be determined, and they depend on many factors, being influenced, for example, by varieties of structure, disposition, and powers of endurance and resistance, hereditary or acquired. Predispositions and preventable physical changes may prepare the way for criminality; so may toxic influences, visceral disease, local or diffuse brain disease, senility, sexual abnormalities or perversions. The conclusion is that this Society, "having the advantages of physiological knowledge and being aware of the difficulties of being always correct, and of the absolute impossibility of making a positively safe diagnosis in every case of alleged crime or presumable cerebral disease or anomaly, expresses its opposition to the perpetuation of capital punishment, and its hope that means will be found to protect the community by less uncertain and less inhuman methods." In reaching this conclusion the report lacks arrangement and systemisation, and is not always strictly accurate as to fact or mode of expression. It fails to grasp fully and give due prominence to the fact that capital punishment for crime unconnected with recognised insanity—owing to its deterrent influence on those whose power of self-control is not abrogated by mental disease—is beneficial to the State and protective to the public, which has a right to expect and demand that the worthy, useful, productive, law-abiding citizens, whose existence, influence, and predominance are essential to the wellbeing and healthy development of the social organism, shall not, with impunity, suffer damage or destruction at the hand of the criminal.

A NEW LONDON BROADWAY.

ONCE more the urgently needed improvement in the regions of Holborn and the Strand has been under consideration, with the result that a new scheme has been worked out by the London County Council. The new scheme, which is due to the initiative of Mr. Frederic Harrison, differs from former ones in that it combines the Holborn and Strand thoroughfare and the widening of the Strand in one plan instead of two; that it gives a more direct avenue from Holborn to the Strand, that it deals with the traffic after reaching the Strand, so that it can go to the City or on to the Embankment. The scheme is to cut an avenue at least 100 feet broad from Holborn, at Little Queen Street, due south to the church of St.

Mary-le-Strand, setting back the Strand where the avenue meets it, and opening out this end of the avenue, east and west, by means of two inclines gradually descending into the Strand. The new street would pass close by the crowded and insanitary area of Clare Market and contiguous streets lying between Sardinia Street and King's College Hospital. The great attraction in this scheme is that it deals both with the Holywell Street block and with the extremely narrow bits of the Strand north and south of St. Mary's Church. About half way in the course of the avenue, it is proposed to make a circus, at least 200 feet in diameter, on the site of Sardinia Street and Vere Street, so as in the near future to allow a good street eastwards into Lincoln's Inn Fields and Portugal Street, and an improvement of Great Wild Street, Kemble Street, and Russell Street, which will be the means of forming a line to Long Acre and to Covent Garden. As the new street approaches the Strand there is to be a terrace of somewhat higher level than the Strand, and the opening ends of the new avenue will be in the form of a semicircle or oblong. The architectural character of this great central communication, it is agreed, must be in keeping with its importance. Here the question of housing the London County Council comes in. In this new street, a site between the Courts of Justice and Somerset House, within the City of Westminster and on the outskirts of the City of London, would constitute a central site for the County Hall; another site worthy of attention is the area of two acres on the west side of Lincoln's Inn Fields, between it and the proposed new street. The name suggested for the new street is "The Council Broadway." The estimated cost of these improvements is £2,106,000. Parliament will be applied to next session to give powers to carry out this huge undertaking, with a provision that the owners of property benefited shall contribute. It is intended that this scheme shall be most carefully worked out in all details, so that further improvements may be worked upon similar lines in the future. A large part of the districts through which the new avenue is to be cut is a most insanitary area. The greater part of the district between Drury Lane and King's College Hospital must be rebuilt, if only because the houses, which are amongst the oldest left in London, cannot stand much longer. The Public Health and Housing Committee of the London Council will be asked to report upon the difficult question of rehousing the persons of the labouring class who will be displaced by the changes.

BUGS AND TUBERCULOSIS.

The pathologist is in no danger of having to weep, like Alexander, for the want of fresh worlds to conquer. Almost every day some new microscopic *feræ naturæ* are tracked to their lairs, but the hydra of the fable is as nothing compared with the too-real bacillus. The scientific Herakles no sooner crushes one head than others spring up to mock his labour. The germs of disease lurk everywhere around us, and even the "poor relations" who minister to our use prove their kinship by communicating to us their diseases. The cow gives us tubercle, the horse tetanus and glanders, the dog hydrophobia, and the "harmless necessary" cat diphtheria. A French anthority has recently expressed the belief that domestic pets carry at least 30 per cent. of the ordinary contagious diseases from house to house. Now another French physician, M. Dewèvre, has flashed his "bull's eye" on a previously unsuspected criminal by tracing the transmission of tuberculosis to the bug. One might have thought that that *genius loci* of the seaside lodging-house had already enough to answer for in respect of what the lawyers call "malice against the human race," without this additional indictment. M. Dewèvre states the case for the prosecution as follows: Some eighteen months ago he had under his care a young man aged 24, suffering from tuberculous bronchitis. The patient for several months lived in the same room, and slept in the same bed as a brother who had died of phthisis the year before. The room had not been disinfected, and in the absence of hereditary taint M. Dewèvre attributed the development of tubercle in his patient to contagion. He had the room thoroughly disinfected, and the patient isolated—a precaution, he adds, all the more necessary that a younger brother aged 18 shared the bed with him. On the patient's death, five months later, both the room and bedding were carefully disinfected; but in spite of this, within eight months of the man's death, the surviving brother was found to be in the first stage of phthisis. Six weeks before this discovery was made the lad's lungs had been examined, and found perfectly healthy. Dr. Dewèvre was puzzled to account for the origin of the disease; but noticing that the patient's body was covered with bugbites, it occurred to him that the infection might have been conveyed by these insects. As a matter of fact, though everything else had been disinfected, the wooden bedstead itself had been left, scientifically speaking, unhouselled, unanointed, unanealed. Some thirty bugs were forthwith impounded, and were used to inoculate three guinea-pigs, all of which quickly died of tuberculosis, as was proved by *post-mortem* examination. Further experiments with the "diluted and filtered pulp," obtained by crushing fifty insects, yielded "magnificent cultures" of intense virulence. It was found that 60 per cent. of the bugs in the bedstead contained tubercle bacilli. M. Dewèvre, therefore, urges that among other possible lurking-places of that dreaded microbe, the bug should not be forgotton. On the whole, although it is no more impossible *a priori* that the bug may be the medium of transmitting tuberculosis than that the itch acarus may convey the infection of leprosy (instances of which are given by Dr. Thin in his work on that disease), the case against the *cimex lectularius* must, in the particular instance adduced by Dr. Dewèvre, be dismissed as "not proven." If his reasoning is not altogether convincing, however, his facts are certainly suggestive; and, if they do no more, they furnish an additional plea for cleanliness, which, unlike the law, *curat de minimis*.

BARBARIC BRAZIL.

Two dreadful stories are told in the last number of *Fair Play*—a journal which has throughout interested itself in this subject—as to the treatment of yellow fever cases in a hospital in one of the chief ports in Brazil. The story, as told by our contemporary, is as follows: An engineer engaged on board a vessel in the port was attacked with yellow fever, and removed to the hospital. In the next bed to him was a man also suffering from yellow fever. Two Brazilian attendants, being unable to do anything with this man, who was delirious, by mild means or by simple pressure, got him out of bed, threw him down several times, and, this strong treatment failing to produce the desired effect, kicked him violently in the side, with the result that in a quarter of an hour or twenty minutes he died. To make matters worse, the vomit and excreta of the patients were never removed more than, at the outside, once a day. Anyone can judge of the state of affairs in a hospital in a hot climate where matters were allowed to proceed in this fashion, and everyone must pity the unfortunate seaman, whatever his rank may be, who finds himself exposed to the tender mercies of a Brazilian hospital staff. As a pendant to the story of the hospital treatment in Brazil is the story from Santos. In this port, as is well known, the yellow fever season has been unusually fatal. Upwards of 200 captains of all nations have died there within the last season, to say nothing of the crews. It appears to be a rule of the port that any person attacked with yellow fever has at once to be removed to the hospital. One captain had with him his son, quite a youth, who got the yellow fever, and was removed to the hospital. On his father applying to see him after the removal, he was told that he was dead, and that the body had been taken to a kind of mortuary. To his surprise, he found the poor lad was not only conscious, but able to speak to him. He was dying rapidly, surrounded by corpses, but not dead!

AIR, FOGS, AND LIGHT.

A REPORT has just been issued by the Field Naturalist Society of Manchester regarding the fogs of Manchester and its neighbourhood. The following conclusions have been drawn from a large number of observations made during the fogs of last winter: (1) That fogs almost invariably follow a steady or steadily rising barometer; (2) they were when partial most likely to occur in the neighbourhood of the streams of water. The London fogs, so far as the more central parts of the City are concerned, were more noxious and contained more sulphurous acid than the corresponding Manchester fogs, though the difference was not very considerable. A number of observations were made on the amount of sulphurous acid (SO) present in the air. In clear bright weather, the amount of sulphurous acid observed in towns in summer is 0.2 to 0.5, and in winter 1.7 to 3 milligrammes per 100 cubic feet. During one of the dense fogs immediately before Christmas, the amount estimated at Owens College varied from 14 to 22. At University College, London, it was 20.50. Rime collected from the leaves of acuba yielded 89 parts per million of SO_3. Fresh-fallen snow collected about the same time showed from 10 to 40 parts per million of sulphurous acid. By means of a solution which undergoes change when exposed to light, it has been possible to make relative measures of the intensity and amount of light received in different parts. The total amount of light (of sunlight there was none) received in Manchester and Salford during three days was only 5 per cent. of that recorded at Didsbury during the same period, so completely did the fog cut off the actinic rays. Arrangements were made about the same time (namely, December 27th) to take the amount of light afforded by one hour's sunshine at midday, when the air was clear. The values obtained were: Grindelwald (Switzerland), 20.0; Torquay, 11.0; Malvern Hills, 7.5; Kew, Hampstead, Didsbury, 3 to 4; York Place, Oxford Road, 1.2; Manchester and Salford (City), 0.8. Thus the amount of light received in three minutes' sunshine in the Grindelwald was equivalent to that of the whole three days in question in Manchester and Salford.

THE BLACK ROCKS SANATORIUM.

ON June 25th was opened by Sir Edward Watkin, at Sandgate, near Folkestone, the Black Rocks Convalescent Home in connection with the London Samaritan Society and Homerton Mission. It is admirably situated in one of the healthiest and loveliest of our southern winter stations. The construction of the home does credit to the ability of the architects, the good faith of the builders, and the intelligent forethought and kindly sentiments of the founder, Mr. John James Jones. Its pretty verandahs on the sea front, its homelike rooms, the general excellence of the arrangements, and the regard everywhere shown for the comfort and well-being of the patients, all deserve high commendation. We notice that over 1,000 persons have been sent to the convalescent homes of the Society from the Brompton Hospital for Consumption and Diseases of the Chest, and that they are also largely made use of for the poor of Shoreditch and the east of London, as well as by Guy's and other metropolitan hospitals. In all cases the superintendents of those institutions speak warmly of the comfort of the convalescent homes, and the kindness with which the patients had been treated. After a careful inspection of the home, we are glad to be able to confirm these commendations. Many ministers both of Sandgate and of the neighbourhood of Shoreditch took part in the proceedings, which were from first to last of an interesting and satisfactory character.

NOSTRUMS FOR INEBRIATES.

WE publish in another column a letter from the physician who claims the parentage of the "gold-cure" for drunkenness. This gentleman claims, it will be seen, a somewhat smaller percentage of "cures" than do the proprietors of some other secret nostrums who go so far as to avow the principle of "no cure, no pay." The chief proprietor of the "gold-cure" announces his intention at no distant time to appeal to the profession in what is considered "the proper manner." He has had a good many years to consider the advisability of doing so. The proper manner is to state what his "cure" is, and how it is to be used; but that might interfere with the operations of the syndicate, who, Dr. Kerr intimates, are asking the modest sum of £150,000 for their secrets. A long and melancholy experience of these secret cures should by this time have taught mankind how to estimate such claims at their true value. The antagonism of strychnine and belladonna to inebriate craving is no secret, and the profession have had the means of studying the limits of its usefulness. If Dr. Keeley has any other antagonism to disclose it will be to his credit not to delay taking the "proper means" of making its name and nature known. Thus far his methods are not those which an honourable profession can countenance. The very name given to the "cure" breeds suspicion, for experience of the double chloride of gold and sodium has not shown it to possess any such antagonism. Moreover, we are informed that in the report of the Committee on Nostrums, Proprietary Medicines, and New Drugs, presented to the American Association for the Study and Cure of Inebriety, on December 4th, 1890, published in *The Quarterly Journal of Inebriety*, Hartford, Conn., U.S.A., Dr. S. W. Abbott, Health Officer of the State Board of Health of Massachusetts, stated that the report of Dr. F. Davenport, the State Analyst, gave "the Keeley double chloride of gold cure" as showing no reaction indicating the presence of even a trace of gold. It is possible that this is not always so, for secret preparations are not always necessarily identical or uniform in composition. Thus the "cure" comes before the world tainted with a manifold suspicion from the mercenary and speculative character of the financial proposals which accompany its introduction into this country; from the concealment of the "menstruums" in which the chloride of gold (if any) is suspended; from the discord between the published analyses and the market name of the nostrum so highly vaunted; and from the striking failures and deaths among the very "cures" heretofore most prominently boasted. The element of "secrecy," however, if not professional, may prove profitable to Dr. Keeley, as it has to Holloway, to Morrison, and to other secret medicine vendors. *Omne ignotum pro mirifico* is a maxim of which the vendors of well-puffed proprietary nostrums have always had an affectionate estimation; and Carlyle's census of the fools encourages them to maintain it. Some men who ought to know better will, no doubt, be caught by the philanthropic verbiage with which the bargain is clothed.

THE SOUTH-EASTERN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE report presented to the annual meeting of the South-Eastern Branch recently held at Brighton is extremely satisfactory, as showing that that important Branch is in a condition of vigorous vitality. It has a membership of about 500, and its record of work will compare not unfavourably with that of any other Branch of the Association. Everyone interested in the prosperity of the Branch and the Association will regret to learn that Dr. Charles Parsons has resigned the office of Secretary, which he has held with such credit to himself and such advantage to the Branch for nineteen years. The Branch showed its sense of his great and most useful services, not only by a vote of thanks, the terms of which went far beyond those of a formal resolution, but by changing the intended place of meeting next year expressly to do him honour. In the ordinary course the annual meeting of 1893 should have been held in Surrey, under the presidency of Mr. Sidney Turner, but, under the circumstances, it was decided, on the recommendation of the Council, heartily

endorsed by Mr. Turner himself, that it should take place at Dover with Dr. Parsons in the presidential chair. We congratulate Dr. Parsons on the honour done him by those for whom he has worked so faithfully and with such excellent results, and we congratulate the South-Eastern Branch on the fact that it will still have the advantage of Dr. Parsons's wise counsel and long experience in a position where they can be exercised so advantageously for the welfare of the Branch.

CHOLERA IN THE RUSSIAN EMPIRE.

The extension of cholera to the western shore of the Caspian Sea is now officially admitted by the Russian Government. The epidemic on this occasion appears to be advancing on Europe by its old route through Central Asia, whereas in recent times it has appeared to show a preference for the southern line of communication through the Red Sea and Egypt. It is suggested that this reversion to the old route is due to the extension of the Transcaspian Railway, which has greatly expedited and facilitated transportation across a great region formerly only traversed by caravan routes. The date at which cholera began to spread in Afghanistan is not known precisely, but there appears to be no doubt that it was prevalent in that country at the end of April or the beginning of May. It broke out at Turbeti-Sheikh-Djami, a small town on the Afghan-Persian frontier, about the middle of May, and reached Meshed on the road from Kandahar and Herat to Askabad and the principal town of North-eastern Persia very shortly afterwards. In this town and the surrounding district the epidemic became thoroughly established, as many as 115 deaths having occurred, it is reported, in one day. Beyond this stage the dates become hopelessly confused; the epidemic reached Askabad, on the Perso-Russian frontier, at some date probably at the end of May or beginning of June. Askabad is on the Transcaspian Railway, and it would appear, if the dates already given are to be trusted, that it spread with extraordinary rapidity along this railway, both east and west. Travelling westward, it reached Uzun Ada and the eastern shore of the Caspian, and was thence carried, by emigrant workmen it is believed, across the Caspian to Baku, the great petroleum *dépôt*, which is the eastern terminus of the Transcaucasian Railway. A large number of cases appear to have occurred in this town early in June, and it is admitted that 72 deaths had taken place in "Baku and its neighbourhood" down to June 22nd. What extent of country is to be understood by the phrase "and its neighbourhood" is not clear. A telegram from St. Petersburg, under date June 29th, states that a quarantine of three days has been established at a station nine miles west of Baku, and the report that the epidemic has appeared at Tiflis, which is roughly speaking midway between Baku on the Caspian, and Batoum on the Black Sea, is emphatically denied. The epidemic has also extended eastward from Askabad, along the Transcaspian Railway to Samarkand, and to places beyond. The most important fact for us is, however, that the disease has obtained a foothold in Europe, and that on June 26th, the latest date for which official information is available, 35 new cases were received into hospital at Baku. If it be true that cases have occurred at Shusha, then it would appear that the epidemic is spreading towards Turkey in Asia, and that the Russian cordon round Baku has been penetrated. The Russian government has in fact established two quarantine cordons, the one near the western terminus of the Transcaspian Railway, the other near the eastern terminus of the Transcaucasian Railway. Special Commissions have been appointed and special credits passed, but greater confidence would be inspired if the Russian Government would publish systematically full and recent details of the progress of the epidemic. The task of guarding the western shore of the Caspian has been undertaken with a great deal of zeal, but it is one of immense difficulty, and Europe has a right to claim full and early reports, so that we may not be taken by surprise at some unguarded point.

SCOTLAND.

At the request of a number of his former students, Professor Grainger Stewart, of Edinburgh, has consented to sit for his portrait to be painted by Sir George Reid, P.R.S.A.

STREET ACCIDENTS AND MEDICAL ATTENDANCE.

This important subject has, as we learn from the *Glasgow Evening News* of June 20th, recently occupied the attention of the Town Council of that city, on a motion to confirm the minutes of the Watching and Lighting Committee, regulating the action of the police in conveying injured persons to the infirmary or nearest police station, but with the proviso that medical attendance should only be paid for by the ratepayers if the medical man were called by a constable. After a good deal of debate this proviso was struck out, by which omission, if we understand aright, any medical man who first arrives on the scene and takes the case in hand has a right to payment from the ratepayers. The motion for the omission was the very humane and laudable desire not to interpose any delay or difficulty in procuring medical aid in such cases—and so far it deserves nothing but praise and gratitude from the medical profession. Still the interests of the ratepayers ought not to be overlooked. In many of these cases the persons injured (or as one of the members of the Council stated, those responsible to them for the injury) are perfectly able to pay, and ought to be made to do so, instead of the ratepayers, many of whom are themselves poor. We know of an instance in the Metropolitan Police area in which a fee of the kind was charged to the ratepayers for attendance on a servant of one of the Royal Family, and would have been paid but for the interference of the chief surgeon. The circumstance had, of course, never been brought under the notice of the employer. While, therefore, according all due appreciation to the action of the Glasgow Town Council, we would recommend them to frame some simple regulations for the protection of the ratepayers' pockets.

GLASGOW UNIVERSITY AND QUEEN MARGARET COLLEGE.

Women have at length succeeded in forcing their way through the reluctant portals of Glasgow University. The University Court, at a meeting held on June 27th, decided that it is desirable in terms of powers conferred by Ordinance 18 (if passed) to provide university instruction for women, as a general rule by the institution of separate classes for that purpose. The arrival of the University Court at this decision was much accelerated by several facts. The University of Edinburgh some time ago agreed to open all its instruction to women; that University was willing to open its degrees to women trained in Queen Margaret College, Glasgow, and the women came with gifts in their hands. The Council of Queen Margaret College have for months been pressing their claims on the University authorities. It was a scheme finally proposed by the College Council that decided the matter. The Council offered to hand over to the University their grounds and buildings, their present endowment of £15,260, and other prospective funds, to be used for the instruction of women as university students. The proposals have been accepted by the Court, who have referred the whole matter to a committee, assisted by the University solicitors, to arrange for carrying the scheme into operation. The Queen Margaret College property is a substantial gift, and the medical school of the College is flourishing and prospering, but by this scheme not only the medical but the Arts and all other degrees will be available to women.

IRELAND.

THE Conjoint Examinations at Dublin, which were fixed to begin on July 4th, have been postponed for one week owing to the Dublin University Tercentenary celebrations.

THE improvements at the City of Dublin Hospital will be undertaken forthwith according to the plans of Mr. A. E. Murray, architect. The amount to be expended will be £10,000, a greater portion of which has been given by the Earl of Pembroke.

PARLIAMENT AND DISPENSARY DOCTORS.

THE Council of the Irish Medical Association has given its approval to the efforts which are being made to secure the services of one or more representatives in Parliament for the remedy of the dispensary doctors' grievances. The Council requests the Committee which has the matter in hand to keep the Association informed of its action. It is a high testimony to the effect of the past eight months' agitation that several candidates at the present election have shown themselves to be acquainted with the mass of evidence which has been published, and have declared their sympathy with the movement. We think the dispensary medical officers have never held so strong a position as they do now, and we are very hopeful that in the new Parliament such a case will be made as will overcome opposition.

HOLIDAYS FOR DISPENSARY MEDICAL OFFICERS.

AT a recent meeting of the Belfast Board of Guardians held on June 21st, Mr. Morgan moved: "That the recommendations of the Belfast Dispensary Committee respecting the payment of substitutes for their medical officers and apothecaries when absent on holiday leave be approved of and adopted." He thought it was but fair that they should receive their holidays as well as any other person. They had given great satisfaction, and the payment of their substitutes would only amount to £72, half of which would be refunded to the Board. Mr. John Rodgers seconded the motion. He did not know any reason why any member of that Board should object to the motion. The medical officers were well entitled to their holidays. The motion was carried, and we hope soon to hear that the Local Government Board have officially intimated their assent.

DISPENSARY DOCTORS AND THE ELECTION.

WE are glad to know that the Solicitor-General for Ireland (Mr. Carson, Q.C.), who is likely to be elected for Trinity College, Dublin, has written a letter to Dr. R. T. Kinkead, of Galway, in which he says: "As to the grievances under which the medical officers in the dispensary service labour, I have long been of opinion that the absence of superannuation after a fair term of service is an anomaly. I can only add that if I am elected I shall continue to urge the claims of the doctors upon the Government, and take every opportunity of insisting on their case being fully considered and their grievances remedied." The support of a public officer of such standing to the cause of the dispensary doctors is of the greatest importance.

GALWAY HOSPITAL.

THE Galway Hospital Bill received the Royal Assent on June 27th, and Galway Infirmary will now be officered by the Queen's College professors. Thus ends a painful and undignified struggle. The old Board of Governors will happily disappear, and an efficient hospital will be maintained in the western capital. The students of the local medical school will be provided with suitable clinical instruction in medicine and surgery. Perhaps it may be found possible to open a maternity department as well.

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS.

THE annual exhibition of specimens added to the collection will take place next week as already announced. It will be open to visitors on July 5th, 6th, 7th, and 8th. Through the kindness of the Conservator, Professor Stewart, we are enabled to call the attention of our readers to some of the more interesting exhibits among the pathological and physiological series. In the former will be found a fair proportion of rare and instructive preparations, together with many which are usually classed as medical pathology. For obvious reasons that section of the pathological department does not receive so many contributions as others devoted to purely surgical subjects. An attempt has accordingly been made to supply deficiencies in this respect, and thus to render the collection more uniformly representative. An appendix (vi) to the Pathological Catalogue has been prepared as usual by Mr. Targett, and includes the additions made in 1891-92.

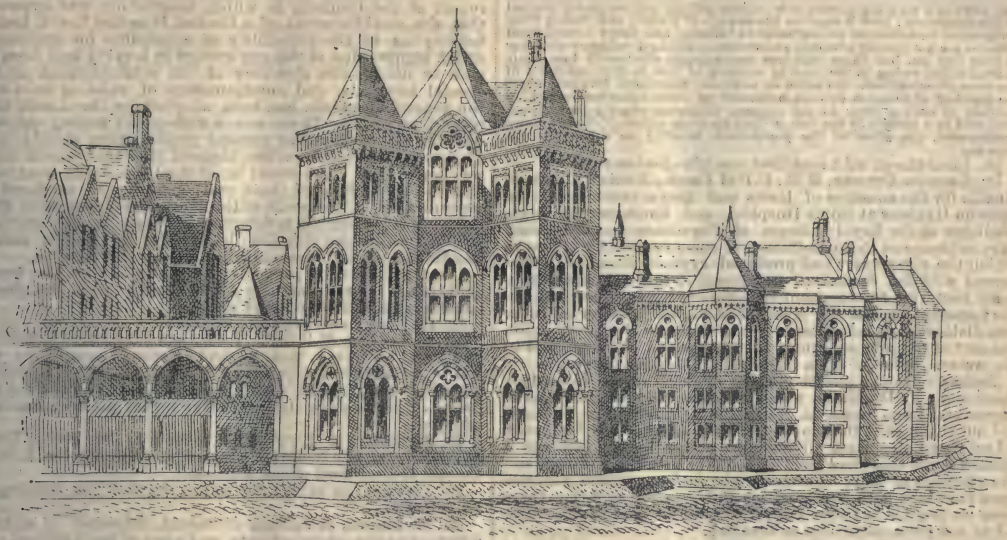
There is a remarkable specimen of premature atrophy of the skull from a cretinous subject, aged 51, whose genital organs were ill developed. The alveolar processes of both maxillæ have disappeared, and the wall of the skull is in many parts reduced to the thickness of parchment. A separated epiphysis of the coracoid process, followed by fatal pyæmia, and a gummatous deposit in the femur simulating sarcoma, are both interesting and rare. The section of diseases of the œsophagus is enriched by a large diverticulum of the gullet, which caused fatal dysphagia through pressure, and a unique specimen of diffuse suppuration around the œsophagus of a professional sword swallower. Two examples of cysts in the mesentery are of clinical importance on account of their size.

Among the gynæcological preparations are good examples of papillomatous tumours of the ovary, an unequivocal specimen of hæmatosalpinx, and a hæmorrhage into the ovary attributed to torsion of the broad ligament. In the teratological series there are illustrations of congenital absence of the tibia and of the fibula respectively; a right-sided diaphragmatic hernia, including a large portion of the liver; and an imperforate pharynx with a communication between the œsophagus and trachea. Sir Henry Thompson has presented a cabinet containing one thousand calculi removed by operation, with a full description of each case. Finally, the microscopical cabinet has received a valuable series of sections taken from specimens of Madura foot, which well illustrate the fungus found in that disease.

The most noteworthy additions to the department of human and comparative anatomy are thirteen skeletons and twelve skulls of ancient Egyptians belonging to the IVth Dynasty, presented by Mr. Flinders Petrie. As these are referred to a date not later than 4000 B.C., they form an exceedingly valuable and unique donation. More than a hundred skeletons and skulls of various animals previously unrepresented in the Museum have been received from the collection of the late Sir Victor Brooke. Professor E. C. Stirling has presented two specimens of the remarkable mole-like marsupial (*Notoryctes typhlops*) found in Australia.

Professor Stewart has made large additions to his deeply-interesting preparations illustrating various biological laws. Among these are a case of butterflies showing mimicry between specially-protected species; illustrations of secondary sexual characters among plants and insects, and of symbiosis or mutualism between certain sponges and seaweeds by which the former give carbon dioxide in return for mechanical support and oxygen derived from the seaweeds; and finally, numerous examples of what is known as commensalism—a mode of existence in which two animals, such as the hermit crab and sea anemone, live together, but neither at the expense of the other.

The exhibition as a whole is an unusually large one and well worthy of a visit.



New Infirmary Extension Buildings at Leeds South Front]

THE GENERAL INFIRMARY AT LEEDS.

The opening of the new wing of the above institution, which has been erected at a cost of nearly £40,000, took place on June 28th, the High Sheriff of Yorkshire, Sir Andrew Fairbairn, performing the ceremony. After a short prayer by the Vicar of Leeds, the Chairman, Mr. Benson Jowitt, Treasurer of the Infirmary, introduced the High Sheriff, who in an appropriate speech declared the buildings open. The Treasurer then stated that out of £12,000 still wanted for the building fund, £3,750 had been subscribed within the past week or two, and that out of £5,000 a year extra required in annual subscriptions, £1,120 had been given during the same period. He hoped that the remaining sums might be subscribed within a short time. He also remarked on the importance of the workpeople's contributions, which amounted to no less a sum than £5,000 a year.

Sir James Kitson, Bart., in proposing the resolution "that the infirmary deserves increased support both from Leeds and the county," remarked that since the foundation stone of the new infirmary was laid, the population of Leeds had increased by 160,335, thus showing the increased need for infirmary extension, but he also stated that the rateable value of property had increased during the same time from £504,885 to £1,279,000, and he estimated that the rise in value in fixed property in Leeds had increased from £20,000,000 to £50,000,000 sterling, thus showing that Leeds had also a right to look for increased subscriptions for its chief hospital.

The Right Hon. W. L. Jackson, M.P., Chief Secretary for Ireland, seconded the resolution, which was supported by Mr. Herbert Gladstone, M.P.

A vote of thanks to the High Sheriff was moved by the Mayor of Leeds, and seconded by Mr. A. T. Lawson; and a vote of thanks to the Chairman was moved by Mr. G. W. Balfour, M.P., and seconded by Mr. Beckworth.

The meeting was held in the out-patient hall, which comfortably seated about 1,300 persons. The band of the Leeds Rifles was in attendance. A description of the new buildings was published in the British Medical Journal of March 19th, page 633. The accompanying drawing from a photograph by Mr. Bendelack Hewetson shows part of the elevation.

METROPOLITAN WATER SUPPLY.

The Royal Commission on the Metropolitan Water Supply, which has now held eleven sittings, was on June 28th adjourned till July 25th.

A number of witnesses have been examined, including Dr. Edward Frankland, D.C.L., LL.D., F.R.S., who gave evidence setting forth the reasons why in his opinion the river Thames ought to be abandoned as soon as practicable for the supply of London. Inspections of the Thames and its tributaries and analyses showed that the river receives above the points where it is abstracted for the purpose of water supply various contributions of organic matter of animal origin, such as the drainage from manured land, the effluents from sewage works, and even raw sewage itself. So that, apart altogether from the question of specific poison, products coming from animal origin, although they might be innocuous in themselves, were sentimentally objectionable. They might, moreover, at any time be accompanied by zymotic poisons, such as those of typhoid fever, tuberculosis, or diphtheria. No doubt the chance of such pathogenic germs reaching the consumer was greatly reduced, both by the filtration to which the water was subjected by the companies and the care which was taken to exclude waters from the storage reservoirs. These protective measures had been much enlarged and improved of late years; nevertheless, there was no trustworthy guarantee that the noxious ingredients which might at any time be present were wholly removed. The result of experiments recently made on the water as it issued from the filters of the various London companies drawing from the Thames and the Lee had somewhat astonished him. Instead of getting hundreds of microbes in the cubic centimetre as before, in some cases there were only four, and the maximum was twenty-four, but these observations had only been made once; they were to be repeated for several months to come, and it was obvious that the safeguard of filtration depended upon the minimum number of microbes passing the filters.

Professor Dewar read the description of the varying conditions of the Thames in the report to the Duke of Richmond's Commission, signed by the Witness and Dr. Odling in the year 1868.

"It is indeed evident that the Thames, in its flow from its source to Hampton, is constantly undergoing changes, now tending to purification now to pollution: here it receives a tributary purer than itself, there one more polluted; at one place it is pent up by a weir, and flows sluggishly over a thick stratum of putrescent mud: then it dashes down the weir,

and flows as a rippling stream over a clean pebbly bed, becoming aërated to the maximum; now it receives the sewage of a town, and then it is re-invigorated by a gush of spring water in its bed; and these complicated changes are not merely affecting successive individual volumes of water as they flow on, but these volumes immediately afterwards lose their individuality, owing to the varying velocity of flow in different parts of the same river section. No series of analyses, therefore, however great the number of samples or care bestowed on their collection could, in the case of such a river as the Thames, illustrate exactly the changes produced in a stream by any one of the numerous causes of change above enumerated, the effect of the population residing on the banks, for instance."

Dr. Frankland said that that was his opinion still.

Dr. George Turner, M.B., D.P.H.Camb., Medical Officer of Health for the counties of Herts and Essex combined, Lecturer on Hygiene at Guy's Hospital, and Examiner on State Medicine at the Royal Colleges of Physicians and Surgeons, gave evidence as to the pollution of the river and instances in which the river water had produced typhoid fever. He disagreed with Dr. Frankland in supposing that the non-pathogenic bacteria—the innocent bacteria—fed upon the pathogenic bacteria, so that the presence of a large number of them was distinctly an advantage. That depended entirely upon the sort of microbe organism that happened to be present in the water. Some of them certainly did destroy others.

Professor Dewar questioned the Witness as to investigations made by Dr. Klein, with the result that no pathogenic germs had been found in the London water.—The Witness did not think that that conveyed very much. "If," he said, "I sat down on a stack of hay and a needle ran into me I should know there had been a needle in that stack of hay, and the evidence of 20 or 30 experts who had examined samples from the stack with a microscope and who had said that there were no needles in those samples would not persuade me that I had not got a needle out of that hay."

Mr. Shirley Foster Murphy, Medical Officer of Health of the County of London, stated the results of his investigations made of the pollutions of the Thames and the Lee. Speaking with reference to the protective measures adopted by the water companies for the purification of the waters, Witness said: "I may, however, submit that, even if it is admitted that polluted streams may, after running some distance, become purified, there is no definite knowledge as to the point where danger ends and safety begins, and rivers receiving excremental pollutions must therefore be regarded with misgiving as sources of public water supply."

Mr. William Joseph Dibdin, Fellow of the Institute of Chemistry and Chemist to the London County Council, also gave the results of his investigations with regard to the composition of the water supplied to London, after which the Commission adjourned.

GENERAL PRACTITIONERS' ALLIANCE.

The annual general meeting of the General Practitioners' Alliance was held on June 29th, at Exeter Hall, Mr. George Brown (President of the Alliance) in the chair.

Dr. F. H. Alderson, in moving the confirmation of the by-laws of the Alliance, expressed the hope that some steps would be taken to enable general practitioners to recover their fees from unscrupulous patients. It was desirable to develop the Alliance by establishing branches throughout the country—London to be the centre.

Dr. Alex. Smith (Dublin) seconded, and said the chief object of the Alliance should be to consider the abuse of medical charities, which was increasing every day. A second object was to try and increase their representation, which was most inadequate on the General Medical Council. He hoped they would put aside petty jealousies and elect one from their own ranks. It would be as well to institute a black list similar to that which he had found in operation among the general practitioners in Paris. He thought their solicitor might find in England a law somewhat analogous to the Small Debtors' Act in Scotland, which he had found advantageous in recovering fees. It would be well, if possible, but, from his experience, it would be difficult, to bring about co-operation between the consulting and general practitioners. One of the best things they could do would be to promote a uniformity of fees among medical men. The motion having been adopted and the by-laws approved,

Dr. W. E. Dawson (Honorary Secretary) read the annual report of the Council, in which satisfaction was expressed that the establishment of a Central Hospital Board, stricter inquiry as to the suitability of applicants for out-patient relief, suppression of the pay system or levying fees from the sick or needy, the checking of the establishment of new special hospitals, and amalgamation of existing ones with the general hospitals, had been adopted by the Lords' Hospital Committee. There was a widespread feeling throughout the profession that general practitioners should have direct representation on the General Medical Council, and it was hoped that there would be at the time of the next election three members of their own class elected as direct representatives. The result of the Midwives Registration Committee was considered satisfactory, as was also the action of the Council in checking the distribution by medical men of handbills and circulars relating to cheap dispensaries.

The Chairman, in proposing the adoption of the report, said that it showed that as a young society they had done a considerable amount of good work.

Dr. G. Henty seconded the motion.

Mr. J. Savage, M.R.C.P. (Treasurer) submitted a financial statement showing that he had received during the year £43 7s. 3d., and had expended £36 7s., which left a balance of £7. There were about £120 subscriptions for the current year owing. After a short discussion the report and accounts were adopted.

Dr. Jackson (of Plymouth) proposed, Dr. Hugh Woods seconded, and the meeting unanimously elected Dr. J. W. J. Oswald as President of the Alliance.

Dr. Oswald, on taking the chair, thanked the meeting for his election.

Mr. G. Brown, as retiring President, delivered an address, referring to the origin, objects, and aims of the Alliance.

The meeting then proceeded to the election of officers for the ensuing year, and also passed the following resolution: "That charities which bestow indiscriminate medical relief and levy fees upon the sick and needy shall not participate in the Hospital Saturday and Sunday Funds, and that this resolution be forwarded to the Lord Mayor and officials of the Hospital Saturday and Sunday Funds."

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 6th day of July next, at 2 o'clock in the afternoon.

The following Committees will also meet:—

Tuesday, July 5th, 1892.—3.0 p.m. Committee to consider communication to hospitals on the exclusion of Irish diplomates from certain medical appointments.—4.30 p.m. Therapeutic Committee.—5.0 p.m. Scientific Grants Committee.

Wednesday, July 6th, 1892.—11.30 a.m. Journal and Finance Committee.

June 7th, 1892. Francis Fowke, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS FOR 1892. ELECTION OF MEMBERS.

Meetings of the Council will be held on July 6th, and October 26th, 1892. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the latter meeting, namely, October 5th, 1892.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. Francis Fowke, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting will be held at Cardiff on Tuesday, July 12th; President, D. Arthur Davies, M.B., Swansea; President-elect, Mr. T. J. Webster, Merthyr. Further particulars in circulars.—A. SHEEN, M.D., D. A. DAVIES, M.B., Honorary Secretaries.

NORTH WALES BRANCH.—The annual meeting will be held at Barmouth in the beginning of July. Members having papers to read, cases to communicate or exhibit, or new members to propose, are requested before July 2nd to inform W. JONES MORRIS, Honorary Secretary, Portmadoc.

OXFORD AND DISTRICT BRANCH.—The annual meeting will be held on Friday, July 15th, at the Warneford Asylum, Oxford; the President-elect, Dr. Ward, has kindly invited the members to luncheon at 1.30 o'clock, before the meeting at the asylum. Notice of anything to be brought forward at the meeting should be sent to the Honorary Secretary, W. LEWIS MORGAN, 42, Broad Street, Oxford, by June 30th.

BORDER COUNTIES BRANCH.—In consequence of the uncertainty of polling days for the General Election, the annual meeting is postponed to a later Thursday or Friday in July, of which due notice will be given to the members by circular.

NORTH OF IRELAND BRANCH.—The fourteenth annual meeting of this Branch will be held in the Board Room of the co. Antrim Infirmary, Lisburn, on Thursday, July 7th, at 11.30 A.M. Business:—1. To receive the Secretary's report and the Treasurer's statement. 2. To elect office-bearers for the ensuing year. 3. To elect two members as representatives of the Branch on the Council of the Association, and also two representatives on the Parliamentary Bills Committee. 4. To receive communications from Dr. St. George (the President), Dr. St. Clair Boyd, Dr. M'Bride (Gilford), Dr. John M'Caw, and Dr. Cecil Shaw. The President has very kindly arranged to entertain the members at luncheon after the conclusion of the meeting.—JOHN W. BYERS, M.D., Honorary Secretary, Lower Crescent, Belfast.

READING AND UPPER THAMES BRANCH.—The annual meeting of this Branch will be held in the Council Chamber, Newbury, on Thursday, July 21st, at 6 P.M., Mr. Robert Birch, President, in the chair. The annual dinner (tickets 7s. 6d. each, exclusive of wine) will take place at the Council Chamber, at 6.30 P.M. Tickets should be obtained from the Honorary Secretary, H. H. PHILLIPS, M.D., 45, London Road, Reading.

WEST SOMERSET BRANCH.

THE forty-ninth annual meeting of this Branch was held at the Taunton and Somerset Hospital on June 23rd.

Installation of New President.—The retiring President, Mr. CHARLES RANDOLPH, after a few words on the conclusion of his year of office, introduced his successor, JOHN CURRIE, M.D., of Taunton, who then took the chair.

Vote of Thanks to Retiring President.—Dr. CURRIE shortly thanked the members of the Branch for having elected him as President, and then proposed a vote of thanks to his predecessor, Mr. C. Randolph, which was carried by acclamation, and duly acknowledged by that gentleman.

Report of Council.—The minutes of the last meeting having been read and signed, the report of Council was read, and the Treasurer's accounts were laid on the table. After a survey of the work done at the meetings held throughout the past year, which had been very successful, the report stated that the number of members in the Branch, which last year was 59, had suffered some reduction by the removal of 3 members from the district, by the resignation of a fourth, and by the death of an ex-president, Dr. Clark of Minehead. The circumstances and suddenness of Dr. Clark's death, which occurred on March 25th, 1892, were considered by the Council to call for an expression of condolence to his widow from the meeting. An appeal was made to members to endeavour, as opportunity offered, to enlist eligible recruits, so as at least to maintain, if not to increase, the number of members in the Branch.

Treasurer's Accounts.—The Treasurer's accounts, which had been audited by Mr. Rigden, showed a credit balance amounting to £9 8s. 4d.

It was proposed by Mr. ALFORD, seconded by Dr. MACDONALD, and resolved: "That the report of Council and Treasurer's accounts be received and adopted, and the thanks of the meeting be given to the Council and to the Treasurer for their services during the past year."

The late Dr. Clark of Minehead.—It was proposed by Mr. RIGDEN, seconded by Mr. LIDDON, and resolved: "That the Honorary Secretary be requested to write to Mrs. Clark of Minehead, conveying to her the sympathy of this meeting on the sudden death of the late Dr. Clark, an ex-president of this Branch; and that a sum of five guineas be voted from the funds of the Branch to the Clark Memorial Fund."

Future Meetings.—It was proposed by the PRESIDENT, seconded by Mr. C. RANDOLPH, and resolved: "That the next annual meeting be held at Dulverton, and that Mr. R. J. Collyns be President-elect."—It was proposed by Dr. MEREDITH, seconded by Mr. COSENS, and resolved: "That the Council be requested to arrange for an autumnal and spring meeting as usual."—The PRESIDENT mentioned that his old teacher, Professor Gairdner, of Glasgow University, had consented to give an address at the autumnal Branch meeting if the date could be fixed for Friday, September 30th, and he asked the meeting to agree to that date. It was resolved: "That the autumnal meeting be held on September 30th, and that a suggestion be made by the President to the effect that any member from neighbouring Branches (Bath and Bristol and South-Western), who might be glad to hear Dr. Gairdner's address should be invited to attend, be left to the Council to act upon in any way they may consider practicable."

Officers and Council.—The following were elected office-bearers and members of Council for the ensuing year: *Representative on the Council of the Association:* Dr. Kelly. *Representative on the Parliamentary Bills Committee:* Mr. Prankerd. *Council:* Messrs. Rigden, Willcocks, and Paulin were elected in the place of the three who went out in rotation. *Secretary and Treasurer:* Dr. Kelly was re-elected.

President's Address.—The PRESIDENT took for his subject the opium question, with special reference to the physical and moral deterioration induced by the opium vice as testified to by members of the medical profession in India and China, opening his address with a brief historical summary, and with a passing allusion to some of the economic issues involved.—The address was followed by a short discussion, in which Dr. MEREDITH took a principal part, speaking from personal observation in India as to the accuracy of the views expressed by the President on the medical aspects of the question.

Vote of Thanks.—A hearty vote of thanks was accorded to the President for his address.

Dinner.—After the meeting broke up most of the members listened for some time before dinner to an organ recital kindly given at St. Mary's Church by Mr. A. P. Standley, the organist. The dinner took place at the Castle Hotel, at which the Vicar of St. Mary's and other visitors were present. By the courteous invitation of the PRESIDENT an adjournment to his residence followed, where, under Mrs. Currie's auspices, the day's proceedings were pleasantly brought to a close.

BATH AND BRISTOL BRANCH.

THE annual meeting of this Branch was held at Bath on June 22nd.

Installation of President.—The retiring President, Mr. F. P. Lansdown, resigned the chair to Mr. T. R. Goss, who delivered a presidential address.—A vote of thanks to the President for his interesting address was moved by Dr. GOODRIDGE, seconded by Dr. SWAYNE, and carried by acclamation.

New Members.—The following gentlemen were elected members of the Branch: C. S. W. Cobbold, M.D. Würzburg, F.R.C.P.Edin., Bath, proposed by L. Weatherly, M.D., Bath, seconded by W. M. Beaumont, Bath; W. C. Swayne, M.B.Lond., Clifton, proposed by J. G. Swayne, M.D., Clifton, seconded by E. Markham Skerritt, M.D., Clifton.

Report of Council.—The report of the Council stated that the Branch continued in a flourishing condition. Eleven new members had been elected and nine had resigned, chiefly in consequence of their having left the neighbourhood. Five members had died: Dr. Burder, Mr. E. F. Fox, Mr. G. Gardiner, a member since 1867, Mr. T. C. Parson, and Mr. Walter, of Marshfield. There had been no difficulty in obtaining papers of an interesting character, seventeen in all having been read, besides card cases. One evening, as usual, was devoted to a debate, the subject chosen being anæsthetics. The discussion was opened by Dr. Henry Marshall in an animated speech in favour of chloroform, and continued by other members. The balance sheet showed a balance of £31 10s. 4d. in hand, and the Council recommended that the sum of £5 5s. be given to the Medical Benevolent Fund, and £5 5s. 0d. to the Royal Medical Benevolent College. The following gentlemen were elected on

the local Council:—For Bath: Dr. Brabazon, Mr. C. Harper, Mr. T. G. Stockwell, and Mr. H. C. Hopkins. For Bristol: Mr. Richardson Cross, Dr. Shingleton Smith, Mr. A. W. Prichard, and Dr. J. E. Shaw. It was proposed by Mr. RICHARDSON CROSS, seconded by Mr. J. H. H. LAWRENCE, and resolved unanimously: "That the report and financial statement now read be received and adopted."

Officers and Council.—The following were elected officers and councillors for the ensuing year: *President-Elect:* Dr. Shingleton Smith, Clifton. *Representatives on the Council of the Association.*—Dr. Markham Skerritt (Bristol) and Mr. R. S. Fowler (Bath). *Representative on Parliamentary Bills Committee.*—Dr. A. J. Harrison (Clifton). *Honorary Secretaries.*—Dr. Markham Skerritt and Mr. W. M. Beaumont were requested to continue in office.

Votes of Thanks.—Mr. H. C. HOPKINS proposed, and Dr. EAGER seconded a vote of thanks to the Council and the Hon. Secretary for their services during the past year. It was proposed by Dr. SPENDER, seconded by Dr. BRABAZON, and carried by acclamation: "That the best thanks of the Branch are due and are hereby tendered to Mr. F. P. Lansdown for his able conduct in the chair during the past year." It was proposed by Mr. HARPER, seconded by Dr. MILNER: "That a vote of thanks be given to the President and Governors of the Royal Mineral Water Hospital, Bath, for the use of the board room." Carried unanimously.

Annual Dinner.—After the meeting the members dined together at the Grand Pump Room Hotel.

EAST ANGLIAN BRANCH.

MEETING OF COUNCIL.

A MEETING of the Council of the East Anglian Branch was held at the Essex County Asylum, Brentwood, on June 16th, Dr. BEVERLEY in the chair.

New Members.—The minutes of the last Council meeting having been read and confirmed, the following gentlemen were elected members of the Association and Branch: N. A. Butterfield, Eye; C. Hyde Cosens, Norwich; J. W. Higginson, Aldborough, Norfolk; Ch. Gordon Roberts, M.B., Halstead; W. J. Staddon, Ipswich; Montague Tench, Dunmow. The following members of the Association were elected members of the Branch: Thos. C. Askin, M.D., Alderton, Suffolk; A. Berrill, South Woodford; Andrew Clark, F.R.C.S., 71, Harley Street, and Clacton-on-Sea; E. L. Fenn, Colchester; Robert H. A. Hunter, Carlton Colville; P. R. Stevens, Braintree.

GENERAL MEETING.

A meeting of the Branch was held on June 16th, at 2 P.M., Dr. BEVERLEY in the chair.

Luncheon.—Previous to the meeting the members were entertained at luncheon by the President-elect, G. Amsden, M.B., Superintendent of the Essex County Asylum.

Report of Council.—The minutes of the last general meeting having been read and confirmed, the report of Council was presented. It stated that the election of 12 new members that day, after deducting inevitable losses by resignation and by death, raised the number of members of the Branch to 250. Amongst the members who had died were Dr. G. Parker May, of Maldon; Mr. J. H. Staddon, of Ipswich; and Mr. John Harrison, of Braintree. The congratulations of the Branch were due to their distinguished member, Sir Frederic Bateman, who had recently received the honour of knighthood. By invitation of the Cambridge and Huntingdon Branch and its President, Dr. Alexander Hill, Master of Downing College, the East Anglian and South Midland Branches visited Cambridge, and a very successful conjoint meeting, attended by over 150 members, was held on June 18th and 19th, 1891, under Dr. Hill's presidency. A second interesting and successful gathering was held at Lowestoft on September 7th, at which 115 members were present. A meeting of the Essex District was also held at Brentwood. The cordial thanks of the members of the East Anglian Branch were due to the Master of Downing and Mrs. Hill and to Sir George and Lady Humphry for the hospitality extended to members on the occasion of the meeting at Cambridge, and to Mr. and Mrs. Colman and to the members of the medical profession at Lowestoft for the hospitable reception there. The Council had received an invitation from Dr. Walker, of Peterborough, the President of the Cambridge and Huntingdon Branch, for the East Anglian Branch to join them and the South Midland Branch at a conjoint meeting in that town next year, and they recommended that this invitation should be cordially accepted. They also recommended that an autumn meeting should be held this year at Hunstanton or some other seaside resort in Norfolk on a day to be arranged by the President and Secretaries. They also recommended the re-election of Mr. T. W. Crosse and Dr. W. A. Elliston as representatives of the East Anglian Branch on the Council of the Association, and of Dr. Mead as representative on the Parliamentary Bills Committee. It was proposed by Dr. MEAD, seconded by Dr. HOLDEN, and unanimously resolved: "That the report of the Council be received and adopted."

Officers and Council.—Dr. WALLIS proposed and Mr. CRESSWELL seconded, and it was unanimously resolved: That the Branch Council for 1892-93 consist of the following gentlemen: The President, the past President, Mr. C. E. Addison, Mr. R. C. Atthill, Mr. G. C. Edwards, Mr. R. V. Gorham, Mr. G. E. Jeaffreson, Dr. A. R. Manby, and Mr. H. B. Vincent, and that Mr. C. E. Abbott be re-elected Secretary of the Essex District.

Essex District.—It was decided that the next meeting of the Essex District should be held in Harwich in September.

Installation of New President.—Dr. BEVERLEY then introduced the new President, Dr. Amsden, and vacated the chair in his favour.

Vote of Thanks to Retiring President.—Dr. ELLISTON proposed, Dr. AMSDEN seconded, and it was unanimously resolved: "That the hearty thanks of the East Anglian Branch be accorded to Dr. Beverley for the able, courteous, and hospitable manner in which he has discharged the duties of the office of President, and that he be elected a Vice-President of the Branch."

President's Address.—The PRESIDENT then delivered his address, the subject being: "Hereditary Predisposition as a Cause of Disease."—Mr. REGINALD HARRISON proposed, and Dr. HOLDEN seconded, a vote of thanks to the President for his able address, which was heartily accorded him.

Papers.—Mr. REGINALD HARRISON read a paper On some Disordered Conditions of the Urinary Organs dependent on Unhealthy Urine, and a discussion followed in which the PRESIDENT, Dr. HOLDEN, Mr. DEEPING, and Dr. BEVERLEY took part.—Dr. T. COLCOTT FOX read a paper on the Treatment of Chronic Ringworm, and in the discussion which followed, the PRESIDENT, Mr. WALLIS, Mr. DEEPING, and Dr. BEVERLEY took part.—Dr. A. W. EDIS read a paper on the Diagnosis and Treatment of Metrorrhagia.

Garden Party.—The President and Mrs. Amsden kindly invited the members to a garden party in the grounds of the asylum, and music was provided in the Recreation Rooms. The asylum wards were open to the inspection of members.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE autumnal meeting was held at Brecon on May 31st, Dr. D. ARTHUR DAVIES, President, in the chair. Twenty-seven members attended.

New Members.—The following gentlemen were elected members of the Association and Branch: Messrs. Rhys Powell, Brecon; J. P. Jeffreys, Senny Bridge; J. Cordiner, M.B., and F. W. Foot, Aberdare; W. F. Brook, Swansea; W. Wilson, M.D., Varteg; A. Jeffreys, Aberavon; H. R. Hudson, Newport, Monmouthshire.

Representatives on the Council of the Association.—Dr. Sheen and Mr. Evan Jones were unanimously re-elected.

Cases.—Mr. V. REES (Brecon) showed the following: (1) Boy, aged, 14, Radical Cure of Hernia, four years after operation; (2) boy, aged 7, Radical Cure of Hernia, five years after operation; (3) boy, aged 10, Radical Cure of Double Hernia, eight years after operation; (4) woman, aged 51, after operation for Epithelioma of Right Cheek; (5) man, aged 52, after two operations for Rodent Ulcer above the right eye, the second done under cocaine.

Specimens.—Mr. V. REES showed a Phosphatic Calculus the size of a pigeon's egg, passed *per rectum.*—Dr. P. R. GRIFFITHS (Cardiff) showed a specimen of Enchondroma of Rib.—Dr. PATERSON (Cardiff) showed under the microscope Cushmann's Spirals from a case of Asthma.—Mr. JABEZ THOMAS (Swansea) showed specimens of Calculi, amongst others, one removed by incision *per vaginam;* another by the median operation, ovoid, weighing half-a-pound; also casts of a case

of Fatty Tumour simulating Enchondroma, and many photographs of various interesting cases.—Dr. SHEEN (Cardiff) showed a very Large Stone (artificially introduced) removed from the rectum by means of the cephalotribe after proctotomy.

Paper.—Dr. PATERSON (Cardiff) read a paper on the Clinical Forms of Pulmonary Tuberculosis.

A paper on the Differential Diagnosis of Abdominal Tumours, by Mr. Rawlings (Swansea), and a communication on Direct Representation of Wales on the General Medical Council, by Dr. P. R. Griffiths (Cardiff) were postponed for want of time.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.

THE annual meeting of this Branch was held at Worcester Infirmary on June 23rd, Dr. MARRIOTT COOKE, President, in the chair. Dr. Cooke subsequently resigned the chair to the new President, Mr. G. E. HYDE, of Worcester.

Officers and Council.—The following were elected for the ensuing year:—*President-Elect:* Paul Chapman, M.D., Hereford. *Secretaries:* Dr. Crowe, Worcester; Mr. H. C. Moon, Hereford. *Council:* Re-elected. *Representative on the General Council of the Association:* G. W. Crowe, M.D. *Parliamentary Bills Committee:* S. Marriott Cooke, M.B., and G. W. Crowe, M.D.

Motion as to Future Meetings.—Dr. COOKE proposed the following resolution, of which he had given notice: "That, having regard to the difficulty in obtaining a satisfactory attendance of members, there shall in future be only one general meeting of the Branch in each year, to be called the annual meeting, and that such meeting shall be held alternately at Hereford and Worcester. Also that there shall be two or more district meetings in each county in each year, to be convened at such times as may appear convenient to the President and local Secretary, or ex-President and local Secretary respectively."—Whereupon an amendment was proposed by Dr. PAUL CHAPMAN, seconded by Dr. CROWE, and carried: "That there be two general meetings in each year, the rest of the resolution to stand."

Steele v. Savory Fund.—The sum of £5 was voted from the Branch funds towards the above fund.

Communications.—Dr. PAUL CHAPMAN read a short paper on the Means at Our Disposal in the Treatment of Pneumonia, including Inhalation of Oxygen, Hypodermic Injection of Strychnine, and Transfusion.—Dr. COOKE read a report of a case in which a large darning needle was introduced into the abdomen with suicidal intent. The patient died a year afterwards of general tuberculosis, and the needle was found embedded in the liver.

Dinner.—The members subsequently dined at the Star Hotel.

PERTHSHIRE BRANCH.

THE summer meeting of this Branch was held at Perth on June 14th; Dr. FERGUSON, President, in the chair. The minutes of last meeting were read, approved, and signed by the President.

Annual Meeting.—On the motion of the PRESIDENT, seconded by Dr. CAMPBELL, it was resolved to hold the annual meeting on the first Friday of November, as being more suitable for the Branch generally.

New Members.—The following new members were declared duly elected: Drs. Buchanan, Carruthers, and Robertson (Perth); and Dr. Liddell (Errol). This on the motion of Dr. FERGUSON, seconded by Dr. PATON.

Representative on Council of Association.—Dr. URQUHART was re-elected representative of the Branch, on the motion of the PRESIDENT, seconded by Dr. CAMPBELL.

Dinner.—After the meeting the members drove to the Bein Inn, and dined there.

STIRLING, KINROSS, AND CLACKMANNAN BRANCH.

THE annual meeting of this Branch was held at Stirling on June 22nd; Dr. LEWIS, President, in the chair. There were present Drs. Leslie, Peake, Strachan, Macpherson, Linton, Park, Highet, and Fergusson.

Report of Council.—The minutes of last meeting having been read and approved, the report of the Council for 1891-92 was presented and read by Dr. PEAKE.

Treasurer's Report.—In the absence of the Hon. Treasurer (Dr. Spence), his report of the finances of the Branch was read by the FINANCIAL SECRETARY, and showed a balance to the credit of the Branch of £12 11s. 6d. The Secretary was instructed to convey to Dr. Spence a unanimous vote of thanks for the trouble he had taken in superintending the finances of the Branch for the last three years.

Officers and Council.—The following were elected office-bearers for the ensuing year:—*President:* Dr. Leslie. *Vice-President:* Dr. Peake. *Hon. Treasurer:* Dr. Macpherson. *Hon. Secretaries:* Drs. Lewis and Peake. *Council:* Drs. Park, Mackintosh, Joss, and Griffiths. *Representative on Council of Association and Parliamentary Bills Committee:* Dr. Strachan.

Meetings during Ensuing Year.—It was resolved to hold the next two meetings at Kinross and Falkirk respectively.

Joint Meeting with Edinburgh Branch.—A letter was read from Dr. Gibson, Hon. Secretary of the Edinburgh Branch, expressing the desire of that Branch for a joint meeting; and it was unanimously resolved to join cordially in the proposal, and to invite the Edinburgh Branch to meet this Branch at Rumbling Bridge, on Saturday, July 9th.

Presidential Address.—Dr. LEWIS, the retiring President, delived his presidential address on the pathological and clinical condition termed "Effusion," referring to its varieties, nature, and causes, with special reference to ascites and its treatment.

Vote of Thanks.—Dr. LESLIE proposed, and Dr. MACPHERSON seconded, a vote of thanks to Dr. Lewis for his address.

Excursions.—After the meeting the members drove together through Blairdrummond Woods to Downe, visited Downe Castle, and returned by Bridge of Allan to Stirling.

Dinner.—The annual dinner was held in the Station Hotel, at 6.30 P.M.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE 106th general meeting of the Branch was held at the Royal Society's rooms on May 6th, the Hon. Dr. CREED, M.L.C., President, in the chair. There were present Drs. A. Parker, Quaife, Barkas, Reading, Warren, Newmarch, Jamieson, Hankins, Scot Skirving, Crago, Megginson, E. F. Ross, Clubbe, Hull, Rutledge, Fiaschi, Worral, Kendall, Lyden, Martin, Foreman, Edwards, Thring. Dr. Faulkner was present as a visitor. The minutes of the previous meeting were read and confirmed.

Communications.—Dr. CLUBBE exhibited a case of Cretinism, and explained the case.—The PRESIDENT thought a record of such cases should be kept, and with that end in view he suggested that photographs of the patient should be taken at the expense of the Branch. It was accordingly resolved that photographs be taken at the expense of the Branch.—Dr. T. M. KENDALL read a paper on Sewer Ventilation, and Dr. QUAIFE exhibited some Limelight Views illustrating the same, after which Mr. MCKENZIE, Inspector of the Water and Sewerage Board, exhibited some models, and explained the system of Drainage and Ventilation.

Resolution as to Election of Officers.—Dr. WORRALL moved the following resolution: "The Council shall consist of a president, vice-president, and eight ordinary members, who shall be elected annually by ballot, and be eligible for re-election, provided that the offices of president or vice-president be not held consecutively for more than one year by one person. Candidates for these offices must be nominated by two members. Nominations must be sent in writing to the secretary fourteen days before the annual meeting. A circular shall be sent to each member four weeks before the annual meeting, intimating the date upon which the nominations shall close, and one week before the annual meeting a list of those nominated, with their nominators, and a ballot paper shall be sent to each member. No member shall be supplied with a second ballot paper. The hon. secretary and hon. treasurer shall be elected by the Council from members of its own body."—Dr. NEWMARCH seconded the motion.—A discussion ensued, in which Drs. QUAIFE, HANKINS, CRAGO, and NEWMARCH took part.—Dr. MEGGINSON moved: "That the number of Council be 10 instead of 8."—Dr. WARREN seconded the amendment.—The resolution was carried.

Admission of Medical Women to the Association.—Mr. G. T. HANKINS moved: "That the Branch represent to the parent Association that this Branch is desirous of admitting women,

being duly qualified medical practitioners, to membership, and asking the Council of the Association to reconsider rule No. 4, with the view of effecting such alteration in it as will enable the New South Wales Branch to admit women."—Dr. FIASCHI seconded the resolution.—Drs. FOREMAN, MEGGINSON, ROSS, WORRALL, and EDWARDS discussed the resolution.—Dr. QUAIFE moved that the debate be adjourned until the next meeting. This was carried.

BRITISH GUIANA BRANCH.

THE quarterly meeting of this Branch was held at Georgetown on April 21st, Surgeon-General GRIEVE in the chair. There were present Drs. Wallbridge, Barnes, Irving, Williams, Gomes, Boare, McAdam, Kennard, Bezbaroa, Neal, Ozzard, Texeira, and Rowland, the Honorary Secretary.

Auditors and Representative at Annual Meeting of Association.—The usual formal business was done, and the PRESIDENT moved, in accordance with the suggestion of the Council, that Drs. Snell and Ireland be appointed auditors, and that Dr. Fisher, now in England, be nominated to be the Branch representative at the forthcoming annual meeting. Both these proposals were unanimously agreed to.

Ulceration of External Genitals.—Dr. OZZARD read a paper by himself and Dr. NEAL on a peculiar form of ulceration found in the colony, affecting for the most part the external organs of generation and the skin of the adjacent parts, and frequently assuming cancerous characteristics. Though not absolutely confined to the genital organs, yet this was by far the most common seat of the disease. It affected all races, and both sexes, perhaps more frequently seen in women, and was found most commonly from the age of 30 to 40 years. The history obtained from the patient was for the most part vague and unsatisfactory. Many said it commenced as a boil on the penis or vulva, in the skin of the groin, or round the anus. The ulcer was slow in its development, many of the cases going on year after year, with little or no improvement after even very energetic treatment, and frequently when healing had been brought about the cicatrix broke down. The authors divided the ulceration into four classes—namely, (1) the syphilitic, (2) the tuberculous, (3) the lupoid (?), (4) the cancerous. They dwelt at some length on the microscopical characters of the affected parts, on the clinical history, and pointed out that in their hands the most successful treatment had been either repeated scraping of the ulcer down to healthy tissue, or repeated application of Paquelin's cautery. They showed under the microscope several preparations of the diseased tissue, and some patients with the ulceration in various stages were exhibited.—The SECRETARY proposed a vote of thanks to the readers of the paper, and an animated debate followed, in which Drs. BARNES, KENNARD, BEZBAROA took part.—The PRESIDENT closed the discussion, and dwelt on the probability of this ulceration being due to some micro-organisms.—Dr. OZZARD briefly replied.

Aneurysm of Aorta.—Dr. NEAL showed a series of aneurysms of the aorta and heart, with considerable hypertrophy of the heart.

CAPE OF GOOD HOPE BRANCH.

THE annual meeting of this Branch was held at Cape Town on November 4th, 1891. The report for the year 1891 showed that the year was one of steady progress and much good work. The chief event of the year had been the repealing of the old Medical Ordinance of 1830, and the passing of a Medical Act. The Branch, both as a body and through its Council, watched the Bill carefully through all its stages, and was able very appreciably to influence the Legislature. Several deputations waited upon the Colonial Secretary, and discussed with him in detail the clauses of the Bill. The Branch had expressed in general terms its satisfaction with the Act, but had entered a protest against two clauses; one placing in the hands of the Governor for a limited time the power of licensing men not possessing necessary qualifications; and the other giving the Council constituted under the Act the power of regulating, under penalties, the details of the practice of midwifery. As an outcome of this Act a large and representative meeting meeting was held, at which it was decided nearly unanimously that the Branch should use its influence towards securing the election of representative men to the Colonial Medical Council. Two of the gentlemen thus chosen were subsequently elected. Besides these special meetings seven ordinary meetings had been held, with an average attendance of eleven members. Papers had been read and discussions held on the following subjects: The Question of Operation in Fæcal Obstruction; Peritonitis; Renal and Cystic Calculi; Carcinoma Uteri; Milky Ascitic Fluid; Trachoma; Influenza. Fourteen new members had been elected, and four members had resigned, three in consequence of leaving the country. One, Surgeon-Major Fogarty, had died. By special resolution a general invitation had been extended to qualified female medical practitioners to attend meetings and take part in discussions. The question of inaugurating a museum and library had been raised, and at present waited upon the larger question of permanently housing the Branch. Dr. A. Petersen represented the Association at the International Medical Council in Berlin, and on his return presented a copy of the *Transactions*. Dr. J. H. M. Beck was invited to represent the Branch at the annual meeting of the British Medical Association, held at Bournemouth. Dr. Piers having resigned the office of Secretary, Dr. Anderson, at the request of the President, undertook to act until the annual meeting.

Treasurer's Statement.—The Treasurer's statement showed a balance to the credit of the Branch of £55 14s. 9d.

Officers and Council.—The following were elected officers and members of Council for the ensuing year:—*President:* C. Lawrence Herman, M.B., Cape Town. *Vice-President:* Surgeon-Colonel Colahan, P.M.O., South Africa. *Hon. Secretary:* C. P. Thomas, L.R.C.P., Sea Point. *Hon. Treasurer:* W. J. Dodds, M.D., Valkenberg Asylum, Mowbray. *Members of Council:* G. E. C. Anderson, M.D., Sea Point; J. Baird, M.D., Cape Town: C. F. K. Murray, M.D., Kenilworth; E. De S. Stevenson, F.R.C.S., Rondebosch.

BURMAH BRANCH.

A MEETING of this Branch was held at Rangoon on May 6th.

New Members.—The following gentlemen were elected members: Surgeon-Major W. T. Johnston, M.D., L.R.C.S., etc.; Surgeon-Captain J. C. Connor, M.B., B.Ch.

Papers.—The following papers were read: 1. Dr. C. SIBTHORPE: On Enteric Fever in Burmah. 2. Surgeon-Lieutenant-Colonel T. MAYNE: Notes of a Case of Frostbite from the Shan Hills. 3. Dr. O. BAKER: Notes on a Case of Hæmorrhage (the patient was shown); 4. A Case of Fatal Peritonitis from the Escape of a Worm (Ascaris Lumbricoides) from the Intestine into the Sac of the Peritoneum. 5. Dr. N. N. PÁRAKH: Notes of a Case of Traumatic Parotitis.

BRITISH MEDICAL ASSOCIATION.

SIXTIETH ANNUAL MEETING.

THE sixtieth Annual Meeting of the British Medical Association will be held at Nottingham on Tuesday, Wednesday, Thursday, and Friday, July 26th, 27th, 28th, and 29th, 1892.

President: JOHN ROBERTS THOMSON, M.D., F.R.C.P., Consulting Physician Royal Victoria Hospital, Bournemouth.

President-Elect: JOSEPH WHITE, F.R.C.S.Edin., Consulting Surgeon Nottingham General Hospital.

President of the Council: W. WITHERS MOORE, M.D., F.R.C.P., J.P., Consulting Physician Sussex County Hospital.

Treasurer: HENRY TRENTHAM BUTLIN, F.R.C.S., Surgeon to St. Bartholomew's Hospital, E.C.

Honorary Local Secretary: HENRY HANDFORD, M.D., 14, Regent Street, Nottingham.

Honorary Treasurer: WILLIAM ARTHUR CARLINE, M.D. Lincoln.

An Address in Medicine will be delivered by JAMES CUMING, M.D., Professor of Theory and Practice of Medicine, Queen's College, Belfast.

An Address in Surgery will be delivered by W. H. HINGSTON, M.D., Montreal, Canada, Surgeon-in-Chief, Hotel Dieu, Montreal, Professor of Clinical Surgery, Laval University.

An Address in Bacteriology will be delivered by GERMAN SIMS WOODHEAD, M.D., F.R.C.P., F.R.S.E., Director Research Laboratory Conjoint Board of Royal College of Physicians and Royal College of Surgeons, England.

The scientific business of the meeting will be conducted in ten Sections, as follows, namely:

A. MEDICINE.—*President:* WILLIAM HENRY RANSOM, M.D., F.R.S. *Vice-Presidents:* FREDERICK TAYLOR, M.D.; ISAMBARD OWEN, M.D. *Honorary Secretaries:* SIDNEY PHILIP PHILLIPS, M.D., 62, Upper Berkeley Street, London; FRANK MONTAGUE POPE, M.B., 4, Prebend Street, Leicester.

The discussion on Wednesday, July 27th, on Peripheral Neuritis, will be introduced by J. S. Bristowe, M.D., F.R.C.P., F.R.S. Sir F. Bateman, Drs. M. A. Boyd, Judson S. Bury, Byrom Bramwell, J. Cagney, Drysdale, U.S.A., Eddison, W. Garstang, Davies Pryce, and H. Handford, will take part in the discussion.

The discussion on Thursday, July 28th, on the Prognosis and Treatment of Ascites, will be introduced by W. B. Cheadle, M.D., F.R.C.P. Drs. M. A. Boyd, Bateman, Drysdale, U.S.A., Eddison, Garstang, Murray, Rickards, Tyson (Folkestone), S. West, and Hale White will take part in the discussion.

The following papers are announced:

BRAMWELL, Byrom, M.D. On the Value of Perimeter Measurements in the Diagnosis of Local Brain Disease.
HAIG, A., M.D. Gout of the Intestines, its Pathology and Treatment.
HANDFORD, H., M.D. Rheumatic Neuritis.
HAWKINS, Francis, M.B. On some Complications and Sequelæ of the Infectious fevers.
HUMPHRY, Laurence, M.D. (Cambridge). Subacute Non-rheumatic Myocarditis.
LANE, H., L.R.C.P. The Neuroses of Rheumatic Arthritis.
LEES, D. B., M.D. Treatment of Pericarditis by the Ice-bag.
MACKENZIE, J., M.D. The Association of Sensory Disorders with Visceral Disease.
MURRAY, —, M.D. (Barrasford). Note on the Relief of Ascites by establishing a Fistulous Communication with the Rectum by Operation.
RATCLIFFE, J. R., M.B., and WILSON, T. Stacey, M.D. The Venous Anastomoses in Relation to the Relief and Cure of Ascites in Cirrhosis.
SANDWITH, F. M., M.D. (Cairo). Three hundred and fifty cases of Phthisis.
SEMMOLA, Professor (Naples). Treatment of Heart Disease.
SMITH, P. Blaikie, M.D. (Aberdeen). Peripleuritis.
WEST, Samuel, M.D. Note on Bleeding with Reports of Cases.

B. SURGERY.—*President:* JOHN CROFT, F.R.C.S. *Vice-Presidents:* WILLIAM NEWMAN, M.D.; W. J. PILCHER, F.R.C.S. *Honorary Secretaries:* FREDERIC S. EVE, F.R.C.S., 125, Harley Street, W.; ALEXANDER RICHARD ANDERSON, F.R.C.S., 5, East Circus Street, Nottingham.

The three following subjects have been selected for discussion: 1. The Surgery of the Thorax, to be introduced by Rickman J. Godlee, F.R.C.S. A. Pearce Gould, F.R.C.S., W. Newman, M.D., Jordan Lloyd, F.R.C.S., C. J. Symonds, M.D., H. W. Maunsell, M.D., Stanley Boyd, F.R.C.S., and J. Ward Cousins, M.D., will take part in the discussion. 2. The Surgery of the Liver and Gall Bladder, to be introduced by A. W. Mayo Robson, F.R.C.S. Lawson Tait, F.R.C.S., J. K. Thornton, M.B., Jordan Lloyd, F.R.C.S., A. Pearce Gould, F.R.C.S., H. W. Maunsell, M.D., C. J. Symonds, M.D., J. Ward Cousins, M.D., H. A. Reeves, F.R.C.S.Ed., Jos. Murphy, M.D., and W. J. Tyson, M.D., will take part in the discussion. 3. The Treatment of Spinal Abscess, to be introduced by W. Watson Cheyne, F.R.C.S. A. E. Barker, F.R.C.S., Stanley Boyd, F.R.C.S., C. B. Keetley, F.R.C.S., Robert Jones, F.R.C.S., Noble Smith, F.R.C.S., H. A. Reeves, F.R.C.S., and H. Widenham Maunsell, M.D., will take part in the discussion.

The following papers are announced:

ALLINGHAM, Herbert W., F.R.C.S. Excision of the Rectum for Malignant Disease.
BARLING, H. Gilbert, F.R.C.S. On Appendicitis.
CAMPBELL, Colin G., M.R.C.S. The Treatment of Abscess and Ulcer by Complete Absorption.
CLARKE, W. Bruce, F.R.C.S. On the Removal of Hydatids of the Liver.
CRIPPS, Harrison, F.R.C.S. On Rectal Cancer.
EARLY, Dr. C. R. (Pennsylvania). On Cancer.
HARRISON, Reginald, F.R.C.S. The Restoration of the Lost Function of Micturition.
HUME, G. H., M.D. A Case of Gastro-enterostomy.
JESSETT, F. Bowreman, F.R.C.S. Specimen of Carcinoma of Pylorus successfully removed by Combined Pylorectomy and Gastro-enterostomy.
JONES, Robert, F.R.C.S. (1) The Treatment of Dropped Wrist; (2) The Treatment of Old Colles's Fractures.
LANE, W. Arbuthnot, F.R.C.S. The Later Results of Laminectomy for Angular Curvature.
LLOYD, Jordan, F.R.C.S. On Pancreatic Surgery.
MARRIOTT, C. H., M.D. A Successful Case of Simultaneous Ligature of the Subclavian and Common Carotid Arteries for Aneurysm of the Innominate Artery. Patient will be shown.
MORISON, J. R., M.B., F.R.C.S., will exhibit (1) a Specimen from a Successful Case of Ileo-colostomy for Chronic Ileo-colic Intussusception; (2) a Specimen from a Case of Combined Excision of the Pylorus and Gastro-enterostomy.
NEWMAN, W., M.D. A case of Suprapubic Lithotomy.
PORRITT, Norman, M.R.C.S. Spinal Caries with Intraspinal Abscess treated by Laminectomy.
ROBSON, A. W. Mayo, F.R.C.S. A New Method of Performing Intestinal Anastomosis and other Allied Operations, illustrated by Cases, Models, and Diagrams.
SENN, N., M.D. (Chicago). On the Use of the Omentum in Intraperitoneal Operations.
SNOW, Herbert, M.D. Practical Points in the Surgery of Cancer.
SYMONDS, C. J., M.S., F.R.C.S. A Review of Twenty-five Cases illustrating the Surgery of the Thyroid Gland.
TAIT, Lawson, F.R.C.S. A General Summary of Conclusions based on a Series of Three Thousand Consecutive Cases of Abdominal Section.

C. OBSTETRIC MEDICINE.—*President:* ALFRED LEWIS GALABIN, M.D. *Vice-Presidents:* GEORGE ELDER, M.D.; HERBERT OWEN TAYLOR, M.D. *Honorary Secretaries:* HARRY MICHIE, M.B., 27, Regent Street, Nottingham; HERBERT RITCHIE SPENCER, M.D., 10, Mansfield Street, Cavendish Square, W.

The two following subjects have been selected for special discussion: 1. The Treatment of Uterine Fibroids, to be opened by J. Knowsley Thornton, M.B., C.M. J. H. Aveling, M.D., A. E. Aust-Lawrence, M.D., T. More Madden, M.D., P. Horrocks, M.D., A. D. Leith Napier, M.D., W. J. Tivy, F.R.C.P.E., A. W. Mayo Robson, F.R.C.S., Lawson Tait, F.R.C.S., G. Elder, M.D., H. Michie, M.B., J. Wright Baker, M.R.C.S., W. J. Smyly, M.D., E. S. Bishop, F.R.C.S., R. C. Bennington, M.B., A. W. Edis, M.D., J. Inglis Parsons, M.D., Dr. Jacobs (Brussels), Murdoch Cameron, M.D., H. Widenham Maunsell, M.D., and W. Walter, M.D., will take part in the discussion. 2. *Post-partum* Hæmorrhage, to be opened by G. E. Herman, M.B., F.R.C.P., F.R.C.S. A. E. Aust-Lawrence, M.D., W. C. Grigg, M.D., P. Horrocks, M.D., H. Spencer, M.D., W. J. Smyly, M.D., J. Wright Baker, M.R.C.S., F. R. Mutch, M.D., Wm. Bain, L.R.C.P., C. E. Purslow, M.D., A. W. Edis, M.D., R. C. Bennington, M.B., W. Donovan, M.D., Murdoch Cameron, M.D., Alex. Duke, F.R.C.P.I., and W. Walter, M.D., will take part in the discussion.

The following papers are announced:

AUST-LAWRENCE, A. E., M.D. The Proper Use of Midwifery Forceps.
BAIN, W., L.R.C.P. A Consideration of the less Obvious Causes of Retardation in the First Stage of Labour.
BISHOP, E. S., F.R.C.S. Note on a Case of Cystocele treated by Stoltz's Method.
BOROUGHES, F., M.R.C.S. Ergot as a Muscular Tonic during Pregnancy.
BYERS, John W., M.D. Does Chloroform promote *Post-partum* Hæmorrhage?
CAMERON, Murdoch, M.D. The Prevention of Hæmorrhage in Cæsarean Section.
CULLINGWORTH, C. J., M.D. Some Remarks on the Anatomy of the Hymen and of the Posterior Commissure of the Vulva.
DUKE, Alexander, F.R.C.P.I. On the Value of Examination and Flushing of the Parturient Canal directly after Labour.
EDIS, A. W., M.D. On the Diagnosis of Early Ectopic Gestation.
HERMAN, G. E., M.B., F.R.C.P. Champetier de Ribes's Bag for Dilating the Cervix Uteri.
MCCAW, J. Dysart, F.R.C.S. The Medicinal and Mechanical Methods of Expediting Childbirth.
MCCLURE, H., M.D. On the Electrical Treatment of Uterine Fibroids scientifically considered.
MADDEN, T. More, M.D. *Post-partum* Hæmorrhage.
MURPHY, James, M.D. Notes on a Case of Vaginal Myomectomy.
NAPIER, A. D. Leith, M.D. Stoltz's Operation for Cystocele.
NEALE, J. Headley, M.B. Septic Hydræmia following Miscarriage.
SPENCER, H. R., M.D. Induction of Premature Labour by Champetier de Ribes's Bag.
TAIT, Lawson, F.R.C.S. A General Summary of Conclusions based on a Series of 3,000 consecutive Cases of Abdominal Section.
WALTER, W., M.D. A Case of Tubal Gestation in which both Tubes were Gravid, Operation, Recovery.

Dr. Cullingworth will give a special lantern demonstration on Some of the more Common Morbid Conditions of the Fallopian Tubes.

D. PUBLIC MEDICINE.—*President:* Sir B. WALTER FOSTER, M.D., M.P. *Vice-Presidents:* JOSEPH LITTLEWOOD, M.R.C.S.; CHARLES HARRISON, M.D. *Honorary Secretaries:* PHILIP BOOBBYER, M.B., Guildhall, Nottingham; JAMES SCOTT TEW, M.D., Magdala Road, Nottingham; SYDNEY MONCKTON COPEMAN, M.D., 9, Duke Street, St. James's, S.W.

The following subjects are suggested as suitable for discussion, but the list is open to modification. 1. Legal Restraint upon the Employment of Women in Factories before and after Childbirth. 2. The Use and Abuse of Infantile Insur-

ance. 3. Coroner's Inquests. 4. Disposal of the Dead in the Future; Cemeteries and Crematoria. 5. The Future of Hospital Isolation for Infectious Diseases. 6. The Isolation of Measles. 7. The Notification of Erysipelas and Puerperal Fever. 8. The Diminished Mortality from Scarlet Fever. 9. Is Small-pox Dying Out in the British Isles? 10. Endemic Typhoid. 11. Epidemic Alternations. 12. Offensive Trades in Towns. 13. Methods of Dealing with Town Refuse in the Midst of Populated Districts. 14. Ventilation of Town Sewers. 15. The Condemnation of Tuberculous Meat; to what Extent should this be Carried? 16. Relation of Medical Officer of Health to the Sanitary Staff. 17. Epidemic Influenza; the Attitude of Public Authorities towards it.

The following papers are announced:

Boobbyer, Philip, M.B. Some Statistics of Hospital and Home Isolation in the Case of Scarlet Fever. He will also speak on the Relation of the Medical Officer of Health to the Sanitary Staff.
Bulstrode, H. T., M.D., Some Points in Connection with Hospitals for Infectious Disease.
Cameron, J. S., M.D. The Disposal of Town Refuse in Populous Districts. (He will also open the discussion on the Attitude of Public Authorities towards Epidemic Influenza; and that upon the Future of Hospital Isolation).
Davies, Sidney, M.D. Some Remarks on the Necessity of Legal Restraint upon the Employment of Women in Factories Before and After Childbirth.
Dixey, F. A., M.D. On the Influenza Epidemics of 1891-2 considered from a Statistical Standpoint.
Firth, R. H., Surgeon-Captain, M.S. Enteric Fever in India and the Growth of Bacteria in Soils.
Hill, Alfred, M.D. Waste Waterclosets.
Hope, E. W., M.D. Some Remarks upon the Extent to which the Condemnation of Tuberculous Meat should be carried; and the Future of Hospital Isolation for Infectious Diseases.
Hunter, W. Lovell, M.D. Small-pox Mortality in Pudsey a Century Ago.
Loane, Joseph, M.R.C.P. On Disposal of the Dead in the Future. He will also speak on the Present Position of Small-pox as an Epidemic Disease; and on Epidemic Influenza, the Attitude of Public Authorities towards it.
Mason, J. W., M.D. On the Methods of Dealing with Town Refuse in the midst of Populated Districts.
Monk, H. G. H., M.R.C.S. On an Epidemic of Cerebro-spinal Meningitis.
Mumby, B. H., M.D. On the Disposal of the Dead in the Future.
Sergeant, Edward, M.R.C.S. Some Remarks on the Methods of Dealing with Town Refuse in the midst of Populated Districts.
Sykes, J. F. J., M.B. Some Remarks on the Future of Hospital Isolation for Infectious Diseases; and upon the Extent to which the Condemnation of Tuberculous Meat should be Carried.
Tew, J. Scott, M.D. On Endemic Typhoid Fever.
Thresh, J. C., D.Sc., M.B. Some Remarks on the Notification of Erysipelas and Puerperal Fever.
Whitelegge, B. A., M.D. Some Notes on the Diminished Mortality from Scarlet Fever.
Willoughby, E. F., M.D. On the Nomenclature of Notifiable Infectious Diseases.

Dr. R. R. Rentoul will move the following resolution: "That in the opinion of the Section all stillbirths after the fourth month of intrauterine life should be registered."

E. Psychology.—*President:* William Bevan Lewis, L.R.C.P. *Vice-Presidents:* William Barney Tate, M.D.; Henry Rayner, M.D. *Honorary Secretaries:* Fletcher Beach, F.R.C.P., Darenth Asylum, Dartford; Evan Powell, M.R.C.S., Borough Asylum, Mapperley Hill, Nottingham.

The President will give an Introductory Address.

The three following subjects have been chosen for special discussion: 1. Psychoses after Influenza, to be opened by Julius Althaus, M.D. 2. Insanity as a Plea for Divorce, to be opened by Lionel A. Weatherley, M.D. 3. Neural Action corresponding to the Mental Functions of the Brain, to be opened by Francis Warner, M.D. Drs. Urquhart, Richards, Rayner, Outterson Wood, Macdonald, Walmsley, Ewart, Blandford, and Goodall will take part in the discussions.

The following papers are announced:

Bullen, F. St. J., M.R.C.S. Variations in Type of General Paralysis.
Campbell, Harry, M.D. Minor Psychical Disturbances in Women.
Dunn, E. L., M.B. Paranoia and its Relationships.
Edridge-Green, F. W., M.D. Perception with special reference to Colour Perception.
Goodall, Edwin, M.D. The Pathological Anatomy of Acute Encephalitis: an Experimental Study.
Jones, Robert, M.D. On Microcephaly.
Lewis, W. Bevan, L.R.C.P. An Improved Reaction time Instrument.
Macpherson, John, M.B. Remarks upon the Influence of Intestinal Disinfection in some Forms of Acute Insanity.
Morel, M. Jules, M.D. The Psychological Examination of Prisoners.
Tuckey, C. Lloyd, M.D. The Value of Hypnotism in Chronic Alcoholism.
Walmsley, F. H., M.D. Society and "Instinctive Criminals."
Urquhart, A. R., M.D. A Clinical Summary of Cases of Hereditary Insanity.

F. Pathology.—*President:* Victor Horsley, F.R.S., F.R.C.S. *Vice-Presidents:* Samuel West, M.D.; Sheridan Delépine, M.B. *Honorary Secretaries:* Alexander Bruce, M.D., 13, Alva Street, Edinburgh; William Bramwell Ransom, M.D., The Pavement, Nottingham.

On Wednesday, July 27th, papers with demonstrations on General Pathology and Pathological Anatomy.

On Thursday, July 28th, papers will be read with demonstrations on the Pathology and Pathological Anatomy of the Nervous System.

On Friday, July 29th, Bacteriological papers and demonstrations.

The following papers are announced:

Adami, J. G., M.B. Variability of Microbes.
Beadles, Cecil, M.R.C.S., L.R.C.P. Carcinoma of Mamma.
Bokenham, T. J., L.R.C.P. Phagocytosis in Relation to Erysipelas.
Boyce, C., M.D. 1. Experimental Epilepsy. 2. Theory of Tumours 3. Specimens.
Bruce, Alexander, M.D. Macro- and Microscopic Preparations of Pathological Brains and Spinal Cords, with Lantern Demonstrations.
Bruce, A., M.D., and Thompson, John, M.D. Dystrophia Muscularis.
Cameron, — M.D. Cryptolithiasis.
Campbell, Harry, M.D. Etiology of the Tuberculous Diathesis.
Cathcart, C. W., M.B. Museum Casts.
Clarke, Michell, M.B. 1. Ataxic Paraplegia. 2. Endothelioma of the Dura Mater.
Copeman, S. Monckton, M.D. The Pathology of the Blood in Diabetes.
Delépine, Professor Sheridan. Case of Hemiplegia with unusual Eye Symptoms.
Evans, — M.D. On the Growth of Bacterium Loeffleri.
Fenwick, Soltau, M.D. Morbid Conditions of Stomach in Phthisis.
Gordon, W., M.D. (Title uncertain.)
Harley, Vaughan, M.D. 1. Pathology of Jaundice. 2. Pathology of Diabetes.
Horsley, Professor Victor. Œdema.
Humphry, Laurence, M.D. Cerebral Tumour.
Hunter, William, M.D. Toxæmic Jaundice.
Johnson, Raymond, F.R.C.S. Carcinoma of Mamma.
Kanthack, A. A., M.B. 1. Immunity. 2. Specimens of Madura Disease.
Marshall, M., M.D. Pathology of Afferent Impulses in the Cat.
Martin, Sidney, M.D. Experimental Diphtheritic Paralysis.
Middlemass, J., M.B. Early General Paralysis.
Mott, F. W., M.D. Pathology of Afferent Impulses in the Monkey.
Muir, R., M.D. Leucocythæmia.
Murray, George, M.R.C.P. Myxœdema.
Nairn, — M.D. Bacteriology of a Case of Cerebral Abscess.
Ransom, W. B., M.D. 1. Actinomyces. 2. Demonstration of Kinæsthetic Centre in Man.
Snow, Herbert, M.D. Researches in Cancer Pathology.
Stiles, Harold. Carcinoma of Mamma.
Thomson, Alexis, M.D. Morbid Conditions of Bone.
Tizzoni, Professor. Tetanus and Rabies.
Tylden, H. J., M.B. Diabetes.
Roy, Professor C. S. Rate of Beat of the Heart in Health and Disease.
Ruffer, A., M.A., M.D. 1. Typhoid Fever in Animals. 2. Paralysis from the Poison of Bacillus Pyocyaneus.
Russell, Risien, M.B. Structure of Recurrent Laryngeal Nerve and Pathology of Laryngeal Paralysis.
Ruston, — M.D. Peripheral Neuritis.
Woodhead, G. Sims, M.D. (1) Immunity; (2) Healing of Wounds.
Wright, A. E., M.B. Methods of Increasing and Decreasing the Coagulability of the Blood.

G. Ophthalmology.—*President:* Priestley Smith, M.R.C.S. *Vice-Presidents:* Frank Hy. Hodges, F.R.C.S.Ed.; Charles Higgens, F.R.C.S. *Honorary Secretaries:* Ernest Cory Kingdon, M.B., 6, Upper College Street, Nottingham; H. W. Dodd, F.R.C.S., 136, Harley Street, W.

A discussion on the Treatment of Diseases of the Lachrymal Apparatus will be opened by Charles Higgens, F.R.C.S.

The following gentlemen have signified their intention to be present or take part in the discussions: W. M. Beaumont, M.R.C.S., G. A. Critchett, F.R.C.S.Ed., J. Court, M.R.C.S., E. Jones, M.R.C.S., G. Mackay, M.D., J. G. Mackinlay, M.R.C.S., A. Pritchard, M.R.C.S., L. H. Tosswill, M.B., J. Tatham Thompson, M.B., and C. Wray, F.R.C.S.

The following papers are announced:

Bell, J. H., M.D. A Chapter in the Early History of Miners' Nystagmus.
Benson, A. H., F.R.C.S.I. The Treatment of Stenosis of the Nasal Duct.
Bronner, A., M.D. On Antiseptic Ophthalmic Surgery as practised at the Bradford Eye and Ear Hospital.
Cant, W. J., M.R.C.S. Prolapse of the Iris after Simple Cataract Extraction and its Treatment.
Court, J., M.D. Miners' Nystagmus: its Cause and Relation to the Lighting of Mines. (It is probable that a discussion will arise on this subject.)
Cross, F. R., F.R.C.S. Two Cases of Abscess of the Frontal Sinus.
Edridge-Green, F. W., M.D. The Registration of Defects of Colour Perception.
Farrar, J., M.D. Notes on a case of Tumour of Right Orbit; Operation; Recovery.

Fergus, F., M.B. 1. Some Improvements in Perimetry. 2. A Modification of Foerster's Box for testing the Light Sense. 3. The Treatment of Cataract Extraction and other Wounds by Antiseptics.
Ford, A. V., M.R.C.S. Chloride of Sodium as a Direct Agent in the Production of Cataract.
Hewetson, H. B., M.R.C.S. 1. Ten Years' Experience of the Effects of the Treatment of Interstitial Keratitis by Syndectomy without the Use of Specific Drugs. 2. A New Operation for the Treatment of Eversion of the Lower Lids associated with Granular Lids. 3. Further Researches into the Localisation of Headaches due to various Forms of Ametropia, including Cases of Vertigo, *Petit Mal*, and True Epilepsy, cured by the Use of Correcting Lenses.
Lawford, J. B., F.R.C.S. The Pathology of some Intraocular Tumours.
Percival, A. S., M.B. Note on the Relationship of Convergence to Accommodation.
Stephenson, S., M.B. The Surgical Treatment of Trachoma.
Taylor, S. J., M.B. A Complicated Case of Monocular Hemiopia.
Williamson, G. E., F.R.C.S. A Primary Sarcoma of Iris, with Microscopic Sections.

H. Diseases of Children.—*President:* Lewis Walter Marshall, M.D. *Vice-Presidents:* James Davison, M.D.; Winfred Benthall, M.B. *Honorary Secretaries:* D'Arcy Power, F.R.C.S., 26, Bloomsbury Square, W.C.; Edward Mansel Sympson, M.D., 2, James Street, Lincoln.

The two following subjects have been selected for special discussion: 1. The Diagnosis and Treatment of Croupous Pneumonia in Children, to be opened by J. F. Goodhart, M.D., F.R.C.P., and Henry Ashby, M.D., F.R.C.P. W. B. Cheadle, M.D., F.R.C.P., N. Tirard, M.D., F.R.C.P., H. Montague Murray, M.D., W. P. Herringham, M.D., F.R.C.P., T. More Madden, M.D., F.R.C.S., C. N. Gwynne, M.D., D. B. Lees, M.D., and F. Johnston, M.B., will take part. 2. The Treatment of Severe Club Foot, to be opened by J. Walsham, F.R.C.S., R. W. Parker, M.R.C.S., Noble Smith, F.R.C.S.Ed., C. R. B. Keetley, F.R.C.S., E. M. Little, F.R.C.S., A. H. Tubby, M.B., J. Ewens, L.R.C.P., W. G. Black, F.R.C.S., E. L. Freer, M.R.C.S., Firmin Cuthbert, M.R.C.S., W. E. Balkwill, M.R.C.S., R. Jones, F.R.C.S.Ed., H. Widenham Maunsell, M.D., and William Thomas, F.R.C.S., will take part in the discussion.

The following papers are announced:

Balkwill, W. E., M.R.C.S. A Demonstration on Orthopædic Apparatus.
Braidwood, P. Murray, M.D. Nervous Disorders following certain of the Acute Infectious Diseases of Childhood.
Eddowes, Alfred, M.D. Treatment of Ringworm.
Ewens, John, L.R.C.S.Ed. Overgrowth of the Inner Tuberosity of the Tibia as a cause of Genu Valgum, independent of Elongated Inner Condyle of the Femur, illustrated by Casts and Photographs.
Freer, E. L., M.R.C.S. The Treatment of Scoliosis.
Jones, Robert, F.R.C.S.Ed. Note on Short Leg in Hip Disease.
Kingdon, E. C., M.B. A Rare Fatal Disease of Infancy with Symmetrical Changes at the Maculæ Luteæ.

I. Pharmacology and Therapeutics.—*President:* Joseph Orpe Brookhouse, M.D. *Vice-Presidents:* Charles Augustus Greaves, M.B.; Sidney Harris Cox Martin, M.D. *Honorary Secretaries:* Charles Henry Cattle, M.D., 2, East Circus Street, Nottingham; Thomas Jessopp Bokenham, L.R.C.P., 9, Upper Wimpole Street, W.

The two following subjects have been selected for special discussion: 1 (on Wednesday, July 27th), Cardiac Tonics and the Indications for their Use. To be opened by W. H. Broadbent, M.D., F.R.C.P. T. Lauder Brunton, M.D., F.R.S., J. Mitchell Bruce, M.D., F.R.C.P., Professor Oliver, M.D., F.R.C.P., H. Handford, M.D., M.R.C.P., M. C. Collins, M.D., M.R.C.P., Clifford Allbutt, M.D., F.R.C.P., F.R.S., I. Burney Yeo, M.D., F.R.C.P., and others will take part in the discussion. 2. (on Thursday, July 28th), Dyspnœa and its Treatment by Drugs. To be opened by Professor Gairdner, M.D., F.R.C.P., Professor Leech, M.D., F.R.C.P., M. C. Collins, M.D., F.R.C.P., H. Handford, M.D., M.R.C.P., Clifford Allbutt, M.D., F.R.C.P., F.R.S., I. Burney Yeo, M.D., F.R.C.P., and others will take part in the discussion.

It has also been arranged to hold a short discussion on the Bearing of Recent Physiological and Chemical Research on the Question of Anæsthesia. Dudley Buxton, M.D., M.R.C.P., will read a paper introducing this subject.

The President of the Section will give an Introductory Address on Some Points in Pharmacology and Modern Therapeutics.

Professor Liebreich, Berlin, has deputed Dr. A. P. Chadbourne to make a communication on his behalf, the outcome of researches in his laboratory.

The following papers are announced:

Chadbourne, A. P., M.D. (Berlin). On the Local Anæsthetic Properties of a new Coca Base.
Ebstein, Professor (Göttingen). Some Remarks on the Dietetic Treatment of Diabetes Mellitus.
Handford, H., M.D. The Treatment of the Hæmatemesis of Anæmic Young Women.
Harrison, A. J., M.B. On the Cure of Lupus by Local Treatment (with Illustrative Cases).
Jones, H. Lewis, M.D. On the Therapeutic Effects of the Rapidly Changing Currents of Induction Machines and on Methods of Measuring such Currents.
Kerr, Norman, M.D. The Treatment of Delirium Tremens.
Rumbold, Sydney, L.R.C.P., F.R.C.S. Anæsthetics, with Special Reference to the Use of Nitrous Oxide in Minor Surgery.
Savill, T., M.D. The Treatment of Epidemic Dermatitis and Eczema by Creolin and other Remedies.

J. Laryngology.—*President:* Richard Atkinson Hayes, M.D. *Vice-Presidents:* Donald Stewart, M.D.; T. Mark Hovell, F.R.C.S.Ed. *Honorary Secretaries:* John Macintyre, M.B., 179, Bath Street, Glasgow; Donald Rose Paterson, M.D., 18, Windsor Place, Cardiff.

The three following subjects have been selected for special discussion: 1. The Etiology, Pathology, and Treatment, of Nasal Neuroses, to be introduced by Donald Stewart, M.D., and Adolf Bronner, M.D. 2. Catarrh of the Nose and Throat, its Etiology, Pathology, and Treatment, to be introduced by J. Macintyre, M.B. 3. Granular Pharyngitis, its Etiology and Treatment, to be introduced by T. Mark Hovell, F.R.C.S.Ed., and Lennox Browne, F.R.C.S.Ed. The following gentlemen will take part in the discussions: Messrs. R. Ellis, Mayo Collier, P. Watson Williams, H. B. Hewetson, N. Macnaughton Jones, Scanes Spicer, Thomas Barr, Charles Warden, M.D., Prof. von Schroetter (Vienna), James Erskine, M.B., Edward Woakes, M.D., Wm. Hill, M.D., and C. R. Walker, M.D.

The following papers are announced:

Bronner, Adolf, M.D. On the Use of Trichloracetic Acid in the Treatment of Ozæna.
Collier, Mayo, F.R.C.S. The Causation of Deflections and other Irregularities of the Nasal Septum.
Hewetson, H. B., M.D. 1. Aural Complications in a Case of so-called Russian Influenza; 2. Further Experience in the Treatment of Deafness, the Result of Nasal Stenosis, by Dilatation with the Glove Stretcher.
Hill, Wm., M.D. Rhinalgia.
Hunt, John M., M.B. Throat Affections peculiar to Voice Users.
Robertson, Wm., M.D. On the Treatment of Ozæna and Recurrent Nasal Polypi by Opening and Draining the Antrum of Highmore, with illustrative cases.
Sandford, Arthur, M.D. The Importance of a Systematic Course of Physical Voice Training at School or College, especially with regard to its Influence on prevalent Throat Troubles in Public Speakers and others.
Schroetter, Professor (Vienna). Nervous Affections of the Throat.
Spicer, Scanes, M.D. Some Points in the Diagnosis and Treatment of Chronic Suppuration of the Antrum of Highmore, illustrated by Cases.
Williams, P. Watson, M.D. The Dyspeptic Sore Throat.

Programme of Proceedings.

Tuesday, July 26th, 1892.

9.30 A.M.—Meeting of 1891-92 Council in the Grand Jury Room, Guildhall.
11.30 A.M.—First General Meeting in the Mechanics' Hall. Report of Council. Reports of Committees: and other business.
4.0 P.M.—Service at St. Mary's Church. Sermon by the Bishop of Southwell.
8.30 P.M.—Adjourned General Meeting, in the Mechanics' Hall, from 11.30 A.M. President's Address.

Wednesday, July 27th, 1892.

9.30 A.M.—Meeting of 1892-93 Council in the Grand Jury Room, Guildhall.
10 A.M. to 1.30 P.M.—Sectional Meetings in University College. Public Health Section in the Mechanics' Lecture Hall.
2.30 P.M.—Second General Meeting in the Mechanics' Hall. Address in Medicine by James Cuming, M.D.
4.0 P.M. to 6 P.M.—Garden Party in the Arboretum given by the President of the Association and the Local Executive Committee.
8.30 P.M.—*Conversazione* at the Castle, given by the Worshipful Mayor, R. Fitzhugh, Esq., J.P.

Thursday, July 28th, 1892.

9.30 A.M.—Meeting of the Council in the Grand Jury Room, Guildhall.
10 A.M. to 1.30 P.M.—Sectional Meetings in University College. Public Health Section in the Mechanics' Lecture Hall.
2.30 P.M.—Third General Meeting in the Albert Hall. Address in Surgery by W. H. Hingston, M.D.
4 to 6 P.M.—Garden Party.
7 P.M.—Public Dinner of the Association, Large Hall, Mechanics' Institute.

FRIDAY, JULY 29TH, 1892.

10.30 A.M. to 1.30 P.M.—Sectional Meetings in University College. Public Health Section in the Mechanics' Lecture Hall.

2.30 P.M.—Concluding General Meeting in the Mechanics' Hall. Address in Bacteriology by GERMAN SIMS WOODHEAD, M.D.

4 to 6 P.M.—Garden Party.

8.30 P.M.—*Conversazione* in the University College, given by the President of the Association and the Midland Branch.

SATURDAY, JULY 30TH, 1892.

Excursions.

EXCURSIONS.

1. To Belvoir Castle, where the members will be entertained to lunch by His Grace the Duke of Rutland, returning by Harlaxton Manor, where they will be entertained to tea by Mrs. Sherwin-Gregory. This excursion is limited to 120 tickets.

2. To Sherwood Forest and the Dukeries, where they will be entertained to lunch by His Grace the Duke of Portland, at Welbeck Abbey. This excursion is limited to 120 tickets.

3. To Haddon Hall and Chatsworth, where the members will be entertained to lunch by His Grace the Duke of Devonshire, returning by Scarcliffe, where they will be entertained to tea by Lady Whitworth. This excursion is limited to 120 tickets.

4. To Lincoln, where the members will be entertained to lunch by the President, Viscount Oxenbridge, and the Governors of The Lawn (Lunatic Hospital) in the grounds, and afterwards to tea by the Right Worshipful the Mayor of Lincoln in the Castle grounds. This excursion is limited to 60 tickets.

Tickets for these excursions will not be issued before the date of the meeting, but will be obtainable on the opening of the Reception Room at 4 p.m. on Monday, July 25th, and following days.

In addition to the above, an afternoon excursion, limited to 150 gentlemen and 50 ladies, will be made to Buxton on Friday, July 29th, returning to Nottingham in time for the *conversazione*. Through the kindness of the Duke of Devonshire, this visit will be made free of cost to those members who are desirous of inspecting "The Queen of Inland Watering Places." Application for tickets for this excursion only may be made any time after Saturday, July 9th, to Mr. Henry Williams, Honorary Secretary Excursion Committee, 19, Regent Street, Nottingham.

THE ANNUAL MUSEUM.

In connection with the sixtieth annual meeting of the British Medical Association, the Museum and Exhibition will be held in the Technical Schools, University College, Nottingham. The Museum will be arranged in the following Sections:—

SECTION A.—Food and Drugs, including Antiseptic Dressings and other Chemical and Pharmaceutical Preparations. (Honorary Secretary, Mr. T. Davies Pryce, 39, Peachy Terrace, Nottingham.)

SECTION B.—Pathology, comprising Casts, Models, and Diagrams, Microscopes and other Apparatus, Microscopical and Spirit Preparations, etc. (Honorary Secretary, Dr. W. B. Ransom, The Pavement, Nottingham.)

SECTION C.—Anatomy and Physiology, comprising Special Dissections, Methods of Preparation, Drawings, Models, and Microscopical Preparations. (Honorary Secretary, Dr. W. Stafford, Mansfield Road, Nottingham.)

SPECIAL CORRESPONDENCE.

PARIS.

Examination Scandals.—Syphilitic Children and Wet Nurses.—Medical Bills.—Dangers of Excessive Water Drinking.

EVERY *concours d'agrégation* at the Paris medical faculty this season has been attended with some disturbance; the decision of the judges of the medical *concours* was protested against, and will shortly be brought before the *Conseil d'Etat*. Now the *concours* of Natural History has provoked an inquiry in the Chamber of Deputies, in consequence of the withdrawal of M. Montgazon, who protested against the presence of M. Raphael Blanchard as an examiner, on account of serious personal disputes. The third *concours*, which took place a few weeks ago, in surgery is also a subject of discontent to some of the candidates.

At a recent meeting of the Academy of Medicine, Dr. Marjolin proposed that in cases where children are born of syphilitic mothers who are delivered in hospitals attached to the Publique Assistance, and such children are not suckled by their mothers, but sent to a *crèche*, or elsewhere, to be reared, the certificate sent with the infant should state that the child is born of a mother suffering from a contagious disease and must be reared by artificial means. Dr. Marjolin stated that there are no means for protecting wet nurses from contracting syphilis from their nurslings, and it is necessary to use them.

The Chamber of Deputies has the following Bills on the list for discussion: The druggists Bill concerning the practice of chemists and druggists, the making up of prescriptions and the supply of medicines to dispensaries and hospitals attached to the Assistance Publique; a Bill relative to veterinary surgery; a Bill, introduced by M. Reinach, relating to the treatment of insane patients. The Bill on gratuitous medical treatment has passed the first reading.

Four unknown persons betted among themselves as to which would drink the largest quantity of water. One drank twelve litres, another nine, a third seven. All three died a few hours afterwards; the fourth is seriously ill in a hospital.

There are in Paris 6,000 certificated nurses; a certain number of them, in order to avoid going from hospital to hospital to know if they can be employed, have organised a syndicate, to which directors and matrons of *maisons de santé* can apply when they require the services of nurses.

CORRESPONDENCE.

"THE GOLD CURE."

SIR,—In reference to the article at page 1370 of the BRITISH MEDICAL JOURNAL I claim your hospitality in order that I may set myself right while here as a guest of my English friends.

I am an American physician of thirty-two years' standing, and I am still on the roll (*sic*) of Physicians in the United States in actual practice. I also hold the important appointment of surgeon to one of the greatest railroads in the United States—the Chicago and Alton. My work in the treatment of drunkards has always been open to all medical men who have done me the honour to ask for admission to my institute as scientific observers. From 1,500 to 2,000 physicians have submitted themselves to my treatment in their own persons for the drink crave, and with nothing but advantage to their own health and habits.

I am now here at the request of Englishmen who have asked me to come over and assist in establishing an institute in London such as that which I have myself carried on at Dwight, Illinois, for thirteen years. The statements which have inspired your article are not true. I do not profess to enable a wasted life to be born again, nor do I profess to be able to renew shattered nerves or ruined viscera. All that I profess to do is to remove the drink crave by a very remarkable effect which I have discovered, and which is just on a parallel to the antagonism well known to exist between arsenic or quinine and the malarial habit. Not long hence I hope to appeal to the profession in that form which they consider the proper one, and to publish my remedies in full detail, thenceforth to take their place in the history of medical science; but at present I do not propose to take that course. At this moment I only say that my remedies do contain gold, and that your information on that point is as misleading as it is on other points.

There is one fact which I cannot understand, and therefore cannot explain. I learn that Dr. Norman Kerr found it his duty to convey to Bishop Barry information which led him to reconsider his arrangement to take the chair at a meeting on this subject at the Westminster Town Hall. Such action on the part of Dr. Kerr I cannot explain, because (1) this course was taken behind my back, which is not a course usually taken by gentlemen; (2) in July last, when I was in London, Dr. Norman Kerr did me the honour to call upon me three times; he presented me with copies of his works on the subject of inebriety, and he paid me nothing but compliments. Under these circumstances, I cannot understand Dr. Kerr's course

of action. I will only add that if Dr. Kerr has any statement to make on the subject of my work or of my remedies, there could not be a better medium than the British Medical Journal in which to pillory me for my iniquities. I am now in London, and am ready to answer him, or anyone else.—I am, etc.,

Hotel Victoria, London. Leslie E. Keeley, M.D., LL.D.

*** We have forwarded a copy of the above to Dr. Kerr, whose comment is as follows:—

The information which I conveyed to Bishop Barry had reference to the prospectus of a syndicate which I had seen, seeking to raise £150,000 to purchase the right to use the "gold cure" in the United Kingdom. This action was taken after consultation with representative members of the medical profession who, like myself, were deeply concerned for the good name of our esteemed bishops, and of the Church of England Temperance Society. The only going behind the back of anyone was when some person or persons used the name of the Church of England Temperance Society, and secured the chairmanship of a prelate "behind the back" of medical members of the society, who surely ought to have been the first persons to be consulted in such a matter. Some of those individuals who assembled at the place where the postponed meeting was to have been held were told that the chief proprietor of the "gold cure" had nothing to do with the gathering. Now, that gentleman lets the cat out of the bag in complaining that certain information relative to the meeting was conveyed "behind my back." I certainly saw that gentleman once, *not* at my initiative. Not only did I not express any approval of his procedure or "cure"; but, after listening to all he had to say, I told him plainly that neither I nor any other respectable member of the profession in Britain could have anything to do with a proprietary secret remedy. I also pointed out that it was the duty of honourable medical practitioners to place the details of their treatment openly and unreservedly before the profession. The composition and results of this and other so-called "cures" for inebriety are subjects of discussion in scientific medical societies and circles. The "gold cure" must now take a back seat. Ninety-five per cent. of "cures" are claimed for it. A rival American proprietary "cure" guarantees 100 per cent. of "cures," and offers to return the money to all who have complied with the conditions and have not been cured.

SEX IN EDUCATION.

Sir,—Convicted of egregious blunders, twice repeated, which he cannot any longer deny, but has not the grace to acknowledge, Mr. Charles Roberts now addresses to you a letter containing new and irrelevant objections to the figures in my address on Sex in Education, evidently hoping, with characteristic miscalculation, that it will be supposed that he is offering some sort of answer to the damaging strictures passed on his former letters. I am under no polemical obligation to take any further notice of the harmless lunges of an antagonist who has been proved to have misrepresented me, and has made no apology; nevertheless, I will stretch a point, and again correct Mr. Charles Roberts's divergences into "fresh faults and blunders new."

The objection now taken by Mr. Charles Roberts to my figures, and which has nothing to do with the points hitherto discussed, is that I have calculated the average brain weight of the sexes on tables including the brain weights of persons of all ages from 10 to 80, instead of confining my observations to adult brain weights for purposes of comparison with adult stature. Now I have to remind Mr. Charles Roberts that sex is not confined to adults, but extends to both extremities of life, and that, in order to arrive at a general average of sex difference in brain weight, the wider the age period included the better, always provided that there is an equal or proportional number of brains of the two sexes at the different age periods; but had Mr. Charles Roberts reflected that I was dealing with lunatics dying in asylums, and that the mortality amongst them under 20 years of age is exceedingly small (I have not at the moment access to my tables, but I do not believe there were thirty brains of persons under 20 years of age amongst the 1,400 I weighed), and had he remembered the age at which cerebral maturity, as regards mass, is attained, he must have perceived that my observations were practically confined to adults, and that I was right in comparing adult brain weight with adult stature in the sexes. But Mr. Charles Roberts knows very well that I was fully alive to his objection, and pointed out in my address that the excess of average brain weight in the male over that in the female is greater absolutely, and, after allowing for stature in persons from 20 to 30 years of age, than in persons of 30 to 40, or 40 to 50. It seemed to me fairer to draw my conclusions from my observations at all ages rather than from those in one decennium.

The short paragraph in my long oration referring to difference in brain weight in the sexes, which Mr. Charles Roberts has been exclusively scratching at for the last two months, was prepared not to satisfy his anthropometric eccentricities, but to convey broad results in the briefest possible way. The broad results—that the male brain is heavier than the female brain, both absolutely and after allowing for stature—remain unaffected by Mr. Charles Roberts's criticism; and it is not a little remarkable that the latter of these results, which he has impugned, would have been brought out much more strikingly than it has been had I adopted the standards and methods by which, in what Mr. Noel Humphreys would call his bewilderment, Mr. Charles Roberts has sought to show that it might be refuted. I used the best materials available. When Mr. Charles Roberts points out to me better material—not, of course, of home manufacture, for after what has taken place I can scarcely put implicit trust in his native statistical industries—I shall be glad to employ them.

Mr. Charles Roberts's allegation that my article in the *Book of Health* is "based" on a study and use of the statistics in his *Manual of Anthropometry*, is a mere egotistic illusion. That article, which extends to 111 pages, contains a section of six or seven pages on body weight, into which I have introduced with due acknowledgment, four tables constructed from materials collected together from various sources in Mr. Charles Roberts's *Manual of Anthropometry*. But that section on body growth is not referred to, much less founded on, in any other section of the article; and to speak of the quotations from Mr. Charles Roberts's work as the basis of the article is about as reasonable as it would be to describe the appendix vermiformis as the basis of the human body. If the whole of the quotations were cut out, the article would not be a whit the worse. Mr. Charles Roberts's own work is based so largely on the researches of Quêtelet, Bowditch, Galton, and others, that I can understand his being a little confused on the question of foundations.

It is a relief to turn from Mr. Charles Roberts's futilities to Dr. Wilberforce Smith's cogent criticism, the justice of whose observations I at once admit. It is clear that there is a fallacy in the comparison instituted between brain weight and body height in the sexes, and on referring to my oration Dr. Wilberforce Smith will see that I instituted it merely to supply an answer to those who have repeatedly alleged that on such a comparison the sex difference in favour of the male entirely disappears. My own view is that the absolute excess of brain weight in the male over the female, without reference to stature, is the best criterion which we yet possess of the mental energy of the sexes respectively. There is a correlation between brain weight and body height—ethnic observations give evidence of this—but the exact nature and limits of that correlation have yet to be defined. There is, I have no doubt, a correlation between the weight of every organ in the body and body height, but this correlation probably varies in character in the case of each organ, and the more specialised the function of the organ the less marked will this correlation be. In the case of a highly specialised organ like the brain this correlation will be secondary and subordinate to other correlations. Every organ and tissue is represented in the brain, but only indirectly, and my belief is that the correspondence between variations in mass in relation to body height will be found to be much more close in the case of lower level centres, such as the lumbar enlargement of the spinal cord, than in the cerebral hemispheres. I should be surprised to find that in the case of the eyeball, a highly-specialised organ, Mr. Jonathan Hutchinson's law holds good, and that every unit of increased stature beyond an adult standard carries with it an increase of dimensions far greater in proportion than the amount which the stature carries in its totality.

Dr. Wilberforce Smith will, I am sure, recognise the fact that in my oration, which covered a wide field, I necessarily dealt in the most cursory manner with the correlation between stature and brain weight, and that I have not exhausted what I have to say upon the subject.—I am, etc.,

Queen Anne's Mansions, S.W. JAMES CRICHTON-BROWNE.

*** This correspondence must now close.

THE PREVENTION OF DEATH UNDER ANÆSTHETICS.

SIR,—The case of death under chloroform at Liverpool, which is published in the BRITISH MEDICAL JOURNAL for June 18th, is another striking illustration of the need for greater attention to the prevention of such disasters, and especially of the urgent necessity of adopting a schedule such as that which I forwarded to you a few weeks ago. I have not seen the schedule which I have learned was published by the Chloroform Committee at the beginning of the year; but if it is similar to mine it has evidently not been used in the case referred to, and I would express the hope that either the schedule should be published in the pages of the BRITISH MEDICAL JOURNAL or that its existence should be more conspicuously brought before the profession than it has yet been.

What are the prominent features of this case as far as we have been favoured with them? A man, aged 33, has chloroform administered to him for a minor operation, nature not stated. He is soon convulsed, and directly after respiration and circulation cease. Again, we find precious time to have been wasted by the employment of means which always fail, and use of which at least is conspicuously irrational—the injection of ether, which can only intensify the narcosis and hinder recovery. It must be admitted, of course, that a case may occur in which the most rational means of resuscitation may fail; but in all fatal cases, if we would profit by experience, the question should be considered, Ought an anæsthetic to have been given at all? We are told that "the *post-mortem* examination showed the presence of extensive tuberculous disease of the lungs. The heart had a large deposit of fat externally, and the muscle had undergone extensive fatty degeneration. The ventricular walls were all thin, and the right ventricle was dilated." The aorta and arteries were atheromatous, the liver appeared to be fatty, and was so much enlarged as to weigh 83 lbs. After this catalogue of the evidences of gross and serious structural damage, to read that there was nothing to contraindicate the use of chloroform is surely amazing. Is it possible that such disease could have existed without giving rise to well-marked symptoms during life? And could not the existence of those symptoms have been ascertained by following the line of inquiry suggested by the schedule? Had not the man a cough? Was there no dyspnœa on slight exertion? no morning sickness? —evidences which, when added to his personal appearance, ought to have been more than enough to have awakened the suspicion of chronic alcoholic poisoning. If chloroform be not contraindicated in a condition like this—a condition which is easily recognisable by symptoms, to say nothing of physical signs—I for one am at a loss to know when the anæsthetic should be withheld.

Let me refer those who are interested in this matter to pp. 1042 and 1165 of the first volume of the BRITISH MEDICAL JOURNAL for the present year.—I am, etc.,

St. Austell. W. FLEMING PHILLIPS.

SEA SICKNESS AND ITS PREVENTION.

SIR,—I have read with great interest Dr. Graily Hewitt's and Dr. Robert Barnes's contributions on the above. As former surgeon in the Royal Mail Steam Packet Company I had many opportunities afforded me of studying and treating this affection, and my experience, however small, may be of some use to those who wish to investigate more thoroughly the cause and means of prevention of this distressing ailment.

Dr. Hewitt quotes from various sources to prove the production of an imitation of sea sickness by visual disturbance. He will find few deny the truth of this, as other causes—such as unpleasant sights and smells—acting in the same way, produce the same effect. But that the exclusion of visual disturbance shall prevent sea sickness is open to grave doubt —at all events, I have found it useless in the treatment of *mal de mer* unless combined with other remedies.

Everyone has doubtless heard of the celebrated case of the Indian rajah who, anxious to attend the Queen's Jubilee in England, and dreading the recurrence of a previous dangerous attack of sea sickness, paid the steamboat company an immense sum of money to construct a "swinging cabin." In spite of all these precautions, though he lay quietly on his back during the entire trip, he was very ill, as his "swinging cabin" did not prevent the sensation of sinking one experiences when the vessel descends into the trough of the sea. I look on this as a very important factor in the production of sea sickness. Many persons get over the rolling and pitching, but few can at once conquer this. How it acts is open to question. I myself am inclined to think it produces sea sickness reflexly by disturbing the muscular sense. These two causes—namely, visual disturbance and disturbance of the muscular sense—combined with a want of proper relation between the contents of the abdomen and pelvis, are involved in most cases of sea sickness.

The treatment I found most useful was sulphonal to produce sleep and deaden reflex excitability. This should be taken, if possible, immediately on going on board, to be repeated if the sickness becomes distressing. Abstention from food during the period that the sickness lasts, iced champagne, followed by light clear soups, and the recumbent position are the most useful remedies. Should the patient be greatly prostrated by continued retching, he must be supported by nutrient enemata of brandy and eggs, etc. Nitrite of amyl and chloralamide have been worse than useless in my hands.—I am, etc.,

Hurst, Berks. JOHN N. DONNELLAN, M.B., B.Ch.

THE FULHAM SCARLET FEVER CASE.

SIR,—As you repeat in your note in this case an error of the *Times* reporter, which is calculated to cast discredit upon myself, I hope you will allow me space to explain what happened between Dr. Cayley and myself.

On June 4th the medical officer of health, on the strength of his own evidence and that of two other medical men whom he had taken to see the case without consulting me, applied for and obtained a warrant for the removal of my patient Emily Williams. Although the medical officer of health knew that I was attending the child for pleurisy he gave me no notice of the steps he was about to take, and until the case came up in Court and the warrant was out I had no knowledge whatever that anyone but myself had visited the child after May 19th.

On the evening of the 4th Mr. Butler called upon me and explained his connection with the case, and we agreed to send for Dr. Cayley and take his opinion. Being Saturday it was too late for us to write, so I telegraphed simply "Can you see a case with me to-morrow." Dr. Cayley came down on Sunday, the 5th, and we explained to him as far as we could what we took to be the facts of the case before the child was brought in to him. After a careful examination Dr. Cayley could find no trace of scarlet fever. He then asked us what would happen if the child remained in the neighbourhood, and we told him it would be arrested. The words he then used were as near as I can remember: "Poor little thing, it would be a shame to send it into a fever hospital. I will take it for you if you like into the Middlesex Hospital." This he did out of pure kindness to the child, thinking that no further steps would be taken to seize it.

The remarks of the magistrate I can leave in the hands of the Home Office, which has seen fit to remit the fine of £10 and also the £2 2s. costs.—I am, etc.,

Fulham. WM. F. CLARKE, M.D., B.S.Lond.

SPECIAL HOSPITALS.

SIR,—The abstract from the Report of the Lords' Committee on the Hospitals will have been read with great interest, and by none more so than those who like myself have an official connection with hospital work. As to the question of "hostility so widely shown by the medical profession to special hospitals," permit me to state a few facts which tend to prove that their dislike is not so real as would appear. Mr. Lennox

Browne, who gave evidence before the Lords Committee handed in a table, a copy of which I enclose, showing that 153 physicians and surgeons attached to general hospitals also hold appointments at fourteen varieties of special hospitals. But this table is by no means exhaustive, for some members of the staff of general hospitals do not publish in the *Medical Directory* their special hospital appointments, and many lecturers and demonstrators at general hospital medical schools hold also special hospital appointments which were not included in the calculations.

Speaking of the special hospital to which I myself am attached, I find that in the past year no fewer than 1,000 patients out of a total of 6,674 were sent for advice and treatment by members of the medical profession, the majority of the applicants bringing either a letter or card of introduction to one or other member of our medical staff. Hardly a day passes that I do not communicate with some member of the medical profession as to the well-being of a patient under treatment, and the medical staff also receive and dispatch similar communications quite as frequently. So much for what we do for their patients.

And now for our position as a teaching institution. In the last ten years 1,934 of the medical profession have entered their names in our visitors' book as witnessing the practice of the hospital, and of this number 671 have attended the various lectures delivered at the hospital by our staff, while 15 clinical assistants, being duly qualified medical men, are annually elected for appointments of six months each. Such recognition of our work by the medical profession is very gratifying to us; but so far as this hospital is concerned, the word "hostility" should be changed into "obligation." And it is hardly likely that our experience is exceptional.

It is a matter of regret that a more definite description was not given in the report of those small special hospitals which the Committee do not consider of any real benefit either to the "sick or to science," and the more so since particular attention is drawn to one royal hospital in which the Committee consider reforms are needed, and that hospital is designated both by its full title and location. As matters now stand the public have no guide to distinguish between the useful and the useless.—I am, etc.,

RICHARD KERSHAW.

Central London Throat and Ear Hospital, Gray's Inn Road.

THE ANTI-VIVISECTION SOCIETY.

SIR,—The author of the anti-vivisection paper which you handled so severely in the BRITISH MEDICAL JOURNAL of June 25th may probably defend himself against your strictures. What I wish to point out on behalf of my friends is this—that we cannot accept as honest and truthful reports which from year to year characterise "simple inoculations" as those in which "the pain is trivial." However honourable and eminent the men may be who tell the public that these bacteriological experiments "involve no more pain than the prick of a needle," I for one cannot acquit them of the *suppressio veri* and the *suggestio falsi* when I read of such experiments as are described in Crookshank's *Bacteriology*, which in a great number of cases were followed by ulcers, abscesses, foot and mouth disease, peritonitis, pleuritis, and the like. Crookshank tells on p. 247 that, "After previous fracture or contusion of the bones of the leg the animal died in about ten days (after injection of the micrococcus pyogenes aureus), and abscesses were found in and around the bones, and in some cases in the lungs and kidneys." Anti-vivisectionists are not such ignorant fools as to be unable to judge whether such an experiment on a living animal should be truthfully described in terms which relate only to the trifling initial operation, or to those of the serious after-consequences resulting therefrom. I am quite prepared to fight the anti-vivisectional battle on the "simple inoculation" question alone.—I am, etc.,

EDWARD BERDOE, M.R.C.S., L.R.C.P.ED.

*** The passage of the Inspector's Report which deals with experiments under Certificate A is as follows, and we fail to find in it either *suppressio veri* or *suggestio falsi*:—

"In experiments conducted under Certificate A (or E or F linked with A), of which the combined total for the year is 1,406, the pain of the operation (which is practically always of the nature of hypodermic injection or simple inoculation) is trivial, and it is always made a condition of this certificate that the animal shall be killed if pain result."

Even if we accept Mr. Berdoe's view of these experiments, it is clear that the administration of anæsthetics for the initial operation would be unwarrantable.

With regard to the quotation from page 247 of Crookshank's book, why does not Mr. Berdoe state that it is taken (as a footnote tells him) from a paper published by Becker in the *Deutsche med. Wochenschrift* in November, 1883? There is no evidence that such an experiment has ever been permitted in this country under Certificate A. Mr. Berdoe is scarcely in a position to accuse others of *suppressio veri* and *suggestio falsi*.

SIR,—With regard to the leaflet entitled "The Inspector's Annual Returns," issued by the Anti-Vivisection Society, and the paragraph therefrom, of which you gave an extract in the BRITISH MEDICAL JOURNAL of June 25th, with comments thereupon, in so far as the paragraph affects me personally I wish to say that the explanation you give is correct.

From my position as borough analyst for the past twenty-four years I have from time to time had referred to me by the borough coroner cases of suspected poisoning for analytical examination. When symptoms have pointed to a vegetable poison as the cause of death I have sometimes had to employ injection under the skin of a frog in order to fully identify the poison. On the passing of the Act 39 and 40 Vict., cap. 77, I was obliged, if desirous of performing this operation when the occasion arose, to take out a licence under the Act. My licence limits me expressly to hypodermic injections for medico-legal purposes alone, and I am debarred from using the horse, mule, donkey, dog, or cat. Vivisection, in the ordinary sense of the word, I have never witnessed and never performed.

I have taken care to have the licence renewed annually, solely in the interests of the public, to avoid the lengthened adjournments of coroners' juries which would otherwise be necessary.

The last occasion on which I have found it necessary to make use of my licence was in the year 1886, in a case of poisoning by squills.

I think the above is a complete answer to the insinuation contained in the paragraph referred to. Thanking you in anticipation for the insertion of this note in your next issue.—I am, etc.,

Nottingham. EDGAR B. TRUMAN.

THE CASE OF THE PRISON SURGEONS.

SIR,—On the eve of probably the most tremendous political struggle since the days of the Reform Bill I would make an earnest appeal to my fellow-surgeons of the prison service.

The effect of the able and generous statement of our claims which you, sir, have made on our behalf has been somewhat discounted by the perturbation of the political atmosphere, but much may be done to support it if every prison surgeon will take action in the pressing on of his own case. Scattered throughout the length and breadth of the country, more than one prison surgeon can hardly have a vote for the same constituency. We may therefore extract a pledge from nearly every candidate to support our claims in Parliament. A confidential question addressed to all candidates for our suffrages cannot fail to extract a promise to favour for our cause, which involves no political principle whatever. If we only spent half the time and trouble on our own behalf which is expended by the clerical staff, and even the warders, in placing their alleged grievances before the public, victory would soon be ours.

Let each prison surgeon bestir himself to seize the present opportunity, which is unlikely to ever recur.—I am, etc.,

4 A.

DIGITALIS AND AORTIC REGURGITATION.

SIR,—There can be no question that Dr. Sainsbury's explanation of the hydrostatics of the problem is the correct one, so far as it goes, and that Dr. Balfour has founded his calculations on a misconception of Pascal's law. True enough it is that pressure exerted on an enclosed mass of liquid is transmitted equally to all parts of its surface, but the resulting equality is always per unit of area, the same pressure on a

larger number of units can never cause a greater pressure on any one, and the more extensive area of the mitral opening gives it no advantage over the smaller area of the aortic leak. Dr. Balfour's proposal to multiply by 5 the effect of the blood column coming from the auricle, as regards its power of resisting reflux from the aorta, because the ratio of the respective surfaces of these openings is as 5 : 1, is a curious slip.

Nevertheless, Dr. Balfour is right in regard to digitalis, for there is an aspect of the question which has been only slightly touched upon by him and not at all by Dr. Sainsbury, and which is the key to the controversy regarding that drug. Accepting as true the recognised dogma that the slowing of the heart lengthens the diastole more in proportion than it does the systole, and that therefore the more slowly-acting heart, being on the whole longer in diastole, will give greater opportunity for regurgitation, there are other considerations which render this fact of less evil import than might at first sight be expected. In aortic regurgitation the tension of the arterial system (which is the measure of the tendency of the contained blood to flow out of it) very rapidly diminishes during ventricular diastole, so that the evil effects of a prolonged diastole are by no means multiples of the injury caused by a short one; the great harm, so far as reflux goes, is done at the first moment, after which the falling tension in the aorta and the increasing pressure within the gradually filling ventricle render the leak every instant less and less. The flow through the mitral orifice has, however, quite a different relation to this same portion of the heart cycle; what at the beginning of the ventricular diastole was but a mere passive hydrostatic flow from one cavity to the other, becomes towards the end a forcible distension of the ventricle by the contracting auricle; most of the forward march of the blood in cases of considerable aortic regurgitation probably takes place during the latter half of the ventricular diastole, that is during the contraction of the auricle. Now although area of opening has but little to do with Pascal's law so long as the liquid is stationary or only slowly moving it has a great deal to do with its practical application in this case, because the rapidity of the blood stream introduces the element of friction which modifies the time requisite for the production of equilibrium. Friction not only minimises the amount of the aortic regurgitation when the opening is small but also retards the onflow through the mitral valve, and throws still greater strain on the auricle, which in the new conditions has to drive most of its contents into the ventricle instead of merely giving a final squeeze.

A moderate lengthening of the diastole is not therefore entirely evil, for while on the one hand, owing to the rapidly diminishing pressure in the aorta and the increasing tension within the ventricle, the regurgitation is by no means proportionately increased, time is allowed for the overburdened auricle to empty itself effectually.

There is little doubt that the good effects of digitalis do not depend on its power of slowing the heart's beat nearly so much as on its influence in securing that each contraction is efficient, and that each cavity empties itself as it goes on. Asystole is the most serious of all the results of valvular disease, and when it begins to be established in aortic regurgitation is apt to be progressive. It is over this state of imperfect systole that digitalis has so marked an influence. Nor, in my opinion, need the fear of the lengthened diastole prevent the use of so valuable a drug when the indications for its use exist, for while it is true that the time in which regurgitation can occur is lengthened the lengthening takes place just at the moment when from diminishing aortic tension the regurgitation has lost much of its force, and also just at the moment when the auricle wants time effectually to ensure the due onflow of the blood stream. The good, therefore, quite outweighs the evil.—I am, etc.,

Portman Mansions, W. Solomon C. Smith, M.D.

Medico-Psychological Association.—The next examination in England for the certificates in psychological medicine will be held at Bethlem Hospital, London, on July 7th, at 11 o'clock in the morning. The examination for the Gaskell Prize will take place on the following day at the same hour and place. Candidates are requested to give notice at once to the General Secretary, Dr. Fletcher Beach, Darenth Asylum, Dartford.

MEDICO-LEGAL AND MEDICO-ETHICAL.

FREE SCHOOL CERTIFICATES.

Dr. H. Page (Redditch) writes: I beg to hand you the enclosed circular as an example of an attempt of a rural school authority to obtain gratuitous medical services free of charge to the ratepayers.

[Copy.] "Bromsgrove Union, Bromsgrove, 25th May, 1892.

"Dear Sir,—I am directed by the School Attendance Committee of this Union to state that their attention has been called to the difficulty experienced by their school officers in satisfying themselves in the absence of a medical certificate that children not attending school are so suffering from sickness which prevents their attendance.

"The Committee are further informed that very few parents can afford to pay the 1s. generally charged by medical men for granting such certificate, and the Committee direct me to ask if you will co-operate with them in securing the regular attendance of children at school by signing a printed form (if supplied by the Committee) without charge.—Yours truly, H. D. Holloway, Clerk."

To this I got the members of the profession in the town to unanimously reply:

"To the Attendance Committee of the Bromsgrove Union.

"Gentlemen,—In reply to your circular of the 25th ult. requesting us to grant medical certificates for public elementary school purposes free of charge, we submit that the medical profession already does a vast amount of public work quite or almost gratuitously; that it has not been shown that the Legislature intended or even contemplated that the expression of medical opinion by certificate for public educational purposes should be had free of charge; on the contrary, we believe it has fully empowered school authorities to meet all expenses connected with the efficient administration of their duties. We therefore beg to decline to accede to the request of your Attendance Committee. We would beg to submit as a just and satisfactory course in this matter—based upon the method of the Notification of Infectious Diseases Act, and as also carrying the approval of one of Her Majesty's school inspectors of the county—that books of forms of certificates be issued by the guardians to the registered practitioners in the district, and that the fee of 1s. for each scholar and 2s. 6d. for each pupil teacher or other official of a school be paid by the guardians quarterly.—We are, gentlemen, William Smith and Son, Herbert Page, Edwd. Mathews, Edwin Morton, Jas. E. Peirce."

In the practical working of the Education Acts, at least in rural districts, and in the absence of an efficient school authority, there are several difficulties connected with the matter of school certificates which deserve note.

As matters stand, the Education Act requires proof of legitimate absence by medical certificate. It throws the duty and cost of this upon the parent, and makes no specific provision for this cost in the numerous cases in which the parent is unable to pay a fee. No doubt school authorities who are in earnest in the work of advancing elementary education can and do meet this difficulty; in important places the medical man is appointed at a proper salary to visit the schools systematically, and grant all necessary certificates, but it is to be feared in the majority of cases no such just and adequate provision is made. The above appeal of the Bromsgrove Guardians illustrates one mode by which it is endeavoured to meet the requirements of the Act without cost to the school district or ratepayers. Their request might even involve a visit to a school absentee. Managers of schools, voluntary and other, have, I believe, power to pay a reasonable fee for all certificates required; many decline to do so to keep down the expenses of the school, and, while demanding the certificates, leave the parent and the medical man to adjust the difficulty between them.

There seems to be no machinery by which a free medical certificate can in many places be had except through the Poor-law, and then, must a child be made a "pauper" in order to obtain it?

Another difficulty is the antagonism between the Code and the law. By the Code a "certificate" may come from a pharmaceutical chemist or others, and such certificates are accepted by masters and teachers as satisfactory evidence. This kind of "certificate" is usually ignored, I believe, by Her Majesty's inspectors. By law a "medical certificate" only is recognised; yet magistrates in some places accept the former kind of certificate, although it is assumed they should be guided only by the law. There is another difficulty. What is the minimum number of days or attendances a child may be absent from school without a certificate being required or a parent summoned for non-attendance? Friction sometimes arises out of this point.

These practical difficulties should be considered and remedied by specific provisions in the next amendment of the Act or Code, and the requirements of the Code should not differ, even in terms on the same subject, from the Act.

A RETIRING PARTNER.

Member writes: A. and B. have been partners for many years in a large practice in a semirural district. At the termination of the partnership A. announces his intention of selling his interest in the practice, and removing to London. This is purchased by B. and a new partner C. A. gives a short partnership introduction for the benefit of C., and undertakes not to visit patients in the district except at consulting fees. At the end of this partnership B. and C. discover that A. has informed all his old patients that he is willing to see them at his London address at certain hours for a specified fee. A. has since sent a card announcing a change in his London address to some of B.'s as well as all his old patients. Will you kindly say: 1. Is A. justified in the course he has taken? 2. Have B. and C. any remedy against A. for the loss they have undoubtedly suffered? 3. What should be the attitude of B. and C. towards A.?

*** 1. It would depend upon the precise form of the agreement signed by A. on the sale of his share as to whether or not he was legally justified in the course adopted.

2. If there has been a breach of the agreement, B. and C. would have a legal remedy by injunction, or damages, or both. *Primâ facie*, however, A.'s undertaking not to visit patients in the district would not appear to have been infringed. Agreements of the kind are construed strictly.

3. If there has been no breach in the letter, there may have been in the spirit, of the agreement; and representations might well be made to A. on the subject, reserving, of course, all legal rights which B. and C. may have against A.

SURGEON A. O. F.—Under the circumstances stated, the employer does not appear to be liable for the payment of a fee for medical attendance. If the case were one that came within the provisions of the Employers' Liability Act, and the member succeeded in recovering damages, the judge might possibly, under the circumstances, make an order for the payment of "Surgeon A. O. F.'s" fee in addition to the compensation awarded to the member, provided application were made to the judge so to do. On the other hand, there can be little doubt that the member was taken to "Surgeon A. O. F." because he was his club doctor, and there is also no doubt that the fee of 4s. a year covers such cases in the absence of any special agreement to the contrary.

SYPHILIS AND MARRIAGE.

THE Kentucky Court of Appeals recently decided that syphilis pleaded in answer to an action to recover damages for a breach of promise is a complete defence. In this ruling the Kentucky Court follows a decision of the Supreme Court of the State of North Carolina, in which the same defence was brought forward.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

THE following appointments have been made at the Admiralty:—WILLIAM F. SPENCER, M.D., Staff Surgeon to the *Swiftsure*, June 24th; BELGRAVE NINNIS, M.D., Deputy Inspector-General to Chatham Hospital, June 22nd. WILLIAM E. HORNE, Surgeon, to the *Melampus*, June 29th; EDWARD R. D. FASKEN, Surgeon, to the *Blonde*, June 29th; JOHN MENARY, M.D., Surgeon, to the *Lion*, June 29th; JAMES J. WALSH, Surgeon, to the *Pembroke*, additional, June 28th; HAROLD R. OSBORNE, Surgeon, to Chatham Hospital, June 28th.

ARMY MEDICAL STAFF.

SURGEON-MAJOR E. NORTH, who is serving in the Bengal command, has leave of absence for six months on medical certificate; and Surgeon-Captain E. D. FARMAR BRINGHURST, serving in the Madras command, has leave to England for three months on medical certificate.

Surgeon-Major B. W. WELLINGS, serving in the Bombay command, in charge of the Station Hospital at Aboo, is posted to general duty in the Poona District.

Surgeon-Major T. F. MACNEECE is transferred from general duty in the Bombay District to the medical charge of the Station Hospital at Mount Aboo, in the Bombay command.

MILITIA MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL M. MOORE, 4th Battalion Royal Irish Fusiliers (late the Cavan Militia), has resigned his commission, with permission to retain his rank and uniform.

INDIAN MEDICAL SERVICE.

THE following promotions, announced some time since in the BRITISH MEDICAL JOURNAL, have received the approval of the Queen:—*Bengal.*—Surgeon-Majors to be Surgeon-Lieutenant-Colonels, March 30th: ALEXANDER CROMBIE, M.D., WILLIAM R. MURPHY, D.S.O., CHARLES H. JOUBERT, EDGAR G. RUSSELL, JOHN SCULLY, GEOFFREY C. HALL, ADAM S. REID, WILLIAM A. D. FASKEN, M.D., EDWARD LAWRIE, JOSEPH WILSON, M.D., EDWARD MULVANY, JOHN M. ZORAB, RUSSICK L. DUTT, M.D., JOHN T. B. BOOKEY, ALEXANDER MCGREGOR, JAMES YOUNG, JOSHUA DUKE, JOHN MCCONAGHEY, M.D., EDWARD PALMER, ALFRED H. WILLIAMS, ROBERT A. K. HOLMES, M.D., JOHN E. C. FERRIS. Surgeon-Captains to be Surgeon-Majors, March 31st: CHARLES P. LUKIS, ROBERT R. H. WHITWELL, LAWRENCE A. WADDELL, GEORGE SHEWAN, DHANJIBHAI B. SPENCER, JAMES CLARKE, M.D., COOVERJEE C. VAID, PHILIP D. PANK, THOMAS R. MULRONEY, M.D., THOMAS R. MACDONALD. *Madras.*—Surgeon-Majors to be Surgeon-Lieutenant Colonels, March 30th: ARTHUR M. BRANFOOT, WILLIAM E. JOHNSON, M.D., STANLEY L. DOBIE, GEORGE F. BEVAN, ANDREW F. DOBSON, CHARLES LITTLE, M.D., THOMAS MAYNE. Surgeon-Captains to be Surgeon-Majors, March 31st: DONALD F. DYMOTT, RUSTOM H. CAMA, WINTHROPP B. BROWNING, CECIL HENDERSON, FRAMJI R. DIVECHA, CROASDAILE M. THOMPSON, CURJET S. RUNDLE, JAMES W. EVANS. *Bombay.*—Surgeon-Captains to be Surgeon-Majors, March 31st: HENRY P. DIMMOCK, CHARLES B. MAITLAND.

The retirement of Brigade-Surgeon-Lieutenant-Colonel I. B. LYON, C.I.E., Bombay Establishment, has received the approval of the Queen.

Brigade-Surgeon-Lieutenant-Colonel L. C. NANNEY, Madras Establishment, has also retired from the service, which he entered as Assistant-Surgeon March 31st, 1866.

Surgeon-Captain W. W. WHITE, Bengal Establishment, is transferred from the officiating to the medical charge of the 4th Bengal Cavalry, *vice* Surgeon-Lieutenant-Colonel C. W. Calthrop.

Surgeon-Captain H. F. WHITCHURCH, Bengal Establishment, is transferred from the officiating to the medical charge of the 24th Punjab Infantry, *vice* Surgeon-Lieutenant-Colonel H. J. Linton.

Surgeon-Captain J. K. CLOSE, Bengal Establishment, is transferred from the officiating medical charge of the 21st Punjab Infantry to the medical charge of the 26th Punjab Infantry, *vice* Brigade-Surgeon-Lieutenant-Colonel J. M. Fleming.

Surgeon-Major J. SYKES, Bengal Establishment, Civil Surgeon of Saharunpore, is appointed to the visiting medical charge of Moozuffernugger District, in addition to his other duties.

Surgeon-Captain T. W. STEWART, Madras Establishment, is appointed Vice-President of the Tomgoo Municipal Commission, *vice* Surgeon-Captain C. N. Bensley.

Surgeon-Major W. B. BROWNING, Madras Establishment, Acting Surgeon to the 4th District, is appointed Surgeon to his Excellency the Governor.

The services of Surgeon-Captain G. C. HALL, Madras Establishment, are replaced at the disposal of the Military Department.

Surgeon-Captain W. B. BANNERMAN, M.D., Madras Establishment, is appointed a Lay Trustee of St. Paul's Church, Mangalore.

Surgeon-Lieutenant W. E. A. ARMSTRONG is brought on the strength of the Madras Establishment from April 18th.

Surgeon-Captain W. MOLESWORTH, Madras Establishment, is permitted to return to duty.

Surgeon-Lieutenant-Colonel S. M. SALAMAN, M.D., Bombay Establishment, is appointed Inspector-General of Registration and Stamps, and Registrar-General of Births, Deaths, and Marriages for territories under the administration of the Government of Bombay during the absence of Mr. Filgate on private leave.

Surgeon-Captain S. E. PRALL, M.B., Bombay Establishment, is appointed Civil Surgeon of Sukkore during the absence of Surgeon-Captain W. A. Corkery.

Surgeon-Major H. P. YELD, Bengal Establishment, Deputy Assay Master, Calcutta, is posted as Deputy Assay Master, Bombay, from May 17th.

The services of Surgeon-Major F. F. MACCARTIE, Bombay Establishment, officiating Deputy Assay Master, Bombay, are placed at the disposal of the Government of Bombay, from May 17th.

The transfer of Surgeon-Colonel R. HARVEY, D.S.O., Bengal Establishment, from the administrative medical charge of the Punjab Frontier Force to that of the Presidency District is cancelled.

Surgeon-Captain F. A. ROGERS, Bengal Establishment, is appointed to officiate as civil surgeon of Durbhunga during the absence of Surgeon-Major R. R. H. Whitwell.

Surgeon-Captain F. O'KINEALY, Bengal Establishment, is appointed to the officiating medical charge of the 2nd Bengal Lancers, *vice* Surgeon-Captain A. W. Dawson.

Surgeon-Captain E. WILKINSON, Bengal Establishment, is appointed to the officiating medical charge of the 2nd Sikh Infantry, *vice* Surgeon-Captain J. W. Rodgers.

Surgeon-Captain W. HENVEY, Bengal Establishment, is appointed to the officiating medical charge of the 2nd Battalion 5th Gurkha Rifles, *vice* Surgeon-Captain G. Duncan.

Surgeon-Captains C. C. CASSIDY, J. W. WOLFE, and H. HENDLEY, of the Bengal Establishment, have passed the examination in Pushtu by the lower standard.

The Secretary of State has sanctioned the extension to combatant officers below the rank of major and medical officers below the rank of surgeon-major, serving on military duty at Manipore, of the local allowance of 75 rupees a month now admissible to officers in the Naga Hills. The concession takes effect from April 21st, 1892.

The undermentioned officers have leave of absence as specified:—Surgeon-Lieutenant-Colonel J. YOUNG, M.B., Bengal Establishment, Corps of Bengal Sappers and Miners, for one year; Surgeon-Major E. MULVANY, Bengal Establishment, special leave for six months on private affairs; Surgeon-Lieutenant-Colonel A. CAMERON, M.D., Bengal Establishment, Civil Surgeon of Benares, for two months and nineteen days in India, in extension, on medical certificate; Surgeon-Major C. M. THOMPSON, Madras Establishment, for four months, in extension; Surgeon-Colonel C. SIBTHORPE, Madras Establishment, Administrative Medical Officer of the Rangoon District, for eight months out of India on private affairs.

Surgeon-Lieutenant-Colonel WATSON, M.B., Bombay Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* I. B. Lyon, C.I.E., retired, April 2nd. Brigade-Surgeon-Colonel Davidson was appointed Assistant-Surgeon, September 30th, 1867, and attained the rank of Surgeon-Lieutenant-Colonel, September 30th, 1887. He has held medical charge of the Bombay Sappers and Miners at Kirkee from January 28th, 1887, but has been on sick furlough since January 24th, 1891. He served in the Abyssinian war in 1867-68 as Assistant-Surgeon, attached to the General Hospital at Zoulla (medal), and in the Afghan war in 1880 in Southern Afghanistan, in medical charge of the Base Hospital at Pir Chowky (medal).

Surgeon-Captain A. C. DEARE, Bengal Establishment, Civil Surgeon, died at Dumoh, May 27th, at the age of 32. His commission was dated April 1st, 1886. He served with the Hazara Expedition in 1888, receiving the Frontier medal, with clasp.

THE VOLUNTEERS.

SURGEON-CAPTAIN W. S. BUREROWS, 1st Sussex Artillery (Eastern Division Royal Artillery), is promoted to be Surgeon-Major, June 25th.

Surgeon-Lieutenant R. T. THOMAS, M.D., Duke of Cornwall's Artillery (Western Division Royal Artillery), has resigned his commission, which was dated October 25th, 1890.

The undermentioned gentlemen are appointed Surgeon-Lieutenants to the corps specified, dated June 25th:—CHARLES EDMUND RUSSEL RENDLE, 4th Volunteer Battalion Devonshire Regiment (late the 4th Devonshire); WILLIAM DUNCAN FRASER, M.B., 2nd Volunteer Battalion Royal Welsh Fusiliers (late the 1st Flint and Carnarvon); WALTER DE WATTEVILLE, 1st Volunteer Battalion Queen's Own Cameron Highlanders (late the 1st Inverness-shire).

THE DIET QUESTION IN THE FRENCH ARMY.

THE French Minister of War has just issued a circular instruction to all commanding officers of corps pointing out that the efforts made to ensure the soldier a wholesome and sufficient diet must remain ineffective if all concerned do not do their best to make the regulations on the subject more than a dead letter. He blames the officers forming part of the Committee of Inspection who neglect to take steps to satisfy themselves as to the sound quality of the provisions supplied to the troops, or who do

not, when necessary, avail themselves of the technical knowledge of medical and veterinary officers. He lays stress on the importance of varying the soldier's diet as much as possible.

PRIVILEGE LEAVE.

A CORRESPONDENT affirms that privilege leave in India does not mean the same for officers of the Medical Staff as for other military officers, and that some of the former have been driven to resignation or retirement through having been refused it. If such be the case, the matter certainly requires attention and explanation.

NEW TITLES.

PILGRIM writes: Mr. Brodrick's talk about "no precedent" for granting the new titles to retired officers is absurd. How can a precedent exist for something that has not happened before? For an act of simple grace and justice, the sooner one is established the better. It is vain to hope for the speedy fixing of the new titles in the public ear unless retired officers are permitted to use them. The past good service of many of them surely entitles them to a concession which costs nothing and yet is of high value.

SURGEON-MAJOR RETIRED writes: In the published list of those present at the late Army Medical Departmental dinner, the new titles were applied alike to active and retired officers. Was this departure inspired?

*** We will not hazard a guess, but it must be obvious that to describe each officer dining by the varied titles, old and new, would have been a thankless task little appreciated by the public. The departure may be the beginning of the end, and we think the sooner the new titles are officially permitted the better.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

TRAINING COLLEGE APPOINTMENT.—Mr. G. E. Wherry, Surgeon to Addenbrooke's Hospital, and University Lecturer in Practical Surgery, has been appointed Medical Officer to the New Day Training College for Teachers, established in Cambridge under the auspices of the University.

DEGREES.—At the Congregation on June 16th the following medical degrees were conferred:

M.D.—F. R. B. Bisshopp, M.A., King's; H. Head, M.A., Trinity; C. G. May, M.A., Trinity; F. P. Weber, M.A., Trinity; R. N. Goodman, M.A., St. John's; J. M. Clarke, M.A., Caius; J. G. Adami, M.A., Jesus.

M.B. and B.C.—G. A. Coulby, F. J. Dixon, R. L. Langdon-Down, W. T. Lister, E. H. G. Morris, C. N. Thomas, W. W. Walker, all of Trinity; A. Carling, A. R. Cowell, H. S. Ware, W. S. West, F. C. Young, all of St. John's; G. T. Birdwood, Peterhouse; W. E. Drake and W. J. Horne, both of Clare; C. Buttar, Pembroke; G. H. A. C. Berkeley, G. P. Chappel, R. B. Ferguson, R. Freer, H. Trontbeck, all of Caius; H. L. Brooksbank, Trinity Hall; H. B. Bolus and J. W. Dickson, both of Jesus; W. Wood, Christ's; G. Wilkinson, sen., and F. N. Windsor, both of Emmanuel; R. J. Reece, J. D. Thomas, C. C. Vigurs, all of Downing.

M.B.—L. Cobbett, Trinity.

From the *Ordo senioritatis* promulgated on June 21st, it appears that during the academical year just closed, 22 graduates were admitted to the M.D., 74 to the M.B., and 69 to the B.C. degree. The numbers last year were 19, 72, and 70 respectively.

COURSE OF PRACTICAL INSTRUCTION IN HYGIENE.—Dr. Anningson and Mr. Robinson, M.A., give notice that they will give a course of practical instruction in hygiene, commencing July 9th. The course will consist principally of practical instruction in the sanitary examination of water, air, and foods, chemically and microscopically, having special regard to the requirements of medical officers of health. It will also include the preparation of different media used in the cultivation of micro-organisms, and their cultivation therein by inoculation from air and water. Short lectures will be given in explanation of the methods employed, and of analytical reports in general relating to water, air, and foods, and the interpretations to be put on them. Short lectures will be given in the principles of ventilation, drainage, water supply, etc., illustrated by the aid of diagrams, models, etc., also on the legal and physical remedies to conditions injurious to health, and on statistical methods.

DEMONSTRATOR OF ANATOMY.—Mr. Edward Barclay-Smith, M.A., M.B., of Downing College, has been appointed a Junior Demonstrator of Anatomy, in succession to Mr. Michell, of Caius College.

UNIVERSITY OF DUBLIN.

AT the Summer Commencements, held in Trinity Term, on Thursday, June 23rd, 1892, in the Examination Hall of Trinity College, the following degrees in Medicine, Surgery, and Midwifery were conferred by the University Caput in the presence of the Senate:

Baccalaurei in Medicind, in Chirurgid, et in Arte Obstetricid.—J. B. Anderson, W. Bleazby, R. J. Coulter, J. A. Cree, C. C. Deane, J. Elliott, G. G. Fannin, M. L. Griffin, R. H. Kennan, S. Mathews, F. W. Staunton, C. E. Stokes, J. Thompson, A. E. Wales, C. E. W. Wilmot.

Doctores in Medicind.—T. Bell, J. Blood, R. A. C. Burnes, R. L. Joynt, R. F. M'Craith, T. Myles, B. M'Carthy, R. W. H. Jackson, R. D. Purefoy, A. E. Wales. *(In absentid)* H. H. Fleming.

PROFESSOR ERNST LUDWIG has been elected Rector Magnificus, and Professor von Hofmann Dean of the Medical Faculty of the University of Vienna for the academic year 1892-93.

OBITUARY.

SIR WILLIAM AITKEN, M.D., LL.D., F.R.S.,

Late Professor of Pathology, Army Medical School, Netley.

AFTER a long and painful illness this eminent member of the medical profession passed peacefully away at an early hour on June 25th. Sir William was the son of a well-known surgeon in Dundee, and was born in that city in 1825. He was educated in the High School of his native town. In 1842 he matriculated in the Art Faculty of the University of Edinburgh, passing subsequently through the medical curriculum, and proceeding to the degree of Doctor of Medicine in 1848, when he received a gold medal for his dissertation on a pathological subject. In the same year Dr. Aitken became a member of the Royal College of Surgeons of Edinburgh.

From 1848 until 1855 he was Demonstrator of Anatomy under the late Dr. Allen Thomson, professor of that science in the University of Glasgow, and pathologist to the Royal Infirmary of that city, in which capacity he began to form the Museum of Pathology in the Royal Infirmary.

In 1855, Dr. Aitken was appointed by the then Minister for War (Lord Panmure) Assistant Pathologist, and was ordered to the Crimea "to investigate the nature of the diseases from which the troops were suffering, and especially in the hospitals of Scutari on the Bosphorus." The results of that inquiry were published in 1856 in the form of a Blue Book of 120 pages, and was signed conjointly by the late Professor R. D. Lyons, of the Catholic University, Dublin, and Dr. Aitken. This report, "On the Pathology of the Diseases of the Army in the East," was presented in the same year to Parliament by order of the Secretary of State for War.

In 1860, Dr. Aitken was appointed by Mr. Sidney Herbert, who had then become Minister of War, to be the Professor of Pathology in the new Army Medical School, which was established at Chatham in that year. He continued to perform the duties of this office until the spring of this year, 1892, when the state of his health obliged him to take leave of absence to the end of the present summer term, at which time his final retirement from office was arranged to take place.

Professor Aitken was elected a Fellow of the Royal Society in 1873, and held the degree of LL.D. from both the Universities of Edinburgh and Glasgow. He was knighted in the Queen's jubilee year, 1887. On the death of the late Dr. Parkes he was appointed Secretary to the Senate of the Army Medical School, and Examiner in Medicine for the Medical Services of the Queen at the London examinations held each year in February and August. Sir William Aitken, in the course of his career, was elected a corresponding member of many foreign scientific societies. This is an honourable record; all the more so that every step was won by honest and painstaking professional work.

We have not space to even mention his numerous contributions to pathology and medicine. To the general mass of the profession he is best known, and will be long remembered, by his great work on the *Science and Practice of Medicine*, which, beginning as a small manual, grew, as his friend Professor Sharpey said, "into a brachial," and reaching seven editions, was for a long time the favourite textbook of students, and in its day the work most consulted by the general practitioners throughout the kingdom and in every colony where English is the language of the people.

"Netley men" all over the world, particularly those who passed through the Army Medical School in the days of Sir William Aitken's health and vigour will remember his teaching. No pathologist of his time could conduct a *post-mortem* examination with more thorough knowledge and dexterity. Not only did he show how the merely manual part of the inspection should be conducted, so as to insure the attainment of the end in view, but his perfect acquaintance with healthy tissues made him quick to detect the smallest aberration from normal structure in any part of the organism, and to draw from every point that was observed a valuable pathological lesson. His profound pathological and physiological knowledge, and his perfect familiarity with medical literature, domestic and foreign, made him a valuable consultant, and in this capacity he was highly valued by medical practitioners n Southampton and its neighbourhood. What

more is to be said of this excellent man and his good work in the world must be summed up in a sentence: He was a just and honourable man in every relation of life, a true and judicious and warm-hearted friend, and a much-trusted and most loyal colleague.

JOSHUA PARSONS, M.R.C.S., L.S.A.

MR. JOSHUA PARSONS, whose death we recorded last week, was born at Laverton, Somerset, in 1814. He was educated at Radley, near Abingdon, and pursued his medical studies under the late Mr. Thompson, of Kingsclere, and subsequently at University College, London. Among the friends of his student days were Dr. Snow, author of the well-known works on cholera and on chloroform, and Mr. Mark Lemon, afterwards editor of *Punch*. He took his diplomas in 1837, and shortly afterwards settled at Beckington, Somerset, where he practised for twenty-five years.

In 1862 he removed into the neighbouring town of Frome, where he continued to practise, latterly in conjunction with his sons, until his death.

Mr. Parsons, though of a most unassuming nature, was a man of cultured mind, ripe experience, and sound judgment, both in his profession and in other matters; and of a singularly gentle, unselfish, and lovable disposition.

He was formerly a frequent attendant at the meetings of the Bath and Bristol Branch of the British Medical Association, and occasionally contributed to its proceedings. He was engaged as medical witness in the celebrated Road murder case in 1860, and held from the first a view as to the circumstances of that tragedy which, improbable as it seemed to most people at the time, eventually proved to be correct.

Shortly after the passing of the Public Health Act, 1872, he was appointed medical officer of health to the Frome Urban and Rural Sanitary Authorities, and continued to hold that office up to his death. During his tenure of office he was instrumental in bringing about very great improvements in the sanitary condition of the districts under his supervision, and more especially the introduction into Frome and many of the villages of pure water supplies from outside sources. Enteric fever, endemically present in Frome so long as its drinking water was furnished by local wells and springs, has almost entirely disappeared since a more wholesome supply has been provided.

Mr. Parsons was an honorary surgeon to the Frome Cottage Hospital, in which institution he had taken a great interest since its establishment in 1874. He was honorary medical officer to the Diocesan Home for Waifs and Strays, and a trustee of the local charities.

In the early part of his career before the introduction of penny postage, Mr. Parsons was a warm advocate of that measure, and acted as agent to the late Sir Rowland Hill in promoting petitions to Parliament on the subject, and he also publicly advocated the repeal of the Corn Laws; but these were the only political questions in which he took part, for he shrank from party strife and controversy. He was, however, ever ready to further to the best of his ability movements for the common good in his town.

A prominent characteristic of Mr. Parsons was his love of flowers, and his name is well known to many lovers of hardy perennial and rock plants, of which he continued to cultivate a great variety at a time when the fashion of "carpet bedding" had almost banished them from many gardens. Latterly he rejoiced at the increasing appreciation in which, through the influence especially of his friend Mr. William Robinson, the old garden favourites have been held.

Mr. Parsons had for some time suffered from attacks of cardiac embarrassment of increasing gravity, and in consequence was about to resign his practice and appointments. On June 20th, while engaged in his sanitary duties, he was taken with one of these attacks, and died in a few minutes, thus ending in harness a well-spent life of unobtrusive usefulness. He retained to the last his faculties and freshness of mind, combining a vivid recollection of events and things long gone by with a keen interest of the present time.

He leaves a widow and a numerous family. Several of his sons have entered the medical profession, of whom one is a medical inspector under the Local Government Board, and another succeeds him in practice. Another son, inheriting his father's love of flowers, is a well known landscape painter.

At Mr. Parsons's funeral, universal tokens of respect and affection testified to the sense of personal loss felt at his death by all sections of the community in which he lived.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,782 births and 3,377 deaths were registered during the week ending Saturday, June 25th. The annual rate of mortality in these towns, which had been 17.8 per 1,000 in each of the preceding two weeks, declined to 17.3 during the week under notice. The rates in the several towns ranged from 8.8 in Croydon, 11.2 in Wolverhampton, 11.6 in Brighton, and 11.9 in Leicester to 21.1 in Manchester, 21.5 in Salford, 22.7 in Huddersfield, and 22.9 in Oldham. In the thirty-two provincial towns the mean death-rate was 17.3 per 1,000, and corresponded with the rate recorded in London. The 3,377 deaths registered during the week under notice in the thirty-three towns included 477 which were referred to the principal zymotic diseases, against 466 and 514 in the preceding two weeks; of these, 176 resulted from measles, 99 from diarrhœa, 84 from whooping-cough, 50 from diphtheria, 47 from scarlet fever, 19 from "fever" (principally enteric), and 2 from small-pox. These 477 deaths were equal to an annual rate of 2.4 per 1,000; in London the zymotic death-rate was 3.1, while it averaged 2.0 per 1,000 in the thirty-two provincial towns. No deaths from any of these zymotic diseases were recorded last week either in Huddersfield or in Gateshead, while they caused the lowest rates in Croydon, Leeds, and Newcastle-upon-Tyne, and the highest rates in Manchester, London, Oldham, Preston, and Halifax. Measles caused the highest proportional fatality in London, West Ham, Manchester, Sunderland, Birkenhead, Oldham, Birmingham, and Halifax; whooping-cough in Salford, Bristol, Preston, and Hull; and diarrhœa in Blackburn, Norwich, Burnley, and Plymouth. The mortality from scarlet fever and from "fever" showed no marked excess in any of these large towns. The 50 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 39 in London and 4 in Manchester. One fatal case of small-pox was registered in London, and one in Liverpool, but not one in any other of the thirty-three large towns; 56 small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 6 in the Highgate Small-pox Hospital, on Saturday last, June 25th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 2,066, against numbers increasing from 1,226 to 1,945 on the preceding thirteen Saturdays; 284 new cases were admitted during the week, against 207 and 213 in the previous two weeks. The death-rate from diseases of the respiratory organs in London was equal to 2.2 per 1,000, and was below the average.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, June 25th, 940 births and 538 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.8 and 17.7 per 1,000 in the preceding two weeks, rose again to 19.3 during the week under notice, and exceeded by 2.0 the mean rate during the same period in the large English towns. Among these Scotch towns the lowest rates were 16.5 in Greenock and 16.8 in Paisley, and the highest rates 20.0 in Aberdeen and 21.1 in Glasgow. The 538 deaths from these towns included 85 which were referred to the principal zymotic diseases, equal to an annual rate of 2.1 per 1,000, which was 0.7 above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Aberdeen and Glasgow. The 271 deaths in Glasgow included 31 from measles, 22 from whooping-cough, and 2 from diphtheria. Three fatal cases of diphtheria were recorded in Aberdeen, and 2 in Edinburgh. The death-rate from diseases of the respiratory organs in these towns was equal to 2.9 per 1,000, against 2.2 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, June 18th, were equal to an annual rate of 24.9 per 1,000. The lowest rates were recorded in Lisburn and Kilkenny, and the highest rates in Drogheda and Wexford. The death-rate from the principal zymotic diseases averaged 4.0 per 1,000. The 212 deaths registered in Dublin were equal to an annual rate of 31.6 per 1,000 (against 28.6 and 24.0 in the preceding two weeks), the rate during the same period being 17.1 in London and 11.2 in Edinburgh. The 212 deaths registered in Dublin included 35 which were referred to the principal zymotic diseases (equal to an annual rate of 4.9 per 1,000), of which 27 resulted from measles, 5 from whooping-cough, and 1 from diarrhœa.

DR. WALTERS, OF CHELTENHAM, THE GUARDIANS, AND THE LOCAL GOVERNMENT BOARD.

THE Council of the Poor Law Medical Officers' Association has had under consideration the case of Dr. C. A. Walters, one of the district medical officers of the Cheltenham Union, who has been suspended from duty by the guardians for non-attendance on a child during a slight attack of scarlet fever.

At a meeting of the Council held at their rooms, 3, Bolt Court, Fleet Street, on June 23rd, 1892, the following resolution was unanimously adopted:—

"That the President of the Local Government Board be asked to receive a deputation of this Council in reference to the case of Dr. Walters, of Cheltenham, as the Council believe it to be one which requires the fullest investigation."

Dr. Walters's excuse was that, at the time his attendance was requested by the mother of the child, no medical order or medical relief ticket was then presented to him, that he promised to attend if an order was pro-

cured, that this order could have been easily obtained in half an hour if proper application had been made for it, but that no application whatever was made for it, and that when he called the following day to see if the order had been procured he found a private practitioner had been called in and that the patient had been removed to the Hospital for Infectious Diseases by order of the medical officer of health. Dr. Walters considers that in declining to attend he acted within the regulations of the Local Government Board, and when the guardians referred this question to their clerk for his legal opinion upon it he, without hesitation, stated that he considered Dr. Walters's action to have been in accordance with the regulations under which he held office. The guardians, notwithstanding this opinion of their own clerk, decided to suspend Dr. Walters from duty and to report the case to the Local Government Board. There was some difference of opinion in reference to Dr. Walters's action, but his supporters were in a minority, and many severe and even cruel remarks were made by those who took the hostile side, one guardian actually stating that the child had since died, though it was never in any danger whatever and was at the time this statement was made past the stage of convalescence, and is now quite well.

We are sorry to find that the decision of the Local Government Board has been seriously adverse to Dr. Walters, and that though he has been medical officer over 30 years they consider he is deserving "severe censure." And having passed on him this sentence they remove his suspension and direct him to resume his duty as district medical officer. This verdict of the Local Government Board is to us incomprehensible, as in a long letter from that department to Dr. Walters there is no statement to the effect that he neglected his duty by refusing to attend the child, or was at all in error by so doing. But this all-important point is entirely evaded, and the verdict of the Board, which so seriously censures Dr. Walters is for having prescribed a dose of castor-oil for the child without visiting it, and thereby having, as the Board contends, accepted responsibility in reference to the case, Dr. Walters having inadvertently said, "Mother may give a dose of castor-oil if she thinks it necessary."

Let us now draw the attention of our readers to some highly important facts bearing directly on this case. The guardians of the Cheltenham Union, who profess to be so anxious for prompt medical attendance on all their paupers, by a clumsy arrangement of their own, sanction regulations which have the practical effect of developing serious difficulties in connection with it. They omit altogether to direct that the medical officers should be provided with lists of patients who are entitled to medical attendance at their hands, though this is defined by the Local Government Board to be one of the duties of the relieving officers, and they appear to be proud of a system which requires that the medical relief ticket granted by them to paupers entitled to medical attendance shall be delivered up periodically and retained for several days at the workhouse; no other voucher for medical attendances or substitute for this ticket being supplied to the patients for their use if required in the meanwhile, as if during this time the guardians could ensure medical attendance not being required by the legal holders of these tickets. A more faulty system of medical relief, or one more certain to create friction, or to break down on an emergency, it would be impossible to devise. Let us now consider what claims for Poor-law medical relief the applicant had in the case in question, and how admirably these ingenuant guardians had safeguarded the interests of the ratepayers, by strict attention to their own duties. The mother of the sick child was a widow with four children, whose husband had died within the past year, and after his death she received, from different societies in which he was insured, no less a sum than £103. At the time relief was granted by the guardians she paid a house-rent of £12 per annum, and had £30 deposited in the savings bank. Notwithstanding this, she was allowed by them 4s. weekly and two loaves of bread, and had in addition a medical relief ticket granted which had the effect of throwing a most unjust tax on the district medical officer. When these facts became publicly known, the weekly relief was stopped by order of the guardians, and although Dr. Walters's action and supposed incapability in the case has been fully reported as part of the proceedings of the Board in the local papers, no mention of these latter facts was made. Later on these same guardians appeared to have awakened up, at any rate partly, to a sense of their duties, and to have repented their former negligence, as they ordered Mrs. Cook, the mother of the child which Dr. Walters had declined to attend, to pay seven guineas for expenses incurred by residence and treatment in the Hospital for Infectious Diseases. Here again they appear to have fallen into an error: they would have done well to request this payment to be made, but to give any order to that effect was beyond their powers, as in all probability they will find out they have no power whatever to enforce the payment. We are not aware of any law which will enable them to do so.

It can scarcely be necessary for us to say much more on this extraordinary case, but we venture to hope that some good may yet result from the publication of the facts bearing on it. The guardians of the Cheltenham Union have proclaimed themselves utterly unfit to be entrusted with the expenditure of money raised by the poor-rate, and we hope that the ratepayers will, at the expiration of the present year of office, take care that other and more efficient guardians are elected in their place. In our opinion the Local Government Board would have only done their duty to the ratepayers of Cheltenham if they had suspended the guardians and ordered others to be appointed. We sincerely sympathise with Dr. Walters, whose only fault appears to have been that he acted rigidly in accordance with the regulations of the Local Government Board, and declined to run the risk of being imposed on by a woman who had herself been so successful in obtaining liberal relief from those who were so anxious to condemn him for neglect of duty, but who have certainly failed in their attempts to do so. The decision of the Local Government Board in this case must at no distant time be again considered. The question must be raised as to whether it is in accordance with law. Their order for Dr. Walters to resume duty appears to be an assumption of power which it is questionable if they possess. They have, doubtless, the authority to enable him to do so; but if he should decline, we have grave doubts as to their power to compel him. This, however, may not be important; but the medical profession as a body must not in future permit one of its members to be severely censured, even by the Local Government Board, except on proof of negligence or some other fault more grave than any which Dr. Walters has been proved to be guilty of.

MEDICAL OFFICERS OF HEALTH ON SMALL-POX AND VACCINATION.

THE Yorkshire Branch of the Society of Medical Officers of Health held their annual meeting at Doncaster on June 24th. The Mayor had placed the Mansion House at the disposal of the members. Dr. Burman (Wath) was elected President for the ensuing year, Dr. J. W. Mason (Hull) was re-elected Secretary, and Dr. Cameron (Leeds), the retiring President, was added to the list of vice-presidents. Dr. W. Arnold Evans (Bradford) read a paper on the Prevention of Small-pox, with Special Reference to its Safe Isolation. Dr. Cameron said there were men who conscientiously believed that one small vaccination mark was as good as a thousand, and that it was no matter how they vaccinated so long as they got the vaccination to take. They must not be too frightened of small-pox. They had about thirty cases at one time in the Leeds Hospital, and they had less small-pox in that part of the borough than in other parts. In dealing with small-pox it was important to be quick in taking the cases away, and they must deal with the persons who had been exposed to the infection. So long as they had half-and-half vaccination they had people taking small-pox who had been vaccinated, and it was that rather than the opinions of anti-vaccinators which did harm and kept up the feeling against vaccination. Dr. Aston (Eccleshill) said he always had a very great sympathy with anti-vaccinators in their objection to children a few weeks old being subjected to an artificial disease. They were all practically unanimous that vaccination and revaccination were effective protectors against small-pox, but he looked forward to the time when their sanitary condition would have so developed that they would not be required to compel children within the first few weeks or months of their existence to go through an artificial disease. Dr. Burman said he never knew a case of death from small-pox after one vaccination, and he never knew an unvaccinated person in a house where small-pox was escape having the disease. Further, he never knew any injury to a child from vaccination. It was decided to hold the next meeting at Halifax in October. It was resolved, on the motion of Dr. Hunter, seconded by Dr. Cameron, that as infectious hospitals existed mainly for the benefit of the public, no charge should be made by central authorities to persons treated in them unless extra accommodation is desired.

INDIA AND THE COLONIES.

NEW ZEALAND.

THE HANGING CURE.—We have received the following communication from Mr. J. H. Murray-Aynsley, Honorary Secretary Canterbury Branch, New Zealand Medical Association:

SIR,—At a meeting of this Society, held on May 12th, 1892, the following resolution was passed: "That the paragraph in the BRITISH MEDICAL JOURNAL of March 19th in *re* the Christchurch Hospital having been brought before the notice of this meeting and discussed, Dr. De Renzi's explanation was entirely satisfactory to this Society, he not having been present at the operation referred to, or having in any way communicated with any reporter on this or any other case." The following motion was also passed: "That this Society is sufficiently strong in number and influence to act as censor to the morals of its own members, and on occasion is sufficiently desirous to do so."

*** The resolution does not in any way adequately deal with the case. The newspaper article in question expressly stated, "At the invitation of Dr. De Renzi, house-surgeon of the Christchurch Hospital, representatives of the press were present yesterday morning when the patient in question underwent the process of hanging;" and went on to give at length the history of the case, and the sanguine hopes of Dr. De Renzi that the patient will shortly be able to resume his employment. It concluded: "The result of the cure will, no doubt, be watched with a considerable amount of interest, as there are a great many persons suffering from this and similar forms of the disease, for which they have been unable to obtain a cure or even relief." Accepting Dr. De Renzi's explanation as satisfactory is not by any means an answer to our strictures, without further steps to denounce and prevent such martyrisation of men who are thus pilloried by the press against their will. Neither the Honorary Secretary nor Dr. De Renzi, who writes to us by the same post, enclosing a copy of the resolution, vouchsafe any explanation or condemnation of the appearance of this technical and most objectionable article, or state who did "invite the press." By the same post we receive the following from "A Member of the British Medical Association (Christchurch, N.Z.)":

SIR,—On looking over the leaves of the BRITISH MEDICAL JOURNAL of March 19th of this year my attention was directed to your remarks on "Medical Affairs in New Zealand." I enclose for your information a standing advertisement in the Christchurch *Press*. Mr. MacBean Stewart is one of the surgeons to the Christchurch Hospital and chairman of the hospital staff.

The advertisement runs as follows: "He Rongo pai Tenei Kei Koutou Katoa.—MACBEAN STEWART'S New Cure for Asthma, New Cure for Croup, New Cure for Diphtheria, New Cure for Chronic Bronchitis. Prepared from the mountain and forest plants of New Zealand. In asthma the New Cure has proved itself to be head and shoulders above all other remedies. The New Cure is the only specific yet discovered for diphtheria. In croup the New Cure has no rival. It saves emetics, lighting fires, hot baths, and all the attendant worry incidental to the arrival of the midnight monster. In typhoid fever the New Cure disinfects, soothes, and gives refreshing sleep. The New Cure is the only true lung disinfectant. In no instance has a death occurred from diphtheria when the New Cure has been freely used from the first outset of the disease, and so great are its protective powers that the complaint has never been known to spread to other members of the family. The New Cure, 3s. 6d.; Grindelia Robusta Cigarettes, 2s.; Asthma Tobacco, 2s. 6d. and 1s."

MEDICAL NEWS.

THE new appointments in connection with the Royal (Dick's) Veterinary College, Edinburgh, consequent on the resignation of Professor McFadyean, are as follows: Chair of Veterinary Surgery and Obstetrics, J. R. U. Dewar, F.R.C.V.S.; Chair of Anatomy and Histology, A. E. Metham, M.R.C.V.S.; Lectureship in Pathological Histology and College Assistant, S. Stockman, M.R.C.V.S.. All three gentlemen are diplomates of the College.

THE FORFARSHIRE MEDICAL ASSOCIATION.—The thirty-fourth annual meeting of the Forfarshire Medical Association was held at Edzell on June 23rd, under the presidency of Dr. Duncan, of Dundee. The business was of a formal character, and after its conclusion the members, of whom the number present was large, dined together. It was determined to hold the next annual meeting at Dundee, and the following officers were elected: *President:* Dr. Rorie. *Vice-President:* Dr. McEwan (Dundee) and Dr. Grant (Glamis). *Members of Committee:* Drs. J. W. Miller, Duncan, Greig, Buist, Lennox, and Professor Reid.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The annual dinner of this Society was held at the Holborn Restaurant on June 23rd, Mr. H. W. Roberts, the President, occupying the chair. Among the guests were Sir Sherstone Baker, Bart., Recorder of Barnstaple; Surgeon-General Sir William Moore, K.C.I.E.; Mr. Munro Scott, Warden of the London Hospital; Mr. Bruce Clarke; Dr. Lewis Jones; and the Rev. Mr. Grundy. The chief event of the evening was the presentation of a very handsome silver bowl to the President as a mark of appreciation of his services to the Society as secretary during a period of almost twelve years.

CHARING CROSS HOSPITAL MEDICAL SCHOOL.—The annual prize-giving took place on June 29th, when Mr. Passmore Edwards presided, and was supported by Sir Joseph Fayrer and the medical and surgical officers of the hospital. The Dean (Mr. Stanley Boyd) read the annual report, commenting chiefly on the completion of the new school premises by the formation of the very fine and commodious museum in the basement and the conversion of the old museum into the students' club-room. Reference was also made to the changes in the teaching staff, carried out in anticipation of the five years' curriculum, and, in conclusion, to the satisfactory and steady increase in the number of students. At the conclusion of the prize-giving the Chairman, to whom the hospital is so deeply indebted for this munificent donation of a convalescent home, briefly addressed the students.

THE SANITARY CONFERENCE AT PORTSMOUTH.—A preliminary programme of the arrangements for the thirteenth Congress of the Sanitary Institute has been issued. The members will be received by the Mayor of Portsmouth on September 12th in the Town Hall. The inaugural address will be delivered by Sir Charles Cameron, President of the Congress, in the afternoon, and in the evening the Mayor will open the annual exhibition of sanitary apparatus and appliances in the new Drill Hall. On the following day a series of conferences will be held of naval and military hygienists, under the presidency of Inspector-General J. D. Macdonald, M.D., F.R.S.; of medical officers of health, under that of Dr. Charles Kelly; of municipal and county engineers, under that of Mr. Percy Boulnois; and of inspectors of nuisances, under that of Professor Wynter Blyth. The Mayoress of Portsmouth will preside over a conference of domestic hygiene. Professor J. Lane Notter will preside over the meeting of the Section of Sanitary Science and Preventive Medicine on September 14th; the Mayor of Southampton (Mr. J. Lemon, F.R.I.B.A.) over that of Engineering and Architecture on September 15th; and Dr. N. J. Russell, F.R.S., over that of Chemistry, Meteorology, and Geology on September 16th. Public addresses will be given by Sir Thomas Crawford, K.C.B., and Professor W. H. Corfield.

MEDICAL VACANCIES.

The following vacancies are announced:

ANCOATS HOSPITAL, Manchester.—Junior Resident Surgeon. Salary, £50 per annum, with board and washing. Applications to Alex. Forrest, Hon. Sec.

BELMULLET UNION (Knocknalower Dispensary).—Medical Officer. Salary, £130 per annum, and fees. Applications to Mr. Thomas Swift, Honorary Secretary, Ballinaboy, Pollatomas, Belmullet. Election on July 8th.

BOROUGH OF SCARBOROUGH.—Medical Officer of Health, not less than 25 or more than 40 years of age. Salary, £325 per annum. Will have to act also as Surgeon to the Borough Police Force, and Public Analyst, at a further salary of £25 per annum. Applications to John E. T. Graham, Town Clerk, Town Hall, Scarborough, by July 4th.

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN, St. Michael's Hill.—House-Surgeon, doubly qualified. Applications to H. Lawford Jones, Secretary, by July 2nd.

CHILDREN'S HOSPITAL, Steelhouse Lane, Birmingham.—Resident Medical Officer. Salary £80 per annum, with board, washing, and attendance. Applications to the Secretary by July 6th.

CHILDREN'S HOSPITAL, Steelhouse Lane, Birmingham.—Assistant Resident Medical Officer. Salary, £40 per annum, with board, washing, and attendance. Applications to the Secretary, by July 6th.

DENTAL HOSPITAL OF LONDON, Leicester Square, W.C.—Assistant Dental Surgeon; must be L.D.S. Applications to J. Francis Pink, Secretary, by July 11th.

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square.—Demonstrator. Honorarium, £50 per annum. Applications to Morton Smale, Dean, by July 4th.

DUNDEE ROYAL LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, with board, lodging, and washing.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House-Surgeon. Board and lodging provided. Applications to the Secretary by July 14th.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House-Physician. Board and lodging provided. Applications to the Secretary by July 14th.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon. Board, residence, and washing provided. Applications to the House-Governor by July 2nd.

GENERAL HOSPITAL, Birmingham.—Resident Surgical Officer; doubly qualified. Salary, £130 per annum, with residence, board, and washing. Applications to Howard J, Collins, House-Governor, by July 4th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Applications to the Secretary by July 2nd.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Registrar and Pathologist. Honorarium, £25 per annum. Applications to W. Thornton Sharp, Secretary, by July 4th.

MCGILL UNIVERSITY, Montreal, Canada.—Professor of Pathology for the Faculties of Medicine and Comparative Medicine. Salary, £400 per annum. Applications to Dr. Robert Craik, Dean, by July 20th.

PARISH OF APPLECROSS.—Medical Officer and Public Vaccinator for the Applecross Division. Salary, £95 per annum, with free house and garden. Applications to Mr. Bain, Applecross, Ross-shire, by July 15th.

PAROCHIAL BOARD OF PENNYGOWN AND TOROSAY.—Medical Officer. Salary, £100 per annum. Applications to Alex. Macdougall, Inspector of Poor of Torosay, Auchnacraig, by Oban, N.B., by July 20th.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House-Surgeon. Board, lodging, and washing provided. Applications to the Chairman of Medical Committee by July 13th.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Senior House-Surgeon. Salary, £75 per annum, with board and residence. Applications to the Secretary by July 5th.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House-Surgeon. Board and rooms provided. Applications to T. A. Fisher Hall, Secretary, by July 15th.

ROYAL UNITED HOSPITAL, Bath.—House-Surgeon; must be M.R.C.S. Salary, £60 per annum, with board, lodging, and washing. Applications to W. Stockwell, Secretary-Superintendent, by July 12th.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Demonstrator of Physics and Chemistry. Stipend, £100 per annum. Applications to the Medical Secretary, St. Thomas's Hospital, E.C., before July 6th.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Obstetric Tutor. Salary, £50 per annum. Applications to the Medical Secretary by July 12th.

SWANSEA HOSPITAL.—Resident Medical Officer; doubly qualified. Salary, £100 per annum, with board, furnished apartments, coals, gas, laundress, and attendance. Applications to Jno. W. Morris, Secretary, by July 4th.

ULVERSTON UNION.—District Medical Officer for the Cartmel District; must reside in the town of Cartmel. Will also be appointed Public Vaccinator. Salary, £50 per annum, and fees. Applications endorsed "Application for office of Medical Officer," to C. W. Dean, Clerk to the Guardians, Union Offices, 3, Benson Street, Ulverston, by July 7th.

WIRRAL CHILDREN'S HOSPITAL, Woodchurch Road, Birkenhead.—Resident House-Surgeon, lady or gentleman. Salary, £50 per annum, with board, lodging, and washing. Applications to F. H. Atkin, Hon. Sec., 25, Lord Street, Liverpool, by July 9th.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon. Salary, £60 per annum, with rooms, board, and washing. Applications to the Secretary by July 12th.

WYCOMBE UNION.—Medical Officer for the Union School, Bledlow. Salary, £20 per annum, and fees. Applications marked outside "Medical Officer for the School," to Thos. J. Reynolds, Clerk to the Guardians, High Wycombe, by July 2nd.

WYCOMBE UNION.—Medical Officer and Public Vaccinator for the Fifth District. Salary, £83 5s. per annum, and extra fees. Applications marked outside "Medical Officer, Fifth District," to Thos. J. Reynolds, Clerk to the Guardians, High Wycombe, by July 2nd.

MEDICAL APPOINTMENTS.

Anderson, L. M., M.R.C.S., reappointed Medical Officer to the Hearts of Oak Medical Fund.

Arnison, W. C., M.D.Durh., M.R.C.S., appointed Professor of Surgery to the University of Durham, *vice* G. Y. Heath, M.B., deceased.

Back, Herbert H., M.B.Lond., M.R.C.S., appointed Medical Officer for the No. 5 District of the Aylsham Union, *vice* E. Reeve, M.R.C.S.Eng., deceased.

Baily, E., M.B., C.M.Edin., appointed Medical Officer of Health for Oban.

Bradshaw, T. R., M.D., M.R.C.P.Lond., M.R.C.S., appointed Assistant Honorary Physician to the Royal Infirmary, Liverpool.

Bristowe, Hubert C., M.D.Lond., appointed Medical Officer at the Bath and Somerset Asylum, *vice* Chas. W. Ensor, L.R.C.P.Lond.

Browning, G. Dansey, M.R.C.S., L.R.C.P.Lond., appointed Resident Obstetric Assistant to Westminster Hospital.

Bulman, F., M.B., C.M.Durh., appointed Medical Officer of the Workhouse, Newport, Mon.

Byles, J. B., M.R.C.S., L.R.C.P.Lond., appointed Senior House-Physician to Westminster Hospital.

Campbell, Archibald, M.B., C.M.Glas., appointed Medical Officer for the Ratcliffe-on-Trent District of the Bingham Union.

Carling, W., M.B., B.C.Cantab., appointed Assistant House-Surgeon to Guy's Hospital.

Devereux, W. C., M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., appointed Acting Honorary Surgeon to the Tewkesbury Hospital, *vice* D. Devereux, M.D., deceased.

Durham, H. E., M.B., B.C.Cantab., appointed House-Surgeon to Guy's Hospital.

Ferguson, A. A., L.R.C.P., L.R.C.S.Irel., appointed Medical Officer of the Workhouse of the Aston Union.

Field, E., M.B., C.M., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer to the Municipal Charities, Bath.

Galpin, Richard, M.R.C.S.Eng., reappointed Medical Officer for the Eleventh District of the Lexden and Winstree Union.

George, Charles Frederick, M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Kirton District of the Glanford Brigg Union.

Giles, Oswald, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Sleaford Rural Sanitary Authority.

Godson, A. H., M.B., B.C.Cantab., appointed Assistant House-Surgeon to Guy's Hospital.

Green, Dr. appointed Medical Officer for the Churchstanton District of the Taunton Union, *vice* W. J. T. Barker, L.R.C.P., resigned.

Greenwood, G. S., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the Ossett Urban Sanitary District of the Dewsbury Union, *vice* J. W. Greenwood, M.R.C.S.Eng., resigned.

Hamilton, George Gibson, M.B., C.M.Edin., appointed Assistant Honorary Surgeon to the Royal Infirmary, Liverpool.

Havelock, J. G., M.B., C.M.Edin., reappointed Senior Assistant Medical Officer to the Royal Asylum, Montrose.

Howden, J. C., M.D.Edin., reappointed Medical Superintendent to the Royal Asylum, Montrose.

Hudson, H. B., L.R.C.P., L.R.C.S.Irel., appointed Public Vaccinator, Newport, Mon.

Jewell, J. W. F., M.B.Lond., appointed Assistant House-Physician to Guy's Hospital.

Laver, Henry, M.R.C.S.Eng., reappointed Medical Officer for the Fifth District of the Lexden and Winstree Union.

Lewis, H. W., M.R.C.S., L.R.C.P.Lond., appointed Senior House-Surgeon to the Westminster Hospital.

Luff, Arthur P., M.D.Lond., Lecturer on Medical Jurisprudence, and Physician to St. Mary's Hospital, appointed Official Analyst to the Home Office, *vice* C. Meymott Tidy, M.B.Aberd., deceased.

Mackeith, John, M.B., C.M.Glas., appointed Assistant Medical Officer of Health for Exeter.

McNicoll, John, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer to the Poole and Parkstone Post-offices.

Mann, J. Dixon, F.R.C.P., appointed Professor of Medical Jurnspridence at Owens College, Manchester.

Marsh, James John, L.R.C.P., L.R.C.S., L.M., etc., appointed Medical Officer to the Post-office, Ormskirk.

Marston, Francis Ernest, L.R.C.P.Lond., M.R.C.S., reappointed Medical Officer of Health for Welshpool Borough.

Mills, H. H., M.R.C.S., L.R.C.P.Lond., appointed Junior House-Physician to Westminster Hospital.

Nash, Charles, M.R.C.S.Eng., appointed Medical Officer of Health to the Catherington Rural Sanitary Authority, *vice* R. G. Strong, L.R.C.P., L.R.C.S.Edin., resigned.

Nelson, Thomas, M.D.Edin., appointed Ingleby Lecturer at Queen's College, Birmingham.

Palmer, H. D., M.R.C.S.Eng., reappointed Medical Officer for the Eighth District of the Lexden and Winstree Union.

Rake, A. T., M.B., B.S.Lond., appointed House-Surgeon to Guy's Hospital.

Riddell, J. Scott, M.B., C.M., M.A.Aberd., appointed Medical Officer in charge of Oldmacher Poorhouse, *vice* Dr. Garden, resigned.

Robotham, A. J., M.R.C.S., reappointed Medical Officer for the Newton-on-Trent District of the Gainsborough Union.

Rutherford, J. J., M.D., reappointed Medical Officer of Health for the Urban Sanitary District of Shipley.

Salter, C. E., M.B., B.S.Lond., appointed House-Physician to Guy's Hospital.

Salter, John Henry, M.R.C.S.Eng., reappointed Medical Officer for the Fourth District of the Lexden and Winstree Union.

Soutar, R., M.B., C.M.Aberd., reappointed Medical Officer to the Royal Infirmary, Montrose.

Stone, V., M.D.St.And., F.R.C.S.Edin., reappointed Medical Officer to Royal Infirmary, Montrose.

Symonds, John George Renny, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Shepperton District of the Staines Union.

Taylor, J., M.D., reappointed Medical Officer for Tenth District of the Lexden and Winstree Union.

Tebbs, W. H. Alisonn, L.R.C.P.Lond., M.R.C.S., late House-Surgeon to Westminster Hospital, appointed House-Surgeon to Addenbrooke's Hospital, Cambridge.

Thomas, A., M.B., B.S.Lond., appointed House-Physician to Guy's Hospital.

Thomas, W. Thelwall, L.R.C.P.Edin., F.R.C.S.Eng., appointed Assistant Honorary Surgeon to the Royal Infirmary, Liverpool.

Wellburn, Edgar D., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Sowerby Local Board.

West, C. J., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Leadenham Sanitary District of the Sleaford Union, and for the Fulbeck Sanitary District of the Newark Union.

Westwood, Henry O., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Bingham District of the Bingham Union, *vice* H. Wotton, L.R.C.P.Edin., resigned.

Wingrave, V. H. Wyatt, M.R.C.S.E., L.S.A., late Registrar and Anæsthetist, appointed Assistant Surgeon to the Central London Throat and Ear Hospital.

Young, F. C., M.B., B.C.Cantab., appointed Assistant House-Physician to Guy's Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

National Orthopædic Hospital, Great Portland Street, 5 P.M.—Mr. F. R. Fisher: On Deformities of the Limbs Dependent on Contraction of the Muscles, Ligaments, and Fasciæ. Lecture IV.

TUESDAY.

Society for the Study of Inebriety, 11, Chandos Street, Cavendish Square, W., 4 P.M.—Dr. H. W. Williams: The Urgent Need for Improved Legislation for Inebriates.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 P.M.—Specimens will be shown by Dr. John Phillips, Dr. Lewers, Mr. McAdam Eccles, Dr. De Vœux, Dr. Horrocks, and Mr. Bland Sutton. Dr. Herman: On Menstruation in Cases of Backward Displacement of the Uterus. Mr. W. A. Meredith: Two Cases of Double Ovariotomy during Pregnancy.

FRIDAY.

Ophthalmological Society of the United Kingdom, 8.30 P.M.—Patients and card communications at 8 P.M. Annual general meeting, election of officers, etc. Messrs. Collins and Cross: Implantation Cyst in Anterior Chamber after Cataract Extraction. Mr. Tatham Thompson: (1) Accidental Vaccinia of Eyelids; (2) Gumma of Episclera; (3) Rupture of Choroid; (4) Rodent Ulcer Destroying the Lower Lid and Eye; (5) Recurrent Sarcoma of Orbit.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

Skrimshire.—June 14th, 1892, the wife of Charles Parnham Skrimshire, The Park, Blaenavon, of a daughter (Muriel).

MARRIAGES.

Cockill—Seely.—On June 29th, at St. Peter's, Cherry Willingham, Lincolnshire, by the Rev. F. A. Williams, vicar, William Baron Cockill, M.R.C.S.Eng., L.R.C.P.Lond., of Kendal, Westmoreland, elder son of Rev. W. R. C. Cockill, late of Sierra Leone, to Edith Mary, third daughter of Mr. Robert Seely, of Manningdale, Cherry Willingham.

Craig—Aitken.—At St. Saviour's Church, Bridge of Allan, on the 23rd inst., by the Rev. J. Aberigh Mackay, D.D., assisted by the Rev. W. E. Hall, William Maxwell Craig, M.B., Surgeon, Royal Navy, to Janet Georgina, daughter of the late Archibald Robertson, and widow of Stephen Rowen Aitken.

Story—Hallowell.—At Taney Church, by the Rev. W. F. Black, D.D., and Canon Scott, J. B. Story, Esq., F.R.C.S.I., of 24, Lower Baggot Street, Dublin, to Blanche Christabel, daughter of the late Rev. J. W. Hallowell.

DEATHS.

Aitken.—On June 25th, at Woolston, Southampton, Sir William Aitken, M.D., F.R.S., Professor of Pathology, Army Medical School, Netley, aged 67.

Fraser.—At St. Helen's Road, Swansea, on the 23rd June, Thomas Alexander Fraser, M.D., M.R.C.S.Eng., eldest son of Surgeon-General John Fraser, C.B., aged 31.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

MR. S. ANDREWS (Basingstoke) asks to be recommended a home for an epileptic young woman, otherwise docile—fits not very frequent—at a charge of 15s. to 25s. a week.

W. J. S. asks to be recommended a home or institution for a young lady suffering from melancholia. She is about 20 years of age, and he thinks would give no trouble. It is not a case for an asylum. Her friends have only limited means.

A BRITISHER would be glad of suggestions as to the most advantageous manner of spending a few weeks in Vienna or one of the large German medical schools for purposes of post-graduate education in medicine and the allied subjects.

PUZZLED asks for advice in the following case. A young woman, neurotic, had both ovaries removed for fibroid changes four years ago. Though gradually improving in physical health, has never been quite well, is complaining of all the neurotic manifestations often associated with the menopause, but at present suffering from intolerable and hitherto intractable itching, pricking, and burning of the skin, without any evident alteration of the skin.

MARINE CACHEXIA.

A MEMBER asks for information on the subject of what is termed "marine cachexia."

GAG OR MOUTH PROP.

DENTIST asks to be recommended a suitable gag for extracting under anæsthesia (chloroform or ether).

INSOMNIA IN INFANTS.

JUNIOR MEMBER asks for advice in the case of a baby, aged 5 months, troubled with sleeplessness. It has never slept well from birth, but the last month the mother says it has not slept more than two hours at a time day or night, and generally much less. The mother herself is beginning to suffer from the effects of broken rest. The child is perfectly well in health, thriving well. There are no signs of any teeth.

THE F.R.C.S. EXAMINATIONS.

MACHAON asks to be recommended books for reading for the F.R.C.S.Eng. in Anatomy and Physiology, Surgery and Surgical Anatomy, and Pathology.

*** The following will be found useful: Gray's *Anatomy*, Power's or Landois and Stirling's *Physiology*, Erichsen's *Surgery*, Pepper's or Bowlby's *Surgical Pathology*.

THE TITLE OF "DR."

M.D. writes: Will you kindly inform me (1) whether a practitioner, L.R.C.P. Lond., M.R.C.S.Eng., is entitled to place the description "Physician and Surgeon" after his name on his brass plate. (2) Whether such practitioner is entitled generally to sign certificates, etc., "Dr. So-and-So, M.R.C.S., L.R.C.P., Physician," whether he, styling himself "Dr.," renders himself liable to any by-laws of his Colleges.

*** As to (1), yes, fully entitled. As to (2), "M.D." should inquire of the Registrar of the College.

ANSWERS.

MEMBER.—The date of summer holidays ought to be a matter of mutual arrangement and concession between hospital colleagues; as a matter of custom we believe the senior would be generally considered to have the choice.

MR. GEORGE FISHER, M.R.C.S.E.—There are English practitioners, with English qualifications, in Algiers, and there is good accommodation for invalids, especially in the suburb of Mustapha Superieure.

H. G.—Ample information as regards the Contagious Diseases Acts will be found in the Blue Book containing the evidence given before the Select Committee of the House of Commons on the Contagious Diseases Act, which sat in 1879-80. Various articles in the BRITISH MEDICAL JOURNAL of the same and subsequent years might also be consulted.

DYSPEPSIA IN INFANTS.

DR. J. W. FORBES ROSS (New Brighton) writes in reply to "Fornix" to recommend pancreatised wheat or oatmeal. Such a preparation, which contains also some pepsin, is manufactured by Messrs. Bonnechose and Co., 13, York Street, Liverpool, and is sold under the name of ubone. The presence of free pepsin facilitates the digestion of milk curd, and the curd formed is in a condition of minute flocculent division.

THE WEIGHTS AND MEASURES OF THE PHARMACOPŒIA.

ALEX. P. FIDDIAN.—The term "fluid grain" is already employed in the *British Pharmacopœia*, though not so freely and prominently as our correspondent very reasonably desires.

DR. WALTER LATTEY.—The Medical Council introduced the metric system of weights and measures into the *British Pharmacopœia* of 1867, in connection with the processes for volumetric estimations; and in the current (1885) edition supplemented the imperial weights and measures in a large number of the formulæ by proportional "parts" stated in the terms of our ordinary decimal method of counting. The way is well paved, therefore, for the employment of the metric system in every official formula side by side with the existing system. But it would be wise to postpone advocacy of further recognition by the Medical Council of the metric system in medicine until the forthcoming United States *Pharmacopœia*, which is to contain the metric system only, has been before medical practitioners and phamaceutists for a year or two.

NOTES, LETTERS, Etc.

THE LATE DR. OWEN REES.

DR. SAMUEL WILKS (Grosvenor Street) writes: The BRITISH MEDICAL JOURNAL of May 28th contains a letter describing some eccentricities of Dr. Owen Rees in the matter of his hat. Having been in close attendance upon him and knowing him intimately, I felt sure the whole story was a fable; but as I was completing the history of Guy's Hospital (long delayed owing to the illness and death of my colleague), I wished to perfect the already published biography of Dr. Rees, and so made diligent inquiries as to the truth of the statements in the letter mentioned. The result was that his friends in very strong language denied the story *in toto*, especially the part referring to his always wearing his hat and having it on when he died. I might add that Dr. Rees was constantly under my care during the last two years of his life, and I was never witness of the facts stated in the letter. So utterly erroneous is it that I apprehend the writer must have had some one else in his mind when he wrote of Dr. Rees. The subject would be of no importance were it not that some future historian would assume the correctness of the letter if not now contradicted.

A BLACK LIST.

CHIRURGICUS writes: The British Medical Protection Society, 8, Berners Street, Oxford Street, has started a "black list" of patients who fail to pay their medical accounts. This list is sent to their subscribers twice a year, and if kept for reference must be of the greatest use to medical men.

LEGISLATION FOR INEBRIATES.

THE urgent need for amended legislation to lay hold of, and seclude in a curative home, our standing army of habitual drunkards was brought out in bold relief at an inquest held by Dr. Danford Thomas a few days ago. An elderly woman, widow of a carpenter, had left her room and gone for some rum as soon as the publichouse was open. On returning she fell down at the door, and expired in a few minutes. A *post-mortem* examination disclosed the fact that she was a drunkard, and had died of apoplexy. From the evidence it appeared that she had been drinking heavily for three weeks. After a reference by the medical witness to similar cases, and to the necessity for a drastic measure in the interests of the victims themselves, the jury agreed to a representation to the Home Secretary, urging upon the Departmental Committee now sitting the great necessity of compulsion in the treatment of chronic inebriates, and of special provision for those who are unable to pay for the necessary treatment and maintenance.

A CENTENARIAN DOCTOR.

THERE would seem to be something in the combination of freemasonry with medicine that makes for longevity. Not very long ago we had occasion to congratulate Mr. William Salmon, of Pennlyne, Glamorganshire, the oldest Member of the College of Surgeons, who is also believed to be the oldest Freemason in the world, on his completion of his 102nd year. Now a rival medico-Masonic planet swims into our ken in the form of Dr. Enoch Fithian, of Greenwich, Cumberland County (U.S.A.), who on May 10th celebrated the completion of a century of life. Dr. Fithian, who was born on May 10th, 1792, claims to be the oldest Freemason in the United States, having been initiated seventy-six years ago. He boasts that he has seen every President of the United States from Washington, whom he saw at Philadelphia during his second term of office, down to the present occupant of the White House.

Statistics of the Clapham Maternity.

Dr. Hugh Woods (Highgate) writes: It is interesting to note the change which female attendants have wrought as regards the mortality of parturition. Even the most enthusiastic of male obstetricians never believed that parturition would cease to diminish to some extent the chances of life during the period of parturition and subsequent ten days. Female skill, however (or female imagination), has brought this to pass, and we are flooded with statistics such as those of the Clapham Maternity. The statistics of the Clapham Maternity show a mortality of 1 death (and that being septic a preventable one) in 2,200 cases. Now of 2,200 ordinary members of the community more than 1 would usually die in any 10 days, taking 20 in the 1,000 as the death-rate. As, however, the parturient are neither very old nor very young we may take it that 1 in 2,200 such women would die in 10 days, irrespective of parturition. Therefore the fact of parturition appears from these statistics to involve no additional danger to the parturient.

It is of course within the limits of chance that such an accidentally small mortality might occur with so small a number of cases; but it is much more likely that there is some important fallacy underlying such statistics. Possibly, for instance, the patients pass into other hands when death is likely to supervene, and so escape record. However this may be any statistics which profess to show that an average mortality of 1 in 2,000 is likely to be attained by any skill of man or woman during delivery and following 10 days are obviously unworthy of credence. It will be well for the community when the average mortality is less than 1 in 200 in childbirth. If any institution continues to record a mortality of only 1 in 2,000 unselected cases for any great length of time it must arise rather from skill in keeping the records than from obstetric skill.

The Registration of Midwives.

Dr. Rowland Humphreys (Fellows Road, N.W.) writes: With reference to a report in the *Sussex Daily News* of June 8th of an inquest held on a primipara, who died from puerperal fever whilst under the hands of an untrained midwife, as it illustrates various phases of the midwives question, I venture to call attention to it.

The wife absolutely refused to be attended by a medical man at her confinement, and the husband agreed to her wishes, as he took it for granted that the midwife was certificated. This untrained woman was unable to recognise puerperal fever, and continued in sole charge after she knew that the patient was seriously ill—doubtless from the high opinion she entertained of her own powers "as a sort of female doctor."

As the nature of the case was unrecognised, the patient was soundly rated for getting out of bed when in a state of delirium, and the nurse—who had never attended a confinement before, though "she had had a large family and knew what was required"—used to leave the patient unattended at times, returning to find her naked and on the floor, where, indeed, she was found by the doctor; so that her death after four days' illness was hardly to be wondered at.

Here, then, is a typical case of a woman requiring the assistance of one of her own sex at her confinement engaging with an ignorant person, as no better class of trained woman was to be had in her town. In the face of the death of the patient the law was helpless, as the maltreatment did not amount to wilful negligence. One cannot imagine the presence of a trained midwife in a town for any length of time without its coming to the knowledge of the class she would attend that there was some radical difference between her and the "Gamps" who had preceded her.

It is evident from this case that what is necessary to the safety of these poor women is that there should be some ready means of distinguishing between the two classes of midwives; there must also be some means of punishing them for offences which do not actually come within the pale of the criminal law, and the bringing home to any of them of a charge of wilful negligence would be comparatively easy if it could be shown that they had received instruction on the point in question. We are told that a certificate of knowledge itself cannot be taken away from a certificated person because the knowledge is there still; therefore, it only remains to give a certificate of registration or enrolment under an Act of Parliament, which could be annulled, and which would carry a charge of false pretences if used improperly.

It is noticeable that the coroner, in his summing up, was only able to recommend what had been already declined—the attendance of a medical man—there being no standard by which to judge of and so recommend the attendance of a properly-trained midwife.

I look forward to the time when there shall be a properly-trained woman in each of these towns, and then we may hope that these barbarities may cease and the mortality come down, as I have elsewhere shown it may, in cases attended at their own homes by competent midwives, to 1.3 per 1,000. The poorer classes will then begin to understand, like their richer fellow-creatures, that the management of a confinement is not a haphazard affair, and they will learn to properly appreciate skill where specially required.

LETTERS, COMMUNICATIONS, Etc., have been received from:

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BOOKS, Etc., RECEIVED.

The Prescriber's Guide to the Harrogate Mineral Waters. By H. J. Johnston-Lavis, M.D., M.R.C.S. London: Henry Renshaw. 1892.

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THE CROONIAN LECTURES

ON

THE CHEMISTRY AND THERAPEUTICS OF URIC ACID GRAVEL AND GOUT.

Delivered before the Royal College of Physicians of London.

By Sir WILLIAM ROBERTS, M.D., F.R.S.

Lecture IV.—Chemistry of Uratic Precipitation (continued): Bearing of the Investigation on the Therapeutics of Gout.

Topography of Uratic Deposits.—The topographical distribution of uratic deposits through the various organs and tissues of the body exhibits certain well-marked characteristics; these deposits are found almost exclusively in structures belonging to the connective tissue class—in cartilages, ligaments, tendons, and other fibrous structures, and in the cutaneous and subcutaneous connective tissues. On the other hand, uratic deposits are conspicuously absent from the muscular tissue, and from the substance of the brain, liver, spleen, and lungs. The tissues which are liable to uratic precipitations are, however, not equally so in the different parts of the body. The cartilages, ligaments, and tendons in and about the joints, which are bathed with synovia, are much more obnoxious to these deposits than are cartilages and fibrous structures situated at a distance from joints, and which are not bathed with synovial fluid. It is further to be noted that uratic deposits favour the more superficial and cooler parts of the body, especially the upper and lower extremities, and are more rare in the deeper and warmer interior parts of the trunk. It may be inferred from these particulars that the influences which co-operate to determine the site of uratic precipitations are of several and quite different kinds. I do not propose to discuss this subject comprehensively, but to refer only to two points which seem capable of a chemical or physical elucidation. These are the influence of the proportion of sodium salts in the several organs and tissues, and the influence of synovia.

(*a*) *Influence of the Proportion of Sodium Salts.*—We have seen that the dominant factors in uratic precipitation, as studied in the laboratory, are the proportion of urates and the proportion of sodium salts contained in the medium.[1] The highest tendency to precipitation is reached when there is a concurrence of these two factors in maximum intensity. A medium may be rich in urates, but if it be at the same time poor in sodium salts, its tendency to precipitation is very feeble, and *vice versâ*. This fact has a direct bearing on the topography of uratic deposits. For supposing the system of a gouty man, on the eve of an outbreak, to be throughout equally impregnated with urates, it is obvious from the experimental evidence before adduced that uratic precipitation would take place earliest, and most copiously, in those parts which were richest in sodium salts; and take place latest, or not at all, in those parts which were poorest in sodium salts. Let us now examine the distribution of sodium salts in the body, and seek to ascertain if there be any correspondence between the liability to uratic deposits in the several tissues and organs and the proportion of sodium salts contained in them. In the subjoined table I have arranged the results of analyses on this point. The materials available for comparison are not so full and precise as could be desired, but their general significance is, I think, quite unmistakable. In order to render the comparison more complete and instructive, I have included in the table not only the results with respect to the solid organs and tissues, but also those with respect to blood serum, lymph and synovia.

An inspection of the table shows that the tissues which are liable to uratic deposits are very much richer in sodium salts than the tissues and organs which are not thus liable. The remarkable immunity from uratic deposits enjoyed by the muscular tissue, by the brain, liver, and spleen may be inferred to be due, for the greater part at least, to their poverty in sodium salts.

[1] The proportion of calcium and magnesium salts is always too small to have any appreciable influence on the occurrence of uratic precipitation.

Table XVIII.—*Showing the Percentage of Sodium Salts in the several Fluids, Tissues, and Organs of the Body.*[2]

Blood serum	0.70 per cent.
Lymph	0.70 ,,
Synovia	0.80 ,,
Cartilage	0.90 ,,
Fibrous tissue	0.70 ,,
Blood corpuscles	0.20 ,,
Brain	0.20 ,,
Muscle	0.08 ,,
Spleen	0.04 ,,
Liver	0.02 ,,

Turning to Table XIII, we see that the solvent power of a medium for sodium biurate increases in correspondence with its lessening proportion of sodium salts. Brain has only about one-fourth the percentage of these salts as compared with cartilage and fibrous tissue, and muscle only one-tenth. This difference signifies (roughly) that brain has four times more power, and muscle ten times more power, of dissolving sodium biurate than cartilage and fibrous tissue, and therefore, respectively, four and ten times more power of resisting its precipitation in their substance. It might probably be truthfully said on this ground that brain, muscle, liver, and spleen could not become the sites of uratic deposits until the connective tissues had been in this respect exhausted. It is true that the immune tissues and organs have a quicker circulation than cartilages and tendons, and this doubtless contributes importantly to the difference; but it scarcely fully accounts for it, otherwise we should expect that the skin, which is abundantly supplied with blood vessels, would share this immunity. The prepotency of the cartilages and fibrous tissues to induce uratic precipitation must obviously operate in a conservative direction, and serve to protect the more vital organs of the gouty from similar precipitations where they would produce more deadly effects.

(*b*) *Influence of Synovia.*—The connection between synovia and gouty deposits is evidently very close and special. Synovial fluid has itself been repeatedly found heavily laden with crystals of sodium biurate. In the great majority of the less severe cases of gout the deposits are exclusively confined to those cartilages, ligaments, and tendons which are in actual contact with synovial sacs or synovial sheaths. With regard to the articular cartilages, it may, I think, be demonstrated that the uratic precipitation actually takes place *from* the synovial fluid, and is not self-originating in the cartilaginous substance. Vertical sections of gouty cartilages are very convincing on this point. If such sections are examined under the microscope, it is seen that the deposit hugs the synovial surface of the cartilage, and that it becomes progressively sparser and sparser towards the deeper layers, the central and deepest parts being usually quite free from deposit.

This mode of distribution, moreover, implies that the process of deposition, so far as concerns the cartilage, is a purely passive one, and in no wise active and vital in its initiation. We may suppose that the urate dissolved in the synovia penetrates by liquid diffusion into the superficial layer of the underlying cartilage, and that when the critical moment arrives precipitation takes place simultaneously in the synovia and in the cartilage. On this view the after-consequences are entirely secondary, and are due to the reaction of the tissue against the presence of a foreign body lodged in its substance. It may interest you to know that this process can be artificially imitated in the laboratory, and that a counterfeit gouty joint can be produced in the articulations of a dead animal. I here show you samples of such counterfeits. They were prepared in the following manner: Tarsal bones of a pig were suspended in wide-mouthed phials charged with a saturated solution of sodium biurate made in hot water and then cooled. The phials were chloroformed, corked, and placed in the warm chamber or at the temperature of the room. Reprecipitation of the biurate takes place in two or three days. If the bones are now examined, the articulating

[2] The figures in this table are to be taken as approximative numbers. Most of them are deduced from analyses cited in Gamgee's *Physiological Chemistry*. The figures for synovia and fibrous tissue are deduced from the author's own analyses of the synovial fluid and tendons of the ox, the amounts being reckoned as chlorides. A more recent analysis of human lymph by Munk and Rosenstein (Maly's *Jahresbericht*, Bd. xx, p. 40) gives the sodium salts as 0.80 per cent.

ends are found to be encrusted with a chalky matter, which cannot be wiped off with a towel nor removed with a nail-brush. They present an exquisite imitation of the plastered appearance of a gouty cartilage. If vertical sections of such cartilages—previously hardened in absolute alcohol—are made, and examined with the microscope, the deposit is seen to be situated in the substance of the tissue, close beneath the synovial surface of the cartilage, and to be composed of a dense felt of fine needles of biurate. The deeper layers of the cartilage are not affected. It may be inferred that the deposits which occur in the ligamentous and tendinous structures of gouty joints are produced in the same way as those found in the cartilages, and that the precipitation takes place—chiefly, at least—from the synovial fluid bathing them, and that they are not due to primary morbid changes in the structures.

Two questions may now be asked: first, Why does gouty precipitation take place preferentially in synovia rather than in its cognates, the serum of blood and lymph? and secondly, Why do the joints differ so much from each other in their liability to attack? I will discuss the two questions together, as the arguments often dovetail into each other. It may be that there is, as Sir A. Garrod suggests, some special attraction in the joints for uric acid. But there are undoubtedly other factors which come into play. Synovia is a comparatively motionless fluid, while serum and lymph are in ceaseless motion; and as a still pool crystallises into ice sooner than a running brook, so likewise—supposing serum, lymph, and synovia to be equally impregnated with urates and sodium salts—the tranquillity prevailing within the synovial cysts would give to synovia a priority in uratic precipitation over the restless blood serum and lymph. Then, as regards the varying liability of the different joints to gouty attacks, it may be pointed out that the synovial pouches and sheaths are shut sacs standing apart from each other, and isolated from the general panmixia of the circulation. It might consequently be expected—indeed, it is an observed fact—that the synovial fluid in different joints should present differences in the relative proportion of their constituents. Some are certainly more concentrated than others, and we can easily believe that they are not quite identical in their degree of impregnation with urates and with sodium salts. In this way the several joints might come to vary considerably in their liability to uratic precipitation.

Frerich has contributed some interesting particulars on synovia in animals.[3] His observations indicate that synovia varies both in quantity and quality under different modes of life. He found that stall-fed horses and oxen, leading an idle existence, had twice as much synovia in their joints as similar animals roving in the meadows or doing work. Moreover, the composition of the fluid varied in the two cases. In the idle animals the synovia was more watery and contained less albuminoid matters, but—and this is significant—a larger proportion of mineral salts, which consist almost entirely of sodium salts. We might conjecture from this fact that if horses and oxen were liable to uratic precipitations, the idle stall-fed animals would be more subject to such deposits than the same animals leading a more active life. Perhaps we may discern herein one reason why men who lead a sedentary life are more subject to gouty deposits than men who take active exercise.

Interpretation of the Appearances Found at the Necropsy of Gouty Subjects—Re-solution of Gouty Deposits.—Before leaving the subject of the topographical distribution of gouty deposits I should like to say a word on the need of caution in interpreting the appearances, both positive and negative, observed at the necropsy of gouty subjects. The incidents of the gouty diathesis, especially in the early periods, pursue a markedly interrupted course. Long intervals of months or years often elapse between the arthritic outbreaks. During these intervals the blood of the gouty recovers its purity more or less completely, and approximates in its content of uric acid to the blood of a healthy person. The solvent relation of the bodily fluids to the material of uratic deposits is simply a question of saturation and subsaturation. If the lymph or synovia at a certain spot become saturated, or rather supersaturated, with sodium biurate precipitation of that substance will inevitably take place into the contiguous fibrous tissues. And if, after such an event, the lymph or synovia recover its purity and become approximately free from biurate, as in due course usually comes about, a process of slow re-solution will of necessity set in. For, as has been before demonstrated, sodium biurate, although very sparingly soluble, is by no means insoluble in these media. The rate and amount of re-solution of uratic deposits must necessarily vary greatly in different cases, according to the degree of subsaturation attained by the bodily fluids, the massiveness and penetrability of the deposits, and the length of the time during which the favourable conditions endure.

If regard be had to the often long survivorship of gouty persons, and the interrupted course of the arthritic incidents, it seems highly probable in the lapse of a long life that deposition and re-solution of uratic matter may take place once and again in a gouty joint. There are undoubted instances, of which Sir Dyce Duckworth[4] records one observed by himself, where no uratic concretions have been found after death in joints which had at some previous period undergone typical gouty attacks. The presumption in such a case is not that deposits never existed, but that they had been redissolved in the intervals of amendment. Uratic concretions in the pinna of the ear have sometimes been actually observed to come and go, and come again. There is no reason why the same thing should not occur within the joints, and such vanished concretions might leave behind them permanent changes in the cartilages and bony structures as tell-tale evidence of their former presence. On the other hand, the discovery after death of uratic deposits in a joint is not always to be regarded as a certain proof that the joint had passed through an inflammatory gouty attack. The observations of Moxon and Fagge seem to warrant this conclusion, and they reasonably suggest that when the precipitation of the urates takes place slowly and by degrees there may be no accompanying inflammatory outbreak to mark the event.[5]

The experimental evidence before adduced indicates that when lymph or synovia is impregnated with sodium biurate to or above 1 part in 6,000 the medium is supersaturated, and precipitation either actually occurs or is impending. On the other hand, when these fluids contain less biurate than 1 part in 10,000 the medium is under-saturated, and there resides in it a certain power of redissolving uratic deposits; and of course the nearer the medium is to freedom from urates the higher rises this solvent power. It may further be inferred that the solvent action will be most effective in the case of deposits situated in textures, like fibrous tissues, which have a comparatively free lymph flow, and, conversely, that it will be least effective in textures, like the cartilages, which have a sluggish lymph flow. This is probably the reason, or chief reason, why the cartilages figure more prominently than the fibrous structures in the morbid anatomy of old gouty joints. Probably both tissues were originally infiltrated with biurate crystals in equal degrees, but the fibrous structures afford greater facilities for their re-solution in the periods of amendment than the cartilages, and hence the greater persistence of the deposits in the latter tissues.

The Mode in which Uric Acid Produces its Injurious Effects.—A problem of great interest in regard to the elucidation of gouty manifestations is the mode or modes in which uric acid produces its injurious effects. The main question is, whether these effects are exclusively due to the mechanical damage consequent on its precipitation as sodium biurate in the tissues, or whether, in addition, uric acid circulating in the blood in a state of solution is capable of acting as a true poison.

With regard to the incidents of regular gout, the mechanical theory seems to offer a natural and complete explanation. The crystalline urates precipitated in the cartilaginous and fibrous structures of the joints necessarily act as foreign bodies; they excite irritation, clog the lymph channels, exercise pressure on the tissue elements and impede their nutritive operations. These effects sufficiently account for the inflammation, pain, and swelling which ensue, and explain the remoter degenerative changes which follow after. Nor need we look beyond physical conditions to account for the diversity witnessed in the local manifestations. It is easy to understand that depositions occurring within the tense unyield-

[3] R. Wagner's *Handwörterbuch d. Physiol.*, Bd. III, Pt. i, p 463.

[4] *Treatise on Gout*, by Sir Dyce Duckworth, p. 68.

[5] Fagge and Pye-Smith's *Handbook of Medicine*, p. 674.

ing structures of the joints would produce widely different results from similar depositions in the loose subcutaneous tissue or in the rim of the ear. It is equally easy to understand that the suddenness or slowness of the precipitation, its copiousness or scantiness, would necessarily cause great variation in the intensity and character of the local disturbance. So easy and natural is this explanation that we might even predicate, from our general knowledge of pathological cause and effect, that if similar depositions of crystals of carbonate of lime, or of any other inert substance, were to take place in the same localities, there would follow very much the same train of morbid sequences as are witnessed in connection with uratic precipitations.

It is in the explanation of the phenomena of irregular gout that the mechanical theory of the action of uric acid seems inadequate; and it is to meet this lack that the theory of a a poisonous action has been set up and is invoked. The visceral disturbances and manifold neuroses which trouble the gouty have not yet been anatomically traced to uratic precipitation; and there seemed no other way of explaining their occurrence, if they were to be linked with uric acid at all, except by assuming that uric acid was possessed of toxic properties. The acceptance of this view appears to me on several grounds to be extremely difficult. There is first the complete absence of direct experimental proof. Animals have been made to ingest large quantities of uric acid with their food, and urates in solution have been freely injected into their veins without eliciting any signs of poisoning. In the next place, the idea that uric acid is poisonous seems opposed to broad biological analogies. Uric acid is the physiological homologue of urea; each of these bodies constitutes in its separate domain the final term of nitrogenous metabolism. Now, it cannot be said, without an abuse of terms, that urea is a poisonous substance,[6] and it would be strange if its homologue, uric acid, differed from it in so important a particular as the possession of toxic properties.

The theory appears not less improbable when examined from a nearer point of view. The system of the gouty man is at times surcharged with uric acid. On the eve of an outbreak, the fluids of his body, in parts at least, must be impregnated with biurates to saturation, for, of course, no precipitation can occur until this point is reached. Yet, with fluids saturated with urates, such persons often betray not the slightest sign of poisoning, and enjoy complete immunity from symptoms of every kind until overtaken, unwarned, by the sudden precipitation which provokes the arthritic attack.

Again, the manifestations of irregular gout are so extremely diverse in seat and character, that it is hard to believe that they can be produced by one and the same toxic agent. Sometimes they implicate the stomach, sometimes the liver or heart or lungs, and oftenest of all the nervous system. This diversity is, however, easily explicable on the supposition that the disturbances are caused, not by uric acid in a state of solution acting as a poison, but are really due to actual precipitation of crystals of biurate into the connective and fibrous structures of the implicated organs, or into the fibrous sheaths of the nerves which control their functions.

Observations at the bedside and in the dead room lead to the inference that uratic precipitation is very variable in its mode of incidence. In certain conditions the crystals would seem to descend in sudden and copious showers, which provoke a sharp inflammatory reaction, as in the regular arthritic seizures. In other conditions the crystals would seem to fall in gentle sprinklings sufficient perhaps to excite irritation if the implicated tissue be a sensitive one, but not enough to cause downright inflammation. The peculiar pricking pains in the joints, which some gouty persons invariably experience after partaking of certain wines, are highly suggestive of the occurrence of these slighter precipitations. Now if these slighter precipitations, instead of falling on the joints, fell upon the membranes of the brain or upon the fibrous sheaths of the nerve roots, this would, I submit, afford an adequate explanation of the phenomena of irregular gout. Of course, it may be objected that no such slight precipitations have actually been found. But have they been looked for? Has the microscope been used in the investigation? In prosecuting such a search it would have to be borne in mind that the precipitations would be apt to be fugitive, and that negative results would have to be interpreted with caution. For it is obvious, in the case supposed, that when the stress of saturation of the fluids with urates was relaxed, and the blood again recovered its power of dissolving these compounds, these slight deposits would be speedily removed by re-solution, and not a trace of them might remain at the necropsy.

We scarcely realise how imminent a slight, but widespread, precipitation of the crystalline biurate must not infrequently be in the gouty system. It was shown in the last lecture that when the serum of the blood is impregnated with sodium biurate to the extent of 1 part in 6,000, supersaturation is attained, and precipitation is then, of course, imminent. It was also pointed out that Sir A. Garrod had proved by quantitative analysis that the blood serum of the gouty man is sometimes actually impregnated with uric acid to this extent. These two facts taken together indicate that the explanation here suggested of the phenomena of irregular gout stands on a strong basis of *a priori* probability, and thus dispenses with the necessity of assuming that uric acid and its compounds are endowed with poisonous qualities.

This mode of viewing the subject enables us to bring the diverse morbid effects of uric acid into uniform line. Uric acid and its compound are deleterious simply because of their sparing solubility in the bodily media. It may be said that the final cause of uric acid gravel is the sparing solubility of free uric acid in urine, and, in like manner, it may be said that the final cause of gouty precipitations is the sparing solubility of sodium biurate in blood serum, lymph, and synovia.

Bearings of the Investigation on the Therapeutics of Gout.

In dealing with the therapeutics of gout, I shall confine myself to those points which have a chemical bearing, and which can be brought into touch with the results of the foregoing investigation. According to the views developed in these lectures, the mischief done by uric acid in gout is contingent on its precipitation as crystalline biurate in the tissues or in the fluids of the body. Within this limited scope the study of the treatment of gout resolves itself into a study of the means we possess of controlling the factors which promote or hinder this precipitation. These means may be divided into those which belong to the domain of diet and regimen, and those which consist in the administration of medicinal substances.

(A) *Diet and Regimen.*

Restricting the Production of Uric Acid.—It has been shown that one of the main factors in determining uratic precipitation is the percentage of urates in the medium. Other things being equal, the larger the proportion of urates present the earlier and more abundant is the deposition of the crystalline biurate. Our power of controlling this factor lies almost entirely in the direction of regulating the diet. Numerous experiments have been made on the effect of diverse kinds of food on the production and excretion of uric acid. The chief point of therapeutical interest that has been clearly made out is this, that the ingestion of large quantities of proteid matter is attended with an increased production of uric acid, and *vice versâ*. It does not appear clear that proteid substances derived from the animal kingdom differ in this respect from those derived from the vegetable kingdom. But inasmuch as the commonly used articles of food of animal origin, such as butcher's meat, poultry, game, fish, eggs and cheese are richer in proteid stuff than the commonly used articles of vegetable origin, such as bread, oatmeal, rice, potatoes and garden products, it is true that a vegetable diet is less productive of uric acid than an animal diet. The most trustworthy experiments indicate that fat, starch, and sugar have not the least direct influence on the production of uric acid; but as the free consumption of these articles naturally

[6] The word poisonous is here used with its ordinary meaning. Almost any substance which could be got into solution in the blood in very large quantities would produce deleterious effects, even common salt. Urea can be taken into the stomach in drachm doses without harm; and Dr. Rose Bradford, who has paid particular attention to this point, informs me that the human body contains habitually in the normal state some 30 to 45 grains of urea, and may contain very much larger quantities than this without provoking any signs of poisoning.

operates to restrict the intake of nitrogenous food, their use has indirectly the effect of diminishing the average production of uric acid. There may be, and indeed undoubtedly are, other differences between animal and vegetable articles of of food, and between one article and another of the same class, which are highly important. They differ considerably among themselves in their digestibility, and in their stimulating qualities, but in regard to the point under review, namely their direct influence on the production of uric acid, articles of diet must, as far as our present knowledge goes, be classified according to the percentage of albuminoid matters contained in them. As a rough guide in the choice of food for the gouty, the subjoined table may prove useful.

Table XIX.—*Showing the Average Percentage of Albuminoid Matters contained in diverse Articles of Food.*

Animal Food.	Albuminoid Matters.
Butcher's meat	19 per cent.
Fowl	20 ,,
Game	22 ,,
Fish	17 ,,
Egg	13 ,,
Milk	4 ,,
Cheese...	30 ,,
Vegetable Food.	
Bread	8 ,,
Oatmeal	12 ,,
Rice	6 ,,
Green peas	6 ,,
Potatoes	2 ,,
Carrots and turnips	1 to 2 ,,
Green vegetables and salads ...	1 to 2 ,,
Fresh fruit (excluding nuts) ...	...0.5 to 1 ,,

In choosing a diet for persons who are disposed to uratic precipitations, regard must, of course, be had to the whole condition, and especially to peculiarities of the individual. Nowhere, perhaps, is it more necessary than in gout to consider the man as well as the ailment, and very often more the man than the ailment; but the general rule in reference to the point under notice is, I think, pretty clear. Gouty people should be advised to partake cautiously of butcher's meat, fowl, game, and cheese, and to partake as freely as their digestion will permit of bread, rice, garden vegetables, salads, and fruit. The advantage to be gained from an adjustment of the dietary on these lines may be inconsiderable or even inappreciable in cases of inveterate gout, but it may be of critical moment in the slighter cases. A diminution of 1 or 2 grains per day in the amount of uric acid thrown into the circulation may make all the difference between the occurrence or non-occurrence of an arthritic attack.

The use of alcoholic beverages, as constituting an important feature in our dietetic habits, may here claim a word of comment. The most reliable researches indicate that these beverages, in their legitimate use, exercise no appreciable influence either way on the quantity of uric acid produced in the body. It was, moreover, found in my laboratory experiments that the addition to the medium of small quantities—such as might conceivably reach the circulation—of spirits, wines, or malt liquors, had not the slighest effect on the solubility of sodium biurate, nor any influence in accelerating or retarding the precipitation of the biurate in blood serum impregnated with uric acid. The special and highly-important part played by certain classes of alcoholic beverages in fostering a proclivity to uratic depositions, is evidently of a very subtle and complex character, and has apparently no direct reference to the chemical problems discussed in these lectures.

The Use of Culinary Salt.—It was shown in the preceding lecture that the solubility of sodium biurate was conspicuously influenced by the proportion of sodium salts in the medium. I observed, moreover, in my experiments on the maturation of blood serum impregnated with uric acid, that the addition to the medium of small quantities of sodium chloride (0.1 per cent., or even less), always appreciably hastened the precipitation of the crystalline biurate. It has also been shown that the topographical distribution of uratic deposits through the body bears a close and striking relation to the percentage of sodium salts contained in the several organs and tissues. Indeed, it might apparently be said with truth that if we possessed the power of regulating the dosage of sodium salts in the fluids and tissues, we should be able effectively to control the occurrence of uratic depositions. Our power in this respect is, however, limited. Sodium salts belong to the physiological constants of the blood, and their proportion therein can only be modified within a comparatively narrow range. These remarks apply especially to the most abundant of them—the sodium chloride. It has been found in experiments on animals that when common salt is given in excess with the food, or injected into the veins, the surplus is for the most part quickly removed by the kidneys, and there is only a small and transient increase of its percentage in the blood. And, conversely, when animals are fed with food abnormally poor in salt there is only a slight falling off in its proportion in the blood, while it almost disappears from the urine. The blood clings with great tenacity to its proper percentage of sodium chloride, and the experimental evidence indicates that in case of a threatened salt famine within the economy the blood has the faculty of supplying its necessities by extracting salt from the less vital fluids and tissues, and contrariwise, in case of a glut of salt in the blood, the overplus is temporarily passed over into the serous cavities until such time as the kidneys have succeeded in restoring the normal equilibrium.' All this leads to the inference that by lessening the intake of salt with the food we should abate its proportion in the blood only to a slight degree, but should diminish its proportion in the synovial fluids and fibrous tissues considerably. Acting on these ideas, I have been in the habit for some years past of directing gouty patients to restrict, as far as practicable, the use of common salt with their meals.

(B) *Administration of Medicinal Substances.*

In forecasting the possible effects of medicinal substances given internally in the treatment of gout it is well to realise fully the actual conditions of the problem. These are widely different from those presented to us in urinary gravel. In the latter case the daily dose is designed to form an addition to a comparatively small bulk of fluid, namely, to the 40 or 50 ounces which constitute the diurnal discharge of urine. In the case of gout we are seeking to make an impression on a much larger bulk of fluid, namely, on the totality of the blood, lymph, and synovia—a quantity in a man of average weight certainly not less than 20 lbs. Consequently the effect of our dose must be proportionately less. Moreover the urine is a dead excretion, it takes and keeps what is cast into it and has no power of self-purification. The blood, on the other hand, is a living stream with high powers of self-adjustment to a normal standard. A practicable dose of an alkaline carbonate enables us to alter the urine radically, to change its reaction from acid to alkaline, and thereby to exercise a decisive therapeutical effect in uric acid gravel. But the same dose only produces a feeble and transient effect on the mass of the blood and lymph, the blood passes on the surplus alkali with all speed through the kidneys into the urine, and quickly reattains its proper physiological standard of alkalescence.

The medicinal agents which have been chiefly employed in the treatment of gout, with a view of controlling the tendency to uratic precipitation are the carbonates and phosphates of potash and soda, the carbonate of lithia, piperazine, and the waters of mineral springs—and it is to these alone that I propose to call attention.

Alkalies.—Alkaline substances are largely employed in the treatment of gout, both as pharmaceutical preparations and as components of mineral springs. It is believed that the alkaline carbonates and phosphates administered internally by increasing the alkalescence of the blood enhance its solvent power on the material of gouty deposits, and thereby delay or prevent their formation. The experimental evidence laid before you entirely destroys this hypothesis. It has been conclusively proved that alkalescence, as such, has no influence whatever on the solubility of sodium biurate. It has, moreover, been shown that the addition of an alkaline carbonate to blood serum impregnated with uric acid produces no appreciable effect on the process of maturation and the advent of precipitation of the crystalline biurate in the medium. The use of alkalies in gout has been advocated on another ground. It is held, in a vague sort of way, that there is an undue prevalence of acid in the gouty system, and that the blood is less alkaline than it should be. In some quarters it is even believed that this is the primary vice of the gouty state, and that there exists a so-called "acid dyscrasia" which

Lavage du Sang, by Dastre and Loye, *Archives de Physiologie*, 1888, p. 93.

dominates the whole condition. I have been at some pains to ascertain what foundation there is for this belief; I have found very little of any kind, and none that is really valid. In the numerous examinations of the blood in gouty subjects made by Sir Alfred Garrod, the serum was invariably found to be alkaline, never acid nor even neutral. But he remarks that there is often (not always) a marked alteration in the degree of its alkalinity, and that in cases of chronic gout the serum sometimes shows a near approach to neutrality. It is, however, obvious that observations on the alkalinity of the blood have no validity in regard to the point under consideration unless they are made on cases of gout pure and simple. Gout is often complicated, not only with pyrexia, but with serious secondary lesions in the kidneys and joints which lead to a profound cachexia. These secondary lesions bring with them blood changes of their own, which are only remotely connected with the primary disorder, and have no bearing on the etiology of uratic precipitation. In the last few years some exact quantitative measurements have been made of the alkalinity of the blood both in health and in disease.[8] These researches indicate that a diminished alkalescence of the blood is a common pathological deviation, and that it occurs in a variety of conditions which have no special relation to gout, namely, in pyrexia, in diabetes, carcinoma, acute rheumatism, anæmia, leukæmia, and apparently in every kind of general cachexia. These facts and considerations suffice to show that in the present state of our knowledge the belief in an acid dyscrasia in gout rests on a pure assumption.

Carbonate of Lithia and Piperazine.—These two substances have been introduced into the treatment of gout expressly on chemical grounds. Solutions of these substances possess a high solvent power on free uric acid, and it has been inferred from this fact that their administration internally might exercise a favouring influence on the solubility of sodium biurate in the bodily fluids, and thereby tend to prevent the formation of uratic depositions. This inference does not, however, appear to be justified. I found experimentally that the addition of carbonate of lithia or piperazine in the proportion of 0.1 per cent. and 0.2 per cent. to blood serum or synovia had not the slightest effect in enhancing the solvent power of these media on sodium biurate, nor the slightest effect in retarding its precipitation from serum and synovia artificially impregnated with uric acid. If these bodies have any beneficial action in gout, it is I think certainly not due, as has been supposed, to their solvent action on the material of gouty concretions.

Mineral Springs.—The bearing of the inquiry on the use of mineral waters is, I think, of important practical interest. A considerable number of the springs to which gouty patients resort are strongly impregnated with the salts of soda. Now it has been conclusively shown that all the salts of soda act adversely on the solubility of sodium biurate and hasten its precipitation, and it may be inferred that the introduction of these salts into the circulation must tend to favour the occurrence of uratic depositions in the body. It is not therefore surprising to learn that, not infrequently, the first effect of these waters on a gouty patient is either to provoke a downright attack of gout or to aggravate the symptoms under which he was suffering. This event is now recognised by the physicians practising at these spas as a thing to be looked for, and experience has taught them the necessity of caution in regard to the quantity of the waters to be taken by new comers. They comfort themselves and their patients, however, in the belief that this preliminary storm is a necessary prelude to the calm amendment which is to follow. There is no doubt some foundation for this idea. It is no fiction that a gouty man, tormented with symptoms of irregular gout, is relieved by a regular arthritic attack. I presume that this arises from the complete, or approximately complete precipitation of the urates floating in his blood and lymph into the structures of the joints. The urates are thereby as effectually removed from the vital fluids as if they were eliminated by the kidneys. But it must I think be allowed that this is a rough mode of cure, and that it brings with it serious pains and perils of its own. My impression is that gouty persons should either entirely avoid springs which owe their activity to sodium salts, or should use them very sparingly. It is difficult to believe that they can do any direct good, and easy to believe that they can do direct harm. If they do any good at all it must be indirectly, by acting on the liver and the intestinal tract; and we possess other means of effecting this purpose without inducing any collateral risk.

There are, however, other springs of high and growing repute in the treatment of gout which are not open to these objections. These springs contain no soda, or only traces, and the sum of their mineral constituents does not exceed that which is often present in ordinary potable waters; they contain for their chief component a little carbonate or sulphate of lime, and it is very doubtful whether the whole of this is absorbed into the blood; most of it probably passes out inertly with the fæces. In fact, springs of this class may practically be considered as equivalent to ordinary drinking water, except that several of them have the advantage of being thermal. Among springs of this kind may be mentioned, in our own country, the waters of Buxton, Bath, and Strathpeffer; in Germany the waters of Gastein, Wildbad, Pfeffers, and the Sauerling spring at Carlsbad; in France the waters of Aix-les-Bains, Contrexéville, Vittel, and Barèges. Now there can be no reasonable doubt that the efficacy of these springs has nothing to do with their scanty mineral ingredients, but depends on their watery constituent. They are drunk freely, and on an empty stomach. Their action would be to dilute the blood temporarily, and lower its percentage of urates and sodium salts. This effect would tend to retard or prevent uratic precipitation, and thus give the defective kidneys additional time to overtake their arrears in the task of eliminating uric acid.

It may be asked whether the drinking of water at home would not answer as well as resorting to a mineral spring. The inference, from my experiments, is that, other things being equal, the beneficial results would be the same; but the "other things" never are equal. It would scarcely be practicable for a man going about his usual business to drink eight or ten tumblers of water on an empty stomach every day for two or three weeks. At a watering-place the visitor has nothing to do except to attend to his "cure." Moreover, in getting away from home, he leaves behind him the worries of his daily life, and experiences the advantage of change of air and scene, with a salutary modification of diet, and he has abundant leisure for outdoor exercise. All these collateral influences help to raise the general level of health, and quicken the action of the secretory cells. I do not think, therefore, that we can forego the advantages of the time-honoured practice of a visit to a mineral spring. At the same time, a word may be said in favour of a more systematic use of water in the every-day life of the gouty. I have observed that some gouty persons are very sparing in their use of diluents; such persons should be encouraged to be habitually more liberal in this respect. In a few cases it might even be possible to imitate with plain water the regular two or three weeks' course at the spa, and to repeat this course twice or thrice a year as a prophylactic measure.

I may observe that in scarcely any complaint is there more need of caution in judging the effects of remedies than in gout. The incidents of the gouty diathesis exhibit a waviness—a flux and reflux—which is highly characteristic. There is a natural tendency for the periods of aggravation to be followed by periods of amendment, and it requires a good deal of sobriety of mind to avoid being made the dupes of our own preconceptions.

I believe that the most promising road to an improved therapeutics of gout lies through a fuller and more accurate knowledge of the chemistry of uric acid and the urates, and a more penetrating study of the reactions of these compounds with the fluids and tissues of the body. This is a large and difficult field of inquiry, and demands the co-operation of many labourers. That is my apology for the fragmentary character of the present contribution. I shall, however, be quite satisfied if what I have done prove an incentive and a help to other workers in the same field.

[8] See Peiper in *Virchow's Archiv*, 1889, and a paper by Rumpf in *Centralblatt f. klin. Med.*, 1891.

MEDICAL MAGISTRATE.—Dr. John E. Jones, of Bryn-y-Ffynon, Dolgelly, has, on the recommendation of W. R. M. Wynne, Esq., the Lord Lieutenant, been placed on the commission of the peace for the county of Merioneth.

THREE LECTURES
ON
CANCER OF THE SCROTUM IN CHIMNEY-SWEEPS AND OTHERS.

Delivered at the Royal College of Surgeons of England.

By HENRY T. BUTLIN, F.R.C.S.

Professor of Pathology and Surgery at the College; and Surgeon to St. Bartholomew's Hospital.

Lecture III.—Tar and Paraffin Cancer.

In the last lecture I endeavoured to show that the preparation of the skin of the scrotum for cancer is effected by means of the soot of hard or stone coal, and the various conditions necessary or favourable to the preparation were discussed. Then followed the important question of the reasons why the sweeps of foreign countries do not suffer from cancer of the scrotum. At first the evidence appeared to show that they owe their immunity from the disease to the innocuous qualities of the soot in those countries. But it was discovered that the sweeps of North Germany and Belgium, where hard coal is generally burned, enjoy a similar immunity, and this was traced to the care which they take to protect their bodies from the contact of the soot, and in North Germany to the practice of washing the body daily from head to foot. The protection afforded by these measures was found to be so efficient that, in spite of every other condition which may be regarded as favourable to the disease, including the employment of children as "climbing boys," it is really almost unknown in those countries.

When once I had become convinced that the absence of sweeps' cancer of the scrotum from those countries is accounted for by the precautions taken by the workmen, I began to wonder whether the immunity from the disease enjoyed by the chimney-sweeps of other countries might not be explained by the use of similar precautions rather than by differences in the quality of the soot. If these measures serve to protect the sweeps in countries where hard coal is habitually burnt, why should they not equally serve to protect them in the countries in which brown coal, wood, coke, etc., are burnt? I had become aware that similar clothing was worn by the sweeps over the whole of Germany and throughout Holland. And in Switzerland, as in the North of Germany, in addition to the clothing being very efficient, I found that what had been previously told me of the sweeps of Bern by Professor Kocher is generally true—namely, that it is the custom of the Swiss sweeps to take a hot bath every evening and to cleanse the body thoroughly in a special room provided for the purpose. At Bâle we were shown the room in the basement where the journeymen made their toilet. There were two stoves for heating water, plenty of hot and cold water in readiness, tubs, and a large zinc bath, in which each one of the men washed his whole body every night.

In the north of Italy and in France, however, the precautions against the contact of soot with the body and the means for removing it are not so perfect as they are in the countries which have been named. I shall say little of Italy, because the conditions relating to the chimney-sweeps are peculiar. The sweeps, both men and boys, who serve the large towns in the north, such as Milan and Turin, are not inhabitants of the towns for more than a few months in the year. They come down from the mountains in the neighbourhood of the great lakes, spend the winter or a large part of it in miserable lodgings in the towns, make a circuit of the surrounding country in the spring, and return to the mountains for the summer months. Consequently, very little is known of their lives, of their old age, or of the chronic diseases from which they suffer and die.

In France I shall say little of the large towns in the north which were visited—Amiens, Arras, Lille, Roubaix, Rouen, and Tourcoing—for I really have no information regarding the occurrence of sweeps' cancer of the scrotum in any of them. They are for the most part manufacturing towns, and a great deal of hard coal is burned in them. The dress of the sweeps varies somewhat in the different towns, but it is generally made of a washing material. The blouse is sometimes provided with a hood, but not invariably. The sweeps were said to be much like other people in the matter of cleanliness, and it appeared that they washed all over about once a week.

Paris, on the other hand, deserves attentive consideration. There is not the least doubt that sweeps' cancer of the scrotum is so rare there as to be almost unknown. The statements of Vidal and Nélaton, which have been already quoted; the works of distinguished surgeons and pathologists, such as Verneuil, Tillaux,[1] Péan,[2] Richelot,[3] Richerand,[4] all tell the same story; and Lebert, in his *Traité pratique des Maladies Cancéreuses*,[5] was not able to give an account of cancer of the scrotum from his own personal experience, for he had never seen a case in any patient. And he expresses the doubt whether cancer of the scrotum in England is really a disease peculiarly prevalent in chimney-sweeps. The works of these authors cover a period of about seventy years, from 1821 to 1890, and I have not met with a single statement which conflicts with them. Now in Paris, all the sweeping is in the hands of the *fumistes* (stove makers and menders, etc). The heading *Ramoneur* does not, I believe, occur in the Paris Directory. The establishment of M. Sgrena, *fumiste*, was visited, where an *employé*, aged about 30, was seen, who said that during boyhood he had been apprenticed for five years. He wore a blue blouse, shirt, and trousers, a cotton cap over his head (if he ascended a chimney) boots, kneecaps and backside piece of leather. His blouse was buttoned a little to one side of the middle line in front. Each day, after sweeping, he washed, but not in a bathhouse. At M. Portel's, in the Rue Ballu, the head clerk said that during the winter his establishment sometimes employed as many as 100 men. They dressed in a linen blouse or rather jacket, buttoned in front, trousers of the same material, coarse shirt, and boots. These clothes were put on in the workshop before the men started on their rounds. After work they were taken off in the workshop, the men washed, and, on their return home, they were said to wash again. The clothes are washed once a week. The suit of clothes which I have here was purchased at the shop in the Rue Pont Neuf, where many of the sweeps buy their clothes, and are of the exact pattern and quality supplied to the men or masters. The shirt is furnished with holes for studs, and fits pretty closely round the neck. The jacket does not fit closely at the neck; it buttons almost down the middle by a few large buttons. The trousers are supplied with a band and buckle at the back, and fasten with buttons down the middle in front. During sweeping the jacket is sometimes thrust inside the trousers, but not by any means invariably. Drawers are sometimes worn beneath the trousers, but the sweeping garments are not worn over the clothes as they often are in Holland and in Belgium. A cotton cap is drawn down over the face and neck if the sweep ascends a chimney (such as the chimney of a factory), but not if he sweeps an ordinary chimney from above or from below. The machine largely used for the cleansing of the chimneys in Paris is a *hérisson*, which is usually let down with a rope from above.

It is quite evident that the costume of the Paris sweep is not so efficient a protection against the access of soot to his body, especially to the lower part of the body, as the costume of the sweeps in the countries which have been discussed. The clothes appear, however, to be regularly washed, and the men are said to wash every day, but the washing does not take place in a chamber properly adapted for the purpose, as it is in the houses of the North German and Swiss master sweeps, and grave doubts may be felt, knowing the generally dirty habits of the lower classes, whether these men wash the lower part of the body every day or even every week. Although it is not possible to speak certainly upon the matter, I cannot but feel very strongly that the Paris soot has not the same nocuous properties as the soot of the towns in which hard coal is burnt. If it really possessed the same influence in preparing the scrotum for the occurrence of cancer, it seems incredible that the disease should be so rare in Paris that no one of the great surgeons attached to the Paris hospitals should

[1] *Traité de Chirurgie Clinique*, Paris, 1889.
[2] *Clinique Chirurgicale*, Paris, 1888.
[3] *Dict. Encyclop. des Sciences Méd.*, 1880, "Scrotum."
[4] *Nosographie et Thérapeutique Chirurgicale*, 5th edition, 1821.
[5] Paris, 1851, p. 672.

have ever seen a case. For, seeing that the dress worn by the Paris sweeps is only superior to that worn by our own sweeps in the matter of cleanliness, and does not protect the body from the contact of soot, the entire absence of the disease would augur a degree of personal cleanliness on the part of the men which is wholly inconceivable to any person who is acquainted with the general habits of the French lower classes in that respect.

The second kind of information which may assist in this inquiry is that regarding the immunity from cancer of the scrotum enjoyed by persons engaged in employments kindred to the sweeping of chimneys. Looking through the list of the occupations of persons who have been admitted into my own hospital with cancer of the scrotum in the last twenty years, I do not find a single collier, or coal porter, or engineer in a factory or ship, or dustman. And yet it might have been expected that the men engaged in some of these trades would be liable to cancer of the scrotum. Paget, in 1853, said, "for the disease is wholly unknown among colliers."[6] And Buck, in his *Hygiene and Public Health* (1879) said: "It is certain that charcoal powder will not produce it, and it is unknown among colliers." I do not know on what authority Buck's statement rests of the immunity of the men engaged in the dealing with charcoal powder; and the immunity of colliers might be very uncertain on account of the difficulty of obtaining reliable information regarding their diseases. But there are ample reasons for believing that they really do enjoy this immunity: first, because vast numbers of men are engaged in the coal mines, and cancer of the scrotum has never been mentioned as a disease which occurs even rarely among them; secondly, because the men engaged in carrying and carting coal in the cities, and particularly in London, so seldom come under our care with the disease that they may be regarded as exempt from it. Yet they get horribly dirty and covered with the grit and dust of coal.[7] Even the men engaged in stoking appear to be very rarely attacked by cancer of the scrotum, although I can furnish a couple of cases of the disease among them. One of the patients was under the care of Mr. Mitchell Banks, who operated for the primary and recurrent disease.[8] Mr. Banks says: "Although not really a chimney-sweep, his occupation was much of the same character, being that of a stoker in a gasworks, and he admitted that the wrinkles of his scrotum were generally full of gritty powder....." The other patient was a coke-hole man, who was admitted into the hospital on January 3rd, 1890, under the care of my colleague, Mr. Marsh. He was 51 years old, and had been employed on and off for about twenty-five years in coke raking. In order to ascertain the character of his work, I visited the place of his employment, the King's Cross Branch of the Gaslight and Coke Company's works, where Mr. Horton, the chief engineer, was so good as to show me the coke-hole men at work. They stand in the basement below the level of the retorts, which are on the ground and first floors. The burning coke, now fit for sale, falls continually down from above through wide fissures prepared for the purpose. The coke-hole men throw cold water upon it to extinguish the flames and cool the coke, then rake it back against the wall behind them, where it lies until it is carried away by the buyers. Once in every hour the men ascend to the retorts and rake into them a quantity of white and red hot coal out of the fires immediately above. I saw no soot or tar in connection with any of this work, nor was there even a smell of these substances. I could not ascertain that the men engaged in it were liable to cancer of the scrotum, and the patient himself had never seen or heard of a similar disease to his own in any of his fellow-workmen. He attributed his own trouble to irritation of the scrotum from heat, steam, and dust, which led him continually to scratch the part. The work is, of course, exceedingly hot, and the men are half naked, for they wear nothing but a shirt, a pair of trousers, and a pair of boots. Under these circumstances, the wonder is not that a case of cancer of the scrotum occurs among them once and again, but that the disease is as rare as it is. And this I take to be but another proof of the resistance to the occurrence of cancer offered by the integument of the scrotum under all ordinary, and under many extraordinary circumstances.

A certain liability to cancer of the scrotum has been attributed to the men engaged in two very different trades, namely, to tin and copper smelters and to shoemakers. Dr. Paris, speaking of the poisonous effects of arsenious acid on plants and animals,[9] said: "It deserves notice that the smelters are occasionally affected with a cancerous disease of the scrotum similar to that which infests chimney-sweepers."

This remark of Paris has been referred to or quoted by several authors, both English and foreign, but I have failed to find the smallest evidence on which it can rest. As Dr. Paris spoke especially of the smelting works and burning houses of Cornwall, I made careful inquiries of the doctors at Camborne and Hayle. In the neighbourhood of Camborne there are several tin-burning houses, the tall chimneys of which puff forth a white smoke. The surrounding fields are very poor in vegetation and there are but few cattle in them. The atmosphere is said to be unhealthy to animals and men, rather from sulphurous acid than from arsenic. I was told that not long since an action had been brought by a gentleman in the neighbourhood to restrain the tin-burners from continuing to burn tin there. The plaintiff declared that he had lost a horse owing to the unhealthy fumes, but he lost his action also. Mr. Pike, a gentleman largely engaged in the mines, told me that there is but little arsenic now compared with what there was a few years ago. Neither Dr. Hutchinson, who had been more than thirty years in practice in Camborne, nor my brother, who has been practising there for more than twenty years, nor Dr. Erskine, with ten years' experience of the diseases of the people, ever remembered to have met with a case of cancer of the scrotum in the whole course of their experience.

Hearing that tin smelting is carried on at Hayle, I drove there, and called on Dr. Mudge, who has been for very many years in practice, and, with his sons, attends a very large area around Hayle, and is familiar with the diseases of the work-people of all descriptions. He said that the smelting of tin is not now carried on to the same extent as formerly in that neighbourhood. Dr. Mudge remembered to have seen in past times eruptions and even rawness of the scrotum and insides of the thighs of the men exposed to the fumes of arsenic, but he had never seen a case of cancer of the scrotum, although he had seen several cases of cancer of the penis. Speaking of the effect of the arsenical fumes on animal life, he had never seen the loss of the hoofs of horses and cows described by Dr. Paris. On more than one occasion of late years the death of a cow had been attributed to the fumes of arsenic, and attempts had been made to obtain damages from the smelters. The viscera of some of these animals had been sent to Dr. Herepath, of Bristol, who had quite failed to discover arsenic in them. He further told me that the skin affections of the scrotum were healed by very simple measures when the men washed themselves, which they very often neglected to do when they were in good health.

In order to obtain information of the copper-smelting works, I wrote to Dr. Roger D. Williams, of Morriston, near Swansea, in the very heart of the smelting district. He replied: "In our practice, which is largely composed of smelting works, I do not think we have met with one case of cancer of the scrotum—that is a period of ten years."

Under these circumstances, I have come to the conclusion that there is no special liability of smelters to cancer of the scrotum. An occasional case may have occurred in men suffering from eczematous affections of the skin of the scrotum, just as it occasionally occurs in association with eczematous affections of the skin of other parts of the body; but that is a very different thing from the special liability of sweeps.

Lizars[10] says: "Chimney-sweeps, smelters of ores, and shoemakers are chiefly the subjects of this malady;" and he gives a sketch of an ulcerated tumour of the scrotum in a shoemaker; but I cannot but think this to have been an exceptional circumstance, for I find no mention of the liability

[6] *Loc. cit.*

[7] During the course of these lectures, Mr. Ballance has had the kindness to furnish me with some statistics which have lately come into his hands, which are intended to prove that coal miners are not only not subject to cancer of the scrotum, but that they suffer less frequently from cancer than men do generally. The statistics relate only to the miners of a particular locality.

[8] *Clinical Notes upon Two Years' Surgical Work in the Liverpool Infirmary*, page 67.

[9] *Pharmacologia*, 6th edition, ii, 96, 1825.

[10] *Practical Surgery*, Second Edition, 1847, p. 440.

of shoemakers in the works of any other author, and there is no confirmation of Lizars's statement in the statistics of the London or foreign hospitals.

The third source of information is that which tells of the liability to cancer of the scrotum incurred by persons engaged in wholly different employments to that of sweeping chimneys. I refer to the liability of the workers in tar and paraffin.

In the year 1875 Professor Volkmann, of Halle, in his well-known *Beiträge zur Chirurgie*, S. 370, published a paper "On Tar, Paraffin, and Soot Cancer (Chimney-Sweeps' Cancer)." He said: "Three cases of skin cancer of the scrotum, which I have had the opportunity of observing during the year, are of particular interest, because they developed in workmen who were employed in brown-coal-tar and paraffin manufactories, and because, even in the smallest details, both of their clinical course and anatomical structure, they agreed absolutely with the so called chimney-sweeps' cancer of the English."

In the following year (1876) the *Edinburgh Medical Journal* (page 135) contained a paper by Dr. Joseph Bell, F.R.S.E., on "Paraffin Epithelioma of the Scrotum." In this he said: "But, if chimney-sweeps' cancer is rare and becoming rarer every year, I believe we are to find a successor for it in a malady affecting the labourers exposed to the fumes of paraffin in shale works. Of this disease, epithelioma of the scrotum—ascribed by patients to paraffin fumes and contact with the oil—I have seen two cases within the last eighteen months, which I now briefly report." Dr. Bell does not seem to have been aware of Professor Volkmann's paper, for he concludes his own account by saying that he has not seen any notice yet of the form of scrotal epithelioma just described; so that it is probable that the two papers describing the same disease and attributing it to a similar cause—a cause which had not previously been known to be in any way associated with the occurrence of cancer—were the result of independent observation in two different and distant countries.

Of the resemblance of these cases of cancer of the scrotum to those occurring in chimney-sweeps, Professor Volkmann's description leaves really no doubt; and not only his description, but the excellent sketches of the general and microscopical appearances. In addition to the mere description of the cancerous affection in the three cases, he has given a very admirable account of the conditions which preceded the development of the cancer. This account is the more valuable because it agrees very closely with that given in 1871 by Professor Ogston,[11] "On the Local Effects of Crude Paraffin." Bell quotes Ogston's account, and confirms it, but does not add to it, with the important exception of two cases of epithelioma of the scrotum. Substantially, the effects of the liquid tar and paraffin on the skin of those engaged in the manufacture and whose bodies were actually exposed to them consisted in eruptions of an acute and chronic character. The acute forms sometimes passed off, and were so completely recovered from that they scarcely left any trace behind them, but they passed on in many of the people to become chronic. In the acute form the hair follicles and sebaceous glands were chiefly affected, often with the production of an eruption of bright red nodules closely approximate to each other, and usually largest and most numerous on the wrists or wherever the dress tightly embraced the skin, the dorsal aspects of the parts being most severely affected and the palms of the hands and the soles of the feet enjoying a complete immunity. The red nodules corresponded with the hair follicles. With the diminution and disappearance of the red eruption, the hair follicle remained enlarged, its mouth gaping and occupied by a little mass of epithelium and dirt, so that black points were visible over the surface of the affected skin. The only difference in the descriptions of Ogston and Volkmann is that the former speaks of the hair follicles, the latter of the sebaceous glands, as the structures affected and the seat of the black points. In the chronic condition the skin between the hair follicles or sebaceous glands was also altered; it became thickened, dry, and stiff, chiefly by increase in the thickness and alterations in the quality of the epidermis. Volkmann describes, in addition (probably because his observations extended over a longer period and were made on a larger number of individuals), little knots of epidermis, tiny horns, and flat dirty-brown scales and crusts. He found that the infiltrations of the skin were most frequent on the forearms and scrotum, where particularly they were prone to become moist and offensive. He says: "In one old workman I numbered fifteen of these larger hard warty bodies, with thick crusts, on the dark brown spotted, fissured forearms, and three on the scrotum." It is remarkable how closely this description of the chronic condition of the skin accords with that given by Paget of the skin of chimney-sweeps: "In many of them, even when they are thoroughly cleaned, the whole skin is dry, harsh, and dusky, and.....it is a common question whether one or more warts or scaly patches near the chief seat of the disease should be removed with it." And in another place in the description of the skin of a sweep, already quoted: "His skin was dusky and dry, and many hair follicles were enlarged by their accumulated contents." Horns on the scrotum of chimney-sweeps were described and figured as long ago as 1817 by Mr. Wadd. If we look upon these as precancerous conditions—a description they justly deserve—it is of the greatest interest to observe that the alterations in the hair follicles, sebaceous glands, and epidermis present precisely the same characters in the workers in hard coal soot, in paraffin, and in brown coal tar.

In the comparison of the effects of these substances, the question arises whether the scrotum is the part of the body which is especially liable to disease. On this point Professor Volkmann had no doubt. "The most remarkable circumstance," he says, "is that the disposition to become cancerous seems to be particularly special to the scrotum. Against three cases of carcinoma of the scrotum observed during this year I can only place one, not quite certain, case of cancer of the upper eyelid due to a tar wart." And his later experience, to which reference will presently be made, discovered four more cases of cancer of the scrotum against two cases of cancer of the upper extremity. In all, then, seven cases of cancer of the scrotum compared with three cases of cancer of other parts of the body. And Dr. Bell, while describing his two cases of cancer (epithelioma) of the scrotum, tells how one of the patients had an eczematous eruption, the other "paraffin acne" of the upper extremity, but no cancer there.

Of the kind and condition of the substances on which these affections of the integument depend, the following may be learned from Professor Ogston: "The *modus operandi* of the crude paraffin in producing these results seems to be as follows: the oily matters in the shale, called 'blae oil,' when separated, are both penetrating in their properties and irritating to the skin;" from Dr. Bell, who reports that the disease "was ascribed by the patients to paraffin fumes and contact with the oil." And from Volkmann, who gives a more detailed account, which is worthy of being reproduced. "It is," he says, "scarcely sufficiently known to what extent the fabrication of tar, photogen, and paraffin has increased in our district. The brown coal, which is found in the near and far surroundings of Halle in inexhaustible quantity, serves as material. A large and still increasing number of factories has arisen in the last ten or fifteen years, in which many thousands of workmen are employed.

According to the reports of those expert in such matters, about 600,000 cwt. of tar are produced, which yield some 100,000 cwt. of paraffin and 300,000 cwt. of oil. The first product is always the so-called brown coal tar, a black-green watery mass, which is procured by means of simple smouldering (Schwelung), and from this are procured by further distillations the lighter and heavier oils—benzine, photogen, solar oils as they are called—and paraffin. It is easily understood that in such factories there are all kinds of injuries and accidents, and thus I have had to do from time to time in the clinic with the workmen, and the description of their peculiar affections of the skin, which I shall now give, is based on the experience of the last seven years; for very soon it was apparent that these people, when they had worked in these branches for a certain period, exhibited, in those departments which obliged a continual contact with the still liquid or pappy products of the manufacture, almost without exception diseases of the skin, which were named by themselves "tar scratches" (Theer-kratze). This somewhat curious name is well understood, when I add that certain forms and stages of

[11] *Edin. Med. Journ.*, xvii, 544.

these affections of the skin are associated with violent itching (a circumstance which Ogston also refers to), on account of which the sufferers are forced to scratch themselves." In a footnote is added: "In a visit to one of our largest factories, I found the pure tar distillers or smoulderers (Theer-schweler) quite free from the affection. They simply extract the tar, and in doing so at the most soil their hands, but not their clothes or the rest of their bodies. Yet there might have occurred certain cases of disease among them. But even among those who handle exclusively the firm prepared paraffin, I found no affections of the skin. This might surprise us, because the paraffin bandages which we thought to have used in the place of plaster bandages, were given up because pustular and eczematous eruptions formed beneath them, which were characterised by great obstinacy. Yet it is easily explained when we remember that the workman only brings the prepared dry paraffin and the paraffin candles, which are also made in this factory, in contact with the palmar surface of the hands and fingers, where it is protected by thick epidermis; and these parts of the body I found always free from disease, even in the most active and severe cases. On the other hand, almost all the workmen who had to manipulate the fluid or pappy products, and continually moisten themselves with them, exhibited affections of the skin; so also the workmen at the presses, in the cellars, where the raw and still very dirty and oily paraffin is taken from the first forms and triturated, etc. All these people put on peculiar clothes in the factory for the work, which are quite soaked by the products of manufacture, and which become quite stiff. They help themselves occasionally so far, that they wash out (although they are forbidden to do so) these pieces of apparel with the brown coal oils (photogen, solar oils, etc.)."

Towards the conclusion of his article Professor Volkmann compared the action of these substances with that of soot in the following terms: "The products of the dry distillation of brown coal, which is worked in our paraffin factories, apparently cause much more irritation than the chimney soot. There is no account in the English authors of such an active irritation of the skin as is exhibited in the bright red, painful, sometimes even confluent, papules and lumps which have been described. This need not surprise us when the fluid or pappy nature of the products of the fabrication is taken into account. On this account the occurrence of cancer has followed much earlier in our cases than has been common in the chimney-sweeps. In England the sweeps commence their vocation in the seventh year of their age, and, after forty or fifty years of continual work in the soot, cancer at length develops in the warts, which commenced only a short time previously. Our whole industry is not much more than ten years old, and most of the workmen have been employed in it only a few years." The only objection I would make to these statements of Volkmann is that, in the days when boys were engaged in sweeping, horns were observed on the scrotum even before the age of puberty, and that occasional examples of cancer occurred at a comparatively early age.

Tillmanns of Leipzig, following up the researches of Volkmann in an excellent paper, "Ueber Theer-, Russ-, und Tabak-krebs,"[12] first describes a case of cancer of the scrotum in a paraffin worker, then his visit to the paraffin manufactory at Rehmsdorf near Zeitz, where he found conditions among the workmen precisely resembling those observed by Volkmann. He proceeds to say: "The occurrence of tar cancer on the scrotum and on other parts of the body is, I believe, very rare. In order to arrive at more certain knowledge in this direction, one of my friends, the owner of a paraffin factory, had the kindness to place himself in communication with a large number of chemical manufactories, tar manufactories, stone-coal-tar distilleries, wood distilleries, pine-soot (Kienruss (?) lampblack) factories, and the like in the province of Saxony, and, further, in Cologne, Amsterdam, Doos near Nuremberg, Höchst-a-M., Berlin, Frankfort-a-M., List near Hanover, and Prague. In none of these places had similar cases to those of Volkmann and myself been observed. From all our correspondents who were applied to in this direction we learned in short the following. In pine soot—(?) lampblack—factories and in stone-coal-tar factories cancer of the skin and severe dermatitis do not appear to have been hitherto observed as in the workers in the brown-coal-tar and paraffin industries."

[12] *Deutsche Zeitschrift für Chirurgie*, xiii, 519, 1880.

In the first lecture, in speaking of the employments of the patients in the wards of St. Bartholomew's Hospital, I said that twenty-nine of the thirty-nine patients who were admitted with cancer of the scrotum were chimney-sweeps. The analysis of the employments of the remaining ten men is also very interesting. It is as follows:

Salesman	...	...	1
Nightwatchman	...	...	1
Police instructor	...	...	1
Gasfitter	...	...	1
Sailor	...	...	1
Tarworker	...	...	1
Pitch and asphaltemaker		...	1
Barge and boatbuilder	...	...	3
			—
			10

Of these ten men, five at least were engaged in work which did or might bring them in contact with tar or similar substances. It is possible that the sailor had been also engaged in a similar manner to the boat builders, but there is nothing in the notes to tell whether this was so or not, and the man died of the results of a trivial operation, so that there are now no means of gathering any further information regarding his precise work. On the subject of the general liability of sailors to cancer of the scrotum, I have none but negative information. The general reports of the cases under treatment at the Seamen's Hospital, Greenwich, during the years 1875, 1876, 1877, 1878, 1879, 1882, 1883 and 1884 contain not one case of cancer of the scrotum. The men admitted there are taken from all nations, and are suffering from all kinds of disease and accident. But they are for the most part, of course, young men, under forty years of age at least. Nor have I any information as to whether the men engaged in the first four employments, salesman, night watchman, etc., had been previously so employed that they might have been long exposed to the contact of soot, pitch, or the like.

Nor could I obtain information of the exact nature of the employment of all the last five men. The pitch and asphaltemaker was admitted into the hospital in 1873. The number of the house in which he lived in a small street off Bow Common had disappeared, and no news could be obtained of the man himself when I searched for him in 1889. All I knew was that he had been at his employment for some eighteen years, and that he had suffered from a diffused tuberculated growth of the scrotum, which had commenced in the form of a wart. One of the boatbuilders came up from Hastings in 1878 for the removal of a small epithelioma of the scrotum which had begun as a sore. He returned after the operation to the seaside, and has been so thoroughly lost sight of that I could obtain no word of information regarding him or his employment. A bargebuilder whom I visited last year in Rotherhithe had been twice in the hospital, the first time for cancer of the prepuce, for which the penis was amputated by my colleague, Mr. Smith; the second time for a cancer of the scrotum, which commenced as a small wart or pimple, and was associated with an enlarged gland in the left groin. The cancer and the affected gland were removed by Mr. Langton. When I saw him two years and a-half after the second operation, he was in good health and free from recurrence. He told me that his work was chiefly in wood, like a carpenter, but that he frequently coated boats with a mixture of gas-tar and hair. The mixture did not get about his body, so far as he was aware, and he did not connect the occurrence of his cancers with it. He was in his working clothes, which did not smell of tar or show any sign of having been saturated with tar. And he had no warts on his hands or forearms, such as I have seen in some of the workers in liquid pitch or tar.

I learned from my colleague, Mr. Walsham, that the tarworker had been engaged at a tar factory at Barking Creek, and that some years ago Mr. Walsham had visited the factory and had learned that the man was employed with the "anthracene." A few months ago I called at Mr. Davy's tar factory at Barking Creek, and saw Mr. William Davy, jun., who very kindly gave me what information I required. He said that the men who were particularly subject to warts and skin eruptions were those who were employed with the liquid anthracene, the last product of the distillation of gas-coal tar. These men wore a canvas apron over their moleskin trousers. The apron, and in time the trousers, were soaked through with anthracene. When this happened the skin beneath became affected with warts, often very badly.

For some years past this particular branch of the tar industry had been transferred to Beckton. Benzine, creasote,

and anthracene are still obtained by distillation at Mr. Davy's works, and the men engaged about the retorts are prone to suffer in a slight degree from warts, which Mr. Davy attributes to the action of the vapours which issue from the retorts. But the working up of the liquid anthracene no longer takes place at Barking.

I have only once seen the skin eruptions produced by the crude paraffin. The patient from whom this sketch was made was a man 53 years old who had an epithelioma removed from his forearm by my colleague, Mr. Baker, in the year 1886. He had been engaged in the paraffin works at East Greenwich. In December of last year I searched him out at his own home and found him quite well and without any recurrence of the cancer, but still suffering from eruptions on the hands and forearms, although not so badly as when he had been in the hospital, for he did not happen at that particular period of the year to be performing the same duties as usual. He told me that he worked in the crude moist paraffin, which was to be made up into wax for candles, and that his arms were bare. He wore an apron over his ordinary clothes, and the apron got soaked with the paraffin, but the liquid never reached his body. All the men who worked like he did in the moist paraffin were liable to eruptions, but his was the only case of cancer he had known of. The men who were employed in moulding the wax into candles were not subject to eruptions. He told me that he and his mates were obliged to "keep their flesh very clean" to avoid the occurrence of warts and sores.

The papers of Volkmann, Bell, and Ogston were written so many years ago that it seemed very desirable to obtain some later information on the occurrence of skin disease and cancer in the brown-coal-tar and paraffin workers. In the course of the year 1889 I wrote to Professor Volkmann, and received from him, only a few weeks before his death, a very kind letter, together with papers by his pupils on skin cancer and other subjects in which I am interested. The latter, after confirming what his original paper had stated of the ill-effects of the fluid and pappy materials on the workpeople, concludes thus: "The manufacturers most willingly responded to my wishes (with regard to baths, etc.), and since that time the paraffin cancer has become much more rare in these particular factories, so that I only see an occasional case of the disease in the clinic." One of the papers enclosed was an interesting production by Dr. Schuchardt.[13] The date of its publication is exactly ten years after the publication of Volkmann's original paper, and it contains an account of all the cases of paraffin cancer which had been met with in the clinic during those ten years. They were six in number, and the dates of their occurrence were 1877, 1878, 1881, 1882, 1884, and 1885, so that they were very evenly spread over the whole period.

During the year 1890 I wrote to Dr. Ogston and Dr. Joseph Bell, and received most courteous replies. Dr. Ogston's was: "I have never seen a case of paraffin cancer in Aberdeen. I expect this is due to the very small number of workmen who are employed in this industry." Dr. Bell said: "As to the paraffin disease in the scrotum of shale workers, I have seen two or three other cases since the ones I published, but I believe that early treatment on the part of the local doctor and greater care in cleanliness on the part of the workmen have so far limited the number of cases and diminished their serious character."

From all that has preceded, I think we may now draw the following conclusions:—

1. That it is possible to prepare the skin for the occurrence of cancer by the constant or repeated application to it of certain substances during a long period of years.

2. That the nocuous substances in this relation, of which we have the most information, are hard or stone coal soot, brown coal tar, and crude paraffin.

3. That there is evidence to cast grave suspicion on certain other substances, such as stone coal tar, but that these are far less to be feared.

I am myself prepared to go farther, and think that the soot of brown coal, wood, charcoal, and peat is innocuous in this respect, but further proofs may perhaps be asked for before this is admitted.

I take it that no pathological question is ever so thoroughly settled or so deeply buried but that it contains the germs of new questions in pathology, often more complex and more difficult to answer than the original question. Sooner or later these present themselves, not always in a welcome fashion, and not always to the original inquirer, but with a repeated intrusion which at length compels attention; so, from the conclusions which have been set down, arise various considerations which may be expressed in the form of queries, some of which may be answered now or may be thought to have been already sufficiently answered, while the remainder await an answer at the hands of someone better fitted to cope with the problems they contain than I am. Are these substances (soot, tar, and paraffin) equally potent on the integument of all parts of the body, or are certain areas of the integument especially liable to be influenced by them?

What are the essentials in these substances which prepare the integument for the occurrence of cancer? Is the preparation due to the action of one or of several elements in each substance, and are the same essential elements present and active in all the different substances? Is cancer of the mouth and tongue in smokers and chewers of tobacco due to the same or a similar active element in the tobacco smoke and juice? How far are the floating particles of soot in the air responsible for the occurrence of cancer of other parts of the body, particularly of the respiratory and alimentary tracts, and how far does the smoke nuisance of large towns tend to the increase of cancer?

To the first of these questions I would reply that the evidence points very strongly to a specific action of the substances (soot, tar, and paraffin) on the tissues of the scrotum. It has been shown in the course of these lectures how little liable the scrotum is, under all ordinary circumstances, to the occurrence of cancer. Yet it is the seat of election of the cancer which is induced by the action of these substances. This special liability of the scrotum has been again and again attributed to the peculiar character of the integument, especially to the deep depressions between the rugæ, from which it is difficult to dislodge the nocuous substances. The same reasons should make the scrotum the seat of election of cancer in many dirty occupations, in which scrotal cancer is practically unknown. Again, other parts of the surface of the body which are quite as much exposed to the action of these nocuous substances (soot, tar, and paraffin)—for instance, the pubes and insides of the thighs—are very rarely attacked. And, as I think, a more powerful argument, the areas of the integument which are particularly prone to cancer generally, of the upper part of the face and of the lower lip, are not more often attacked by cancer in soot, tar, and paraffin workers than in other men. Yet these parts, in the sweeps, are covered every day with a coating of soot, and are exposed to the fumes and probably also to the actual liquids in the workers in tar and paraffin. A certain immunity from cancer may certainly be claimed for them on the ground of the daily washing which every sweep, however dirty he may naturally be, performs. But when it is remembered how very prone these parts are to cancer, and how very imperfectly the wrinkled skin of the face, especially about the orbits, is cleansed in English sweeps, how the lips are often cracked and sore during the cold weather, and the soot must be rubbed and driven into the sore places, it is difficult to believe that its action can be so powerful on these parts as it is upon the integument of the scrotum. Nor is there any serious difficulty in assuming that a nocuous substance may exercise a different effect according to the part of the body to which it is applied. It is quite conceivable that the effect may depend on, or be modified by, special qualities in the part affected. Instead of attributing immense influence to the anatomy of the easily-affected areas, we may assume that they possess physiological and chemical properties in which they differ from other areas of the integument as decidedly as they do in their coarse appearance. What is there in the lower lip which renders it so liable to a cancerous disease which is almost unknown on the corresponding margin of the upper lip? And what is there in the lower part of the face which protects it from the cancer to which the upper part is so singularly prone? The explana-

[13] Beiträge zur Entstehung der Carcinome aus chronisch entzündlichen Zuständen der Schleimhäute und Hautdecken, *Volkmann's Sammlung*, No. 257, 1885.

tion must be looked for in the chemical and physiological properties rather than in the anatomy of these areas of the integument.

To the second question I can give no satisfactory reply. Some persons have thought that the sulphurous acid in the soot is to blame, others that the evil influence is due to ammonia or combinations of ammonia, but at present there is no kind of evidence on which a sound opinion can be formed. I am not even acquainted with a good analysis of stone-coal soot, so that material for further investigation from a chemical point of view is still wanting. I would, however, suggest that the nocuous element is probably to be found in greatest quantity in crude paraffin, in brown coal-tar, and in stone-coal soot, in much less quantity in stone-coal tar, and that perhaps it is absent or only present in very minute quantity in the soots derived from brown coal, from wood, and from peat.

Esmarch and Langenbeck, in the discussion on tar cancer to which reference has been made, suggested that the relation of tobacco smoke and juice to cancer of the mouth is probably similar to that of soot, tar, and paraffin to cancer of the scrotum. In Tillmanns's paper, which has been quoted, this suggestion is much more fully discussed, and the author is of opinion that the same nocuous elements, powerful in predisposing the integument to the occurrence of cancer, are present in tobacco smoke and juice, stone-coal soot, brown coal tar, and paraffin. The paper is well worthy of study, but the evidence on which the theories rest is not sufficient to establish them.

The question of the influence of floating particles of soot is one of the greatest interest, and perhaps of equal importance. The intention of these lectures has been to prove, among other things, that soot exercises little or no influence in inducing the occurrence of cancer of any part of the skin, with the exception of the skin of the scrotum; but that its influence on the scrotum is indeed remarkable. But it must not on this account be assumed that soot is incapable of inducing the occurrence of cancer of any other part of the body than the scrotum. It is quite possible that there are areas of mucous membrane—of the respiratory and alimentary tracts, for instance—on which soot is capable of exercising as pernicious an influence as it does upon the skin of the scrotum. We who live in large cities swallow and inhale soot every day in greater or less quantity. We accept the position, grumblingly no doubt, still we accept it; we know that our great smoke fogs make many people ill, and that they kill a certain number with acute disease. But it is possible that we owe far more than this to the influence of floating soot, and that a part of the increase in the occurrence of that awful disease, cancer, of which the national statistics tell so striking a tale, is due to the daily contact of soot with areas of the lining mucous membrane, or to the entrance of soot into some one or other of the internal organs in which the conditions are favourable to its action. The national statistics tell little more than these two things: that the deaths from cancer are steadily increasing, and that the increase is greater among men than among women. We want to know far more than this. We want to know whether there is an equal or tolerably equal increase in the occurrence of cancer of all parts of the body, or whether the increase is limited to the cancers of certain parts. And I do not see how this information can be obtained by any private individual or combination of individuals. The Government alone has the power to obtain it.

My task would be but imperfectly fulfilled if I were content merely to tell the story of a dangerous malady, to discuss its curious phases, to show that the men of one country are subject to it, while the men of another country under conditions almost precisely similar escape it. The information which has been obtained in the course of this inquiry has very plainly indicated the reasons of the exemption from cancer of the scrotum of the sweeps of those countries in which the disease ought certainly to prevail. From the moment the belief in these reasons attains the strength of a conviction, we are bound in the name of humanity to use what means we can to abate the evil which lies close beside our door. It is nothing to the purpose to say that the total number of sweeps who die annually of cancer of the scrotum in this country is very small. The Registrar-General has deduced from his statistics that chimney-sweeps are eight times more liable to die of cancer than men are generally. On this computation, out of forty-nine men who died of cancer in the course of three years, there were forty-two deaths too many. Perhaps all this surplus of deaths cannot be attributed to the influence of soot, but at least thirty of them must be set down to soot, and it is more than probable that some, if not most, of the cases of cancer of the internal organs, such as the stomach and liver, owned the same cause. But if the deaths were only half as numerous, the obligation would remain as great to point out and insist upon the measures which may serve to diminish or to remove the evil.

They may be summed up under two headings: those which are directed to the protection of the individual against the contact of the nocuous material, and those which are intended to remove it thoroughly every day.

Examples of efficient protection may be found in the clothing of the Dutch, the Belgian, and the German sweeps, who not only so cover the body as to protect it against the contact of soot, but who are also careful to cover the nose and mouth during sweeping, so as not to inhale or swallow soot. From conversations with the sweeps of these countries I have not been able to discover that these precautions are taken from any other motive than cleanliness, for they have never attributed any special maladies to the action of soot. At the same time, the trouble they take to protect the mouth and nose from the access of soot suggests that they fear, as well as dislike, to breathe and swallow it; and I do believe there is a lurking distrust of stone-coal soot in the minds of many of them, for a young sweep in Bâle, when I pointed out that the legs of his trousers were not tied at the ankles, told me that he should tie them round with a cord if he swept a chimney where stone coal was burned. He could, however, give no other reason for doing so than that it was the custom of the trade.

The daily baths of the North German and the Swiss sweeps, taken in full-length metal baths, or in large wooden tubs in a small bath room plentifully provided with hot and cold water, with soap and soda, are examples of measures of the second kind. I daresay either of these means would prove perfectly successful in preventing the occurrence of soot cancer in this country, but I believe the best result would be attained by the adoption of such clothing as is used by the Belgian or the North German sweeps, and of the daily washings from head to foot of the North German and the Swiss sweeps. There should be but little difficulty in obtaining the adoption of such simple measures as these. They entail a very small expense, and the trade of a chimney-sweep is lucrative, while the increased comfort to the individual and his surroundings ought to prove a sufficient incentive in itself; but I can foresee difficulty in the prejudice and ignorance of the men themselves, and in their dislike to any innovation, especially if it owns a foreign origin; also in the lesser master sweeps, who form a numerous class, and many of whom are really only independent journeymen; and last, in persuading the masters and the men to take immediate and daily precautions during a long period of years against the occurrence of a disease which, though terrible enough to those who suffer from it, is certain never to attack the large majority of those on whom the measures of protection are enforced.

Funeral Reform.—The Funeral Reform Association has recently held a series of meetings in London. A conference was held at the Church House under the presidency of Earl Fortescue, at which Dr. W. T. Greene read a paper on the insanitary state of St. Giles's Cemetery, Camberwell, and it was resolved to present a memorial to the Local Government Board on the subject. A drawing room meeting was held at Lady Frederick Cavendish's, and was addressed by, among others, Archdeacon Donne, Dr. Needham, Professor Flower, Dr. Norman Kerr, and General Lowry. A tent was exhibited suitable for the protection of mourners at the grave side. The annual meeting was held at the Church House, under the presidency of the Bishop of Wakefield. Resolutions were adopted in favour of a simple earth-to-earth burial with the use of antiseptics, and recommending cemetery authorities to take special precautions for the preservation of the health of mourners in inclement weather.

ON DILATATION OF THE UTERUS, AND THE TREATMENT OF SOME OF THE COMMONER FORMS OF UTERINE DISEASE.[1]

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THE wonderful advance which has been made in abdominal surgery within the last few years—an advance which in no small degree has been due to the efforts of gynæcologists—while conferring the greatest benefits on mankind, has had this disadvantage, that in a very appreciable degree it has diverted the attention of students, and, indeed, that of many practitioners, from the study of those ailments which are of common occurrence amongst women, and are the cause of so much distress, and directed it too exclusively to those which are curable by surgical means only. Abdominal surgery is most fascinating, and it is easy to understand how pupils rush to see the skilful operator perform an abdominal section, and practitioners endeavour to imitate him; but after all, it is granted to but a comparatively few to have the opportunity of performing these often most difficult operations, while, no matter whether specialists or engaged in general practice, all will constantly be called on to treat those other numerous ailments which are peculiar to women, and which, although they may be looked upon as of less importance, are often the cause of the greatest misery to the patient.

When I commenced my professional career, gynæcology as it is now understood did not exist; and even when first attached to the Rotunda Hospital as assistant to the Master, I saw nothing of uterine disease, and it was not till the teachings of Sir James Simpson became generally known that any systematic attempt to study and teach the treatment of those diseases which are peculiar to women was attempted, not alone in this city, but throughout the whole kingdom. To him mankind are deeply indebted; but for him the general use of anæsthetics would have been delayed for years; and it was he who prominently brought forward the practice of dilating the uterus, and taught us that its interior could with safety be thoroughly explored.

Dilatation introduced with the object of facilitating the removal of polypi was soon practised with view of diagnosing and treating other forms of intrauterine disease, and was in the first instance effected by means of prepared sponge tents, which were objectionable, because it was necessary first to introduce a small one, and after it had expanded a larger one, and then a third or a fourth, before the requisite degree of dilatation was effected—a very tedious process, which moreover entailed danger of septic poisoning from the nature of the substance used; and besides, the dilatation was frequently unsatisfactory because while the os externum was widely distended, the os internum would often be hardly so at all.

Compressed laminaria tents were then employed, at first in the same manner as those made of sponge, one only being introduced at a time, till the method of inserting several at once was introduced by Dr. G. H. Kidd. This was a great improvement, and if it be carried out with the necessary precautions, is quite safe.

Subsequently the method of dilating the cervix rapidly, by means of graduated bougies, was practised, and was advocated with his usual ardour by the late Dr. Matthews Duncan. It is a method admirably suited to certain cases, but, without doubt, not to all; and it has therefore never entirely recommended itself to me. Those who care to do so will find Dr. Duncan's paper on the subject in the second volume of the BRITISH MEDICAL JOURNAL for 1872, and the subsequent discussion, in which I took part; and, while a more extended experience has in some degree modified the views therein expressed, still I have not altered my opinion that, in not a few cases, rapid dilatation of the cervix is not a judicious proceeding, and that sometimes it is a dangerous one.

Dilatation of the cervix—not alone during parturition, but sometimes also under other conditions—is a natural process, and, when conducted artificially, Nature should as far as possible be imitated.

If anyone will carefully watch a case of purely natural labour from its very onset he will easily realise that the opening of the mouth of the womb is not effected, so far certainly as its initial stage is concerned, by the forcible pressure of its contents on the os uteri. The cervix softens and relaxes previous to the commencement of labour, and the os not infrequently expands, sometimes days before uterine action sets in, to such an extent as to permit the finger to touch the membranes. Again, when premature labour is induced by the introduction of a catheter, I have observed the os to expand to a considerable extent before any attempt at uterine action was excited, and I am perfectly convinced that the initial steps of labour in general are first relaxation of the muscular fibres surrounding the os, and then their retraction, and it is subsequent to this that the contraction of the body of the uterus comes into play.

When we desire to dilate the cervix by artificial means it is most desirable to induce this relaxation and tendency to retraction. This cannot be done rapidly if therefore dilatation be accomplished by means of bougies alone, no matter what their shape or form may be. Nature's process of effecting that object is ignored.

Under certain circumstances this may be a matter of no importance, and if the patient has had a number of children and be one in whom the cervical canal is patulous, or if from any cause, such as imperfect involution subsequent to labour or abortion, the cervix is soft and dilatable, rapid dilatation is justified, and may safely be practised, but in women who have never conceived, or in whom, notwithstanding that parturition has occurred, the os is small or the cervix rigid, it should not in my opinion be attempted.

In all such cases I introduce one or two laminaria tents, or short lengths cut off a laminaria bougie. I never now pack the cervical canal with these as I used to do in former days, for my object is not forcibly to dilate the canal by their expansion, but to soften its structure and set up the tendency to retract I have referred to, and I find this is best effected by the introduction of only one or two pieces of laminaria, which are not to be tightly wedged into the canal. The vagina should be thoroughly disinfected by the free use of a solution of carbolic acid or of the perchloride of mercury before this is done, and if the cervical canal will admit of the introduction of a small-sized Bozman's tube; the uterus also should be washed out with it.

At the end of eight or ten hours the desired effect is produced; the cervix, on the withdrawal of the pieces of laminaria, will be found so softened, and its tissue so relaxed, that in general No. 10 or 12 of Hegar's dilators pass through the os internum readily. Sometimes, indeed, a much higher one will do so, while to dilate the cervical canal so as to permit No. 10 or 12 of Hegar's dilators to pass through the os internum in a case in which the cervix has retained its ordinary degree of rigidity, without the previous use of the laminaria, is a very tedious task, unless, indeed, the operator does not hesitate to run the risk of rupturing some of the muscular fibres of which its tissue is so largely composed, and very possibly also of lacerating the lips of the os, which must be held by a vulsellum, and as this proceeding is painful as well as slow, an anæsthetic must be used, and its influence maintained all the time.

If, however, the patient has, from any cause, a soft and relaxed cervix and patulous canal, specially if she have been recently delivered at the full term of pregnancy or aborted, the previous use of laminaria may be unnecessary, and dilatation by means of Hegar's, or some other of the dilators which are in use, effected, without any preparation further than the thorough disinfecting of the uterus and vagina. Once No. 12 of Hegar's dilators passes the os internum, a small curette can be used, but it is wiser to continue the process till No. 15 passes into the uterus, for then a larger curette can be introduced, and the results will be more satisfactory; but if it be deemed necessary to explore the cavity with the finger, the dilatation must be proceeded with till No. 20, or possibly No. 25, pass freely through the os internum.

It is often wise, in dilating the uterus, especially if any difficulty is experienced in the introduction of the next size dilator, to reintroduce the one just withdrawn, first having

[1] Read before the Royal Academy of Medicine in Ireland.

washed and disinfected it thoroughly, and to leave it *in situ* for a little time, or even withdraw and introduce it a third time, it is surprising how this seems to lessen the resistance of the muscular tissue to the action of the next size dilator, and this strengthens the opinion that the opening of the os internum is not by any means altogether due to the mechanical action of the instrument used.

In the early years of my practice I was much opposed to the use of the curette, and termed it in one of my lectures "an unscientific instrument," and, doubtless, it is so, and I objected to its being used unless the finger were first introduced, and the part to which it should be applied by this means ascertained; but I am now prepared to retract this expression of opinion so far as to say that, in the majority of cases, it may be employed without dilating to the extent needed for this purpose; but it is much more satisfactory to have explored the condition of the cavity, and I have more than once regretted that I had omitted to do so. Still the temptation to shorten the proceeding, and with it to lessen the chance of injuring the patient, often induces us to use the curette at as early a stage as possible. The curette used should not, however, be too small—to use such a one is a great mistake; these miniature curettes are nearly useless, and the facility with which they can be employed induces some practitioners to use them freely, sometimes in the study, and even without the patient's knowledge. This certainly is wrong, and is calculated to injure the patient as well as to bring discredit on a very useful instrument.

But the use of the curette alone should not be relied on. It has to be used to a great extent by guess; at one moment we find that we remove with it perhaps a large portion of thickened and unhealthy mucous membrane, and the next time we withdraw it we find we have removed nothing but some shreds of healthy tissue, so that it is not alone possible but probable that portions of the unhealthy surface may escape the action of the instrument; I therefore always adopt further treatment. Formerly I applied the fuming nitric acid at once, and often with marked benefit, and never—since I introduced the use of the vulcanite cannula to protect the cervical canal—with any disagreeable results. But I now very seldom adopt that treatment, because, if used immediately after curetting at the time when the acid is easy of application, the bleeding from the surface of the cavity is generally so free that it neutralises the action of the acid; and if used some days subsequently, you have generally to pass the probe which carries up the cotton saturated with the acid through so small a cannula that only spots of the surface of the endometrium are cauterised. I therefore now almost invariably inject into it, after the lapse of about three days, a small quantity of iodised phenol, using for this purpose one of Baun's syringes. As I have for the last ten years adopted this method with very satisfactory results, I can speak of it with confidence.

And here again I have to recant an opinion I expressed in some of my former writings. If I formerly objected to the curette while now I advocate its use, I still more strongly objected to the injection of fluids into the cavity of the uterus. Now, as the result of careful observation and lengthened experience, I practise this very treatment which I formerly condemned. Indeed, few days elapse in which I do not inject into the endometrium some tincture of iodine or iodised phenol, or wash it out with a weak solution of carbolic acid, hazeline, boracic acid, or some other fluid, with the best results. The quantity I inject at first varies from 5 minims to 30, increasing it to a drachm if it be well borne. But this practice cannot be rashly undertaken or be unskilfully carried out without risk to the patient. In careful hands, however, it is quite safe.

The cause of this change of opinion on my part is easily understood. My objection to the practice was theoretical. I now advocate the practice which formerly I condemned because I have proved it to be safe as well as efficacious; but to carry on the treatment safely two things are essential: First, that the os uteri and the whole length of the cervical canal be sufficiently patulous, so that the fluid injected can escape freely and without delay; secondly, that the quantity of fluid injected be small in quantity, especially on the first occasion. Unless the cervical canal be abnormally patulous, about 5 minims only should be at first injected, the quantity to be subsequently gradually increased if it is found to be well borne, but a drachm is the maximum I ever inject of any fluid, and seldom, indeed, more than 15 or 20 minims. The larger the quantity the greater is the danger of its causing trouble, and the quantity much more than the quality of the fluid injected is to be considered. I have met with cases in which very severe pain has followed the washing out of the uterus with a weak solution of carbolic acid, and even with tepid water, when I had injected a larger quantity of the fluid than I had previously done, while no pain of any importance was experienced by the same patient when a small quantity of the strong iodised phenol had been used.

The first patient on whom I practised this treatment was a lady, who, having passed the climacteric period, was attacked with profuse hæmorrhage; I dilated the uterus and removed a mass of soft shreddy membrane, of which a portion seemed to have been hanging into the cavity. I feared that it was malignant, and had it examined with the microscope, but nothing definite could be detected. This lady rapidly improved, was quite well for six months, then the hæmorrhage returned more profusely than before, indeed it was on this occasion so alarming that she was almost pulseless before it could be restrained by plugging. I again dilated, and now found the uterus filled with a soft pulpy mass undoubtedly malignant. Were I to meet with such a case now I would extirpate the whole organ, as I have since done with success, but abdominal surgery was not then in the advanced state it now is, so I contented myself with carefully removing with the curette every portion of the diseased surface, and subsequently injecting about 15 or 20 minims of iodised phenol once a week regularly. I was forced to do this, for the hæmorrhage soon showed signs of recurring, but the injections kept it in abeyance. I continued this treatment for upwards of two years, and though the patient slowly lost ground and finally died, the hæmorrhage never once recurred to an alarming degree, and I have no doubt but that life was prolonged for a year or more in consequence of this treatment. But it is not of its use in such cases that I am now speaking, in them hysterectomy should be performed, but its good effects in this one encouraged me to try it in others. And I soon found it applicable to a variety of cases.

The fluid I usually employ is the iodised phenol as recommended by the late Dr. Batty. It is made by dissolving one part of pure iodine in two parts of carbolic acid by the aid of a gentle heat, a small quantity of methylated spirits should then be added to keep it sufficiently thin for use; the effect of this when injected into the cavity is to cause the surface with which it comes in contact to shrivel up, and in a day or two to peel off, in fact it acts primarily as a mild caustic; some of the iodine no doubt in also absorbed and many patients complain of the taste of the iodine in the mouth. In cases therefore in which there is reason to believe the lining membrane of the uterus to be unhealthy, and where the symptoms are not sufficiently grave to induce us to decide on dilatation and curetting, the injection of the iodised phenol is indicated. I have also on several occasions employed it when patients for some cause could not or would not submit to curetting, and in a considerable number of them found it effect a cure, or at least be productive of marked benefit.

In two cases in which menstruation continued to be so profuse some months subsequent to abortion, at an early period of pregnancy, and the uterus remained so large and soft as to lead to the belief that a portion of the membranes might be retained, the injection has been followed by the expulsion of a mass which I believe to have been the remains of the ovum shrivelled up by and then expelled, in consequence of the action of the phenol. In both these cases recovery was perfect without further treatment.

In all cases in which I dilate and use the curette I inject the iodised phenol several times, at intervals of from four to six days according to the nature of the case, commencing on the third or fourth day after the operation. I have several times been consulted by patients who have been curetted without deriving permanent benefit therefrom, and believe that this has been in general due to neglecting to adopt this practice or some such after-treatment, and I have generally found, if the interval since the operation has not been very long, that the injections of the iodised phenol succeeds in effecting a cure in them.

The number and frequency of the injections must vary with the nature of each case, and therefore must be decided by the practitioner at the time, but it is necessary to bear in mind the fact that the first, and possibly the second, injection is often followed after the lapse of a few hours by some bleeding. This is specially the case if the curette has not been previously used, and it is probably due to the action of the phenol causing the superficial layer of mucous membrane to peel off rapidly, leaving a vascular surface exposed, which bleeds sometimes freely. This bleeding is of no importance, but sometimes alarms the patient, and she should be told that it may occur. If it continue after the injections have been repeated three or four times, it generally indicates that patches of large and vascular granulations exist, which, if the curette has been used, have escaped its action, and, whether it has been used or not, proves that the further use of intrauterine injections will be useless.

I am far from wishing it to be understood that I deem this treatment applicable to even the majority of cases of disease of uterine cavity, but I believe that it will frequently render the use of the curette unnecessary, and that, if not always essential, it is so in the majority, and useful in all those in which curetting has been practised, while in cases where uterine catarrh is present great benefit will often be derived from the practice.

TOTAL DISAPPEARANCE OF A FIBROID TUMOUR AFTER DR. APOSTOLI'S TREATMENT.

By SKENE KEITH, M.B., F.R.C.S.Ed.

THE history of the following case of fibroid tumour of the uterus is of interest, as not only has there been the symptomatic cure which is aimed at by the use of the galvanic current, but there has been also the much less important physical cure, the disappearance of the tumour itself. It is well known that the passage of the galvanic current does not cause the total dispersion of tumours of large size, and in this it resembles the treatment by removal of the ovaries; as, in many cases treated by this operation, the tumour remains, more or less, while the symptoms are cured in the great majority of cases. There is, however, this great drawback, that, after successful operation, the patient has lost something; she has still, as a rule, a tumour, she has a scar which may stretch, extending through the thickness of the abdominal wall, and she is not the perfect woman she was, because she has lost her ovaries. She has, therefore, been cured symptomatically, but at the expense of a grave mutilation. When a patient has been treated successfully with galvanism, she has still, as a rule, a tumour; she does not have any weak spot in the abdominal wall, and she is still a perfect woman. Now, as an attempt has been made to hang the fate of Dr. Apostoli's treatment upon the question of the total disappearance of tumours, it is necessary to repeat that this is not an essential accompaniment of the treatment, though it does sometimes happen in the case of small tumours; and it may be, that, when those growths are treated more frequently in the early state, we shall find that it will occur more often. Whether this be so or not is of little importance, so long as the symptoms are cured and the growth arrested.

It has been said that a living and healthy woman with a tumour is a more satisfactory sight than a dead woman after hysterectomy; and how many of the latter there have been in the past twenty years no one will ever know, simply because the surgeons, except Dr. Keith, have never dared to give their results, for the mortality is too great for publication, at least in the early cases.

The following are the notes of a case of total disappearance of a fibroid tumour of the uterus after Dr. Apostoli's treatment; and, what is of far greater importance, the complete restoration to health of the patient. Dr. Keith first saw the lady in consultation with Dr. Butt in July, 1889. She was 29 years of age, and said that since the birth of their only child, now ten years of age, she had not felt quite well. There had not been any difficulty with the labour, but the lady did not recover her strength after it, and in addition to the debility there was some increase in pain at the time of the monthly periods. She has suffered from dysmenorrhœa all her life. After a time the monthly flow became increased, both in quantity and in duration, until it never lasted for less than two, and sometimes for three, weeks. Three specialists had been consulted, but any relief had been only of a temporary kind.

In July, 1889, this young married lady was useless; she could scarcely walk, she suffered constantly from pain in the back and pelvis; the monthly periods never lasted for a shorter time than two weeks, and she required to use fifty, sixty, or seventy diapers. On examination, the pelvis was found to be filled by a fibroid tumour of the uterus; the sound passed with a backward curve for 4 inches.

A few years ago, but one course of treatment could have been recommended—namely, removal of the ovaries. This operation would almost certainly have resulted in a complete, though not in a perfect, cure; for it cannot be said that any treatment which leaves a woman in a mutilated condition is perfect. It is a decidedly retrogressive step, and an acknowledgment of failure, when we have to cure one disease by the removal of an organ or organs, unless they be already hopelessly destroyed. Instead of this mutilating process, treatment by electricity was advised, in the hope that by this means the lady might be restored to health, a physically whole and not an unsexed woman. Removal of healthy ovaries for the purpose of curing a disease in a different organ is on an entirely different footing from that of removing disorganised ovaries, the woman being already unsexed by the disease. In the first case such a procedure mutilates her; in the second the disease has already done so.

The treatment by Dr. Apostoli's electrical method was completed by the end of the year, half before and the remainder after the autumn vacation. The number of applications made was thirty; the average strength was 88 milliampères, and each sitting lasted for five minutes. The treatment was begun at the patient's house; before it was finished she was able to drive two miles before and the same distance after the applications. By the time that the course was finished there was marked improvement in every respect, and the tumour had become reduced in size.

Six months afterwards the lady was much better; she did not have any pain, she could walk well, and the number of diapers required was reduced to twenty. The tumour had become smaller. In February, 1891, the patient called to see if everything were right, as the quantity of blood lost every month was steadily becoming less. On examination, a small, healthy, retroverted uterus was found, with a cavity 2½ inches in length. As the backward displacement of the uterus did not give rise to any symptoms treatment was not required.

Now, in the beginning of 1892, the lady writes that she is perfectly well, and that she uses three or four napkins every month.

It has been suggested that it is sometimes not possible to diagnose a fibroid tumour of the uterus, even with the help of an exploratory incision; and, of course, it will ever be impossible to bring conviction to the minds of those who provide this loophole for holding to their disbelief, with some show of plausibility, in any and every case treated by electricity. It is, however, a matter of minor importance whether they do or do not believe that tumours may sometimes disappear; because the treatment is directed to the symptomatic cure only, and not to the disappearance of the growths themselves; and it is in this respect exactly parallel with the operation of removal of the ovaries for fibroid; a good procedure, just so long as we had nothing better to offer, and which we can always fall back on, under special circumstances, if it be not advisable to use Dr. Apostoli's treatment, or should it fail in any case favourable for this operation. No one plan of treatment is the best for every case.

A PROPOSAL is now before the Paris Municipal Council to change the name of the Lourcine (Female Lock) Hospital to the Hôpital Broca. The object of the proposed change is apparently not so much to do honour to the memory of a distinguished man, as for the sake of certain supposed "moral advantages," to hide the nature and purpose of the institution under the shadow of an illustrious name.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

TREATMENT OF DISLOCATION OF THE CLAVICLE.

IN January, 1891, a young lieutenant sustained a dislocation of the outer end of the clavicle upwards, from a fall in a steeplechase that had just been run. He was put up with a pad in the axilla and an ordinary roller bandage carried round the arm on the injured side, just above the elbow, then round the body, and finally brought up over the injured clavicle, on which a pad was placed. The arm was then placed in a sling and the bones were seen to be in the proper place.

Not being satisfied with this arrangement, and feeling certain that the bandages would become loose and require constant reapplication, I set about devising some more permanent method of keeping the bones in place. A very large pad was placed in the axilla, and a piece of country belting about 1½ inch broad, known in India by the name of "nawar," and very strong, soft, inelastic, and pliable, was passed round the injured arm and body, made to overlap about 3 or 4 inches, and the ends securely stitched together. Another piece was then attached by stitches to this at the back, a little to the left of the middle line, brought firmly up over the displaced clavicle, on which was placed a large pad, and secured to the circular band below by stitches. The pad over the clavicle was secured by a few stitches to the belting. To keep up a gentle downward traction I attached a short piece of belting with a buckle at the end to the circular band in front, and another longer piece at the back, both in the depending position. The longer piece was now brought forwards between the legs and buckled to the shorter piece. A short sling to support the hand and forearm completed the arrangement.

The patient was now found to be so securely put up that he could not shake the appliance in any way, and found it quite comfortable. It was only necessary to undo the perineal band when going to stool. This treatment was continued nearly three weeks, when the officer passed from my care. I met him at the beginning of the present year, and learned from him that he had regained full power in the arm. I had not an opportunity of making an examination, but he assured me that the bone was in its place, and I was quite satisfied that this was the case from the fact of his having been able to ride in steeplechases within three months of the accident, and perform all his military duties without any loss of power or movement.

This apparatus secures absolute fixity of the arm and shoulder, the pad in the axilla acts as a fulcrum to draw the acromion outwards, and allows the clavicle to fall into its place, while the clavicular pad and band keep that bone in its place; but what distinguishes this apparatus is the application of the principle of downward traction, as maintained by the perineal band. It is commonly asserted that in all fractures and dislocations of the clavicle there is displacement of the shoulder downwards, "due chiefly to the weight of the arm." I hold that there could be no falling of the shoulder as a whole unless all the muscles connected with it were paralysed. The muscles that elevate the shoulder are among the most powerful in the body. Can it be supposed that the tonic contraction of these muscles under the irritation of an injury is abolished? Further, the thorax is conical in shape, diminishing in girth from below upwards, so that if the scapula fell it would be applied to a wider part of the chest, and there would be a separation of the bones in dislocation, or of the fragments in fracture. Any treatment, therefore, in an injury of the clavicle that aims at elevation of the shoulder is wrong in principle, as it increases the over-riding of the bones or fragments by applying the scapula to a narrower part of the chest wall, and thereby diminishing the distance between the point of the shoulder and the middle line.

We ought to endeavour to remove the acromion as far as possible from the middle line both in fractures and dislocations, so that the bones or fragments of bone may fall into place, and for this purpose nothing is more effective than keeping the shoulder depressed. This indication is fulfilled by the perineal band, which, with a little care, can be so applied that it will keep up steady downward traction without any discomfort to the patient.

To the treatment as above described, it would be easy to add the principle of the treatment by three handkerchiefs, as advocated by Syme. A band of belting would be sewn round each shoulder, and to each of these another short piece would be attached horizontally at the back, one of them ending in a buckle. By passing the other through the buckle, any amount of force could be applied in drawing the shoulder back.

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TETANUS DUE TO PUNCTURE OF A HYPODERMIC NEEDLE.

LIEUTENANT H. B., aged 24, single, consulted me on October 12th, 1891. He complained of slight pains in the limbs, head, and back, and a feeling of general *malaise*. He had contracted syphilis five months before, and was still under treatment for that affection; temperature was normal and pulse 80; there was slight stiffness of the muscles of the neck. The next morning there was increased pain and stiffness about the neck, and also the lower jaw and abdomen, difficulty in protruding the tongue, and slight "risus sardonicus." The temperature was 98.6°, pulse 104. He denied the existence of a wound or sore anywhere. He was ordered full doses of chloral hydrate and morphine. Towards evening all the symptoms were more developed. The temperature was 98.4°, and the pulse 104.

On October 14th the tetanic convulsions were very frequent and there was marked opisthotonos. The temperature was 98.1°, and the pulse 98. On October 15th the temperature was 99.3°, and the pulse 112. I received a letter from a friend of the patient stating that he (the patient) was in the habit of injecting morphine hypodermically. I found a small suppurating sore near the right shoulder; the patient admitted that this was due to the puncture of the hypodermic needle. On October 16th the spasms were less frequent; the temperature was 98°, and the pulse 120 and feeble. On the following day there was great difficulty in swallowing. Spasms were very frequent, the temperature was 98.1°, and the pulse 100. On October 18th, at 4 A.M., a severe laryngeal spasm came on and, as death was imminent, I at once performed tracheotomy; this gave instant relief; later in the day however convulsions again became severe, and at 5 P.M. the patient died apparently from cardiac and diaphragmatic spasm.

In the absence of any history of a wound I was at first puzzled as to what was the cause of the tetanus, but the patient admitted afterwards that he was in the habit of taking morphine hypodermically; he was ashamed to do so until questioned. The wound near the shoulder was inflamed and suppurating, and about the size of a threepenny piece. I do not know of any previous case published of tetanus due to the puncture of a hypodermic needle: for this reason I think it is worth recording; it should impress upon us the necessity of the most scrupulous cleanliness in the performance of even such a simple operation as this. Another peculiarity about the case was the remarkably low temperature, subnormal during the greater part of the illness.

Dr. Lovegrove and Brigade-Surgeon Tomlinson, M.S., saw the case several times with me and I have to thank them for many valuable suggestions

Hythe, Kent. CECIL A. P. OSBURNE, L.R.C.S.E.

PRIMARY PERINEPHRITIS: RUPTURE OF ABSCESS INTO URETER: RECOVERY.

ON August 2nd, 1891, I was asked to see M. I., a young lady who had been seized with severe shivering fits, and complained of pain in the back and extreme thirst. Her temperature was 104.5°; pulse 115; tongue very foul; bowels constipated. There was pain over the left renal region, which was greatly increased by pressure, or when the patient attempted to turn in bed. By palpation I detected well-marked fulness over the left renal region, but the outline of a tumour could not be distinctly defined to the touch.

The patient was aged 30, and had always enjoyed good health up to the present illness. I learned, however, that some weeks before this attack she had received a blow over the left lumbar region. I ordered a mixture containing iodide of potassium and liquor ammoniæ acetatis.

On the next day (August 3rd) her condition was little changed; temperature 105°; pulse 120; tongue dry and furred. I could now detect a well-outlined tumour, and could obtain deep-seated fluctuation. The mixture was continued, and hot fomentations ordered to be applied locally.

On August 4th, 5th, and 6th the temperature ranged from from 104° to 105°, and the pulse from 115 to 120. The tumour during this time became more distinctly marked in all its characters. There was also some evidence of local peritonitis.

In the early morning of August 7th the patient passed urine containing a large quantity of pus. From this date the temperature fell, the tumour rapidly diminished in size, and the patient gradually became convalescent. Evidently the abscess had burst into the left ureter, which gradually drained away its contents. The patient made a complete recovery, the duration of the attack being about twenty-five days.

The case is extremely interesting, for several reasons. It proves that perinephritis can arise from injury alone, the case being evidently one of traumatic perinephritis. There was no possibility of its being due to an extension of inflammation from the kidney itself, or to its being secondary to some such disease as calculous or tuberculous pyelitis. There was no history at all of any previous disease of the kidney, nor could suppuration in some more distant part, such as the cellular tissue of the pelvis, have spread to the tissue around the kidney, because the patient was perfectly well until the pain occurred in the left renal region, accompanied by rigors, etc.

That there were no symptoms for several weeks after the blow may be accounted for by supposing that simple inflammation of the loose cellular and adipose tissues around the kidney causes no pain until points of suppuration occur, and running together finally from one large abscess, which causes great tension.

Another interesting point in the case is the rupture of the abscess into some part of the urinary tract, either the ureter or pelvis of the kidney. We expect a perinephric abscess, if left alone, to open either into the peritoneum or into intestine, or to point in front above Poupart's ligament, but it is a rare and unusual occurrence for it to make its way into one of the ureters.

London. ALEX. MITCHELL, M.D.

A CASE OF LEOPARD BITE.[1]

A COOLY, aged 30, was brought to hospital on the evening of November 14th. He was reported to have been bitten the previous day by a leopard, which seized him three times by the arm above the elbow; all the wounds were above the elbow, except one large laceration on the posterior aspect of the forearm. This latter was the only extensive wound, and was situated 2 inches below the elbow-joint, circular in shape, with a diameter of 2 inches, and showing the lacerated muscles in its centre, the circumference being irregular. It penetrated to the ulna, but did not communicate with the joint. There were twenty-five small punctured wounds on the posterior and lateral aspects of the arm with an average depth of about ½-inch, but no laceration. On admission patient was in a very restless condition, gathering himself up in a knot on the bed and then rolling from side to side. There was twitching of the muscles of both arms. He paid little attention to questions asked him, and his answers had no bearing upon the point. His pupils were contracted to pin-hole size, with marked photophobia; pulse rapid and small, urine passed unconsciously. The temperature in the axilla was 104.8° F. The wounds were irrigated with corrosive sublimate lotion (1 in 2,000), and dressed with iodoform; and, internally, stimulating mixtures were given. Alcohol he would not take on account of his caste. On the following day the patient was delirious, the pulse at the wrist imperceptible, and the brachial scarcely to be felt; defæcation and micturition were involuntary. He was given chloral 30 grs. by mouth, ether ℥10 hypodermically, and a nutrient enema of brandy ℥ij with egg. On November 16th he was conscious and much improved. On the fourth day after admission all the tissues surrounding the small punctured wounds began to slough, and continued to do so until the humerus was exposed in its outer and lower third, while channels were left through from side to side by which the wounds on the inner side communicated freely with the wounds on the outer aspect.

The constitutional symptoms at this stage became so severe, with exacerbations and night sweating, and the sloughing so progressive, that amputation at the shoulder joint seemed the only alternative left. The wounds were washed out twice a day with corrosive sublimate lotion, and iodoform with antiseptic lint stuffed into the wounds twice a day, and nutrient enemata continued. Suddenly the unhealthy nature of the tissues changed, and the excessively fœtid odour stopped. Thence onwards healing went on without interruption, the arm contracting considerably at its lower third on account of the loss of tissue.

This case is given as an instance of the degree of shock that usually takes place about twenty-four hours after tiger and leopard bites, and heralds the onset of the pyæmic condition. That death in the case of tiger wounds is not unusual from shock about twenty-four hours after is a generally accepted idea, even though the extent of mauling be comparatively slight.

D. SIMPSON, M.B.,
Surgeon Madras Army.

[1] Read before the South Indian Branch of the British Medical Association.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

VICTORIA HOSPITAL, BURNLEY.

RESTORATION FROM SYNCOPE UNDER CHLOROFORM.

(By A. MACGREGOR SINCLAIR, Resident Medical Officer.)

CASE I.—R. S., a poorly-nourished female child, 18 months old, was admitted on February 17th with a tumour over the right shoulder. On February 19th I administered chloroform, and proceeded to remove the tumour. In a short time I found that the child had become rather cold, and on turning her head found that the pulse and respiration had stopped. By lowering her head, pulling the tongue forward, and pressing in the lower part of the thorax, she came round, and I proceeded. Just as I had removed the tumour, however, I found her in the same condition again, and quite corpse-like. The same means were tried but were of no avail. I was despairing of bringing her round, when Professor MacWilliam's explanation of death from chloroform, and his method of bringing his cats round by compressing the heart between his finger and thumb, crossed my mind. I at once began, rather forcibly and rapidly, to compress the præcordium with my right hand, while with the left I kept up the artificial respiration. In a comparatively short time there were signs of returning life. The anxiously-looked-for respiration came, the pulse became perceptible, although very feeble. I continued with the intermittent compression of the præcordium, and both the pulse and respiration improved. The child did well.

CASE II.—R. B., a well-nourished lad, aged 13, was admitted on May 5th with a perforating wound of the cornea, which he had received a few days before. The eye was found to be hopelessly destroyed, and on May 12th enucleation was performed under chloroform. He took the anæsthetic well, and was well under its effects, the pupil of the good eye being contracted when the optic nerve was cut. In a short time after division of the nerve—there was a distinct interval—the pupil of the good eye became widely dilated, the heart ceased to beat, the head was drawn backwards, there was slight arching of the back, the face became livid, one or two gasping breaths came, and all seemed to be over. The pillow was pulled away and the head lowered. The honorary surgeon, who was operating, at once began Silvester's method of artificial respiration, and I began to intermittently compress the

præcordium. We both went on for some time, when he stopped and said there was no use doing anything more as the boy was dead. I, however, went on more forcibly and rapidly than ever, with the result that the pupil began to contract, the chin fell, he gasped, a long breath came, and then I found that the heart was fluttering very rapidly. The heart fluttered in this fashion for several seconds, and then began to beat more steadily. Just at this moment a hypodermic of ether was injected into the arm, but all present saw that the boy was breathing before the syringe went near the arm.

CASE III.—R. S., a strong, muscular young man, was brought into hospital on May 25th, with an incised wound running diagonally across the front of the elbow, the brachial artery being divided just above the joint, together with all the other structures down to the bone. He had evidently lost a great quantity of blood, as he looked quite blanched. Chloroform was administered, and on exposing the wound I had no difficulty in finding both ends of the brachial artery, which were ligatured, and also several veins, but on the tourniquet being loosened it was evident there were several vessels still to be tied. While securing these I found that the bleeding ceased and that the patient had stopped breathing. There was no pulse to be felt and no respiration. I at once began intermittent compression of the præcordium with all my might and main, and in about four to five minutes he began to breathe. Although this was a big muscular man, so confident was I of being able to bring him round that I asked that nothing else should be done.

In Cases II and III, more especially Case III, I found that one hand was not sufficient to compress with, but that between both hands the præcordium can be very effectually compressed. The chest wall yields to a considerable extent even in the adult. My opinion is that artificial respiration would not have brought these cases round. As to the use of drugs, there is no circulation, there is no respiration, there is no muscular contraction—how and when are they going to act? The heart has stopped and it must be set agoing. To bring about this it must be acted upon directly, and this can be done by intermittent compression of the præcordium.

OPHTHALMIC HOSPITAL, MADRAS.[1]

A CASE OF DOUBLE OPTIC NEURITIS DEPENDENT ON SPINAL DISEASE.

(By Brigade-Surgeon E. F. DRAKE-BROCKMAN, F.R.C.S.)

D. J. S., a native Christian, studying medicine at the Medical College, Madras, aged 19, was admitted into the Ophthalmic Hospital on February 25th, 1891, with impairment of vision in both eyes.

He stated that in the beginning of the year he suffered, for one month, from fever, and that about the middle of January his vision became impaired; that objects were often indistinct and enveloped in a mist. Later on a squint was developed and gave rise to diplopia, and increased impairment of vision. During the first week in February he first experienced pain in the eye and lachrymation, and the defective vision interfered with his reading. At the same time he suffered from pain in the back and upper extremities. Five days before admission into hospital vomiting set in, which had continued more or less since.

On admission his gait was unsteady. There was complete absence of patellar reflex on both sides. On running the finger along the spinal column he felt a rather acute pain over the spinous process of the third dorsal vertebra. The corrugatores superciliorum were almost always in action. There was slight ptosis of the left upper lid. The superficial structures of both eyes were normal in all respects. He was able to move both eyes in all directions, except the right eye, which he was unable to move in an outward direction, in consequence of which he suffered from homonymous diplopia.

By the ophthalmoscope the fundus of each eye was readily illuminated; the O.P. was swollen and congested, and the margin obliterated; the veins were full and varicose; effused products were to be seen in the structure of the retina, and the macula lutea was much congested. For some days previous to his admission into hospital he was attending as an out-patient, when his vision was $\frac{6}{9}$ with each eye. On the date of his admission the vision of the right eye was $\frac{6}{18}$ and that of the left eye $\frac{6}{36}$. He was placed at once on potassium iodide and bromide thrice daily, and a pill containing gr. $\frac{1}{10}$ of perchloride of mercury twice daily.

On February 28th he felt a little better, and had not vomited; the pain in the back and head and arms continued.

On the evening of March 1st the temperature was 102°, and next morning 100°. Did not sleep well the previous night on account of the pain in the back and head, which was increased by movement; he had occasional involuntary spasms in the muscles of the face and neck; there was some loss of power in the upper extremities, particularly on the right side, and he was unable to grasp the hand firmly; he complained of pain at the angles of the lower jaw, which were very sensitive on pressure; the bowels were constipated; the pulse 120°, small and compressible.

A blister was applied over the third dorsal vertebræ, after which the pain in the head and neck was less.

On March 7th he was able to walk better, and had slight increase of power in the muscles of the arms. Fever recurred daily, ranging from 100° to 102° between the morning and evening. V: R.=$\frac{6}{18}$, L.=$\frac{6}{24}$.

On March 18th the note was: "Is improving slowly; pain in the back and upper extremities is less. The fever continues at about the same stage as last mentioned. Ophthalmoscope: The O.P. are swollen, congested, and the margins completely obliterated. The vessels at their points of entrance and exit are entirely hidden from view by the effused products. The arteries are seen with difficulty, and the veins are highly congested and tortuous. In the vicinity of the macula bright linear deposits of a metallic lustre are noticeable, and small fan-shaped hæmorrhages among the effused products. The potassium iodide has been gradually increased to gr. xv thrice daily. In other respects the same treatment has been pursued."

By March 24th he had made steady advance towards improvement, and was placed on a course of cod-liver oil and the syrup of the iodide of iron. He vomited six times on March 27th, felt weak, and complained of severe pain in the head and neck. The range of fever between morning and evening was less, being 99° in the morning and 100° in the evening. The movement outward of the right eye was more free.

At 11 A.M. on March 30th he vomited a small quantity of milk which he had taken a few minutes previously, after which he had a convulsive seizure in the upper extremities which lasted about five minutes, and was accompanied by firm closure of the jaws and grinding of the teeth. On cessation of the convulsion the patient remained in a semi-conscious state, from which he could only be roused by speaking in a loud tone, but did not reply to questions. The scalp was shaved, and ice liberally applied to the head. He recovered consciousness at 4.30 P.M., when he complained of severe pain in the head and left eye. A purgative was administered, ice was applied to the head, and all former treatment omitted.

At 3.45 P.M. on March 31st the patient sat up in bed to have his clothing changed, when the servants in attendance noticed that his expression of face suddenly changed, and at once placed him in the recumbent position. He immediately became unconscious, the breathing became slow and sighing in character, and the pulsations at the wrist were 60 per minute. There was loss of sensation over the whole body, the conjunctiva was insensible to touch, and he could not be roused by loud speaking. He had complained of pain in the left eye, and of a feeling of constriction along a line corresponding to the nipples, and difficulty of respiration. A stimulating enema of castor-oil and turpentine was administered, which operated freely in a short time. A blister was applied to the nape of the neck, and ice liberally to the head. He rallied a little after the operation of the enema, and regained some degree of sensation in the conjunctiva, and over the general surface of the body, but the respirations gradually became slower and ultimately ceased. The heart continued to beat, and the pulse could be felt at the wrist for more than five minutes after the arrest of the respiration. He expired at 5.30 P.M. The body was immediately removed by the friends, and no necropsy was permitted.

REMARKS.—This case is one which was beset by difficulties in determining the exact seat of the pathological lesions

[1] Read before the South Indian Branch of the British Medical Association.

which were present in the cerebro-spinal axis. The difficulties arose from the somewhat vague symptoms which showed themselves during the course of the disease. Among these may be noticed first the paresis of the sixth cranial nerve on the right side alone, which gave rise to homonymous diplopia, and in this manner interfered with the otherwise perfect vision of the patient. The unilateral implication of this nerve would point to some central lesion on the right side of the floor of the fourth ventricle, in close connection with the medulla oblongata, and would exclude any meningeal mischief at the base of the brain; for it may be presumed that were such present some of the other cranial nerves lying in its vicinity would have been involved in any effused inflammatory products. There were no such indications present. Secondly, it is to be noted that both optic nerves exhibited pathological changes which were visible by ophthalmoscopic examination, giving rise to the condition of neuritis or papillitis, so well known to oculists. The changes in the structure of these nerves were considerably advanced, but, notwithstanding this, the degree of vision in either eye was not so defective as to have been a cause of complaint by the patient. The etiology of optic neuritis is a subject encompassed by many difficulties. In this case there was no evidence of any tumour either in the brain or cerebellum; nor was there any indication of toxic influence. Nor again did the neuritis follow upon any previous specific febrile attack. Nor was the patient anæmic. There may be some doubt whether the membranes at the base of the brain were in a state of inflammation. Those covering the cortex of the brain were, at the same time, most probably free from pathological change, for there was an entire absence of abnormal psychical states. Whatever meningeal inflammation might have been present at the basis cranii, there is every reason to believe it was but an extension from the membranes of the cord. For, if extensive meningeal inflammation, with effused products, existed at the base of the brain, we should probably expect to find symptoms present pointing to implication of some of the other nerves at the base. But none such were present. On the other hand the history of the case points to mischief that was going on in the upper portions of the medulla spinalis. Among these were: (*a*) Pain referred to the back of the head and neck extending downwards along the spinal column, having its seat of intensity at a point corresponding to the third dorsal vertebra. Vague pains were also complained of in the upper extremities, occasionally in the lower extremities, and sometimes also in the abdominal walls. (*b*) Loss of motor power in both upper extremities to a marked degree, partial loss of power in the lower extremities, which was manifested by an altered mode of progression, a sensation of constriction around the thoracic walls corresponding with the fourth intercostal space, and a loss of patellar reflex in both lower extremities. (*c*) The presence of convulsive movements affecting the whole body during the last two days of his life. Another point worthy of notice in this case was the excellent vision the patient enjoyed when he first came under observation in the out-patients' department, at a time when the optic papillæ showed signs of extensive effusion into the structure of the optic nerves. As the pathological changes in the fundus of each eye became more pronounced, the acuteness of vision decreased to one-fourth and one-sixth of the normal standard. This is not an uncommon experience, and no exact idea can be formed of the extent of the pathological changes proceeding in the optic nerves by merely gauging the quality of vision. The conductivity of the optic nerves is well known to remain unimpaired for a considerable length of time after inflammatory products have been effused into its structure. As soon, however, as undue pressure is brought to bear on the nerve fibres, then the impairment of acuteness of vision begins to be noticed by the patient himself as well as by the surgeon. The febrile action which was present throughout was not a very marked symptom. A rise of a degree or two between the morning and evening observations was all that was noticed, and this was not constant. This small rise of temperature corresponds very closely to the febrile action which accompanies the deposit of tubercle in other organs of the body, and this symptom would lead one to suspect the tuberculous nature of the disease. With this impression I was led to make a change in the treatment from the mercuri perchloride and potassium iodide to cod liver oil in unio with the syrup of the iron iodide—a change which was not followed by any improvement in the course of the disease. The convulsive attacks which occurred on May 30th, and the subsequent semi-comatose state into which the patient lapsed, pointed to extension of the inflammation towards the upper part of the medulla spinalis and the encephalon. From this the patient rallied under appropriate treatment, but he experienced severe intracranial pain afterwards. On the following day the convulsive seizure recurred, accompanied by a deeper state of coma, with slow and sighing respiration, a slow pulse of 60, and complete anæsthesia of the whole body; and in this state he passed away in a more or less sudden manner.

REVIEWS.

A TEXTBOOK OF THE PRACTICE OF MEDICINE FOR THE USE OF STUDENTS AND PRACTITIONERS. By R. C. M. PAGE, M.D. New York: William Ward and Co. 1892. Pp. 568.

CONSIDERING the rapid multiplication of books in the present day, it is not unnatural that an author should feel it incumbent upon him to give some explanation for the appearance of a new one. Professor PAGE states his belief that a shorter work on medicine is called for—that is, in America; yet it is to be regretted, we think, that the abbreviation should have been made disproportionately at the expense of the morbid anatomy. Without this latter a really sound knowledge of disease is impossible. At the same time, the author has wisely given in this book much attention to treatment.

The subject matter is thus arranged: Diseases of (1) the heart and vessels, (2) the organs of respiration, (3) the liver, spleen, and pancreas, (4) the urinary organs, and (5) the digestive organs; then (6) the infectious diseases, (7) the chronic general diseases, and (8) diseases of the nervous system.

Cardiac disease is well described, and more will be found here about intraventricular and intra-aortic murmurs than is usual in English textbooks. The remarks about the treatment of compensated heart disease are apposite, but the wisdom of using aconite in aortic disease, unless in quite exceptional cases, may be questioned. Among lung diseases, chronic pleurisy with effusion is well dealt with separately. Such cases are stated to be generally chronic from the first, and are then almost invariably tuberculous in origin.

A word may be said about the "congestion" of the various organs described in this book. Apart from mechanical congestion, it is very doubtful whether any such condition gives rise to a clear symptom-complex, and certainly it is the source in many cases of much looseness of thought and expression. Any absolute statement as to the blood-stained character of an effusion accompanying malignant disease of the lung cannot be correct, as such effusions are sometimes serous only. Again, lardaceous disease, whether of the liver, kidneys, or intestines, is not nearly as often found after death from phthisis as might be supposed from the statements which are apparently copied from one book to another.

Occasionally we miss any adequate account of recent advances in our knowledge—such, for instance, as of gastric chemistry in respect to gastric disease, of the relation of diabetes to pancreatic disease, of the microbic origin of some of the infective diseases, especially tetanus. The description of tuberculous peritonitis and multiple neuritis is singularly deficient. General paralysis of the insane is not considered, and yet the importance of an early diagnosis is obvious. In some articles no mention is made of the circumstances under which surgical intervention might be of service, and yet it is unquestionably the province of the physician to know when indications for it are present. Repeated tappings are recommended in abscess of the liver, and under the further treatment of hydatid disease some allusion is made to the use of caustics in establishing adhesions between the sac and the abdominal wall. Aspiration is said to be alone necessary in the empyemata of children.

Although attention has been chiefly drawn here to points in which a considerable difference of opinion from that

expressed in the text may rightly exist, yet this book is not without its merits, and it is likely enough to find favour with those who want a short treatise on medicine. The blank pages at the end for memoranda are a useful innovation which might be more generally followed.

Notes and Queries on Anthropology. Edited for the Council of the Anthropological Institute by John G. Garson, M.D., and Charles H. Read, F.S.A. Second Edition. The Anthropological Institute, 3, Hanover Square, W., and all booksellers. 1892.

This is a handbook for travellers, designed to promote accurate observation and supply information for the scientific study of anthropology. It is a revised and very much enlarged edition of the small manual issued in 1874 by the British Association for the Advancement of Science. It is exactly what its title indicates—a book of notes and queries and a book of reference for the pocket or knapsack of the traveller, and asks for much but conveys little positive information on anthropology. The subject matter is divided into anthropography, edited by Dr. Garson, which embraces all the observations on man of an anatomical, physiological, and pathological character, and consequently will be of use chiefly to persons who have had some training in the medical schools; and ethnography, edited by Mr. C. H. Read, which deals with the manners and customs of different races of mankind.

With respect to the physical characters of man, such as complexion, head, and body measurements, etc., Dr. Garson has kept in view the work of Broca and Topinard, but we find no reference to German and Italian anthropologists, who have been very industrious in this line of research for many years past, and indeed it is to the Austrian *Novara* expedition that we owe the beginning of scientific anthropometry. It is in the instructions on the colour of eyes, hair, and skin that we see the influence of the French anthropologists, with which we are inclined to find fault. It is exceedingly difficult to define and record slight variations of colour of eyes, hair, and skin, and there does not appear to be any physiological reason for so doing. The chromo-lithographic plate showing 10 shades of skin colour, 3 shades of medium coloured eyes, and 3 shades of medium coloured hair affords evidence of the minute state of division to which the complexion tests are carried, and it will help the traveller to record his observations in agreement with them, but the accuracy of his records of colours not given in the plate will depend on his interpretation of the terms employed, and a considerable margin must be allowed for the "personal equation" of the observer.

Practical observation in England, where there is a greater variation of complexion than elsewhere in Europe, has shown that five colours of eyes and as many colours of hair are sufficient, and as much as can be recorded with reasonable accuracy. To have retained the old plate of "army test dots" in its original form appears to be a mistake, as it has been shown to be a very unsatisfactory, and indeed a misleading, test of eyesight. The test consists of a series of irregular groups of dots $\frac{1}{4}$th of an inch square, which are supposed to be visible at a distance of 15 feet; but it is not the dots themselves, but the spaces between them, which determine the acuity of vision, and only four groups of two dots each are placed at $\frac{1}{4}$th of an inch apart, and comply with the instructions in the text. The dots which are placed at a distance of more than 1 diameter are visible at a greater distance than 15 feet, and should not be exposed in using the card. The result of using this test for eyesight will be failure unless this fact is borne in mind. On the card should be inserted a suggestion that the testing should be confined to the use of the four dots in the lower righthand corner of the card as it stands in the book. Of this number, only two adjoining dots should be exposed at a time. There are two other groups correctly spaced, one near the top on the right, and one at the middle on the left; but all the dots which present their angles to each other are at fault, and must be avoided. By inserting a few more dots, the whole card can be made available as a test on its original plan.

Beyond these slight criticisms we have nothing but praise and thanks to offer to the numerous contributors of articles to this most useful and instructive little manual. The names of the contributors, among whom we find Dr. E. B. Tylor, General Pitt-Rivers, Sir John Evans, Sir John Lubbock, Mr. Francis Galton, and Dr. John Beddoe, are a sufficient guarantee for the accuracy and interest of the work. The book is specially designed for scientific workers, and the queries are largely directed to observations on the lower races; but it will be found an exceedingly suggestive manual to persons travelling among civilised peoples. Many persons look for differences in nationality in the clothing and personal ornaments worn, in the manufactures, food, government, morals, fine arts, and so on, all of which subjects are dealt with in this little book. There are, for instance, thirty-five queries relating to clothing and thirty-seven to personal ornaments, and all the other subjects are analysed, as it were, in a similar manner. The various articles—seventy-seven in all—being written by different authors, overlap each other somewhat, and we could have wished for a better index showing where the various subjects meet, and their relations to each other, to save time in the hurry and bustle of travelling. The book is essential to all travellers who wish to add to the ever-growing science of anthropology, and those who follow its directions cannot fail to contribute some useful facts to advance a science which is of the highest value and interest to all of us.

Klinische Untersuchungen über die Salzsäureabscheidung des Magens bei Geistekranken. (Clinical Investigation of the Excretion of Hydrochloric Acid in the Stomach in Mental Diseases.) Von Dr. G. Leubuscher und Dr. Th. Ziehen. Jena: G. Fischer. 1892.

The authors of this pamphlet are to be congratulated on the very painstaking manner in which they have carried out a research which has very little by way of result to repay them. It is one of those researches which most investigators would prefer should be carried out by some one else. The greater part of the book consists of tables of observations in numerous cases of dementia and other mental affections. The hydrochloric acid in the gastric juice was in most estimated quantitatively, and numerous qualitative colour tests for the acid were also employed. The quantitative method used was that of Sjoqvist somewhat modified so that the barium chloride was estimated in the form of sulphate.

The only general conclusion drawn from the very numerous experiments is that in paralytic and senile dementia, and to a less extent in imbecility and functional psychoses, there is a tendency to a lessening of the acid of the gastric juice.

The Venomous Reptiles of the United States, with the Treatment of Wounds Inflicted by them. By Paul B. Barringer, M.D. Southern Surgical and Gynæcological Association. 1891.

This is an interesting pamphlet by Dr. Barringer, of Virginia, on the poisonous snakes of the United States. In it he calls attention to the popular error which assigns to many innocuous snakes lethal properties of which they are really innocent.

Dr. Barringer notes the existence of one poisonous colubrine snake, *Elaps fulvius*, and gives an instance of death occurring from its bite. This beautiful little reptile, the only example of a venomous colubrine snake in America, is found from Virginia to Texas, being known as the harlequin snake, coral snake, and bead snake. He refers also to a beautifully-coloured snake found in various parts of the south from Virginia to Texas, most abundant in Florida, whose bite is said to be deadly; he does not give its specific name, but obviously this is the same reptile.

The crotalidæ are numerous, and attain their highest development in America. Their varieties are mentioned, and the deadly nature of their poison is affirmed. The poison and aggressive character of the copper head and water mocassin snake are referred to. The characters by which any venomous snake is marked are also indicated.

Leaving the snakes, the heloderm, or gila monster, of Arizona and New Mexico, and the poisonous nature of its secretions, are referred to. Experiments made with this reptile in this country tend to confirm the poisonous character of its bite,

and Dr. Barringer, referring to the doubts expressed on the subject, says: "One fact remains, men have died from the effects of its bite," and quotes cases in support of the assertion, for example: "A man picked the animal up, and was deeply bitten in the forearm. He had all the symptoms of cardiac depression, and, although he was freely plied with stimulants, within a few hours he was dead."

Dr. Barringer redescribes the mechanism by which the poison is injected, both in the colubrine and viperine snakes, and also in the heloderms, all of which has previously been described in detail by other writers. He then proceeds to consider the nature of the poisons, referring to the researches of Bonaparte, Weir Mitchell, and Reichert, the action of the poison, and the mode in which death is caused. He has probably not read the researches of other investigators, as he does not refer to them.

The treatment of snake-poisoning is also considered, and it is recommended to incise and suck the wound, to apply a ligature and cupping glass, and to inject a solution of permanganate of potash into the wound to destroy the activity of the poison.

As to constitutional treatment, it is recommended that moderate doses of alcohol should be given, and that $\frac{1}{20}$th to $\frac{1}{30}$th of a grain of strychnine be hypodermically injected. These means Dr. Barringer considers likely to be efficacious, and that they have in many cases saved human life.

The experience of Indian observers long ago suggested the injection of permanganate of potash to destroy the venom localised by the ligature, and the use of stimulants to counteract depression, but hitherto evidence of the beneficial effect of strychnine has not been confirmed; it is desirable that further investigations should be made into the value of this drug as a remedy in snake poisoning, and it seems likely that they will be made, though the result is doubtful, like that of other vaunted antidotes.

DESCRIPTIVE CATALOGUE OF THE SPECIMENS ILLUSTRATING MORBID ANATOMY AND PATHOLOGY CONTAINED IN THE MUSEUM OF THE WESTMINSTER HOSPITAL. By CHARLES STONHAM, F.R.C.S., Assistant Surgeon to the Hospital. Printed by Taylor and Francis.

MR. STONHAM has prepared this catalogue on the best principles, and has had good material for his purpose, the collection at the Westminster Hospital being rich. It includes a classical series of gunshot injuries, presented by the late Mr. Guthrie. These were mostly gleaned from the battlefield of Toulouse, and will prove of interest in these days, where the effects of certain new firearms may be instructively compared with the damage wrought by muskets in the great French war. Mr. Donald Gunn has arranged a fine series illustrating injuries and diseases of the eye. As in many other catalogues of museums attached to medical schools, the headings of series are followed by an epitome of the pathological features which they represent; this precedes the description of individual specimens. This renders the catalogue a manual of pathology for students of the hospital. In order that the work may be complete in this sense, epitomes of all generally known pathological conditions are given, even where no specimens exist in the collection to illustrate certain diseases. Such an arrangement has the further advantage of stimulating the curator and the student to complete the collection. As in the case of all such catalogues, it is to be hoped that an appendix will be prepared from time to time.

OUTLINES OF INSANITY. Designed for the Use of Medical Practitioners, Justices of the Peace, and Asylum Managers. By FRANCIS H. WALMSLEY, M.D. London: The Scientific Press (Limited). 1892.

THIS book deals first with normal and abnormal mentation, and then with the description of melancholia, mental stupor, mania, puerperal insanity, dementia, weak mind, alcoholic insanity, epileptic insanity, and general paralysis of the insane. Then a few pages are devoted to the causation of insanity. Finally come three appendices: the first consisting of a reprint of the report of a committee of the Medico-Psychological Association, the second relating to lunatic hospitals, and the third appendix, consisting entirely of extracts from the BRITISH MEDICAL JOURNAL on the subject of actions in lunacy against medical men.

The part devoted to the description of the above-named forms of mental disease occupies 80 pages, and as the type is large and widely spaced it follows that the description is necessarily somewhat brief. Moreover, it will be observed from the above list that a number of important mental diseases frequently met with are entirely omitted. It is also to be noted that of those that are described but few clinical forms or varieties are mentioned. Thus, for example, under mental stupor and general paralysis we find practically only one clinical form, and too few under alcoholic insanity, and even under melancholia, the one which is the most fully described of all those in the book.

On the subjects it does deal with the work is accurate, and it is well arranged and pleasantly written. It will be serviceable to those for whose use it has been designed.

NOTES ON BOOKS.

Lunacy Law in its Relation to Custody of the Person. An Explanatory Treatise on the Lunacy Acts 1890 and 1891, etc. By DANIEL CHAMIER, of the Inner Temple, Barrister-at-Law. (London: Effingham, Wilson and Co. 1892.)—This little book gives a concise summary of the chief provisions of the new and of the consolidated lunacy Acts, principally as far as they relate to those who have the charge of the insane. It will be found useful for reference and guidance on ordinary points. It would probably have been still more useful had footnote references been made to the sections and subsections of the Acts of which the text is a very readable summary. On matters of importance it would, of course, be desirable to consult the Acts themselves also, as there are many details which cannot be compressed into a summary, and the author of this short treatise does not intend it to be a substitute for the Lunacy Acts.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

BIÈRE TONIQUE FERRUGINEUSE.

THE idea of incorporating small amounts of iron with beer is no doubt a good one, and this has been satisfactorily accomplished by Messrs. Rinck and Sons, of Lyons. We have analysed some samples of the ferruginous beer brewed by Messrs. Rinck. The beers are of very good quality and contain small amounts of iron as claimed by the proprietors. Varying amounts of iron are introduced (for example, an equivalent to 0.03 oxide of iron per litre) as may be required, and samples containing such different amounts may be obtained. The taste is imperceptible. It is urged with some justification that many metallic preparations are more easily assimilable and lose their irritating properties by being incorporated with organic substances. It appears that many unsuccessful attempts have been made to brew ferruginous beer, but that the beer obtained was always cloudy and had an unpleasant taste. Messrs. Rinck claim to have discovered a process whereby these defects are always obviated and which can be applied to all kinds of beer. The samples certainly leave nothing to be desired and they were free from all objectionable "preservatives." The beers are well deserving of the attention of the profession.

KNITTED CORSETS.

IT is claimed for the knitted corsets forwarded to us by the Sanitary Knitted Corset Company, Nottingham, that they present the following advantages: (1) Being knitted they are elastic; (2) they do not hinder the movements of the body by reason of their ready expansion and contraction; (3) they give support without pressure; (4) being porous they allow free

escape of perspiration; (5) they are light, durable, and can be washed as easily as any other under garment, which gives them an obvious advantage in respect to cleanliness over the usual stiff unwashable corsets in general use.

IMPROVED TUBE BRUSH.

WE have received from Mr. F. W. Gelder, of 24, Elmfield Terrace, Halifax, a specimen of an improved brush for cleaning the tubes of infants' feeding bottles patented by him. The improvement consists in a small horizontal bar loosely attached at the end opposite to the bristles. This bar can be doubled on to the wire handle, and in that position facilitates the introduction of the brush and prevents perforation of the tube; after the wire handle has thus been passed through the tube the bar affords a firm grip for drawing the brush itself through the tube.

AN ASEPTIC TONGUE SPATULA.

THE possibility of the transmission of infectious disorders of the mouth and throat by the use of the same tongue spatula for many patients cannot be altogether denied, though, owing to the simple surface of the instruments being easily cleaned, such an accident must be rare. The danger would be completely obviated if we could use a new spatula for each patient; to this idea a practical form has been given by Mr. J. Harmsen, Rosenstrasse 11, Hamburg. He manufactures a small flat spatula made of common deal, which for a single examination answers its purpose as well as more costly implements, and can be burnt after use. The only objection to them is that they have the not very convenient form of a common paper knife, but this slight drawback appears to be more than compensated by the freedom from danger which they ensure in dealing with infectious cases. The price is 35 pfennigs (about 3½d.) the dozen.

SCALE PEPSINE AND POWDERED SCALE PEPSINE.

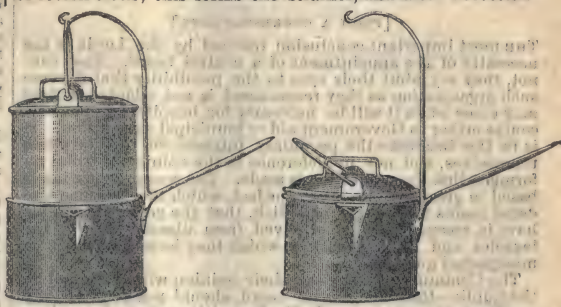
THE samples of scale pepsine and powdered scale pepsine which we have received from Messrs. Armour and Co., of Chicago and 59, Tooley Street, E.C., for examination, are of the same good quality and reliability as the other preparations from this firm which we have recently noticed. The scale pepsine dissolves easily in water, yielding a solution of acid reaction and of high peptonising power. It is stated to possess a digestive power equal to 2,500 times its weight, and our experiments show that the claim is justified. The preparations are free from all objectionable odour and taste, and will be found especially useful in making up liquid forms. We find that the substances are devoid of adulterants or "make-weights." With ordinary care they are permanent, and can be relied upon to retain their activity.

GLYCEROLE PEPSINE.

WE have examined a sample of glycerole pepsine manufactured by Messrs. Armour and Co., Chicago and 59, Tooley Street, London, E.C. It will be found convenient by dispensers who may not have occasion to use large quantities of soluble pepsine at one time, and it obviates the necessity of weighing and filtering when preparing liquid combinations. Ten minims are guaranteed by the makers to dissolve 2,500 grains of coagulated albumen under proper conditions of test, 10 minims representing 1 grain of the manufacturer's scale pepsine. We find that this claim is correct. The preparation is a clear and permanent glycerol solution of pepsine of the strength mentioned.

SELF-CLARIFYING COFFEE APPARATUS.

THE apparatus represented in the annexed cuts was designed by Mr. R. W. Raphael, of Messrs. P. Henderson and Co., shipowners, Glasgow. This gentleman takes a lively interest in matters affecting the welfare of the crews and passengers, and has special charge of the victualling department. Coffee of excellent quality is provided by the firm, and "the only difficulty," we are told, "is to get it made properly." On board ship and in large quantity this is not always an easy matter, partly on account of the motion of the vessel, partly because of the indifference of those engaged in its preparation. These difficulties appear to have been overcome by this contrivance, which has been patented in this country and elsewhere. It consists of a double saucepan, like a "milk saucepan," the inner can of which has a finely perforated bottom and a cap of cotton cloth; this forms the strainer, and after decoction

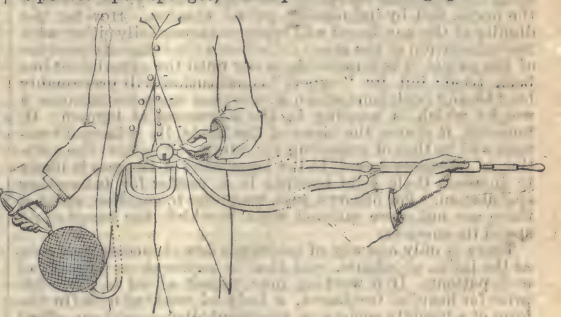


is suspended on a hook to allow of percolation. The advantages claimed are that failure is impossible, the coffee is not boiled, the cost is small, the work simple, and it is quite easy to keep clean.

IMPROVED PAQUELIN THERMO-CAUTERY.

AN improved pattern of this well-known cautery has been sent to us by Messrs. Maw, Son, and Thompson, Aldersgate Street. The cautery and handle are so much reduced in size that the instrument may be used like a pencil.

The handle receives from the bellows a jet of refrigerating air, by which the products of combustion are thrown beyond the hand of the operator; one of them—the vapour of water—is utilised as the refrigerating agent when using large cauteries. These conditions permit the hand to be kept very close to the field of operation. The carburettor is of metal, concave on one side and convex on the other, adapting itself thereby to the form of the body, and maintaining by such contact a constant even temperature. The combustible liquid is poured upon sponges, which prevents its being upset.



By means of a closing and mixing stopcock it is easy to graduate the degree of incandescence of the cautery. The hook of the carburettor is curled at top to allow of unscrewing the cautery from the handle in case of gripping. The spirit-lamp is not needed, and a new form of blow-pipe permits the instrument to be rapidly cleaned.

It is claimed that the new instrument has the following advantages over the old one, namely:—1. Regulation of the incandescence of the cautery without use of the bellows. 2. Simplification and greater precision in work and use. 3. More numerous and easy surgical applications. 4. Security for the operator as well as for the patient. 5. Less liability to get out of order. 6. Greater ease in cleaning the cautery. 7. Greater economy in construction.

THE LORDS' REPORT ON THE METROPOLITAN HOSPITALS.[1]

[FROM A CORRESPONDENT.]

The most important conclusion reached by the Lords is the necessity of the appointment of a central board. They cannot, they say, shut their eyes to the possibility that if some such organisation as they recommend is not adopted, a time may come when it will be necessary for hospitals to have recourse either to Government aid or municipal subvention. It is in the interest—the pecuniary interest—of the hospitals themselves, and not in deference to the opinion of social reformers, that the suggestion is made. The recommendation is based in great measure upon the fact, which the evidence tendered seems to them to establish, that the general hospitals have in recent times been saved from disaster only by the legacies and large donations which they have received from unexpected quarters.

The Committee think—and their opinion will be shared by the public—that the central board should not be given any statutory powers as regards the formal licensing of any hospital built, or about to be built; nor in the absence of a Government grant do they think that the appointment of a Government inspector of hospitals would be wise. The interference of such an officer would, as they point out, tend to check the flow of voluntary contributions, and possibly to some extent to interfere with the responsibility of the existing managers. The constitution of the board need not be discussed at present. Suffice it to say that it would be representative of the hospitals, medical corporations, and medical charities. It would be granted a charter entitling it to receive endowments and donations for distribution to medical charities, and to defray its own expenses. Its duties would be to report periodically upon the existing hospitals, and upon all proposals for the foundation of new hospitals, to promote a proper system of accounts and audit, and co-operation among the medical charities and between them and general charity.

It does not appear that under the suggested scheme the board would have means of bringing its influence to bear upon the hospitals except in two ways—namely, the power of the purse, and by influencing public opinion. How far the dignity of the new board will compete successfully either with the solicitation of the street collector or the religious pressure of the pulpit, it is impossible to say until the experiment has been tried; but its "expert" constitution will presumably lend to any criticisms which it may pass upon institutions a weight which is wanting in the utterances of laymen. If, however, it shares the views of the Lords, its principal business will be that of appealing for funds. Whether the addition of one more recruit to the large army of beggars is likely to increase their total receipts is a matter for interesting speculation. For our own part, we prefer to consider whether there are not more rational ways in which the board could spend its energies.

There is only one way of insuring a flow of income as steady as the influx of patents, and that is payment on account of each patient. If a working man cannot afford to pay a fair price for hospital treatment, a body of working men (in the form of a friendly society or provident dispensary) can afford to pay for the treatment of such of their number as may require it. Those patients who have been too improvident to join one of these organisations have a legal right to treatment at the Poor-law dispensary or infirmary; and if their cases are of such difficulty as to require special treatment, there is no reason why the Poor-law authorities should not send them at them at the expense of the rates to the hospital. Our suggestion applies equally to the cases of in- an out-patients. The Committee considered only that of the latter, and of them they say, "by the abolitition of the out-patient departments medical education would be seriously interfered with." It is very strange that the Lords do not see the obvious answer to this objection. If the Poor-law institutions were thrown open to students, not a single case would be lost to science; and if we may judge in an earlier part of the report, they do not think that there are any serious objections to such an innovation.

The pauperising effect of promiscuous free treatment is lightly dismissed. The Committee think that "the charities are not abused to any serious or appreciable extent." They add, however, the judicious remark, "inquiries should be made wherever experienced officials think there is cause for suspicion, and that the patient should establish a *primâ facie* case for charitable relief." Where is this experienced official? Is the house physician such an one?

But the real question is not, Has the patient got the money in his pocket? but, Would he not have had it if the existing system had not taught him that it is unnecessary for him to save? The Lords' treatment of the views expressed by Sir E. A. Currie and other witnesses show how completely they fail to appreciate the meaning of "pauperisation." In reply to the charge of pauperisation, they quote the opinion of those who hold that "free medical treatment kept a very large number of persons..... off the parish, and thus saved them from pauperism." A man who spends his life "getting something for nothing" is a pauper, whether he wears the badge or or not. If the new board begins by begging, we trust that it will go on to organise.

There is one minor suggestion in the report which we do not wish to pass over. The Committee remark on the difficulty of finding convalescent homes for patients on their discharge from the hospitals, and express the hope that more extensive convalescent accommodation may be provided by philanthropic effort. Had they known that there are in the country more than 100 seaside, and nearly 150 convalescent homes, they might here, too, possibly have suggested organisation rather than multiplication.

[1] Third Report from the Select Committee of the House of Lords on Metropolitan Hospitals, etc.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The annual general meeting of the Association of Fellows of the Royal College of Surgeons of England was held at the Zoological Society's Rooms, 3, Hanover Square, W., on June 30th. Mr. T. Holmes, Vice-President, took the chair, and in expressing his regret for the unavoidable absence of the President of the Association, Mr. George Pollock, he said that Mr. Pollock had been obliged to leave town on that day for the purpose of attending the funeral of Sir William Aitken at Netley.

The minutes of the last annual meeting having been read and confirmed, the Honorary Secretary stated that he had received upwards of fifty replies from members of the Association respecting the postcard which had been issued announcing the annual general meeting, the annual dinner, and the candidature of the nominee of the Association, namely, Mr. John Tweedy, for a seat on the Council of the College of Surgeons. Nearly all these replies were expressive of regret at being unable to attend the meeting, and of determination to support Mr. Tweedy at the election. A telegram to a similar effect from Mr. Mayo Robson was also read. The Honorary Secretary then read the auditor's report, which was received and adopted, a balance in favour of the Association being shown.

Mr. T. Holmes then delivered an address, reviewing the proceedings of the Association as comprised in the report which had lately been issued to the Members, as well as to the Fellows of the College generally. Among other things he forcibly pointed out the inexpediency of the action of the Council of the College in coming to a decision upon subjects of importance both to the Fellows of the College and the profession at large without consulting the "body corporate." Such matters, he said, should be discussed publicly at the College by the Fellows and Members in the face of the profession, and should not be decided secretly by twenty-four Fellows "in an upper room." He instanced the scheme for co-operating with the University of London in examining for degrees, and also the scheme for the fulfilment of the five years' curriculum. Referring to the recent assertion that the Association was a political body, he repudiated the statement altogether, and said that the Association had nothing whatever to do with politics. The Association had to meet a

hostile feeling in certain quarters, but had always conducted its business with the strictest regard to the feelings of those who are opposed to them.

Mr. George Jackson (Plymouth) moved the adoption of the report, Mr. J. J. Purnell (Streatham) seconded, and the resolution was carried unanimously.

The following resolution was then proposed by Mr. Alban Doran: "That the Association of Fellows pledges itself to use its utmost endeavours to secure the return of Mr. John Tweedy at the College election on July 7th." Mr. Doran observed that many able men after election to councils never succeeded in understanding procedure and never gained a fair knowledge of by-laws. All who had served on councils of societies were aware of this fact. Yet, in order to make a good councillor, skill in procedure and a full knowledge of by-laws were imperative. Mr. Tweedy was one of the very few persons who had a full knowledge of the intricate charters and by-laws of the College of Surgeons, and his ability at public meetings was well known. He would prove a most valuable addition to the Council.

The resolution was seconded by Dr. W. J. Collins, and unanimously agreed to.

Mr. John Tweedy, in thanking the meeting for the resolution which had been passed in his favour, said that it was well known that he had been reluctant in coming forward; nevertheless, he took such a warm interest in the Association that he felt that he could not refuse to become a candidate for the Council, especially when the invitation had been conveyed to him in such a flattering manner by those with whom he had been associated upon the Committee of the Association.

The election of officers for the ensuing year was then proceeded with, and Mr. Rivington, in proposing that the present officers of the Association be re-elected, added that there were two vacancies upon the Committee caused by the death of Mr. William Adams, of Regent's Park, and by the resignation of Mr. Lawson Tait. He also said that it was advisable to make the Committee as widely representative as possible, and that it was of great advantage to have Fellows from different parts of the country serving on the Committee. It had been suggested to him that he should give an account of his stewardship at the College. But it would be very inexpedient and improper to reveal the secrets of the prison house. He could not go beyond the published minutes of the proceedings of the Council. From these it would be gathered that progress was being made. Some might desire that the Council of the College should advance rather faster, and less like the traffic on a suburban line. But everything now depended upon the Fellows themselves. This important concession had been made by the Council—that separate meetings of Fellows would be called for consultative purposes whenever the Council thought it desirable, and on requisition from the Fellows. This concession was the cardinal point in all reform, and, if properly utilised, would lead to all the other concessions which the Fellows of the College as a body might think desirable. He proposed that the following names be added to the Committee, namely: Mr. J. Vincent Bell (Rochester), Mr. George F. Helm (Truro), Mr. George Jackson (Plymouth), Mr. C. B. Keetley (London), and Mr. J. J. Purnell (Streatham).

The motion was seconded by Dr. J. T. James (London), and carried unanimously.

A vote of thanks to the Chairman terminated the proceedings.

Italian Congress of Laryngology.—The Italian Society of Laryngology will hold its first meeting in Rome about the middle of October. Among the subjects on the programme for discussion are the following: Phases, Nature, and Treatment of Laryngeal Papillomata, to be introduced by Professor F. Massei; Diagnostic Importance in Ear Diseases of the Perception of Sounds by the Cranial and Aërial Paths, by Dr. Corradi; Diagnosis and Treatment of Diseases of the Sinuses Communicating with the Nasal Cavities, by Dr. Strazza. Communications have also been promised by Dr. Abate on the Diagnosis of Gouty Laryngitis; and by Dr. Fasano on the Coexistence of Syphilis and Tuberculosis of the Larynx and on the Mercurial Treatment of Certain Nasal Scrofulides.

AN ACCOUNT OF THE MENTAL CONDITION AND TRIAL OF THE RAINHILL AND WINDSOR MURDERER (DEEMING *ALIAS* WILLIAMS).

By J. Y. FISHBOURNE, B.A., M.B., Ch.M. T.C.D.,
Official Visitor to the Metropolitan Asylums, Victoria; Examiner on Mental Pathology to the University of Melbourne,
AND
J. W. SPRINGTHORPE, M.A., M.D., M.R.C.S., M.R.C.P.Lond.,
Physician to the Melbourne Hospital, Lecturer on Therapeutics to the University of Melbourne.

Believing that the readers of the British Medical Journal throughout the world will be expecting to receive some authoritative account of this case we venture to send the accompanying statement[1] of our examinations of the prisoner together with such explanatory remarks as seem to us desirable and necessary. Not unnaturally we were not prepared to go into the witness-box on the morning following our last examination and give an expert opinion upon such a case, especially since, in addition to the statements of the prisoner, we had found upon him signs of blows on the head, more or less depression, a seton mark at the back of the neck, and large deep syphilitic scars on the limbs and trunk. In addition his eyes had not been thoroughly examined by anybody, and in reply to our inquiry we had received a telegram from the Governor of the Sydney Gaol to the effect that the accused had been treated in the gaol hospital for epileptic fits, whilst his extreme restlessness was a notorious fact, and there was no evidence of alcoholic excess. Further, his statement as to the presence of lunacy in the family and his apparent hallucination as to the appearance of his mother had been already verified by cable in a remarkable manner. We therefore asked for an adjournment, and from the importance and intricacy of the case went to the extent of declining to give evidence if a postponement were refused. Despite this, the strongest protest that we could make, the trial was proceeded with, and we were compelled, upon subpœna, to give such evidence as we had collected.

Remarks upon the Prisoner's Statements.—All the statements were obtained on cross-examination upon different occasions, and always in the presence of a Crown witness. In giving his answers the prisoner seemed to us like one who was obliging us with what was of no particular importance to himself, earnest even where he was evidently not stating the truth. We soon saw that all his statements could not be dismissed as lies, but the facility and dexterity of his lies made it all the more difficult to separate these from what might be exaggerations, distortions, and even hallucinations. In some cases we had hopes of being speedily able to obtain the measure of his exaggeration or distortion, as in the Sydney and Calcutta fits, the behaviour in the Hull Gaol (the Governor of which was present at the Court, but, contrary to expectation, was not called upon by the Crown as a witness), etc. Other verification, however, as of the family history, though of paramount importance, was, unfortunately, not immediately procurable. All attempts at outside corroboration or disproval, however, were prevented by the hurried action of the Court, and the case was tried without them.

Dealing with his statements in detail:

1. *Family History.*—Some of his statements seem quite true, how far they may be exaggerated in others is still uncertain. We hope that careful investigation will yet be made upon the spot by some competent inquirer.

His father ill-treated him; died in Birkenhead Asylum, did not know whether Benevolent or Lunatic Asylum. His mother was always good to him; was in a lunatic asylum before his birth, came out for his birth. Had five or six brothers; one younger than himself in an asylum. Had three sisters, one dead, one was not right in her head.

2. *Personal History.*—We also hope proper inquiry will be made as to his (?) confinement in an asylum as "Teddy Williams," and the truth or otherwise as to his being placed in a House of Correction for "tearing up his clothes in the street." In our experience of him, at no time could we find him in a position in which he seemed to have a true or even ordinary view of his surroundings, or was reacting normally

[1] Extracts from the statement are printed in small type.

to his environment. His life seems best described as an extravaganza, under the influence simply of *bien-être* and sexuality tempered for years by lack of funds.

3. *As Regards his (?) Delusions.*—(*a*) His mother's influence and appearances. Here his story has been quite consistent, and maintained to the very morning of his execution. It has also been partially corroborated by cable. He regarded it as a real delusion—harmless until the bad attack of syphilis in South Africa. His account of that attack is graphic and gruesome. It seems to have made a tragedy of his life. Some of the Whitechapel murders become immediately possible by way of revenge. This delusion grafted on to syphilophobia suggests also a clue to the Rainhill and Windsor atrocities. The syphilised child is the only thing that he mentioned more than once and returned to of his own accord. The actual recurrence of syphilis, or the fear of it, on the way to Australia, and the possible syphilisation or pregnancy of his new wife may have suggested her removal, and necessitated, in his mind, preparations for the similar treatment of any future wife, also (*b*) his story of his unconsciousness on his birthday is difficult of explanation. (*c*) His story of his changes of name and their influence appears to date from early life, before there was any legal incentive, and the probability seems to be that there was more of delusion than deception in it.

Age between 36 and 39 years; does not remember anything until 12 years old, except he was in an asylum near London. From 12 to 16 was never well. Was called "Mad Fred." He used to do all sorts of things, but never did wrong; for example, he would take things away but would return them again; threw a girl in a canal for calling him Mad Fred, pulled her out again, then threw her in again because she still gave him that name, then he left her in, and changed his name to "Harry." About 16, ran away to London, knocked about starving and cold all the winter, was put in an asylum under the name of Teddy Williams; he ran away, climbing over the wall; was arrested for tearing up his clothes in the street, and taken to a House of Correction. Went to sea; from the first took different names and different capacities—even in a return voyage in the same ship—not because he had done anything wrong, but on being pressed, gave the delusion, or lie, or mixture of both, about his mother's presence and effect of change of name. Had done all sorts of things; was surprised to find that without experience he could do anything he tried; often did not know why he did things: shivered to think if he had to do some of them again. Had always, since boyhood, been addicted to women. Will not admit the feeling is entirely or mainly sexual; is fond of them and of making them happy. Had syphilis very severely in South Africa in 1880; treated by Dr. Matthews for six weeks; only interrupted treatment for few weeks, deep penetrating sores on legs, etc., appeared early. Symptoms subsided till four months ago; very bad in London; changed his name and got well. Tried to find the woman who gave him disease; went to four places after her; would have shot her if he could have found her.

4. *Regarding his Fits.*—Absolute corroboration has been received from Sydney, where Dr. O'Connor, a lunacy expert, tates that the prisoner was under his treatment for very severe epilepsy ten years ago. Partial corroboration, also, has been received as to the attacks in the Calcutta Hospital; but we hope to see a statement in reference thereto in the BRITISH MEDICAL JOURNAL from the hospital authorities. Further, it is worthy of notice that in addition to a well-described attack on the way from Perth to Albany, and a possible fit in the Melbourne Gaol itself, the prisoner gave an account of a series of attacks in the Federal Coffee Palace, almost immediately previous to the Windsor murder. Again, from our own examinations generally, and from an indescribable look which frequently came over him, though we saw neither *petit mal* nor *grand mal*, yet there were suggestions of masked epilepsy and even of double consciousness.

Stated he was subject to fits; had had hundreds—first about eighteen, severely in Sydney; no warning except nervous and shaky. Once fell from an engine and severely injured himself; often knocked himself severely; had very often bitten his tongue and lips. Asked if his bowels moved, said "No, but had wetted his trousers in a fit." Had not known of it till told. Under the name of Deeming was under treatment for the head and fits in Calcutta Central Hospital between 1879 and 1881. Dr. Jones and many other doctors; seton in back of his neck. Also in Darlinghurst Hospital 1881-82, under the same name, under Dr. O'Connor, for six weeks, for fits. His memory sometimes so bad that he cannot recollect anything. When thus affected never leaves a room if he can help it; nothing but confusion; has been four days that way. When in a fit does not know himself at all; does lots of things those days which he does not know. As a rule is not more than two or three months in a stretch without any trouble—longer if not over-worked or worried. Has had one fit in gaol; warder stated it lasted two minutes; struggled, no frothing or tongue-biting, no micturition, complete recovery, headache left behind, in bed later than usual. Had no fits coming out from England, but three in the Federal Coffee Palace the day after his arrival. Could not write anything some days, some days wrote a lot. Dr. O'Connor had been with him, practically, all day in fits. On his birthday was unconscious that day and part of the next. His mother wakes him up every morning at 2 o'clock; she always appeared before him as when last seen before death, always besides him exercising an influence on him. Many a time she has held him by the right wrist (he always points to the right side when pointing to her), and he cannot get away. Had sent his first wife away from Africa through it. Mother always tells him if he has a lady friend to kill her, or a wife to kill her. Has never seen anyone in this way but her; hears no other voices. Changed his name to try and escape from this. On the next day he always felt easier; that he thought to get out of his life by parting with the past. Did not see why he should be responsible under new names. As an instance, he said that when in London with the syphilis he changed his name, and the syphilis disappeared.

5. *Regarding Injuries to the Head.*—It is impossible from the examinations made to say what effect these injuries may or may not have had upon the brain of the prisoner, but it is, to say the least, suggestive that one scar with depression was not far from, if not quite within, Ferrier's area No. XII, and that tremors of the eyes were complained of, and seen by others though not by ourselves.

Has also two scars on the head from injury, not syphilis, one posteriorly, one to the left side somewhere about the junction of the frontal with the parietal lobes, both somewhat depressed; cannot say if any bone came away; they broke out fresh for seven weeks with the syphilis. Blow on the forehead when a boy from a slate, leaving an old scar; often suffers from headaches; no tremor except of eyes; no vomiting. Head circumference over eyebrows 21½ inches, from ear to ear 11½ inches, tip of nose to occiput 13 inches.

6. *Regarding his Moral State and Mental Powers.*—His answers to Dr. Shield's inquiries upon the ten commandments gave further evidence, if more were needed, that he seemed quite destitute of the moral sense. Neither judge nor jury, however, seemed to understand that this could coexist with perceptive powers of unusual efficiency, a good memory of dates and details, and the cunning of a fox. He had, however, the usual want of judgment and comparison.

Maintained that he was perfectly innocent of both murders—that his wife Emily was not dead; he would never have done such a thing. Thought it might be right to kill a man if there were a good reason, and and right to keep it dark when done. Thought it better for a man with syphilis to kill even his wife rather than contaminate her, especially if as bad as he was. The woman who had given him syphilis had made a useless man of him for two years. It was right to kill such; he would have killed her, and intended to kill her, and would not have thought it murder. Regarding the ten commandments, they were made years ago; then there was not much known; he put little faith in them—did not hold with them. They were made for the convenience of the higher class. As regards stealing, it was not stealing if the man could afford to lose it. It was right to hang a man if they thought it right apart from the merits of the case; who was going to stop them? If they thought it right they had a cause for it; did not think every murder right; some were. A man might do a wrong murder if he had no cause; it was for him to decide.

7. *His Account of the Murders* showed considerable constructiveness and ingenuity. At the same time it is against overwhelming evidence, full of unnecessary lies and horrors, and simultaneous with several so-called "confessions." In all these latter his mother appears. There is a strange hesitancy and indefiniteness about the description of the actual deed, an assumed or real forgetfulness (we believe the latter) as to the details, and suggestiveness of epilepsy as a concomitant if not cause. As regards the premeditation, we would be glad to see if it has been actually proved that the first cement was obtained for the purpose of concealment and not as a legitimate part of the lease. Certainly in the second murder, where the idea is no longer new, the murder seems to have been committed some days before the date advanced by the Crown, and the premeditation would then have been much exaggerated.

From the first he desired and apparently aimed at only the defence of the facts. To us he seemed to reason thus: "No one saw me kill her; none knew when she was killed. The Crown has no evidence as to the former and false witnesses as to the latter. I ought not to be brought in guilty." This is the keynote to his remarkable address to the jury—an address from a so-called liar full of a certain kind of truth, and certain to prove his sanity to a jury to whom his counsel was maintaining his irresponsibility.

As to date of his mother's inciting to kill, first told him to kill his first wife more than four years ago, but never troubled him much till in Africa. Was on his way up to Kimberley after getting to Africa; got the syphilis. Sent for his wife; worst of syphilis over. No peace after that; left her twice because they could get no rest; woke up every night to destroy her; sent her home on that account. The first night he threw his revolver out and broke a window and that awoke her; again the next night he was incited to kill her, and three more times afterwards. Told her why he sent her away. The syphilis broke out on the way home on the South Coast of England when with Miss Matheson, and also in the *Kaiser Wilhelm*. Asked by Dr. Jamieson, "Would you think yourself constituted a champion to carry out such a sentence upon anybody with the syphilis?" he threw back his head and said with emphasis, 'I should think I would!"

Conclusions.—(1) As to the prisoner's state of mind, the

Government medical witnesses pronounced this man sane. Dr. Shields, the Government medical officer, and Dr. Jamieson, lecturer on medicine in the University, added that nothing would make them alter that opinion. Dr. Dick, the Inspector of Lunatic Asylums, considered him an instinctive criminal and responsible, but would modify his opinion if he knew he was suffering from brain disease. On the other hand, we declined to give a positive opinion at that stage of our inquiry, though, had the action been a civil one, we were prepared to certify him to a receiving house for further observation. (2) As to the conduct of the trial, we cannot but regard the trial as having been too hasty for a proper judgment. We feel compelled also to complain that no scientific attempt was made by others or permitted to us to discover the motives of this remarkable murderer, or to obtain a reliable "confession;" and, further, that no attempt at all was either made or permitted to test his connection or otherwise with similar atrocious murders of interest to the whole English-speaking race. (3) Lastly, it is with the deepest regret that we have to state that, notwithstanding strenuous and continued effort on the part of the Victorian Branch of the British Medical Association, the Government of this colony absolutely declined to permit of a *post-mortem* examination of this prisoner's brain, following the precedent that they had set themselves in the recent Colston case—another case of disputed sanity—against all past experience here, and in the face of all usage in all civilised communities. To prevent such examination of such a brain can be nothing less than an unpardonable offence to science.

THE KEELEY "GOLD CURE" FOR INEBRIETY.

The usual quarterly meeting of the Society for the Study of Inebriety was held at 4 P.M. on Tuesday, July 5th, at the rooms of the Medical Society of London, Chandos Street, Cavendish Square. Dr. Norman Kerr, President of the Society, occupied the chair, and there was a good attendance.

The Chairman said that there was to have been a paper read by Dr. Williams, but he had consented to postpone it until the meeting in October in order that they might discuss the Keeley "cure" for inebriety. Having referred to the efforts of temperance reformers and prohibitionists in the cause of inebriety—who, he said, had performed their work by intelligent and straightforward methods, by which a great number of drunkards had been reclaimed or cured—he said there was a feeling amongst many persons that the evil of intemperance had grown so rapidly and extended so widely that they thought to find some short cut to temperance by some one or other miraculous remedy. There was their old friend mesmerism, or hypnotism. He was not in favour of either of those methods; but still it was a straightforward and open remedy, and, if applied in the presence of another medical man and an assistant, it was not liable to be called a secret remedy. He merely mentioned that to dissociate it from the so-called "gold cures." The first "cure" was one which was dispensed on the shores of the Mediterranean by a Frenchman, and which was found to contain fourteen different drugs. Then they came further down till they got to the double chloride of gold cure, which claimed to effect 95 per cent. of cures. But that was not sufficient, for they now had another rival American cure which was located in our midst, and that claimed to cure 100 per cent. of the cases in three weeks, "and if you are not cured in that time and you have observed the rules, your money will be returned." Another drug remedy has only to be swallowed unconsciously by the patient for him to be cured in spite of him or herself. The reason why they took up one particular cure that afternoon was because special circumstances had occurred which had brought the chief proprietor of this so-called "gold cure" into prominence, and which had warranted the society examining further into the matter and having a British analysis of the compound made to see what it was really composed of. Dr. Kerr then briefly detailed the circumstances under which they had caused the postponement *sine die* of a meeting of the Church of England Temperance Society, which was to have been held under the presidency of Bishop Barry, to hear an address on "the gold cure." He continued that although that meeting was stopped, yet a great deal of harm had been done, and the great name of the Church of England Temperance Society had been to a certain extent trailed in the dust, through its very near plunge into a commercial speculation which had for its object the sale of a secret proprietary or so-called "gold" remedy for drunkenness. The real object of the gathering was apparently to assist in the formation of a syndicate to raise £150,000 in this country in order to purchase the right to use the so-called "remedy" in England. One of the pamphlets issued by the proprietors of the "cure" stated: "The patient need make no effort; the cure follows the taking with the same certainty that night follows day." If it was really a genuine American temperance remedy, surely it ought to have the approval of men whom they all knew as having been actively identified with the great temperance movement in America, but he had looked in vain for the approval of such men. Analyses in America had detected atropine, strychnine, etc. The Society had thought it right to have an analysis of the medicine made by an eminent analyst. He was not at liberty to publicly mention his name now, but he would say that there was no analyst in the United Kingdom whose dictum could be received with less hesitation. His analysis was that so far as he could make out the bitter contained in it was chiretta, with probably some other American bitter. Then there was 61.31 per cent. of water; sugar, 6 per cent.; and mineral salts, probably lime, a small quantity. That was what was called the double chloride of gold cure for drunkenness; the competent analyst found no gold and no chlorides. But the strange part was that among those who had lauded the medicine to the skies were old teetotallers, and yet it was found to contain 27.55 per cent. of alcohol. There were two bottles, Nos. 1 and 2. This was an analysis of No. 1. The compound had been condemned by the whole reputable medical press of America, and also of Great Britain, and also by the reputable medical men of America. Having quoted some of the results of the "cure," as given by Dr. C. H. Merr, in an American journal, Dr. Kerr said that the (so-called) "remedy" was opposed to the whole principle of an enduring temperance reformation, because the first thing to do was to cut off the poison, while the "cure" commenced by giving alcohol. Inebriety was a complex disease, and it needed moral, mental, and medical treatment.

Dr. J. E. Usher, F.R.G.S., of Melbourne, then gave an account of a visit he had paid to the establishment at Dwight. He said that Dr. Keeley told him that he had used the remedy for twelve years, and that it had been very successful. On asking him the *rationale* of the treatment, and the prescriptions used, the doctor replied, "Oh, we won't go into that, I know it is all right." He then witnessed the injection process, and saw rows of men into whose left arms the injection was made of five drops of a pinkish looking material, which, in his opinion, contained atropine. Having referred to the results of the treatment on some of the patients, Dr. Usher said it was very expensive to be treated at Dwight, for every person that went had to pay 25 dollars down, and from 5 to 25 dollars a week, and there were hundreds under treatment when he was there.

The Chairman remarked that he had invited Dr. Keeley to attend the meeting and explain his treatment to them, but he had received a letter in which he said that as he had arranged to deliver an address that evening at St. James's Hall, it would not be possible for him to attend.

Dr. Morton, of Kilburn, then proposed the following resolution: "That this meeting of the Society for the Study of Inebriety, of which the members are registered British medical practitioners, is of opinion that any so-called 'cures' for inebriety, the composition of which is not disclosed, are unfit to be commended by honourable members of the medical profession, who are bound to place the full details of their treatment before their professional colleagues—a requirement as essential in the interest of the public as it is consonant with the disinterested practice of scientific therapeutics." He remarked that unless the voice of the medical profession made itself heard, there was a danger that this so-called "cure" would get a footing in this country which would enable it to do incalculable mischief before the bubble was blown. All honourable medical men agreed that medicine should be practised not for gain but for the benefit of the sick and suffering, and it was for that reason that it was altogether

contrary to the ethics of the profession that secret remedies should be used by any of them. If a remedy was discovered by any member of the profession, let him have all the honour and glory attaching to it, and the advantages which it might bring him, but the first thing he was bound to do was to bring the remedy to the notice of his colleagues and to take their judgment upon it, and place it in their hands for the benefit of others.

Dr. J. Smith seconded the resolution, and observed that, in his opinion, the so-called "cure" stood condemned on the very face of it.

Dr. Gray having supported the resolution, it was carried unanimously, as was the following, which was moved by Surgeon-Major Pringle and seconded by Mr. Jabez Hogg: "That this meeting having been informed by a competent London analyst, who has made a special analysis, that the alleged "bichloride of gold cure" shows no trace of gold or chlorides, and contains 27.55 per cent. of alcohol, condemns unreservedly the prescription of such an intoxicating preparation to an inebriate."

Dr. F. R. Lees proposed a vote of thanks to Dr. Usher for his address, and to Dr. Norman Kerr for the prompt action he had taken, which led to the abandonment of the meeting of the Church of England Temperance Society.

Mr. John Hilton, of the United Kingdom Alliance, seconded the proposition, which was carried.

ROYAL COLLEGE OF SURGEONS.

Council Election: First Meeting of Fellows.

The election of members of Council took place on Thursday, July 7th. Mr. Ewen Stabb and Mr. H. B. Robinson acted as scrutineers. At 4 P.M. the ballot was closed.

The result was as follows:—

Mr. T. Smith	285
Mr. Tweedy	237
Mr. Durham	203
Mr. Marsh	200
Mr. H. Morris	188
Mr. M'Carthy	106
Mr. Anderson	90
Mr. MacKellar	87
Mr. Haward	77
Mr. Cowell	75

The President, Mr. Bryant, declared Messrs. T. Smith, Tweedy, Durham, and Marsh duly elected. There were 364 voting papers and 149 personal votes.

The first meeting of the Fellows of the Royal College of Surgeons, which was summoned separately from the Members, in pursuance of a resolution passed at the last meeting of the Council, was held on July 7th, after the declaration of the poll at the election on the same day.

The President, in a few opening remarks, expressed his pleasure at being able to meet the Fellows under such circumstances. The meeting was intended for friendly conference between the Fellows of the College and the Council. There was nothing particular or of weighty moment which that day could be brought forward for discussion. Nevertheless, he felt that it would be well if the Fellows would express some opinion upon the proposals which had been made with regard to the celebration of the Fellowship. He trusted that the suggestions which the Council had made in this regard would be acceptable to the Fellows, and in conclusion he desired to say that it was only the wish of the Council to live in harmony with the Fellows, and that these meetings would always be valued as opportunities for pleasant friendly conferences.

Mr. Crosby complained that no notice had been sent him from the Secretary intimating that it was the intention of the Council to celebrate the Jubilee of the Fellowship; and the present was the first year in which he had received any official programme of the lecture arrangements.

The President directed the Treasurer to read the report of the Committee of the Council which dealt with the Jubilee celebration, which was as follows:

The Jubilee of the Fellowship to be celebrated on Thursday, July 6th, 1893, the date of the annual meeting of Fellows for the election of members of the Council.

A *conversazione* to be held at the College on the previous evening, Wednesday, July 5th, 1893. Cards of invitation, admitting ladies, to be sent to the Fellows of the College. Members to be invited to apply for cards of invitation.

An address to be given by the President in the Theatre of the College at 1 P.M., on the Thursday, before the opening of the ballot for the election of members of the Council.

A Fellows' dinner to be held on the Thursday evening at some convenient place.

After a pause, Mr. T. Holmes said that the Fellows seemed very modest in addressing the meeting; there did not, at least, appear to be much eagerness to do so. For himself, however, he could only express his extreme pleasure at being able to take part in a meeting of the kind, and he sincerely rejoiced that the Council had agreed to summon the Fellows for the purposes of friendly discussion. He would have been still more rejoiced if the President had brought forward some more important matters upon which the Fellows might have expressed an opinion. He heartily approved of the suggested arrangements for celebrating the Jubilee; but he would like to take the opportunity of saying something about those more important matters which had come before the Council and the Fellows. He then dealt with the University question, and called attention to the action of the Council in not taking the Fellows into consultation at the time when it came forward for discussion. He hoped that in the future the Council would see their way to calling the Fellows together for consultative purposes in all cases in which questions affecting the interest of the College and of the profession were concerned. Then, with regard to the five years' curriculum, he emphatically stated that that was a question which should not be settled without a general meeting of the body corporate, inasmuch as the addition of one year more to the period of pupilage would be calculated to press heavily upon the pockets of medical practitioners who were bringing their sons up to follow in their footsteps. He thought that this was a matter which should not be decided offhand without general practitioners having an opportunity of expressing an opinion upon it. He, therefore, trusted that the Council would give the Fellows some assurance, as soon as some decision had been arrived at, both in these and other matters, and the plans arranged in connection therewith, that the Fellows, and if need be the Members, would be summoned to discuss what had been done. The Association of Fellows to which he belonged went further than claiming merely a consultative voice in the decisions of the Council; the Association held that the Fellows should have the power of vetoing anything which in their opinion was detrimental to the interests of the College. He concluded by stating his opinion that there could be no question that the hands of the Council would be enormously strengthened by taking the Fellows into consultation.

Mr. C. Heath made some remarks in connection with Mr. Holmes's relation to the Council, and controverted some of the statements which Mr. Holmes had made.

After a few observations from Mr. Vincent Bell, Dr. W. J. Collins deprecated the attack which Mr. Heath had made upon Mr. Holmes, and expressed his deep regret that a member of the Council had been the first to sow discord in a meeting which was essentially called for friendly purposes. He suggested that it would be quite possible to appoint an annual committee among the Fellows similar to that which was appointed by Convocation of the London University.

Mr. Holmes desired to refer to the personal attack which had been made upon him by Mr. Heath, and pointed out that it had never been his intention, either in word or deed, to do anything which could in any way be interpreted as disrespectful to the Council.

Mr. Howse made some observations upon the five years' curriculum, and agreed with Dr. Collins as to the feasibility of the appointment of an annual committee.

The President then vacated the chair after declaring the meeting closed.

Literary Intelligence.—Dr. J. Howe Adams, of Philadelphia, is, at the request of Mrs. D. Hayes Agnew, collecting materials for a biography of her late distinguished husband.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1892.

SUBSCRIPTIONS to the Association for 1892 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, JULY 9TH, 1892.

THE MARCH OF CHOLERA.

ASIATIC cholera has travelled to Europe by three routes: it has passed through the North-West Provinces of India into Afghanistan, and thence along the caravan routes by way of Balkh, Bokhara, and Khiva; it has reached the Russian province of Orenberg; it has spread along the trade lines from Southern India to Persia, and radiated thence south-westward to Syria and Egypt, and north-westward across Persia to the Caspian Sea, thence to Astrakhan at the mouth of the Volga, and up that river to Saratov and Kasan in European Russia (as in 1830); finally, in 1865-66, it travelled by a new route, appearing first in Suez in relation with the pilgrim traffic, and extending thence through Egypt to the Mediterranean basin. Since 1865, the epidemic has always taken this route, and we have come to regard the Red Sea ports as the vulnerable point. Great precautions have been taken to deal with infected ships at the mouth of the Red Sea, and it seemed that the Concert of Europe had brought the dread epidemic under convention. Already, however, even before the final revision in Paris of the decision of the Sanitary Conference which met in Venice has received the official sanction of the Powers, events have occurred which prove that the Red Sea is not the only dangerous point, and that cholera will follow trade routes whether by land or water. Cholera this year has followed the northernmost of the three routes from India, the route which it followed in 1829 and in 1843-44. Or rather it should be said that it has struck out a route which is partly new, but approaches most nearly to the northern route. The reason for the difference to be noted is not far to seek. The movements of trade in Central Asia have been profoundly modified by the building of the Transcaspian Railway, which runs from Samarcand, touches the Persian frontier at Askabad, and strikes westward to the eastern shore of the Caspian. The trading route crosses the Caspian to Baku, which is the terminus of the Transcaucasian Railway, which runs by way of Tiflis into Southern Russia. There is also a large coasting trade from Baku northward to Astrakhan at the mouth of the Volga. Cholera has followed this route from Askabad on the Persian frontier to Saratov, which is 500 versts above the mouth of the Volga.

It reached Persia from Afghanistan, and penetrated the Russian frontier about the end of May or the beginning of April. The first Russian town attacked was Askabad, which, as already said, is a station on the Transcaspian railway, and spread along the railway, both eastwards and westwards, with a rapidity which may fairly be called alarming, and is certainly unprecedented. It reached the eastern shore of the Caspian Sea in a few days, and was not arrested by this natural boundary. Following the ordinary course of trade, it soon made its appearance on the western shore of this great inland lake; Baku, the petroleum port, was the first place infected, and a large number of deaths have occurred there. Extraordinary efforts were made by the Russian officials by quarantine regulations of a very strict kind, which involved the complete arrest of all trade, to keep the epidemic limited to Baku and its immediate neighbourhood. When we wrote last week it was hoped that this had been accomplished; but the official news of this week shows that this hope has been disappointed, and that quarantine has once more shown itself to be merely "an elaborate example of leakiness."

From Baku the epidemic has spread in three directions: south to Shusha near the Turkish frontier, north along the line of coasting traffic to the mouth of the Volga, and westward to Tiflis, which is on the Transcaspian railway. It has been keenly apprehended that if the epidemic once became established at Astrakhan, at the mouth of the Volga, it would quickly gain a foothold in some of the provinces which have suffered most from the famine. This apprehension has, it is to be feared, been realised, for it is now admitted officially that cholera has appeared in Saratov, the capital of the province of that name. Twenty-nine deaths occurred in the first four days of this month, and it is impossible not to feel that the presence of the epidemic among a population already decimated by famine and disease constitutes a very serious menace to Europe. It was reported on July 6th from St. Petersburg that cholera had appeared in the province of Kostroma, some 700 miles further up the Volga, and in the very centre of Russia in Europe.

It is, of course, most desirable to avoid anything like panic, but it will not do for us to be caught napping. Very optimistic opinions have been telegraphed from Vienna, but while sympathising with the motive of such utterances, we are not altogether prepared to endorse them. The progress of sanitation in this and other countries of Western Europe has done very much to remove the faulty social conditions under which cholera is known to flourish; but our immunity is only to be secured at the price of constant vigilance. Dr. Proust has truly observed, in a recent report to the Comité Consultatif d'Hygiène de France, that if the infection spreads to the Black Sea, there is every prospect of the epidemic following the lines of the visitations of 1831 and 1847; that is to say, either northward through Austria and Germany, or directly eastward through Northern Turkey and the Danubian principalities. In 1848, 1853, and 1866 cholera reached Great Britain from northern ports—Hamburg and Rotterdam.

There is no doubt that there has been a considerable prevalence of cholera in India this year, and that it has in fact become distinctly epidemic there. It will be remembered that special steps were taken to prevent the Hurdwâr fair becoming a focus of disease, but the disease has been severe at Peshawar and in Kashmir. A valued correspondent, writing from Srinagar under date June 11th, informs us that the epidemic there began on May 6th, and that there had been over 8,000 cases and 5,000 deaths in Srinagar alone out of a population of 124,000, and at least 1,500 deaths in the district. It is hoped that the worst

is now over, the new cases on June 10th having been 121, as against 171 on June 9th, and 236 on June 8th. On May 23rd there were 499 new cases, but the maximum of deaths was on May 25th, when 298 patients succumbed. The officials of the Maharajah of Kashmir have done all that was possible to cope with the disease. They have had the invaluable assistance of Brigade-Surgeon-Lieutenant-Colonel Robert Harvey, who volunteered for the perilous service, and was specially commissioned by the Government of India to proceed to Srinagar. Medical advice, according to the European or Yunani methods, has been within reach of all, with a plentiful supply of medicines and disinfectants. A house-to-house visitation has been instituted, and every case reported is at once attended to. A cholera hospital has been provided for strangers and paupers without homes or friends, and every effort is being made to improve sanitation. Srinagar is, however, one of the filthiest of cities, has neither drains nor latrines, nor any real system of conservancy. Arrangements have already been made to introduce a pure and protected water supply. Advantage will be taken of the recent destructive fire to rebuild the burnt-out area on sanitary lines, and efforts are being made to introduce a proper system of conservancy.

THE COLLEGE OF SURGEONS, ITS FELLOWS, AND THE PUBLIC.

A new era may be, and we hope is, commencing in the relations between the College of Surgeons and the profession. The right of meeting has now been definitely conceded to the Fellows, and the first meeting will have taken place ere now. Recent events forbid us to anticipate much from the spirit of concession animating those who at present rule the College, but we expect them to be gradually replaced, as their period of office expires, by persons of different views—not educated, as many of these have been, in a school of narrow officialism, brought up to regard the College as their own personal property, to be managed as they please—but such as will regard the office of a Councillor as (what it is in fact) a trust to be exercised on behalf of a highly intelligent and experienced constituency, and in the management of which that constituency is entitled to have, and must have, a directing voice.

This change, it is true, is in the future; and the speedy realisation of such a prospect depends on the determination of the Fellows, and on the views of those whom they seat on the Council. If the latter are men of liberal views, and are supported by a good backing of professional opinion, they cannot fail, even now, to draw the majority, however reluctantly, some distance after them.

Let our readers reflect for a few moments on the circumstances in which the President and Council have now asked the Fellows to meet them, and they will see how powerful a support these circumstances lend to the views of the reforming party among the Council. The period of the curriculum has been extended from four to five years, a change which, as far we can see, is most necessary for medical education, and, if the time is rightly used, will be most beneficial to the public; but it will press very hardly on many a poor medical man, who is anxious (nay, often is compelled) to educate his son to follow him in the profession, but who finds the expense of even four years' education a heavy burden. These men will not grumble if they can feel reasonably certain that the extra time will be so spent as to make the student a better practitioner, more fitted to earn his living, more capable of rendering efficient public service. But can anyone doubt that this "reasonable certainty" can only be obtained in one way—namely, by taking the profession into the confidence of the Council, and laying before the general body of Fellows and Members, for full discussion and approval, the regulations of the new curriculum? We say, without fear of contradiction, that no step could add such strength of professional approval to the Council, or so fitly inaugurate the new and, we hope, the improved relations that are to spring from the newly-established rights of the body of Fellows. Hope has often failed us in regard to the action of the College Council; let us trust that this time we may not be disappointed.

What we say of the question of the new curriculum we say also of that of the proposed teaching university for London. This is a question on the one hand too complicated and difficult, and on the other too nearly touching on the rights and prospects of medical men, present and future, to be entrusted to the private discretion of one or two members of the College Council, for this is what the present system really comes to. A question of this kind is too tedious and too lengthy to be discussed in a Council of 24 members. It is therefore relegated to a committee in which one, or, at most two, busy members gain the lead and practically settle the matter. We trust that the common sense of the profession will insist that neither of these two grave questions shall thus be huddled over. And if the Council of the College of Surgeons can be induced to adopt the habit of consulting its Fellows on these and kindred questions the step will not be a long one to the adoption of the law so much insisted on by the Fellows' Association that "no important changes be made in the constitution or relations of the College without the sanction of the Fellows assembled to consider and adopt it."

THE PRACTICAL OUTCOME OF THE COMMITTEE ON METROPOLITAN HOSPITALS.

Lord Sandhurst intends, as soon as the turmoil of the general election is over, to issue invitations to the managers of metropolitan hospitals to take part in a conference to consider the best means of giving practical effect to the suggestion of the Lords' Committee on Hospitals as to the creation of a central board representing the hospitals and dispensaries of London, and certain other institutions and bodies interested in medical charities. It is satisfactory to find that the Chairman of the Lords' Committee does not consider that his duty in the matter has ended with the presentation of a report, and satisfactory also to know that he recognises the wisdom of submitting this, the main proposal contained in the report, to discussion and criticism.

There can be little doubt that if a public representative and recognised body were to report, as is proposed, annually on every hospital and dispensary on certain definite lines and issue a special report on every proposal to establish a new medical charity, it would bring about the gradual organisation of medical charity in London.

The constitution proposed for this central board is shown in the following table extracted from the Report:—

Group of Hospitals, etc.	Number of Beds.	Number of Representatives.	Total Representatives of Groups.
3 Endowed hospitals	1,912	6	
8 General, with schools	2,613	10	
9 General, without schools	837	4	
			20
16 Women and women and children ...	926	4	
4 Consumption	511	1	
4 Dental	—	1	
3 Incurables	—	1	
2 Cancer	141	1	
4 Paralysis and Epilepsy	240	1	
3 Orthopædic	113	1	
2 Seamen and Accidents	308	1	
5 Ophthalmic	197	1	
5 Throat and Ear	52	1	
7; 4 Skin, and 3 Fistula, etc.	112	1	
1 Lock	208	1	
1 London Fever	180	1	
4 Lying-in	132	1	
7 Foreign and pay	249	1	
Free and part-pay dispensaries ...	—	1	
Provident dispensaries	—	1	
			20
General Medical Council	—	1	
Royal College of Physicians ...	—	1	
Royal College of Surgeons	—	1	
Society of Apothecaries	—	1	
General Practitioners	—	1	
University for London	—	1	
			6
London County Council	—	1	1
Sunday Fund	—	1	1
Saturday Fund	—	1	1
		Total ...	49

Lord Sandhurst stated in his speech at the festival dinner of the Metropolitan Hospital last week that he looked upon the creation of such a central board as necessary to give an assurance to public opinion that the funds were wisely and economically distributed. The necessity for Government aid or municipal subvention would be to be deplored, and, with an increase of public confidence, the funds at the disposal of the hospitals would be greatly augmented.

That the proposed board should be representative of the medical charities is right enough, and there appears to be nothing unworkable in the plan, but it must be remembered that any such board must command the confidence, not only of the general public, but also of the medical profession—alike of those who are directly connected with the hospitals or dispensaries as physicians or surgeons—and also of the great body of general practitioners. The scheme appears to propose a degree of representation of the medical profession which would be clearly deficient. It will probably be urged also in other quarters that the general lay public would be inadequately represented by the single member nominated by the London County Council, and that the board would be strengthened by the addition of experts in the questions of charitable relief. Suggestions on this head might be drawn from the Paris Board of Supervision, and should be fully considered before any step is taken to mould the new board into permanent shape. It would be better also if the new body were to be established under Act of Parliament, instead of, as is suggested, by charter. The discussion precedent to the carrying of an Act of Parliament would clear away much misunderstanding and jealousy, and by it those who are most interested in hospitals and dispensaries would educate themselves as to what was and what was not really desirable and feasible. We are setting a hospital policy for the future on voluntary lines. We have to determine the nature and conditions of that policy far more clearly than has as yet been generally done.

The tone of the Report shows a distinct bias against the part-pay system, and most will agree that it is more likely to injure the general practitioners than the free system. It is an advantage to have had this matter even partially threshed out. It is clear that the agitation in favour of a better administration of out-patient departments has produced good results. There is a general approval of the plan of limiting the number of new cases. In several instances it was shown that the out-patient departments are now roomier and better arranged; and the practice of using those departments for consultative purposes appears to be on the increase. In all this opinion and practice seem to be changing for the better. Our methods are voluntary, but they work surely as conviction grows. The general practitioners, if they wish it, can, it is clear, use the hospitals very much more than they now do for consultative purposes, and keep their cases in their own hands.

The evidence goes to show that, so far as the authorities themselves can judge, the hospitals are not abused, that is, do not give relief to people who can afford to pay for it without difficulty. But if we take the casualty and out-patient applications together, we find that trivial cases abound; and there was no evidence submitted by those who spoke on behalf of hospitals of any investigation of a large group of out-patient cases, as thorough, for instance, as that made by Dr. Ford Anderson in regard to provident dispensary cases. Almost all the evidence on this head was general. The hospital authorities naturally judge from one side only, and, with the means at their disposal, the fairest method is thought to be not so much discrimination as limitation. Even so unless what is stopped at the out-patient entrance comes in at the casualty door, the general conclusion is on the whole satisfactory. Still, with every wish to agree in this conclusion, is it not hard to reconcile it with that huge list of out-patients of which the annual reports of the hospitals and dispensaries are evidence, even if deduction be made for a certain amount of duplication and for a count in some instances of attendances instead of patients? On this side the investigation of the Committee was far from thorough.

But this is only one point out of many; and in the main much good has been done. The inquiry has had a bracing effect already. Of that there is no doubt. A mass of facts has been collected which before was entirely inaccessible: and taken even as a census of opinions on a most difficult subject, the report is very useful. To gauge the true position of some of our more novel special hospitals, the evidence itself should be read. More lies between the lines there than the report betrays.

THE ARMY MEDICAL SCHOOL.

Those who take an interest in the training of young medical officers for the British and Indian armies are asking who is to succeed the late Professor of Pathology in that important chair. The eyes of those best informed on the matter naturally turned to Surgeon-Colonel Welch as the fittest man in the service to succeed the late Sir William Aitken. This officer has a double claim for this chair. As a pathologist he is second to no medical officer in the service. For five years he discharged the duties of assistant professor in this branch of medical science with conspicuous ability, proving himself to be not only in possession of the requisite knowledge, but also of the not very common gift of being able to communi-

cate that knowledge to others. In addition to this, Dr. Welch has the inestimable advantage of a perfect familiarity with the ways, habits, modes of life, and the diseases to which the British soldier is liable in every climate where he serves. This was an advantage the late Sir William Aitken never enjoyed, and the want of it hampered him in his work at Netley to the end, as it will any civilian who may be appointed to fill the vacant place. It is well known that Surgeon-Colonel Welch has been offered the vacant chair on the condition that, if he accepts it, it must be at the sacrifice of £150 a year of his present income. It will not surprise our readers to learn that on the above handsome conditions the appointment has been declined—with or without thanks, we cannot say—and it is now believed that a civilian is to fill the vacant chair.

On the retirement of Sir Thomas Longmore, C.B., from the Chair of Military Surgery, Brigade-Surgeon Godwin, assistant professor, was, with the unanimous assent of the service, appointed to fill the vacant chair, the duties of which he has discharged during the term now drawing to a close.

The service will learn with surprise that the Chair of Military Surgery will, at the end of the present month, be again vacant. Why? Because the Treasury has intimated to Professor Godwin that if he elects to hold his present position he must sacrifice £150 of the regular pay of his rank. Here are two officers who, by conspicuous ability joined to hard work and faithful service at home and abroad, in peace and war, come to the forefront in the military medical service of the country, and the Treasury rule that their reward shall be to take "a back seat,' if they elect to fill the places in the service for which they were selected on the ground of superior fitness. Is this done *pour encourager les autres?* Is it meant to stimulate exertion in the service, and to show the appreciation of distinguished merit? It is no doubt the duty of the guardians of the public purse to prevent waste and extravagance, but surely it is not a wise economy that teaches and enforces a lesson by no means needed in any branch of Her Majesty s service that nothing pays so well as incapacity and indolence. We venture to suggest to the gentlemen of Her Majesty's Treasury, who have to regulate the emoluments of men called upon to communicate to others the knowledge and experience they have painfully acquired, to take the trouble to look a little more closely than, in the instance before us, they appear to have done as to the nature of the particular duties required and the qualifications necessary to discharge them. Half an hour spent in glancing through even a few pages of the Blue Book on the Army Medical School and its *raison d'être*, as given by Sidney Herbert and his advisers, would, we venture to say, convince even a Treasury clerk that other considerations than cheapness come into play when the selection of competent teachers is in question.

THE Paris Municipal Council has decided to appoint a Commission to inquire into the practical methods of combating purulent ophthalmia.

ON July 5th Dr. George Johnson, F.R.S., Consulting Surgeon to King's College Hospital, and Dr. Frederic Bateman, Senior Physician to the Norfolk and Norwich Hospital, were admitted to an audience with the Queen, when Her Majesty conferred upon them the honour of knighthood.

PROFESSOR HUXLEY has accepted the post of President of the Association for Promoting a Professorial University in London. Sir Henry Roscoe has been invited to become Vice-President, and Professor T. E. Thorpe will act as Treasurer. The first act of the Association will probably be to tender evidence before the Royal Commission on University Education in London.

MEDICO-PSYCHOLOGICAL TEACHING.

AT a special meeting of the Medico-Psychological Association, held at Bethlem Hospital on June 23rd, 1892, it was resolved: "That this meeting recommends to the annual meeting that a board of education be appointed to consider all questions affecting medico-psychological teaching. The board to consist of all members of the association who are lecturers of psychological medicine in the universities or medical schools of the United Kingdom."

EXEMPLARY DAMAGES.

MR. HERBERT MILTON, M.R.C.S., late House-Surgeon at St. Thomas's Hospital, and at present Principal Medical Officer of the Government Hospital at Kasr-el-Aini, Cairo, has been awarded £1,000 damages against the *Bosphore*, a French newspaper published in Egypt, on account of libellous articles reflecting on his professional conduct and capacity. The mixed tribunal before which the case was tried has also ordered that a copy of the judgment shall be published by the offending journal. The defendants tried to excuse themselves on the plea that they were attacking the system and not the individual, but the Court was evidently of opinion that political exigencies do not justify libel.

OXFORD UNIVERSITY.

THE annual dinner of the Oxford medical students was held at the end of term. Professor Burdon Sanderson was in the chair, and there were present Mr. Arthur Thomson, Professor Gotch, Dr. Frederick Smith, Dr. Collier, Mr. Symonds, and Dr. Brooks, together with about sixty of the medical students. Professor Sanderson, in his speech, referred to the steady and continuous growth of the medical school at Oxford, and said that there could now be no doubt as to the re-establishment of medicine in the University. He ascribed the success of the past few years very largely to the cordial co-operation amongst the lay members of the University, mentioning, amongst others, the Master of Balliol, the Provost of Queen's, and the Master of Pembroke as firm friends of the scientific school in Oxford. The dinner was the largest yet held, and Professor Sanderson was enthusiastically supported by the students.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

THE annual meeting of the Association of Fellows of the Royal College of Surgeons of England—a detailed report of which appears in another column—was held on June 30th at 3, Hanover Square, W., Mr. T. Holmes, Vice-President, in the chair. On the same day the annual dinner of the Association took place at the Criterion Restaurant. The funeral of Sir William Aitken, however, together with the Oxford and Cambridge cricket match, prevented many from being present who otherwise had intended to come; nevertheless, an enjoyable evening was spent by those who took part in the reunion, and the various toasts were drunk with great enthusiasm. After the usual loyal toasts had been proposed by Mr. W. Allingham (Chairman) and duly acknowledged, "The Association," coupled with the name of Mr. John Tweedy, the candidate of the Association at the College election, was proposed by Mr. Rivington and was warmly received. Mr. Tweedy replied, and in an interesting speech gave an historical account of his connection with the College of Surgeons. The concluding toasts were: "The Health of the Chairman," which was drunk with musical honours, and "The Honorary Secretary," the latter being proposed

by Mr. W. Allingham, and supported by Mr. Tweedy and Mr. Rivington. Mr. Percy Dunn, in reply, referred to the action of the Council of the Royal Medical and Chirurgical Society in refusing to grant the use of the rooms at 20, Hanover Square, for the meetings of the Association.

INFECTED ICE-CREAMS.

It will be remembered that towards the end of last year a serious outbreak of enteric fever in the south-east of London occurred, and that Mr. George Turner, Lecturer on Public Health at Guy's Hospital, who made an inquiry, found it to be due to the distribution of infected ice-creams by Italians living in Mill Lane, Deptford. The ice-creams were prepared under conditions which were certainly conducive to contamination, and Mr. Turner expressed the opinion that the sale of ice-creams and similar matters should be regulated in the same way as milk. It was thought, however, that if the general provisions of the Public Health (London) Act were more efficiently enforced in regard to places in which food is prepared for sale, the dangers might be considerably alleviated. In his report, Mr. Turner mentions one singular anomaly. He found that "a woman living in clean premises had been debarred from selling milk, the daily sales averaging a quart, whilst on the opposite side of the road a man living in shocking dirt and filth was distributing the same article diluted with water from his water-closet cistern at the rate of many gallons every day, a person reputed to be suffering from enteric fever being in his house at the time." Mr. Turner's report, which was made to the County Council, is to be sent to every sanitary authority in London, so that it may lead them to direct special attention to places in which food is prepared for sale.

POISONING BY MISADVENTURE.

We have under notice this week three simultaneous cases of poisoning by misadventure under circumstances which suggest an obvious comment. The first case is that of a shoemaker, living at St. Breock Downs, in Cornwall, who drank some solution of oxalic acid in mistake for brandy. The brandy and the poison were in bottles of similar shape placed side by side on the dresser, and in the dark he drank out of the wrong bottle. The second is a case in which two women were poisoned in the east end of London by drinking freely from a bottle of carbolic acid, which had been procured for disinfecting the drains from the parish authorities. The bottle which contained the poison was labelled "Old Tom," and the contents were drunk under the belief that it was rum. The third case is one in which some carbolic acid, used for disinfecting purposes, was swallowed by a little boy in mistake for ginger beer. It is, perhaps, idle to expect much result from protests against the carelessness which allows poisons to be left about in bottles of all shapes and sizes such as ordinarily contain customary beverages, but at least some provision might be made by which such bottles should be labelled poison. Persons can now go to oilshops, and, no matter what vessels they take, the poisons placed in them are not labelled poison. If this person went to a chemist then the bottle would have to be labelled poison. While grocers and oilshops are allowed to sell poisons they ought certainly to be placed under similar restrictions as to labelling.

WORKHOUSE MEDICAL OFFICERS AND INQUEST FEES.

The medical officer of the Stockton Workhouse writes to say that, in consequence of the opinion which we have frequently expressed in the British Medical Journal, to the effect that medical officers of workhouses are entitled to inquest fees for workhouse cases, which opinion has been recently confirmed by Mr. Poland, Q.C., he has, after considerable difficulty, succeeded in obtaining from the coroner of the district a fee for giving evidence at an inquest on a workhouse case. The coroner's first excuse for not paying the fee claimed was in writing as follows: "I have not paid any union doctor, but declined the same in several districts." After a County Court summons was issued for the fee, the same coroner wrote: "If you withdraw the summons I will pay the fee and chance getting it from the county authorities." On the receipt of this, together with a promise of the coroner that he would pay for all workhouse cases in future, our correspondent withdrew the plaint from the court and received the guinea fee from the coroner, who had previously refused to pay it. We therefore strongly recommend any workhouse medical officer who may be unable to obtain a fee for evidence on a workhouse case to take action at once in the County Court.

ALCOHOL IN WORKHOUSES.

The *Western Daily Mercury* of June 29th reports a discussion which took place at a meeting of the Plymouth Board of Guardians, on the alleged excessive cost for alcoholic liquors at the workhouse. A committee, which had been appointed to investigate the matter, reported that the medical officer was decidedly of opinion that the amount of alcoholic drink prescribed by him was as low as possible. During the discussion it was stated that to the previous quantity of intoxicants there had been added in the past five weeks 19 gallons of ale. The clerk laid down that the medical officer was an expert, and the only further action open to the guardians was to call in a consulting physician. This dictum was in reply to a suggestion that the doctor should be asked to state the special reason for ordering alcohol in each case. It is only fair to the medical officer that the entire responsibility should rest upon him, and that he should have power to prescribe what he considers to be best for his patients. But it would be wise for him to act under a full sense of that responsibility. Great light has of recent years been thrown upon the assumed therapeutic power of alcohol, and there has been a marked decrease in the amount of intoxicating drink consumed in workhouses. We are glad that the report of the committee was approved, but we feel assured that the doctor in charge will be only doing justice to his position if he make a special study of recent literature on the place which alcohol ought to hold in the treatment of disease.

DEATH UNDER PENTAL.

The *British Journal of Dental Science*, June 1st and 15th, gives an account of the death of the German opera singer, Frau Brandt-Goertz, of the Imperial Theatre in Hanover, which occurred at Cassel on April 11th, after the administration of pental for the extraction of a tooth. The patient, who was aged 33 and of full habit, was in great pain and somewhat agitated when she seated herself in the operating chair. Eight or ten drops of pental were administered in a face piece, but after a short time the patient complained of the disagreeable smell, and pushed the face piece away. The tooth was then extracted, and Frau Brandt-Goertz fell back with a loud shriek and never recovered consciousness. Attempts to restore animation by means of the electric current, ether injection, and artificial respiration were kept up for three-quarters of an hour, but without avail. The official examination showed that the brain, lungs, and vessels were healthy; there was, however, some amount of fatty degeneration of the heart, and death was attributed to syncope, probably due to the condition of that organ.

POLLUTED WELLS AND ENTERIC FEVER.

The Lymington rural sanitary authority are responsible for a wide district, which includes the growing watering-place of Milford-on-Sea. It seems from reports and correspondence in the local papers that they have, up to the present time, made no attempt to obtain power to supervise the construction of new buildings, while in at least one instance they have failed to exercise their existing power to prevent the

occupation of a new building until satisfied as to its water supply. The house in question was occupied as a boys' school. Enteric fever broke out suddenly among the inmates, and two of the cases ended fatally. It is stated, and apparently admitted on all sides, that the well attached to the house was polluted by sewage. The tenant affirms, on the strength of experiments conducted by himself and the medical attendant, that the drains are improperly constructed, and that colouring matter thrown down the closet finds its way into the well. The sanitary authority contend, on the other hand, that the pollution is due to a cesspool 160 feet away, and of older date than the well, a contention which does not do much to clear them of the charge of laxity and want of foresight in their sanitary administration. Health resorts ought to be above suspicion in such matters as drainage and water supply, and the policy of leaving the detection of sanitary defects to the accident of zymotic diseases can only lead to results disastrous alike to individuals and to the reputation of the locality.

THE BISHOP OF LONDON ON THE GRESHAM UNIVERSITY.

In the course of an address which the Bishop of London delivered at King's College this week, he discussed the question of the Gresham charter, now under the consideration of the University Commission, from the point of view of its promoters. He said they were anxious to establish in London a great university, which should embrace the widest range of study and promote it in the most thorough manner. They desired to cultivate knowledge for its own sake, without any reference at all to the benefits it might confer upon the human race, for it had always been found that greater advantages were to be derived in the long run from such study than from any other kind of research, and that study for its own sake was the great scientific benefactor. In such a university, of course, there must be room for every kind of study as fast as that study assumed what he might call an academical character, and he trusted that they would succeed in getting such a university in London. He believed that the best way of creating such a university was to take institutions which were already doing university work. Universities, if they were to be of a first-rate character, could not be created; they must grow, and the best way to produce them was to lay hold of such institutions as were likely to grow into a university, and put them in a position to attain such growth. It was essential to such a university that it should have a character of its own, and not be subject to the complete control of an outside body which simply examined. He was more convinced the more he saw of the matter that in all educational institutions the important thing always was that the examination should follow the teaching. If the teaching followed the examination the inevitable result would be to cramp the freedom of the teachers' action. The students ought to read in order that they might thoroughly comprehend what was taught, and not that they might pass a certain examination, with which, it might be, the teaching was not in sympathy. Therefore he did not believe it would be easy to create a university for the purposes for which they required it in London in a very different manner from that in which it had been proposed already to create the Gresham. He had no doubt that the charter would be substantially approved by those who were to inquire into it.

THE ANTI-CANCER LEAGUE.

M. Verneuil's suggestion that an anti-cancer league should be formed somewhat on the lines of the Œuvre de la Tuberculose, was mentioned not long ago in the British Medical Journal. The idea has now, thanks to the efforts of MM. Simon Duplay and Paul Reclus, taken practical shape, and an organising committee has been formed, with M. Duplay as President, MM. Trasbot (Alfort), Straus (Paris), and Metschnikoff as Vice-Presidents, M. Reclus as General Secretary, M. Ricard as Surgical Secretary, M. Brault as Medical Secretary, and M. Cazin as Secretary for the Department of Experimental Pathology and Morbid Anatomy. M. Rochard is Secretary to the Committee, and M. G. Masson is the Treasurer. The committee has issued an address to the medical public explaining the objects of the League, and the methods by which they are to be pursued. They appeal for help to "all men of goodwill," and ask for the co-operation of "pathological anatomists, clinicians, histologists, microbiologists, and veterinarians." Explorers and geographers are invited to supply information as to the influence of race and climate in the production of cancer. The League proposes to organise congresses, where all discoveries made by the members will be made known, and questions relating to malignant disease discussed. A special publication will appear from time to time, embodying the results of researches on cancer, and giving full bibliographies of current literature on the subject. Prizes will be offered when the funds of the League permit for the encouragement of workers, and grants of money will also be made at the discretion of the committee to defray the expenses of particular researches. A single payment of 300 francs (£12) entitles to life membership; the annual subscription is 20 francs. Persons wishing to become members, or to contribute to the funds of the League, are requested to communicate with M. G. Masson, 120, Boulevard St. Germain, Paris.

GUY'S HOSPITAL.

The Bishop of Rochester distributed the prizes to the students of the medical school of Guy's Hospital on Wednesday, July 6th. The Dean's report referred to changes rendered necessary by the recent extension of the curriculum, and mentioned Drs. Campbell, Targett, and Fawcett as the teachers of biology for the winter session. It referred also to the appointment of Dr. Starling as the Grocers' Company Research Scholar, Mr. Hopkins as Gull Student, and to the Beaney bequest of £1,000 for the establishment of a materia medica prize. The new buildings were approaching completion. The block comprised a large and well-lighted chemical laboratory, a lecture room for about 100 students, a laboratory for experimental physics, a bacteriological laboratory, and the very extensive accommodation rendered necessary by the rapid growth of the dental school. Two new fives courts had been erected, and a nine-acre field, near the Honor Oak Park Station, had been acquired for exercise and recreation. The number of students was fully up to the average, and no fewer than fifteen Guy's men had passed the M.D. of the London University, the largest number yet passed by any school in a single year. The Bishop of Rochester then distributed the prizes, and gave an address in which he dwelt on the beneficence of hospitals and the progress of science. The Treasurer's Gold Medal for Clinical Medicine was obtained by Arthur M. Daldy, and that for Clinical Surgery by Alfred T. Rake; the Gurney Hoare Prize for Clinical Study, by Herbert E. Durham; the Beaney Prize for Pathology, by Arthur M. Daldy; the Golding-Bird Prize and Gold Medal for Diagnosis, by Charles S. Pantin; the Sands-Cox Scholarship for Physiology, by Charles J. Harnett; the Michael Harris Prize for Anatomy, by Henry A. Moffat, Grahamstown, Cape Colony; the Arthur Durham Prizes for Dissection, by Norman H. Pike and Richard F. Clark.

THE PROFESSION AND THE PUBLIC.

An important deputation waited upon Mr. Byron Reed, Q.C., this week at the Conservative Club, Bradford. The deputation consisted of medical men, who wished to ascertain Mr. Byron Reed's views upon certain matters which they considered of great importance as affecting the profession in its relations with the public, and also specially from their own standpoint. Among those who attended were Drs. Hime, Proctor, Henry White, and Lister. Dr. Hime, in addressing Mr. Reed on the behalf of the deputation, said that the mat-

ters to which they wished to direct his attention were, first, the progress of unreasonable legislation which singled out the medical profession for the compulsory performance of certain duties which the Legislature had come to regard as of great public utility. The medical profession objected strongly to the knowledge which they had gained without the assistance of the Government in their medical studies being claimed by the public as their property under any circumstances, and whether they were paid for it or not. At the present time, a medical man was under legal compulsion to sign a certificate of death for which he received no remuneration whatever. By law the certificate could only be utilised for the purpose of burial, but in practice it was utilised for insurance, for club purposes, and many others. The notification of infectious diseases had also been made compulsory on medical men, a thing which was without analogy. Again, he drew the attention to the enormous number of deaths which were not inquired into, although they were not certified by any medical man. It was optional with the registrar whether he would accept the tale of any informant as to the circumstances of a death, and certify for burial or not. Throughout the whole country medical men found that it not infrequently happened that if, knowing of the circumstances of the death, they thought it necessary to refuse a certificate because they knew there had been foul play, yet when they notified that fact, which was the result of their personal knowledge, the coroner might, and did, constantly grant certificates of burial. In order to justify him doing so, as a rule he sent his policeman to make inquiries. He, of course, only received the information from interested parties. The existing practice of allowing the most critical *post-mortem* examination, on the result of which lives might be dependent, to be made by any person who happened to possess a medical diploma, was also pointed out to be fraught with injustice and danger, especially when, as was commonly the case, the examination was conducted in absolute privacy by the medical men alone, and with no one to aid or supervise them. No one but an expert should be allowed to undertake such medico-legal *post-mortem* examinations. Dr. Proctor, Dr. Henry White, and others spoke. Mr. Reed, in reply, expressed his astonishment at the number of facts brought to his knowledge for the first time. They were such as called for the serious consideration of the Legislature; and he promised, if returned to Parliament, that any Bill bearing upon the medical profession or its relation to the public, either directly or indirectly, should not be carried without receiving his most serious attention; and he would, as far as in him lay, influence those members of the House with whom he had any personal influence. The deputation, having thanked Mr. Reed for the serious interest he took in the matter, and the courtesy with which he had received them, retired.

SCOTLAND.

MR. HARRY RAINY, M.B., C.M., has been appointed resident medical officer of Chalmers's Hospital, Edinburgh, in succession to Mr. Ronald P. Mackenzie, M.B., C.M., whose term of office expires on July 31st.

JUBILEE DINNER TO DR. CHARLES SMITH, KINNAIRDY.

DR. SMITH was entertained by a large and representative meeting of his professional brethren in the Palace Hotel, Aberdeen, on July 2nd. Dr. Angus Fraser was in the chair. The chairman, in proposing the toast of "Our Guest," referred to the long and valuable services which Dr. Smith had rendered to the inhabitants of Marnoch, who had a day or two previously recognised his services by presenting him with an illuminated address and a purse of sovereigns. Dr. Smith was an excellent representative of the profession, whose every act had elevated it and kept it honoured wherever he came. To his fellow-practitioners he had ever behaved in a thoroughly straightforward, honourable, and friendly manner; and the chairman focussed the feeling which each one felt when he hoped that, with his years sitting lightly on him, he might be spared to grace the district for many years. Dr. Smith replied, stating the great diffidence he had in associating himself with all the kind statements made regarding him. He concluded his remarks by touching on the changes and improvements in medicine between the then and the now.

THE ABERDEEN UNIVERSITY BUILDINGS EXTENSION SCHEME.

MR. WILLIAM HAY, of Wyuna, Brighton, near Melbourne, Australia, an *alumnus* of the University, and a native of Fordyce, has sent a contribution of £1,000 to the scheme. In his note he makes the very pertinent remark that he thinks that the many successful students might remember their *Alma mater* at this important period of change and development, and of their wealth contribute to the completion of sum required for the extension of the buildings. In these remarks we cordially join, and would urge on all graduates who have not already subscribed to help the committee by their subscriptions, whether these be large or small. A considerable sum still remains to be made up before the £40,000 is assured. Subscriptions can be sent to Mr. Cran, City Chamberlain, Municipal Buildings, Aberdeen.

ST. ANDREW AMBULANCE ASSOCIATION.

THE St. Andrew Ambulance Association is continuing to prosper and to extend its operations. There are now 29 centres in connection with the headquarters in Glasgow. During the past year 2,525 calls were made upon the wagons of the Association, and during the ten years of the Association's existence the wagons have been made use of for conveying 12,532 patients. In Glasgow alone the calls made on the wagons during the year numbered 1,678, an increase of 160 on the previous year.

SCOTTISH UNIVERSITIES COMMISSION.

THE 127th meeting of the Scottish Universities Commission was held on June 30th, when Drs. Berry Hart and Charles Cathcart, as representing the Edinburgh Association for the Promotion of Reform in Medical Education, were examined with regard to the higher teaching and examination in the Faculty of Medicine, including the question of an Honours School in Medicine.

IRELAND.

A LABOURER'S wife, named Mason, died last week at Gortatlea from hydrophobia. A few weeks since she was bitten by a cat, and two days before her death she showed symptoms of hydrophobia.

HONORARY FELLOWSHIPS OF THE IRISH COLLEGE OF SURGEONS.

THE Council of the Royal College of Surgeons in Ireland has voted the honorary Fellowship to the following gentlemen:—Mr. Thomas Bryant, President of the Royal College of Surgeons of England; Dr. John Shaw Billings, of Washington, U.S.; Professor Adolphus Gusserow, Berlin; and Hermann Snellen, Rector Magnificus of the University of Utrecht. There was considerable opposition to certain of the votes, particularly in the case of the President of the English College of Surgeons. Everyone spoke in the highest terms of Mr. Bryant, but it was urged that the College of which he is president had shown little friendliness to her Irish sister, and that she had withdrawn the privilege of *ad eundem* recognition of Irish Fellows. The English College has no

power to confer the honorary Fellowship, but it is hoped that when a new Charter is obtained, the ability to reciprocate some of the courtesy which has been shown to her in Ireland will be secured.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

THE summer dinner took place on July 4th, at Kingstown, Dublin, Dr. Mapother in the chair. Fifty-one members and guests were present. The toast of "The Guests" was replied to by Professor Hashagen, of Rostock University, and Mr. Bruce Joy, the eminent sculptor. The toast of "The Association" was acknowledged by Mr. Hamilton, President of the Royal College of Surgeons of Ireland, who alluded to the report of the House of Lords' Committee regarding the exclusion of Irish diplomates from hospital appointments and the proceeding at the East Sussex Hospital relative to the same subject.

THE BRITISH INSTITUTE OF PUBLIC HEALTH.

THE annual meeting of this institute will be held in Dublin on August 18th, 19th, and 20th under the auspices of the Irish Branch. At a meeting of the Branch Council for Ireland held on June 27th, Sir Charles Cameron, the President, in the chair, it was resolved "That a reception committee be formed, and that the medical officers of health of the city and county of Dublin be invited to assist in the formation of a reception committee." A resolution was also passed appointing Dr. Edgar Flinn, D.P.H., Honorary Secretary to the Branch Council for Ireland. The following subjects have been chosen for special discussion:—(1) The etiology of typhoid fever; (2) the notification of infectious diseases. Papers on other subjects have been promised. The annual dinner will take place on August 18th, and the third day will be devoted to excursions. Gentlemen intending to be present should notify the same at an early date to the Secretary, with the titles of any papers they may desire to read.

THE TERCENTENARY OF DUBLIN UNIVERSITY.

DUBLIN has been *en fête* during the week, in celebration of the tercentenary of its old University. Hundreds of delegates have arrived from all countries; the private hospitality has been unbounded, and the people of all shades of opinion have joined generously in trying to make the event a great success. We have already published the programme of the festivities, and the names of those upon whom it was resolved to confer honorary degrees; but it does not come within our province to refer in detail to the various phases of a most brilliant week, in which delightful weather played not the least important part. At the degree conferring on Thursday, Sir Andrew Clark, Mr. Thomas Bryant, Mr. Jonathan Hutchinson, of London; Dr. Billings, of America; H.R.H. Duke Charles Theodore of Bavaria; Professor Grainger Stewart, of Edinburgh; and Professor Gusserow, of Berlin, received the degree of Doctor of Medicine; and Professor Burdon Sanderson, of Oxford; Professor Michael Foster and Professor Alexander Macalister, of Cambridge, among many others, the degree of Doctor of Science. The event of the day was, in the eyes of the undergraduates, the giving of the degree of Doctor of Letters to Mr. Henry Irving. He was loudly cheered, and was carried shoulder high when he emerged from the hall. He was compelled to make a speech, which he did with great effect. Banquets, a ball given by the Lord Mayor, and another by the University, garden parties by the Lord Lieutenant, Lord Wolseley, and the Provost, a theatrical entertainment, a smoking concert, a cricket match between Dublin and Cambridge, athletic sports, and innumerable private entertainments have filled in the week, and the visitors have left thoroughly pleased with everything. The whole of the organisation was in the hands of Professor Cunningham, aided by the Rev. Dr. Bernard. Their labours have been immense and ceaseless, but they have been rewarded by the unbroken success which attended their efforts.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

STEELE *v.* SAVORY.

SIR,—We beg to forward herewith a third list of donations and subscriptions to the Steele *v.* Savory Fund, and in doing so you will permit us to make known through the columns of the BRITISH MEDICAL JOURNAL that the members of the College of the United Services, the Indian Medical Service in particular, have evinced throughout great interest in the justice of the claims put forward by the Association of Members. Surgeon-Lieutenant-Colonel Calthrop, of Mian Mir, Punjab, Bengal Presidency, has issued an appeal and undertaken to receive subscriptions on behalf of the Fund, and the first instalment was received by the last mail. Surgeon-Lieutenant-Colonel North writes: "I gladly enclose my guinea, and if the sovereign had only cost Rs. 10, as it should with us, instead of Rs. 16, I would gladly have sent two, but I shall be happy to contribute further in the righteous cause of the Members of the College; and pray communicate my best thanks to the plaintiffs who have been fighting our battle."—We remain, Sir, faithfully yours,

JABEZ HOGG,
W. G. DICKINSON,
Joint Honorary Secretaries.

(THIRD LIST OF SUBSCRIPTIONS.)

	£	s.	d.
Dep.-Surg.-Gen. McKellar, to make up his donation to £50	34	5	0
Anonymous	5	0	0
A. L. H.	3	3	0
Chas. Eaton Baker	2	0	0
Maurice E. Ling	1	17	6
Dr. G. H. Batterbury (Hon. Loc. Sec.)	1	10	0
Dr. Jacob Pickett	1	10	0
Andrew Fuller	1	10	0
Richard Emmett	1	10	0
F. A. Gray	1	10	0
G. W. Graham	1	10	0
Charles Williams, F.R.C.S.	1	1	0
Rev. R. J. Simpson	1	1	0
J. M. King	1	1	0
T. J. Merriman	1	1	0
Dr. Braithwaite Rogers	1	1	0
John Prince	1	1	0
Alfred Freer	1	1	0
Foster MacGeagh	1	1	0
T. Craddock Palmer	1	1	0
E. H Beaman	1	1	0
Arthur R. Hopper	1	1	0
T. P. Purvis	1	1	0
Surg.-Lieut.-Col. Calthrop (collected by)	1	1	0
Surg.-Lieut.-Col. Temple	1	1	0
,, ,, J. North	1	1	0
Surg.-Maj. Harwood	1	1	0
G. T. Muriel	1	1	0
William Marsden	1	0	0
Dr. E. R. Tenison	1	0	0
Thomas Aspinall	0	10	6
Dr. Clewen Griffith	0	10	6
William Hawkins	0	10	0
Dr. Bucknell	0	10	0
Dr. Cox	0	10	0

Donations may be forwarded to the Treasurer, Dr. Danford Thomas, Park Lodge, Paddington, or to the National Bank, Bayswater, W., crossed "Steele *v.* Savory Fund."

WE regret to hear that M. Monod, Director of the Sanitary Department of the Ministry of the Interior of France, is suffering from cholera; happily he is announced to be doing well.

Dr. JOSEPH PRIESTLEY, D.P.H., late assistant medical officer of health for Camberwell, has been appointed medical officer of health for Leicester in succession to the late Dr. H. Tomkins.

BEQUESTS.—The late Miss Charlotte Fleming, of Acacia Road, has by her will bequeathed £2,000 to the general fund and £1,000 to the building fund of the Cheyne Hospital for Sick and Incurable Children, and £500 each to the Royal Free Hospital, Gray's Inn Road; University College Hospital; and the Free Dispensary, Henstridge Villas, St. John's Wood.

THE ORISSA TWINS.—Two little Uriah girls, about 4 years of age, joined together somewhat after the manner of the famous Siamese twins, have recently been brought to Calcutta from the Angul district in Orissa with a view to exhibition at the World's Fair in Chicago. A solid piece of bone unites the two bodies at the chest, but they are in every other respect two separate beings. They stand as if leaning on each other, and walk in a peculiar manner. Both feel hungry simultaneously, and fall asleep together. They are described as pretty little things, of a merry disposition, and so much alike that it is difficult to tell one from the other. Their parents were very poor, and were shunned by their fellow villagers till the enterprising showman found them out, and proved that there was "money in them."

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1892. ELECTION OF MEMBERS.

A MEETING of the Council will be held on October 26th, 1892. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than October 5th, 1892.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting will be held at Cardiff on Tuesday, July 12th; President, D. Arthur Davies, M.B., Swansea; President-elect, Mr. T. J. Webster, Merthyr. Further particulars in circulars.—A. SHEEN, M.D., D. A. DAVIES, M.B., Honorary Secretaries.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The summer meeting of this Branch will be held at the Royal Asylum, Gartnavel, at 3 o'clock on Wednesday, July 13th, when Dr. Yellowlees will give a clinical demonstration. The Asylum is within a few minutes' walk of Hyndland Station.

OXFORD AND DISTRICT BRANCH.—The annual meeting will be held on Friday, July 15th, at the Warneford Asylum, Oxford; the President-elect, Dr. Ward, has kindly invited the members to luncheon at 1.30 o'clock, before the meeting at the asylum. Notice of anything to be brought forward at the meeting should be sent to the Honorary Secretary, W. LEWIS MORGAN, 42, Broad Street, Oxford, by June 30th.

BORDER COUNTIES BRANCH.—In consequence of the uncertainty of polling days for the General Election, the annual meeting is postponed to a later Thursday or Friday in July, of which due notice will be given to the members by circular.

READING AND UPPER THAMES BRANCH.—The annual meeting of this Branch will be held in the Council Chamber, Newbury, on Thursday, July 21st, at 6 P.M., Mr. Robert Birch, President, in the chair. The annual dinner (tickets 7s. 6d each, exclusive of wine) will take place at the Council Chamber, at 6.30 P.M. Tickets should be obtained from the Honorary Secretary, H. H. PHILLIPS, M.D., 45, London Road, Reading.

SOUTH-EASTERN BRANCH.

THE forty-eighth annual meeting of this Branch was held at Brighton on June 15th. Before the meeting the members partook of luncheon at the invitation of the President-elect for 1892-3 (Dr. F. A. Humphry). Mr. G. RIGDEN (Canterbury) took the chair. The Mayor of Brighton, Dr. Ewart, J.P. (one of the Vice-Presidents-elect for 1892-3), and 32 other members were present.

Votes of Thanks to Retiring President.—On the motion of Dr. WHITTLER, seconded by Dr. ALLFREY, a hearty vote of thanks was passed to the retiring President (Mr. Rigden) and Vice-Presidents (Mr. Whitehead Reid and Mr. Wacher, of Canterbury) for their services in the past year.—Mr. RIGDEN, after expressing his thanks, then vacated the chair in favour of Dr. EWART, in the unavoidable absence of Dr. F. A. Humphry.

Sex in Education.—The CHAIRMAN proceeded to give an address consisting of a friendly criticism of Sir James Crichton-Browne's oration on "Sex in Education." He said it might fairly be questioned whether it was quite fair to compare weight of brain with stature without checking it by also contrasting weight of brain with weight of body. When this was done, with such materials as are forthcoming, the result is very striking, and certainly not altogether in favour of the position taken up by the distinguished orator. Thus the average weight of brain in the adult male was 49½ ozs., and in female 44½ ozs., showing a difference of 5 ozs. Now, according to Quetelet, the average weight of the male, aged 20, was 130 9 lbs., and of the female, aged 20, 117.0 lbs. Therefore, how did 130.9 : 49.5 contrast with 117.0 : 44.5? The answer was 0.378 and 0.380. It was manifest, from this simple calculation, that the proportion between the total body weight and brain weight in men and women was practically identical. It might be admitted that the parietal (motor) area of the brain was less developed in women, and that the occipital (sensory) area was more voluminous in women, if it were agreed, as it seemingly was by Broca and the orator, that the frontal (that is, the more highly intellectual) area of the brain, was equally developed in the two sexes. No satisfactory evidence was produced to prove that the male brain was further removed from the comparatively smooth brain of the monkey than that of the female. But granting for the moment that in the male convolutions there might be some slight increase of secondary gyri, might not these be amply accounted for by difference of "environment, educational advantages and habits," extending over thousands of years? With reference to the measurements of the large arteries supplying the brain with blood, the variations were interesting, but would certainly not be of the momentous importance claimed for them, even should they be confirmed by others. Much of the overpressure in girls' high (and other) schools were dependent upon imperfect classification, or the grouping together of pupils of different degrees of innate ability. The main difficulty consists in too protracted home lessons; but the arguments used against this told rather for altering the methods than in the amount of real work. A hard day's work hurts nobody, not even a rapidly-growing girl. It was well established that headache was seldom due to cerebral trouble. Probably one chief reason why girls suffered from headache more frequently than boys, during or after school hours, was the deficiency of outdoor games among them. The greater mortality among girls from phthisis between the ages of 5 to 10, 10 to 15, and 15 to 30, was due to the fact that girls do not have outdoor exercise to anything like the same extent as boys. Moreover, they were liable to be cooped up indoors in vitiated air, and thus were more exposed to infection than boys. The fact was no argument against school work for girls. It was, however, an argument for school work under better hygienic conditions.

Vote of Thanks to Dr. Ewart.—Dr. J. GALTON proposed and Mr. HODGSON seconded a vote of thanks to Dr. Ewart, which was carried unanimously.

Report of Council.—The report stated that eleven years had elapsed since the South-Eastern Branch held its annual meeting in Brighton. At that time the Branch consisted of 421 members, and now it numbered 498. Seven members had died during the past year. Amongst these was Dr. Alfred Carpenter, of Croydon, for many years a member of the Council of the Branch, its former President, and also President of the Council of the Association, and Vice-President of the Association for life. His life was one busy record of efforts to advance sanitary science, and also to ameliorate and benefit the condition of the inebriates of this country. The Council had conveyed through the Honorary Secretary the expression of their sympathy with the bereaved family, and their regret at the loss of an old friend and colleague. During the year twenty-six new members had been elected. Reference was made to the case of Dr. Alfred Carpenter and Dr. Dukes, of Croydon, who were defendants in a lunacy action; though they came off victorious, they were saddled with costs amounting to £200. A donation of ten guineas to the Defence Fund was voted unanimously by the Council. As regards the districts, they had to regret the loss of the services of Dr. Duncan, of Croydon, the Honorary Secretary for East Surrey District, after many years of very excellent work, and he was entitled to the warmest thanks of the members. Mr. Prangley, of Anerley, had been appointed in his place. The Council announced with deep regret the intention of the Honorary Secretary of resigning his office at this meeting.

After serving the Branch for nineteen years as Honorary Secretary and Treasurer, Dr. Parsons found himself compelled by circumstances to relinquish the post he had so long and so worthily held, he having raised the Branch to a state of efficiency and activity second to none in the whole Association.—Dr. Treutler moved and Dr. Waring seconded the adoption of the report, who was agreed to *nem. con.*

Financial Statement.—The financial statement showed that the receipts during the year, including £164, the balance in hand in May, 1891, had been £259 2s. 10½d., and the expenditure £112 4s. 5d., leaving a balance in hand of £146 8s. 5½d.—On the motion of Dr. Trollope, seconded by Mr. Whitehead Reid, the statement was adopted.

Officers and Council.—The following were elected office-bearers and members of Council for the ensuing year: *Representatives of Branch on Council of Association.*—Surrey, Dr. Galton; Sussex, Mr. G. F. Hodgson; Kent, Dr. C. Parsons. *Council:* Dr. Adney, Tunbridge Wells; Dr. Bagshawe, St. Leonards-on-Sea; Dr. Bowles, Folkestone; Dr. A. Buchanan, Chatham; Dr. L. Buckell, Chichester; Mr. C. W. Chaldecott, Dorking; Dr. T. Eastes, Folkestone; Mr. E. H. Galton, Brixton Hill; Mr. A. H. B. Hallowes, Maidstone; Mr. F. B. Hallowes, Red Hill; Dr. Hayman, Eastbourne; Dr. Holman, Reigate; Dr. C. E. Hoar, Maidstone; Deputy-Surgeon General Jeffcoat, Rochester; Dr. Johnson, Tunbridge Wells; Dr. Withers Moore, Burgess Hill; Mr. A. Napper, Guildford; Dr. Oldman, Bletchingley; Mr. C. J. Sells, Guildford; Dr. Stowers, Finsbury Square; Dr. Tyson, Folkestone; Mr. J. S. Turner, Upper Norwood; Dr. Uhthoff, Brighton; Dr. Allfrey, St. Leonards; and Mr. E. Ray, Dulwich. *Honorary Secretary*, Mr. T. J. Verrall, Brighton.

Vote of Thanks to Scrutineers, etc.—On the motion of Dr. Mackey, seconded by Dr. A. J. Richardson, a vote of thanks was passed to the scrutineers, auditors, etc., for their services.

Next Annual Meeting.—On the proposition of Dr. Withers Moore, seconded by Mr. J. S. Turner, it was decided to hold the next annual meeting at Dover, with Dr. Parsons as President.

Dinner.—The dinner took place at the Grand Hotel, where about forty members and friends sat down. The Mayor of Brighton (Dr. Ewart, J.P.) was in the chair, and was supported at the head table by the Rev. Dr. Hamilton, Alderman Soper, J.P. (the ex-Mayor), Dr. Holman, Dr. Galton, Dr. Withers Moore, Dr. Parsons, and Mr. Geo. Rigden.—The usual loyal toasts having been given from the chair, Dr. Withers Moore proposed "The South-Eastern Branch." He believed theirs was the second largest provincial branch in the Association, and certainly it was the one most ably managed, and having the greatest vitality and activity in it, not even excluding the Metropolitan Association. This was largely and greatly due to the able manner in which their Branch had been administered by their able Secretary. In his capacity as President of the Council, complaints had been made to him of how little the Association did. It had been a great power, and had done a great deal for Army and Navy medical officers, but the general practitioner complained that it had done little for him. He sympathised with the general practitioners, but he had always said it was no use complaining until they had made up their minds what they wanted the Association to do. When they had done that he would do his best to bring the matter before the notice of the Council. He would gladly do anything that would further their interests, and he thought the Association was bound to listen to any voice coming from the general body of medical practitioners. They all of them realised how deeply indebted they were to Dr. Parsons for the very able way in which he had conducted the affairs of the Branch. They were endeavouring to show some practical recognition of their gratitude for the inestimable services he had so long rendered, and he hoped all the members would do their best to make the testimonial a success.—Dr. Parsons, who was cordially received, responded. It was now some twenty-two years ago since he attended his first annual meeting of the Branch. For nineteen years he had filled the post of Honorary Secretary. He believed the Association had conferred inestimable benefits upon their profession as a body. In conclusion, he expressed the hope that his successor would have their support as thoroughly as he had had, and that the Branch would continue to be one of the leading Branches of the Association.—The Mayor proposed "The Guests," coupled with the names of Rev. Dr. Hamilton and Alderman Soper.—Dr. Johnson gave "The President" (Mr. Humphry), expressing the regret all felt at his unavoidable absence.—Dr. Holman proposed "The Health of the Mayor," and Dr. Ewart, in responding, said, though he highly valued the position he held in the town, he valued his connection with the medical profession still more highly.—Dr. Galton proposed "The Health of the New Secretary" (Mr. Verrall), who, he believed, would make a very worthy successor to Dr. Parsons.—Mr. Verrall replied.

LANCASHIRE AND CHESHIRE BRANCH.

The fifty-sixth annual meeting of this Branch was held in the Storey Institute, Lancaster, on June 29th, 1892, Dr. Vacher, President, in the chair. Sixty members were present.

Installation of New President.—The minutes of last annual meeting and of the intermediate general meeting having been read and approved, Dr. Vacher, the retiring President, introduced his successor, Dr. Shuttleworth.

President's Address.—Dr. Shuttleworth delivered an inaugural address on education from a medical standpoint.

Report of Council and Financial Statement.—The report of Council stated that the condition of the Branch was in every way satisfactory. Its financial position had undergone a marked improvement since the last report, the cash balance at the bank being £417 2s. 5d., as against £372 10s. 10d. the year before. During the past year, through death, removal from the district, and non-payment of subscription, no fewer than 90 names had been removed from the list. The deaths numbered 28, leaving 62 to be accounted for by resignation and removal from the district. Thirty-nine new members had joined the Branch, making the grand total of subscribing membership at present 865. The accession of new members had been fully up to the average, and was, perhaps, greater than might have been expected in the ordinary course of events, taking into consideration the exceptionally large number of new members that joined during the year 1890. It was with great regret that they had to chronicle the loss of so many of their oldest and most highly-respected members during the past year. Among them were Dr. Davies-Colley, of Chester, the oldest member of the Branch, and one of the pioneers of the Association; Dr. James Ross, of Manchester, whose loss to the science of neurology in the district was well-nigh irreparable; Dr. Peter Royle, a prominent figure in the political life of Lancashire; Dr. Hall, of Lancaster, another of their earliest members; Dr. MacGowan, of Oldham, and Dr. Wilfrid Hopwood, of Stalybridge. At the last annual meeting, which was held at Birkenhead, the following resolution was passed: "That this meeting affirms the principle of proxy voting." As a corollary to this, a subcommittee was appointed to ascertain the legality of proxy voting, and generally to carry the resolution into effect. This Committee having been duly convened for the consideration of the subject, were met with the difficulty that, after having reported in favour of the adoption of proxy voting, they received an adverse legal opinion as to the legality of its adoption from the solicitor of the British Medical Association. The Council had, therefore, to let the matter drop. An intermediate meeting of the Branch was held in autumn in Southport, and was well attended. During the past year, a subcommittee composed of members of this Branch was appointed to co-operate with the Therapeutic Committee of the Council of the Association, a sum not exceeding £10 being granted to defray the expenses of such subcommittee. No report had yet been received from the subcommittee. An invitation from the profession in Chester to hold next annual meeting there had been received, and provisionally accepted by the Council. The Council pointed with some pride to the evidences of vitality of the Branch as shown by the varied and interesting nature of the communications and papers. In conclusion, the Council expressed their indebtedness to the Council of the Storey Institute for their courtesy in giving the use of the lecture hall for purposes of the meeting, and also to the Picture Gallery Committee for their kindness in throwing open the picture gallery free to the members of the Branch. They were also indebted to the Prison Commissioner for a special permit to look over Her Majesty's prison at Lancaster Castle, and to Mr. W. O. Roper for his courtesy in offering to

conduct a party of members over the historical portion of the Castle.

Office-bearers.—Dr. Massiah and Dr. Rentoul having been appointed scrutineers, the ballot for office-bearers and Council was then taken, the following gentlemen being appointed:—*President:* Geo. Shuttleworth, M.D., Lancaster. *President-Elect:* James Taylor, F.R.C.S., Chester. *Vice-Presidents:* William Berry, F.R.C.S., Wigan; F. M. Granger, Chester. *Joint Hon. Secretaries:* C. E. Glascott, M.D., Manchester; J. Barr, M.D., Liverpool. *Representatives on the Council of the Association:* Geo. B. Barron, M.D., Southport; E. H. Dickinson, M.D., Liverpool; Charles E. Glascott, M.D., Manchester; D. J. Leech, M.D., Manchester: Mr. James Taylor, Chester. *Council:* Wm. Armstrong, Manchester; W. C. Barnish, Wigan; J. Barr, M.D., Liverpool; E. H. Beamann, Southport; *E. Stanmore Bishop, Manchester; H. W. Boddy, M.D., Manchester; *J. R. Bradshaw, M.D., Liverpool; J. J. Bride, Wilmslow; John Brown, M.D., Bacup; H. A. G. Brooke, M.D., Manchester; J. E. Burton, Liverpool; W. M. Campbell, M.D., Liverpool; *William Carter, M.D., Liverpool; J. N. Cregeen, Liverpool; A. Davidson, M.D., Liverpool; *W. H. Dobie, M.D., Chester; A. Goodson, Cheadle; T. B. Grimsdale, M.B., Liverpool; W. Hall, Jr., Lancaster (Local Sec.); *A. Hamilton, Chester; A. C. E. Harris, M.D., Birkenhead; *W. J. Heslop, Manchester; E. W. Hope, M.B., Liverpool; *W. H. Hughes, Ashton-under-Lyne; *Christopher Johnson, Lancaster; Leslie Jones, M.D., Manchester; T. Jones, M.B., Manchester; *G. W. Joseph, Warrington; G. A. Kenyon, M.B., Chester; J. Lambert, M.D., Birkenhead; H. March-Colley, M.D., Rochdale; J. M. H. Martin, M.D., Blackburn (Local Sec.); B. J. Massiah, M.D., Didsbury; E. D. McNicoll, Southport; G. Mould, Cheadle; R. Patrick, Bolton; *H. Laird Pearson, Rockferry; Chauncey Puzey, Liverpool; Edwin Rayner, M.D., Stockport; C. J. Renshaw, M.D., Ashton-on-Mersey; R. R. Rentoul, M.D., Liverpool; Dr. Lloyd Roberts, M.D., Manchester; John Robinson, Frodsham; C. T. Street, Haydock; *Charles Thorpe, Todmorden; *F. Vacher, M.D., Birkenhead; G. E. Walker, Liverpool; *William Walter, M.D., Manchester; J. W. Watkins, M.D., Newton-le-Willows; A. H. Young, M.D., Manchester. (* New nominations, being gentlemen who were not ordinary members of the Council withing the last twelve months.)

Vote of Thanks to Honorary Secretary.—It was proposed by Dr. Watkins, seconded by Dr. Barron, and carried by acclamation: "That the best thanks of this Branch be tendered to Dr. Glascott, Honorary Secretary, for his long and unwearying services to this Branch of the Association and for his untiring efforts to promote its welfare.

Next Annual Meeting.—It was determined, upon the recommendation of Council, to hold the next annual meeting at Chester.

Dr. Rentoul's Motion.—The following motion, of which notice had been given, was proposed by Dr. Rentoul, and seconded by Dr. Holden: "That in future any member wishing to be elected as (*a*) a representative of the Branch on the Council of the Association; (*b*) or as representative of the Branch on the Parliamentary Bills Committee of the Association; or (*c*) as representative of Branch members on the Branch Council be nominated by six members of the Branch, and that members be empowered to vote for candidates without attending the meeting, the Secretary forwarding a voting paper to each member, thus following the plan adopted by the General Medical Council when direct representatives are elected; the Royal College of Surgeons, England; the Royal College of Surgeons, Ireland; the Irish Medical Association, and other public bodies. That no person be elected to act both as Branch representative on the Council of the Association and on the Parliamentary Bills Committee. That the rules of the Branch be hereby altered so as to permit of such mode of election taking place at the next election of representatives." Hereupon Dr. Berry proposed as an amendment, seconded by Dr. Barron: "That the present mode of election be adhered to." On the amendment being put, it was carried by 19 to 7 votes. It then was put to the meeting as the substantive resolution, and carried.

Communications.—Dr. Ransome's paper on Re-infection in Phthisis was taken as read.—Mr. Rushton Parker read a paper on Modern Herniotomy.—Dr. Ramage read a communication on Quinine Amblyopia.—Mr. T. Jones mentioned a case of Cholecystenterostomy, and showed the patient.—Dr. Shuttleworth presented some notes on Craniectomy.—Dr. Ernest S. Reynolds remarked on the Hemiplegiæ and Paraplegiæ of Childhood.—Dr. Telford Smith showed a case of Spontaneous Fracture of the Femur (after Periostitis) with subsequent Union.

Dinner.—Forty-two members and guests dined together in the evening at the King's Arms Hotel, under the presidency of Dr. Shuttleworth.

SHROPSHIRE AND MID-WALES BRANCH.

The annual meeting of this Branch was held at the Salop Infirmary on June 23rd, Dr. W. H. Packer in the chair.

Members from the Staffordshire Branch of the Association were present by invitation, and were heartily greeted by the President. The minutes of last meeting and the report of Branch Council were read and confirmed.

Officers and Council.—The following were elected office-bearers and members of Council for the ensuing year: *President-elect:* H. Nelson Edwards. *Branch Representative on Association Council:* J. D. Harries. *Branch Representative on Parliamentary Bills Committee:* J. Bowen Davies. *Council:* E. Burd, M.D.; W. Charnley, M.D.; E. Cureton; W. B. Davies; W. Eddowes; H. Nelson Edwards; S. T. Gwynn, M.D.; J. D. Harries; G. H. Keyworth; W. H. Packer, M.D.; H. J. Rope; R. W. O. Withers.

New Members.—The following gentlemen were elected members of the Branch: G. A. Tailer, Jas. B. Cunningham, and W. R. Gore.

Papers.—The following papers were read: Mr. J. W. Taylor: On the Diagnosis of Extrauterine Pregnancy. Mr. H. G. Monk: On Scarlatina. Mr. A. Jackson: On the Early Treatment of Strumous Glands by Excision.

Cases.—Mr. W. Eddowes and Mr. H. J. Rope showed cases and read notes of them.—Dr. Charnley showed a man who cut his throat in a fit of temporary insanity, where the trachea and œsophagus were completely divided. The passages ultimately closed, and the man breathed through a tube in his trachea, and fed himself through a tube passed into his œsophagus through the wound in his throat.

Dinner.—The annual dinner was held at the music hall, when thirty-one sat down.

BRITISH MEDICAL ASSOCIATION.

SIXTIETH ANNUAL MEETING.

The sixtieth Annual Meeting of the British Medical Association will be held at Nottingham on Tuesday, Wednesday, Thursday, and Friday, July 26th, 27th, 28th, and 29th, 1892.

President: John Roberts Thomson, M.D., F.R.C.P., Consulting Physician Royal Victoria Hospital, Bournemouth.

President-Elect: Joseph White, F.R.C.S.Edin., Consulting Surgeon Nottingham General Hospital.

President of the Council: W. Withers Moore, M.D., F.R.C.P., J.P., Consulting Physician Sussex County Hospital.

Treasurer: Henry Trentham Butlin, F.R.C.S., Surgeon to St. Bartholomew's Hospital, E.C.

Honorary Local Secretary: Henry Handford, M.D., 14, Regent Street, Nottingham.

Honorary Treasurer: William Arthur Carline, M.D. Lincoln.

An Address in Medicine will be delivered by James Cuming, M.D., Professor of Theory and Practice of Medicine, Queen's College, Belfast.

An Address in Surgery will be delivered by W. H. Hingston, M.D., Montreal, Canada, Surgeon-in-Chief, Hotel Dieu, Montreal, Professor of Clinical Surgery, Laval University.

An Address in Bacteriology will be delivered by German Sims Woodhead, M.D., F.R.C.P., F.R.S.E., Director Research Laboratory Conjoint Board of Royal College of Physicians and Royal College of Surgeons, England.

The scientific business of the meeting will be conducted in ten Sections, as follows, namely:

A. Medicine.—*President:* William Henry Ransom, M.D., F.R.S. *Vice-Presidents:* Frederick Taylor, M.D.; Isambard Owen, M.D. *Honorary Secretaries:* Sidney Philip Phillips, M.D., 62, Upper Berkeley Street, London; Frank Montague Pope, M.B., 4, Prebend Street, Leicester.

The discussion on Wednesday, July 27th, on Peripheral Neuritis, will be introduced by J. S. Bristowe, M.D., F.R.C.P., F.R.S. Sir F. Bateman, Drs. M. A. Boyd, Judson S. Bury, Byrom Bramwell, J. Cagney, Drysdale, U.S.A., Eddison, W. Garstang, Davies Pryce, and H. Handford, will take part in the discussion.

The discussion on Thursday, July 28th, on the Prognosis and Treatment of Ascites, will be introduced by W. B. Cheadle, M.D., F.R.C.P. Drs. M. A. Boyd, Bateman, Drysdale, U.S.A., Eddison, Garstang, Murray, Rickards, Tyson (Folkestone), S. West, J. S. Bristowe, F.R.S., and Hale White will take part in the discussion.

The following papers are announced:

BRAMWELL, Byrom, M.D. On the Value of Perimeter Measurements in the Diagnosis of Local Brain Disease.
GORDON, W., M.B. Tuberculous Broncho-pneumonia.
HAIG, A., M.D. Gout of the Intestines, its Pathology and Treatment.
HANDFORD, H., M.D. Rheumatic Neuritis.
HAWKINS, Francis, M.B. On some Complications and Sequelæ of the Infectious fevers.
HUMPHRY, Laurence, M.D. (Cambridge). Subacute Non-rheumatic Myocarditis.
LANE, H., L.R.C.P. The Neuroses of Rheumatic Arthritis.
LEES, D. B., M.D. Treatment of Pericarditis by the Ice-bag.
LORIMER, G., M.D. Gouty Phlebitis.
MACKENZIE, J., M.D. The Association of Sensory Disorders with Visceral Disease.
MURRAY, —, M.D. (Barrasford). Note on the Relief of Ascites by establishing a Fistulous Communication with the Rectum by Operation.
PFEIFFER, Emil, M.D. (Wiesbaden). Uric Acid Secretion in Gout.
RATCLIFFE, J. R., M.B., and WILSON, T. Stacey, M.D. The Venous Anastomoses in Relation to the Relief and Cure of Ascites in Cirrhosis.
SANDWITH, F. M., M.D. (Cairo). Three hundred and fifty cases of Phthisis.
SEMMOLA, Professor (Naples). Treatment of Heart Disease.
SMITH, P. Blaikie, M.D. (Aberdeen). Peripleuritis.
WEST, Samuel, M.D. Note on Bleeding with Reports of Cases

B. SURGERY.—*President:* JOHN CROFT, F.R.C.S. *Vice-Presidents:* WILLIAM NEWMAN, M.D.; W. J. PILCHER, F.R.C.S. *Honorary Secretaries:* FREDERIC S. EVE, F.R.C.S., 125, Harley Street, W.; ALEXANDER RICHARD ANDERSON, F.R.C.S., 5, East Circus Street, Nottingham.

The three following subjects have been selected for discussion: 1. The Surgery of the Thorax, to be introduced by Rickman J. Godlee, F.R.C.S. A. Pearce Gould, F.R.C.S., W. Newman, M.D., Jordan Lloyd, F.R.C.S., C. J. Symonds, M.D., H. W. Maunsell, M.D., Stanley Boyd, F.R.C.S., and J. Ward Cousins, M.D., will take part in the discussion. 2. The Surgery of the Liver and Gall Bladder, to be introduced by A. W. Mayo Robson, F.R.C.S. Lawson Tait, F.R.C.S., J. K. Thornton, M.B., Jordan Lloyd, F.R.C.S., A. Pearce Gould, F.R.C.S., H. W. Maunsell, M.D., C. J. Symonds, M.D., J. Ward Cousins, M.D., H. A. Reeves, F.R.C.S.Ed., Jos. Murphy, M.D., and W. J. Tyson, M.D., will take part in the discussion. 3. The Treatment of Spinal Abscess, to be introduced by W. Watson Cheyne, F.R.C.S. A. E. Barker, F.R.C.S., Stanley Boyd, F.R.C.S., C. B. Keetley, F.R.C.S., Robert Jones, F.R.C.S., Noble Smith, F.R.C.S., H. A. Reeves, F.R.C.S., and H. Widenham Maunsell, M.D., will take part in the discussion.

The following papers are announced:

ALLINGHAM, Herbert W., F.R.C.S. Excision of the Rectum for Malignant Disease.
BARLING, H. Gilbert, F.R.C.S. On Appendicitis.
BEVERLEY, M., M.D. A Case of Suprapubic Lithotomy.
CAMPBELL, Colin G., M.R.C.S. The Treatment of Abscess and Ulcer by Complete Absorption.
CLARKE, W. Bruce, F.R.C.S. On the Removal of Hydatids of the Liver.
CRIPPS, Harrison, F.R.C.S. On Rectal Cancer.
EARLY, Dr. C. R. (Pennsylvania). On Cancer.
HARRISON, Reginald, F.R.C.S. The Restoration of the Lost Function of Micturition.
HUME, G. H., M.D. A Case of Gastro-enterostomy.
JESSETT, F. Bowreman, F.R.C.S. Specimen of Carcinoma of Pylorus successfully removed by Combined Pylorectomy and Gastro-enterostomy.
JONES, Robert, F.R.C.S. (1) The Treatment of Dropped Wrist; (2) The Treatment of Old Colles's Fractures.
LANE, W. Arbuthnot, F.R.C.S. The Later Results of Laminectomy for Angular Curvature.
LLOYD, Jordan, F.R.C.S. On Pancreatic Surgery.
MARRIOTT, C. H., M.D. A Successful Case of Simultaneous Ligature of the Subclavian and Common Carotid Arteries for Aneurysm of the Innominate Artery. Patient will be shown.
MORISON, J. R., M.B., F.R.C.S., will exhibit (1) a Specimen from a Successful Case of Ileo-colostomy for Chronic Ileo-colic Intussusception; (2) a Specimen from a Case of Combined Excision of the Pylorus and Gastro-enterostomy.
NEWMAN, W., M.D. A case of Suprapubic Lithotomy.
PORRITT, Norman, M.R.C.S. Spinal Caries with Intraspinal Abscess treated by Laminectomy.
ROBSON, A. W. Mayo, F.R.C.S. A New Method of Performing Intestinal Anastomosis and other Allied Operations, illustrated by Cases, Models, and Diagrams.
SENN, N., M.D. (Chicago). On the Use of the Omentum in Intraperitoneal Operations.
SNOW, Herbert, M.D. Practical Points in the Surgery of Cancer.
SYMONDS, C. J., M.S., F.R.C.S. A Review of Twenty-five Cases illustrating the Surgery of the Thyroid Gland.
TAIT, Lawson, F.R.C.S. A General Summary of Conclusions based on a Series of Three Thousand Consecutive Cases of Abdominal Section.

C. OBSTETRIC MEDICINE.—*President:* ALFRED LEWIS GALABIN, M.D. *Vice-Presidents:* GEORGE ELDER, M.D.; HERBERT OWEN TAYLOR, M.D. *Honorary Secretaries:* HARRY MICHIE, M.B., 27, Regent Street, Nottingham; HERBERT RITCHIE SPENCER, M.D., 10, Mansfield Street, Cavendish Square, W.

The two following subjects have been selected for special discussion: 1. The Treatment of Uterine Fibroids, to be opened by J. Knowsley Thornton, M.B., C.M. J. H. Aveling, M.D., A. E. Aust-Lawrence, M.D., T. More Madden, M.D., P. Horrocks, M.D., A. D. Leith Napier, M.D., W. J. Tivy, F.R.C.P.E., A. W. Mayo Robson, F.R.C.S., Lawson Tait, F.R.C.S., G. Elder, M.D., H. Michie, M.B., J. Wright Baker, M.R.C.S., W. J. Smyly, M.D., E. S. Bishop, F.R.C.S., R. C. Bennington, M.B., A. W. Edis, M.D., J. Inglis Parsons, M.D., Dr. Jacobs (Brussels), Murdoch Cameron, M.D., H. Widenham Maunsell, M.D., Heywood Smith, M.D., H. A. Reeves, F.R.C.S., and W. Walter, M.D., will take part in the discussion. 2. *Post-partum* Hæmorrhage, to be opened by G. E. Herman, M.B., F.R.C.P., F.R.C.S. A. E. Aust-Lawrence, M.D., W. C. Grigg, M.D., P. Horrocks, M.D., H. Spencer, M.D., W. J. Smyly, M.D., J. Wright Baker, M.R.C.S., F. R. Mutch, M.D., Wm. Bain, L.R.C.P., C. E. Purslow, M.D., A. W. Edis, M.D., R. C. Bennington, M.B., W. Donovan, M.D., Murdoch Cameron, M.D., Alex. Duke, F.R.C.P.I., and W. Walter, M.D., will take part in the discussion.

The following papers are announced:

AUST-LAWRENCE, A. E., M.D. The Proper Use of Midwifery Forceps.
BAIN, W., L.R.C.P. A Consideration of the less Obvious Causes of Retardation in the First Stage of Labour.
BEVERLEY, Michael, M.D. On Further Experience and Results of Emmet's Operation for Laceration of the Cervix Uteri.
BISHOP, E. S., F.R.C.S. Note on a Case of Cystocele treated by Stoltz's Method.
BOROUGH, F., M.R.C.S. Ergot as a Muscular Tonic during Pregnancy.
BRAITHWAITE, James, M.D. On an Operation for the Radical Cure of the Worst Cases of Retroflexion.
BYERS, John W., M.D. Does Chloroform promote *Post-partum* Hæmorrhage?
CAMERON, Murdoch, M.D. The Prevention of Hæmorrhage in Cæsarean Section; and will show a Full Term Extrauterine Fœtus retained Fourteen Months, and give notes.
CULLINGWORTH, C. J., M.D. Some Remarks on the Anatomy of the Hymen and of the Posterior Commissure of the Vulva.
DUKE, Alexander, F.R.C.P.I. On the Value of Examination and Flushing of the Parturient Canal directly after Labour.
EDIS, A. W., M.D. On the Diagnosis of Early Ectopic Gestation.
HERMAN, G. E., M.B., F.R.C.P. Champetier de Ribes's Bag for Dilating the Cervix Uteri.
MCCAW, J. Dysart, F.R.C.S. The Medicinal and Mechanical Methods of Expediting Childbirth.
MCCLURE, H., M.D. On the Electrical Treatment of Uterine Fibroids scientifically considered.
MADDEN T. More, M.D. *Post-partum* Hæmorrhage.
MARTIN, Christopher, M.B., F.R.C.S. On the Occurrence of Hæmatocele of the Broad Ligament after Pelvic Operations.
MURPHY, James, M.D. Notes on a Case of Vaginal Myomectomy.
NAPIER, A. D. Leith, M.D. Stoltz's Operation for Cystocele.
NEALE, J. Headley, M.B. Septic Hydræmia following Miscarriage.
SPENCER, H. R., M.D. Induction of Premature Labour by Champetier de Ribes's Bag.
WALTER, W., M.D. A Case of Tubal Gestation in which both Tubes were Gravid, Operation, Recovery.

Dr. Cullingworth will give a special lantern demonstration on Some of the more Common Morbid Conditions of the Fallopian Tubes.

D. PUBLIC MEDICINE.—*President:* Sir B. WALTER FOSTER, M.D., M.P. *Vice-Presidents:* JOSEPH LITTLEWOOD, M.R.C.S.; CHARLES HARRISON, M.D. *Honorary Secretaries:* PHILIP BOOBBYER, M.B., Guildhall, Nottingham; JAMES SCOTT TEW, M.D., Magdala Road, Nottingham; SYDNEY MONCKTON COPEMAN, M.D., 9, Duke Street, St. James's, S.W.

The following subjects are suggested as suitable for discussion, but the list is open to modification. 1. Legal Restraint upon the Employment of Women in Factories before and

after Childbirth. 2. The Use and Abuse of Infantile Insurance. 3. Coroner's Inquests. 4. Disposal of the Dead in the Future; Cemeteries and Crematoria. 5. The Future of Hospital Isolation for Infectious Diseases. 6. The Isolation of Measles. 7. The Notification of Erysipelas and Puerperal Fever. 8. The Diminished Mortality from Scarlet Fever. 9. Is Small-pox Dying Out in the British Isles? 10. Endemic Typhoid. 11. Epidemic Alternations. 12. Offensive Trades in Towns. 13. Methods of Dealing with Town Refuse in the Midst of Populated Districts. 14. Ventilation of Town Sewers. 15. The Condemnation of Tuberculous Meat; to what Extent should this be Carried? 16. Relation of Medical Officer of Health to the Sanitary Staff. 17. Epidemic Influenza; the Attitude of Public Authorities towards it.

The following papers are announced:

BOOBBYER, Philip, M.B. Some Statistics of Hospital and Home Isolation in the Case of Scarlet Fever. He will also speak on the Relation of the Medical Officer of Health to the Sanitary Staff.

BULSTRODE, H. T., M.D., Some Points in Connection with Hospitals for Infectious Disease.

CAMERON, J. S., M.D. The Disposal of Town Refuse in Populous Districts. (He will also open the discussion on the Attitude of Public Authorities towards Epidemic Influenza; and that upon the Future of Hospital Isolation).

DAVIES, Sidney, M.D. Some Remarks on the Necessity of Legal Restraint upon the Employment of Women in Factories Before and After Childbirth.

DIXEY, F. A., M.D. On the Influenza Epidemics of 1891-2 considered from a Statistical Standpoint.

FIRTH, R. H., Surgeon-Captain, M.S. Enteric Fever in India and the Growth of Bacteria in Soils.

HILL, Alfred, M.D. Waste Waterclosets.

HOPE, E. W., M.D. Some Remarks upon the Extent to which the Condemnation of Tuberculous Meat should be carried; and the Future of Hospital Isolation for Infectious Diseases.

HUNTER, W. Lovell, M.D. Small-pox Mortality in Pudsey a Century Ago.

LOANE, Joseph, M.R.C.P. On Disposal of the Dead in the Future. He will also speak on the Present Position of Small-pox as an Epidemic Disease; and on Epidemic Influenza, the Attitude of Public Authorities towards it.

MASON, J. W., M.D. On the Methods of Dealing with Town Refuse in the midst of Populated Districts.

MONE, H. G. H., M.R.C.S. On an Epidemic of Cerebro-spinal Meningitis.

MUMBY, B. H., M.D. On the Disposal of the Dead in the Future.

SERGEANT, Edward, M.R.C.S. Some Remarks on the Methods of Dealing with Town Refuse in the midst of Populated Districts.

SYKES, J. F. J., M.B. Some Remarks on the Future of Hospital Isolation for Infectious Diseases: and upon the Extent to which the Condemnation of Tuberculous Meat should be Carried.

TEW, J. Scott, M.D. On Endemic Typhoid Fever.

THRESH, J. C., D.Sc., M.B. Some Remarks on the Notification of Erysipelas and Puerperal Fever.

WHITELEGGE, B. A., M.D. Some Notes on the Diminished Mortality from Scarlet Fever.

WILLOUGHBY, E. F., M.D. On the Nomenclature of Notifiable Infectious Diseases.

Dr. R. R. RENTOUL will move the following resolution: "That in the opinion of the Section all stillbirths after the fourth month of intrauterine life should be registered."

E. PSYCHOLOGY.—*President:* WILLIAM BEVAN LEWIS, L.R.C.P. *Vice-Presidents:* WILLIAM BARNBY TATE, M.D.; HENRY RAYNER, M.D. *Honorary Secretaries:* FLETCHER BEACH, F.R.C.P., Darenth Asylum, Dartford; EVAN POWELL, M.R.C.S., Borough Asylum, Mapperley Hill, Nottingham.

The President will give an Introductory Address.

The three following subjects have been chosen for special discussion: 1. Psychoses after Influenza, to be opened by Julius Althaus, M.D. 2. Insanity as a Plea for Divorce, to be opened by Lionel A. Weatherley, M.D. 3. Neural Action corresponding to the Mental Functions of the Brain, to be opened by Francis Warner, M.D. Drs. Urquhart, Richards, Rayner, Outterson Wood, Macdonald, Walmsley, Ewart, Blandford, and Goodall will take part in the discussions.

The following papers are announced:

BULLEN, F. St. J., M.R.C.S. Variations in Type of General Paralysis.

CAMPBELL, Harry, M.D. Minor Psychical Disturbances in Women.

DUNN, E. L., M.B. Paranoia and its Relationships.

EDRIDGE-GREEN, F. W., M.D. Perception with special reference to Colour Perception.

GOODALL, Edwin, M.D. The Pathological Anatomy of Acute Encephalitis: an Experimental Study.

JONES, Robert, M.D. On Microcephaly.

LEWIS, W. Bevan, L.R.C.P. An Improved Reaction time Instrument.

MACPHERSON, John, M.B. Remarks upon the Influence of Intestinal Disinfection in some Forms of Acute Insanity.

MOREL, M. Jules, M.D. The Psychological Examination of Prisoners.

POPE, Frank M., M.B. Note on the Establishment by the Leicester School Board of a Special Class for Feeble-Minded Children.

TUCKEY, C. Lloyd, M.D. The Value of Hypnotism in Chronic Alcoholism.

URQUHART, A. R., M.D. A Clinical Summary of Cases of Hereditary Insanity.

Dr. Roussel, Paris, and Professor Paul Kowalewsky, Charkoff, are expected to be present.

F. PATHOLOGY.—*President:* VICTOR HORSLEY, F.R.S., F.R.C.S. *Vice-Presidents:* SAMUEL WEST, M.D.; SHERIDAN DELÉPINE, M.B. *Honorary Secretaries:* ALEXANDER BRUCE, M.D., 13, Alva Street, Edinburgh; WILLIAM BRAMWELL RANSOM, M.D., The Pavement, Nottingham.

On Wednesday, July 27th, papers with demonstrations on General Pathology and Pathological Anatomy.

On Thursday, July 28th, papers will be read with demonstrations on the Pathology and Pathological Anatomy of the Nervous System.

On Friday, July 29th, Bacteriological papers and demonstrations.

The following papers are announced:

ADAMI, J. G., M.B. Variability of Microbes.

BEADLES, Cecil, M.R.C.S., L.R.C.P. Carcinoma of Mamma.

BOKENHAM, T. J., L.R.C.P. Phagocytosis in Relation to Erysipelas.

BOYCE, C., M.D. 1. Experimental Epilepsy. 2. Theory of Tumours 3. Specimens.

BRUCE, Alexander, M.D. Macro- and Microscopic Preparations of Pathological Brains and Spinal Cords, with Lantern Demonstrations.

BRUCE, A., M.D., and THOMPSON, John, M.D. Dystrophia Muscularis.

CAMERON, — M.D. Cryptolithiasis.

CAMPBELL, Harry, M.D. Etiology of the Tuberculous Diathesis.

CATHCART, C. W., M.B. Museum Casts.

CLARKE, Michell, M.B. 1. Ataxic Paraplegia. 2. Endothelioma of the Dura Mater.

COPEMAN, S. Monckton, M.D. The Pathology of the Blood in Diabetes.

DELÉPINE, Professor Sheridan. Case of Hemiplegia with unusual Eye Symptoms.

EVANS, — M.D. On the Growth of Bacterium Loeffleri.

FENWICK, Soltau, M.D. Morbid Conditions of Stomach in Phthisis.

GORDON, W., M.D. (Title uncertain.)

HARLEY, Vaughan, M.D. 1. Pathology of Jaundice. 2. Pathology of Diabetes.

HORSLEY, Professor Victor. Œdema.

HUMPHRY, Laurence, M.D. Cerebral Tumour.

HUNTER, William, M.D. Toxæmic Jaundice.

JOHNSON, Raymond, F.R.C.S. Carcinoma of Mamma.

KANTHACK, A. A., M.B. 1. Immunity. 2. Specimens of Madura Disease.

MARSHALL, C. D., F.R.C.S. Pathology of Afferent Impulses in the Cat.

MARTIN, Sidney, M.D. Experimental Diphtheritic Paralysis.

MIDDLEMASS, J., M.B. Early General Paralysis.

MOTT, F. W., M.D. Pathology of Afferent Impulses in the Monkey.

MUIR, R., M.D. Leucocythæmia.

MURRAY, George, M.R.C.P. Myxœdema.

NAIRN, — M.D. Bacteriology of a Case of Cerebral Abscess.

RANSOM, W. B., M.D. 1. Actinomyces. 2. Demonstration of Kinæsthetic Centre in Man.

SNOW, Herbert, M.D. Researches in Cancer Pathology.

STILES, Harold. Carcinoma of Mamma.

THOMSON, Alexis, M.D. Morbid Conditions of Bone.

TIZZONI, Professor. Tetanus and Rabies.

TYLDEN, H. J., M.B. Diabetes.

ROY, Professor C. S. Rate of Beat of the Heart in Health and Disease.

RUFFER, A., M.A., M.D. 1. Typhoid Fever in Animals. 2. Paralysis from the Poison of Bacillus Pyocyaneus.

RUSSELL, Risien, M.B. Structure of Recurrent Laryngeal Nerve and Pathology of Laryngeal Paralysis.

RUSTON, — M.D. Peripheral Neuritis.

WILLIAMS, Roger, F.R.C.S. Varieties of Mammary Neoplasms and their Relative Frequency.

WOODHEAD, G. Sims, M.D. (1) Immunity; (2) Healing of Wounds.

WRIGHT, A. E., M.B. Methods of Increasing and Decreasing the Coagulability of the Blood.

G. OPHTHALMOLOGY.—*President:* PRIESTLEY SMITH, M.R.C.S. *Vice-Presidents:* FRANK HY. HODGES, F.R.C.S.Ed.; CHARLES HIGGENS, F.R.C.S. *Honorary Secretaries:* ERNEST CORY KINGDON, M.B., 6, Upper College Street, Nottingham; H. W. DODD, F.R.C.S., 136, Harley Street, W.

A discussion on the Treatment of Diseases of the Lachrymal Apparatus will be opened by Charles Higgens, F.R.C.S.

The following gentlemen have signified their intention to be present or take part in the discussions: W. M. Beaumont, M.R.C.S., G. A. Critchett, F.R.C.S.Ed., J. Court, M.R.C.S., E. Jones, M.R.C.S., G. Mackay, M.D., J. G. Mackinlay, M.R.C.S., A. Pritchard, M.R.C.S., L. H. Tosswill, M.B., J. Tatham Thompson, M.B., W. Adams Frost, F.R.C.S., A. Stanford Morton, F.R.C.S., and C. Wray, F.R.C.S.

The following papers are announced:

BELL, J. H., M.D. A Chapter in the Early History of Miners' Nystagmus.

BENSON, A. H., F.R.C.S.I. The Treatment of Stenosis of the Nasal Duct.

BRONNER, A., M.D. On Aseptic Ophthalmic Surgery as practised at the

Bradford Eye and Ear Hospital; and will show a Sterilising Apparatus for Eye Instruments and Bandages.
CANT, W. J., M.R.C.S. Prolapse of the Iris after Simple Cataract Extraction and its Treatment.
COURT, J., M.D. Miners' Nystagmus: its Cause and Relation to the Lighting of Mines. (It is probable that a discussion will arise on this subject.)
CROSS, F. R., F.R.C.S. Two Cases of Abscess of the Frontal Sinus.
EDRIDGE-GREEN, F. W., M.D. The Registration of Defects of Colour Perception.
FARRAR, J., M.D. Notes on a case of Tumour of Right Orbit; Operation; Recovery.
FERGUS, F., M.B. 1. Some Improvements in Perimetry. 2. A Modification of Foerster's Box for testing the Light Sense. 3. The Treatment of Cataract Extraction and other Wounds by Antiseptics.
FORD, A. V., M.R.C.S. Chloride of Sodium as a Direct Agent in the Production of Cataract.
HEWETSON, H. B., M.R.C.S. 1. Ten Years' Experience of the Effects of the Treatment of Interstitial Keratitis by Syndectomy without the Use of Specific Drugs. 2. A New Operation for the Treatment of Eversion of the Lower Lids associated with Granular Lids. 3. Further Researches into the Localisation of Headaches due to various Forms of Ametropia, including Cases of Vertigo, *Petit Mal*, and True Epilepsy, cured by the Use of Correcting Lenses.
LAWFORD, J. B., F.R.C.S. The Pathology of some Intraocular Tumours.
MACKAY, G., M.D. On the Quantitative Estimation of the Colour Sense; and to show the Apparatus used by the Dutch Railway Ophthalmic Surgeons.
PERCIVAL, A. S., M.B. Note on the Relationship of Convergence to Accommodation.
STEPHENSON, S., M.B. The Surgical Treatment of Trachoma.
WHITEHEAD, H. R., F.R.C.S. Massage in the Treatment of Eye Diseases.
WILLIAMSON, G. E., F.R.C.S. A Primary Sarcoma of Iris, with Microscopic Sections.

H. DISEASES OF CHILDREN.—*President:* LEWIS WALTER MARSHALL, M.D. *Vice-Presidents:* JAMES DAVISON, M.D.; WINFRED BENTHALL, M.B. *Honorary Secretaries:* D'ARCY POWER, F.R.C.S., 26, Bloomsbury Square, W.C.; EDWARD MANSEL SYMPSON, M.D., 2, James Street, Lincoln.

The two following subjects have been selected for special discussion: 1. The Diagnosis and Treatment of Croupous Pneumonia in Children, to be opened by J. F. Goodhart, M.D., F.R.C.P., and Henry Ashby, M.D., F.R.C.P. W. B. Cheadle, M.D., F.R.C.P., N. Tirard, M.D., F.R.C.P., H. Montague Murray, M.D., W. P. Herringham, M.D., F.R.C.P., T. More Madden, M.D., F.R.C.S., C. N. Gwynne, M.D., D. B. Lees, M.D., and F. Johnston, M.B., will take part. 2. The Treatment of Severe Club Foot, to be opened by J. Walsham, F.R.C.S., R. W. Parker, M.R.C.S., Noble Smith, F.R.C.S.Ed., C. R. B. Keetley, F.R.C.S., E. M. Little, F.R.C.S., A. H. Tubby, M.B., J. Ewens, L.R.C.P., W. G. Black, F.R.C.S., E. L. Freer, M.R.C.S., Firmin Cuthbert, M.R.C.S., W. E. Balkwill, M.R.C.S., R. Jones, F.R.C.S.Ed., H. Widenham Maunsell, M.D., and William Thomas, F.R.C.S., will take part in the discussion.

The following papers are announced:
BALKWILL, W. E., M.R.C.S. A Demonstration on Orthopædic Apparatus.
BRAIDWOOD, P. Murray, M.D. Nervous Disorders following certain of the Acute Infectious Diseases of Childhood.
EDDOWES, Alfred, M.D. Treatment of Ringworm.
EWENS, John, L.R.C.S.Ed. Overgrowth of the Inner Tuberosity of the Tibia as a cause of Genu Valgum, independent of Elongated Inner Condyle of the Femur, illustrated by Casts and Photographs.
FREER, E. L., M.R.C.S. The Treatment of Scoliosis.
JONES, Robert, F.R.C.S.Ed. Note on Short Leg in Hip Disease.
KINGDON, E. C., M.B. A Rare Fatal Disease of Infancy with Symmetrical Changes at the Maculæ Luteæ.
REEVES, H. A., F.R.C.S.Ed. (1) Nasal and Respiratory Spinal Curvatures; (2) A New and Effective Club-foot Shoe.

I. PHARMACOLOGY AND THERAPEUTICS.—*President:* JOSEPH ORPE BROOKHOUSE, M.D. *Vice-Presidents:* CHARLES AUGUSTUS GREAVES, M.B.; SIDNEY HARRIS COX MARTIN, M.D. *Honorary Secretaries:* CHARLES HENRY CATTLE, M.D., 2, East Circus Street, Nottingham; THOMAS JESSOPP BOKENHAM, L.R.C.P., 9, Upper Wimpole Street, W.

The two following subjects have been selected for special discussion: 1 (on Wednesday, July 27th), Cardiac Tonics and the Indications for their Use. To be opened by W. H. Broadbent, M.D., F.R.C.P. T. Lauder Brunton, M.D., F.R.S., J. Mitchell Bruce, M.D., F.R.C.P., Professor Oliver, M.D., F.R.C.P., H. Handford, M.D., M.R.C.P., M. C. Collins, M.D., M.R.C.P., Clifford Allbutt, M.D., F.R.C.P., F.R.S., I. Burney Yeo, M.D., F.R.C.P., J. A. Lindsay, M.D., and others will take part in the discussion. 2. (on Thursday, July 28th), Dyspnœa and its Treatment by Drugs. To be opened by Professor Gairdner, M.D., F.R.C.P., Professor Leech, M.D., F.R.C.P., M. C. Collins, M.D., F.R.C.P., H. Handford, M.D., M.R.C.P., Clifford Allbutt, M.D., F.R.C.P., F.R.S., I. Burney Yeo, M.D., F.R.C.P., and others will take part in the discussion.

It has also been arranged to hold a short discussion on the Bearing of Recent Physiological and Chemical Research on the Question of Anæsthesia. Dudley Buxton, M.D., M.R.C.P., will read a paper introducing this subject. The following gentlemen will take part in the discussion, Norman Kerr, M.D., Lawrence Turnbull, M.B., Frederic Hewitt, M.D., R. N. Hartley, M.B., and E. H. Jacob (Leeds).

The President of the Section will give an Introductory Address on Some Points in Pharmacology and Modern Therapeutics.

Professor Liebreich, Berlin, has deputed Dr. A. P. Chadbourne to make a communication on his behalf, the outcome of researches in his laboratory.

The following papers are announced:
CHADBOURNE, A. P., M.D. (Berlin). On the Local Anæsthetic Properties of a new Coca Base.
EBSTEIN, Professor (Göttingen). Some Remarks on the Dietetic Treatment of Diabetes Mellitus.
HANDFORD, H., M.D. The Treatment of the Hæmatemesis of Anæmic Young Women.
HARRISON, A. J., M.B. On the Cure of Lupus by Local Treatment (with Illustrative Cases).
JONES, H. Lewis, M.D. On the Therapeutic Effects of the Rapidly Changing Currents of Induction Machines and on Methods of Measuring such Currents.
KERR, Norman, M.D. The Treatment of Delirium Tremens.
RUMBOLL, Sydney, L.R.C.P., F.R.C.S. Anæsthetics, with Special Reference to the Use of Nitrous Oxide in Minor Surgery.
SAVILL, T., M.D. The Treatment of Epidemic Dermatitis and Eczema by Creolin and other Remedies.

J. LARYNGOLOGY.—*President:* RICHARD ATKINSON HAYES, M.D. *Vice-Presidents:* DONALD STEWART, M.D.; T. MARK HOVELL, F.R.C.S.Ed. *Honorary Secretaries:* JOHN MACINTYRE, M.B., 179, Bath Street, Glasgow; DONALD ROSE PATERSON, M.D., 18, Windsor Place, Cardiff.

The three following subjects have been selected for special discussion: 1. The Etiology, Pathology, and Treatment, of Nasal Neuroses, to be introduced by Donald Stewart, M.D., and Adolf Bronner, M.D. 2. Catarrh of the Nose and Throat, its Etiology, Pathology, and Treatment, to be introduced by J. Macintyre, M.B., and Edward Woakes, M.D. 3. Granular Pharyngitis, its Etiology and Treatment, to be introduced by T. Mark Hovell, F.R.C.S.Ed., and Lennox Browne, F.R.C.S.Ed. The following gentlemen will take part in the discussions: Messrs. R. Ellis, F.R.C.S., Mayo Collier, P. Watson Williams, H. B. Hewetson, N. Macnaughton Jones, Scanes Spicer, Thomas Barr, Charles Warden, Professor von Schroetter (Vienna), James Erskine, Edward Woakes, Wm. Hill, and C. R. Walker.

The following papers are announced:
BARR, Thomas, M.D. The Importance of Guarding against Injury to the Middle Ear when Treating the Nasal Passages and Nasopharynx.
BRONNER, Adolf, M.D. On the Use of Trichloracetic Acid in the Treatment of Ozæna.
BROWNE, Lennox, F.R.C.S.Ed. Faults in Voice Production which lead to Throat Disease.
COLLIER, Mayo, F.R.C.S. The Causation of Deflections and other Irregularities of the Nasal Septum.
ELLIS, Richard, F.R.C.S.Ed. Note on a Frequent Cause of Irritation of the Throat in School Teachers.
HEWETSON, H. B., M.D. 1. Aural Complications in a Case of so-called Russian Influenza; 2. Further Experience in the Treatment of Deafness, the Result of Nasal Stenosis, by Dilatation with the Glove Stretcher.
HILL, Wm., M.D. Rhinalgia.
HUNT, John M., M.B. Throat Affections peculiar to Voice Users.
MACINTYRE, John, M.B. Etiology, Demonstration on, in Affections of the Nose and Throat.
REEVES, H. A., F.R.C.S. Nasal and Respiratory Spinal Curvatures.
ROBERTSON, Wm., M.D. On the Treatment of Ozæna and Recurrent Nasal Polypi by Opening and Draining the Antrum of Highmore, with Illustrative cases.
SANDFORD, Arthur, M.D. The Importance of a Systematic Course of Physical Voice Training at School or College, especially with regard to its Influence on prevalent Throat Troubles in Public Speakers and others.
SCHROETTER, Professor (Vienna). Nervous Affections of the Throat.
SPICER, Scanes, M.D. Some Points in the Diagnosis and Treatment of Chronic Suppuration of the Antrum of Highmore, illustrated by Cases.
WILLIAMS, P. Watson, M.D. The Dyspeptic Sore Throat.

PROGRAMME OF PROCEEDINGS.

TUESDAY, JULY 26TH, 1892.

9.30 A.M.—Meeting of 1891-92 Council in the Grand Jury Room, Guildhall.

11.30 A.M.—First General Meeting in the Mechanics' Hall. Report of Council. Reports of Committees: and other business.
4.0 P.M.—Service at St. Mary's Church. Sermon by the Bishop of Southwell.
8.30 P.M.—Adjourned General Meeting, in the Mechanics' Hall, from 11.30 A.M. President's Address.

Wednesday, July 27th, 1892.
9.30 A.M.—Meeting of 1892-93 Council in the Grand Jury Room, Guildhall.
10 A.M. to 1.30 P.M.—Sectional Meetings in University College. Public Health Section in the Mechanics' Lecture Hall.
2.30 P.M.—Second General Meeting in the Mechanics' Hall. Address in Medicine by James Cuming, M.D.
4.0 P.M. to 6 P.M.—Garden Party in the Arboretum given by the President of the Association and the Local Executive Committee.
8.30 P.M.—*Conversazione* at the Castle, given by the Worshipful Mayor, R. Fitzhugh, Esq., J.P.

Thursday, July 28th, 1892.
9.30 A.M.—Meeting of the Council in the Grand Jury Room, Guildhall.
10 A.M. to 1.30 P.M.—Sectional Meetings in University College. Public Health Section in the Mechanics' Lecture Hall.
2.30 P.M.—Third General Meeting in the Albert Hall Address in Surgery by W. H. Hingston, M.D.
4 to 6 P.M.—Garden Party.
7 P.M.—Public Dinner of the Association, Large Hall, Mechanics' Institute.

Friday, July 29th, 1892.
10.30 A.M. to 1.30 P.M.—Sectional Meetings in University College. Public Health Section in the Mechanics' Lecture Hall.
2.30 P.M.—Concluding General Meeting in the Mechanics' Hall. Address in Bacteriology by German Sims Woodhead, M.D.
4 to 6 P.M.—Garden Party.
8.30 P.M.—*Conversazione* in the University College, given by the President of the Association and the Midland Branch.

Saturday, July 30th, 1892.
Excursions.

Excursions.

1. To Belvoir Castle, where the members will be entertained to lunch by His Grace the Duke of Rutland, returning by Harlaxton Manor, where they will be entertained to tea by Mrs. Sherwin-Gregory. This excursion is limited to 120 tickets.

2. To Sherwood Forest and the Dukeries, where they will be entertained to lunch by His Grace the Duke of Portland, at Welbeck Abbey. This excursion is limited to 120 tickets.

3. To Haddon Hall and Chatsworth, where the members will be entertained to lunch by His Grace the Duke of Devonshire, returning by Scarcliffe, where they will be entertained to tea by Lady Whitworth. This excursion is limited to 120 tickets.

4. To Lincoln, where the members will be entertained to lunch by the President, Viscount Oxenbridge, and the Governors of The Lawn (Lunatic Hospital) in the grounds, and afterwards to tea by the Right Worshipful the Mayor of Lincoln in the Castle grounds. This excursion is limited to 60 tickets.

Tickets for these excursions will not be issued before the date of the meeting, but will be obtainable on the opening of the Reception Room at 4 p.m. on Monday, July 25th, and following days.

In addition to the above, an afternoon excursion, limited to 150 gentlemen and 50 ladies, will be made to Buxton on Friday, July 29th, returning to Nottingham in time for the *conversazione*. Through the kindness of the Duke of Devonshire, this visit will be made free of cost to those members who are desirous of inspecting "The Queen of Inland Watering Places." Application for tickets for this excursion only may be made any time after Saturday, July 9th, to Mr. Henry Williams, Honorary Secretary Excursion Committee, 19, Regent Street, Nottingham.

The Annual Museum.

In connection with the sixtieth annual meeting of the British Medical Association, the Museum and Exhibition will be held in the Technical Schools, University College, Nottingham. The Museum will be arranged in the following Sections:—

Section A.—Food and Drugs, including Antiseptic Dressings and other Chemical and Pharmaceutical Preparations. (Honorary Secretary, Mr. T. Davies Pryce, 39, Peachy Terrace, Nottingham.)

Section B.—Pathology, comprising Casts, Models, and Diagrams, Microscopes and other Apparatus, Microscopical and Spirit Preparations, etc. (Honorary Secretary, Dr. W. B. Ransom, The Pavement, Nottingham.)

Section C.—Anatomy and Physiology, comprising Special Dissections, Methods of Preparation, Drawings, Models, and Microscopical Preparations. (Honorary Secretary, Dr. W. Stafford, Mansfield Road, Nottingham.)

Section D.—Instruments and Books, including Appliances, Medical, Surgical, and Electrical. (Honorary Secretary, Dr. F. R. Mutch, 21, Goldsmith Street, Nottingham.)

Section E.—Sanitary and Ambulance Appliances. (Honorary Secretary, Dr. P. Boobbyer, Guildhall, Nottingham.) See notice at end of Regulations.

Regulations.

1. Intending exhibitors must apply before June 30th to the Honorary Secretary of each Section in which they propose to exhibit, to whom they must also forward a brief description of each exhibit for insertion in the Museum Catalogue.

2. The charge to exhibitors (other than members of the medical profession) will be 2s. per square foot of table space in Sections A, B, C, D.

3. All exhibits should be addressed to the "Secretary of the Museum, British Medical Association, University College, Nottingham," with the name of the Section for which they are intended. Packages should not be addressed to a firm's representatives at the Museum.

4. Communications on general matters connected with the Museum should be addressed to the Honorary Secretary of the Museum, Dr. W. A. Carline, Lincoln.

5. All communications respecting advertisements in the Museum Catalogue must be made to Dr. C. H. Cattle, 2, East Circus Street, Nottingham.

In connection with the Sanitary Section there will be an Exhibition on a somewhat extensive scale of sanitary material and appliances. The Exhibition, which will be open for at least two months, will be held in a special building erected by the Corporation. It has a President and an Organising Committee of prominent sanitarians, and two Honorary Secretaries, Drs. B. A. Whitelegge and Philip Boobbyer; all inquiries should be addressed to the latter.

NOTICE OF MOTION.

Surgeon-Lieutenant-Colonel Ince hereby gives notice that he will move:

That the acceptance of any remuneration by the members of Council or any of the Committees for attendance is alien alike to the spirit and to the dignity of this our fraternal and professional Association and should, therefore, be discontinued.

Francis Fowke, *General Secretary.*

June 28th, 1892.

SPECIAL CORRESPONDENCE.

BERLIN.

German Aerztetag.—The Helmholtz Medal.

The Deutsche Aertzetag, a congress of delegates from German medical societies for the discussion of questions affecting the profession in points of medical etiquette, etc., has just held its twentieth meeting in Leipzig. One hundred and five delegates were present, representing 10,600 voices. The first important discussion was on the subject of the position of the profession with regard to Berüfsgenossenschaften (trades unions). A special committee had worked out a plan, the seven paragraphs of which go into every detail and take into account all eventualities. The plan was accepted, with trifling alterations, and in conclusion the Congress expressed its opinion that a physician should have a seat and a vote in each committee of a trades union as well as in the Government department for insurance (Reichsversicherungsamt). The position of the medical profession to the State insurance for the aged and invalided was also discussed, and a course of action agreed to. A lively discussion took place on the question of specialists, which is an extremely delicate one. There is no doubt that abuses have crept into the profession by the multication of so-called specialists, but these abuses are very difficult to combat. A proposal that all doctors calling themselves

specialists should be excluded from general practice, was negatived by the assembly. It is hoped that the forthcoming State regulations for the medical profession (Aerzte-ordnung) will deal with the subject exhaustively and authoritatively. Dr. Martin (Berlin) read a paper entitled "Dissuasion from the Study of Medicine." He said that six years ago an authoritative voice had publicly warned the German youth against entering the medical profession in too great numbers. But what was the consequence? The numbers had increased. In the year 1885-86 5,781 medical students were entered at German universities, in the year 1891-92 the number was 8,902; in 1885 the percentage of doctors to the population was 3.4 in 10,000, whilst in 1890 it was 3.67 in 10,000. There were at present 1,747 doctors of medicine in Berlin, and of these 855 had an income under 3,000 marks (£150). Dr. Martin touched on the probability of the opening of the universities to women students, which would be the forerunner of still fiercer competition in the medical profession, and ended by recommending that each year at the time of the matriculation examinations intending students should be warned against entering the medical profession unless impelled by decided talent. The meeting, however, refused to take this course and recorded its opinion in the following words: "The meeting of German doctors, recognising the difficult position of the medical profession, is of opinion that the increase of medical men is out of proportion to that of the population." Among points of medical ethics settled was the following, which is very characteristic of Germany: Several life insurance societies having introduced so-called popular insurances, for which they pay a fee of 2 marks (2s.) for the medical examination and certificate, the meeting of German doctors expresses the hope and firm expectation that no medical man will accept such a fee.

The first four recipients of the Helmholtz medal have been chosen, at the suggestion of Professor von Helmholtz himself. They are Du Bois-Reymond, Weierstrass, Bunsen, and Lord Kelvin.

MANCHESTER.

New Sites for Hospitals.—Victoria University Degree Day.—Appointment of Professor of Medical Jurisprudence.

THE infirmary question in Manchester does not seem to have reached anything like finality. The Council of Owens College have offered a site for a hospital on their Stanley Grove Estate, to the Board of Management of the Royal Infirmary. The Board of Management of the infirmary, in reply, say that they see no prospect of being able to make application for land on Stanley Grove Estate. Meanwhile on the same estate land has been granted by the College to the Committee of the Cancer Hospital, and they are in communication with the authorities of the Skin Hospital, and also with the Southern Hospital for sites for these hospitals.

On July 2nd, being "degree-day," the Vice-Chancellor of Victoria University conferred degrees on those entitled to receive them, and in his speech he spoke of the great increase in the number of extension lecture courses given under the auspices of the University, and also of the great loss sustained by the University owing to the deaths of Professor James Ross and Professor Schorlemmer, and by the retirement of Professor Morgan.

Dr. J. Dixon Mann, lecturer on medical jurisprudence in Owens College, has been elected by the Council of the College—subject to the approval of the Court—professor of this subject. This appointment has much satisfaction to the medical men in and around Manchester.

SHEFFIELD.

Illegitimate Infants.—Alcohol in the Workhouse.—Epidemic Small-pox.—Beckett Hospital, Barnsley.

AN inquest recently held at Rotherham, on the body of an illegitimate infant, affords an example of the kind of treatment which the Society for the Prevention of Cruelty to Children is doing such good work in checking. It was, however, unfortunate that in this case the medical man who had seen the child during life, and given a certificate as to the cause of death, was neither summoned to the inquest nor to the *post-mortem* examination. The two practitioners who were at the *post-mortem* examination gave t as their opinion that death had resulted from inanition merely; whereas the one who had seen the child during life, and who came to the inquest, having heard privately that one was to be held, adhered to the correctness of his certificate that congenital syphilis was the cause. The jury were of opinion that death resulted from inanition, but the evidence did not show the cause of it. It was clearly the duty of those responsible for this inquiry being held to have seen that the medical man who had given a certificate should have at least had an opportunity of being present at the *post-mortem* examination.

The guardians of the Sheffield Union have decided to ask the medical officers to restrict the use of alcohol as much as possible, and at the same time an inquiry is to be made into the whole matter. The subject was brought up in consequence of the quarter's account having increased over the previous one by £56. Beyond this no evidence was adduced as to the quantity of stimulants ordered being excessive.

At Denaby, a colliery district, small-pox has for some time been rife. An isolation house has been opened, and the cases have been removed to it as they have arisen. In this way a check, it is hoped, has been put on the progress of the epidemic. There are nine cases in the house, and four have been discharged.

At the annual meeting of the Beckett Hospital at Barnsley, it was stated of the 361 in-patients admitted during the year 301 were surgical cases, 88 of these being colliery accidents. The great value of Hospital Sunday to such an institution as this is shown by a statement in the report that but for the sum contributed by the Hospital Saturday and Sunday Fund Committee, namely £1,200, the deficit on the year's working would have been more than £800.

NEWCASTLE-ON-TYNE.

Proposed New Infirmary.

A PUBLIC meeting convened by the Mayor was held on June 29th, to consider the question of a new infirmary, and especially to consider the desirability of perpetuating the memory of the late Rev. Dr. Bruce, by building a pavilion, to be called the Bruce pavilion, as a commencement of the scheme. The meeting was well attended. The Mayor, in opening the meeting, said he had just left the infirmary, having visited it that morning in order that he might see the condition of the institution. He found that everything had been sacrificed for the patients' accommodation. He understood that for many reasons it was desirable that the proposed new hospital should be built on the site of the present building. Alderman Stephens, the present chairman of the infirmary, moved the first resolution: "That the time has arrived when the new infirmary should be erected." In the course of his address he said the present institution did not meet the desires of the staff and House Committee; they wanted £5,000 or £6,000 to begin with to perpetuate Dr. Bruce's memory, and they would take as many similar amounts as they could get to complete the whole scheme. Dr. Philipson seconded the motion, and said it was clear a new infirmary was wanted when they reflected that the present building was 150 years old, and that there had been many additions to and alterations in the building. If the present building was kept, Newcastle would be sadly behind other large towns in such matters. The results gained in the present institution would bear favourable comparison with other hospitals, but that with a more modern institution they would probably be more satisfactory. He advocated strongly the present site as the best position for the new building. Dr. W. H. Newton opposed the scheme. He said they might discuss the question as to whether the extension of the present infirmary under existing circumstances was desirable, and he advocated the founding of a convalescent home on the west coast for patients suffering from pulmonary diseases. Dr. Newton took objection to the fact that the present staff received payment for their services, and were not an honorary staff. He suggested that the whole of the students' fees should be handed over to the committee. The Mayor ruled Dr. Newton's motion out of order, and after some discussion and remarks from Dr. Arnison, it was unanimously agreed to commence the scheme of the new infirmary by building a pavilion to be called the Bruce Pavilion, and a large and influential committee was formed.

CORRESPONDENCE.

CHIMNEY-SWEEPS' CANCER.

SIR,—Considering the great importance of the issues involved in determining the etiology of chimney-sweeps' cancer, the following observations may help in this direction.

We are indebted to the colossal machine over which the Registrar-General so ably presides for much valuable information; but in matters of detail, such as the one now under consideration, its results should only be accepted with the greatest reserve. The report in question (Sup. to 45th, 1885) lacks the requisite data for estimating the relative frequency of epithelioma of the scrotum. It simply shows that during the year to which it refers the mortality of chimney-sweeps from cancer was exceedingly high. Of 242 deaths, 49 are ascribed to this cause; and in 23 of these, the disease is said to have been situated in the scrotum, penis, testis, and groin. Since the numbers are not further particularised, any estimate of the relative frequency of epithelioma scroti based on this report must be mere conjecture.

Having made special study of the local distribution of cancers, I can only say that on comparing the results I have arrived at,[1] with the alleged distribution of the disease in chimney-sweeps, the Registrar-General's results are so completely discordant in every respect, that I much prefer for the present to regard them as due to error dependent upon defective returns, of which the Registrar-General has so often complained, rather than to accept them as demonstrated facts.

The cogency of these remarks will be more obvious if I place side by side the local distribution of the disease in chimney-sweeps and in males in general. Thus:—

IN MALES. Based on my 2,669 Cases.	Per Cent.
Tongue and mouth	26.3
Skin	14.3
Lip	12.2
Stomach	8.3
Rectum	7.5
External genitalia (scrotum 2.6)	6.8
Œsophagus	5.3
Liver	4.4
Intestines	1.9
All other localities	13.0
	100.0

IN CHIMNEY-SWEEPS. Based on Registrar-General's Report.	Per Cent.
Scrotum, penis, testis, and groin	47.0
Stomach and liver	14.3
Lip, orbit, palate, and neck	8.1
Face	4.1
All other localities	26.5
	100.0

In his able, original, and instructive lecture, it appears to me that Mr. Butlin has laid undue stress on the Registrar-General's estimate, and has thus been led to overlook the significance of the Middlesex Hospital statistics. So far as these go, they show in the clearest and most unmistakable manner great diminution in the relative frequency of chimney-sweeps' cancer of late. Thus, of 1,893 primary cancers of all parts (males 515, females 1,378), consecutively under treatment during the twelve years 1881 to 70, there were 12 examples of this disease, that is, 2.3 per cent. of the male cancer patients were thus affected; whereas of 1,404 cancer patients (males 459, females 945) under treatment during the eight years 1882 to 1889, but 4 instances of chimney-sweeps' cancer were met with, that is, only 0.87 of all the male cancer patients were thus affected. That this diminution in the relative frequency of chimney-sweep's cancer has not been confined to the Middlesex Hospital is shown by the following facts.

Of 5,406 cases of primary cancer (males 1,910, females 3,496) under treatment at St. Bartholomew's (1883-73), St. Thomas's (1883-74), Middlesex (1883-67), and University College (1882-71), 61 cases of epithelioma scroti occurred, that is, 3.19 per cent. of all the male cancer patients were thus affected. On the other hand, of 1891 cases of primary cancer (males 7,591, females 1,132) subsequently under treatment at the same hospitals, only 15 cases of scrotal epithelioma were met with, that is, 1.97 per cent. of all the male cancer patients were thus affected.

Curiously enough, since the Registrar-General's report, calling attention to the increasing frequency of cancer in chimney-sweeps, was issued, there has appeared another report—undertaken with a different object—which shows the exact contrary, namely, marked diminution in the frequency of the disease in the parts usually affected in chimney-sweeps.

I refer to the Report for 1889, which contains an analysis of the localisations of cancer in each ten for the years 1868 and 1888, with the view of determining the relative increase or decrease of the disease in the various organs during that period. This shows that the male mortality from cancer of the penis, testes, and scrotum has diminished from 20 per 1,000 in 1868 to 16 per 1,000 in 1888. I can only say that all the facts known to me are in conformity with this result.

There is yet another aspect of the subject worthy a brief note. On making an analysis of 7,297 primary cancers of all parts in both sexes, consecutively under treatment at St. Bartholomew's, St. Thomas's, Middlesex, and University College Hospitals during the fifteen to twenty years preceding 1888, I have ascertained that in 340 the external genitalia were affected, exclusive of the testes and ovaries; 4,628 of these were females, of whom, in 158 (3.4 per cent.) the disease arose in the external genitalia—vulva, 117, vagina, 40, clitoris, 7, symphysis pubis, 1; 2,669 were males, in 182 of whom (6.8 per cent.) the disease began in the external genitalia, penis 106, scrotum 76. Thus of these 2,669 male cancer patients, 76 had cancer of the scrotum, or 2.6 per cent.

Among other things, the foregoing analysis plainly shows that the parts of the female external genitalia homologous to the scrotum are even more prone to epithelioma than that part itself; and I have convinced myself by repeated microscopical and macroscopical examinations of the lesions in the two cases that their general features are identical. I have several times met with the so-called "soot wart" (of chimney-sweeps' cancer) on the labia majora in women who have never had anything whatever to do with soot; and I have met with a similar instance of it on the scrotum of a ploughman, who had never been contaminated with soot.[2]

Considerations of this kind, which indicate a certain inherent tendency of the part to cancer, would have led me to deny altogether the influence of soot in the causation of this disease, but for the indisputable fact that the immense majority of cases are met with in chimney-sweeps. It is, however, in this country, a mere disease.

Rayer says that an analogous disease, mainly affecting the scrotum, has been met with in miners who work in arsenic; and according to Hutchinson, arsenic is a famous cancer cause, and many have thought it a cancer cure.—I am, etc.,

Preston. W. ROGER WILLIAMS, F.R.C.S.ENG.

[1] "Initial Seats of Neoplasms and their Relative Frequency," *Annals of Surgery*, October, 1891.

BERI-BERI.

SIR,—It has been suggested that the term beri-beri is derived from the Japanese piri piri, meaning numbness, but it also may be connected with the reduplicated Chinese pe, as used in the phrase "hang tak pe-pe," to walk staggeringly. We may consider that the disease regarded as anchylostomiasis by Kynsey, Rudduch, and Giles is now accurately defined, and it is to be regretted that the epithet beri-beri was ever applied to it. Kala azar appears to be the native name.

But beri-beri is not a misleading name applied to the disease described by Pekelharing, Leslie, and Simon, although there are two forms of it, markedly different yet always associated. The one is wet beri-beri, usually an acute disease characterised by œdema and other symptoms connected with the vascular system, along with some perverted innovation. The other is chronic, frequently follows wet beri-beri, and being accompanied by washing, dry harsh skin, etc., is called dry beri-beri. The existence of peripheral neuritis in the latter form is well established, Scheube's paper on Kakké, in the *Deutsche Archiv für klinische Medicin*, 1882, being, I believe the first one in which this point is definitely taken up.

But Scheube, as well as Wernich (1887), Simmons, Weintraub, etc., recognise the œdema of the more acute disease in which the blood change is more prominent. Wernich calls attention to the optical blood changes, and Le Roy de Méricourt, in the *Dict. des Sciences Méd.*, demonstrates an excessive acidity of the blood.

[2] Middlesex Hospital Surgical Report for 1888, with other cases, p. 167.

If Pekelharing lays more weight on the neuritis and Leslie on the œdema, the connection between the two forms of the disease is not invalidated. In a paper recently published in the *Practitioner*, I have suggested that wet beri-beri is caused by a muscarin-like poison associated with an acid condition of the blood, while dry beri-beri is a neuritis proceeding from the more chronic action of a similar blood change and beginning with symptoms like those produced by artificial muscarin.—I am, etc.,

Watford. W. DUNCAN SCOTT, M.D.

THE MEDICAL DEFENCE UNION.

SIR,—As there appears to exist some misunderstanding as to the position and progress of the Medical Defence Union Limited, will you allow us to give the following particulars, which will enable the profession to properly judge as to the stability of the company, its capacity for doing the work of medical defence, and for meeting the wants of its members.

Number of Members.

1888.	1889.	1890.	1891.	1892, to June.
442	834	1,446	1,828	2,366

Amount of Guarantee Fund.

1888.	1889.	1890.	1891.	1892, to June.
£538	£1,249	£2,173	£2,826	£3,489

The Executive Council of the Union is composed of an equal number of London and provincial members, and the meetings are generally held alternatively in London and Birmingham. Members of the Union are drawn from the metropolis in large numbers, as well as from all parts of the United Kingdom.

One of the secretaries resides in London, one in the Midlands, and in this way cases of emergency can be dealt with with the utmost promptitude and despatch, and personal advice given to members resident in London when required.—We are, etc.,

LESLIE PHILLIPS, M.D.,
A. G. BATEMAN, M.B.,
Honorary Secretaries, Medical Defence Union Limited.

BRANCH MEETINGS AND GENERAL PRACTITIONERS.

SIR,—It is satisfactory to find that the general practitioners are at last amalgamating and making some efforts for the redress of the many grievances from which they suffer. I cordially wish the General Practitioners' Alliance success. It is needed, for at too many of the local meetings of the British Medical Association the major portion of the time is taken up by some specialist from a distance, who finds this a cheap means of self-advertisement. With all respect to consultants and specialists, I think the time has come when the all-round work of the general practitioner should receive more general appreciation and recognition. He it is who has to bear the heat and burden of the day; to be ready with his services to rich and poor alike; to be prepared at a moment's notice to undertake cases of every description—from abscess to anæmia; from baldness to bronchitis; from colic to cirrhosis; from delirium tremens to dropsy; from epilepsy to epithelioma; from febricula to fistula; from gangrene to gout; from hæmorrhoids to hernia; from inflammation to insanity; from knock-knees to kleptomania; from leucorrhœa to lock-jaw; from measles to *mal-de-mer*; from nephritis to nævus; from from pimples to paralysis; from rickets to rheumatism; from sick headache to syphilis; from toothache to tuberculosis—for each and every bodily ailment he is expected to give advice and prescribe remedies; and his usual reward is the hardly-veiled sneer of the consultant and the patronising condecension of the patient. To ameliorate the condition and gain the respect due to the general practitioner is an object for which we should organise, and for which we should work with unanimity.—I am, etc.,

Towyn. F. H. V. GROSHOLZ, M.R.C.P.I.

*** If this be so the remedy is obviously in the hands of the general practitioners who think with our correspondent, for they constitute the overwhelming majority of the councils and officers of Branches; and the notices of meeting we observe, generally include invitations to the members of the Branch to bring forward for discussion any subjects of interest.

PARLIAMENT AND IRISH DISPENSARY DOCTORS.

SIR,—We are directed by the Executive of the Irish Poor Law Medical Officers' Parliamentary Representation Committee to thank you for the continuous advocacy which the BRITISH MEDICAL JOURNAL has given to our cause. Lest any misapprehension occur to readers of the paragraph, "Parliament and Dispensary Doctors," in the last issue of the JOURNAL, we wish to inform the profession generally that we are a perfectly distinct and independent body, working harmoniously with every organisation having for its object the redress of our grievances.—We are, etc.,

J. KNOX DENHAM, L.R.C.P.I. and L.R.C.S.I.,
THOMAS DONNELLY, M.D., F.R.C.S.I.,
Honorary Secretaries, I.P.L.M.O.P.R.C.

SIR,—Knowing the interest you take in the present agitation of Poor-law medical officers, I enclose reply received from the Hon. Robert O'Neill, M.P. for Mid Antrim in the late Parliament, and who will probably be returned again unopposed.

Though not directly connected with those agitating for reform, I brought the matter to his notice by letter, and received inclosed reply. If those agitating would only take the trouble to bring their grievances under the notice of candidates during the present contest, the carrying out of required reforms would only be a matter of time.—I am, etc.,

W. R. DAVISON,
Medical Officer, Union Infirmary and Fever Hospital, Ballymena, co. Antrim.

Galgorm, July 5th, 1892.

DEAR MR. DAVISON,—It appears to me fair that the Poor-law medical officers should be placed in the same position as regards superannuation as other Government officials, and I think you have given good reasons for the change.—Truly yours, ROBT. T. O'NEILL.

W. Davison, Esq.

TO MEDICAL OFFICERS OF FRIENDLY SOCIETIES.

SIR,—I will feel greatly obliged if you would insert the following names as favourable to our move *re* friendly societies, and trust it will be the means of inducing many others who hold similar appointments, and who have failed to reply to the circular to do so. There will be a meeting at Nottingham, and members wishing to join should send their names to me.—I am, etc., E. WHITWELL, L.R.C.P., L.F.P.S.G.

5, Unity Square, Lincoln.

Messrs. E. Whitwell, J. H. Rodgers, R. Roberts, and J. Pearson, Lincoln; Messrs. J. Breman and Gardner Robinson, Poole; T. Connan, Tunbridge Wells; Syd. Firth, Grantham; E. P. Watkins, Nottingham; Dr. Lynch, Walsall; J. H. Kisby, Warrington; W. Gibson, Kidderminster; T. Nixon, Reading; J. Sarjant, Leamington; R. Roberts, Lowestoft; J. Francis, Luton; Dr. Bryson, York; G. Fisher, Guildford, Surrey; Stanley Barstow, Exeter; J. Dixon, Bournemouth; Percy Mander, Banbury; W. Hodges, Gloucester; Dr. Blenkarne, Leicester; C. Hogarth, Ashford, Kent; Granger Browne, Goole; J. Grant, Wolverhampton; J. Cameron, Hartlepool; G. McKane, Leeds; W. Kennedy, Northampton.

SEA SICKNESS.

SIR,—I may be excused for giving a little personal experience which may go to elucidate the causation of sea sickness. I used to be a bad sailor, but last year I was in a small boat in a rough sea, and was surprised to find that I had no feeling of sickness at all. Later in the year I went round the Isle of Wight at the annual meeting in a steamer in a high wind, which caused a rough sea round St. Catharine's Point, again without nausea. I attribute this chiefly to having become accustomed to bicycle riding, which subjects one to a good deal of up-and-down motion, rapid movements downhill, and rapid change of visual objects. Last year I also went for the first time on a switchback railway. On the first journey I involuntarily held my breath during the descents, with the result that a sensation of great nausea was produced in the first journey. Dreading the return, which I should have shirked if possible, I resolved to let myself go, as it were; I did not hold my breath, and the result was that the nausea was entirely absent.—I am, etc.,

Enfield. J. J. RIDGE, M.D., B.A.Lond.

INJUDICIOUS FRIENDS IN THE PRESS.

SIR,—My attention has been drawn to the BRITISH MEDICAL JOURNAL of June 18th, in which you notice a successful case of Porro's operation performed by me and its description in the local papers here. I was not at home when my number

of the JOURNAL arrived, and I owe it to the kindness of a colleague that I saw the paragraph even at this date. No, Sir, the articles in the local papers to which you allude had not my sanction. I disapprove highly of medical matters being brought in any form into the public press; and as a matter of fact I declined to furnish the editors of the local papers with any information regarding the operation in question. I have brought your notice in the JOURNAL of June 18th before the editors of the *Galway Vindicator* and *Express*, and I enclose you their answers to me. If the individual who forwarded you the local papers had only inquired of the editors themselves he would have spared you, Sir, and myself the trouble of this correspondence.—I am, etc.,

Galway. NICHOLAS W. COLAHAN, M.D.

*** The enclosures are conclusive and satisfactory. Among the most active of the newspapers which interested themselves in this active propaganda of admiration of Dr. Colahan's operation was the *Tuam Herald*, which not only printed a detailed and encomiastic paragraph "congratulating Dr. Colahan on the success which has so far attended the remarkable operation" which it described, but forwarded a cutting to this office, with a request "if inserted, send copy to *Tuam Herald*, Dublin Office, 21, Great Charles Street." The unpleasant effect produced by such ill-conceived efforts cannot be too forcibly impressed on the minds of the friendly editors.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF: EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 5s. 6d., which should be forwarded in stamps or post-office orders with the notice. The first post on Thursday mornings is the latest by which advertisements can be received.

WANTED by a Surgeon-Captain, about seventh or eighth on the roster for foreign service, an exchange to remain at home. Liberal terms. Address to Surgeon-Captain R. J. L. Fayle, A.M.S., 6, Acre Place, Stoke, Devonport.

THE NAVY.

THE appointment of Principal Medical Officer at Melville Naval Hospital, Chatham, rendered vacant by the removal of Deputy-Inspector-General T. S. Burnett to Jamaica, has been conferred by the Admiralty on Deputy-Inspector-General BELGRAVE NINNIS, M.D.

The following appointments have been made at the Admiralty:—CHARLES E. GEOGHEGAN, Staff-Surgeon, to Ascension Hospital, July 1st; EDWARD B. KIDDLE, Staff-Surgeon, to the *Duke of Wellington*, July 1st.

ARMY MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL I. McD. O'FARRELL, F.R.C.S.I., is placed on retired pay, June 16th. His several commissions are thus dated: Assistant-Surgeon, October 1st, 1862; Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; and Brigade-Surgeon-Lieutenant-Colonel, August 24th, 1889, but ranking as Lieutenant-Colonel from October 1st, 1882. The Army Lists do not credit him with any war service.

The retirement on retired pay of Surgeon-Lieutenant-Colonel C. E. DWYER, which appeared in the *Gazette* of May 17th (*vide* BRITISH MEDICAL JOURNAL of May 21st) is cancelled.

Surgeon-Captain J. S. GREEN, M.B., serving in the Madras command, has leave of absence for six months on urgent private affairs.

Surgeon-Captain R. C. JOHNSTON, M.B., is placed on retired pay, July 6th. He was appointed Surgeon February 5th, 1881. He served in 1879 as Civil Surgeon in the Zulu war, and in the operations against the Chief Sekukuni, receiving the South African medal with clasp. He subsequently served in the Egyptian war of 1882 (medal, and Khedive's star), and with the Nile Expedition in 1884-85 when he had charge of the Debbeh Field Hospital (clasp).

INDIAN MEDICAL SERVICE.

SURGEON-LIEUTENANT-COLONEL J. H. NEWMAN, M.D., Bengal Establishment, civil surgeon of Ajmere and medical officer of the Merwara Battalion, is appointed Residency Surgeon and Chief Medical Officer in Rajpootana.

Surgeon-Major R. R. H. WHITWELL, Bengal Establishment, officiating civil surgeon of Monghyr, is appointed to officiate as civil surgeon of Mozufferpore during the absence of Surgeon-Captain F. S. Peck.

Surgeon-Major J. A. NELIS, Bengal Establishment, assumed charge of the civil medical duties of Hazara District on May 12th.

Surgeon-Captain R. BIRD, M.D., Bengal Establishment, officiating medical officer 42nd Goorkha Rifles, is appointed to the charge of the civil medical duties of Naga Hills District, in addition to his military duties.

Surgeon-Captain F. W. GEE, Bengal Establishment, has passed the examination in Pushtu by the higher standard.

The Secretary of State has sanctioned the grant of a good service pension to Surgeon-Colonel HILSON, M.D., Bengal Establishment, in succession to Colonel C. S. Maclean, who has attained to colonel's allowances.

The services of Surgeon-Captain W. G. THOROLD, Bengal Establishment, are placed at the disposal of the Government of the North-West Provinces and Oude, from May 31st.

The services of Surgeon-Captains W. VOST, M.D., and H. W. ELPHICK, Bengal Establishment, are placed temporarily at the disposal of the Government of the North-West Provinces and Oude.

The services of Surgeon-Captain E. HUDSON, Bengal Establishment, are placed temporarily at the disposal of the Chief Commissioner of Burmah.

The undermentioned officers have leave of absence as specified:—Surgeon-Captain F. S. PECK, Bengal Establishment, for nine months and fifteen days; Surgeon-Major D. P. WARLIKER, Madras Establishment, for six months in India and Australia, on private affairs; Surgeon-Captain W. H. QUICKE, Bombay Establishment, civil surgeon of Kaira, privilege leave for three months from July 15th.

Surgeon-Captain T. D. C. BARRY, Bombay Establishment, is appointed Professor of Chemistry and Medical Jurisprudence, Grant Medical College, and Professor of Chemistry, Elphinstone College, *vice* Brigade-Surgeon-Lieut.-Colonel I. B. Lyon, C.I.E., retired.

Surgeon-Lieut.-Colonel P. MURPHY, M.D., Bombay Establishment, received charge of the office of Deputy Sanitary Commissioner, Western Registration District, on June 3rd.

Surgeon-Lieut.-Colonel W. M'CONAGHY, M.D., Bombay Establishment, received charge of Dharwar District Gaol on May 27th.

It is announced that the administrative medical charge of the Peshawur District will, in lieu of the Quetta District, which has taken its place as a Surgeon-Colonel's charge, be held alternately by a Brigade-Lieut.-Colonel of the Army Medical Staff and the Indian Medical Service.

Deputy-Surgeon-General D. W. TREMNELL, late of the Madras Establishment, died at Southsea on July 2nd, aged 58. He was appointed Assistant-Surgeon, February 20th, 1856; became Brigade-Surgeon, August 16th, 1883; and retired August 1st, 1887, with the honorary rank of Deputy-Surgeon-General.

THE YEOMANRY AND VOLUNTEERS.

SURGEON-CAPTAIN W. J. NAISMITH, M.D., Ayrshire Yeomanry, is promoted to be Surgeon-Major, July 2nd.

The undermentioned Surgeon-Lieutenants are promoted to be Surgeon-Captains from July 2nd:—F. M. WALLIS and F. H. SHAW, 2nd Cinque Ports Artillery (Eastern Division Royal Artillery); S. S. HOYLAND, 1st Volunteer Battalion Suffolk Regiment (late the 1st Suffolk); W. H. LLOYD, 1st Volunteer Battalion Welsh Regiment (late the 1st Pembrokeshire).

Mr. JAMES CHARLES BRADSHAW is appointed Surgeon-Lieut. to the 1st Volunteer Battalion King's Liverpool Regiment (late the 1st Lancashire), July 2nd.

Surgeon-Lieut. A. D. VARDON, 2nd Volunteer Battalion King's Own Scottish Borderers (late the 1st Berwickshire), has resigned his commission, which was dated August 24th, 1889.

Surgeon-Captain W. G. STEVENS, 2nd Volunteer Battalion Argyll and Sutherland Highlanders (late the 2nd Renfrewshire), is promoted to be Surgeon-Major, July 2nd.

GLASGOW COMPANIES' VOLUNTEER MEDICAL STAFF CORPS.

THE second annual inspection of the Glasgow Companies of the Volunteer Medical Staff Corps was carried out on Friday of last week by Surgeon-Colonel Robinson, Principal Medical Officer of the N.B. District. The inspection took place in the West End Park, and, favoured by excellent weather, was witnessed by a large crowd of people, who seem very much interested in the work of the corps, which is quite a novelty in Glasgow. The ground was kept by a troop of carabiniers from Manzhill barracks. The parade state showed a total attendance of 144 of all ranks. The men were divided into two companies, No. 1, or the Medical Company, being under the command of Surgeon Lieutenant C. O. Hawthorne; and No. 2, or the Lay Company, under Surgeon Lieutenant M'Gregor Robertson, Surgeon-Lieutenant Geo. T. Beatson being the officer commanding. The other officers present were Surgeons-Lieutenant W. M. Somerville, A. Moyes, and Gibson-Graham, Quartermasters Reid and Kidston, and Instructors Cameron and Kenny. After the march past, Surgeon-Lieutenant M'Gregor Robertson was ordered to put his company through bearer company work, including the forming of a dressing and collecting station, and the bringing in of wounded by stretcher detachments to the collecting station, whence they were transferred to the dressing station by the ambulance waggon. Meanwhile the Medical Company was being put through stretcher drill by their officers. Subsequently the companies, headed by their fife and drum band, marched to their drill hall in Bath Street, where the arrangements there and the men's equipment were inspected. The inspecting officer expressed his entire satisfaction with the whole work of the companies. On July 30th eighty men of the corps, under Surgeon-Lieutenant Beatson and Surgeon-Lieutenant M'Gregor Robertson, leave for Aldershot for a week's training.

VOLUNTEER MEDICAL ASSOCIATION AMBULANCE CHALLENGE SHIELD.

THE annual competition for this shield will take place at Wellington Barracks on July 16th, at 5 o'clock. Those interested in the competition are invited to attend.

VOLUNTEER MEDICAL SERVICE.

P.—(1) Information as to the examination for proficiency for volunteer medical officers, beyond what can be obtained from the Volunteer Regulations, may be best obtained from the principal medical officer of the district. (2) The official head of the Volunteer Medical Service is the Director-General of the Army Medical Department.

THE OPERATIONS AGAINST THE JEBUS.

A DESPATCH has been published from Colonel F. C. Scott, commanding the Jebu Expeditionary Force. Colonel Scott details the difficulties attending the operations, and how successfully they were overcome. Of the medical officers accompanying him he says: "I would mention that the hospital arrangements made by Dr. Henderson, chief medical officer of the expedition, worked well, and he was ably assisted by Surgeon-Captain Crofts." He also says: "I am attaching a detailed report by the chief medical officer." This report, however, is not published.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

AN influential and well-attended meeting was held on Monday, June 20th, at Mr. Arthur Roper's, Colby, Lewisham Hill, S.E., for the purpose of establishing a division of the above Society for Lewisham, Woolwich, Greenwich, and the adjacent parts of the S.E. district. On the motion of Dr. Purvis, seconded by Dr. Stevenson, Dr. Arthur Roper was called to the chair; amongst others present were Drs. H. Burton, John Burroughs, R. Clarke, Sydney Davis, R. Fegan, Forsyth, C. H. Harte, George Heron, George B. Mead, J. Hammersley, Scott, Millar, Moones, Mercier, Moon, J. Maxwell, J. Poland, Purvis, Roberts, Morris, Stevenson, Stott, Wallis. Dr. Roper spoke briefly as to the necessity and utility of such a Society, and called upon Dr. Mead, who gave a detailed account of the foundation of the Society, and of the steps which had been taken to place it on a broad and representative basis and to secure to each member the fullest possible consideration of his case locally or, if he preferred it, by the central council or emergency committee, both of which were easily accessible. The legal council, consisting of men of very high standing, constituted a court of final appeal of the highest character and value. As to the funds, the council had ample means at their disposal, and were prepared at once to defend any member whose case was worthy of defence. Dr. J. Maxwell, Dr. Mercier, and Dr. Purvis spoke in favour of a Society having its central council in London, and pointed out that by means of district councils local cases could be undertaken and probably amiably settled. Dr. Mead, in reply to questions, instanced cases which had occurred in East Anglia, where members of the profession had been attacked, and where legal proceedings, owing to technicalities, would have been costly and doubtful in their results. In one case (Dr. Balding's) the judge from the bench endorsed the common sense and humanity of Dr. Balding's action, and in Dr. Fegan's case a complete withdrawal of all imputations on him was obtained. Dr. Heron pointed out that there was ample room for such a society in London. This was shown by the large numbers joining. It was the wish of the council to work amiably with any society seeking to benefit the profession. London was pre-eminently the place where any important case affecting the profession should be tried, and the difficulties of general practice would always find better and quicker solution there, seeing that the majority of the leaders of the profession resided in London. It was then resolved to form a division, and Dr. Arthur Roper was unanimously elected President, and Dr. Stott Secretary. About 20 new members joined.

QUEEN'S BENCH DIVISION.

(Before Mr. Justice HAWKINS.)

CARLILL *v.* THE CARBOLIC SMOKE BALL COMPANY.

THE defendants in this case were the proprietors of the Carbolic Smoke Ball, and in November last they advertised that they promised to pay £100 to any person who should contract influenza colds or any diseases caused by taking cold after having purchased their smoke ball, and used it in a prescribed way. The case for the plaintiff was that she had complied with these conditions, and yet had contracted that disease, and under these circumstances she claimed the reward which had been offered. The defendants in their pleadings traversed various allegations made by the plaintiff, and themselves alleged that there was no valid contract between them and the plaintiff; that there was no consideration for any promise to pay the £100, and that any such contract or agreement would be bad upon the ground of gaming and wagering. They further said that such a contract would be contrary to public policy. The case came on for trial before his lordship and a special jury some days ago; it was afterwards argued upon some questions of law before his lordship, and on July 4th judgment was given.—Mr. Justice HAWKINS said that the first question was whether there was a contract of any kind between these parties, and he was of opinion that there was a contract, and that the daily use of the smoke ball by the plaintiff was sufficient to support a promise by the defendants to pay the £100. Then the second question was whether this contract was wholly or partly in writing, so as to require that it should be stamped, and he was of opinion that it was not such a contract as required stamping. Then came the question whether it was a wagering contract within the meaning of the 8 and 9 Vict., cap. 109, and therefore void, and he thought that it was not. The further question was whether it was a contract of insurance within the meaning of the 14 Geo. III, cap. 48, and therefore void. He did not think that it was a contract of insurance within the meaning of the statute. He was of opinion that the provisions in the statute related only to policies of insurance, and did not apply to a contract like the present, which was not wholly in writing, but was created by a written proposal or offer, and completed by the performance by the plaintiff of certain conditions attached to the proposal. This being so the plaintiff was entitled to recover the £100, and therefore there would be a verdict and judgment for the plaintiff for £100 with costs. His lordship declined to order a stay of execution with a view to an appeal.

MEDICAL ETHICS IN BRANCH SURGERIES.

I., M.D., writes: A. is a town of 30,000 and B. one of 7,000 inhabitants. C., who practises in B, wishes to start a branch surgery in A., which is two miles from B. and connected by tramcar. His intention is to put a qualified man in residence for six months, and, in the event of reciprocal satisfaction, to take him into partnership. In the event of no partnership being entered into the assistant will be bound out from practice in A. This arrangement is considered by C.'s medical brethren in A. to be hardly in accordance with the ethics of the profession. They are perfectly willing to admit the legality of such a procedure, but they think that to be ethically right C. should start in A. himself and not "cover" a qualified man with his name. C. thinks that he is both legally and ethically right in his proposed scheme. Hence this letter and request for an opinion.

*** In response to Dr. I.'s specific question, we would remark that, although the procedure contemplated by C. would unquestionably be strictly legal, we, nevertheless, are in entire accord with the opinion held by his medical brethren in A. that such a course of action would be contrary to the true ethics of the profession, and, moreover, as we view it, morally wrong, inasmuch as it would contravene the principle of doing unto others as he would wish to be done by, and substitute therefor a purely selfish consideration.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

SECOND M.B. EXAMINATION.—The following have passed:

A. Adams, Exeter; A. Boyd, Christ Church; J. F. Broadbent, Hertford; H. R. Brown, Keble; J. Brungate, Christ Church; A. Butler-Harris, Trinity; A. Campbell, Hertford; E. Cartwright, Exeter; J. Earle, non-collegiate; R. Ellis, Magdalen; G. J. Maurice, Keble; M. Pembury, Christ Church; F. Woollacott, Queen's.

FIRST M.B. EXAMINATION.—The following have passed:

Anatomy and Physiology.—J. Buller, Corpus Christi; E. Collis, Keble; A. Cooke, New; R. Crawfurd, New; W. L. Fry, St. John's; E. Latham, Balliol; W. Robinson, non-collegiate; E. Savage, Christ Church; W. Stone, Balliol.

Materia Medica.—H. Barlow, Trinity; R. Bremridge, Magdalen; H. Cooper, Queen's; P. Dear, non-collegiate; T. Fisher, Brasenose; F. Freemantle, Balliol; M. Gordon, Keble; E. Hopkinson, Trinity; R. Howard, Trinity; G. Maurice, Keble; R. Moon, New; E. Palin, Christ Church; L. Panting, Balliol; C. Reynolds, Keble; H. Sanguinetti, Balliol; A. Still, Christ Church; H. Vernon, Merton; W. Walters, Brasenose; R. Whittington, Merton.

Organic Chemistry.—R. Crawfurd, New; H. Foot, Lincoln; F. Freemantle, Balliol; M. Gordon, Keble; A. Gray, Magdalen; J. Hindley, Christ Church; R. Howard, Trinity; E. Palin, Christ Church; A. Parker, Magdalen; A. Partridge, Pembroke; C. Reynolds, Keble; W. Robinson, non-collegiate; H. Sanguinetti, Balliol; A. Still, Christchurch; D. Todd, Lincoln; W. Walters, Brasenose; T. Whipham, New; R. Whittington, Merton; A. Stewart, New; D. Stone, Balliol; R. Moon, New.

UNIVERSITY OF EDINBURGH.

FINAL EXAMINATION FOR THE DEGREES OF M.B. AND C.M.—The following 190 gentlemen have passed the Final Examination for graduation in Medicine (some 350 candidates presented themselves):

R. E. Adamson; J. Allan; G. W. Ancrum; J. S. Anderson, M.A.; J. R. Armstrong; R. H. Armstrong; G. J. Bagram; T. B. Barber; G. F. Barnards; T. M. Bassano; L. B. Beddie, M.A.; G. Bell; H. P. d'A. Benson; J. J. Beveridge, M.A.; G. Bill; C. H. Bond; D. C. Bremner; J. C. Brown; T. M'L. Brown; H. J. M. Browne; *A. Brownlie; W. M'Q. Brunton; D. H. Burn; F. S. Butler; G. Butters; D. G. Campbell; W. S. Campbell; J. F. Carruthers; J. G. Christie, M.A.; P. G. Cilliers; F. H. A. Clayton; G. H. Cock; H. D. Coles; A. B. J. Coope; R. A. Corson; J. W. Craig; S. G. Davidson, M.A.; R. Davies; J. L. Dick; G. Dickson; E. C. Dobbie; C. W. Donald; A. Douglas, M.A.; W. J. Dubourdieu; C. Easterbrook, M.D.; C. Edington; F. L. Ehrka; J. J. Evans; R. E. Evans; F. M. Fellows; A. Fells; T. Fenton; W. Fletcher; E. G. Fortune; *J. S. Fowler; J. A. Fullarton, B.A.; E. B. Garland; W. S. Gibb; W. B. Gow; T. A. Granger; R. W. Gray; V. Green; W. H. Gregory; E. E. T. B. Greville; G. K. Grimmer, B.A.; R. L. Guthrie, M.A.; T. C. Guthrie; H. H. Hadden; J. A. Hamilton; F. J. Hare, B.Sc.; L. E. Hardy; E. Hawkins, M.A.; W. E. Haworth; A. Hendry; D. B. Hewat; H. M'D. Hewer; J. R. Higson; G. H. Hogg; G. Home; A. H. Hopkins; C. J. Hugo; G. F. Hulme; F. H. G. Hutchinson; A. Ingram; L. G. Irving, M.A.; Sir B. S. Jareja; J. H. Johnston; R. J. Johnston; G. Johnstone; H. B. Jones; L. B. Keng; R. Knox; J. C. Laing; W. D. Lawrie; *R. M. Leslie, M.A., B.Sc.; J. R. Liddell; E. S. Littlejohn, B.A.; F. V. Locke; W. F. Macarthur; *D. Macaulay, M.A.; J. M'Clew; J. M'Donald; A. M'Ewen; J. G. Macindoe; J. M'Kerrow; W. H. Mackinlay; J. Maclean, M.A.; J. Macmillan, M.A.; A. H. M. Macmorran; G. W. F. Macnaughton; P. O. Malabre; G. Mann; J. L. Martin; G. B. Mathieson; R. Maxwell; A. J. Meikle; D. Melville; C. K. Millar; A. Mirza; A. Mitchell; G. B. Mitchell; A. R. Moon; J. E. Moorhouse, M.A., B.Sc.; J. Morison; G. G. Munnik; D. G. M. Munro; J. H. Murray; M. G. Naidu, B.A; P. W. Nicol; J. M'D. Nicol; A. Nobbs; T. E. Nuttall; L. J. H. Oldmeadow; C. Parker; W. H. Parkes; D. W. H. Paterson; C. R. Pearce; G. Peterkin; R. O. Petrie, M.A.; W. H. Pinnblett; F. W. Pollard; C. F. Pender; G. Porter; R. Proudfoot; W. G. Putriam, B.A.; J. R. M. Rae; M. A. Reid; W. N. Robertson; O. D. Robson, M.A.; W. Rogers; H. A. Rowland; J. L. Russell; P. W. Schmidt; W. Scott; R. Scheult; W. G. Sellar; J. B. Shaw; P. W. Shaw; G. S. Shirt; C. D. Simitopoulos; A. T. Simpson; W. P. Simpson; H. J. Slane; T. G. Sloan, M.A.; A. S. Smith, M.A.; W. R. Smith, B.Sc.; W. Somerville; W. Spettigul; W. Sproule; F. W. M. Stephenson; J. Stoddart, B.A.; A. Stuart; J. Sutherland; A. G. Talbot, B.A.; M. W. Talbot; C. Thompson; J. L. Thomson; C. Thomson; H. T. Thomson; W. Tibbets; F. J. Du Toit, B.A.; R. M. Truter; D. A. Turkhud; C. C. B. Tyrie; A. H. K. Vizard; A. Walker, M.A., B.Sc.; J. Wallace; J. M. Walls; A. E. Watson; D. C. Watson; J. K. Watson; V. Verdmuller; J. R. Wbait; W. J. White; R. M. Williams; J. C. Wilson; J. W. Wilson; M. Young; and W. Young. (Those marked with an asterisk have passed with distinction.)

VICTORIA UNIVERSITY.

ENTRANCE EXAMINATION IN ARTS, FACULTY OF MEDICINE:

First Division.—T. F. Bamford, W. H. Bateman, H. A. Close, H. M. Cockcroft, H. Davies, J. Goodall, C. H. Moorhouse, J. E. H. Scott, R. B. Scott, R. Sutherland.

Second Division.—F. H. Allen, G. L. Baker, T. T. Bark, T. Bayne, H. N.

Bridge, A. G. S. Broughton, J. J. Butterworth, C. E. Craven, E. Deane, L. O. Delecourt, B. Gowing, A. S. Griffith, J. I. Halstead, W. D. Hamer, E. Hutton, H. Marriott, J. Milne, F. Morrisy, A. E. Normington, S. Pritchard, S. T. Rowling, W. Sankey, J. H. Willett, D. S. Wylie.

First M.B. Examination, Part I:

Chemistry and Physics.—E. L. Anderson, University College; G. Ashton, Owens College; J. T. Auld, Owens College; F. J. Batten, Owens College; E. Bennett, Owens College; J. W. Bennett, Owens College; R. Bleasdale, Owens College; A. W. Bollans, Yorkshire College; H. M. Brown, Owens College; J. B. Clarke, Owens College; H. M. Crake, University College; H. R. Cross, Yorkshire College; W. Cunliffe, Yorkshire College; F. Darlow, Yorkshire College; H. M. Henderson, University College; V. R. Hendry, University College; F. B. Holmes, Owens College; E. Ladyman, Owens College; A. T. Lakin, Owens College; J. R. Lambert, Yorkshire College; E. E. Laslett, University College; A. Lomas, Owens College; F. E. Marshall, University College; F. W. Morris, University College; N. Neild, Owens College; T. O'Neill, Owens College; G. C. Phipps, Owens College; A. M'L. Pilcher, Owens College; F. S. Pitt-Taylor, University College; A. H. Priestley, Owens College; A. L. Rhind, Owens College; J. S. Ross, Owens College; C. R. Schofield, Owens College; A. T. Sissons, Owens College; J. E. Smith, University College; H. H. Smith, Owens College; H. Stansfield, Yorkshire College; F. E. Taylor, Yorkshire College; H. Thorp, Owens College; W. C. Varley, Owens College; J. V. Watson, Owens College; A. Wightwick, Owens College; R. H. Wilshaw, Owens College; A. A. Wood, University College; J. Wood, Owens College; H. C. Woodhouse, Owens College.

Doctor of Medicine.—J. M. H. Martin, University College.

Bachelor of Medicine and of Surgery.—First-class honours: J. W. Crawshaw, Owens College; J. H. Taylor, Owens College. Second class honours: A. E. Ash, Owens College; E. C. McCarthy, Owens College; R. W. Marsden, Owens College; R. T. Turner, Owens College. Pass list: A. Bicknell, University College; A. J. Edwards, Owens College; J. R. Lighbody, University College; C. E. M. Lowe, Owens College; C. B. Taylor, Owens College.

CONJOINT EXAMINATIONS (COLLEGES OF PHYSICIANS AND SURGEONS) IN IRELAND.

First Professional Examination.—The following candidates have passed: J. C. Baskin, J. W. Benson, W. J. Beveridge, G. E. Caithness, D. F. Clarke, H. F. Conyngham, G. Corcoran, W. M. Cummins, G. G. Delap, J. C. Edge, E. A. Fenton, T. Fitzgerald, R. Glynn, R. M. Hamilton, P. P. Harold-Barry, W. J. Healey, C. E. Hodson, C. R. Horrell, W. E. Joliffe, W. M. Jones, C. A. Kenny, C. B. Martin, H. B. S. Montgomery, J. Morrissey, J. A. M'Munn, M. O'Brien, W. H. Odlum, J. J. O'Reilly, T. J. Perkins, T. J. Potter, F. J. Purcell, A. S. Sampey, R. W. Scully, J. N. Shee, E. W. Siberry, Miss L. F. S. Strangman, Miss M. S. P. Strangman, R. H. Walpole, F. C. Wright, A. H. O. Young.

OBITUARY.

PROFESSOR CARL SCHORLEMMER,
Manchester.

WE regret to announce the death of Dr. Carl Schorlemmer, which took place at his residence in Manchester on June 27th. Professor Schorlemmer for some time had not been in robust health, and some weeks ago symptoms pointing to a thoracic tumour manifested themselves, and he was confined to bed for a considerable time before his death. Born at Darmstadt about 1834, Schorlemmer died at the comparatively early age of 58, respected and beloved by all who knew him. He studied chiefly at Giessen, and early in life became private assistant, and in 1861 college assistant, to Professor Roscoe. Some of Schorlemmer's best laboratory work was done in the old Owens College in Quay Street, notably his researches on the hydrocarbons, work which revolutionised our ideas on the constitution of these and allied bodies.

In 1871 he was elected a Fellow of the Royal Society, and the University of Glasgow conferred on him the degree of LL.D. Schorlemmer's commanding position amongst organic chemists led the Council of Owens College to found a Chair of Organic Chemistry in 1874, and Schorlemmer became its first occupant, a position which he held until his death. Few chemists possessed such an extensive knowledge of the literature of his subject, combined with so thorough an acquaintance with the practical side of his subject; he thus seemed to be specially marked out for writing a treatise on chemistry. The great work on *Chemistry* bearing the title of Roscoe and Schorlemmer is not yet completed, and it is doubtful if the last volume will be written.

WILLIAM ALEXANDER BARR, M.D.ST.AND.

WE regret to have to record the death, at the age of 72, of Dr. William Alexander Barr, which took place on June 23rd, at Bembridge, Isle of Wight. The deceased was elected a Member of the Royal College of Surgeons in 1845, and obtained the degree of M.D.St.And. in 1857. Dr. Barr was connected with the militia in one way or other for a very long series of years, and was for some considerable period surgeon-major to the Northamptonshire Regiment. He was in charge of the hospital at Scutari during the Crimean War. Among the institutions with which Dr. Barr was connected was the Victoria Dispensary, the Nursing Institution, and the St. Andrew's Hospital, of which he was a governor. He had also been connected with the Volunteer Force in Northampton, of which he was surgeon for some years. Dr. Barr was greatly impressed with the advantages of vaccination. On one occasion, when small-pox was raging in the town and the militia were out, the colonel gave orders that the whole of the men should be vaccinated. Afterwards one man only had small-pox, and this man admitted that he had avoided vaccination. The remains of the deceased were cremated at Woking on June 29th.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,378 births and 3,348 deaths were registered during the week ending Saturday, July 2nd. The annual rate of mortality in these towns, which had been 17.8 and 17.3 per 1,000 in the preceding two weeks, further declined to 17.1 during the week under notice. The rates in the several towns ranged from 9.4 in Brighton, 13.6 in Leeds, 13.7 in Blackburn, and 13.8 in Hull to 21.8 in Oldham, 21.9 in Manchester, 22.4 in Sunderland, and 22.5 in Preston. In the thirty-two provincial towns the mean death-rate was 17.3 per 1,000, and exceeded by 0.5 the rate recorded in London, which was 16.8 per 1,000. The 3,348 deaths registered during the week under notice in the thirty-three towns included 486 which were referred to the principal zymotic diseases, against 514 and 477 in the preceding two weeks; of these, 170 resulted from measles, 108 from diarrhœa, 78 from whooping-cough, 55 from diphtheria, 46 from scarlet fever, 24 from "fever" (principally enteric), and 5 from small-pox. These 486 deaths were equal to an annual rate of 2.5 per 1,000; in London the zymotic death-rate was 3.1, while it averaged 2.1 per 1,000 in the thirty-two provincial towns. No deaths from any of these zymotic diseases were recorded last week in Gateshead, while they caused the lowest rates in Brighton, Bradford, and Burnley, and the highest rates in Halifax, West Ham, Birkenhead, Preston, and Sunderland. Measles caused the highest proportional fatality in Sheffield, Birkenhead, Birmingham, Leicester, Halifax, West Ham, and Sunderland; scarlet fever in Swansea; whooping-cough in Sunderland, Croydon, Wolverhampton, and Preston; "fever" in Birkenhead; and diarrhœa in Plymouth, Leicester, Sunderland, Preston, and Norwich. The 55 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 38 in London, 3 in Leeds, and 2 each in West Ham, Birmingham, and Bolton. Four fatal cases of small-pox were registered in London, and one in Halifax, but not one in any other of the thirty-three large towns; 35 small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 5 in the Highgate Small-pox Hospital, on Saturday last, July 2nd. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 2,211, against numbers increasing from 1,226 to 2,066 on the preceding fourteen Saturdays; 331 new cases were admitted during the week, against 207, 213, and 284 in the previous three weeks. The death-rate from diseases of the respiratory organs in London was equal to 2.3 per 1,000, and was below the average.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, July 2nd, 957 births and 502 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.7 and 19.3 per 1,000 in the preceding two weeks, declined again to 18.0 during the week under notice, but was 0.9 per 1,000 above the mean rate during the same period in the large English towns. Among these Scotch towns the lowest rates were 8.6 in Perth and 9.1 in Greenock, and the highest rates 20.3 in Glasgow and 20.8 in Aberdeen. The 502 deaths in these towns included 83 which were referred to the principal zymotic diseases, equal to an annual rate of 3.1 per 1,000, which was 0.6 above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley and Glasgow. The 261 deaths in Glasgow included 27 from measles, 19 from whooping-cough, 5 from scarlet fever, and 5 from diphtheria. Three fatal cases of scarlet fever were recorded in Edinburgh. The death-rate from diseases of the respiratory organs in these towns was equal to 3.2 per 1,000, against 2.3 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, June 25th, were equal to an annual rate of 24.9 per 1,000. The lowest rates were recorded in Galway and Lurgan, and the highest rates in Londonderry and Armagh. The death-rate from the principal zymotic diseases averaged 3.4 per 1,000. The 184 deaths registered in Dublin were equal to an annual rate of 27.4 per 1,000 (against 24.0 and 31.6 in the preceding two weeks), the rate during the same period being 17.3 in London and 17.5 in Edinburgh. The 184 deaths registered in Dublin included 29 which were referred to the principal zymotic diseases (equal to an annual rate of 4.3 per 1,000), of which 24 resulted from measles, and 5 from whooping-cough.

THE PROPOSED METROPOLITAN MORGUE.

The proposal to establish a central mortuary for London in the neighbourhood of Charing Cross appears to have fallen through. Upon careful inquiry it has been found that it would be far more advantageous to improve and extend the mortuary accommodation in certain districts where such accommodation is inadequate or unsuitable. The number of unidentified bodies in London is, according to the police, about 200 a year, a certain proportion being those of stillborn children. This proportion of unidentified bodies compares favourably with that in Paris, bearing in mind the size of the two cities; in Paris the proportion is 4 to 5 per cent.; in London 4 per cent. Previous to the establishment of the Morgue in Paris, the proportion was 25 to 30 per cent. When the mortuary accommodation has been rendered adequate in certain districts of London, the percentage of unidentified bodies will be still less, and all real necessity for a central mortuary will be overcome.

INSANITARY AREAS AT SHOREDITCH.

A clearance of insanitary areas is about to be undertaken in Shoreditch. The areas known as Moira Place and Plumber's Place, including some 136 houses, will be dealt with under Part II of the Housing of the Working Classes Act, 1890. A scheme has been prepared which will effectually open up and ventilate the whole of the insanitary areas. It is estimated that 550 persons of the artisan class will be displaced and 400 rehoused in buildings not more than four storeys in height. The ground floor of the buildings facing the proposed new street from Britannia Street to East Road, will be used as shops.

MEDICAL NEWS.

University of Harvard.—The medical school of the University of Harvard has formally adopted the scheme for enforcing a four years' curriculum before a degree in medicine can be obtained. The new dispensation comes into force at the beginning of next winter session.

The Teeth of School Board Children.—A dental surgeon has, with the sanction of the Local Government Board, been appointed for the Central London School District. He is to attend weekly, and furnish a monthly statement for the House Committee, and a general report at the end of twelve months. The work will be so arranged as to secure an examination of each child every six months, those in the probationary ward being inspected on the first visiting day after admission. The equipment includes a Morrison chair, dental engine, and other necessary instruments.

Cambridge Medical Graduates' Club.—The annual general meeting of the club was held at the Café Royal on June 30th, Dr. W. H. Dickinson in the chair. After the usual routine business a resolution conveying to Lady Paget the sincere sympathy of the club on the death of Sir George Paget, the late President, was adopted unanimously. Sir George Humphry was then elected President in his stead. At the dinner which followed the meeting the newly elected President took the chair, and in proposing the toast of the prosperity of the club, after a warm eulogy of his lamented predecessor, gave an amusing sketch of some of the early difficulties met with in the development of the Cambridge Medical School.

The Metropolitan Hospital.—Special interest was lent to the festival dinner of the Metropolitan Hospital last week by the speech of the Chairman, Lord Sandhurst. We refer elsewhere to some of the topics with which he dealt, but it may be added here that he observed that the general hospitals of the metropolis had emerged from the inquiry conducted by the Select Committee of the House of Lords with great honour; he also spoke of the great interest of the experiment which the Metropolitan Hospital had made in establishing a provident department. He thought that as education and municipal life increased, so the spirit of individual independence would grow.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Henry F. Formad, Lecturer on Morbid Anatomy in the University of Pennsylvania, and Pathologist to the Philadelphia Hospital, aged 45; Dr. Anton Biermer, some time Professor of Clinical Medicine in the University of Breslau, aged 65; Dr. Pierre Roussel, formerly Professor of Midwifery and Diseases of Women and Children in the Medical School of Nancy, aged 86; Dr. W. R. Birdsall, some time Professor of Nervous and Mental Diseases in the New York Woman's Medical College, President of the New York Medical Neurological Society (1885-86), and author of numerous papers on nervous diseases, aged 40; and Dr. Philip, Deputy Coroner of New York, and a familiar figure in medical and political circles in that city.

International Congress of Physiology.—The second meeting of the International Congress of Physiology, as already announced, will be held at Liége on August 29th, 30th, and 31st. The Committee is constituted as follows. *President:* Dr. Holmgren (Upsala). *Members:* Professors Bowditch (Boston), Chauveau (Paris), Léon Fredericq (Liége), Michael Foster (Cambridge), Héger (Brussels), Heidenhain (Breslau), Hering (Prague), Miescher (Basle), and von Tarchanoff (St. Petersburg). *Secretaries:* Drs. Dastre (Paris), Kronecker (Berne), and Sherrington (London). The *Organising Committee* consists of Drs. Dastre, Léon Fredericq, Héger, Kronecker, and Sherrington. Persons wishing to attend the congress should communicate, before August 1st, with Professor L. Fredericq, 18, Rue de Pitteurs, Liége, or Mr. C. S. Sherrington, St. Thomas's Hospital, London, S.E. The subscription is 10 francs. In connection with the congress an exhibition of physiological apparatus will be held in the Physiological Institute, 15, Place Delcour, from August 27th to September 2nd.

British Medical Benevolent Fund.—Eleven new annuitants of £20 have been elected, bringing the total number to upwards of 100. Annuitants must be upwards of 60 years of age, and possessed of little or no means. Two medical men in addition will receive £26 (10s. a week) instead of £20, from the operation of a special fund subscribed for that purpose; £116 voted in grants at the May meeting to twelve applicants, two cases being postponed. Seventeen applications came before the committee on June 28th. Two were postponed and one refused, and the sum of £165 was ordered to be distributed amongst the other cases in instalments generally, so that the payments might be spread over the ensuing twelve months, which is the plan adopted by the committee unless there should be special circumstances why a sum should be given. The committee point out that the balance at the bank is getting low, and ask of the profession such assistance by way of subsciptions as may enable them to adequately relieve the wants of applicants. Subscriptions should be sent to the Hon. Financial Secretary, 62, Upper Berkeley Street, W.

MEDICAL VACANCIES.

The following vacancies are announced:

BOROUGH HOSPITAL, Birkenhead.—Junior House-Surgeon, doubly qualified. Salary, £60 per annum, with board and lodging. A further sum of from £20 to £25 per annum is usually obtained in fees. Applications to the Chairman of the Weekly Board by July 18th.

CHURCH OF SCOTLAND JEWISH MISSION.—Medical Missionary for the Mission and Hospital at Smyrna. Salary, £300, or £250 with dwelling-house. Applications to Rev. Dr. Alison, 1, S. Lauder Road; or John A. Trail, Esq., 17, Duke Street, Edinburgh.

COUNTY OF LONDON.—Coroner for the Western District. Salary, £780 per annum. Applications to H. de la Hooke, Clerk to the Council, Spring Gardens, by July 15th.

DENTAL HOSPITAL OF LONDON, Leicester Square, W.C.—Assistant Dental Surgeon; must be L.D.S. Applications to J. Francis Pink, Secretary, by July 11th.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House-Surgeon. Board and lodging provided. Applications to the Secretary by July 14th.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House-Physician. Board and lodging provided. Applications to the Secretary by July 14th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Junior Resident Medical Officer. Salary, £50 per annum. Applications to the Committee of Management by July 19th.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—House-Physician. Salary, £60 per annum, with board and lodging. Applications to William T. Grant, Secretary, by July 23rd.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon, doubly qualified. Salary, £70 per annum, with residence and maintenance. Applications to the Chairman of the Committee by July 22nd.

McGILL UNIVERSITY, Montreal, Canada.—Professor of Pathology for the Faculties of Medicine and Comparative Medicine. Salary, £400 per annum. Applications to Dr. Robert Craik, Dean, by July 20th.

PARISH OF APPLECROSS.—Medical Officer and Public Vaccinator for the Applecross Division. Salary, £95 per annum, with free house and garden. Applications to Mr. Bain, Applecross, Ross-shire, by July 15th.

PAROCHIAL BOARD OF PENNYGOWN AND TOROSAY.—Medical Officer. Salary, £100 per annum. Applications to Alex. Macdougall, Inspector of Poor of Torosay, Auchnacraig, by Oban, N.B., by July 20th.

QUEEN'S HOSPITAL, Birmingham.—Physician for Out-patients and Pathologist. Appointment for three years. Honorarium, £75 per annum. Applications to the Secretary, Arthur Hulme, by July 20th.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House-Surgeon. Board, lodging, and washing provided. Applications to the Chairman of Medical Committee by July 13th.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House-Surgeon. Board and rooms provided. Applications to T. A. Fisher Hall, Secretary, by July 15th.

ROYAL UNITED HOSPITAL, Bath.—House-Surgeon; must be M.R.C.S. Salary, £60 per annum, with board, lodging, and washing. Applications to W. Stockwell, Secretary-Superintendent, by July 12th.

ST. LUKE'S HOSPITAL.—Resident Clinical Assistant. Appointment for six months. Board and residence provided. Applications to the Secretary by July 28th.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Obstetric Tutor. Salary, £50 per annum. Applications to the Medical Secretary by July 12th.

SHEFFIELD GENERAL INFIRMARY.—Assistant House-Surgeon, doubly qualified. Salary, £80 per annum, with board, lodging, and washing. Applications to the Medical Staff, care of the Secretary, by July 23rd.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Board, residence, and washing provided. Applications to the House-Surgeon by July 20th.

STAINES UNION.—Medical Officer of Health to the Rural Sanitary Authority. Salary, £75 per annum. Applications, marked "Appointment for Medical Officer of Health," to John Anthony Engall, clerk, Staines, by July 11th.

STOCKPORT INFIRMARY.—Junior House-Surgeon. Appointment for six months. Board and residence provided, with £10 honorarium. Applications to Lieutenant-Colonel S. W. Wilkinson, Honorary Secretary, by July 11th.

UNIVERSITY COLLEGE HOSPITAL.—Assistant Ophthalmic Surgeon. Applications to J. M. Horsburgh, Secretary, by July 18th.

WIRRAL CHILDREN'S HOSPITAL, Woodchurch Road, Birkenhead.—Resident House-Surgeon, lady or gentleman. Salary, £50 per annum, with board, lodging, and washing. Applications to P. H. Atkin, Hon. Sec., 25, Lord Street, Liverpool, by July 9th.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon. Salary, £60 per annum, with rooms, board, and washing. Applications to the Secretary by July 12th.

WONFORD HOUSE HOSPITAL FOR THE INSANE, near Exeter.—Assistant Medical Officer, doubly qualified, and not more than 28 years of age. Salary, £150 per annum, with board, furnished apartments, and washing. Applications to Dr. Deas, Medical Superintendent, by July 22nd.

WORCESTER AMALGAMATED FRIENDLY SOCIETIES MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary, £140 per annum, with a portion of midwifery fees, and £20 per annum for cab hire. Applications to Mr. G. B. Gibson, Easy Row, Worcester, by July 19th.

MEDICAL APPOINTMENTS.

BARRATT, J. O. W., M.D.Lond., F.R.C.S., appointed Medical Officer at the Infirmary of the Parish of Birmingham.

BETTS, F. Bernard, M.R.C.S., L.R.C.P., appointed Resident Medical Officer to Queen Charlotte's Lying-in Hospital, Marylebone Road, N.W.

BOLUS, H. B., M.B., B.C.Cantab., appointed Obstetric Resident at Guy's Hospital.

BROWNING, George, M.R.C.S., reappointed District Medical Officer and Medical Officer of Health for the Wertley Union.

CARTER, A. H., M.D.Lond., M.R.C.S., appointed Medical Officer at the Infirmary of the Parish of Birmingham.

CLOSE, John Borrill, M.B.Durh., L.R.C.P.Lond., M.R.C.S., appointed Honorary Surgeon to the Hull Orthopædic Hospital.

COLLINS, Richard Hawtrey, M.R.C.S.Eng., L.R.C.P.Lond., appointed Senior House-Surgeon to the Poplar Hospital for Accidents, *vice* Ernest G. H. Williams, M.R.C.S., L.R.C.P., resigned.

DE HAILES, A. J., appointed Public Analyst for the Borough of Luton.

DOIDGE, M. J., B.A.Cantab., M.R.C.S., appointed Medical Officer to the Fourth District of the Risbridge Union, *vice* B. L. Tandy, L.R.C.P. Edin., resigned.

DONALD, Hugh Colligan, M.B., C.M.Glas., appointed Medical Officer for the Burgh of Paisley, *vice* A. H. Richmond, M.B., C.M.Glas.

DUNN, E. D., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glas., appointed Public Vaccinator for the District of Motueka, New Zealand.

FENWICK, W. Soltau, M.D.Lond., M.R.C.P., appointed Physician to Out-patients to Evelina Hospital for Sick Children.

GRANT, Frederick, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health for Market Harborough.

GRATTE, Charles Brooke, L.R.C.P.Lond., M.R.C.S., appointed Medical Officer and Public Vaccinator of the Marshfield District of the Newport Union.

HALL, G., M.B., C.M., M.D.Edin., appointed Medical Officer of Health to the Hambledon Union, *vice* A. A. Napper, Esq., resigned.

HAYES, H. W. McCaully, M.R.C.P., L.R.C.S.Edin., L.F.P.S.Glas., appointed Medical Officer for the Third District of the Highworth and Swindon Union.

HEMMING, Claude Philip, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Bishop's Waltham District of the Droxford Union.

HIRST, Walter, L.R.C.P., L.R.C.S.Edin., appointed Assistant Medical Officer for the Workhouse, Infirmary, and Schools of the Leeds Union.

JAMIESON, Sydney, M.B., C.M.Edin., appointed Honorary Pathologist to the Sydney Hospital, New South Wales, *vice* George E. Rennie, M.B., resigned.

JONES, G. M., M.R.C.S.Eng., appointed Medical Officer for the Second District of the Alton Union.

LANDON, E. E. B., M.R.C.S., L.R.C.P., appointed Obstetric Resident at Guy's Hospital.

LOCKWOOD, C. B., F.R.C.S.Eng., appointed Assistant Surgeon to St. Bartholomew's Hospital.

LOWSON, David, M.D.Aberd., L.R.C.S.Edin., appointed Honorary Surgeon to the Hull Orthopædic Hospital.

MCCULLOCH, Allen, M.B., C.M.Glas., appointed Medical Officer for the Tarporley District of the Tarvin Union.

MCFARLAND, Andrew, L.R.C.S.Irel., L.S.A., appointed Medical Officer for the No. 4 District (Whitchurch) of the Aylesbury Union, *vice* T. J. S. Haythorne, M.D., C.M., resigned.

MORITZ, S., M.D., M.R.C.P.Lond., appointed Honorary Physician to the Manchester Hospital for Consumption and Diseases of the Throat and Chest.

NELSON, Thomas, M.D., appointed Ingleby Examiner, Queen's College, Birmingham.

PASSMORE, Wm. Edwin, L.S.A., appointed Assistant Medical Officer to the Infirmary of the Wandsworth Clapham Union.

PRIESTLEY, Joseph, B.A.Lond., M.D.Edin., M.R.C.S., D.P.H., appointed Medical Officer of Health and Public Analyst for Leicester.

RADFORD, William J., L.R.C.P.Lond., M.R.C.S.Eng., appointed Assistant House-Surgeon to the Poplar Hospital for Accidents, E.

ROBERTS, Ernest T., M.D. & C.M.Edin., appointed Certifying Factory Surgeon for the Keighley District and Medical Officer to the Keighley Post Office, *vice* Arthur Roberts, M.D., D.P.H., resigned.

SAVEGE, James, M.D.Aberd., appointed Honorary Anæsthetist to the Hull Orthopædic Hospital.

SHORT, T. S., M.D.Lond., M.R.C.S., appointed Medical Officer at the Infirmary of the Parish of Birmingham.

SICHEL, G., M.R.C.S., L.R.C.P., appointed Obstetric Resident at Guy's Hospital.

SMYTH, T. E., M.D., B.Ch.Dub., appointed Government Medical Officer and Vaccinator for the District of Campbelltown, New South Wales.

SNADDEN, James, M.B., C.M.Edin., reappointed Medical Officer of Health for the No. 1 and No. 4 Sanitary District of the Wortley Union.

SPOWART, Thos., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health for the Second Sanitary District of the Wortley Rural District.

STONHAM, H. A., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer to the Stepney Union.

TAYLOR, Herbert Edward, B.A., M.D., B.Ch., B.A.O.Univ.Dub., appointed Medical Officer and Public Vaccinator for the Second District of the Malling Union, *vice* Dr. Muirhead.

TOSSWILL, J. Cecil, M.B., C.M.Edin., appointed Visiting House-Surgeon to the Stockport Infirmary, *vice* R. Hamilton, M.R.C.S., resigned.

WILLIAMS, Ernest G. H., L.R.C.P.Lond., M.R.C.S.Eng., appointed District Medical Officer at Jamaica. Colonial Service.

DIARY FOR NEXT WEEK.

MONDAY.

NATIONAL ORTHOPÆDIC HOSPITAL, Great Portland Street, 5 P.M.—Mr. A. H. Tubby: On Imperfect Development, including Congenital Dislocation, Webbed Fingers and Toes; also Ankyloses and Cicatrices. Lecture 1.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

CLARKE.—On July 4th, at Blackheath, the wife of Ernest Clarke, M.D., of a daughter.

MARRIAGES.

LUND—BALLANTINE.—On June 30th, at St. Andrew's Presbyterian Church, Bournemouth, by the Rev. John W. Rodger, Herbert Lund, F.R.C.S., of 22, St. John Street, Manchester, and Sandywood, Pendleton, Manchester, second son of Edward Lund, F.R.C.S., to Mary Crockatt, eldest daughter of the late Thomas Ballantine, Esq., of Greenock, and of Mrs. Ballantine, Glengoil, Bournemouth.

MORISON—MUSHET.—On June 29th, at Dalkeith, by the Rev. Neil McLachlan, M.A., James Rutherford Morison, F.R.C.S.Eng. & Ed., of 14, Saville Row, Newcastle-on-Tyne, to Louie, youngest daughter of the late W. Mushet, of Fairfield House, Dalkeith, N.B. No cards.

PRICE-JONES—UPSEN.—On June 22nd, at St. Mark's, Surbiton, by the Venerable Archdeacon Burney, assisted by the Rev. G. A. Webster Dr. Cecil Price-Jones, of Surbiton, son of the late W. Price-Jones, M.D., to Helen Louise, daughter of Gottfried Upsen, of Surbiton.

STORY—HALLOWELL.—On June 25th, at Taney Church, Dundrum, by the Rev. W. F. Black, D.D., Rector of Newchurch, Warrington, assisted by Canon Scott, Rector of St. George's, Dublin, John Benjamin Story, of Corick, Clogher, co. Tyrone, and 24, Lower Baggot Street, to Blanche Christabel Hallowell, B.A., daughter of the late Rev. J. W. Hallowell, Rector of Oranmore, Galway.

THOMAS—JENKINS.—On June 30th, at St. John's Church, Cardiff, by the Rev. David Davies, M.A., Vicar of Newcastle, Bridgend, John Lynn Thomas, late House-Surgeon at the Cardiff Infirmary, to Rosina Mary, only daughter of the late Edward Jenkins, Esq., of Penylan, Cardiff.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not Later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted, will be found under their respective headings.*

QUERIES.

A. B. asks if any reader knows of a home which would receive a paying patient suffering from hysteria simulating disseminated sclerosis.

Mr. A. V. Crossing, M.R.C.S., L.R.C.P. Lond. (Plymouth) asks if a *locum tenens* is entitled to receive any of the fee for examination for life assurance.

Scotus, M.D., writes: What town in Germany (not Austria) is the best in which one can spend a great part of the day having good tuition in the eye, ear, and nose, and also in which there is a first-rate teacher of vocal music; and some idea of the expense of living?

J. F. B. would be much obliged for information as to any asylum for the blind where they would take in a man of 30 years of age so that he could learn some useful employment. The man is poor, but there would be something paid for him either as a subscription to the asylum or a weekly or monthly sum for his maintenance.

H. F. wishes to know whether there is any asylum into which an idiot boy, aged 10 years, can be put by the guardians of the union. The boy is dirty and mischievous, and was refused admission to the Western Counties Idiot Asylum because there is no reasonable hope of improvement.

Books on Diseases of the Eye.

A General Practitioner would be glad to know what is considered the most suitable book on diseases of the eye for every-day use, and the best method of recommending spectacles or glasses.

*** The handbooks of Nettleship (J. and A. Churchill) and Swanzy (H. K. Lewis) are probably the most suitable books for every-day use.

The Medical Sickness, Annuity, and Life Assurance Society.

Dr. M. P. Duke (Montserrat, West Indies) writes: In view of the constant increase of Branches of the Association, I wish to ask if it is not possible that arrangements can be made whereby we poor expatriated members, who are obliged to live in distant lands through no fault of ours, may be enabled to avail ourselves of the advantages of the Medical Sickness, Annuity, and Life Assurance Society. Of course, as with many of the older insurance offices, we should be prepared to pay a slightly increased premium for foreign residence.

*** Life assurances could be effected, but not sickness policies. Sickness involves weekly supervision and visitation under conditions which could not be carried out beyond the bounds of the United Kingdom.

"Cures" for Drunkenness.

X. Y. Z. asks for information as to the so-called "Fisk cure" for drunkenness, the morphine and tobacco habits, etc.

*** This is a commercial company which professes to cure 100 per cent. of the inebriates who conform to the rules laid down for patients to observe while under treatment. If a cure is not effected in three weeks, the company offer to return the money. As the composition of the pharmaceutical preparation swallowed and of the fluid injected hypodermically four times daily is not disclosed, the remedy is secret. We need hardly add that reputable medical practitioners should have nothing to do with such secret remedies.

ANSWERS.

Surgery (Southampton) does not state the facts of the case as to which he solicits an opinion, nor does he furnish his name.

Medico.—We are not acquainted with any firm which supplies the particular mixture of hazeline and salol about which our correspondent inquires. We see no reason why it should not be made by any chemist.

Burnley.—The cases which our correspondent brings under notice do not appear, on purely medical grounds, to justify any strong condemnation of the coroner, though we are quite prepared to believe that his inquests are often incomplete. The Lord Chancellor is, we believe, supposed to exercise some control over coroners, and a memorial to him might do some good, but a judiciously organised agitation in the county council to reduce the coroner's salary on account of the inefficient way in which he fulfils his duties would, perhaps, be a more effectual way of attaining the desired result.

NOTES, LETTERS, Etc.

It ought to have been stated that the article on "Medicine in Fiction," published in the British Medical Journal of July 2nd, was founded upon an interesting essay published some time ago in a Supplement to the *Leeds Mercury*, and due, as we understand, to the pen of Dr. M. Bernstein, of Manchester.

Carpenter and Dukes Fund.

Dr. Wm. F. Coles (Croydon) desires to acknowledge the additional subscriptions to the Carpenter and Dukes Fund:

	£ s. d.		£ s. d.
The Croydon Medical Reading Society	10 0 0	Dr. Beard	1 1 0
The Editor of the *Lancet* ...	3 3 0	Dr. Julius Mickle	1 1 0
		Mr. C. G. Wooder	1 1 0
			£16 6 0

Second Attack of Measles.

Member writes: In two boys, aged 6 and 8, out of a family of four the rash of measles was well out on April 8th in both. On May 24th, the rash appeared on the eldest boy. On June 8th, the same two boys who were down with measles on April 8th were again attacked, and on that day the rash was well out on both. Thus these two boys had measles twice within sixty days. The former attack ran an ordinary typical course, the second was exceptionally severe.

Strychnine in Cataract.

Dr. McReddie (Civil Surgeon, Hordir, Oudh, India) writes in commendation of the treatment of cases of immature senile cataract by the administration of strychnine. He gives the drug in pills, each containing gr. $\frac{1}{30}$; two pills to be taken daily for a couple of weeks, then omitted for three or four days, and then taken again. Under this treatment Dr. McReddie states that the opacity in the lenses diminish, and vision is proportionately improved. He reports three cases under his care in which this treatment was adopted with satisfactory results.

Opiokapnism.

The *Journal of the American Medical Association* states that opium smoking (or "opiokapnism," as the writer styles it, in contradistinction to "opiophagism" or opium eating) has increased greatly in different parts of America. At the custom-house, at San Francisco last year, £150,000 was paid as the duty on importations of opium for smoking, while in addition a very large illicit trade is carried on over the Canadian border. It is stated that a million pounds of the smoking drug was imported into San Francisco during the past eleven years.

The Anti-Vivisection Society.

We have received a letter from Mr. Benjamin Bryan, "Secretary for the Victoria Street and International Association for the Protection of Animals from Vivisection," in which he states *inter alia*, that he was the author of the leaflet which we criticised in our issue of June 25th, and that neither of the gentlemen named in our article (Mr. S. Smith, Sir W. Plowden, and the Head Master of Harrow) "was in any way responsible for a single word or figure of the paper," and that, "owing to engagements elsewhere none of them took part in the Society's annual meeting." Mr. Bryan's letter is rather lengthy, but as his personal opinions are of small importance and can have no weight with or interest for our readers, we have not thought it necessary to print them at length.

Prize Essay.

Dr. G. M. Gould, the able and public-spirited editor of the *Philadelphia Medical News*, offers a prize of 100 dollars for the best essay "historically and actually showing up the ridiculous pretensions of modern homœopathic practice." The essay should not exceed 15,000 words in length, and in simplicity and directness should be adapted to the commonest lay understanding. Papers should be sent in to Dr. Gould on or before January 1st, 1893, typewritten, without the name of the author, but accompanied by a sealed letter, giving the author's name, with motto or *nom de plume*. The essays will be referred to a select committee, and when they have arrived at a decision, the sealed letters will be opened, and the prize sent to the winner. The essay will then be cheaply but well printed in large quantities, and supplied to medical practitioners at the cost of printing.

Chloroform Deaths.

Dr. Edward Haughton (Upper Norwood, S.E.) writes: I am grieved to find that the number of deaths in this country from chloroform do not diminish, notwithstanding the discussion which has taken place respecting them. I cannot regard such deaths as properly "accidental," as the evidence does not point to special circumstantes so much as to careless routine. When travelling in Italy in the winter I was struck with the freedom with which pure chloroform was used; it being given in full doses, and for a long time, during difficult operations. They have, however, few or no fatalities; many surgeons in large practice never having heard of such an occurrence in Italy. It may be observed, however, that they do not encourage that very consequential person "the professed chloroformist;" nor do they ever use apparatus provided with valves or other complications. "Le masque d'Esmarch," occasionally lifted to see the patient's condition, and to admit atmospheric air, is the whole secret of their success.

THE TITLE OF DR.

M.B. writes: The accompanying circular from the Registrar of the College of Physicians will answer the unanswered part of "M.D.'s" communication in your last week's issue. It will be seen that the College has a very decided opinion of the use of the title of "Dr."

Royal College of Physicians of London.—At a general meeting of the College, held April 10th, 1876, it was resolved: "No Fellow, Member, Extra-Licentiate, or Licentiate of the College, is authorised or entitled by virtue of any diploma or licence granted by the College to assume the title of Doctor, or to append to his name the title of Doctor of Medicine, or the initial letters M.D., or any other letters indicating that he is a graduate in medicine of a university, unless he has obtained a degree in medicine from a university recognised by the College and legally entitled to confer such degree."

DEATH FROM PARAFFIN.

HUMANITY writes: Notwithstanding the enormous development which has taken place in recent years in gas and electricity, there can be no doubt that oil lamps light the homes of a larger number of persons throughout the world than any other illuminant. Even in the United Kingdom alone it has been estimated that over 10,000,000 lamps are in use. No wonder then that newspaper readers are every now and again startled by the recital of terrible accidents, too often resulting in agonising death. Mr. Alfred Spencer, of the London County Council, stated, at the inquest on the late Lord Romilly, that he estimated that there were 300 deaths a year caused in this country by unsafe lamps. Mr. Shean, of the Fire Brigade Association, expressed the opinion that 10 per cent. of fires are caused by paraffin lamps; and Captain Shaw, the former Superintendent of the London Fire Brigade, reported 156 fires in one year caused by the upsetting of lamps in London. Will a friend to humanity in each constituency ask the candidates, whether Liberal or Conservative, to pledge themselves to support a short Act of Parliament compelling every lamp to have affixed to it an automatic extinguisher, as recommended in the reports of Sir Frederick Abel, Mr. Bovertон Redwood, and Colonel Majendie, or must we wait until a Bishop or a Royal Princess is burnt to death?

THE FIRST ILIAC COLOTOMY.

DR. ALEX. DUNCAN (Manchester) writes: In the BRITISH MEDICAL JOURNAL of June 4th Mr. Christopher Heath, in his most interesting first lecture on Colotomy, there reported, remarks regarding Littre's proposed iliac operation: "I am not aware who really did do it first." If it is of interest to Mr. Heath or his readers might I refer them to p. 743 of the late Professor Wm. Pirrie's *Principles and Practice of Surgery*, where he (Dr. Pirrie) remarks, after mentioning that Littre, in 1710, in a case of imperforate anus, proposed to open the colon in the left groin and then secure the orifice of the wound to the walls of the abdomen. "The first operation, however," Dr. Pirrie continues, "on this principle was performed by Pillore, of Rouen, in 1776, on a man, for the relief of complete obstruction caused by a carcinomatous tumour of the rectum. The operation was on the right side, the part opened was the cæcum, and the man died in 28 days, in consequence of violent inflammation of the jejunum, caused by the accumulation of a large quantity of metallic mercury taken previous to the performance of the operation. Douret, of Brest, in 1793, performed the operation of Littre by opening the sigmoid flexure of the colon in a child two days old, the subject of imperforate anus. The patient not only recovered 'but when last heard from had attained the age of 42 years.' This is the first successful case on record of Littre's operation."

THE BRAINS OF MEN AND WOMEN.

WE find the following story, which we venture to commend to the attention of Sir James Crichton-Browne, in a German paper. The late Professor L. Bischoff, the distinguished physiologist of Munich, was, it appears, fond of insisting on the intellectual inferiority of women to men, a fact which he attributed to the relative lightness of the female as compared with the male brain. As the result of laborious research, he had found that while the average weight of a man's brain is 1,350 grammes, a woman's only weighs 1,250 grammes. The fair sex must have felt itself amply avenged when on the ungallant professor's death his brain was found to weigh only 1,245 grammes. The ladies will probably say that this is only what might have been expected, and there is a poetical justice about the *dénouement* which makes one wish that the story may be true. The moral of the affair seems to be that men of science who deny the intellectual equality of the sexes on the score of relative weight of brains, should leave strict injunctions that their own brains are not to be examined after their death.

SEA SICKNESS AND ITS TREATMENT.

DR. T. DUTTON (Northumberland Avenue, W.C.) writes: Dr. Grailly Hewitt's paper, in the BRITISH MEDICAL JOURNAL of May 14th, greatly interested me, I having devoted some years to the study of sea sickness. Being a very bad sailor myself and having to do a great deal of sea travelling I naturally was always on the alert to find a remedy. Dr. Hewitt's experiments would point that it is due to visual disturbances conclusively, if it was not for the evidence that blind people are sometimes sick. I remember distinctly two cases where it occurred. In my work on *Sea Sickness—Voyaging for Health* (Second Edition), page 12, I give two causes, namely, one entirely due to the brain, the other to the stomach and liver, although both causes often operate in the same individual. Now in either of these causes any visual disturbance would make matters worse, for we all know what effect swinging will have on any one with slight congestion of the brain or suffering from a bilious attack. We have exactly the same symptoms when suffering from the above conditions when travelling by rail or carriage as well as travelling by sea.

I have found bromide of ammonium, when given on a healthy stomach nearly a specific in *mal de mer*, certainly in my own case. Dr. G. Crawfurd Thomson told me Mrs. Thomson was so great a sufferer that he was almost afraid to take her across the Channel until he gave her bromide of ammonium, which at once prevented the sickness. Dr. R. Heath writes so me confirming the opinion I give concerning this drug, and sends me the notes of the following interesting case: A lady residing in Vigo, who had made the voyage several times and dreaded it more each time, escaped altogether by the bromide treatment, greatly to the surprise of her husband, who found her on deck quite happy when the steamer arrived, instead of in her cabin prostrate. I feel convinced that many cases where the treatment has not done any good is either due to the preparation being stale or the patient has not paid sufficient attention to "beforehand" treatment, which I describe very fully in my work. I am afraid I have already taken up too much of your valuable space to more than mention it now. We certainly should be able to obtain some correct information in regard to this distressing malady, considering the number of surgeons afloat. I constantly have promises of notes on the subject but unfortunately they forget to send them to me. Itis useless to rely on a few cases for the virtue of any drug.

MENSTRUATION DURING PREGNANCY.

MR. W. ERNEST F. THOMSON, M.A.Glas., M.B.Edin. (Glasgow) writes: On May 8th I was summoned for the first time to Mrs. M. She complained of intense pains in the back. She was in bed and stated that she had menstruated every three weeks and was menstruating at the time she spoke. Half an hour later she was delivered of a full term healthy child. Hæmorrhage was, if anything, less than usually occurs in normal labour. Not a bad symptom appeared, and she made a normal recovery. Mrs. M. is a tall woman, 21 years of age, married 9 months. She stated that she had never missed a period since she first began to menstruate, with the exception only of the first after her marriage. After most careful questioning she maintained that the flow had always been quite as usual right up to her delivery, and that she and her husband were both entirely unaware that she was pregnant. Only one neighbour seems to have suspected it quite at the last. The points of interest then seem to be: 1. Regular, normal menstruation during pregnancy, combined with absence of bad symptoms during or after delivery. 2. The ignorance of the woman, her husband, and her friends of her condition.

THE SUPPRESSION OF QUACKERY IN THE UNITED STATES.

THE State of Kentucky is making a vigorous effort to purge itself of quackery. The following ordinance is already in force in several places, and will probably soon be adopted by all the cities and towns of the State:—"Sec. 1. That it shall be unlawful for any travelling or itinerant doctor to practise medicine in any of its branches within the limits of the city. To open an office for such purpose, or to announce to the public in any way an intention to practise medicine shall be an offence within the meaning of this ordinance. Provided that nothing in this ordinance shall be so construed as to prohibit any reputable physician or surgeon from any other place being called to see a particular case or family, or to do a particular surgical operation in said city. Sec. 2. Any person convicted of a violation of the provisions of Section 1 of this ordinance shall be fined the sum of not less than 50 dollars, nor more than 100 dollars, for each day so engaged in the practice of medicine. Sec. 3. This ordinance shall be in effect from and after its passage, and all ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed." A Bill containing somewhat similar provisions is now before the Louisiana State Legislature. The following are the clauses referring to quacks and unqualified practitioners: "That any itinerant vendor of any drug, nostrum, ointment, or application of any kind intended for the treatment of disease or injury, or who may by writing, print, or any methods, profess to cure or treat disease or deformity by any drug, nostrum, manipulation, or other expedient in this State, shall if found guilty be fined in any sum not less than 25 dollars, and not exceeding 100 dollars for each offence, to be recovered in an action for debt before any court of competent jurisdiction, or shall be imprisoned for a term of not less than ten days or more than thirty days, or be both fined and imprisoned. That any person shall be regarded as practising medicine in any of its departments within the meaning of this Act who shall append the letters M.D. or M.B. to his or her name, or repeatedly prescribe or direct, for the use of any person or persons, any drug or medicine or other agency for the treatment, cure, or relief of any bodily injury, infirmity or disease. This Act shall not apply to dentists or midwives in the legitimate practice of these branches, nor to farmers and planters when exclusively practising, without compensation, on their *employés* in emergencies."

"LOCUMS" AND PRACTITIONERS.

A GENERAL LOCUM writes. It is only through the medium of the BRITISH MEDICAL JOURNAL that we locum tenentes have an opportunity of airing our grievances. As a locum of three years' standing, and having worked in various counties, from the Highlands to Somersetshire, I may perhaps be permitted to offer a few suggestions to those medical men who, deserving their well-earned holiday, contemplate engaging a locum.

When communicating with a locum, please send telegrams answer prepaid. A locum receives a telegram: "Wire if can take charge tomorrow." He answers in the affirmative, and his reply costs him sixpence, and probably receives a letter the following morning stating: "Have engaged another gentleman with whom I was in communication. Many thanks." The locum's time and money are thus lost. In my opinion the fee ought to be reckoned from the day of engagement and not from the day of entering on duty, if the latter is postponed by the practitioner.

If a copy of the prescriptions for the mixtures that patients are in the habit of taking were given to the locum it would greatly facilitate his work. We are often informed that "Mrs. So-and-So wants the same again," and that she has been taking it for years. If no prescription can be found a visit becomes necessary, and if the locum fails to supply her with the right mixture there is a danger that the patient may be lost.

The locum tenens should be told the diagnosis and treatment and any peculiarity of the patient. Dyspepsia may seem gastric ulcer or carcinoma to the locum, and his treatment in consequence differ; and "inflammation" is sometimes looked upon as renal or biliary colic. Had I not known a patient I recently attended was suffering from chronic rheumatism of both knees I should certainly have attributed

his illness to contracture due to spastic paraplegia. Nothing pleases a locum better than to diagnose Pott's disease of the spine in its early stages. Many busy practitioners have really not the time to make out the cause of abdominal pain, but they might mention the fact to their locum.

There is another thing that very frequently annoys a locum, and that is the erroneous and vague labelling of bottles in the surgery. A glance round the surgery in which I write is sufficient for an illustration. Here are six bottles containing white powders and without labels; there a bottle labelled "Acid. sulph. dil., for external application only." I usually treat such as if they were labelled "Oculis non manibus." Nothing is more common than to find bottles containing "mist. tuss.," "mist. feb.," "mist. dyspep.," "mist. di. et ip.," etc., but what their composition and dose are is a mystery to a stranger. Not long ago I had been flavouring mixtures with acetum scillæ; the bottle was labelled "Tinct. aurant." as large as life. The sense of smell, which I had on this occasion neglected through pressure of work, is very useful in distinguishing mixtures. Smelling at a bottle marked "mist. sen. co." will help to ascertain whether senna or senega is the active ingredient.

It would be considered a kindness if practitioners would fix a date when they expect to return from their holidays, and not upset the locum's arrangements by wiring that they are staying another week.

So much for the practitioners; and I would refer would be locums to an article by a locum tenens which appeared in the *Edinburgh Medical Journal* for October last.

THE PREVENTION OF MERCURIAL POISONING.

DR. C. R. ILLINGWORTH (Accrington) writes: On April 25th, 1891, and January 16th of this year, I pointed out the desirability of avoiding the use of corrosive sublimate in medical, surgical, and obstetric practice, for the reason that the deposited albuminate is insoluble, and consequently poisonous. In the BRITISH MEDICAL JOURNAL of June 11th you give results which speak for themselves regarding the value of the iodides as solvents for mercuric compounds in the prevention of mercurial poisoning.

Corrosive sublimate stands condemned by Professor Hofmann, of Vienna, who, in describing several cases of poisoning from its use, says: "I fear the dangers attending the use of this agent are not duly recognised by the profession;" also by Dr. Horn,[1] who, after describing a case of poisoning from a 1 in 4,000 solution used as an injection, states that "sublimate lotions should not be used for vaginal injections in midwifery when there is a distinct breach of surface on the vaginal mucous membrane;" and also by Dr. Luff, in the BRITISH MEDICAL JOURNAL.

Finally, if by the use of the soluble biniodide no albuminate is deposited in the tissues; if the whole of the mercury is eliminated by the emunctories, and poisoning never occurs, the advocates for its employment cannot be stigmatised as followers of an *ignis fatuus*, but of a sober and practically scientific truth, of the highest value to every medica practitioner. And these are facts.

HENBANE SEEDS AND TOOTHACHE.

MR. C. ROBERTS (Eccleston Square, S.W.) writes: Dr. T. Stephenson has given me yet another version of the popular use of henbane seeds for toothache, which may interest some of the readers of the BRITISH MEDICAL JOURNAL. It is from the *Philosophical Transactions* for 1733, vol. 38, p. 99, the same reference as Mr. Foy's: "A person of quality, tormented with the racking pain of toothache, had an emppric recommended to him; his anguish obliged him to submit to any method of procuring ease. The quack conveyed the smoke of burning henbane seeds by means of a funnel into the hollow tooth, and thus removed the pain; but at the same time there dropped some maggots from the tooth, as he pretended, into a pail of water placed beneath for that purpose, which was very surprising to the beholders. Sir Hans Sloane procured one of the maggots, and sent it wrapped up in silk to Mr. Leuwenhoeck, at Delft, in Holland, where it arrived safe and alive. On examination he found it to be entirely like those bred in ordinary rotten cheese; therefore, he got some of these latter, and carefully fed them; and they were all, according to the usual mode of nature, turned into small scarabæ, so that there appeared not the least difference between them, either maggots or scarabæ, both being returned back from Holland."

CONVALESCENT HOMES AND SOAP.

MAKERS of various kinds of soap have from time to time introduced us to many novel ways of advertising the virtues of their commodities. A method has just been adopted by a northern firm, which, whilst not lacking in novelty, possesses apparently some utility. It is announced that, instead of throwing away thousands of pounds in the ordinary form of advertisements, the makers have decided on putting aside a portion of the profits for a convalescent home fund, by means of which those who have been seriously ill or injured may obtain a free pass and admission for three weeks to a sea-side or other convalescent home. Tickets will be apportioned to the different districts when the required weight of this particular soap has been sold in those districts. Each case has to be certified by a medical man.

A HYPNOTISER IN TROUBLE.

THE *Graphic* observes that there are some men whom no amount of ingenuity will keep out of trouble, and the Abbé Bouland is one of them. He entered the ministry more than thirty years ago at Montaubon, and the prisons of an unappreciative country about two years after that time. After three years of seclusion he again entered active life, and after living on his wits—and other people's want of them—for many years he inaugurated a religious establishment in 1876. This languished, and so the indefatigable Abbé began life again as a hypnotiser, and after some years of half-hearted success he hit upon a brilliant idea. He secured the services of a young woman as an accomplice, hypnotised her regularly, and used her as a nineteenth-century oracle. The two lived in an obscure little place at Thil, and the peasantry used to crowd to consult the sleeper, to whom Bouland acted as interpreter-priest. For a small sum they received the oracle's advice on any subject or aid in any matter. One good woman paid 15 francs to abate the mortality among her pigs; another 40 francs to find a good place to sink for water. All professed themselves satisfied with the result; but the police authorities, not so satisfied, have haled up the Abbé and fined him £20.

[1] *Centralbl. f. Gynäk.*, September 26th, 1891.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Dr. L. Atthill, Dublin. (B) Mr. F. B. Betts, London; Mr. E. J. Barry, Fulham; Dr. J. O. W. Barratt, Birmingham; Dr. Ballantyne, Dundalk; Dr. F. Beach, Dartford; W. S. Byrne, M.B., Brisbane; Bombay; Messrs. Burroughs, Wellcome, and Co., London; Mr. L. Brown, London; J. F. Boa, M.B., Bishops Castle; Mr. J. M. Balfour, Presteign; Dr. P. H. Banks, Risely. (C) Mr. F. L. Chapman, London; Messrs. J. Cooke, St. Leonard's; Mr. C. Campbell, London; Messrs. L. Collins, London; Mr. J. J. Clark, West Brighton; Dr. N. W. Colahan, Galway; Dr. J. Ward Cousins, Southsea; Mr. A. A. Crossing, Plymouth; Dr. W. F. Coles, Croydon; Mr. E. Creitchloe, London; Mr. R. H. Collins, London; Dr. E. Clarke, Blackheath; Dr. J. B. Coumbe, Henley-on-Thames. (D) Mr. P. Dunn, London. (E) Mr. H. Ellison, Cleckheaton; Dr. Edwards, East London; Enquirer; Etiquette; Dr. S. Eccles, London. (F) Surgeon-Captain R. M. Fayle, Stoke; Mr. M. C. Fraser, Dundalk; Mr. F. E. Forward, Antigua; Mr. F. Fletcher, Enfield; Mr. J. M. Ferguson, Burnley; Mr. H. Freeborn, Abingdon. (G) Dr. H. R. Greene, Southsea; Mr. F. W. Gelder, Halifax; Mr. G. B. Gibson, Worcester; Mr. E. N. B. Grigg, Southsea; J. Gibson, M.B., Doune; Mr. F. H. V. Grosholz, Towyn; Guy's Hospital, The Dean of, London; Mr. L. G. Guthrie, London; Dr. Major Greenwood, London. (H) Dr. E. Haughton, Upper Norwood; Mr. A. Hulme, Birmingham; Dr. J. H. Hemming, Kimbolton; Dr. T. W. Hime, Bradford; Mr. C. Hitchcock, Market Lavington; Dr. W. W. Hardwicke, London; Dr. J. B. Haycraft, London; Mr. E. Hale, Stoneycroft; Mr. V. Horsley, London; Dr. G. Hall, Melford; Mr. T. Holmes, London. (J) Mr. E. F. Jones, Northampton; Dr. J. E. Jones, Dolgelly. (K) Dr. A. A. Kanthack, Cambridge; Mr. A. G. Klugh, London; Mrs. King, Bletchley; Dr. N. Kerr, London. (L) Mr. F. C. Lynde, Manchester; Mr. D. Lowson, Hull; Mr. J. B. Lawford, London; Mr. C. S. Loch, London; Mr. E. E. Landon, London; London and Counties Medical Protection Society, The Secretary of, London; Dr. D. B. Lees, London; Mr. C. B. Lockwood, London; Liable to be Recalled to Service; Messrs. T. Howard Lloyd and Co., Leicester. (M) Dr. S. Moritz, Manchester; Messrs. Misch and Stock, London; M.D.; Dr. J. W. Moore, Dublin; G. H. Mapleton, M.B., St. Kitts; Dr. Myles, Limerick; Dr. A. E. Morrison, Hartlepool; Surgeon-Captain W. A. Morris, Arundel; Dr. F. H. Mead, Bishop's Lydeard; Messrs. J. McKeever, Son, and Livesey, Carlisle; Dr. R. McCraith, Oldham; M.; Dr. J. Mackenzie, Burnley; Member; Dr. Mapother, London; Dr. J. D. Mann, Manchester; Mr. F. Miescher, London; Dr. Michaelis, Berlin. (N) Mr. T. L. Nash, Dublin; Mr. T. Nelson, Birmingham; Dr. W. J. Naismith, Ayr; F. L. Norris, Birkenhead; Mr. Inde Nevers, London. (O) Dr. J. Ormsby, Dover. (P) Dr. H. H. Phillips, Reading; Mr. W. Pearse, St. Tudy; Dr. Henry Power, New York; Dr. R. D. Patterson, Aughnacloy; Dr. G. V. Poore, London; Mr. E. Price-Jones, Kingston-on-Thames; Principle *v.* Precedent; Dr. Leslie Phillips, Birmingham; Dr. C. Y. Pearson, Cork; J. D. Poole, M.B., Poulton-le-Fylde. (R) Mr. W. Rae, Northampton; Dr. J. J. Ridge, Enfield; Mr. W. J. Radford, London; F. M. Rowland, M.B., Springhill; Mr. D. Rees, Cardiff; Dr. A. Roberts, Keighley; Mr. A. Rajasingham, Aberdeen; Dr. R. P. Ritchie, Dundalk. (S) Mr. W. S. Steele, Torquay; Mr. G. N. Stephen, Cyprus; Mr. W. G. Story, Japan; Mr. R. G. Salmond, London; Dr. G. E. Shuttleworth, Lancaster; Spero; Surgeon-Captain H. Smith, Dharmsala; Dr. H. Smith, London; Dr. D. Scott, Watford; Dr. J. E. Squire, London; Dr. A. W. Stirling, Grays; Mr. M. Smale, London; Dr. C. L. Skinner, Manchester; Mr. J. Somerville, Perth; Mr. D. Stead, Birmingham. (T) Mr. J. Thomas, Penrylan; Mr. W. H. Thompson, Leitzig; Dr. H. E. Taylor, Aylesford; Rev. J. Travis, Wickford; Mr. A. H. Tubby, London. (U) Mr. J. Unsworth, Liverpool. (W) Mr. W. Roger Williams, Preston; Mr. A. P. Watt, London; Dr. Willoughby, London; Dr. Whitelegge, Wakefield; J. L. Watt, M.B., Millbrook; Dr. A. S. Wynn, Lowestoft; Dr. Outterson Wood, London; Mr. E. J. H. Williams, London; etc.

BOOKS, ETC., RECEIVED.

Une Mission en Espagne: L'Hygiène et l'Assistance Publiques. Par Dr. C. Delvaille, avec une préface de M. le Professeur Brouardel. Paris: Société d'Editions Scientifiques. 1892.

Ptomaines and other Animal Alkaloids. By A. C. Farquharson, M.D. Price 3s. 6d. Bristol: John Wright and Co. 1892.

The Retrospect of Medicine. Edited by James Braithwaite, M.D. Lond. Vol. cv. London: Simpkin, Marshall and Co. 1892.

Planteparasitcre Hudsygdomme. Af D. C. Danielson. Price £1 12s. London: Sampson Low and Co. 1892.

*** In forwarding books the publishers are requested to state the selling prices.

PRELIMINARY NOTE
ON
SOME PARASITIC PROTOZOA FOUND IN CANCEROUS TUMOURS.

BY M. ARMAND RUFFER, M.D.OXON.,
AND
J. HERBERT WALKER, M.A.OXON., M.R.C.S.

THE disease designated under the general term of carcinoma has all the appearances of being caused by a living contagium. A carcinomatous tumour begins in a small group of cells, invades the nearest tissues, gradually infects the lymphatic glands and the inner organs, and finally, should the patient only live long enough, extends to every part of the body. Like all living contagia, cancer chooses its soil, avoids certain people, certain races even, and attacks others who, though apparently in perfect health, fall an easy prey to the disease. True, it is very rare to hear of a cancerous person infecting another; but this objection may be met with the answer, that the same has been asserted of diseases which are obviously contagious — such as tubercle — simply because those who have maintained that fact have formed their opinion on the unsafe evidence of clinical experience, instead of taking into consideration the accurate data furnished by experiment. Even were it proved that cancer does not spread by direct contact from one person to another, yet there are many facts to be gathered in medical literature, proving that a cancerous patient may infect one part of his body from another part. It was only natural that when bacteriology became the fashion a diligent search should have been made for micro-organisms in carcinoma; and though some observers described such organisms, it was conclusively proved by the accurate and painstaking researches of Ballance and Shattock that, in properly conducted experiments, carcinomata contain no vegetable parasites whatever.

Foiled in their first attempts, pathologists sought for the cause of cancer in some other organisms. Many endeavoured to settle the question by the direct inoculation of pieces of cancer into animals; but this method proved useless, and in our opinion is not calculated to lead to the discovery of the cause of cancer. Others diligently searched for them with the microscope, and a large number of papers have already appeared on the subject. The researches of Russell and Hutchinson in England; of Thoma, Steinhaus, Podissowsky, and Sawtcheuko, Sjöbring, van Heukelom, and Noeggerath, in Germany; of Welch in the United States; and of Malassez, Darier, Wickham, Borel, and Sudakewitch in France, were mainly concerned in proving or disproving the presence of coccidia-like parasites in carcinomata of man. These papers we shall discuss when we publish our investigations in full; but we would state that it appears clear to us that most of these observers have failed to distinguish the parasites from other bodies enclosed in cancer cells, and that Sudakewitch was the first who clearly demonstrated the presence of parasites in carcinoma.

In the early part of this year one of us (R.) observed in carcinoma bodies which he had every reason to think were parasitic. Since that time we have been constantly investigating this question, and in May one of us had the opportunity of showing our preparations to Professor Metschnikoff, of the Institut Pasteur. This eminent zoologist at once agreed with us as to the parasitic nature of these bodies, and urged us to publish our researches. Indeed he made this task a comparatively easy one, as he placed at our disposal his skill as a zoologist, and kindly drew many beautiful illustrations from our preparations. We may perhaps be allowed here to offer him our very best thanks for this and many other marks of interest in our work.

The demonstration of the parasitic bodies in cancer presents but few difficulties. Pieces of carcinomata are plunged whilst still warm into the usual reagents, and carefully hardened according to the ordinary histological rules. We have used for this purpose a concentrated solution of corrosive sublimate, absolute alcohol, osmic acid 1 per cent., Fleming's solution, Müller's fluid, etc. The parasites may be demonstrated in carcinomata hardened by any of these methods, but our best results were obtained with Fleming's solution and absolute alcohol. The pieces (not larger than ¼-inch at most) remain in Fleming's solution from 2 to 3 days, and are then washed in running water for twenty-four hours at least. They may then remain in absolute alcohol for an indefinite time, and when ready to be examined, must be saturated with paraffin according to the Naples method.

The parasites have a strong affinity for aniline dyes, and beautiful results are obtained by staining the tissue with a nuclear dye and counterstaining with aniline dyes. We have used for this purpose acid fuchsine, orange, benzo-purpurine, methyl-blue, methyl-violet, rose-bengale, eosin, and Biondi's reagents, and have also made use of Bizozzero's method. With carcinomata hardened in alcohol, the best results were obtained by staining with Biondi's reagent; whilst specimens hardened in Fleming's solution showed the parasites best when first stained in a watery solution of methyl-green, and counterstained with Biondi's reagent, or by using logwood in the first place, and afterwards a 1 per cent. solution of rose-bengale.

We were not at first able to find parasites in all cases of carcinoma, but this was simply due to our then deficient technical knowledge. With improved methods of staining we have never failed to demonstrate these bodies in the numerous carcinomata of the breast, tongue, intestine, stomach, liver, rectum, bile-ducts, and epiglottis which the staffs at the Cancer, University College, and Middlesex Hospitals have kindly placed at our disposal. Our best thanks are due to Mr. J. W. Hulke, Mr. J. B. Jessett, Dr. Voelcker, Dr. Wethered, Mr. J. B. M. White, and Mr. Cooper, for providing us with the material on which our researches are based. We may at once state that we have been unable to demonstrate the parasites in normal or other pathological tissues, and that, so far, our efforts to cultivate these bodies, although not uninteresting, have not been successful.

The parasite consists of a central nucleus (Fig. 1), that is, of

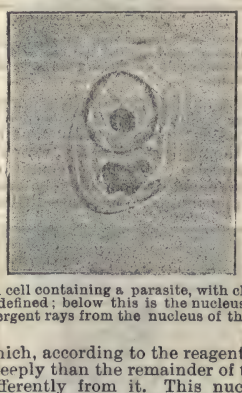


Fig. 1.—Epithelial cell containing a parasite, with clear cyst wall and nucleus well defined; below this is the nucleus of the epithelial cell. The divergent rays from the nucleus of the parasite are not shown.

a central part which, according to the reagent used, takes up the stain more deeply than the remainder of the body, or else stains quite differently from it. This nucleus apparently does not possess a distinct membrane. From certain staining reactions it appears that the substance forming the nucleus resembles in its chemical reactions the nucleolus of the invaded cell, though there are certain points of difference between them. Around the nucleus the protoplasm is condensed (?) and from this centre extremely fine, delicate rays often extend to the periphery of the organism (Fig. 1). One might then think that the parasite consisted of the nucleus and central mass of protoplasm, furnished with long pseudopodia; but careful observation shows that these rays terminate at the periphery, and are continuous with the rounded outline of the parasite. We would suggest that some of these fine rays are simply an effect of the hardening reagents.

Scattered through the protoplasm, especially at the periphery, where they are sometimes arranged in a kind of ring, small, dark coloured particles are found, varying from four to twenty or more in number, and sometimes connected with each other by a delicate network (Fig. 2). We must confess that we

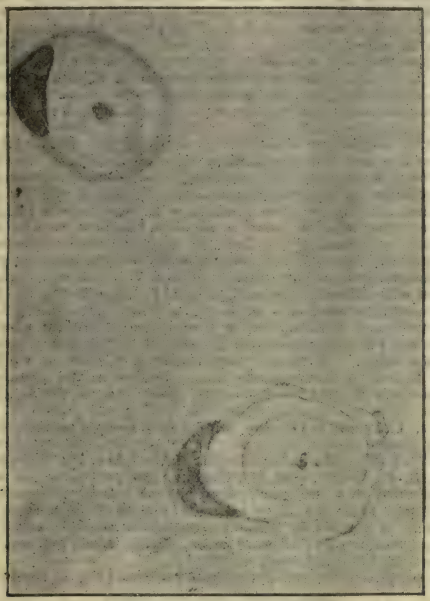


Fig. 2.—Two epithelial cells containing parasites; the cells are distended, and nuclei pressed against the cell wall. The parasite to the right has not taken up the stain, but shows the coloured particles often found.

are unable to give an explanation of these appearances, though we think they may in some way be concerned with the reproduction of the parasite. These particles must be carefully distinguished from the pigment granules, which are often found scattered in the parasite. In some preparations the nucleus gradually disappears, and the whole body takes a delicately mottled, greyish appearance. In others this mottled appear-



Fig. 3.—Epithelial cell containing several parasites.

ance is not visible, but the whole parasite seems to consist of a hard, white, highly refracting mass, which takes up no colouring matter (Fig. 2).

Around the parasite, but separate from it, there is a distinct double coloured wall, which stains far more deeply than the remainder of the cell, and which is probably formed from the protoplasm of the invaded cell (Fig. 1). It is never absent, but can be demonstrated best in sections hardened in Fleming's solution, and stained with methyl-green and Biondi's reagent.

The size of the parasites varies to a great extent with that of the containing cell; but as the parasite grows, it distends its host so that the latter may become two or three times its original size. One epithelial cell may contain several parasites (Fig. 3); at the time of writing we have one under our



Fig. 4.—Several epithelial cells have here fused together, their contained parasites agglomerating into one cyst.

observation which holds seven of these parasites in its interior, each with its nucleus, surrounding protoplasm, and cyst wall. In some cells, though rarely, two parasites are close together, and are contained in one capsule, with the remains of a division between them; but in others several parasites are found in the same capsule. Moreover, it is not rare for several epithelial cells to fuse together, and again, for their contained parasites to get agglomerated in one cyst (Fig. 4). The resulting picture is at first utterly puzzling, and the problem is only to be solved by carefully observing the development of such cells in various sections.

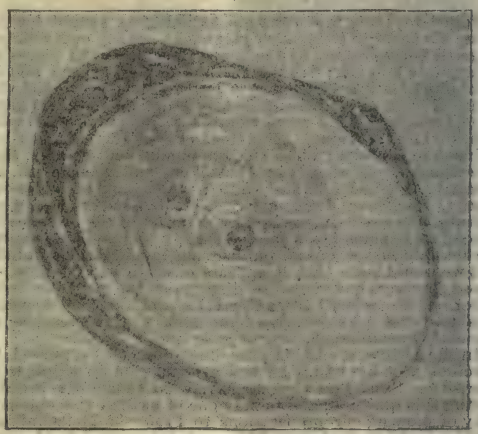


Fig. 5.—Epithelial cell greatly distended, with its nucleus pressed and flattened against cell wall. It contains two parasites.

The parasites are contained in the protoplasm of the cell, but as they grow they displace its nucleus, and flatten it against the side (Fig. 2). At the same time, the protoplasm and nucleus of the epithelial cell undergo more especially degenerative changes, as shown by their reactions when in presence of staining reagents; but the nucleus of the invaded

cell remains for a long time absolutely normal. When degeneration is well advanced, the nucleus is converted into a dirty greyish mass, which, instead of standing out sharply from the cell, fuses into it by almost imperceptible gradations. (Fig. 6.)

The parasites are present in the cancerous epithelial cells only, and we have failed to discover them in the fibrous tissue surrounding the epithelial cells in the blood vessels or lymphatics. It is not improbable, therefore, that when outside the epithelial cells the parasites assume another form (spores), but at present we have been unable to demonstrate these to our satisfaction. The parasites do not invade the epithelial cells of the surrounding normal tissue; in the liver, for instance, the normal or degenerated liver cells never contain them. It is a noteworthy fact that they are found in the greatest number near the growing edge of the

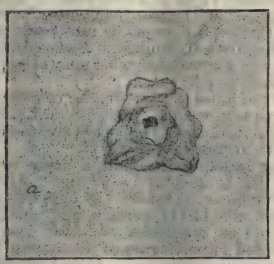


Fig. 6.—Epithelial cells containing parasites undergoing degeneration. *a*. The parasites.

tumour, and although it is extremely rare to find a cell containing a parasite and undergoing indirect division, yet many of the surrounding cells undergo division. Here may be seen most beautiful and instructive examples of the atypical division of cancer cells described by Hansemann; and, in fact, a special paper would be necessary to describe all the abnormal forms of division seen in our preparations. It would appear, therefore, that the presence of a parasite in an epithelial cell leads to the decay of that cell, and to the active proliferation of the neighbouring ones.

Without stopping to describe the phagocytic processes taking place in the fibrous tissues surrounding the tumour, we may come at once to the action of leucocytes in cancerous tumours. It has been known for some considerable time that leucocytes penetrate into epithelial cells, and we need hardly

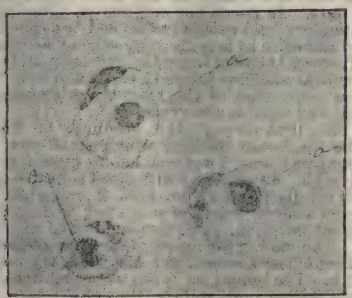


Fig. 7.—Epithelial cells containing parasites undergoing degeneration. *a*. The parasites.

remind our readers of the elaborate theories framed by Creighton and Klebs, and based on their presence in such situations; but we may remark that our observations give no support to these theories.

These leucocytes belong to the small variety, possess a hard deeply-staining nucleus, and—thanks to the special method of staining adopted in our work—they are sharply differentiated both from the epithelial cells and from the parasites contained in them. Now it is evident that the leucocytes enter in considerable numbers, chiefly, if not exclusively, into those epithelial cells which contain parasites. Moreover, it is at once apparent that the parasites so attacked gradually disintegrate under the influence of the amœboid cells, and it is a most instructive sight to see a parasite attacked from every side by three, four, or more leucocytes. After a time these wander into the interior of the parasite, and gradually destroy it. We had the pleasure of having this fact confirmed by the pioneer of phagocytosis, Dr. Metschnikoff.

Before ending this short account of our work, we must add a few words concerning some appearances found in cancers. It was suggested that colloid and other degenerations might simulate the parasites just described; accordingly, we examined several colloid cancers, and degenerated parts of other carcinomata; and we have no hesitation in saying that the parasitic protozoa cannot be mistaken for any kind of degeneration whatever, provided the sections be well hardened and stained. In sections in which both parasites and degenerated cells are present, the difference between the two at once strikes the observer; and, moreover, it is extremely rare to find parasites in the neighbourhood of degenerated parts. In many carcinomata some epithelial cells are invaginated into others, and there is no doubt that such cells often undergo degeneration, and have been mistaken for parasites. We are convinced, however, that those who will use aniline dyes will have no difficulty in diagnosing one from the other, as their staining reactions are absolutely different. In some preparations, indeed, we saw a parasite in the interior of an invaginated cell, but in these cases the external cell, the invaginated cell, and the parasite were sharply differentiated from each other.

These researches were carried out at the conjoint laboratories of the Royal College of Physicians (London) and Royal College of Surgeons (England). It is our pleasant duty to thank the Committee of the Laboratories for the facilities afforded us for carrying on the inquiry, and the Director, Dr. G. Sims Woodhead, for his judicious advice and criticism.

M. Grancher was elected a Member of the French Académie de Médecine on July 12th.

An International Medico-Legal Congress will be held during the Chicago "Exposition" next year.

The fourteenth session of the Congress of Scandinavian Naturalists was held in Scandinavia from July 4th to July 9th. It was attended by 560 persons, of whom 130 were Swedes, 77 Norwegians, 18 Finlanders, and 335 Danes. The four sections of the Congress devoted to medical matters were medicine, surgery, anatomy and physiology, and military hygiene.

Congress on Tuberculosis.—The third Congress on Tuberculosis will be held in Paris at the end of July, 1893. The following are the subjects for discussion at present on the programme: (1) The part played by contagion and heredity respectively in the propagation of tuberculosis; (2) infectious diseases as determining factors of tuberculosis. The part played by certain of these in the localisation of tubercle; for example, that of gonorrhœa in the development of tuberculosis of the testicle, of influenza in the onset or aggravation of pulmonary tubercle, etc.; (3) periods of remission in tuberculosis; their duration, the means of recognising them, and of foreseeing their termination; causes of relapse; (4) various means of diagnosing bovine tuberculosis, particularly the determination of the question whether the inoculation of tuberculin affords a certain basis for the diagnosis of tuberculosis in bovine animals; (5) dangers that may possibly arise from the burial of tuberculous bodies; expediency of substituting cremation for earth burial; necessity of destroying tubercle bacilli in corpses; (6) new methods of prophylactic and curative treating tuberculosis based on its etiology; (7) utility of making the inspection of meat general. A prize of 3,000 francs (£120) will be awarded to the author of the best essay on "The Means of Diagnosing Latent Tuberculosis before its Appearance or after its Cure." Essays, which must be in French, and which must not have been previously published, should be sent before April 1st, 1893, to Dr. L. H. Petit, 76, Rue de Seine, Paris

SUCCESSFUL TRANSFORMATION OF SMALL-POX INTO COW-POX.

By THOMAS WHITESIDE HIME, B.A., M.D.,
Bradford.

THE question of the relationship between small-pox and cow-pox is one which has no doubt occurred to every medical man who has had to perform vaccination. It is a common experience that one attack of certain diseases affords protection against a subsequent attack. But why should a person who has become infected with a disease of the cow be rendered proof against a virulent and familiar disease of man?

The remarkable genius of Jenner, which enabled him to perceive the possibilities of a great human blessing being indicated in the folklore of Somersetshire, suggested to him early in his investigations into vaccination that there must be a close and intimate relationship between cow-pox and small-pox. He held, indeed, that these two diseases, so different in many respects, one of which is highly fatal and infectious, while the other is exceedingly mild and can only be propagated by inoculation, were sisters, offspring of a common parent, the horse-pox.[1] Jenner supposed that these severe characteristics of variola were not the natural and specific effects of the infection of the human being by the vaccine virus. He held that these malignant characteristics were the result of evolution of the virus after its introduction into the human body, originating in variations in the quality of the virus at first accidentally produced, but which subsequently became fixed and permanent, and thus led to the transformation of the mild non-infectious malady of the animal into the infectious, virulent, human small-pox.

"May it not," he asks, "be reasonably conjectured that the source of the small-pox is morbid matter of a peculiar kind, generated by a disease in the horse, and that accidental circumstances may have again and again arisen, still working new changes upon it, until it has acquired the contagious and malignant form under which we now commonly see it making its devastations among us?" According to Jenner's view, a vaccinated person was a small-poxed (*sit venia verbo*) person, who, instead of being attacked by the humanised and intensified form of the disease, had contracted it in its natural, primitive, and mild form.

Although Jenner held these opinions on theoretical grounds, he never attempted to demonstrate their truth by experimental variolation of animals. This, however, has been successfully done by various persons since his time.

The very paucity of these experiments indicates that the importance of the question of the relationship of variola and vaccinia has never been realised, and it is quite certain that even to-day the fact has not become the common property of the scientific world that the question has been solved.

I believe that every reader of my experiments will feel that there is no longer room for doubt that cow-pox is really small-pox which has undergone transformation in the cow. There is no weak spot in the chain of evidence, and the question may now be regarded as settled and disposed of. The doubt which has so long hung over the question has been due partly to a certain confusion introduced into the experiments by Ceeley, Voigt, and others, who employed simultaneously vaccine and variolous virus for their inoculations. The results of these complicated experiments were not satisfactory to many minds, and the unnecessary combination was quite sufficient to cause doubt as to what really was the character of the results produced when two kinds of virus were employed, which the vast majority of persons believed to be perfectly distinct in their nature. The problem to be solved was, Are these two kinds of virus the same or nearly related, or are they distinct? To inoculate them at the same time on the same animal was certainly not the most obvious way of arriving at a result which would decide the question. No doubt the unwillingness to accept the conclusions of some of the experimenters arose partly, too, from the difficulty of attaining any positive result. Mr. Badcock only succeeded in about 7 per 100 of his experiments. Where failures were so numerous and successes so few it was but natural for unbelievers to maintain that the alleged successes were accidental results, due to other causes than genuine variolation.

But the main obstacle to the acceptance of the truth has been the attitude of the French school of experimental pathologists. The experimental school in France has, up to a few years ago, reigned supreme in the world. It devoted great attention to the question at issue, and under the guidance of the world-renowned Chauveau it declared that variola and vaccinia are different diseases.

In 1863 the French Académie de Médecine, Paris, was for months occupied in discussing this question in a series of brilliant debates, raised by Depaul, who maintained that "Vaccine is only the modified virus of small-pox." Subsequently the Commission appointed by the Société des Sciences Médicales de Lyon investigated the question and made a report which, in the most unequivocal language, declared that "the cow, like the horse, when inoculated with small-pox, developed not cow-pox but small-pox."[2]

To-day, after the lapse of 30 years, the veteran, M. Chauveau, reappears to maintain with all the dialectical ability for which he is so distinguished, and, supported by certain misdirected experiments, the accuracy of that report.

Supported by indisputable facts I have no hesitation in asserting that he is absolutely wrong. Although it may seem almost hopeless to attack the opinions which have so long passed for absolutely certain and final, still science recognises no one as infallible. In this case the one-sided and misinterpreted experiments of Chauveau have been too long allowed to go unchallenged. It is a question of fact not of reputation. I leave the decision to the judgment of men of science, who will pronounce their opinion undazzled and unbiassed by the fame of the distinguished Frenchman, who has so long dominated opinion in reference to this question.

Like Jenner, and no doubt many others, I had long held the theory that vaccinia was variola transformed somehow by passage through the cow. So recently as May 14th, I expressed that opinion in a memoir on Pasteur's Antirabic Inoculations.[3] In that memoir I stated in reference to some of Pasteur's analogous experiments. "It can hardly be doubted that vaccine is the virus of variola modified in an analogous way by passage through bovines, and that herein lies its power of protecting against small-pox."

But however useful or even necessary the imagination may be for inventing a theory for the explanation of facts which are not understood, such a theory is only of value as an object for subsequent attack, to see if it will stand the test of experiment. The secrets of Nature are not to be wrung from her by theorising only. As Bacon has well put it, "Non fingendum nec excogitandum quid natura faciat, sed inveniendum." I determined therefore to take the only way of arriving at the truth—to traverse the road in person and not merely in imagination, "nullius addictus jurare in verba magistri." I may add that on every step of the road I was accompanied by independent and capable observers.

On May 16th, 1892, through the kindness of the medical officer of the Brighouse district, where small-pox has been prevalent for some time, I was enabled to obtain some fresh variolous lymph. In company with him I collected the lymph in sterilised capillary tubes from Mrs. T., aged 37, who was suffering from a severe attack of small-pox with copious and semi-confluent eruption. The patient died of the disease 9 days later. The date of the onset of the disease, as recorded in the medical officer's report, was May 10th, the rash appearing May 12th. The lymph, as it ran into the tubes, was perfectly limpid, transparent, and translucent.

On the following day, May 17th, in the presence of the medical officer of health for this town I inoculated a healthy bull calf, about 10 weeks old, with this lymph. The calf was placed on the ordinary vaccination table used for these animals. The calf had been shaved on the left side, and on

[1] At first Jenner confounded the grease with true horse-pox, a confusion not so very inexcusable at a time when diseases of the horse were so little understood.

[2] "La vache comme le cheval auxquels on inocule la variole ne rendent pas la vaccine, mais bien la variole." *V.* Rapport par MM. Chauveau, Viennois et Meyuet, *Mémoires et Comptes Rendus de la Société des Sciences Médicales de Lyon*, T. v.

[3] *Lancet*, May 14th, 1892.

the lower part of the abdomen, where I intended to inoculate it. These parts were carefully washed and disinfected before the inoculation, and the knife used was sterilised before use. On the side I made 14 incisions with great care, just penetrating through the epidermis, about ¾-inch (=2 cm.) long. Scarcely a trace of blood was drawn from 11, and a mere trace from 3. Where any blood appeared it was carefully wiped away with sterilised blotting-paper before the lymph was inserted. When all trace of oozing had ceased the lymph was blown from the tubes into the incisions, the sides of each being stretched apart while this was being done. In addition to these 14 incisions, variolous lymph was applied to 3 raw surfaces on the side, each about the size of half a fourpenny piece, which had been caused in shaving. On the lower part of the abdomen I made 7 similar incisions and inoculated them in the same way. I also abraded the cuticle from a spot about the size of a shilling, while I inoculated, in addition, another spot of the same size, which I scratched in various directions. The calf was left undisturbed on the table for half an hour, to ensure absorption, and was then returned to its stall, which was kept at about 68° F. It was fastened up with a short halter in the common way, to prevent it licking the inoculated places, and was fed only on new milk, given in three daily rations.

May 18th. At the end of twenty-four hours I thought there were sufficient indications of local reaction at some of the insertions to forebode success. But circumstances proved that these appearances were merely due to the irritation of the operation, and not to the success of the inoculations. The calf was in perfect health, and had that ravenous appetite which one likes to see, and was playful and skittish.

May 20th. On examination of the calf on the table to-day it was evident that the insertions were aborting, all looking flat, pale, and dead. Two minute spots, one in the track of an insertion on the side, and one in an insertion on the abdomen, were slightly elevated, as one sometimes sees in the line of an ordinary insertion of vaccine when only a small portion of it is going to "take." But to my surprise I felt on the side four minute points in the skin distinctly more indurated than the surrounding parts. Three of them were situated within about ½-inch of each other, at places quite distinct from any insertions, at the anterior end of the shaven part. The fourth was about 1½ inch from the other three, and the dried up, dead line of inoculation ran alongside, and immediately touching one border of it, like a tangent to a circle. I failed to find any spots on any other part of the calf.

May 21st. The calf was evidently not well. Its hearty appetite was gone, and it only took a part of its morning meal. It was dull, quiet, and its temperature had gone up 1 degree (103° F.). When it had been placed on the table I found the four points referred to were distinctly visible and tangible, just raised above the surface, as could be felt on passing the finger over it. They were not larger than about the area of a grain of corn divided transversely. The points which I had noticed the previous day in the track of two of the insertions were also larger, but the remainder of these insertions showed no signs of taking. I also found two fresh papules, one near the posterior end of the shaven part of the side and one on the abdomen, both apart from any of the original insertions.

May 22nd. The calf was still more unwell. The temperature was 104.4° F., and there was slight diarrhœa, while it only took little food, and that unwillingly. On the evening the temperature fell to 103.4° F. The line of the insertions was still detectable to the touch by a slight roughness, but they were all manifestly aborting, while the papules were growing in size, and were slightly pink.

May 23rd. The temperature was 104.6° in the morning, but fell to 103.4° in the afternoon, and 103° in the evening. The diarrhœa continued, but was quite different from the form of the complaint which is familiar to those who keep calves, and which is as readily recognised by the nose as by the eyes.

May 24th. On this day the medical officer of health and Mr. Carter, F.R.C.V.S., came at my invitation to see the calf, and also Dr. Kerr. They saw the calf on the table, and all noticed the special characters of the eruption and its pock-like appearance. The pocks were round, discrete, indurated, elevated, umbilicated with the central depression on the summit covered with a brown scab, and round the depression ran a slender pearly-white line. There was also a beautiful delicate rosered areola about ¼-inch in diameter. The pocks were about ¼ to ⅓-inch in diameter. The appearance is fairly well repre-

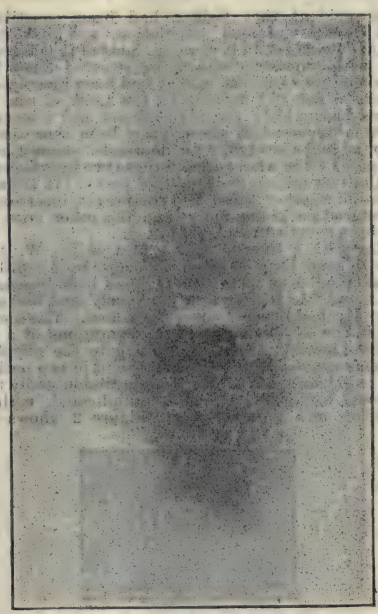


Fig. 1.

sented by Fig. 1,[4] which shows the three pocks at the anterior end of the shaven part of the side. Above and to the right side there are to be seen remnants of the aborted insertions, represented by a roughish line.

May 25th. (= 24 × 8). The calf was better, and the fall of temperature had continued. It takes its food with some relish. Dr. Bell, one of the public vaccinators, and Dr. W. Denby examined the calf on the table, and both were struck by the specific pock-like appearance of the eruption. In Dr. Bell's presence I collected the lymph in sterilised capillary tubes, by the aid of clamp forceps, from the pocks, and I also scraped them and prepared "conserve" by the addition of a little pure glycerine.

The scabs were thin and rather membranous in character, and were with difficulty detached from the pocks. The lymph was very scanty, but perfectly clear and limpid.

In the presence of Dr. W. Denby I also inoculated my own left forearm by scratching an area about the size of a sixpence. It may be convenient to conclude the history of my own inoculation here. I have been many times revaccinated, and being thus protected, the insertion produced nothing beyond a slight local effect, with a yellowish scab, which came off on the eleventh day. The surface where the scab had been was glazed and speckled, and still has a peculiar variegated appearance, which seems due to minute pitting or foveation. I had no more general symptoms than at the time I was last revaccinated; but the marks left show that the local action was more energetic. I cannot discover any distinct marks of any revaccination, and there never was any such distinct mark as has been left by the inoculation from this calf. The application

[4] This is done from a photograph, the original of which unfortunately is but poor when compared with the magnificent one done by Sanitäts-Rath Dr. Fischer, of Carlsruhe, from a calf inoculated with some of my variola-vaccine. I had the eruption drawn in water colours on the seventh and eighth day, but, for financial reasons, they have not been reproduced.

of disinfectants to my own arm after some time had not the least effect in checking the action of the virus.

At the same sitting, in presence of Dr. Denby, I inoculated another calf (hereinafter called Calf II) with some of the material obtained from the pocks on Calf I (the variolated calf).

It was evident that Calf I had been constitutionally infected by the variolous inoculation, and that the pocks which had developed on it were products of that infection, all of them, with two exceptions, being situated apart from the places where the variolous matter had been inoculated. The two pocks which did develop in the track of the original insertions had exactly the same shape and appearance as those which appeared at places apart from those insertions, being round and elevated, with depressed summit, and were not elongated. The whole of both these two insertions aborted except the two minute volcano-like pocks. It seems to me questionable whether these two portions of insertions would have produced pocks any more than the other ones had the calf not been constitutionally infected.

On May 28th I inoculated the arm of Dr. W. D. in two places with some limpid lymph collected in a capillary tube from Calf I on May 25th. Dr. D. had been vaccinated in infancy, some thirty-two years previously, and had one good cicatrix. He had never been revaccinated. The inoculation resulted in the development of the symptoms of a primary vaccination, local irritation, extending to the glands of the axilla, some *malaise*, and the development of two pocks at the place of insertion, both of which were undoubtedly true vaccine pocks, indurated, elevated, umbilicated, with abundant vesicles, and a pearly ring. Figure 2 shows the true

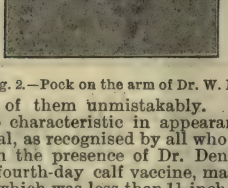


Fig. 2.—Pock on the arm of Dr. W. D.

character of one of them unmistakably. The other pock was not quite so characteristic in appearance, but was undoubtedly vaccinal, as recognised by all who saw it.

On May 28th, in the presence of Dr. Denby, I vaccinated Calf I with fresh fourth-day calf vaccine, making thirteen insertions, none of which was less than $1\frac{1}{2}$-inch long. Dr. Denby examined the calf with me on several occasions subsequently up to the tenth day. It never had any rise of temperature, nor other constitutional symptom. Every one of the insertions failed, and no sign of eruption could be found anywhere on its body.

The calf had been rendered refractory to vaccine by variolation.

With regard to Calf II (inoculated direct from Calf I on May 28th), every one of the twenty-nine insertions made took, with the normal appearance seen in calves vaccinated with fresh calf vaccine. On the fourth day (24 × 4) the pocks were beautiful, plump, elevated, with a yellowish scab, a broad pearly margin, and a delicate, marginal blush. There was elevation of temperature to the extent of 1.4° F. The pocks were full of clear, vitreous lymph, which oozed out when the clamp forceps were applied. I collected some of it in tubes, and also scraped the pock, and, with the addition of a little glycerine, made some "conserve." I have sent some of this to several persons, including Sanitäts-Rath Fischer, of Carlsruhe, head of the public vaccination service of the Grand Duchy of Baden. There could no longer be the slightest doubt that genuine typical vaccinia had been produced by the variolation of Calf I. Calf III, vaccinated from Calf II July 1st, 1892, also developed perfectly typical vaccinia, every insertion "taking."

On May 31st, I vaccinated a child of 4 months in two places on the right arm from some of the colourless, clear vaccine taken from Calf II, and kept in a sterilised capillary tube. The two insertions developed in the ordinary course into beautiful typical vaccinal Jennerian pocks, of which Figure 3 gives the appearance as seen on the eighth day. It needs no description to point to its specific characteristics. I had the arm photographed four times (fourth, fifth, eighth, and eleventh days), and also drawn in water colours.

Dr. Foster, a public vaccinator of this town of some twenty-five years' experience, saw the child with me on the eighth day, and at once recognised the perfectly typical vaccinal pocks, than which he said he had never seen any more beautiful. It may be stated that the child had no untoward symptoms of any kind, no fever and no trace of eruption of any kind, and the mother says it got over its vaccination with less inconvenience than any of her other children.

In order to remove any possible doubt as to the nature of the pocks, and to test whether the child had been rendered refractory to vaccination, Dr. Foster vaccinated it in two places on the left arm, on June 28th. Both these insertions completely aborted, and the child had no constitutional symptoms.

The child had been rendered refractory to vaccination by inoculation from Calf II, as Calf I had been rendered refractory to vaccination by variolation.

The following illustration shows the pocks on the child's arm, the character of which is unmistakable.



Fig. 3.

With the material from Calf II which I sent to Sanitäts-Rath Fischer, of Carlsruhe, he vaccinated a calf four weeks old. On June 18th he telegraphed to me that the results were superb. That he used no exaggerated language must be evident to those to whom I have shown the beautiful photograph taken of the insertion on the fourth day (24×4) and here reproduced (Fig. 4).

The typical and perfect character of every pock is self-evident, and it is unnecessary to draw attention to any of their characters, which are plainly Jennerian.

From this calf he vaccinated six children, and he describes the result in a letter written to me on June 22nd, of which the following is a translation:

"Every one of the insertions was successful, and showed the most lovely vaccinal pustules which could be seen, without any undue local reaction. There was a rose-red areola and typical umbilication with true Jennerian vesicles. There have been no severe general symptoms; in particular, there

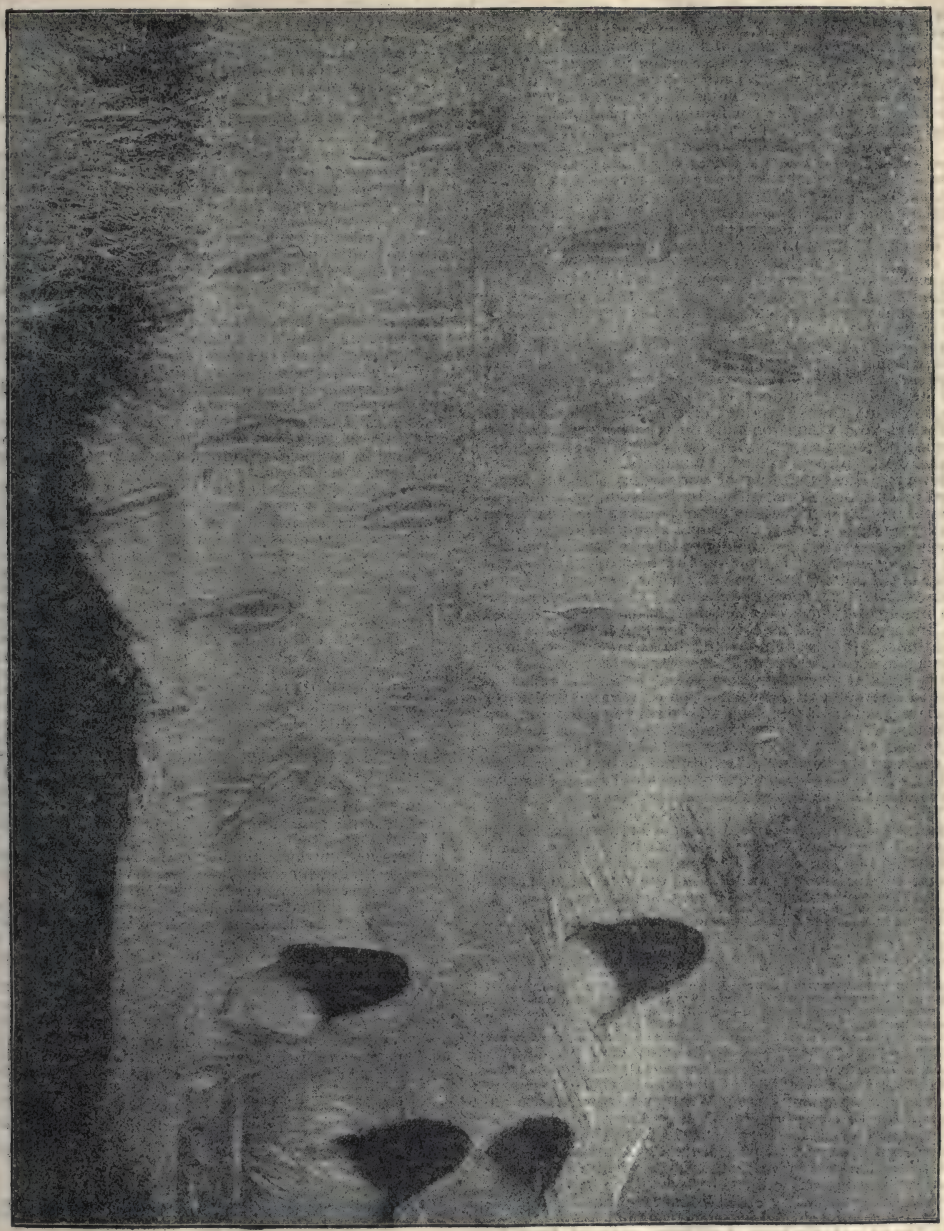


Fig. 4.

has been no fever, nor the slightest trace of any eruption or rash of any kind."

Two points alone remain to be noticed. One of the ablest of those who refuse to believe that variolation of the calf produces cow-pox alleges among other proofs of his opinion (1) that the eruption produced by variolation of bovines dies out through successive inoculations of animals of that species;[5] (2) that the virus taken from a variolated bovine and inocu-

[5] "Elle s'éteint par des inoculations successives sur cette espèce," Bouley, *Pathologie Comparée.*

lated in the child, and from the child returned to a bovine, never produce an eruption of cow-pox.[6]

At present I have in my place Calf IV, inoculated in direct succession from Calf I, and the eruption is to-day (24×5) perfect and typical and active, and shows no sign of dying, but the opposite. And as to the second point, I have also a calf at present which has six fine pocks produced by six insertions of lymph taken from the child, T. A., referred to above. Both the criteria laid down by Bouley, therefore, have no existence. But he is referring especially to the adult ox—which he probably never did variolate—I to the calf, which I and others have successfully variolated.

I think no shadow of doubt can remain in the mind of the reader as to the true vaccinal character of the pocks on the arm of the child I inoculated here from Calf II, or of the pocks on the arms of the six children inoculated by a man of such experience as Dr. Fischer. Those who are familiar with the experiments of Ceeley and Badcock in this country will recognise that what they demonstrated has once again been proved to be true.

But there will no doubt arise a feeling of wonder at the unhesitating declaration of the Lyons Commission stated above that variolation of the cow only produces variola, or, as stated by one of the most eminent of French veterinarians, M. Bouley, for some time President of the Académie de Médecine (Paris): "La vache inoculée de la variole ne rend pas la vaccine; elle rend ce qu'on lui avait prêté, et en monnaie identique, c'est à dire qu'elle rend la variole."[7]

In Germany the possibility of variolating the calf is recognised by eminent authorities. In this country, where experimental inquiry is unfortunately not much practised, there can hardly be said to be any opinion at all on the subject.

Success in the experiment no doubt largely depends on the taking of the variolous matter on the best day, and on the character of the animal inoculated. Calves seem to be much more susceptible than cows, and no doubt Chauveau's failures are due largely to the fact that he seems to have experimented chiefly, if not entirely, with cows. Everyone is familiar with the fact that the young of man and beast are susceptible to diseases against which the adults are practically proof. Anyhow, it is extraordinary that even to-day he should refuse to attempt to use the calf for variolation experiments, and yet still declare that in inoculating the cow he is repeating the experiments of those who expressly state that their success was obtained with the calf to the exclusion of the cow. It would seem as if this eminent experimenter had determined not to learn from the opponents of his opinion, and that he refuses to admit that in scientific questions "fas est et ab hoste doceri."[8]

The apparently irreconcilable difference between my results and those of the Lyons Commission lies in the fact that I used the calf, not the cow, for my experiments. I have no doubt that herein also lies the secret of the very large proportion of failures experienced by Badcock and others.

[6] "La variole inoculée du bœuf à l'enfant et raportée de l'enfant du bœuf ne donne jamais lieu chez ce dernier à une eruption de cow-pox," Bouley, *loc. cit.*

[7] *Le Progrès en Médecine par l'Expérimentation*, par H. Bouley, Paris, 1882, p. 213.

[8] It is hardly necessary to say that the variola-vaccine developed in the course of the experiments related above is in no way associated with the calf vaccine—never humanised—which I supply for vaccination. There has never been any association of them whatever.—T. W. H.

LITERARY INTELLIGENCE.—A second edition of Sir Thomas Longmore's *Treatise on Ambulance Transport* (published in 1869) is now in the press. The revision of the work has been entrusted by the author to Surgeon-Captain William A. Morris, with the sanction of the Director-General of the Army Medical Department, upon whose recommendation to the Government the issue of a second edition was ordered. A special chapter on the Convention of Geneva, from the pen of Mr. John Furley, has been introduced, and the history of the British Medical Service, commenced by Sir T. Longmore, has been completed by Brigade-Surgeon-Lieutenant-Colonel W. Johnston, A.M.S. The title of the book has been changed from its original form to *A Manual of Ambulance Transport*, for the somewhat quaint reason that "the word 'Treatise' has fallen into disuse." We can only say with Bardolph that we have heard the word, and we will maintain the word to be a soldier-like word and a word of exceeding good command.

THE DIAGNOSTIC VALUE OF THE EOSINOPHILE LEUCOCYTES IN LEUKÆMIA AND HODGKIN'S DISEASE.

BY A. A. KANTHACK, M.B., M.R.C.P.,
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EHRLICH and his followers[1] ascribe the greatest importance to an increase in the blood of the eosinophile leucocytes in the diagnosis of leukæmia and Hodgkin's disease. Lately, Professor Dreschfeld,[2] Janowski,[3] and others expressed their doubt as to the significance of these cells in the above diseases, and adding a few observations of my own, made since the beginning of the year, I hope to show that the increase of the eosinophile cells, with or without general leucocytosis, is of absolutely no value in the diagnosis of leukæmia.

1. As Professor Dreschfeld and Janowski state, an increase of eosinophile cells is not found in all cases of leukæmia. In some instances, as in a case examined by me—the only one at my disposal—there is an actual decrease.

2. In chlorosis I found a marked increase on several occasions; however, without general leucocytosis.

3. Canon,[4] Neusser,[5] and others,[6] observed an increase of these cells in the blood of patients suffering from various affections, as asthma, chlorosis, eczema, psoriasis, prurigo, pemphigus, ovarian cysts.

4. In the febrile blood of animals we have both a marked leucocytosis and a great increase of eosinophile cells.[7] An opportunity of examining hospital patients systematically did not present itself, but I do not doubt that in such fevers as pneumonia, diphtheria, or rheumatic fever, leucocytosis with an increase of the eosinophile cells will also be found at particular stages of the disease. In a case of hip disease with hectic fever and lardaceous liver, and in three cases of septicæmia, I noticed invariably in the morning an increase of these cells with leucocytosis. One case was especially instructive, as the patient was very anæmic after repeated losses of blood, and the hæmoglobin greatly reduced. Leukæmia was altogether excluded, and yet with a general leucocytosis there was a great increase of eosinophile cells. I cannot therefore agree with Janowski, that "the co-existence of a large number of eosinophile cells in the blood with leucocytosis is of a positive value in the diagnosis of leukæmia," though I agree with his further statement that "leucocytosis with an absence of these cells does not exclude the possibility of leukæmia."

The following considerations will show that the eosinophile cell is of no specific importance in leukæmia.

1. Neusser,[8] Leyden,[9] and Janowski[10] found large numbers of these cells in gonorrhœal pus, and my own observations on four acute cases confirm these observations.

2. Pus from subcutaneous abscesses of rabbits, dogs, and guinea-pigs often consists almost entirely of eosinophile cells.

3. Pus obtained from cases of purulent ophthalmia, which attacked some of the rabbits kept in a particular cage, also presented a considerable number of such cells.

4. Most specimens of human pus were likewise full of them. Such pus was obtained from two perineal abscesses, a psoas abscess, from a case of suppurative periostitis, of necrosis of the jaw and from several sloughing and granulating wounds.

5. The sputum of patients suffering from asthma,[11] phthisis,[12] and bronchitis often contains great numbers of

[1] P. Ehrlich, *Farbenanalytische Untersuchungen zur Histologie und Klinik des Blutes*. Part 1.

[2] Clinical Lecture on Acute Hodgkin's Disease, BRITISH MEDICAL JOURNAL, April 30th, 1892.

[3] Beitrag zur Kenntniss der Granulationen der weissen Blutkörperchen, *Centralbl. für allgem. Path. und path. Anat.*, iii, No. 11.

[4] *Deutsche med. Wochenschr.*, 1892, No. 10.

[5] *Wiener med. Presse*, 1892, Nos. 3, 4, 5.

[6] Gabritschewski, *Arch. für exp. Pathol. und Pharmakol.*, 1890, page 83.

[7] *Cf.* a paper by the author in BRITISH MEDICAL JOURNAL, June 18th, 1892.

[8] *Loc. cit.*

[9] *Deutsche med. Wochenschr.*, 1892, No. 5.

[10] *Loc. cit.*

[11] Gollasch, *Fortschr. d. Med.*, 1889, page 361. Leyden, *Deutsche med. Wochenschr.*, 1891, pages 36 and 53. Weiss, *Wiener med. Presse*, 1891, pages 41 to 44. Neusser, *loc. cit.*

[12] *Cf.* Janowski, *loc. cit.*

eosinophile cells. I have examined six cases of advanced tuberculosis pulmonum, and in five the quantity of these cells was almost enormous.

6. In almost all specimens of early non-purulent inflammation in man, rabbits, guinea-pigs, dogs, or frogs, a large number of eosinophile cells is found in the tissues and vessels. These observations extend already over a long series of cases.

7. In muco-purulent nasal secretions numerous eosinophile cells are often noticed, and even human saliva at times contains some, though not in any large number.

8. Professor Dreschfeld mentions that they have also been found in nasal and pharyngeal polypi, and Neusser and Canon have seen them in the corium of the skin in certain cutaneous affections.

The part played by the eosinophile cells in health and disease is not yet known, and observations on the morphology of the leucocytes in febrile diseases, and other pathological as well as physiological conditions are greatly wanted. This however is certain, that we cannot rely on the eosinophile cell in the diagnosis of leukæmia, whether splenic or myelogenous. Animal experiments show that this cell is quite independent of the spleen or lymphatic glands,[13] and that its myelogenous origin is extremely doubtful. In the frog they are certainly not myelogenous, since they can be made to increase in the amputated leg after removal of the bones. We see then that (1) leucocytosis with an increase of the eosinophile cells does not occur in all cases of leukæmia; (2) leucocytosis with an increase of the eosinophile cells is found in other affections besides leukæmia; (3) these cells are by no means specific for leukæmia; (4) judging from animal experiments, they are quite independent of the spleen and lymphatic glands, and probably also of the bone-marrow. The only logical deduction from these considerations is, that the eosinophile cells are of no diagnostic value in leukæmia or Hodgkin's disease.

ON INTESTINAL OBSTRUCTION DUE TO GALL STONES: WITH A REPORT OF A CASE SUCCESSFULLY TREATED BY LAPAROTOMY.

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Honorary Surgeon Leeds General Infirmary; Professor of Surgery in the Victoria University.

The subject is one of considerable importance, as will be gathered from the fact of over 100 cases being on record; and undoubtedly many examples occur without being recognised. Intestinal obstruction dependent on gall stones may occur during a severe attack of biliary colic, from paralysis due to intense nervous shock, or local peritonitis, or both; but although the vomiting may be severe and persistent, and the prostration so intense as to assume the form of collapse, obstruction seldom becomes complete, and usually resolves under treatment by morphine and restriction of diet. This, however, is not the variety I purpose considering now, which is also the common and usually accepted form of intestinal obstruction when due to biliary concretion. I refer to mechanical obstruction dependent on a large gall stone producing a block in some part of the intestinal tract. The following case is a good example.

Acute Intestinal Obstruction due to Volvulus set up by Passage of Large Gall Stone; Laparotomy; Cure.—Mrs. H. E., aged 68, was admitted on November 12th, 1890, with acute intestinal obstruction. Dr. Hamilton, of Crowle, Lincolnshire, who brought the patient to see me, gave me the following history: She had enjoyed very good health up to eight days previous to admission, when she was suddenly seized, without warning, with intense abdominal pain and vomiting. For three days the vomiting was incessant, and on the fourth became stercoraceous. Enemas and medical treatment were tried without success. On the eighth day she was brought by train and ambulance to the infirmary. The bowels had not been relieved from the first, although a little flatus was passed up to the date of admission. When admitted, the abdomen was much distended and hyper-resonant on percussion. Pulse 110; temperature 99°. She was fully under the influence of opium. Nothing abnormal *per vaginam* or *per rectum* to be felt. At the end of twelve hours she had vomited twice; vomit stercoraceous. Pulse 130; temperature half a degree lower than before. A distended coil of bowel could be felt near the umbilicus, and from this point the coils of intestine could be seen to move. The A.C.E. mixture having been administered, the abdomen was opened in the middle line. The small intestine was much distended, the large intestine collapsed. A congested loop of the ileum was then found with a marked constriction at the ends. On rotating this on its mesenteric axis, it gave a sudden twist, and gas and fluid contents were felt rushing through it. On examining the coil, there was found a deep furrow across it, surrounded by recent inflammatory lymph.

The abdomen was closed, and as the loop was deeply congested, it was stitched in the wound, but not opened. The patient made a good recovery. The second day fæces passed from the wound on account of a stitch hole giving way. On the third and fourth day copious motions were passed *per rectum*, and she was practically convalescent at the end of a week, when a gall stone the size of a large walnut passed *per anum*. This had probably been the exciting cause of the volvulus. The minute fæcal fistula soon closed, and when I heard of the patient two months after she was in good health.

It might naturally be thought that the process of ulceration and the establishment of a fistula between the bile passages and the bowel would be so characteristic that this form of intestinal obstruction would be always easily diagnosed, but this and many other cases entirely disprove it.

The following remarks of Mr. Hutchinson serve to show how difficult, or even impossible, it may be to arrive at a correct diagnosis: "To turn to the class of cases in which real obstruction is present, we may ask the question: Is it possible to make a diagnosis of a case in which the small intestine is plugged by a gall stone? I maintain that it is not practicable to get further than a mere conjecture. If the case is recent, it will count as one of acute intestinal obstruction, and a band, or a twist, or some other form of internal strangulation will be suspected.

"Such has, I believe, actually been the diagnosis in almost every case where the abdomen has been opened and a gall stone found.

"A differential diagnosis is simply impossible, for the symptoms are the same. There is little to help us excepting the history of an early stage of symptoms referable to the region of the gall bladder, and this is in many cases—I think in the majority—wholly wanting. If the duration of the case have been longer and it have passed into one of chronic obstruction, we still have nothing except the history by which to distinguish it from cases due to other causes. Cases of block by hardened fæces and by malignant stricture may each in turn resemble it."

A careful consideration of the cases I have seen, and of others that have been reported in the journals and elsewhere, confirms my belief in the opinion so well expressed in the previous quotation, for, as a rule, it is impossible to diagnose obstruction from gall stones from other conditions causing acute intestinal obstruction; therefore, the surgeon should always bear gall stones in mind when called upon to treat acute obstruction.

As jaundice is nearly always absent in these cases, I think it clearly proves that these large concretions gain access to the bowel by a process of ulceration instead of in the ordinary way through the bile ducts. I think it quite probable that the initial acute symptoms may be due to paralysis of the gut, owing to local peritonitis, although the later symptoms are undoubtedly due to the mechanical block caused by the concretion; but arguing from the history of the cases reported and of those I have observed, it is usually impossible to make any distinction between the different stages of the affection, the patients being generally seized with pain and vomiting, and these being rapidly followed by persistent obstruction, until either the stone passes into the large intestine or gets pushed aside, ceasing to obstruct, or is removed surgically.

The following example, related by Böllinger, illustrates how the passage is effected. "In a case in which there was evidence of obstruction of the bowels laparotomy was performed. The patient died with septicæmia, and there was found after death a large gall stone impacted in the jejunum and a large fistula between the gall bladder and duodenum. There were numerous gall stones in the gall bladder and several in the fistula."

If a gall stone be sufficiently small to pass through the common duct into the intestine, it seldom produces intestinal obstruction, although the pain, sickness, and constipation may simulate it and lead to a little difficulty in diagnosis. I have on several occasions been asked to see such cases by my medical friends, and I believe the similarity to be greater than is usually supposed, and it certainly is

[13] *Cf.* previous paper by the author, *loc. cit.*

deserving of more attention than it usually receives. As a rule, under the circumstances, the small stone will not be discovered in its passage through the anus, unless specially sought for; but where large gall stones are parted with after producing intestinal obstruction, their passage *per anum* is usually characterised by such pain as to lead to their discovery.

In connection with treatment it may be well to mention the views of the two schools, the one advocating early operation by laparotomy, as in intestinal obstruction due to other causes, the other advocating treatment by opium, starvation, injections, and massage under an anæsthetic.

In one case, in a lady aged 65, I felt so sure of the obstruction being due to gall stones, that I ventured to treat the case on expectant principles, using opium as required. At the end of a fortnight sudden and complete relief ensued, and a large gall stone was evacuated. But in this case the history of pain over the gall bladder for a considerable time, succeeded by symptoms of peritonitis in the right hypochondrium, and then followed by intestinal obstruction, left very little doubt as to the cause of the obstruction.

This case is however exceptional, therefore, in face of the improbability of an exact diagnosis being made, any case of acute obstruction may be one in which speedy death is the only alternative to immediate relief, as in strangulation by a band or by an internal hernia. If laparotomy be performed and the cause be discovered to be an impacted gall stone, the obstruction may be removed either by needling the calculus through the walls of the bowel or otherwise crushing it, or by pushing it onward. This failing, the stone may be removed by enterotomy, the intestine being subsequently sutured.

If it were possible to be certain that a gall stone was the cause of the block, the expectant form of treatment would be fully justified, since the probability, arguing from published cases, is that the gallstone would eventually pass; but accepting the diagnostic difficulties we cannot help feeling that if relief by medical means does not speedily come, the surgeon is accepting a great responsibility in waiting for Nature's cure.

PRELIMINARY NOTE ON SOME MICRO-ORGANISMS OF NORMAL SKIN.

By G. W. DAMMAN, M.B., Ch.B.Melb.
[From King's College Laboratory, London.]

It is a well-known fact that on the surface of the human body dwell numerous micro-organisms, even under normal conditions of the skin, but, in spite of the importance of the subject, it has been little worked at. Bizzozero, in 1884, was the first to go into the subject, and was followed by Bordoni-Uffreduzzi, Mittmann, Maggiora, Preindlsberger, and others. But these observers have worked in a rather desultory manner, and have, as a rule, confined their attention to the microphytes on some particular part of the skin. It is my intention to make a more exhaustive investigation, and in the meantime I propose to describe shortly a few of the organisms I have already isolated, and of which I can find no description in any of the papers and books I have consulted, and to which I have ventured to give provisional names. The portions of the body selected are the skin between the toes, the cruro-scrotal region, the contents of sebaceous glands in the face, the inner surface of the prepuce, the forearm, hairs and scales of the scalp, tip of the finger, and the space beneath the finger nail. In every case the skin was first washed in the ordinary manner to remove to a certain extent organisms which had settled from the atmosphere: then the epidermis was moistened with sterilised water and scraped with a sterilised knife; gelatine and agar-agar plate cultivations were then made of the scrapings.

I.—*Bacillus Epidermidis Capsulatus.*

This organism was obtained from scrapings of the skin between the toes.

Morphology.—A large motile bacillus with rounded ends, occurring mostly in twos, some forming long rods. In old cultures there is a tendency to involution forms shown by enormously long rods with irregularly distributed protoplasm. In gelatine cultures the organism displays a distinct capsule, absent in cultures on other media.

Biology.—Gelatine plate cultivations show irregularly-shaped colonies, often kidney-shaped, which have a blue colour, especially at the hilus and periphery, as seen with the microscope; later, the colonies assume a pale bluish colour macroscopically. In stroke cultivations it forms an abundant, thick, slimy, greyish layer with irregular edges; in stab cultures a whitish growth, both on the surface and in the depth, forming abundant gas; the surface growth forms a fine interlacing network of rays and concentric circles. On agar it grows fairly well, but is little characteristic; thrives best at a temperature of about 20° C. On potato it forms a thick dirty whitish growth in the needle track, with occasional formation of a few small gas bubbles.

Remarks.—A peculiar odour is evolved from all cultures, but more particularly from gelatine. The odour does not resemble that from sweating feet, which has been remarked by several observers in organisms obtained from between the toes (Thin, Uffreduzzi, Maggiora, etc.). Gas is formed abundantly in the deep layers of gelatine in stab cultures.

II.—*Bacillus Gelatinosus,*

obtained from the skin between the toes.

Morphology.—Fine, slender, actively motile threads, arranged irregularly, but with a tendency to a stellate or parallel arrangement. Preparations from all cultures show a distinct capsule, which is faintly stained by the aniline dyes. The bacilli frequently show a beautifully even beading similar to that seen in tubercle and leprosy: in old cultures there are long leptothrix forms, beaded and with irregular joints, and occasionally showing apparent branching.

Biology.—Gelatine cultivations produced a peculiar colourless, transparent, gelatinous material, which surrounds and is incorporated with the purely chromogenic organism, giving it a coarsely granular or mottled appearance. Plate cultivations: the deep colonies are very small, round or oval, and transparent, and grow very slowly. When they reach the surface they are irregular in shape; with the microscope they are rusty brown in colour, homogeneous, and opaque, with well-defined edges. Stab cultures show a yellow hemispherical growth on the surface, with the peculiar gelatinous appearance, growing very slowly; very little to be seen in the puncture. On agar-agar it grows very sparingly or not at all at a temperature above 28° C. Its growth is similar in every way to the gelatine cultures. Potato cultures are of a beautiful orange-yellow colour, and consist of thickly-set grains, very firm and difficult to break up. Later, the growth resembles a series of very fine, delicate, twisted, and coiled-up threads. On this medium the gelatinous appearance is not produced.

III.—*Bacillus Fluorescens Epidermidis,*

obtained from the tip of the finger after thorough washing and soaking in alcohol absolutum.

Morphology.—Actively motile, straight or curved rods, arranged irregularly; sometimes singly, but mostly end to end in pairs. No spore formation observed.

Biology.—Gelatine cultivations commence to liquefy in about two days without visible growth, nothing being seen but a slightly greenish cloudiness in the channel of liquefaction; the solid gelatine becomes feebly fluorescent and is completely liquefied in seven to ten days; a white flocculent deposit occurs at the bottom. If undisturbed, the liquefied gelatine separates into two layers, an upper green, and a lower colourless one, while a very thin greenish pellicle forms on the surface. Sooner or later the fluid assumes a yellowish tint. Stab cultivations are rather slower in development than the stroke; liquefaction takes place from the surface in the form of saucer-shaped liquefaction, rapidly extending to the sides of the tube, and then spreading downwards. On agar-agar the organism will not grow at blood heat, but at 25° C. forms an abundant whitish fluorescent growth, staining the medium a beautiful pea-green. Potato cultivations are of a dirty cream colour, limited to the needle track, and coarsely granular in appearance, with a dull surface.

Remarks.—This organism resembles in some respects bacillus pyocyaneus β (Ernst), bacillus fluorescens liquefaciens (Flügge), and bacillus fluorescens liquefaciens minutissimus (Unna). The question of its complete identity with one of

these must be postponed till further observations have been made, but I am inclined to consider it a distinct species. Dr. St. Clair Symmers[1] has also described a liquefying fluorescent bacillus, but, as he gives no details of its biological characters, it is impossible to say whether it is identical with my organism or not.

IV.—*Bacillus Luteus Liquefaciens*,
obtained from the inner surface of the prepuce.

Morphology.—Short thick rods with rounded ends, usually constricted in the middle, occasionally forming short chains or longer unjointed rods.

Biology.—Gelatine cultures: on plates in two days the colonies appear as fine, round, slightly-yellowish points. In four days the superficial colonies are pale yellow, hemispherical, smooth, shining and opaque, about 1 millimetre in diameter. The organism commences to liquefy the gelatine in seven or eight days, the colonies becoming surrounded by a sharply-defined area of clear liquefied gelatine. The deep colonies are of irregular shape, brownish-yellow, and granular. Stroke cultures are yellowish-white, with finely-toothed edges, gradually become bright yellow, and liquefy in eight to ten days. In stab cultures there is a flat growth on the surface with a fine concentric arrangement, whitish veil in the depth. On agar-agar it grows well at ordinary temperatures, but not at a higher temperature than 28° C.; it forms a slimy yellowish-white growth. On potato, thrives with difficulty.

Remarks.—No free spores have been observed, but some preparations show signs of doubtful sporulation. The organism does not grow at blood heat.

V.—*Staphylococcus Flavescens*,
obtained from the toes, cruro-scrotal region, and prepuce. It may possibly be the micrococcus flavescens incompletely described by Cornil and Babes in their textbook.[2]

Morphology.—Round or oval micrococci of varying size arranged irregularly in groups.

Biology.—Gelatine cultivations vary very much in colour and rapidity of growth, sometimes forming a wrinkled layer, sinking in the liquefied gelatine, sometimes forming isolated pasty-looking masses; in the latter case liquefaction appears to be more extensive and rapid; these variations are probably due to slight variations in the nutrient media. Liquefaction begins in three to six days, and there is always a flaky deposit at the bottom. In puncture cultivations, growth is slower; it begins at the surface as a pale yellow growth, and slowly extends into the depths, where isolated yellowish colonies may be seen. In plate cultivations the colonies begin to appear in three or four days; they are round, yellow, and granular, and have sharply defined edges which may be irregular. Liquefaction begins about the fifth or sixth day. On agar it grows rapidly as a thin film of dirty yellowish-white colour with scalloped edges. On potato it forms a dry, lustreless, dirty grey streak, limited to the needle track. Sown in broth, the fluid becomes turbid after two hours in the incubator, and after a few days forms a thin yellowish pellicle.

VI.—*Micrococcus Flavescens Subsidens.*

Morphology.—Medium-sized round micrococci arranged irregularly in groups, occasionally in short chains of four to six elements.

Biology.—In gelatine cultivations the organism forms a pale creamy yellow growth, flat and shining, with smooth regular edges: in about ten days a gradual subsidence of the growth takes place without liquefaction; cultures are extremely viscid and tenacious. On plates there are yellowish or creamy, shining, round colonies, which with the microscope are seen to be finely granular and of a brownish yellow colour. The deep colonies are dark brown, the superficial more translucent, gradually becoming yellow. Stab cultures show a creamy yellow growth about ¼-inch in diameter, which gradually sinks in the gelatine without liquefaction, forming a cylindrical depression up to ½-inch or more in depth; at no time is fluid gelatine observed. On agar-agar it grows slowly in the form of a thin, dirty white film, with rounded edges.

In conclusion, I desire to express my thanks to Dr. Curnow, of King's College Hospital, for permission to obtain my material from his patients, and to Professor Crookshank for his kind help and suggestions during my experiments.

[1] British Medical Journal, December 12th, 1891.
[2] Cornil et Babes, *Les Bactéries*, Paris, 1891.

NOTES ON A CASE OF MILKY ASCITIC FLUID.

By G. NIEUWONDT, M.B., C.M., M.R.C.S.,
AND
R. H. ROZENZWEIG, M.B., C.M.

On May 24th, 1889, I was called to see A. D., aged 15 months, a thin and weakly child, suffering from diarrhœa and vomiting. She had recovered from these symptoms on May 30th, but on the night of June 10th she became restless and seemed to be in pain. When seen on June 11th the abdomen was distended with tympanites and very tender, pulse rapid and wiry, and temperature above normal. Under treatment the abdomen had become all but normal on June 16th. The same symptoms then returned. By June 20th the symptoms were less acute, but she continued to perspire copiously, and I thought I could detect dulness low down in the abdomen. On June 28th the same symptoms reappeared. The distension of the abdomen on each occasion was greater that on the previous one.

Dr. Loubser was now called in consultation. We found the abdomen distended, and so tender as hardly to allow of even gentle percussion. The distension was chiefly due to tympanites, but there was some fluid below the umbilicus; The pulse small and rapid, temperature 102° F., perspiration copious, bowels loose (two to four times in twenty-four hours). We came to the conclusion that it was a case of chronic peritonitis with subacute exacerbations, possibly a case of tabes mesenterica. The symptoms slowly increased in spite of treatment with mercurial and other remedies.

The treatment mainly consisted of inunction of the abdomen with mercurial ointment and extract of belladonna equal parts, rags dipped in cod-liver oil being laid over the abdomen whenever there was too much irritation to continue the ointment, and malt and cod-liver oil internally.

About September 1st the tenderness of the abdomen was increased, the fluid had risen well above the umbilicus, and the abdomen was so distended as to bulge out below the costal cartilages in front and to be visible in the flanks from behind. The pulse was intermittent and the child cyanosed. I advised aspiration, and Dr. Rozenzweig was called in consultation on September 5th. We aspirated midway between the pubes and umbilicus, and drew off 20 ounces of white milky fluid. Being afraid of collapse, we stopped there, though there was still a large amount present. Some of this fluid was sent to Dr. Herman, President of the Cape of Good Hope Branch of the British Medical Association, and to Dr. Anderson and one or two other medical men in Cape Town.

The fluid had the appearance of rich creamy milk; specific gravity 1022. It did not coagulate spontaneously on standing; it contained a large amount of albumen and fat. Under the microscope it showed a granular basis with large nucleated cells here and there. The abdomen was still too distended to permit a satisfactory examination. No enlarged glands or any other abnormality were detected.

The fluid recommenced rising at once, and on September 9th I aspirated again and drew off 40 ounces, once more leaving some fluid behind, but on September 16th I completely emptied the abdomen of fluid, obtaining 80 ounces. As the abdominal walls were very flaccid and the tenderness not great, I examined the parts carefully, but could detect nothing abnormal. On September 24th the abdomen was more distended than it had ever been before, and I now obtained 90 ounces of fluid. All this time the child was thin and anxious-looking, fretful, and perspiring copiously; still, when not distressed with flatus, its appetite was fairly good, and the bowels loose, but never more than three or four times in twenty-four hours. On September 29th the abdomen was aspirated once more, yielding 55 ounces, but was not emptied owing to the cannula getting obstructed. On October 4th I drew off 90 ounces, on October 10th 50 ounces, on October 14th 70 ounces, and on October 20th again 70 ounces. On October 26th an attack of diarrhœa intervened, but at once yielded to calomel, chalk, and opium. On October 28th I aspirated again, getting 60 ounces, which was relatively less than on any previous occasion. On November 5th I got 55 ounces.

[1] Read before the Cape of Good Hope Branch of the British Medical Association.

On November 9th another attack of diarrhœa came on, but also soon passed over. On November 14th the fluid had not much increased, and all the symptoms were improved. On November 18th the diarrhœa was repeated, but the fluid had now diminished. The inunction with mercury and belladonna was continued, as well as the extract of malt and cod-liver oil. The child now began to gain flesh, and by January was quite as strong and healthy as before, and in another six months she was strong and plump, above the average child of her age, nor has she had any other serious ailment since then. In two months' time she had been aspirated eleven times and 680 ounces of fluid had been taken from her.

Remarks by Dr. Rozenzweig.—The fluid was of a dense consistence, closely resembling milk in colour and appearance, specific gravity 1022, reaction neutral, of a faintly-sweetish odour. There was no spontaneous coagulation, nor was there any pinkish discoloration, even after an interval of four or five days. With heat a heavy coagulum formed; on the addition of cold nitric acid a white precipitate formed, which, on being heated, changed to yellow. Caustic potash increased the fluidity. Microscopical examination showed finely-granular matrix, with large nucleated cells interspersed, bearing, therefore, on the whole, but slight resemblance to the generally accepted characters of chyle.

The literature of chylous ascitic fluid is scanty. The most complete monograph on the subject is one by Dr. Busey, read before the New York Medical Association, in which he chronicles a series of thirty-three cases, and where the causation is ascribed to (1) an obstruction to the flow of chyle through the lacteals, receptaculum chyli, or thoracic duct, impeding its exit into the left subclavian vein, or retarding the current of blood in that vein, right heart, or lesser circulation; (2) filariæ; (3) tuberculous and puerperal conditions. It does not appear that in all these cases the fluid was taken to be other than chyle, but in the case just recorded the physical characters of the fluid did not correspond to those of chyle. There was no spontaneous coagulation, no pinkish discoloration, and the specific gravity was higher. It is exceedingly difficulty to obtain pure chyle, mixed, as it is, with lymph in the thoracic duct and receptaculum, and it has been stated that chyle drawn immediately from the intestine does not coagulate.

The recovery of the child after removal of such an enormous quantity of fluid (680 ozs., or 42½ lbs.—more than double the weight of the child) is an additional argument against the chylous nature of the fluid in the present case. If filariæ had been the cause, one would naturally have expected that at some period or other of the child's illness chyluria would have made its appearance, but such was not the case, and to the best of my knowledge no case of filariæ has yet been recorded in the colony.

Mr. Pearce Gould has recorded a case of hydrocele, in which a clear straw-coloured fluid was withdrawn, and which, at the end of the operation, became thick like pea soup, and on standing separated into a clear lower stratum of greenish-yellow colour, and an upper, opaque, yellow, cream-like layer, consisting of fine fat granules with oil drops. He also mentions a case recorded by Vidal de Cassis of double hydrocele, where the fluid was like milk in appearance; a similar case recorded by Fergusson, in which the fluid, of an alkaline reaction and specific gravity 1019, was shown to be hydrocele fluid with the addition of free fat; and another case recorded by Shattock, in which the milky fluid was attributed to obstruction or rupture, or both, of the lymphatics. M. Letulle[2] gives a case of milky ascitic fluid, following on an attack of diarrhœa with peritonitis, with *post-mortem* evidences of tubercle, and holds that a chronic inflammatory element is a potential factor in the production of such fluids. Klebs ascribes the production of such milky fluids to fatty degeneration of the endothelium of the tunica in hydrocele. It seems strange that in all these cases no *post-mortem* traces of ruptured lymphatics, thoracic ducts, or receptacula have been discovered, and that in the very disease which claims for its pathology obstructed or ruptured lymphatics—elephantiasis arabum—few, if any, recorded cases are found of milky ascitic fluid.

If, then, an inflammatory element is concerned in the production of a white hydrocele fluid, why should not the same obtain in the peritoneal cavity? The difference would only be one of degree. Cannot Mr. Gould's case be taken as a transitional stage between the clear and the milky hydrocele fluid? Peritonitic fluid, like hydrocele fluid, contains a small amount of fat, and although the circumstances under which clear fluid is produced in one instance and a milky fluid in another are undetermined, one might safely attribute the large amount of fat granules in the case just recorded as due to the greatly increased degenerative action in the peritoneum. It is clear from the clinical history, that after a varying period of ill health the child had three distinct peritonitic attacks on June 11th, June 17th, and June 28th, before the last of which fluid was for the first time detected.

[2] *Rev. de Méd.*, 1884.

REMARKS ON TWO CASES OF INSANITY CAUSED BY INHALATION OF SULPHURETTED HYDROGEN.

By J. WIGLESWORTH, M.D.Lond., M.R.C.P.,
Medical Superintendent, Rainhill Asylum; Lecturer on Mental Diseases University College, Liverpool.

Case I.—B. H., aged 30, was admitted into Rainhill Asylum, September 20th, 1888. There was no history of insanity in the family. The patient himself was said never to have had any illness, but he appears to have drunk somewhat. He was a single man and a labourer in some chemical works. On the morning previous to his admission into the asylum he went to his work as usual. About 9 A.M. he was observed to be acting strangely, throwing his arms about wildly and shouting. In addition he lost power over his legs. As he was engaged in an occupation which exposed him to some chemical fumes (probably sulphuretted hydrogen) it was supposed—apparently with very good reason—that he had inhaled the gas. He remained excited and rough all that day, laughing and shouting by turns, and did not appear to recognise his brother. When admitted into the asylum on the following day he was in a very maniacal condition, shouting and throwing himself about, and it took several men to carry him to the ward. He kept throwing his arms about, but was distinctly unsteady on his legs when made to stand. In bed he wriggled about, throwing his head back on the pillow, and waving his right arm round and round. This condition of things lasted for two or three days, when he became more quiet; and he then gradually passed into a taciturn, depressed state, sitting or standing about for hours doing nothing, and never speaking except when addressed. After remaining in this condition for many months he gradually developed delusions of persecution and interference, and became very dangerous, making assaults on those around him. This condition of things lasted for upwards of a year; but during the last few months an improvement has set in, and at the present time, although apparently not altogether free from delusions, these are nevertheless much less prominent; and though still excitable and talkative, he is much more tractable, and is regularly employed at outside labour. It is improbable, however, that he will ever fully recover.

Case II.—R. H., aged 32, was admitted into Rainhill Asylum on January 27th, 1890. He was a married man with three children, and was employed as an engineman at some chemical works. He had always been healthy and temperate, but shortly before the onset of the mental affection he had had an attack of bronchitis, which kept him at home for about ten days. Whilst at his work a few days after this he accidentally inhaled sulphuretted hydrogen and became "gassed," as it is called at the chemical works. This produced headache, stupor, and prostration, for which he was kept at home for a few days, when he became delirious. He passed rapidly into a very violent excited state, shouting and gesticulating; said he was Jesus Christ, etc.; tried to bury his head in the floor, and to raise his feet above his head. When admitted into the asylum, three days later, he was still very violent and excited, gesticulating and talking incoherently chiefly on religious subjects. He continued in a maniacal condition for two or three weeks, but at the end of a month from admis-

sion he had distinctly improved: he had then become rational and was working fairly well. The improvement continued and he slowly recovered mental vigour, and was discharged recovered on June 27th, just five months after his admission into the asylum.

Remarks.—I have grouped these two cases together, although it is not quite certain that in the first case the gas which affected the patient was sulphuretted hydrogen, details being wanting as to the exact fumes to which the man had been exposed. That he had inhaled gas of some sort is, however, I think pretty clear from the history, and there can, I think, be little doubt that sulphuretted hydrogen was the agent in question. That it was so in the second case is clearly stated in the history obtained from the patient's friends. There was a good deal of similarity between the two cases as regards the symptoms presented at the onset, there being in both a greater amount of muscular excitement than is usual in ordinary mania, and both men exhibiting a curious tendency to roll the head on the floor or pillow.

Labourers in chemical works are quite familiar with sulphuretted hydrogen gas and its usual effects on the system; for it is not by any means unusual for persons exposed to its fumes to become "gassed," as the saying is—that is, they pass into a condition of insensibility which lasts a variable time, and when coming round they are very often sick and dazed, and have a sense of oppression about the chest, and there is often a good deal of prostration for a day or two afterwards. Sometimes indeed, though very rarely, the insensibility ends in death. It is, however, very unusual for lasting or permanent effects to be produced upon the nervous system such as come under the designation of insanity. Indeed, I am not aware that any such cases have been recorded before. It does not, however, appear to me matter of surprise that such effects should at times occur. That the gas has powerful narcotic properties is evidenced by the rapid insensibility it produces when inhaled in any quantity. Cases have been recorded by Savage and others in which insanity—generally taking the form of mania—has resulted from the inhalation of chloroform, ether, nitrous oxide gas, and other similar agents, and the cases just described as produced by sulphuretted hydrogen, seem quite to fall into line with these.

The effect of all these agents appears to be to paralyse, in the first instance, the highest controlling and co-ordinating plexuses in the brain. If the dose be large or the administration continued, more and more of the cortical centres in a descending series are involved, and insensibility ensues. But when the paralysis is confined to the highest cortical arrangements, the immediate result is not lethargy but excitement, owing to the centres next in series being emancipated from the control of the higher, and hence acting over-vehemently and incoherently. Such, at least, is the explanation which I have to offer of the pathology of these toxic cases, which are hence assimilated to the more ordinary forms of mania which we meet with in practice.

HEPATIC CIRRHOSIS IN CHILDREN.

By STUART TIDEY, M.D.Lond., M.R.C.P.,
Montreux, Switzerland.

I have read Dr. Jollye's notes of two cases of hepatic cirrhosis with great interest, having recently had a parallel case under my own observation.

A. H., aged 11, was a tall emaciated boy. One brother had died in Australia with what was described as leucocythemia. There had apparently been much abdominal swelling before death, and the symptoms appear to have run much the same course as those developed in the present case. There was no necropsy. Two sisters, aged 18 and 8, and one brother, aged 10, were living and healthy. There was no family history of rickets, syphilis, or scrofula. No history of alcohol. He displayed an inordinate appetite for potatoes. During his illness he drank freely of lemon juice. He was circumcised in December, 1890, for phimosis, which had caused retention of urine. On March 23rd, 1891, the patient's mother stated that recently he had had epistaxis, vomiting, and shivering fits.

The urine contained one-sixth albumen, and gave the reaction for bile pigment. On evaporation concentrically marked spherules and faggot-shaped bundles of crystals appeared. The former, I concluded, were leucin crystals, the latter suggested, but were not, typical tyrosin crystals. He had emaciated greatly since December. There was no fever. The pulse was 100 and weak. There was slight general icterus, but no œdema of extremities nor ascites.

On March 30th the skin was about the colour of a lemon, very dry, and the liver dulness was slightly increased. Two small motions had been passed since the previous day. The tongue was coated with white fur, the mouth sticky, and there was great thirst but no appetite. The spleen was slightly enlarged. There had been no vomiting for twenty-four hours, and no more epistaxis. He wandered slightly at night. Pulse 92.

On March 31st the urine contained less bile and less albumen, and on April 2nd the urine contained less bile and no albumen. The stools passed were loose and yellowish. The tongue was cleaning, and there was less disinclination for food. The liver dulness extended 5 inches in the nipple line. The icterus was less. There was no headache, nausea, or vomiting, but severe abdominal pain.

On April 5th there was a trace of albumen in the urine, and ascites was detected for the first time. The hepatic dulness had decreased, the splenic increased. He experienced pains and great tenderness in the legs, and especially in the heels, although quite relieved from pressure.

From this time till the occurrence of death, on April 9th, the ascites steadily increased. Diaphoresis produced by the vapour bath and pilocarpin did not relieve the symptoms. Food was refused, or rejected at once when taken. Delirium with hallucinations of sight alternated with intervals of lucidity. The hallucinations consisted chiefly in the appearance of black snakes. There was almost complete suppression of urine during the last forty-eight hours, and a small quantity of mucus was all that was passed by the bowel.

I tapped the abdomen on April 8th, with a view to relieving the oppressed breathing and to promote euthanasia.

The necropsy revealed a typical hob-nailed liver, and the microscopical examination of sections—kindly performed for me by Mr. J. J. Clarke, curator of St. Mary's Hospital Museum—showed the case to be one of typical polylobular cirrhosis. The mesenteric glands and those in the portal fissure were enlarged but neither caseating nor suppurating.

The chief points of interest about the case were the following:

1. The sudden incidence of symptoms pointing to grave functional disease of the liver in a boy who, without being an invalid, had long been ailing and emaciated.

2. The sudden occurrence of ascites without anasarca in a case of apparently non-obstructive jaundice. This feature of the case induced me to alter my diagnosis from that of quasi-acute yellow atrophy of the liver to that of obstructive jaundice due to enlarged glands in the portal fissure. The necropsy showed the jaundice to be due to acute symptoms following on chronic atrophy—that is, on cirrhosis of the liver—and the ascites to be due to enlarged glands in the portal fissure, one enlarged gland in front and one behind the portal vein at the same level effectually obstructing the flow of blood through it.

3. Absence of fever.

4. Absence of apparent cause of the disease and death of brother at the same age with similar symptoms.

LEPROSY IN KASHMIR.

By ERNEST F. NEVE, M.D., F.R.C.S.Ed.
Surgeon to the Mission Hospital; Joint Honorary Superintendent State Leper Asylum.

During the past eighteen months 152 lepers have attended the Mission Hospital as out-patients. The following is an analysis of notes taken:

Sex.—Males, 146; females, 6.
Religion.—Mahommedans, 147; Hindus, 5.

Age.....	Under 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	Above 60	Total
No. of patients	1	9	19	40	30	13	6	118

Duration.—Of 139 in whom the duration is noted, 1 had been ill 15 years and 7 for more than 10 years. The average duration was 2½ years. One patient said that he had only been ill for a month.

Diet.—Of 143 cases, 79 had eaten fish either frequently or occasionally, 64 absolutely denied having ever eaten fish. Of 107 cases, 104 had consumed milk or milk products. Of 117, 92 were rice eaters and 78 bread eaters.

Heredity.—Out of 143 cases, there was no hereditary history in 115.

Endemicity.—Six patients out of 143 stated that relatives-at-law were affected, and 47 gave a history of there being other lepers in the district where they lived.

Evidence of Syphilis.—Eighty-seven were interrogated; 16 said they had previously suffered from this disease.

Type of Leprosy.—Out of 149 patients, 53 suffered from simple anæsthetic leprosy. Others were as follows:—Anæsthesia with ulcerations, 36; anæsthesia with tubercles, 27; tubercles alone, 7. The rest were either mixed forms, or presented multiple or isolated but characteristic lesions of skin or bone. In 52 the appearance of the face was characteristic.

These then are the facts. Let us examine them briefly.

1. *Sex.*—The small number of female lepers is interesting—only 4 per cent. The diet and conditions of life must be much the same in both sexes. The women, however, travel less, and are less exposed to vicissitude.

2. *Religion.*—Compared with Mahommedans, more Hindus belong to the upper classes; so, as we should expect, leprosy is rare amongst them. Moreover, very few Hindus dwell in the districts where leprosy is common.

3. *Age.*—The age of lepers is worthy of notice. In Kashmir youthful lepers are very rare. I have never seen a leprous baby. The type of leprosy seen in the young is usually tubercular, or at any rate with raised lesions of the skin. As far as our experience goes, leprosy is, however, essentially a disease of middle age. It is most common by far between the ages of 30 and 50. In this respect it forms a contrast to tuberculosis. The appearance of leprosy in adult life might be due to a slow incubation and development, the earlier stages of which may escape observation if unattended by tubercles. Undoubtedly a large number of those seen for the first time present what we may call advanced lesions—anæsthesia depending on nerve sclerosis and ulcerations secondary to the anæsthesia. In these phases the manifestations of leprosy are somewhat analogous to those of tertiary syphilis. And defective nutrition plays, no doubt, an important part in both. The element of trophic disturbance is, however, much more marked in leprosy.

4. *Occupation.*—With but few exceptions, the lepers of Kashmir are either herdsmen from mountainous districts or agriculturists who have mixed freely with such herdsmen, and who either live in such districts or on their fringe. The two most distinctive features of the herdsman's occupation are contact with cattle, sheep, and goats, and small, crowded, badly-ventilated huts. No leprous boatman or fisherman is on my list.

5. *Diet.*—A great article of diet, especially with herdsmen, is milk. Sour milk, curds, and buttermilk are largely consumed; 104 out of 107 were milk feeders. Most of the lepers were rice eaters; a good many were in the habit of eating bread, and often this bread was made of Indian corn. The question of fish diet was gone into. Of the 79 fish eaters, 57 had eaten fish frequently, 12 seldom, 9 occasionally, and 1 once only; 64 had never eaten fish.

6. *Heredity.*—Twenty-eight patients out of 143 gave a history suggestive of inheritance. Of these, 7 had leprous fathers, 4 leprous mothers, 1 a leprous grandmother, 7 uncles (2 maternal, 1 paternal, 4 unstated), 1 paternal aunt, 7 brothers, 1 sister, 4 cousins (2 paternal), 1 niece. In one of the cases three other members of the family were affected, namely, father and two brothers. Another had a leprous father and paternal uncle. In a third case the mother and grandmother were affected. When, however, on the other hand, we find 115 with no hereditary history, we feel that heredity cannot be an important factor.

7. *Endemicity and Contagion.*—Two lepers had leprous wives; 1 had a leprous husband; two had leprous brothers-in-law; another had a leprous husband's father. Of 143 lepers, 47 gave a history of other cases in their village or district. One patient said that there were 9 or 10 in nearly every village in his district. Two said that there were 12 other lepers in their respective villages; another had 9 or 10 in his village, another 7. Seventeen stated that there was one other leper in their respective villages. Only one admitted having eaten with a leper. The villagers are quick to diagnose the disease, and the rule is for the leper to take his food apart, so that an incomplete segregation is undoubtedly carried out.

I have noted the names of twenty-six districts in which leprosy is endemic; several of these I have visited. Almost without exception they are in the mountains, and are often more or less isolated valleys. Leprosy, occurs, however, also on the elevated plateaux and slopes under the shadow of the great mountain chains which enclose Kashmir. In the flat alluvial plain which constitutes the vale, leprosy is far from common. From the city of Srinagar, with a population of 120,000, which lies in the centre of the valley, only one case came out of the 152 on my list.

The cause of leprosy must be sought for in those districts where it is endemic. In travelling about Kashmir I have been struck with the constant relation between the presence of limestone and goître in a district. There appears to be no such relation between any special geological formation and leprosy. I have however observed that the water in leprous districts is often heavily charged with organic matter derived from decaying leaves and wood. The evidence already given supports the view that one leper may act as a focus of disease in any given district, especially if mountainous. It must not however be forgotten that of 143 lepers, 96 were isolated cases and stated that there were no others in their vicinity.

I have discussed possible sources of contagion elsewhere.[1] It seems probable that leprosy may find many media of communication—food, water, and perhaps in crowded huts the air. That fish, *per se*, is a cause, may be regarded as opposed to the evidence before us. There is however no proof that it might not occasionally be a medium of contagion.

When the leprosy bacillus has been discovered in articles of diet, whether in milk, water, or solid food stuffs, we shall still have to study the question of predisposition. A healthy physician may expose himself to daily contact with tuberculous patients without danger, because presumably he has no predisposition to the disease, no hereditary tendency, no inherited delicacy of epi- or endothelium, or liability to recurrent catarrhal pneumonia. On the other hand, a patient with a strong consumptive family history, even if apparently of sound health and placed far from likely sources of contagion, appears to have a selective affinity for the tubercle bacillus.

Similarly there is apparently an immunity enjoyed by the vast majority of those in charge of leper institutions. But is there in some a similar predisposition to the disease? I understand Sir W. Moore to think that syphilis may confer such a predisposition. On inquiry I could however get a history of previous syphilis, acquired or hereditary, from only 16 out of 87 patients. And it must be noted that syphilis is most common in the city where leprosy is most rare.

It is, I think, to the early stages of leprosy that our attention should be specially directed, with a view to obtaining a complete clinical picture of the disease and elucidating such problems as the predisposition to leprosy and the initial lesions.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE TREATMENT OF SPLENIC LEUCOCYTHEMIA BY ARSENIC.

MRS. M.E.B., primipara, aged 30, was confined of twins in February, 1890. She continued in good health till June following, when she began to suffer from frequent attacks of diarrhœa, each attack lasting about two days, and ceasing spontaneously. This continued till March, 1891, when the appetite failed and attacks of vomiting took the place of the diarrhœa. She first consulted me in August, when she complained of constant vomiting, all food being rejected, palpitation, much difficulty of breathing, and abdominal swelling. Her face and upper extremities were much emaciated, her legs swollen, and the skin, especially over the face and abdomen, was bronzed. The temperature was 103° F., the pulse 120. Heart sounds were normal, but there was a loud *bruit* over aorta and jugular veins. The spleen and liver were enormously enlarged, the former extended downwards to within 1 inch of the anterior superior spine of the ilium and transversely to within 1 inch of the umbilicus, its margin standing boldly out, the measurements over convex abdomen were: length, 12 inches; transverse, 8 inches. The liver extended as far downward, and, above the umbilicus, the line of dulness extended across the stomach, becoming continuous with that of the spleen.

She was at once confined to bed, placed on a diet of meat juice and peptonised food, whilst for medicine I prescribed liq. arsen. ℥v, and quininæ sulph., grs. v, three times a day, the dose of arsenic to be increased by 1 ℥. every two days.

The gastric irritability was relieved, but attacks of diarrhœa recurred frequently and were found to be best controlled by opium. I tried cod liver oil, and it may be of interest to note that it passed through the bowels undigested. Not so pancreatic emulsion, which agreed well with the patient.

After a little while tinct. ferri. (*Lond. Phar.*) was substituted

[1] Leprosy in Kashmir, *Lancet*, November 2nd and 16th, 1889; Propagation of Leprosy, BRITISH MEDICAL JOURNAL, February 6th, 1890.

for the quinine, the patient continuing to improve. Occasionally it was necessary to reduce the increasing dose of arsenic, but by Christmas she was taking 40-drop doses (well diluted) three times a day without difficulty. Meanwhile spleen and liver had decreased in size in a phenomenal manner. I marked the size each fortnight with nitrate of silver, and it not uncommonly receded ½ of an inch all round in that time. The liver receded much more slowly. As she was doing so well I now began to reduce the dose of arsenic in the same ratio that it had been increased.

In March the spleen extended no further than the lowest rib, the liver 2 inches below, and the patient was to all appearances quite well. The bronzing had disappeared, she was plump and strong, and early in April she returned to her home and her household work. At the present date (June 30th, 1892) she considers herself in robust health.

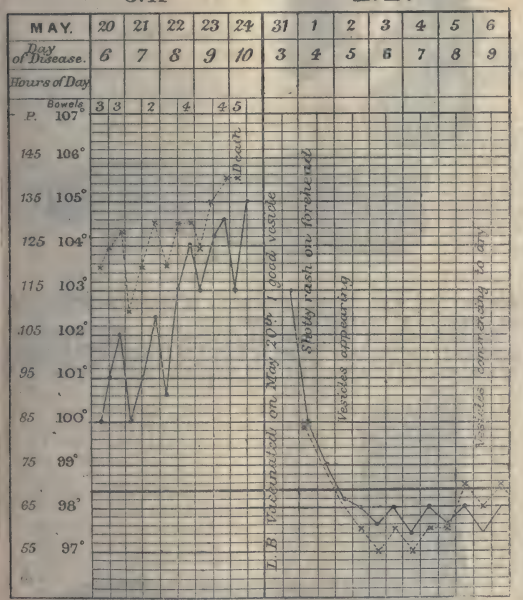
As a supplement to Dr. Drew's case, published in the BRITISH MEDICAL JOURNAL of June 14th, I think this case will be of interest.

Saddleworth. COLIN CAMPBELL, M.R.C.S.

UNMODIFIED AND MODIFIED SMALL-POX: A CONTRAST.

IN view of the present session of the Vaccination Commission I thought the accompanying pair of charts might be of value. I append a few remarks in explanation.

J. A. and L. B., living together in a travelling house-cart, about May 2nd to 5th were at Gravesend, rag picking. On May 16th they arrived at S., and J. A., aged 34, noticed a pimply rash on his face on May 17th; this was very distinct,



The pulse-rate is shown by the dotted line, the temperature by the solid line.

and on May 19th, at midnight, they were brought to an infirmary. I saw the man on May 20th; he was covered from head to foot with confluent small-pox. I could not find a sufficiently large piece of healthy integument to vaccinate him on; the vesicles were full of pearly lymph. A few becoming pustular; on May 21st nearly all were pustular. On May 23rd scabs were forming and his strength failing rapidly; he sank and died on May 24th.

L. B., aged 24, on her admission with the man was separated from him, except the small amount of nursing she did, and was vaccinated; one place took well. After two days *malaise*, she developed small-pox on May 31st, and by June 1st was very thickly covered over the face, neck, arms, and legs, less so on chest and abdomen, and had a few, thirty or so, on the back. These became vesicular on June 2nd, without becoming distinctly pustular; they dried on June 6th, and the scabs commenced to fall off on June 10th; by June 13th they had nearly all fallen off, leaving a delicate fringe where the edges were attached and no scar; some died away without scabbing.

I think these two cases are most instructive as bearing on the value of vaccination. The woman evidently contracted the disease on May 19th, the day before admission, and was vaccinated successfully on May 20th, with the distinct result of preventing pustulation and subsequent scarring, to say nothing of the extremely mild effect the disease has had on her general health.

Westerham. C. H. WHITCOMBE, F.R.C.S.Ed.

EPITHELIOMA OF THE LIP IN WOMEN.

IN the BRITISH MEDICAL JOURNAL for March 26th there was a report of a case of epithelioma in upper lip of a woman, and in the subsequent issue of April 2nd other cases were reported. As such cases must be rare, perhaps the report of the following may be of interest:

On November 20th, 1891, I operated on an epithelioma of the lower lip, in the typical clay-pipe site, in a woman, aged 86, who had never smoked in her life. Although we made no microscopic examination, Dr. Whitehead (who was with me at the operation) and myself were quite satisfied it was an epithelioma, the history and appearances being all typical. The operation was the usual V-shaped one, done without an anæsthetic, the patient bearing the pain bravely; the wound healed by first intention in four days.

Lower Hutt, New Zealand. J. R. PURDY, M.B., C.M.

CYSTS OF THE TONSIL.

DRS. MCBRIDE and Batho and Mr. E. Stewart have recently[1] drawn attention to these cysts, of which I have records of three cases, and think with Mr. Stewart that they are really fairly common; but from the frequent absence of symptoms they are not so often seen. Briefly summarised, the symptoms, etc., in my cases, were:—

CASE I.—Male, aged 22, 1886. Tonsils removed two years ago. A small pedunculated cyst was situated in the centre of the remains of the left tonsil; it caused a slight cough.

CASE II.—Female, aged 24, 1892. Large red-walled cyst of right tonsil, orifice of dilated crypt distinctly seen filled with mucoid plug; no symptoms.

CASE III.—Female, aged 64, 1892. Cyst of left tonsil yellow in colour, also another and smaller cyst at the base of the uvula on the same side; no symptoms.

The first was removed, the second evacuated through the orifice, the third left alone; the third alone showed the ramifying vessels.[2]

Barnes, S.W. RICHARD LAKE, F.R.C.S.

ON THE ACTION OF ETHER ON THE RESPIRATORY MECHANISM IN WOMEN.

I HAVE frequently observed, both while giving ether myself and seeing it given to women who were undergoing abdominal section, that, after complete anæsthesia was established, the type of breathing changed from thoracic to an exaggerated diaphragmatic type. I have seen this repeatedly, and called the attention of others to it. In many cases the undue abdominal movement thus produced has been a source of considerable annoyance to the operators, on account of the consequent difficulty in making the abdominal incision. I have never observed such a state of matters in chloroform anæsthesia.

I thought at first that ether must produce a very powerfully stimulating effect upon the origins of the phrenic nerves in the upper part of the spinal cord, causing the diaphragm to act so vigorously that the action of the spinal nerves upon the intercostal muscles would be, so to speak, a work of super-

[1] BRITISH MEDICAL JOURNAL, Nos. 1637, 1639, 1640.
[2] *Loc. cit.*, No. 1637.

erogation, thus accounting for the complete, or almost complete, cessation of the thoracic breathing for the time.

That explanation, however, is untenable, and cannot be accepted in the face of physiological experiments. It seems most likely that the action of the ether is to paralyse temporarily the nerves concerned in the mechanism of thoracic breathing, which is thus put in abeyance. The medulla, as is well known, is the last part of the nervous system to be influenced by ether, and it would also seem that the upper part of the cord, along with the phrenic nerves, are likewise unaffected in ordinary anæsthesia from ether. This would account for the phenomena observed, as the impulse from the respiratory centre would pass down the phrenic nerves, while the various medullary centres would be still further stimulated to increased action by the imperfectly aërated condition of the blood, which is usually present when ether is given.

I had hoped ere this to have made some further observations on this subject, but I have been unable to do so as yet from want of time. I merely give a note of the observation as forming an interesting contrast to the cases of diaphragmatic paralysis recently discussed in the BRITISH MEDICAL JOURNAL.

JAMES HAIG FERGUSON, M.D.Edin., F.R.C.P.E.,
Physician-Accoucheur, New Town Dispensary;
Clinical Medical Tutor, Royal Infirmary,
Edinburgh, etc.

NOTE ON THE USE OF NITROUS OXIDE AND ETHER AS AN ANÆSTHETIC IN GYNÆCOLOGICAL PRACTICE.

AN account of the after-effects of nitrous oxide and ether on the patients operated on at the Chelsea Hospital for Women during this year may not be uninteresting at the present time. The results in 89 cases show no deaths attributable to anæsthetics. Apart from abdominal sections there have been 68 operations averaging 23 minutes each (on patients averaging 35 years), gas and ether or ether alone being the anæsthetic used; 21 had no retching or vomiting, and the remaining 47 had each on the average not more than 3 attacks of vomiting with a little retching. There were 21 abdominal sections averaging 45 minutes each, and the average age of patients was 31 years. In 18 of these the exact number of times they vomited has been noted, being 44, or 2½ times for each patient, the remaining 3 were described as "a little," "very slight," "not violent at intervals for three hours;" 11 had no retching, and dividing the remainder into slight and severe only, 2 were noted as having severe retching. About 20 cases had ether alone, all becoming insensible without coughing, struggling, feeling suffocated, or showing distressing symptoms, the majority being unconscious in three or four minutes.

Clover's inhaler with Hooper's anæsthetic ether is used, and as little gas and ether given as possible, the relaxation being satisfactory; the operation can be commenced in two minutes, but I find it better to let them get more slowly under and take five minutes for abdominal sections. Bronchitis was not set up by ether *de novo*, and a few patients who had coughs before operation were not much worse afterwards. All complained much of the smell and taste of ether for twelve to twenty-four hours after, but not often of headache.

Belgrave Road, S.W. ANDREW FAUSSET.

PORRO'S OPERATION: MOTHER AND CHILD SAVED.

OPERATIONS for removal of the fœtus by abdominal section are, I take for granted, still sufficiently rare to make it worth while reporting them. I therefore send a few brief notes of a case of "Porro's operation" performed by me.

The patient, a primipara, aged 37, had had multiple fibroids of uterus for about nine years. The abdomen before pregnancy was as large as that of a woman at the ninth month.

Consultation having decided that the fœtus could not be delivered naturally, the patient was sent to a private hospital, and a date about a week before the expected time of confinement was fixed for the operation.

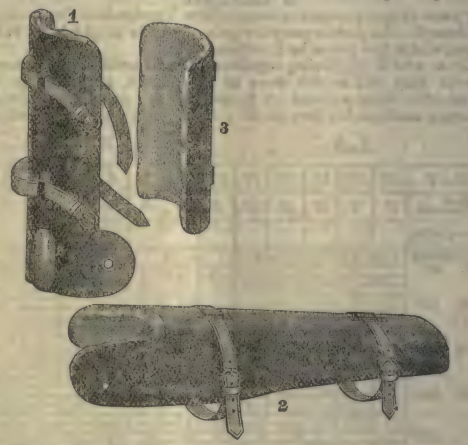
Ether was well borne, adhesions were not of any moment and no special difficulties were experienced. After removal of the child an elastic ligature was used to control hæmorrhage temporarily, this being replaced by a *serre-nœud* before removal of the uterus. The blood lost was not greater in amount than during an ordinary confinement. Complete preliminary antiseptic precautions were taken, but hot water only was used during the operation. The mass removed weighed 19½ pounds. The child, a well-developed female, weighed 8½ pounds and is doing well. The mother made an uninterrupted recovery and is now, eight weeks after operation, able to go out, having walked about the building for two weeks past.

From experience of this case I am impressed with the feeling that abdominal section, for a surgeon with some previous experience, either to remove the fœtus only or for the more radical operation can never again be considered in the light of an experiment, and that craniotomy should in the future be very rarely resorted to.

Halifax, Nova Scotia. J. F. BLACK, M.D.

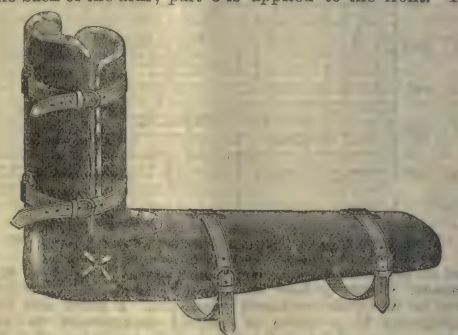
TREATMENT OF FRACTURES OF THE ELBOW-JOINT BY A NEW SPLINT.

THE only fractures of the elbow which require special consideration are those within the joint. The splint here depicted, and which I have used for ten years, has given perfect



results; and, with its use, treatment of these fractures need no longer be an opprobrium to surgery.

The following is the mode of application: The forearm is extended; the fracture reduced. Part 1 of the splint is applied to the back of the arm; part 3 is applied to the front. The



straps applied and tightened. The lower extremity of part 1 extends to the lowest point of the condyles, the sides A and B support them, and the space between A and B gives room for the olecranon. Part 2 is then applied to front of the forearm,

the two screw pivots sprung into the holes in the wings of part 1, and secured by the nuts. It is then strapped to the forearm.

The chief features of this splint are (1) the extension of part 1 to the lowest point of the joint, thereby supporting the condyles in position. (2) The space at the back between A and B for the projection of the olecranon. (3) The application of part 2 to the front of the forearm, keeping the whole splint constantly in the same position on the limb, and allowing flexion and extension without the slightest disturbance of the fragments. (4) No extra padding or bandaging required. (5) Ease and rapidity of application.

Flexion and extension are to be commenced within a week, and practised fearlessly once or twice a day at first, then oftener, so as to prevent encroachment on the olecranon fossa by new bone.

The splint has been well made in three sizes by Messrs. Down Brothers, St. Thomas's Street, Borough, who have the models. It is inexpensive, and will well repay in results for the small outlay. Should it not be at hand when the accident is seen, a straight temporary splint should be applied till it can be obtained.

Dover. JOHN ORMSBY, M.D.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ADELAIDE HOSPITAL, DUBLIN.

A CASE OF CHRONIC TUBERCULOUS SPINAL PACHYMENINGITIS.

(By HENRY T. BEWLEY, M.D., F.R.C.P.I., Assistant Physician to the Adelaide Hospital, and Lecturer on Medical Jurisprudence in Trinity College, Dublin.)

R. S., a draper's assistant, aged 41 years, had always been perfectly healthy. He had never had syphilis, nor taken alcohol to excess. In April, 1887, he began to suffer from pain, worst at night, which he referred to the region of the third and fourth lumbar vertebræ. This pain did not prevent him attending to business as usual. Early in July, 1887, the pain having continued unchanged, he began to find he had not proper feeling in his feet, a hard floor feeling like a soft carpet, and to experience difficulty in walking.

On July 12th he was admitted under my care. I found that he could walk pretty well with the help of a stick. His legs appeared to be as strong as they ever had been, so that when he resisted I could not flex or extend his joints by any force I could use. There was, however, great inco-ordination of the legs. He could stand well with his eyes open, but when they were shut swayed about and would fall if not held. With his eyes shut he could not take more than one or two steps without falling. When he lay on his back with his eyes shut and tried to put his feet in any given position—for instance, to touch with the left heel the right toes, he would raise the limb about a foot too high, and bring it down beside the other, always making four or five attempts before he gradually attained the desired position. Sensation was diminished, but not lost, from the waist down. The deep reflexes in the legs were much increased, the knee-jerks being excessive, and ankle clonus present. There was no wasting of muscles. The spinal column was carefully examined, and appeared perfectly normal. From the waist upwards his nervous system was perfectly healthy; the abdominal, thoracic, and cephalic viscera were healthy. He was spare and thin, but looked healthy.

He grew rapidly worse. At first, after admission to hospital, the inco-ordination increased somewhat, but soon the excessive reflexes merged into a condition of permanent rigidity, so that in September, 1887, his legs were so stiff he could not walk.

In December, 1887, the legs were extremely rigid, so that he could not move them at all; they were extended at all the joints, and strongly adducted, and pressed one against the other. The reflexes continued excessive; there was no muscular wasting. Sensation had grown worse, so that a slight touch could not be felt. The pain in his back had ceased, but at times he complained of a feeling of tightness round his waist. He often suffered from sudden violent pains darting down his legs. Occasionally he had to have a catheter passed, but generally he had no trouble with either bladder or rectum. In the summer of 1888 the legs, from being extended, became acutely bent at all the joints. With this exception he remained in just the same state till May, 1890, when he found his back was becoming bent, a prominence forming in the lower dorsal region.

He had left hospital in June, 1888, but returned to it in November, 1891. I then found that the legs had become perfectly stiff in the flexed position, passive motion being quite impossible. Adhesions had evidently occurred in the joints. His back presented a well-marked angular curvature, the ninth, tenth, and eleventh dorsal spines being very prominent. Sensation was very much impaired below the level of the twelfth dorsal nerve, but was nowhere quite lost. There was a chronic abscess below the left clavicle, otherwise his health was good. Mr. Heuston opened and drained the abscess, which gradually healed. He remained in hospital without any change till February, 1891, when he grew weaker and duller, and developed some pyrexia for the first time. He gradually became comatose and died.

On *post-mortem* examination, we found the spinal canal of normal size throughout. Around the theca in the dorsal and lumbar regions was some soft, white, putty-like material. The body of the tenth dorsal vertebra was soft and carious, and there were masses of white tuberculous tissue in the ninth and eleventh vertebræ. The cheesy matter was in no way adherent to the dura mater; the outer surface of this membrane was smooth, and normal in every respect. Its inner surface, however, was much diseased. At the level of the third cervical vertebra, the dura began to be covered with a thin, soft membrane; passing downwards this membrane became gradually thicker, until in the lower dorsal region there was a quarter of an inch of firm white tissue attached to the inner surface of the dura mater on the front and sides of the cord. Posteriorly, this tissue or false membrane was not so thick. In the lumbar region it gradually thinned off, so that the lowest part of the dura was quite healthy. This tissue in the lower dorsal region was firmly adherent to the arachnoid and pia mater; elsewhere there were only some loose adhesions to the arachnoid. On microscopic examination of the thickened dura mater, I found the outer surface and most of the tissue of the dura to be perfectly healthy; the tissue on its inner surface was composed of granulation tissue containing many giant cells; a good deal of it had become caseous. In the giant cells I found a few tubercle bacilli.

This tissue, when it was thickest—that is, at the level of eighth and ninth dorsal vertebræ, had compressed the cord to about half its normal size, but its cylindrical shape was preserved. Above and below this compressed region the cord, on microscopic examination, showed the ordinary ascending and descending degenerations. As well as this, the pia and arachnoid are much thickened, and unusually adherent to the cord; from the pia a quantity of fibrous tissue extends inwards into the white matter of the cord, forming a zone of peripheral sclerosis. The anterior longitudinal fissure is closed up with dense fibrous tissue adherent to the cord on each side. The nerve roots are surrounded by a quantity of fibrous tissue. As well as this there is a slight diffuse sclerosis throughout the whole of the cord, which affects all the white matter of the cord equally. The grey matter is normal. In the peripheral parts of the cord the blood vessels are extremely enlarged, especially in the lower dorsal region. The brain showed an acute tuberculous meningitis of the ordinary type. This was the immediate cause of his death. With this exception, the cephalic, thoracic, and abdominal viscera were perfectly normal.

REMARKS.—The paraplegia, therefore, from which this patient suffered was caused by a growth of tissue, tuberculous in nature, on the inner surface of the dura mater. The question then rises, Where—in what tissue—did this tuberculous process primarily start? Caries of the spine, with secondary involvement of the dura mater, is infinitely the most common course for tuberculous disease to take. But there is

a good deal to be said against this view: 1. The patient was eleven months in hospital—that is, until nine months after the paraplegia became complete; and during this time careful examination by my colleagues and myself could never detect any disease of the spine. 2. It was not until three years after the onset of paralysis that spinal deformity occurred, but, having once begun, it developed very rapidly. 3. The appearances in the dura mater strongly oppose the idea that the disease extended from without inwards. In pachymeningitis secondary to spinal caries, the external surface of the dura mater is inflamed, is rough with nodular thickenings, is covered with newly-formed fibrous tissue, and becomes adherent to the bones, while the inner surface is normal. In my case it is exactly the reverse. The inner surface is affected, the outer normal. For all these reasons I have come to the conclusion that the primary lesion in this case was a tuberculous inflammation of the inner surface of the dura mater. Chronic primary tuberculous inflammation of the inner surface of the spinal dura mater is an exceedingly rare disease. Gowers[1] says: "In the very rare chronic tuberculous meningitis, the inner surface of the dura mater is covered with a layer or layers of tubercles in various stages of development mingled with inflammatory products. The arachnoid may also contain degenerating tubercles, and the two membranes may be united together by the new formation." He gives one reference to a case described by Weiss, of Vienna. In Eulenberg's *Real-Encyclopædia*, vol. xvii, p. 76, we read: "Weiss describes a case of primary pachymeningitis interna tuberculosa. The dura was thickened; its inner surface was covered with a soft greyish-yellow granular layer. The arachnoid was tuberculous and was adherent to the dura." I have made an extensive search to find further references to this disease, but I have not succeeded in discovering any.

REPORTS OF SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Friday, July 8th, 1892.

Henry Power, F.R.C.S., President, in the Chair.

Implantation Cyst in the Anterior Chamber after Cataract Extraction.—Messrs. Richardson Cross and Treacher Collins communicated the notes of two cases. The first was that of a woman, aged 64, who had had an uncomplicated extraction of cataract with iridectomy performed on her left eye, and subsequently obtained vision which enabled her to see to read and sew. Seven months after the operation, an attack of acute glaucoma came on, and the sight rapidly failed. The eye was excised a year later. The pathological examination of the eyeball showed that there was a large cyst in the anterior chamber lined throughout by laminated epithelium. It was bounded in front by the posterior surface of the cornea, below by the anterior surface of the iris, which curved round it, and behind partly by the lens capsule and partly by the hyaloid of the vitreous. The iris, where it ceased to be in contact with the cyst, was in apposition with the cornea. The angle of the anterior chamber was closed in its entire circumference, a portion of the root of the iris having been left above in the situation of the coloboma. The optic disc was cupped.



Fig. 1.—Lateral half of the eye of Case 1, showing the position of the cyst.

[1] *Diseases of Nervous System*, 2nd ed vol. i, p. 284.

The second case was that of a man, aged 41, who had a cataract extracted from his left eye, with iridectomy. At the conclusion of the operation, the anterior chamber was washed out with a solution of the biniodide of mercury 1 in 25,000. Striated keratitis came on subsequently and persisted. Seven months later a thick opaque membrane filling the coloboma was needled; after this the eye continued painful and bloodshot, the cornea became more hazy, and new blood vessels developed in it. The eyeball was ultimately excised two years after the extraction. At the pathological examination a cyst was found in the anterior chamber lined by laminated epithelium closely resembling that on the surface of the cornea, the most flattened cells being towards the interior of the cyst.



Fig. 2.—Laminated epithelium lining the cyst, on the anterior surface of the iris.

In shape it was somewhat triangular, one side being in contact with the cornea, another with the iris, and a third with the lens, capsule, and vitreous. For the determination of the mode of formation of these cysts, the writers considered it was necessary to ascertain the origin of the laminated epithelium found lining them. Two possible sources suggested themselves: (1) That it was derived from proliferation of the endothelium lining Descemet's membrane and the anterior surface of the iris; (2) that some of the surface epithelium was carried in at the time of the operation, and had subsequently proliferated. The latter view seemed the more probable because the epithelium was found on the surface of the lens capsule and the hyaloid of the vitreous, and was not confined to the iris and Descemet's membrane, and because epithelial-lined cysts had been produced experimentally in rabbit's eyes by such implantations of surface epithelium. The first case was of additional interest from the fact that the eye became glaucomatous. The cyst, which filled the whole of the coloboma, must have prevented fluid passing through it into the anterior chamber. Consequently the iris became pressed forwards into contact with the cornea, and folded round the cyst, very much as it is round a lens when dislocated into the anterior chamber and blocking the pupil. In this way the whole of the filtration area of the cornea became closed by the periphery of the iris, and the exit of intraocular fluids arrested. The paper was illustrated by lantern slides.—The President thought it remarkable that cysts from implantation of surface epithelium were not more common after extraction of cataract.—Mr. Hulke said that cysts of the iris had in his experience followed accidental perforating wounds of the eyeball. Their occurrence after operative incisions was comparatively new to him, but he thought that the explanation given by the authors of the paper was probably correct for both classes of cases.

Accidental Vaccinia of the Eyelids.—Mr. Tatham Thompson (Cardiff) communicated notes of the case of a man, aged 38, whose left eyelids had become accidentally inoculated. The lids were œdematous and painful, and at the outer canthus the edges of both lids were involved in a purulent ulcer with indurated margins. There was great tenderness of the parts and painful enlargement of the glands at the angle of the jaw and down the sterno-mastoid. The man's child had been vaccinated a short time previously, and his wife had been accidentally inoculated therefrom. The man had suffered from slight marginal blepharitis, with excoriation at the outer

canthus, and the inoculation had probably occurred at that point.

A Case of Symmetrical Dacryo-adenitis.—This case was reported by Mr. Simeon Snell (Sheffield). The patient was a married woman, aged 36, who came under observation on March 22nd. Ten weeks previously the right eye became inflamed; this was soon followed by a swelling beneath the upper lid, which gradually increased and was accompanied by pain. A similar condition on the left side had begun a week before she came to the hospital. Both lachrymal glands were enlarged, hard, and tender to the touch, the right being much more affected than the left. The history threw no light upon the cause of the disease. In spite of the absence of evidence of syphilis, iodide of potassium was given (5 grains) three times a day, and was rapidly followed by subsidence of the swelling and other signs. During the time the lachrymal glands were decidedly enlarged, there was an almost complete absence of tears on the right side, and a noticeable diminution in their secretion on the left side.

Living and Card Specimens.—Mr. Lindsay Johnson: A modification of Priestley Smith's Perimeter, with adaptation of electric light.—Mr. S. A. Stephenson: A Meridian Delineator.—Mr. Juler: A Case of Optic Neuritis with retinal changes.—Mr. Sheppard: A Strabismus Hook with cutting edge.—Mr. Tatham Thompson: (1) Episcleral Gumma; (2) Rupture of Choroid in Macular Region; (3) Rodent Ulcer of Face, with great hypertrophy of eyelid; (4) Recurrent Sarcoma in Parotid Region.—Mr. Brailey: Ectropion following Burn treated by transplantation of skin from the arm.—Dr. D. J. Wood: Partial Detachment of Retina with unusual dilatation of retinal veins.

Election of Officers.—The annual meeting of the Society was held after the ordinary meeting and the following officers elected for the ensuing year:—*President:* Henry Power. *Vice-Presidents:* James Bankart, Exeter: John Hughlings Jackson, M.D., LL.D., F.R.S.; George Lawson; William M. Ord, M.D.; D. C. Lloyd Owen, Birmingham; Simeon Snell, Sheffield; John Tweedy. *Treasurer:* George Cowell. *Secretaries:* Charles E. Beevor, M.D.; Gustavus Hartridge. *Librarian:* W. Adams Frost. *Other Members of Council:* James Anderson, M.D.; F. Richardson Cross, Bristol; James McKenzie Davidson, M.B., Aberdeen; Robert W. Doyne, Oxford; Henry Eales, Birmingham; J. R. Lunn; J. A. Ormerod, M.D.; Herbert William Page; D. D. Redmond, Dublin; W. C. Rockliffe, M.D., Hull; G. H. Savage, M.D.; A. Quarry Silcock, M.B.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, July 6th, 1892.

J. Watt Black, M.A.Aberd., M.D.Edin., President, in the Chair.

Specimens.—Dr. Lewers: (*a*) Primary Carcinoma of Uterine Body; (*b*) Microscopic Sections of same.—Dr. Des Vœux: Hæmorrhagic Ovaries.—Mr. Bland Sutton: (*a*) Decidual Cast from Case of Ectopic Gestation; (*b*) Papillomatous Ovary.—Dr. Cullingworth: Two Cases of Pyosalpinx.—Dr. W. Duncan: Knitting Needle removed from Pregnant Uterus by Abdominal Section.

Menstruation in Cases of Backward Displacement of Uterus.—Dr. G. E. Herman, who read this paper, said it was based upon an analysis of 388 cases of retroversion and retroflexion of the uterus. In about 60 per cent. of the entire number there was no alteration in the quantity of the menstrual flow. In about 20 per cent. there was amenorrhœa, but in every instance of amenorrhœa it was accounted for by causes irrespective of the displacement. In about 50 per cent. of those in whom the menstrual function was not in abeyance there was no alteration in the quantity. In about 40 per cent. hæmorrhage was increased. In patients of the same class as those in whom retroversion and retroflexion commonly occurred, but whose uteri were normal as to position, the frequency of incidence of causes of hæmorrhage other than gross organic disease and pregnancy was probably about 30 per cent. The proportion of women with backward displacements who suffered from hæmorrhage was thus larger by about 10 per cent. than the proportion of women whose uteri were normal in position. It was therefore reasonable to believe that in this small proportion of cases the hæmorrhage was due to the displacement. Among women with backward displacement of uterus in whom the menstrual function was not in abeyance, pain at the period was absent in only about 20 per cent. Of women in general 40 per cent. or more menstruated without pain. Therefore menstrual pain was commoner in those who had backward displacement of uterus than in those who had not. Menstrual pain in the cases of backward displacement of uterus was commoner in those who had increased hæmorrhage than in those who had not. The proportion of cases of backward displacement of the uterus in which menstrual pain had recently been acquired or increased was about 38 per cent., nearly the same as the proportion in which there was increased hæmorrhage, this close resemblance as to frequency suggesting similarity as to causation.—Dr. Hayes thought the value of the paper impaired by the fact that the amount of hæmorrhage in the cases was not specified. Hæmorrhage varied so much, even in healthy women, under trifling disturbances, that comparisons were difficult and misleading. Again, in backward displacements the ovaries were often prolapsed, giving rise to troublesome bleeding. In the paper no mention was made of the position of the ovaries. Respecting the dysmenorrhœa he would have liked some specification of the amount of pain in the individual cases.—Dr. Rutherfoord asked how many of the 40 per cent. of the women with increased menstrual flow were multiparæ, and what was the average number of children per woman. He thought subinvolution as well as retroflexion might account for the menorrhagia.—Dr. Heywood Smith asked if any observations had been made among so large a number of recorded cases as to the number of cases of retroflexion of the gravid uterus.—Dr. Addinsell made some remarks.—Dr. Herman, in reply, said that no doubt in many of his cases subinvolution existed. This was also present among the cases with which he had compared the cases of displacement. He did not think subinvolution was especially common in multipara. Prolapse of ovary was present in many of his cases, but he did not know the exact number. He had often observed pregnancy occur in backward displacement, though he could not, without reference to his casebooks, say how often. In a paper read in December, 1891, he had discussed this point. He found the sound generally caused pain in patients of all classes when it passed the internal os, but he had not perceived anything to make him think there was stricture at the internal os.

Two Cases of Double Ovariotomy during Pregnancy.—Mr. Meredith contributed notes of these cases. In the first case, a primipara, two papillomatous cysts were removed at the third month of pregnancy. Extensive adhesions necessitated the use of a drainage tube for thirty-six hours, yet the patient convalesced uninterruptedly well, and was delivered at full term of a well-developed boy. In the second case, a multipara, aged 31, the left ovary was a multilocular cystoma with a recently twisted pedicle, the right ovary was a dermoid cyst. No drainage was used. The patient recovered perfectly, and was safely delivered at term of a daughter. In both cases delivery was followed by normal contraction of the uterus, and by perfect involution subsequently. Only four cases of double ovariotomy during pregnancy had been previously recorded. All the mothers recovered, but in only two was a living child born, one prematurely at the eighth month, and the other at full term.—Mr. Doran said it was right to remove an ovarian cyst during pregnancy, and if on removing one ovary the other was found cystic, it also ought to be removed; indeed, its removal hardly increased the chances of abortion, and if left behind after irritation by handling, it might set up uterine contractions. The Fallopian tube in these cases was specially sensitive. The evidence that ovulation continued when both ovaries were in an advanced stage of cystic disease implied that when thus diseased they influenced the uterus prejudicially, hence their thorough removal in cases of pregnancy was highly desirable.—Dr. Lewers was much interested in the first case, where a drainage tube had been used and where there were papillary growths on the outer aspect of the cysts without infection of the peritoneum. He thought it would be difficult to use a drainage tube when pregnancy had advanced, as Douglas's pouch was then practically obliterated by the gravid uterus. He had had a case of double ovariotomy recently where there were numerous papillary growths from the outer aspect of the cysts without any

infection of the peritoneum, and not due to the intracystic growth bursting through the cyst wall. Probably the papillary growths had existed a considerable time, as three years before he operated the patient had been advised elsewhere against operation on the supposition that she had pelvic cancer.—After some remarks by Mr. Bland Sutton and Dr. Heywood Smith, Mr. Meredith briefly replied.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Friday, July 8th, 1892.

Chas. Wells, M.D., President, in the Chair.

President's Address.—In his valedictory address Dr. Wells congratulated the Society upon the satisfactory progress of its tenth session. The papers generally had been upon subjects commanding attention and attracting interest, and the evenings devoted to the exhibition of clinical cases proved, as heretofore, very popular, and were largely attended. He then referred to the Cavendish Lecture, and observed that Sir Charles Cameron's experiments on the diffusion of gases through porous soils had a considerable bearing upon the salubrity of London in relation to the greater frequency of typhoid upon gravel than upon clay. Dr. E. A. Parkes, in his *Practical Hygiene*, had written: "Gravels of any depth are always healthy except when they are much below the general surface, and water rises through them." Many other authorities testified to the same result. It seemed, therefore, that the old prejudice against living upon the clay was not well-founded, certainly as regards the prophylaxis of enteric fever. Dr. Wells quoted from the reports of the medical officer of health of Hampstead, where the average death-rate from all zymotic diseases was 1.1 per 1,000, in support of this theory. He also corroborated Sir Charles Cameron in pointing out the dangers of underground air entering dwellings, and insisted upon the importance of covering the whole of the site of the house with cement or allied material. After referring with much regret to the loss by death of four members, Dr. Wells again very heartily thanked the Society for the high honour conferred upon him by his election to the presidential chair, and warmly acknowledged the generous support and assistance he had received from the Council and officers during his term of office.—A vote of thanks to Dr. Wells was carried by acclamation.

Election of Officers.—The following officers and Council were elected for the session 1892-93:—*President:* Mr. Swinford Edwards. *Vice-Presidents:* Mr. R. W. Lloyd, Dr. J. B. Ball, Mr. Leonard Mark, Dr. Symons Eccles. *Council:* Drs. Abraham, Banning, Batten, C. W. Chapman, Clippingdale, Masters, Schacht, Messrs. Benham, Bruce Clarke, Percy Dunn, R. Lake, and Mansbridge. *Treasurer:* Mr. T. Gunton Alderton. *Secretaries:* Mr. J. Herbert Menzies and Dr. A. Clemow. *Librarian:* Dr. Schacht.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, July 6th, 1892.

Joseph Bell, M.D., F.R.C.S.E., President, in the Chair.

Specimen.—Dr. Clarkson, for Dr. John Carmichael, showed the Brain of a boy, aged 2½ years, in which there had been a large abscess in the left lateral lobe of the cerebellum. There was a history of otitis media, followed by caries of the temporal bone, and later by symptoms of intracranial pressure, which were so suggestive of abscess that Dr. Joseph Bell was asked to trephine. This was done over the region of the temporo-sphenoidal lobe, the only result being slight relief of pressure. The child rapidly got worse, and died next day.

Instrument.—Dr. Alexander James showed a Sphygmometer of simple construction. It was used with the binaural stethoscope, this latter being pressed on the artery till the blood sound was heard. The sphygmometer was then placed on the top of the chest-piece of the binaural, and pressure applied till the current was nearly obliterated. The strength was then registered.

Electrical Examination of the Urine.—Dr. Dawson Turner read a paper on electro-diagnosis by means of the urine. The urine was placed in a V-shaped tube, and this was connected with a measuring bridge. The electrical resistances of various artificial fluids were first determined. Thus a 3 per cent. solution of urea gave a specific resistance of 382.5 ohms; a 2 per cent. solution a resistance of 569.5 ohms; a 2 per cent. solution of sodium chloride gave a specific resistance of 29.25 ohms; 1 per cent. gave 59.5 ohms; 0.75 per cent. = 79.9; 0.5 per cent. = 110.5. A 2 per cent. solution of sodium chloride mixed with a 20 per cent. solution of grape sugar gave a specific resistance of 51 ohms. The specific resistance of distilled water was stated to be infinite, that of ordinary spring water enormous. The resistance in urines was stated to depend mainly on the presence of chlorides, but possibly also on the sulphates, and it might be on other salts. It was argued that the method was a much more convenient and accurate means, for example, of determining the amount of urea than was the ordinary mode, and it was illustrated by referring to a case of pernicious anemia, where the urine had a specific gravity of 1017, 9.36 grains urea per ounce on one day, and specific gravity 1020 and 7.02 grains urea on another. From this nothing definite could be deduced, whereas much could be learned when you were told that the specific resistance in the one case was 68 and in the other 51 ohms.—Dr. James thought the paper was interesting and suggestive and opened up to him a quite new mode of inquiry.—Dr. A. Lockhart Gillespie failed to follow Dr. Turner's arguments. He thought that the ordinary chemical and microscopical tests were more rapid and more accurate than anything that could be got from an investigation of the specific resistance measured in ohms.

Antiseptic Treatment of Pernicious Anæmia.—Dr. G. A. Gibson read a paper on the antiseptic treatment of pernicious anæmia. He referred to a case in a man of 55, who had lived abroad, who had in his family a highly neurotic strain, as is common in pernicious anæmia. He had had a stone in the right kidney, and had suffered from paroxysmal hæmoglobinuria. His skin was lemon colour. There was œdema of the lower extremities, there was a large, pale, flabby tongue, and constipation. The red corpuscles were down to 800,000, and megalocytes, microcytes, and poikilocytes were present. Arsenic was carefully tried, but produced great gastro-intestinal irritation, and had to be abandoned. Iron was useless. He was transfused by Mr. Cotterill on March 3rd last, when 6 ounces of human blood in saline solution were injected. There was a gain of 200,000 red corpuscles in two days. This fell in a few days to a lower figure than before. He was now put on peptonised food, and on β-naphthol, 2 grains in pill form thrice daily. There was soon a rapid improvement in the red corpuscles, they rose to 1,000,000, 1,700,000, 2,080,000, and finally to 2,320,000, while his weight had correspondingly risen to 12 st. 11lb. Dr. Gibson also also gave notes of a case of simple anæmia which had been improved by β-naphthol.—Dr. Strachan, Dollar, referred to his experience of such cases, and specially to one, which seemed to be of the nature of Addison's anæmia, and which had been greatly improved by minute doses of Fowler's solution. He referred also to the character of the stools in such cases, their paleness and offensive odour.—Dr. Foulis was of opinion that progressive pernicious anæmia was essentially a disease of the liver, that it was due to a deficiency of bile, and such other of the hepatic secretions as prevented the intense putrefaction that took place especially in the large bowel in such cases. Evidence of this, he said, was found in the character of the stools, their colour, but especially what he described as their "visible and tangible stench." He complained that Dr. Gibson had told them of a case of simple anæmia, and not enough of idiopathic anæmia, and that he did not sufficiently differentiate the two.—Dr. A. G. Gillespie was quite unable to agree with Dr. Foulis's position. He was not at all satisfied that the evidence along the lines laid down by Dr. Foulis was sufficient to prove the disease to be a disease of the hepatic cells. He urged that too much had been made of the antiseptic value of the liver secretion, and said that that secretion, if taken from a biliary fistula and left to stand for a very brief time, underwent decomposition.—Dr. Keppie Paterson made some remarks on the good effect of β-naphthol in one or two cases of typhoid fever in children, which he gave in larger doses than Dr. Gibson used.—Dr. Gibson replied and specially pointed out that his purpose was merely to give notes on his treatment of pernicious anæmia, and that he threw in a few words to indicate that he had tried β-naphthol also in simple anæmia. His purpose was not to

discourse at large on anæmia, as Dr. Foulis seemed to think he ought to have done.

Development of the Heart.—A joint paper by Drs. G. A. GIBSON and A. LOCKHART GILLESPIE was read, on "Lessons from the Development of the Heart." It was illustrated by a series of beautiful limelight sections of hearts at various stages, from 2½ months onwards, as well as by a few sections of morbid hearts. It was brought out clearly that the right ventricle was at first very greatly thicker than the left, and this was in relation to the fact that in fœtal life the right heart was mainly the functional heart, and that as work changed the change in structure took place. The two gentlemen received the thanks of the Society for their most interesting exhibition and communication.

Enteric Fever.—Owing to the lateness of the hour, some "Notes on Indian Enteric Fever," by Surgeon C. H. BEDFORD, of the Bengal Medical Service, were held as read.

NORTH OF IRELAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THURSDAY, JULY 7TH, 1892.

GEORGE ST. GEORGE, M.R.C.P.I., President, in the Chair.

Living Cases.—The PRESIDENT showed the following cases: (1) Rhinoplastic operation. W. J. S., operated on on March 28th, 1883. The nose destroyed by an arsenical paste applied by a quack, was restored by a flap from the right side of the forehead. The patient had been shown at meeting of the British Medical Association in Belfast. (2) A Case of Trephining for Depressed Fracture of the Skull, with reimplantation of trephined portion. W. B. was admitted on July 31st, 1885, with a depressed fracture of the skull (right parietal). The bone was trephined, and part of the disc of bone reimplanted; the rest was broken up and reimplanted. No necrosis took place, nor had there been any headache since. This case had been shown at a meeting of the Branch in Belfast. (3) Excision of Hip. P. T., aged 10. The hip was excised May 17th, 1887, for extensive disease. The head of the femur was nearly absorbed. The head and neck were removed. He had regained good movement in the joint, and could walk without a stick. He had been shown at a meeting of the Branch in Belfast, 1888.—Dr. CECIL SHAW showed a child with a Tumour (probably sarcoma) of the Pharynx.

Diarrhœa in Childhood.—Dr. MCCAW dealt with the subject under three heads, leaving out the specific diarrhœa of tubercle of the bowels, typhoid fever, etc.: (1) Simple non-inflammatory; (2) inflammatory diarrhœa; (3) cholera infantum. In the treatment of (1) he was strongly in favour of sterilising all milk. He approved of the usual dose of castor oil or a powder of rhubarb and soda, followed by a carminative and sedative the following day. These measures, together with diluting the sterilised milk with barley water, he found sufficient in the first variety. In the second variety he advocated the abandonment for a time of milk in every shape, and substituting for it whey, whey and barley water, whey and cream, or barley water and cream; in the same way one of the children's prepared foods might be be tried, or the condensed Swiss milk. Even these sometimes failed, and must be replaced by veal or mutton soup, raw meat pounded, or raw meat juice. As to the use of drugs, he relied on the use of a grain of grey powder with a grain of Dover's and two of soda, the carminative and sedative before mentioned being given through the day, with one of the powders at night. He had seen much benefit follow a small starch enema at bedtime, with 4 gr. of laudanum added. Warmth to the abdomen he believed to be both grateful and serviceable. In very extreme cases he would be disposed to give the American plan of flushing the colon and rectum with a warm saline solution (℥j of common salt to the pint) a trial, and especially before administering the enema. In the treatment of cholera infantum he thought most reliance should be placed in severe cases on the hypodermic injection of morphine or atropine. More use might be made of the hypodermic needle to administer nourishment and stimulants. Dr. Hankin, of Belfast, would attack the course of the vagus nerve in the neck in these cases with blistering fluid, and the method should not be lost sight of. The injection of a saline solution with the hypodermic needle (1 per cent. strength) had the support of Henoch.—In the discussion which followed, Dr. F. E. BECK spoke of the value of ice in some of these cases and of the starch enema.—Dr. J. A. LINDSAY drew attention to the frequency with which an outbreak of diarrhœa preceded an epidemic of typhoid. He had known raw meat of great use in diarrhœa in children.

Abdominal Surgery.—Dr. ST. CLAIR BOYD read notes of three successful cases of Uterine Surgery. (1) Two hysterectomies for myoma. (2) A case of ventro-fixation of the uterus for procidentia (hysteropexy).—Dr. DEMPSEY read notes of a case of Fibrocystic Tumour of the Uterus in which he performed hysterectomy.—Dr. BYERS gave a short account of a case of Sarcoma of both Ovaries removed by Abdominal Section, with the subsequent history. He also gave details of a case of Hysterectomy.

REVIEWS.

DISSERTATIONS BY EMINENT MEMBERS OF THE ROYAL MEDICAL SOCIETY. Edinburgh: David Douglas. 1892. Pp. xii, 316.

THE Royal Medical Society is an educational as well as a scientific body. "When a student of medicine, or it may be a newly fledged member of the profession, desires to enjoy the privileges of the Society.....he takes his seat as an ordinary member.....After a due lapse of time, varying according to the number of those who have preceded him in election, he is called upon to read to the Society an essay on some subject connected with the healing art or some of the ancillary sciences, which is called his dissertation."

The Society has, in the present volume, published a selection from these dissertations, the production of deceased members during a century; and if beauty of type, paper, and binding could make a valuable work, this would rank with the very best. But although from some points interesting, the immature productions of young men for the most part under the age of 25, can hardly possess much permanent value except from a biographical or bibliographical point of view. Were it otherwise we should dissent from the methods of selection adopted in this publication, where the productions of the men of promise and of talent, on whom fortune never shone, but who went down unnoticed, are ignored in favour of the dissertations of men who rose in after years to fame and fortune. Here we have Syme, in days prehistoric (1821), writing of "my friend Liston;" or with the downright plain-spokenness of youth (he was 22 then) declaring "that when any man writing a system of surgery declares that bones will not unite as long as they are exposed, we must suppose him to be either blind or obstinately stupid," and that "surgeons may be divided into those who practise their trade merely, and those who also study their profession. To the former already established in practice I certainly have not the presumption to expect I shall be of any use, for men who do not think, and will not be convinced by what they see, are truly in a hopeless state." The following on surgical instruments, too, is characteristic: "The chain-saw I am inclined to think, both from the testimony of others and my own experience, never succeeded in cutting through a bone ever since it made its entrance into this inventive world. And as to the saw of Machel, I am ready to allow that it is a very pretty mechanical contrivance, but how it should enter the head of any man that such an apparatus could be of any use in surgery, excites my astonishment in no small degree." Then comes a historical note of interest: "The surgeon I have already mentioned, Mr. Liston, finding the inconveniences just enumerated, bethought himself of using cutting pliers for this purpose. He accordingly had some made of different shapes and sizes, since which time he has never experienced any difficulty in removing metacarpal or metatarsal bones either in whole or in part." Here too is a caustic but true utterance of Syme: "When the fractured extremities are not accurately adjusted then a large effusion of bony matter takes place from both, so as to patch up the fracture. The ancients, and, I am sorry to say, some of the moderns too, wishing to give Nature the credit of their own clumsiness, have considered this effusion as a mistake of hers, and, calling it a redundance of the callus, have attempted to restrain it by tight bandaging instead of accurate adaptation."

Liston's paper, too, on "Fracture of the Neck of the Femur' is good, and it is worth while to compare his hopeful opinion of the probability of union in this accident with the more sober and mature views enunciated in his *Elements of Surgery*, on the same subject (2nd edition, 1840, p. 719). Dr. Gregory's paper on "Castor Oil" (1772) is interesting, although it is apparently not original, the main facts being taken from Dr. Canvane's pamphlet, the latter, a physician of Bath, being really the introducer of the drug into European practice.[1] It is probably from his account that Dr. Gregory takes his derivation for the name of the drug. "The French in the West Indies gave it the name of Agnus Castus, from a supposed virtue of moderating venereal appetite, which they ascribed to it; and that name of Agnus Castus was corrupted by the English into castor oil, by which it is now very commonly known." A modification of the same derivation is given in Mayne's *Lexicon*, but without mention of authority.

Dr. Richard Bright (1813) gives a note of an interesting case of undoubted ergotism (not accepted as such by him) extracted from the *Philosophical Transactions*, on p. 81, and his indication of the direction of progress in medicine is neat: "As our science has advanced medical men have learned to apply their remedies not to the name but to the disease."

With, however, perhaps, the exception of Dr. Matthews Duncan's paper on "The Duration of Pregnancy," the most interesting contribution to the work is undoubtedly Dr. (afterwards Sir R.) Christison's dissertation on "The Contagious Nature of the British Continued Fever." Here, undoubtedly, he differentiates in a quite unmistakable manner typhus from enteric fever. One can hardly understand in reading his essay how he could miss the practical deduction which was the apparently inevitable outcome of his observations, that he was treating of two distinct and separate diseases. Probably he, like many another man, was blinded by authority and nosology from seizing the truth which was well within his grasp. As this work is limited to 250 copies, which will put it out of the reach of most practitioners, and as the subject is of great interest, we make no apology for extracting this portion of Christison's paper, noting that when first read in 1822 the author was only 25 years old: "An observation.....was made during the late epidemic in Edinburgh, namely, along with the more common kind of fever, manifestly contagious in its origin, there prevailed also another variety, differing in its characteristic symptoms, in its duration and event, in its phenomena under the action of remedies; and this variety could very seldom be traced to contagion. That variety which originated in contagion was almost always a very acute synochus. It generally made its attack with great violence, often terminated soon, and suddenly, by critical sweats, or about the end of the second week, receded gradually or assumed a typhoid character, and then sometimes proved fatal. In a vast proportion it lasted only eleven or fourteen days, and very often not longer than five or seven. It was commonly accompanied with strong signs of local inflammation. At all times it was much under the control of art, insomuch that of the hospital patients in 1811 scarcely three in a hundred died.

"The other form of the disease begins slowly, so that seven or eight days might elapse before the patient had to confine himself to bed. It was never acute in its character; the pulse was full, soft, and rarely exceeded a hundred; the signs of local inflammation were mild; the appetite after the second week was good, and about that time, too, there appeared a kind of confusion, or heavy stress, which attended the disease throughout; a mild but very intractable diarrhœa often came on about the same time. Its course was very tedious, seldom shorter than three weeks, often more than twice as long, and in one case I knew it was prolonged to fifty-two days. There was never any crisis or critical evacuation, so common in the other variety, and all the customary remedies were tried without any being found which had any power to control it.

"Little or no difference could be discovered in the persons attacked by these two forms of disease. Those who laboured under the slow variety were universally young, robust, and plethoric.

"Now, while the ordinary fever was for the most part easily referred to contagion, this more chronic kind could seldom be traced to it satisfactorily, and often not at all."

In another part of the paper he states that the ordinary fever was no protection against itself, a vast number of the patients in Edinburgh and a still greater proportion of their nurses having it twice—Christison himself taking it thrice in sixteen months. But he says, "a violent synochus of fourteen or nineteen days, with marked typhoid symptoms in the second week, appeared in general a sure safeguard, and I never knew an instance of a person having it again after the slow or nervous variety so often mentioned."

It is not improbable that here, taking into account (*a*) the number of recoveries noted above (97 per cent.), (*b*) the frequency of reinfection, and (*c*) the statement that the violent synochus of fourteen or nineteen days and the slow nervous fever protected from reinfection, Christison was describing three forms of fever—namely, typhus, relapsing, and enteric; that he was familiar with relapsing fever is shown by an anecdote in Fagge's *Medicine*, 2nd edition, vol. i, p. 157, *vide* also his *Life*, vol. ii, pp. 148, 420.

To the last, however, he maintained the unity of the continued fevers (*vide Life*, vol. ii, p. 148); it is, therefore, extremely interesting to show by almost his first production,[2] and in opposition to his later theories, that he had observed those essential differences in the forms of continued fever which led Jenner and Stewart in later years to claim enteric fever as a distinct disease.

Le Délire Chronique a Évolution Systématique. Par le Dr. Magnan et le Dr. P. Sérieux. Encyclopédie Scientifique des Aide-Mémoire. Paris: Gauthier-Villars et Fils.

Under the above name (it has also received a number of other names) the authors describe a variety of systematised insanity which begins in adult life, usually about the age of 35 to 45, is progressive, incurable, and ends only with the life of the subject, is therefore often of extremely long duration, even twenty or thirty or more years, and has a systematic clinical course or evolution, there being four stages following each other successively in a definite and unvarying order. The first stage (which may pass unnoticed) is that of disquietude, gloom, anxiety, vague notions of persecution. The onset of the second is marked by hallucinations of hearing, and it is the stage of the delirium of persecution. The next stage is that of ambitious delirium, and the fourth is that of progressive dementia.

Receiving but scant attention in this country, the subject of systematised insanity has been a battle-ground of clinical psychiatry abroad, and the source of numerous new and confusing terms and subdivisions.

The cases dealt with under the title of the above work do not form a large share of the insane; they form in fact very decidedly a minority even of the cases of systematised delusional insanity. Among the cases grouped under a similar head we have observed examples of the type described by the authors of the work under review and by others; their stages, and the succession of these as described have been noted, and a practical insight into their incurability and their decline into mental enfeeblement has been gained. They are among the most typical and striking examples of systematised insanity.

The authors seem to strain their case. They not only seek to cut chronic (insane) delirium off from the general body of systematised deliria, as being a disease of those previously of sound mental health devoid of hereditary mental defects or predisposition, and not a disease of the mental degenerates, but they also strive to divide it sharply from, and to place it in vivid contrast with, all the deliria of these subjects of mental degeneracy. Yet, in the course of discussion, they are forced to admit the close clinical similarity in some instances, although almost immediately endeavouring to belittle the similitude. Forced to admit, also, are they the presence of hereditary mental antecedents or hereditary mental defects in some chronic delirants, but this they dismiss as being of little importance.

[1] *Vide* Dr. Lincoln's translation of the 9th edition of Trousseaux and Pidoux's *Treatise on Therapeutics*, 1881, vol. ii, p. 143, where however the introducer is misnamed Cauvane, and only the 2nd edition of his work (1769), not the 1st edition (1746), is mentioned.

[2] His first publication was probably a Latin thesis, "De Febre Continua quæ nuper in hac urbe epidemica fuit; ex exemplis, apud nosocomium regium tractatis, deducta. 8vo. Edinburgh: J. Pillans et Filius. 1819."

While the sharp distinction they draw holds good for the majority of cases, there is every possible gradation between the two groups; some chronic delirants are of the hereditary mental degenerate class, or in other words some hereditary degenerates undergo chronic delirium of the type described. In the great group of systematised insanities are all grades, from complete previous mental soundness, and absence of psychic and somatic stigmata of hereditary mental degeneracy, up to the presence of these latter, distinctly or in bold relief. No doubt Krafft-Ebing made too sweeping an inclusion of cases of the kind in the group of psychic degenerations, and it was found necessary to extend the scope of systematised insanities beyond that limit. But, on the other hand, the authors of this work have strained the facts in support of the thesis that their chronic delirium is to be entirely separated from the mental degeneracy group, that it alone ever has a systematic clinical course or evolution. At one time they state something of, or bearing on, their views in a moderate way which can be accepted; at another their statements on the same point are too absolute and exclusive. The outcome of their work is practically useful and important; it selects from systematised insanities a definite group of cases, an extreme type of one mode of mental derangement; it fixes attention on the important prognostic element, assists in differential diagnosis, and has a directive influence on treatment. But what they describe is an important variety rather than a true pathological or clinical species.

The acute hallucinatory deliria or psychoses should not be taken as acute forms of paranoia or *Verrücktheit*, although there are clinical reasons which have led some of the best observers on the Continent to do so. On this point we are glad to find the same view as we have held also expressed in the book before us. So wide of the mark is it, that in a future edition the authors may perhaps think well to omit the only and brief reference in the book to English criminal law.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

ELIXIR CASSIÆ OBOVATÆ.

WE have received from Messrs. Jewsbury and Brown (113, Market Street, Manchester) a sample of fluid extract of senna pods, which certainly possesses the great advantage claimed for preparations of senna pods, that the odour and taste of senna leaves are absent. We are informed by the manufacturers that this elixir has been made entirely without the aid of heat or of any agent which could possibly decompose the active constituents of the senna pods. It is a transparent, dark-red liquid, miscible with water, and having an aromatic and by no means an unpleasant taste. We have found it to be an effective aperient.

SALICYLIC ACID.

WE have examined a number of specimens of salicylic acid and salicylate of sodium, manufactured by Dr. Henry Byk, of Berlin. Those submitted to all the tests required by the various pharmacopœias gave perfectly satisfactory results, thus showing that they are of great purity. A most exhaustive examination of Dr. Byk's salicylic acid and salicylate of sodium has been made by H. Helbing (*Helbing's Pharmacological Record*, No. 6, April, 1892) which shows that the salicylic acid is perfectly pure, and identical in chemical composition with the best specimens of salicylic acid prepared from oil of winter green. The samples have been sent by Messrs. R. W. Greef and Co., 29, Mincing Lane, London, E.C.

A RIGID MEASURE.

THE accompanying drawing represents a rigid measure devised for use in cases where the ordinary tape or steel measures give unreliable readings from such causes as the intervention of swelling, surgical dressings, splints, etc., between the selected bony or other landmarks. The instrument is practically a rigid flat rod of light wood about 1 yard in length, graduated in the English system on its upper surface, and supportable on two bluntly pointed rests (A and B, which are about 2 inches in depth. The rest at one end of the rod (A) is fixed at the commencement of the numerical scale, and is placed over the fixed point from which the measurement is to be made. The rest (B) is movable up and down the scale, and has a piece of wood attached to its distal side which answers the purposes of a handle; this rest is placed over to the other landmark, and the distance between them is thus ascertained.

For use in private practice the apparatus may be made jointed and collapsible, and can be conveniently carried in a handbag or the pocket. The best results are obtained by marking with all possible accuracy the skin or bandage superjacent to the bony points with aniline pencil or ink, and then measuring the interval. All the usual precautions, such as ensuring similarity of position when the lengths of limbs are being compared, are necessary.

There is obviously no need to mention all the varieties of



cases in which any instrument made on this principle may be serviceable. The following instances may suffice. Fractured femur (especially if extension be employed) and other fractures of the lower extremity; fracture dislocations in the region of the elbow, and other fractures of upper extremity; antero-posterior diameter of a pleura in which effusion is suspected; transverse diameter of a swollen joint; cases of hip disease and infantile paralysis, etc. The instrument may be obtained of Mr. White, 35, East Street, Bedminster, Bristol.

EWEN J. MACLEAN, M.D., C.M.Edin.,
House-Surgeon Bristol Hospital for Sick Children and Women.

NASAL BOUGIES FOR THE TREATMENT OF HAY FEVER.

DR. W. RICHARDSON RICE (Coventry) writes: Allow me to draw the attention of the profession to the "bougies" lately made according to my suggestions, by Messrs. Wyley, of Coventry, for the treatment of certain nasal affections. Having recently came across some intractable cases of hay fever, it occurred to me that some form of "nasal bougie," portable in size and easy of immediate application, would be of incalculable use to those suffering from this affection in its sudden and distressing manifestations. Incorporated with cacao butter in a neat and elegant form the cocaine will, in the space of five to ten minutes, cause a local sedative and anæsthetic action, thus relieving that irritable condition of the mucous membrane, which causes not only pain but a copious flux from the nostril. The convenience of these neat little "bougies" will be at once recognised, I am sure, and duly appreciated. I have also suggested other formulæ suitable for the treatment of ozœna and nasal polypus which I believe will be extremely useful in their application, and form a valuable addition to our therapeutical armamentarium.

OPEN SPACES IN LONDON.—At the last monthly meeting of the Metropolitan Public Gardens Association, the Earl of Meath in the chair, it was reported that the association had completed and opened St. Anne's Churchyard, Soho, and the old burial ground, Shoreditch; and that the Pottery Lane Fields, now called Avondale Park, had been opened by the Kensington Vestry. Amongst many applications for assistance, seats were granted for Tottenham and Acton, and trees for Stamford Hill; and it was decided to approach the respective authorities concerning the temporary or permanent opening of Vincent Square, a triangle in the Caledonian Road, a plot of land near Colebrooke Row, Gordon House Grounds, the Eton and Middlesex Cricket Ground, and Soho Square. As regards this last-named open space, a generous offer was made by a member to provide funds for its laying out and permanent maintenance if the place could be secured. It was announced that the Constable of the Tower had granted the request of the Association to extend the hours of opening of the Tower Gardens on Sundays and week days during the summer, and that the Islington Vestry had agreed to provide half the cost of laying out the Duncan Terrace enclosure. The valuable gift of a plot of ground in Marigold Street, S.E., as an open space was reported, and it was agreed to expend an adequate sum in laying it out. It was also stated that the churchyards of St. Catharine, Coleman, and St. Botolph, Bishopgate, had been opened by the Association for the summer months, and that a balance of £3,500 was still required for the purchase of the Hilly Fields, and £8,000 for the Paddington Playing Fields.

THE MARCH OF CHOLERA.

The accompanying sketch map will render it easy to understand the progress of cholera from Persia to Russia in Europe. The course of the epidemic westward from Askabad, on the Transcaspian Railway, is indicated by the dotted line which marks the course of that highway of commerce. On the western shore of the Caspian there are two starting points—the one Baku, from which port the epidemic has moved westward along the line of the Transcaucasian Railway (indicated by a dotted line) to Tiflis; the other Astrakhan, at the mouth of the Volga, from whence the disease has been carried by the steamboat traffic up that great river as far as Kasan. The eastward movement of the epidemic from Askabad towards Tashkend may also be traced, and the appearance or recrudescence of the epidemic in Mesopotamia is also indicated.

Cholera has advanced into Russia in Europe during the last week along two routes. It has continued its ascent of the Volga, and it has also spread along the Vladikavkaz-Rostoff Railway. This last extension appears to be connected with the outbreak in Tiflis, which is on the southern side of the Caucasus; it thus appears that the epidemic has succeeded in passing this natural boundary just as, early last month, it passed the Caspian Sea—along the trade route. It is to be feared that the appearance of the disease in Stavropol foreshadows an approaching infection of Southern Russia, and possibly of Odessa and other Black Sea ports. It is in view of this possibility that quarantine has been established by Bulgaria at Varna and Bourgas, and by Turkey at the Black Sea mouth of the Bosphorus. A correspondent of the *Standard* who visited the last-named quarantine station lately has given an account of the arrangements made, which is far from calculated to reassure those who know how in the past even the most elaborate quarantine has broken down. A lazaretto has been established at Monastir Aghazy on the Asiatic shore; it consists of five one-storey buildings about fifty yards from each other, and capable of accommodating at a pinch about 128 persons each if crowded together as close as possible; each building has a small airing court. There is a French disinfecting apparatus, but the water supply is described as being altogether inadequate, and there is absolutely no provision for treating cases of cholera should they arise. Another quarantine station has, it is said, been established on the opposite shore, but leave to inspect this could not be obtained. The International Sanitary Board recently decreed that floating hospitals were to be organised for the treatment of persons attacked by cholera, and requested the Turkish Admiralty to provide two hulks, but this the Admiralty has not done.

At Astrakhan, at the mouth of the Volga, municipal affairs have fallen into a most deplorable state. Riots have occurred owing to the spread of a rumour that persons dying of cholera in the hospital were sprinkled with quicklime and buried alive! A regiment of soldiers had to be sent for, and the town is now in a state of siege, while the mayor is at loggerheads with the rest of the municipality. With such gross popular ignorance and official ineptitude no wonder that the epidemic makes rapid progress. Very elaborate precautions are being taken, on paper at least, to check the further spread of the epidemic along the railways, which, it may be again pointed out, have been the chief channels by which it has been transported from the northern frontier of Persia. Each railway is to have a sanitary committee, each train an ambulance truck converted from a goods wagon and furnished with every necessary appliance, all stations and carriages are to be disinfected, doctors and medicines are to be in readiness at all points, and rules are to be everywhere posted up giving most minute advice and instructions as to diet, clothing, and treatment. All passengers travelling by rail to Moscow or St. Petersburg are stopped at a short distance from their destination and examined by a medical inspector.

A good deal of alarm has been excited by the rapid extension of severe diarrhœal disease in the suburbs of Paris supplied by Seine water. The Spanish Government, which has under consideration the advisability of imposing quarantine on French passengers and French merchandise, has deputed Drs. Cortezo and Mendoza to study the epidemic on the spot.

Our Paris correspondent writes:

In the city of Paris seven cases occurred on July 9th; they are reported from the third, seventh, tenth, eleventh, and fourteenth districts. In the third a death has resulted, and the son of the deceased is seriously ill. Seine water has not been distributed in any of these districts, but that does not prove that the patients have not drank it in other districts. The patients are treated in the Paris hospitals in special wards prepared in readiness, and were taken to them in special carriages. The Municipal Council, in accordance with the advice of its Sanitary Committee, has placed at the disposal of the Prefect of Police sufficient funds to provide the Sanitary Council with a special service of medical inspection for Paris and its environs. Disinfecting stoves are established at Clichy, Courbevoie, and Saint Ouen; at the latter place there are five cases. A special medical service is organised for night and day relief. The patients of the environs of Paris are sent to the Paris hospitals, and treated there at the cost of their respective communes. The agreement with the Assistance Publique obliges the Paris hospitals to receive all suburban patients without distinction of disease. If danger arises to the population of Paris, this clause will, Dr. Brouardel has stated, be modified. M. Humblot has declared the only remedy lies in the completion of the works for bringing the Avre and Vigne water to Paris. MM. Annengaud and Vautier, formerly engineer members of the Conseil Municipal, believe Seine water may be purified by being filtered through sand.

Nine cases of cholera have been admitted to the Saint Denis Hospital. Koch's bacillus has been detected in the excreta. Six deaths have resulted. In one instance, a girl of 19, Koch's bacillus was found in a pleural effusion.

The Mayor of Neuilly has been seized with a choleriform attack, but is recovering. At Puteaux there have been two cases followed by death; at Asnières one case, followed by death; at Courbevoie four cases, three deaths; one of these had drank a considerable quantity of Seine water; she died after ten hours' illness. At Clichy, where there are Pasteur filters, several cases have occurred and one death.

The Local Government Board has issued a General Order prohibiting the importation of rags from France on the ground that "cases of an infectious disease, alleged to be cholera, now exist in certain parts of France." The expediency of this precautionary step will be understood when it is considered that some 15,000 tons of rags annually find their way from France to this country, mainly to the ports of London, Hull, Goole, and Liverpool. Another order is being issued prohibiting the importation of rags from ports on the Black Sea and Sea of Azov and in Turkey in Asia, as cholera has appeared in south-eastern Russia and Turkey in Asia.

The sanitary authorities and health officers along our coast should also at the present time be specially vigilant, so as to maintain intact our "first line of defence" against imported sickness. Both port and inland authorities will remember that cholera is a filth disease, and they should therefore see to the removal of all unwholesome conditions, and ensure the protection of the water supplies against pollution. There is no need for alarm in this country, as conditions favourable to the spread of cholera and such-like diseases have greatly diminished of late years. But there are still many unsavoury localities and districts, and many dangerous water supplies throughout the country, and "prevention is better than cure." Moreover, it should be held clearly in view that the conditions which would enable cholera if imported to spread, are conditions which day by day in the absence of cholera create and spread other diseases—diseases which, as being never absent from the country, are in the long run far more destructive than cholera.


SKETCH
MAP TO ILLUSTRATE
THE RECENT PROGRESS
OF
CHOLERA.
Numerals give dates of earliest report of presence of Cholera, or Establishment of Quarantine
Q. Quarantine.
Frontier.
Railway
RUSSIA
KIRGHIZ STEPPE
RUSSIAN TURKESTAN
BLACK SEA
CASPIAN SEA
TURKEY IN ASIA
PERSIA
AFGHANISTAN
BELOOCHISTAN
PUNJAB
ARABIA
MEDITERRANEAN SEA
PERSIAN GULF
RED SEA
MOSCOW
NOVGOROD
KOSTROMA
SIMBIRSK
7. VII.
SARATOV
30. VI.
TSARITZIN
ASTRAKHAN
30. VI.
PETROVSK
24. VI.
DERBEND
Q. 1. VI.
BAKU
6. VI.
KRASNOVODSK
22. VI.
ASHKABAD
1. VI.
MERV
CHARJUI
BOKHARA
SAMARKAND
TASHKEND
OUTCH TAPA
24. VI.
KULJA
VARNA
CONSTANTINOPLE
SINOPE
POTI
BATUM
TIFLIS
26. VI.
ELIZABETOPOL
7. VII.
SHUSHI
28. VI.
BALA ISHEI
29. VI.
MASHED
23. V.
TEHERAN
ISPAHAN
BAGHDAD
16. VI.
SHIRAZ
KERMANSHAH
ALEPPO
DAMASCUS
June 1891.
SUEZ
CAIRO
HERAT
CABUL
KANDAHAR
PESHAWAR
SRINAGAR
CASHMERE
MOOLTAN
HYDERABAD
KURACHEE
PENJDEH
MERV
Nov. 92.

ROYAL COLLEGE OF SURGEONS.

A QUARTERLY COUNCIL was held at the College on July 14th, when the PRESIDENT reported that at a meeting of the Fellows of the College on July 7th, Messrs. Thomas Smith and Durham were re-elected, and Messrs. Howard Marsh and Tweedy were elected members of the Council. These gentlemen, after making the prescribed declaration, took their seats as members of the Council.

The minutes of the last ordinary Council were then read and confirmed.

An application was received from the Honorary Medical Staff of the Hospital for Women and Children at Leeds for the recognition of that institution as giving such clinical instruction in gynæcology as is required by the regulations of the Conjoint Board. The application was referred to the Committee of Management for consideration and report.

A letter was read from Dr. Liveing reporting that the following resolution had been adopted by the Royal College of Physicians: "That the College, in conjunction with the Royal College of Surgeons, and not otherwise, should endeavour to co-operate with the authorities concerned in the foundation of a university in local relation to teaching and study in London." The PRESIDENT stated that he, together with Mr. Hulke and Mr. Howse, had attended a preliminary meeting with the representatives of the Royal College of Physicians, at which they had agreed to the general principles contained in a report relating to the Gresham University Commission, and that Mr. Hulke and Mr. Howse had since then given their evidence before the Gresham University Commissioners.

On the recommendation of the Committee of Management it was resolved that the West Riding Lunatic Asylum at Wakefield should be recognised for the purposes of study required by the regulations of the Conjoint Board.

The Council directed that the Annual Calendar of the College should be made up to the present date inclusive, and printed for sale.

The following Professors and Lecturers were elected:—On Surgery and Pathology: Messrs. Jonathan Hutchinson, and B. Pitts: on Comparative Anatomy and Physiology: Messrs. Lowne, Plowright, and Stewart; on Anatomy and Physiology, Dr. J. R. Bradford; and Erasmus Wilson Lecturer: Mr. J. H. Targett.

Mr. Bryant was elected President of the College for the third time. Messrs. Heath and Durham were elected Vice-presidents.

Mr. RIVINGTON moved that a committee be appointed to consider and report to the Council on the standing rules, and to submit a revised copy to the Council. This was carried.

The thanks of the Council were given to Mr. Hallett for his Catalogue of Portraits and Busts in the College of Surgeons.

The next ordinary meeting of the Council will be held on August 1st.

OBITUARY.

HUBERT FOVEAUX WEISS, F.R.C.S., Ramsgate.

IT was only about twelve months ago that Mr. Weiss resigned his posts of assistant-surgeon and surgeon to the Skin Department at the West London Hospital; the former appointment he had held for eight years. Apparently he was then in the fullest enjoyment of active manhood, but he died on July 4th, at Gosport, while yachting, to the surprise and regret of all his friends, at the early age of 37. He received his medical education at St. Bartholomew's Hospital, entering the medical school during the winter session of 1873; in due course he became house-surgeon to Mr. (now Sir William) Savory. He was one of the few junior officers whose health was not deteriorated by the twelve months' arduous work in this capacity, a proof of the stability of his physique.

After leaving his Alma Mater he held other house-surgencies in London, and spent some time in Dublin, attending the practice at the Rotunda Hospital. Ultimately he was appointed Assistant-Surgeon to the West London Hospital; but the attractions of his favourite pastime—yachting—weighed too heavily in the balance against the more sober, uneventful, and somewhat, perhaps, unpromising element of his life, namely—waiting for practice. Intensely fond from his earliest childhood of an out-of-door existence, it was only a question of time when he would throw off the more irksome trammels of his professional occupation; and the time came last year. He resigned his hospital appointment, and, giving up his house in Hanover Square, he left London and went to live at Ramsgate. Possessed of comfortable if not ample means, he was then able to follow his favourite pursuit to its fullest bent.

Mr. Weiss was distinguished for his genial nature, which always secured for him a large measure of popularity among his colleagues and friends. He was ever what those who knew him best in the profession described as a "good fellow.' His position, too, on the staff of the West London Hospital gave him the opportunity of taking part in the organisation of the preparatory school of medicine which was attempted some years ago in connection with the institution. This he did with enthusiasm, and the ephemeral success which the scheme attained was not a little due to his efforts. As is known, however, conflicting interests rendered the establishment of the school an impossibility. Mr. Weiss was a good surgeon, and a careful, neat, and successful operator. He leaves a widow and one child to mourn his loss.

INDIA AND THE COLONIES.

INDIA.

OPIUM AND INSANITY.—Statistics collected by Dr. Crombie from the asylums of Lower Bengal for the 10 years 1881-1890 show that of 2,202 patients admitted 641, or 29.1 per cent. were gunja smokers, 117, or 5.3 per cent. spirit drinkers, and 8, or 0.36 per cent. opium eaters. Figures from the asylums of the Bombay Presidency give similar results as regards the small proportion of opium eaters among those who became insane.

CALCUTTA.—In the Lady Dufferin Victoria Hospital careful attention has been paid to the religions and customs of patients. Hindoos and Musulmans are on separate floors. The food is prepared for the patients by women cooks of their own religion. Native Christians have a separate ward. The charge for private wards varies from 8 annas to 2 rupees a day.

SNAKES IN THE HOOGHLY.—Considerable alarm has (says the *Indian Medical Gazette*) been caused in Calcutta and its neighbourhood by the sudden appearance in the Hooghly of a large number of snakes, some of which are stated to be venomous.

MADRAS.—The project of erecting a new building to serve as a hospital for women and children between the Fort and the Medical College in Madras has been abandoned. The present military hospital will be utilised for the purpose and accommodation found for the military sick in the Fort and at Poonamallee.

NEW SOUTH WALES.

HEALTH MATTERS.—The Board of Health for New South Wales have issued an interesting series of short reports upon sanitary matters in the colony. One has reference to the working of the Dairies Supervision Act, and gives by no means a favourable account even as regards Sydney itself. The water supplies of dairy farms were found to be polluted as often as not; and in another report it is shown that the enteric fever death-rate, which had increased in Sydney from 0.46 in 1876 to 1.02 in 1885, has fallen again, after the passing and enforcement of the above Act, to 0.28 in 1891. On the whole, the local authorities seem to have supported the Board in their efforts to cope with this public danger, and it is satisfactory to find that the Board have in certain cases of default exercised their compulsory powers.—The number of lepers under detention at the lazaret rose from 13 to 21 during 1891. There were 10 new cases during the year, 5 of them born in the colony of European parents, and 4 Chinese. A very careful inquiry was made by Dr. Ashburton Thompson, chief medical inspector, into the antecedents of each of the 9 European patients who have been under treatment since 1883, when the lazaret was opened. The result was inconclusive as to the origin of the malady, but in some instances suggestive of a common locality.—Three vessels were quarantined on account of small-pox occurring during the voyage. To judge from the vaccination returns, the colony is getting ripe for an epidemic of that disease. There are no records of private vaccination, but while the annual total of births is about 36,000, the number of persons (of all ages) passing through the hands of the public vaccinators seems now to be little over 2,000 annually. The Government analyst mentions that in March, 1891, the waters of Sydney Harbour assumed a blood-red colour, which, upon investigation, proved to be due to the presence of myriads of small organisms like *euglena sanguinea*, and not (as was at first suggested, to the alarm of the public) to the refuse from the abattoirs.

QUINQUAUD has confirmed Unna's statement as to the presence of a special microbe in soft chancre. It is a bacillus with rounded ends, and is generally arranged in chains. It is present in prodigious numbers in the lymphatics and intercellular spaces.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1892.

SUBSCRIPTIONS to the Association for 1892 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, JULY 16TH, 1892.

THE MEETING OF FELLOWS AT THE COLLEGE OF SURGEONS.

FOR the first time in the history of the College of Surgeons of England, a meeting has been held of the Fellows separately from the Members, in pursuance of a resolution of the Council. A report of the meeting, which took place immediately after the declaration of the poll at the annual election to the Council—at which Messrs. Smith, Tweedy, Durham, and Marsh were the successful candidates for the four vacancies—was published in our columns last week. In some respects those of the Fellows who are in favour of the progressive policy which is being impressed upon the governing body of the College may regard the meeting as the thin edge of the wedge in the advancement of the reform movement, and when the circumstances under which the meeting in question came to be granted are inquired into, it is evident that a point has been gained in this respect. Readers of the BRITISH MEDICAL JOURNAL who have followed the recent course of events will remember that, at the instance of the Association of Fellows, the Council took counsel's opinion upon the question of separate meetings of the Fellows. The Attorney-General and Mr. Paget, to whom the matter was referred, expressed themselves as follows:—"We are of opinion that no legal objection exists which prevents the Council of the College granting the use of the College premises to either the Fellows or the Members for a meeting of purely consultative purposes, and that this course is equally open to the Council whether such meeting be summoned by the President or Council, or merely allowed to take place there with their permission and authority. It must, however, be distinctly understood that such meeting would in no sense be of any official or corporate character or efficiency, and nothing resolved or occurring thereat would in any way alter the rights of the College or any of its Members, whether Fellows or Members only. Any proposals to affect the interests of the Corporation or any of its Members could only be discussed, so as to have effect, at a regularly assembled meeting of the whole corporate body." Thus although the new departure just adopted by the Council has been spoken of as a concession, nevertheless in the light of the plainly expressed legal opinion under which it has been granted, it is difficult to see how the Council could otherwise have acted when a large section of the Fellows was claiming that to which by right the body corporate was, on the showing of eminent counsel, entitled. Apart, however, from the legal aspect of the case, the meeting was noteworthy as showing emphatically the growing activity, power, and influence of the Association of Fellows. Saving for the action of that Association, whose work has always met with considerable opposition at the hands of the Council, the meeting would never have been held, nor would the Fellows be in the possession of the legal opinion which shows that at all events in one particular the charters and by-laws were capable of interpretation in their favour. Eminently in keeping with this source of satisfaction, was the triumphant return of the candidate of the Association, Mr. John Tweedy.

From these and other signs, therefore, it is evident that the Council is now confronted by a body whose efforts to secure reform in the government of the College are making sure but certain headway. In short, there is no disputing the fact that the good influence of the Association will ultimately become more and more expressed by the extent to which it is certain to influence the results at the annual election to the Council. The Council will from henceforth have to take every appeal which is made to it by the Association of Fellows seriously, and in a manner more in keeping with the position of a body which is far from being in touch with its constituents. The prosecution of a short-sighted policy has continuously led the Council into difficulties with the body corporate; and further difficulties and greater opposition will yet be in store in the future, unless wiser counsels prevail. As was to be expected, the first meeting of the Fellows was not a conspicuous success as far as the transaction of any important business was concerned. The President, in his opening address, somewhat ironically pointed out that he had no important matters to bring forward for discussion, and merely asked for some expression of opinion upon the subject of the celebration of the Jubilee of the Fellowship.

As to the arrangements which the Council had made in this regard, no possible fault could be found, and a unanimity of feeling probably prevails throughout the body of Fellows that the function which will be held next year, as proposed, should be warmly supported by the Fellows and Members alike. But because the President had nothing to say upon the political affairs of the College, the opportunity of saying something upon these matters was not allowed to pass, and the real business of the meeting may be said to have commenced when Mr. Holmes pointed out the shortcomings of the Council in its dealings with the Fellows. Very properly he deprecated the action of the Council in coming to a decision upon the urgent matters of the University question and the five years' curriculum without taking the body corporate into consultation. Unfortunately for the meeting, however, and for all concerned, Mr. Holmes's remarks were seized upon as an occasion for a personal attack by Mr. C. Heath upon his ex-colleague on the Council. The Fellows present, however, echoed the deep regret expressed by Dr. W. J. Collins that a member of the Council should have been the first to sow discord in a meeting which was essentially called for friendly purposes. A useful suggestion was that made by Dr. Collins, that an annual committee among the Fellows should be appointed similar to that which is elected by Convocation of the University of London. This met with some approval by the meeting, but Mr. Bryant subsequently said that he could

hold out no hopes of its adoption by the Council. Upon the whole, although nothing definite was done, nevertheless the first meeting of the Fellows separately from the Members has served to point out that, with proper organisation, subsequent meetings of the kind may be usefully employed as instruments for the furtherance of the measures of reform for which the body corporate is striving. It is scarcely necessary to say that the issue is in the hands of the Fellows themselves, and before all things they should do their utmost to strengthen the hands of those who are mainly concerned in fighting the battle. Loyalty to the cause is everything in such a case, and by it alone is victory possible.

A MEMORY FOR FIGURES.

A man who presents an extraordinary example of the extreme development of a partial, special, or, as it has sometimes been called, local memory, has recently been reported upon by a special Commission of the Académie des Sciences. The case unfortunately does not throw any light upon the mode of origin of such memories, since the facts that can be ascertained as to the ancestors or near relatives of the subject do not afford any evidence of the operation of a hereditary tendency, but the examination has yielded some results of great interest.

Jacques Inaudi, the son of Piedmontese peasants, was born in 1867, and did not learn to read and write until 20 years of age. Yet when only 12 years old he was already a calculating wonder, and was presented to the Société d'Anthropologie by Broca, who in his report wrote: "He can neither read nor write; he has the numbers in his head, but cannot write them." He learnt the numbers from his brother by repeating them after him, and has worked out for himself methods of resolving arithmetical problems which are original with him, and differ in certain points from those in ordinary use. Thus, in addition, he can add together six numbers of four or five figures each; he achieves this by adding together the first two, then the sum of these and the third number, and so on to the end; but in each case he begins from the left, as is stated to be the practice of the Hindoos.[1] In subtraction he accomplishes the extraordinary task of subtracting numbers containing twenty figures, beginning here also from the left. This feat is a striking proof of his wonderful memory for numbers, and his method of multiplication depends entirely upon the same faculty. Thus, he multiplies 834×36 by the following process; $800 \times 30 = 24{,}000$, $800 \times 6 = 4{,}800$, $30 \times 36 = 1{,}080$, $4 \times 36 = 144$, which gives by addition the true total, 30,024. Division he accomplishes in the same way as an arithmometer, by successive subtractions. In finding a square root, however, he adopts another method; that is to say, he makes a series of guesses until he finds the true root. All these calculations he makes with extraordinary rapidity; for example, he gave the cube of 27 in less than six seconds.[2]

When the attempt was made to ascertain by what mental process Inaudi achieved his feats, it was soon evident that he possessed an extraordinary power of retaining figures in his memory. He can repeat a number containing 25 to 30 figures which is read out to him, and retain it in his memory for some time. In one instance he remembered a number containing 22 figures for a week, although he was not warned that he would be asked for it again. He can repeat the number forward or backward, or can give any section of it, as, for instance, the billions and millions. At the end of a *séance* he can repeat all the figures which have been mentioned, and in their proper order, to the number of 400.

Though he has this prodigious memory for numbers, his memory is not remarkable in other directions. He cannot reproduce more than five or six words heard once, and after a single hearing cannot repeat two lines of poetry or prose. His memory for colour, form, events, places, and melodies is rather inferior to the average, and he is unable to understand how any person can play blindfold chess.

This last observation brings us to the point of greatest physiological interest in Inaudi's case. All other known calculating prodigies have had a visual picture of the numbers with which they were dealing, and the calculator Bidder even stated that he could not conceive the possibility of mental calculations without the power of representing to oneself the figures as though they could be seen. Mr. Francis Galton, by inquiries among accountants and other persons much engaged in calculations, ascertained that this power of calling up a mental picture is commonly possessed by them to some degree, and that often the figures are disposed in certain lines or groups peculiar to the individual. Inaudi has no such power. "I do not see the figures," he informed the Commission. "I may even say that I have much more difficulty in recalling numbers and figures when they are written than when they are spoken." The Commissioners satisfied themselves that "Inaudi calculates with greater ease when the problem is put to him by word of mouth than when it is placed before him in writing; the sight of the figures embarrasses him, and, reverting to the procedure natural to him, he repeats to himself, either aloud or in a low voice, the numbers which he wishes to retain in his memory." Inaudi apparently always repeats over to himself the numbers upon which he is to work, and while the calculation is in process he is mumbling to himself. As M. Charcot points out, his memory might be a memory of sounds or the memory of the movements of articulation, or a combination. No means of answering the question thus raised has been devised, but Inaudi himself is confident that it is the auditory memory upon which he depends, and M. Charcot believes that the memory of movement, if it plays any part, has only a very subsidiary part in reinforcing the auditory phenomena, which in any case are the first in time.

It will be seen, therefore, that Inaudi's powers of mental calculation depend entirely upon an extraordinary memory for numbers heard, therein differing from other calculators who remember numbers seen. The distinction will be well perceived by inspecting such a number, as, for instance, 436,729,342 687, and comparing the mental impression or image with that produced by repeating aloud four hundred and thirty six billions, seven hundred and twenty nine millions, three hundred and forty two thousand, six hundred and eighty seven. Probably Inaudi's auditory memory will appear to most people far more surprising than the visual memory of other calculators. This peculiarity is, no doubt, to be traced to the fact that until he was 20 years of age he knew numbers only by hearing and not by sight. It is inter-

[1] *Comptes Rendus*, cxiv, No. 23, MM. Charcot et Darboux, Rapports de la Commission Chargée de l'Examen du Calculateur Inaudi.

[2] M. Binet, in an interesting article in the *Revue de Deux Mondes*, June, 1892, has given a number of determinations of the time taken by Inaudi to solve various problems, but the mere rapidity of his mental operations is a point of secondary interest in the present connection.

esting to speculate whether the growth of this memory would not, in fact, have been checked by early education, especially early instruction in reading and writing. Certain it is that among primitive peoples the memory for spoken words must have been very much more highly developed than is commonly the case among the civilised reading and writing folk of the present day.

EVERYBODY'S MEDICAL DUTY.

Herodotus tells us that the Babylonians had no physicians, that when anyone was sick he was carried into the streets and placed where the greatest number of passers-by could see him; everybody was bound to stop and consider the case, and if an individual paused who had suffered in what seemed to him a similar manner he was compelled to explain the method of his cure. There is no necessity for this sort of thing now, although a large section of the public enjoys nothing more than suggesting remedies for all sorts of complaints and dabbling generally in a little physic. But there never was a time in the history of civilisation when there was greater need that everybody should recognise the fact that he owes a medical duty to his neighbour which he is bound to perform.

Dr. George Gould recently delivered an address in Philadelphia on the subject "Everybody's Medical Duty," in the course of which he bitterly complained of the way in which the public at large leaves the medical profession to struggle under its Atlantean world of deputed responsibility. The indifference, the want of sympathy, to say nothing of the actual opposition experienced by those whose work it is to contend against disease is as discouraging to our profession as it is disgraceful to our age of science. There never was a body of men animated by a spirit of devotion and self-sacrifice such as characterises the medical practitioners of the age. How is this devotion and self-sacrifice recognised? The quacks, the charlatans, and the knaves make fortunes, while educated and conscientious practitioners are expected to do a large amount of work for nothing. Up to now the work of the physician has been the cure of sick persons. Now it has largely become the prevention of sickness. Patients will co-operate more or less in the work of being healed of their diseases, and are not wholly ungrateful to the healer, but those who are in daily danger of becoming patients will do little or nothing to assist the men who are fighting to keep disease from their doors. They laugh at bacteria and mock at microbes; carry the germs of disease in their clothes from house to house; sweep up the dust of the streets in their trailing skirts; take little or no pains to disinfect the excreta from such infectious cases as occur in their own homes; oppose with all their influence the erection of hospitals for infectious diseases in their midst, careless as to what becomes of the patients so long as they pass not by their own doors; impede the efforts of medical officers of health and inspectors of meat and other food to improve the hygienic conditions of our towns and the quality of the food we consume; disregard the authoritative condemnation of the corset; and in a multitude of ways help to make the work of the modern physician as hard as possible. Chaldea and Babylon could have taught us this, at least, that everybody is bound to help the State to the utmost of his power in the battle against disease and death.

ST. BARTHOLOMEW'S HOSPITAL.

We understand that the resignation of Sir Sydney Waterlow will be formally accepted on Thursday, July 28th, on which day Sir Trevor Lawrence will be elected treasurer. The new treasurer will not, we believe, reside within the hospital.

TEMPERANCE IN THE INDIAN ARMY.

From *On Guard*, the organ of the Army Temperance Association in India, we learn that the membership—all total abstainers—in April last reached the highest number ever attained. There were in that month 18,029 abstainers, being 634 more than in the corresponding period of last year. The influence of abstinent habits on the character and conduct of the men may be judged from the fact that the average number of charges was—among non-members, 104; and among members, 0.013.

THE CONDITION OF THE THAMES.

Last month the Medical Officer of Health of the Port of London stated that the river Thames, in consequence of a few hot days, had already begun to smell badly in the neighbourhood of Crossness and Barking. The new precipitation works at Crossness were ready to be put in operation, and it is stated that the quantity of sludge now being weekly carried to sea from the two outfalls reaches the horrid total of 30,000 tons. The river is now said to be free from smell arising from sewage, and from the black patches of discoloured water which formerly were so offensive; and that at low tide no black mud is stirred up in the wake of steamers passing up and down the river.

NORFOLK COUNTY COUNCIL.

There is to be no county medical officer for Norfolk, for the present at all events; but Dr. Shephard Taylor is to be asked to summarise the health reports for the several districts in the county. For the rest, a committee of the County Council are endeavouring to exercise a little paternal supervision in sanitary matters, and have even gone so far as to address circular letters to the various authorities, asking what action had been taken under the Housing of the Working Classes Act, and whether they were enforcing the Public Health (Water) Act or not. In reply to the second query, the authorities, with much unanimity, reported themselves "not guilty," an assurance which must be very satisfactory to the County Council, and will, of course, be accepted as final and conclusive.

SCARLET FEVER IN LONDON.

The epidemic of scarlet fever in London shows at present no sign of abatement. It is satisfactory to note, however, that the mortality from this disease has not hitherto much exceeded the average. The cases of scarlet fever under treatment in the Metropolitan Asylums Hospitals have been steadily increasing, week by week, during the past three or four months, and reached the large total of 2,280 on July 9th, of whom 292 had been admitted during last week. The fatal cases of scarlet fever registered in the metropolis last week were 21, which only slightly exceeded the average number in the corresponding week of the preceding ten years. Judging from the notified cases during recent weeks, the disease appears to be most prevalent in Holborn, City of London, Whitechapel, Mile End Old Town, Poplar, Newington, Woolwich, and Plumstead.

STERILISED MILK FOR INFANTS.

The good results which have been found to follow the use of sterilised milk in foundling hospitals in New York and other cities of the United States during the hot months has led to a new departure being taken by a committee of ladies interested in one of the dispensaries. The *New York Medical Journal* reports that they have erected sterilising apparatus in a room in the dispensary, and that the milk is retailed to

the poor women attending with their infants. The milk is sold without making any charge for the cost of sterilisation in order to compete with the ordinary article sold in the shops. The Boston Board of Health, we learn from the *Boston Medical and Surgical Journal*, has issued a circular printed in English, Italian, Hebrew, and Russian, giving directions for the sterilisation of milk, which, it is thought, may be followed by mothers of the poorer classes. The directions are as follows: Put the milk as soon as it is received into a glass bottle, put the bottle in a kettle with a block of wood under it to prevent the bottom coming in contact with the kettle; put water enough in the kettle to come half way up the side of the bottle; heat the water as hot as possible without boiling; take the kettle off the fire and cork the bottle if possible with an india-rubber stopper, but leave the bottle in the kettle for half an hour; then put the bottle in a cool place. The bottle and stopper must be cleansed daily with boiling water. Summer diarrhœa is a much greater scourge in New York than in this country, owing to the longer prevalence of warm weather, but the hint is one which might be considered by the authorities of British Children's Hospitals if we again incur the griefs and pleasures of a real summer.

SALE OF PROPRIETARY DRUGS BY GROCERS.

THE grocers who lately appeared before the President of the Local Government Board as complainants against the Adulteration Act are now, it appears, much interested in keeping the sale of patent medicines in their hands, which is threatened by the recent prosecution set on foot by the Public Prosecutor, at the instance of the British Medical Association, and the consequent action of the Pharmaceutical Society. The following letter, signed "Howard Burton," which appears in the *Grocer* of July 9th, explains the present situation from the grocers' point of view:

SIR,—In reference to the sale of patent medicines by grocers, it seems to me that we must be up and doing. Although it is important to us that the trade should not go out of our hands, it must be more important to proprietors of patents that they should help the grocer to keep his trade in these articles.

I think they will acknowledge that we are their best friends, and the ones to be helped, encouraged, and, if necessary, defended. We have made these goods popular, and, if my experience is anything to go by, I think, should our sales be either curtailed or stopped, that the sales of patents will be much less, and wholesale houses will discover to their sorrow that a mistake has been made in not supporting us.

I therefore appeal to all interested in this question to do their best to support any effort put forth by the secretary of the Drug and Grocers' Stores Defence Union.

HOLIDAYS IN THE GREEN ISLE.

AN enthusiastic correspondent writes to us from Killarney to recommend the "Green Isle" as a health resort. While the accommodation for tourists throughout Ireland has considerably improved of late, it has often been a matter of surprise to many how little English travellers, and those from Europe generally, appreciate the great advantages to be derived from a restful visit to Ireland, as distinguished from a hurried scamper. "No place," he writes, "excels in health-giving properties the air and scenery of Kerry. It is amusing, this lovely weather, to read that Ireland has 208 rainy days, according to one American author. He should have added that, though rain may have fallen on some 200 days, in very many instances it was in very light and transitory showers, the sunlight gleaming all the more brilliantly after each shower, which so often scarcely suffices to keep down the dust so disagreeable to the traveller in other lands. It is very seldom indeed that the summer heat is oppressive in Ireland, the thermometer in the shade rarely exceeding 75° F., while the climate is much less subject to the great and sudden falls of temperature so common in the climate of southern Europe, America, Africa, and most other places. The diet and mode of life in the chief Irish hotels is much more suited to the traveller than that so commonly met with on the Continent of Europe. Comparative freedom from zymotic disease enhances the attractions of a visit to Ireland, while the restful influence of that lovely green which pervades her landscape is of vast importance to the weary in mind and body, and of great benefit to those whose sight has suffered from work and glare and dust, as well as from sudden changes of temperature."

PRESENTATION TO DR. BRIDGES.

A HANDSOME silver bowl, subscribed for by the medical officers of the metropolitan fever hospitals, district asylums, Poor-law schools and workhouses, was presented to Dr. J. H. Bridges, Local Government Board Inspector, in view of his impending resignation, on July 4th, in the library of the British Medical Association, 429, Strand. The Chairman (Dr. J. Adams Clarke, Medical Officer of St. Pancras Schools at Leavesden), in making the presentation, paid a graceful tribute to Dr. Bridges's high qualifications, ability, and courtesy, and acknowledged the help invariably given by him to those with whom he came into official contact. Dr. Clarke dwelt upon those material improvements which had taken place in schools and other institutions as the direct outcome of Dr. Bridges's suggestions, instancing the action taken in regard to ophthalmia and other contagious complaints and the institution of the metropolitan Poor-law infirmaries on their present basis. Dr. MacCombie, of the South-Eastern Hospital, expressed the regard felt for Dr. Bridges by the medical superintendents of the metropolitan fever hospitals, and Dr. J. H. Robinson, of Mile End Infirmary, spoke on behalf of the infirmaries. Most kindly and complimentary reference was then made to Dr. Bridges by Dr. Elliot (of Caterham), on behalf of the medical superintendents of the district asylums; while Dr. J. F. Williams (of Newington Workhouse) expressed the feelings entertained for Dr. Bridges by the medical officers of the metropolitan workhouses. Dr. Bridges, having expressed his extreme gratification at the handsome present which he had received, went on to speak of the difficulties encountered when he assumed the duties of an Inspector of the Local Government Board 23 years ago. He traced step by step the history of important advances in general medicine and hygiene which had resulted from the work done in Poor-law workhouses and schools. Dr. Bridges foreshadowed the Poor-law infirmary of the future, and expressed his confident opinion that those institutions would be largely utilised for the purposes of medical instruction. Dr. Bridges, in taking leave of those present, expressed the hope that he should not lose touch of those medical officers with whom he had for so many years been in official contact. The proceedings terminated with votes of thanks to the Chairman and Secretaries of the movement.

THE AMERICAN MEDICAL ASSOCIATION.

THE forty-third annual meeting of the American Medical Association was held in Detroit last month under the presidency of Dr. H. O. Marcy, of Boston, who delivered an address on Evolution in Medicine. A report from a committee appointed to take steps to bring about the creation of a Department and a Secretary of Public Health reported that a petition had been prepared and extensively signed and supported, and that a Bill had been drafted and introduced both into the Senate and into the House of Representatives, but the matter was still under discussion. A large number of other reports were presented, including one on the standing of certain members who were also members of the New York State Medical Association; this gave rise to much discussion, directly or indirectly, and to some stormy scenes. A resolution was adopted and ordered to be forwarded to all medical colleges in the United States endorsing the action of certain colleges in raising the standard of medical education, and calling upon other colleges to follow this example. The financial position of the Association was reported to be so far satisfactory as to justify increased expenditure in connection with the issue of the *Journal*, and the taking of new and more commodious offices. It was announced that the charges made for advertisements had been raised, and a resolution

was adopted instructing the trustees to refuse all advertisements of secret preparations; the practice of giving testimonials to such preparations was stated to be derogatory to the dignity of the profession. About eleven hundred members were present at the meeting, and the sections were well attended. The address in surgery was given by Dr. John B. Hamilton, who took for his subject "The General Principles of the Surgery of the Brain and its Envelopes." The address in medicine was given by Dr. Gihon, who spoke on "Intellectual Progress in Medicine," and took occasion to urge that the physician should not forget his civil duties, but take his share in public business. The address in State Medicine was delivered by Dr. J. Berrian Lindsley, of Tennessee, who said that the publication of the "Inquiry into the Sanitary Condition of the Labouring Population of Great Britain" had marked a sanitary era, and that the great feature of British history since that time had been the constant steady elevation of the masses, owing to the greater interest taken in public health. He then proceeded to insist that it was the duty of the national government of the United States to foster the study of questions of this order. It was announced that the president of the next annual meeting of the Association would be Dr. Hunter McGuire, of Richmond, Virginia, and that the meeting would be held in "The Cream City of the West," which it appears is a name sometimes given to Milwaukie.

A BACILLUS AS A FARMER'S F IEND.

AN opportunity for testing Loeffler's method[1] for destroying mice in large numbers through the agency of bacillus typhi murium, was presented by the recent plague of field mice in Thessaly, in the course of which an entire field of corn was sometimes destroyed in a night; the harvest was at one time endangered. The bacillus had been shown to be pathogenic for mice of the species Arvicola arvalis, and the field mice in question belonged to an allied species. Preliminary experiment showed that the bacillus was fatal to these also. It was further found that the animals ate readily bread impregnated with fluid containing the organisms, and, though well supplied with suitable flood, consumed portions of the bodies of their fellow mice which had succumbed. The bacillus grows well upon a decoction of oats or barley, to which peptone (1 per cent.) and grape sugar (½ per cent.) have been added. Culture fluid of this composition was made in quantity, and tubes of agar containing pure cultures of the bacillus were prepared. The practical measures adopted against the plague were as follows: In the first place it was proved that the bacillus was harmless to all the domestic animals kept in the affected districts, and to man. A quantity of culture medium was poured into a vessel, and to this the contents of some of the agar tubes were added. Peasants were caused to come in from the affected districts, each bringing a basket of broken bread. The bread was soaked in the inoculated fluid and the men dismissed, with instructions to place in each mouse hole a portion of bread. As a further measure, numbers of mice were inoculated subcutaneously with pure culture of the bacillus, and then set free. Within nine days a notable decrease in the ravages caused by the mice was observed, and from this time onwards dead and dying mice were found in increasing numbers. The final results, at the expiration of four weeks, were received in due course, and proved entirely satisfactory. It seemed, indeed, clear that th measures adopted had saved the harvest.

POWER TO CUT OFF WATER SUPPLY.

DR. ORME DUDFIELD, the medical officer for Kensington, has in a recent report again directed attention to the anomalous power which the water companies possess of cutting off the water supply from a dwelling-house if their demand for rates is not paid in advance, and so causing a nuisance which the sanitary authority is bound to abate as quickly as possible. The power was given by the Waterworks Clauses Act, 1847, probably without much consideration. It has been urged in defence of the companies that they are traders, and that a trader cannot reasonably be required to continue to supply the commodity in which he deals to a customer who will not pay for it. If the companies carried on their business under the same conditions as other traders this argument would be cogent. But they do not. They are entrusted by Parliament with special powers because water is a necessary of life, and the wellbeing of the community requires a proper supply to all occupied dwelling-houses. Experience has shown that the companies, or their officials, are disposed to make an arbitrary use of their legal right to cut off the supply, and, consequently, that this right may at times act prejudicially to those sanitary regulations to aid which the statutory powers of the water companies were given. The absolute right to cut off the supply was curtailed by Mr. Fulton's Act in 1887, so as to prevent small houses for which the owner pays the rates being deprived of their supply. Such houses, generally let in tenements and occupied by large numbers of people, would, of course, be the ones to produce the worst nuisance if left without water. But the case is bad enough with houses of a superior class. The right which the companies possess is unnecessary for their protection, and is detrimental to the public. There is no adequate reason why they should be placed in a better position than all other possible creditors. If they were left with the same powers of distress as a landlord has for his rent, they would be amply protected, Whenever Parliament can find time to legislate on social questions, a short Act repealing section 74 of the Act of 1847, and putting the water companies on a different footing as regards their customers, may usefully be passed. Whichever political party will place such an Act on the statute book will do useful public service.

DEATH OF MR. C. A. WALTERS, OF CHELTENHAM.

IT is with great pain and regret that we this week record the death of Mr. C. A. Walters, of Cheltenham, which occurred on July 8th. He was medical officer of the Second District of the Cheltenham Union, and had held office under that board of guardians for about thirty-eight years. Very recently, owing to no serious fault, but what, perhaps, may have been an unwise act, he incurred the anger of the majority of the guardians, was suspended from duty by them, and subsequently severely censured by the Local Government Board. This was for having declined to attend a patient as a pauper, who presented no medical order or any other voucher for medical attendance. The details of this unfortunate case are given in the BRITISH MEDICAL JOURNAL of July 2nd, pages 55-56, and we feel bound again to record our most earnest protest against the decision of the Local Government Board, especially as it appears to have been unable to decide that Mr. Walters did in any way infringe the regulations under which he held office, but to have founded the verdict given against him on a side issue. The verdict has astonished and alarmed all district medical officers, since it shows that at any time, without any fault, a similar censure may fall on themselves. This censure was perfectly inexplicable to Mr. Walters himself, as well as to his numerous friends, and we believe that he confidently expected another and full inquiry, and a reversal of his sentence. This, however, cannot be effected now; he has gone to his grave after nearly forty years' service, stigmatised for a most trivial error—if, indeed, he committed any error at all. The members of his family feel that he and they have been most seriously wronged, and that he had not received even the barest justice. There is only one possible explanation. The case cannot have been so fully investigated by any heads of the department as it ought to have been, and the Local Government Board must be held responsible for having given a decision which is, without doubt, the most severe and unjust we have ever had to record. It is unfortunate that Parliament is not now sitting, as the President of the Local Government Board

[1] *Centralbl. f. Bakt. u. Parasitenkunde*, B. xi No. 1.

would doubtless have been called on to explain his reason for the decision in question, which has had the effect of shortening the life of its victim. We sincerely hope that Mr. Walters's friends will combine for some further action.

LONDON DUST BINS.

A somewhat protracted discussion on this subject in the columns of the *Daily Telegraph* has just been brought to a close. While admitting the desirability for the most prompt and efficient action on the part of sanitary authorities in the matter of dust removal, we cannot but remark upon the fact that but scant emphasis is laid in the correspondence to which we allude upon the fact that the householder, too, has his duties, and that he can do much to facilitate the operations of the dust contractor or of the vestry. There seems to be an unfortunate tendency to urge upon ratepayers the advisability of putting difficulties in the way of officials, and to induce them to make every effort to vindicate this right to have all manner of refuse material carted away by the authorities. Perhaps the most practical outcome of the discussion is the suggestion made to correspondents that they should as far as practicable burn all refuse in the kitchen fire.

INDUSTRIAL HOMES FOR EPILEPTICS.

The need has long been felt in this country of making some further provision for epileptics than mere medicinal treatment in special and general hospitals, which is at best, in the great majority of cases, only palliative. Many epileptics in the intervals of their fits are quite capable of work, but by reason of their infirmity are debarred from engaging in remunerative occupation. Children are denied the advantages of education in Board schools, youths are prevented from learning trades or means of earning a livelihood, domestic servants are dismissed, and the fact of epilepsy is a bar to admission into almost every charitable institution. In consequence of these disabilities, sufferers from epilepsy become a burden and anxiety to their friends and relatives, or drift into workhouses and asylums merely because these are the only places where they can be taken care of. The experience of the epileptic colony at Bielefeld in Germany, and of other similar institutions, has shown that epileptics may be employed with great advantage to their physical and mental health, and enabled to contribute largely to their own maintenance. A small institution on these lines has been for some years in existence at Maghull, near Liverpool; and Lady Meath has recently founded a home near Godalming for the reception of epileptic women and children. These admirable institutions are, however, quite inadequate to meet the needs that exist, and a movement is on foot, supported by many of the leaders of the profession and well-known philanthropists, to establish in the neighbourhood of London an industrial colony on the cottage system, where patients may be received and trained or engaged in useful occupations. This scheme deserves the hearty support of the medical profession, for there are few medical men who have not experienced great difficulties in dealing with epileptic patients about whom they are consulted. In the colony about to be founded it is proposed to receive not only poor patients, but also those of a higher class to whom supervision and healthy occupation is a desideratum. The sum of £10,000 is asked for to start the colony, for though the patients by their contributions and work may be expected to contribute largely to their own maintenance, yet a considerable preliminary outlay will be necessary, and the institution will probably continue dependent to some extent on charitable contributions. The Executive Committee includes the names of several well-known neurologists, and the honorary secretary is Miss Burdon Sanderson, to whom communications and donations should be sent, addressed to Messrs. Hoare and Co., bankers, 37, Fleet Street, E.C.

SCOTLAND.

The summer session of the Medical School of the Aberdeen University was brought to a close on July 8th. The professional examinations for graduation began on July 9th, and will continue for about ten days.

THE FORTHCOMING SANITARY CONGRESS AT ABERDEEN.

The City and County Health Committees are now making arrangements for the Sanitary Congress which is to be held on July 28th and two following days. The Town Council have invited the Congress to luncheon on the first day of the sitting. The members will drive to the different places of interest in and around the city; and on July 30th, on the invitation of Sir William Cunliffe Brooks, will inspect the private sewage works on his charming estate of Glentana, and will also visit the home farm.

THE FRESH AIR FORTNIGHT SCHEME IN ABERDEEN.

The good results to the health of the children to whom the boon of two weeks (or longer, if the case were necessitous) was given, have led the energetic and most painstaking Secretary, Mr. H. J. Maconnachie, to make great efforts to benefit still more widely the poor children of Aberdeen. Last week he sent, after a careful medical examination as to freedom from infectious disease and suitability, 250 children into carefully-selected temporary homes in the neighbouring country districts. Next week an equal number of children will be sent to clover fields and burn sides. There fresh air, sunlight, wholesome food, and clean homes will be the chief therapeutic agents.

IRELAND.

DISPENSARY DOCTORS' GRIEVANCES.

We are glad to notice that the Irish dispensary doctors have adopted our recommendation and have questioned candidates of all parties as to their views on the redress of the grievances now so well known. The answers have been most favourable. Two medical men have been returned in Ireland—Dr. J. E. Kenny and Dr. Tanner. In Tyrone Dr. Edward C. Thompson made a very vigorous fight, but was defeated. The doctors would have had a most able and sympathetic worker for them had he been returned.

HONORARY DEGREES AND DIPLOMAS.

The following is a list of the distinguished medical guests and delegates upon whom honorary degrees were conferred during the celebration of the Tercentenary of Trinity College, Dublin: *Degree of Doctor of Sciences (D.Sc.)*: Professor J. Burdon Sanderson, Oxford; Professor Michael Foster, Cambridge; Professor Ludimar Hermann, Königsberg; Sir George Murray Humphry, Cambridge; Professor Julius Kollmann, Basle; Professor Alexander Macalister, Cambridge; Professor Richet, Paris; Professor Sir William Turner, Edinburgh; Professor Wilhelm Waldeyer, Berlin. *Degree of Doctor of Medicine (M.D.)*: H.R.H. Archduke Charles Theodore of Bavaria; John Shaw Billings, Washington; Thomas Bryant, President Royal College of Surgeons of England; Sir Andrew Clark, Bart., President Royal College of Physicians, London; Adolf Gusserow, Berlin; Jonathan Hutchinson, London; Thomas Grainger Stewart, Edinburgh. In connection with the celebration of the Tercentenary of the University of Dublin, the following were elected Honorary Fellows of the Royal College of Physicians of Ireland: Professor Guido Baccelli, Rome; John Shaw Billings, M.D. (*hon. causâ*),

Univ. Dubl., Surgeon, U.S. Army; David Ferrier, M.D.Edin., LL.D., F.R.S., London; Adolf Gusserow, M.D., Professor of Midwifery in the University of Berlin; Sir Arthur Mitchell, K.C.B., M.D., Medical Commissioner in Lunacy; the Rev. George Salmon, D.D., F.R.S., Provost of Trinity College, Dublin.

ULSTER MEDICAL SOCIETY.

THE annual meeting was held in the Museum, Belfast, on Friday evening, July 8th, the President, Dr. O'Neill, in the chair. The reports of the Secretary, Treasurer, Pathological Secretaries, and Librarian, were read and adopted. These reports showed that the Society was in a flourishing condition. There had been a large increase in its membership during the year. The election of office-bearers for the ensuing session resulted as follows:—*President:* Dr. Henry Whitaker. *Vice-Presidents:* Dr. Byers and Dr. Barnett. *Council:* Dr. Lindsay, Professor Sinclair, Dr. Ferguson, Dr. Dempsey, Dr. Bigger, Dr. Killen. *Hon. Secretaries:* Dr. McCaw and Dr. Calwell. *Pathological Secretaries:* Dr. Campbell and Dr. McQuitty. *Treasurer:* Dr. Kevin. *Hon. Librarian:* Dr. Shaw. The Society gave a picnic to Newcastle, co. Down, on Wednesday, June 29th, which was largely attended. The weather proved favourable, and a most enjoyable day was spent.

CORK SOUTH INFIRMARY.

A MEETING of the trustees was held on July 8th for the purpose of appointing a surgeon dentist, when Mr. Butterfield was duly elected. Messrs. Lunham Brothers, a well-known Cork firm, have intimated their intention of contributing £40 a year to the funds of the hospital. The following recommendation of the medical staff was laid before the meeting:—"We, the medical staff of the South Infirmary, recommend that a pathologist be appointed for the hospital. That he should have no power to vote on any subject except that connected with his own department, and that his position should not be considered as giving him any claim to be appointed for any other on the staff of the hospital. That an ophthalmic surgeon be appointed a member of the staff, and that his duties and voting power be entirely confined to his own department." On a division it was resolved that the request of the medical staff to appoint a pathologist be granted, and that the present house-surgeon (Dr. O'Sullivan) be appointed. The question of appointing an ophthalmic surgeon has been adjourned for a month.

THE LATE DR. ROBERT MCDONNELL, F.R.S.

ON Friday, July 8th, a large company assembled at the Royal College of Surgeons, Dublin, on the invitation of the President, Mr. Edward Hamilton, to witness the unveiling of a portrait and a bust of the late Dr. Robert McDonnell. His Excellency Lord Zetland was received by the President and Council, who wore their official robes. Sir John Banks, K.C.B., on the part of the subscribers, gave a short address, in the course of which he said that Dr. McDonnell was descended from a long line of ancestors, many of whom were distinguished in the paths of peace and others in the stormy strife of war in the troublous times in their native land of Scotland, and subsequently in Ireland, the land of their adoption. After referring to his early services during the Crimean war, Sir John Banks observed that, once launched in practice in Dublin, he rapidly rose in the estimation of the public, and filled every place of distinction which his own profession could confer on him. His name and fame were not confined within the limits of his native land. He received, for original researches, the coveted and highly-prized Fellowship of the Royal Society. In the plenitude of his mental vigour and in apparent health he was suddenly stricken down by the hand of death at a time of life when it might be supposed years of usefulness were reserved for him. The voice of the profession and the public called for a recognition by the State of his high position. His Excellency then unveiled the portrait and bust, and made a short appreciative address. The portrait is by Miss Sara Purser, and the bust by Mr. Bruce Joy, and each artist has succeeded in producing an admirable work.

THE SO-CALLED GOLD TREATMENT OF INEBRIETY.

DR. KEELEY, the proprietor of the secret so-called gold treatment for inebriety, writes to us at some length in reference to the statements which appeared on pages 36, 45, and 89 of the BRITISH MEDICAL JOURNAL. Some parts of his letter are irrelevant to the only issue which is of professional interest. In respect to the constitution of his drug he writes as follows:—

"I have already stated that my remedies do contain gold. I now also state that they do not contain either strychnine or atropine. You are being misled by Dr. Kerr's rubbishy (*sic*) analyses. Your JOURNAL, at page 1370, states that my remedies contain 'various potent and lethal drugs,' yet at page 85 it states, on the authority of an anonymous analyst, that my remedies (No. 1) contain nothing either 'potent or lethal,' except 27.55 per cent. of alcohol. Surely these statements are due to a writer who lacks something in the way of editorial supervision. As to the 27.55 per cent. of alcohol, this may be very shocking, considering that one teaspoonful of this is taken seven times a day. But I do not intend to deprive my patients of alcohol, I merely put them on their parole that they get no alcohol except what I give them, and it is well known that if they break their parole I dismiss them. This punishment almost invariably prevents them from breaking their parole. As to alcohol, I neither incarcerate my patients nor do I deprive them of liquor. The essence of my treatment is that I neutralise the drink-crave."

On this point, however, Dr. Norman Kerr informs us that "repeated published analyses have failed to reveal a trace of gold. Your correspondent says they contain no atropine or strychnine. Dr. Usher, who was at your correspondent's headquarters, described to the Society for the Study of Inebriety certain characteristic appearances in the eyes of the persons 'treated,' who had been hypodermically injected, which led him to the conclusion that strong mydriatics had been used. Analyses in America have detected atropine and strychnine.[1] The 'remedy' to be drunk is put up in bottles, sold only in pairs, at 36s. per pair. The bottles are numbered 1 and 2. Bottle No. 2 was broken, so that the bottle analysed in London was No. 1. Therefore the Society had no analysis of No. 2, and had no opportunity of analysing the preparation injected under the skin, this being kept secret. Your correspondent is too modest. He has a golden specific also for the 'tobacco habit' (£1 per pair of bottles), for the 'opium habit' (£2 per pair), and for neurasthenia (£1 12s. per pair).

"I have to call special attention to the fact that the chief proprietor of this 'cure,' having complained that the profession in America would not listen to him, the President of the British Society for the Study of Inebriety invited him to the recent quarterly general meeting to explain his method, and that he declined the invitation."

It is obvious that so long as the proprietor of this alleged "cure" treats the whole matter as a commercial speculation, and withholds the constitution of his alleged remedies, no very profitable discussion can take place on the subject in our pages. It is a proceeding which is altogether opposed to the instinct and traditions of regular medical practice. We have, perhaps, taken undue notice of the pretensions of our correspondent, but, in view of the factitious support which was at one time in prospect, and of the possibility held out that the present occasion would be taken by the proprietor for proceeding in a regular manner, according to medical tradition, by attending the Society for the Study of Inebriety and making known his method, we were induced to afford an opportunity for discussion on that basis.

[1] See Dr. Usher's book on *Alcoholism and its Treatment.*

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1892. ELECTION OF MEMBERS.

A MEETING of the Council will be held on October 26th, 1892. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than October 5th, 1892.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

READING AND UPPER THAMES BRANCH.—The annual meeting of this Branch will be held in the Council Chamber, Newbury, on Thursday, July 21st, at 6 P.M., Mr. Robert Birch, President, in the chair. The annual dinner (tickets 7s. 6d. each, exclusive of wine) will take place at the Council Chamber, at 6.30 P.M. Tickets should be obtained from the Honorary Secretary, H. H. PHILLIPS, M.D., 45, London Road, Reading.

DORSET AND WEST HANTS BRANCH.—The next meeting will be held at Christchurch on Wednesday, July 20th, 1892. The business meeting will be held at the King's Arms Hotel at 2 P.M. Agenda:—Election of New Members of the Branch. Place of the Autumn Meeting. Discussion: The Causes and Treatment of Abortion. Communications: Mr. H. V. Rake: A case of Apparent Intussusception of three days' standing: Recovery without Sloughing. Visit to the Museum of British Birds at 4.30 P.M. Visit to the Priory Church at 5 P.M. Dinner at 6 P.M.; charge 6s. each, without wine. Members intending to be present are requested to communicate with Mr. Watmough, Christchurch, on or before Monday, July 18th. Mr. Hartford and Mr. Watmough will be pleased to see any member or friend at their residences to luncheon before the meeting.—WILLIAM VAWDREY LUSH, M.D., Weymouth; C. H. WATTS PARKINSON, Wimborne, Honorary Secretaries.

NORTH WALES BRANCH.—The annual meeting will be held at Barmouth on Wednesday, August 3rd, and not, as announced, in July. Members having any papers to read or communications to make are requested to intimate before the 23rd instant to W. JONES MORRIS, Honorary Secretary.

SOUTHERN BRANCH.

THE nineteenth annual meeting of this Branch was held at Lyndhurst on June 24th; Mr. LANGDON, President, in the chair. Twenty-nine members were present.

Accounts.—The accounts of the year were audited and passed.

Election of Office-bearers.—The officers of the Branch for the ensuing year were appointed. Dr. Nicolson, of Broadmoor, was re-elected as the representative of the Branch on the Parliamentary Bills Committee, and Drs. Ward Cousins and T. W. Trend the representatives on the Council of the Association. Dr. Ward Cousins was also re-elected Secretary and Treasurer of the Branch.

Communications.—Dr. BULLAR read a paper on a Series of Cataract Extractions; and Dr. WARD COUSINS delivered an address on Rupture of the Urethra.—A discussion followed, in which many of those present took part.

Installation of New President.—Mr. LANGDON then retired from the chair, introducing his successor, Dr. TREND.

President's Address.—After thanking the members for his election as President, Dr. TREND delivered an address on "Twenty-nine Years' Retrospect of Provincial Practice, as seen through the death certificates of that period." The general results were very favourable as to the healthiness of Southampton and its neighbourhood.

Excursion.—On the conclusion of the meeting, the Church and Queen's House were inspected, Dr. Roe kindly acting as cicerone; a drive through Minstead Manor and other parts of the Forest brought the members to the New Forest Hotel, Lyndhurst Road, where Drs. Harling and Thomas joined the party.

Dinner.—The members dined together at the hotel.

LONDONDERRY AND NORTH-WEST OF IRELAND BRANCH.

A MEETING of this Branch was held in the Guildhall, Londonderry, on July 6th, 1892.

Papers and Cases.—Dr. HETHERINGTON read the clinical details of a very rare case of Subcutaneous Emphysema with Pneumothorax in a phthisical patient, and gave an account of the *post-mortem* appearances.—Dr. E. DONALDSON showed a patient with Friedreich's Disease. "Claw-hand" was a marked feature in the case, and was present in one brother and one sister of the patient, and also in his daughter.

Election of Officers.—Voting papers were then examined and the following were elected: *President:* Dr. E. Donaldson. *Vice-Presidents:* Drs. W. Rankin and Thomas MacLaughlin. *Treasurer:* J. A. MacCullagh. *Secretary:* J. Cooke.

EDINBURGH AND STIRLING, KINROSS AND CLACKMANNAN BRANCHES.

A COMBINED meeting of the Edinburgh and Stirling, Kinross and Clackmannan Branches was held in the hotel at Rumbling Bridge on Saturday, July 9th, Dr. LESLIE, Falkirk, presiding. There was a large attendance from both Branches.

Specimens.—Dr. MCPHERSON, Superintendent of Larbert Asylum, exhibited three Skull Caps, the first showing the enormous thickening in the case of an epileptic idiot, the second the existence of a persistent supra-occipital, and also the presence of two Wormian bones in the parieto-occipital suture, the third again showing two Wormian bones in the same region, but also extreme thinning of the frontal and anterior parietal bones, with a small aperture which Dr. McPherson thought was due to defective bone formation.—Dr. C. J. LEWIS (Stirling) exhibited a Fœtus and Placenta from a patient who suffered severely from cystitis, who had extreme anteversion and anteflexion of the uterus, the fœtus appeared to have died about the fifth month (probably from partial separation of the placenta), but was not expelled till about the seventh month. The placenta was in an extreme state of fatty degeneration.—Dr. P. MCBRIDE (Edinburgh) showed a Lipoma of the Epiglottis which had been removed by himself from a man 38 years of age, by the snare; and he commented on the extreme rarity of such tumours, only four or five having been recorded. He also exhibited a Fibrous Tumour removed from the naso-pharynx of a young man by the thermo-cautery, and indicated that these occurred most frequently in young male adults. He also exhibited a Fibromucous Polypus removed from the naso-pharynx of a woman by the thermo-cautery; and referred to another case in which when attempting to remove the tumour he had to desist on account of great irritation. He succeeded, however, in squeezing it, and it soon after entirely disappeared. The voice, which had been much interfered with, returned to its normal state, and the patient, a singer, was able to resume her duties. A small tumour removed by the snare from the anterior part of the right vocal cord, was also exhibited.—Dr. G. A. GIBSON (Edinburgh) exhibited a heart, showing marked Stenosis of the Tricuspid Artery, which had been diagnosed during life. There was a marked presystolic murmur in the tricuspid area, heard more feebly in the mitral area. He also exhibited a Heart with a very Small Aortic Orifice (cone diameter 1.2) which was also incompetent. Despite the smallness of the orifice there was a feebly marked Corrigan's pulse.—Dr. R. W. PHILIP (Edinburgh) showed two photographs of patients. The first was that of a young woman, who died of Cerebro-Spinal Meningitis following Influenza, and illustrated the characteristic attitude of that disease. The second was that of a young woman who had Lupus of the Face, which was treated (and apparently cured) by tuberculin. Some time after she was seized with an ordinary hemiplegia, which was recovered from. Later she had an attack of aphasia, which also disap-

peared. Still later she had a ptosis of the left upper eyelid, with dilated pupil, and the photograph showed the presence of these conditions. There was some altered process at the apex of the right lung. The case was of special interest inasmuch as it was a fine question for differential diagnosis as to what was the etiology of the lesions subsequent to the curing of the lupus by tuberculin. Were these lesions set up by the tuberculin or were they due to some other cause? And, if so, what cause? Were the changes due to specific disease? There was not the slightest evidence to help one to discover the existence either of a hereditary or an acquired infection of this kind. Dr. GIBSON suggested that the face suggested hereditary specific disease. Dr. Dow thought that possibly all the lesions, including the lupus, might merely be modified manifestations of specific infection.

Appendicitis. — Dr. AFFLECK opened a discussion on Appendicitis, of which he had comparatively recently seen an unusually large number of cases. In his experience, these were much more frequent in males than in females, in the proportion of four to one. As regards age, they were much more frequent in early adult life, but probably 20 to 30 might be set down as approximate ages. As regards etiology, the great majority of cases were referred to the impaction of fæcal matter in the vermiform appendix. This set up a series of inflammatory changes which resulted in peritonitis, either local or general. A great number of cases were cured by the ordinary and more or less empirical treatment of peritonitis. In certain subjects there were recurring attacks, which spoke of repeated impactions and a growing danger. A certain number of cases were due to the impaction of foreign bodies in the appendix. The clinical symptoms of the more urgent cases were severe pain in the right iliac fossa, or pain radiating from that region; tympanites, which in some cases was extreme; sometimes there was dulness on percussion; sometimes the abdomen was hard as a board. There was sickness, vomiting, it might be of fæcal matter; hiccough was also frequently present. The pulse was shabby and intermittent, and the patient emitted an earthy odour. In such cases there could be no doubt that immediate surgical interference was called for. Dr. Affleck spoke of the extreme importance of early surgical interference, and of the fortunate results of such treatment in his experience.—Mr. C. CATHCART showed several specimens removed from patients who had died of appendicitis, some after, some before operation. He pointed out this mode of operating, and stated that he preferred a semilunar incision between the outer margin of the rectus and the iliac crest. He usually ligatured the appendix vermiformis and removed it entirely, a method which he preferred to sutures.—Dr. LESLIE thought that by-and-by we should have to excise the vermiform appendix at the same time that children were vaccinated.

Excursion.—As the time was now passing, an adjournment was made to the Devon Valley and the Falls of Devon, where a short hour was spent visiting that lovely region.

Dinner.—The company then sat down to dinner in the Rumbling Bridge Hotel. Dr. Leslie presided, and Mr. C. Cathcart acted as croupier. Dr. LESLIE proposed "The Queen," which was received enthusiastically.—Mr. CATHCART proposed "The British Medical Association," coupling it with the name of Dr. AFFLECK, who briefly replied.—Dr. PHILIP proposed the health of "The Chairman." The general feeling of the company was that an unusually pleasant day had been spent, and that it should be repeated from year to year on a Saturday in July.

NORTH OF IRELAND BRANCH.

THE fourteenth annual meeting of this Branch was held in the Board Room of the co. Antrim Infirmary, Lisburn, on Thursday, July 7th, at 11.30, Dr. ST. GEORGE, President, in the chair. There was a very large attendance of members.

Report and Financial Statement.—The minutes of the previous annual meeting having been read and confirmed, the Secretary's report and the Treasurer's financial statement (both of which had been printed and circulated amongst the members) were adopted. In them attention was drawn to the continued and increasing prosperity of the Branch. Last year there were 233 members, in the interval the number had increased until there was a total of 251 members. The North of Ireland Branch was at present the largest in Ireland. Sincere regret was expressed by the Council at the deaths of two former Presidents—Dr. J. K. Maconchy, of Downpatrick, and Dr. Kidd, of Ballymena—men held in the highest respect by the public and by their professional brethren. During the past year five meetings, which were largely attended, were held in the Belfast Museum. The following members contributed papers, etc., during the session:—Dr. W. A. McKeown, Dr. E. C. Thompson (Omagh), Dr. J. A. Lindsay, Dr. Dempsey, Dr. Calwell, Dr. W. M. Killen, Dr. H. O'Neill, Dr. G. St. George (Lisburn), Dr. Byers, Dr. Whittaker, and Professor Cuming. There is a balance in the hands of the Treasurer of £45 7s. 0½d.

New Members.—The following new members were elected:—John C. Davidson, L.R.C.P.& S.Ed., Belfast; D. S. Dunn, M.D., Lisburn; C. J. Clibborn, M.B., Belfast.

Officers and Council.—The following were elected for the ensuing year: *President:* Dr. J. Walton Browne, Belfast. *Vice-Presidents:* Dr. McAlister (Carrickfergus) and Professor Sinclair (Belfast). *Council:* City of Belfast: Dr. J. A. Lindsay, Professor Cuming, Mr. John Fagan, Dr. Dempsey, Dr. McKeown, Professor Dill, Dr. H. O'Neill, Dr. W. Calwell. Country: Dr. Palmer (Armagh), Dr. St. George (Lisburn), Dr. Thompson (Omagh), Dr. Stuart (Ballymena), Dr. Gaussen (Dunmurry), Dr. Hare (Monaghan), Dr. A. Dunlop (Holywood), Dr. O'Hara (Ballymena). *Treasurer:* Dr. G. Gray (Castlewellan). *Secretary:* Dr. John W. Byers (Belfast). *Representatives of the Branch on the Council of the Association:* Dr. Byers and Dr. Dempsey. *Parliamentary Bills Committee:* Dr. H. O'Neill and Dr. Stuart (Ballymena).

Communications.—Reports of the papers read are published elsewhere.

Luncheon.—After the meeting, the members were shown over the Lisburn County Infirmary (at which the President is surgeon), and were afterwards entertained by him at his own house to a sumptuous luncheon. About fifty medical men were present. At the conclusion, Dr. F. E. BECK, F.R.C.S.Ed., in very complimentary terms, referred to the high position Dr. St. George (the President) occupied in the profession, and on behalf of those present thanked him for his kind hospitality, and in conclusion proposed his health, a toast received most cordially by those present.—In reply, Dr. ST. GEORGE spoke of the pleasure it had given him and Mrs. St. George to entertain their medical friends, and again thanked the members for the high honour they had conferred on him in electing him President of the North of Ireland Branch.

BRITISH MEDICAL ASSOCIATION.

SIXTIETH ANNUAL MEETING.

THE sixtieth Annual Meeting of the British Medical Association will be held at Nottingham on Tuesday, Wednesday, Thursday, and Friday, July 26th, 27th, 28th, and 29th, 1892.

President: JOHN ROBERTS THOMSON, M.D., F.R.C.P., Consulting Physician Royal Victoria Hospital, Bournemouth.

President-Elect: JOSEPH WHITE, F.R.C.S.Edin., Consulting Surgeon Nottingham General Hospital.

President of the Council: W. WITHERS MOORE, M.D., F.R.C.P., J.P., Consulting Physician Sussex County Hospital.

Treasurer: HENRY TRENTHAM BUTLIN, F.R.C.S., Surgeon to St. Bartholomew's Hospital, E.C.

Honorary Local Secretary: HENRY HANDFORD, M.D., 14, Regent Street, Nottingham.

Honorary Treasurer: WILLIAM ARTHUR CARLINE, M.D. Lincoln.

An Address in Medicine will be delivered by JAMES CUMING, M.D., Professor of Theory and Practice of Medicine, Queen's College, Belfast.

An Address in Surgery will be delivered by W. H. HINGSTON, M.D., Montreal, Canada, Surgeon-in-Chief, Hotel Dieu, Montreal, Professor of Clinical Surgery, Laval University.

An Address in Bacteriology will be delivered by GERMAN SIMS WOODHEAD, M.D., F.R.C.P., F.R.S.E., Director Research Laboratory Conjoint Board of Royal College of Physicians and Royal College of Surgeons, England.

The scientific business of the meeting will be conducted in ten Sections, as follows, namely:

A. Medicine.

University College, Room 39, First Floor, West End.

President: William Henry Ransom, M.D., F.R.S. *Vice-Presidents:* Frederick Taylor, M.D.; Isambard Owen, M.D. *Honorary Secretaries:* Sidney Philip Phillips, M.D., 62, Upper Berkeley Street, London; Frank Montague Pope, M.B., 4, Prebend Street, Leicester.

The discussion on Wednesday, July 27th, on Peripheral Neuritis, will be introduced by J. S. Bristowe, M.D., F.R.C.P., F.R.S. Sir F. Bateman, Drs. M. A. Boyd, Judson S. Bury, Byrom Bramwell, J. Cagney, Drysdale, U.S.A., Eddison, W. Garstang, Davies Pryce, and H. Handford, will take part in the discussion.

The discussion on Thursday, July 28th, on the Prognosis and Treatment of Ascites, will be introduced by W. B. Cheadle, M.D., F.R.C.P. Drs. M. A. Boyd, Bateman, Drysdale, U.S.A., Eddison, Garstang, Murray, Rickards, Tyson (Folkestone), S. West, J. S. Bristowe, F.R.S., and Hale White will take part in the discussion.

The following papers are announced:

Bramwell, Byrom, M.D. On the Value of Perimeter Measurements in the Diagnosis of Local Brain Disease.
Gordon, W., M.B. Tuberculous Broncho-pneumonia.
Haig, A., M.D. Gout of the Intestines, its Pathology and Treatment.
Handford, H., M.D. Rheumatic Neuritis.
Hawkins, Francis, M.B. On some Complications and Sequelæ of the Infectious fevers.
Humphry, Laurence, M.D. (Cambridge). Subacute Non-rheumatic Myocarditis.
Lane, H., L.R.C.P. The Neuroses of Rheumatic Arthritis.
Lees, D. B., M.D. Treatment of Pericarditis by the Ice-bag.
Lorimer, G., M.D. Gouty Phlebitis.
Mackenzie, J., M.D. The Association of Sensory Disorders with Visceral Disease.
Murray, —, M.D. (Barrasford). Note on the Relief of Ascites by establishing a Fistulous Communication with the Rectum by Operation.
Pfeiffer, Emil, M.D (Wiesbaden). Uric Acid Secretion in Gout.
Ratcliffe, J. R., M.B., and Wilson, T. Stacey, M.D. The Venous Anastomoses in Relation to the Relief and Cure of Ascites in Cirrhosis.
Sandwith, F. M., M.D. (Cairo). Three hundred and fifty cases of Phthisis.
Semmola, Professor (Naples). Treatment of Heart Disease.
Smith, P. Blaikie, M.D. (Aberdeen). Peripleuritis.
West, Samuel, M.D. Note on Bleeding with Reports of Cases

B. Surgery.

University College, Large Theatre, Doors 18 and 22, Ground Floor, 36 and 37, First Floor.

President: John Croft, F.R.C.S. *Vice-Presidents:* William Newman, M.D.; W. J. Pilcher, F.R.C.S. *Honorary Secretaries:* Frederic S. Eve, F.R.C.S., 125, Harley Street, W.; Alexander Richard Anderson, F.R.C.S., 5, East Circus Street, Nottingham.

The three following subjects have been selected for discussion: 1. The Surgery of the Thorax, to be introduced by Rickman J. Godlee, F.R.C.S. A. Pearce Gould, F.R.C.S., W. Newman, M.D., Jordan Lloyd, F.R.C.S., C. J. Symonds, M.D., H. W. Maunsell, M.D., Stanley Boyd, F.R.C.S., and J. Ward Cousins, M.D., will take part in the discussion. 2. The Surgery of the Liver and Gall Bladder, to be introduced by A. W. Mayo Robson, F.R.C.S. Lawson Tait, F.R.C.S., J. K. Thornton, M.B.. Jordan Lloyd, F.R.C.S., A. Pearce Gould, F.R.C.S., H. W. Maunsell, M.D., C. J. Symonds, M.D., J. Ward Cousins, M.D., H. A. Reeves, F.R.C.S.Ed., R. C. Chicken, F.R.C.S., James Murphy, M.D., and W. J. Tyson, M.D., will take part in the discussion. 3. The Treatment of Spinal Abscess, to be introduced by W. Watson Cheyne, F.R.C.S. A. E. Barker, F.R.C.S., Stanley Boyd, F.R.C.S., C. B. Keetley, F.R.C.S., Robert Jones, F.R.C.S., Noble Smith, F.R.C.S., H. A. Reeves, F.R.C.S., and H. Widenham Maunsell, M.D., will take part in the discussion.

The following papers are announced:

Allingham, Herbert W., F.R.C.S. Excision of the Rectum for Malignant Disease.
Barling, H Gilbert, F.R.C.S. On Appendicitis.
Beverley, M., M D. A Case of Suprapubic Lithotomy.
Campbell, Colin G., M.R.C.S. The Treatment of Abscess and Ulcer by Complete Absorption.
Clarke, W. Bruce, F.R.C.S. On the Removal of Hydatids of the Liver.
Cripps, Harrison, F.R.C.S. On Rectal Cancer.
Early, Dr. C. R. (Pennsylvania). On Cancer.
Harrison, Reginald, F.R.C.S. The Restoration of the Lost Function of Micturition.
Hume, G. H., M.D. A Case of Gastro-enterostomy.
Jessett, F. Bowreman, F.R.C.S. Specimen of Carcinoma of Pylorus successfully removed by Combined Pylorectomy and Gastro-enterostomy.
Jones, Robert, F.R.C.S. (1) The Treatment of Dropped Wrist; (2) The Treatment of Old Colles's Fractures.
Lane, W. Arbuthnot, F.R.C.S. The Later Results of Laminectomy for Angular Curvature.
Lloyd, Jordan, F.R.C.S. On Pancreatic Surgery.
Marriott, C. H., M.D. A Successful Case of Simultaneous Ligature of the Subclavian and Common Carotid Arteries for Aneurysm of the Innominate Artery. Patient will be shown.
Morison, J. R., M.B., F.R.C.S., will exhibit (1) a Specimen from a Successful Case of Ileo-colostomy for Chronic Ileo-colic Intussusception; (2) a Specimen from a Case of Combined Excision of the Pylorus and Gastro-enterostomy.
Murphy, James, M.D. On the Importance in the Treatment of Intestinal Obstruction, with Notes of Recent Cures.
Newman, W., M.D. A case of Suprapubic Lithotomy.
Porritt, Norman, M.R.C.S. Spinal Caries with Intraspinal Abscess treated by Laminectomy.
Robson, A. W. Mayo, F.R.C.S. A New Method of Performing Intestinal Anastomosis and other Allied Operations, illustrated by Cases, Models, and Diagrams.
Snow, Herbert, M.D. Practical Points in the Surgery of Cancer.
Symonds, C. J., M.S., F.R.C.S. A Review of Twenty-five Cases illustrating the Surgery of the Thyroid Gland.
Tait, Lawson, F.R.C.S. A General Summary of Conclusions based on a Series of Three Thousand Consecutive Cases of Abdominal Section.

C. Obstetric Medicine.

University College, Physical Theatre, Doors 12 and 16, First Floor.

President: Alfred Lewis Galabin, M.D. *Vice-Presidents:* George Elder, M.D.; Herbert Owen Taylor, M.D. *Honorary Secretaries:* Harry Michie, M.B., 27, Regent Street, Nottingham; Herbert Ritchie Spencer, M.D., 10, Mansfield Street, Cavendish Square, W.

The two following subjects have been selected for special discussion: 1. The Treatment of Uterine Fibroids, to be opened by J. Knowsley Thornton, M.B., C.M. J. H. Aveling, M.D., A. E. Aust-Lawrence, M.D., T. More Madden, M.D., P. Horrocks, M.D., A. D. Leith Napier, M.D., W. J. Tivy, F.R.C.P.E., A. W. Mayo Robson, F.R.C.S., Lawson Tait, F.R.C.S., G. Elder, M.D., H. Michie, M.B., J. Wright Baker, M.R.C.S., W. J. Smyly, M.D., E. S. Bishop, F.R.C.S., R. C. Bennington, M.B., A. W. Edis, M.D., J. Inglis Parsons, M.D., Dr. Jacobs (Brussels), Murdoch Cameron, M.D., H. Widenham Maunsell, M.D., Heywood Smith, M.D., H. A. Reeves, F.R.C.S., James Murphy, M.D., and W. Walter, M.D., will take part in the discussion. 2. *Post-partum* Hæmorrhage, to be opened by G. E. Herman, M.B., F.R.C.P., F.R.C.S. A. E. Aust-Lawrence, M.D., W. C. Grigg, M.D., P. Horrocks, M.D., H. Spencer, M.D., W. J. Smyly, M.D., J. Wright Baker, M.R.C.S., F. R. Mutch, M.D., Wm. Bain, L.R.C.P., C. E. Purslow, M.D., A. W. Edis, M.D., R. C. Bennington, M.B., W. Donovan, M.D., Murdoch Cameron, M.D., Alex. Duke, F.R.C.P.I., and W. Walter, M.D., will take part in the discussion.

The following papers are announced:

Aust-Lawrence, A. E., M.D. The Proper Use of Midwifery Forceps.
Bain, W., L.R.C.P. A Consideration of the less Obvious Causes of Retardation in the First Stage of Labour.
Beverley, Michael, M.D. On Further Experience and Results of Emmet's Operation for Laceration of the Cervix Uteri.
Bishop, E. S., F.R.C.S. Note on a Case of Cystocele treated by Stoltz's Method.
Borough, F., M.R.C.S. Ergot as a Muscular Tonic during Pregnancy.
Braithwaite, James, M.D. On an Operation for the Radical Cure of the Worst Cases of Retroflexion.
Byers, John W., M.D. Does Chloroform promote *Post-partum* Hæmorrhage?
Cameron, Murdoch, M.D. The Prevention of Hæmorrhage in Cæsarean Section; and will show a Full Term Extrauterine Fœtus retained Fourteen Months, and give notes.
Cullingworth, C. J., M.D. Some Remarks on the Anatomy of the Hymen and of the Posterior Commissure of the Vulva.
Duke, Alexander, F.R.C.P.I. On the Value of Examination and Flushing of the Parturient Canal directly after Labour.
Edis, A. W., M.D. On the Diagnosis of Early Ectopic Gestation.
Herman, G. E., M.B., F.R.C.P. Champetier de Ribes's Bag for Dilating the Cervix Uteri.
McCaw, J. Dysart, F.R.C.S. The Medicinal and Mechanical Methods of Expediting Childbirth.
McClure, H., M.D. On the Electrical Treatment of Uterine Fibroids scientifically considered.
Madden, T. More, M.D. *Post-partum* Hæmorrhage.
Martin, Christopher, M.B., F.R.C.S. On the Occurrence of Hæmatocele of the Broad Ligament after Pelvic Operations.
Murphy, James, M.D. Notes on a Case of Vaginal Myomectomy.
Napier, A. D. Leith, M.D. Stoltz's Operation for Cystocele.
Neale, J. Headley, M.B. Septic Hydræmia following Miscarriage.
Spencer, H. R., M.D. Induction of Premature Labour by Champetier de Ribes's Bag.
Walter, W., M.D. A Case of Tubal Gestation in which both Tubes were Gravid, Operation, Recovery.

Dr. Cullingworth will give a special lantern demonstration on Some of the more Common Morbid Conditions of the Fallopian Tubes.

D. PUBLIC MEDICINE.

Mechanics Lecture Hall.

President: Sir B. WALTER FOSTER, M.D., M.P. *Vice-Presidents:* JOSEPH LITTLEWOOD, M.R.C.S.; CHARLES HARRISON, M.D. *Honorary Secretaries:* PHILIP BOOBBYER, M.B., Guildhall, Nottingham; JAMES SCOTT TEW, M.D., Magdala Road, Nottingham; SYDNEY MONCKTON COPEMAN, M.D., 9, Duke Street, St. James's, S.W.

The following subjects are suggested as suitable for discussion, but the list is open to modification. 1. Legal Restraint upon the Employment of Women in Factories before and after Childbirth. 2. The Use and Abuse of Infantile Insurance. 3. Coroner's Inquests. 4. Disposal of the Dead in the Future; Cemeteries and Crematoria. 5. The Future of Hospital Isolation for Infectious Diseases. 6. The Isolation of Measles. 7. The Notification of Erysipelas and Puerperal Fever. 8. The Diminished Mortality from Scarlet Fever. 9. Is Small-pox Dying Out in the British Isles? 10. Endemic Typhoid. 11. Epidemic Alternations. 12. Offensive Trades in Towns. 13. Methods of Dealing with Town Refuse in the Midst of Populated Districts. 14. Ventilation of Town Sewers. 15. The Condemnation of Tuberculous Meat; to what Extent should this be Carried? 16. Relation of Medical Officer of Health to the Sanitary Staff. 17. Epidemic Influenza; the Attitude of Public Authorities towards it.

The following papers are announced:

BOND, F. F., M.D. Small-pox and Isolation.
BOOBBYER, Philip, M.B. Some Statistics of Hospital and Home Isolation in the Case of Scarlet Fever. He will also speak on the Relation of the Medical Officer of Health to the Sanitary Staff.
BULSTRODE, H. T., M.D., Some Points in Connection with Hospitals for Infectious Disease.
CAMERON, J. S., M.D. The Disposal of Town Refuse in Populous Districts. (He will also open the discussion on the Attitude of Public Authorities towards Epidemic Influenza; and that upon the Future of Hospital Isolation).
CARGILL, Alex. Hygiene of Handwriting.
DAVIES, Sidney, M.D. Some Remarks on the Necessity of Legal Restraint upon the Employment of Women in Factories Before and After Childbirth.
DIXEY, F. A., M.D. On the Influenza Epidemics of 1891-2 considered from a Statistical Standpoint.
DRYSDALE, C. R., M.D. Prevention of Phthisis and Syphilis.
FIRTH, R. H., Surgeon-Captain, M.S. Enteric Fever in India and the Growth of Bacteria in Soils.
HILL, Alfred, M.D. Waste Waterclosets.
HOPE, E. W., M.D. Some Remarks upon the Extent to which the Condemnation of Tuberculous Meat should be carried; and the Future of Hospital Isolation for Infectious Diseases.
HUNTER, W. Lovell, M.D. Small-pox Mortality in Pudsey a Century Ago.
LOANE, Joseph, M.R.C.P. On Disposal of the Dead in the Future. He will also speak on the Present Position of Small-pox as an Epidemic Disease; and on Epidemic Influenza, the Attitude of Public Authorities towards it.
MASON, J. W., M.D. On the Methods of Dealing with Town Refuse in the midst of Populated Districts.
MONK, H. G. H., M.R.C.S. On an Epidemic of Cerebro-spinal Meningitis.
MUMBY, B. H., M.D. On the Disposal of the Dead in the Future.
NEALE, J. Headley, M.D. Contagiousness of Tuberculosis.
REID, Geo., M.D. Infant Mortality and the Employment of Married Women in Factories.
SERGEANT, Edward, M.R.C.S. Some Remarks on the Methods of Dealing with Town Refuse in the midst of Populated Districts.
STRACHAN, J., M.D. Health in Education.
SYKES, J. F. J., M.B. Some Remarks on the Future of Hospital Isolation for Infectious Diseases; and upon the Extent to which the Condemnation of Tuberculous Meat should be Carried.
TEW, J. Scott, M.D. On Endemic Typhoid Fever.
THRESH, J. C., D.Sc., M.B. Some Remarks on the Notification of Erysipelas and Puerperal Fever.
WHITELEGGE, B. A., M.D. Some Notes on the Diminished Mortality from Scarlet Fever.
WILLOUGHBY, E. F., M.D. On the Nomenclature of Notifiable Infectious Diseases.

Dr. R. R. RENTOUL will move the following resolution: "That in the opinion of the Section all stillbirths after the fourth month of intrauterine life should be registered."

E. PSYCHOLOGY.

University College, Natural Science Laboratory.

President: WILLIAM BEVAN LEWIS, L.R.C.P. *Vice-Presidents:* WILLIAM BARNEY TATE, M.D.; HENRY RAYNER, M.D. *Honorary Secretaries:* FLETCHER BEACH, F.R.C.P., Darenth Asylum, Dartford; EVAN POWELL, M.R.C.S., Borough Asylum, Mapperley Hill, Nottingham.

The President will give an Introductory Address.

The three following subjects have been chosen for special discussion: 1. Psychoses after Influenza, to be opened by Julius Althaus, M.D. 2. Insanity as a Plea for Divorce, to be opened by Lionel A. Weatherley, M.D. 3. Neural Action corresponding to the Mental Functions of the Brain, to be opened by Francis Warner, M.D. Drs. Urquhart, Richards, Rayner, Outterson Wood, Macdonald, Walmsley, Ewart, Blandford, and Goodall will take part in the discussions.

The following papers are announced:

BULLEN, F. St. J., M.R.C.S. Variations in Type of General Paralysis.
CAMPBELL, Harry, M.D. Minor Psychical Disturbances in Women.
DUNN, E. L., M.B. Paranoia and its Relationships.
EDRIDGE-GREEN, F. W., M.D. Perception with special reference to Colour Perception.
GOODALL, Edwin, M.D. The Pathological Anatomy of Acute Encephalitis: an Experimental Study.
JONES, Robert, M.D. On Microcephaly.
LEWIS, W. Bevan, L.R.C.P. An Improved Reaction time Instrument.
MACPHERSON, John, M.B. Remarks upon the Influence of Intestinal Disinfection in some Forms of Acute Insanity.
MOREL, M. Jules, M.D. The Psychological Examination of Prisoners.
POPE, Frank M., M.B. Note on the Establishment by the Leicester School Board of a Special Class for Feeble-Minded Children.
TUCKEY, C. Lloyd, M.D. The Value of Hypnotism in Chronic Alcoholism.
URQUHART, A. R., M.D. A Clinical Summary of Cases of Hereditary Insanity.

Dr. Roussel, Paris, and Professor Paul Kowalewsky, Charkoff, are expected to be present.

F. PATHOLOGY.

University College, Chemical Theatre, Doors 14 and 15, First Floor, and from Chemical Laboratory.

President: VICTOR HORSLEY, F.R.S., F.R.C.S. *Vice-Presidents:* SAMUEL WEST, M.D.; SHERIDAN DELÉPINE, M.B. *Honorary Secretaries:* ALEXANDER BRUCE, M.D., 13, Alva Street, Edinburgh; WILLIAM BRAMWELL RANSOM, M.D., The Pavement, Nottingham.

On Wednesday, July 27th, papers with demonstrations on General Pathology and Pathological Anatomy.

On Thursday, July 28th, papers will be read with demonstrations on the Pathology and Pathological Anatomy of the Nervous System.

On Friday, July 29th, Bacteriological papers and demonstrations.

The following papers are announced:

ADAMI, J. G., M.B. Variability of Microbes.
BEADLES, Cecil, M.R.C.S., L.R.C.P. Carcinoma of Mamma.
BOKENHAM, T. J., L.R.C.P. Phagocytosis in Relation to Erysipelas.
BOYCE, C., M.D. 1. Experimental Epilepsy. 2. Theory of Tumours. 3. Specimens.
BRUCE, Alexander, M.D. Macro- and Microscopic Preparations of Pathological Brains and Spinal Cords, with Lantern Demonstrations.
CAMERON, — M.D. Cryptolithiasis.
CAMPBELL, Harry, M.D. Etiology of the Tuberculous Diathesis.
CATHCART, C. W., M.B. Museum Casts.
CLARKE, Michell, M.B. 1. Ataxic Paraplegia. 2. Endothelioma of the Dura Mater.
COPEMAN, S. Monckton, M.D. The Pathology of the Blood in Diabetes.
DELÉPINE, Professor Sheridan. Case of Hemiplegia with unusual Eye Symptoms.
EVANS, A. E., M.B. On the Growth of Bacterium Loeffleri.
HARRIS, — M.D. Bacteriology of a Case of Cerebral Abscess.
HARLEY, Vaughan, M.D. The Pathology of Obstructive Jaundice.
HORSLEY, Professor Victor. Œdema.
HUMPHRY, Laurence, M.D. Cerebral Tumour.
HUNTER, William, M.D. Toxæmic Jaundice.
JOHNSON, Raymond, F.R.C.S. Carcinoma of Mamma.
KANTHACK, A. A., M.B. 1. Immunity. 2. Specimens of Madura Disease.
MACKENZIE, J., M.D. Venous Pulse.
MARSHALL, C. D., F.R.C.S. Pathology of Afferent Impulses in the Cat.
MARTIN, Sidney, M.D. Experimental Diphtheritic Paralysis.
MIDDLEMASS, J., M.B. Early General Paralysis.
MORTON, C. A., F.R.C.S. Carcinoma of Mamma.
MOTT, F. W., M.D. Pathology of Afferent Impulses in the Monkey.
MUIR, R., M.D. Leucocythæmia.
MURRAY, George, M.R.C.P. Myxœdema.
RANSOM, W. B., M.D. 1. Actinomyces. 2. Demonstration of Kinæsthetic Centre in Man.
RUFFER, A., M.A., M.D. 1. Typhoid Fever in Animals. 2. Paralysis from the Poison of Bacillus Pyocyaneus.
RUFFER, A., M.A., M.D., and SHERRINGTON, C. S., M.B. On the Effect of Injection of Pure Cultures on Secretion.
RUSSELL, Risien, M.B. Structure of Recurrent Laryngeal Nerve and Pathology of Laryngeal Paralysis.
RUXTON, W. L., M.D. Peripheral Neuritis.
SNOW, Herbert, M.D. Researches in Cancer Pathology.
STILES, Harold. Carcinoma of Mamma.
SURVEYOR, N. F., M.D. Parasites in Rat's Liver.
TIZZONI, Professor. Tetanus and Rabies.
TURNER, T. Charlewood, M.D. Immunity.
TYLDEN, H. J., M.B. Diabetes.
WILLIAMS, Roger, F.R.C.S. Varieties of Mammary Neoplasms and their Relative Frequency.
WOODHEAD, G. Sims, M.D. (1) Immunity; (2) Healing of Wounds.
WRIGHT, A. E., M.B. Methods of Increasing and Decreasing the Coagulability of the Blood.

G. OPHTHALMOLOGY.

University College, Room 33, First Floor.

President: PRIESTLEY SMITH, M.R.C.S. *Vice-Presidents:* FRANK HY. HODGES, F.R.C.S.Ed.; CHARLES HIGGENS, F.R.C.S. *Honorary Secretaries:* ERNEST CORY KINGDON, M.B., 6, Upper College Street, Nottingham; H. W. DODD, F.R.C.S., 136, Harley Street, W.

A discussion on the Treatment of Diseases of the Lachrymal Apparatus will be opened by Charles Higgens, F.R.C.S.

The following gentlemen have signified their intention to be present or take part in the discussions: W. M. Beaumont, M.R.C.S., G. A. Critchett, F.R.C.S.Ed., J. Court, M.R.C.S., E. Jones, M.R.C.S., G. Mackay, M.D., J. G. Mackinlay, M.R.C.S., A. Pritchard, M.R.C.S., L. H. Tosswill, M.B., J. Tatham Thompson, M.B., W. Adams Frost, F.R.C.S., A. Stanford Morton, F.R.C.S., and C. Wray, F.R.C.S.

The following papers are announced:

BELL, J. H., M.D. A Chapter in the Early History of Miners' Nystagmus.

BENSON, A. H., F.R.C.S.I. The Treatment of Stenosis of the Nasal Duct.

BRONNER, A., M.D. On Aseptic Ophthalmic Surgery as practised at the Bradford Eye and Ear Hospital; and will show a Sterilising Apparatus for Eye Instruments and Bandages.

CANT, W. J., M.R.C.S. Prolapse of the Iris after Simple Cataract Extraction and its Treatment.

COURT, J., M.D. Miners' Nystagmus: its Cause and Relation to the Lighting of Mines. (It is probable that a discussion will arise on this subject.)

CROSS, F. R., F.R.C.S. Two Cases of Abscess of the Frontal Sinus.

EDRIDGE-GREEN, F. W., M.D. The Registration of Defects of Colour Perception.

FARRAR, J., M.D. Notes on a case of Tumour of Right Orbit; Operation; Recovery.

FERGUS, F., M.B. 1. Some Improvements in Perimetry. 2. A Modification of Foerster's Box for testing the Light Sense. 3. The Treatment of Cataract Extraction and other Wounds by Antiseptics.

FORD, A. V., M.R.C.S. Chloride of Sodium as a Direct Agent in the Production of Cataract.

HEWETSON, H. B., M.R.C.S. 1. Ten Years' Experience of the Effects of the Treatment of Interstitial Keratitis by Syudectomy without the Use of Specific Drugs. 2. A New Operation for the Treatment of Eversion of the Lower Lids associated with Granular Lids. 3. Further Researches into the Localisation of Headaches due to various Forms of Ametropia, including Cases of Vertigo, *Petit Mal*, and True Epilepsy, cured by the Use of Correcting Lenses.

LAWFORD, J. B., F.R.C.S. The Pathology of some Intraocular Tumours.

MCGILLIVRAY, A., M.B., C.M. Recent Tests for Colour Blindness, with Reference to Quantitative Estimation of the Colour Sense.

MACKAY, G., M.D. On the Quantitative Estimation of the Colour Sense; and to show the Apparatus used by the Dutch Railway Ophthalmic Surgeons.

PERCIVAL, A. S., M.B. Note on the Relationship of Convergence to Accommodation.

STEPHENSON, S., M.B. The Surgical Treatment of Trachoma.

WHITEHEAD, H. R., F.R.C.S. Massage in the Treatment of Eye Diseases.

WILLIAMSON, G. E., F.R.C.S. A Primary Sarcoma of Iris, with Microscopic Sections.

H. DISEASES OF CHILDREN.

University College, Room 41, First Floor.

President: LEWIS WALTER MARSHALL, M.D. *Vice-Presidents:* JAMES DAVISON, M.D.; WINFRED BENTHALL, M.B. *Honorary Secretaries:* D'ARCY POWER, F.R.C.S., 26, Bloomsbury Square, W.C.; EDWARD MANSEL SYMPSON, M.D., 2, James Street, Lincoln.

The two following subjects have been selected for special discussion: 1. The Diagnosis and Treatment of Croupous Pneumonia in Children, to be opened by J. F. Goodhart, M.D., F.R.C.P., and Henry Ashby, M.D., F.R.C.P. W. B. Cheadle, M.D., F.R.C.P., N. Tirard, M.D., F.R.C.P., H. Montague Murray, M.D., W. P. Herringham, M.D., F.R.C.P., T. More Madden, M.D., F.R.C.S., C. N. Gwynne, M.D., D. B. Lees, M.D., H. Skelding, M.B., and F. Johnston, M.B., will take part. 2. The Treatment of Severe Club Foot, to be opened by J. Walsham, F.R.C.S., R. W. Parker, M.R.C.S., Noble Smith, F.R.C.S.Ed., C. R. B. Keetley, F.R.C.S., E. M. Little, F.R.C.S., A. H. Tubby, M.B., J. Ewens, L.R.C.P., W. G. Black, F.R.C.S., E. L. Freer, M.R.C.S., Firmin Cuthbert, M.R.C.S., W. E. Balkwill, M.R.C.S., R. Jones, F.R.C.S.Ed., H. Widenham Maunsell, M.D., and William Thomas, F.R.C.S., will take part in the discussion.

The following papers are announced:

BRAIDWOOD, P. Murray, M.D. Nervous Disorders following certain of the Acute Infectious Diseases of Childhood.

EDDOWES, Alfred, M.D. Treatment of Ringworm.

EWENS, John, L.R.C.S.Ed. Overgrowth of the Inner Tuberosity of the Tibia as a cause of Genu Valgum, independent of Elongated Inner Condyle of the Femur, illustrated by Casts and Photographs.

FREER, E. L., M.R.C.S. The Treatment of Scoliosis.

JONES, Robert, F.R.C.S.Ed. Note on Short Leg in Hip Disease.

KINGDON, E. C., M.B. A Rare Fatal Disease of Infancy with Symmetrical Changes at the Maculæ Luteæ.

PFEIFFER, Emil, M.D. (Wiesbaden). One Hundred Analyses of Breast Milk.

REEVES, H. A., F.R.C.S.Ed. (1) Nasal and Respiratory Spinal Curvatures; (2) A New and Effective Club-foot Shoe.

I. PHARMACOLOGY AND THERAPEUTICS.

University College, First Floor, East End.

President: JOSEPH ORPE BROOKHOUSE, M.D. *Vice-Presidents:* CHARLES AUGUSTUS GREAVES, M.B.; SIDNEY HARRIS COX MARTIN, M.D. *Honorary Secretaries:* CHARLES HENRY CATTLE, M.D., 2, East Circus Street, Nottingham; THOMAS JESSOPP BOKENHAM, L.R.C.P., 9, Upper Wimpole Street, W.

The two following subjects have been selected for special discussion: 1 (on Wednesday, July 27th), Cardiac Tonics and the Indications for their Use. To be opened by W. H. Broadbent, M.D., F.R.C.P. T. Lauder Brunton, M.D., F.R.S., J. Mitchell Bruce, M.D., F.R.C.P., Professor Oliver, M.D., F.R.C.P., H. Handford, M.D., M.R.C.P., M. C. Collins, M.D., M.R.C.P., Clifford Allbutt, M.D., F.R.C.P., F.R.S., I. Burney Yeo, M.D., F.R.C.P., J. A. Lindsay, M.D., and others will take part in the discussion. 2. (on Thursday, July 28th), Dyspnœa and its Treatment by Drugs. To be opened by Professor Gairdner, M.D., F.R.C.P., Professor Leech, M.D., F.R.C.P., M. C. Collins, M.D., F.R.C.P., H. Handford, M.D., M.R.C.P., Clifford Allbutt, M.D., F.R.C.P., F.R.S., I. Burney Yeo, M.D., F.R.C.P., and others will take part in the discussion.

It has also been arranged to hold a short discussion on the Bearing of Recent Physiological and Chemical Research on the Question of Anæsthesia. Dudley Buxton, M.D., M.R.C.P., will read a paper introducing this subject. The following gentlemen will take part in the discussion, Norman Kerr, M.D., Lawrence Turnbull, M.B., Frederic Hewitt, M.D., R. N. Hartley, M.B., and E. H. Jacob (Leeds).

The President of the Section will give an Introductory Address on Some Points in Pharmacology and Modern Therapeutics.

Professor Liebreich, Berlin, has deputed Dr. A. P. Chadbourne to make a communication on his behalf, the outcome of researches in his laboratory.

The following papers are announced:

CHADBOURNE, A. P., M.D. (Berlin). On the Local Anæsthetic Properties of a new Coca Base.

EBSTEIN, Professor (Göttingen). Some Remarks on the Dietetic Treatment of Diabetes Mellitus.

HANDFORD, H., M.D. The Treatment of the Hæmatemesis of Anæmic Young Women.

HARRISON, A. J., M.B. On the Cure of Lupus by Local Treatment (with Illustrative Cases).

JONES, H. Lewis, M.D. On the Therapeutic Effects of the Rapidly Changing Currents of Induction Machines and on Methods of Measuring such Currents.

KERR, Norman, M.D. The Treatment of Delirium Tremens.

RUMBOLL, Sydney, L.R.C.P., F.R.C.S. Anæsthetics, with Special Reference to the Use of Nitrous Oxide in Minor Surgery.

SAVILL, T., M.D. The Treatment of Epidemic Dermatitis and Eczema by Creolin and other Remedies.

J. LARYNGOLOGY.

University College, Room 40, First Floor.

President: RICHARD ATKINSON HAYES, M.D. *Vice-Presidents:* DONALD STEWART, M.D.; T. MARK HOVELL, F.R.C.S.Ed. *Honorary Secretaries:* JOHN MACINTYRE, M.B., 179, Bath Street, Glasgow; DONALD ROSE PATERSON, M.D., 18, Windsor Place, Cardiff.

The three following subjects have been selected for special discussion: 1. The Etiology, Pathology, and Treatment, of Nasal Neuroses, to be introduced by Donald Stewart, M.D., and Adolf Bronner, M.D. 2. Catarrh of the Nose and Throat, its Etiology, Pathology, and Treatment, to be introduced by J. Macintyre, M.B., and Edward Woakes, M.D. 3. Granular Pharyngitis, its Etiology and Treatment, to be introduced by T. Mark Hovell, F.R.C.S.Ed., and Lennox Browne, F.R.C.S.Ed. The following gentlemen will take part in the discussions: Messrs. R. Ellis, F.R.C.S., Mayo Collier, P. Watson Williams, H. B. Hewetson, N. Macnaughton Jones, Scanes Spicer, Thomas Barr, Charles Warden, Professor von Schroetter (Vienna), James Erskine, Edward Woakes, Wm. Hill, Edward Law, Dundas Grant, and C. R. Walker.

The following papers are announced:

BARR, Thomas, M.D. The Importance of Guarding against Injury to the Middle Ear when Treating the Nasal Passages and Nasopharynx.

BRONNER, Adolf, M.D. On the Use of Trichloracetic Acid in the Treatment of Ozæna.

BROWNE, Lennox, F.R.C.S.Ed. Faults in Voice Production which lead to Throat Disease.

COLLIER, Mayo, F.R.C.S. The Causation of Deflections and other Irregularities of the Nasal Septum.

ELLIS, Richard, F.R.C.S Ed. Note on a Frequent Cause of Irritation of the Throat in School Teachers.

GRANT, J. Dundas, M.D., F.R.C.S. (1) Practical Points in the Diagnosis and Treatment of Fish Bones in the Throat; (2) A Safe Endo-laryngeal Forceps; (3) A Safe Nasal Douche.

HEWETSON, H. B., M.D. 1. Aural Complications in a Case of so-called Russian Influenza; 2. Further Experience in the Treatment of Deafness, the Result of Nasal Stenosis, by Dilatation with the Glove Stretcher.

HILL, Wm., M.D. Rhinalgia.

HUNT, John M., M.B. Throat Affections peculiar to Voice Users.

MACINTYRE, John, M.B. Etiology, Demonstration on, in Affections of the Nose and Throat.

REEVES, H. A., F.R.C.S. Nasal and Respiratory Spinal Curvatures.

ROBERTSON, Wm., M.D. On the Treatment of Ozæna and Recurrent Nasal Polypi by Opening and Draining the Antrum of Highmore, with illustrative cases.

SANDFORD, Arthur, M.D. The Importance of a Systematic Course of Physical Voice Training at School or College, especially with regard to its Influence on prevalent Throat Troubles in Public Speakers and others.

SCHROETTER, Professor (Vienna). Nervous Affections of the Throat.

SPICER, Scanes, M.D. Some Points in the Diagnosis and Treatment of Chronic Suppuration of the Antrum of Highmore, illustrated by Cases.

STEWART, Donald, M.D. (1) An Usual Nasal Polypus; (2) Cotton Wool Carriers.

WILLIAMS, P. Watson, M.D. The Dyspeptic Sore Throat.

PROGRAMME OF PROCEEDINGS.

TUESDAY, JULY 26TH, 1892.

9.30 A.M.—Meeting of 1891-92 Council in the Grand Jury Room, Guildhall.

11 A.M.—Opening of the Health Exhibition by The Mayor and Sir Walter Foster.

11.30 A.M.—First General Meeting in the Mechanics' Hall. Report of Council. Reports of Committees: and other business.

4.0 P.M.—Service at St. Mary's Church. Sermon by the Bishop of Southwell.

8.30 P.M.—Adjourned General Meeting, in the Mechanics' Hall, from 11.30 A.M. President's Address.

WEDNESDAY, JULY 27TH, 1892.

9.30 A.M.—Meeting of 1892-93 Council in the Grand Jury Room, Guildhall.

10 A.M. to 1.30 P.M.—Sectional Meetings in University College. Public Health Section in the Mechanics' Lecture Hall.

2.30 P.M.—Second General Meeting in the Mechanics' Hall. Address in Medicine by JAMES CUMING, M.D.

4.0 P.M. to 6 P.M.—Garden Party in the Arboretum given by the President of the Association and the Local Executive Committee.

8.30 P.M.—*Conversazione* at the Castle, given by the Worshipful Mayor, R. Fitzhugh, Esq., J.P.

THURSDAY, JULY 28TH, 1892.

9.30 A.M.—Meeting of the Council in the Grand Jury Room, Guildhall.

10 A.M. to 1.30 P.M.—Sectional Meetings in University College. Public Health Section in the Mechanics' Lecture Hall.

2 P.M.—Extraordinary General Meeting.

2.30 P.M.—Third General Meeting in the Albert Hall Address in Surgery by W. H. HINGSTON, M.D.

4 to 6 P.M.—Garden Party.

7 P.M.—Public Dinner of the Association, Large Hall, Mechanics' Institute.

FRIDAY, JULY 29TH, 1892.

10.30 A.M. to 1.30 P.M.—Sectional Meetings in University College. Public Health Section in the Mechanics' Lecture Hall.

2.30 P.M.—Concluding General Meeting in the Mechanics' Hall. Address in Bacteriology by GERMAN SIMS WOODHEAD, M.D.

4 to 6 P.M.—Garden Party.

8.30 P.M.—*Conversazione* in the University College, given by the President of the Association and the Midland Branch.

SATURDAY, JULY 30TH, 1892.

Excursions.

RECEPTION ROOM.

It is particularly requested that members on their arrival will at once proceed to the Reception Room, which is in the Lending Library, University College, Nottingham, at which each member should enter his name and address, receive his member's card and daily journal, inquire for telegrams and letters, and consult the list of lodgings and hotels, etc. The Reception Room will be open on Monday from 4 to 9 o'clock; and every other day of the meeting from 9 to 6 o'clock.

DINNER OF THE ASSOCIATION.

The Annual Dinner of the Association will take place at the Mechanics Hall on Thursday, July 28th, at 7 o'clock. Tickets (inclusive of wine, £1 1s., exclusive of wine, 15s.) may be obtained at the Reception Room from 4 P.M. on Monday, July 25th, till 6 P.M. on Wednesday, July 27th. A plan of the tables may be seen and members are requested to select their seats.

EXCURSIONS.

1. To Belvoir Castle, where the members will be entertained to lunch by His Grace the Duke of Rutland, returning by Harlaxton Manor, where they will be entertained to tea by Mrs. Sherwin-Gregory. This excursion is limited to 120 tickets.

2. To Sherwood Forest and the Dukeries, where they will be entertained to lunch by His Grace the Duke of Portland, at Welbeck Abbey. This excursion is limited to 120 tickets.

3. To Haddon Hall and Chatsworth, where the members will be entertained to lunch by His Grace the Duke of Devonshire, returning by Scarcliffe, where they will be entertained to tea by Lady Whitworth. This excursion is limited to 120 tickets.

4. To Lincoln, where the members will be entertained to lunch by the President, Viscount Oxenbridge, and the Governors of The Lawn (Lunatic Hospital) in the grounds, and afterwards to tea by the Right Worshipful the Mayor of Lincoln in the Castle grounds. This excursion is limited to 60 tickets.

Tickets for these excursions will not be issued before the date of the meeting, but will be obtainable on the opening of the Reception Room at 4 p.m. on Monday, July 25th, and following days.

In addition to the above, an afternoon excursion, limited to 150 gentlemen and 50 ladies, will be made to Buxton on Friday, July 29th, returning to Nottingham in time for the *conversazione*. Through the kindness of the Duke of Devonshire, this visit will be made free of cost to those members who are desirous of inspecting "The Queen of Inland Watering Places." Application for tickets for this excursion only may be made any time after Saturday, July 9th, to Mr. Henry Williams, Honorary Secretary Excursion Committee, 19, Regent Street, Nottingham.

THE ANNUAL MUSEUM.

IN connection with the sixtieth annual meeting of the British Medical Association, the Museum and Exhibition will be held in the Technical Schools, University College, Nottingham. The Museum will be arranged in the following Sections:—

SECTION A.—Food and Drugs, including Antiseptic Dressings and other Chemical and Pharmaceutical Preparations. (Honorary Secretary, Mr. T. Davies Pryce, 39, Peachy Terrace, Nottingham.)

SECTION B.—Pathology, comprising Casts, Models, and Diagrams, Microscopes and other Apparatus, Microscopical and Spirit Preparations, etc. (Honorary Secretary, Dr. W. B. Ransom, The Pavement, Nottingham.)

SECTION C.—Anatomy and Physiology, comprising Special Dissections, Methods of Preparation, Drawings, Models, and Microscopical Preparations. (Honorary Secretary, Dr. W. Stafford, Mansfield Road, Nottingham.)

SECTION D.—Instruments and Books, including Appliances, Medical, Surgical, and Electrical. (Honorary Secretary, Dr. F. R. Mutch, 21, Goldsmith Street, Nottingham.)

SECTION E.—Sanitary and Ambulance Appliances. (Honorary Secretary, Dr. P. Boobbyer, Guildhall, Nottingham.) See notice at end of Regulations.

Regulations.

1. Intending exhibitors must apply before June 30th to the Honorary Secretary of each Section in which they propose to exhibit, to whom they must also forward a brief description of each exhibit for insertion in the Museum Catalogue.

2. The charge to exhibitors (other than members of the medical profession) will be 2s. per square foot of table space in Sections A, B, C, D.

3. All exhibits should be addressed to the "Secretary of the Museum, British Medical Association, University College,

Nottingham," with the name of the Section for which they are intended. Packages should not be addressed to a firm's representatives at the Museum.

4. Communications on general matters connected with the Museum should be addressed to the Honorary Secretary of the Museum, Dr. W. A. Carline, Lincoln.

5. All communications respecting advertisements in the Museum Catalogue must be made to Dr. C. H. Cattle, 2, East Circus Street, Nottingham.

In connection with the Sanitary Section there will be an Exhibition on a somewhat extensive scale of sanitary material and appliances. The Exhibition, which will be open for at least two months, will be held in a special building erected by the Corporation. It has a President and an Organising Committee of prominent sanitarians, and two Honorary Secretaries, Drs. B. A. Whitelegge and Philip Boobbyer; all inquiries should be addressed to the latter.

NOTICES OF MOTION.

Notice is hereby given that an Extraordinary General Meeting of the British Medical Association will be held at the Albert Hall, Nottingham, on the 28th day of July next at 2 o'clock in the afternoon, when Dr. Galton will propose the following Motions:

(1) That Article 4 of the Articles of Association be altered by expunging the words, "No female shall be eligible for election as a member of the Association."

(2) That By-law No. 1 of the By-laws of the Association be altered by expunging the words, "provided that the power of such Council or Branch Council shall only extend to the election of male persons."

Should the Motion No. 1 be passed by the required majority, it will be submitted for confirmation as a Special Resolution at a Second Extraordinary General Meeting which will be subsequently convened.

Surgeon-Lieutenant-Colonel Ince hereby gives notice that he will move:

That the acceptance of any remuneration by the members of Council or any of the Committees for attendance is alien alike to the spirit and to the dignity of this our fraternal and professional Association and should be, therefore, discontinued.

Francis Fowke, *General Secretary.*

June 28th, 1892.

Literary Intelligence.—As one instance of the great advance which surgery is making in the provinces in France we may note that the first number of a new monthly journal appeared on July 1st. It is entitled the *Archives Provinciales de Chirurgie*, and is a handsomely-bound serial. The present number contains 116 pages. The editor is M. Marcel Baudoin. —Mr. Ronald Macfie, who is, we believe, a student in the Medical Faculty of the University of Aberdeen, has just published a volume of poems (*Granite Dust*, Kegan Paul and Co.). It appears that some previous effusions of Mr. Macfie's muse found favour in the eyes of no less competent a judge than Mr. Andrew Lang, whose encouragement has no doubt had a powerfully stimulating influence on the young poet's "fine phrenzy." Medicine and poesy may by poetical licence be claimed as sister arts, since both were regarded by the ancients as under the patronage of Apollo. It is, therefore, natural enough that medical men should woo the kindred muse, though it must, we fear, be admitted that few of them have prospered in their wooing. For ourselves, though not prepared to accept the theory of Cabanis that poetry is a disease of the small intestine, we are inclined to agree with Carlyle that if a man has anything in him worth saying he had better say it in prose.

Prevention of Ophthalmia Neonatorum.—Following the example of the States of New York and Maine, Rhode Island has passed a law requiring that any midwife or nurse, or person acting as nurse, having charge of an infant, if she find one or both eyes of the infant reddened or inflamed at any time within two weeks of its birth, shall report the fact in writing within six hours to the health officer or some qualified practitioner of medicine of the locality. There does not appear to be any penalty, according to the note in the *Boston Medical and Surgical Journal* from which we quote, for failure to comply with the law, nor any provision for making a payment for the notification.

CORRESPONDENCE.

CHIMNEY-SWEEPS' CANCER.

Sir,—I am very pleased that my lectures should have attracted the attention of so able an authority on the distribution of cancer as Mr. W. Roger Williams. I have always held his work in this direction in great respect, and I feel complimented that he should think fit to criticise my statements in so friendly a manner. In reply to his letter I would suggest:

1. With regard to the statistics of the Registrar-General, the accuracy of which is attacked, Mr. Williams will forgive me if I point out that his own reference to them is not accurate; the 242 deaths occurred in the course of three years (1880-81-82), not in the course of one year. The force of his remarks on the figures is seriously impaired by this inaccuracy.

2. The figures which Mr. Williams quotes in reference to the frequency of scrotal cancer refer to the relative frequency of the disease, a matter with which I have not attempted to deal. The intention of the figures which I have quoted is merely to show that there are not sufficient grounds (in any statistics) for the belief which is popularly entertained that sweeps' cancer of the scrotum is becoming less frequent in this country. I have not attempted to prove that it is increasing at the same rate as the cancers of other parts of the body. The statistics of my own hospital, to which Mr. Williams has referred, show a considerable increase in the number of cases of malignant disease treated in the hospital of late years, and Mr. Williams is quite correct in saying that there is not a corresponding increase in the number of cases of sweeps' cancer. In speaking of "the Report for 1889," Mr. Williams speaks of a diminution from 20 to 16 per 1,000. I would suggest that these figures signify not that cancer of these parts is diminishing in this country, but merely that it is not increasing in proportion to the general increase of cancer in the country.

3. As far as I can understand Mr. Williams's remarks, his contention is that the female external genitalia are more liable to cancer than the male external genitalia. I believe this to be quite true. These parts in the female are more or less prone to cancer. Everything which I have been able to collect shows that the scrotum is not at all prone to cancer unless it is prepared for its occurrence in some special manner. I am a little puzzled to understand how Mr. Williams could have seen a so-called "soot wart" on the labia majora in women who have never had anything to do with soot. I can understand that he may have seen a wart there, but why a "soot wart," and who called it a "soot wart?"

With the question of the influence of arsenic in the production of scrotal cancer, I have dealt in the third lecture, so far as I am at present able to do so.—I am, etc.,

Harley Street, W. Henry T. Butlin.

Sir,—In his letter in the British Medical Journal of July 9th Mr. W. Roger Williams states that the Registrar-General (*Supp. to 45th Report*) called attention to the "increasing frequency of cancer in chimney-sweeps," and further that the Report for 1889 "shows the exact contrary, namely, marked diminution in the frequency of the disease in the parts usually affected in chimney-sweeps."

In regard to the first of these points I think Mr. Williams has misunderstood the following passage in the Report first cited: "These figures scarcely support the belief that improvements in the art and habits of sweeps have caused this disease to be comparatively infrequent among them." Clearly no opinion is expressed here as to increasing or decreasing frequency. In regard to the other point, Mr. Williams relies on figures showing the mortality from cancer of the scrotum, etc., in comparison with the mortality from cancers of all parts, but he has apparently overlooked the figures in two other columns, which show that the mortality ascribed to cancer of the scrotum, etc., per million males living increased from 15.76 in 1868 to 23.96 in 1888.

In another part of his letter Mr. Williams places side by side tables showing the local distribution of cancer (1) based on his own experience of males, 2,669 and (2) based on the Registrar-General's, relating to chimney-sweeps, and he declares the results to be discordant. Surely this is not the in-

ference suggested by the figures. On the one hand, it is found that among males in general who suffer from cancer in about 7 per cent. the disease attacks the scrotum or adjacent parts, while, on the other hand, it is found that of 36 fatal cases of cancer among chimney-sweeps, in which the part affected was stated, 23 were cases of cancer of the scrotum, etc. If we make every allowance for the small basis of the Registrar-General's figures it is still difficult to resist the conclusion that cancer of these organs is comparatively frequent among chimney-sweeps.—I am, etc.,

London. A. C. WATERS.

THE MORTALITY OF HYSTERECTOMY.

SIR,—The paper published by Mr. Skene Keith under the title of "Total Disappearance of a Fibroid Tumour after Dr. Apostoli's Treatment," in the BRITISH MEDICAL JOURNAL of July 9th, contains an assertion which should not, I think, be allowed to pass unchallenged, if only on account of its implied slur on British surgery. The writer, referring to the death-rate of hysterectomy during the past twenty years, states that no one will ever know its extent "because the surgeons, except Dr. Keith, have never dared to give their results, for the mortality is too great for publication, at least, in the early cases."

For my own part, I have no hesitation whatever in giving my experience in this direction; and I hope that other abdominal surgeons may be prompted to do likewise. The total number of my cases of supravaginal hysterectomy for fibromyoma, dating from my first operation of this nature in 1882 down to the present time, amounts to 53 with 6 deaths, a mortality of 11.3 per cent. It is only fair to state, however, that 5 of these 6 fatalities occurred among my first 19 cases, and that consequently my last 34 operations show but 1 death, or a mortality of just under 3 per cent., results comparing not unfavourably with the best averages obtained in ovariotomy.

I have no intention whatever of discussing the evidence advanced by Mr. Skene Keith in favour of the electrical treatment of uterine fibromyoma, as the value of such evidence may well be left to the sound judgment of the profession at large.—I am, etc.,

Manchester Square, W. W. A. MEREDITH.

DIGITALIS IN AORTIC REGURGITATION.

SIR,—I have to thank Dr. Sainsbury for his friendly criticism, which, from inadvertence on my part, is unfortunately only too applicable. After all, the data are so indefinite and so involved with complex vital conditions as to make any calculations doubtful even had my method of applying Pascal's law been correct. Nevertheless the facts remain. The vital conditions are so well balanced that the circulation remains unaltered, and the mean arterial blood pressure unchanged, even when regurgitation has been suddenly produced by artificial destruction of the aortic valves. So long as the heart, and especially the left ventricle, retains its tone and vigour, there is neither breathlessness nor cardiac suffering, nor any need for treatment. This is true, however free the regurgitation may be—and there is great variety in this—and whatever may be the pulse rate. Whenever the ventricle fails symptoms at once set in which call for medical interference. In the treatment of such cases, rest and cardiac tonics are of the greatest use, and there is no tonic which has given so many proofs of its value as digitalis. The only objection urged against its use is that sometimes by it the pulse rate is reduced below the normal, and thus there is a longer period during which regurgitation may continue. The reply to this is, that to obtain all the benefit that digitalis can bestow it is quite unnecessary to reduce the pulse rate, and that even when the pulse rate is accidentally reduced below the normal, the elasticity and vigour of the ventricle are by this time so much restored that there is no risk of it being overwhelmed by any excess of regurgitation, if, indeed, there ever is any such danger, which has never been proved.

Failure of the ventricle to contract may be accompanied by an apparent overfilling of its cavity, and yet that overfilling may be the result and not the cause of the failure. It is conceivable that the auricle may contract once or twice after the ventricle has wholly or partially failed, and this would account for any apparent overfilling of the ventricle without the need of supposing any excessive regurgitation to have occurred—an excessive regurgitation which is all the more inconceivable that in cases of sudden death from asystole in aortic incompetence the aorta itself remains fully distended with blood clot.—I am, etc.,

Edinburgh. G. W. BALFOUR.

SIR,—In the BRITISH MEDICAL JOURNAL of June 4th, 1892, under the head of Action of Digitalis in cases of Aortic Regurgitation, Dr. George W. Balfour makes an application of Pascal's law in the hydrostatics of the blood pressure of the heart which is not correct. The error is here: The calculation of the pressure of the aortic blood is based on the abnormal opening in the aortic valve, stated to be 0.25 square inch. The pressure of the blood, however, in the heart, which blood opposes the regurgitation, is calculated on an opening, the area of which is five times as great.

I think a little reflection will show that the area of the mitral or even of the aortic valve abnormal opening has no importance in a question of this kind, still less any ratio between the two.

To prove this let us suppose the heart removed from the body and filled with mercury. Let us fasten to the aortic opening a perpendicular tube of 0.25 square inch, cross section, and to the mitral orifice one of 1.25 square inch, cross section; this tube also to be perpendicular.

It is evident that mercury put in the larger mitral tube to the height of 60 millimetres would not go far to hinder the regurgitation of mercury poured into the aortic tube to the height of 250 millimetres.

The two columns would come to the same level as soon as possible by a regurgitation of the mercury from the aortic tube through the imperfectly closed valve against the pressure in the other tube.

The absence of regurgitation may be a fact, but another reason must be found for it.—I am, etc.,

New York. HENRY POWER, M.D.

FEES TO MEDICAL MEN IN CRIMINAL CASES.

SIR,—Medical men whose duties take them to the Quarter Sessions and Assize Courts are subjected to the most scandalous injustice in the matter of remuneration. I have just had four days at the Assize Courts, which are distant some forty miles from here. The fees allowed are a guinea a day, with travelling expenses on the first day only. I understand that we are allowed 2s. a night for hotel expenses, etc., but even that I did not get. I returned home every evening for urgent visits and night work, and so I had to pay my rail fare on the three days out of the guinea, leaving me with the respectable sum of 9s. a day for skilled evidence, worry, etc., and also to compensate me for loss of practice during my absence.

Now, Sir, cannot this powerful Association do something towards getting adequate fees and expenses for this most necessary class of practitioners?—I am, etc.,

MEDICAL WITNESS.

*** Allowances to witnesses in criminal cases are very inadequate. They are in accordance with a scale of costs issued by the Home Office in 1858, which might be revised with advantage to all persons affected by it. If a strong representation as to its insufficiency were made, possibly some good might result.

THE DIAGNOSIS OF PARALYSIS OF THE DIAPHRAGM.

SIR,—The point to which Dr. Harris has drawn attention in the BRITISH MEDICAL JOURNAL of July 2nd has not escaped observation. Dr. Gowers[1] writes: "The diaphragm is used little in extraordinary breathing, which is chiefly by the upper part of the thorax, of the 'superior costal type,' as it is called. Hysterical and nervous patients will often breathe for a time only in this manner, even when at perfect rest, especially when they are under observation. Such breathing is no doubt facilitated by the fact that the diaphragm is habitually used by them less than by men. Repeated examination may be necessary to determine whether there is any real paralysis of the diaphragm in these cases. A single diaphragmatic inspiration settles the point. The patient's

[1] *Diseases of the Nervous System*, 1, 66.

attention should be distracted, and she should not be aware of the object of the examination."

In the cases thus described by Dr. Gowers it is far from unusual to see some apparent depression of the epigastrium during inspiration. Further light may sometimes be thrown on the case by bringing the hand to the aid of the eye, for even where such depression occurs a downward movement of the diaphragm may sometimes be detected on palpation. Another point worth notice is that in some case of partial diaphragmatic paralysis the co-ordination of the action of this great muscle with that of the other muscles of inspiration may be interfered with, the diaphragm lagging behind the other, so that the downward movement of the epigastrium distinctly follows instead of accompanying the elevation and expansion of the ribs.

I will only add that I do not think it is uncommon for a true paralysis of the diaphragm due to diphtheria to recover rapidly, and that I have once seen a functional paralysis of this muscle after an attack of influenza.—I am, etc.

D. B. LEES, M.D., F.R.C.P.,
Physician to St. Mary's Hospital and to the Hospital for Sick Children.
Weymouth Street, W.

SIR,—I have read with much interest Dr. Harris's remarks on the fact that epigastric and hypochondriac recession cannot always be depended upon as signs of diaphragmatic paralysis. In cases of general diphtherial paralysis the difficulty in deciding whether the diaphragm is paralysed or not is often very great. At a morning's visit I have made the note: "Diaphragm is working normally." Within an hour, or two, all the classical signs of diaphragmatic paralysis have been present, whilst a few hours later still the diaphragm has again seemed to be in perfect action. This series of events will recur from time to time until death or recovery takes place. Inspiratory retraction of the epigastrium and hypochondria is not alone sufficient evidence of diaphragmatic paralysis.

The following note illustrates a typical case of paralysis of the diaphragm after diphtheria: "With each inspiration the epigastrium and hypochondria are markedly indrawn. At the end of inspiration an undulatory impulse can be both seen and felt by the finger placed beneath the ribs. It is most marked in the left hypochondriac region, and is obviously caused by the fall of the diaphragm as inspiratory suction power ceases. This impulse is followed by marked epigastric bulging during expiration. The diaphragm, in fact, flaps like a sail out of wind. The effort to speak or cough causes the expiratory bulging to become more apparent." Unless the above signs are present we cannot say the diaphragm is paralysed.

Apparent epigastric recession can be produced at will by strongly contracting the abdominal muscles whilst taking a deep inspiration. This causes the upper part of the chest to expand at the expense of the lower, and it is by practice of this manœuvre that our soldiers acquire the chest dimensions admired by "Mary Ann and Whitehall." It is distinguished from true diaphragmatic recession by the presence of rigidly contracted abdominal muscles. In true diaphragmatic paralysis the abdominal walls are either lax and motionless or else distended by flatus, in which case the paralysis is all the more difficult to recognise. It must also be remembered that the diaphragm in man is normally quiescent during sleep, and his breathing approaches the feminine type. So mere deficiency of epigastric expansion is valueless as a sign of diaphragmatic paralysis.

Returning to diphtherial paralysis, slight functional inactivity of the diaphragm often occurs, and passes off so quickly that it may escape recognition. On the other hand, it may precede sudden and complete paralysis. Even in this case a difficulty often arises, for patients in whom the diaphragm has seemed absolutely paralysed will suddenly vomit violently and profusely, after which the breathing becomes easier and the diaphragm is found to be working again. How can such vomiting occur if the diaphragm were really paralysed? Non-action of the diaphragm is often associated with non-action of the intercostals, and in both conditions it is common to find the subjacent lung collapsed. It is not clear whether the collapse is dependent upon paralysis of the chest walls or whether the immobility of the chest walls depends upon the collapse.

I see no reason to doubt Vierordt's statement that the diaphragm is occasionally paralysed in hysteria; indeed, it seems to me to be additional evidence in favour of a central action of the poison of diphtherial paralysis. I can hardly believe that the paralyses of diphtheria would clear up as quickly as they do were they always dependent upon the peripheral degeneration described recently by Dr. Sidney Martin.—I am, etc.,

Upper George Street, W. LEONARD G. GUTHRIE.

THE REGISTRATION OF MIDWIVES.

SIR,—Perhaps I may be permitted to point out that there is absolutely nothing to prevent the practice of fully trained and certificated midwives in the towns to which Dr. Rowland Humphreys refers, or, indeed, in any other places in this country. I have no doubt that if it were possible for such to make a living, some would have been in practice before this. I suppose it is impossible to make him understand that the evils to which he refers are economic in their origin, and that registration of midwives has not prevented the practice of untrained midwives in other countries, and will certainly not remove the economic causes which are at the bottom of such troubles as he refers to.

Another point is quite certain: Legislation will not bring down the general puerperal mortality to 1.3 per 1,000, nor will it produce a class of practitioners in whose practice a death will be unknown.—I am, etc.,

Hatfield, Herts. LOVELL DRAGE.

THE CASE OF THE PRISON SURGEONS.

SIR,—In reference to the letter of "4 A" in the BRITISH MEDICAL JOURNAL of July 2nd, it seems to me that the movement on behalf of the prison surgeons has arrived at this point—that the Home Secretary, in his reply to Dr. Farquharson, has intimated his willingness to give his "most attentive consideration" to any representations coming directly from them. I look upon this as a suggestion that direct appeal would now be the plan of action most acceptable to the official mind.

Prison surgeons throughout the country cannot be too grateful to you, Sir, for having through the Parliamentary Bills Committee given form and shape to their initiatory efforts for the redress of their grievances. But it seems that the time has now come for considering the desirability of memorialising the Home Secretary next appointed. Individually, but not collectively, we are permitted by the rules of the service to do this through the usual official channels. As, however, we are without organisation, and are mostly strangers to each other, we must look to you, Sir, to aid us in securing united action by agreeing upon the wording of the memorial, which should be forwarded at a given date by every prison surgeon who is in favour of this course.

As so much has already been done, it would be most lamentable that the movement should be allowed to collapse for want of concerted action, and the small degree of courage needed in facing official coldness and indifference.

The medical department of the prison service is numerically very small, and to this must be attributed the fact that our grievances have not been more persistently pressed into notice. It is true, as Mr. Matthews said, that the scale of pay was somewhat improved in 1883, but it is to be remembered that before this improvement was effected the pay was so miserably inadequate, that the department were at their wits' end to obtain the services of qualified surgeons who were at all fit for these difficult and trying appointments.

Every prison surgeon will, I think, confess to a feeling somewhat of the nature of a wholesome dread of giving offence at headquarters by taking a leading part in any agitation for improved pay and prospects. This feeling may be based on a misconception, but it certainly operates very powerfully in limiting and retarding the movement. Nothing will be done in the matter unless we are fortunate enough to secure further kindly help from outside our own ranks.—I am, etc.,

A. B. C. 550.

SEA SICKNESS.

SIR,—In the course of something like half a million miles of ocean travel on board big passenger steamers, with facilities for observation painfully unlimited, my experience records but one fact which appears to me to be constant in regard to sea sickness, namely, that persons affected with any form or degree of mental aberration are immune from that malady. I have verified this in, I think, most of the leading types of dementia and amentia, from acute manias and *delirium tremens* to idiocy. Other sea-going surgeons have told me that they have noticed the same thing.

As for remedies, without exactly going conscientiously through the *Pharmacopœia*, from gum acacia to ginger, I have tried many drugs and found all wanting. I know of nothing which in my hands has proved even apparently efficacious in half-a-dozen instances. Yet almost every sufferer has some nostrum which is really infallible (with a liberal discount for circumstances) in his or her particular case. Position, of course, has much to do with mitigation of the evil, and imagination not a little.—I am, etc.,

Watford. ARTHUR STRADLING, M.R.C.S.

SIR,—The correspondence which has been carried on in the BRITISH MEDICAL JOURNAL on the treatment and prevention of sea sickness has been of much interest to me, as I acted for some time as ship's surgeon before beginning practice, and was myself a great sufferer from that malady. My experience was, and I still believe it to be true, that there is no cure for sea sickness, although a good deal may be done by judicious treatment to relieve the more distressing symptoms. The patient should be removed to the deck and placed in a recumbent, or semi-recumbent, position, as near the centre of the ship as possible. Occasional drinks of effervescing pyretic saline, with the addition of a little brandy and a few drops of lemon juice, should be given, and I have found this give more relief than any other remedy. I also found that small quantities of weak beef-tea or thin oatmeal gruel were the articles of diet most easily retained.

But I believe it is towards the prevention of sea sickness that our efforts should be directed, as giving the best chance of success. For this purpose I would recommend anyone who purposes taking a sea voyage to take a brisk purgative every second night or morning for a week before sailing. I would also advise that 10 grains of antipyrin be taken three times a day for three days before going on board, and for the first day or two afterwards. The diet for the first few days should consist, as far as possible, of light soups and milk food.

Since I began practice I have crossed the Atlantic and the Bay of Biscay several times, and by following this line of treatment I have never experienced the slightest approach to sickness.—I am, etc.,

Glasgow. GEORGE HALKET, M.D.

IRISH DISPENSARY DOCTOR'S HOLIDAYS.

SIR,—In anticipation of the probability of a general movement amongst Irish Poor-law medical officers to induce boards of guardians to grant them an annual month's holiday and pay substitutes, it would, I consider, be of great advantage if those who have had this concession made to them would kindly forward the names of such unions and any other information in connection with the matter to the BRITISH MEDICAL JOURNAL, in order that future applications may be founded on these precedents.—I am, etc.,

R. SAUNDERSON,
Medical Officer Edenderry Dispensary District.

HEALTH EXHIBITION IN NOTTINGHAM.

SIR,—Our scheme for holding an exhibition of sanitary appliances in connection with the annual meeting of the British Medical Association in Nottingham, and under the joint patronage of the Association and the Nottingham Corporation, seems likely to prove a success. Thirty-six important firms, including Messrs. Allen, Anidjah, Billington, Bostel, Chorlton, Cliff, F. Cooke, Danks, Duckett, Farmiloes, Foster and Cooper, Henry, Hughes and Lancaster, Jennings, Longford (Bedding) Co., Merryweather, Parker and Hassall, Sanitas Co., Sollory and Son, Tylor and Sons, Watts and Co., and Whitfield, have engaged spaces and paid their deposits. The stalls are 420 feet in length, and have a uniform width of 8 feet.

As already announced, the Nottingham Corporation have lent the covered and wood-paved yard (measuring 100 feet square) at the rear of the Guildhall, and are laying the necessary water mains. The patent jointed drain pipes of Messrs. Parker and Hassall will be laid under the stalls and connected with the nearest street sewer. This complete system of water supply and drainage will enable all working hydraulic apparatus to be shown in operation.

The President of the British Medical Association, with the Mayor of Nottingham and Sir Walter Foster, will perform the opening ceremony at 11 A.M. on July 26th.

Certificates of merit in three classes will be awarded to deserving manufacturers or inventors. Twelve representative gentlemen from London and the provinces have consented to act as judges of exhibits.—I am, etc.,

PHILIP BOOBBYER,
Guildhall, Nottingham. Hon. Sec. of the Section of Public Medicine.

CONSULTANTS.

SIR,—I ask you in justice to the profession to allow me to call attention, in the BRITISH MEDICAL JOURNAL, to the habit of very unprofessional free speech which some Dublin consultants indulge in. I recently had to process a patient, and I learned for the first time in open Court that the loss of my patient and the necessity for the process were both due to the loose remarks of a leading Dublin consultant.—I am, etc.,

Cashel. THOMAS LAFFAN.

THE RECENT EPIDEMIC OF SMALL-POX AT YARMOUTH.

SIR,—I am happy to inform you that there is not now a single case of small-pox in the whole borough, the disease having been entirely stamped out. May I ask you to kindly insert this letter in the BRITISH MEDICAL JOURNAL, as you in a former number referred to the small-pox we had in the town in the spring of the year.—I am, etc.,

Great Yarmouth. FRANK BURTON, Mayor.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

THE following appointments have been made at the Admiralty:—FREDERICK MCCLEMENT, Fleet Surgeon, to the *Clyde*, July 6th; ALEXANDER L. CHRISTIE, Staff-Surgeon, to the *Naiad*, lent, July 8th; JAMES O. B. WILLIAMS, M.B., Surgeon, to the *Iron Duke*, July 6th; JAMES J. WALSH, Surgeon, to the *Bramble*, July 16th.

ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL P. R. GABBETT, Surgeon to the Right Hon. the Governor of Madras, is granted furlough out of India for six months on medical certificate.

Surgeon-Major F. H. S. MURPHY, M.D., died at Cork, June 23rd. He was appointed Surgeon, August 5th, 1877, and Surgeon-Major, August 5th, 1889.

Surgeon R. W. FRASER died at St. Ives, Hunts, June 8th. He was appointed Assistant-Surgeon, April 15th, 1842; Surgeon, May 23rd, 1848; and retired on half-pay, July 22nd, 1856.

Quartermaster and Honorary Captain GEORGE TOWERS retires upon retired pay, July 13th. Captain Towers entered the service as Lieutenant of Orderlies, July 2nd, 1879, with the honorary rank of Lieutenant; was made Quartermaster, Medical Staff, July 1st, 1881; and received the honorary rank of Captain, July 2nd, 1889.

Sergeant-Major W. T. VIDLER, of the Medical Staff Corps, is appointed Quartermaster, with the honorary rank of Lieutenant, *vice* Hon. Captain G. Towers, July 13th.

MILITIA RESERVE.

H.R.H. THE COMMANDER-IN-CHIEF has approved of the Geneva Cross badge being worn by the Militia Reserve Medical Staff Corps.

MILITIA MEDICAL STAFF.

SURGEON-CAPTAIN WALTER SCOTT WARLTERS, from Norwich Company Volunteer Medical Staff Corps, is appointed Surgeon-Captain, June 29th.

INDIAN MEDICAL SERVICE.

SURGEON-CAPTAINS A. W. T. BUIST-SPARKS, A. J. MACNAB, H. R. C. BARBER, and J. M. CRAWFORD, all of the Bengal Establishment, have passed the examination in Hindustani by the lower standard.

The undermentioned Surgeon-Captains, all of the Bengal Establishment, are appointed to the officiating medical charge of the regiments specified: A. G. HENDLEY, 15th Bengal Lancers, *vice* Surgeon-Captain E.

Hudson; B. C. Oldham, 2nd Bengal Light Infantry, *vice* Surgeon-Captain W. J. Buchanan; B. H. Deare, 13th Bengal Infantry, *vice* Surgeon-Captain F. P. Maynard; J. S. S. Lumsden, 31st Punjab Infantry, *vice* Surgeon-Captain J. G. Jordan; S. B. Smith, 3rd Pioneers, *vice* Surgeon-Captain T. Grainger; H. R. C. Barber, 40th Pathan Regiment, *vice* Surgeon-Captain W. Vost; R. Bird, 42nd Ghoorka Rifles, *vice* Surgeon-Captain F. A. Rogers.

The services of Surgeon-Captains C. E. Sunder, M.B., A. H. Nott, M.B., and J. T. Calvert, M.B., all of the Bengal Establishment, are placed temporarily at the disposal of the Bengal Government.

Surgeon-Major R. Cobb, Bengal Establishment, officiating Civil Surgeon of Burdwan, is appointed Civil Surgeon of Dacca.

Surgeon-Captain F. A. Rogers, Bengal Establishment, received charge of Durbhunga Gaol on May 29th.

The furlough, on medical certificate, of Surgeon-Major C. J. Bamber, Superintendent of Mooltan Central Gaol, has been extended by a period of four months.

Surgeon-Major S. Little, Bengal Establishment, Civil Surgeon, is transferred from Ferozepore to Mooltan.

Surgeon-Major G. A. Emerson, Bengal Establishment, officiating Civil Surgeon of Benares, is appointed to officiate as Superintendent of the Central Prison at Benares.

Surgeon-Captain W. Vost, Bengal Establishment, whose services have been placed by the Government of India at the disposal of the Government of the North-West Provinces and Oude, is appointed a Supernumerary Civil Surgeon, and posted to the Azinghur District.

Surgeon-Captain H. W. Elphick, Bengal Establishment, whose services have been temporarily placed by the Government of India at the disposal of the Government of the North-West Provinces and Oude, is appointed a Supernumerary Civil Surgeon, and posted to the Etawah District.

Surgeon-Major H. McCalman, M.D., Bombay Establishment, received charge of Rutnagherry Gaol on June 4th.

The leave out of India for eight months, granted February 26th to Surgeon-Captain T. E. Dyson, M.B., Bombay Establishment, is cancelled.

Surgeon-Captain J. G. Hojel, Bombay Establishment, is appointed to the medical charge of the 5th Bombay Cavalry (Sind Horse), *vice* Surgeon-Captain T. E. Dyson, transferred to the Civil Department.

Surgeon-Captain J. B. Jameson, Bombay Establishment, is directed to officiate in medical charge of the 7th Bombay Lancers (Belooch Horse), *vice* Surgeon-Captain T. Jones, on furlough.

Surgeon-Captain C. T. Hudson, Bombay Establishment, is appointed to officiate in medical charge of the 2nd Bombay Infantry (Grenadiers), *vice* Surgeon-Captain A. Milne, transferred temporarily to the Civil Department.

Surgeon-Captain B. K. Basu, Bengal Establishment, is posted to general duty in the Sind District.

Surgeon-Captain E. F. H. Dobson, M.B., Bengal Establishment, Civil Surgeon of Goalpara, is granted privilege leave for three months.

Surgeon-Major W. H. Thornhill, M.D., Madras Establishment, is appointed to act as Civil Surgeon of the 4th District, Madras, and as Professor of Medical Jurisprudence, Madras College.

The services of Brigade Surgeon-Lieutenant-Colonel S. B. Hunt, Madras Establishment, are replaced temporarily at the disposal of the Military Department.

Brigade-Surgeon-Lieutenant-Colonel J. B. Thomas, Madras Establishment, is permitted to return to duty.

Surgeon-Captain G. G. Giffard, Madras Establishment, has returned from furlough out of India.

Surgeon-Major J. S. Wilkins, D.S.O., Bombay Establishment, is appointed to act as Civil Surgeon of Kaira, in addition to his own duties, during the absence of Surgeon-Captain W. H. Quicke, on privilege leave.

THE VOLUNTEERS.

Mr. Charles Frederick Rudd is appointed Surgeon-Lieutenant to the 1st Devonshire Artillery (Western Division Royal Artillery), July 9th.

Surgeon-Lieutenant Albert Wilson, 2nd East Riding of Yorkshire Artillery (Western Division Royal Artillery), is appointed Second Lieutenant in the same corps. His commission as Surgeon-Lieutenant dated from February 20th last.

CHANGES OF STATION.

The following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:

		From		To
Surg.-Colonel	R. Lewer, M.D.	London	...	Gibraltar.
,,	J. B. Hamilton, M.D.	Devonport	...	London.
,,	F. H. Welch	Bengal	...	Cork.
Surg.-Major	T. Boyd	—		Dundalk.
,,	A. A. Lyle	Chester	...	York.
,,	A. S. W. Young	C. of Good Hope		Portsmouth.
,,	J. M'M. Bolster	Kilkenny	...	Aldershot.
Surg.-Capt.	R. Kirkpatrick, M.B.	Montreal	...	Lanark Muir.
,,	J. W. F. Long	Chatham	...	Sierra Leone.
,,	S. R. Wills	York	...	Chester.
,,	J. M. Nicolls, M.B.	Dundalk	...	Belfast.
,,	M. T. Yarr	Pirbright	...	London.
,,	H. B. Mathias	Home District	...	Devonport.
,,	J. E. Trask	Bengal	...	Bombay.
,,	T. J. Lenehan, M.B.	Dublin	...	Curragh.
,,	J. C. Jameson, M.B.	Cork	...	Kilkenny.
Surg.-Lieut.	H. A. Stalkartt, M.B.	Campbeltown	...	Stirling.
,,	H. N. Dunn, M.B.	Portsmouth	...	Isle of Wight.
,,	N. Tyacke	,,	...	Hurst Castle.
,,	C. C. Fleming, M.B.	Devonport	...	Thames District.
,,	J. Hennessy, M.B.	Horfield	...	,,

VOLUNTEER MEDICAL STAFF CORPS.

The London companies of the Volunteer Medical Staff Corps were inspected on Saturday last at Chelsea Barracks by Surgeon-Colonel Hamilton, the recently appointed Principal Medical Officer of the Home District, who was accompanied by Surgeon-Captain Yarr, Army Medical Staff. The inspecting officer arrived on the ground at 5.30 P.M., and was received with a general salute of the battalion in line, which stood in five strong companies under Surgeon-Lieutenant-Colonel Norton, the commandant.

A thorough inspection of the line was then made, a noticeable feature being a detachment of signallers, which, however, took post on the right instead in rear of the centre. The battalion then marched past in column, and returned in quarter column, which latter movement was very well done. Each company was now exercised separately. Surgeon-Major Watson's, which was the strongest on parade, was put through wagon drill; whilst Surgeon-Captain Squire's company did some work with the triangular bandage; Surgeon-Captain Mathews was called upon to put his company through some ordinary company drill. At the conclusion of the inspection, square was formed, and Surgeon-Colonel Hamilton addressed the battalion. He congratulated the commandant on the way the men had turned out, and on the manner in which they had performed the professional duties for which they had been enrolled; he called attention to the presence on parade of a detachment of signallers the efficiency of which he had tested in a practical manner. He would have much pleasure in making a favourable report on the corps generally.

The parade state was as follows: 2 field officers, 5 staff officers, 5 company officers, 30 staff sergeants and sergeants, 30 band, 10 signallers, 305 rank and file; absent with leave, 60; without, 20.

Before dismissing the men, Surgeon-Lieutenant-Colonel Norton expressed himself as pleased with the result of the inspection, and hoped that there would be a large muster of all ranks at the camp which will be formed at Aldershot at the end of the present month.

We understand that the new headquarters of the corps, which will be in Calthorpe Street, near the Holborn Town Hall, will be commenced shortly. The whole of the stretcher drill has been considerably altered to conform to the Provisional Manual of Infantry Drill, 1892, and we hope shortly to give an account of the changes.

SURGEON-COLONEL A. H. HILSON.

As was briefly noted in the British Medical Journal of July 9th, Her Majesty's Government has been pleased to confer a good service pension on the above-mentioned officer, with effect from the date specified, in place of Colonel C. S. Maclean, C.B., C.I.E., Indian Staff Corps, who succeeded to colonel's allowance on December 14th, 1891. His commissions are thus dated: Assistant-Surgeon, January 29th, 1857; Surgeon, January 29th, 1869; Surgeon-Major, July 1st, 1873; Brigade-Surgeon, September 9th, 1884; Deputy Surgeon-General, December 20th, 1888. He was appointed Assistant-Surgeon in the British service, 1855-56; employed in the General Hospital, Calcutta, June and July, 1857; doing duty with the 53rd Foot and the Naval Brigade, July to November, 1857; in medical charge of Nepalese troops, November, 1857, to June, 1858; Field Assistant-Surgeon, Gorakhpore Field Force, June to December, 1858; regimental duty (in medical charge), 18th Punjab Infantry (now 26th Bengal Infantry), January, 1859, to July, 1864; Civil Surgeon of Moradabad, Aligarh, Azimgarh, and Gorakhpore, in addition to regimental duties, 1862-64; Civil Surgeon, Gorakhpore, 1864-65; regimental duty (in medical charge), 26th Bengal Infantry, 1865-66; Civil Surgeon, Naini Tal, 1866-68; member of India Office Medical Board, 1869; officiating Civil Surgeon, Bijnour and Moradabad, 1869-73; Civil Surgeon, Naini Tal, 1873-76; Civil Surgeon, Principal of Medical School, and Superintendent of Lunatic Asylum, Agra, 1876-77; (received the thanks of the Government of the North-Western Provinces for services during the scarcity in 1877-79); officiating Deputy Surgeon-General, Gwalior and Saugor Districts, 1887-88; officiating Inspector-General of Civil Hospitals, Bengal, April to November, 1888; officiating Deputy Surgeon-General, Lahore District, 1888-89; Inspector-General of Civil Hospitals, Bengal, 1889-91. He served in the Indian mutiny campaign in 1857-59, and was present in the operations in the Saran and Gorakhpore Districts and on the Nepaul Frontier, including the capture of Chandipore and Belwa, and actions of Phulpore, Amorha, Paira, Bansi, Dumeriaganj, and Jagdispore—severely wounded (mentioned in despatches; medal). He was also present with the Bhootan expedition in 1865-66 (medal, with clasp).

AMBULANCE DRILL WITH MOUNTED TROOPS.

The recent inspection of the Ayrshire Yeomanry Cavalry, 300 strong, well showed what can be done in adopting ambulance drill to mounted corps. The ambulance section, 20 men with trumpeter, under command of Surgeon-Major W. J. Naismyth of the regiment, were put through various movements, including sword stretcher drill. This stretcher is formed of a roll of strong canvas, sewn at its side edges so as to admit the introduction of four cavalry swords, the points of which are secured by iron clamps, and the hilts by the sword knot fastened to the upper ring of the scabbard; it is carried by the sword handles. The drill showed the usefulness of this improvised stretcher, and, including the methods of dismounting a wounded man from his horse, putting up a fractured thigh with sword and scabbard, etc. The inspecting officer, Colonel Curtis, expressed himself highly satisfied with this interesting drill.

THE MEMORANDUM ON FURTHER DESIDERATA.

We have received several communications expressing gratifying approval of the memorandum on the medical services published in the British Medical Journal of July 2nd.

Surgeon-Captain writes: The retired officers liable to be recalled to service are not retired at all, but should be on half pay, the same as the combatant branch; similarly the retired pay should be termed half pay appointments, and promotion therein should continue up to Brigade-Surgeon-Lieutenant-Colonel; no pecuniary change would be incurred, as the rates of half and retired pay are identical. Under such a system there would be no difficulty in applying the new titles. Referring to India, he shows that the Indian Government stand convicted by their own regulations; therein is an asterisk prefixed to the column, rate of

pay of surgeons under five years' service, which refers to a note in which it is stated the rates include the allowances of surgeons ranking as captains; but in the regulations of 1864 the same footnote declares the same allowances to be those of surgeons under six years' service ranking as lieutenants. Comment here is surely superfluous. We do not want "consolidated salaries," which are only made the excuse for financial juggling, but English rates of pay at the current rate of exchange *plus* the local allowances of rank; this is given in Ceylon and elsewhere out of India. He proposes the following rates: Surgeon-Lieutenant, Rs. 317 8 per mensem; Surgeon-Captain under five years, Rs. 417 5 (the same as a captain of infantry); Surgeon-Captain over five years, Rs. 500; Surgeon-Captain over ten years, Rs. 550. He further says the advantages of the recent concession on sick leave are already being gratefully experienced by medical officers temporarily disabled by service in various tropical climates.

Surgeon-General Retired writes: I thank you for the admirable memorandum, which, so far as I can see, is perfect. The permissive use of the new titles by retired medical officers would prevent much misunderstanding in social life without injustice to those on the active list and without establishing any objectionable precedent.

Spero writes: Is it not remarkable that by imposing a six years' tour of foreign service on medical officers the military authorities deliberately set aside the unanimous opinion of those very officers who, as their own medical advisers, declare such tours seriously detrimental alike to health and efficiency. The recommendations as to study time are admirable. Nothing would more tend to the comfort of medical officers than reasonably facilitating exchanges; many have been driven to half pay, and even resignation, through the senseless and harsh restrictions on exchangings.

A Surgeon-Major over 20 Years' Service suggests: There could surely be no objection to retired officers using the new titles if at the same time they used the word "retired."

Brigade-Surgeon Retired writes: While thanking you for the memorandum, might I suggest as an addition to be put before the Secretary of State for War the employment of retired medical officers in certain Colonial appointments at small out-stations. A precedent has already been established in Nova Scotia. Such appointments would be a boon to many with families to start, but who find themselves, with full capacity and desire for work, stranded and struggling.

Liable to be Recalled to Service writes: Have medical officers who retired before the late warrant any rank seeing that relative rank was taken from them? And, if recalled to service, what will be their position? If denied the new titles, are they to have the precedence and other privileges set forth in the warrant?

*** These are very pertinent questions, which the Mr. Brodrick of the new Parliament will find it hard to answer.

Principle v. Precedent writes: If it be wrong for a military medical officer to omit the professional part of his compound title, why is it right for paymasters and other non-combatants to do so?

*** Paymasters have purely honorary rank.

Surgeon-Captain writes: Under heading 5 of the memorandum I would suggest that the number of times a medical officer may exchange should not be restricted as at present to once only during the same tour of home service; circumstances of health and private affairs renders this restriction often very oppressive.

Retired writes: There is a very strong feeling among retired medical officers who are employed, and who are liable to be recalled to service, that they should be granted the use of the new titles; at present confusion exists at stations where they meet and mix with medical officers who possess them. Moreover, they are being superseded in a titular sense by medical officers of the auxiliary forces. Here is a case: A militia surgeon-lieutenant-colonel arrived at a certain station for duty, called on the officer commanding, and was naturally held to be the senior and superior in rank to the surgeon-major of the regular forces, who was a man of 50 years of age and of thirty years' service, including two campaigns; needless to say, he felt aggrieved.

Surgeon-Major Retired thinks we might have in the memorandum urged the extension of the new titles to retired medical officers with greater force had we insisted on its equity and justice rather than its wisdom and expediency. We are very willing to press the matter on both grounds, for we are fully aware that the argument for the extension of the titles is based upon sound administration as well as good policy.

MEDICAL OFFICERS OF INDIAN REGIMENTS.

Bombay adds his voice to those of others who aver they always have had their position fully recognised in every mess with which they had been connected. Many medical officers do not care to leave their regiments for civil appointments, but they detest the station hospital system.

On the other hand, Stick up for your Cloth maintains that the position of regimental medical officers is very far from satisfactory. He altogether demurs to the degrading theory that the status of medical officers must depend on personal qualities, or by strained endeavour to make themselves popular at the risk of self-respect. He protests against the ruling of the Commander-in-Chief at Bombay that the youngest subaltern at mess must always be the superior of the hoariest medical officer, and urges that our friends in Parliament should insist on the cancelling of the obsolete order in the Queen's Regulations upon which the ruling is based; until that is done the most straightforward clause in any warrant on the rank and precedence of medical officers can be played ducks and drakes with. Mess good fellowship is an excellent sentiment, but it cannot take the place of secure precedence based on military rank. The advice so often tauntingly given to the medical officer to stick to his cloth affords the best reason why he should insist upon its due recognition among other cloths, and spurn the theory of existence on sufferance only.

EXAMINATION FOR PROMOTION.

R. S. writes: As the examination for promotion to the rank of surgeon-major is so severe, especially in surgery, it would be worth knowing what will be the fate of those who find themselves unable to reach the present high standard. Will they be compelled to retire on a gratuity, or allowed to serve on as surgeons till the completion of twenty years' service? Even then they could not attain the rank of surgeon-lieutenant-colonel and retire on pension. If the clause be enforced, officers serving on the West Coast of Africa will not be able to count double service towards pension.

*** These are points which seem very far from clear.

An Old Soldier is, we think, too bitter against engineer officers, and would not be advisable to publish his letter.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL TITLES.

Subscriber asks for replies to the following questions: 1. Is a practitioner, whose only qualification is the L.A.H., entitled by law to describe himself on his hall door-plate as "physician and surgeon," and to style himself on another plate as Dr. So-and-So? 2. Is such a practitioner competent by law to hold a Local Government Board appointment?

*** 1. Having regard to the recent decision on the subject of medical titles, it is quite impossible to say with certainty what title any given qualification will entitle the holder to adopt, except that of M.D.

2. A Licentiate of the Society of Apothecaries is eligible for the appointment of Poor-law medical officer or medical officer of health, but no person can (since January 1st, 1892) be appointed medical officer of health of any county or district or combination of districts containing a population of 50,000 or more inhabitants unless he is qualified, as mentioned in the Local Government Act, 1888 (that is, to practise medicine, surgery, and midwifery) and also is either registered in the *Medical Register* as the holder of a diploma in sanitary science, public health, or State medicine, under Section 21 of the Medical Act, 1886, or has been during three consecutive years preceding the year 1892 a medical officer of a district or combination of districts with a population of not less than 20,000, or has, before the passing of the Local Government Act, 1888, been for not less than three years a medical officer or inspector of the Local Government Board.

NOTIFICATION OF CHANGE OF PARTNERS.

S.W. asks: (1) Is it customary and right where a practice is changing hands by purchase, to announce this transference by letter to all the vendor's patients? (2) If so, in what form should the announcement be made?

*** The first of our correspondent's questions lacks the necessary explicitness to enable us to give a specific answer. We therefore simply note that if it is intended to effect the desired transfer of the practice by the ordinary mode of a nominal partnership for a given period, the most effective plan would be by a personal introduction of the purchaser. If, however, a written notification be determined on, either as subsidiary or otherwise, the announcement should be made by an autograph note, or a carefully lithographed facsimile thereof, and its circulation be strictly limited to the *bonâ fide* patients of the vendor.

A COMPLICATED QUESTION.

W—— P—— B—— writes: During A.'s absence from home, B. attends X. in her second confinement; A. attends her in her third confinement, but, as usual, the child does not live very long; X., attaching a little blame to A. in the last case, decides at her fourth confinement to make a change. X. would like to engage B., but is afraid, if B. is away from home at the time, he will send A. to attend her; consequently C. is engaged. When labour begins, C. is found to be away from home, and D. (a friend who is doing his work) is sent in his place. X. absolutely refuses to have D., and sends for B., who has attended her before. The circumstances are fully explained to B., and he attends, and B. subsequently hands over the fee to C. C. visits the patient once on his return, and a request is made that B. must finish the attendance, to which request C. accedes. In any future illness or confinement, will B. be justified in attending X., if she so wishes, as his own patient?

*** Indisputable as is the right of a patient to change the medical attendant, there can, in our opinion, be no doubt that B., whose procedure throughout the case appears to have been strictly ethical, would, under the circumstances related, be fully justified "in attending X. as his own patient, if she so wishes."

SPECIAL TREATMENT.

A recent number of the *Manchester Evening News* contains an advertisement of a most objectionable and, we are glad to think, most unusual character. In it a Dr. C—— informs all whom it may concern that, in order to take up a special branch of medical practice, he has transferred to the gentlemen who have hitherto been his assistants the general medical practice for many years carried on by him at four specified addresses. "Dr. C.," the advertisement proceeds, "will in future devote his whole attention to the special treatment of the diseases of women and children, and can be personally consulted only at his consulting rooms."

To publish a "notice of removal" as an advertisement in a daily paper is derogatory to the dignity of the profession, and the wholesale way of conducting business through assistants previously followed by Dr. C. is contrary to its best traditions. The only qualification of this "Dr." which appears after his name is the Lic. Apoth. Hall, Dubl., 1887. His

mode of seeking practice might, perhaps, engage the attention of that honourable corporation.

UNSATISFACTORY INQUESTS.

WE have received a letter from Dr. T. S. Allan with reference to our comments on an inquest held with regard to the death of a child supposed to have died of chloral poisoning. Dr. Allan states that he was incorrectly reported to have said that one grain of chloral would kill a child of 22 months. He believes it probable that the child in question took ten grains, but the quantity actually taken is unknown. The points, however, which chiefly concern us remain unaffected, namely, that the cause of death was not ascertained, and that this case ought not to be recorded without some hint of a doubt, as an instance of fatal chloral poisoning. It is, of course, perfectly true that in narcotic poisoning remissions often occur, but the evidence as reported showed a much more complete remission than our existing knowledge would have led us to expect.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

ERRATUM.—In the list of gentlemen published last week who have passed various parts of the M.B. Examination, Mr. H. Sanguinietti should have been described as of Wadham College.

ROYAL UNIVERSITY OF IRELAND.

FACULTY OF MEDICINE.—The Examiners have recommended that the undermentioned candidates shall be adjudged to have passed the First Examination in Medicine :—

Dora E. Allman, Queen's College, Cork; Emma F. A. Bailey, Royal College of Science, Dublin; S. T. Beggs, Queen's College, Belfast; H. J. Bell, B.A., Trinity College, Dublin; E. O. B. Carbery, Queen's College, Galway; S. Conner, Queen's College, Cork; P. Convery, University College, Dublin; J. Crean, University College, Dublin; H. Currell, Queen's College, Belfast; T. F. Dillon, Queen's College, Cork; R. V. Donnellan, Queen's College, Galway; R. P. Farnan, University College, Dublin; G. K. Finlay, University College, Dublin; T. Finucane, Queen's College, Cork; S. F. Floyd, Queen's College, Belfast; H. J. Fryer, Queen's College, Belfast; F. Fulton, Queen's College, Belfast; T. K. Greenfield, Queen's College, Belfast; P. J. Hamilton, University College, Dublin; J. Harvey, Queen's College, Belfast; J. C. B. Hayes, Queen's College, Cork; J. Johnston, Queen's College, Belfast; W. G. Jordan, Queen's College, Belfast; J. Lennon, Queen's College, Belfast; J. F. Little, Queen's College, Belfast; A. A. F. McArdle, Queen's College, Cork; J. McArdle, University College, Dublin; W. A. McBroom, Queen's College, Belfast; C. C. McCarthy, University College, Dublin; A. L. McCully, Queen's College, Belfast; J. McElroy, Queen's College, Belfast; R. R. McLean, Queen's College, Belfast; J. J. A. G. McMurtry, Queen's College, Belfast; H. J. McNabb, University College, Dublin; L. T. Moore, Queen's College, Cork; W. Moore, B.A., Queen's College, Belfast; M. R. Morrissey, University College, Dublin; R. Morrow, Queen's College, Belfast; J. P. J. Murphy, Queen's College, Cork; T. Murphy, Queen's College, Cork; R. J. Murray, University College, Dublin; J. C. Nixon, Queen's College, Galway; M. J. O'Kane, University College, Dublin; J. O'Neill, University College, Dublin; W. A. Osborne, Queen's College, Belfast; H. Paterson, Queen's College, Cork; R. S. Ryce, Queen's College, Cork; B. H. Shaw, Queen's College, Cork; W. S. Smyth, Queen's College, Belfast; W. M. H. Spiller, Queen's College, Belfast; R. C. Stuart, Queen's College, Belfast; A. G. Sutton, Queen's College, Cork; J. V. G. Tighe, University College, Dublin; J. F. Whelan, University College, Dublin.

The following may present themselves for the Honour Examinations as below :

S. T. Beggs, in Zoology, Physics, and Chemistry; E. O. B. Carbery, in Botany; J. Crean, in Botany and Chemistry; R. V. Donnellan, in Botany; R. P. Farnan, in Zoology, Botany, Chemistry, and Physics; G. K. Finlay, in Botany, Chemistry, and Physics; T. Finucane, in Botany, Zoology, and Physics; S. F. Floyd, in Zoology and Physics; H. J. Fryer, in Zoology and Chemistry; P. J. Hamilton, in Botany and Zoology; J. Harvey, in Chemistry; J. Lennon, in Chemistry; J. F. Little, in Botany; A. A. F. McArdle, in Zoology, Chemistry, and Physics; J. McArdle, in Botany, Chemistry, and Physics; A. L. McCully, in Chemistry and Physics; H. J. McNabb; in Botany; L. T. Moore, in Botany and Zoology; W. W. Moore, B.A., in Zoology and Chemistry; M. R. Morrissey, in Physics; J. P. J. Murphy, in Zoology; T. Murphy, in Physics; R. J. Murray, in Botany, Zoology, Chemistry, and Physics; M. J. O'Kane, in Botany and Zoology; J. O'Neill, in Chemistry; W. A. Osborne, in Botany, Zoology, Chemistry, and Physics; H. Paterson, in Botany and Physics; R. S. Ryce, in Physics and Chemistry; B. H. Shaw, in Botany; W. M. H. Spiller, in Chemistry.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

THE following gentlemen passed the Second Examination of the Board in Anatomy and Physiology at a meeting of the Examiners on Monday, July 4th :

T. S. Hartley, W. F. Rawson, E. G. Storrs, and P. V. Fry, students of Yorkshire College, Leeds; W. R. Walton, of University College, Liverpool; T. F. Woolley, W. Allport, W. S. Willmore, G. H. E. Bekenn, E. B. Bostock, G. E. Atkins, and H. W. Pepper, of Queen's College, Birmingham; Subhan Ali, of Lahore Medical School, Punjab; E. W. Battle, of Owens College, Manchester; F. H. Humphris, of Edinburgh University and Mr. Cooke's School of Anatomy and Physiology; F. F. Noonan, of Melbourne and Edinburgh Universities; A. Lockhart and Isaac Wood, of Queen's College, Kingston, Canada.

Passed in Anatomy only: C. A. Phillips, E. H. Phillips, and G. Y. Myrtle, of Yorkshire College, Leeds; H. W. Lloyd, of University College, Liverpool; E. W. Ormerod, of Bristol Medical School; and H. A. L. Banham, of Sheffield Medical School.

Passed in Physiology only: G. R. Sparrow, of University College, Liverpool.

Twelve candidates were referred in both subjects, one in Anatomy, and six in Physiology only.

Passed in Anatomy and Physiology on Tuesday, July 5th: P. Macaulay, of Yorkshire College, Leeds; R. Hewlett-Hayes, of Dublin and Guy's Hospital; L. N. Pentreath, of St. Thomas's Hospital; D. L. Clay and J. Hepworth, of Owens College, Manchester; A. K. White, of Dublin; W. H. Brown, D. Horwich, W. G. Thomas, and W. H. G. Wilkes, of Queen's College, Birmingham; T. J. Chidley, of Dublin and Mr. Cooke's School of Anatomy and Physiology.

Passed in Anatomy only: W. Cooper, J. L. Elliott, and A. T. Lachmore, of Yorkshire College, Leeds; J. T. Barritt and R. Marshall, of Owens College, Manchester; F. A. W. Quay, of Trinity College, Toronto; B. P. O'Neill, of Guy's Hospital; H. P. Keunard, of St. Thomas's Hospital; J. A. K. Griffiths, of University College; E. A. McAnally, of St. George's Hospital and Mr. Cooke's School of Anatomy and Physiology; and A. C. Greenwood, of Middlesex Hospital.

Passed in Physiology only: W. Archer and W. G. Parkinson, of Yorkshire College, Leeds; T. W. W. Bovey, of Bristol Medical School; F. A. L'E. Burges and J. W. Farndale, of Queen's College, Birmingham; T. H. Agnew, of University College, Liverpool; H. J. Heginbotham, J. Worthington, and S. Crossley, of Owens College, Manchester.

Nine candidates were referred in both subjects, four in Anatomy only, and ten in Physiology only.

Passed in Anatomy and Physiology on Wednesday, July 6th: J. Hora, T. H. B. Yorath, and H. D. Packer, of Guy's Hospital; J. C. Padwick, G. Miller, and S. C. Hounsfield, of St. Bartholomew's Hospital; L. W. Burrow, of St. Thomas's Hospital; and F. A. J. R. Brooke, of London Hospital.

Passed in Anatomy only: J. L. F. de Gannes and C. W. Smith, of University College; P. R. Wallis, of University College and Mr. Cooke's School of Anatomy and Physiology; C. A. A. Coulthard, of St. George's Hospital; C. F. Stileman, of St. George's Hospital and Mr. Cooke's School of Anatomy and Physiology; T. H. Parker and H. P. Cox, of King's College; E. H. Tipper, of Guy's Hospital; P. L. Blaber, of St. Thomas's Hospital; and A. P. Birch, of Middlesex Hospital and Mr. Cooke's School of Anatomy and Physiology.

Passed in Physiology only: E. E. Crowther, of Yorkshire College, Leeds; G. V. Miller and F. P. Duncan, of University College; W. K. Hopkins, of St. Bartholomew's Hospital; H. A. Burridge, of King's College; and C. C. Jenkins, of Guy's Hospital.

Fifteen candidates were referred in both subjects, three in Anatomy only, and ten in Physiology only.

Passed in Anatomy and Physiology on Thursday, July 7th: A. Armer, of St. Bartholomew's and Guy's Hospitals; C. F. Gordon, of St. Bartholomew's Hospital; F. J. Hughtrede Cann, of Guy's Hospital; P. G. Mould, of Owens College, Manchester, and St. Mary's Hospital; G. B. C. Blount, of St. Thomas's Hospital; T. Lambe, of University College; and A. G. L. Smith, of Middlesex Hospital.

Passed in Anatomy only: J. W. Ensor and M. E. Treadder, of Guy's Hospital; G. W. Brown and W. Herbert, of St. Thomas's Hospital; A. S. McSorley, of King's College; T. S. Pigg, A. R. H. Skey, of St. Bartholomew's Hospital; C. A. Phillips, of St. George's Hospital; M. D. Blake, of St. George's Hospital and Mr. Cooke's School of Anatomy and Physiology; R. L. Grosvenor, of Cambridge University and St. Mary's Hospital; W. G. Noble, of London Hospital.

Passed in Physiology only: J. R. Benson, of King's College; J. S. Hosford, E. G. L. Goffe, and J. W. Stokes, of University College; E. J. C. Kennedy, of Victoria University, Ontario; W. A Sharpin, of St. George's Hospital; W. A. Carden, of Guy's Hospital; D. L. Jones and G. G. Oakley, of St. Bartholomew's Hospital; A. Stanley-Matthews, of St. Thomas's Hospital; and A. Carruthers, of St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology.

Nine candidates were referred in both subjects, seven in Anatomy only and nine in Physiology only.

Passed in Anatomy and Physiology on Friday, July 8th: F. Lond, of Guy's Hospital; A. E. Lovitt, W. G. Mortimer, J. H. Power, of London Hospital; R. T. Cæsar, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; M. Wheeler, of Edinburgh University and St. Thomas's Hospital; G. C. Barker, of King's College; W. F. Cross, of St. Bartholomew's Hospital; L. H. Callender and R. W. Dodgson, of St. Mary's Hospital; A. H. Waring, of University College.

Passed in Anatomy only: E. Folliott, W. M. Coghlan, and B. W. Holmes, of St. Bartholomew's Hospital; P. H. Collingwood, J. H. de Villiers, G. Candler, and F. E. Saunders, of St. Thomas's Hospital; N. Macdonald, of St. Mary's Hospital; T. Herbert, of Middlesex Hospital; A. S. Turner, of Guy's Hospital; and A. W. Hayles, of King's College.

Passed in Physiology only: G. H. Goddard and C. F. Wanhill, of University College; and F. E. H. Keogh, of St. Mary's Hospital.

Eleven canditates were referred in both subjects, three in Anatomy only, and eleven in Physiology only.

Passed in Anatomy and Physiology on Saturday, July 9th: C. H. Hunter, H. F. Spon, and E. T. Shorland, of Guy's Hospital; S. H. White, J. B. Brash, and S. Bridger, of University College; F. Copeland, of Westminster Hospital; G. W. Connor and T. H. Wells, of Middlesex Hospital; W. W. Woolliscroft, of Charing Cross Hospital; F. R. S. Cosens and G. A. Leon, of London Hospital.

Passed in Anatomy only: W. P. Brooks and M. M. Lowsley, of Charing Cross Hospital; and A. B. R. Sworn, of University College.

Passed in Physiology only: R. L. Roberts, of Guy's Hospital; T. J. McCulla, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; and J. Blackwood, of University College.

Eighteen candidates were referred in both subjects, three in Anatomy only, and three in Physiology.

Passed in Anatomy and Physiology on Monday, July 11th: C. J. Kearney and W. L. B. Davies, Guy's Hospital; R. D. Fisher, E. C. Smith, and T. P. Littlejohn, London Hospital; J. W. Leake, R. W. S. Christmas, Charing Cross Hospital; S. E. A. Zichy-Wornarski, Melbourne University; M. B. Johnson, Cambridge University and St. Mary's Hospital: J. Hayes, McGill College, Montreal, and Mr. Cooke's School of Anatomy and Physiology; and E. F. Clay, Westminster Hospital.

Passed in Anatomy only: D. N. Maclennan, Queen's University, Kingston, Canada, and Mr. Cooke's School of Anatomy and Physiology; H. E. Dixon and T. W. Turner, London Hospital; L. Savin, Middlesex Hospital; and W. N. Barron, St. Bartholomew's Hospital.

Passed in Physiology only: H. C. Lambart, Queen's College, Birmingham, and Bristol School of Medicine; A. B. Wright and A. S. Grant, London Hospital; J. A. MacPhail, McGill College, Montreal; D. C. Kemp, University College; A. E. Peake and F. Morton, Westminster Hospital; A. R. Hitchfield, Guy's Hospital; A. A. Rogers, St. Bartholomew's Hospital; and W. Ashford, St. Thomas's Hospital.

Nine candidates were referred in both subjects, five in Anatomy only, and four in Physiology only.

Passed in Physiology only, on Tuesday, July 12th: H. Harvey, W. P. Thomas, J. F. Spear, and W. F. Adams, London Hospital; M. H. C. Palmer, Cambridge University and London Hospital; J. R. Webb, Melbourne University and London Hospital; R. D. Stacy, W. H. Pope, M. A. Cooke, P. W. G. Shelley, B. M. Hughes, A. N. Wilde, St. Bartholomew's Hospital; W. J. O. Ray and E. Haines, St. Thomas's Hospital; W. Gilbertson, Cambridge University and St. Thomas's Hospital; E. Fisk, W. F. Byford, S. Rivers, T. S. Biggs, and F. E. Tresidder, Guy's Hospital; A. T. Davey and J. Gardiner, Middlesex Hospital; C. Mathews, St. Mary's Hospital; and D. Fogarty, Ledwich School of Medicine, Dublin, and Mr. Cook's School of Anatomy and Physiology.

Eleven candidates were referred in Physiology only.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentleman, having previously passed the necessary examinations, and having now attained the legal age of twenty-five years, was at the quarterly meeting of the Council on July 14th admitted a Fellow of the College:

A. W. W. Lea, M.B.Lond., L.R.C.P.Lond., Owens College and Royal Infirmary, Manchester. Diploma of Member dated August 1st, 1889.

GLASGOW FACULTY OF PHYSICIANS AND SURGEONS.

AT the monthly meeting of the Faculty of Physicians and Surgeons of Glasgow, Dr. J. McGregor Robertson, Lecturer on Physiology at Queen Margaret College, Glasgow, was appointed Examiner in Physiology for the licence. The Faculty had also under consideration the arrangements necessary to bring the regulations into line with the new developments in the curriculum. These included the appointment of examiners in Physics and Elementary Biology; and it was decided that the appointment should be open to others besides Fellows of Faculty or medical men, that the Examiners in Chemistry should not be disqualified from being at the same time Examiners in Physics, and *vice versâ*, and that the Examiners in Anatomy and Physiology should not be held disqualified to be also Examiners in Elementary Biology, and *vice versâ*. Nominations for the offices may be made in August, and the election takes place in September. At the same meeting, it was decided to remove from the roll of Licentiates the name of Charles Augustus Bynoe, whose name has been removed from the *Register* because of conviction for felony.

SOCIETY OF APOTHECARIES OF LONDON.

PRIMARY EXAMINATION, PART I., July, 1892.—The following candidates passed in:

Chemistry, Materia Medica, Botany, and Pharmacy.—E. M. Aikin, Royal Free Hospital; H. L. Billett, Royal Free Hospital; E. C. Bond, Royal Free Hospital; F. Butcher, Royal Free Hospital; E. L. Colebrook, Royal Free Hospital; J. G. Horwood, Royal Free Hospital; C. E. Long, Royal Free Hospital; E. G. Smith, Westminster Hospital; J. K. H. Smyth, St. Mary's Hospital; E. M. Wells, Royal Free Hospital; A. Wheeler, Edinburgh.

Chemistry.—J. Ash, Charing Cross Hospital; S. A. Clarke, Middlesex Hospital; M. Orange, Royal Free Hospital.

Materia Medica, Botany, and Pharmacy.—E. G. Adams, Royal Free Hospital: C. Basan, Middlesex Hospital; C. Bayley, Charing Cross Hospital; L. M. Blake, Royal Free Hospital; E. Briggs, Royal Free Hospital; A. P. B. Ellis, City School of Chemistry; E. M. Gough, Royal Free Hospital; M. H. Harris, Royal Free Hospital; F. T. Knott, Guy's Hospital; E. J. Macgowan, Royal Free Hospital; L. Macrae, King's College; H. M. Maitland, Royal Free Hospital; S. Smith, Middlesex Hospital; M. Thorne, Royal Free Hospital, C. S. Vines, Royal Free Hospital.

Anatomy and Physiology.—R. B. Allen, St. Mary's Hospital; A. T. Anderson, Owens College, Manchester; E. Bentham, Royal Free Hospital; H. Clough, Yorks College, Leeds; R. Crawford, Belfast; W. J. Gething, Queen's College, Birmingham; C. T. Green, Royal Free Hospital; W. A. Higgins, Cambridge; W. D. Jones, Charing Cross Hospital; A. E. Mellersh, St. Mary's Hospital; H. S. Oliver, Charing Cross Hospital; T. H. P. Pears, Charing Cross Hospital; — Rukhmabai, Royal Free Hospital; L. E. V. Saville, Royal Free Hospital; A. M. Thornett, Royal Free Hospital.

Anatomy.—J. Abrines, St. Bartholomew's Hospital; J. T. Brickwell, Guy's Hospital; A. H. Bygott, Queen's College, Birmingham; R. N. de Beauvais, Aberdeen; E. T. Fitzpatrick, Dublin; F. B. Hargreaves, Owens College, Manchester; E. J. Macgowan, Royal Free Hospital; A. H. Wade, St. Bartholomew's Hospital; A. Wheeler, Edinburgh.

Physiology.—C. Basan, Middlesex Hospital; W. E. V. Gould, Queen's College, Edinburgh; T. E. Johnson, London Hospital; T. J. McCulla, London Hospital.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,362 births and 3,347 deaths were registered during the week ending Saturday, July 9th. The annual rate of mortality in these towns, which had declined from 17.8 to 17.1 per 1,000 in the preceding three weeks, was again 17.1 during the week under notice. The rates in the several towns ranged from 10.2 in Norwich, 10.3 in Croydon, 11.1 in Cardiff, and 13.0 in Brighton to 20.6 in Wolverhampton, 21.1 in Manchester, 22.1 in Liverpool, and 23.2 in Sunderland. In the thirty-two provincial towns the mean death-rate was 17.1 per 1,000, and was slightly below the rate recorded in London, which was 17.2 per 1,000. The 3,347 deaths registered during the week under notice in the thirty-three towns included 503 which were referred to the principal zymotic diseases, against 477 and 486 in the preceding two weeks; of these, 161 resulted from diarrhœa, 134 from measles, 83 from whooping-cough, 49 from scarlet fever, 47 from diphtheria, 28 from "fever" (principally enteric), and 1 from small-pox. These 503 deaths were equal to an annual rate of 2.6 per 1,000; in London the zymotic death-rate was 3.4, while it averaged 2.0 per 1,000 in the thirty-two provincial towns, among which these diseases caused the lowest death rates in Brighton, Norwich, Huddersfield, and Bolton, and the highest rates in Preston, London, Leicester, and West Ham. Measles caused the highest proportional fatality in Leicester, Gateshead, and Halifax; scarlet fever in West Ham, Preston, Swansea, and Plymouth; whooping-cough in Manchester, Burnley, and Blackburn; "fever" in Preston and Hull; and diarrhœa in Liverpool, London, and Leicester. The 47 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 30 in London, 4 in Birmingham, and 2 each in West Ham, Nottingham, and Newcastle-upon-Tyne. One fatal cases of small-pox was registered in London, but not one in any of the thirty-two provincial towns; 27 small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 5 in the Highgate Small-pox Hospital, on Saturday last, July 9th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 2,372, against numbers increasing from 1,226 to 2,211 on the preceding fifteen Saturdays; 301 new cases were admitted during the week, against 284 and 331 in the previous two weeks. The death-rate from diseases of the respiratory organs in London was equal to 2.1 per 1,000, and was below the average.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, July 9th, 903 births and 489 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.3 and 18.0 per 1,000 in the preceding two weeks, further declined to 17.6 during the week under notice, but was 0.5 per 1,000 above the mean rate during the same period in the large English towns. Among these Scotch towns the lowest rates were 12.0 in Perth and 12.6 in Leith, and the highest rates 19.1 in Paisley and 20.6 in Glasgow. The 489 deaths in these towns included 62 which were referred to the principal zymotic diseases, equal to an annual rate of 2.2 per 1,000, which was 0.4 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley and Glasgow. The 265 deaths in Glasgow included 20 from measles, 19 from whooping-cough, 4 from "fever," and 2 from diphtheria. The death-rate from diseases of the respiratory organs in these towns was equal to 2.6 per 1,000, against 2.1 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, July 2nd, were equal to an annual rate of 24.0 per 1,000. The lowest rates were recorded in Sligo and Wexford, and the highest rates in Armagh and Drogheda. The death-rate from the principal zymotic diseases averaged 3.4 per 1,000. The 165 deaths registered in Dublin were equal to an annual rate of 24.6 per 1,000 (against 21.6 and 27.4 in the preceding two weeks), the rate during the same period being 16.8 in London and 14.8 in Edinburgh. The 165 deaths registered in Dublin included 23 which were referred to the principal zymotic diseases (equal to an annual rate of 3.4 per 1,000), of which 20 resulted from measles, 1 from whooping-cough, 1 from enteric fever, and 1 from diarrhœa.

DEATH OF DR. WALTERS, OF CHELTENHAM.

AT a meeting of the Council of the Poor Law Medical Officers' Association on July 12th, the case of the late Dr. Walters, of Cheltenham, who died on July 8th, and whose death there is reason to believe was the result of his recent treatment by the guardians and the Local Government Board, was further considered, and the following resolutions were unanimously passed:—

1. That the suspension of Dr. Walters by the guardians of Cheltenham for declining to attend the child of Drusilla Cook without a medical order, which was no dereliction of duty whatever, was not only uncalled for, but also seriously unjust.

2. That the severe censure passed on Dr. Walters by the Local Government Board for no serious fault, and which appears to have accelerated his death, was unwarranted, and even cruel, and especially so to a medical officer who had held his appointment as such for thirty-eight years.

3. That, in the opinion of this Council, the Guardians of the Cheltenham Union were themselves guilty of a grave error in having sanctioned any form of relief being given to Drusilla Cook, who had received over £100 since the death of her husband, and this within the past twelve months, and who had £30 deposited in the Savings Bank at the time her weekly allowance was granted by the Board.

4. That a copy of these resolutions be sent to the Guardians of the Cheltenham Union, to the medical journals, and to the Cheltenham local press.

THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

The following notice appears in the financial journals :—

Incorporated Society of Medical Officers of Health.

Registered by H. C. Jones, 27, Bloomsbury Square, W.C. Object sufficiently indicated by the title. For the purposes of registration the company is declared to consist of 1,000 members, with an individual liability, in the event of the winding up of the company, of £1. The management is vested in a council consisting of a president, vice-presidents, treasurer, editor of the journal known as *Public Health*, secretaries, solicitor, and 24 "fellows." No qualification or remuneration specified.

MEDICAL NEWS.

Mr. Lennox Browne has been elected a Corresponding Fellow of the American Laryngological Association.

The annual distribution of prizes at Epsom College will take place in the schoolroom of the College on July 25th, at 3 o'clock.

The Swiss Government intend to propose a partial revision of the Constitution, in order to obtain power to pass a law against adulteration.

The Queen has given directions for the appointment of Mr. Francis Volcy Pougnet, M.D., to be a member of the Council of Government of the Colony of Mauritius.

It is stated that two lady students have commenced the study of medicine in the Otago (New Zealand) Medical School. They attend the same classes and use the same dissecting room as the male students.

A case is reported from Russia in which a child of 3 months presented marked symptoms of carbolic acid poisoning after spending half an hour in a room which had just previously been disinfected with a carbolic acid spray (2 per cent.).

Intelligence has reached England by telegraph of the sudden death of Dr. Gavin Russell, medical missionary, who four years ago went out to labour in Formosa in connection with the English Presbyterian Missionary Society.

The British Institute of Public Health, which seems to be running a sort of opposition to the Sanitary Institute, announces that it proposes to hold examinations, twice in each year, in April and October, at which certificates of competency will be granted to sanitary inspectors. The regulations and syllabus are before us, and seem to be in every respect adequate. Particulars can be obtained of Mr. C. A. James, Honorary Secretary of the Institute, at King's College, W.C.

A curious case is reported from America (*New York Medical Journal*). A negro child swallowed a hard piece of beef, with cartilage adherent. It stuck in the œsophagus, and attempts to remove it only resulted in fixing it more firmly a few inches above the cardiac orifice. For six days neither food nor water could enter the stomach. The child was then given a dose of artificial gastric juice, and in a few hours the piece of beef was partly rejected by vomiting and partly passed on into the stomach.

American Jottings.—At a recent meeting of the Missouri State Medical Association resolutions were unanimously passed calling attention to the constantly increasing evil of prescribing and recommending proprietary medicines, condemning the practice of some physicians giving certificates as to the efficacy or special uses and advantages of such remedies, and urging on all members of the profession the discontinuance of such medicines if now used by them.—A negro woman now living in New York recently gave birth to her twenty-fifth living child. She is about 42 years of age, and was married at 16. Among the twenty-five childbirths there have been no cases of twins or triplets.—Dr. Moreau Morris, of the New York Health Department, who has for some time past been engaged in inspecting the public school buildings of New York, has presented a report which shows that the sanitary condition of these schools is deplorable, particularly in respect of provision for ventilation. Dr. Edson, the Sanitary Superintendent, in laying Dr. Morris's report before the Board of Health, points out that in other cities and States, more especially in Massachusetts, excellent work has been done by the authorities in effecting proper ventilation of school buildings. "The outcome of this work," he says, "has demonstrated that the only means of ventilating school buildings is by fans so arranged and operated as to force into the rooms a supply of fresh air equal per minute to about 30 cubic feet *per capita*, and by outlet ducts so constructed as to permit egress of partially respired air." He concludes by calling on the authorities to carry out Dr. Morris's recommendations regardless of cost.—It is proposed to form an Association to be composed of visiting physicians and surgeons of the various hospitals of Philadelphia. The Association will publish a roster of the terms of service and visiting hours of its members, and other data for the information of strangers who may wish to see what is being done in any department of medical or surgical practice in which he may be interested.—Newly-fledged medical genius on the outlook for a "sphere of influence" will do well to avoid the town of Denver in Colorado, which has one medical practitioner to every 235 of its population, and numerous hospitals, dispensaries and free clinics. The death-rate is not stated.—The Women's Pharmaceutical Association of Illinois has been duly chartered. Its chief object is to establish an organisation of female pharmacists, but it will also undertake the arrangement of a woman's pharmaceutical exhibit at the World's Fair.

MEDICAL VACANCIES.

The following vacancies are announced:

BOROUGH HOSPITAL, Birkenhead.—Junior House-Surgeon, doubly qualified. Salary, £60 per annum, with board and lodging. A further sum of from £20 to £25 per annum is usually obtained in fees. Applications to the Chairman of the Weekly Board by July 18th.

BURY DISPENSARY HOSPITAL, Bury, Lancashire.—Senior House-Surgeon, doubly qualified. Salary, £100 per annum, with board, residence, and attendance. Applications to the Secretary, Mr. Henry Webb, Brentwood, Bury.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Junior Resident Medical Officer. Salary, £50 per annum. Applications to the Committee of Management by July 19th.

FULHAM UNION.—Assistant Medical Superintendent of the Union infirmary; doubly qualified: unmarried. Salary, £100 per annum, increasing £10 yearly to £130, with board, furnished apartments, attendance and washing. Applications, on forms to be obtained at the Clerk's Office, to T. Aplin Marsh, Clerk to the Guardians, Fulham Palace Road, Hammersmith, by July 23rd.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—House-Physician. Salary, £60 per annum, with board and lodging. Applications to William T. Grant, Secretary, by July 23rd.

GREAT NORTHERN HOSPITAL, Holloway Road, N.—House-Surgeon. Salary, £60 per annum, with board and lodging. Applications to the Secretary by July 25th.

JOINT COUNTIES' ASYLUM, Abergavenny.—Junior Assistant Medical Officer, unmarried. Salary to commence, £100 per annum, with furnished apartments, board, and attendance. Applications to the Medical Superintendent by July 20th.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon, doubly qualified. Salary, £70 per annum, with residence and maintenance. Applications to the Chairman of the Committee by July 22nd.

McGILL UNIVERSITY, Montreal, Canada.—Professor of Pathology for the Faculties of Medicine and Comparative Medicine. Salary, £400 per annum. Applications to Dr. Robert Craik, Dean, by July 20th.

NOTTINGHAM BOROUGH ASYLUM, Mapperley Hill, Nottingham.—Resident Clinical Assistant. Appointment for six months. Board and residence provided. Applications to the Medical Superintendent.

PAROCHIAL BOARD OF PENNYGOWN AND TOROSAY.—Medical Officer. Salary, £100 per annum. Applications to Alex. Macdougall, Inspector of Poor of Torosay, Auchnacraig, by Oban, N.B., by July 20th.

QUEEN'S HOSPITAL, Birmingham.—Physician for Out-patients and Pathologist. Appointment for three years. Honorarium, £75 per annum. Applications to the Secretary, Arthur Hulme, by July 20th.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Board, residence and washing, and honorarium of £15 15s. at expiration of term of office. Applications to J. A. Byerley, Secretary, 137, Queen Street, Portsea.

ROYAL SEA-BATHING INFIRMARY FOR SCROFULA, Margate.—Resident Surgeon, doubly qualified. Salary, £100 per annum, with board and residence. Applications to the Secretary, Arthur Peirce, at the Offices, 30, Charing Cross, S.W., by July 27th.

ST. LUKE'S HOSPITAL.—Resident Clinical Assistant. Appointment for six months. Board and residence provided. Applications to the Secretary by July 28th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square, W.—Resident Medical Officer, doubly qualified. Salary, £105 per annum, with furnished apartments, coal and gas. Applications to the Secretary by July 19th.

SHEFFIELD GENERAL INFIRMARY.—Assistant House-Surgeon, doubly qualified. Salary, £80 per annum, with board, lodging, and washing. Applications to the Medical Staff, care of the Secretary, by July 23rd.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Board, residence, and washing provided. Applications to the House-Surgeon by July 20th.

UNIVERSITY COLLEGE HOSPITAL.—Assistant Ophthalmic Surgeon. Applications to J. M. Horsburgh, Secretary, by July 18th.

VICTORIA INFIRMARY OF GLASGOW, 22, Carlton Place, Glasgow.—Superintendent and Resident Medical Officer. Salary, £150 per annum, with apartments and board. Applications to the Secretary by July 23rd.

WONFORD HOUSE HOSPITAL FOR THE INSANE, near Exeter.—Assistant Medical Officer, doubly qualified, and not more than 28 years of age. Salary, £150 per annum, with board, furnished apartments, and washing. Applications to Dr. Deas, Medical Superintendent, by July 22nd.

WORCESTER AMALGAMATED FRIENDLY SOCIETIES MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary, £140 per annum, with a portion of midwifery fees, and £20 per annum for cab hire. Applications to Mr. G. B. Gibson, Easy Row, Worcester, by July 19th.

MEDICAL APPOINTMENTS.

ALCOCK, Reginald, appointed Assistant House Surgeon to the North Staffordshire Infirmary and Eye Infirmary, Stoke-on-Trent, *vice* J. Frank Crombie, M.B., C.M.Edin.

ALLDEN, J. H., M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health for Shirley.

ANDREW, Albert, L.R.C.P.I., L.M., appointed Medical Officer for the Glossop District of the Glossop Union.

BLAMEY, James, M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Perran-ar-Worthal District of the Falmouth Union.

CARROLL, Joseph, M.B., C.M.Glas., D.P.H.Camb., reappointed Medical Officer of Health to the Ilkeston Town Council.

COLLINSON, Henry A., appointed House Surgeon to the Royal Infirmary, Newcastle-on-Tyne.

COUNSELLOR, Charles Eyre, M.D., L.S.A.Lond., appointed Physician to the Esmeralda County Hospital, State of Nevada, U.S.A.

COWAN, Dr., appointed *pro tem.* Medical Officer for the No. 3 District of the Bromyard Union, *vice* Richard N. Tovey, L.R.C.P.Edin., resigned.

CRAIG, Wm. Wallace, L.R.C.P.Lond., M.R.C.S.Eng., appointed House Surgeon to the Salop Infirmary, Shrewsbury.

CROMBIE, J. Frank, M.B., C.M.Edin., appointed House Surgeon to the Great Yarmouth Hospital.

DE RENZI, Henry Castriot, M.R.C.S.Eng., L.R.C.P.Lond., appointed House Surgeon to the Westminster Hospital.

EATON, James, M.R.C.S.Eng., L.M., L.S.A., appointed Medical Officer and Public Vaccinator of the Spittlegate District of the Grantham Union, and Medical Officer of the Grantham Union.

EVERS, Charles John, M.B.Durh., M.R.C.S.Eng., L.S.A., appointed Medical Officer to the Port and Borough of Faversham.

FAGAN, Joseph P., L.R.C.S.I., L.R.C.P. & L.M., appointed Assistant Surgeon to the South Dispensary, Liverpool, *vice* Dr. J. G. Moyles, resigned.

FARQUHARSON, William F., M.B.Edin., Medical Assistant Borough Asylum, Exeter, late House Surgeon Dundee Infirmary, formerly Junior Medical Assistant Counties Asylum, Carlisle, appointed Assistant Medical Superintendent Counties Asylum, Carlisle, *vice* D. M. M. Ross, M.B.

FLOWER, Frederick J., M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health for Warminster.

FOLKER, Henry Herbert, M.R.C.S.Eng., L.R.C.P.Lond., appointed Honorary Assistant Ophthalmic Surgeon to the North Staffordshire Infirmary and Eye Hospital, Stoke-on-Trent.

GARRETT, John Henry, M.D., L.S.Sc.Durh., D.P.H.Camb., appointed Medical Officer of Health for the Borough of Cheltenham, *vice* Dr. Sampson Roch, resigned.

GAYLOR, Edward, L.R.C.P.Edin., L.F.P.S.Glas., reappointed Medical Officer of Health to the Ripley Local Board.

HARWOOD, Charles, M.D., L.R.C.S.Edin., reappointed Medical Officer of Health for the Shardlow Rural Sanitary District.

HAWORTH, Stephen R., M.D., appointed House Surgeon to the Bridgnorth Infirmary, *vice* Wm. W. Craig, L.R.C.P.Lond., resigned.

HAYES, Hy. Wm., M.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Third District of the Highworth and Swindon Union.

HEMMING, Claude Philip, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Bishop's Waltham District of the Droxford Union, *vice* Henry Greaves, M.R.C.S.Eng., deceased.

HOGG, Wm. Bruce Gordon, M.D., M.B., C.M.Edin., appointed Coroner for West Middlesex, *vice* T. Bramah Diplock, M.D.St. And., deceased.

HOLFORD, Walter S., L.R.C.P., M.R.C.S., L.D.S.Eng., appointed Dental Surgeon to the Belgrave Hospital for Children.

HOUGHTON, Murtaugh J., L.S.A., appointed Assistant to the House Surgeon and Physician Wolverhampton General Hospital, *vice* R. S. Hogarth.

JACKSON, Mark, M.D.R.U.I., M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Barnstaple Rural Sanitary District.

JAMES, Walter Evelyn, M.R.C.S.Eng., L.R.C.P.Lond., appointed *pro tem.* Medical Officer of Health for the Abercarn Local Board.

JOHNSON, T. C., M.B., C.M.Edin., appointed Medical Officer of the Middleham Western District of the Leyburn Union.

JONES, G. M., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the No. 2 District of the Alton Union, *vice* F. J. Wright, resigned.

LOWNDS, Hy. Arthur, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer to the Doncaster Board of Guardians, *vice* F. R. Fairbank, M.D.

MCCULLOCH, Allen, M.B., C.M.Glas., appointed Medical Officer for the Tarporley District of the Tarvin Union.

MACKINTOSH, Donald Jas., M.B., C.M.Glas., appointed Medical Superintendent of the Western Infirmary, Glasgow, *vice* Alex. W. Russell, M.A., M.B.Aberd., resigned.

MCNICOLL, Robert, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health of the St. Helen's Borough.

MOORE, Edward Head, L.R.C.S.Edin., L.S.A., reappointed Medical Officer for the Mylor District of the Falmouth Union.

MURRAY, R. W., F.R.C.S.Eng., appointed Surgeon to the Liverpool Infirmary for Children, *vice* Rhinallt N. Pughe, M.B., B.S.Lond., F.R.C.S.Eng., resigned.

PALMER, Harold Lewis, M.R.C.S.Eng., L.S.A., appointed Medical Officer of Health for the Kerry Sanitary District of the Newtown Rural Sanitary Authority.

PEARSE, Robert Edward Franklyn, L.R.C.P.Lond., M.R.C.S.Eng., reappointed House Surgeon to the Jagersfontein Hospital, Orange Free State, South Africa.

PEARSON, Joseph, M.B., C.M.Aberd., appointed Honorary Assistant Medical Officer to the Children's Hospital, Sheffield, *vice* C. H. Willey, M.D., promoted to be Honorary Medical Officer.

PEGG, C. R., appointed Medical Officer for the Caldecott District of the Chepstow Union.

ROBERTS, John Lloyd, M.B., appointed Medical Officer of Health for the Abergele and Pensan Urban Sanitary District of the St. Asaph Union.

ROSS, Donald M. M., M.B., C.M.Ed., Senior Assistant Medical Officer Cumberland and Westmorland Asylum, Carlisle, appointed District Medical Officer in the Government Medical Service, Jamaica.

SLEVIN, Patrick Joseph, L.R.C.P., L.R.C.S.Irel., appointed Medical Officer for the West Drayton District of the Uxbridge Union.

TURNBULL, William Henry, M.B., B.S.Durh., appointed Medical Officer for the Borough of South Shields, *vice* T. Eustace Hill, M.B.Edin.

WAIT, John Alfred, B.A., M.B., B.C.Camb., appointed House Surgeon to the Clayton Hospital, Wakefield.

WARD, George Smith, L.R.C.P., L.R.C.S.Edin., L.S.A., reappointed Medical Officer of Health for the Fifth Sanitary District of the Hertford Union.

WILDING, Walter Frederick Wm., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health for Hindley.

WILLIAMS, Edward H., M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Carnarvon Town Council.

DIARY FOR NEXT WEEK.

MONDAY.

NATIONAL ORTHOPÆDIC HOSPITAL, Great Portland Street, 5 P.M.—Mr. A. H. Tubby: On Imperfect Developments, including Congenital Dislocation, Webbed Fingers and Toes; also Ankylosis and Cicatrices. Lecture II.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

DODS.—On Monday, July 4th, at Fenny Stratford, Bucks, the wife of Louis F. Dods, surgeon, of a daughter.

CLAYTON.—On July 8th, at Aberford, near Leeds, the wife of W. Kitson Clayton, M.D.Brux., L.R.C.P.Ed., L.R.C.S.Ed., of a daughter.

MARTIN.—On July 12th, at Arnheim, Blackburn, the wife of John M. H. Martin, M.D.Vict., F.R.C.S.Eng., J.P., of a son.

MARRIAGES.

LUKE—RUSSELL.—At The Lodge, Elie, N.B., on July 12th, by the Rev. P. Hay Hunter, Minister of Yester, assisted by the Rev. R. H. Dunlop, Minister of Elie, and the Rev. Duncan MacGregor, Minister of the Free Church, Elie, James Luke, M.B., C.M., to Elizabeth, daughter of the late George Russell, J.P., of The Lodge, Elie.

WIGAN—HOPKINS.—On July 6th, at Easton Church, near Winchester, by the Rev. H. Baimbrigge, uncle of the bride, assisted by the Rev. J. Stuart, Charles Arthur Wigan, M.D., of Portishead, Somerset, to Emily, daughter of Major Powell Hopkins, late 15th Regiment, and granddaughter of the late General Sir Philip Baimbrigge, K.C.B.

DEATHS.

BALKWILL.—On July 11th, very suddenly, at 14, Old Cavendish Street, Cavendish Square, London, William Edward Balkwill, aged 43.

BURCHELL.—On the 5th instant, at Delamers, Bradwell-on-Sea, Southminster, Essex, Peter Lodwick Burchell, M.B.Lond., F.R.C.S.Eng., aged 74 years and 10 months.

SYLVESTER.—Harold Augustus, M.R.C.S., L.R.C.P., at Tonbridge, Kent, on July 10th, in his 28th year, fifth son of Samuel Augustus Sylvester.

WALLACE.—At 59, Grange Mount, Claughton, Cheshire, on the 5th instant, Quintin Macadam Wallace, M.A., M.D.Edin, aged 30 years.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. Th., 2.30.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, Tu. Th., 2.30; Ear, M. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—Tu. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, Tu., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2, Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, W., 3.45; females, Th., 3.45. *Operation Day.*—Tu., 2.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 2.30 and 5, Th., 2, F. (Women and Children), 2, S., 3.30. *Operation Day.*—W., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), Tu., 4, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th., 1.30; S., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

MRS. J. TRAVIS (Ruxwell Rectory, Wickford) asks where she would be able to buy a good second-hand bath chair, strong, and in good order, suitable to lend to invalids in the parish.

TREATMENT OF THE OPIUM HABIT.

M.B. asks what method of treatment would be most likely to prove successful in the case of a patient who has contracted the habit of opium eating? The patient has taken morphine by the mouth for about two years and now takes from 6 to 12 grains a day without any apparent bad result, with the exception of constipation and poor appetite. Nevertheless, he is anxious to give up the habit.

FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.

ONE OF THEM writes: In our old town of St. D——'s, we have a so-called "Friendly Societies' Medical Association," a combination originally of various clubs, with a medical officer to take charge of them, and who is debarred from private practice. But here is where the shoe pinches. The association admits to its medical benefits not only those who are *bonâ fide* members of the respective clubs, but everyone else who will join them—old and young, rich and poor, men, women, and children, and irrespective of the station in life to which they may belong. These, by paying about 2d. per week, become entitled to visits, advice, and medicines from the medical officer of the association. The association thus becomes neither more nor less than a twopenny cheap dispensary, with a qualified man at the head. I ought to tell you also that people are canvassed—even the patients of other medical men—and pressed to join the association; and leaflets have been distributed broadcast amongst the people with the same object in view. I wish to ask, therefore:

1. Ought the medical officer of such an association to be recognised by his medical neighbours? 2. Should he be met in consultation, except in the case of a *bonâ fide* working-man member? (The well-to-do—some even rich—join the association out of a spirit of right-down meanness, arguing that when anything particular goes wrong with them they can have a consultation, and thus, in the long run, save money.) And if so, (3) Should the usual consultation fee of a guinea be raised except to *bonâ fide* working-men members of the respective clubs and to what figure? It strikes some members of the profession very forcibly that no medical man who respects either himself or the profession of which he is a member, can honourably hold such an appointment. 4. What is your opinion on this point?

ANSWERS.

Y. Z.—In such a case Dr. X. should offer half the fee.

NEMO.—There is nothing at all alarming in the symptoms. Our correspondent should consult any respectable consulting ophthalmic surgeon.

DEPUTY-SURGEON-GENERAL MORICE (West Kensington) asks for information about the climate, temperature, and educational facilities at Bagnères de Bigorre, Bagnères de Luchon, Barèges, Arcachon, Biarritz, St. Jean de Luz, Anlus les Bains, and Vernet les Bains. He would find much information about these places in Dr. Burney Yeo's work on *Climate and Health Resorts* (new edition, Cassell and Co.), also in the volume "Les Pyrénées" in Adolphe Johann's *Itinéraire Général de la France*, published by Hachette and Co. As to educational facilities, he would have to inquire of some local authority, such as the Rev. G. Radcliffe, English Chaplain at Arcachon; Dr. Malpas, at Biarritz; Dr. Bagnell, at Pau, for

Bagnères de Bigorre; and the English Chaplain at St. Jean de Luz. As there is no English colony in the other places mentioned, the educational facilities would be found to be precisely those of other French towns of the same size.

LOCUM TENENS AND LIFE ASSURANCE FEES.

L. M. D. writes, in answer to MR. A. V. CROSSING: That, inasmuch as a *locum tenens* (or, in other words, temporary assistant) is, as a rule, engaged on the same conditions as would be an ordinary permanent one; and that, for a specified remuneration, he is to devote his whole time to the legitimate requirements of the principal, he maintains that, in the absence of any specific arrangement to the contrary, all fees received in such capacity belong to the principal for the time being; and, *a priori*, that the *locum tenens* in question has no legitimate claim to any portion of the said assurance fee.

HOME FOR EPILEPTICS.

SEVERAL correspondents who have recently made inquiries as to homes for epileptic girls, may be glad to be reminded of the Meath Home of Comfort for Epileptics, founded by the Countess of Meath for the reception of patients between the ages of 3 and 8, and 12 and 55. A large house has been taken at Godalming, Surrey, and will be opened in August. It stands in beautiful grounds, and will contain fifty beds. Institutions of this character are greatly needed, and pending the formation of epileptic colonies on a large scale, we anticipate that the new home, which we gather has been promoted by the Girls' Friendly Society, will not lack for patients. Applications for admission must be made to Miss Annie Cazenove, Betchworth, Surrey. The ordinary charge will be 12s. 6d. a week, and for children 8s. Members of the society will be received for 10s. 6d. a week. A certain number of cases will also be received at rates ranging from one to three guineas a week.

BROWN-SÉQUARD'S FLUID.

DR. A. AMBROSE; A MEMBER:—Brown-Séquard's fluid is prepared[1] from the testicles of strong and active dogs or guinea-pigs by rubbing them with a little water—2 to 3 c.c. to each testicle. The resulting mixture is then filtered through a Chamberland's porous porcelain filter, being in this way rendered sterile and free from all formed elements.

The ordinary dose employed at first was about a cubic centimetre of the filtered liquid, this being injected under the skin either of the arm, leg, or thigh. An ordinary hypodermic syringe was employed, but it is absolutely necessary that the instrument should be perfectly clean and sterile—those made only of metal and glass with an asbestos packing being in this respect far the most satisfactory. It should be mentioned that these injections gave rise to a good deal of subsequent local pain, and for this reason Dr. Brown-Séquard afterwards advised that the dose should be divided, each cubic centimetre being injected in ten equal doses.

M. Variot, in some similar observations,[2] used a more dilute infusion —10 c.c. to each rabbit's testicle—and injected about 2 c.c. at a time under the skin of the abdomen. The results were stated to be highly satisfactory; local pain present, but bearable, and not long persistent. Latterly it has been preferred to employ as a solvent not pure water, but a mixture of 1 part of glycerine with 3 of water. This is said to be less painful than water alone, and more easy to prepare and filter. It has also been suggested to employ liquid carbonic acid both as a sterilising agent and to aid the passage of the liquid through the porous porcelain.[3]

A PUBLISHER'S CIRCULAR.

A COUNTRY DOCTOR.—We entirely agree in the view taken of the circular forwarded to us. It is calculated to mislead. We have, however, the satisfaction of being able to inform our correspondent that the further issue of the misleading document has been stopped by Messrs. Longman.

NOTES, LETTERS, Etc.

ERRATA.—In Dr. W. Duncan Scott's letter on Beri-Beri, in the BRITISH MEDICAL JOURNAL of July 9th, p. 103, line 15 from bottom, for "innovation" read "innervation"; line 13 from bottom, for "washing" read "wasting"; line 8 from bottom, for "1887" read "1877"; line 7 from bottom, for "recognise" read "recognises."—In Mr. A. E. Garrod's article on Schwalbach, in the BRITISH MEDICAL JOURNAL of July 2nd, the proportions of iron in the Stahlbrunnen and Weinbrunnen are incorrectly given as 0.8 and 0.5 per 1,000, instead of 0.08 and 0.05.

INFECTION IN SCARLET FEVER.

DR. ARTHUR STEDMAN (Great Bookham) writes: There appears to be an opinion floating about in the medical profession that scarlet fever is not infectious until desquamation has commenced. I send you the details of the following cases, so as to elicit information from those who have had a larger experience than myself:

B. R. failed May 4th, with sore throat, and on May 5th the rash appeared. There were in the cottage at this time seven children, who were at once removed to another cottage; of these

A. B. failed May 7th.
A. R. ,, May 16th.
H. R. ,, May 16th.
A. B. ,, May 20th.
G. R. ,, May 20th.

Two escaped. In each of these cases the patient was removed as soon as the rash was detected back to the original cottage; therefore these cases appear to show that infection may be possible as soon as the rash appears.

THE TREATMENT OF EPITHELIOMA.

SURGEON-LIEUT.-COL. T. ROBINSON, M.B. (1st Gúrkha Rifles, Dharmsala, India), writes: I have had two cases of epithelioma under treatment during my service in India, and I wish to make the results known, in the hope that others, with more opportunity than I, may try the treatment.

Some eleven or twelve years ago, at Edwardesabad, a station on the north-west frontier, I treated a man aged about 35 years, in whom the disease was a recurrence after removal, in another hospital, by the knife. It extended from the jaw to the clavicle on the right side, and from the middle line in front to the posterior border of the posterior triangle—a vast, fungating, bleeding, lobulated mass, so soft as to break down under very slight pressure. Under treatment it gradually sank down to the level of the skin. I had to go away with my regiment on active service. When I came back in about three months I was informed by my hospital assistant, a most trustworthy man, that he had been discharged from the hospital quite healed up, but, of course, terribly scarred. Up to the time of my regiment's leaving that station (some eight months afterwards) he did not come back, as I am pretty sure he would have done had the disease broken out again.

The second case occurred here, in the person of a pensioned Gúrkha, aged about 60 years. The fungating tumour was on the back of the right thigh, about the size of a hen's egg, lobulated, and bleeding; the glands in Scarpa's triangle were enlarged, fixed, and of a stony hardness; the circumference was 22 inches, of the left thigh 17 inches at a corresponding level. Treatment (same as in former case) began on January 7th. The entire mass had disappeared down to skin level by February 22nd: a scooped-out, fairly clean cavity about 2½ inches by 2 inches was the next stage reached about the middle of March. This healed up by granulation, and was healthily and firmly skinned over on May 13th. The solid œdema of the thigh continued throughout the treatment, and has latterly increased considerably; the circumference was 25 inches on May 29th. I think the improvement would have been much more rapid had the patient consented to come into hospital.

The treatment in both these cases consisted of injection of a saturated solution of iodine in commercial carbolic acid; the syringe was charged with m 20, needle introduced at margin in any direction towards the middle of the mass, two or three drops pressed out, then partially withdrawn, sent in another direction, a few more drops ejected from the syringe, and so on till the whole contents have been got inside the cancer. It may be injected every day in large epitheliomata, every second day in small ones like the second case mentioned. Sometimes the point of the needle gets into a fissure, and the black strong fluid appears on the surface, where, if it does little good, it does no harm. The syringe and the fluid should be warmed before use, otherwise the needle becomes clogged. The idea underlying the treatment is this,—wherever the blood can go in epithelioma, and that is to every part, this fluid can go too, and the results are what I have seen and described.

The skilful brother will know without my telling him when to lessen the amount injected, when to put on a small poultice to remove *débris*, and when to put on some bland ointment to protect the surface of the sore from friction or pressure or other external irritant.

MENSTRUATION DURING PREGNANCY.

DR. T. P. THOMSON (Wigmore) writes: In the BRITISH MEDICAL JOURNAL of July 9th, Dr. W. Ernest Thomson has recorded a very interesting case concerning the above; at least, it has been of interest to me, because I have a patient who has in most of her confinements exhibited the same symptoms. The patient I refer to is the mother of eleven children, and also has aborted five times. During the pregnancy my patient states that she has been "poorly" every month, and never knew she was pregnant until the child quickened. This has happened with almost all her children. If Dr. W. E. Thomson cares, it will give me pleasure to let him know further particulars. The patient has generally gone through her confinements easily and well, although two attacks of rheumatic fever in recent years have been against her.

THE BRAINS OF MEN AND WOMEN.

SIR JAMES CRICHTON-BROWNE (Queen Anne's Mansions, S.W.) writes with reference to a short paragraph headed "The Brains of Men and Women," in the BRITISH MEDICAL JOURNAL of July 9th: The story culled from an unnamed German newspaper has a fine, full, chesnutty flavour; it is apocryphal as applied to Bischoff, who certainly never made the statements about brain weights attributed to him; and is absolutely pointless. There are puny insignificant men who fall far short of the average height of women, but their diminutiveness does not invalidate the truth that men are, as a rule, taller and stronger than women: and there is nothing after all so exquisitely funny in hearing this truism enunciated by a little man. And so the smallness of Bischoff's brain (if small it was) does not invalidate the truth that men's brains are, as a rule, bigger and stronger than those of women; and the fact that the small-brained Bischoff insisted on this truth is not, after all, a joke of the first magnitude and of sparkling novelty. I have never said that the intellect of woman is inferior to that of man. My contention is that they are different.

"LOCUMS" AND PRACTITIONERS.

MEMBER writes: I can endorse all a "General Locum" says respecting the difficulties frequently encountered in taking charge of practices. In a large percentage of practices no prescription book is kept, and there is no record of previous treatment. Many practitioners prescribe within very narrow limits indeed, and the "locum" has to prescribe according to the drugs in stock, rather than what he considers the suitable treatment for his patient. I have been in charge of a large practice where the surgery did not contain either scales or measure glasses. The "locum," on taking charge, should be furnished with a list of the patients under treatment at the time, with particulars as to diagnosis and treatment. This is, of course, done in some cases, but these cases are exceptional.

POISONOUS BITES.

MR. GEORGE FOY (Dublin) writes: In connection with the case of hydrophobia from the bite of a cat, reported in the BRITISH MEDICAL JOURNAL of July 9th, I would draw your readers' attention to the statement of Morgagni: "If you except dogs, I do not remember to have

[1] *Comptes Rendus de la Soc. de Biologie*, June 15th, 1889.
[2] *Soc. de Biol.*, June 29th, 1889.
[3] Acad. de Méd., February 23rd, 1892.

read of hydrophobias, or violent injuries of this kind, having been brought on more frequently, in general, by any animals, than by cats." And he gives twelve cases of hydrophobia resulting from bites of cats.

Of bites the Celsian aphorism, "almost every bite has some virus" holds good. Morgagni gives as the case of severe blood poisoning resulting from the peck of a pet sparrow on the finger of "a noble virgin of Verona, of 16 years of age," and copies from Sommerus and Schench, an "account of the very violent symptoms which succeeded the bite of a goose, and of a cock likewise."

DANGERS IN RESCUING THE DROWNING BY THE POLE DRAG.

MR. LAWRENCE-HAMILTON (Brighton) writes: It is alleged that in 1884 an unfortunate foreigner, who had tumbled into the water at Havre, whilst his rescue was being attempted by an intended life-saver armed with the clumsy cumbrous pole drag—or say, rather, "poleaxe drag" (as still recommended by our Royal Humane Society)—was fatally struck on the head by the well-meaning rescuer.

The Royal Humane Society's practically non-portable present pole drag complete measures 19 ft. 10 in. in length. Its metal pole head is about 20 inches across, weighing 3 lbs. 10½ oz. This head terminates in three double sharp-pointed hooks or flukes. This pole drag, with its long 18 ft. ash pole, weighs about a further 7 lbs., so in all the present poleaxe drag of the Royal Humane Society weighs approximately about 11 lbs.; but in using it, as the chief weight is at the bottom, the leverage or pendulum swing practically brings out a still heavier weight.

I am anxious to learn if any of your correspondents can kindly inform me of other fatal accidents alleged to have occurred in attempts to rescue the drowning by the unwise use of the poleaxe drag of the Royal Humane Society.

Lieutenant Brunel has invented a pocket life line, which, with its 30 yards of cord, its grapnel and float, only weighs 5 oz.; and also a coast-guard life line, with a grapnel weighing 4¼ oz.; a long wooden float, serving also as bobbin or reel, weighing 2½ oz.; 48½ feet of stout cord, weighing 5½ oz., or in all 12½ oz., whilst the leather case and strap weighs 4½ oz. Therefore the entire apparatus, including the case, only weighs about 17½ oz.

It is to be hoped that the Brunel system of life-saving will be adopted, and introduced into this country, where it is neither patented nor protected, and anybody can make it. (I have no interest in the sale of these inventions.) Instead of their former dangerous pole drags, now upwards of 3,000 Brunel life lines are used in France, saving over 250 lives a year. Invented by Lieutenant Brunel, of Dieppe, in 1874, the Brunel portable life lines have already rescued upwards of 1,300 lives in France and her colonies. The cost of these Brunel apparatuses, though infinitely more efficient and portable, amounts in France to less than a-third of the price charged for the apparatus now unfortunately recommended by the Royal Humane Society.

On June 13th, 1892, at the Swimmers' Life Saving Society, I exhibited, side by side, the life-saving appliances of the Royal Humane Society, and those also on the Brunel system. I understood all those present to approve of the Brunel lines, whilst no one present said one word in favour of retaining the so-styled life-saving apparatus recommended by the Royal Humane Society. In a subject of such vital importance as the rescue of the drowning, whilst experts differ, dispute, and disagree, it is for the public, who are the patrons and subscribers of the Royal Humane Society, themselves to decide which system is the more efficient and economical.

TETANUS DUE TO PUNCTURE OF A HYPODERMIC NEEDLE.

DR. J. FOSTER PALMER (Royal Avenue, S.W.) writes: Mr. Osburne's case in the BRITISH MEDICAL JOURNAL of July 9th, p. 75, recalls one of an almost identical character which occurred in my practice five or six years ago. My patient, like Mr. Osburne's, had suffered from syphilis, and was in the habit of injecting morphine. The wounds had not healed, and the arms and legs were literally covered with large ulcers resulting from the punctures of the needle. The result in both cases was probably due more to the diseased condition of the patient and the consequent suppuration of the wounds than to any other cause, and in both the virus must have been poisoned by the previous injections. The similarity of the two cases appears to throw some light on both.

HENBANE SEEDS.

DR. J. MASON (Rathmines) writes: I enclose the following extract on the subject of "henbane seeds and toothache," which may be of some interest.

"*Against Worms in the Teeth.*

"The best remedy against Worms in the Teeth is to wash them every Morning and after Meales, and if there be any Crusts upon the Teeth, to take them away either with an Iron, or else with some Drops of Spirit of Salt in a little Water. The Root of Plaintain chaw'd is a good Remedy. Some Authors advise the burning the Seed of Henbane, and conveying the Smoak into the Teeth, by which means you shall see Worms come out of the Mouth, which the Smoak carries away with it into the Air. But this is a meer Fable. Forestus says, that these pretended Worms are no more than an Appearance of Worms, which is always seen in the Smoak of Henbane seed. I was desirous to make a Tryal, but I could never see that Appearance of Worms. Forestus without doubt related this Matter of Fact before he made Tryal; but that which surprizes me is, that another Author should assure us he had made Tryal, and that he had really seen those Appearances of Worms."—*Vide Breeding of Worms in the Human Bodies*, by Nicholas Andy, M.D., London. 1701.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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REMARKS
ON THE
SYMPTOMS, AND TREATMENT BY INTESTINAL ANTISEPSIS, OF ENTERIC FEVER.

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I PROPOSE in this paper to give a brief summary of the symptoms and history, so far as I have myself observed them, of forty-six cases of enteric fever treated in hospital during the last fifteen years. As concerns treatment, I shall sketch briefly the methods employed, and contrast the results obtained by intestinal antisepsis with those following the ordinary expectant method. The duration, symptoms, treatment, and issue of these cases are represented as far as practicable in the tabular statement annexed.

The average age of my cases was 23.9 years, and, as we usually find in hospital statistics, the large majority were males. The febrile period, indicated in the synopsis by the dark horizontal line, expresses the time elapsing between the initial rigor or other first symptoms and the decline of temperature to the normal. A note of interrogation at the left end of the line implies that it was impossible to ascertain the date of first symptoms. For statistical purposes I add a week to the observed duration in these cases. In 38 cases which recovered and of which I have complete records the average duration of fever was 30.8 days, including any relapse or recrudescence that followed. Seventeen cases had a relapse or return of fever, usually slight. In some cases the disease was of great severity and long duration; for example, in Case 7 the pyrexia lasted 70 days; probably this may have been due to an intercurrent relapse. Excluding Cases 24 and 38, which I place in brackets, and which were not treated as cases of enteric fever, the average stay in hospital of the 44 cases was 46.7 days.

It is most convenient to recount special symptoms under the head of the various systems, as one would do in recording a single case. I commence with the integumentary system. Among 44 cases the typical rose rash was present in 27; in Case 30 desquamation followed; in Case 1 erysipelas formed a troublesome sequela. In 5 cases sudamina were observed, in 2 boils, and in 1 instance a carbuncle appeared during early convalescence, while 2 patients suffered from abscesses in the subcutaneous tissue.

Taking next the alimentary system, we had invariably dryness and whiteness of tongue and defective salivary secretion; in 1 case hæmorrhage from the gums occurred. In 10 instances marked tonsillitis or pharyngitis were present, and were much complained of by the patient; doubtless they existed in slighter degree in many other cases. In a private case I remember once seeing deep ulceration of tonsils and pharynx with separation of large sloughs, which reminded one of the sloughs from Peyer's patches. In 9 cases vomiting occurred, in Case 12 to such an extent as to endanger life. Loose stools of the typical character were noted in 33 cases. In Case 30 we had evidence that ulceration does not necessarily cause diarrhœa; the patient had persistent constipation, and the necropsy revealed unusually extensive ulceration. In 4 instances hæmorrhage from the bowel occurred in considerable amount. Tympanites was common, and in a few instances amounted to meteorism. Soreness on pressure in the right iliac fossa was observed in 19 cases. From the tenderness on pressure which frequently existed in the umbilical region I was convinced that the mesenteric glands were enlarged and sore. In Case 10 perforation and fatal peritonitis occurred after thirty days' treatment in hospital, and in spite of care and rest.

Under the respiratory system I shall take first the nasal chamber. We had 5 cases of epistaxis, in Case 2 so formidable as to imperil life, and to require the frequent use of ergotine. Bronchial catarrh occurred in 23 cases; to a severe extent in about 8. In 4 cases pneumonia occurred. Case 21 is a man who was all but drowned in a dock; vitality was restored by artificial respiration, after which he vomited a large quantity of fœtid dock water; then came on acute double pneumonia and left-sided pleurisy, with effusion, requiring thoracocentesis; while recovering from the pneumonia enteric fever set in, commencing about the twenty-sixth day after admission. Case 44 was admitted with influenza and acute double pneumonia of great severity. When recovering the patient was attacked on the twenty-seventh day after admission by enteric fever. In the former of these two cases, I assume that the enteric contagion was derived from the dock water. In the second case, it is difficult to explain. No typhoid case was in the ward at the time, and the sanitary arrangements of the infirmary are, I think, as perfect as they can be made. A possible explanation is that the first illness, which appeared to be merely pneumonia, was enteric fever without characteristic symptoms.

As regards the circulatory system, rapid pulse with low tension was invariable, with frequent dicrotism. The first cardiac sound frequently became muffled and indistinct during the second week. One case of thrombosis occurred in the leg. As to the spleen, I confess myself of Dr. Fagge's opinion, that although enlargement is common, it is often difficult to detect, being masked by tympanites. In Case 30, the spleen weighed 1 lb. I have observed the organ to be tender on pressure during the first week, and to lose the tenderness later.

As regards the nervous system, headache was common, deafness also was frequent. Convulsions, which are rare in the adult, occurred in Case 24, accompanied by coma. Case 5 had severe muscular cramps, and Cases 7 and 43 complained respectively of pedal and crural neuralgia during convalescence. Nocturnal delirium was frequent. I had only two cases of the temporary imbecility which sometimes follows the disease; patient No. 39 became imbecile during the interval between the first defervescence and the relapse. He was a public-house keeper, who had taken much spirits. Case 44 was partially imbecile, also during the later stages of the disease. Both recovered perfectly.

As to the renal system, we had seven cases of albuminuria and one of hæmaturia.

The subject of treatment is more practical and more interesting. In the synopsis I have put down every case I had, but in the consideration of treatment I must exclude the two in brackets, namely, Case 24, in which case enteric fever was first diagnosed at the necropsy, and Case 38, a patient who, after treatment at his own house by a general practitioner, was brought to the infirmary during a relapse, and speedily showed symptoms of perforation. The remaining 44 cases I divide into two groups of 22 each. The one group was treated by the expectant method; among these cases 4 deaths occurred. The other group was treated by antiseptics, with the object of securing intestinal antisepsis; of this group every case recovered. In most respects all these cases received the same treatment. They were kept in the recumbent position until temperature had been normal for ten or twelve days. All were put on a light diet; milk and lime water, and if there was but little flatus or diarrhœa, beef-tea was given. Alcohol was administered when the first cardiac sound became muffled and the pulse soft, the amount, 2, 3, 4, rarely 6 ounces of brandy, in small divided doses with food. It was always reduced in quantity and abandoned as convalescence advanced and the pulse strengthened. Hyperpyrexia was not frequent, but when occurring it was treated sometimes by tepid baths, but more frequently by cold sponging in the bed and by the administration of 5-grain doses of quinine. If the night rise of temperature was not beyond 104° we did not interfere. In enteric fever I prefer sponging with spirit and water to the use of the bath, it disturbs and exhausts the patient less. I always avoid the use of antipyrin and antifebrin.

During convalescence the patient is kept for a considerable time on a light diet, only foods which are easily and quickly digested being given. By degrees, increasing amounts of farinaceous food, meat juices, fish, eggs, and meat are in succession allowed. Two or three instances falling under my own observation of evil results following too early a return to a meat diet have caused me to regard it with dread; for example, I remember a clergyman who took a substantial meal

of roast mutton two or three days after his temperature had fallen; he did this in opposition to the advice of his medical attendants. Gastric and intestinal dyspepsia followed, and death occurred in three days. Case 38 in my list was treated at patient's own house by a practitioner, but when convalescing, in opposition to the doctor's advice, he resumed a heavy meat diet, and refused to remain in bed. Severe dyspepsia, flatus, perforation, and death followed.

As regards the constipation which so often occurs during convalescence, I allow it to continue as long as seven or eight days, provided the intestinal antiseptic is being taken. No harm seems to result. If it is needful to interfere, a glycerine enema is used. Any special symptoms of course are treated.

All of the 44 cases were treated on the principles just stated, but in addition, as I have said, half the total number took regularly a drug which was intended to produce intestinal antisepsis. The results of this latter treatment have been satisfactory, but before stating them I wish to say I tried several antiseptics, namely, salicylate of soda, creasote, naphthalin, and alpha-naphthol. Six cases were treated by the first drug; all recovered, but still I believed the salicylate to have a nauseating and depressing influence. The average stay in hospital was prolonged to fifty-six days. I have, therefore, abandoned the use of the salicylate in enteric fever. I have observed no bad results from the use of creasote, naphthalin, and alpha-naphthol. The average stay in hospital of 16 cases treated by one or other of these was forty-two days; the average stay in hospital of the 22 cases, including those treated by salicylate, was forty-six days. As to the cases treated by the expectant method, of whom, as I have said, 4 died, the average stay in hospital of the remaining 18 who recovered was 52.1 days.

The average duration of pyrexia of the 22 cases treated by antiseptics was 25.3 days. From the same number treated by the expectant method I deduct 4 who died and 2 whose charts have been lost. The average duration of pyrexia of the remaining 16 is 37.9 days. The most striking point in the comparison of the two groups is the immunity from relapse enjoyed by the cases which were treated by intestinal antisepsis. Of the 22 cases the average days of relapse were 1.8, while among the 16 cases who recovered under expectant treatment and whose charts are preserved, the average days of relapse were 9.

Stated in tabular form the total results are as follows:

	Deaths.	Days of Fever.	Days of Relapse.	Days in Hospital.
Expectant treatment ...	4	37.9	9	52
Intestinal antisepsis ...	—	25.3	1.8	46

Watching these cases from day to day I have been much impressed by the apparent good effects of the intestinal antiseptic treatment. It is obviously a rational method. There is considerable evidence that such bodies as chlorine, creasote, naphthalin, iodine, iodoform, and alpha- and beta-naphthol are destructive to septic and poisonous compounds and organisms found in the intestinal canal. It is, therefore, antecedently probable that they would be of service. I am, how-

Synopsis of 46 Consecutive Cases of Enteric Fever.

No.	Initials.	Age	Sex	Duration of Fever and relapses in weeks. (1 2 3 4 5 6 7 8 9 10 11 12)	Rash.	Diarrhœa.	Bronchitis.	Sore Throat.	Right Iliac Fossa tender.	Spleen enlarged.	Miscellaneous Symptoms.	Treatment.	Days in Hospital.	Result	
1	H.W.	22	F				×		×	×	Albuminuria, Erysipelas.	Salicylates	101	R	
2	A.S	25	M		×	×			×		Epistaxis, Deaf.	do.	57	R	
3	I.O.	18	M		×	×		×			Sudamina.	do.	35	R	
4	H.B.K.	20	M		×	×	×			×		do.	41	R	
5	D.C.	34	M			×			×		Hæmorrhage. Cramps.	do.	74	R	
6	T.B.	32	M	?		×		×				do.	37	R	
7	S.O.	17	F		×	×	×	×	×	×	Neuralgia in feet.	Expectant	62	R	(in Rect. & Duodnm
8	M.B.	24	M	Chart lost						×		do.	7	D	P.M. Enteric Ulcers
9	E.R.	21	M		×	×	×	×			Deaf, Vomiting.	do. & Quinine	48	R	
10	A.E.	22	M		×	×	×				Deaf, Perforation.	do	31	D	P.M. Enteric Ulcers
11	I.McC.	26	M				×					Expectant	20	R	
12	P.J.	29	M	Chart lost				×			Vomiting, extreme prostration.	do. & Quinine	51	R	
13	C.W.	22	F	do.		×	×				Vomiting.	do.	47	D	P.M. not permitted.
14	A.K.	16	M	do.		×						Expectant	26	R	
15	I.S.	16	M		×	×	×				Sudamina.	do.	35	R	
16	A.P.B.	20	M	?	×		×					do.	24	R	
17	I.B.	3	M								Convulsions, Vomiting.	do.	81	R	
18	B.T.	13	M		×		×		×		Sudamina.	do.	63	R	
19	J.M.	34	M			×			×			do.	49	R	
20	I.H.R.	39	M				×		×		Vomiting, Albuminuria.	do.	19	R	
21	J.Q.	26	M		×		×		×		Pneu., Pleurisy, Epistaxis, Thromb., Boils.	do.	81	R	
22	G.F.	16	M		×	×		×	×		Epistaxis, Vomiting.	do.	81	R	
23	G.T.	16	M	(2nd attack)	×	×	×	×	×			do.	82	R	
(24	P.O.	28	M		×	×				×	Convulsions.		3	D	P.M. Enteric Ulcers
25	P.A.	20	M		×	×					Sudamina.	Creasote	35	R	
26	B.McD.	38	M		×	×	×	×			Epistaxis, Deaf.	Expectant	62	R	
27	M.K.	21	M			×	×		×	×	Epistaxis, Vomiting.	do.	48	R	
28	P.F.	17	M		×	×	×			×	Hæmorrhage, Pneumonia, Boils, Abscess	do.	76	R	
29	I.C.	21	M		×	×					Deaf, Hæmorrhage from mouth.	do.	25	R	
30	W.J.	22	M		×						Pneumonia, Albuminuria.	do.	13	D	P.M. Enteric Ulcers
31	G.K.	13	M		×						Desquamation.	Naphthalin	61	R	
32	H.K.	18	F		×	×			×			do.	58	R	
33	A.D.	16	F		×		×					do.	36	R	
34	I.B.	50	M	(intemperate)		×	×					do.	35	R	
35	M.McL.	24	F		×				×		Albuminuria, Vomiting, Sudamina.	do.	35	R	
36	I.R.	18	F		×	×		×	×		Deaf.	do.	47	R	
37	W.T.	17	M		×	×	×		×		Hæmaturia and Albuminuria.	do.	52	R	
(38	L.S.	39	M	came in with perforation during a relapse									5	D	P.M. not permitted.
39	I.G.	40	M	(spirit drinker)	×	×	×	×	×		Hæmorrhage, Anal Abscess, Deaf.	Naphth. in part	80	R	
40	G.N.	28	M			×	×					Naphthalin	34	R	
41	R.H.	17	M		×	×	×					do.	22	R	
42	A.B.	13	F	?		×	×					do.	28	R	
43	T.W.	50	M	?		×	×				Deaf.	do.	28	R	
44	R.F.	22	M			×	×	×	×	×	Vomiting, Crural Neuralgia.	do.	48	R	
45	M.B.	30	F		×	×			×	×	Pneumonia, Albuminuria.	Naphthol	49	R	
46	W.O.W.	17	M			×			×	×	Deaf.	do.	31	R	
												do. in part.	39	R	

ever, fully aware that the number of my own cases is too small for the drawing of a definite conclusion; they only become of value when used to support the larger experience of others. Dr. Wolff, of Philadelphia, for example, has treated 100 cases with naphthalin; the average febrile period was 24.4 days, and the mortality 2 per cent., after excluding deaths from heart diseases and phthisis, and those of patients brought in moribund. Dr. Gramshaw treated 116 cases with iodine and carbolic acid, and had no deaths. Bouchard states that from the year 1854 to 1885 the mortality from enteric fever at the Lariboisière Hospital was 21.1 per cent. Since 1885, the treatment pursued has been quinine with intestinal antisepsis, and the mortality has fallen to 11.7 per cent. I could adduce many more evidences of the value of intestinal antisepsis in the treatment of enteric fever, but I do not wish to lengthen this paper. I may add that I administer the naphthalin in the form of pill; six or eight pills, each containing 3 or 4 grains of the drug, are given daily. Alpha-naphthol I have also given in pill in similar amounts.

I fear that a certain mortality will always attend enteric fever, but, as the use of antiseptics has lessened the danger arising from external injury to the body, so the experiments of others on a large scale, and my own very limited experience encourage me to hope that intestinal antisepsis may similarly lessen the mortality of enteric fever.

REMARKS
ON
THE SURGICAL TREATMENT OF GENERAL PARALYSIS OF THE INSANE.

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AND
DAVID WALLACE, F.R.C.S.Edin.

In submitting the following record of our experience in the surgical treatment of general paralysis in the Stirling Asylum, we consider it proper to state our reasons for the performance of these operations. After carefully considering the subject from different aspects, we concluded that some further acquaintance with the operation and its results was desirable. The pathological conditions usually found and generally believed to exist in the disease appeared to give countenance to the supposition that surgical interference might interrupt or permanently relieve the affection. The operation had been shown by the previous experience of others to be unattended with any danger, provided, of course, that it were carefully performed, and that ordinary attention was afterwards given to dressings and nursing.

Briefly stated, we considered that the operation was justified (1) because the pathology of the disease seemed to mark it as capable of relief by surgical operation; (2) because further acquaintance with the results of operative interference was desirable in the present state of our knowledge; (3) because of the proved safety of operative treatment.

General paralysis is a disease of the brain cortex, chiefly affecting the fronto-parietal regions. The disease in most cases is limited to areas on the vertex of those regions. Whether it is regarded as of nervous origin, or looked upon as a primary inflammatory affection of the non-nervous elements of the cortex, the limitation of affection is capable of explanation on the generally accepted theory, of which Meynert[1] is the chief expounder—that certain portions of the cortex may be the seat of functional hyperæmia, while other (even neighbouring) areas remain non-hyperæmic. It is more than likely that these portions of the cortex in front of the fissure of Rolando are chiefly concerned in what we call, for want of a better name, the higher mental processes. The experiments of Goltz and of Ferrier seem to bear this out and to strengthen the view. We may, in addition, cite the weighty authority of Ross.[2] Further, it is believed by many psychologists that the motor areas of the cortex underlie, to a great extent, the higher mental processes. If now we consider general paralysis in the light of a mental, or, more properly, a mental motor affection of the brain cortex, we come *a posteriori* to a plausible explanation of why that particular region is more chiefly affected.

Whether the disease is of primary nervous origin or not does not appear to be of very essential importance except in so far as it directly bears upon the results expected from surgical interference. Some authorities hold that the disease is a degeneration of the nerve elements of the cortex, and that all the phenomena are explicable and ought to be assigned to that cause. The chief modern upholders of that view would appear to be Drs. Clouston and Savage.[3] Other authorities again hold that the affection is primarily a vascular one—that is, inflammatory, and that the nerve cells are secondarily affected. We believe we are justified in placing Dr. Bevan Lewis[4] among the upholders of this theory. We have been unable to decide to which view Mickle[5] inclines, as his judicial summing up of authorities on this point is a little confusing. The following quotation, however, epitomises his opinion, "on the whole, we may view general paralysis as essentially commencing with hyperæmia and ending with chronic cortical degenerative cerebritis."

Granting that the disease is primarily nervous, the result of morbid over-activity of the cortical cells would be hyperæmia of special localities, for, as Meynert[6] points out, not only is the anterior cortex a vasomotor centre, but each region of the cortex controls its own blood supply, so that when an associated area is active, it is at the same time hyperæmic. If, however, we adopt the theory of primary vascular affection, we see that, as a result of this congestion, the nerve cells, owing to their unique method of blood supply, through the perivascular canals, must suffer (as they actually do) and be thrown into a state of morbid over-activity, which ought, according to the advocates of the nervous theory, to augment the existing state of congestion of the blood vessels. We know on the authority of Duret[7] that in certain cases of cerebral concussion the resulting vascular paralysis may pass on to inflammatory congestion. Therefore, whichever view of the origin of this disease is entertained, it must be acknowledged that there is vascular inflammatory congestion. It must be admitted that if the origin of the disease is a primary nervous degeneration followed secondarily by inflammation, surgical treatment would not be so hopeful, for, while relieving symptoms, it could hardly be expected to do more than check the inherent degeneration of protoplasmic vitality. It seems probable, however, that there is something more than passive inflammatory congestion of the blood vessels of the affected region to be considered. The condition presents a more active pathological aspect than can be accounted for by mere passive congestion, and points to the presence of an inflammatory stimulant.

Dr. Bevan Lewis says that the earliest indication of morbid change is certainly presented by the vascular tissues. There is, first of all, a true paralysis of the tunica muscularis of the cortical arteries (pial vessels), accompanied by extensive protoplasmic segmentation and nuclear proliferation. There follows, as a consequence, a transfusion of the fluid contents of the vessels into the perivascular canals, and from thence into the pia-arachnoid spaces into which these canals open. Finally, there is a diapedesis of leucocytes into the perivascular canals and the above-mentioned spaces.

Is this, then, a true primary active inflammatory condition of the vascular tissues or a passive congestion, the result of a vasomotor paralysis due to primary affection of the cortical cells which have undoubtedly a vasomotor function? Our opinion is that if such a vasomotor paralysis could be admitted to account for the inflammatory state, death would ensue more speedily than it does from increasing paralysis.

The cause of such an inflammation is as yet unknown, but, according to the latest researches, there is probably always present in inflammation an organism which produces or accompanies the characteristic phenomena which we recognise

[1] *Psychiatry*, p. 214.
[2] *Diseases of the Nervous System*, vol. ii, p. 346.
[3] *Journal of Mental Science*, vol. xxxvii, p. 495.
[4] *Textbook*, p. 439.
[5] *General Paralysis*, p. 342.
[6] *Psychiatry*, p. 216.
[7] *Traumatismes Cérébraux*, p. 56.

as inflammatory, and we must not consider the brain tissue so sacred as to be immune from influences which affect other regions of the body.

We are, therefore, inclined to think that the changes are due to a specific inflammation, chronic in its course, which seizes upon the vascular tissues of regions weakened, it may be, from lack of proper innervation as well as by too frequent hyperæmia due to excessive or too frequent functionating, and we conclude that in the earlier stages of general paralysis we have to deal with an inflammation which chiefly affects the blood vessels of the fronto-parietal region.

Two pathological consequences, both highly detrimental to the brain cortex, result from this inflammatory affection of blood vessels. First, there is an interference with the nutrition of nerve cells, and, secondly, there is an effusion of fluid which causes injurious pressure upon the brain within the cranial cavity.

The symptoms of general paralysis, in its early stages at any rate, depend upon the arrest of the free lymph circulation in the perivascular canals and the pericellular sacs. This interference with free circulation is due (1) to the dilatation of the paralysed arteries in the canals; (2) to the inflammatory accumulation of leucocytes in the canals, and (3) to the nuclear proliferation of the cells of the tunica adventitia of the vessels.

Later on, in the course of the disease after the degeneration of the nerve cells has become pronounced, the growth of spider cells interferes still further with the lumen of the canals, and produces kinks in the course of the arteries, but with such an advanced stage we are not presently concerned, for by then operative measures would cease to be of any presumable benefit upon any recognisable hypothesis except that of the restoration of degenerated cortical tissue which is in the present state of our knowledge impossible.

It must be remembered that not only is the supply of fresh nutritive material to the cells diminished in the manner described, but that the removal of the waste products of protoplasmic metabolism is also seriously diminished.

The cerebral lymph is normally an alkaline liquid, but becomes acid after death,[8] and it would appear that in certain pathological conditions the same change occurs.[9] Bevan Lewis[10] states that the apparent cell degeneration is secondary to the affection of the vascular tissues. There can be no question that malnutrition and poisoning by its own waste products must exercise upon the nerve cell an effect which ends in speedy degeneration.

Former writers on this subject, notably Dr. Batty Tuke and Dr. Claye Shaw, have regarded the removal of the accumulated fluid the chief object of operative interference in general paralysis. While far from ignoring the importance of the presence of the fluid, we do not give it the first place as a baneful pathological factor. There are two stages of fluid exudation, namely, (1) the inflammatory exudate, and (2) the compensatory fluid exuded to replace shrinkage of cortical tissue caused by nerve cell degeneration.

These two fluids are as yet indistinguishable from one another, but we do not agree with Dr. Claye Shaw when he admits (in the description of one of his cases) that the fluid must be compensatory.[11] If the fluid was compensatory it was too late to perform any operation, as the disease had advanced beyond hope of human restoration. Mr. Harrison Cripps[12] commits the same mistake when he asserts that the brain substance is diminished in general paralysis, and suggests that the atrophy is caused by the pressure of the fluid.

In order to form a comprehensive and intelligible view of the pathology of the disease, especially as it bears upon the question of surgical treatment, we think a careful discrimination must be made between the inflammatory exudate and the undoubted compensatory fluid that is continuous with but comes on subsequent to the inflammatory exudate, and is consequent upon brain shrinkage. With regard to the effects of pressure from the accumulation of fluid within the cranium we are unable to form any definite opinion. According to Leyden,[13] the tension of the cerebro-spinal fluid is equal to a column of water 10 to 11 centimetres high. Dr. Batty Tuke[14] makes a calculation by which he endeavours to show that were the intracranial pressure equivalent to 100 atmospheres, the withdrawal of the $\frac{1}{10}$th of its bulk would reduce its pressure to that of the atmosphere. Without attempting to criticise this statement in any way, we would point out that there is within the cranium a self-regulating mechanism by means of which within certain limits fluid pressure can be regulated. The tension of the cerebro-spinal fluid depends upon the blood pressure and can be reduced by bleeding.[15] But according to Duret,[16] pressure upon the surface of the brain increases arterial tension very markedly. The same author states[17] that at a pressure of 15 centimetres of mercury, half a litre of water injected into the arachnoid space of a dog was speedily absorbed, proving the rapidity of the absorption of fluids by the serous cavity of the arachnoid. In another part of his work the same author,[18] illustrating the great adaptability of the brain to pressure, shows that the injection of 120 to 130 grammes of blood into the arachnoid cavity of a dog produced no symptoms, while 240 to 250 grammes of the same fluid caused coma, followed in a few hours by death. We therefore conclude that in general paralysis the production of the fluid must either be enormously increased or its rate of absorption by the extremely absorbent pia-arachnoid sac must be in some way retarded to render the inflammatory exudate injurious by its pressure. At present we have no means of ascertaining either the rate of increase or the rate of absorption of such fluid, but we know that it is abnormally produced and that its presence is probably injurious not only by exercising pressure but also by waterlogging the vital processes of the cortex.

Up to this point we have regarded the brain and the contents of the cranium as an immovable mass within a closed bony cavity. Within such rigid walls no increase of fluid would be possible were it not for the basal lymph cisterns, which permit a certain amount of ebb and flow of their contents by adapting themselves to an increase or decrease of pressure. Further, there have to be considered in this connection the venous spaces of Cruveilhier adjoining the sinus longitudinalis. These cavernous spaces are regarded as a compensatory mechanism designed to secure at all times the repletion of the cranial cavity. We must also take into consideration the rhythmic movements of the brain, which are three in number: 1. The systole and diastole, a tracing of which can be got as accurately from the surface of the normal brain as from the radial artery, showing the tensity of the cortex. 2. The respiratory rise and fall, a very distinct movement, 15 to 18 per minute. 3. The vascular wave, a peristaltic rhythmical movement dependent upon a subcortical vasomotor centre, and passing over the whole brain from two to six times per minute.

We must therefore consider the living brain as a semifluid body subject to considerable expansile movements of frequent occurrence, contained within a bony cavity which permits only a limited change of capacity. It is evident that a very small opening in the cranial chamber will greatly relieve the tension of a moving expansile body subject to such pressure.

From the fact that the convolutions of the vertex impress their mark upon the inner table of the cranial vault, while the basal convolutions do not do so upon the base of the skull, we infer that the interposition of superfluous fluid between the vertex of the brain and the cranial vault must inflict injurious pressure upon the former. If, then, there exists in this disease a true chronic vascular inflammation of cortical areas, causing an interference with nerve-cell nutrition, and exudation of an abnormal fluid causing pressure, it seems a clear duty to attempt to relieve the inflammation, which is admittedly the origin of the whole chain of fatal symptoms met with.

The admitted failure of therapeutic measures justifies a trial of those surgical methods commonly practised for the

[8] *Vide* Meynert, *Psychiatry*, p. 235.
[9] Heynsius and Preyer quoted from Dr. B. Tuke's article, BRITISH MEDICAL JOURNAL, vol. i, 1890, p. 10.
[10] *Loc. cit.*, p. 493.
[11] BRITISH MEDICAL JOURNAL, vol. ii, 1891, p. 581.
[12] BRITISH MEDICAL JOURNAL, vol. ii, 1889, p. 1215.
[13] *Virchow's Arch.*, 1866, Bd. 37, p. 520.
[14] BRITISH MEDICAL JOURNAL, 1890, vol. i, p. 9.
[15] Duret, *Traumatismes Cérébraux*, p. 23; also Dean, *Path. Journ.*, vol. i, p. 35.
[16] *Loc. cit.*, p. 166.
[17] *Loc. cit.*, p. 175.
[18] *Loc. cit.*, p. 202.

relief of inflammatory conditions in other parts of the body, namely, the artificial relief of tension. As already stated, we desire to discriminate between relief of the inflammatory condition and the relief of injurious pressure by the removal of superfluous fluid. It has been stated as an objection to this method of treatment that the comparatively small quantity of fluid removed was insufficient to relieve pressure, and would speedily be replaced by reaccumulation of fresh fluid. In reply to this objection, we can only affirm that we were guided by the analogous treatment of apparently similar conditions in glaucoma and acute effusions into the pleural cavities.

Dr. Percy Smith,[19] in criticising the results of Dr. Claye Shaw's and Mr. Harrison Cripps's operation, emphasised by the aid of a series of illustrative cases the frequency of the total remission of all the symptoms in the course of general paralysis. In our opinion, this formed one of the strongest arguments in favour of the performance of the operations, for the very fact of the possibility of the remission of the mental and motor symptoms is fatal to the primary nervous degenerative theory of the disease, and held out a prospect of possible amelioration by the relief of the inflammatory condition. Finally, in the words of Professor Ferrier,[20] the disease is so fatal that any experimental attempt to relieve it is justifiable.

In all, five patients have been treated. We shall first describe one case typical of all, and then point out a few of the chief features regarding each patient.

Case II.—P. McL., male, aged 32, married, was admitted into the Stirling District Asylum on September 22nd, 1891. Two years previous to admission he sustained a blow on the head by a bale of goods falling upon him. His friends date his insanity from the time of injury. There is no scar nor sign of this injury to be discovered. Deep and superficial reflexes exaggerated; speech tremulous, but patient able to repeat test words as ordinarily used with comparative ease; smell impaired to a considerable extent, but taste is only slightly deficient; common sensibility is increased. Mentally he is weak and facile; he has many delusions of grandeur, and is placid and contented; he steals useless articles in a clumsy, silly manner; he is often noisy, and is constantly buttoning and unbuttoning his clothes; says that he is "up to the knocker," etc. Slight evening rise in temperature (98.8° to 99° F.) generally recorded.

On October 9th, 1891, the patient's head was shaved and thoroughly washed with soap and water, and then with ether, after which a carbolic poultice (1 to 20) was applied for twenty-four hours.

On October 11th, half an hour before the operation ¼ grain of morphine was given subcutaneously. Anæsthesia was produced by chloroform, which the patient took without trouble and stood well. By Hare's method the lower end of the fissure of Rolando was mapped out on both sides of the head, and an extensive semi-lunar flap, with the convexity upwards, was made on each side to expose the corresponding portions of the skull. The scalp was reflected without turning back the periosteum. Over the oro-lingual centres—inferior part of ascending frontal and posterior part of left inferior frontal convolutions—a portion of periosteum 2×1 inches was removed, and then with the trephine, gouge, and gouge forceps a portion of the skull cap of corresponding size was taken away. Bleeding from the soft parts was arrested temporarily by forcipressure. The dura mater on exposure did not bulge more than normally into the opening, but looked whiter and denser than usual. From the corresponding place on the right side a portion of skull was now removed by the same method 1½ inch square.

The exposed dura was similar in appearance to that on the left. The bleeding from the diploë was completely arrested by Horsley's putty, and then the dura on the left side was opened up by a crucial incision. At the moment of puncture of the dura a quantity of clear limpid fluid escaped. At first it spouted out for an inch or more, and then gradually flowed over the wound. The pia arachnoid was vascular in appearance, and more thickly supplied with blood vessels than usual; along the veins there was milkiness. When the pia was incised a small quantity of fluid escaped from the sulci; over the summits of the convolutions the pia was adherent. The cerebral convolutions were not atrophied.

A similar proceeding to the above was now carried out on the right side, with precisely the same results, but the fluid which escaped was considerably less.

The dura on each side was now cut away to an extent which merely left its margin projecting from under the cut surface of bone. The skin flaps were stitched into position, gentle pressure applied by means of the dressing, and the patient was returned to bed.

After-Progress.—The patient's temperature, which had been irregular previous to the operation, rose to 99.8° on the right side, and to 100.6° on the left by 8 P.M. (that is, eight hours after the operation). In the morning at 8 A.M. on the right side the thermometer registered 99.4°, and on the left 99°. From then onwards the temperature for five days remained a little above 98.6° in the morning and 99.2° in the evening. It was taken every four hours for a week. The patient complained of no pain, and the dressings remained in position, therefore the wounds were not dressed until the eighth day from the operation, when they were found to be perfectly healed from end to end. During these eight days there was no improvement in the mental or motor symptoms.

Present State (May, 1892).—Reflexes extremely exaggerated, right pupil wider than left. The tongue is projected spasmodically. Speech is very tremulous. Pupils react to light and accommodation. Movements slow and deliberate. Mentally he is demented, his power of attention and curiosity is entirely lost. He is stupid, and his memory is much impaired. Notwithstanding this, an amelioration took place in all his symptoms about six weeks ago, when he became much less restless, and his habits, formerly dirty, are now clean.

Surgically, the case which has been recorded differs only in small particulars from the other four of the series. In cases 1, 2, and 3, one side of the head only was opened, the left, but the procedure in all of these was precisely similar to that which has just been described.

Case v.—In this case both sides of the skull were opened and portions of bone removed on the left side 2 inches by 1½ inch, on the right a circular portion 1½ inch in diameter. The dura, however, was not removed, only freely incised, and a horsehair drain introduced on each side between the dura and pia arachnoid membranes, resting on the pia arachnoid in the form of a loop, and brought out at the most dependent parts of the wounds. Dr. Batty Tuke, who was present at this operation, made the following notes:—"Right side: bulging of dura not more than normal; on palpating dura finger readily detected layer of fluid, and on puncturing, flow of fluid readily produced; on opening dura on right side two layers abnormally distinct; brain pulsation visible; arterial and venous congestion under pia arachnoid membrane, which bulged on removal of dura; on puncturing pia, fluid escaped and brain pulsation greatly increased; arachnoid pia not milky. Left side: Respiratory change in brain pulsation much more distinct than before the right side was opened; on opening dura the arachnoid pia was found more milky and showing much more intensely indications of inflammation; pinkness; injection of vessels. Amount of fluid very small; apparently drain had been made from the other side." In this case the head was dressed on the third day to see whether drainage was satisfactory, but by the eighth day the wounds were firmly united.

There are some points in connection with the operation which seem worthy of note. In the first place the site selected for operation was chosen because, first, almost invariably in general paralysis the tongue and lips suffer from motor symptoms before the other muscles of the body, and, secondly, because relief of pressure by the removal of fluid could be carried out at that part as satisfactorily as elsewhere. So far as the operation itself is concerned there seem three points worthy of attention:

First, the large semilunar flap gave great support to the portion of the brain exposed, and although necessarily a large surface of periosteum was exposed, the cut in it and the reflection of a portion was not greater than the size of the piece of bone removed.

Secondly, large portions of the cranium can be removed very rapidly by the method adopted—namely, a combination of trephine, gouge, and gouge forceps. First of all, a circle of bone is removed by means of the trephine. This can be done more rapidly than usually is the case, because the trephine circle can be levered out before the bone is completely divided, and if any splintering of the internal table do occur, the sharp spicules are removed with those parts which are taken away by the gouge. The circle of bone having been cut away, the thickness of skull with which the surgeon has to deal is known, and with the gouge and hammer very quickly the bone to any extent can be cut away. Preferably by this means only the outer table and a portion of the diploë are removed, the remaining diploë and inner table being then snipped off with the gouge forceps.

The gouge forceps used were a modification of those in common use, the inferior blade being flat on the surface and not curved; this has the advantage of allowing the blade to be more easily introduced between the dura and the inner table than is the case with the ordinary forceps. Hoffman's forceps, perhaps, have even greater advantages.

Thirdly, the bleeding from the diploë, except that from very large veins, was readily arrested by means of a putty of the following composition: white wax ℥ij, yellow wax ℥iv, carbolic acid ℥ss., vaseline ℥ss. A note of this composition was found in a paper by Dr. Keen, of Philadelphia, where he speaks of it as Horsley's putty.

The following seem to be the chief points of interest in these cases apart from the after-result:

1. The *bone* varied in thickness, density, and vascularity considerably in three cases, but in only the first was there anything specially noteworthy. In it there was complete absence of diploic tissue, and, as a consequence, great density and little vascularity.

2. The *dura mater* in all was adherent to the inner table, but in no case was it extremely so. In all it was dense and thick—in our opinion, denser and thicker than the normal membrane. In no case did bulging into the opening, as described by Drs. Batty Tuke and Claye Shaw, occur. We believe, however, that bulging of the dura cannot be expected even though there be increased intracranial pressure, unless

[19] British Medical Journal, vol. i, 1890, p. 11.
[20] Address at the University of Edinburgh, 1892.

the dura at the part be so thin as to be capable of stretching, inasmuch as the dura around the opening is adherent to the inner table, and without separation from it, or stretching of the part exposed, it cannot bulge. Further, as a rule, the dura mater is not only thicker in general paralysis, but it is more adherent to the bone.

3. *Fluid* in all the cases, when the dura was incised, escaped in variable quantity. It was a clear limpid stream of serous fluid, which contained no flakes. In two cases the fluid spouted out for a distance of at least one inch.

In Case v, after the dura was incised on the left side, and the subdural fluid allowed to escape, some time was taken to closely examine the pia arachnoid, and to note the pulsations of the brain; and later, when the dura on the right side was cut into, very little fluid escaped, and at the moment of puncture it was observed that the brain surface was not apposed to the under surface of the dura. It would seem probable, from a consideration of this case, that a very free communication between the fluid on the two sides of the head exists. In Case III, after the dura was incised, great bulging into the trephine opening occurred, so that the appearance of a cyst was produced. This was due to the opening being immediately over a sulcus, and to the fluid under the pia arachnoid membrane forcing that membrane upwards. On opening the cyst-like swelling the fluid which escaped resembled the fluid from the subdural space.

4. The *pia arachnoid* membrane in every case was distinctly redder and more vascular than usual. In two cases there was a milky appearance along the vessels. On incising the membrane, fluid similar to that in the subdural space escaped, but only a small quantity. In two cases where an endeavour was made to separate the pia from the summit of the convolutions, it was found impossible to do so. In regard to the greater congestion of the pia apparent in these cases, it should be remembered that the intracranial pressure having been much diminished, it is possible that some dilatation of the vessels occurred, giving rise to a pinkness, very marked in Cases III and V, which might have disappeared had they been longer under observation, the vessel walls regaining their tonicity.

5. *Pulsation* in every case was less than normal before the dura was opened, but after the fluid was evacuated, pulsation was marked. In Case III it became so alarmingly influenced by respiration, that it was thought inadvisable to open the other side of the head. In this case the sucking in of the brain during inspiration produced a depression of about three-quarters of an inch.

From a consideration of the above series of cases we have come to the following conclusions:

Surgically, all the cases have progressed uninterruptedly to recovery. At the end of eight days the wounds were in every case firmly united, and in none was there a drop of pus. None of the patients seemed to suffer in the least degree from the operation. Undoubtedly, much of the surgical success was due to the able assistance which we from the outset received from Dr. Skeen, assistant physician at the asylum. We are deeply indebted to him for the assiduity with which he carried out all our directions, the assistance he gave at the operations, and the untiring interest he has taken in the after-progress of the cases.

Medically.—In all the cases, with one exception (No. 2), there was a marked improvement in the mental symptoms, lasting for from one to three weeks. This may be fairly accounted for as the result of the operative procedure. We consider that the relief of pressure by the removal of fluid, the greater freedom allowed by the removal of bone for cerebral expansion and pulsation, and, perhaps, the relief of the inflammatory condition by the local depletion of the vessels of the scalp, diploë, and brain membranes, necessitated during the operation, may all have combined to produce the change we noted.

It is significant that concomitant with the cicatrisation and increasing density of the scalp and fibrous membranes over the openings there took place a gradual deterioration in the patients' mental and motor symptoms. In Case V, where an attempt was made to drain the pia arachnoid sac by means of horsehair, the difficulty of preventing rapid healing of the wounds over the horsehair was found to be insuperable, and made its function of draining nugatory. Therefore we are unable to state from our experience whether such a mode of drainage would be beneficial.

We are inclined to regard the removal of subdural fluid a means towards the alleviation of the inflammatory condition of the pial vessels involved, and not the primary object of the operation. In connection with this we have noted that immediately after the operation, and in the after-history of the cases up to the present date, there has been no bulging of the scalp over the openings, which one would naturally have expected from the overpressure of fluid; but, on the contrary, that the scalp has been sucked in, so to speak, and formed a cup-shaped depression. Again, as the membranes have hardened over the openings, the pulsation of the brain has become less and less apparent on palpation. The absence of bulging and pulsation might be accounted for by shrinkage of the brain tissue proper were it not that the depression occurred from the first in cases in which there was no apparent atrophy of the convolutions.

That this cup-shaped depression is not due to adhesion of the scalp to the underlying membranes of the brain we are justified in stating, from the result of the *post-mortem* examination of Case I, who died three months after the operation, and in whom no such adhesion was found. The absence of adhesion is, of course, fatal to Mr. Harrison Cripps's theory that a lymphatic communication might be established between the membranes of the brain and the scalp tissues.

We regret to record, as the result of our experience, that no permanent or marked benefit was conferred upon our patients by the methods of surgical treatment we were led to adopt in the manner described. In Case III we believe that the motor symptoms of the disease were, and continue up to this date, relieved by the operation, but the delusional state is as bad as ever. We do not wish to discourage others from further attempts in the same direction. In our hands the operations proved, from a surgical point of view, eminently successful, and no bad results of any kind were suffered by our patients.

We would remark, finally, that it seems as if the operation, to be of material benefit, should be performed at an earlier stage of the disease than in our cases. In all the cases we trephined, the pathological appearances were such as to lead us to infer that the disease was fully established. We believe that the present state of our knowledge of general paralysis, and our power to diagnose the disease at a sufficiently early stage, is so imperfect that as yet surgical treatment—at all events, by the method adopted by us—can be of no material benefit whatsoever.

VOLVULUS: INTERNAL STRANGULATION: LAPAROTOMY: EXCISION OF THE VERMIFORM APPENDIX: RECOVERY.

BY JULIUS NICOLAYSEN, M.D.,
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E. O., aged 27, a tradesman, was sent to the Royal Clinical Hospital, Christiania, on September 30th, 1889, in the forenoon. He had been in good health until September 25th, when he was seized suddenly with severe pain in the lower part of the abdomen. After the use of embrocations of chloroform oil the pain disappeared, and the following days he was well and carrying about a heavy bundle of worsted articles for sale.

On Sunday morning, September 29th, while in bed, he was seized with very violent pains below and to the left of the umbilicus; he could not indicate any cause. The abdomen grew very painful on palpation. Morphine was administered subcutaneously, and laudanum was given internally without any alleviation of the pain. He grew sick, and in the afternoon had more and more frequent vomiting. When admitted there was great weakness; the face was pale, haggard, and had a suffering expression. No external hernia could be found anywhere. The abdominal wall was tensely contracted, and the right iliac region especially was very tender on the lightest pressure. In this region, and towards the symphysis pubis, there was felt a more resistant and prominent part of

the size of a large fist. The percussion sound was here of a higher tone and a little less tympanitic than anywhere else in the abdomen. He was brought under the influence of chloroform, but the abdominal wall did not become less tense. He had an enema the day before, almost without any effect, and numerous leeches on the painful part of the abdomen and reiterated doses of laudanum, and subcutaneous injections of morphine had not lessened either the pain or the vomiting. The pulse was between 54 and 60 in the minute, regular and strong. The respiration was rather superficial—30 in the minute.

At 10 A.M. I proceeded to make an exploratory laparotomy, after thoroughly cleansing and shaving the abdomen and the external genitals. The bladder was emptied by a catheter. An incision 4 centimetres long was made in the middle line, 5 centimetres above the symphysis. Through the opening flowed a stream of blood-coloured serum. The forefinger was introduced, and a very tense coil of the small intestine, filled with air, could be followed down into the pelvis minor and upwards to the right; near the cæcum it very suddenly got smaller, and a tense string was here felt strangling the gut.

The incision was lengthened 5 centimetres, and, as the intestines escaped, they were gathered together and kept in napkins in warm boric solution (2 per cent.) Then the strangulated part of the small intestine showed itself distinctly by its dark red-brown colour. The gut was very much distended (5 centimetres in diameter), but the visceral peritoneum on it was shining and smooth. The whole discoloured coil was cautiously drawn out. It measured about half-a-yard in length. The coil was seen to have been twisted about 180 degrees from left to right, and the above-named cord was the processus vermicularis, which had followed the gut in the twisting movement and formed half a knot about it. The end of the processus vermicularis was swollen for a length of 2½ centimetres and as thick as a finger, having been compressed by interlacing with the upper part.

By turning the coil 180 degrees in the opposite direction, I felt a slip, the processus vermiformis was free, and all incarceration both from strangulation and from volvulus was done away with. The processus vermiformis had its mesentery, and 7 to 8 centimetres in length. On the spot of incarceration of the small intestine, there was a furrow of the size of a goose quill, of anæmic colour, but smooth and shining. After a few minutes, the pale colour grew normal, and at the same time the brown-red hue of the incarcerated coil became lighter and lighter. The processus vermiformis was excised about 2 centimetres from the cæcum, and the mucous membrane first sutured, then turned upon itself, and by a peritoneal suture (fine silk) fixed and made tight; the mesentery was sewn to the end of it by a few stitches.

The peritoneal cavity was now flushed with rather warm (50° Celsius) solution of boracic acid (1 per cent.), the intestines replaced for the most part by lifting and stretching the borders and angles of the incision in the abdominal wall, the previously incarcerated coil was placed uppermost just beneath the wound, to have it near if anything should happen. Deep and superficial silk sutures were applied, and an iodoform-sublimate bandage.

Two subcutaneous injections of ether were given, and one of morphine (0.01 g.). A teaspoonful of hot milk was ordered every ten minutes, and an enema containing extractum carnis g. 150 given. He had pain sometimes during the day, but not very violent nor of long duration, but no vomiting. In the evening the pulse was 68, strong; the temperature 38.5° C.; the urine was withdrawn by catheter.

On October 1st he looked much better; there was no pain; the abdomen was softer; the pulse 56 to 60; the temperature 38°. He had some sleep. On the following night he slept well. He suffered no pain, and had passed flatus. The abdomen was soft, not distended and not tender. The temperature was 37.5° C.; pulse 48 to 52. Milk and milk broth were ordered to be given in tablespoonful doses every half-hour. On October 3rd, he passed his water without catheter.

From this time he was convalescent in every respect; he took more food daily and had no pain: the bowels acted after enema of lukewarm water, and after October 8th spontaneously. He was up about the middle of the month with an abdominal supporting bandage, and left the hospital on October 22nd.

He felt well until November 29th, 1889, when he was seized with great pain after a rather hearty meal. He was treated in the medical part of the Royal Hospital from November 30th to December 14th, under the diagnosis "dyspepsia acuta." There was hiccough, and some tenderness on pressure over the whole abdomen. The pulse was 48, strong; the temperature 37. The pain was especially great in the epigastrium; but after a few days it disappeared and he was well.

In July 5th, 1890, he was sent into my part of the Royal Hospital. He looked haggard and worn, the eyes sunken; he was complaining of great pain in the abdomen, which was not distended, and where no abnormal resistance could be felt. Percussion was tympanitic over the whole abdomen, but the tone was a little higher in the right iliac region. Since the previous day he had suffered from the pains, and during the night had frequent vomiting. The pulse was 72, strong. By washing out the stomach a brownish fluid without any bad smell was obtained. He was ordered tr. opii ℥xv.

He passed a tolerable night with some sleep, and felt much better the next morning. An enema of 300 cubic centimetres of salt water was given, and the bowels moved abundantly and much flatus passed.

Early in the morning of July 7th, suddenly, great pain was experienced in the abdomen and the back, and he vomited several times. The pulse was 56, strong; the temperature was normal. Application: Cingulum Neptuni; laudani liq. Sydenh. gtt. xv.

July 8th. More vomiting and pain, especially in the epigastric region. The percussion sound was tympanitic over the whole abdomen; the resistance normal. The ventriculus was flushed with warm water. An enema was administered, followed by abundant stools.

On July 9th he felt much better, and had no more vomiting or pain. On the next day he felt well. The bowels had been moved spontaneously.

In a few days he was out of bed, and left the hospital on July 14th, 1890.

REMARKS.—I think it is almost unnecessary to do more than point to the most prominent features of the case. For me the evolution of the case is as follows: The mesenterium of the small intestines was congenitally too long, or became lengthened owing to his manner of feeding; thus arose a disposition to more or less twisting movements of one or other coil of the intestines. Then inflammation of the mucous membrane of the processus vermiformis occurred, and about September the irritation of the mucous membrane (I think there must have been some ulceration in it) had reached its peritoneal covering, and there had been adhesion between the processus and the nearest coil of the small intestine just lying in front. The adhesive process was complete about September 25th, the first time he had pain in the abdomen. Four days later the coil of the intestine, hanging low down in the pelvis minor, made a turn from the left to the right, and thus, so to say, knit the processus vermiformis in a tight ring about the upper part of the coil, which by this movement, and by the compression of the adherent processus vermiformis, was completely emptied, so as to endanger the circulation in the vessels to the lower part of the coil. The peritoneum of the processus vermiformis speedily became adherent to the whole of the gut which had come into its grasp, and a spontaneous undoing of the volvulus was no longer possible. We cannot know what was the cause of the twist, but as there was no external cause, and no sudden or violent movement of the body preceded it, it is probable that it was a strong peristaltic or antiperistaltic motion in the somewhat fixed coil which led to a twist about the adherent part.

All the characteristic symptoms now set in in a very short time—great pain about the location of the volvulus, with tenderness on pressure, sickness, vomiting, restlessness, and pale, haggard face. In this patient the pulse, every time he had the pains, at first grew rather slow, which I think is seldom the case.

The symptoms of ileus, the fact that opiates did not alleviate them, that enemata did not open the bowels, and especially the greater resistance in the iliac region and the circumscription of it with the higher tympanitic percussion sound limited to the more resistant spot, brought me to the diagnosis of volvulus, but I could not exclude a perforation of the processus vermiformis with peritonitis in the surroundings. At all

events there was strong indication for making an exploratory incision (at least for a surgeon) to make out the real cause. I did this at once without waiting to see if more ice, more opiates, more leeches, more water pumped into the rectum and colon would not possibly alleviate the symptoms. And I was amply rewarded by finding the volvulus and the incarceration by the half-knotted processus vermiformis.

Unfortunately the processus vermiformis, which was ordered to be sent to the Pathological Anatomical Institute at once, was thrown away and could not be found again. I cannot, therefore, be sure of my theory, but I think that it is most probably true.

If this patient had been treated as "a medical case" only for twelve hours more, I feel sure that no remedy except excision of a long piece of the small intestine could have saved him, and we all know the bad chances of recovery after this operation. If no operation had been done there would have been no possibility at all of saving him, therefore I cannot understand how it can be thought right and advisable in such cases to prolong the very unsafe working in the dark, namely, the internal treatment of ileus, for a period longer than twenty-four hours or so. By an exploratory incision made on a cleansed part of the body, with clean instruments and clean hands, you cannot possibly do any harm, but surely an immense deal of good in finding out the real cause of the mischief, and then curing it if it is to be cured by operative measures, and, if not, there is scarcely any other means than a miracle—the internal use of "physic" cannot possibly effect it.

In the lapse of about a year this man had two attacks of severe pain, with vomiting and obstructed bowels. These may have been brought on by a partial twisting of the same or another coil of the small intestines, the twist going back again of itself; but I think it more probable that it was caused by adhesion between the once twisted gut and the parietal peritoneum, or another part of the gut which was not allowed a free peristaltic movement, and was wholly unsatisfactory when larger masses of intestinal contents had to be advanced through the more or less fixed part of the intestinal canal. I dared not draw the omentum majus down between the incarcerated part of the intestine and the incision in the abdominal wall, because I thought it safer to have this part of the intestine as near the incision as possible, in the case of a perforation in the gut, that it might find its way out through the incision without infecting the whole peritoneal cavity. If I had known then the method of Professor Dr. N. Senn, namely, the shortening of the mesentery by stitching it together in a fold, I think I should have tried it.

ON REINFECTION IN PHTHISIS.[1]

By ARTHUR RANSOME, M.D., F.R.S.,

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In his great work, *Traité de l'Auscultation Médiate*, Laennec expresses (p. 699) the opinion that "no consumptive succumbs to a first attack of the tuberculous affection." He also gives his reasons for believing in the complete arrest of the disease in certain cases. The truth of the latter belief has now been abundantly proved, not only by the experience of all who have closely watched the progress of the disease, but also by the results of *post-mortem* examinations; and these last have the further advantage that they not only prove the possibility of cure, but demonstrate the very large proportion in which cures take place. Different observers give different proportions, varying from 50 per cent. (Cruveilhier, Rogée, Degerini) to 26 (Standecker, Bollinger). The researches of Marsini and Dr. Harris, of the Manchester Royal Infirmary, come near the mean at 39 per cent. of all the necropsies upon persons over 20 years of age who have died of other diseases than phthisis. It is natural that the figures should differ at different places owing to variations in the degree of infection, apart from differences of method, but it is obvious that in all places there must be a large number of persons in whom one attack at least had been recovered from, and who are most of them unconscious of the peril through which they have passed.

In a very large number of cases, also, Laennec's first proposition is true; and we may extend it by saying that not only do they not die of the first attack, but not a few recover from it, and have no more seizures. Unfortunately, this occurrence is not so common amongst the patients of our consumptive hospitals as it is amongst the rich or amongst those who can take the necessary precautions against further attacks.

This difference in the results naturally opens up another question—Why in so many cases the patients suffer from a series of attacks, until ultimately they end in death? And, again—Whether there may not be something in the homes of the poorer class of patients that renders them more liable to a return of the disease?

The usual, and in many instances the correct, answer to this question is, that tuberculosis is an infective disease, that it spreads along the lymphatics or blood vessels, and that though the bacilli may cease for a time to irritate, and may many of them be discharged from the body, yet a sufficient number remain behind to sporulate and spread through the lungs or through this system, and this occurrence is most likely to occur in unhealthy conditions of life. According to this theory, recovery only takes place because the tissues are so well nourished or otherwise protected that the bacilli cannot spread from their first focus, and at length are either entirely discharged or die out. If any subsequent attacks occur, this desirable result has not been obtained, but the bacilli or their spores have taken advantage of some temporary weakness or of some catarrh to make a fresh start into surrounding parts.

But there is at least one other explanation of a revival of the disease, and that is by *a reinfection from external sources.* It will no doubt be extremely difficult to prove in any given case that such reinfection has taken place, and that any particular outbreak of the disease has been due to such a cause; but a few considerations will show not only its possibility but its extreme probability in a large number of cases.

1. We have now the certainty that the primary infection must have come in most cases from external sources, and hence there can be nothing unusual in a second infection or even in multiple infection from similar surroundings.

2. The patient has already proved himself to be susceptible of the disease, or vulnerable by the bacillus, and is therefore probably by nature more liable than others to the disease.

3. By reason of his first attack, also, he is especially prone to become for a second time the host of the invading parasite. His damaged lung is less elastic, and less provided with the natural safeguards against its lodgment. We may also presume that the antimicrobic influences of the body, whether phagocytic or antitoxic, are weaker than in the generality of human beings.

4. It is almost certain that the primary source of infection was to be found in the unhealthy house, or in some usual haunt of the patient, and when he returns to his former condition of life he will probably meet again with a contingent of the same enemy that made the first attack on his lungs.

5. There is abundant evidence as to the existence of infected houses and infected workshops. The distribution of phthisis in towns and in places where bacillus-laden dust is most likely to be met with; its favourite haunts in badly-ventilated, badly-drained tenements; the evidence that now exists of the introduction of infection into houses; the discovery of the organism in these houses and in places inhabited by consumptives—all these facts show the presence of the poison in the places from which most of our patients in hospital come, and make it most probable that the inhalation of the bacillus will take place again and again, and that it will be received into susceptible lungs.

6. Under this head, also, we may note the longevity of the bacillus of tubercle in the presence of respiratory impurity, polluted ground air, or other organic filth. If it does not gain in virulence under these circumstances (a not improbable event) at least it is kept alive for long periods; and the presence of a former consumptive, and the probability of his having left the specific poison somewhere in the house,

[1] Presented to a meeting of the Lancashire and Cheshire Branch of the British Medical Association.

makes it still more likely that his home is a source of infection.

7. Lastly, we come to the experience of individual medical men, and, although for reasons already given it will be impossible to affirm that reinfection *ab extra* has taken place in any one case, yet a frequent repetition of cases open to this interpretation will enhance the probability that some of them at least are of this character.

The preceding series of considerations will also tend to strengthen the case for reinfection. There are few hospital physicians who have not suffered the disappointment of seeing cases of phthisis deteriorate rapidly upon their return home, after they had greatly improved in hospital, and had even shown signs of cure. It is one of the most disheartening facts connected with the treatment of this disease in hospital, whatever may be the nature of the medicinal treatment. After the first two or three weeks most of the cases begin to improve, fever diminishes, the cough and expectoration subside, and they gain weight sometimes to a considerable extent. But when they are discharged after a few weeks or months of residence, and are obliged to return to their former occupations or to their old homes, they frequently break down and come back to the outdoor department with a fresh development of the disease.

This—a common experience at most consumptive hospitals—is, of course, open to the explanation that the fresh air and good food and healthy surroundings of the hospital kept the enemy at bay for the time, but that it again advanced when the poor food and unhealthy conditions of the dwelling had so far lowered the patient's vital power that he could no longer resist its attacks.

No one can affirm that such a course as this is not in accordance with what we know of the natural progress of the disease, and yet, from the considerations which have just been noted, it is at least as likely that the virus, instead of coming from within the body, has been derived from the poisonous atmosphere of the home. And in some of these cases there are certain facts to be noted that make the latter the most probable explanation of the case:—

1. In not a few instances the disease, instead of spreading in a natural and usual fashion along the track of the absorbents, commences afresh in some part of the opposite lung or in the larynx.

2. In other instances the patient does not return home at once after leaving the hospital, but goes to stay with friends in the country, with people who are as poorly off as himself, where the main difference between his own home and the place of his temporary sojourn is fresh country air. Whilst he is under these otherwise unfavourable conditions he still continues well, and gains in wefght: but after he finally returns home, and has remained there only a few weeks, the disease again breaks out, makes rapid progress, and soon comes to a fatal end.

3. In some of the cases the interval between the first return home and the fresh outbreak of the disease is from three to six weeks, just about the usual incubation period of tuberculous infection.

4. Lastly, it is fair to count the numerous cases now known to have remained free from fresh outbreaks after change of residence as, for the most part, instances of escape from reinfection from without. If, as some physicians contend, after a first attack the disease remains latent, waiting only for an opportunity to develop, it is difficult to understand why so many of these cases escape, in spite of the many depressing circumstances that often attend the change of residence and change of occupation. It is precisely among those persons who take to a hard life, with exposure to outdoor influences, often with poor and insufficient food, that we find our best instances of permanent cure. In many cases, in order to avoid the foul air, which I and so many others consider the chief source of danger, our poor patients often have to descend into a lower grade of labour, such as agricultural employment, omnibus-conducting, ship-stewardship, and so on, and yet the so-called latent tubercle finds no fresh point of attack, and the disease only reappears when the patient has been exposed to new sources of infection from without. To my mind, the theory of redevelopment of latent tubercle under these circumstances is contrary to all the canons of scientific evidence.

Cases of Phthisis who have Changed their Residence.

L. Living. D. Died.

No.	Name.	Sex.	Age.	Stage.	Duration of Life.
1	McK.	Male	34	III	L. 7 years after
2	Mrs. C.	Female	35	I	D. 20 ,, ,,
3	L. C.	,,	30	I	L. 26 ,, ,,
4	Miss R.	,,	25	I	L. 15 ,, ,,
5	Mrs. J.	,,	30	II	L. 20 ,, ,,
6	G. S.	,,	18	I	L. 17 ,, ,,
7	Th. J.	Male	45	I	L. 20 ,, ,,
8	F. R.	,,	26	I	L. 14 ,, ,,
9	W. W.	,,	45	I	L. 10 ,, ,,
10	Mrs. M. W.	Female	25	III	L. 17 ,, ,,
11	Mrs. K.	,,	39	II	L. 12 ,, ,,
12	Mrs. S.	,,	30	I	L. 20 ,, ,,
13	Mrs. D.	,,	30	I	L. 18 ,, ,,
14	J. G.	Male	28	II	L. 40 ,, ,,
15	A. B.	,,	19	I	L. 20 ,, ,,
16	F. G.	,,	18	I	L. 18 ,, ,,
17	C. C.	,,	47	II	L. 30 ,, ,,
18	A. H.	Female	18	I	L. 20 ,, ,,
19	D. W.	Male	30	III	D. 40 ,, ,,
20	H. B.	Female	20	II	L. 8 ,, ,,

The following cases will illustrate one or more of these points tending to incriminate the infected home.

Case I.—J. T. J., aged 19, was admitted to hospital on January 10th, 1888, with softening tubercle at the right apex, and slight consolidation on the left side. His weight on admission was 108 lbs.; under treatment by iodoform, cod-liver oil, and ozone inhalations (5 cylinders daily) he improved steadily, the disease remaining absolutely stationary though bacilli were abundant in the sputum. He was discharged on April 27th weighing 124 lbs., a gain of nearly 17 lbs. He then went to stay with friends at a little farm in Wales where the food was scanty; but he continued to improve, and gained 10 lbs. more in weight in the course of this year and the next. He returned to his own home in the autumn of 1889, and he was readmitted to the hospital on November 22nd, 1889. He still looked robust and well, and weighed 135 lbs. His left lung was normal, and there were no signs of extension of disease on the right side, but his voice was hoarse, and on laryngoscopic examination tuberculous infiltration of the epiglottis was found to be commencing. From this time he steadily lost ground, the disease spreading through the right lung and in the larynx, and he died in the spring of 1891.

Case II.—E. F., male, aged 29, was admitted to hospital on July 18th, 1888, with a twelve months' history of phthisis, now in the second stage, on the left side, and slight consolidation at the right apex. His weight on admission was 141½ lbs., and after four months' treatment with cod-liver oil and ozone inhalations he gained 5½ lbs. in weight, and the disease in the lungs remained stationary. He was discharged on November 5th, but was readmitted on January 11th, 1889, having lost 10 lbs. in weight, and with an extension of disease in the right lung, and a cavity in the apex. He regained 7 lbs. in weight in the next two months, and improved for a time, but after his discharge he again rapidly lost ground, and died in the autumn.

Case III.—R. H., male, aged 17, admitted May 5th, 1889. Had hæmoptysis six months before, now a cavity in the right apex, left side normal. He was treated with iodoform, cod-liver oil, and ozone inhalations (3 cylinders thrice daily), and on September 10th he was discharged, having gained 6 lbs. in weight, and with the note that "the disease had not progressed in the slightest." He returned home, but was readmitted on November 19th, having lost 7 lbs. in weight, with softening tubercle on the left side, considerable extension of the disease on the right, and with tuberculous laryngitis. He died a few months later.

Case IV.—J. B., male, aged 29, clerk. Admitted to hospital April 17th, 1885, with softening tubercle at both apices (one year's history). He remained five weeks, taking chiefly iodoform and cod-liver oil, and improved very much, gaining 15 lbs. in weight. He then (in June, 1885) went to Canada, but returned in 4 months. He had been employed as a farm labourer, and found the food inferior and the hardship great, but notwithstanding this he had gained weight and the disease had not advanced in the least. In September, 1886, he went home, and in March, 1887, he was admitted as in-patient, with increased disease on the right side. He again improved, however, and left in June, weighing 121 lbs. He returned to work and to his old home, and in April, 1889, he was again received as an in-patient, having lost 19 lbs. in weight, and with a large vomica in the left upper lobe.

Case V.—A. W., female, aged 16, weaver, had hæmoptysis in September, 1890, and twice in the spring of 1891; she was admitted to hospital on May 20th, 1891, with a vomica at the left apex and slight consolidation of the right. Sputum crowded with bacilli (B. 3). She was treated with creasote and cod-liver oil, and carbolic inhalation, afterwards with iodoform, and was discharged on December 11th, having gained 20 lbs. in weight, the cavity contracting, the sputum much diminished in quantity, and the bacilli reduced to (B. 1). A place as waiting-maid was found for her in the country, but before going to it she went home to Bradford, in Manchester, for a week. Three weeks after going to her situation she fell ill, with increased cough and expectoration, fever and night sweats which lasted several weeks. Three months after her recovery she came to the out-patient department and was examined, and although the disease was again quiescent it was evident that there had been an extension of the disease in the right lung.

Case VI.—S. D., a box maker, with a phthisical history of three years, was admitted to hospital May 13th, 1889, with a large cavity in the right apex; left side doubtful consolidation at apex. In three months she gained 21 lbs. in weight on cod-liver oil and iodoform. She returned home and to work six or seven hours a day; cough returned three

months later, and she lost 13lbs. in weight. She was readmitted October 4th, 1890, with softening tubercle in the left upper lobe, no extension of the disease on the right side.

These cases are not to be regarded in any sense statistically. They are merely examples of a numerous series of instances of a similar character which have come under my notice at the Manchester Hospital for Consumption. Not one of them can be recorded as a distinct and undoubted instance of reinfection, for in each there is the possibility that the subsequent outburst of disease has had an internal source; but the repeated occurrence of such cases, viewed in connection with the *a priori* considerations which have been mentioned, has left a profound impression on my own mind, and has led me to affirm the strong probability of reinfection upon a patient's return to previous conditions of life. It also leads to the inquiry as to the best means of preventing such an occurrence, especially in the numerous class of cases in which removal to another dwelling cannot be carried out, and I venture to think that the practical lessons to be drawn from the facts are: 1. The need either of change of residence or the thorough disinfection of premises occupied or frequented by consumptive persons. 2. The duty of constantly destroying by fire or corrosive sublimate the sputum from these patients. These measures have hitherto been chiefly advocated on the plea that they are necessary for the protection of other members of the family or of the public, but if it be true that in many cases of phthisis the primary lesions would entirely heal unless fresh infection takes place, it becomes a part of our treatment for the cure of these cases to take care that these measures are carried out.

REMARKS ON THE USE OF GLASS TUBES FOR DRAINING THE BOWEL IN COLOTOMY, EXCISION OF THE RECTUM, INTESTINAL OBSTRUCTION, AND COLECTOMY.

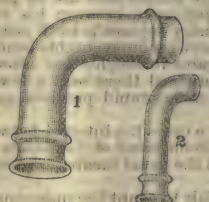
By F. T. PAUL, F.R.C.S.,
Surgeon to the Liverpool Royal Infirmary.

In July, 1891, I published in the British Medical Journal some cases of inguinal colotomy in which the bowel was opened at once, and contamination of the wound and peritoneum guarded against by securely ligaturing into the opening a large glass draining tube. Such a proceeding, perhaps, seems somewhat rough and crude, and met with adverse criticism from Messrs. Harrison Cripps, Herbert Allingham, and Mayo Robson. But during the past year I have had the opportunity of repeating it under various conditions, and have met with such uniform success, that my colleagues at the Royal Infirmary have approved and adopted it, as well as surgical friends practising at other hospitals. I, therefore, feel more confidence in bringing it again under the notice of the profession generally.

In the three cases previously published in the Journal I adopted the form of inguinal colotomy practised by Mr. Jessett, and though it yielded admirable results I was quite willing to accept the opinion of the two former of the above-mentioned surgeons, that this operation is less safe than the plan advocated by them. In all subsequent cases I have used their operation. It is certainly easier and quicker, and therefore should be safer. The steps of this glass tube method as at present practised are (1) to make the incision and withdraw the bowel as described by Mr. H. Allingham; (2) to pack round the bowel with aseptic gauze, make a longitudinal opening on its convex border just large enough to admit the bent glass tube (Fig. 1) previously plugged with wool, and to insert this tube, and securely fix it with a tight ligature; (3) if deemed necessary to apply any of the further sutures employed by Mr. Allingham, and to dress the wound, covering the dressing with jaconet, through which the tube projects. When a great rush of motion is expected it is simply caught in basins as it flows from the curved tube; but when the previous obstruction has not been severe a jaconet bag containing wood-wool or other absorbent is tied on to the end to receive the discharge. The tube gives rise to no inconvenience, and always remains secure for three days. Sometimes it does not slough out for a week or more, apparently owing to a subsequent relaxation taking place in the ligatured tissues, which permits a partial re-establishment of the circulation. That this does occur has been shown by the presence of a little blood oozing from the cut in the bowel an hour afterwards, though the ligature was tied tightly at the time. The operation is not longer than Mr. Allingham's, as the catgut sutures used by him to fix the bowel to the wound are unnecessary, and I rarely employ them. At present the series of cases is too small to afford any useful statistical information; but I have not yet heard of any death within the fourteen days' limit fixed by Mr. Allingham. One died shortly after that date from the shock of the supplementary operation, performed not with his special clamp, but with the thermo-cautery.

In the large and valuable series of cases published by Mr. Allingham in the British Medical Journal for May 14th, he has the good fortune to have to record only two deaths during the first fourteen deaths. Certainly such results are very creditable and encouraging, but the accident to which he attributes death in each instance would have been practically impossible if the tube had been used. In the one the bowel could not have slipped back into the abdomen, and in the other the obstruction and distention would have been at once relieved, and the small intestine would not therefore have been forced out of the wound. In his former communication he expressed the opinion that distended bowel could not be opened at the time of the operation without risk of contaminating the peritoneum. I may assure him that his opinion is a mistaken one. The piece of bowel outside the wound, no matter how distended, can be controlled by clamp or assistant, whilst the operator makes the small incision necessary for the insertion of the tube. There is really no difficulty and no danger in any part of this simple proceeding, and I hope before Mr. Allingham abandons the inguinal to return to the old lumbar operation in cases of prolonged obstruction he will allow me to persuade him to give the tube a trial.

Another class of case in which the larger tube has proved serviceable is in extensive excision of the rectum by Kraske's, or, as we call it here, Alexander's, method. In such cases the peritoneum is invariably opened, and a rush of fæces usually follows the operation. In the three in which I have tied the tube into the cut end of the rectum, we have experienced no difficulty in keeping the immense wound quite aseptic during the first four or five days, notwithstanding that no preliminary colotomy was done, and quantities of motion escaped daily.



Intestinal Drainage Tubes. 1. For use in the cæcum, colon, and rectum; measures 5 inches in length by 1 inch in diameter. 2. For use in small intestine; measures 2½ inches in length by ½-inch in diameter.

The smaller tube is intended for use in those cases of acute intestinal obstruction in which it is imperative to relieve the distended and paralysed bowel. Even when the original cause of obstruction has been entirely removed, the paralysed intestines are often quite unable to help themselves, and the operation is without avail. It is then necessary to give a very free and easy vent for the thin fæcal matter and gas with which they are distended. I have on three occasions inserted one of the smaller tubes into the bowel above the obstruction in such cases; but, unfortunately, though the patients all experienced great relief, none of them ultimately recovered. One was a robust man with septic peritonitis from sloughing appendix. Another was a previously healthy but collapsed individual with acute intestinal obstruction. And the third was a delicate consumptive man with obstruction of nine days' duration, due to adhesions nipping a coil of ileum. The

first two died within thirty-six hours, but the third lived five days. In his case the distension disappeared, the tube was removed, and he was taking nourishment; but the bases of his lungs had given out during the previous collapse, and he died from congestive pneumonia. In these cases, as soon as the glass tube is tied into the bowel, the latter is returned to the abdomen, and fixed to the wound with fine catgut sutures, in order that a fæcal fistula and not an artificial anus should be formed. In a successful case the fistula ought not to be difficult to close. The thin fluid motion is conducted to a bottle of some disinfectant fluid by means of an india-rubber tube.

Finally, I have used the fæcal drainage tube successfully in a case of excision of a portion of the colon for cancerous stricture. Altogether I have performed this operation four times. In the first three cases I attempted to establish the continuity of the bowel at once, and they all died. In this, the fourth, I drained off the rush of motion which follows the operation with the tube, and the patient has experienced nothing more severe than if colotomy alone had been done. In the first case I excised a malignant stricture of the sigmoid flexure, and sutured the ends of the bowel together. The operation was followed by copious stools, and a little fæcal matter forced its way through to the peritoneum, and was rapidly fatal. In the second case I first relieved the distension by a right lumbar colotomy, and some weeks later excised the growth in the descending colon. The patient unfortunately died from the shock of the second operation. The third case occurred quite recently. It was one of a very large mass of cancer in the cæcum under the care of my colleague, Dr. Glynn. After exploring it, I doubt if I should have proceeded further but for the fact that I had the advantage of the assistance of Mr. Mitchell Banks. We removed the mass as quickly as possible, and I restored continuity by my bone tube operation, and we were at any rate successful in getting the patient back to the ward in very good condition. He did well for a couple of days, but failed on the second, and died on the third, owing to sloughing of the cut end of the colon from loss of nutrition, I suppose owing to ligature of the ileo-colic artery. Had I used the glass tube here, this patient's life would, I believe, have been saved.

In the last and still more recent case I decided to employ the safest proceeding, and to defer the question of re-establishing the continuity of the bowel to a future date. In her distended condition it was quite impossible to say certainly where the stricture was situated, but, with the help of her physician, Dr. Peirce of Hoylake, I explored first over the sigmoid flexure, and luckily dropped down on it at once. Some adhesions were ligatured and divided, and the bowel, including the malignant growth, brought out of the wound. It was carefully packed round with gauze, and the larger sized tube inserted into the upper distended end through a small opening, the bowel above being clamped. As soon as the tube, plugged with wool, had been securely tied in, the bowel was cut through below it just above the cancerous stricture. Then the mesentery was ligatured in portions, and it and the bowel below divided, a small glass tube being tied into the latter. As soon as this was done the operation was completed, for it was unnecessary to suture the bowel to the wound. When dressings had been applied, the plug of wool was removed from the upper tube, and many pints of motion came away during the next few hours. The plug was left in the smaller tube, as scarcely anything appeared in it. From the time of the operation the patient was in comfort. The tubes remained secure until the fourth day, when they were removed, at which time the ends of the bowel were thickly coated with lymph and firmly adherent everywhere. The subsequent improvement has been quite satisfactory. The two openings are to be seen side by side, but whether it will ever be wise to attempt to restore continuity is, I think, very doubtful. My opinion has always previously inclined to the double operation of first opening the cæcum or ascending colon, and subsequently excising the malignant growth; but, on the whole, I have come to the conclusion that, wherever situated, the operation employed in the above case will prove to be the most successful method of removing malignant strictures of the colon.

The patient has now (July 12th) been well for some time. The lower end of the bowel has retracted out of sight. The upper end makes an excellent artificial anus.

TUBAL GESTATION: RUPTURE INTO PERITONEAL CAVITY; ABDOMINAL SECTION; RECOVERY.

By W. GIFFORD NASH, F.R.C.S.,
Bedford.

Whilst working Dr. Image's practice at Bury St. Edmunds, I was called to see a farmer's wife, aged 40, who had been married seventeen years, and had had eight children, but no abortions or miscarriages. Her youngest child was 5 years old. All her confinements had been natural, and never followed by any inflammatory trouble. For two years she had noticed a movable lump on the right side of her abdomen, which caused dragging pain and abdominal discomfort, increased at her periods.

When I saw her on January 13th, she complained of the movable lump and pain in the left lower abdomen. The movable lump was the right kidney, which could be displaced downwards into the iliac fossa, across the spine over the front of the left kidney, and upwards under the ribs. The uterus was retroverted, and to the left of it could be felt a small tender lump about the size of a dove's egg. On placing the patient in the genu-pectoral position, the lump could be pushed up out of reach. I diagnosed this as a congested, prolapsed, left ovary.

On January 17th, sexual intercourse took place, and produced violent pain and sickness. Next morning the abdomen was very tender, and the supposed prolapsed ovary rather larger. On January 21st, at 11 P.M., she was suddenly seized with violent pain on the left side of the abdomen—sickness, diarrhœa, cold sweats, and faintness. I saw her early on January 22nd, and found her extremely collapsed. She was blanched, and the pulse was about 130. The abdomen was distended and very tender. Her last natural period had begun on November 25th, and lasted four or five days. She expected her next period on December 25th, and on that day a slight show commenced, which lasted three days. There was no pain with it, and she had no idea she could be pregnant.

On vaginal examination, there was great pelvic tenderness. The lump was not so distinct, but there was more diffused fulness in its place. The uterus was enlarged, cervix soft, and os patulous. In the night there had been bearing-down pains, and the patient thought she had had a miscarriage. In the bed I found a dried and shrivelled membrane.

I came to the conclusion that there was a rupture of a tubal gestation on the left side into the cavity of the peritoneum. The reasons for this diagnosis were:

1. A period had been missed, and it was 7½ weeks since the last day of the last natural period—that is, she had reached the time when rupture was most likely to occur.
2. There was a tender swelling on the left side of the uterus, which had become less distinct.
3. The uterus was enlarged, cervix soft, and os patulous.
4. There was milk in the breasts.
5. There was marked collapse, signifying internal hæmorrhage.
6. There was discharge of uterine decidua.

The reasons for the rupture being intraperitoneal were:

1. The great collapse, showing a large hæmorrhage.
2. The rapid onset of peritonitis.
3. The absence of the mass fixed on one side of the pelvis, pressing on the rectum, such as I have felt in previous cases where the rupture had taken place between the layers of the broad ligament.

On January 23rd, about noon, Dr. Boxall operated; on that morning the pulse was 96, the temperature 99° F., the face flushed, and features pinched. Under ether a median incision was made about 3 inches long. The peritoneal cavity contained a large quantity of dark-coloured fluid and clotted blood. This was sponged out and the left tube sought for. The enlarged tube, containing a mass about the size of a Tangerine orange, was pulled up out of the pelvis, and in doing so the mass burst, allowing the amniotic fluid and the fœtus to escape. The latter was about 3 inches long. The tube was ligatured and removed. The clots were

removed from the pelvis and the peritoneal cavity sponged out and flushed with warm water. The wound was closed with silk sutures. The uterus was noticed to be considerably enlarged. At the operation the right kidney was examined and found to have a distinct mesonephron. The patient made an excellent recovery, getting up on the sixteenth day. The movable kidney is kept in place by a pad and belt.

Dr. Boxall's Description of the Parts Removed.—The sac occupies the outer half of the left Fallopian tube, and is as large as a duck's egg. The abdominal orifice of the tube is patent and patulous, easily admitting the point of the uterine sound. The cut uterine end of the tube is also patent. The ovary lies beneath the sac. A well-organised band of adhesion 1 inch in length runs from the ovary to the sac. On the surface, at the upper part of the sac, are evidences of recent inflammation and portions of adherent blood clot. Rupture has taken place through that part of the sac wall which was nearest to the uterus, on the upper and anterior aspect. The rent is irregularly ovoid, ¾-inch in length. The peritoneum is torn to a corresponding extent. There is no appreciable effusion of blood beneath the peritoneal covering. The rudimentary placenta is implanted on the highest part of the sac wall, the attachment of the cord being situated immediately external to the site of rupture. The cord is 4 inches long. The fœtus, which at the time of the operation was living, measures 2⅝ inches from vertex to breech.

CRANIECTOMY FOR DOUBLE OPTIC NEURITIS WITH MICROCEPHALY.

By R. SHALDERS MILLER, F.R.C.S.,
Senior Surgeon, Western Ophthalmic Hospital.

The case here reported was one presenting such severe symptoms, and the treatment was so promptly followed by relief, that early publication may perhaps be justified without waiting for the further improvement which may reasonably be looked for.

The patient was a boy, 8 months old, microcephalic and exhibiting double optic neuritis; the resulting blindness being the cause of his parents' seeking treatment for him at the Western Ophthalmic Hospital. The spine and limbs were almost constantly extended and rigid, the thumbs were strongly adducted and the fingers firmly flexed over them; the legs also were tightly adducted, the right being crossed in front of the left. There was consequently much trouble in washing the child properly. The genital organs were somewhat peculiar, the penis being very small and retracted, so that only empty foreskin presented, but there was no phimosis; the right testicle was absent from the scrotum and canal, while the left was just outside the external abdominal ring. The urine was never projected in a stream, but dribbled away. There was very marked nystagmus and convergent squint, and the eyeballs were deeply drawn into the orbits, giving the child an aged and pained expression. Ophthalmoscopically there appeared severe optic neuritis and atrophy in both eyes, with some patches of choroidal pigment in the right. Though the pupils were dilated with atropine, the nystagmus prevented the possibility of making anything like an exact drawing of the fundus oculi. Vision was manifestly reduced to mere perception of a strong light; the eyes never resting on any object. Swallowing was generally easy, but the child's attention had to be excited by moving the bottle-nipple about between the lips before sucking movements were initiated. When the legs happened not to be firmly extended, the knee-jerk was readily produced. The facial bones were well developed, the lower middle incisors were well through the gums and all the cranial sutures were completely ossified, no trace of a fontanelle being detectable. The mother stated that there was no soft space on the head at birth. The child had been born with the aid of forceps, which had not in any way marked the head or face. The coronal edge of the frontal bone was thick and raised above the parietals, and the left parietal bone was distinctly flatter than the right. All bony eminences on the cranium were but slightly marked, and the forehead was receding. The circumference around the upper margins of the orbits and the occipital protuberance was 15⅜ inches, which is about the average measurement for a child of four months, that is, half the age of this child. The frontal eminences were only one inch from centre to centre; the forehead therefore was extremely narrow. The child was very strongly built, very restless, cried a good deal, was constipated habitually, but seldom sick. It displayed very little intellectual activity.

On March 21st, 1892, the head was shaved, and an antiseptic dressing put on. On the evening of this day the child was very nearly asphyxiated owing to ataxic deglutition. On the next day a linear craniectomy was performed. The chloroform was skilfully administered by my friend, Dr. Hulbert, of Windsor. This was no easy task, as the child's pulse was ordinarily irregular in force, and shortly after the operation was begun pulsation at the wrist quite ceased, but was restored by applying a large hot antiseptic sponge to the head, as recommended by Mr. Victor Horsley, and inflating the chest with oxygen from one of Brin's cylinders. This proceeding had to be repeated once or twice, but as more and more bone was removed the pulse continuously improved till, at the end of the operation, it was strong and perfectly regular in force and rhythm. The length of the bony excision was a little over 3 inches, beginning in front at the inner side of the left frontal eminence, and extending backwards parallel to the sagittal suture. The opening was ½-inch wide, and from each end of its outer edge a short branch cut was made with gouge forceps, so as to leave the outer boundary of the bone wound in the form of a projecting flap unsupported at its two ends, thus allowing of some subsequent eversion by the brain pressure. The periosteum was removed from the whole area of the intended bone wound before using the trephine with which the osseous section was commenced, all the rest of the bone being cut away with forceps. The hæmorrhage was very slight, being mainly venous oozing from the dura mater, as that was separated from the superjacent bone. No vessels were tied. The scalp was replaced, and fixed with seven or eight silver sutures.

The child made an uninterrupted recovery, union of the scalp taking place throughout by first intention. The temperature, taken always in the rectum, never exceeded 100° F., reaching that on only three occasions, and was promptly reduced by incising the upper front gums; the corresponding teeth at once appeared, and grew freely. The child took each night a powder containing hydrarg. c. cretâ gr.j, sodii bicarb. gr. ij, and sodii bromid. gr. ij.

The spastic condition of the limbs diminished from the time of the operation, and it was observable that on the day after there was no spasm at all in the right arm and hand, while a little remained for three or four days in the left. In a week both testicles were well down in the scrotum, the penis had emerged from its concealment, and the urine was projected in a vigorous stream. Some of the sutures were removed on the eighth day, and the others, one or two daily, till the eleventh day, when the child left the hospital completely healed. During this time the sight appreciably improved, the child noticing a hand in a good light; all nystagmus and squint disappeared, the eyeballs came forward in the orbits, and the little patient assumed the natural expression of a baby. Sucking and swallowing were prompt and spontaneous.

Five weeks after the operation, the circumference of the head, at the same level as before, had increased to 16 inches exactly, that is to say, a gain of ⅜ths of an inch, but the distance between the centres of the frontal eminences had increased by nearly half an inch.

A few days later still the child was able to stand, holding on by its hands to the upright bars of a nursery fender. The vision had further improved, as evidenced by the child's following with its eyes any distinct objects moving about, and the intelligence had so increased that the little patient laughed like any other baby when played with and talked to after the manner of mothers and nurses.

The child was seen again on May 18th, 1892. The vision then was apparently still more acute, the intellectual activity greater, and the general health excellent. The notes of the case, which are here summarised, are for the most part due to Miss Boyce, the sister-in-charge at the Western Ophthalmic Hospital.

By Imperial decree, dated June 13th, a Medical Department of the German Imperial Naval Office was created. The administration of the new department is provisionally placed under the direction of Dr. Wenzel, Surgeon-General, First Class.

SUBCUTANEOUS SUTURE OF FRACTURED PATELLA.

BY D. W. AITKEN, M.B.EDIN.



Fig. 1.

THERE have recently appeared in the BRITISH MEDICAL JOURNAL two interesting papers on the above subject. The former, by Mr. Barker, describes an operation which, to my mind, has the following objections:

1. It is not truly subcutaneous.
2. Owing to the presence of a ligature in the joint there is a danger, not simply of eroding the cartilage, but of inflammation in the joint.
3. The suture is merely made to surround the patella, and does not actually unite its two fragments.

To Mr. Butcher's operation, though subcutaneous, it may be objected that:

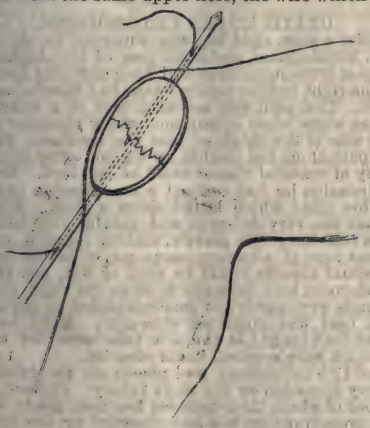
1. The suture is in the joint.
2. It would probably cause ulceration of the ligaments inserted above and below to the patella.

To meet these objections I have had the instrument which I described for dislocations of the clavicle improved, so that it may be adapted to the matter in hand. Instead of the grooves in the drill I have had a tube made to carry the wire. The drill is also made a good deal longer (see Fig. 1).

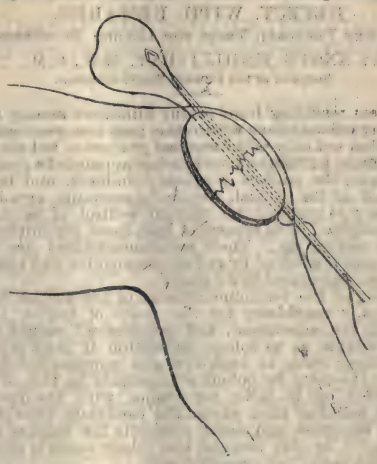
A stout silver suture is chosen. An assistant flexes the knee until the patella becomes most prominent. Under chloroform the muscles are relaxed and so the fragments can be brought close together.

The instrument is introduced from below, and the patella is slowly and carefully pierced with the threaded instrument, which is finally passed through the skin above (see Fig. 2).

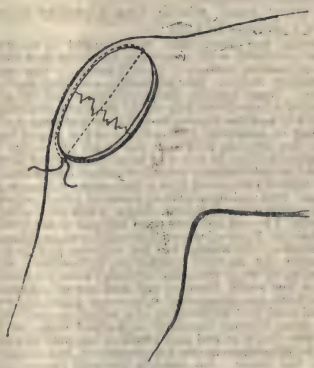
The wire is now seized and drawn out sufficiently to permit of the next step. The end of the suture being held, the instrument is withdrawn while the wire occupies its track. The drill is to be then reintroduced at the same lower hole, but superficial to the patella, in fact just beneath the skin, as shown in Fig. 3. When the end points from the same upper hole, the wire which was left


Fig. 2.—First Stage.

projecting there is bent back and pushed into the drill tube and carried down along with the instrument. Both ends of the wire now project from the same hole below. The loop above is made to enter the skin, and the ends of the wire are pulled tight until it is felt to be close down upon the patella


Fig. 3.—Second Stage.

itself. The ends are lastly tied and the knot allowed to sink beneath the skin. Fig. 4 shows the final stage.


Fig. 4.—Third Stage.

The advantages claimed are:

1. The great ease of the operation with the instrument described and shown in Fig. 1.
2. The fragments are themselves acted upon and united firmly together.
3. No foreign body is left to irritate the joint.
4. It is entirely subcutaneous—that is, if strict antiseptic precautions are taken.

Again I am indebted to Dr. Symington and Mr. Kerr, artist.

PRESENTATION.—Mr. W. J. Spence, L.R.C.P., L.R.C.S.Ed., has been presented with a handsome gold watch by the members of the Syston Branch of the St. John Ambulance Association, in recognition of his services as surgeon-instructor. The watch had a suitable inscription engraved upon it, and the presentation was made by the vicar of the parish. Sixty-four candidates have been presented for first aid certificates, and a large number for re-examination, and so far there has not been a single failure.

REPORT OF A CASE OF CENTRAL COLOUR DEFECT, WITH REMARKS.

Recent Proposed Tests for Colour Blindness.

By ANGUS McGILLIVRAY, M.B., C.M.,
Surgeon to the Dundee Eye Institution.

The dangers resulting from colour blindness among marine and railway officials have within the past few years attracted the attention not only of the medical profession but also of the general public. In 1890 the Royal Society appointed a committee to investigate the subject of colour blindness, and last year the Council of the British Medical Association appointed a committee "to promote the efficient control of railway servants' eyesight." The reports of both these committees have now been drawn up. Their recommendations are highly practical, and if adopted by railway companies and the Board of Trade are calculated to do good.

According to the recommendations of the British Medical Association, "candidates for the posts of engine cleaner, fireman, driver, signalman, and pointsman," would be considered suitable as to colour perception if they possessed normal colour sense in each eye, and unrestricted fields of vision. "The tests for colour sense should be that of Holmgren, carried out in strict accordance with his directions. After this test has been passed the candidate should be required to recognise and name promptly the colours used in signalling." By this method the colour sense is estimated only qualitatively, not quantitatively.

Now a candidate may arrange the Holmgren tests with perfect accuracy, and recognise and name promptly the colours used in signalling, yet, though possessing perfect distant vision, he may be quite unable to tell the difference between a red and green signal at the distance of a few hundred yards, even in a clear atmosphere.

The following case, which has recently come under my notice, is an example of this:—

Miss C., a young intelligent lady, was brought to me by my friend Mr. Murray, to be examined with reference to vision and colour perception. She gave the following history: Up till recently she was not aware of having any colour defect. Her attention was first drawn to it in rather a peculiar way. Some friends calling commented upon the redness of certain plums on a tree about fifty yards from her drawing-room window. She was unable to see the plums, as the tree appeared to her quite green. On approaching it, however, the redness of the plums became distinctly perceptible. Her friends told her she must be colour blind, but that seemed scarcely possible, as she was an accomplished colourist on china. The next time she noticed this peculiar defect was while walking with a friend. Her friend remarked that a lady some distance away was wearing a red cloak. She maintained that it was of a dark colour, and only discovered her mistake when she came closer. A few days after I saw her in my consulting room. I found her eyes were normal in every way. Vision, right and left, normal (1). Field of vision normal for white, blue, red, and green. No night blindness. On testing her for colours she had no difficulty in recognising even the faintest shades of difference. She arranged the Holmgren skeins of wool with the greatest ease and accuracy. I then held up before her small discs of red and green colours, 3 millimetres in diameter, which she recognised with some slight difficulty. When the discs were reduced to 1 millimetre she failed entirely to recognise the colour, even after having carefully examined them in her own hands. Again taking two discs of red and green of slightly larger diameter than the first, and holding them about 5 metres away, she could not distinguish the one from the other. On testing her with larger discs, and holding them to begin with at such a distance as to subtend the same angle as in the former cases, she had the same difficulty. I then suggested to Mr. Murray that it would be very interesting to find out if Miss C. could recognise the railway signals red and green at night. We accordingly went to a railway station in the evening, where there were over thirty red, green, and white lights at the distance of about 300 yards. She saw them all quite clearly, but recognised no colour, though some appeared brighter than others. On going closer to them she had no difficulty in recognising the different lights and naming the colours.

The recommendations of the Royal Society's Committee, as reported in the British Medical Journal of May 7th, do not materially differ from those of the British Medical Association Committee, and mention no test that would detect such a case as that I have recorded. I would therefore suggest that either Donders's or Nettleship's apparatus be employed in addition to those recommended. These tests would also be more effectual in the initial stages of toxic amblyopia, as the skeins of Holmgren are too large to detect a small central scotoma for red or green.

A hygienic exhibition will be held in St. Petersburg in the spring of 1893, under the protectorship of the Grand Duke Paul Alexandrovitch.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A CASE BENEFITED BY ADMINISTRATION OF OXYGEN DURING ANÆSTHESIA.

I am indebted to the kindness of Dr. Frederick Taylor, under whose care this patient was admitted, for permission to publish this note.

J. S., aged 26, was admitted into Guy's Hospital on February 1st, 1892, with the left side of the chest full of purulent fluid; large quantities of non-purulent fluid had been aspirated on several occasions during the previous eight months. A few days after admission he was put under A.C.E. mixture; an opening was made by Mr. Jacobson, and a small piece of rib resected. As soon as he was under the anæsthetic he was rolled on to his right side, but as he became black in the face from interference with respiration he had to be turned on to his back, and the operation was finished from below, much to the inconvenience of the surgeon. Three months later it was found that the lung had not expanded at all, and that there were few or no adhesions between it and the chest wall; it was decided to resect several ribs to allow the chest wall to fall in.

Remembering how badly he had taken the anæsthetic during the first operation, we began to think how the risk during the more severe ordeal which was to follow might be diminished. Though not absolutely necessary, it was very important to turn him on his sound side, and it seemed that if the percentage of oxygen in the respired air could be increased the limited movements of the right chest would be sufficient for the time being.

On May 22nd A.C.E. mixture was given on a cone. It was not long before he stopped breathing on several occasions, and it seemed probable that the operation might have to be discontinued. The tube from the oxygen bottle was introduced under the cone, and a gentle stream turned on. He very soon got right, and the operation, which lasted about forty-five minutes, was finished without further anxiety, the respiration and pulse remaining good.

I have been able to try it in this one case so far, but in cases such as the above the administration of oxygen with the anæsthetic seems especially suitable and likely to be of service.

D. S. Long, M.B., B.C.,
Late House-Physician to Guy's Hospital.

DEATH UNDER CHLOROFORM.

On May 31st a man, aged 52, was admitted to the Queen's Hospital, Birmingham, under the care of Mr. Jordan Lloyd. For the past three months he had been suffering from severe pain in the right lumbar region which had incapacitated him from work. The pain was constant and of a gnawing character, was worse when at rest, and rarely shooting down to the inner side of the thigh or into the scrotum. There was scalding pain along the urethra during and after micturition. No history of venereal disease could be obtained. Ten weeks before admission he had noticed a considerable quantity of blood in his urine which lasted about a week. Micturition at this time was very frequent and painful. On admission, urine was 1020 in specific gravity, acid in reaction, contained a very faint haze of albumen, some pus cells but no blood. No abdominal tumour could be seen or felt, but there was acute tenderness both back and front on the right side. The heart sounds were feeble but unaccompanied by any murmur; the apex beat was displaced outwards. Moist *râles* were heard over both lungs; at the left base were dry crackling sounds which were ascribed to old pleurisy.

On June 11th the patient was placed on the table for an exploratory operation on the right kidney. Chloroform from a bottle out of which three patients had been safely anæsthetised the preceding day, was administered by the house-surgeon on a double fold of lint. For three minutes the man took the anæsthetic well, but then began to struggle, requiring the assistance of three dressers to hold him on the table. The struggling lasted two or three minutes and then ceased; the man breathed well for about another minute and was

nearly under when, at the end of about seven minutes from the commencement of the administration and after two drachms had been inhaled, he suddenly ceased to breathe and the face turned livid. The tongue was pulled forward, the foot of the table well raised and artificial respiration by Howard's and Silvester's methods resorted to. Under artificial respiration he took one or two feeble respirations, but as he did not revive the diaphragm and phrenic nerve were faradised, and at the same time the external jugular vein was opened. As a last resource the trachea was opened and direct lung inflation tried; finally heart puncture was performed, and as the needle remained quite motionless, further efforts at resuscitation were given up. At the moment of the cessation of respiration the pulse was beating but when next felt for (after some minutes' interval) was not perceptible.

At the *post-mortem* examination the heart was found fatty, flabby, and dilated; the mitral valve admitted three fingers and the tricuspid five. There was no organic valvular disease. The base of the left lung was extensively bound down by pleuritic adhesions. The other organs, including the kidneys, were healthy except the bladder, which was inflamed and thickened behind a urethral stricture. The pain in the back was accounted for by rheumatoid arthritis of the spine.

Dryden Stead, M.R.C.S., L.R.C.P.Lond.,
House-Surgeon.

POISONING BY STRYCHNINE: RECOVERY.

On June 11th we were summoned in great haste to W. M., aged 65, scavenger, who had, it was alleged, attempted suicide by poisoning.

On arriving at the man's bedside we found that some seven or ten minutes previously he had swallowed a large quantity of strychnine. The following treatment was once instituted: Apomorphine, ¼ gr., was given hypodermically; six tumblers of hot water, with three tablespoonfuls of mustard and three tablespoonfuls of salt, were administered by the mouth for the purpose of producing vomiting, and as a preparation for the stomach pump, which was thereafter employed for more than an hour to evacuate and recharge the stomach repeatedly; as antidotes, 3 ounces of tannic acid were administered by the mouth at an early stage, and after an interval evacuated to a large extent from the stomach by the pump; finally, a large dose of bromide of potassium and 30 grains of chloral hydrate were given, and strict quiet and absence of light and movement enjoined.

Twitchings and jerkings of the muscles of the limbs, and tetanic spasms of the muscles of the lower jaws, with violent contractions of the œsophagus, were the most noticeable symptoms. The effect of the emetics was very prompt, extremely violent, emesis occurring alongside the œsophageal catheter almost immediately after the introduction of the tube into the stomach. The man was busy at his work four days after his misadventure. His escape is no doubt largely attributable to the thorough evacuation of the stomach effected by the apomorphine, and to the fact that not more than ten minutes elapsed after the strychnine gained access to the stomach (which was full of food) before medical treatment was initiated.

While the quantity of the poison absorbed must have been undoubtedly insignificant, yet there is incontestable proof in our hands that the man swallowed exactly 20 grains of pure sulphate of strychnine.

This case has been published because, so far as can be gathered from the books of authorities on poisoning, it is unique. No instance, so far as we are aware, has formerly been recorded of recovery after the appearance of characteristic symptoms where such a huge dose of strychnine has been taken.

A. Wallace, M.D.
Turriff, N.B. James McRae, M.B.

Deaths in the Profession Abroad.—Dr. Hermann Nasse, who occupied the Chair of Physiology in the University of Marburg from 1837 until 1879, died recently in his 82nd year. He made numerous contributions to the physiology of the blood, lymph, and chyle.—Dr. Ludwig Friedrich Leo, of Bonn, Secretary of the Scientific and Medical Association of the Lower Rhine, has died at Bonn in his 78th year.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

BRISTOL ROYAL INFIRMARY.

PARALYSIS OF THE DIAPHRAGM IN TWO CASES OF PERIPHERAL NEURITIS.

(By Henry Waldo, M.D., M.R.C.P.Lond., Physician to the Infirmary.)

A female patient was admitted in January, 1890, with acute ascending paralysis. It was one of those cases which during life may be explained upon the spinal myelitis theory, or upon that of peripheral neuritis. The patient died six days after admission, and at the *post-mortem* examination the spinal cord and medulla oblongata were saved, as well as some of the peripheral nerves.

The patient was a spinster, aged 40, a West Indian, dark-complexioned, and rather sallow. Her family history was good, but she had never enjoyed good health. For some years she had complained of pain in the stomach and low down in the bowels, as well as in the hips and thighs. Her memory had been defective, and she had long complained of insomnia, for which she had taken large quantities of different narcotics. She could not procure enough sleeping draught at one chemist and so was in the habit of patronising two or three. The last drug she took a fancy to was sulphonal, of which she had taken large quantities. I asked her when she was first admitted if she had tried bromide, and she said "that drug is not a bit of use."

She was anæmic, and, apparently, could with difficulty rouse herself to answer questions. Her friends told us that it was first noticed that her legs were getting weak four days before admission. Her arms gradually got weak a day or two after. The extensors were more paralysed than the flexors, especially in the legs, and there was distinct ankle drop, although the great toes did not bend over into the soles of the feet. The muscles were quite flaccid. The knee-jerks were totally absent, as were the superficial reflexes.

There was no affection of sensation—no girdle pain, no tenderness of nerve trunks, no numbness, no tingling. Handling the calf muscles did not produce any discomfort. The electrical reactions were never ascertained, owing to a mistake. The temperature was a little raised; there were no rigors; the skin was dry. The heart's impulse was felt in the nipple line, and 2½ inches below it. No murmur was audible. The pulse was 160. There was no cough or expectoration, and air entered the lungs well. The voice was exceedingly feeble; she could scarcely pronounce words, and it was most difficult to understand her. Headache was complained of. There was no pain or tenderness of the spine. The pupils were slightly unequal, but acted to light and accommodation. She said she had occasional loss of sight. She usually slept well. The sphincters were paralysed, and a catheter was passed night and morning.

The urine, specific gravity 1030, acid, contained no albumen. It was of a reddish-pink colour, and had all the naked-eye appearances of containing blood. There were, however, no blood cells present, and upon testing for blood it was quite absent. It was, I take it, owing to the presence of purpurine, one of the pathological pigments. Purpurine has an intense affinity for uric acid and the urates, and when the latter are thrown down as a deposit, which occurred in this urine, it communicates to them a beautiful pink colour. It is said to be abundant in poisoning by lead and other metals. After a day or so the urine became alkaline, specific gravity 1025, and contained a trace of albumen and mucous deposit. I may say the bladder is very seldom indeed affected in cases of peripheral neuritis, and the fact that there was no affection of sensation is also a condition somewhat unusual.

After she had been in three days I noticed that the diaphragm was paralysed on both sides; the epigastrium flopped inwards during inspiration; at the same time the intercostal muscles were acting vigorously. This fact was much in favour of the lesion being peripheral and not spinal, since

the diaphragm is innervated from a higher point than the intercostal muscles. After this, symptoms of bulbar paralysis appeared; the patient could not move her tongue, which was coated and tremulous, and she could not swallow; the pulse was persistently rapid, 160 and over. A few years ago this would have been considered a good illustration of Landry's paralysis, in which, as a rule, nothing abnormal was found in the cord, and the peripheral nerves were not examined.

At the *post-mortem* examination no naked-eye abnormality was found except in the ovaries and the bladder. The ovaries were enlarged and calcareous, with one or two small cysts on their walls. This would go a long way to explain the severe pains in the lower part of the body the patient complained of for some years, and also the various nerve symptoms, which were considered to be hysterical. The bladder was in a condition of severe catarrh. A few weeks before admission to the infirmary the patient was treated for renal calculus, and the medical man in attendance told me the urine contained blood; there was, however, no sign of a recent calculus at the *post-mortem* examination, either in the kidneys or ureters, and the inflammation of the bladder was probably due to its loss of power.

Microscopically the sections from different parts of the medulla oblongata and spinal cord appear to be quite healthy, but the sections of the peripheral nerves are certainly abnormal; the nerve fibres are not well defined—they seem to be mixed up with the endoneurium. This shows most in the section of the anterior tibial nerve. The external cutaneous nerve of the leg does not show it so much, and the great sciatic shows it still less; the nerve fibres here are much more distinct. The paralysis commenced in the feet, and so one would expect to find the distal nerves in a more advanced condition of neuritis. On comparing a section of a healthy popliteal nerve with the others, the difference appears to me very marked. Of course apparent abnormalities in nervous structures are sometimes owing to the mode of preparation, but the cord and peripheral nerves were hardened in the same way and stained with the same logwood stain, and yet the cord appears to be normal, and the nerves in the condition I have stated. I think the evidence is in favour of this case being one of acute peripheral neuritis. The cause may have been the use of narcotics. There was no history of alcoholism.

A second case occurred in a woman admitted to the infirmary under my care with peripheral neuritis of alcoholic origin. The paralysis of the diaphragm was complete, and was the immediate cause of death.

REVIEWS.

A CATALOGUE OF PORTRAITS AND BUSTS IN THE ROYAL COLLEGE OF SURGEONS OF ENGLAND; with short biographical notices. By F. G. HALLETT, M.A. Printed for the College by Taylor and Francis. 1892.

A WISH has been expressed on several occasions that a catalogue of the portraits and busts in the possession of the Royal College of Surgeons of England should be compiled, and, although from time to time attempts have been made to supply this want, Mr. FREDERIC G. HALLETT is the first who has given the necessary time and labour to searching the minutes and other records of the College in order to make the catalogue complete. Only those with experience in historical research can fully appreciate what a labour of love is involved in even the smallest investigation of the records of an old institution, and therefore we are grateful for this reliable information, elegantly printed in a handy volume.

The book is more than a mere catalogue of pictures and busts. It serves the purpose also of a guidebook to the College buildings, for the portraits are numbered according to their places in the various rooms and offices, beginning with the secretary's office on the left of the front entrance to the College. The description of each portrait includes its dimensions, the name and date of the artist, the name of the donor, and the date of presentation. This is followed by a short notice of the subject of the portrait, culled from the numerous recognised authorities on medical biographies, which, though not intended to be in any sense exhaustive, will form the most interesting part of the catalogue to the majority of visitors. An endeavour has been made to give as complete a record as possible of the appointments held by those who have assisted in creating the history of the College of Surgeons, and this record stands as a valuable and authoritative contribution to the history of medicine. Attention should also be called to the large collection of engraved portraits of medical celebrities in the Library of the College, which, through the energy of the librarian, Mr. J. B. Bailey, has been conveniently arranged for inspection.

From this catalogue it appears that there are forty-six paintings in the collection, and forty-two busts and medals, in addition to the life-size statue of the founder of the museum, which was erected in 1864 by public subscription. John Hunter is further represented as follows: the well-known portrait in the Council Room, painted by Sir Joshua Reynolds, P.R.A.; three copies of the same, by different artists; a bust by John Flaxman, R.A.; a bust by Sir Francis Chantrey, R.A., and a plaster cast of the same; a medallion by James Tassie (1735—1799); and a pencil portrait by Sir Nathaniel Dance Holland, Bart., R.A., dated 1793, the year of Hunter's death. The portrait of his brother William, painted by Johann Zoffani, R.A., hangs near the door of the Council Room. Dr. William Hunter also appears in the famous picture by Rowlandson of the dissecting room at the Great Windmill Street School, where he is represented as demonstrating to a large class, among whom can be recognised many celebrated men. There are two copies in the conservator's room of Rembrandt's "Nicolas Tulp and his Pupils," the original of which is to be seen in the National Gallery at the Hague. One of these copies is a proof-etching by De Frey (1798), which was presented to the College by Mr. George Redford a few years since.

The oldest picture in the collection is "a Cartoon painted by Hans Holbein, representing King Henry the VIIIth delivering the Charter to the Barber Surgeons in the year 1535," which, according to the minutes of the Court of Assistants dated July 6th, 1786, was purchased "on the account and for the use of the Company and the Court of Examiners" for the sum of 50 guineas. Mr. Sidney Young has recently shown that the picture commemorates the Union of the Barbers' Company with the Guild of Surgeons, accomplished by Act of Parliament in 1540; and not the granting of the Charter to the Barber-Surgeons which occurred in 1512. Mr. D'Arcy Power is of opinion that the principal portraits in this group bear testimony to the masterly hand of Holbein, while those in the background are by an inferior artist. Next in seniority come a painting of Richard Bannister, by Van Ceulen, dated 1620; and one by Sir Balthazar Gerbier, of Richard Wiseman, Sergeant-Surgeon to Charles II, whose biography has been so ably written by Sir Thomas Longmore, K.C.B. Van Ceulen is also represented by a copy of his portrait of William Harvey, in the possession of the College of Physicians. The most important of the remaining pictures, whose dates are earlier than the present century, are: Percivall Pott, by George Romney, and another portrait of the same surgeon by Sir N. D. Holland, Bart.; Sir Cæsar Hawkins, Bart., by William Hogarth; William Cruikshank, the famous anatomist, by James Stewart; William Cheselden, by Jonathan Richardson; and Joseph Warner, by Samuel Medley, who also painted the well-known picture at the Medical Society's rooms. This collection of medical art is well worthy of a visit, and by means of Mr. Hallett's catalogue may be examined with ease and great interest.

NOTES ON BOOKS.

The Wife and Mother: A Medical Guide to the Care of her Health and the Management of her Children. By ALBERT WESTLAND, M.A., M.D., C.M. (London: Charles Griffin and Co. 1892.)—The author of this closely-printed work of nearly 300 pages says in his preface that it is "addressed to women who are desirous of fulfilling properly their duties as wives and mothers," and he adds somewhat oddly that "the information in it is the common property of every well-educated physician." Whether it is wise to attempt to teach wives and mothers everything that is known by the physician con-

cerning all the diseases which afflict women and children is open to serious question. The wife and mother is instructed how to distinguish between tonsillitis and diphtheria, among other "common maladies of children." The differential diagnosis of the infectious eruptive fevers will next engage the attention of the mother, and accordingly she is duly put in possession of all such trifling aids to diagnosis as are "the common property of every well-educated physician." If even medical men frequently find great difficulty in correctly diagnosing fevers, we fear that the wife and mother who should dabble in high matters like these would very frequently go terribly astray. When we are told that the diagnosis of scarlet fever, measles, chicken-pox, and the like is either "very easy" or "not usually difficult," we fear the author has not duly taken into account the great gulf which exists between the ordinary mother and the educated practitioner, and we question the wisdom of attempting to teach the arts of medicine, nursing, and dietetics so far as they relate to children, to persons who can usually have no necessity to know anything about "imperforate conditions of lachrymal ducts," or the technical names of the sutures of a baby's head. The work might be useful enough to a newly-qualified man commencing general practice; the wife and mother had better let it alone.

The Mütter Lectures on Surgical Pathology. By Roswell Park, A.M., M.D. Pp. 293. (St. Louis. 1892.)—By his will the late Professor Mütter left a sum of money to the College of Physicians of Philadelphia for the establishment of a triennial course of lectures upon surgical pathology. The volume is a reprint from the *Annals of Surgery*, and contains ten lectures. The first is introductory, and those which follow deal in order with infection, pyogenic organisms, surgical fever, peritonitis, tetany, actinomycosis, tuberculosis, pneumonia, and erysipelas. This enumeration, however, gives but a poor idea of the great variety of subjects which are touched upon. The matter comprised is partly original and partly collected from the writings of others. A short but fair summary is given of the more recent work, and the latest views are set forth. The literary style is clear, although not, perhaps, classical. On the whole, these lectures will be found to reflect current views of that large branch of surgical pathology which deals with the infective diseases.

A Thousand Cases of Pulmonary Tuberculosis, with Etiological and Therapeutic Considerations. By R. W. Philip, M.A., M.D., etc., Assistant Physician to the Royal Infirmary, Edinburgh, etc. P. 22. (Edinburgh: Oliver and Boyd.)—This reprint from the *Edinburgh Medical Journal* contains an analysis of 1,000 cases of pulmonary phthisis, chiefly with a view of illustrating its etiology. It is mainly interesting from the light it throws on the relative influence of heredity and contagion in the causation of this disease. Only 23.3 per cent. showed a "definite family history of tuberculosis; in 70 per cent. the family history was reported as good, so far as tuberculous taint was concerned." Dr. Philip points out that the influence of heredity is "considerably smaller than is often supposed;" and he considers his figures "seem to limit considerably the direct operations of hereditary influence in phthisis, as frequently understood;" he concludes that this influence is chiefly felt in "the production in the tissues of a susceptibility to, or at least a diminished power of, resisting the tubercle bacillus." With regard to contagion, 6.7 per cent. of his cases "afforded definite, and in my judgment not easily controvertible, evidence of the existence of contagion." "Instances of probable infection," he adds, "might be considerably increased." Dr. Philip's conclusions are as logical as his observations have been accurate and careful; he urges the necessity of adopting strict precautions against the dissemination of the tuberculous virus, and especially he insists on the duty of the exclusion "from crowded workrooms and factories of patients with pronounced phthisis." The therapeutic results are summarised, but the methods of treatment are not mentioned.

Les Vices de Conformation des Organes Génitaux et Urinaires de la Femme (Malformations of the Genital and Urinary Organs in Woman). By C. Debierre, Professeur d'Anatomie à la Faculté de Médecine de Lille. Avec 86 figures intercalées dans le texte. (Paris: J. B. Baillière et Fils. 1892.)—This work is a manual of the usual type, with a fair series of illustrations. The author has arranged the different varieties of malformation according to the latest views on teratology. The chapter on Anomalies of the Mammary Glands is, perhaps, the best; it includes a notice of those remarkable cases of gynæcomastia following injury or disease of the testicles after puberty. The condition has been seen after the orchitis of mumps, and is known in the annals of military surgery. The portion of this manual devoted to malformations of the uterus is carefully prepared, as befits a somewhat intricate subject. According to Anglo-Saxon ideas the tone of this work is too popular. Its subject is of a character only fitted for the study of medical and legal experts.

Ueber Neuralgien und neuralgische Affectionen. Von Prof. Dr. Moriz Benedikt. Klinische Zeit-und Streitfragen, VI Band, 3 Heft.—The author begins with an anatomical classification of the pains he embraces under the above heading, and from this we see that he includes under it almost every variety of pain to which the body is heir. The use of so very wide a term is liable to lead to much confusion and also to inexact pathology. Still, the description of the various kinds of pain is careful, and all the measures usually employed for the relief of neuralgia are given. The agents described include not only drugs, but electricity, nerve stretching, hot and cold applications, and other means. A large part of the pamphlet is devoted to an account of hysterical pains and their treatment, and in an appendix the author discusses the operative treatment of neuralgia of the fifth nerve. He does not write to bring forward any new method of treatment, but rather to give to the profession the result of the experience he has gained in the past thirty years, during which he has had to treat a large number of cases of neuralgia and neuralgic pains, and has employed all sorts of remedies.

Lucan Spa and Hydropathic as a Modern Health Resort. By Thomas More Madden, M.D. (Dublin: M. H. Gill and Son. 1892.)—This pamphlet is published with the desire to draw attention to the sulphur spa of Lucan situated in an attractive locality only eight miles from Dublin. Dr. Madden tells us that at the end of the last century Lucan Spa was "amongst the most frequented and gayest of the watering places of the day," and he considers it merits much more attention than it receives as "one of the most valuable as well as beautifully situated and accessible spas of its class in Europe." This spa has the advantage of having connected with it a large hydropathic establishment and hotel, with extensive grounds. The water is a cold, mild, sulphur spring, containing free sulphuretted hydrogen as well as sodium sulphide; it also contains 28 grains of sodium bicarbonate in the gallon, and much free carbonic acid. It is considered useful in chronic gout and rheumatism, and in skin diseases, especially those of a gouty nature. Dyspepsia, chronic strumous diseases, and chlorosis are also amenable to treatment at Lucan Spa.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

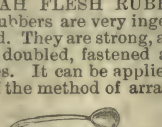
"FRAME FOOD" PREPARATIONS.

We have examined specimens of these preparations. The "Frame Food Extract" is a dark brown powder of a peculiar bitter taste, obtained by subjecting bran to certain processes of extraction, which are based on correct principles. It is claimed that the extract possesses high value for the purpose of strengthening various foods, by imparting to them some of the available food materials, both organic and mineral, which are contained in somewhat high percentage in the outer coats

of grain. Our analysis of the extract enables us substantially to confirm the more important analytical data quoted by the proprietors, while we are unable to agree entirely with some figures of minor importance. The "Extract" is the substance which gives the name to the other food preparations of the proprietors. "Frame Food Diet," previously known under the name of "Frame Food Porridge," is a fine dry powder of the character of a biscuit food. It is a cooked wheaten food containing "Frame Food Extract." Both preparations are well manufactured, and are free from adulterants and from objectionable impurities. A slight improvement in the manufacture of the "Extract" would probably prevent the presence of a certain proportion of non-soluble matter in it, the value of which is doubtful. The claim made as to the powers possessed by these preparations for developing the growth, and maintaining the healthiness, of the tissues of the body; and as to strengthening powers, require necessarily to be put to the test of long practical experience, but the idea of the patentee is a good one, and the preparations are deserving of adequate trial. Upon theoretical grounds they ought to be found very useful.

LOOFAH FLESH RUBBERS.

These loofah flesh rubbers are very ingeniously devised and conveniently arranged. They are strong, as the tape which goes through the loofah is doubled, fastened at the ends, and well secured in the handles. It can be applied to any part of the body, and in virtue of the method of arrangement can be used



as a dry rubber for stimulating the skin after a bath. The arrangement of handles and covers will, no doubt, extend the already considerable popularity of loofah as a flesh rubber and for use after the bath. They are sold by Mr. J. Favets, Sheppy Yard, Minories.

NASAL BOUGIES.

Mr. W. R. H. Stewart (Devonshire Street, W.) writes: In the British Medical Journal of July 16th, Dr. Richardson Rice, of Coventry, draws attention to nasal bougies for the treatment of nasal diseases as something novel. Might I be permitted to suggest a reference to page 378 of the 4th edition of the *Practitioners' Handbook of Diseases of the Ear and Naso-Pharynx*, published conjointly by Macnaughton Jones and myself? Dr. Rice would there find "medicated nasal cylinders" quoted as an improvement on "the old-fashioned nasal bougie," for the cylinders do not obstruct the breathing space, and respiration is therefore unimpeded by the treatment.

THE SO-CALLED GOLD TREATMENT OF INEBRIETY.

In our issue of the 16th inst. we published extracts from a letter written to us by Dr. Keeley. We have since been requested to publish the whole letter, which we accordingly do. (The paragraph in smaller type was published last week.)

Sir,—I regret to have to trespass upon your hospitality again in order to answer the statements which appear at pages 36, 49, and 85 of the British Medical Journal.

1. As to the English gentlemen who propose to found institutes in this country for the cure of drunkards upon my methods, whether they subscribe £150 or £150,000, is no more relevant to any professional issue than is the question whether Dr. Kerr should charge 1s. or 1s. 6d. for visiting his patients in Lisson Grove.

"I have already stated that my remedies do contain gold. I now also state that they do not contain either strychnine or atropine. You are being misled by Dr. Kerr's rubbishy (*sic*) analyses. Your Journal, at page 1370, states that my remedies contain 'various potent and lethal drugs,' yet at page 85 it states, on the authority of an anonymous analyst, that my remedies (No. 1) contain nothing either 'potent or lethal,' except 27.55 per cent. of alcohol. Surely these statements are due to a writer who lacks something in the way of editorial supervision. As to the 27.55 per cent. of alcohol, this may be very shocking, considering that one teaspoonful of this is taken seven times a day. But I do not intend to deprive my patients of alcohol, I merely put them on their parole that they get no alcohol except what I give them, and it is well known that if they break their parole I dismiss them. This punishment almost invariably prevents them from breaking their parole. As to alcohol, I neither incarcerate my patients nor do I deprive them of liquor. The essence of my treatment is that I neutralise the drink-crave."

When they have their first treatment a four-ounce flask of the best whisky or brandy is given them to carry in their pocket and to drink when they choose. They are told to come back and get their flask refilled as they need it. The result is that on the second or third day they almost invariably bring back their flask and ask to be relieved of it, saying they have lost their taste for liquor. But, if I did incarcerate my patients instead of relying on their parole, if I did prohibit my patients from taking liquor, the innuendo contained at page 85 is a libel, inasmuch as you compare me with the men who pretend to cure drunkards by selling them disguised rum under various names. And considering that every pharmacy in London sells its preparations with from 86 to 30 per cent. of alcohol, why should you blame me because one of my remedies is a tincture containing 27.55 per cent. of alcohol?

3. I have already stated that from 1,500 to 2,000 inebriate physicians have made a pilgrimage to Dwight, and placed themselves under my treatment. In all, more than 70,000 drunkards have made a like pilgrimage to my institutes and placed themselves under my treatment. Among this vast congregation of drunkards there are not only troops of physicians, but troops of clergymen, and lawyers, and journalists, and men whose brains lead in the work of the world. Of these an enormous proportion have been cured of their drink crave, and have regained their positions in society, and since have done useful work in the world.

You are correct in stating that some of these patients have died. Among these 70,000 drunkards and opium eaters there have been the usual percentage of insanes, of epileptics, of men with tumours of the brain, of men with thickened arachnoid, of men with worn-out viscera. I did not undertake to put into these men new viscera, nor to provide them with the elixir of life. But from the tone of your articles I gather that these inebriates, these cases of delirium tremens, these ruined drunkards, never die in your London hospitals. If that be so, I can only say that in our hospitals a definite proportion will die, and that I am prepared to compare my deaths among these cases with those of corresponding patients in the London hospitals.

4. It is true that I reserve, for the present, the details of my treatment; and that, when Dr. Kerr called upon me, I refused to give him my prescriptions in order that he might use them in his blundering way, and bring me into disgrace. But this is a point of mere professional etiquette, and before I discuss etiquette with Dr. Kerr, I must see that his conduct squares with common honesty of purpose. I do not yet understand his explanation of his conduct. He called upon me three times. As I understood, he called in order to make my acquaintance as a professional brother. It was only on the last occasion that I was able to see him; but he then paid me nothing but compliments; he was effusively complimentary as to "the great work you have done," and he never led me to imagine that he did not regard me as a "respectable member of the profession." He did not even confine himself to verbal compliments; he brought me presentation copies of his books and papers, and, in the flyleaf of his book he had been kind enough to write me complimentary phrases. Yet in his recent performance as "President of the Society for the Study of Inebriety," he admits that he went behind my back to Bishop Barry, and, without notice to me, made some statements which he has not ventured to repeat in print. I now again state that I am still in London, and ready to answer any statements that may be made about myself or about my treatment of my patients, and I now call upon Dr. Kerr to say anything he can say against me in the pages of the British Medical Journal, so that I may answer it. I submit to you that his proper course would have been to attend the meeting under Bishop Barry's chairmanship, and there make his statement in a manly way, where I could have answered him. Why should he suggest that Bishop Barry was not competent to manage a public meeting in such way as to avoid any disservice to the public? His suggestion that Bishop Barry had no business to take the chair at a meeting called to consider some new proposals for the cure of drunkards, except subject to Dr. Kerr's approval, is an absurd evasion.—I am, etc.,

Leslie E. Keeley, M.D., LL.D.

Hotel Victoria, London.

BRITISH MEDICAL ASSOCIATION.

[The following Reports of the Council and of the Committees will be presented at the Annual Meeting to be held at Nottingham on July 26th, 27th, 28th, and 29th, and are published in accordance with the regulations for the conduct of Annual Meetings, which require that all Reports of Committees of the Association shall be printed in the JOURNAL *before the Annual Meeting.]*

REPORT OF COUNCIL.

THE Council have the pleasure to meet you again in the historic town of Nottingham, the capital of the Midland Counties Branch, after an interval of thirty-five years, and to present the sixtieth annual report.

A large number of members having given notice of their intention to attend the meetings, and either to take part in the discussions or to read papers, the Council anticipate a large and successful gathering, and from the nature and importance of the subjects of the proposed papers and discussions that the scientific character of the sixtieth annual meeting will be fully maintained.

The work of the Association during the past year has been noticeable and successful.

At the last annual meeting, held at Bournemouth, resolutions were passed in the various sections as follows:—

In the Section of Public Health:—

Resolved: "That this Section, learning that public corporations and other local authorities desiring to erect crematoria are impeded or prevented from doing so by the present state of the law, request the Parliamentary Bills Committee to take that subject into consideration, and to adopt necessary measures to procure a change of the law."

Many of the members feel strongly that this is the only sanitary way of disposing of the dead, and that it is a matter which should have the consideration of the corporations.

In the Section of Psychology:—

Resolved: "That this meeting is of opinion that a scientific commission of inquiry should be appointed by the Government for the purpose of determining the conditions of portions of the school population, as to the average development and brain power among them, ascertaining the number of such as are imperfectly developed, their distribution, and the probable causes of such defects."

A form of memorial to the Government was also adopted.

Resolved: "That in the opinion of this Section popular exhibitions of hypnotism, and of persons under the influence of hypnotic suggestion, should be prohibited, and that the Council of the Association be requested to make representations to the proper authorities urging the necessity of such restrictions."

These three resolutions were submitted to the Council in October last, but inasmuch as the general body of members had not had an opportunity of expressing an opinion on the principles involved, the Council consider it right that the Association in general meeting should express its views before taking any further steps, and they therefore propose to submit the resolutions to you during the present meeting.

In the year's finance, it will be found on reference to the statement of accounts that the surplus shows an improvement on that of last year, the increase being £1,500. This is partly due to lessened expenditure and partly to increased revenue. The total revenue for the year is £33,485, the expenditure, inclusive of £1,016 17s. 11d., the amount written off towards cost of lease for depreciation of furniture and premiums on investments, is £29,623 11s. 6d., leaving a surplus of £3,861 19s. 1d. This is invested in 4 per cent. Great Eastern Railway Debenture Stock, and in the City of Birmingham 3 per cent. Corporation Stock. The investments now amount to £31,608, the total of assets over liabilities to £45,195.

The Association is still increasing in numbers both at home and abroad, though your Council this year have only to report the addition of one Branch, an important Colonial one, namely, the Trinidad and Tobago Branch.

The number of members on the books last year was 13,861. During the year 984 new members have been elected, 184 have died, and 394 have resigned, leaving a total of 14,267 members on the books.

THE BRITISH MEDICAL JOURNAL has continued to hold its position in the front rank of medical periodical literature, and its circulation continues to increase. It has rendered considerable service to the profession during the year, especially in bringing forward for discussion the case of the Irish medical officers and in procuring prompt and signal reparation for the wrongs inflicted on Surgeon-Major Briggs, of the Army Medical Staff.

The EPITOME OF CURRENT MEDICAL LITERATURE is now printed in the body of the JOURNAL.

The Parliamentary Bills Committee has been occupied this year with many important questions; among them may be mentioned the organised effort by which it has undertaken to assist the Irish dispensary medical officers, enabling them to obtain redress for their manifold and serious grievances. With this view the Chairman, assisted by Mr. William Thomson, of Dublin, has prepared an elaborate report founded on the replies to a schedule of questions issued to every Irish dispensary medical officer. In this matter the Committee are cordially co-operating with the Irish Medical Association and other leading bodies in Ireland. A report on the subject of the sale of poisons and patent medicines having been laid before the Committee by the Chairman, it was forwarded to the Treasury with a request that the information therein contained should be considered with a view to putting in force the powers of the Act of Parliament to prevent the sale of proprietary medicines containing poison, but not so labelled. The Solicitor to the Treasury, after verifying the series of analyses submitted and the information contained in this memorandum, ordered a prosecution against the proprietor of a leading patent medicine, and obtained a conviction, the result of which it is hoped will be far spreading.

Some defects in the Lunacy Act, 1890, have been considered, and a report thereon, with suggestions for amendment, forwarded to the Lord Chancellor, who has undertaken to give the matters his most careful consideration.

A memorandum on the subject of the duties, pay, and prospects of prison surgeons has been forwarded to the Home Secretary, with suggestions which are at the present moment under the consideration of the Government.

It will be remembered that in the last report of this Committee, allusion was made to the introduction of a medical ordinance for the colony of Sierra Leone. Since then a correspondence has been held with the Colonial Office, and Lord Knutsford has received the remarks and suggestions of the Committee on the draft medical registration ordinance for Sierra Leone. It appears that the legislation on the subject has been deferred for some time owing to the late Governor having been transferred to Barbadoes, but the Committee trusts to receive from the Colonial Office before long a copy of the ordinance adopted, which will correct the evils so strongly condemned by regular practitioners in the colony.

Two ordinances relating to the sale of drugs and poisons in the Colony of Lagos and in Gold Coast Colony respectively were also forwarded by Lord Knutsford to the Chairman of the Parliamentary Bills Committee, and suggestions were made for their amendment which were approved by the Committee and by the Secretary of State for the Colonies, who instructed the governors of both these colonies to take steps in accordance with the suggestions for amending the ordinances.

At the last annual general meeting held at Bournemouth, a motion was made and carried that the General Medical Council be asked to approach the Privy Council, and to request them to exercise the power vested in them by the Act of returning an additional direct representative for each of the three divisions of the United Kingdom. A motion was made to this effect at a meeting of the General Medical Council by Sir Walter Foster and Mr. Wheelhouse, two of the present direct representatives, but was negatived, 21 voting against it, 5 for it, while 4 were absent or did not vote. The warm thanks of the profession are due to Mr. Wheelhouse and Sir Walter Foster for the way in which they brought the matter forward in the General Medical Council.

A resolution was also carried at the same meeting that "in appointing the Crown Representatives, the Privy Council be requested to nominate three who shall be representatives of medical practitioners in general, not of the examining bodies and colleges."

A copy of this resolution was forwarded to the Privy Council in accordance with your instructions, and duly acknowledged.

In accordance with your instructions all Committees were called together before the end of the month of October follow-

ing the annual meeting, but, your Council must add, at great inconvenience, many of the meetings clashing.

In the Ophthalmological Section last year, a resolution was carried recommending the Council of the Association to appoint a committee on the efficient control of railway servants' eyesight.

The Committee has issued a most excellent report which has been acknowledged by the railway companies. Your cordial thanks are due to the Chairman of the Committee, Mr. Macnamara, and to Dr. George Mackay, of Edinburgh; the latter acted as Honorary Secretary to the Committee, and obtained much valuable information both from British and foreign railways.

At the Bournemouth meeting a Committee was appointed, upon the recommendation of the Section of Therapeutics, to investigate the clinical evidence of anæsthetics, the best method of administering them, and of restoring a patient in case of threatened death. This Committee has been at work during the past year, and has presented only an interim report, as the collection of evidence and experience will take some time. Mr. Jonathan Hutchinson, F.R.S., has consented to act as Chairman over the Committee, Mr. Pridgin Teale, F.R.S., as Chairman of the Executive Committee, and Dr. Childs, of Weymouth, as Honorary Secretary. Subcommittees have been formed in Scotland and Ireland, and your Council trusts to receive a valuable report upon a subject of so much importance to medical science from their united action.

The Colonial Branches from time to time have consulted the Council of the Association on various questions of policy.

The question of the admission of medical women as members, which was raised by one of the Indian Branches some time ago, has been again brought forward by two of the Australian Branches. It will be remembered that this was settled in 1878 at a special meeting at the annual meeting at Bath. A vote of the members of the Association had been taken on the subject in 1876; 6,250 circulars were issued asking each member to say "yes" or "no" as to medical women being admitted as members, and, out of 4,161 returned, 3,072 voted against the admission, while only 1,051 voted in its favour. The letter from the Honorary Secretary of the Adelaide and South Australia Branch calling attention to the matter states that "it was felt by some that it was a distinct hardship that women should be debarred from such membership; as the colonial universities granted them degrees and put them on an even footing with men, it was not consistent, therefore, to refuse them admission to the meetings of the Association and Branches, providing the Articles of Association were altered to allow them to become members." The Melbourne and Victoria Branch, at a meeting of the members, resolved:

"That duly qualified medical women are eligible as members of the Victorian Branch of the British Medical Association, subject to the approval of the Council of the Association."

This proposition was carried by 14 votes to 1. Of course the Council could not sanction that which was antagonistic to the Articles of Association and by-laws, and has replied to that effect. Subsequently the Adelaide and South Australia Branch also memorialised the Council upon the subject. In order to obtain the views of the members of this Branch a circular was sent to each member; 75 replies were received out of 96: 46 were favourable, 20 against the admissions, while 9 were neutral.

As the previous decision of the whole Association was arrived at fourteen years ago, the views of the majority may since have become modified.

The Association numbered only 7,536 in 1878; now there are upwards of 14,000 members. Your Council have therefore decided to place the question before you at a special general meeting of the members, to be held on Thursday next, the 28th inst.

Your warm thanks are due to the honorary secretaries of the several Branches, both Home and Colonial, for their successful labours in the interests of the Association, their work having become very onerous and important, owing to the great increase in the membership.

The honorary secretaries, who retire after some years of earnest and good work, are Mr. R. J. H. Scott, from the Bath District of the Bath and Bristol Branch, who has been succeeded by Mr. W. M. Beaumont, Bath;. Dr. Poulton, of the Adelaide and South Australia Branch, succeeded by Dr. A. A. Lendon: Dr. B. Anningson, of the Cambridge and Huntingdon Branch, succeeded by Dr. J. Griffiths, Cambridge; Dr. Radcliffe Crocker, of the Metropolitan Counties Branch, succeeded by Dr. Isambard Owen; and Dr. Charles Parsons, of Dover, after most valuable work as honorary secretary of the South-Eastern Branch for nineteen years, succeeded by Mr. T. Jenner Verrall, of Brighton.

The sad death of the young Duke of Clarence, in January last, called for warm expression of sympathy with Her Majesty the Queen and their Royal Highnesses the Prince and Princess of Wales. These were forwarded and very graciously received.

The Library and Reading Rooms appear to be much appreciated by members, and are largely used. The attendances, which during the previous twelve months had amounted to 2,000, have during the past five months shown a further increase. The total number of books on the shelves exceeds 5,250; 1,434 duplicate volumes have been presented to various provincial medical libraries and societies which had applied for them. A further list of duplicates has been prepared, from which similar donations can be made on application. The question now presses how to provide further accommodation for the steadily increasing number of books, which, for the convenience of readers, needs to be readily available.

Scientific Grants Committee.—The Council made a grant of £400 to the expenses of the Scientific Grants Committee for the past year; this was divided between sixteen different investigations, the details of which will be presented to you in a separate report.

The Medical Charities Committee have met twice during the past year, and appointed a Subcommittee to prepare a scheme with suggestions for the reform of medical charitable relief. The Subcommittee, consisting of Dr. Withers Moore, President of Council; the President, Dr. Thomson; Mr. George Brown, Dr. Bridgwater, Dr. Henty, and Dr. Hugh Woods, have drawn up a scheme which will be placed before you for your consideration.

The Committee appointed to investigate the subject of hypnotism have completed their report, which will be placed before you.

The work done by the Inebriates Legislation Committee has been of unusual importance. An extensive correspondence in London daily and other journals, with proposed measures for compulsory power to intern inebriates in special homes as in other countries, marks a decided advance in public opinion. The Committee, with the sanction of the Council, resolved to utilise this advance in public opinion in the direction of influencing the Legislature to enact such a measure in England. An appeal was accordingly made to all who were interested in the welfare of inebriates to petition Parliament. The response has been most gratifying. In addition to petitions from the Royal Colleges of Edinburgh and Dublin, and many of the Branches of the Association, similar action has been taken by temperance and philanthropic associations. A departmental Committee is inquiring into the treatment of police-court inebriates, which may reasonably be expected to lead to amended legislation.

The Committee on the Examination of Feeble-Minded School Children propose to continue their work among 100,000 school children and to report, July, 1894.

An underground railway from Charing Cross to Hampstead threatened to take the offices, 429, Strand, and 2 and 3, Agar Street, but your Council have the pleasure to report that the proposed company do not now intend to disturb the Association in the occupation of their rooms and offices beyond proposing to purchase the houses 2 and 3, Agar Street.

Since reporting the above, the Imperial Parliamentary Committee has separated for the session without the question of this railway being entertained; your Council, therefore, will have further time for the consideration of the subject.

The Association has lost heavily by death during the past year. Two of the Vice-Presidents of the Association have passed away—namely, Sir George Paget, K.C.B., and Dr. Alfred Carpenter. The former ably presided over the meeting of the Association at Cambridge in 1864, while Dr. Alfred Carpenter assiduously performed the important duties of President of Council from 1878 to 1881. The Council have also to mourn the death of their *confrère*, Mr. Thomas Sympson, whose kind and genial manner and valuable aid in

the work of the Council cause a loss which will be difficult to fill. Amongst other distinguished members who have died during the year are Sir William Bowman, Bart., F.R.S.; Sir James Risdon Bennett, F.R.S.; Sir Oscar Clayton, K.C.M.G.; Dr. John McDonnell; Mr. John Wood, F.R.S.; Mr. Thomas Wharton Jones, F.R.S.; the Hon. George Le Fevre, of the Melbourne and Victoria Branch, who, it will be remembered, attended the annual meeting at Bournemouth last year; Sir Morell Mackenzie; Mr. Robert Roberts, J.P.; Dr. James Henry Bennet; Dr. Robert Eccles; Mr. Samuel Cartwright; Mr. John Robert Humphreys, F.R.C.S., who for some years gave active service to the Council; Dr. Henry Thurstan Bassett; Dr. Eustace F. Bright; Mr. John Walter Howell; Mr. John Morgan, F.R.C.S.; Dr. Peter Royle, whose familiar face will be missed at the annual meeting; Mr. John Richards, J.P., of Bangor; Dr. George Parker May; Dr. Charles A. Harvey, of Cork; Dr. Barker; Dr. James Christie, Glasgow; Dr. William Robert Woodman; Dr. F. D. A. Skae, of Lerwick; Dr. James McGrigor Maclagan; Dr. F. R. Wilson; Dr. McKan; Dr. Walter Soper Gervis; Dr. Thomas Beath Christie; Dr. John W. Hutcheon; Dr. John King Maconochy; Dr. Archibald Drummond Macdonald; Dr. Crowley; Dr. Thomas Harvey Hill; Mr. John Meikle Melrose; Mr. William Adams, J.P.; Dr. George Foster Binder; Dr. John W. Taylor; Dr. James Ross; Mr. W. H. Michael, Q.C.; Dr. George Yeoman Heath; Dr. Meymott Tidy; Dr. Don Victor Percy; Dr. Henry Tomkins, who had only been appointed as Honorary Secretary to the Public Health Section of this annual meeting; Dr. John William Tripe; Mr. George Hogarth Makins; Mr. Thomas Hutchinson; Mr. Abraham Leach; Dr. John Metcalfe, Beverley; Dr. John Randall. Many of these members your Council regrets to report succumbed to the late prevailing epidemic.

W. Withers Moore, *President of Council.*

REPORT OF THE PARLIAMENTARY BILLS COMMITTEE.

The Committee has dealt during the past year with various subjects of considerable importance to professional and public interests, which may best be referred to under their separate heads:

Irish Dispensary Medical Officers.—An active correspondence, carried on in the British Medical Journal during the autumn months, disclosed the great discontent which pervades the Irish Poor-law medical service, and suggested the advisability of giving effect to the protest of the medical officers against the severe work, bad pay, harsh treatment, and the frequent irritating tyranny of dispensary medical committees throughout Ireland. With this view a memorandum on the Poor-law dispensary service in Ireland was prepared at the request of the Chairman of the Committee, and published in draft in the Journal. It was subsequently adopted by the Committee, and a schedule of questions was issued to every Poor-law medical officer with the view of determining the exact state of facts, and the remedies best calculated to meet the case. The replies received were very numerous and detailed, and were submitted to Mr. William Thomson, of Dublin (who had drafted the previous document), and who prepared a very able and complete summary of the information thus obtained, together with a series of suggestions arising out of them. Acting in concert with the Irish Medical Association and with the Dublin Branch of the British Medical Association, a meeting was summoned of the union medical officers in Ireland, at which all the Irish counties were represented by delegates appointed by county societies which had been formed largely *ad hoc*. The Royal Colleges of Physicians and Surgeons of Ireland and the Irish Graduates' Association gave their help in framing the programme of reform accepted at this meeting, and in attending a subsequent deputation to the Local Government Board of Ireland urging it upon the attention of the Government. The subsequent stages of the proceedings in relation to this matter have been so fully reported in the British Medical Journal, that it is not necessary to enter upon them in detail; but it is sufficient to say that while on the one hand the unsympathetic attitude of the Chief Secretary for Ireland, Mr. Jackson, has been a matter of much regret and disappointment, it has caused not less surprise, inasmuch as the predecessors of Mr. Jackson and the permanent officers of the Board had stamped the general objects of this movement with their approval; and a Bill brought forward by a former Government has passed through a Select Committee of the House of Commons, and had very nearly become law, the final stage being interrupted only by the closure of the session of Parliament. There is every reason to hope, however, that this unexpected attitude of the Chief Secretary was due either to a misunderstanding of the facts and principles involved, or to an unwillingness to enter upon fresh Parliamentary business in a session of which the early closure was already foreseen. Your Committee, working in cordial concert with the Irish official bodies of the profession, and with the Irish Medical Association and the association of county medical officers, will continue to prosecute the important object in view with vigour and perseverance. They count confidently in this matter upon the active exertions of the Irish dispensary medical officers, individually and collectively, during the forthcoming elections in bringing the subject under the notice of Parliamentary candidates; and as soon as an opportunity can be found of formally raising the question in Parliament vigorous measures will be taken for this purpose.

Lunacy Acts Amendment.—The case of Brown *v.* Carpenter and Dukes having brought into prominence some obvious defects in the protective clauses of the recent Lunacy Act, the whole subject was referred to a Subcommittee, and carefully considered by them. The report prepared by Dr. Mickle made the following suggestions—[1] That the time limit during which actions of the kind in lunacy shall be commenced be strictly enforced (Sect. 331). [2] That proceedings be stayed, on application, unless the plaintiff can establish, not only by his or her evidence and affidavits other than his or her own, a very strong presumption in favour of his or her contention (Sect. 330, subsect. 2). [3] That in such action in lunacy the plaintiff be compelled to deposit in court, before the action is brought, a sum of money sufficient to cover the defendant's costs (to an amount that may reasonably be expected) if the case is decided against the plaintiff. These proposals were forwarded to the Lord Chancellor. Other steps were taken by the Chairman of the Committee to bring the suggestions and the reasons for them under the careful consideration of some of the principal advisers of the Lord Chancellor in these matters, and from them he has had the satisfaction of receiving communications of an approving character. The whole matter is being carefully considered by the Lord Chancellor, who is, however, unwilling at present to act upon what he considered to be a limited experience, and who obviously believes that such hardships are not likely to recur. There does not seem, therefore, any immediate prospect of legislation in the matter, but your Committee will continue carefully to watch the progress of events, and will be glad to receive communications from any member of the profession who may suffer from any existing defects in the protective clauses of the Lunacy Act, and, should occasion arise, they will be prepared to take steps to further press the matter upon the attention of Parliament, and, if necessary, to frame a Bill for the purpose.

Public Health Bills.—The Irish Local Government Bill contained a considerable number of clauses relating to public health matters, and on these clauses, many of which were extremely defective in their scope and inspiration, in some respects mischievous rather than useful, a detailed criticism was prepared with the assistance of eminent authorities in Ireland (British Medical Journal, March 12th, p. 564), and clauses would have been submitted for amendment in Parliament had the Bill proceeded to committee. It did not, however, go further than the second reading.

The Alkali Works Regulation Act has been amended, or rather extended during last session in a Bill containing a schedule of some dozen processes which have sprung up into use within the last ten years, and which need control. It would, in the opinion of your Committee, have been better to have scheduled the cases by control than to attempt to enumerate the processes by which they are produced, and in this view, it may be observed, the present inspector of alkali works concurs. It was further thought by your Committee that Mr. Ritchie's Bill should not be endangered by amendments, so that the works enumerated in it may be brought under proper super-

vision, and your Committee refrained therefore from intervening, but they have communicated their views to the proper quarter, and they have reason to hope that ere long an amended Act, such as is here indicated, will be passed into law. The health of the community in many localities would benefit by it, whilst no serious hardship on manufacturers or undue interference with the industry would ensue.

Plumbers' Registration Bill.—It is almost superfluous to record here the interest with which the Parliamentary Bills Committee welcome the introduction of this useful measure. The movement for securing the much-needed improvement in the work of plumbers generally originated with the British Medical Association in 1878, and the subject, related as it is most intimately to the public health, has since received much attention and been kept well before the public in the columns of the BRITISH MEDICAL JOURNAL. In 1884 the Worshipful Company of Plumbers, an old city guild dating from 1588, took active steps to ascertain the exact state of the trade, and as a result they established a system of instruction, examination, and registration of plumbers, which has already extended throughout the kingdom, and has done much to raise the standard of plumbing, and to protect the community against the unqualified workman.

The object of the present Bill, which has been introduced by Mr. Lees Knowles, is to afford additional safeguards to the public health by enabling persons employing plumbers to select, when they desire to do so, persons who have given evidence of their qualification for plumber's work, and to place upon a broader and more permanent basis the system of registration carried on by the Plumbers Company. The arrangements as to the examinations for registration will be placed under the jurisdiction of a general council, representing the master and operative plumbers, the Plumbers Company, and the chief educational and sanitary bodies of the United Kingdom, with branch councils in Scotland, Ireland, and Wales. It is proposed also to give the Council power to promote technical education among plumbers, and to exercise discipline among those whose names are enrolled upon the register. The Bill does not contemplate any monopoly, and it does not interfere in any way with the rights of non-registered plumbers. It prohibits, however, such plumbers from representing themselves to be registered.

The Bill, which experienced but little opposition, and would doubtless have become law during the present session, should be welcomed by householders and sanitary authorities, as well as by all qualified plumbers. But it had to be dropped after passing through Committee from want of time and some official neglect.

Medical Officers in Prisons.—A considerable correspondence in the BRITISH MEDICAL JOURNAL, and subsequent inquiries carried on by Dr. Dawson Williams on behalf of your Committee and of the JOURNAL, disclosed the advisability of an effort to systematically remodel in some respects and improve the present position of the medical officers of prisons in respect to their duties, pay, and prospects. As the result of considerable correspondence and after many revisions a very full and complete memorandum on this subject[1] was prepared by Dr. Dawson Williams for the Committee, and after discussion was approved, adopted, and forwarded to the Home Secretary. A formal acknowledgment only of this document has been received, and the matter is at present under consideration in the Home Office. Your Committee have not thought it right unduly to press for an early reply on so important a matter, involving so much detail as well as the question of principle. They are still awaiting a full official reply, and have in the meantime taken steps to call the attention of the Home Secretary to the matter in the House of Commons. Mr. Matthews, however, declined publicly to commit himself to any promise to revise the salaries and regulations as fixed in 1882. It will be necessary to continue to press the matter upon his attention, or that of his successor, and if necessary formally to bring forward the details for consideration in Parliament.

Patent Medicines and Sale of Poisons.—At the meeting of the Committee held on October 20th, the Chairman laid before the Committee a report on the subject of the unrestricted sale of patent medicines containing poisons. Referring to the history of the question thus far, and to the difficulties which are connected with the endeavours of the Committee to limit the sale of patent medicines on the one hand and to increase the restrictions on the sale of poisons on the other, the Chairman called attention to a former statement made by the Public Prosecutor that the Government would be prepared, whenever any instance of a proprietary medicine containing poison and not so labelled was brought to their notice, to take proceedings against the person selling. The only persons who could take steps were the Pharmaceutical Society and the Public Prosecutor; both, however, had been inactive in the matter. The Chairman presented the results of thirteen analyses of proprietary medicines, all of which he had had analysed by Dr. Benjamin H. Paul. Ten of them contained preparations of opium or morphine, two of them strychnine, and one contained 1.6 grain of aconitum in the fluid ounce. Under the provisions of the Pharmacy Act it was held that these should be sold only by duly registered persons, and that they should be labelled "poison," with the name and address of the person qualified to sell them. He suggested to the Committee that he should be authorised to communicate with the Public Prosecutor and request him to institute prosecutions, and with the President of the Pharmaceutical Society to prevent the protective provisions of the Pharmacy Act being evaded with impunity. Whereupon the following resolution was unanimously adopted:

That the Chairman be authorised to communicate with the Solicitor to the Treasury, and to call his attention to the fact that whereas on March 31st, 1890, he prosecuted a chemist and druggist for having neglected to place a poison label on a proprietary medicine containing a poison within the meaning of the Pharmacy Act, 1868, and obtained a conviction; that the evidence laid before the Committee, and of which a copy is forwarded to the Solicitor of the Treasury, shows that a considerable number of preparations sold as proprietary medicines, sometimes improperly called patent medicines, contain a very large proportion of statutory poisons, and to request the Treasury to undertake prosecutions in such cases with a view to putting a stop to this practice, which is one dangerous to the public safety; and further, that the Chairman be authorised to take such steps as may seem most advisable to induce the Pharmaceutical Society to put in force the powers entrusted to it by Act of Parliament with a view of preventing, if possible, the sale of proprietary medicines containing poison by persons not otherwise authorised for the sale of poisons.

As the result of the communications thus made, the Solicitor to the Treasury, after obtaining for himself confirmatory evidence by analysis and proof of sale, instituted a prosecution of the vendor of one of the proprietary preparations above referred to as being sold without being labelled poison, and by unregistered persons—namely, Davenport's Chlorodyne. A conviction was obtained, and although notice of appeal was given no appeal was prosecuted. The judgment remained, therefore, as a firmly established precedent, which must govern further action. The Pharmaceutical Society has had its attention called by the Chairman of the Committee to the facts of the case, and there is reason to believe that by vigorous and continuous proceedings all such illegal sales will in future be prevented. Steps are now in course to secure the general application of the law for which an efficient precedent has thus been established. This will require time and care, but the Chairman is informed that the Council of the Pharmaceutical Society have entered systematically on the task, and good results may be anticipated from this successful action of your Committee.

Cases of Individual Hardship.—In two such cases your Committee has been able to intervene with excellent effect. In the case of Dr. Collie, the medical officer of the Eastern Hospital, of which the details are too recent to need recapitulation, your Committee, after careful inquiry, felt justified in making representations to the President of the Local Government Board, and to the Metropolitan Asylums Board, which not only afforded great moral support to that gentleman under circumstances of great anxiety and hardship, but assisted in securing to him a pension on the fullest and most liberal scale allowed by the regulations of the Civil Service. In another case, that of Brigade-Surgeon Briggs, of the Army Medical Service, he would have been forced out of the army under circumstances which were held to be tainted with oppression and injustice. Dr. Farquharson and Sir Walter Foster undertook to bring all the circumstances under the notice of the House of Commons, and in the end the Secretary of State for War announced that, having further considered the case, he was of opinion that Surgeon-Major Briggs should not suffer any loss as regards position or promotion in consequence of an act which any gentleman was bound to perform, and which he performed under a pressure which no

[1] BRITISH MEDICAL JOURNAL, April 23rd, 1892, p. 878.

one could have resisted. Dr. Briggs would therefore be restored to the seniority he held before retirement.

Registration of Midwives.—The House of Commons having appointed a Select Committee to report on Mr. Pease's Bill for the Registration of Midwives, your Committee called the attention of all the Branches to the appointment of the Committee, with the view of such evidence being given on behalf of the several Branches as might fully lay before the Committee the divers views entertained on this subject by members of the medical profession. The early termination of the session has prevented the completion of the inquiry, and the Select Committee reported the evidence and recommended the appointment of another Committee next session.

Army Medical Officers.—The concession of compound titles indicating military rank has been attended with excellent results in improving the status and efficiency of the Army Medical Services both at home and abroad, and repeated testimony has been borne by medical officers of all ranks of the great advantages conferred by the efforts of your Committee in this direction, and the concession made by the Secretary of State for War in carrying out the recommendations of the Departmental Committee which sat to consider the memorial and representations of your Committee and over-ruling the objections made by his military advisers. In some particulars, however, the recommendations of this Committee have not been fully carried out, either in the letter or the spirit. Several questions have been asked on these points in the House of Commons by Sir Guyer Hunter, Dr. Farquharson, Dr. Tanner, and other members of the House, and attention was called to them in the brief debate on the Army Estimates; as, however, the answers given by Mr. Stanhope and Mr. Brodrick have not been in the main satisfactory, a further memorandum has been prepared for submission to the Secretary of State for War on behalf of your Committee to the following effect:—

MEMORANDUM.

1. *The Compound Titles.*— The new compound titles have (with the exception of the anomalous and cumbrous brigade-surgeon-lieutenant-colonel) been well received by the great majority of medical officers, and are recognised as setting forth in intelligible consecutive form their military rank and status. They have been applied to all full-pay medical officers of the Home and Indian Armies, and also of the auxiliary forces, but withheld from officers who had retired before the promulgation of the Warrant, on the ground that there is no precedent so to confer them, and that to do so would somehow be unjust to those on the active list.

We fail to see either the force or fairness of this argument, and, in the interests of the service and the officers concerned, are convinced it is both officially unsound and impolitic.

At present there are about 150 retired medical officers "liable to be recalled to service" up to 55 years of age, but only about twelve who, having retired during the past two years, bear the new titles. Of this reserve, about 40 are employed under Article 352, Royal Warrant, Pay, etc., as well as 40 more (or 80 in all) of those, who, from being over age, are not liable to recall.

If the new titles are necessary for the status, and of much advantage in the due performance of the duties of medical officers on the active list, then they must equally be so for those who, although retired, are still actively employed. It is, therefore, most desirable that the new titles be extended to all officers employed under Article 352, whether liable to recall or not.

Confusion and friction must result if those with the old misleading and undefined titles are recalled to service with those bearing the new; under such circumstances the anomaly would probably be witnessed of an active surgeon-lieut.-colonel serving under a senior reserve officer having the title of surgeon-major only.

We would even advocate a step further, not on the ground of necessity, but as a wise and politic act, which would be received by the medical profession with much satisfaction, namely, the permissive and optional use of the new titles by all retired medical officers, according to the relative rank they bore on retirement. The public are slow to apprehend the true import of military titles, and retired medical officers find themselves the victims of much misunderstanding in social life when brought into contact with those bearing the new titles. We are not aware that by such a gracious act any essential principle would be violated, because never before have military titles been changed on such a far-reaching scale by Royal Warrant; and, after all, the new titles create no new ranks, but only give fuller expression to existing rank.

2. *The Full Application of the Warrant to India.*—The new Warrant has been extended to India in all except its financial bearings, and this important omission has been justified in the House of Commons on the ground that the Indian rates of pay are not affected by changes in the home rates. This statement we beg leave to traverse; the medical Warrant of 1858, although tardily, was nevertheless financially applied to India in 1864, when a complete readjustment of medical pay took place and the present rates were fixed; this fact upsets the argument of the unalterable fixity of the Indian rates—a theory which, on the face of it, is absolutely untenable.

But in India, as elsewhere, the scale of pay is governed by military rank; yet the Government have most inequitably refused to give surgeon-captains of the medical staff during their first five or six years' service pay and allowances other than those of subalterns—an indefensible departure from their own regulations which has never been attempted on any class but medical officers. The rank of brigade-surgeon has also never been equitably recognised; and although, in view of the seniority it confers, new and responsible duties have been thrust upon it, no extra emolument has been given as in every other portion of the Empire. These undeniable financial inequalities, so apparent to all, call for redress.

3. *Tours of Foreign Service.*—The Camperdown Commission recommended, on data placed before them, that foreign service tours for medical officers should not continuously exceed five years, but this important finding has been set aside. With the great wear and tear which the duties of medical officers necessarily involve, a six years' tour in such a climate as India, for instance, is too long; it tends to break down the health and swell the half-pay and retired lists, does not give the State better service, and has no good practical effect on the foreign roster. Its negative good and positive evil, therefore, call for the speedy adoption of the recommendation of the Commission.

4. *Study Time on Full Pay.*—As the recurrent and prolonged tours of foreign service, together with harassing duties in out-of-the-way places, render professional study difficult or impossible, it is very necessary, if army medical officers are expected to keep abreast in professional knowledge, that study time on full pay should be granted, in the same way as in the navy. Study should be allowed at any of the great medical schools of the kingdom, where alone the most recent advances in medicine and surgery can be seen in full practice.

5. *Exchanging.*—The privilege of exchanging is very highly prized by all officers, and is a salutary custom both for individuals and the State; but exchanges between medical officers seem needlessly hampered by restrictions which are looked upon as vexatious. We would press for the removal or modification of two: that, when practicable, medical officers should be allowed to exchange within a reasonable time after being warned for foreign service; and that they should be allowed to exchange abroad any time after return home, if physically fit. The reasonable restrictions of the Queen's Regulations seem as applicable to medical as to other officers, and are all that is necessary.

ERNEST HART, *Chairman.*

REPORT OF THE SCIENTIFIC GRANTS COMMITTEE.

THE Scientific Grants Committee have to report that during the past year, 1891-92, the sum of £415 has been granted in aid of scientific research, of which the following are particulars:—

	£	s	d.
Ballance, C. A., M.B., 56, Harley Street, W.—For continuing investigations on the Pathology and Treatment of Cancer ...	30	0	0
Bruce, David, Surgeon-Captain, Assistant Professor of Pathology, Army Medical School, Netley.—For material	15	0	0

	£	s.	d.
Campbell, H. J., M.D Lond., M.R.C.P., Demonstrator of Biology, Guy's Hospital.—In aid of a research on the Chemistry of the Products of the Growth of Tubercle...	10	0	0
Delépine, S., M.B., Professor of Pathology, Owens College, Manchester.—For continuing investigation in Pneumo-cardiography, and partly towards purchasing apparatus to complete work he has been engaged on	10	0	0
Eastes, Leslie, Medical School, Guy's Hospital, S.E.—An experimental on the Liver with the view to finding relationship between formation of glycogen and sugar in that organ	15	0	0
Edkins, J. S., M.B., Owens College, Manchester.—For continuing work on Pancreatic Digestion. Has furnished the Association with an account of the progress made, a brief description of which appeared in the BRITISH MEDICAL JOURNAL of June 20th	15	0	0
Halliburton, W. D., M.D., F.R.S., Professor of Physiology, King's College, London.—To prosecute the research on the Regeneration of Albumin	30	0	0
Hankin, E. H., B.A., St. John's College, Cambridge.—1. To continue the investigation of the nature of an Albumose that has been obtained from Anthrax Cultures under certain conditions, which has been already found to possess highly interesting poisonous properties. 2. To find out whether the changes in the suprarenal capsule that have been noticed in animals poisoned with this albumose are or are not causally connected with its injection. 3. To find out whether the difference between Virulent and Attenuated Anthrax depends on the power that the former has of producing a ferment; for evidence has been found of the existence of this power in virulent anthrax, and no such evidence with the attenuated bacilli... ... ... Is also an applicant for scholarship.	50	0	0
Hunter, W., M.D., 61, Wimpole Street, W.—An investigation into Tuberculosis	50	0	0
Jones, Lloyd, M.B., Downing College, Cambridge.—A research on the Blood	15	0	0
Mott, F. W., M.D., Lecturer on Physiology, Charing Cross Medical School.—For continuing experimental work upon the Functions of the Tracts of the Spinal Cord	40	0	0
Russell, J. S. R., M.B., 94, Wimpole St., W.—To carry on experimental investigations into the Functions of the Lumbar and Sacral Nerve Roots of the Monkey in relation to the Groups of Muscles they supply ... ... *Modus Op. I.*—Division and excitation of roots to observe the groups of muscles supplied after the manner of Ferrier and Yeo's experiments. *II.* Division of a root and the subsequent production of general epilepsy by cortical excitation, to observe what groups of muscles fail to act during the convulsions. *III.* Division of roots and allowing the animal to live for several weeks in order to trace the degenerations which result.	50	0	0
Spencer, Walter G., M.B., 35, Brook Street, W.—Required grant to meet the expenses of the following researches: (1) A Differentiation of the Cardiac and Respiratory Fibres of the Vagus and Spinal Accessory Nerves; (2) Further researches on Intracranial Pressure; proposed work is an extension of that with which he has been engaged for some time, part of his results being included in an essay on Intracranial Tumour and Abscess, which was awarded the Jacksonian Prize for 1889	50	0	0
Symes, William L., M.R.C.S., Physiological Laboratory, St. Mary's Medical School, Paddington, W.—For continuing a series of experiments with the view of elucidating the properties of Haemoglobin and its derivatives	5	0	0
Sympson, E. M., M.D., 3, James Street, Lincoln.—Pancreatic Digestion	5	0	0
	£380	0	0
Savage, C. H., M.D.—For expenses of Committee for Investigating the State of Children unfit from Mental and Nervous Conditions for ordinary School Teaching...	25	0	0
	£415	0	0

The following sums have been returned as unused:—

Surgeon-Captain D. Bruce...	15	0	0
Dr. H. J. Campbell	10	0	0
Mr. G. L. Eastes	4	3	9
Dr. E. L. Jones	12	13	6
Dr. F. W. Mott	3	11	1
Dr. E. M. Sympson	5	0	0
	£50	8	4

Mr. C. A. BALLANCE and Mr. SHATTOCK have continued their research during the past year into the *intimate pathology of cancer*, but are unable at present to communicate any further information with regard to their work than that already published.

Mr. J. S. EDKINS has been continuing his work on the *absorption of water in the alimentary canal*, and reports that the methods that are available for determining the absorption in the alimentary canal are liable to one constant objection, namely, that the conditions under which such determinations are made artificially preclude our drawing from them any precise deductions as to what occurs in the healthy alimentary tract. Many previous experiments have been made on portions of fistulous intestine, artificially made in animals or the results of surgical procedure in man. These permanent fistulæ must in all probability have a considerable effect upon the intestinal mucous membrane in their vicinity. The absorption or secretion from the surface of such a mucous membrane cannot be taken as any criterion of the processes in a healthy surface. In the methods Mr. Edkins adopted he has had to combat with this possible condition of chronic catarrh. But the results of the operation necessary to the experiment, and the drugs under which narcosis was brought about, modify the absolute value of the experiments, but probably do not vitiate the relative worth of comparable experiments in different parts of the tract. The animals used were in all cases cats. The experiment lasted always for one hour. Narcosis was brought about by a hypodermic injection of morphine hydrochlorate and atropine sulphate. Of the former there was about $\frac{1}{2}$ a grain (30 milligrammes), and of the latter about $\frac{1}{75}$ grain (4.5 milligrammes). The latter was used for the purpose of procuring quiescence of the intestine. With morphine alone there was less peristalsis than when the animal was simply under chloroform, but with atropine in addition the quiescence was much more marked, amounting in the small intestine to an absolute absence of peristalsis, and in the large to a very considerably diminished appearance of it. The fluid used was normal saline solution, 0.6 per cent., not distilled nor tap water. It was first found that the optimum pressure of absorption was 10 centimetres of the fluid. At this pressure experiments were done on the different parts of the intestine, and the main results are as follows:—1. An animal narcotised by subcutaneous injection of morphine and atropine absorbs inert fluid such as normal saline solution at different rates in the different parts of the alimentary tract. (*a*) When compared with that in other parts of the canal, the absorption of water in the large intestine is considerable. The average result of several experiments conducted at a constant optimum pressure gave 2.07 cubic centimetres of normal saline solution as the quantity absorbed per centimetre of length of the intestine per hour. (*b*) In the lower part of the small intestine the results were less consistent. The average result of observations in the region of the ileum gave 1·31 cubic centimetre of normal saline solution as the amount absorbed per centimetre of intestine per hour. (*c*) In the upper part of the small intestine (below the entrance of the bile duct and mainly in the region of the jejunum) the absorption of normal saline solution was 0.727 cubic centimetre per centimetre of length per hour. (*d*) With regard to the stomach, no difference was found whether digestion had been going on in the stomach antecedent to the experiment or not. In both cases the absorption was practically nothing. 2. Upon presenting indifferent fluid such as normal saline solution to the mucous membrane, there is no secretion of either gastric or intestinal juice. A small, and apparently constant, amount of mucus is secreted into the cavity in either case. A fuller account of these experiments will appear in the *Journal of Physiology*.

Dr. HALLIBURTON has, during the past year, been working at the *nucleo-albumens* obtained from various organs, especially the brain, liver, and kidney. He has been studying their composition, reactions, and physiological action. His research will be shortly ready for publication. Under his superintendence Mr. Hewlett, M.B., has investigated the question as to the presence of a globulin in milk, and also examined the trustworthiness of the method of fractional heat coagulation as applied to white of egg. Mr. Young, B.Sc., has also, under the superintendence of Dr. Halliburton, examined the chemical constitution of the fibres of retiform tissue, and in another research has investigated the question whether osseous tissues contain mucin. Reports on all these subjects will be shortly sent to the BRITISH MEDICAL JOURNAL.

Mr. E. H. HANKIN has continued his work on *alexins*. Some of his results concerning the alexin of the rat were communicated to the International Congress of Hygiene and Demography. In common with Mr. A. A. Kanthack, he has carried on researches on the variations of the bactericidal power of the serum of the rabbit following an injection of the vibrio Metschnikovi, especially in relation to the fever and leucocytosis thereby produced. The results of these re-

searches have been communicated to the Cambridge Philosophical Society. An account of the results of some researches will shortly appear in the British Medical Journal.

Dr. William Hunter reports that his research on the *chemical pathology of tuberculosis* is not yet completed, and asks permission to defer his report to a later season, when he hopes to be able to give a more decided and more final answer to questions still *sub judice* than he can at present give.

Dr. E. Lloyd Jones reports that his conclusions so far are that chlorosis is always accompanied by attenuation of the blood; that this change becomes extremely marked in a large number of cases. In fact this tendency distinguishes it from the other common forms of anæmia. It does not, as stated by some authors, occur in boys. Dr. Lloyd Jones finds that attenuation of the blood occurs normally in girls at the very ages when they are proved to develop chlorosis, and more than this, the blood in the boy at this age does not show the slightest tendency to this change, but to a change in the opposite direction of a still more marked kind. These facts explain the complete immunity of boys from chlorosis and the prevalence of the disease in girls between the ages of 14 and 22 years. Dr. Lloyd Jones concludes that the disease is an exaggeration of a physiological condition. The direct causes of this excessive attenuation of the blood which constitutes chlorosis are not easily ascertained, but during the time Dr. Lloyd Jones has been collecting clinical evidence he has become disposed to regard the most frequent cause as a want of balance between the blood in the body and the vascular capacity which this blood has to fill. In a paper Dr. Lloyd Jones proposes to publish he will give some clinical facts which make it appear that this is the most likely way in which chlorosis is set up. Dr. Lloyd Jones would cautiously suggest that this wateriness of the blood results when, either in the process of normal growth or by dilatation of some large vascular area, the vascular capacity becomes relatively too great for the supply of blood. Some cases appear to Dr. Lloyd Jones to be probably due to reflex dilatation of vessels in the splanchnic area, particularly where acute chlorosis results from a chill or a mental shock. These conclusions are not more than suggestions at present; still there is a certain amount of clinical evidence in their favour, and Dr. Lloyd Jones proposes to devote another year to a continuation of this research.

Dr. F. W. Mott reports that his work upon the *results of hemisection of the spinal cord in monkeys* has been continued, and a full account thereof published in the *Philosoph. Transactions of the Royal Society*, vol. clxxxiii, 1892, B. pp. 1—60, Plates 1—4. He forwards a copy of this paper, which commences with a short abstract dealing with the principal point of interest. Since the publication of this work Dr. Mott has been engaged in ascertaining the effects of division of the anterior columns of the cord, and has succeeded (1) in confirming Loewenthal's observations that the antero-lateral tract is the ventral portion of the cerebellar tract, and terminates above in the superior vermis; (2) that its complete division on one side or both sides does not produce analgesia. A full account of this work will shortly appear in *Brain*. He is also engaged in some other work relating to the ascending tracts of the spinal cord and the sensory function of the cortex cerebri.

Dr. J. S. Risien Russell has been engaged in an experimental investigation of the *nerve roots which enter into the formation of the brachial plexus of the dog*. This deals with the relation of the nerve roots to the spinal cord on the one hand, and the groups of muscles they supply on the other. The relations of the nerve fibres concerned with the different factors of a combined movement, as represented in a nerve root, to each other is also dealt with. It is further shown that exclusion of a single root results in paresis of the limb supplied by the root, which paresis rapidly passes off; and that neither in ordinary progression nor in spasm induced in the limb by cortical excitation is there any inco-ordination. In the latter, impulses that should travel down the divided root do not overflow to other channels, and there is no inco-ordination of the remaining movements, either in the spasm or in progression.

The abductor and adductor fibres of the recurrent laryngeal nerve. The possibility of separating these bundles of the nerve fibres in the living animal has been proved by anatomical dissection, electrical excitation, and the degeneration of muscles following division of one or other bundle. The tendency of the abductor fibres to much more rapid death than the adductors has also been demonstrated.

An experimental investigation into the *functions of the nerve roots of the lumbo-sacral plexus of the monkey (Macacus rhesus)*. The third lumbar to the first sacral inclusively form the plexus; but two classes can be distinguished, the broad distinction being that in one the fifth lumbar sends a branch to the sixth, whereas in the other it does not. The relations of the roots to the cord, and the groups of muscles they supply, have been partly traced. It has been found that division of a single root produces little or no effect in progression, and that division of alternate roots has less effect than division of consecutive ones. That no inco-ordination results from such division is also seen both in progression and in spasm artificially produced in the limb by cortical excitation. The study of the relations by means of the degeneration method is only very slightly advanced at present.

Mr. W. G. Spencer, working in the Pathological Laboratory, University College, W.C., has continued a research upon *increased intracranial pressure and shock as affecting the respiration and circulation*, but especially the former. He has previously written the Jacksonian Essay for 1889 upon Intracranial Tumour and Abscess, and has read, with Professor Horsley, to the Royal Society a paper on Intracranial Pressure, and later another paper upon Excitation of the Floor of the Fourth Ventricle. Aided by a grant from the Association, Mr. Spencer has, during the past year, made an electrical examination of the intracranial roots of the vagus accessory nerves in the monkey, recording the effect upon the circulation and respiration, and noting the variations obtained from different roots. Following these experiments he has investigated the area of the cortex cerebri influencing respiration and the course of the fibres connecting it with the medulla oblongata. The results show not only the manner in which the action of the respiratory centre can be controlled, but also how it can be exhausted from various points at a distance. It is hoped that the research will soon be in a sufficiently advanced state to admit of further publication.

Mr. W. L. Symes reports that the work in which he has been engaged has been principally a repetition of Ranvier's work on nerve section in rabbits. As the result of division of the sciatic nerve, it has been found that the muscle fails to respond to indirect stimulation about the forty-eighth hour after the operation. During the early days after the operation the lymph vessels and intermuscular spaces are much distended, without there being necessarily any obvious dilatation of the blood vessels, the paralysed muscles being, almost from the outset, paler than the non-paralysed. The histological changes that occur in the paralysed muscles are not clear. As a whole the muscles become grey and greasy, but the fat present is almost entirely *inter*fibrous adipose tissue; and only in small quantity, and after a long interval is true *intra*fibrous fatty degeneration noticeable. In the divided nerve, degeneration does not appear to travel from the lesion peripherywards, but occurs simultaneously in all parts of the distal end of the trunk. *Post-mortem* disintegration of nerve fibres might conceivably be mistaken for degeneration. Nerves taken from corpses as recently as twenty-four hours after death, and treated in the usual way with osmic acid, and examined in glycerine, not infrequently display marked changes in the myelin. These changes are due to the action of the glycerine on the partially putrefied fibres. They are not usually obvious in such specimens examined in water. Changes occur, too, in the skin supplied by the divided trunk. Anatomical union occurs very early in the cut nerves, even when a centimetre or more of the trunk is excised. Even though as much as possible of the distal end of the trunk be removed re-innervation of the muscles and possibly too of the skin may occur. The optic nerve, too, has been divided in a few cases. Here, too, anatomical union takes place, but physiological union of the divided ends has never been seen within a year after the operation. Details will appear later.

Dr. H. J. Campbell, Dr. David S. Bruce, and Dr. Sympson have returned their grants, not being able to complete their researches. Dr. Sheridan Delépine will report later, his work having been interrupted.

Joseph Lister, *Chairman*.

REPORT OF THE INEBRIATES LEGISLATION COMMITTEE.

Your Committee is happily in a position to report the continued diminution in the use of ether as a means of intoxication, consequent on the judicious step taken by the authorities in scheduling this drug as a "poison," which can be sold only by chemists and druggists under the provisions of the Pharmacy Act. The making of methylated spirit more nauseous has also tended to arrest the spread of another mode of intoxication.

A departmental committee has been appointed, pursuant to Lord Herschell's motion in the House of Lords, to inquire into the best method of dealing with habitual drunkards, especially such as are at present repeatedly dealt with at the police-court. The evidence of London and provincial police magistrates, followed by the encouraging results obtained by the Dalrymple Home and other similar institutions for the treatment of inebriates, and the opinion of members of the profession who have had experience in this class of cases, with the testimony of authorised representatives of British colonies and other countries, cannot fail to have due effect in improved legislation.

Your Committee has for several years strongly urged the pressing need for decided and thorough-going measures for the compulsory reception and detention (for purposes of cure) of such inebriates as have become so powerless of will that they have not resolution left to apply for admission to a home of their own accord. This, in your Committee's belief, is the most important and urgent want, and should apply to all classes, due provision being made for the poor at the public charge.

The amendment next in importance would be the discontinuance of the existing barriers to the reception of inebriates applying voluntarily for admission. In the case of ladies especially, there is great difficulty in persuading them to surrender their liberty by the forbidding process of an appearance and declaration before two justices. It would also be a decided gain to include, under the provisions of an amended Act, forms of intoxication other than the alcoholic form. Chloral, opium, and other varieties of habitual drunkenness, in the opinion of the Committee, require to be similarly dealt with.

Your Committee would hail with pleasure the passage through the Legislature of a measure for Scotland on the lines of the Restorative Homes Bill drawn by Mr. Morton, W.S., late Crown Agent, and trusts that his proposals will be duly considered in Parliament. The main provisions which your Committee supports are (1) compulsory reception and detention, (2) reception and detention on the voluntary application of the patient, without an appearance before magistrates; and (3) contributions from the public funds.

In Germany, the United States of America, and other countries, agitation for compulsion is increasing, and some of our colonies already possess this desirable power. Your Committee desire to point to Victoria as in possession of legislation which would be invaluable in Britain. In that colony a county court judge, on the application of any relative or friend and the statutory declaration by two medical men, can send an inebriate to a retreat for any period not exceeding twelve months.

Your Committee specially desires to note the remarkable response to its invitation to petition Parliament by so many Branches, by the Royal Colleges of Edinburgh and the Royal College of Physicians of Ireland, and by a large number of temperance societies, philanthropic associations, and religious bodies.

The Committee recommends its re-election as follows: the President and President-elect *ex officio*; Dr. Withers Moore, President of Council; Mr. D. B. Balding, J.P.; Mr. R. W. Branthwaite; Dr. T. Bridgwater, J.P.; Dr. C. Cameron, M.P.; Dr. G. B. Clark, M.P.; Dr. C. R. Drysdale; Mr. Geo. Eastes; Dr. J. W. Eastwood, J.P.; Dr. R. Farquharson, M.P.; Sir Walter Foster, M.P.; Dr. W. T. Gairdner; Mr. W. C. Garman; Dr. J. Hill Gibson; Dr. A. Grant; Mr. F. J. Gray; Dr. C. J. Hare; Dr. Norman Kerr; Mr. H. R. Ker; Mr. R. H. B. Nicholson; Surgeon-Major G. K. Poole, M.D.; Mr. J. Prankerd; Surgeon-Major R. Pringle, M.D.; Fleet-Surgeon Geo. Robertson, M.D.; Dr. G. Danford Thomas, Coroner; Dr. H. W. Williams; Dr. Wynn Westcott, Deputy Coroner; and Dr. E. Hart Vinen; and with the addition of Dr. Fisher, Melbourne; and Dr. Arthur Jamieson.

Norman Kerr, M.D., *Chairman.*

REPORT OF THE THERAPEUTIC COMMITTEE.

1. During the past year the Therapeutic Committee have continued their work into the *action of nitrites in dyspnœa and in producing diuresis*, but they have no progress to report.

2. An inquiry into the *action of jambul in diabetes* was begun, and some work has been done, the results of which will be published shortly.

3. At the suggestion of the Committee, Dr. J. G. Adami, of Jesus College, Cambridge, undertook an investigation with the view of *testing physiologically the strength of the various tinctures of strophanthus as sold.* Dr. Adami has devoted a large amount of time to this research, which is an extensive one, and the results will appear in due course.

4. At the instance of the Chairman of the Committee, an attempt was made to form Therapeutic Committees in various Branches of the Association. Thirteen of the largest Branches of the Association were communicated with, with the result that a local Therapeutic Committee was formed in one (Dublin). The proposal, therefore, must be considered not to have succeeded.

Sidney Martin, *Secretary.*

REPORT OF THE COMMITTEE APPOINTED TO INVESTIGATE THE NATURE OF THE PHENOMENA OF HYPNOTISM;

ITS VALUE AS A THERAPEUTIC AGENT; AND THE PROPRIETY OF USING IT.

The Committee, having completed such investigation of hypnotism as time has permitted, have to report that they have satisfied themselves of the genuineness of the hypnotic state. No phenomena which have come under their observation, however, lend support to the theory of "animal magnetism."

Test experiments which have been carried out by members of the Committee have shown that this condition is attended by mental and physical phenomena, and that these differ widely in different cases.

Among the mental phenomena are altered consciousness, temporary limitation of will power, increased receptivity of suggestion from without, sometimes to the extent of producing passing delusions, illusions, and hallucinations, an exalted condition of the attention, and post-hypnotic suggestions.

Among the physical phenomena are vascular changes (such as flushing of the face and altered pulse rate), deepening of the respirations, increased frequency of deglutition, slight muscular tremors, inability to control suggested movements, altered muscular sense, anæsthesia, modified power of muscular contraction, catalepsy, and rigidity, often intense. It must, however, be understood that all these mental and physical phenomena are rarely present in any one case. The Committee take this opportunity of pointing out that the term hypnotism is somewhat misleading, inasmuch as sleep, as ordinarily understood, is not necessarily present.

The Committee are of opinion that as a therapeutic agent hypnotism is frequently effective in relieving pain, procuring sleep, and alleviating many functional ailments. As to its permanent efficacy in the treatment of drunkenness, the evidence before the Committee is encouraging, but not conclusive.

Dangers in the use of hypnotism may arise from want of knowledge, carelessness, or intentional abuse, or from the too continuous repetition of suggestions in unsuitable cases.

The Committee are of opinion that when used for therapeutic purposes its employment should be confined to qualified medical men, and that under no circumstances should female patients be hypnotised except in the presence of a relative or a person of their own sex.

In conclusion, the Committee desire to express their strong

disapprobation of public exhibitions of hypnotic phenomena, and hope that some legal restriction will be placed upon them.

F. NEEDHAM, *Chairman.*
T. OUTTERSON WOOD, *Hon. Sec.*

REPORT OF THE COMMITTEE ON THE SCIENTIFIC INVESTIGATION INTO THE CONDITION OF SCHOOL CHILDREN.

YOUR Committee, in conjunction with a Committee of the Charity Organisation Society, have conducted an investigation into the physical and mental condition of 50,000 children seen in 106 schools, and presented a report to the Association, together with explanations of the methods employed in this inquiry, the results obtained, and the bearing of such investigations upon the education and care of children, and the advancement of State medicine and hygiene.

The work done shows that:—

A. It is practicable to inspect, report upon, and classify the children seen in a school by means of facts seen and the teacher's report. Evidence of scientific value is thus obtainable of importance to the State, to education, and to philanthropic efforts.

B. The average child material in a school or district may be determined. The conditions of development and the nerve signs vary much in different schools; as to the latter, observation suggests that adapted methods of training may remove them.

C. The correlation of visible signs with low nutrition and mental dulness has in many cases been demonstrated.

D. Ill-made and feeble children tend to gravitate to the Poor-law and certified industrial schools, and to the lower standards of day schools. The want of provision for feeble children in day schools, and in many cases their exemption on medical certificates, tends to throw such cases upon the care of the State, and many become degraded.

E. Feebly-gifted children, the paralysed, and in some cases the epileptic, may in many cases and in limited numbers be educated in day schools if better provision for them is not provided.

G. H. SAVAGE, *Chairman.*
FRANCIS WARNER, *Hon. Sec.*

REPORT OF THE COMMITTEE ON MEDICAL CHARITIES.

IN accordance with the following resolution passed at a meeting of this Committee held on January 12th, 1892:—

"That Mr. George Brown, Dr. Hugh Woods, and Dr. Henty be asked to obtain from every hospital and dispensary in London which have out-patient departments the methods they adopt to prevent any use by improper persons of the benefits of their respective charities, and to inquire as to the class which they consider entitled to be relieved by them, and to report to the meeting in April,"

They reported as follows:—

"We have visited the following institutions, namely: St. Bartholomew's Hospital, Central London Throat and Ear Hospital, Charing Cross Hospital, St. George's Hospital, Guy's Hospital, Hospital for Children Paddington Green, King's College Hospital, St. Mary's Hospital, Middlesex Hospital, Royal Free Hospital, Royal London Ophthalmic Hospital, University College Hospital, Westminster Hospital, Westminster Ophthalmic Hospital.

"The following are the points to which our inquiries were chiefly directed: (1) The methods of admitting out-patients; (2) If any system is in operation adopted with a view to check the admission of persons not eligible for charitable relief; (3) Is a book kept in which all patients' names, etc., are registered? (4) Are subscribers' letters used? (5) Do subscribers claim the right or exercise the privilege to recommend their

GENERAL STATISTICAL SUMMARY.

General Analysis of Cases seen.

Groups of Schools visited.		1 No. of Children seen.	2 No. of Children noted.	3 Cases with Defect in Development.	4 Cases presenting Abnormal Nerve Signs.	5 Delicate, Pale, or Thin (Nutrition Low).	6 Reported by Teachers as Mentally Dull.	7 Eye Cases: Squints, etc., not Ophthalmia.
		B. G. T.	B. G. T.	B. G. T.	B. G. T.	B. G. T.	B. G. T.	B. G. T.
—XIX. Poor-law district and separate schools	B.	5,884	1,332	888	889	236	510	205
Totals	G.	3,947	685	475	388	93	281	112
	T.	9,831	2,017	1,363	1,277	329	791	317
XX.—XXVIII. Certified industrial schools	B.	1,588	500	329	332	41	223	54
Totals	G.	407	91	62	57	28	47	20
	T.	1,995	591	391	389	69	270	74
XXIX.—XXXIV. Homes and orphanages	B.	774	172	107	112	14	68	28
Totals	G.	1,049	186	134	112	35	113	27
	T.	1,823	358	241	224	49	181	55
I.—XXXIV. TOTAL OF INSTITUTIONS AT WHICH CHILDREN ARE BOARDED	B.	8,246	1,994	1,324	1,333	291	801	287
Totals	G.	5,403	962	671	557	156	441	159
	T.	13,649	2,956	1,995	1,890	447	1,242	446
XXXV.—C. Public elementary and day schools	B.	18,137	3,462	2,213	2,021	707	1,387	531
Totals	G.	16,854	2,492	1,491	1,406	781	973	453
	T.	34,991	5,954	3,704	3,427	1,488	2,360	984
CI.—CVI. Other schools	B.	501	113	79	59	32	28	18
Totals	G.	886	153	73	111	36	49	25
	T.	1,387	266	152	170	68	77	43
I.—CVI. GRAND TOTAL OF ALL THE 106 SCHOOLS	B.	26,884	5,579	3,616	3,413	1,030	2,216	836
Totals	G.	23,143	3,607	2,235	2,074	973	1,463	637
	T.	50,027	9,186	5,851	5,487	2,009	3,679	1,473

servants or *employés* for treatment? (6) If many patients apply who have been supplied with letters for the Hospital Saturday or Sunday funds. The class of patients sent by the officials of the above funds; (7) Are any steps taken to exclude trivial cases or to limit the number of cases admitted? (8) Are any means used to impress patients with the fact that hospitals are founded and maintained for the benefit of the sick poor? (9) Whether patients chiefly reside in the immediate neighbourhood of the hospital, or come from long distances; (10) If payment is exacted from out-patients.

"We have pleasure in stating that in every instance our questions were answered freely and frankly, and no obstacle was placed in our way when we wished to go into the waiting rooms of the out-patient departments or ask questions of the patients.

"With respect to the results of our inquiries, we find that with the exception of the London and Great Northern Central Hospitals, no efficient means are adopted to check the admission of patients who are not proper persons for charitable medical aid. In no other instance (St. Bartholomew's and Metropolitan Free Hospital excepted) is an inquiry officer employed to make inquiries outside the hospital to test the truth of statements made by patients. Nearly all the secretaries admitted the necessity of making outdoor inquiries, but raised the objection that the additional expense of an inquiry officer would be too great a tax on the funds of the charity. To this objection it is sufficient to say that if an inquiry officer does his duty the saving effected in the working of the outdoor department of the larger hospitals would more than cover the cost of the inquiry officer. In the case of the London Hospital the result of the work of the inquiry officer was to reduce the number of out-patients by some 6,000 the first year. Allowing only 2s. as the average cost of each out-patient, the saving effected amounted to £600, less the cost of the officer.

"Nearly the whole of the secretaries expressed their desire to reduce the abuse of the out-patient departments to a minimum, but some stated that any active efforts to weed out unsuitable persons would be distasteful to the medical staff, who like to see the out-patient departments well attended for clinical instruction and practice. The secretaries were generally unanimous in asserting that at their particular hospitals no appreciable abuse existed, but from our observations and inquiries we are convinced that a considerable number of persons obtain relief at hospitals who can well afford to pay the ordinary fees of a general practitioner. This applies more especially to special hospitals and the special departments of general hospitals. The secretaries generally state that it is difficult to refuse apparently well-to-do patients admission to the gynæcological and other special departments, as they state that they have been under the treatment of their ordinary medical attendant, but cannot afford the usual fee for a consultation.

"As a rule, patients are admitted to the out-patient departments freely without subscribers' letters, the only qualification being the 'suitability' of the case. There is, however, no rule for establishing the 'suitability,' this generally being left to the discretion of a clerk or junior official who is supposed to refer doubtful cases to the secretary, but this is not often done. As previously stated, the London, St. Bartholomew's, and the Great Northern Central Hospitals have special inquiry officers. At University College Hospital, the secretary, Mr. Nixon, states that he usually admits the new patients himself, and makes strict inquiries, and refuses admission to a considerable number of cases in the course of the year, but he has to be guided by the statements of the patients themselves, having no means of testing their veracity by outdoor inquiry. At King's College Hospital a book is kept, in which the name, residence, and occupation of all new patients are registered, and there is a column in which the registrar is supposed to enter the wages or income of the applicant, but this is rarely, if ever, done. No entry of this kind had been made on the day of our visit or for a long time previously. We found that occasionally the medical officers make inquiries as to the means of patients, and at times have refused to attend to the applicant. With a proper system of admission, the unpleasant and invidious duty of refusing his services would not be thrown on a medical officer.

"At the Royal Free Hospital, where a very strict system of inquiry is made as to the circumstances of patients, notices are exhibited in the out-patient rooms, informing patients that the institution is intended for the relief of the sick poor, and we were pleased to see that placards are placed in prominent positions referring those able to pay something for medical advice, but not the ordinary fees, to the neighbouring Provident Dispensary in Lamb's Conduit Street.

"With respect to wage limit, we found that where inquiries were made the line was drawn from 18s. to 25s. per week for single men, and from 35s. to 40s. for married men.

"Subscribers' 'letters' are now rarely used, being regarded as unnecessary as a means of gaining admission, and most of the secretaries would prefer that the system of giving 'letters' to subscribers be abolished. But some subscribers will insist upon having letters for admitting patients, on the principle of getting their *quid pro quo*. Evidence came before us that in many instances, especially at hospitals in the West End districts, subscribers use their 'letters' to obtain charitable medical relief for their servants and *employés*.[1] We find that the wealthy proprietors of the largest mercantile and commercial firms in London—hotel and restaurant keepers, and owners of fashionable clubs, employing in some cases hundreds of hands—do obtain the best hospital attendance and medicines for their *employés*.

"There is no excuse for this, as medical men in general practice are willing to contract with large employers of labour to attend shop assistants, servants, etc., at a nominal sum per head per annum.

"At some hospitals a considerable number of patients come supplied with letters from the Hospital Saturday and Sunday Funds. Not much exception was taken to the class of patients sent from the officials of the Hospital Sunday Fund, but in the case of the Saturday Fund we were informed that the letters are distributed without much regard to the fitness of the patients.

"At one or two hospitals casualty officers are entrusted with the duty of prescribing for the trivial cases, so as not to waste the time of the staff physicians and surgeons; at others an attempt is made to exclude trivial cases by limiting the number of new cases admitted daily to about 15 or 20 for each physician and surgeon, those being selected for admission which appear to be of the most serious character. At others there is no limit to admissions or attempt made to exclude trivial cases, it being taken for granted that a person would not apply for treatment unless really in need of it.

"We find that in some cases a very large number of the patients are drawn from districts far removed from the hospital. Thus the hospitals situated on the north bank of the Thames, such as Westminster, Charing Cross, and King's College, admit many patients who come from districts several miles distant on the south side of the river. This may be accounted for by the fact that the southern side of London is deficient in hospital accommodation, whilst the northern side is oversupplied. In other cases patients living close to a hospital in one district will go long distances to attend at a hospital in another district. Thus we saw at Guy's Hospital a well-dressed female patient who must have passed the London Hospital to reach the former. The reason she assigned for avoiding the London Hospital was that she received better treatment at Guy's; but it is just as likely that a wholesome dread of the inquisitorial questions she would have to answer at the London determined the preference for Guy's.

"We also find that the system of receiving fees from out-patients is in operation at Guy's Hospital, and at most of the special hospitals and dispensaries. At Guy's each patient is expected to pay 3d. per week. At the Central Throat and Ear and other special hospitals, whilst the very poor are admitted free, other patients are expected to pay from 1s. to 2s. 6d. per week.

"To the hospitals and dispensaries which (through want of time) we were unable to visit, we addressed a circular letter, asking for information on the chief points of this inquiry.

[1] The annual report of St. George's Hospital for 1890 states that 4,327 in-patients over 10 years of age were treated during the year, of whom 49 are described as butlers, 124 coachmen, 109 cooks, 42 footmen, 53 grooms, 39 housekeepers, 138 housemaids, 51 kitchenmaids, 32 ladies'-maids, 29 nursemaids, 31 parlourmaids, 79 stablemen, 17 valets, other servants 136, making a total of 929. The majority of these were in situations, and it may fairly be assumed were removed to the hospital from the neighbouring mansions of Belgravia and Mayfair.

About 171 circulars were issued, and replies were received from 94 institutions.

"With respect to the dispensaries. As far as we can gather from the replies which have reached us, we find that there is a very general system of inquiry and a low wage limit. This applies both to free and provident dispensaries. Of the latter, however, there are but few at present in operation, the working classes apparently preferring to resort, when ill, to institutions where they can obtain medicines and advice free, or at the cheap rates they are offered at many hospitals and general dispensaries.

"In concluding this report, we would remind the Committee that this question of hospital abuse is no new one. It has occupied the attention of the leaders of the profession and of our medical journals for well-nigh forty years, and yet little has been done to remedy the evils proved to exist. We believe that as far back as 1854 the provident dispensary system was proposed as a remedy for the evils of the out-patient department. In 1871 a meeting of more than 150 medical men, presided over by the late Sir William Fergusson, was held to consider this question. A resolution was passed expressing the opinion 'That there exists a great and increasing abuse of outdoor relief at the various hospitals and dispensaries of the metropolis which urgently require a remedy.' A committee, consisting chiefly of hospital physicians and surgeons, was formed to deal with the subject, but little was done beyond passing well-meant resolutions, and after some two or three years the committee was dissolved. In 1875 the Medical Defence Association was formed under the presidency of Dr. B. W. Richardson, which body gave a great deal of attention to the subject, but without effect beyond passing resolutions. In 1880, Sir Spencer Wells, Bart., Mr. Timothy Holmes, F.R.C.S., Mr. Ernest Hart, Mr. N. C. Macnamara, together with Lieut.-Colonel Montefiore, Mr. W. Bousfield, J.P., and other leading members of the Charity Organisation Society, took up the question, and the result was the formation of the Metropolitan Provident Medical Association, but having failed in obtaining to any appreciable extent the co-operation of the hospitals, the provident system has not been able to make much headway in attracting patients from the hospitals.

"In the years 1884-5-6, the Metropolitan Counties Branch of our Association discussed this important subject, and after many meetings and many resolutions it was determined that a conference be held with the Hospitals' Association, under the presidency of Sir Andrew Clark, Bart.

"This conference took place, and, after a very earnest discussion, it was unanimously resolved, 'That, in the opinion of this meeting, all hospitals should adopt the plan of an inquiry into the circumstances and means of all out-patients, it being entrusted to a paid officer of the hospitals, and that governors should cease to grant out-patients' letters except to persons who, from their personal knowledge, are deserving, and in a condition of life to require hospital relief.'

"We sincerely hope that the present attempt of the British Medical Association to effect reform will be more successful than previous similar movements. The experience of the London and Great Northern Hospitals (see reports, Appendix) prove that hospital authorities have it in their power to check abuses of their out-patient departments, and it only remains for us to convince them that their duty to the public and to the institutions under their control demands that this power be exercised, and that if they fail to do so they will prove their unfitness to be entrusted with the management of institutions supported by public benevolence.

"GEORGE HENTY, *Chairman.*
"GEORGE BROWN,
"HUGH WOODS."

Recommendations.—Having given this brief summary of the chief facts ascertained during the inquiry, we would suggest to the Council of the Association the advisability of placing the following recommendations before the governing bodies of all hospitals and dispensaries, and to urge their adoption as far as practicable:—

That an inquiry officer be attached to every hospital having an out-patient department, whose duty it shall be to register in a book kept for that purpose particulars relating to all persons applying for medical relief according to the following form:—

Register of Out-Patients.

No	Name of Patient.	Age.	Residence.	Occupation.	Name of Employer or if in Business.	Wages and Income of Family from all Sources.	Married or Single.	Remarks.

In the case of metropolitan hospitals, that it be an instruction to the inquiry officer:—

(*a*) To refer all doubtful cases, or those in which the earnings of the applicant, if single, exceed 25s. per week, or, if married, 45s. per week, to the secretary or the committee of the institution, and if such an applicant is admitted, a note of the reasons why an exception in his or her case was made be entered on the register. That this wage limit refer to all out, home, and casualty patients after the latter have received first treatment.

(*b*) To make a note in cases where it is suspected that an attempt is being made to deceive, in order that he may make inquiries at the address given, or of the employer, or the usual medical attendant, or a clergyman in the district.

That no members of clubs, provident dispensaries, or medical aid associations be eligible for relief, except in special cases recommended in writing by the medical attendant.

Outside the metropolitan area the Committee do not feel able to fix a wage limit. Moreover it is of opinion that this must vary in different districts. It is therefore suggested that each Branch be requested to name a wage limit suitable to its own district.

That the out-patients' register be open for inspection by governors, subscribers, visitors, etc.

That notices be placed in conspicuous positions in the various rooms of the out-patient departments of hospitals and free dispensaries to the following effect:—

"This institution being established to relieve only those persons who are too poor to pay for suitable medical and surgical aid, notice is hereby given that on and after this date patients will be required to give information as to their means and circumstances, with a view to prevent the abuse of this charity by persons who are well able to pay the fees of local practitioners.

"Dated 1892. By Order of the Committee."

That the annual report of each medical charity should contain a description of the system in use to check the abuse of the out, home, and casualty departments, and that in each annual report be given particulars showing what number of persons applying for relief were found to be ineligible, and the reasons for such finding.

That the out-patient departments of all hospitals be absolutely free to the necessitous poor, the pay system being antagonistic to the principles of medical charity.

That the system of giving governors' and subscribers' "letters" be discontinued, as it leads to the abuse of medical charities not only by persons in business, but by private individuals in positions of affluence.

That an experienced casualty officer be appointed to attend at the out-patient department when open, to examine all new patients on admission so as to exclude cases of infectious disease before mixing with other patients, and to treat those of a trivial character without referring them to the physician or surgeon of the day.

We would further suggest that the Council of the British Medical Association delegate the Medical Charities Committee to report at a future meeting as to what extent the recommendations of the Council may have been adopted.

We are also of opinion that it is desirable in order to relieve the overcrowded out-patient departments of hospitals to recommend medical men in general practice to combine for

the purpose of supplying medical attendance and medicines in their respective districts to members of the working classes who are unable to pay the usual fees. A well-organised scheme of this kind would also have a good effect in assisting to keep the sick poor out of the hands of prescribing chemists and of unqualified persons conducting cheap so-called dispensaries.

Dr. R. R. Rentoul (member of Committee) is of opinion that the wage limit in the metropolitan area should be reduced to "15s. per week for single applicants, and that for married applicants the limit be 20s. per week for a man and wife, with an addition of 1s. 6d. for each child under 14 years of age."

APPENDIX.

Great Northern Central Hospital.

Report of the Subcommittee appointed to control the working of the Regulations for the admission of Out-Patients, approved December 12th, 1890.—Your Subcommittee have to report that the regulations approved by the Committee for the admission of out-patients have been faithfully carried out from the first week in April, 1891, to the present time. The Subcommittee have held several meetings and have received regular reports from the inquiry officer and from the casualty officer, all papers, certificates, and accounts having been duly submitted to them and examined. They have pleasure in reporting that the new system has worked well without friction or complaint, and that the following results have been achieved:

1. Detection of cases of abuse of the charity by persons able to pay a private practitioner.—Forty-eight persons have been refused admission altogether, many of these openly stating that they came to the hospital to obtain special advice in preference or in addition to that of their own doctors, and not attempting to deny their ability to pay for medical attendance. Eleven patients, obviously well-to-do, declined to give full particulars as to their fitness for hospital treatment, or to get certificates filled in, and were also refused. Four hundred and fifty-four cases of suspected abuse have been inquired into, and of these 309 were refused further treatment unless certified, as required by the Committee. Only 142 of these certificates were returned duly signed. In all cases the patients have been referred, if possible, to their own doctors for certification; 68 patients have been returned to the hospital by their doctor's certificate, the remainder being all certified by their employers or others.

2. Selection of cases by the casualty officer.—Six thousand eight hundred and forty new cases have been admitted since the beginning of April, and of these no fewer than 2,259 have been found to be of a trivial character and have been dealt with by the casualty officer. One hundred and fifteen more patients applied for admission to the out-patient department than during the corresponding period of 1890, but notwithstanding this fact there have been no patients "waiting admission" during the last four months.

3. Contributions from patients.—Collecting boxes have been placed in the out-patient department, with printed appeals to the patients to contribute small sums towards the cost of their medicines or surgical dressings. The sums collected by this means have amounted to £102 17s. 5d., against £204 18s. 7d. received during the same period under the previous system.

It will be seen from the foregoing report that the system has succeeded in achieving all the more important results for which it was established.

(*a*) Cases of flagrant abuse of the charity have been promptly detected and summarily excluded.

(*b*) More than half the number of patients who have been required to obtain certificates under the schedule approved by the Committee have either been unable or unwilling to do so, from which it may be inferred that a good deal of latent abuse has been discovered and put a stop to.

(*c*) The work of the out-patient staff has been materially aided by the elimination of the trivial cases.

(*d*) Your Subcommittee have every reason to believe that the system is strongly approved and supported by the medical practitioners in the neighbourhood of the hospital.

In concluding their report your Subcommittee have no hesitation in recommending that the system, which has hitherto been worked as a private experiment, should now be permanently adopted and should be made publicly known.

London Hospital.

Extract from the report of Mr. W. J. Nixon, House Governor, upon the results of the working of the inquiry scheme for the year 1884, the year it came into operation:

As to numbers. The overpressure previously existing has been distinctly checked, the greatest reductions (as will appear from the subjoined table) having occurred in the special departments, which were always suspected of harbouring many patients of a class well able to pay for private treatment. The following are the actual numbers of the last two years:

	1883.		1884.
General out-patients—recommended cases ...	19,632	...	18,832
Patients of special departments, previously free, but now requiring recommendation:			
Skin	4,663	...	955
Aural	1,106	...	398
Ophthalmic	2,474	...	720
	27,875	...	20,905
	20,905		
Total reduction of numbers	6,970		

As each patient attended in 1884 on the average 3¾ times, this reduction of numbers is equivalent to a reduction of attendances amounting to more than 26,000 per annum—no mean relief for previously overcrowded waiting halls. If, moreover, it can be shown at the same time that no legitimate out-patient has been intentionally or avoidably damaged by the change, it is one to be welcomed as a valuable alteration, accompanied by no real drawbacks.

J. Roberts Thomson, *Chairman.*

REPORT OF COMMITTEE ON THE EFFICIENT CONTROL OF RAILWAY SERVANTS' EYESIGHT.

The Committee on the Efficient Control of Railway Servants' Eyesight, nominated by the Ophthalmological Section at the Bournemouth meeting of the Association, was duly appointed by the Council on October 21st, 1891. The Committee has met thrice at 429, Strand, London, namely, on November 12th, 1891, on January 28th, and March 15th, 1892.

As the question of the best method of testing for colour sense was already engaging the attention of a Committee of the Royal Society (acting at the request of the Board of Trade), the Association's Committee directed its energy towards procuring precise information—(1) as to the tests for eyesight at present employed on each railway in the United Kingdom, and (2) as to the regulations for eyesight testing which exist on foreign railways.

At the third meeting of the Committee a Report was agreed upon and signed by all the members of the committee except Dr. Argyll Robertson, who was abroad, and Dr. W. J. Collins and Mr. McHardy, who dissented. The Report with an Appendix was thereafter sent to the Council and having been adopted at its meeting on 13th April, was published in May.

The Report consists of two parts.

Part A presents an historical survey of the efforts which have been made in this and other countries to secure the efficient control of the eyesight of railway servants.

Part B relates to the work of the Committee: (*a*) The information obtained from forty-eight home railways is first critically reviewed under the following heads:—(1) The classes of men examined; (2) the examiners; (3) the methods of examination for distant vision and for colour sense; (4) the arrangements for re-examination; (5) the neglect of examination.

The Committee has been forced to conclude "that the present unregulated system has led to the adoption of methods of testing the eyesight of railway servants which do not generally secure the safeguards desired by the companies themselves, which in some cases do injustice to the *employés* on our railways, and which do not sufficiently ensure the safety of the public."

(*b*) The regulations which exist on the railways of nine foreign countries are briefly commented upon, and the Report concludes with the following:

(*c*) Recommendations.

1. That all candidates for railway service—certainly all those applying for duties connected with the safe conduct, signalling, and moving of trains—should undergo an examination in eyesight.

2. That the examiners in all cases should be qualified medical men. To ensure that these gentlemen are not themselves colour blind, and that they are familiar with ophthalmic work, the Committee suggests that no railway company should appoint an examiner except on the recommendation of a consulting ophthalmic surgeon, who shall certify that his nominee is in all respects well fitted for the duties of the office.

3. That the following standards of vision should be required on all the railways of the United Kingdom.

Class A. For the posts of *engine cleaner*,[1] *fireman*, *driver*, *signalman and pointsman*, there should be required:—

In *one* eye, *normal* acuteness of vision [$v = \frac{6}{6}$ (Snellen) and *normal* refraction.

In the *other* eye, acuteness of vision *not less than one-half of the normal* [$v = \frac{6}{12}$ (Snellen)], without glasses. Care should be taken by the examiner to determine that the condition of visual acuteness is not dependent on any latent error of refraction, for example, high hypermetropia, which by becoming manifest might lead to the candidate's disqualification in later life.

In *each* eye normal colour sense. Unrestricted fields of vision.

Strabismus or any defective action of the exterior muscles of the eyeball, or unhealthy condition of the eyes or eyelids should disqualify a candidate for any of the above appointments.

Class B. For all other situations in the executive service concerned in the moving and signalling of trains:—

With *both* eyes open visual acuteness of *not less than two-thirds of the normal* [$v = \frac{6}{9}$ (Snellen)] without glasses, provided that *neither* eye has *less than one-third of normal vision* [$v = \frac{6}{18}$ (Snellen)] without glasses.

In each eye normal colour sense, and unrestricted fields of vision.

Strabismus, or any defective action of the exterior muscles of the eyeball, or unhealthy condition of the eyes or eyelids, should disqualify a candidate for any of the above appointments.

The Committee believes that the wearing of glasses is compatible with the duties required of some *employés* who would be included in Class B. In such cases they are of opinion that men should be encouraged to wear spectacles in order that their visual power may be raised above the standard defined for this class.

Re-examination.

a. That in Class A re-examination of the eyes and visual power should take place on each promotion, and also on transference of any servant from Class B to Class A.

b. That powers should be possessed and systematically exercised for re-examining railway servants at approved intervals, and otherwise as may appear desirable.

For example, after each neglect or act which may be attributed to defective sight, especially such as are connected with accidents (collisions or derailments).

After every acute affection of the eyes or lids.

After serious accidents, especially those which could cause concussion of the brain, and after diseases of the brain in general.

After the diagnosis of diabetes mellitus, or albuminuria, as well as secondary syphilis.

In general on the recommendation of the railway surgeon or the medical man who has been treating the person.

The following general rules should also be enforced:—

1. That each eye should be tested separately for colour sense as well as for form sense.

2. That the test for colour sense should be that of Holmgren, carried out in strict accordance with his directions. After this test has been passed the candidate should be required to recognise and name promptly the colours used in signalling. We wish to emphasise the importance of employing glass of standard colour in railway signal lamps, as recommended by the Committee of the Royal Society.

3. That the test for form sense should be carried out by means of Snellen's type, and in accordance with his published instructions.

4. Any *employé* on a railway reported to be disqualified for any service on account of defective eyesight shall have a right of appeal to the consulting ophthalmic surgeon of the line on which he is employed, whose decision should be final.

(*d*) Conclusions.

The Committee would refer to the fact that the difficulties as to eyesight now experienced by railway managers and those they employ, were formerly experienced by candidates for admission into H.M.'s Army, Navy, Colonial, and Indian Services; ophthalmic surgoons repeatedly urged the authorities to make adequate provision for the examination, and to fix a standard of vision for persons desirous of entering the public service. For years their representations were ignored, but at length the authorities yielded the point, and there can now be no question as to the great advantage to all concerned of this concession of definite standards of eyesight for definite public duties. We are convinced that the same result would follow if proper regulations were enforced with reference to the railway companies of the United Kingdom.

The Appendix presents in detail the regulations as to eyesight testing which exist in Holland, Italy, France, Sweden and Norway, the United States of America, Germany, Austria, Denmark, and Switzerland. It also contains a tabulated analysis of the visual tests employed on the railways of England and Wales, Scotland and Ireland, and this includes a statement of the mileage and number of *employés* of each line, showing its relative importance. By order of the Council a copy of the Report has been sent to every railway manager in the United Kingdom, who had replied to the inquiries of the Committee, as well as to a few railway surgeons who had courteously supplied the Committee with information. A copy of the Report has also been laid before the President of the Board of Trade, and it is hoped that its presentation almost simultaneously with that from the Royal Society's Committee will have secured for it the careful attention of the Board.

The Committee has not asked for legislation. It is of opinion that the railway companies should have the opportunity of introducing voluntary reforms. If, after a reasonable interval, the methods of the railway companies appear still inefficient, no plea of ignorance on their part can avail to avert legislation.

We cannot conclude this report without expressing our thanks to Dr. George Mackay, of Edinburgh, not only for having officiated as Hon. Secretary, but for the valuable information he has brought together from foreign countries, and from the railway authorities of the United Kingdom, bearing on the question of the control of railway servants' eyesight.

N. C. MACNAMARA, *Chairman*.

[1] The high standard of vision here suggested for engine cleaners presupposes that the candidate is to become eventually a fireman or driver, and is intended to check the admission to locomotive departments of youths whose visual power is such as would interfere with their promotion.

STATEMENT AS TO WORK IN PROGRESS UNDER THE COMMITTEE ON ANÆSTHETICS

LAST year, in accordance with the instructions of the Committee, the Honorary Secretary sent circulars and programmes (explaining the kind and scope of the work undertaken) to the senior acting surgeon of every provincial hospital of fifty beds and upwards in the United Kingdom.

In this way about 160 of the leading provincial surgeons

were communicated with, and in response, about 100 have either become corresponding members, or have nominated some junior surgeon or anæsthetist to represent them. The organisation of the work in London, Edinburgh, and Dublin was entrusted to subcommittees.

In London there are over 50 observers at work in the different hospitals, a similar number in Edinburgh, Glasgow, and Aberdeen, and a considerable number in Dublin.

In order to make the observations as simple and uniform as possible, a record book was published, several hundreds of which have been distributed amongst the corresponding members. These record books will be called in in January, 1893. Until they have been collected, carefully studied, and tabulated, no complete report can be published, but the Committee may at any time decide to make an interim report.

During the first six months of 1892 eighteen cases of death under anæsthetics in the United Kingdom have been brought to the knowledge of the Committee. Two of these have been privately reported, all the others having been published in various journals. Of these, fifteen occurred under chloroform, two under ether, and one under the A.C.E. mixture. In several there was some doubt as to whether the death was directly due to the anæsthetic.

Several very interesting reports have been sent of cases in which dangerous symptoms have occurred during the giving of anæsthetics, and in which the patients have been successfully restored. Details of such cases are of very great importance, and it is hoped that they will be carefully recorded.

The subjoined programme of the records and information required will explain the method adopted by the Committee for conducting the investigation.

The Committee has held three meetings.

Records and Information requested from each Corresponding Member of Committee.

(*a*) The total number of *administrations* of each anæsthetic during the year 1892, by yourself, or under your supervision.

(*b*) The number of cases in which *death* has occurred during or shortly after anæsthetisation.

(*c*) The number of cases in which *dangerous symptoms* have occurred.

(*d*) *Special details* of cases where dangerous symptoms or death have occurred.

At the end of the year 1892 the Committee will be glad of answers to the following questions:—

(1) The source of your anæsthetics.

(2) The method, manner, and apparatus generally used.

(3) The approximate time usually required for producing anæsthesia sufficient for operation.

(4) The modifications and precautions adopted—
- (*a*) In certain cases of disease (for example, emphysema, pleurisy, abdominal distension, heart disease, etc.).
- (*b*) In certain operations (for example, in region of pharynx, larynx, etc.).

(5) Your opinion, formed from your own personal experience as to—
- The relative safety of the various anæsthetics which you have used.
- The best method and manner of administering them.
- When to use one, and when the other.
- The precautions to be taken with regard to the conditions and surroundings of the patient.
- How to deal with any complications that may arise.
- The most effective methods of restoring patients threatened with death from anæsthetics.

(6) Education in administration of anæsthetics.
- How are students taught to administer anæsthetics, and how far are they compelled to gain a practical knowledge of administering them in the medical schools or hospitals with which you are connected?

The following synopsis will give an idea of the special details requested in cases of death, or dangerous symptoms (that is, such symptoms as raise the fear of immediate death, and call for the use of artificial respiration).

Special Details of Cases in which Dangerous Symptoms or Death have occurred.

(*a*) The anæsthetic.
- (1) Its nature—for example, ether, chloroform, etc.
- (2) Purity of drug—for example, from what source obtained, how long kept, whether exposed to light, etc. (N.B.—Communication should at once be made with Professor Ramsay, University College, London, who has kindly consented to analyse a sample of any anæsthetic which has caused dangerous symptoms).
- (3) Whether other persons who have taken from same source have evinced kindred symptoms.
- (4) Method of administration; amount of dilution; length of time administered.
- (5) Quantity used.

(*b*) The patient.
- (1) Age; sex; physique; first time or not of taking anæsthetic; previous drugs (for example, chloral, morphine, alcohol, etc.).
- (2) State of health.
- (3) Preparation of patient; food, purgatives, clothing, temperature of atmosphere, etc.
- (4) Phenomena of anæsthesia—for example, length of time going off, struggling, laryngeal spasm, convulsions, vomiting, etc.; condition of pulse, respiration, pupil reflexes; was anæsthesia profound?
- (5) *Which failed first—pulse or respiration?*

(*c*) The operation.
- Nature and duration. Whether antiseptic spray used; patient kept warm; posture; amount of hæmorrhage; shock.

(*d*) After-effects.
- Faintness, exhaustion, vomiting, etc.

(*e*) Methods adopted in cases where death or symptoms of danger have occurred.
- (for example, pulling forward of tongue, inversion of patient, artificial respiration (which method), nitrite of amyl, electricity, heat, etc.; and with what results.)

N.B.—It is requested that after the occurrence of a death or dangerous symptoms details should at once be sent to the Honorary Secretary of the Committee.

JONATHAN HUTCHINSON, F.R.S., *Chairman.*
CHRISTOPHER CHILDS, M.D., Weymouth,
Honorary Secretary.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

NINTH REPORT OF THE COMMITTEE TO THE MEMBERS FOR THE YEAR ENDING JUNE 30TH, 1892.

GENTLEMEN,—In submitting for your consideration the Ninth Report of the proceedings of the Society during the last twelve months, it is again our pleasing duty to congratulate you upon the success that has attended our efforts since we last addressed you. This is the more gratifying, inasmuch as the claims for sickness have unfortunately been abnormally heavy, owing to the influenza epidemic which has now for the last two or three years been so prevalent throughout the country. Fortunately, however, the tables upon which the Society is based are framed in such a manner as amply to provide, not only for ordinary periods of sickness, but also for intervening epidemics such as that here referred to; and there has therefore never at any time been the least anxiety on our part as to our ability to meet such demands as might be made upon us—in fact, a reference to the figures of this report will show that, heavy as the strain has undoubtedly been, it has never at any time made it necessary to encroach in any degree on the accumulated reserves, which remain therefore intact.

NUMERICAL PROGRESS.

The number of new proposals received during the year has been 128, which is quite equal to the average for several years past, 119 having been submitted during the preceding twelve months. The whole of these, with four exceptions, have been accepted; and when it is borne in mind that last year we

found it necessary to decline only three of the proposals that came before us, it is obvious the lives finally offered, after fulfilling the strict preliminary conditions required, are, generally speaking, of a high class. We may add that we find it advisable in some cases to make special inquiries before accepting candidates, the replies in such cases being invariably readily given, it being admitted on all hands that too much care cannot be exercised with respect to the admission of members.

It will thus be seen that for the period under review 124 new members have been enrolled, against 116 last year; and if these be added to the number when we last reported (1,145), it will be found that the total amounts to 1,269. From this, however, must be deducted 26, who, from various causes, have discontinued their subscriptions, and have thus been excluded, five who have withdrawn receiving surrender values, and six who have died. Allowing for the loss of these 37, the actual membership of the Society at the close of the financial year was 1,232, showing a net increase of 87. The death-rate, we are pleased to report, continues low, being one less than last year, which we may fairly claim as evidence of the care exercised in the selection of candidates for admission as members.

Financial Statement.

On reference to the balance sheets it will be seen that the financial condition of the Society continues to be very solid and satisfactory. A careful consideration of these figures will be found most interesting by all who have the welfare of the Society at heart, and in order to facilitate such perusal we have added the corresponding figures for the previous year, thus affording a ready means of comparison.

Sickness and Accident Fund.

This branch of the Society's operations being by far the largest, is consequently the most important; the one affected to a considerable extent by the influenza epidemic which has been with us, more or less, since the close of the year 1889. Comparisons with previous years are thus rendered almost impossible, but the incidence of exceptional pressure may be gathered from the following comparative statement of expenditure in quarterly periods:

Year.	Members.	1st quarter. £ s. d.	2nd quarter. £ s. d.	3rd quarter. £ s. d.	4th quarter. £ s. d.
1888-89	985	390 9 0	545 2 0	560 6 6	650 6 6
1889-90	1,067	504 13 6	631 10 0	1,194 16 6	541 17 6
1890-91	1,145	607 8 6	642 9 0	825 13 6	1,184 0 6
1891-92	1,232	780 13 6	708 1 6	1,190 0 6	1,044 15 0

The number of sickness claims directly traceable to influenza was 123, involving a total of 245 weeks 2 days' illness at an expenditure of £891; the average duration of illness from this cause being, therefore, as near as possible, 2 weeks.

During the year payment has been made for 269 separate cases of sickness, to 234 distinct claimants, for a period of 1,085 weeks 4 days.

As will be readily imagined, the illnesses on account of which claims have been made are of a very varied nature, and include 123 from influenza, 21 from accidents occurring principally during riding or driving, 16 from rheumatism, 14 from catarrh, 10 from bronchitis, 6 from phthisis, 5 each from quinsy and pneumonia, 4 from debility; 3 each from sore throat, carbuncle, and enteritis; 2 each from inflammation of throat, mumps, paralysis, scarlet fever, poisoned finger, and erysipelas, and the remainder from miscellaneous ailments of an ordinary character.

A reliable test of the sickness rate of the Society is to be found in a comparison of the amount of sickness actually experienced with that provided for under the tables, the following being the result of such comparison for the year now under review:

	Full Pay.	Half Pay.	Total.
Sickness expected.....	1,118 wks. 0 dy.	342 wks. 6 dys.	1,460 wks. 6 dys
,, experienced ...	872 wks. 1 dy.	213 wks. 3 dys.	1,085 wks. 4 dys
Margin in favour	245 wks. 6 dys.	129 wks. 3 dys.	374 wks. 2 dys

From these figures it will be found that, notwithstanding the exceptional pressure before referred to, the result of the year's working shows that there has not only been no cause for anxiety, but, on the contrary, a margin of profit is nevertheless shown.

On reference to the balance sheet it will be seen that there has been an income from premiums alone of £6,853 14s., as compared with £6,468 4s. 2d. last year; while the interest received amounts to £635 17s., as compared with £729 5s., the apparent falling off in this latter item being due to the fact that one or two payments did not come to hand until after the balance was struck; but, nevertheless, the receipts are £292 1s. 10d. in excess of the preceding year. On the other side, sickness pay has necessitated an expenditure of £3,723 10s. 6d., against £3,259 11s. 6d. in the former period, an increase of £463 19s.

Annuity and Life Assurance Funds.

In view of the interest now taken in the important question of annuities, it is satisfactory to report that this branch of the Society's work continues to make steady progress. Whatever may be the ultimate result of the consideration of the various proposals that have of late been put forth in favour of what are popularly called old-age pensions, this Society can fairly claim to have afforded for a number of years past an opportunity for members of the medical profession to provide against the hardships that too frequently accrue when, from age or infirmity, they are unable longer to fight the battle of life. For some years to come there can necessarily be no expenditure under this head calling for comment, but it may be noted that, while last year the sum of £77 13s. 7d. was returned at the death of members, under the provisions of an amendment to the rule that came into operation in March, 1889, no liability has been incurred of a similar nature for the period under review.

The Life Assurance Fund, as has been pointed out in previous reports, is the smallest branch of the Society's work, due no doubt in a large measure to the competition that exists in this particular business. If, therefore, the progress of this department is scarcely as rapid as we might desire, it cannot be wondered at; but this is in some measure compensated for by the knowledge we possess that the benefits already paid under this head have, in several cases, been of very great assistance to the widow and fatherless, who, but for the provision thus made, must have depended largely upon the kindness of friends, and, in some instances, suffered great privation. In dealing with this fund it must be borne in mind that, although claims have been paid in only four cases as against three last year, the number of deaths cannot be gauged by this means, inasmuch as but a small proportion of the members, as has been already pointed out, subscribe to the Life Assurance Fund.

Management Fund.

The expenses of management have been £57 10s. 2d. less than last year, when it will be remembered an abnormal item of £137 10s. appeared under the head of premium on purchase of stock. The total income to this fund during the year under review has been £1,273 11s. 8d., as compared with £1,222 9s. in the preceding period—an increase of £51 2s. 8d., and, as the expenditure, instead of absorbing the 10 per cent. provided by the rules, has been less than 5 per cent., the sum of £681 8s. 11d. has been added to the large amount already accumulated under this head, which, it will be seen, is now little short of £5,000, which stands to the credit of the members at large and will form part of the profit balance at the close of the next quinquennial valuation.

Increase of Reserves.

Notwithstanding the heavy demands on the Society during the year, the reserve capital continues to increase in a very satisfactory manner, the net result producing an addition of £8,135 3s. 11d., which, with one exception, is the largest increase yet obtained. The following statement shows the state of the funds at the end of each year, with the annual increase from the commencement of the Society to the present time:—

Date.	Amount of Reserves. £ s. d.	Annual Increase. £ s. d.
June 30, 1884...	1,434 16 3	—
,, 1885...	6,433 0 10	4,998 4 7
,, 1886...	11,330 7 6	4,897 6 8
,, 1887...	17,645 3 0	6,314 15 6
,, 1888...	24,694 17 9	7,049 14 9
,, 1889...	32,561 13 0	7,866 15 3
,, 1890...	40,459 13 10	7,898 0 10
,, 1891...	48,766 0 9	8,306 6 11
,, 1892...	56,901 4 8	8,135 3 11

Death of Mr. C. J. Radley.

It is with very great regret that we have to record the death of the gentleman who from the inception of this Society worthily filled the office of Secretary, and to whose wise counsel and judgment much of the successful working of the Society is undoubtedly due. Those members who knew him personally will, we feel confident, to some extent appreciate the loss the Society has sustained, but obviously it was in Committee that his large knowledge of friendly society work, and his calm and judicial mind were principally brought to bear. Taken away somewhat suddenly in the prime of life and at a time when he might fairly have looked forward to a long continuance of his usefulness, the death of our Secretary came upon us as a very great shock. Fortunately Mr. C. H. Radley had for some time been assisting his father, and we were therefore enabled to carry on the work of the Society with a minimum of inconvenience to the members by appointing that gentleman to the vacant office for a time. The selection of a successor to Mr. C. J. Radley was by no means an easy matter, but, after careful consideration of the merits of anumber of candidates our choice eventually fell upon Mr. C. J. Drummond, a man of proved and recognised ability, who has had considerable experience in secretarial work, and whose appointment we trust will give general satisfaction to the members. Bearing in mind the many faithful services rendered by Mr. C. J. Radley to the Society we deemed it our duty to recognise such services by the only means in our power, and we accordingly requested his widow to accept an honorarium of £50, as a mark of our appreciation. Mr. C. H. Radley having carried out his duties pending the appointment of a new secretary to our entire satisfaction, we awarded him a gratuity of £20 and also appointed him assistant secretary, a position we are satisfied he is in every way qualified to fill, while the growth of the Society necessitates such an appointment.

It is again our privilege to acknowledge the untiring energy and zeal evinced by the officers and committees of your Society in its welfare, and the large amount of time and attention that such work necessarily entails, all of which is cheerfully given.

It is impossible within the limits at our command to convey an idea of the extent of this honorary labour; but when it is explained that every case is carefully gone into weekly, and sometimes oftener, by your officers—more especially by Dr. de Havilland Hall—and that every application for admission is examined prior to being submitted to your Committee, members will readily believe that their very best thanks are due to those who so jealously safeguard their interests.

To those members of the profession who kindly examine and report upon special cases from time to time, your Committee take this opportunity of expressing its indebtedness, the more so as it frequently happens that we have to call in the aid of gentlemen who are in no way connected with this Society.

To the medical press, and especially to the British Medical Journal, we owe a deep debt of gratitude for many favours received, not only for the valuable publicity given to our proceedings, but also for the arrangements so kindly made year by year, by favour of the British Medical Association, for the holding of our annual meeting.

In conclusion, we venture to urge upon the members the duty they owe to themselves and the profession to which they belong, of co-operating with us in the good work we have in hand by bringing the Society under the notice of those eligible to become members. In saying this, we do not wish it to be understood that it is at all necessary to the success of the Society that new members should be admitted, but, on the other hand, we have no desire to be exclusive, and are willing at all times to consider applications for membership from healthy candidates.

We are induced to make these remarks because of the frequent intimations we receive of the usefulness of the Society, and of the regret of our correspondents at not becoming earlier acquainted with its existence. To the younger members of the profession, who are frequently placed at great disadvantage when stricken down by sickness or accident, this Society affords exceptional opportunities of providing against the loss and inconvenience thus entailed; and it is, therefore, an act of friendship to bring the matter to their notice by forwarding a prospectus, or in some other way.

(Signed)
By Order of the Committee,
Ernest Hart, *Chairman.*
C. J. Drummond, *Secretary.*

MEDICAL PROVIDENCE AND ASSURANCE.

A meeting of the Committee of the Medical Sickness, Annuity, and Life Assurance Society was held on July 13th, at 38, Wimpole Street, W., Mr. Ernest Hart in the chair; there were also present: Mr. E. Bartlett, Dr. M. Greenwood, Mr. T. M. Griffiths (Clifton), Dr. De Havilland Hall, Dr. J. W. Hunt, Mr. J. Brindley James, Dr. J. Pickett, Dr. Walter Smith, Mr. W. J. Stephens (Brighton), Mr. W. Thomas (Birmingham), and Mr. C. J. Drummond (Secretary).

The report of the Society's proceedings for the past month showed that the number of proposals for membership continued satisfactory, the total received to date amounting to 1,531, while the sickness pay was below the average, and about £100 less than was expended for the corresponding period of 1891. A further sum of £2,000 was invested in corporation bonds, bringing the total invested capital of the Society up to nearly £60,000. The draft report to be submitted to the forthcoming annual meeting, which will be held in the Mechanics' Lecture Hall, Nottingham, on July 27th, was considered and approved.

It was announced with much regret that Mr. S. W. Sibley, of Harley Street, who had acted as treasurer to the Society from the first, and who had given great attention to its affairs, had felt obliged to send in his resignation on his retirement from London. A resolution was passed expressing the deep obligations of the Society to Mr. Sibley for his valued support and attention to its affairs during so many years, and the best wishes of the Council for his health and happiness in retirement. It was stated that Mr. H. H. Clutton, F.R.C.S., of Portland Place, one of the surgeons of St. Thomas's Hospital, had consented to be nominated as one of the treasurers to fill the vacancy thus created, and Mr. Clutton was accordingly unanimously selected for recommendation to the annual meeting.

Copies of this report, prospectuses, forms for admission, and all particulars of the excellent work of the Society will be forwarded post free by Mr. C. J. Drummond, Secretary, 21, Dalmore Road, West Dulwich, S.E.

The St. Gervais Disaster.—Dr. Guyenot, physician to the baths of St. Gervais, was involved in the disaster caused by the flood due to the fracture of the glacier of Bionnassay, but was fortunate enough to escape with his life, though he sustained a complicated fracture of the arm. He showed great presence of mind, and was instrumental in saving the lives of fifteen persons, by assisting them to escape through a window.

Rival Faith Curers.—An inquest was recently held at Santa Barbara, California, as to the death of a young man who died of typhoid fever while an inmate of the "Spanish Faith Mission," which is conducted by a preacher. The interesting point in the case is that a rival faith curer, the proprietress of another "faith mission," who had tried unsuccessfully to persuade the young man to patronise her establishment, gave evidence to the effect that if he had had proper nursing and medicine he would have recovered. In spite of this the jury found a verdict of death from natural causes.

Earth Worms and Tuberculosis.—MM. Lortet and Despeignes, in continuing some researches into the behaviour of earth worms to tuberculous matter, have given additional scientific basis to the arguments advanced in favour of cremation. They have found (*Lyon Médical*, No. 29, 1892) that earth worms living in soil which contains tuberculous material bring up the bacilli to the surface. The worm-casts under such circumstances are capable of producing the most virulent tuberculosis in guinea-pigs.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

SUBSCRIPTIONS to the Association for 1892 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, JULY 23RD, 1892.

THE NOTTINGHAM MEETING.

THE sixtieth annual meeting of the British Medical Association, which begins next Tuesday at Nottingham, gives every promise of being one of the most interesting and memorable which the Association has ever held. The arrangements for the convenience of members and for the conduct of the business of the sections have been most admirably organised by the Local Committee, and its energetic secretary, Dr. Handford. They have had the advantage of being able to draw upon the copious resources of the buildings of the University College to provide nearly all the accommodation required, and they have had the cordial co-operation of the Mayor and Corporation in making the social arrangements which are important subsidiary features in such gatherings.

The arrangements made for the Sectional meetings have been very carefully thought out, as may be seen by reference to the detailed programme published in another page. In the Section of Medicine the two subjects selected for the main discussions are peripheral neuritis and ascites; the one a topic still of some novelty, the importance of which it is not yet perhaps possible to appreciate; the other a well-worn theme, to which recent clinical and experimental research has recently made some valuable contributions. The Section will also have the advantage of hearing a suggestive address from its President, Dr. W. H. Ransom, F.R.S., on a little-known department of pathology. In the Section of Surgery subjects of practical importance and of interest to every practitioner will be discussed by some of the leaders of surgical opinion in this country—the surgery of the thorax, introduced by Mr. Godlee; the surgery of the liver and gall bladder, introduced by Mr. Knowsley Thornton; and the treatment of spinal abscess, by Mr. Watson Cheyne. In the Section of Obstetric Medicine, the burning question of the methods of treating uterine fibroids will be succeeded by a discussion on the every-day difficulty of the treatment of *post-partum* hæmorrhage. In the Section of Pathology, under the energetic presidency of Professor Victor Horsley, three days of hard work have been mapped out. The contributions will be as far as possible objective—that is to say, the papers will be illustrated by microscopical and bacteriological preparations, and demonstrations will be given on many points which are familiar, perhaps, to most of us by reading, but the full significance of which can hardly be grasped without such ocular demonstration as will be afforded at Nottingham. Among those who will take part in the business of this Section are many of the most thoughtful and original of the new school of pathology.

The Section of Diseases of Children has chosen for the main topics of discussion two subjects of great practical clinical importance: croupous pneumonia and club foot; and even the Section of Psychology has pitched upon subjects well within the ken of the general practitioner in choosing "the psychoses which follow influenza," and "insanity as a plea for divorce" as two of the chief topics which it will debate. How excellent and well sustained debates in this Section may be those who were present at the last annual meeting at Bournemouth will not need to be told.

In the Section of Pharmacology and Therapeutics Dr. Broadbent will introduce a discussion on cardiac tonics, and will be supported by Dr. Lauder Brunton, Dr. Clifford Allbutt, Dr. Mitchell Bruce, Professor Oliver, and other clinical authorities; a debate will be raised also on anæsthetics, and Professor Liebreich, of Berlin, has deputed Dr. A. P. Chadbourne to describe a new coca base discovered in his laboratory.

The Association will be addressed this year for the first time in general session by a son of one of those great colonies of which it is the proudest boast of this country to be the mother. Dr. Hingston, Professor of Clinical Surgery in the Laval University, Montreal, will deliver the Address in Surgery, and among those who will attend to hear him will be not a few of his fellow-citizens of the great Dominion. Dr. Hingston represents a series of branches, formed only last year on the occasion of the visit of Mr. Ernest Hart to Canada, but already both numerous and well organised.

The number of foreign delegates who are expected is unusually large. Among them are MM. Roussel, Lucas-Championnière, and Huchard, of Paris; Professors v. Schrötter, of Vienna; Krause, of Berlin; and Ebstein, of Gottingen; Dr. Semmola, of Naples; Professor Baccelli, of Rome; and Dr. Tizzoni, of Bologna; Professors Eklund, of Stockholm; Lenander, of Upsala; and Bloch, of Copenhagen; Dr. Thiriar, of Brussels; Professor Kowalewsky, of Charkoff; Dr. William Osler, of Johns Hopkins University, Baltimore; Dr. William Porter, of New York; and Dr. Nicholas Senn, of Chicago.

The usual annual Museum of Pathological and Anatomical Specimens, and New Books, Drugs, and Foods, has been specially enlarged this year by the organisation on a large scale of a Sanitary Section. This section, which will form a somewhat extensive exhibition in itself will be opened by the President-Elect (Mr. Joseph White), the Mayor of Nottingham, and Sir Walter Foster, the President of the Section of Public Health, on Tuesday morning, and will remain open for at least two months.

The social engagements of the week will be found to be numerous and interesting; on Saturday, after the conclusion of the meeting, a series of excursions have been planned, and members will have the opportunity of enjoying the hospitality of the Duke of Rutland, at Belvoir Castle; of the Duke of Portland, at Welbeck Abbey; and of the Duke of Devonshire, at Chatsworth or at Buxton. In addition, an excursion, which will be of a most interesting kind, will be made by a small party to Lincoln.

A MEETING of the Anatomical Society of Great Britain and Ireland will be held in the Anatomical Theatre of the new buildings of the University of Edinburgh at 4.30 P.M. on Tuesday, August 2nd.

INFECTIOUS FEVERS IN LONDON.

THE Report of the Metropolitan Asylums Board on the working of its infectious hospitals, imbecile asylums, ambulance system, and training ship for the year 1891, which has just been issued. contains a very interesting account of the manner in which London defends itself from the spread of infectious diseases which may arise from time to time in its midst. The Report is largely concerned with administrative methods, but both in the summary prepared by the Statistical Committee, over which Sir V. H. B. Kennett-Barrington presides, and in the reports of the medical superintendents, many valuable clinical and epidemiological observations are contained. The total number of cases admitted into the hospitals of the Board was 7,809, as compared with 8,334 in the previous year, which was the largest number ever dealt with. How very large a part of the work of the Board is concerned with scarlet fever is well shown by the fact that the number of patients admitted with that disease was 5,262. A table is given showing the mortality at various ages observed among the 42,111 cases of scarlet fever admitted into the Board's hospitals in the years 1871 to 1891; the general mortality was 9.58 per cent., but the rate at different ages was very different; it was three times as great among children under 2 years of age, and for the first five years taken together it was very nearly twice the average for all ages. There is a steady decline from the rates (about 30 per cent.) for children aged 2 years or less until a minimum is reached at ages 15 to 20, when the percentage death-rate is only 3.33; at all ages above 1 year and under 25 (with the exception of the fifth year) the mortality among males has been greater than among females. Albuminuria was noticed in 11 per cent. of all the cases treated during 1891, and was the commonest complication, the next in order of frequency being otitis (7.7 per cent.).

Next in magnitude, but at a long distance, as a part of the work of the Board's hospitals, comes diphtheria; of this disease, 1,312 cases were admitted during 1891. The general death-rate of the 3,075 cases treated since 1888, when diphtheria was first admitted, has been 33.63, but the differences in the rate at various ages have been even greater than in scarlet fever. In children under 1 year it was 59.65 per cent., and in the following year of life it was 68.79 per cent.; thereafter it slowly declined, and in the fifth year of life was 45.21 per cent. In the five years, 5 to 10, it was 32.49, but after that quinquenniad it very rapidly declined until it reached 1.05 in the quinquenniad 25 to 30; at that and subsequent ages the number of cases was comparatively small, but the death-rate showed a distinct and steady upward tendency. It is a curious circumstance, and one which appears to be very difficult of explanation, that among the admissions there was a considerable preponderance of females (1,715) over males (1,360), though the death-rate among females was lower (32.36 as against 35.15). The most common complication was albuminuria (17.1 per cent.), and next to it came paralysis (11 per cent.). The palsy most often observed[1] was that affecting the soft palate (in 95 cases), next that affecting accommodation (in 44 cases), and third in order was paraplegia (in 22 cases). The statistics of tracheotomy are given for the Eastern Hospital by Mr. Mann, the senior assistant medical officer; 465 cases of diphtheria were admitted into that hospital, and tracheotomy was performed in 82 with 19 recoveries. In all but 2 of the patients who recovered there was evidence that the trachea was affected by the disease. As these patients coughed up, through the tracheotomy tube, membrane varying in amount from shreds to casts of the trachea, it is very unlikely, Mr. Mann observes, that any of them would have recovered without the operation. In several the operation was performed more to relieve the distress of the patients than with any hope of their recovery, since they were already affected with nasal diphtheria; the results must, therefore, be considered very good. Of 13 children under 2, 2 recovered; of 16 between 2 and 3, 3 recovered; and of 53 patients above the last-mentioned age, 14 recovered.

The total number of cases of enteric fever admitted during the year into all the hospitals was 755. The general mortality among the 7,715 cases treated since 1871 has been 17.34. The death-rate was lowest in the quinquenniad 5 to 10, when it was only 8.65; under 5, and from 10 to 15, it was as nearly as possible the same, about 13 per cent., but after the last-mentioned age it rose steadily, with slight fluctuations, until the maximum[2] (26.72) was reached in the quinquenniad 35 to 40. Typhus fever furnished only 18 cases, of whom only 1 died.

An interesting table, which has a peculiar interest of its own, is one which shows the number of cases of miscellaneous diseases admitted during the year; these number no fewer than 450, and every one, it would appear, is an example of mistaken diagnosis. The errors range from such a pardonable mistake as the confusion of general tuberculosis with enteric fever to the diagnosis of scarlet fever in a case of epiphysitis of the humerus. The percentage of errors in diagnosis has increased from 2.4 to 6.2 in the last five years, but it is confidently expected that this proportion will now begin to diminish again, since the Board has at length consented to allow their hospitals to be used for the purpose of clinical teaching, and the Conjoint Examining Board in England now requires a course of study at a fever hospital from every student.

The Report draws attention to various anomalies in existing arrangements for dealing with infectious diseases. One of these is that the notification of cases in the general hospitals must be sent to the medical officer of the district in which the patient's home is situated. This works well enough in cases of patients who begin to suffer from the infectious disease soon after their admission to the hospital in question, but only leads to confusion when the disease has been contracted within the hospital, perhaps long after the patient's admission. Another point is that there is at present great delay in undertaking any inquiry as to the mode of origin of an epidemic, owing to the authorities who can make such inquiries not being in direct relation with the authority which deals with the patients. This will probably be remedied in the near future, when the medical department of the London County Council has been fully manned. Other difficulties, created by the absence of centralisation, are not likely to be so easily cured. At present some delay and consequent danger arises owing to the Board not being the authority charged with the duty of disinfecting the house from which a patient has been removed. Dr. Birdwood gives an extraordinary instance of a further danger: Two men were

[1] Unfortunately, in the returns from some of the hospitals the statements as to the locality of the paralysis are very indefinite. This s to be regretted.

[2] Above 40 the number of cases is too small to give trustworthy results; the number of cases under 5 is also very small.

employed to disinfect houses from which small-pox patients had been removed, neither of these men had had small-pox, nor had they been recently successfully re-vaccinated. Both of them contracted the disease. Dr. Birdwood also makes a suggestion, which seems a good one, on another point; it is that when the Board is notified that a small-pox patient is to be removed a medical officer should accompany the ambulance to confirm the diagnosis and to offer re-vaccination to other inmates of the house. He also points out that patients admitted with only modified small-pox, who get well in a few days, but are retained in hospital for the protection of the public, and persons admitted as suffering from small-pox but not so suffering, who have to be kept in quarantine until the incubation period is over, both suffer in some cases great hardship and pecuniary losses. It is suggested, and it seems only just, that the Board should have the authority to compensate such persons, at least to such a moderate extent as shall prevent the possibility of the recurrence of such a catastrophe as that a man's home should be sold up because he is detained in hospital, and so prevented from earning the weekly wage which has kept his family from want. Compensation has been paid on various occasions by provincial sanitary authorities, and there seems no reason why the principle should not be extended to London.

IRISH DISPENSARY DOCTORS.

THE annual Report of the Council of the Irish Medical Association has just been published, and it gives indications that good work has been done during the year. In the forefront is placed the case of the Irish dispensary doctors, and ample recognition is given to that which the Parliamentary Bills Committee of the British Medical Association has done in connection with this question. The attempt to bring the grievances regarding superannuation before the Parliament which has just expired was begun at too late a date to be successful, and the Council wisely postponed further action for another session. But the arrangements which have now been made render it certain that a powerful effort will be made at the earliest opportunity afforded in the new Parliament to have the case fully discussed. The Irish candidates have been generally favourable to the claims of the dispensary doctors. Many of those who have been returned have pledged themselves to support the proposed Bill, and we do not doubt that when the facts have been fully and fairly stated, the result will be satisfactory. The Council have obtained the sanction of Sir Walter Foster, Mr. T. W. Russell, Sir Edward Harland, and Mr. John Redmond, to place their names on the Bill. Mr. Herbert Gladstone, who in former years took charge of the case in Parliament, will no doubt again give his aid. Some of the Irish members have not responded to the invitation to support the proposed measure, but it is hardly reasonable to suppose that they will show any opposition to an attempt to remove a cruel injustice from so large a body of their fellow-countrymen. We do not regard it as likely that any opposition will be made by Mr. Jackson. The case he made against the deputation which waited upon him was too weak to be repeated in the House, where he could be answered, and we know that there are many of his party who will vote for the reasonable adjustment of the claim which is made.

The other questions, such as the frauds under the red ticket system, will be dealt with in the second Bill. Upon this Mr. Jackson has said his sympathy goes with the doctors, and we may count upon his support in any well-devised suggestion to remove the scandal from the system of medical charities. It may be possible also to come to some understanding upon the giving of holidays. At present one good result of our own advocacy and the free distribution of the "case" has been that in three unions the guardians have agreed to give holidays to their medical officers; and we believe that these concessions have the approval of the Local Government Board. We strongly advise our friends to make these examples known, and to ask for a holiday where it is not already given. We are not aware that any such movement has been made in Dublin, but there the committees are men of intelligence and humanity, and they could not resist such an application, especially when it has been granted in poorer districts.

We are sorry to hear that many of our friends still stand apart from the movement. Indifference at such a juncture is inexcusable. Every man's sympathy and co-operation are needed, as well as what small contribution he can make to the common fund for promoting the interests of all. We have bitter complaints of the apathy of some, who are ready to share the victory but not to take part in the fight. This is not creditable. No dispensary doctor should be outside of this organisation. He cannot expect others, with no special personal interest in the existing injustice, to labour for his advantage while he stands listlessly by; and therefore, in view of what is yet to be done, we hope to hear that there is no medical officer who has not thrown in all his influence and all his strength with his struggling brethren.

DR. ROBERT SAUNDBY has been elected Professor of Medicine in the Queen's Faculty of Medicine, Mason College, Birmingham, in succession to Sir Walter Foster. Mr. Priestley Smith has been elected Lecturer on Ophthalmology in the same College.

DR. LACASSAGNE, Professor of Legal Medicine and Criminal Anthropology in the University of Lyons, is at the present time engaged on an investigation into the accidents caused by powerful electric currents employed for lighting. He requests us to state that he will be grateful to any person who can forward to him observations of any cases of the kind of which they have knowledge.

THE colleagues of the late Sir William Aitken, M.D., F.R.S., who served with him in the course of the thirty years during which he held the appointment of Professor in the Army Medical School, are taking steps to erect a tablet to his memory in the chapel of the Royal Victoria Hospital at Netley.

THE investigations undertaken by the Royal Society for the London County Council as to the vitality of microscopic pathogenic organisms in London water will, there is reason to expect, yield results of a very high scientific value and great practical utility. £1,000 is being expended on the investigation, half of the expenses coming from the Government Grant Committee and half from the London Council. The investigations will not be completed this year, but a preliminary report has been issued.

PARKES MEMORIAL PRIZE.

THE subject of the next prize is the following: "Malarial Fevers; their Causation and Prevention" (to be illustrated, as far as practicable, from the personal experience of the

writer). Essays are to be sent to the Secretary of the Parkes Memorial Fund, Royal Victoria Hospital, Netley, on or before December 31st, 1894. Each essay to have a motto, and to be accompanied with a sealed envelope bearing the same motto and containing the name of the competitor. This prize, consisting of 75 guineas and a gold medal, is open for competition to the medical officers of the army, navy, and Indian services of executive rank on full pay, with the exception of the assistant professors of the Army Medical School during their term of office.

THE NEW SYDENHAM SOCIETY.

The thirty-fourth annual meeting of the New Sydenham Society will be held in University College, Nottingham, on July 29th, at 9.30 A.M. The annual report and balance-sheet will be presented, and the officers for 1892-93 elected.

THE RUMOURED ILLNESS OF DR. KOCH.

Our Berlin Correspondent writes: A rumour has reached the English newspapers that Professor Koch is ill and unable to work. I am glad to be able to state that in Berlin nothing is known of the professor's indisposition. He is at work as usual every day at his institute for infectious diseases.

CHEAP FRUIT.

Just at this season of the year enormous quantities of foreign fruit are brought into the market, and while the best and soundest is selected for the shops, large quantities of unsound, unripe, or half fermented fruit are consigned to the costermonger's barrow. The caution to local authorities and sanitary inspectors to carefully inspect the dangerous stuff thus sold in the streets is always timely at this season, but particularly it is timely this year when choleraic affections have come so near our doors, and when the cholera poison may at any moment break through the defence of medical inspection at ports and reach the crowded centres of population. The great improvement in all the conditions of public health, especially in the water supply, will do much to avert or to lessen any epidemic of Asiatic cholera in this country, but choleraic diarrhœa of the sporadic character is very likely to be prevalent during this autumn, and a careful inspection of fruit supplies, with great caution on the part of the public in this matter, may help to save many lives.

SIR JOSEPH FAYRER.

It is announced that Sir Joseph Fayrer will retain office as President of the Medical Board at the India Office until 1895. The rule of retirement at the age of 65 has been suspended in his favour, in view of his eminent services. Sir Joseph Fayrer retains to a singular degree the enthusiasm and liberality of youth in combination with the experience and forbearance learned by long services. During the recent discussion on military rank and the position of the army medical officers Sir Joseph Fayrer has never hesitated to express his strong views in favour of the claims made, so that although there is generally some utterance of discontent at the granting of terms of office beyond those laid down in the regulations and generally enforced it may be expected in this instance that the peculiar favour which Sir Joseph Fayrer has won in the profession as well as with State officials may reconcile many to the extension to him of a special privilege which he has won by exceptional merit.

THE HEATH BEQUESTS.

The munificent bequests designed to foster the study of medicine in the University of Durham, made by the late Dr. G. Y. Heath, have now been formally announced. He has left £5,000 to found a Chair of Comparative Pathology in the College of Medicine (Newcastle-on-Tyne), £10,000 for the erection of students' residences, £4,000 to found a Heath scholarship tenable for two years for an essay on a surgical subject, and £5,000 to found scholarships for students proceeding to the College of Medicine. He has also bequeathed £8,000 towards the proposed new buildings of the Royal Infirmary at Newcastle, and £200 to the Northern Counties Nurses Home. The total personal estate was over £88,000.

SIR GEORGE BUCHANAN PRESENTATION FUND.

We have alluded on a previous occasion to the fact that a committee, with Sir Henry Acland as chairman, and Dr. Bristowe as treasurer, has been formed, with the object of presenting to Sir George Buchanan, on his retirement from the post of medical officer of the Local Government Board, some permanent memento of the general esteem in which he is held. The conspicuous services rendered by Sir George Buchanan to Public Health may be said to have a world-wide reputation, and doubtless all who are interested in the cause of preventive medicine will desire to contribute their quota towards the above fund. As the committee are desirous of learning as soon as possible the amount which will be at their disposal, intending contributors should forward without delay their subscriptions to one of the secretaries: Dr. W. H. Hamer, 69, Dartmouth Park Hill, N.W., or Dr. J. C. Thresh, The Limes, Chelmsford.

INDOOR MEDICAL RELIEF.

Dr. A. Sheen, the medical officer of the Cardiff Workhouse, has issued a carefully written pamphlet on indoor medical relief, more especially in reference to nursing, and we are glad to find that Dr. Sheen has so ably advocated the employment of trained nurses only for all workhouse infirmaries. It is sincerely to be hoped the time is not far distant when the employment of pauper inmates as nurses will not be sanctioned. Dr. Sheen makes a strong point of the advisability of all drugs and appliances being found by the guardians, and in large workhouses recommends a dispenser to be employed by them. He states that as a rule medical officers of workhouses are now overburdened with clerical work, and that of much of this they ought to be relieved, as there is too much red-tapeism in connection with it. The medical officer should be in such a position that "he can give his whole and undivided attention to the care of the sick." All these recommendations of Dr. Sheen we cordially endorse, and the pamphlet throughout is worthy of careful study.

NEW PHARMACOPŒIAS.

The new Italian pharmacopœia, which is the first whose writ runs throughout the whole kingdom of Italy, has recently been published. The preparation of the work was entrusted to a commission, consisting of Drs. G. Cocconi, A. Corradi, I. Guareschi, C. Tacconis, Dioscoride Vitali, and Luigi de Cesaris, with Professor J. Moleschott as President. The book, which bears the title of *Farmacopea Ufficiale del Regno d'Italia*, forms a substantial volume of 413 octavo pages. The language used throughout is Italian, the Latin equivalents of the names of drugs being given as sub-titles. The number of preparations included is 597; of these 124, which are marked with an asterisk, must be kept in stock by all druggists. An appendix contains a formulary of remedies used in veterinary medicine.—A second edition of the Japanese pharmacopœia has recently been issued; the first appeared in 1886. The new edition is largely based on the new German and Austrian pharmacopœias, and contains 440 preparations.—A new pharmacopœia is in preparation in Argentina, under the direction of a commission, presided over by Dr. del Arca.

TYPHOID FEVER AND THE NOTIFICATION ACT.

A correspondent writes to us, raising a point of some interest. It appears that he notified a case of typhoid fever affecting the father of a family, and that an intimation was forwarded from the school attended by the two sons to the

effect that it was undesirable they should resume their studies until the lapse of a period of one fortnight after the house had been disinfected. Our correspondent asks whether, "under the Public Health Act, a medical officer of health has the right to notify to schoolmasters and others the presence of an infectious disease in a house on a medical practitioner's certificate?" It is, of course, not a question of right at all, but of the performance of a statutory duty imposed upon the medical officer of health by Section 55 (4) of the Public Health (London) Act. Whether it is advisable for the head master of a school to prohibit the attendance of scholars because of the existence of typhoid fever in the house occupied by them is quite another matter; and we are disposed to agree with our correspondent when he suggests that the law "should be administered intelligently; and that the same rules should not be applied to every infectious disease merely because they are in the same list."

SCARLET FEVER IN LONDON.

JUDGED by the admissions during last week of scarlet fever patients in the Metropolitan Asylums Hospitals, the epidemic prevalence of this disease in London is still increasing, although it is satisfactory to note that, notwithstanding this increase in the number of hospital cases, the deaths during the past three weeks have been fewer than at the end of June. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which has been continuously increasing during the past four months, was as many as 2,488 on July 16th, of whom 323 had been admitted during last week. The fatal cases of scarlet fever registered in the metropolis last week were 23, and only slightly exceeded the average number in the corresponding week of the preceding ten years. The disease appears to be most fatally prevalent in Shoreditch, Bethnal Green, Whitechapel, and especially in Newington.

THE CARE AND TREATMENT OF IMBECILES.

AT a recent meeting of the Sunderland Board of Guardians, the question of the accommodation of imbeciles belonging to that union was considered. It appears that the wards of the workhouse infirmary had become overcrowded, and a recommendation had been brought forward by the house committee to remove the imbeciles from the lunatic wards of the workhouse to an asylum, and to utilise the wards thus rendered vacant for the hospital patients. A good deal of opposition was manifested, chiefly because the cost of maintenance of the imbeciles in the asylum would far exceed that incurred by their accommodation in the workhouse. After considerable discussion, the matter was adjourned. It appears to us that if the imbeciles are harmless, there is no reason why they should not be kept in the workhouse, as was suggested by the Commissioners in Lunacy. Asylums should not be filled with harmless imbeciles, but should be utilised for the reception and cure of cases of insanity. On the other hand, if many of these cases are children suffering from idiocy or imbecility, steps should at once be taken for training them in a suitable institution.

A DEBATABLE CLAIM.

WE have received an official intimation that the Mississippi Valley Medical Association will hold its eleventh annual session at Cincinnati on October 12th, 13th, and 14th, 1892. An excellent programme is presented. An address on Surgery will be delivered by Dr. Hunter McGuire, of Richmond, Va., President of the American Medical Association. An address on Medicine will be made by Dr. Hobart Amory Hare, Professor of Therapeutics and Clinical Medicine, Jefferson Medical College, Philadelphia. The social as well as the scientific part of the meeting will be of the highest order. The official circular adds: "The Mississippi Valley Medical Association possesses one great advantage over similar bodies, in that its organic law is such that nothing can be discussed during the sessions save and except science. All ethical matters are referred, together with all extraordinary business, to appropriate committees; their decisions are final and are accepted without discussion. The constitution and by-laws are comprehensive and at the same time simple. Precious time is not allowed the demagogue or the medical legislator."

INSANITARY ESSEX.

EXAMPLES of "how not to do it" have been rather abundant of late in the newspaper reports of the proceedings of Essex sanitary authorities, perhaps, because the rumours of cholera have stimulated public interest in sanitary matters. The Romford Local Board received a report from their medical officer of health, urging them to combine with the rural authority in providing an isolation hospital; this was dealt with by being allowed to lie on the table. The Waltham Local Board were informed by their health officer that a milk vendor, upon whose premises diphtheria had broken out, had refused to stop the sale of milk; the Board declined to prosecute, but propose to reprimand the offender! At Hatfield Broad Oak there has been an outbreak of enteric fever, for which a ready explanation was found in the existence of pervious cesspools and wells polluted by sewage. These facts were brought to the notice of the Dunmow Rural Sanitary authority by the medical officer of health, and it was decided to have the wells cleaned out, the cesspools repaired, and disinfectants distributed! At Moreton, in the Ongar rural district, diphtheria has broken out, and is suspected of having some connection with the fact that there is no system of drainage for the village.

"MURDER MADE EASY."

"IT is a case of murder made easy," said the Treasury counsel at the preliminary trial of Thomas Neill for complicity in the recent poisonings in South London; and on the face of it the evidence given goes far to justify the sneer. Matilda Clover, an "unfortunate," was found on October 20th suffering from agonising convulsions. Mr. Graham, L.S.A., was sent for, but he was away from home. The unqualified assistant of another practitioner was called in, but he did not recognise the nature of the case, and thought the patient had delirium tremens; he left and sent some medicine, but the girl died on October 21st. He "could not give a certificate," being unqualified, and at the landlady's request Mr. Graham called next day, and, after an interview with the unqualified assistant, gave a certificate to the effect that he attended Clover during her last illness, that he last saw her on October 21st, and that her death was due to syncope resulting from delirium tremens. The death was so registered and the body was duly interred. Subsequent events threw suspicion on the matter, and on examination of her body it appeared that Clover had been poisoned with strychnine. Mr. Graham stated that he had on several occasions seen the deceased as a "club patient," but he had not attended her at the house in which she died. By the words in the certificate he did not mean that he "last saw her" alive; he supposed the words generally meant that, but "he was very much hurried that morning." The moral is not hard to draw. Death certificates are valueless unless the statements therein, which the medical man attests by his signature and qualifications, are true in substance and in fact. They are not only valueless but dangerous to the community when, as in this instance, a qualified practitioner adopts and vouches for the unskilled and erroneous diagnosis of an unqualified man, in the vague hope that all is right, and that after the funeral the risk will cease. Mr. Graham, on his own evidence, has placed himself in a very awkward position, and the excuse of "hurry" is a very inadequate plea in extenuation. The unqualified assistant in this case was not employed by Mr. Graham; but in effect his procedure has unpleasant analogies to that which at the last session of the General Medical Council was so severely visited. It remains to be seen whether the Council and the

Registrar-General will deal with the professional aspect of a case that already presents many painful points of interest to medical men.

THE CHAIR OF PATHOLOGY AT NETLEY.

We had occasion recently to discuss the question of the successor to Sir William Aitken in the Chair of Pathology at the Army Medical School at Netley. We understand that the post has been given to a comparatively young civil physician, Dr. A. E. Wright. This seems to us to be an unfortunate appointment. However great Dr. Wright's talents as a pathologist, it cannot be denied that there are several most competent medical officers of the Indian and army medical services, who have gained intimate acquaintance with the diseases of tropical climates, and the diseases to which the troops are particularly subject in camps, barracks, stations in hills and plains, quite qualified as teachers of young military surgeons, while Dr. Wright has never served in any capacity with soldiers. The purpose for which the chair was instituted was not to teach general pathology; that is done in the civil schools, and the young surgeons, men of 23 to 26 years of age, come to Netley with a fair knowledge of pathology gained in them. The chair was created to teach the special application of pathology to the conditions in which troops are placed—of course with the ultimate object of the better treatment of the diseases, and, if possible, their prevention. Dr. Aitken was selected for the post because he had served as pathologist with the army in the East during the Crimean war, and his admirable reports on the nature of the diseases from which the troops suffered during that war, and on their causes, indicated him as just the right man in the right place. There are few positions of mark in England for surgeons of the military medical services, and giving Sir William Aitken's vacancy to a civilian closes a door that might very fitly have been opened to an Indian or army surgeon. At the same time it takes away the stimulus to special work from all the young surgeons in the two services, or at any rate one of the stimuli; for why should an army medical officer try to do special work in pathology when the only door to distinction, so far as his own service is concerned, is closed to him? This is sure to be the feeling on the subject. The appointment is given to Dr. Wright until he attains the age of 65. This just happens, too, when the appointment of Examiner in Medicine for the Army, which was held by Professor Parkes up to the time of his death, and subsequently by Professor Aitken, has been conferred on another physician unconnected with the public services, Dr. Allchin. These appointments have caused great disappointment and dissatisfaction throughout the medical services at home and in India, and we regret the event all the more as it will certainly cause the Director-General to be very unpopular among his officers. Another difficulty that must arise from Dr. Wright's appointment is this. Dr. Bruce, who is an army surgeon, and who has greatly distinguished himself as a bacteriologist, and who has given the lectures and performed all the duties of the Chair of Pathology during the present session of the Army Medical School, in consequence of Sir W. Aitken's illness, is senior in years as well as in professional standing to Dr. Wright, who will be now put above him as full professor. The appointment is really an error from every point of view.

THE DANGERS OF HOT WATER BOTTLES

Dr. A. W. Edis, F.R.C.P., writes to us: Judging from the experience recently gained, I think it well to enter a word of caution as to the employment of hot water bottles after operations, when the patient is still unconscious. In one case of abdominal section, owing to an india-rubber bottle, filled with boiling water, unprotected by any flannel or plush cover, being placed low down by the feet, a slough formed over the outer malleolus, extending down to the periosteum, which caused the patient considerably more inconvenience than the operation itself. The pain was so intense that morphine hypodermically had to be resorted to. At the end of a month the pain experienced was so severe that the patient was quite unable to put foot to ground, and it was over two months before the slough had separated and the wound healed. In another case the bottle was placed between the feet and a large blister raised on the inner surface of the great toe, which caused the patient much pain and inconvenience for nearly a fortnight. The foot swelled and the leg itself became very painful, necessitating the employment of a bandage, water dressing, and other measures. In a third case, a hot-water bottle placed at the side of a patient after oöphorectomy, blistered the back of the hand so severely that nearly the whole of the skin subsequently peeled off, and prevented the patient using the hand for nearly three weeks. In yet another case a large blister was produced over the right hip, causing so much pain as to preclude the patient turning on that side for some weeks afterwards. I would suggest the employment invariably of suitable covers to prevent these accidents, and also a caution to the nurse as to their possibility.

MEDICAL OFFICER OF HEALTH FOR ISLINGTON.

The final upshot of the scandal at Islington concerning the appointment of a medical officer of health in the place of the late Dr. Tidy was completed last week. It will be remembered that, immediately upon the death of Dr. Tidy, Dr. Wynn Westcott, Deputy Coroner for Central Middlesex, resigned his office as vestryman. There is a by-law of the vestry declaring that no paid office should be given to any gentleman who has been a vestryman within six months of his application for office; but this by-law was suspended and Dr. Westcott was appointed temporarily to fill the office for six months. Considerable indignation was felt to this objectionable proceeding on the part of the vestry, and attention was called to the circumstances in the House of Commons by Dr. Farquharson, when Mr. Ritchie, the President of the Local Government Board, expressed his disapproval of the proceedings, which were obviously intended to defeat a very salutary regulation. Ultimately the Local Government Board disapproved of the appointment. By some curious family arrangement, of which the explanation yet remains to be given, the Board, however, subsequently sanctioned the appointment of this gentleman for three months as a temporary proceeding. The final result was what might have been expected under the circumstances: at the end of six months the ex-vestryman appeared once more as a candidate for the appointment. There were twenty-six candidates, of whom in the end the following were selected: Dr. Alfred E. Harris, medical officer of health for Sunderland; Dr. A. Wellesley Harris, medical officer of health for Southampton; and Dr. Wynn Westcott. The voting was very close, and, after a poll, Dr. Harris, of Sunderland, was declared elected by a majority of two votes, and amid the exultation of members, who said they had defeated "a job." Regret may be felt for the personal disappointment of Dr. Westcott; but, on the other hand, his appointment under the circumstances would have been so bad a precedent that the ultimate result is one which must be regarded with satisfaction on public grounds.

THE BRUSSELS OBSTETRICAL CONGRESS.

The programme of the proceedings of this Congress at its coming meeting was issued at the end of last week, by the President, Professor Kufferath, and the General Secretary, Dr. Jacobs. The sittings of the Congress will be held at the Palais des Académies. On Monday, September 13th, at 9 P.M., the Belgian Gynæcological and Obstetrical Society will give a concert in honour of the members of the Congress. On Wednesday, at 2 P.M., the Congress will be declared open, in the presence of King Leopold II. The exhibition will also open. It will include an international display of instruments and apparatus at the Palais des Académies and a special exhibition of specimens and instruments, contributed by the

Belgian Universities, and held at the Brussels Maternité. On Thursday, Friday, and Saturday the ordinary sittings will be held, general communications being read between 10 A.M. and noon, whilst special subjects chosen for discussion will be brought forward in the afternoon. The order of these subjects is as follows: Thursday, September 15th, 2 P.M., Pelvic Suppuration, introduced by Dr. Segond, of Paris; Friday, September 16th, Extrauterine Pregnancy, by Dr. Martin, of Berlin; and Saturday, September 17th, Placenta Prævia, by Dr. Berry Hart. On Thursday, at 9 P.M., the Minister of Public Works will receive the members of Congress at his official residence. On Friday, at 7 P.M., there will be a special performance at the opera; and on Saturday evening the Belgian Gynæcological and Obstetrical Society will give a banquet. Subscriptions may be sent by post-office order to the General Secretary, Dr. Jacobs, 12, Rue des Petits Carmes, Brussels. After September 12th they may be paid in at the Secretary's office. Further information will be supplied on application to the General Secretary, at the above address.

HARNESS'S ELECTRIC BELTS: IMPORTANT DECISION.

WE have received a report of a very important case tried before his Honour Judge Bacon, at the Bloomsbury County Court. The claim was for £3 5s., balance of £5 5s., the price of an electric belt (Harness's patent) supplied by the Medical Battery Company to Mr. Jeffery; and the defendant, by way of counter-claim, sought to have an I O U for £3 5s. delivered up to him, and the sum of £2 cash returned to him on the following grounds: First, that he was induced to buy the electric belt through misrepresentation; and, secondly, that there was no good consideration for the contract into which he had entered with the plaintiff company. The evidence given by an electric expert was to the effect that in the electric belt sold no electricity passed through the body in any way whatever, but only along the webbing of the belt and over the skin surface, so that electrically the influence was useless. The expert witness on behalf of the Medical Battery Company, who had recommended and sold the belt, stated that prior to employment by the company he had been a salesman in an Oriental furniture shop. Judgment was given for the defendant on his counter claim, and an order was made that the £2 he had paid be returned to him. The case is one of much importance, and we shall deal with it at greater length on a future occasion.

THE DECENTRALISATION OF SANITARY ADMINISTRATION.

LAST year the Staffordshire County Council made a representation to the Local Government Board that the Public Health Act was not properly enforced in the district of the Brownhills Local Board. An inspection was made by Mr. T. W. Thompson on behalf of the central board, and his official report, just issued, should be studied by those who cling to the belief that "local self-government" is the final remedy for the many disgraceful insanitary conditions which are still common in our towns and villages. As a nation we pride ourselves upon being cleaner than our neighbours, and comfort ourselves with the assurance that filth diseases in general, and cholera in particular, can find little encouragement to come or stay in our midst. And yet this "urban sanitary authority" of Brownhills, like those Yorkshire boards, upon whose stewardship Dr. Barry reported last year, have with impunity neglected every one of their sanitary duties, and calmly ignored the repeated remonstrances of their medical officer and the gentle pressure of the Local Government Board. They had done something, but always in such a fashion as to stultify themselves and their action. There is a public water supply, but six-sevenths of the houses are still supplied by wells, many of them of doubtful purity. There is a sewage farm, but it has been so neglected as to be practically useless. There are by-laws, which are not enforced. Public scavenging has only recently been adopted, but is already neglected. The conditions as to house drainage are such as might be expected from what has been said above. Local self-government of this kind is an utter farce, and if cholera comes there will be loud complaint of the absence of more strict central control. The Local Government Board staff, admirable as it is, is at present far too small to deal effectively with the heavy arrears of sanitary work. County councils have been offered a vague general supervision, but without any executive power except in one or two points, and, so far, very few have taken much trouble in the matter. District councils are still unknown quantities, and may remain so. In any case, Brownhills is a useful example of the consequences which are to be expected from indiscriminate "decentralisation" in sanitary matters, and of the necessity for strengthening either the Local Government Board or the county councils or both.

BAD MEAT OR GOOD?

A FRESH illustration of the importance of an efficient sanitary control of the meat trade is afforded by a case that was tried recently at Ilkeston Petty Sessions. On July 7th a Nottingham butcher was charged with having exposed for sale in the market place at Ilkeston 47 pieces of meat that were unfit for human food. From the evidence for the prosecution, as reported in the *Nottingham Daily Express*, it appears that the meat in question was seized at the instance of the Inspector of Nuisances for the Borough of Ilkeston. This official, in his evidence, described the meat as soft, slimy, and flabby, and in part green from decomposition. Dr. Carroll, medical officer of health, also gave evidence regarding the unwholesome character of the meat; he corroborated the evidence of the previous witness, stating that the meat was slightly decomposed and offensive in smell, and that there was a large quantity of fluid and blood between the muscles. The animal had been well fed. For the defence a considerable body of evidence—for the most part diametrically opposed to that for the prosecution—was given. A Nottingham butcher testified that he and the defendant had purchased the carcass from which the meat was derived on the fifth day before the seizure at Ilkeston. During part of the interval the meat had been in an ice house, and he attributed its moist and flabby character to this circumstance. He considered the meat sound and good at the time of seizure. The carcass weighed between 40 and 50 stone, and the price paid for it was £7 10s. Five other witnesses, comprising a butcher who worked for the defendant; an inspector in the service of the Nottingham Corporation, and three veterinary surgeons gave similar evidence testifying that the meat was good, wholesome, firm, and devoid of unpleasant odour. The Bench, notwithstanding the contradictory character of the evidence, considered the case proved, and fined the defendant 3s. for each piece of meat seized, and £1 6s. 6d. in costs, making in all £8 7s. 6d. Such a conflict of evidence regarding similar matters of fact as was exhibited in this case is truly lamentable. In nearly all such cases a certain diversity of opinion may be expected, a diversity that need not imply untruthfulness or incompetence on the part of the witnesses for either side; but when, as in this instance, one set describes a particular carcass as offensive in smell, and green from decomposition, while another declares the same carcass to be good, wholesome, and devoid of greenness or unpleasant odour, the conclusion that some of the witnesses have given exceedingly biassed evidence is inevitable. Probably the most damning point in this case was the admission that the carcass had been bought for about 3s. per stone; no evidence was given regarding the state of the animal at the time of death. The rapid rate at which putrefaction advances in the tissues of an animal that has died a natural death, as compared with one killed in health and properly bled, is very remarkable; and considering the numerous instances on record of poisoning through eating meat in a state of incipient decomposition, there

ought to be no hesitation in excluding from public sale the carcass of any animal that has died naturally or been killed while *in extremis*.

DEATH OF MR. HUSBAND, F.R.C.S.

WE deeply regret to have to announce the death of Mr. Husband, formerly President of Council and Treasurer of the British Medical Association, and so long known and well remembered as an able and devoted friend and officer of the Association. Mr. Husband had suffered for some years from incapacitating illness, which had prevented his appearance of late years at the meetings where he was always warmly welcomed. The tidings of his death will be received with deep and general regret. The funeral takes place to-day (Friday) at Clifton. We shall next week publish a biographical notice, with a portrait of his familiar and well-remembered lineaments.

SCOTLAND.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

THE directors have appointed Mr. W. B. Drummond, M.B., C.M., and Mr. W. F. Robertson, M.B., C.M., to be Resident Physicians in the hospital for the six months beginning November 1st next.

SCOTTISH UNIVERSITIES COMMISSION.

AT a meeting of this Commission, held on July 13th, Professor Greenfield, University of Edinburgh, and Professor Hamilton, University of Aberdeen, were examined with regard to the relative positions of pathology and materia medica in the examinations for the Degrees of M.B. and C.M.

UNIVERSITY OF EDINBURGH.

THE following gentlemen, in addition to the list already published in the BRITISH MEDICAL JOURNAL, have passed the Final Professional Examination for the Degrees of M.B. and C.M.: Samuel Davidson, Martin H. Foze, W. Gordon, W. Gray, G. Haley, M.A., G. Newman, Edward M. Nicholl, Edward J. Wightman, L. U. Young, and Harry Whittome.

EDINBURGH ROYAL MATERNITY AND SIMPSON MEMORIAL HOSPITAL.

DR. UNDERHILL, who has been Physician on duty since May 1st, will be succeeded on August 1st by Dr. Halliday Croom. Dr. Milne Murray will continue to act as Assistant Physician for the quarter. The directors have appointed J. Ernest Moorhouse, M.A., B.Sc., M.B., and Andrew Walker, M.A., B.Sc., M.B., to be Resident Physicians in place of A. E. Gray, M.B., C.M., and Claude B. Ker, M.B., C.M.

ABERDEEN CITY HOSPITAL EXTENSION.

THE extension of the City Hospital, which has become an urgent need, and which has frequently been mooted, promises at no distant date to become an accomplished fact. A subcommittee of the Aberdeen Town Council visited the City Hospital the other day in connection with the proposed extension of the building, and it is expected that their report will be presented at an early meeting of the Council, and the much-needed extension and requirements agreed on.

THE TEACHING OF MATERIA MEDICA AND PATHOLOGY.

AT a meeting of the Aberdeen University Court held on July 12th, a discussion took place on a communication from the Commission on the proposed transposition of the order of teaching materia medica and pathology. It was proposed to transpose materia medica, which is taken in the second, and pathology, which is taken in the third year. Professor Hamilton was called in and consulted by the Court on the subject. Confining himself to the mere point of transposition, he expressed himself as having no objection to teaching pathology in the second year. On the motion of Dr. Angus Fraser, seconded by Professor M. Hay, it was resolved to reply to the Commission: "That in the opinion of this Court materia medica may be examined on later than in the third examination; and with regard to the subject of pathology the Court, after consultation with the professor, is of opinion that pathology might be examined on either in the second or third examinations."

IRELAND.

THE LATE DR. RIORDAN, OF LIMERICK.

AT a recent meeting of the Limerick Corporation the following resolution was unanimously adopted: "That this Council expresses its deep sympathy with Alderman Riordan and his family on the death of his son, Dr. Riordan, and directs the Town Clerk to convey this resolution to his relations."

NEWSPAPER ANNOUNCEMENTS.

AT a meeting of the Royal College of Surgeons of Ireland on Monday, July 11th, a resolution was unanimously carried declaring that announcements that any Fellow or Licentiate had left town "on professional business" were of the nature of an advertisement, and derogatory to the dignity of the College.

FEVER IN KILKENNY GAOL.

THERE is an outbreak of fever in Kilkenny Gaol. At the sitting of the Criminal Assize Court on Saturday the judge said he would not send the convicted prisoners to jail, but would allow them to stand out and come up for sentence at a later date. The medical officer, Dr. C. E. James, informs us that fourteen cases of a febrile disease have occurred in the prison. "The general features," he writes, "are acute headache and agonising pains in the back and limbs, very erratic range of temperature, the maximum being usually attained on the second day, nervous symptoms and delirium, marked in some cases, absent in others. Where delirium is present it is an early symptom; it bears no relation to the temperature, and sometimes persists, after it has fallen below normal. Slow pulse (40 to 60 a minute) occurs at some period in nearly all cases, as does subnormal temperature, which is sometimes succeeded by a rise to the original height. No initial rigor has been observed, but sometimes a period of *malaise* of indefinite duration. All cases date the beginning of their illness from a period between June 13th and June 26th, 1892, and none have occurred since the last date. The cases occurred simultaneously in all parts of the prison, among persons who had no communication with each other, two being among the governor's children. The highest temperature recorded was 104°. All the usual symptoms of typhoid fever are absent. There is no rash, spots, iliac tenderness, specific diarrhœa, or splenic enlargement. The disease runs a prolonged course, and convalescence is slow and preceded by a period of subnormal temperature. Of the 14 cases, 8 are convalescent, 4 are going on very favourably, 1, a man suffering from old-standing heart disease, is still not out of danger, and 1 death occurred in a man of most intemperate habits and broken constitution. The most minute examination reveals no insanitary condition. The drainage is perfect, the water supply pure and abundant, and has been proved to be not contaminated with organic matter. The most stringent measures of isolation and disinfection have been carried out with perfect success, no fresh case having arisen. Similar cases have been observed in the town and surrounding district." The prison has been closed. The prisoners who are in good health are to be removed to Clonmel. Dr. Woodhouse, of the Prisons Board, is at present investigating the cause of the epidemic.

INADEQUATE PAYMENTS TO MEDICAL WITNESSES.

IN the BRITISH MEDICAL JOURNAL of July 16th reference was made, and as has often been made before, to the very inadequate scale of payment awarded at present under statutory regulations to medical and other witnesses attending the law courts upon subpœna or otherwise in cases of criminal prosecution. The scales are fixed under regulations made by the Secretary of State in the year 1858. They allow only 10s. 6d. per day for attending to give professional evidence before magistrates, and a guinea for attending to give professional evidence in other courts; this is the maximum, however important the case or the professional status of the witness. For each night during which he may necessarily be detained from home, an allowance of 2s. 6d. only is made, while threepence a mile only is allowed for travelling expenses. Under these circumstances, the obligation to attend to give evidence, very often at a considerable distance from home, and of perhaps having to pay a substitute to carry on the necessary professional work during the absence of the witness, is full of great hardship and a serious loss. The rates fixed, now upwards of thirty years ago, bear little relation to the present rate for professional remuneration or to the general scale of expenditure for living and travelling. Persuaded that this is a matter in which weighty representations may fitly and usefully be made to the Secretary of State, especially by medical men, on whom the present hardship presses most severely and most frequently, Mr. Ernest Hart, the Chairman of the Parliamentary Bills Committee, has prepared the following draft memorial, which is now submitted for comment and suggestion to our readers, with a view to being laid before the Parliamentary Bills Committee at an early meeting, and completed and revised. We invite communications from those who have been subjected to loss and inconvenience from these causes; and Mr. Hart would be glad to receive full statement of individual cases illustrative of the points set out in the memorial, and explanatory of the inconveniences and hardships suffered by individuals in the past. Those communications may be addressed to the Chairman of the Parliamentary Bills Committee at this office. After approval by the Parliamentary Bills Committee, the memorial will be issued for signature either at a general meeting or through the Branches.

TO THE RIGHT HONORABLE HER MAJESTY'S PRINCIPAL SECRETARY OF STATE FOR THE HOME DEPARTMENT.

The Humble Memorial of

Showeth as follows:

1. By a statute passed in the years 1851 (14 and 15 Vict., c. 55, s. 5) it was enacted that it should be lawful for one of Her Majesty's principal Secretaries of State to make (*a*) regulations as to the rates or scales of payment of costs expenses and compensations to be allowed or ordered to be paid to prosecutors and witnesses and to persons attending the Court in obedience to any recognisance or subpœna in cases of criminal prosecutions; and also (*b*) regulations as to the rates or scales of payment according to which certificates may be granted by the examining magistrate or magistrates in respect of the expenses of any prosecutor or witness or witnesses for the prosecution or other person of attending before such magistrate or magistrates as therein provided.

And it was further enacted that it should be lawful for such Secretary of State from time to time to alter any such regulations or to make new regulations in relation to any of the matters aforesaid; and that such regulations for the time being should be binding on all courts and persons whomsoever.

2. In pursuance of the said Act rules and regulations were made and appointed on the 9th day of February, 1858, by Sir G. Grey then being one of Her Majesty's principal Secretaries of State (*a*) as to the rates and scales of payment according to which certificates may be granted by examining magistrates; and (*b*) as to the rates and scales of payment of costs expenses and compensations to be allowed to prosecutors and witnesses attending courts of assize, oyer and terminer, gaol delivery, general session of the peace, or any other courts having power to allow such costs expenses and compensations to prosecutors and witnesses and persons attending such courts in obedience to any recognisance or subpœna in cases of criminal prosecutions for their trouble loss of time and travelling expenses in so attending.

3. The rules and regulations so made in the year 1858 have never been revoked and altered and are still in force.

4. The members of the medical profession are very frequently obliged to appear as witnesses in criminal cases, and are thereby subjected not only to hardship and inconvenience but in many cases are exposed to actual pecuniary loss by reason of the inadequacy of the costs, expenses, and compensation which, under the above-mentioned rules and regulations, can be allowed.

5. Your memorialists would specially direct attention:

(*a*) To the fact that 10s. 6d. per day for attending to give professional evidence before magistrates, and £1 1s. for attending to give professional evidence before other courts is the maximum sum that can be allowed, whatever may be the importance of the case or the professional status of the gentleman whose attendance as a witness is required. (In civil cases, which may often be less important, a more liberal though still inadequate scale of remuneration is allowed.)

(*b*) To the allowance of 2s. 6d. only for each night they may necessarily be detained from home. This sum is not, according to modern prices, nearly sufficient to defray the necessary cost of stopping at a hotel. The allowance should be sufficient reasonably to meet such cost.

(*c*) To the allowance of a sum not exceeding 3d. per mile for travelling expenses. Except where the whole journey can be performed by railway this sum is less than the amount necessarily expended by the witness.

(*d*) To the fact that a medical man frequently is obliged to employ and pay some qualified person to attend to his practice while he himself is in attendance elsewhere as a witness. No allowance can now be made to him in respect of such expenditure, he is thus considerably out of pocket in addition to being insufficiently remunerated for his own loss of time.

Your memorialists therefore ask that the above-mentioned rules and regulations of 1858 may be revised and altered so as to secure (1) that members of the medical profession shall be reimbursed all out-of-pocket expenses to which they may be put in obeying any recognisance or subpœna to attend as witnesses, and (2) to enable the taxing officer to allow such sums per diem as shall be an adequate compensation for their trouble and loss of time due to such attendance.

And your memorialists will ever pray, etc.

CHOLERA.

THE epidemic of Asiatic cholera has spread during the past week in Russia and in Persia. On July 13th it was officially admitted that the disease had broken out at Simbirsk, on the Volga, and that 20 cases with 11 deaths had occurred. On July 15th it was reported that cholera had occurred in Moscow, where 59 persons had been attacked. The epidemic had also spread eastward along the Rostov-Voronezh Railway, passengers having been attacked on the railway; 73 cases with 13 deaths having occurred at Rostov, and 60 cases with 18 deaths at Azov, so that the epidemic has now become established on the shores of the sea of Azov. In the towns of the lower Volga the epidemic has continued to be very severe. Thus in Astrakhan, on July 8th, the number of cases was 191, and of deaths 32; on July 12th, 277 deaths; on July 15th, 391 cases with 225 deaths; on July 16th, 269 cases with 218 deaths; on July 17th, 433 cases with 256 deaths. Higher up the Volga,

the figures indicate an undoubted increase. At Saratov, on July 12th, there were 24 deaths; on July 15th, 82 cases with 43 deaths; on July 16th, 90 cases with 62 deaths; and on July 17th, 109 cases with 73 deaths. If the number of attacks is correctly given—as to which there must be some doubt—the rate of mortality shown by these figures is fearfully high; in Baku it has even been estimated at 90 per cent. Fresh riots have occurred at Saratov, and it is stated that at a council held under the presidency of the Czar it has been determined to appoint an officer with dictatorial powers in the provinces of Astrakhan, Saratov, Samara, and Simbirsk.

Our Berlin correspondent writes: An official paragraph in the *Nord-deutsche Allgemeine Zeitung* points out the probability of the cholera epidemic reaching Germany from the west as well as from the east, and goes on to say that Germany was fortunately scarcely affected by the two last epidemics of cholera, and that the population may rest assured that at present the authorities are fully prepared with every precaution against its spread. It is probable that the precautions here mentioned will be of the same character as those observed during the last epidemic. Each railway train is stopped at the frontier and each carriage is entered and examined, the passengers not being allowed to get out. Where there is a suspicion of cholera the patient is immediately isolated and then transported to the cholera pavilion erected for the purpose close to the station, while the entire train is disinfected. Should the epidemic pass the frontier exactly the same supervision is exercised at the principal inland stations. Stricter measures are taken with regard to river and canal passengers. No one is allowed to land from any ship whatever without permission. Every case of illness, of whatever description, must be notified to the authorities. All the Government district physicians are fully instructed as to the measures to be taken for isolation and treatment of cholera cases.

Our Paris correspondent writes: The latest reports announce ten deaths from "cholerine" in the environs of Paris. The cases have occurred in different districts, which indicates a sporadic rather than an epidemic character. It is asserted that among these eight cases certainly five ought not to be attributed to cholerine; timid people for simple colic send for the doctor and disinfecting stoves. Aubervilliers, in the environs, is the most severely attacked in this epidemic; five cases occurred in one day. Three deaths ensued at Asnières, with one death, one at St. Denis, and one at Levallois. The police prefect has added two medical men to the service of inspection of epidemics. The environs of Paris are inspected. At St. Denis the epidemic neither increases nor decreases. Another death has occurred at Clichy in a house inhabited by rag pickers. The Assistance Publique has organised a temporary hospital close to the northern fortifications, at Porte d'Ornano, in order to prevent patients of the northern environs suffering from cholerine being sent into Paris.

The General Council of the Seine has declared it to be the duty of the Departmental Sanitary Commission to inquire into the cause of the disagreeable smells prevalent in Paris. The Council has also voted funds to be devoted to improving the sanitary service in the environs of Paris.

In the Chamber of Deputies, M. Pierre Richard questioned the Minister of the Interior on the measures which have been taken in the environs to provide the inhabitants with potable water. In reply, M. Loubel stated that the inhabitants were advised to boil the water or filter it.

The Conseil Général of the Seine has voted £1,680 to provide the communes in the environs of Paris with filters. The measures which might be taken in order to provide them with spring water instead of Seine water are being studied.

M. Babés, in a paper on the Sterilisation of Water sent into the Paris Academy of Medicine, says that if water be passed through iron shavings in contact with a current of air, and left during twenty-four hours in order that impurities may be precipitated, the upper strata of water contain very few microbes (from 0 to 20 to the cubic centimetre); before being passed through the iron shavings the water experimented on contained from 1,200 to 1,300 microbes to every cubic centimetre. The water is slightly acid, and is very agreeable. Alum has the same effect; 1 gramme 50 centigrammes of powdered alum to 10 litres is sufficient; the water must be kept in movement.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A meeting of the Council will be held in the Grand Jury Room, Guildhall, Nottingham, on Tuesday, the 26th day of July next at 9.30 o'clock in the forenoon.

Francis Fowke, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS FOR 1892. ELECTION OF MEMBERS.

A meeting of the Council will be held on October 26th, 1892. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than October 5th, 1892.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. Francis Fowke, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

North Wales Branch.—The annual meeting will be held at Barmouth on Wednesday, August 3rd, and not, as announced, in July. Members having any papers to read or communications to make are requested to intimate before the 23rd instant to W. Jones Morris, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

The twenty-second annual meeting of this Branch was held at the Cardiff Infirmary on July 12th, there being thirty-two members present.

Vote of Thanks.—The President, Dr. D. Arthur Davies, having resigned the chair to to the President-elect, Mr. T. J. Webster, a cordial vote of thanks was passed to Dr. Davies for his services during the year.

Report of Council.—The report of Council and statement of ccounts was then read and adopted. The report, amongst other matters, referred to the increase in membership from 220 to 226; to the sad death of Dr. Fraser, of Swansea; to the granting of contributions from the Medical Benevolent Fund towards the education expenses of a son of the late Mr. Dickson, of Pontypridd, and to the widow of the late Mr. Jennings, of Newport. Stress was laid upon the value of the five-shilling contribution from each member, collected with the Branch subscriptions, which had resulted in a contribution of over £30 a year to this fund for several years. The statement of accounts showed a balance in hand of £61 13s. 10d. Ten guineas had been given to Epsom College, and five guineas to the Porthcawl Rest.

Future Meetings.— The autumn meeting will be held at Merthyr, the spring meeting next year at Carmarthen, and the next annual meeting at Swansea.

Election of Officers.—Mr. Latimer, of Swansea, was elected President-elect. Messrs. Mulligan, J. T. Thomas, J. G. Hall, H. N. Davies, and C. T. Vachell, were elected members of Council. Drs. Sheen and D. Arthur Davies were re-elected Honorary Secretaries.

President's Address.—The President, Mr. Webster, of Merthyr, delivered an address on the Surgery and Hospitals of Wales.

Direct Representation of Wales on the General Medical Council.—Dr. Griffiths (Cardiff) moved the following resolution:—"That the members of the South Wales and Monmouthshire Branch cordially approve of the principle of direct representation of the profession in Wales and Monmouthshire upon the General Medical Council, and they pledge themselves to use every endeavour to bring this about." This was seconded by Mr. J. T. Thomas, Newport. An amendment was submitted by Mr. Evan Jones, seconded by Dr. C. T. Vachell:—"That

the question be deferred." The amendment was carried by 20 to 7.

Proposed Formation of District Divisions.—Mr. HORDER (Cardiff) proposed, and Dr. GRIFFITHS (Cardiff) seconded: "That for the autumnal and spring meetings the Branch be formed into Eastern and Western Divisions." The general feeling of the meeting was against the resolution, and it was lost.

Luncheon.—The members and friends subsequently proceeded to the Esplanade Hotel, Penarth, where they partook of an excellent luncheon, and they afterwards visited the "Turner Gallery," kindly thrown open to them by Mr. J. Pyke Thompson.

Jubilee of Dr. W. T. Edwards.—A communication from the Cardiff Medical Society, that the professional jubilee of Dr. W. T. Edwards, Cardiff, Vice-President of the British Medical Association, should be celebrated by a banquet and the presentation of an address, was very cordially received.

OXFORD AND DISTRICT BRANCH.

THE annual meeting was held on July 15th at the Warneford Asylum, Oxford. Dr. WARD, the President, entertained the members at luncheon previous to the meeting. There were twenty-eight members present.

President's Address.—The President, Dr. BYWATER, was installed, and then gave an interesting address on "Insanity and its Prevention."

Election of Members.—Dr. Ritchie, Mr. Dixon, Dr. Yelf, and Dr. Hayward were elected members of the Branch.

Reports.—The reports of the Council and Treasurer were read and adopted.

Election of Officers and Representatives.—Mr. A. Winkfield was re-elected Representative of the Branch on the General Council and also on the Parliamentary Bills Committee. Mr. A. Winkfield was re-elected Treasurer, and Mr. W. Lewis Morgan Honorary Secretary. Dr. Iles, of Fairford, was elected President-elect, and Fairford was chosen as the place for the next annual meeting. Mr. Freeborn, Mr. Hemmingway, and Dr. O'Kelly were elected members of the Council in place of the retiring members.

Votes of Thanks.—Votes of thanks to Dr. Batt, the late President, and to the Treasurer and Secretary were passed.

PROCEEDINGS OF THE COUNCIL.

At a meeting of the Council, held at the office of the Association, 429, Strand, W.C., on Wednesday, July 6th, 1892.

Present:

Dr. W. WITHERS MOORE, President of the Council, in the chair.
Dr. J. R. THOMSON, President.
Mr. JOSEPH WHITE, President-elect.
Mr. H. T. BUTLIN, Treasurer.

Dr. G. BARRON, Southport.
Dr. F. BATEMAN, Whitchurch.
Dr. T. BRIDGWATER, LL.D., Harrow-on-the-Hill.
Dr. J. S. BRISTOWE, F.R.S., London.
Dr. J. S. CAMERON, Leeds.
Surgeon-Genl. W. R. CORNISH, London.
Dr. J. WARD COUSINS, Portsmouth.
Dr. H. R. CROCKER, London.
Mr. T. W. CROSSE, Norwich.
Dr. G. W. CROWE, Worcester.
Dr. J. L. H. DOWN, London.
Mr. GEORGE EASTES, M.B., London.
Dr. W. A. ELLISTON, Ipswich.
Dr. J. H. GALTON, Upper Norwood.
Dr. H. HANDFORD, Nottingham.
Mr. J. D. HARRIES, Shrewsbury.
Mr. J. H. HEMMING, Kimbolton.
Mr. G. F. HODGSON, Brighton.
Dr. C. HOLMAN, Reigate.
Mr. T. V. Jackson, Wolverhampton.
Mr. T. R. JESSOP, Leeds.
Dr. D. J. LEECH, Manchester.
Mr. JORDAN LLOYD, Birmingham.
Mr. W. JONES MORRIS, Portmadoc.
Dr. F. NEEDHAM, London.
Mr. R. H. B. NICHOLSON, Hull.
Mr. C. H. W. PARKINSON, Wimborne Minster.
Dr. C. PARSONS, Dover.
MR. F. M. POPE, Leicester.
Dr. R. SAUNDBY, Birmingham.
Dr. A. SHEEN, Cardiff.
Dr. E. MARKHAM SKERRITT, Clifton.
Mr. NOBLE SMITH, London.
Mr. H. STEAR, Saffron Walden.
Mr. LAWSON TAIT, Birmingham.
Mr. F. WALLACE, London.
Dr. A. T. H. WATERS, Liverpool.
Mr. A. WINKFIELD, Oxford.

The minutes of the last meeting having been printed and circulated, and no objection having been made, were signed as correct.

Read letters of apology for non-attendance from Dr. Henry Barnes, Dr. Mackenzie Booth, Dr. Gairdner, Dr. Glascott, Dr. Grimshaw, Dr. Bruce Goff, Mr. Evan Jones, Dr. W. M. Kelly, Dr. Rolston, Dr. Trend, and Dr. Williamson.

Read letters from Lady Paget, Mrs. Carpenter, and Dr. Sympson, of which the following are copies:—

2, St. Peter's Terrace, Cambridge, April 30th, 1892.

DEAR SIR,—Your letter of true sympathy, forwarding the most kind and gratifying resolution of the Council of the British Medical Association, was received this morning with most sincere thanks, recalling very pleasing recollections. For it gave Sir George the greatest pleasure having so many distinguished friends around him, and I learnt in their society how true noble-minded men could appreciate worth and talent found among others outside their brilliant circle. I owe that meeting some good thoughts.—With grateful thanks, believe me, yours truly,

CLARA PAGET.

Heath Lodge, Croydon, April 29th, 1892.

DEAR SIR,—Pray accept and present to the Council the most heartfelt thanks of myself and my family for the resolution of sympathy which you have kindly forwarded to me. I need not assure you that everything connected with the Association was deeply interesting to my dear husband, and while health lasted it was a great pleasure to him to take part in its affairs. The kind way in which you speak of his services is very gratifying to me.—Believe me, dear Sir, yours faithfully,

MARGARET J. CARPENTER.

2 and 3, James Street, Lincoln, May 10th, 1892.

DEAR SIR,—On behalf of the family of my late father, and for myself, I beg to thank you most heartily as President of the British Medical Association for the very kind, sympathetic, and appreciative resolution which was forwarded to me at the close of last month.

My father was very devoted to the Association, and proud of being chosen to the honourable post of representing the Midland Branch on its Council. He took the deepest interest in the work of the Council, and I can say from my personal knowledge he greatly enjoyed the meetings thereof.

Few things can console us for his loss more than the knowledge that he was highly esteemed, and I may say loved by those, the leaders in the profession, with whom he was privileged to work.—Believe me, dear Sir, yours very faithfully,

E. MANSEL SYMPSON.

Resolved: That the same be received and entered upon the minutes.

Read letter from the Medical Mission Society, Salisbury Square, asking if the Association would countenance a breakfast during the annual meeting at Nottingham.

Resolved: That the request of the Medical Mission Society be acceded to.

Read letter from Dr. Alfred Lendon, Honorary Secretary to the South Australian Branch, of which the following is a copy:

South Australian Branch, British Medical Association,
Adelaide, April 11th, 1892.

General Secretary British Medical Association.

DEAR SIR,—On December 21st, 1891, we received an application for membership from Miss Laura M. Fowler, M.B., Ch.B. Adelaide. Thereupon a discussion was raised as to the desirability of moving in the direction of admitting women to the membership of the Association. It was felt by some that it was a distinct hardship that women should be debarred from such membership, and I myself brought forward a motion at the February meeting of this Branch, as you will see in the accompanying slip from the *Australasian Medical Gazette* of March 15th, 1892.

In order to obtain the views of the Branch at large, a circular was sent to each member. Seventy-five replies were received of a possible 96 (4 members being out of the colony); 48 replies were favourable, 20 unfavourable, 9 indifferent. Excluding the indifferent votes, out of 87 possible replies, 48 were favourable, showing a small but absolute majority.

It was resolved thereupon to request you to lay before the Council this expression of opinion of the members of the South Australian Branch.—Yours faithfully,

ALFRED LENDON,
Honorary Secretary South Australian Branch.

N.B.—I hope this will arrive in time for discussion before the annual meeting.

Resolved: That the consideration of the same be postponed until the report of the Council is considered.

Read communication from the Committee on the Mental and Physical Condition of School Children.

Resolved: That the representatives of the Association as suggested be appointed on the Committee, namely, Dr. Needham, Dr. Bridgwater, Sir George Humphry, and Dr. Langdon Down.

Resolved: That the minutes of the Committee on the Appointment of Medical Diplomates to Hospital Appointments be received and approved, and that the communication as drawn by them be forwarded on behalf of the Council of the Association to the various medical charities.

The consideration of the proposed by-laws of the Montreal Branch were then considered.

Resolved: That the proposed by-laws of the Montreal Branch of the Association, adopted May 20th, 1892, be approved and confirmed.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be received and approved, and the recommendations contained therein carried into effect.

The draft report of Council was then considered.

Resolved: That the report of the Council be received, approved, and published in the BRITISH MEDICAL JOURNAL for presentation to the Annual Meeting at Nottingham on July 26th (see page 183).

Resolved: That the President of the Association, with the Executive Committee, be authorised to invite such persons as they think fit to take part as visitors in the work of the Sections.

Resolved: That the 106 members whose names appear on the circular convening the meeting be and they are hereby elected members of the British Medical Association.

The report of the Parliamentary Bills Committee was then considered (see page 185).

Resolved: That the report of the Parliamentary Bills Committee be received, approved, and published in the BRITISH MEDICAL JOURNAL for presentation to the annual meeting at Nottingham on July 26th.

The report of the Scientific Grants Committee was then considered (see page 187).

Resolved: That the report of the Scientific Grants Committee be received and approved, and published in the BRITISH MEDICAL JOURNAL prior to its being considered at the annual meeting at Nottingham on July 26th.

Resolved: That the minutes of the Scientific Grants Committee, with the exception of three recommendations be approved and adopted, and that the recommendations contained therein be carried into effect.

Resolved: That the question of a third scholarship be referred to the Journal and Finance Committee.

Whereupon an amendment was moved,

That the question of the third Scholarship and the whole question of the expenditure of the Scientific Grants Committee be referred to the Journal and Finance Committee.

The amendment having been put from the chair, the same was declared to be carried.

The report of the Inebriates Committee was then considered (see page 190).

Resolved: That the report of the Committee on Legislation for Inebriates be received and approved, and published in the BRITISH MEDICAL JOURNAL for presentation at the Annual Meeting at Nottingham on July 26th.

Read report of the Therapeutic Committee (see page 190).

The Therapeutic Committee also request the sum of £100 for expenses, and the appointment of Dr. William Hunter to the Committee.

Resolved: That the report of the Therapeutic Committee be received and approved, and published in the BRITISH MEDICAL JOURNAL for presentation to the Annual Meeting at Nottingham on July 26th.

The re-appointment of the Committee was referred to the Meeting at Nottingham on July 28th.

The report of the Committee on the Abuse of Medical Charities was then considered (see page 191).

Resolved: That the report of the Committee on Medical Charities be received, approved, and published in the BRITISH MEDICAL JOURNAL for presentation to the annual meeting at Nottingham on July 26th.

Resolved: That the report of the Committee on Feeble-minded School Children be received, approved, and published in the BRITISH MEDICAL JOURNAL for presentation to the annual meeting at Nottingham on July 26th (see page 191).

Resolved: That the sum of £100 be granted on the same terms as previous grants were made, namely, that £500 would be subscribed by other bodies for every £100 subscribed by the Association.

Resolved: That the report of Committee on the Efficient Control of Railway Servants' Eyesight be received, approved, and published in the BRITISH MEDICAL JOURNAL for presentation to the annual meeting at Nottingham on July 26th (see page 194).

Resolved: That the report of the Committee on Hypnotism be received, approved, and published in the BRITISH MEDICAL JOURNAL for presentation to the annual meeting at Nottingham on July 26th (see page 190).

Resolved: That the statement made by the Committee on Anæsthetics be received and approved, and published in the BRITISH MEDICAL JOURNAL for presentation to the annual meeting at Nottingham on July 26th (see page 195).

Read invitation from the President of the International Medical Congress.

Resolved: That the members of the Council intending to visit Rome during the meeting be appointed delegates from the Association.

BRITISH MEDICAL ASSOCIATION.

SIXTIETH ANNUAL MEETING.

THE sixtieth Annual Meeting of the British Medical Association will be held at Nottingham on Tuesday, Wednesday, Thursday, and Friday, July 26th, 27th, 28th, and 29th, 1892.

President: JOHN ROBERTS THOMSON, M.D., F.R.C.P., Consulting Physician Royal Victoria Hospital, Bournemouth.

President-Elect: JOSEPH WHITE, F.R.C.S.Edin., Consulting Surgeon Nottingham General Hospital.

President of the Council: W. WITHERS MOORE, M.D., F.R.C.P., J.P., Consulting Physician Sussex County Hospital.

Treasurer: HENRY TRENTHAM BUTLIN, F.R.C.S., Surgeon to St. Bartholomew's Hospital, E.C.

Honorary Local Secretary: HENRY HANDFORD, M.D., 14, Regent Street, Nottingham.

Honorary Treasurer: WILLIAM ARTHUR CARLINE, M.D. Lincoln.

An Address in Medicine will be delivered by JAMES CUMING, M.D., Professor of Theory and Practice of Medicine, Queen's College, Belfast.

An Address in Surgery will be delivered by W. H. HINGSTON, M.D., Montreal, Canada, Surgeon-in-Chief, Hotel Dieu, Montreal, Professor of Clinical Surgery, Laval University.

An Address in Bacteriology will be delivered by GERMAN SIMS WOODHEAD, M.D., F.R.C.P., F.R.S.E., Director Research Laboratory Conjoint Board of Royal College of Physicians and Royal College of Surgeons, England.

The scientific business of the meeting will be conducted in ten Sections, as follows, namely:

A. MEDICINE.

University College, Room 39, First Floor, West End.

President: WILLIAM HENRY RANSOM, M.D., F.R.S. *Vice-Presidents:* FREDERICK TAYLOR, M.D.; ISAMBARD OWEN, M.D. *Honorary Secretaries:* SIDNEY PHILIP PHILLIPS, M.D., 62, Upper Berkeley Street, London; FRANK MONTAGUE POPE, M.B., 4, Prebend Street, Leicester.

The discussion on Wednesday, July 27th, on Peripheral Neuritis, will be introduced by J. S. Bristowe, M.D., F.R.C.P., F.R.S. Sir F. Bateman, Drs. M. A. Boyd, Judson S. Bury, Byrom Bramwell, J. Cagney, Drysdale, U.S.A., Eddison, W. Garstang, Davies Pryce, and H. Handford, will take part in the discussion.

The discussion on Thursday, July 28th, on the Prognosis and Treatment of Ascites, will be introduced by W. B. Cheadle, M.D., F.R.C.P. Drs. M. A. Boyd, Bateman, Drysdale, U.S.A., Eddison, Garstang, Murray, Rickards, Tyson (Folkestone), S. West, J. S. Bristowe, F.R.S., and Hale White will take part in the discussion.

The following papers are announced:

BRAMWELL, Byrom, M.D. On the Value of Perimeter Measurements in the Diagnosis of Local Brain Disease.
GORDON, W., M.B. Tuberculous Broncho-pneumonia.
GILL, J. G., M.D. The Affinity between Idiopathic Tachycardia and Graves's Disease.
HAIG, A., M.D. Gout of the Intestines, its Pathology and Treatment.
HANDFORD, H., M.D. Rheumatic Neuritis.
HAWKINS, Francis, M.B. On some Complications and Sequelæ of the Infectious fevers.
HUMPHRY, Laurence, M.D. (Cambridge). Subacute Non-rheumatic Myocarditis.
LANE, H., L.R.C.P. The Neuroses of Rheumatic Arthritis.
LEES, D. B., M.D. Treatment of Pericarditis by the Ice-bag.
LORIMER, G., M.D. Gouty Phlebitis.
MACKENZIE, J., M.D. The Association of Sensory Disorders with Visceral Disease.
MURRAY, —, M.D. (Barrasford). Note on the Relief of Ascites by establishing a Fistulous Communication with the Rectum by Operation.
PFEIFFER, Emil, M.D. (Wiesbaden). Uric Acid Secretion in Gout.
RATCLIFFE, J. R., M.B., and WILSON, T. Stacey, M.D. The Venous Anastomoses in Relation to the Relief and Cure of Ascites in Cirrhosis.
SANDWITH, F. M., M.D. (Cairo). Three hundred and fifty cases of Phthisis.

SEMMOLA, Professor (Naples). Treatment of Heart Disease.
SMITH, F. Blaikie, M.D. (Aberdeen). Peripleuritis.
WEST, Samuel, M.D. Note on Bleeding with Reports of Cases.

B. SURGERY.

University College, Large Theatre, Doors 18 and 22, Ground Floor, 36 and 37, First Floor.

President: JOHN CROFT, F.R.C.S. *Vice-Presidents:* WILLIAM NEWMAN, M.D.; W. J. PILCHER, F.R.C.S. *Honorary Secretaries:* FREDERIC S. EVE, F.R.C.S., 125, Harley Street, W.; ALEXANDER RICHARD ANDERSON, F.R.C.S., 5, East Circus Street, Nottingham.

The three following subjects have been selected for discussion: 1. Wednesday, July 27th: The Surgery of the Thorax, to be introduced by Rickman J. Godlee, F.R.C.S. A. Pearce Gould, F.R.C.S., W. Newman, M.D., Jordan Lloyd, F.R.C.S., C. J. Symonds, M.D., H. W. Maunsell, M.D., and J. Ward Cousins, M.D., will take part in the discussion. 2. Thursday, July 28th: The Surgery of the Liver and Gall Bladder, to be introduced by A. W. Mayo Robson, F.R.C.S. Lawson Tait, F.R.C.S., J. K. Thornton, M.B., Jordan Lloyd, F.R.C.S., A. Pearce Gould, F.R.C.S., H. W. Maunsell, M.D., C. J. Symonds, M.D., J. Ward Cousins, M.D., H. A. Reeves, F.R.C.S.Ed., R. C. Chicken, F.R.C.S., James Murphy, M.D., and W. J. Tyson, M.D., will take part in the discussion. 3. Friday, July 29th: The Treatment of Spinal Abscess will be introduced by W. Watson Cheyne, F.R.C.S., A. E. Barker, F.R.C.S., Stanley Boyd, F.R.C.S., C. B. Keetley, F.R.C.S., Robert Jones, F.R.C.S., Noble Smith, F.R.C.S., H. A. Reeves, F.R.C.S., and H. Widenham Maunsell, M.D., will take part in the discussion.

The following papers are announced:

ALLINGHAM, Herbert W., F.R.C.S. Excision of the Rectum for Malignant Disease.
BARLING, H. Gilbert, F.R.C.S. On Appendicitis.
BEVERLEY, M., M.D. A Case of Suprapubic Lithotomy.
CAMPBELL, Colin G., M.R.C.S. The Treatment of Abscess and Ulcer by Complete Absorption.
CLARKE, W. Bruce, F.R.C.S. On the Removal of Hydatids of the Liver.
COUSINS, J. Ward, M.D., F.R.C.S. Notes on Female Lithotrity.
CRIPPS, Harrison, F.R.C.S. Rectal Excision for Cancer and the Selection of Suitable Cases and Prognosis.
EARLY, Dr. C. R. (Pennsylvania). On Cancer.
HARRISON, Reginald, F.R.C.S. The Restoration of the Lost Function of Micturition.
HUME, G. H., M.D. A Case of Gastro-enterostomy.
JAMES, W. Dale, M.R.C.S. Exhibition of a Case of Non-ulcerating Lupoid Disease.
JESSETT, F. Bowreman, F.R.C.S. Specimen of Carcinoma of Pylorus successfully removed by Combined Pylorectomy and Gastro-enterostomy.
JONES, Robert, F.R.C.S. (1) The Treatment of Dropped Wrist; (2) The Treatment of Old Colles's Fractures.
LANE, W. Arbuthnot, F.R.C.S. The Later Results of Laminectomy for Angular Curvature.
LLOYD, Jordan, F.R.C.S. Injury to the Pancreas a Cause of Effusion into the Lesser Peritoneal Cavity.
MARRIOTT, C. H., M.D. A Successful Case of Simultaneous Ligature of the Subclavian and Common Carotid Arteries for Aneurysm of the Innominate Artery. Patient will be shown.
MARSHALL, L., M.D. Notes of a Case of Aneurysm in Hunter's Canal Cured 16 Years Ago. Patient shown.
MORISON, J. R., M.B., F.R.C.S., will exhibit (1) a Specimen from a Successful Case of Ileo-colostomy for Chronic Ileo-colic Intussusception; (2) a Specimen from a Case of Combined Excision of the Pylorus and Gastro-enterostomy.
MURPHY, James, M.D. On the Importance of Early Operation in the Treatment of Intestinal Obstruction, with Notes of Recent Cures.
NEWMAN, W., M.D. A case of Suprapubic Lithotomy.
ROBSON, A. W. Mayo, F.R.C.S. A New Method of Performing Intestinal Anastomosis and other Allied Operations, illustrated by Cases, Models, and Diagrams.
SNOW, Herbert, M.D. Practical Points in the Surgery of Cancer.
SYMONDS, C. J., M.S., F.R.C.S. A Review of Twenty-five Cases illustrating the Surgery of the Thyroid Gland.
TAIT, Lawson, F.R.C.S. A General Summary of Conclusions based on a Series of Three Thousand Consecutive Cases of Abdominal Section.

C. OBSTETRIC MEDICINE.

University College, Physical Theatre, Doors 12 and 16, First Floor.

President: ALFRED LEWIS GALABIN, M.D. *Vice-Presidents:* GEORGE ELDER, M.D.; HERBERT OWEN TAYLOR, M.D. *Honorary Secretaries:* HARRY MICHIE, M.B., 27, Regent Street, Nottingham; HERBERT RITCHIE SPENCER, M.D., 10, Mansfield Street, Cavendish Square, W.

The two following subjects have been selected for special discussion: 1. On July 29th: The Treatment of Uterine Fibroids, to be opened by J. Knowsley Thornton, M.B., C.M. J. H. Aveling, M.D., A. E. Aust-Lawrence, M.D., T. More Madden, M.D., P. Horrocks, M.D., A. D. Leith Napier, M.D., W. J. Tivy, F.R.C.P.E., A. W. Mayo Robson, F.R.C.S., Lawson Tait, F.R.C.S., G. Elder, M.D., H. Michie, M.B., J. Wright Baker, M.R.C.S., W. J. Smyly, M.D., E. S. Bishop, F.R.C.S., R. C. Bennington, M.B., A. W. Edis, M.D., J. Inglis Parsons, M.D., Dr. Jacobs (Brussels), Murdoch Cameron, M.D., H. Widenham Maunsell, M.D., Heywood Smith, M.D., H. A. Reeves, F.R.C.S., James Murphy, M.D., and W. Walter, M.D., will take part in the discussion. 2. On July 27th: *Post-partum* Hæmorrhage, to be opened by G. E. Herman, M.B., F.R.C.P., F.R.C.S. A. E. Aust-Lawrence, M.D., W. C. Grigg, M.D., P. Horrocks, M.D., H. Spencer, M.D., W. J. Smyly, M.D., J. Wright Baker, M.R.C.S., F. R. Mutch, M.D., Wm. Bain, L.R.C.P., C. E. Purslow, M.D., A. W. Edis, M.D., R. C. Bennington, M.B., W. Donovan, M.D., Murdoch Cameron, M.D., Alex. Duke, F.R.C.P.I., and W. Walter, M.D., will take part in the discussion.

The following papers are announced:

AUST-LAWRENCE, A. E., M.D. The Proper Use of Midwifery Forceps.
BAIN, W., L.R.C.P. A Consideration of the less Obvious Causes of Retardation in the First Stage of Labour.
BEVERLEY, Michael, M.D. On Further Experience and Results of Emmet's Operation for Laceration of the Cervix Uteri.
BISHOP, E. S., F.R.C.S. Note on a Case of Cystocele treated by Stoltz's Method.
BOROUGH, F., M.R.C.S. Ergot as a Muscular Tonic during Pregnancy.
BRAITHWAITE, James, M.D. On an Operation for the Radical Cure of the Worst Cases of Retroflexion.
BYERS, John W., M.D. Does Chloroform promote *Post-partum* Hæmorrhage?
CAMERON, Murdoch, M.D. The Prevention of Hæmorrhage in Cæsarean Section; and will show a Full Term Extrauterine Fœtus retained Fourteen Months, and give notes.
CULLINGWORTH, C. J., M.D. Some Remarks on the Anatomy of the Hymen and of the Posterior Commissure of the Vulva.
DUKE, Alexander, F.R.C.P.I. On the Value of Examination and Flushing of the Parturient Canal directly after Labour.
EDIS, A. W., M.D. On the Diagnosis of Early Ectopic Gestation.
HERMAN, G. E., M.B., F.R.C.P. Champetier de Ribes's Bag for Dilating the Cervix Uteri.
JOHNSON-ALLOWAY, T., M.D. The Dependence of Abnormal Eye Conditions upon Uterine Disease.
MCCAW, J. Dysart, F.R.C.S. The Medicinal and Mechanical Methods of Expediting Childbirth.
MCCLURE, H., M.D. On the Electrical Treatment of Uterine Fibroids scientifically considered.
MADDEN, T. More, M.D. *Post-partum* Hæmorrhage.
MARTIN, Christopher, M.B., F.R.C.S. On the Occurrence of Hæmatocele of the Broad Ligament after Pelvic Operations.
MURPHY, James, M.D. Notes on a Case of Vaginal Myomectomy.
NAPIER, A. D. Leith, M.D. Stoltz's Operation for Cystocele.
NEALE, J. Headley, M.B. Septic Hydræmia following Miscarriage.
SPENCER, H. R., M.D. Induction of Premature Labour by Champetier de Ribes's Bag.
WALTER, W., M.D. A Case of Tubal Gestation in which both Tubes were Gravid, Operation, Recovery.

Dr. Cullingworth will give a special lantern demonstration on July 28th on Some of the more Common Morbid Conditions of the Fallopian Tubes.

D. PUBLIC MEDICINE.

Mechanics' Lecture Hall.

President: Sir B. WALTER FOSTER, M.D., M.P. *Vice-Presidents:* JOSEPH LITTLEWOOD, M.R.C.S.; CHARLES HARRISON, M.D. *Honorary Secretaries:* PHILIP BOOBBYER, M.B., Guildhall, Nottingham; JAMES SCOTT TEW, M.D., Magdala Road, Nottingham; SYDNEY MONCKTON COPEMAN, M.D., 9, Duke Street, St. James's, S.W.

The following subjects are suggested as suitable for discussion, but the list is open to modification. 1. Legal Restraint upon the Employment of Women in Factories before and after Childbirth. 2. The Use and Abuse of Infantile Insurance. 3. Coroner's Inquests. 4. Disposal of the Dead in the Future; Cemeteries and Crematoria. 5. The Future of Hospital Isolation for Infectious Diseases. 6. The Isolation of Measles. 7. The Notification of Erysipelas and Puerperal Fever. 8. The Diminished Mortality from Scarlet Fever. 9. Is Small-pox Dying Out in the British Isles? 10. Endemic Typhoid. 11. Epidemic Alternations. 12. Offensive Trades in Towns. 13. Methods of Dealing with Town Refuse in the Midst of Populated Districts. 14. Ventilation of Town Sewers. 15. The Condemnation of Tuberculous Meat; to what Extent should this be Carried? 16. Relation of Medical Officer of Health to the Sanitary Staff. 17. Epidemic Influenza; the Attitude of Public Authorities towards it.

The following papers are announced:

BOND, F. F., M.D. Small-pox and Isolation.
BOOBBYER, Philip, M.B. Some Statistics of Hospital and Home Isolation in the Case of Scarlet Fever. He will also speak on the Relation of the Medical Officer of Health to the Sanitary Staff.

BULSTRODE, H. T., M.D., Some Points in Connection with Hospitals for Infectious Disease.
CAMERON, J. S., M.D. The Disposal of Town Refuse in Populous Districts. (He will also open the discussion on the Attitude of Public Authorities towards Epidemic Influenza; and that upon the Future of Hospital Isolation).
CARGILL, Alex. Hygiene of Handwriting.
DAVIES, Sidney, M.D. Some Remarks on the Necessity of Legal Restraint upon the Employment of Women in Factories Before and After Childbirth.
DIXEY, F. A., M.D. On the Influenza Epidemics of 1891-2 considered from a Statistical Standpoint.
DRYSDALE, C. R., M.D. Prevention of Phthisis and Syphilis.
FIRTH, R. H., Surgeon-Captain, M.S. Enteric Fever in India and the Growth of Bacteria in Soils.
HILL, Alfred, M.D. Waste Waterclosets.
HOPE, E. W., M.D. Some Remarks upon the Extent to which the Condemnation of Tuberculous Meat should be carried; and the Future of Hospital Isolation for Infectious Diseases.
HUNTER, W. Lovell, M.D. Small-pox Mortality in Pudsey a Century Ago.
LOANE, Joseph, M.R.C.P. On Disposal of the Dead in the Future. He will also speak on the Present Position of Small-pox as an Epidemic Disease; and on Epidemic Influenza, the Attitude of Public Authorities towards it.
MASON, J. W., M.D. On the Methods of Dealing with Town Refuse in the midst of Populated Districts.
MONK, H. G. H., M.R.C.S. On an Epidemic of Cerebro-spinal Meningitis.
MUMBY, B. H., M.D. On the Disposal of the Dead in the Future.
NEALE, J. Headley, M.D. Contagiousness of Tuberculosis.
REID, Geo., M.D. Infant Mortality and the Employment of Married Women in Factories.
SERGEANT, Edward, M.R.C.S. Some Remarks on the Methods of Dealing with Town Refuse in the midst of Populated Districts.
STRACHAN, J., M.D. Health in Education.
SYKES, J. F. J., M.B. Some Remarks on the Future of Hospital Isolation for Infectious Diseases; and upon the Extent to which the Condemnation of Tuberculous Meat should be Carried.
TEW, J. Scott, M.D. On Endemic Typhoid Fever.
THRESH, J. C., D.Sc., M.B. Some Remarks on the Notification of Erysipelas and Puerperal Fever.
WHITELEGGE, B. A., M.D. Some Notes on the Diminished Mortality from Scarlet Fever.
WILLOUGHBY, E. F., M.D. On the Nomenclature of Notifiable Infectious Diseases.

Dr. R. R. RENTOUL will move the following resolution: "That in the opinion of the Section all stillbirths after the fourth month of intrauterine life should be registered."

E. PSYCHOLOGY.

University College, Natural Science Laboratory.

President: WILLIAM BEVAN LEWIS, L.R.C.P. *Vice-Presidents:* WILLIAM BARNEY TATE, M.D.; HENRY RAYNER, M.D. *Honorary Secretaries:* FLETCHER BEACH, F.R.C.P., Darenth Asylum, Dartford; EVAN POWELL, M.R.C.S., Borough Asylum, Mapperley Hill, Nottingham.

The President will give an Introductory Address.

The three following subjects have been chosen for special discussion: 1. Psychoses after Influenza, to be opened by Julius Althaus, M.D. 2. Insanity as a Plea for Divorce, to be opened by Lionel A. Weatherley, M.D. 3. Neural Action corresponding to the Mental Functions of the Brain, to be opened by Francis Warner, M.D. Drs. Urquhart, Richards, Rayner, Outterson Wood, Macdonald, Walmsley, Ewart, Blandford, and Goodall will take part in the discussions.

The following papers are announced:

BULLEN, F. St. J., M.R.C.S. Variations in Type of General Paralysis.
CAMPBELL, Harry, M.D. Minor Psychical Disturbances in Women.
DUNN, E. L., M.B. Paranoia and its Relationships.
EDRIDGE-GREEN, F. W., M.D. Perception with special reference to Colour Perception.
GOODALL, Edwin, M.D. The Pathological Anatomy of Acute Encephalitis: an Experimental Study.
JONES, Robert, M.D. On Microcephaly.
LEWIS, W. Bevan, L.R.C.P. An Improved Reaction time Instrument.
MACPHERSON, John, M.B. Remarks upon the Influence of Intestinal Disinfection in some Forms of Acute Insanity.
MOREL, M. Jules, M.D. The Psychological Examination of Prisoners.
POPE, Frank M., M.B. Note on the Establishment by the Leicester School Board of a Special Class for Feeble-Minded Children.
TUCKEY, C. Lloyd, M.D. The Value of Hypnotism in Chronic Alcoholism.
URQUHART, A. R., M.D. A Clinical Summary of Cases of Hereditary Insanity.

Dr. Roussel, Paris, and Professor Paul Kowalewsky, Charkoff, are expected to be present.

F. PATHOLOGY.

University College, Chemical Theatre, Doors 14 and 15, First Floor, and from Chemical Laboratory.

President: VICTOR HORSLEY, F.R.S., F.R.C.S. *Vice-Presidents:* SAMUEL WEST, M.D.; SHERIDAN DELÉPINE, M.B. *Honorary Secretaries:* ALEXANDER BRUCE, M.D., 13, Alva Street, Edinburgh; WILLIAM BRAMWELL RANSOM, M.D., The Pavement, Nottingham.

On Wednesday, July 27th, papers on General Pathology.

On Thursday, July 28th, papers on Pathological Anatomy, especially Tumours.

On Friday, July 29th, Bacteriological papers.

On the afternoon of each day an informal gathering will be held, at 3.45 P.M., in the Museum, when special demonstrations will be given.

The following papers are announced:

ADAMI, J. G., M.B. Variability of Microbes.
BEADLES, Cecil, M.R.C.S., L.R.C.P. Carcinoma of Mamma.
BOKENHAM, T. J., L.R.C.P. Phagocytosis in Relation to Erysipelas.
BOYCE, C., M.D. 1. Experimental Epilepsy. 2. Theory of Tumours 3. Specimens.
BRUCE, Alexander, M.D. Macro- and Microscopic Preparations of Pathological Brains and Spinal Cords, with Lantern Demonstrations.
CAMERON, — M.D. Cryptolithiasis.
CAMPBELL, Harry, M.D. Etiology of the Tuberculous Diathesis.
CATHCART, C. W., M.B. Museum Casts.
CLARKE, Michell, M.B. 1. Ataxic Paraplegia. 2. Endothelioma of the Dura Mater.
COPEMAN, S. Monckton, M.D. The Pathology of the Blood in Diabetes.
CROMBIE, Surgeon-Major. Tubercle Bacilli.
DAVIES, Arthur, M.D. Myxœdema.
DELÉPINE, Professor Sheridan. Case of Hemiplegia with unusual Eye Symptoms.
EVANS, A. E., M.D. On the Growth of Bacterium Zopfii.
HARRIS, — M.D. Bacteriology of a Case of Cerebral Abscess.
HARLEY, Vaughan, M.D. The Pathology of Obstructive Jaundice.
HORSLEY, Professor Victor. Œdema.
HUMPHRY, Laurence, M.D. Cerebral Tumour.
HUNTER, William, M.D. Toxæmic Jaundice.
JOHNSON, Raymond, F.R.C.S. Carcinoma of Mamma.
KANTHACK, A. A., M.B. 1. Immunity. 2. Specimens of Madura Disease.
MACKENZIE, J., M.D. Venous Pulse.
MARSHALL, C. D., F.R.C.S. Pathology of Afferent Impulses in the Cat.
MARTIN, Sidney, M.D. Experimental Diphtheritic Paralysis.
MIDDLEMASS, J., M.B. Early General Paralysis.
MORTON, C. A., F.R.C.S. Carcinoma of Mamma.
MOTT, F. W., M.D. Pathology of Afferent Impulses in the Monkey.
MUIR, R., M.D. Leucocythæmia.
MURRAY, George, M.R.C.P. Myxœdema.
RANSOM, W. B., M.D. 1. Actinomyces. 2. Demonstration of Kinæsthetic Centre in Man.
RUFFER, A., M.A., M.D. 1. Typhoid Fever in Animals. 2. Paralysis from the Poison of Bacillus Pyocyaneus.
RUFFER, A., M.A., M.D., and SHERRINGTON, Professor C. S., M.A., M.B. On the Effect of Injection of Pure Cultures on Secretion.
RUSSELL, Risien, M.B. Structure of Recurrent Laryngeal Nerve and Pathology of Laryngeal Paralysis.
RUXTON, W. L., M.D. Peripheral Neuritis.
SNOW, Herbert, M.D. Researches in Cancer Pathology.
STILES, Harold. Carcinoma of Mamma.
SURVEYOR, N. F., M.D. Parasites in Rat's Liver.
TIZZONI, Professor. Tetanus and Rabies.
TURNER, T. Charlewood, M.D. Immunity.
TYLDEN, H. J., M.B. Diabetes.
WALTHARD, Max, M.D. One Factor in the Causation of Septic Peritonitis.
WILLIAMS, Roger, F.R.C.S. Varieties of Mammary Neoplasms and their Relative Frequency.
WOODHEAD, G. Sims, M.D. (1) Immunity; (2) Healing of Wounds.
WRIGHT, A. E., M.B. Methods of Increasing and Decreasing the Coagulability of the Blood.

G. OPHTHALMOLOGY.

University College, Room 33, First Floor.

President: PRIESTLEY SMITH, M.R.C.S. *Vice-Presidents:* FRANK HY. HODGES, F.R.C.S.Ed.; CHARLES HIGGENS, F.R.C.S. *Honorary Secretaries:* ERNEST CORY KINGDON, M.B., 6, Upper College Street, Nottingham; H. W. DODD, F.R.C.S., 136, Harley Street, W.

A discussion on the Treatment of Diseases of the Lachrymal Apparatus will be opened by Charles Higgens, F.R.C.S.

The following gentlemen have signified their intention to be present or take part in the discussions: W. M. Beaumont, M.R.C.S., G. A. Critchett, F.R.C.S.Ed., J. Court, M.R.C.S., E. Jones, M.R.C.S., G. Mackay, M.D., J. G. Mackinlay, M.R.C.S., A. Pritchard, M.R.C.S., L. H. Tosswill, M.B., J. Tatham Thompson, M.B., W. Adams Frost, F.R.C.S., A. Stanford Morton, F.R.C.S., R. W. Doyne, M.R.C.S., and C. Wray, F.R.C.S.

The following papers are announced:

BELL, J. H., M.D. A Chapter in the Early History of Miners' Nystagmus.
BENSON, A. H., F.R.C.S.I. The Treatment of Stenosis of the Nasal Duct.
BRONNER, A., M.D. On Aseptic Ophthalmic Surgery as practised at the Bradford Eye and Ear Hospital; and will show a Sterilising Apparatus for Eye Instruments and Bandages.
CANT, W. J., M.R.C.S. Prolapse of the Iris after Simple Cataract Extraction and its Treatment.
COCKING, W. T., M.D. Miners' Nystagmus with Torticollis.
COURT, J., M.D. Miners' Nystagmus: its Cause and Relation to the

Lighting of Mines. (It is probable that a discussion will arise on this subject.)

CROSS, F. R., F.R.C.S. Two Cases of Abscess of the Frontal Sinus.

DOYNE, R. W., M.R.C.S. (1) The Abuse of Dark Glasses and Rest for the Eyes; (2) A Question in Refraction.

EDRIDGE-GREEN, F. W., M.D. The Registration of Defects of Colour Perception.

FARRAR, J., M.D. Notes on a case of Tumour of Right Orbit; Operation; Recovery.

FERGUS, F., M.B. 1. Some Improvements in Perimetry. 2. A Modification of Foerster's Box for testing the Light Sense. 3. The Treatment of Cataract Extraction and other Wounds by Antiseptics.

FORD, A. V., M.R.C.S. Chloride of Sodium as a Direct Agent in the Production of Cataract.

HEWETSON, H. B., M.R.C.S. 1. Ten Years' Experience of the Effects of the Treatment of Interstitial Keratitis by Syndectomy without the Use of Specific Drugs. 2. A New Operation for the Treatment of Eversion of the Lower Lids associated with Granular Lids. 3. Further Researches into the Localisation of Headaches due to various Forms of Ametropia, including Cases of Vertigo, *Petit Mal*, and True Epilepsy, cured by the Use of Correcting Lenses.

LAWFORD, J. B., F.R.C.S. The Pathology of some Intraocular Tumours.

MCGILLIVRAY, A., M.B., C.M. Recent Tests for Colour Blindness, with Reference to Quantitative Estimation of the Colour Sense.

MACKAY, G., M.D. On the Quantitative Estimation of the Colour Sense; and to show the Apparatus used by the Dutch Railway Ophthalmic Surgeons.

PERCIVAL, A. S., M.B. Note on the Relationship of Convergence to Accommodation.

STEPHENSON, S., M.B. The Surgical Treatment of Trachoma.

WHITEHEAD, H. R., F.R.C.S. Massage in the Treatment of Eye Diseases.

WILLIAMSON, G. E., F.R.C.S. A Primary Sarcoma of Iris, with Microscopic Sections.

H. DISEASES OF CHILDREN.

University College, Room 41, First Floor.

President: LEWIS WALTER MARSHALL, M.D. *Vice-Presidents:* JAMES DAVISON, M.D.; WINFRED BENTHALL, M.B. *Honorary Secretaries:* D'ARCY POWER, F.R.C.S., 26, Bloomsbury Square, W.C.; EDWARD MANSEL SYMPSON, M.D., 2, James Street, Lincoln.

The two following subjects have been selected for special discussion: 1. The Diagnosis and Treatment of Croupous Pneumonia in Children, to be opened by J. F. Goodhart, M.D., F.R.C.P., and Henry Ashby, M.D., F.R.C.P. W. B. Cheadle, M.D., F.R.C.P., N. Tirard, M.D., F.R.C.P., H. Montague Murray, M.D., W. P. Herringham, M.D., F.R.C.P., T. More Madden, M.D., F.R.C.S., C. N. Gwynne, M.D., D. B. Lees, M.D., H. Skelding, M.B., and F. Johnston, M.B., will take part. 2. The Treatment of Severe Club Foot, to be opened by J. Walsham, F.R.C.S., R. W. Parker, M.R.C.S., Noble Smith, F.R.C.S.Ed., C. R. B. Keetley, F.R.C.S., E. M. Little, F.R.C.S., A. H. Tubby, M.B., J. Ewens, L.R.C.P., W. G. Black, F.R.C.S., E. L. Freer, M.R.C.S., Firmin Cuthbert, M.R.C.S., R. Jones, F.R.C.S.Ed., H. Widenham Maunsell, M.D., Henry O'Neill, M.D., and William Thomas, F.R.C.S., will take part in the discussion.

The following papers are announced:

BRAIDWOOD, P. Murray, M.D. Nervous Disorders following certain of the Acute Infectious Diseases of Childhood.

EDDOWES, Alfred, M.D. Treatment of Ringworm.

EWENS, John, L.R.C.S.Ed. Overgrowth of the Inner Tuberosity of the Tibia as a cause of Genu Valgum, independent of Elongated Inner Condyle of the Femur, illustrated by Casts and Photographs.

FREER, E. L., M.R.C.S. The Treatment of Scoliosis.

JONES, Robert, F.R.C.S.Ed. Note on Short Leg in Hip Disease.

KINGDON, E. C., M.B. A Rare Fatal Disease of Infancy with Symmetrical Changes at the Maculæ Luteæ.

MARSHALL, L., M.D. A Case of Congenital Dislocation of the Knee-joint (patient shown).

PFEIFFER, Emil, M.D. (Wiesbaden). One Hundred Analyses of Breast Milk.

REEVES, H. A., F.R.C.S.Ed. (1) Nasal and Respiratory Spinal Curvatures; (2) A New and Effective Club-foot Shoe.

I. PHARMACOLOGY AND THERAPEUTICS.

University College, First Floor, East End.

President: JOSEPH ORPE BROOKHOUSE, M.D. *Vice-Presidents:* CHARLES AUGUSTUS GREAVES, M.B.; SIDNEY HARRIS COX MARTIN, M.D. *Honorary Secretaries:* CHARLES HENRY CATTLE, M.D., 2, East Circus Street, Nottingham; THOMAS JESSOPP BOKENHAM, L.R.C.P., 9, Upper Wimpole Street, W.

The two following subjects have been selected for special discussion: 1 (on Wednesday, July 27th), Cardiac Tonics and the Indications for their Use. To be opened by W. H. Broadbent, M.D., F.R.C.P. T. Lauder Brunton, M.D., F.R.S., J. Mitchell Bruce, M.D., F.R.C.P., Professor Oliver, M.D., F.R.C.P., H. Handford, M.D., M.R.C.P., M. C. Collins, M.D., M.R.C.P., Clifford Allbutt, M.D., F.R.C.P., F.R.S., I. Burney Yeo, M.D., F.R.C.P., J. A. Lindsay, M.D., and others will take part in the discussion. 2. (on Thursday, July 28th), Dyspnœa and its Treatment by Drugs. To be opened by Professor Gairdner, M.D., F.R.C.P., Professor Leech, M.D., F.R.C.P., M. C. Collins, M.D., F.R.C.P., H. Handford, M.D., M.R.C.P., Clifford Allbutt, M.D., F.R.C.P., F.R.S., I. Burney Yeo, M.D., F.R.C.P., and others will take part in the discussion.

On Friday, July 29th, the Bearing of Recent Physiological and Chemical Research on the Question of Anæsthesia to be opened by Dudley Buxton, M.D., M.R.C.P. Norman Kerr, M.D., Lawrence Turnbull, M.B., Frederic Hewitt, M.D., R. N. Hartley, M.B., E. H. Jacob, M.D. (Leeds), and others will take part in the discussion.

Professor Gairdner, as retiring Chairman of the Therapeutic Committee, will make some remarks on Therapeutic Committees—their Possible Uses.

The President of the Section will give an Introductory Address on Some Points in Pharmacology and Modern Therapeutics.

Professor Liebreich, Berlin, has deputed Dr. A. P. Chadbourne to make a communication on his behalf, the outcome of researches in his laboratory.

On Wednesday, July 27th, there will be a short demonstration in the Physical Theatre at 4 P.M. Dr. Lewis Jones will give demonstrations on "The Therapeutic Effects of the Rapidly-changing Currents of Induction Machines, and on Methods of Measuring such Currents."

The following papers are announced:

CHADBOURNE, A. P., M.D. (Berlin). On the Local Anæsthetic Properties of a new Coca Base.

EBSTEIN, Professor (Göttingen). Some Remarks on the Dietetic Treatment of Diabetes Mellitus.

ECCLES, A. Symons, M.B. Sick Headache and its Treatment by Massage.

HANDFORD, H., M.D. The Treatment of the Hæmatemesis of Anæmic Young Women.

HARRISON, A. J., M.B. On the Cure of Lupus by Local Treatment (with Illustrative Cases).

HUCHARD, Henri, M.D. (Paris). 1. The Contra-indications of Digitalis. 2. Treatment and Curability of Heart Affections. Treatment of Cardiac Dyspnœa.

JONES, H. Lewis, M.D. On the Therapeutic Effects of the Rapidly Changing Currents of Induction Machines and on Methods of Measuring such Currents.

KERR, Norman, M.D. The Treatment of Delirium Tremens.

LIDDELL, J., M.D. Influence of the Harrogate Mineral Waters on the Excretion of Urea.

RUMBOLL, Sydney, L.R.C.P., F.R.C.S. Anæsthetics, with Special Reference to the Use of Nitrous Oxide in Minor Surgery.

SAVILL, T., M.D. The Treatment of Epidemic Dermatitis and Eczema by Creolin and other Remedies.

J. LARYNGOLOGY.

University College, Room 40, First Floor.

President: RICHARD ATKINSON HAYES, M.D. *Vice-Presidents:* DONALD STEWART, M.D.; T. MARK HOVELL, F.R.C.S.Ed. *Honorary Secretaries:* JOHN MACINTYRE, M.B., 179, Bath Street, Glasgow; DONALD ROSE PATERSON, M.D., 18, Windsor Place, Cardiff.

The three following subjects have been selected for special discussion: 1. The Etiology, Pathology, and Treatment, of Nasal Neuroses, to be introduced by Donald Stewart, M.D., and Adolf Bronner, M.D. 2. Catarrh of the Nose and Throat, its Etiology, Pathology, and Treatment, to be introduced by J. Macintyre, M.B., and Edward Woakes, M.D. 3. Granular Pharyngitis, its Etiology and Treatment, to be introduced by T. Mark Hovell, F.R.C.S.Ed., and Lennox Browne, F.R.C.S.Ed. The following gentlemen will take part in the discussions: Messrs. R. Ellis, F.R.C.S., Mayo Collier, P. Watson Williams, H. B. Hewetson, N. Macnaughton Jones, Scanes Spicer, Thomas Barr, Charles Warden, Professor von Schroetter (Vienna), James Erskine, Edward Woakes, Wm. Hill, Edward Law, Dundas Grant, and C. R. Walker.

The following papers are announced:

BARR, Thomas, M.D. The Importance of Guarding against Injury to the Middle Ear when Treating the Nasal Passages and Nasopharynx.

BRONNER, Adolf, M.D. On the Use of Trichloracetic Acid in the Treatment of Ozæna.

BROWNE, Lennox, F.R.C.S.Ed. Faults in Voice Production which lead to Throat Disease.

COLLIER, Mayo, F.R.C.S. The Causation of Deflections and other Irregularities of the Nasal Septum.

ELLIS, Richard, F.R.C.S.Ed. Note on a Frequent Cause of Irritation of the Throat in School Teachers.

GRANT, J. Dundas, M.D., F.R.C.S. (1) Practical Points in the Diagnosis and Treatment of Fish Bones in the Throat; (2) A Safe Endo-laryngeal Forceps; (3) A Safe Nasal Douche.

Hewetson, H. B., M.D. 1. Aural Complications in a Case of so-called Russian Influenza; 2. Further Experience in the Treatment of Deafness, the Result of Nasal Stenosis, by Dilatation with the Glove Stretcher.
Hill, Wm., M.D. Rhinalgia.
Hunt, John M., M.B. Throat Affections peculiar to Voice Users.
Macintyre, John, M.B. Etiology, Demonstration on, in Affections of the Nose and Throat.
Reeves, H. A., F.R.C.S. Nasal and Respiratory Spinal Curvatures.
Robertson, Wm., M.D. On the Treatment of Ozæna and Recurrent Nasal Polypi by Opening and Draining the Antrum of Highmore, with illustrative cases.
Sandford, Arthur, M.D. The Importance of a Systematic Course of Physical Voice Training at School or College, especially with regard to its influence on prevalent Throat Troubles in Public Speakers and others.
Schroetter, Professor (Vienna). Nervous Affections of the Throat.
Spicer, Scanes, M.D. Some Points in the Diagnosis and Treatment of Chronic Suppuration of the Antrum of Highmore, illustrated by Cases.
Stewart, Donald, M.D. (1) An Usual Nasal Polypus; (2) Cotton Wool Carriers.
Williams, P. Watson, M.D. The Dyspeptic Sore Throat.

Programme of Proceedings.

Tuesday, July 26th, 1892.

9.30 A.M.—Meeting of 1891-92 Council in the Grand Jury Room, Guildhall.
11 A.M.—Opening of the Health Exhibition by The Mayor and Sir Walter Foster.
11.30 A.M.—First General Meeting in the Mechanics' Hall. Report of Council. Reports of Committees: and other business.
4.0 P.M.—Service at St. Mary's Church. Sermon by the Bishop of Southwell.
8.30 P.M.—Adjourned General Meeting, in the Mechanics' Hall, from 11.30 A.M. President's Address.

Wednesday, July 27th, 1892.

9.30 A.M.—Meeting of 1892-93 Council in the Grand Jury Room, Guildhall.
10 A.M. to 1.30 P.M.—Sectional Meetings in University College. Public Health Section in the Mechanics' Lecture Hall.
2.30 P.M.—Second General Meeting in the Mechanics' Hall. Address in Medicine by James Cuming, M.D.
4.0 P.M. to 6 P.M.—Garden Party in the Arboretum given by the President of the Association and the Local Executive Committee.
8.30 P.M.—*Conversazione* at the Castle, given by the Worshipful Mayor, R. Fitzhugh, Esq., J.P.

Thursday, July 28th, 1892.

9.30 A.M.—Meeting of the Council in the Grand Jury Room, Guildhall.
10 A.M. to 1.30 P.M.—Sectional Meetings in University College. Public Health Section in the Mechanics' Lecture Hall.
2 P.M.—Extraordinary General Meeting.
2.30 P.M.—Third General Meeting in the Albert Hall Address in Surgery by W. H. Hingston, M.D.
4 to 6 P.M.—Garden Party.
7 P.M.—Public Dinner of the Association, Large Hall, Mechanics' Institute.

Friday, July 29th, 1892.

10.30 A.M. to 1.30 P.M.—Sectional Meetings in University College. Public Health Section in the Mechanics' Lecture Hall.
2.30 P.M.—Concluding General Meeting in the Mechanics' Hall. Address in Bacteriology by German Sims Woodhead, M.D.
4 to 6 P.M.—Garden Party.
8.30 P.M.—*Conversazione* in the University College, given by the President of the Association and the Midland Branch.

Saturday, July 30th, 1892.
Excursions.

Reception Room.

It is particularly requested that members on their arrival will at once proceed to the Reception Room, which is in the Lending Library, University College, Nottingham, at which each member should enter his name and address, receive his member's card and daily journal, inquire for telegrams and letters, and consult the list of lodgings and hotels, etc. The Reception Room will be open on Monday from 4 to 9 o'clock; and every other day of the meeting from 9 to 6 o'clock.

Members will obtain cards of invitation to the entertainments in the Reception Room as usual.

There will be a Ladies' Reception Room in the Exchange Hall, Market Place, with writing, reading, and cloak rooms.

It is proposed to hold an informal reception at the Health Exhibition, which will be lit with the electric light for the occasion after the adjourned general meeting of Tuesday, which commences at 8.30.

Dinner of the Association.

The Annual Dinner of the Association will take place at the Mechanics Hall on Thursday, July 28th, at 7 o'clock. Tickets (inclusive of wine, £1 1s., exclusive of wine, 15s.) may be obtained at the Reception Room from 4 P.M. on Monday, July 25th, till 6 P.M. on Wednesday, July 27th. A plan of the tables may be seen and members are requested to select their seats.

Additional Hotels.

The following list of hotels is supplementary to the one published in the British Medical Journal of July 16th.

Nottingham.—St. Peter's Hotel, Wheeler Gate (10 beds); bed and breakfast, 7s. 6d. Victoria Hotel, Station Street (6 beds).

Lincoln.—The Albion Hotel (14 beds); bed and breakfast, 6s. 6d. The Spread Eagle Hotel (10 beds); bed and breakfast, 6s. 6d.

A late train will leave Nottingham each night at 11.30 P.M. stopping at Thurgarton and Newark.

Grantham.—The Angel (16 beds); bed and breakfast, 6s. 6d.

Arrangements will be made for a special late train on July 27th, 28th, and 29th, stopping at Bingham and Bottesford.

Excursions.

1. To Belvoir Castle, where the members will be entertained to lunch by His Grace the Duke of Rutland, returning to Denton Manor, where they will be entertained to tea by Sir Wm. Welby-Gregory. This excursion is limited to 120 tickets.

2. To Sherwood Forest and the Dukeries, where they will be entertained to lunch by His Grace the Duke of Portland, at Welbeck Abbey. This excursion is limited to 120 tickets.

3. To Haddon Hall and Chatsworth, where the members will be entertained to lunch by His Grace the Duke of Devonshire, returning by Scarcliffe, where they will be entertained to tea by Lady Whitworth. This excursion is limited to 120 tickets.

4. To Lincoln, where the members will be entertained to lunch by the President, Viscount Oxenbridge, and the Governors of The Lawn (Lunatic Hospital) in the grounds, and afterwards to tea by the Right Worshipful the Mayor of Lincoln in the Castle grounds. This excursion is limited to 60 tickets.

On Thursday afternoon, July 28th, there will be three short excursions to the following places: 1. To Southwell Cathedral. Canon Trebeck has kindly promised to conduct the party round the Cathedral, and tea will be provided in the Bishop's Palace. Tickets limited to fifty. 2. To Clifton Hale and Grove. Visitors will be allowed to visit the beautiful gardens and woods, the River Trent; and H. R. Clifton, Esq., will entertain them to tea. Tickets limited to forty. 3. To Wollaton Hall, the seat of Lord Middleton. Tickets limited to forty.

Tickets for these excursions will not be issued before the date of the meeting, but will be obtainable on the opening of the Reception Room in the University Buildings at 4 p.m. on Monday, July 25th, and following days, by personal application, or by letter or telegram addressed to the Excursions Clerk.

In addition to the above, an afternoon excursion, limited to 150 gentlemen and 50 ladies, will be made to Buxton on Friday, July 29th, returning to Nottingham in time for the *conversazione*. Through the kindness of the Duke of Devonshire, this visit will be made free of cost to those members who are desirous of inspecting "The Queen of Inland Watering Places." Application for tickets for this excursion only may be made any time after Saturday, July 9th, to Mr. Henry Williams, Honorary Secretary Excursion Committee, 19, Regent Street, Nottingham.

The Annual Museum.

In connection with the sixtieth annual meeting of the British Medical Association, the Museum and Exhibition will be held in the Technical Schools, University College, Nottingham. The Museum will be arranged in the following Sections:—

Section A.—Food and Drugs, including Antiseptic Dressings and other Chemical and Pharmaceutical Preparations.

(Honorary Secretary, Mr. T. Davies Pryce, 39, Peachy Terrace, Nottingham.)

SECTION B.—Pathology, comprising Casts, Models, and Diagrams, Microscopes and other Apparatus, Microscopical and Spirit Preparations, etc. (Honorary Secretary, Dr. W. B. Ransom, The Pavement, Nottingham.)

SECTION C.—Anatomy and Physiology, comprising Special Dissections, Methods of Preparation, Drawings, Models, and Microscopical Preparations. (Honorary Secretary, Dr. W. Stafford, Mansfield Road, Nottingham.)

SECTION D.—Instruments and Books, including Appliances, Medical, Surgical, and Electrical. (Honorary Secretary, Dr. F. R. Mutch, 21, Goldsmith Street, Nottingham.)

SECTION E.—Sanitary and Ambulance Appliances. (Honorary Secretary, Dr. P. Boobbyer, Guildhall, Nottingham.) See notice at end of Regulations.

Regulations.

1. Intending exhibitors must apply before June 30th to the Honorary Secretary of each Section in which they propose to exhibit, to whom they must also forward a brief description of each exhibit for insertion in the Museum Catalogue.

2. The charge to exhibitors (other than members of the medical profession) will be 2s. per square foot of table space in Sections A, B, C, D.

3. All exhibits should be addressed to the "Secretary of the Museum, British Medical Association, University College, Nottingham," with the name of the Section for which they are intended. Packages should not be addressed to a firm's representatives at the Museum.

4. Communications on general matters connected with the Museum should be addressed to the Honorary Secretary of the Museum, Dr. W. A. Carline, Lincoln.

5. All communications respecting advertisements in the Museum Catalogue must be made to Dr. C. H. Cattle, 2, East Circus Street, Nottingham.

In connection with the Sanitary Section there will be an Exhibition on a somewhat extensive scale of sanitary material and appliances. The Exhibition, which will be open for at least two months, will be held in a special building erected by the Corporation. It has a President and an Organising Committee of prominent sanitarians, and two Honorary Secretaries, Drs. B. A. Whitelegge and Philip Boobbyer; all inquiries should be addressed to the latter.

NOTICES OF MOTION.

NOTICE is hereby given that an Extraordinary General Meeting of the British Medical Association will be held at the Albert Hall, Nottingham, on the 28th day of July next at 2 o'clock in the afternoon, when Dr. GALTON will propose the following Motions:

(1) That Article 4 of the Articles of Association be altered by expunging the words, "No female shall be eligible for election as a member of the Association."

(2) That By-law No. 1 of the By-laws of the Association be altered by expunging the words, "provided that the power of such Council or Branch Council shall only extend to the election of male persons."

Should the Motion No. 1 be passed by the required majority, it will be submitted for confirmation as a Special Resolution at a Second Extraordinary General Meeting which will be subsequently convened.

SURGEON-LIEUTENANT-COLONEL INCE hereby gives notice that he will move:

That the acceptance of any remuneration by the members of Council or any of the Committees for attendance is alien alike to the spirit and to the dignity of this our fraternal and professional Association and should be, therefore, discontinued.

FRANCIS FOWKE, *General Secretary.*

June 28th, 1892.

PROFESSOR VERNEUIL has, on the ground of advancing years, resigned the chair in the Paris Faculty of Medicine, which he has so long occupied with such advantage to the school and such honour to himself. We venture to express a hope that though the voice of the great teacher may be still, his not less eloquent pen may for many years to come continue to mingle the *utile* of an exceptionally ripe experience with the *dulce* of a literary style as polished and as keen as the knife which no surgeon could wield more deftly than he.

SPECIAL CORRESPONDENCE.

BERLIN.

Qualifying Examination for Food Analysts.—Trichinosis and Cysticercus in Pigs.—Children's Summer Colonies.—Professor Henoch's Jubilee.

A MOVEMENT is on foot to provide a special examination for food analysts, which is to comprise chemistry, especially applied chemistry, physics, botany (including the microscopic and bacteriological methods for recognising vegetable forms), technical science, as far as the preparation and quality of food, and of tea, coffee, spirituous liquors, tobacco, etc., are concerned, and, finally, the laws regulating the food trade. It is supposed that the united German governments will institute this examination very shortly. It is not to be made obligatory, but practically it will become so, as State appointments as public food analysts, and in Germany there are many, for "Nahrungs-mittel-chemiker" will in future only be given to those who have passed the examination in question.

During the month of June 38,456 pigs were examined in the central slaughter-house of Berlin. Of these, 12 were pronounced unfit for human food on account of trichinæ, and 75 on account of cysticercus cellulosus.

Twelve hundred and sixty delicate pauper children were sent off by train to various health resorts and seaside places on July 11th by a Berlin philanthropic society, which goes by the name of "Verein für Ferien-kolonien." A second batch is to follow in August, when the first returns. The arrangements made for the children are excellent in every respect; amply sufficient supervision and medical care are provided.

Professor Henoch, the celebrated specialist for diseases of children, has just celebrated the fiftieth anniversary of the taking of his degree. His professorship in the Berlin University dates from 1858, and since 1872 he has been director of the clinic for children in the Charité Hospital. Professor Henoch, who is now aged 72, is in full possession of his strength, both bodily and mental, and carries on a large consulting practice.

NEWCASTLE-ON-TYNE.

Annual Report of Medical Officer of Health.—New Town Improvement Act.—Annual Meeting of the North of England Branch of the Association.—Proposed Meeting of the British Medical Association in Newcastle in 1893.

THE annual report of the medical officer of health, on the sanitary condition of the city during the year 1891, has just been issued, and bears evidence of that care and attention to detail for which Dr. Armstrong is so well known. Dr. Armstrong makes a strong demand for the compulsory notification of measles, and presents as an appendix to his report a report which he made to the Sanitary Committee of the Corporation on this subject. In August, 1887, the Sanitary Committee recommended the Council to include measles in their list of infectious diseases to be notified, but this recommendation was referred back to the committee by a majority of two votes, with instructions to the medical officer to obtain particulars as to the custom in other large towns. Dr. Armstrong concludes this report by recommending that the compulsory notification of measles should be tried for a period of five years, and, seeing the large number of fatal cases during the past year, it is to be hoped the Corporation will accede to his request.

In the New Improvement Act which the corporation have just obtained there are many important clauses, giving additional power to the medical officer of health and his department; penalties may now be imposed for sending infected clothes to any public washhouse; for placing an infected person in any public conveyance without notifying to the conductor that such person is infected; if an infected case is carried, the conductor must notify this to the medical officer. Power is given the medical officer to cause all dairymen to furnish a list of customers, also to notify any outbreak of infectious disease amongst the servants in the dairy, also com-

pelling notification of any tuberculous disease in the cattle. Penalties may be imposed upon parents for permitting an infected child to attend school, also upon teachers who knowingly allow an infected case to attend school. Schoolmasters must furnish a list of scholars attending school, and any person living outside the city and sending a child to school within the city must notify any case of infectious disease occurring in his house. Power is also given to close workshops where infected, also to prevent midwives attending cases if they have cases of puerperal fever, and power to compensate them for any loss so incurred. The various clauses of the Act have evidently been most carefully prepared with a view to early notification, and prompt and efficient isolation of all infectious cases.

The annual meeting of the North of England Branch of the British Medical Association was held at Sunderland on July 19th, 1892. Dr. D. Drummond vacated the chair to his successor, Dr. Murphy, who delivered his presidential address, dealing with the present condition of abdominal surgery. Dr. Murphy showed several valuable specimens, amongst them especially being one of circular enterectomy of the colon for malignant stricture, removed *post mortem* twelve days after operation; the intestine was firmly healed all round. It was determined that the next annual meeting should be held at Stockton, and Dr. Blandford was elected president-elect. The various representatives on the Council of the Association and the Parliamentary Bills Committee were elected.

Drs. Philipson, Hume, Drummond, Murphy, Oliver, and Williamson were elected the Arrangements Committee for the annual meeting of the Association, which it is expected will be held in Newcastle next year.

LIVERPOOL.

The Water Supply of Liverpool.—Opening of a New Operating Theatre at the Royal Southern Hospital.—Suggested New Medical School.—Addition to the Lying-in Hospital.—Recent Hospital Appointments.

THE completion of the Vyrnwy water scheme, which was happily signalised last week by the presence of H.R.H. the Duke of Connaught at the opening ceremony, secures to Liverpool a supply of pure water that is practically inexhaustible. The rapid growth of population in the city and district during the last fifty years has necessitated frequent additions to the water supply, and the occurrence of dry seasons from time to time has brought the prospect of a water famine within measurable distance on more than one occasion. It may be of interest to trace briefly the history of the water supply since the year 1847, up to which time it was in the hands of private companies, and was obtained from wells sunk in the new red sandstone on which the city is built. The quantity given by the companies was very inadequate, and the water was often turned on for only two or three hours a day, and sometimes only once or twice a week. As the Corporation, on taking over the waterworks, undertook to provide a constant supply, it became necessary to obtain a much larger quantity of water than was then available. This need was met by collecting the water from an extensive tract of moorland in the hilly country between Bolton and Blackburn, where reservoirs were constructed holding 4 billions of gallons, and extending upwards of five miles. This is known as the Rivington water supply, and was brought into use in the summer of 1857, just thirty-five years ago. Some £2,000,000 were spent on this scheme, which it was anticipated would meet the wants of the district for a long future. The growth of the population and the trade of the district, together with the spread of new sanitary ideas and appliances, led to an increased use of water such as was altogether unexpected, and in less than ten years the yield from Rivington and the wells proved insufficient in dry seasons. A new source of supply was accordingly sought for, and ultimately the Vyrnwy scheme was chosen. The main reservoir, situated in the Vyrnwy Valley among the Berwyn mountains in North Wales, is five miles long, and is formed by a massive masonry wall built across a narrow part of the valley. This wall is 1,172 feet long at the top and 161 feet high from the lowest part of the foundation to the parapet of the carriage way which passes along the top. The reservoir when full holds 13,000,000,000 gallons of water, and its greatest depth is 84 feet. It will receive the rainfall from 23,200 acres of watershed, and will be capable of supplying 40,000,000 gallons a day in addition to the compensation water which is required by Act of Parliament to be delivered in aid of the Severn, and which amounts to 13,500,000 gallons a day. The water is conveyed to Liverpool by an aqueduct sixty-eight miles long, and terminating at Prescot, eight miles from the city. About four miles of the aqueduct are in a tunnel capable of carrying the full supply of 40,000,000 gallons per day, but for the remaining sixty-four miles iron pipes have been laid to carry one-third of the ultimate quantity, or 13,000,000 gallons per day. Additional lines of pipes will be laid as they are required. The water will be filtered through sand filter beds, which have been constructed near Oswestry. The surface of the Vyrnwy reservoir is 825 feet above the sea level, and the water is delivered at Prescot at an elevation of 275 feet, so that 550 feet of head have been expended in carrying the water by gravitation along the aqueduct. The aqueduct is divided into six sections, with balancing reservoirs to regulate the pressure. The most difficult part of the undertaking, and the part that caused most delay in completing it, was the crossing of the Mersey, where it was necessary to bore a tunnel through ground of a nature to make tunnelling very slow and difficult. When the work is completed the supply available from all sources will be sufficient for the wants of at least 2,300,000 people. At present the population of the district is between 800,000 and 900,000, and the average consumption of water 20,000,000 gallons a day.

The Duke of Connaught also paid a visit to the Royal Southern Hospital, which was opened by him twenty years ago. His Royal Highness inspected the wards, and opened a new operating theatre.

The new buildings of University College will soon be completed and will be formally opened before the end of the year. A movement is being set on foot to raise funds for the reconstruction of the Medical School, which forms an essential part of the College. The present buildings have been added to from time to time, but they are antiquated in construction and are inadequate for the requirements of the present day. In the department of practical physiology, presided over by Professor Gotch, the need of more room is especially felt. The Medical Faculty was the nucleus around which University College arose, and it is felt that the present is the proper time to provide it with a habitation worthy of its seniority and on a level with the Royal Infirmary and the other buildings and laboratories of University College.

The Lying-in Hospital, Brownlow Hill, has lately been enlarged by the addition of a new cottage. This charity has been in existence for nearly a century, having been established in 1796. In that year the number of patients treated was 126, the cost being £450, while last year 2,000 cases were dealt with at a cost of £2,150. For some time the institution was carried on in connection with the Hospital for Women, but some years ago it was removed to cottages erected for the purpose in Brownlow Hill. Increasing demands on the Charity have rendered extension necessary. The total cost, including furnishing, is £2,000, and of this sum £900 is still required. It is hoped that by the end of the year the building will be free from debt.

A number of changes have lately been made in the hospital staffs. At the Royal Infirmary Dr. T. R. Bradshaw has been appointed assistant physician, and Messrs. G. Gibson Hamilton and Thelwall Thomas assistant surgeons. The appointment of Mr. Hamilton has created a vacancy for a surgeon at the Northern Hospital, which has been filled by the election of Mr. A. H. Wilson. At the Infirmary for Children a vacancy caused by the resignation of Mr. R. Pugh has been filled by the promotion of Mr. Murray assistant surgeon. Dr. Bushby has been appointed physician to the Consumption Hospital. The appointment of Dr. Bradshaw and Mr. Wilson to the Royal Infirmary and Northern Hospital respectively created vacancies for a physician and a surgeon at the Stanley Hospital. The elections for these posts are fixed to take place on August 8th. Several candidates are in the field. There is also a vacancy for an assistant surgeon at the Infirmary for Children.

CORRESPONDENCE.

LONDON DIPLOMATES AND THE PROPOSED NEW UNIVERSITY.

SIR,—Now that the question of London University Teaching is reopened, is it too late to make some endeavour to protect the interests of the diplomates of the Royal Colleges of Physicians and Surgeons? The claims of London students to the advantages of university teaching and degrees have been so often argued, and are now so fully acknowledged, that to repeat the arguments would be useless. I may point out, however, that no scheme hitherto brought forward has provided for the no less urgent claims of the ex-student, who, having been unable to devote the necessary time for purely educational subjects, and therefore prohibited from the London University, passed the next best examinations that his metropolis had to offer. By sticking to London for their whole course, instead of relinquishing it for the smaller clinical opportunities of the North—like some of their more astute fellow-students—the London diplomates have done much to hasten the cry for a London University. They, however, are the scapegoats, it seems, who must bear the sins of those leaders of our profession who, by their want of earnestness and exclusiveness, have kept London in a condition—as concerning university teaching—inferior to that of any other metropolis in Europe—almost in the world.

Owing to the very want we so much deplore, there is no bond of union, no cohesion, in the body of London diplomates. Our Colleges have, so to speak, cast us off, and we are nobody's own, therefore too isolated to act in union. The failure of the recently-started Association of London Diplomates may be doubtless ascribed to this cause. As many holders of the double qualification are members of the British Medical Association, I would suggest that on our behalf a committee of that body should represent our present disabilities to the Royal Commission now sitting, and to the Executive Committee of the Association for Promoting a Professorial University for London.

No holder of the double qualification would, I apprehend, object to taking up any extra subject or subjects considered necessary to place us on a level with the other future graduates, but that we should be disallowed from entering for examination without a repetition of the whole course—a downright prohibition—would be an act of injustice impossible to justify, though quite likely to happen amongst the scramble of "vested interests."—I am, etc.,

London. A. GREENWOOD, L.R.C.P.Lond., M.R.C.S.

THE TRANSFORMATION OF SMALL-POX INTO COW-POX.

SIR,—With reference to Dr. T. W. Hime's interesting paper on the "Successful Transformation of Small-pox into Cow-pox," will you permit me to state that a successful experiment of the same nature was carried out in April, 1891, by Surgeon-Major W. G. King, of the Madras Medical Service, at that time Deputy Sanitary Commissioner and Superintendent of Vaccination. Dr. King's paper is printed at length in the *Transactions* of the South Indian Branch, vol. iv, No. 1, of June, 1891.

Having succeeded in the inoculation of a calf with small-pox virus, he passed lymph thus obtained through seven calves in succession, and then tried it on human beings with such excellent results that he has gradually replaced the whole of his stock of calf vaccine by the new lymph directly obtained by the inoculation of a calf with variola.

The Madras Presidency contains a population of about 30,000,000; and, according to Dr. King's paper, the vaccine department is now using no other lymph than the transmitted variolous lymph.—I am, etc.,

W. ROBT. CORNISH,
Surgeon-General.

Cresswell Gardens, S.W.

THE BRITISH INSTITUTE OF PUBLIC HEALTH.

SIR,—I am desired by the Council of the above Institute to inform you that they have made arrangements for holding their annual congress in Dublin on Wednesday, Thursday, and Friday, August 17th, 18th, and 19th, 1892, under the presidency of Sir Charles A. Cameron, Medical Officer of Health to the City of Dublin.

I am further desired by the President and Council to say that they will feel obliged if you will kindly allow me, through the medium of your columns, to cordially invite the medical officers of health of the country and other gentlemen interested in public health to attend.—I am, etc.,

C. A. JAMES, L.R.C.P., D.P.H.,
Honorary Secretary.

King's College, London.

THE REGISTRATION OF MIDWIVES.

SIR,—Dr. Lovell Drage, in the BRITISH MEDICAL JOURNAL of July 16th, in a letter commenting presumably on one of mine in an earlier issue, has fallen into such an extraordinary series of errors that it is a little difficult to believe they are entirely accidental. He implies that I am ignorant of the fact that trained midwives can practise wherever they like, and he also supposes "that if it were possible for such to obtain a living, some would have been in practice before this." Why, Sir, my evidence before the Select Committee was based on returns received from midwives practising all over England. I stated this at the time, and handed in a summary of the returns. I also showed that there was a very considerable demand for them. As to his supposition that "it is impossible to make him [myself] understand that the evils to which he refers are economic in their origin," this is one of the arguments I myself employed in my evidence, and I based it, not on theory, but on returns obtained from a large number of mothers belonging to the class which employs midwives. I also suggested a scheme of insurance by which this monetary hindrance to the obtaining of medical assistance promptly when urgently required should be removed.

If Dr. Lovell Drage could be got to understand that assertion is not proof, and that having no midwives whatever in his district and consequently having no personal experience of them is not exactly sufficient to entitle him to circulate the numerous theoretical suggestions he has given vent to, it would save both his time and that of those who have to show the wide differences between theory and practice.—I am, etc.,

ROWLAND HUMPHREYS.

Fellows Road, N.W.

THE CASE OF THE LATE DR. WALTERS, OF CHELTENHAM.

SIR,—It seems to me that the case of Dr. C. A. Walters, of Cheltenham, is one of extreme importance and vitally affects the interests of all Poor-law medical officers. Are we to understand that a district medical officer is expected to attend to any summons in his district, whether or not the applicant bring an order from an official authorised to grant the same legally? If this is the law we must bow to it, however bad it may be, but, up to the present, I am of opinion that all district medical officers have understood the law to be exactly the reverse of this, and, if this is so, it seems to me that no time should be lost in ascertaining what the law really is, and for that purpose a deputation might wait on the Local Government Board, either at once or directly the new Parliament meets. As it is almost an every-day occurrence, especially in metropolitan districts, to refuse attendance without the necessary order, the matter seems to me one of special gravity.—I am, etc.,

MAJOR GREENWOOD, M.D.
District Medical Officer, Parish of St. Leonard, Shoreditch.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF: EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office orders with the notice. The first post on Thursday mornings is the latest by which advertisements can be received.

SURGEON-CAPTAIN, at home on leave from a good station in Bengal, wishes to exchange with an officer who has been about a year at home. Advertiser has nearly completed four years of his Indian tour. Address "Nerbudda," BRITISH MEDICAL JOURNAL Office, 429, Strand, W.C.

THE NAVY.

SURGEON JAMES M. FRANCE has been appointed to the *Barrosa*, July 21st.

Mr. CHARLES EDWARD GRAY, late Surgeon Royal Navy, and Physician

to the Melbourne Hospital, died at Brigg, Lincolnshire, on July 13th, at the age of 44.

ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL JAMES P. ROONEY, F.R.C.S.I., is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* I. McD. O'Farrell, F.R.C.S.I., retired, June 16th. Brigade-Surgeon-Lieutenant-Colonel Rooney's previous commissions are dated as follows: Assistant-Surgeon, March 31st, 1866; Surgeon, March 1st, 1873; Surgeon-Major, March 31st, 1873; and Surgeon-Lieutenant Colonel, March 31st, 1886.

Surgeon-Captains JOHN G. S. LEWIS and JOHN L. HALL, whose first commissions bear date March 6th, 1880, are promoted to be Surgeon-Majors, July 6th.

Surgeon-Captain H. C. THURSTON, serving in the Madras command, is granted an extension of leave from June 2nd to October 1st, on medical certificate.

Surgeon-Lieutenant-Colonel DANIEL CHARLES GROSE BOURNS, second son of the late Robert Whitelaw Bourns, Esq., of Hatley Manor, died on July 9th at Hall Hill, Oxted, Surrey, aged 45. He entered the Army as an Assistant Surgeon, September 30th, 1864; became Surgeon, March 1st, 1873; and Surgeon-Major, September 30th, 1876. He was placed on half pay on account of ill-health, September 15th, 1890. He served in the Zulu war in 1879, receiving the medal with clasp. He also served in the Egyptian war of 1882, and was present at the battle of Tel-el-Kebir, receiving the medal with clasp and the Khedive's star.

INDIAN MEDICAL SERVICE.

SURGEON-CAPTAIN H. W. G. MACLEOD, M.B., Bengal Establishment, 19th Punjab Infantry, is permitted to resign the service from April 25th. His commission was dated March 31st, 1887.

Surgeon-Captain T. GRAINGER, Bengal Establishment, is appointed to officiate as Civil Surgeon of Champarun during the absence of Surgeon-Major E. Bovill.

Surgeon-Captain J. G. JORDAN, Bengal Establishment, is appointed to act as Civil Surgeon of Jessore.

Surgeon-Captain W. G. THOROLD, Bengal Establishment, on return from deputation duty the Government of India, military department, is appointed to the civil medical duties of Kheri District.

Surgeon-Major F. C. REEVES, Madras Establishment, is appointed District Surgeon and Superintendent of the Gaol, Madura.

Surgeon-Captain D. SIMPSON, M.B., Madras Establishment, is appointed to act as Surgeon of the 3rd District, Madras.

Surgeon-Captain W. G. CRERAR, Madras Establishment, on the expiration of his sick leave is directed to do duty in the Rangoon District.

The services of Surgeon-Captain G. C. HALL, Madras Establishment, are replaced at the disposal of the Commander-in-Chief.

Surgeon-Captain F. E. MURRAY, Bombay Establishment, has passed the examination in Hindustani by the lower standard.

It is stated that the Government of India have decided to substitute the word "Officer" for "Surgeon" in the titles of the Principal Veterinary-Surgeon and the Inspecting Veterinary-Surgeon in India.

Surgeon-Lieutenant-Colonel C. J. W. MEADOWS, Bengal Establishment, Civil Surgeon of Moorshedabad, has leave of absence for five months on medical certificate; and Surgeon-Major E. W. YOUNG, Bombay Establishment, has leave for nine months on private affairs.

The retirement of Brigade-Surgeon-Lieutenant-Colonel KENNETH MACLEOD, M.D., of the Bengal Establishment, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the Queen.

THE YEOMANRY AND VOLUNTEERS.

MR. C. E. L. B. HUDSON is appointed Surgeon-Lieutenant to the Middlesex (Duke of Cambridge's Hussars), July 16th.

Surgeon-Captain F. A. GRAY, 3rd Volunteer Battalion Devonshire Regiment (late the 3rd Devonshire), is promoted to be Surgeon-Major, July 16th.

Surgeon-Captain J. ADAMS, 21st Middlesex (the Finsbury), is also promoted to be Surgeon-Major, July 16th.

Surgeon-Major E. GAILEY (1st Volunteer Battalion North Staffordshire Regiment (late the 2nd Staffordshire), has resigned his commission, with permission to retain his rank and uniform.

Surgeon-Captain C. S. BLYTHMAN, 2nd Volunteer Battalion York and Lancaster Regiment (late the 5th West Riding of Yorkshire), is promoted to be Surgeon-Lieutenant-Colonel, July 16th, and from the same date resigns his commission, retaining his rank and uniform.

Surgeon-Major J. MACKINLAY, Jnr., M.D., 3rd Volunteer Battalion Argyll and Sutherland Highlanders (late the 3rd Renfrewshire), has also resigned his commission, with permission to retain his rank and uniform.

MEDICO-LEGAL AND MEDICO-ETHICAL.

BRADFORD WATER AND LEAD POISONING.

AN inquest was held at Low Moor on July 14th on the body of Joseph Dalby, forgeman, of Carr Lane Bottom. Dr. Robinson, who had attended the deceased, had certified the cause of death as "lead poisoning (chronic), epilepsy, and exhaustion," but on the relatives presenting this to the registrar (Mr. Edwin Briggs) he refused to register, and communicated with the coroner. This was the third case of lead poisoning which has occurred in the district of the North Bierley Local Board within the past few weeks, and this was the second inquest which has been held in that time. Mr. P. Ross, the board's engineer, Dr. Logan, the medical officer, and Mr. W. H. Clough, the clerk, attended the inquiry. The evidence of the widow showed that the deceased had not been in good health for the last eighteen months. The family drinking water was obtained from the tap in the house since they went there about seven years ago. Mr. Clough stated that the Board was very anxious to get all the information they possibly could in these cases, and if these inquests resulted in any suggestion that the Board could adopt they would be ready to adopt it. The Board was most anxious about the matter, and had been in communication with the Local Government Board, the County Council, and the Bradford Corporation on the subject. Dr. Robinson, of Low Moor, said he was called in to see the deceased about March 24th, and had attended him regularly since. When he first saw him he had evidently had an epileptic seizure. On inquiry he found he had repeated attacks of gout with colic, and that he had gradually become weaker and paler, and had paralysis. His tongue was pale and flabby, and there was a well-marked blue line round the edge of the gums, and the gums themselves were blue. A few days afterwards he commenced to have intense pain in the abdomen, with constipation, and vomited freely. He died from pure exhaustion. He was of opinion that the primary cause of death was lead poisoning caused by drinking water supplied by the Local Board, and conveyed from the mains in the street to the kitchen in deceased's house by means of a lead pipe. He had met with many cases of lead poisoning in the district, and of about thirty men whom he had attended since July 1st, it would be no exaggeration to say that four-fifths were suffering from the disease. Dr. Robinson made the statement that in this connection the health of the public was set at naught, and the commercial interests of Bradford were considered.—Mr. Clough: Soft water is suitable for the Bradford trade.—Mr. Ross: If the Bradford Corporation hardens the water so that it will not take up lead it will mean that the millowners will have rather larger soap bills.

The jury found that the deceased had died from lead poisoning, causing epilepsy and exhaustion, and that the lead poisoning had arisen from drinking water supplied to the inhabitants of Carr Lane, Low Moor, by the North Bierley Local Board, and purchased by that Board from the Bradford Corporation. A rider was appended requesting the Board to take immediate steps to compel the Corporation to adopt measures for hardening the water at the source of supply, and thus to destroy the solvent action which the water has upon lead.

THE GREEN PEA QUESTION.

AT the Liverpool City Police-court, on July 13th, before Mr. Stewart, a grocer was summoned for selling an article of food—peas,—which were adulterated with sulphate of copper in such quantities as to be injurious to health.—Mr. W. C. Williams, B.Sc., assistant county analyst, spoke to the results of experiments with the peas, when artificially digested. He stated that the copper was capable of absorption into the system. There were 2½ grains of sulphate of copper in the tin of peas bought from the defendant.—Dr. Campbell Brown, in his evidence, stated that sulphate of copper did not preserve the natural pigment of fresh green peas. The effect of sulphate of copper in the proportion taken with an ordinary amount of peas was astringent, and the effect would by no means pass off when the food had left the stomach. Stale peas boiled with sulphate of copper took on the colour of fresh peas. He would hardly say the coloured peas were injurious to health in the ordinary sense of the phrase, but they certainly deteriorated the functions of the stomach. The peas sold by the defendant would to some extent be injurious to health by injuring the digestive powers of many people, especially those with weak stomachs.—Dr. Hope, assistant medical officer of health, considered copper unnecessary to prepare peas. Out of two dozen samples only half had any copper in them. In any case no more than ½ grain per lb. was necessary.—Counsel for the defence said the defendant bought the peas from a first-class house. He submitted that the addition of sulphate could not be said to be injurious to health after the evidence given.—Mr. Stewart, in giving his decision, said the very full evidence given on a previous occasion satisfied him that the object of retaining the colour could be brought about by as little as ¼ to ½ grain of sulphate to the lb. of peas. In this case, however, he was satisfied that the quantities used were injurious to health, and that the case had been made out. No one, he thought, had any idea of accusing any tradesman of deliberately committing offences of this kind, for they must naturally trust to the manufacturer. In this case he thought the tradesman had been taken in by the manufacturer. He would, therefore, only fine him 20s. and costs, with the analyst's fee. In future it would be wise to get a written guarantee from the manufacturer as to the amount of copper, if any, in peas.

Another tradesman was fined 20s. and costs for selling a tin of beans containing 2½ grains of copper.

HIGH COURT OF JUSTICE (CHANCERY DIVISION).

(Before Mr. Justice CHITTY.)

ALLHUSEN *v.* HIGENS.

THIS was a motion by the plaintiff, who owned and resided at Twyford Abbey, near Ealing, for an interim injunction to restrain the defendant, a contractor for the removal of refuse, from occasioning a nuisance by smell by heaping refuse in the vicinity of the plaintiff's residence. The defendant denied that the smell was occasioned by the heap, or that any smell arising therefrom could travel so far as the plaintiff's residence, which was a quarter of a mile distant, and suggested that the smell complained of by the plaintiff was one of many existing in the particular neighbourhood, where smells arose in all directions, it being a convenient spot for nuisances.

Mr. Justice Chitty said that the state of the law was this, that no defendant could escape if his operations amounted to a nuisance, although the nuisance caused was one of other coexisting nuisances. A judge of fact might, of course, take into account all the surrounding circumstances, but there was no such thing in law as a convenient spot for nuisances. The plaintiff had a strong body of direct evidence to support his case, and had made out such a case as to entitle him to an interim injunction. If the motion came on for trial no doubt the matter would be tried on *viva voce* evidence. A great deal had been said about the necessity of depositing the refuse of London somewhere. But human skill was equal to the task. There were such persons as chemists, engineers, etc., and it was for the defendant to find out a way of meeting the difficulty. He thought it right to give the defendant time, and not to grant an interim injunction restraining the defendant from causing a nuisance by smell. The action would be set down at once for trial, the issue being whether or not there was a nuisance by smell. The operation of the injunction would be suspended for three weeks.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE TRUE DEATH-RATES OF LONDON DISTRICTS DURING THE SECOND QUARTER OF 1892.

In the accompanying table will be found summarised the vital and mortal statistics of the forty-one sanitary districts of the metropolis, based upon the Registrar-General's returns for the second or spring quarter of this year. The mortality figures in the table relate to the deaths of persons actually belonging to the respective sanitary districts, and are the result of a complete system of distribution of the deaths occurring in the institutions of London among the various sanitary districts in which the patients had previously resided.

The 33,394 births registered in London during the three months ending June last were equal to an annual rate of 31.4 per 1,000 of the population, estimated at 4,263,294 in the middle of this year. In the corresponding periods of the preceding three years the birth-rate was 31.9, 30.4, and 31.8 per 1,000 respectively. The birth-rates last quarter in the various sanitary districts showed, as usual, wide variations, owing principally to the differences in the sex and age distribution of the population. In Kensington, St. George Hanover Square, St. James Westminster, Hampstead, St. Martin-in-the Fields, and London City the birth-rates were considerably below the average; while in Fulham, St. Luke, Bethnal Green, Whitechapel, St. George-in-the-East, Mile End Old Town, and Bermondsey the birth-rates showed a marked excess.

The 19,680 deaths of persons belonging to London registered during the quarter under notice were equal to an annual rate of 18.5 per 1,000, against 16.5, 17.9, and 23.4 in the corresponding periods of the preceding three years 1889-90-91. The lowest death-rates in the various sanitary districts during last quarter were 12.5 in Hampstead, 12.7 in Lewisham (excluding Penge), 12.8 in Plumstead, 13.6 in Wandsworth, 15.3 in Camberwell, and 15.4 in Hackney and in Battersea. In the other districts the rates ranged upwards to 23.2 in St. Luke, 23.7 in Limehouse, 23.9 in Holborn, 24.6 in St. George Southwark, 24.9 in Whitechapel, 25.8 in Strand, 26.8 in Newington, and 28.1 in St. George-in-the-East. During the quarter under notice 3,355 deaths were referred to the principal zymotic diseases in London; of these, 1,609 resulted from measles, 630 from whooping-cough, 432 from diphtheria, 323 from diarrhœa, 258 from scarlet fever, 87 from different forms of "fever" (including 80 from enteric fever, 3 from typhus, and 4 from ill-defined forms of fever), and 16 from small-pox. These 3,355 deaths were equal to an annual rate of 3.2 per 1,000, which exceeded that recorded in the corresponding period of any year since 1884. The lowest zymotic death-rates during last quarter in the various sanitary districts were 0.8 in St. Martin-in-the-Fields, 1.0 in Lewisham, 1.5 in Plumstead, 1.6 in Woolwich, and 1.7 in Greenwich. In the other districts the zymotic death-rates ranged upwards to 4.6 in Limehouse, 4.9 in Fulham, in Chelsea, and in Whitechapel, 5.9 in Hammersmith and in Newington, and 6.9 in St. George-in-the-East.

Sixteen deaths from small-pox were recorded in London during the three months ending June last, of which 4 were of persons belonging to St. Luke, and 3 to Bethnal Green sanitary districts. One hundred and ninety-five small-pox patients were admitted into the Metropolitan Asylums Hospitals during last quarter, and 35 remained under treatment at the end of June. Measles showed the highest proportional fatality in Hammersmith, Fulham, Chelsea, Strand, St. George-in-the-East, and Newington; scarlet fever in Westminster, St. George-in-the-East, and Newington; diphtheria in Hammersmith, St. James Westminster, Hackney, London City, Whitechapel, and Mile End Old Town; and whooping-cough in Whitechapel, St. George-in-the-East, Limehouse, Mile End Old Town, St. Saviour Southwark, St. George Southwark, and Newington.

Infant mortality in London last quarter, measured by the proportion of deaths under one year of age to registered births, was equal to 128 per 1,000, and was slightly below the mean rate in the corresponding periods of the preceding ten years. Among the various sanitary districts the rates of infant mortality were lowest in St. James Westminster, Hackney, St. Olave Southwark, Rotherhithe, Wandsworth, and Plumstead; while they showed the largest excess in Westminster, Strand, Holborn, St. George-in-the-East, Stepney, and St. Saviour Southwark.

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Complete Distribution of Deaths occurring in Public Institutions, during the Second Quarter of 1892.

SANITARY AREAS.	Estimated Population middle of 1892.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhœa.	Deaths of Children under 1 year of age to 1,000 births.
LONDON	4,263,294	33,394	19,680	31.4	18.5	3.2	3,355	16	1,609	258	432	630	3	80	4	323	128
West Districts.																	
Paddington	119,199	748	525	25.2	17.7	2.8	84	—	58	6	6	6	—	—	—	8	116
Kensington	166,721	979	704	23.5	16.9	3.8	116	—	62	9	14	19	—	6	—	5	128
Hammersmith	100,642	767	497	30.6	19.8	5.9	147	—	97	1	27	7	—	—	1	14	159
Fulham	98,195	900	487	36.8	19.9	4.9	121	—	68	8	8	22	—	1	—	14	146
Chelsea	97,300	699	508	28.8	20.9	4.9	119	1	78	4	11	11	—	1	—	13	157
St. George, Hanover Square	76,946	390	314	20.3	16.4	2.9	55	—	41	1	4	8	—	1	—	—	115
Westminster	55,203	338	306	24.6	22.2	3.9	55	—	31	7	7	6	—	—	—	2	172
St. James, Westminster	24,388	135	100	22.2	16.5	2.6	16	—	6	1	5	3	—	1	—	—	89
North Districts.																	
Marylebone	140,799	1,129	778	32.2	22.2	3.8	133	—	77	13	14	11	1	2	—	15	130
Hampstead	71,652	366	224	20.5	12.5	2.4	43	—	20	—	11	7	—	1	—	4	126
St. Pancras	234,207	1,797	1,230	30.8	21.1	4.0	235	1	134	19	22	41	—	5	—	13	143
Islington	324,451	2,422	1,260	29.9	15.6	3.9	154	1	56	10	28	29	—	4	—	26	122
Hackney	235,370	1,727	902	29.4	15.4	2.3	134	1	38	14	40	25	—	3	—	13	101
Central Districts.																	
St. Giles	39,071	290	198	29.8	20.3	2.5	24	—	10	2	3	5	—	2	—	2	128
St. Martin-in-the-Fields	14,204	65	76	18.3	21.4	0.8	3	—	1	—	—	—	—	—	—	2	108
Strand	24,256	140	156	23.2	25.8	4.3	26	—	19	—	2	4	—	—	—	1	171
Holborn	32,912	238	196	29.0	23.9	3.7	30	—	12	3	3	6	—	1	—	5	130
Clerkenwell	65,432	550	383	33.7	24.2	2.8	42	—	17	3	7	6	—	3	—	6	147
St. Luke	41,850	305	242	43.6	23.2	5.2	33	4	13	3	3	6	—	—	—	4	126
London City	36,692	189	172	20.7	18.8	2.7	25	—	5	4	10	4	—	1	—	1	127
East Districts.																	
Shoreditch	123,683	1,113	639	36.1	20.7	3.3	101	1	42	8	12	13	—	3	1	21	145
Bethnal Green	129,408	1,225	628	38.0	19.5	3.9	127	3	57	12	18	25	—	4	—	8	128
Whitechapel	74,853	861	465	46.1	24.9	4.9	92	—	41	5	14	20	—	1	—	11	139
St. George-in-the-East	45,343	484	318	42.8	28.1	6.9	78	—	34	6	7	14	—	2	—	15	176
Limehouse	57,480	484	340	32.4	23.7	4.6	66	—	30	4	6	21	—	2	—	3	175
Mile End Old Town	107,811	1,074	583	39.9	21.8	4.1	109	—	34	3	23	31	—	2	—	16	128
Poplar	167,857	1,450	787	34.6	18.8	3.4	143	—	70	9	16	30	—	5	—	13	123
South Districts.																	
St. Saviour, Southwark	26,973	214	155	31.8	23.1	2.1	14	—	6	—	1	7	—	—	—	—	163
St. George, Southwark	59,846	538	367	36.1	24.6	4.3	64	—	30	5	5	18	—	1	—	5	147
Newington	116,849	1,039	780	35.7	26.8	5.9	107	15	7	35	—	3	—	4	—	4	153
St. Olave, Southwark	12,787	105	64	33.2	20.1	3.9	8	—	4	—	1	—	—	1	—	—	75
Bermondsey	84,440	793	449	37.7	21.3	3.8	79	—	40	8	4	19	—	3	—	5	145
Rotherhithe	39,459	333	190	33.8	19.3	3.2	31	—	15	—	4	8	—	—	—	4	87
Lambeth	277,917	2,251	1,196	32.5	17.3	2.5	175	1	60	25	29	36	—	5	1	18	111
Battersea	156,313	1,234	600	31.7	15.4	2.9	113	—	51	10	11	27	—	1	—	13	31
Wandsworth	164,003	1,137	558	27.8	13.6	2.6	106	—	52	6	16	19	—	4	1	8	98
Camberwell	241,465	1,866	923	31.0	15.3	2.5	148	1	64	12	17	30	—	6	—	18	118
Greenwich	169,734	1,343	676	31.7	16.0	1.7	70	1	18	9	13	20	1	1	—	7	109
Lewisham	74,673	471	267	25.3	12.7	1.0	19	—	2	1	—	14	1	—	—	—	113
Woolwich	41,376	293	191	28.4	18.5	1.6	16	—	3	2	1	6	—	3	—	1	116
Plumstead	91,704	727	303	31.8	12.8	1.5	35	1	6	10	2	11	—	1	—	4	77

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,471 births and 3,491 deaths were registered during the week ending Saturday, July 16th. The annual rate of mortality in these towns, which had been 17.1 per 1,000 in each of the preceding two weeks, rose to 17.9 during the week under notice. The rates in the several towns ranged from 9.8 in Croydon and in Birkenhead, 10.7 in Brighton, 13.5 in Hull, and 13.6 in Oldham to 19.8 in Halifax, 20.0 in Salford, 21.3 in Blackburn, 21.5 in Liverpool, and 22.6 in West Ham. In the thirty-two provincial towns the mean death-rate was 17.1 per 1,000, and 1.8 below the rate recorded in London, which was 18.9 per 1,000. The 3,491 deaths registered during the week under notice in the thirty-three towns included 598 which were referred to the principal zymotic diseases, against numbers increasing from 477 to 503 in the preceding three weeks; of these, 260 resulted from diarrhœa, 131 from measles, 80 from whooping-cough, 60 from diphtheria, 44 from scarlet fever, 23 from "fever" (principally enteric), and not one from small-pox. These 598 deaths were equal to an annual rate of 3.1 per 1,000; in London the zymotic death-rate was equal to 4.2, while it averaged only 2.2 per 1,000 in the thirty-two provincial towns. No fatal case of any of these diseases was recorded last week in Brighton; in the other towns they caused the lowest death-rates in Hull, Leeds, Derby, and Norwich, and the highest rates in London, Sunderland, Leicester, and West Ham. Measles caused the highest proportional fatality in Birkenhead, Huddersfield, Halifax, West Ham, Oldham, and Sunderland; scarlet fever in Swansea; whooping-cough in West Ham, Nottingham, Preston, Huddersfield, Wolverhampton, Bolton, and Burnley; and diarrhœa in Sheffield, West Ham, Bristol, Preston, London, and Leicester. The mortality from "fever" showed no marked excess in any of the large towns. The 80 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 43 in London, 4 in West Ham, and 3 in Birmingham. No fatal case of small-pox was registered either in London or in any of the large provincial towns; 17 small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 4 in the Highgate Small-pox Hospital, on Saturday last, July 16th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, and in the London Fever Hospital on the same date was 2,488, against numbers increasing from 1,226 to 2,372 on the preceding sixteen Saturdays; 322 new cases were admitted during the week, against 331 and 301 in the previous two weeks. The death-rate from diseases of the respiratory organs in London was equal to 2.1 per 1,000, and was below the average.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, July 16th, 880 births and 480 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 19.3 to 17.6 per 1,000 in the preceding three weeks, further declined to 17.2 during the week under notice, and was 0.7 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 13.2 in Greenock and 14.1 in Edinburgh, and the highest rates 18.3 in Glasgow and 20.1 in Leith. The 480 deaths in these towns included 62 which were referred to the principal zymotic diseases, equal to an annual rate of 2.2 per 1,000, which was 0.9 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Leith and Paisley. The 235 deaths in Glasgow included 9 from measles, 9 from whooping-cough, 6 from scarlet fever, and 4 from diphtheria. Two fatal cases of diphtheria were recorded in Aberdeen. The death-rate from diseases of the respiratory organs in these towns was equal to 2.3 per 1,000, against 2.1 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, July 9th, were equal to an annual rate of 19.7 per 1,000. The lowest rates were recorded in Armagh and Dundalk, and the highest rates in Sligo and Newry. The death-rate from the principal zymotic diseases averaged 3.2 per 1,000. The 146 deaths registered in Dublin were equal to an annual rate of 21.8 per 1,000 (against 27.4 and 24.6 in the preceding two weeks), the rate during the same period being 17.2 in London and 14.8 in Edinburgh. The 146 deaths registered in Dublin included 20 which were referred to the principal zymotic diseases (equal to an annual rate of 3.0 per 1,000), of which 13 resulted from measles, 3 from diarrhœa, 2 from whooping-cough, 1 from diphtheria, and 1 from enteric fever.

OBITUARY.

WILLIAM EDWARD BALKWILL, M.R.C.S.Eng.

WILLIAM EDWARD BALKWILL, a descendant of the well-known George Fox, was associated for over twenty years with the Royal Orthopædic Hospital, of which he was one of the surgeons. A victim in the early part of the present year to a second attack of influenza, he did not allow himself the necessary respite from work fully to re-establish his strength, and succumbed after a few hours' illness on the morning of July 11th.

A skilful operator and devoted to the speciality he had adopted—orthopædic surgery—he has left behind many friends both in England and America who will mourn the loss of an ardent and zealous worker. Snatched away at the early age of 43, in the midst of hard and incessant toil, his life must always remain (happily not unique in the annals of the medical profession) a monument of disregard of self, and an unselfish devotion to the needs of others, and none will miss him more than the poor, whether at the hospital or in his daily round, who always found a sympathetic friend and showed his tender thought for their infirmities, and helped them in their suffering by a cheery word or a genial smile. Mr. Balkwill, who was educated at St. Bartholomew's Hospital, was a member of the British Medical Association, and had looked forward with great interest to taking part in the forthcoming annual meeting at Nottingham, where it was his intention to have given a demonstration on orthopædic apparatus.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS SCHOOL OF SURGERY, IRELAND.—The "Mayne Scholarship" of fifteen pounds has been awarded to Mr. G. Hamilton.

IT is officially announced by the authorities of the St. Petersburg Military Medical Academy that stammering will in future be considered a disqualification in candidates for admission.

THE annual meeting of the Austrian food analysts and microscopic experts will be held this year at Vienna, between October 15th and 20th. The committee entrusted with the preparation of a "Codex Alimentarius" is making progress with its task.

A BREAKFAST will be given at the Exchange Hall, Nottingham, on Wednesday next, when Dr. H. Martyn Clark, of Umritsur, Punjaub, and Dr. Hoernlè will give a short account of medical mission work. Dr. Roberts Thomson will take the chair.

LITERARY INTELLIGENCE.—Drs. Beely and Kirchhoff have published a book on *The Human Foot: its Care and Covering*. The authors, after considering the anatomy and the functions of the human foot, proceed to ask how a "rational" modern shoe should be constructed, and then discuss the "rational stocking."

THE Gesellschaft deutscher Naturforscher und Aerzte will assemble for its 65th meeting on September 11th, in Nuremburg. The business of the Congress will commence on the following morning. Among those who will take part in the Congress and read addresses are Professors von Helmholtz, Ziegler, His, Strümpell, and Hueppe. The Sections will meet on Tuesday and Thursday, the general sessions, at which the addresses are given, being held on Monday, Wednesday, and Friday.

A QUARTERLY court of directors of the Society for the Relief of Widows and Orphans of Medical Men was held on July 13th, Sir James Paget, President, in the chair. Two new members were elected. The deaths of two widows receiving grants were reported. It was resolved to distribute the sum of £1,296 among the fifty-six widows and eighteen orphans now in receipt of grants. No fresh applications for assistance were read. The expenses of the quarter amounted to £51 11s.

WE desire, says the *Citizen*, to honour an act of unselfish devotion to humanity and duty performed by Dr. Jones, of the Earlswood Asylum. A little girl, 6 years of age, named Ethel Sargent, was admitted to the infirmary of the Asylum on Sunday evening, July 10th, suffering from diphtheria. Her condition was so serious that tracheotomy had to be performed. The accumulation of matter threatened the life of the little sufferer, and after being warned by his colleague of the danger, Dr. Jones sucked the tube and relieved the patient.

THE DENTAL HOSPITAL.—On July 15th, at Prince's Hall, a *conversazione* was given in connection with the distribution of prizes to the students of the Dental Hospital. Mr. Morton Smale (Dean of the hospital) read during the evening a very satisfactory report in reference to the progress of the school during the past year. Professor St. George Mivart, having distributed the prizes, briefly addressed those present. He observed that human happiness depended largely upon matters with which the hospital had to deal, for personal goodness was intimately connected with perfect digestion. Dentistry was a very ancient art, having been practised by the early Egyptians. Although it held its own thoughout the

centuries, it was not until some twenty-five years ago that it was recognised as one of the learned professions. In that matter the Dental Hospital had played an important part. A programme of vocal and instrumental music, with other entertainments, occupied the remainder of the evening.

COLOUR BLINDNESS.—Mr. R. Brudenell Carter delivered a lecture at the United Service Institution on July 15th, upon Colour Blindness. The chair was taken by Captain Abney. The lecturer said, with regard to the best way of preventing colour-blind persons from undertaking duties which they could not discharge with safety, that the chief points to be remembered were that colour blindness was a matter of formation, very frequently of inheritance, and that it was absolutely incurable and unalterable. Examinations of some sort or other had now been in operation for several years, both in the Royal and in the mercantile navy, and in the general railway service of the country, but the results had not always been entirely satisfactory. The examination now required of candidates for the Royal Navy left little, if anything, to be desired; but that of the railway companies and of the Board of Trade for the mercantile marine had been very defective. A discussion followed.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.—A meeting of the members of the medical profession in Hampstead and the neighbourhood was held recently at Dr. Bensley's house, 127, Fellows Road, South Hampstead, to establish a division of this Society for the north-western district of London. Dr. Bensley was elected chairman, and briefly sketched the usefulness of such a society, dwelling especially on the advantage of its Central Council being situated in London, where it was in close touch with the large mass of both consultants and general practitioners, whose interests in this matter were identical, both classes being equally exposed to attack. The Central Council had, under their articles of association, very large powers, of which they only retained such as were absolutely necessary to secure the solidity of the Society; all other powers were transferred to the Branch Councils, which were thoroughly representative of their respective districts, including most of the leading members of the profession in these districts. The Central Council had as its president one of the most popular and respected medical men, and the vice-presidents and Council were men of distinction, representing all branches of the profession, and commanding therefore the confidence of both the profession and the public. Dr. Hugh Woods went minutely into details regarding the formation of the Society, its constitution and mode of working, especially the relation of the District Councils to the central authority, and showed the large powers handed over to the District Councils, their autonomy and representative basis, securing justice to every member, and guarding an aggrieved member from the risk of finding himself at the mercy of any one man or clique. The success the Society had met with was remarkable, both as regards the members joining and their position in the profession. Several questions having been answered by Dr. Bensley and Dr. Woods, resolutions were unanimously passed constituting the neighbourhood into a division, to be called the "North-West London Division," and appointing E. C. Bensley, F.R.C.S., L.R.C.P., president; and the following, with power to add to their number, vice-presidents—namely: Dr. Cooper Rose, Dr. Blackstone, Dr. Ford Anderson, and Dr. Norman Kerr; and as members of the Council: Drs. Milson, Pidcock, Aydon Smith, and H. C. Shaw, with Dr. Hugh Woods as honorary secretary *pro tem.*

MEDICAL VACANCIES.

The following vacancies are announced:

ANCOATS HOSPITAL, Manchester.—Senior House-Surgeon; doubly qualified. Salary, £80 per annum, with board and washing. Applications to Alex. Forrest, Honorary Secretary, by July 26th.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £70 per annum, with board, residence, and washing. Applications to C. V. Woodcock, Secretary, by July 27th.

ECCLES AND DISTRICT MEDICAL ASSOCIATION.—Dispenser. Applications to James Ramsdale, 15, Byron Street, Patricroft.

ECCLES AND PATRICROFT HOSPITAL.—House-Surgeon. Salary, £60 per annum, with board and residence. Applications to the Honorary Treasurer, H. J. Reiss, 11, Quay Street, Manchester.

FULHAM UNION.—Assistant Medical Superintendent of the Union infirmary; doubly qualified; unmarried. Salary, £100 per annum, increasing £10 yearly to £130, with board, furnished apartments, attendance and washing. Applications, on forms to be obtained at the Clerk's Office, to T. Aplin Marsh, Clerk to the Guardians, Fulham Palace Road, Hammersmith, by July 23rd.

GENERAL HOSPITAL, Birmingham.—Two Assistant House-Surgeons. Board, residence, and washing provided. Applications to the House Governor by August 1st.

GREAT NORTHERN HOSPITAL, Holloway Road, N.—House-Surgeon. Salary, £50 per annum, with board and lodging. Applications to the Secretary by July 25th.

HORTON INFIRMARY, Banbury.—House-Surgeon and Dispenser. Salary, £80 per annum, with board and lodging. Applications to C. H. Davids, Honorary Secretary, 27, Marlborough Road, Banbury, by July 30th.

LINCOLN ODDFELLOWS' MEDICAL INSTITUTE.—Qualified Assistant. Salary, £120 per annum. Applications to the Secretary, W. Coulson, 12, North Parade, Lincoln, by July 26th.

LIVERPOOL STANLEY HOSPITAL.—Honorary Physician. Applications to the Honorary Secretary, J. E. Bennet, Esq., Meadowcroft, Aintree, by July 30th.

LIVERPOOL STANLEY HOSPITAL.—Honorary Surgeon. Applications to the Honorary Secretary, J. E. Bennet, Esq., Meadowcroft, Aintree, by July 30th.

METROPOLITAN ASYLUMS BOARD.—Clinical Assistant at the Darenth Schools and Pavilions for Imbeciles, near Dartford; doubly qualified. Applications, on forms to be obtained of the Clerk, to T. Duncombe Mann, Clerk to the Board, Norfolk House, Norfolk Street, Strand, W.C., by July 25th.

NORTH BIERLEY UNION.—District Medical Officer. Salary, £25 per annum, with extra fees for midwifery and surgical operations; will also be appointed Public Vaccinator. Applications, endorsed "Medical Officer No. 4 District," to N. W. Wright, Clerk, Union Offices, 52, Leeds Road, Bradford, by July 26th.

PHARMACEUTICAL SOCIETY OF IRELAND.—Examiner in Practical Pharmacy; to hold office for one year, but eligible for re-election annually for four additional years. Applications to Arthur Ferrall, Registrar, 67, Lower Mount Street, Dublin. Election on August 3rd.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL, 137, Queen Street, Gosport.—Assistant House-Surgeon; appointment for six months. Board, residence, and washing provided, and honorarium of £15 15s. at expiration of term of office. Applications to J. A. Byerley, Secretary, by July 28th.

ROYAL SEA-BATHING INFIRMARY FOR SCROFULA, Margate.—Resident Surgeon, doubly qualified. Salary, £100 per annum, with board and residence. Applications to the Secretary, Arthur Peirce, at the Offices, 30, Charing Cross, S.W., by July 27th.

ST. LUKE'S HOSPITAL.—Resident Clinical Assistant. Appointment for six months. Board and residence provided. Applications to the Secretary by July 28th.

SHEFFIELD GENERAL INFIRMARY.—Assistant House-Surgeon, doubly qualified. Salary, £80 per annum, with board, lodging, and washing. Applications to the Medical Staff, care of the Secretary, by July 23rd.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Senior Assistant House-Surgeon. Salary, £85 per annum, with board, lodging, and washing. Applications to the Honorary Secretary of the Medical Staff by July 25th.

VICTORIA INFIRMARY OF GLASGOW, 22, Carlton Place, Glasgow.—Superintendent and Resident Medical Officer. Salary, £150 per annum, with apartments and board. Applications to the Secretary by July 23rd.

WEST KENT GENERAL HOSPITAL, Maidstone.—House-Surgeon; unmarried. Salary, £150 per annum, with furnished apartments, coals, gas, and attendance. Applications to J. Spooner Hardy, Secretary, by July 28th.

MEDICAL APPOINTMENTS.

ANDREW, Albert, M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Glossop District of the Glossop Union, *vice* W. H. Hunt, deceased.

BANNATYNE, Gilbert A., M.D.Glas., appointed Honorary Medical Officer to the Bath Royal United Hospital.

BENSON, Annette M., M.B., B.Sc.Lond., appointed Resident Medical Officer to the Victoria Hospital for Children, Hull.

BELL, Dr., appointed Medical Officer for the Shaldon District of the Newton Union, *vice* H. F. Corbould, L.R.C.P.Lond., deceased.

CAUDWELL, Henry, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer to the No. 2 District of the Woodstock Union, *vice* George Frederick Welsford, M.B., M.R.C.S.Eng., resigned.

COLLINGS, Edward B., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer to the Workhouse of the Barnsley Union, *vice* J. Fletcher Horne, M.D.St. And., resigned.

EVANS, A. Ernest, M.B., C.M.Glas., appointed House-Physician to the City of London Chest Hospital.

FOOT, Ernest George, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the No. 4 District of the Petworth Union.

FULLER, John R., M.R.C.S., L.R.C.P.Lond., appointed Senior Resident Medical Officer to the Birmingham Children's Hospital.

GRAMSHAW, James Henry, M.D.St. And., F.R.C.S.Eng., reappointed Medical Officer of Health for Gravesend.

GREEN, A., M.B.Lond., L.R.C.P., M.R.C.S., appointed Surgeon to the Chesterfield and North-East Derbyshire Hospital.

HARRIS, Alfred E., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for the Parish of Islington, *vice* C. Meymott Tidy, M.B., C.M. Aber., deceased.

HILL, Walter J., M.R.C.S., L.R.C.P.Lond., appointed House-Surgeon to the Bristol Royal Infirmary.

HIRST, Walter, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glas., appointed Assistant Medical Officer of the Workhouse, Infirmary, and Schools of the Leeds Union, *vice* Samson Geo. Moore, M.B., resigned.

HUNTER, Edwin John, L.R.C.P.Edin., L.M., L.F.P.S.Glas., reappointed Medical Officer of Health to the Gosport and Alverstoke Local Board.

MCDONNELL, Michael Sweeny, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the First District of the Southampton Incorporation.

MARCH, Geoffrey Colley, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Gosforth District of the Whitehaven Union.

NASH, Mr. C., appointed District Medical Officer and Medical Officer to the Workhouse of the Catherington Union.

NINNIS, Belgrave, Deputy Surgeon-General, M.D., appointed Principal Medical Officer at Melville Naval Hospital, Chatham, *vice* Deputy Inspector-General T. S. Burnett.

ORMEROD, Henry Lawrence, M.R.C.S., L.R.C.P., appointed House-Physician to the Bristol Royal Infirmary.

RAINY, Harry, M.A., M.B., C.M.Edin., appointed Resident Medical Officer to the Chalmers Hospital, Edinburgh, *vice* R. P. Mackenzie, M.B.

RENTON, George, M.D.Edin., reappointed Medical Officer of Health to the Consett Local Board.

RICHARDSON, G. Q., L.R.C.P., L.R.C.S.Irel., appointed Junior Resident Medical Officer to the Birmingham Children's Hospital.

SAUNDBY, Robert, M.D.Edin., F.R.C.P.Lond., appointed Professor of Medicine in the Queen's Faculty of Medicine, Mason College, Birmingham, *vice* Sir Walter Foster.

SIXSMITH, Dr., appointed *pro tem.* Medical Officer for the Leekfrith District of the Leek Union, *vice* John A. Gailey, M.D.Edin., deceased.

SMITH, Priestley, M.R.C.S.Eng., appointed Lecturer on Ophthalmology at Mason College, Birmingham.

STREETEN, Friend Edward, L.R.C.P., L.M.Edin., M.R.C.S.Eng., appointed Medical Officer of Health to the Rural Sanitary District of the Faringdon Union.

SUTHERLAND, John Russell, L.R.C.S.Edin., L.S.A., reappointed Medical Officer of Health of the Southern Division of the Houghton-le-Spring Rural Sanitary Authority.

WATSON, J., M.B.Durh., F.R.C.S.Edin., L.R.C.P.Lond., appointed House-Physician to the Wolverhampton and Staffordshire General Hospital.

WETHERELL, J. A., M.D., C.M.Edin., appointed Resident Medical Officer and Government Resident at Wyndham, Western Australia.

WILLEY, Charles Henry, M.D., B.Sc.Edin., M.R.C.S., appointed Honorary Medical Officer to the Children's Hospital, Sheffield.

WILLIAMS, Thomas O., L.R.C.P., L.R.C.S.Irel., appointed Medical Officer for the Third Anglesey District of the Bangor and Beaumaris Union.

WILSON, Arthur H., M.R.C.S., appointed Honorary Surgeon to the Liverpool Northern Hospital, *vice* George Gibson Hamilton, F.R.C.S. Ed., resigned.

VERNON, Mr. H., appointed Assistant Medical Superintendent to the Paddington Infirmary.

DIARY FOR NEXT WEEK.

MONDAY.

NATIONAL ORTHOPÆDIC HOSPITAL, Great Portland Street, 5 P.M.—Mr. A H. Tubby: On Rickets.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

MARRIAGES.

COLE-BAKER—LYSTER.—On July 13th, at St. Peter's Church, Dublin, G. Cole-Baker, M.B., Assistant Master, Coombe Hospital, 28, Lower Baggot Street, to Florence, widow of the late Philip T. Lyster, R.N.

KELLETT—BARCLAY.—On July 14th, at Moseley, by the Rev. F. Kellett, father of the bridegroom, assisted by the Rev. W. Wilson, of Manchester, Alfred F. Kellett, M.B., B.S.Cantab., of Lewisham Road, Lewisham, S.E., to Margaret Eleanor (Nellie), second daughter of Thomas Barclay, of Arncliffe, Moseley, Birmingham.

PRICE—PLAYFAIR.—On July 16th, at St. Thomas's Church, Regent Street, by the Rev. Philip T. Bainbrigge, Vicar, assisted by the Rev. Charles Stuart Playfair, cousin of the bride, William Arthur Price, eldest son of the Rev. the Master of Pembroke College, Oxford, to Edith Octavia, eldest daughter of W. S. Playfair, M.D., LL.D., of 31, George Street, Hanover Square.

THORNTON—CLIVE.—On July 18th, at St. Mark's, North Audley Street, by the Hon. and Rev. Canon Bridgeman, uncle of the bride, assisted by the Right Rev. the Lord Bishop of Ripon and the Hon. and Very Rev. the Dean of Hereford, John Knowsley Thornton, of 22, Portman Street and Hildersham Hall, Cambridge, to the Hon. Mary Agnes Windsor Clive, youngest sister of Lord Windsor.

DEATHS.

GAILEY.—On July 13th, at Stockwell Street, Leek, Staffordshire, John Alexander Gailey, M.D., in his 40th year. No cards.

HASSARD.—On July 2nd, suddenly, at Southsea, Henry Bolton Hassard, C.B., Surgeon-General (retired) Medical Staff, aged 63 years.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. Th., 2.30.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, Tu. Th., 2.30; Ear, M. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—Tu. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30, and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, Tu., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, W., 8.45; females, Th., 8.45. *Operation Day.*—Tu., 2.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 2.30 and 5, Th., 2, F. (Women and Children), 2, S., 3.30. *Operation Day.*—W., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), Tu., 4, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th., 1.30; S., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

MR. HENRY A. LOWNDS (Doncaster) asks as to the best form of medical bookkeeping, and where the books may be obtained.

JUVENIS asks where a gynæcological couch suited for the dorsal position, but which could be used for the lateral and also for abdominal examination, could be procured; and what would be the price?

M.D. (Medical Institute, Birmingham) wishes to know whether there is an opening for practice in Los Angelos or its neighbourhood, and whether he could practise without obtaining an American diploma. He would be glad to communicate with anyone who knows that part of the country.

B. P. asks whether or not a medical man's carriage used for professional purposes is subject to a carriage tax.

*** Yes; all carriages are subject to carriage tax except those belonging to persons who let out carriages for hire.

PRACTICE IN MEXICO.

M.B. asks for information as to the regulations concerning practice of an Englishman in Mexico, details as to fees for examinations, and whether an English degree is registrable without further examinations.

SANITARY LAW.

CANDIDATE asks for a complete list of the Sanitary Acts required for the various D.P.H. examinations, and also particulars of where a suitable work dealing with sanitary law up to date can be obtained. Is there any reliable work dealing with "trades nuisances?"

*** For Sanitary Acts see Reid's, Whitelegge's, or Wilson's manual. A thorough knowledge of the Public Health Act (London) of 1891 will now probably be required. For trade nuisances see Stevenson and Murphy's *Treatise on Hygiene*, vol. i, or Ballard's Reports to the Local Government Board.

ANSWERS.

Y. Z.—We understand that the railway companies will not make any special reductions on the ordinary fares.

IF Dr. Worswick can suggest an improved programme, either in our pages or before his Branch, we shall be very happy to give the fullest publicity to his proposals.

JUVENIS.—Dr. Pozzi's book on gynæcology is published by G. Masson, Paris, and can be obtained through any foreign bookseller, for example: Williams and Norgate, David Nutt, or Luzac and Co.

INQUIRER.—The proper course would be to make complaint to the Local Government Board; but, so far from regarding the communication as confidential, the Board would at once send a copy to the Town Council.

PUTORNIS.—The only complete work on Dermatology in Italian is we believe the treatise by Profeta, rather voluminous and somewhat defective in pathology and histology, but otherwise excellent. Translations of the standard German works on dermatology are largely read in Italy, the annotated translation of Neumann's book by De Amicis being much used.

BOOKS ON HYGIENE.

A COUNTRY M.O.H. had better look through the following smaller handbooks and decide which is best suited to his requirements: Whitelegge's *Hygiene and Public Health*, Louis Parkes's *Hygiene and Public Health*, Reid's *Practical Sanitation*, and Wilson's *Hygiene*.

CERVICAL RIBS.

THALIA will find a short account of cervical ribs in Treves's *Surgical Applied Anatomy*, p. 147, ed. 1890; the *Medical Digest* of Dr. Richard Neale also gives references, and there is a figure of cervical ribs in Quain's *Anatomy*.

ADVERTISEMENTS OF VACANT APPOINTMENTS.

SPECTATOR.—When an advertisement of a vacant situation is published, no promise of getting it is usually held out to any particular applicant. The advertiser as a rule leaves himself quite free to reject them all. Those passed over no doubt often feel aggrieved, but they have no legal claim for compensation. In the particular case now in question it does not seem probable that the applicants can have any claim against the authorities who issued the advertisement, though they certainly seem to have been treated with scant consideration.

MENSTRUATION DURING PREGNANCY.

MR. W. ERNEST F. THOMSON, M.B. (Glasgow), writes: I am much obliged to Dr. S. P. Thomson for his offer to send me particulars of his case of menstruation during pregnancy; I shall be very glad if he will write to me. Further, as recent statistics of these cases may prove of interest, I should be very pleased if other practitioners having cases of partial or complete menstruation during pregnancy which they have not recorded, would send the particulars to me, giving, if they do not object to do so, the number of cases they have attended where menstruation was entirely absent.

THE PATENTING OF PRESCRIPTIONS.

A CORRESPONDENT has recently inquired whether it would be proper for him to patent a certain mode of applying remedies. So far as we are aware there is no decision of any medical corporation upon this point; but we have little hesitation in saying that to adopt such a course would be inconsistent with the best traditions of the profession. The general medical opinion has always condemned, and it is to be hoped will always continue to condemn, any course of conduct which would tend to convert the practice of medicine into a trade. As to the impropriety of making gain from the use or sale of a secret remedy, there is, of course, no room for doubt. We may, however, point out that By-law cixviii of The Royal College of Physicians of London is as follows: "No Fellow, Member, or Licentiate of the College shall refuse to make known, when so required by the President and Censors, the nature and composition of any remedy he uses." The College has also expressed the opinion that it is undesirable that any Fellow or Member should be officially connected with any company having for its object the treatment of disease for profit.

SANITATION IN THE MERCANTILE MARINE.

SANITATION.—The Merchant Shipping Act of 1867 is practically the Health Act of the Merchant Service. By Section 5, Merchant Shipping Act, 1872, the powers and duties of the Emigration Commissioners under the Passenger Act of 1855 and the Passenger Act Amendment Act of 1863 were transferred to the Board of Trade; but these provisions only affect passenger ships. By the Merchant Shipping Act of 1876 power was given to the Board of Trade to modify the Passenger Act as to food, space, and accommodation under certain circumstances. With regard to removal of nuisances on board ship and the prevention of infectious diseases, a ship in port (or within three miles of the shore) is regarded by the Public Health Act, 1875, and the Public Health (Scotland) Act, 1867, as a house, and the master of the ship as the occupier; and Sections 287 *et seq.* of the former Act arrange for the constitution of port sanitary authorities. There are also certain orders and regulations issued by the Local Government Board dealing with cholera and its prevention, and the importation of rags, drawn under Section 52 of the Sanitary Act, 1866, and Section 130 of the Public Health Act, 1875. The Merchant Shipping Act of 1892 requires an inspection of food supplied for all ships passing through the Suez Canal or round the Cape of Good Hope or Cape Horn.

NOTES, LETTERS, ETC.

AN APPEAL.

WE venture to appeal to the readers of the BRITISH MEDICAL JOURNAL on behalf of the widow of a medical man in bad health and in very straitened circumstances from causes over which she had no control. Any contributions sent to us will be thankfully acknowledged, and further particulars of the case given if required.—CHARLES G. SKINNER, M.D., Harpurhey, Manchester; W. E. HUSBAND, M.R.C.S.Eng., L.R.C.P. Lond., 56, Bury New Road, Manchester; ARTHUR E. DURHAM, 82, Brook Street, London, W.

DR. OWEN REES.

MR. ARTHUR STRADLING, M.R.C.S. (Watford), writes: In the BRITISH MEDICAL JOURNAL of May 28th you published a letter of mine setting forth certain propositions anent the late Dr. Owen Rees's hat. Dr. Wilks, finding the declaration therein contained irreconcileable with a retrospect of his past experience of his colleague, not perhaps unnaturally labelled my narrative a "good story," and intimated as much in the BRITISH MEDICAL JOURNAL of July 2nd. But since that date he and I have held conference together: and I have his permission to say that, having discovered my knowledge of and acquaintance with Dr. Owen Rees to be considerably more intimate than he had suspected, he now accepts the history of the hat in the good faith with which it was recorded.

MEDICAL AID ASSOCIATIONS.

ANOTHER SUFFERER writes: I can fully endorse all your correspondent "One of Them" says about the above-named associations, and can myself speak with some authority on the subject, having acted as medical officer to one of the so-called friendly societies' medical aid associations for about six months, at the end of which time I threw up the appointment in disgust. The subscription, entitling a man, his wife, and all members of his family under 16 years of age to professional attendance and medicines was 2s. 6d. a quarter, and it was surprising to me the number of exceedingly well-to-do individuals I had to attend for that sum—people, judging from their surroundings and the manner in which they lived, perfectly able to pay the usual fees for medical advice. I will say nothing about being kept "on the trot" from morning till night attending to ailments of an absurdly trivial nature. (I was once called up at night to see a woman two miles from the house who had got the toothache.) But I did object to have to pull teeth out at 3d. a time from the jaws of those quite in a position to pay 2s. 6d. to the dentist.

TETANUS DUE TO PUNCTURE OF HYPODERMIC NEEDLES.

DR. RICHARD NEALE (South Hampstead, N.W.) writes: Several cases similar to that reported by Mr. Cecil Osborne at page 75 are recorded in Section 1323, 1 and 2 of the *Medical Digest*.

"STATISTICS OF THE CLAPHAM MATERNITY."

DR. ANNIE MCCALL (Clapham Maternity Hospital, London, S.W.) writes: A correspondent recently implied inaccuracy in the keeping of our records. I can only say the books of the Maternity, which have been kept since it was begun in 1885, are open to the inspection of any properly-constituted authority. Further, no patient has been passed into other hands when death has been likely to supervene, and so escaped record; and the cases have been in no sense selected, and have comprised 102 forceps extractions (to the head within the pelvis), 9 cases of forceps at the brim, 16 versions, 42 extractions, 146 removals of retained placenta or membranes, 12 cases of adherent placenta, 32 cases of *post-partum* hæmorrhage, 10 cases of accidental hæmorrhage and 13 cases of placenta prævia, 7 cases of mammary abscess, 5 of puerperal insanity, 3 of eclampsia, 10 of septicæmia, and 2 of pulmonary embolism. Personally I ascribe the comparative immunity from death in our work to extreme care in the use of antiseptics.

"ELECTRICAL RESISTANCE OF THE URINE."

DR. DAWSON TURNER (Edinburgh) writes: Would you allow me to correct one or two errors which have crept into your Edinburgh correspondent's report of my paper. The resistance of a urine depends mainly upon the salts, and scarcely at all upon the urea. It cannot therefore be used to determine the amount of urea, but it enables us to form a remarkably rapid and sufficiently accurate estimate of the salts (chlorides, phosphates, sulphates, etc.). Further, even in diseases in which the kidneys are not implicated, it appears to me closely to follow the variations in a patient's condition and to afford information of a valuable kind, which we could not otherwise easily obtain. The lower the electrical resistance the healthier *ceteris paribus* will be the state of the kidneys, but there are other conditions upon which I cannot enter in this letter, which must also be taken into account.

ANIMAL VACCINE.

MR. F. J. REBMAN (Agent for Dr. Pissin) writes: In the BRITISH MEDICAL JOURNAL of July 2nd an advertisement, headed "Caution," was published by Dr. Warlomont, warning against an "animal vaccine prepared on the Continent in accordance with the invention the subject of this patent (No. 4,623) and imported in this country."

As an advertisement of this sort might mislead many who have used the lymph prepared at the institute of Dr. Pissin, of Berlin, and introduced by me in this country, I deem it but just and fair to ask you to kindly give space to the following data in your JOURNAL.

This "Caution" cannot refer to Dr. Pissin's "Selected Animal Lymph" for the following reason: Dr. Warlomont's patent is dated September 28th, 1882. Dr. Pissin's "special preparation" was first made in August, 1881, and was published in No. 44 (1881) of the *Berliner klinische Wochenschrift*. The priority of the invention is proved from the following sources, namely: (1) From the Inaugural Dissertation by Dr. Leiner, published in *Eulleuberg's Vierteljahrschrift*, N. F., 1882, vol. xxxvi. part ii. (2) From the Report of the French Ambassador, Baron de Courcel, at Berlin, to the President of the French Republic, published in the *Journal d'Hygiène de Paris*, No. 310, August 31st, 1882. (3) From the *Traité de la Vaccine*, by Dr. Warlomont himself (Paris: Baillière et Fils. 1883), *vide* pp. 243, 254, 255. (4) From an article written by Dr. Pissin and published in the *Berlin. klin. Woch.*, 1884, No. 34, under the title of "On Some Controversies Relating to Animal Vaccination," in which he claims for himself priority in this matter.

May this suffice to correct the wrong impression which, intentionally or otherwise, has been conveyed by the insertion referred to, and may I be permitted here to state that Dr. Pissin's animal lymph is extensively used by the German War Department and exclusively employed by the Royal Family at Berlin.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) A. B.; Army Medical Staff; Messrs. Arnold and Son, London; Mr. A. Ambrose, London; Dr. E. Anderson, Paris; Another of 'em; Mr. G. W. Adams, Ashbourne. (B) Bombay; Dr. T. J. Bennen, Austin, Texas; Bootle Borough Hospital, Secretary of the, Bootle; Bristol Hospital for Sick Children, Secretary of the, Bristol; Mr. J. O. Wakelin Barratt, Birmingham; Dr. J. O. B. Brookhouse, Nottingham; Mr. Blackett, London; Dr. G. A. Bannatyne, Bath; Brigade-Surgeon (retired); Dr. Fletcher Beach, Dartford; Mr. A. H. Boissier, Banbury; Mr. James Bellairs, Leicester; Mr. R. C. Buist, Dundee; Mr. T. Batt, Derby; Dr. E. Berdoe, London; Mr. J. Bourne, Stourport. (C) Mr. E. Crutchloe, London; Dr. G. Cole-Baker, Dublin; Dr. Cagney, London; Mr. T. Chesterton, London; Mr. F. G. Cory, Bournemouth; Surgeon-General W. R. Cornish, London; Dr. J. B. Curgenven, Ryde; Sir Thomas Crawford, Blackheath; Mr. E. R. Haines Cory, Buckhurst Hill. (D) Mr. Percy Dunn, London; D. F. Dymott, M.B., Madras; Dental Hospital of London, Secretary of the, London; Deo Data; Dr. Horace Dobell, Parkstone; Mr. A. Doran, London; Messrs. F. A. Davis and Co., London; Mr. C. J. Drummond, London; Dr. T. O. Dudfield, London. (E) A. E. Evans, M.B., London; Dr. Eklund, Stockholm; Edina; Dr. A. W. Edis, London. (F) Dr. D. Ferrier, London; Dr. H. B. Fletcher, Dronfield; Mr. R. W. Frazer, London; Mr. Ernest C. Franke, London. (G) Messrs. C. Griffin and Co., London; Mr. J. B. Gabe, Morriston; G. H. (Madras); God Helps Those Who Help Themselves; Dr. Major Greenwood, London; Mr. R. J. George, Port Isaac; Dr. G. W. Grabham, Bradford; Mr. A. Greenwood, London; Dr. C. E. Glascott, Manchester. (H) Dr. L. Henry, Brunswick, Victoria; Hopeful; Dr. W. H. Hamer, London; Dr. Handford, Nottingham; Dr. Hacon, Christchurch, N. Z.; Dr. T. De H. Hall, London; Mr. T. Rowland Humphreys, London; Mr. John P. Harold, London; Dr. Herman, London; Hamilton Association for providing Trained Male Nurses, Secretary of the, London; Mr. J. D. Harris, Exeter. (I) Income Tax Repayment Agency, London; Dr. C. R. Illingworth, Accrington. (J) Mr. C. A. James, London; Mr. W. B. James, New York; Juvenis; Mr. R. S. Jaques, Stoke-on-Trent; Dr. H. R. Jones, Liverpool; Mr. R. T. Jones, Harlech. (K) Dr. E. Klein, London; Miss E. Kirby, Tottenham; Mr. E. C. Kingdon, Nottingham; Mr. J. H. Keay, Colne. (L) Mr. H. A. Lownds, Doncaster; C. H. Leaf, M.B.; Hyderabad; London and Counties Protection Society, Secretary of the, London; Mr. C. S. Loch, London; Mr. J. B. Lawford, London; Liverpool Stanley Hospital, Secretary of the, Liverpool; Mr. A. Lund, London; Mr. C. R. Lake, Barnes; Dr. Lloyd, Barmouth; Dr. C. J. Lewis, Stirling; Mr. D. Legge, Smethwick, Birmingham. (M) Mr. H. Macleod, Clifton; M.B.; Dr. P. Manson, London; Messrs. S. Marshall and Co., Denton, near Manchester; Surgeon-Major R. Macrae, London; Messrs. McKeever, Livesey and Co., Carlisle; Dr. P. W. MacDonald, Dorchester; Mr. C. A. Morton, Bristol; Dr. McBride, Edinburgh; Mr. W. L. Mugliston, Derby; Mr. W. P. McEldowney, London; Mr. M. Morris, Dublin; Dr. Keith Macdonald, Skye; Mr. C. E. F. Mouat-Biggs, Cheltenham. (N) Dr. Richard Neale, London; Nemo. (O) Mr. H. L. Ormerod, Bristol. (P) Mr. E. C. Price, London; Paddy Abroad; Mr. F. M. Pope, Leicester; Mr. W. F. Purvis, Paris; Mr. H. McD. Phillpotts, Ealing; Mr. Charles E. Paget, Manchester; Mr. D'Arcy Power, London. (Q) Sir Richard Quain, London. (R) Royal Surgeon; Mr. J. T. Robinson, Arundel; Mr. F. J. Rebman, London; Deputy Surgeon-General M. Ringer, Cheltenham; Dr. T. L. Rogers, Eltham; Dr. W. B. Ransom, Nottingham. (S) Dr. N. Senn, Chicago; Mr. R. Saunderson, Edenderry; Mr. C. S. Sherrington, London; Mr. A. Stradling, Watford; Mrs. M. G. Serjeant, Echuca, Victoria; Surgeon-Major; Mr. R. R. Sleman, London; Dr. A. Sheen, Cardiff; Dr. R. Saundby, Birmingham; Mr. W. R. H. Stewart, London; Mr. W. J. Spence, Leicester; Dr. A. Smart, Edinburgh; Mr. G. S. Sinclair, Esk; Dr. R. H. Savage, London; Messrs. Harold Smith and Gorringe, London; Mr. C. Skinner, Manchester; Mr. J. H. Stacy, Norwich; Mr. W. Storr, London. (T) Dr. G. Thin, London; Mr. W. E. T. Thomson, Glasgow; Dr. G. L. Tuthill, Port Law; Dr. D. F. D. Turner, Edinburgh; Mr. B. Dutton Toplin, Shrewsbury; T. Z.; Dr. St. Clair Thomson, St. Moritz; Dr. J. C. Thresh, Chelmsford. (U) Dr. Usher, London. (V) Victim; Verax. (W) Mr. A. H. Ward, London; Mr. C. O. Woodcock, Bradford; Mr. W. Roger Williams, Preston; Dr. G. Sims Woodhead, London; Mr. A. A. Wright, Enfield; Dr. A. Whitelegge, Wakefield; Mr. E. Whiteside, Hanley; W. F. B.; Mr. J. Watson, Dudley; Mr. A. H. Wilson; Liverpool; Mr. T. F. Wale, Chesterfield; Miss L. Wood, Hull; Dr. J. Wallace, Greenock; etc.

BOOKS, ETC., RECEIVED.

Digestion and Diet. By Thomas Dutton, M.D. London: Henry Kimpton. 1892.

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PRESIDENT'S ADDRESS,

DELIVERED AT THE

SIXTIETH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION,

BY

JOSEPH WHITE, F.R.C.S.EDIN.,

Consulting Surgeon to the Nottingham General Hospital.

DEVELOPMENT OF THE WORK OF THE BRITISH MEDICAL ASSOCIATION AND OF BRITISH MEDICINE AND SURGERY SINCE THE LAST NOTTINGHAM MEETING.

Nottingham: its Geological Position: its Drainage and Water Supply.—Old Nottingham: its Extension: Sanitary Administration.—The Meeting of the British Medical Association in Nottingham in 1857.—The Position and Work of the Association Then and Now.—The Advances in Surgery and in Medicine.—The Association and the Study of Public Health Questions.—The Present Status of the Association.

MY personal duty to-night is a very pleasant and a very grateful one. It is to express to you my sense of the honour you have conferred upon me in asking me to preside over this great meeting of this great Association. Though attended with an almost overwhelming sense of its responsibility (in which, however, I know that I shall receive your kind indulgence), I feel that no greater honour, or one more acceptable, could be conferred upon a medical man than such a request at the hands of his professional brethren; and I do indeed thank you most cordially for it. But my still more grateful office is to offer to you, in the name of the Midland Branch of the Association, in the name of the town of Nottingham, and in my own a most hearty welcome to this our place of meeting, and to hope that the next few days may be spent pleasantly and profitably amongst us.

It has, I believe, been a time-honoured custom, and one which I think we do well to follow, that your President should lay before you some brief reference to the place in which you meet, but in this respect I will not detain you long.

Nottingham, I need not say, is an old town, and for a manufacturing town I think you will find it fairly clean (I hope I may say very clean), in some parts rather picturesque, not overburdened with smoke, and not an unhealthy one.

Geologically the town is most favourably placed, especially as regards its salubrity and those points which are of main interest to such an Association as ours. The eastern and south-eastern borders of the county, as we leave the neighbouring counties of Lincoln and Leicester, are principally occupied by the lias; but as we approach the town, the valley of the Trent and the uplands to the west of it are for the most part composed of the new red sandstone rock, and this sandstone rock is succeeded by the newer magnesian or conglomerate limestone, which crops out a short distance to the north of Nottingham. To the west of the magnesian limestone occurs the great coalfield of the district—a portion of that immense tract of coal which extends over so large a part of Derbyshire and the south of Yorkshire, and of which the south-eastern angle comes close to the town of Nottingham. The great rock of the southern portion of the county (the new red sandstone) is fine grained and of a soft texture, and is therefore too perishable for architectural purposes; but from its porous character, and consequent freedom from moisture, it forms one of the most desirable substrata on which a town could be built. From its softness it is easily excavated, and in the neighbourhood of the town there still exist many remains of ancient and extensive cuttings; and in illustration of its firmness and its dryness I may refer to the condition of the numerous underground passages which underlie the town in various directions and which have existed from time immemorial. Its cliffs or sections also have a remarkably uniform appearance, and from their colour tend in a considerable degree to give a warm and agreeable effect to the surrounding scenery, and partake of that pleasantly varying character of hill and dale which is so frequently found in some of the lower members of the triassic group.

It is on a portion of this same sandstone rock, and in a situation above others most desirable, that Nottingham stands. The surface of the surrounding country also is generally undulating, and a range of hills of moderate elevation extends in a southerly direction, from the borders of Yorkshire, through the old forest of Sherwood, terminating about half a mile from the north bank of the Trent in a boldly-elevated rock; and on the southern and western slopes of this rock the town has been built. Placed in the centre of England, enjoying the many advantages of a southerly aspect, sheltered on the north and north-east by the hills of the forest and of Mapperley, it is seldom that we find in any county so favourable a situation for a large and important town.

The natural facilities for drainage are uncommonly good, the greater part of the town standing on an inclined plane, which rises nearly 200 feet in little more than a mile, and falling directly towards the valley of the Trent. Nottingham is sewered and drained on the "single" system, that is, there is no considerable separation of surface water from sewage; and by the very favourable incline of surface which I have mentioned the drainage of the more elevated portion of the town is carried by simple gravitation through numerous tributary sewers to a main trunk sewer, which runs on the lowest level on the north bank of the river. Into this main sewer the drainage from the lower portion of the town is pumped, and the combined drainage is conveyed to a sewage farm of about 1,000 acres in extent at Burton Joyce, about six miles to the south-east of the borough.

The water supply, which, with the supply of gas, is under the control of the Corporation, is of good quality and abundant. It is chiefly obtained from deep wells sunk in the new red sandstone rock, which, from its porous character and from its almost perfect freedom from metallic contamination, forms an excellent natural filter. From these sources the water is pumped into reservoirs at a considerable elevation, from which a constant supply is kept up night and day, even in the highest parts of the town.

I have said that Nottingham is an old town: and so it is, for its history extends back for more than 1,000 years. But I must stand corrected, inasmuch as within the last fifty years the greater portion of that which you now see has come into existence, and in that time it has more than quintupled its area, and by more than three times multiplied its population. So recently as 1846 the inhabited area of the old town was but 280 acres, with a population of between 55,000 and 56,000, but it was then peculiarly circumstanced. It was surrounded by a belt of commonable land, which by the special condition of its tenure could not be built upon, and the consequences (especially in the poorer districts of the town) were natural.

A considerable number of good houses, most of which have since been converted into places of business, remained—and many of these had a fair amount of garden ground attached to them—but for many years the impossibility of obtaining land for building in the immediate neighbourhood had caused compression within the narrowest limits in which such a population could be contained. As the number of inhabitants increased, every available spot was occupied, building and interbuilding were carried to the utmost extent practicable, and at a time when Nottingham, through manufacturing prosperity, would have expanded into the surrounding open country, the impossibility of obtaining land had forced the speculators in building into the most mischievous contrivances for heaping houses upon each other, so as to amass the greatest number of dwellings upon the narrowest space. It was not surprising therefore that masses of houses of the most ill-constructed and unhealthy kind should at last have occupied almost every part of the poorer districts. The population still increased, a season of commercial prosperity was succeeded by a long period of extreme depression, and families which had occupied the smaller dwellings were compelled to live in single rooms—and numerous families thus frequently occupying the same house, the undue crowding of buildings was followed by a still greater crowding of indi-

viduals—means of cleanliness were placed beyond their reach, and the result was speedily manifested in the neglected abodes of poverty and disease which, in the early part of this century produced so great an amount of mortality in most of the crowded districts of Nottingham.

But at the period I have alluded to (about the years 1846 and 1847) Acts of Parliament were obtained for the enclosure of that belt of commonable land which then surrounded and compressed the town, and the effect was immediate and remarkable. An area of nearly 2,000 acres was at once available for the purposes of building, and houses, many of a very superior class, were soon in course of erection; and many miles of new roads were speedily constructed. An arboretum and other recreation grounds, to the extent of 144 acres, were reserved, and have been appropriated to the use of the inhabitants in the most advantageous situations, and these have been supplemented by planted walks of considerable extent; and there has recently been constructed a boulevard road of more than 3¼ miles in length and of a uniform width of 60 feet, which surrounds the greater portion of the town. A large unhealthy area in the centre of the town has been destroyed, and is now being prepared for buildings of a superior class, and it is expected that the demolition of other similar unhealthy areas will follow.

By successive Acts of Parliament, powers have been obtained by which all new buildings are subjected to official supervision and control, and their sanitary requirements enforced, and compulsory notification of cases of infectious disease has for some years been adopted, with little or no difficulty.

Under the direction of a careful and painstaking Health Committee of the Town Council, and by the assistance and advice of most excellent medical officers of health, the sanitary condition of the town has been kept in a state of high efficiency, and on July 11th, 1891, there was opened at Bagthorpe, within the limits of the borough, a new hospital for infectious diseases provided with every modern arrangement and appliance.

These efforts at improved sanitation have not been without their effects. In 1850, when the town first began to expand, its death-rate was nearly 28 per 1,000, and the mean age at death was for the whole population 23.2 years; and as an illustration of the effects of overcrowding and its accompanying insanitary conditions, the mean age at death in some of the most densely populated districts was but 18.8, whilst in the more open parts the average duration of life was nearly 30 years. From that time the death-rate has steadily diminished; and whilst for the five years ending 1860 the average mortality was 27.2 per 1,000, for the five years ending 1890 the average mortality has been but 17.9, being the third lowest of the twenty-seven largest towns in England.

It was during the early period of this development of the new town that we had the pleasure, thirty-five years ago, of receiving the members of the British Medical Association in Nottingham; and as I then had the honour of acting as its Secretary—and thus experienced some of the anxieties and difficulties, as well as many of the pleasures and advantages, of that meeting—one's mind naturally reverts to the incidents of the time, and mentally compares the position of the Association then and now.

Our meeting in 1857 was a very small one as compared with the magnitude of the present congress. I think we then mustered some eighty or ninety members, but I have often looked back to it with interest, for it formed, as it were, a link of connection between the present and the past. We were a small party, but it was a representative one, for we were not only favoured with the presence of the founder of the Association (Sir Charles Hastings), but we had with us several of that small band of earnest men who in the summer days of 1832 met in the Board Room of the Worcester Infirmary to inaugurate as the Provincial Medical and Surgical Association that body which was in a few years to develop to such magnitude and power as to become the greatest professional society in the world.

It had long been felt by many of the leading physicians and surgeons of our provincial hospitals that with the continually advancing state of medical science it was of the utmost importance for the general good that an effort should be made to collect and organise the vast amount of knowledge and experience which those institutions were continually pouring forth; and it was felt that by a freer and wider intercourse amongst its members (an intercourse which the then increasing facilities of railway and postal communication were daily opening out) a great and lasting benefit might accrue to the profession of medicine, and through that profession to the people generally.

I need not say here that it was to the assiduous zeal and labour, and to the enlightened and enthusiastic efforts of Sir Charles Hastings, that we were indebted for the conception and accomplishment of an Association having those ends in view, and whose successful development is evidenced by our meetings this week.

Allow me for a moment to remind you what were its original objects and aspirations. Briefly told, they were these: The collection of important medical and surgical knowledge arising from public and private practice in the great provincial centres and in rural districts; increase of knowledge of the medical topography of England, in its widest sense, and which could best be collected by those resident on the spot; investigations of the modifications of endemic and epidemic diseases in different situations and at various periods, so as to trace their connection with peculiarities of soil and climate, or with the localities, habits, and occupations of the people; and, perhaps most important of all, the maintenance of the honour and dignity of the profession generally by promoting friendly intercourse and free communication amongst its members, and by establishing between them that harmony and good feeling which ought ever to characterise a liberal profession. From the time of its foundation these objects have been faithfully carried out, and I might refer to the work done at its annual meetings and at the meetings of its Branches, to the volumes of its *Transactions* and to the valuable essays and reports which those volumes contained, to the invaluable and exhaustive retrospective addresses on the advances in medicine and surgery which were given year after year by their appointed readers, and to the very important contributions to the medical topography of various parts of England—a subject on which so little had before been done—as evidence of the zeal for professional scientific work which had actuated its members during the quarter of a century of its existence before our last meeting here.

But if we compare its work at the time of the last Nottingham meeting with its work now the contrast is indeed a striking one. A year or two before we last met here it was felt that the important influence of the Association ought not to be longer confined to its narrow provincial limits. After much consideration and discussion its name was changed. It became the "British Medical Association," and with its change of name came its change of action. The next year's meeting was held in Edinburgh, under the presidency of the venerable Professor Allison; and the meeting of 1862 was held in London under the presidency of Sir George Burrows. It was no longer provincial, but from that time it rapidly extended its influence, not only throughout the British Isles, but gradually throughout the colonies and dependencies of Greater Britain.

In 1867, at its first Irish meeting in Dublin, its work had so increased as to render it necessary to divide it into Sections, and in the next year at Oxford these Sections had to be extended, and every year since that time these Sections have increased the amount and importance of their work. At that Dublin meeting I well remember a conversation I had with its President (Professor Stokes) in the garden of Trinity College, in which, with his usual kindly enthusiasm for all professional work, he expressed the hope that in ten years the Association would double its numbers. It doubled its numbers in little more than five, and year by year from that time it has gone on increasing in greater proportion.

When we last met here our number of members (and this represented a quarter of a century of successful work) was 2,065; now we number more than 14,000. Then the whole of our meetings were held in one small room on the Low Pavement known as the Assembly Room; now we require the whole of the magnificent suite of rooms which the authorities of the town and the Council of the University College have most kindly and liberally placed at our disposal, and even these are not large enough for our general meetings.

Then our Branches were confined within the limits of the southern half of Great Britain, now they extend to most of the British possessions throughout the world. In North and South America, in India and China, in Burmah, in the West Indies, and in the islands of the Mediterranean, at the Cape and in Australia, we have numerous and increasing Branches, and year by year an ever-increasing number of our professional brethren are feeling the power and adding to the influence of our Association. But not only has the Association increased numerically and in the extension of its area, but I think you will agree with me in believing that it has increased in a still greater ratio in the character and importance of its work.

From time to time it has been found to be necessary to divide and subdivide its Sections, and in each of its Sections to set apart a portion of every day for the discussion of specially important subjects, and I have but to refer to the growing importance of those discussions since their first introduction at the Manchester meeting in 1877, to the eminence of the men taking part in them, and to the light which has been thrown by them on many obscure points in the practice of medicine, to show the great need for their adoption, and I am glad to say that arrangements have been made for their active continuance in each of the Sections at our coming meetings.

In many other ways—by the work of its committees, by its money grants in aid of scientific research, and by the very valuable original work which has in many instances been the result, by its efforts in connection with the collective investigation of disease, and the opportunities for freer interchange of thought amongst its members afforded in the pages of its excellent JOURNAL—the Association has rendered important and efficient aid in helping forward that great progress of British medicine and surgery which has been so strikingly manifest since our last meeting in Nottingham. I think if there is one characteristic which more than another has distinguished the progress of British medicine and surgery during the period I have mentioned, it is the marked effect for good of combined as distinguished from individual work. Allow me for a few moments to glance at the position of those sciences when we last assembled as an Association here.

In general medicine, the work and writings of such men as Bright and Addison, of Latham and of Hope, of Stokes and Graves, of Watson and of Gull, and of Sir William Jenner, had done very much to foster and develop that spirit of independent inquiry and accuracy of thought which, in an ever-increasing degree, characterised the progress of curative medicine five-and-thirty years ago; whilst in preventive medicine, which was then coming to the front, two men stood prominently forth as the pioneers in that still greater movement of sanitary advancement which was so soon to follow.

These men were Edwin Chadwick and John Simon. The labours of Chadwick had dated from a very early period of that demand for sanitary effort which sprang up about the year 1838 or 1840, and for many years he was the prime mover in those attempts which were made to improve the health condition of the labouring classes of this country. Sir Edwin Chadwick, beyond any man of his time (wrote Mr. Simon) knew what large fresh additions of human misery were accruing day by day under the then almost universal prevalence of sanitary neglect; and by his unceasing labour and untiring zeal, he laid the basis of those sanitary reforms which have since been of such inestimable value in the saving of human life, and in the diminution of sickness and disease.

At the time of our meeting, Mr. Simon had just completed with the greatest distinction his seven years' labours as the first medical officer of health of the City of London, and was about to enter upon his more responsible position of medical adviser to the Privy Council; and he then occupied the foremost position not only as a sanitary reformer, but as the most eloquent exponent of the aims and capabilities of preventive medicine in its truly scientific aspect. Of the subsequent and still greater work of Sir John Simon, I may have occasion again to speak; but he and his fellow-labourers in the same field had in a few years so raised the importance of the work of sanitation in the estimation of the profession and the public, that it was for the first time in the history of the Association made the subject of one of the special addresses at the last Nottingham meeting in 1857.

In surgery, again, we had, about the time of our last meeting, arrived at a critical period of its history. The work of the great surgeons of the first half of the present century had done very much to raise the position of English surgery to an eminence to which it had never before attained. The teaching of such men as Blizard and Abernethy (of course I mention these only as illustrative examples), the great practical work of Cline, and the bold achievements of Sir Astley Cooper, and a few years later the still more brilliant operative work of Robert Liston, and later still of James Syme and William Ferguson, had raised it to the very foremost rank as an art; whilst the more philosophic views of Brodie and of Lawrence, and the still more philosophic work of Sir James Paget, had done even more to elevate it to that truer position as a science which it was rapidly achieving thirty-five years ago. Both as an art and as a science British surgery had attained a very high position; but high as its position then undoubtedly was, it was but just upon the threshold of a still more important sphere of development.

A few years before our meeting in Nottingham the surgical world had been startled by the sudden intelligence from America that a method had been discovered for the total abolition of pain in operations, even of the most severe kind; and in a short time the whole aspect of surgery was changed—a change which can only be fully appreciated by those who were intimately acquainted with the working of our hospitals both before and after the introduction of anæsthetics. From that time the practice of surgery entered upon a new life, and operations which previously the boldest and most skilful of surgeons dare not have undertaken, now became matters of every-day performance. The instinctive dread of the infliction of pain, and the consequent endeavour in every possible way to save the time of an operation, frequently led, from motives of pure humanity, to the sacrifice of a limb, when a more delicate, but more protracted and more painful operation might have saved it. The attainment of this great end was one of the earliest benefits conferred by anæsthetics, and the so-called conservative surgery of Ferguson, of Syme, and of Butcher of Dublin, led to the saving of useful limbs, and, not infrequently, to the saving of human life.

To those who were connected with the hospitals of this country at that time, I need not say how the whole method of surgery has changed. It became more delicate and more refined in its procedures, and by the absence of that haste which had previously been so great an element of success, disease was more accurately and more thoroughly removed. The increased and increasing simplicity in the modes of dressing, the comparatively painless after-treatment of operation wounds, the advantages of mechanical and physiological rest, as so philosophically shown by John Hilton, the prevention of blood loss by the method of Professor von Esmarch, and the improved methods of ligature and torsion of divided arteries, did much to lessen the pain and mortality after the great operations of surgery; but perhaps the greatest achievements of modern surgery have resulted directly or indirectly from the introduction of the so-called antiseptic method, for which we are indebted to the genius and labours of Sir Joseph Lister. When I speak of antiseptic surgery, I allude to it in its widest and most general sense—not only to the complete and perhaps complicated manner in which it was introduced during the first few years of Lister's work, but to those many modifications which have been gradually introduced into its practice up to the present time—from the period when the spray and carbolic gauze were the essential elements of treatment, to the so-called simple surgical cleanliness of to-day. Simple cleanliness we may call it, if we will, but it is not simple cleanliness in the ordinary acceptation of the term—not that cleanliness which is the antithesis to ordinary dirt, but that special form of rigorous and refined cleanliness which the pathologist and the chemist alone can appreciate—that prevention and removal of everything of a septic kind which can possibly invade a wound—the attainment of that purely aseptic condition which can only be accomplished by the most scrupulous and watchful care that neither by the condition or surroundings of the patient, nor by the condition of the instruments, nor by the hands of the operator or his assistants can those micro-

organisms on which we have reason to believe that septicity depends come in contact with a wounded surface, or, if in contact, shall be destroyed; and no one has done so much to attain that end as Professor Lister.

By these two great achievements—by the abolition of pain by anæsthetics and by the greater safety of wound treatment since the introduction of antisepticism—the whole practice of surgery has undergone an amount of development which twenty or thirty years ago could not have been believed possible. Perhaps in no two departments has that development been more evident than in those of abdominal and brain surgery.

A few months after our last meeting in Nottingham Mr. Spencer Wells performed his first operation for ovariotomy, and from that time abdominal surgery may be said to have taken a prominent position in English surgical work. In operations upon the abdomen ovariotomy naturally took the foremost place. An operation which, up to about that time, had been attended with such a varying and doubtful amount of success, as, in the opinion of many of the most eminent surgeons of the day, to be almost excluded from the domain of legitimate surgery, has, by the labours of Sir Spencer Wells and Dr. Keith, of Mr. Lawson Tait, Mr. Knowsley Thornton, and others been raised to the position of one of the most successful of the great operations of surgery; and I think we may fairly attribute a great portion of this success to the causes I have mentioned—the introduction of anæsthetics and the gradual perfecting of the antiseptic or aseptic methods of procedure.

Other operations within the abdomen have followed upon the successful development of ovariotomy, and the removal of the kidney, of the spleen, of the uterus and its appendages, of portions of intestine, of bladder tumours, and of various kinds of tumours within the abdomen, operations upon the liver and upon the gall bladder, and, perhaps even of still greater importance, operations for otherwise necessarily fatal mechanical injuries within the cavity of the peritoneum, have within the last few years been attended with a great and ever-increasing amount of success, and with an enormous saving of human life.

Several of these subjects will be introduced for special discussion in the Surgical Section by men whose names are eminently associated with their history and development.

But, if we may be allowed to take pride in, and express our thankfulness for, the recent achievements in the surgery of the abdomen—and of the thorax, too—what may we not say of the great development (may I not call it a new departure) in the surgical treatment of diseases of the brain?

Those of us who were present at the Brighton meeting in 1886 will remember the very interesting series of cases which were then brought before the Surgical Section by Mr. Victor Horsley. These were typical cases of great surgical relief—of cure, indeed—of conditions amongst the most distressing from which a human being can suffer—of epileptic fits of the most aggravated form (in one of the cases, if I remember rightly, there were more than 3,000 fits in the course of a fortnight) depending upon localised brain disease, and cured by the operative removal of that local mischief. These two series of cases were indeed marvellous examples of an advanced surgery, which could not have been possible a few years ago. They were not only examples of a bold and successful surgery dependent on the advance which the development of anæsthesia and asepticism had wrought, but they were examples of the scientific application of those great discoveries in the localisation of brain function which have been made during the last few years.

Much as had been done by the application of surgical method to injuries of the brain, it was only to those parts which were brought within actual ocular observation that surgical treatment was successful. *Post-mortem* observations, indeed, had constantly revealed the existence of brain lesions which might have been remedied by operation if only their precise locality could have been determined; but the brain was a hidden region, and it was reserved to the labourers in the field of localisation to give the clue.

About four years after our last meeting in Nottingham it was observed by Broca that in cases of paralysis attended by loss of speech, this aphasia depended upon some lesion in a limited area of the brain surface about the third left frontal convolution, and that therefore in this limited area was the seat of the faculty of articulate language. This important revelation foreshadowed others of equal significance. Up to that time the view held by physiologists was that all parts of the cerebral cortex had the same value, and this discovery of Broca was the first step towards the localisation of its function. This first step was the result of most careful clinical and pathological deduction, carried out by patient and most accurate observation of a large number of cases, and extending over a considerable period of time. The next step was taken by the aid of electrical stimulation.

During the Franco-German war in 1870, Hitzig had occasion to apply galvanism to a certain portion of the exposed brain of a wounded soldier, who then lay insensible upon the field, and he noticed that this was followed by contraction of the muscles of the eyeball. This observation, made in the excitement of the battlefield, became the basis of further researches when the war was over; and Hitzig and Fritsch, and subsequently Ferrier, discovered that when certain other limited areas of the brain surface were stimulated in a like manner, this stimulation was followed by contraction of definite groups of muscles in different parts of the body.

Year by year these investigations have been carefully pursued by these and other observers, and by none more successfully than by Mr. Victor Horsley, the present President of our Section of Pathology. Year by year our knowledge of the localisation of brain function has become more extended and more and more precise, until it has resulted in those great achievements of brain surgery which, at the hands of Horsley and Macewen, and since then of many others, have been attended with such marked success. I think, gentlemen, I can scarcely quote a more distinguished example of the recent advances of surgery, carried out on lines of pure inductive reasoning, than the present position of the surgical treatment of diseases of the brain.

And then as to the progress of medicine during that same period. The practice of medicine has become more defined, more precise, more true. Medicine has in that time entered upon a new phase, a phase marked by more exact physiological investigation, and by the reference of pathological phenomena to a physiological knowledge which is daily widening, deepening, and becoming more and more minute. A more advanced pathology has led to a more accurate diagnosis, and a more defined diagnosis has resulted in a truer knowledge of disease. Guided by the application of physical laws to the furtherance of diagnosis, and by the elaboration of methods and instruments of precision, our knowledge of disease has become more and more exact.

The increased powers of the microscope, the development of the investigations by the laryngoscope, the applications of the ophthalmoscope, not only to conditions of the eye, but perhaps even of more importance, to conditions of the brain, the revelations of the sphygmograph and of the spectroscope; the uses of electricity and galvanism, not only for diagnostic and curative purposes, but also for the illumination and examination of hidden cavities; and the wider knowledge of physiological and pathological chemistry, have done very much to extend and to define our grasp of the phenomena of disease. But if there is one instrument of precision which has done more than any other to aid us in our efforts of diagnosis and prognosis during the time I have alluded to, it is the modern use of the clinical thermometer, an instrument which was practically unknown at the time of our last meeting in Nottingham.

By its unfailing accuracy, by its warning of the onset of acute disease, by its indication to us of favourable or unfavourable progress, by its aid in discovering the natural laws of certain diseases, and by the rapidity with which any deviation from those laws is shown, by its indication of the transition from one stage of a disease into another, and by the knowledge which it gives us of the approach of convalescence, of danger, or of death, it is one of the most valuable instruments which we possess. There has been no more valuable application of physical science to the investigation of disease since the days of Laennec.

These instruments, all of modern application, and most of them of wide employment, have added very materially to the increased and increasing definition which has characterised the practice of medicine at the present day.

But not only has medicine become more defined, more precise, and more true, it has become more wide in its scope, and not only more deep in its search into the origin and causes of diseases, but more assiduous than ever in its endeavours to prevent them.

The study of preventive medicine is nothing new; the prevention of disease, as distinguished from its cure, has been instinctively one of the main objects of the profession from its earliest history, and for many years has largely influenced and modified the practice of medicine in its widest aspect.

At the institution of this Association, it was one of its greatest *desiderata;* and by the suggested investigations of endemic and epidemic diseases, and their connection with the localities, habits, and occupations of the people, it was felt by our Association that by a clearer knowledge of the cause and course of those diseases, and by a wider diffusion of that knowledge, very much might be done to remove that largely prevailing mass of unhealth which was each year believed to be more and more preventable.

Up to the time of the founding of this Association in 1832, very little of a public kind had been done for the protection and promotion of public health. From the early part of the century there had been a gradually accumulating rise of new scientific knowledge as to the causes and preventabilities of different kinds of disease; but the value of that knowledge had never been grasped outside the profession; and until the approach of the first outbreak of cholera in 1832, the sanitary, or rather insanitary, condition of England remained much as it had been for more than half a century before. That outbreak, fearful as it was, proved a blessing to the country. It excited an alarm such as had not existed since the days of the Great Plague. It drew attention to the probable causes of infection. It emphasised the effect upon the poor of ill-feeding, uncleanliness, and neglect; and it pointed out the danger for districts which were overcrowded, ill ventilated, and unclean. In fact, it roused the mind of the people in a way that the united voice of the profession had in vain tried to arouse it to the danger to themselves and to their neighbours of living amidst surroundings of the most unhealthy and contaminating kind; and from that time sanitary science gradually developed.

I have already alluded to the status of preventive medicine previous to the appointment of Mr. Simon to the position of Medical Officer to the Privy Council at the time of our last Nottingham meeting; and I have but to refer to his subsequent work in connection with that department, and to the work of his successors, Dr. Seaton and Sir G. Buchanan, as evidence of the great advances of sanitation in England.

For some years after our last meeting incessant efforts were made, both by the profession and by the Legislature, to diminish in every possible way the amount of preventable disease and death; but after many years' labour it was still believed that the deaths which occurred every year were fully a third more numerous than they would have been if our then existing knowledge of the chief causes of disease could have been reasonably well applied throughout the country; that of deaths, which in this sense might be called preventable, the average yearly number in England and Wales (I have been quoting from Mr. Simon's admirable reports) were about 120,000; and that of these 120,000 cases of preventable suffering, which every year ended in death, each unit represented a larger or smaller group of other cases of preventable disease not terminating in death, but often productive of the most serious and lasting ill effect upon life and health.

Inquiries already made and reported on by skilled inspectors had laid before Parliament and the profession much valuable information collected according to the then current light of medical science with regard to the distribution and causes of destructive, though preventable, disease. But Sir John Simon was not content with inspection only, or with the application of such knowledge as we then possessed. He felt, and he pressed upon the Government the need of new knowledge—of knowledge only to be obtained by extensive laboratory investigations of the most careful and subtle kind, and carried out by special observers of the highest scientific attainments; and it is to these investigations made under the auspices of the Privy Council, and conducted with the greatest care, that we are now so much indebted for many of the recent great advances in preventive medicine.

The elaborate investigations by Dr. Burdon Sanderson on the inoculability of tubercle, the careful series of experiments in connection with physiological and pathological chemistry by Dr. Thudichum, the important investigations as to the spread of enteric fever through milk supply by Dr. Ballard and the late Mr. Netten Radcliffe, the study by Sir George Buchanan of the conditions which determine the intensity and spread of scarlet fever, and the very laborious and complete researches on the natural history of contagia by Dr. Burdon Sanderson and Dr. Klein may be quoted as a few examples of that most valuable original work which has been productive of so much new knowledge in connection with the prevention of disease—and these last researches were the precursors of that development of bacteriological investigation which has during the last few years added so much to our knowledge of minute pathology, and which promises in so high a degree to aid the still further advancement of the science of medicine.

In the twelfth and thirteenth reports of the medical officer of the Privy Council, Dr. Sanderson contributed a very important essay on the intimate pathology of contagion which tended to revolutionise our ideas as to the causes of the then known contagious or infective diseases, and to throw an entirely new light on their mode of propagation, and consequently of their prevention.

At that time the opinions of pathologists were somewhat vague. Contagia were regarded as existing mainly in the form of vapours or gases, and sewer gas was thought to be one principal cause of zymotic disease. The investigations of Professor Chauveau (of the Veterinary College of Lyons) and the researches of Dr. Sanderson showed, as regarded a series of communicable diseases in animals, that the *materies morbi* —the substance which when introduced into the body of a susceptible animal gave rise to the process by which it was itself produced—was neither gas nor vapour, was neither soluble nor diffusible, but consisted of particles of indefinite minuteness separable by subsidence or filtration from the liquid in which they were suspended. From experiments made in conjunction with Chauveau and subsequently by himself alone, Dr. Sanderson came to the conclusion that these infective particles were living organisms, and that their power of producing disease was due to their organic growth.

From that time the conclusions of Dr. Sanderson as to their particulate nature and mode of development have been gradually more and more confirmed by the labours of other investigators in the same field of work. By the discoveries of Pasteur and of Koch, of Wooldridge and of Hankin, of Hunter and of Sidney Martin, and of a number of others, both at home and on the Continent, new facts of intense interest, and of the utmost importance in connection with the origin and treatment of disease, have year by year been brought to light, and at no time has this new knowledge been more rapidly developed than during the last twelve months.

I will not, however, trespass further upon a subject on which we are anticipating with the greatest interest the promised address on Friday afternoon by Dr. Woodhead, whose labour for many years has been devoted to the work. In no other branch of science has greater advance been recently made than in this; at no other time have a greater number of active and vigorous minds been engaged in original research, and never before has a more promising light dawned upon the future of medicine.

I have been led to these observations, gentlemen, by the strong feeling which I cannot help entertaining that in our own Association there exists an immense power for good in the direction of the combined work which I have mentioned; in fact, it would be difficult to conceive a greater power, or one more capable.

The special organisation of our Association, with its Branches extending over nearly every part of the world, with almost every climate as its field of work, and every variety of men for its observation and its study, with its thousands of members all engaged in the same pursuits, all animated by the same aims and desires for the same kind of knowledge, and all having opportunity of meeting in annual congress for the communication and discussion of its results, we have indeed unequalled opportunity for developing in the highest

possible way the fruits of that combined work on which I believe the future of medicine so much depends. It is to such combined work, and to such mutual interest, that our meetings of this week call us, and we cannot doubt the result. But we meet not only for work but for pleasure, for the pleasure of renewing old friendships, and for the pleasure of making new ones; for the pleasure of imparting knowledge, and for the pleasure of receiving it; for that instinctive pleasure which arises from the first meeting of men whose work we know and whose labours we have long appreciated, but whose personal influence we have never before felt. These advantages flow from all meetings of scientific men, whose feelings and whose interests have so much in common, yet whose life and whose labours lie so wide apart; but I believe that by no class of men is there felt more real community of interest, or more true sympathy in each other's work, than that which is evidenced at such meetings as this, of members of the profession of medicine.

ADDRESS IN MEDICINE

BY

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At the Annual Meeting of the British Medical Association held at Nottingham, July, 1892.

The Extent to which the Study of Ancillary Sciences is necessary for Medical Students.—The Recent Advances of Bacteriology and Neurology.—Phagocytosis and the New Cellular Pathology.—Hypnotism.—The Alleged Increase of Nervous Disease.—Increase of Insanity.—Psychology and Medical Psychology.—Neuropathology.—The Pathology of Memory.—Aphasia.—Experimental Psychology.—The Necessity for the Adaptation of Medical Studies to the Changed Conditions of Modern Life and Competition.

GENTLEMEN,—When I accepted, with some diffidence, the high honour of addressing the members of the British Medical Association at this meeting, I decided after some reflection to devote the time at my disposal to laying before you some considerations regarding a subject which has naturally much interested me, as now for many years a teacher of medicine in a large and flourishing college, namely, the position of medical science in the general world of thought and its relations to certain other branches of knowledge with which it is allied.

It has often been a subject of regret to those familiar with the history of medicine and solicitous for its repute and dignity, that the profession to which we belong should have lost the primacy of learning to which it was once legitimately entitled. The often-quoted remark of Bacon attributing greater honour to divinity and more profit to law, but awarding the palm of learning to physicians was no doubt an accurate estimate of their relative position at the time of Harvey.

Now, while we have lost in respect of learning, I fear it can hardly be said with truth that we have gained much upon our sister professions in respect of honour or of profit. Yet, at no period of the world's history has medicine been more assiduously cultivated, never have its ranks been filled by so many able and energetic workers, and at no period have its claims to public usefulness been capable of being so triumphantly vindicated. And the question naturally arises in what method can its dignity and usefulness be best furthered and developed, and whether there are any impediments which tend to embarrass its progress and trammel its efforts, of which it might be advantageously relieved, and whether its study is being conducted on the lines best calculated to lead to the results at which we aim?

Let us consider for a moment our relations to certain of the natural and experimental sciences, namely, chemistry, botany, and physics. Chemistry and medicine have been long closely allied. Cullen lectured on chemistry both in Glasgow and subsequently in the University of Edinburgh. Boerhaave was hardly less celebrated as a teacher of chemistry than as a teacher of medicine, and for a lengthened period chemistry was regarded as likely to furnish the key to the alterations generated by disease, and to be of prime helpfulness in dealing with its manifestations; and thus, not unnaturally, the physician and surgeon has found a knowledge of chemistry laid down as an essential portion of his preliminary training.

Now, during the last twenty years the growth of chemistry has been prodigious. It is no longer a science which one man can master, or of which he can even have a comprehensive grasp, as a perfect cataract of new facts is pouring down without cessation. The annual reports of the German Chemical Society for the year 1871 were contained in the modest number of 998 pages. For 1891 they have risen to 4,270 pages of original communications, and 1,006 pages of abstracts, making a formidable total of 5,276 pages for a single year. Even a professor who devotes his life to this subject finds himself unable to cope with the immense mass of details which is accumulating, and, feeling it hopeless to attempt a thorough mastery of the subject, usually confines himself to one or two portions of the science. There are, of course, many fundamental doctrines and facts in chemistry which no further research can alter, but some aspects of the science are changing from day to day.

May not the question be fairly put whether it is necessary or desirable that the student should make a serious attempt to grapple with this immense mass of material? Would not the principles of chemical science suffice amply for his practical wants, which after all are comparatively simple? When the practitioner of medicine has tested for albumen and sugar, and is familiar with the composition and reaction of a few urinary deposits, and knows that a condition of acidity may be temporarily relieved by an alkali, he has pretty completely gained all the information of practical value which chemistry is likely to give him for the needs of his daily work. We may, perhaps, add the tests for the principal poisons and alkaloids. To carry on investigations into the problems of pathological or of physiological chemistry elaborate and complicated apparatus are necessary and also ample leisure, so as to afford opportunity for the close and uninterrupted attention which is essential to their successful prosecution. Subjects of such complexity can only be dealt with adequately by those engaged in scientific pursuits. They constitute the field for men of research as distinguished from men whose best energies must be given to the active work of professional life.

In so far as the physician devotes himself to this class of pursuit, in so far does he divorce himself from the occupations of his daily life, and this line of research, though it may touch, does not coincide with that which his professional duties compel him to follow.

Trousseau—perhaps the most accomplished clinical observer of the past generation—used to recommend students to learn chemistry thoroughly, that they might once and for all become convinced that it was of no use in medicine. Nor can we derive much comfort from the prospect held out to us by some chemists that the free carbonic acid necessary for the nutrition of vegetables, and the free oxygen necessary for the maintenance of organic life are steadily diminishing, and that the time is slowly, but surely, approaching when the conditions necessary for our existence will no longer prevail, and when all life will become extinct on this planet.[1]

Then as regards botany, does the botanical source of our remedies in any way elucidate or guide us in their application, or would the majority of us recognise the plant in its growing or dried form from which we derive our most valued agents? The tendency—a tendency daily increasing—to employ the compact and manageable preparations furnished by the large manufacturing druggists is waging a serious and not unsuccessful war with the art and mystery of the apothecary, and has already much diminished, and tends daily still more to diminish the preparation by the practitioner of even the ordinary pharmacopœial remedies.

As for natural philosophy, so important did this, at one time, seem to the examining board to which is affiliated the School of Medicine with which I am connected, that nothing less than three examinations in successive years could satisfy

[1] Bunge, *Phys. and Path. Chemistry*, trans. by Wooldridge. p. 19, 1890.

that body that medical students had adequately mastered the mysteries of light and sound, of mechanics, hydrostatics, and electricity. Proficiency in such secondary subjects as medicine and surgery could be tested in one examination, but no less than three were necessary to afford sufficient proof that the future physician understood these branches of physics sufficiently. If the human body were a congeries of tubes, or a bundle of levers, or a galvanic battery, more scrupulous pains could not have been taken to ensure attention to these branches of knowledge. And yet I think everyone will admit that any considerable, not to say profound, knowledge of subjects which have received so much attention at the hands of physicists, and which have been worked out with such minuteness and care, and of which the full comprehension entails so much mathematical acquirement, are altogether beyond what may be fairly required from a student of medicine.

It may be urged that the study of the ancillary sciences, as they have sometimes been called, is of high importance to the discipline of the intellect, and tends to develop the habit and the power of careful and accurate observation; and this may be admitted in the fullest and most ungrudging manner. But the powers of the average human intellect are far from illimitable, the capacity of attention is bounded, and the sum of mental energy requires to be carefully husbanded, to be directed in the right channels and not to be allowed or compelled to dissipate itself in useless effort. Besides it cannot be justly denied that there are several subjects which are more closely identified with medical science, which subserve more directly and efficiently its activities, and which afford abundant scope for wide and exact mental discipline. To overload the memory with a mass of facts which never become fairly organised into its structure, and which, never being revived, fade gradually but surely into oblivion is a wasteful and exhausting process. It was at one time necessary to defend medicine from the overweening pretensions of authority and prescription; may it not be now necessary to shield it from the excessive demands of science? A student with the mental equipment which I have indicated, finds it—

> Like Saul's great armour on the shepherd boy,
> Encumbering, and not arming him.

We may now leave the negative part of our subject and turn to what constitutes the indispensable parts of our equipment. Besides the so-called practical subjects—medicine, surgery, and obstetrics—we should know all that can be learned about the structure and the functions of the human body. Our anatomy must be thorough, although it is instructive to remember even in respect of a subject so absolutely essential as a groundwork of medicine and surgery, that a surgeon of no less eminence than Mr. Lawson Tait entered his protest in Birmingham against the unnecessary minuteness and elaboration of even anatomical teaching. For my own part I am inclined rather to adopt the standard of Huxley, that anatomy should be so learned that the body will be, as it were, transparent to the eye. Then we can afford to dispense with no considerable portion of the wide and fruitful field of physiology, a science which is now so extended and so rapidly increasing that many men of science are specialising themselves on different portions of its vast territory.

Now one cannot fail to be struck with the fact that among the subjects of greatest present interest there are two which seem to give evidence of distinct currents of thought moving apparently in opposite directions. On the one hand we find an important part in pathological and physiological processes ascribed to minute organisms, the white corpuscles or leucocytes, which are apparently free from all direct nervous influence and float freely in the blood; and on the other hand we find that the domain of the most highly organised and differentiated part of the body, the nervous system, is being extended and increased. It seems as if attention was being divided not unequally between the simplest elements of the body and the most complex portion of its structure; shared between little masses of protoplasm which present but slight differentiation in structure, and the nervous system with all its complicated and refined activities and powers. And even what is still more remarkable, we find a certain similarity in function suggested as existing between these seemingly widely different portions of the economy.

It has been long known that unicellular organisms, amœboid cells, possess the power of choosing their appropriate nutriment and of rejecting what is harmful or useless to them. These facts have been for a considerable time familiar to naturalists, and their remarkable character has caused them to be studied with much interest. It has been abundantly shown, in respect of animals higher in the scale, but possessing either no cerebral hemispheres or only a rudiment of them, that they are capable of much and varied bodily activity in response to suitable stimuli. With regard to the human body, it has been also established that osmosis does not take so important a part in nutrition as was formerly supposed, and that a distinct selective power is exercised by the epithelial cells of the intestines, which, for example, pick out the globules of fat from the materials within their reach, and transmit them to the commencement of the chyle vessels. Now, the striking observations of Metschnikoff regarding the action of the leucocytes on microbes—the phenomena of phagocytosis—have naturally been received with more favour, owing to the knowledge we possessed of facts presenting some analogy with his observations.

The instructive discussion which took place in the Pathological Society of London during the earlier months of the present year has brought, more prominently than formerly, the facts on this subject before the profession in this country. In the main, I think, we are compelled to accept Metschnikoff's views as representing the present state of our knowledge, and accordingly we must accept phagocytosis, notwithstanding the opposition of some observers of great weight and authority, and notwithstanding some considerable objections. It seems, then, to be established that certain cells, of which the leucocytes are the most important, possess the power of attacking and destroying certain infective microbes when introduced into the body: that these free, mobile, and apparently quite independent organisms act in a manner highly important to the integrity and safety of the body at large, protecting it under suitable circumstances from the injurious effects of virulent bacteria. So much, I think, may be regarded as fairly established, even should Buchner's views regarding the importance of antibiotic fluids in the blood be ultimately established.

It is, however, with a certain degree of wonder, not unmingled with distrust, that we find something of the purposive character which has hitherto been supposed to be the exclusive endowment of conscious beings attributed to these minute, hardly differentiated masses of protoplasm. We learn that under the influence of chloral the leucocytes refuse their work and become anæsthetised, so that the bacteria have it all their own way. We are told that they show a liking for some substances, and an instinctive aversion for others; and some facts are adduced regarding their mode of warfare, which seem to point to a more than nascent civilisation. One observer describes them as marching right up to the bacilli and attacking them, which seems analogous to the Napoleonic tactics in battle, while the lymphocytes are described as forming a second line of defence, a method suggestive of the more watchful strategy of Moltke. Altogether the demeanour and endowments of the cells open up a field for investigation, both as regards cell action in itself and as regards its relation to the organism generally, which contains much that is of the highest pathological and physiological interest. A new cellular pathology is being developed, differing widely indeed from the brilliant theory bearing this name, so long familiar to us from the powerful advocacy of Virchow, but agreeing with it in the important functions assigned to the ultimate elements of the body as independent factors, both in morbid and healthy processes; and also in representing them as being either uninfluenced or as only indirectly influenced by the nervous and vascular systems in some of their essential activities.

Now while phagocytosis is directing our attention with increasing interest to the minutest and most elementary constituents of the organism, on the other hand, renewed zeal is being shown in investigating the complex problems which the nervous system presents to the inquirer. Even with regard to those more doubtful subjects which are in the borderland of legitimate scientific inquiry, a revival of interest has taken place. Hypnotism and its allied states have long exercised a powerful fascination on a large portion of the intelligent public, and have been looked on with much

curiosity, but always with a little suspicion, by physicians. Although not new, these singular and striking manifestations have of late been more carefully studied, and the methods of producing them have been more clearly ascertained, and one is glad to notice that, instead of being relegated to non-professional men, they have engaged the attention of some of the physicians most competent to conduct such inquiries, and most capable of estimating their results with precision and judgment. Whatever verdict may ultimately be passed on hypnotism, there can be no reasonable doubt that certain facts have been elicited which show that, in the hypnotic condition, profound and extensive modifications occur in the sensory and motor functions of the brain. Now, admitting much that has been urged against hypnotism; granting that it is likely to attract the attention of men who have a liking for the marvellous; that it can be practised by men possessed of no scientific training, and incompetent to deal with the most refined activities of the nervous system, and that it thus lends itself to charlatanism and imposture; granting that it may be attended with danger of a formidable kind, and also that its field of therapeutic usefulness is likely to be at best a very restricted one, and its effects probably only transitory; still it is a subject eminently deserving of careful and profound scientific investigation, conducted under the most rigid precautions, so as to exclude intentional or involuntary deception. We do not need to be much concerned about whether, as has been stated, we have in hypnotism a condition akin to natural sleep, or whether it is in reality a pathological state related to hysteria. What is at present wanted is a clear account of the phenomena which are capable of being produced under its influence. If, as numerous statements aver, hypnotic suggestion can be shown in any degree to affect processes of nutrition and the reaction to irritants, then some points of the very highest interest as regards the influence of psychical on physical processes will have been established.

Most of us have been inclined to read with a considerable degree of scepticism the accounts of instances in which obvious physical changes have been stated to have resulted from nervous influence, especially when these changes have occurred in a rapid manner. But should the statements on this subject which have been made so positively, and on the faith of apparently cautious and trustworthy observers, prove to be authentic, it will certainly compel us to reconsider our position with reference to this subject.

The opinion is very generally entertained that the diseases of the nervous system are now more widely diffused and more numerous than formerly. It is somewhat difficult to obtain accurate statistics on this question, and not altogether easy to ascertain their precise value, but some facts seem open to no serious question. In Ireland, the proportion of the insane to the population has steadily increased. I owe to the kindness of the Registrar-General for Ireland the numbers of those mentally affected as shown in the census of 1891 as compared with that of 1881. The numbers of the insane, including idiots, were: in 1881, 18,313; in 1891 they are 21,188, an increase of 2,875, although the population has diminished by 453,677. The proportion is 224 to each 100,000 of the population. Even allowing for the fact that emigration takes away in the main the healthy and strong, and that consequently this represents the proportion of insane to a much larger population than now exists in the country, still it indicates a very notable increase.

The reports of the Registrar-General for England show an almost uninterrupted increase in the mortality from nervous diseases. Some of this is no doubt explicable in other ways, but, on the whole, the evidence of statistics coincides with the general opinion among physicians that there is an increase. Whether this depends on the increase of causes tending to overwork, and weary, and exhaust the brain and nervous system we need not at present stop to discuss. Now, even those of us who have no special connection with the treatment of the insane find ourselves frequently brought into contact with questions regarding insanity. Apart from the mere granting of certificates, which, however, is attended with much anxiety and with heavy legal responsibility, there are the numerous minor forms of aberration in which it hardly becomes a practical question whether they necessitate restraint or not, and there are also the many instances in which general affections produce mental phenomena. Then we have the numerous cases of temporary insanity which are never known beyond the families of the sufferers and the medical men to whom their care is entrusted, as well as the incipient stages of mental disease in which skilful management is of the utmost importance.

It is no doubt in consequence of considerations based on these facts that systematic instruction on the subject of mental disease has been adopted by some of the examining bodies as a necessary part of the training of the practitioner in medicine, and has thus become a recognised portion of medical education. I may add that the existence of the Psychological Section of this Association is a further proof of the importance of this branch of inquiry to the medical practitioner.

Now, the study of medical psychology alone is, in my mind, a very incomplete and inadequate preparation for comprehending the multiform disturbances of mental function, and is even more inadequate in respect of either diagnosis or therapeutics, and in view of the expectation of adding to our knowledge of cerebral diseases, as regards either localisation or character.

I have long been of opinion that some knowledge of psychology proper, that is of the science of the phenomena of mind in its normal conditions, is absolutely necessary. Without an acquaintance with the problems and methods of psychological inquiry it is impossible to observe and to describe adequately the phenomena of morbid mental states. In the investigation also of those conditions in which the disturbance of a single function is what is most manifest and striking, it is clear that a knowledge of the limits and differentiation of function must be of capital importance. It will be of value also to become familiar with the terms used in psychology, in itself a study of no inconsiderable difficulty and extent. In dealing with such questions as amnesia, aphasia, delusions, and hallucinations, and other disturbances of consciousness we are not only in the sphere of our legitimate activity and of our daily work, but we are touching, not indirectly, on some of the most interesting problems of mind. In examining these questions we get into one of the main currents of modern thought, and have suggested to us some problems which have engaged the attention of many of the acutest intellects of ancient and modern times. Some psychologists refuse to accept any help from physiology and fortify themselves in the citadel of introspection, declining all external aid. It is said by them that the comprehension of physical processes throws no light on psychical processes, and that these are absolutely heterogeneous. I am not concerned to defend the claims of physiology, which find advocates enough; but in respect of morbid conditions, when we find misery and despondency connected with defective digestion, perversions of the will and deceit attending on hysteria, emotional instability, causeless anger, and childish tears and laughter accompanying the later stages of chronic damage to the brain; when, to take simpler and more transitory influences, we find alcohol leading to the well known mental exhilaration which attends the early stages of its effect; when we find opium, in those accustomed to its use, producing such agreeable sensations that De Quincey could state that: "Here was the secret of happiness, about which philosophers had disputed for so many ages, at once discovered; happiness might now be bought for a penny and carried in the waistcoat pocket; portable ecstasies might be had corked up in a pint bottle, and peace of mind could be sent down by the mail:" when we find all these and many kindred mental accompaniments of physical changes brought to our knowledge, we have the strongest motive to attempt the analysis of the material lesion and of its modifications and varieties. Some of our greatest observers attach much moment to the entire and absolute denial of any relation of cause and effect in these events, and they insist on regarding the neural occurrence as merely concomitant with the mental occurrence. Now we may grant at once that the nexus between them is as yet undiscovered and may be undiscoverable; but in investigating mental phenomena from the physical side we are doing something that can hardly fail to throw light on certain obscure questions, and we need not embarrass ourselves with any considerations regarding the real connection or relation with each other of these concomitances.

For my own part, I may be permitted to say that the progress of psychology is, I think, in a great measure to be sought for at the hands of the members of the medical profession. In physiology I am convinced that pathological and clinical observations have done more than experiment to elucidate function; and in like manner I have little doubt that the study of morbid and limited and incomplete mental and cerebral manifestations will throw a great deal of light on some of the most abstruse questions in the relations of matter to mind. It will be bringing into action the logical method of difference, the ascertaining the influence of the removal of part of the cause on the effect. Now, in assisting in the solution of these grave problems, I think our function as medical men is in the main a limited, although a highly important one. Our obvious duty is to collect such a body of facts as will afford a sure foundation for future generalisations. Besides the states of marked and more or less well-defined disease, which enter of right into our nosological classifications, we have a wide field in examining into the influences of habit and heredity, the cerebral peculiarities which, more or less transformed, descend from generation to generation, constituting an "innate preparedness" for the development of particular morbid phenomena; the relation between vice and disease, and the question of when criminality implies merely pathological conditions.

I think we should avoid, at least for the present, the more ambitious philosophical attempts which have exercised during many generations a powerful influence on some of the highest intellects of our race. We need not attempt the great metaphysical questions of substance, reality, the nature of consciousness, the ontological nature of space and time, the essence of causal action, and the like. The domain of the clinical and pathological observer is a humbler, but we may fairly congratulate ourselves a more fruitful one. Just as biology concerns itself with the manifestations of life, and puts aside all theories regarding its nature and origin, just as in fact all sciences have resolutely to set aside at the beginning a certain number of unsolved questions, so we may fairly relegate these problems to other and more competent authority.

Nor do I think we should gain much at present by attempting to form any wide generalisations. A working hypothesis is no doubt of the highest utility in an experimental science, even if it ultimately comes to need to be corrected or to be altogether abandoned; and if the facts which come before us were capable of being called into existence or of being modified at pleasure, such an hypothesis might be necessary for our guidance. But we have to deal only with phenomena not susceptible of voluntary modification, and what we have to do is simply to observe them with accuracy and to record them with fidelity. In these observations the materialist who regards mind as a form of motion in the brain cells, and the spiritualist who looks on it as an immaterial principle underlying the phenomena of consciousness, although acting through the nervous system, can work together in perfect harmony, as the problem is to observe and analyse the phenomena brought before them. Even in this task there are limits set to our observations which it is not easy to surmount or evade.

Physiologically it seems improbable that we shall ever be able to identify or to estimate accurately the results of mental activity in the shape of oxidation products of brain substance. The weight of the brain is about 2 per cent. of that of the body, and we can hardly doubt that in mental processes only a small portion of the cerebrum is employed at any given time. Besides, we have no measure of the relative degrees of intellectual exertion, and consequently cannot express them in terms of potential energy.

The nerve cell must doubtless be accepted as the ultimate unit of the nervous mechanism, and the nerve fibre plexus as containing or constituting the channels of communication between these elementary units of cerebral activity. When we come to localisation of function, with the exception of the motor areas and Broca's convolution, and some further fairly definite areas concerned in disturbances of language, we have little well ascertained.

If, as is hoped, we can make out that in the brains of the insane special areas are differently and disproportionately affected, it is not unreasonable to suppose that these areas may ultimately be ascertained to be connected with special functions. Dr. Charlton Bastian long ago expressed the opinion that the posterior lobes of the cerebrum are the most important for intellectual purposes, and this view has received the high sanction of Dr. Hughlings Jackson. On the other hand,[2] Dr. Bevan Lewis lays down without hesitation the following principle regarding insanity. He states that, while acute insanity may be regarded as a very general implication of the sphere of mind, and hence of a widespread disturbance of the cerebral cortex, its morbid results on the brain are decidedly concentred on the motor or fronto-parietal section of the hemispheres. We learn from these conflicting opinions how little is definitely ascertained regarding the most important developments of cerebral activity.

If I might indicate some definite lines on which medical observation might be of the greatest value in elucidating some unsettled problems, I should be inclined to name among others the aberrations and decay of memory. For this species of observation no apparatus is necessary, and the opportunities are daily offering themselves, and most abundantly to the busiest practitioner. Have we as yet any sufficient number of facts to justify the dissolution view of the decay of memory: that is, that in the decay of memory there is a certain definite sequence of events? The law of regression, as it has been formulated by Ribot, corresponds to the general principles of dissolution as a reversal of evolution which have been enunciated by Dr. Hughlings Jackson with his usual force and ability. The process of decay would then go on in a regular gradation, from the complex to the simple, from that which has been least thoroughly organised or incorporated into the brain to that which has been most so, from the least to the most automatic of our acquisitions, so that we forget first recent events, then intellectual acquirements, then the impressions which belong to the domain of the feelings, and finally, how to perform automatic acts.

All this of course depends on a supposition that a physical modification of some of the very many millions of cells of the cortex of the brain takes place, originally, in connection with the mental process which memory revives, this modification constituting the organic basis or anatomical substratum of memory. It is suggested that it is in this way that we can best comprehend the retention of impressions which are for a time absent from consciousness just as it is the intercommunication of the cells which enables us to conceive how the impressions can be revived. But is this law fairly established? When we reflect on the enormous number of instances in which memory suffers notable, and so to speak, pathological decay in age, it would seem easy to collect and classify such a number of facts as would put this doctrine on a secure footing. But I think this is far from being the case, and the number of exceptions seems to be so great, that we may fairly regard this law as, as yet in this important sphere, unestablished.

I have recently had the opportunity of witnessing a curious disturbance of memory in a young medical man, in whom multiple neuritis had arisen in consequence of much and premature exposure to cold after an attack of influenza. Besides the usual paralytic symptoms, his memory became greatly impaired. He gradually reached the point of forgetting the year and the month, became hazy about his personal identity, and was doubtful who his wife was, and where he himself was residing. *Nec domus, nec placens uxor*, were retained in his memory; but he still had a very fair recollection of the leading diagnostic and therapeutic facts about his profession. He had forgotten a great deal, but the platysma myoides was fresh in his recollection, and the differential diagnosis of fluid in the pleura from consolidated lung was retained firmly. These facts, I cannot but think to the no small credit of his teachers, were so organised in his brain that they resisted dissolution.

The phenomena of aphasia, which have been so much studied and about which so many curious facts have been ascertained, bring us in contact with a most interesting problem: the relations of thought to language. It is I think doubtful whether without words any continuous reasoning can be carried on, and it is pretty certain that in the absence of the symbol no abstract reasoning could take place. According to the fine illustration of Sir William Hamilton, all

[2] *A Textbook of Mental Diseases*, Bevan Lewis, p. 489.

considerable progress in thought must be accompanied by a corresponding development in language.

"You have all heard of the process of tunnelling through a sandbank. In this operation it is impossible to succeed unless every foot, nay, almost every inch in our progress be secured by an arch of masonry before we attempt the excavation of another. Now, language is to the mind precisely what the arch is to the tunnel. The power of thinking and the power of excavation are not dependent on the words in the one case or the mason work in the other; but without these subsidiaries neither process could be carried on beyond its rudimentary commencement. Though therefore we allow that every movement forward in language must be determined by an antecedent movement forward in thought; still unless thought be accompanied at each point of its evolution by a corresponding evolution of language, its further development is arrested."

Now, when we find that a special damage in one situation makes us lose the power of reviving the recollection of the word, although we recognise it when heard; that damage in another region so affects us that the sight of the word does not call up its mental representation, although we see the word plainly; and that lesions in a third region have as their result that the sound of a word will not call up the corresponding idea, although we hear the sound of the word distinctly; it is impossible not to recognise that here we have got a good way in making out the very mechanism of this potent instrument of thought, and it is difficult to see in what other way we could have arrived at a similar comprehension of these complex and refined activities. We learn from facts like these how great a part the observation of the dislocations and derangements of important functions can play in enabling us better to understand the scope and nature of the function itself.

Few things are more noticeable in connection with this subject than the amount of research which is being conducted on the subject of experimental psychology. In this direction much of the best work has been done in the Leipzig Psychological Laboratory by and under the direction of Wundt, but kindred investigations are being made by various observers. The researches on the intensity and the time relations of sensation and of motor response to stimuli are of the highest interest. They have enabled us to ascertain the time occupied by mental acts, by the reproduction of impressions, by acts of association, and by logical judgments. The amount and quality of work done in this direction justify the hope that psychology, as a natural science, will take its place beside physiology, and that the physical basis of mental activity will be more and more understood and elucidated.

I have dwelt, at perhaps undue length, on this aspect of my subject, partly because it has a direct bearing on the relation of medical science to other branches of knowledge, and partly because it furnishes a convincing proof of the claim of medicine to take a leading part in the elucidation of important psychological problems.

Again, to take an instance of how medical experience can correct psychological speculation, we may, even if it be a little ungracious, select an example from the writings of a great thinker to whom many of us are under deep intellectual obligation, Mr. Herbert Spencer. This eminent psychologist[3] attributes an importance to the circulation in the brain which physicians would be inclined to regard as excessive. He states that quickening of the circulation in the brain causes a rush of unusually vivid ideas, and makes the memory more distinct than usual. He contrasts the delusions of delirium as exemplifying the extreme vividness with which revived feelings may arise when the cerebral circulation is excessive, and the loss of consciousness caused by cerebral anæmia as exemplifying the converse result. Now, we have ample opportunity of knowing that anæmia is a fertile source of delirium, as the term "inanition delirium" indicates, and while there is much that is doubtful in that most obscure chapter of pathology which deals with hyperæmia of the brain, we know that it is at least as likely to produce somnolence and coma as it is to produce illusions. If the rapidity of the blood current were so potent as Mr. Spencer supposes, physical exercise ought to heighten the receptivity of impressions and there would be even a perceptible increase in the erect as compared with the recumbent position. As a matter of ordinary observation, it is found to be difficult to collect our thoughts when the circulation is much accelerated by rapid exercise, and hardly possible to carry on a train of reasoning requiring any considerable exercise of memory. Indeed it has been urged by Schroeder van der Kolk[4] that a free communication exists between the arteries and veins in the pia mater so as to allow a considerable portion of the blood, when the circulation has been quickened, to pass away over the cortical substance without entering its tissue at all, and thus to avoid the disturbance which its rapid passage through the capillaries of the brain would cause. In this way, as he has put it, the storm sweeps over the brain without our perceiving it.

I have alluded to this comparatively trivial point to indicate how medical knowledge comes to have a direct bearing on subjects of wider and more general interest, and to show also how physicians, by bringing their special knowledge to bear on the solutions of some of the most interesting problems which can engage the human intelligence, can best vindicate the dignity of their profession, which will thus have the fairest prospect of again forming an important factor in promoting the intellectual progress of the race.

Nor even in a therapeutic sense will studies of this kind fail to bear fruit in enabling us to deal more rationally and more successfully with the morbid conditions of this important portion of the economy. It can hardly be denied that there is a tendency among the most enlightened members of the profession to attach a less overwhelming importance to the administration of medicinal agents, and to have recourse to the employment instead of them of what may be called physiological remedies in the treatment of the morbid conditions of the mind and brain. Light, air, nutriment, environment, the warding off of hurtful, the presentation of soothing impressions—these are more frequently and more successfully employed than the large class of nervines, of the remedial actions of which we are not so certain as we could wish; and when we add to these the so-called moral treatment, comprising amusement, occupation, and the like, we have enumerated most of the agents on which we rely with the greatest and the most assured confidence.

I do not wish to be understood as underrating the numerous and potent additions which have been made of late to our stock of nervine remedies. I like to know that they are being constantly added to, and that their actions are being more fully investigated and defined. I regard them in the light of a great arsenal of warlike weapons of the newest construction and the most perfect adaptation to their purpose, kept always ready for use and in a thoroughly efficient state of order and readiness; but as I regard it as the highest and most successful statesmanship not to be obliged to employ these powerful weapons in actual warfare, so we best vindicate the efficiency of our art by having recourse to our armaments only as sparingly as may be—confident, however, that at critical moments and in periods of active disturbance they can be employed with great and admirable effect.

It is a common and easy practice for writers to exercise their wit at the expense of the profession of medicine. Molière and Le Sage have condemned to immortality what was perhaps not a very gross caricature of some forms of practice in their day; but graver and weightier thinkers have lectured us on our shortcomings and have given us much well-meant advice. Now, there is nothing which gives us a higher idea of the ability of the earlier physicians than when we examine the opinions and theories which have been advanced by some of the most commanding intellects of the world in reference to medical subjects, and which are often ludicrous and absurd. The father of modern experimental philosophy, Bacon, brought a charge against physicians that they prescribed in too simple a manner and did not combine together a sufficient number and variety of drugs. It is but justice to say that a number of both ancient and modern therapeutists have applied themselves with no inconsiderable energy to relieve their profession from this reproach. The same great philosopher advised the employment of a peculiar bath to obviate the hardening effects of age, and he hoped by this means to promote longevity and to restore to the rigid frame of age the suppleness and freedom of youth. The bath was to consist of

[3] *Principles of Psychology*, vol. i, p. 237.

[4] *Mental Diseases*, trans. by Rudall. London, Churchill, 1870, p. 36.

fresh blood, or if that were found loathsome it might be made of milk, butter, yolks of eggs, and the fatter kinds of flesh, with oysters and wine, and sweetened with sugar or honey. This extraordinary bath was to be followed by various anointings and frictions. It is hardly to be wondered, when one reads this curious prescription, that Harvey, who was said to have been his physician, remarked of him: "He writes philosophy like a Lord Chancellor."

Berkeley recommended, as is well known, his wonderful tar water as not only capable of remedying bodily disease, but as having a valuable influence on the understanding—an effect of matter on mind which we would hardly have expected from the great master of idealism. "Nor is it only useful to the bodies of infants," he says, "it hath also a good effect on their minds, as those who drink it are observed to be remarkably forward and sprightly." When we remember that when this passage was written Cullen and William Hunter were teaching medicine and anatomy, we have no reason to think that the physicians of that day had much to learn from the metaphysicians.

Kant, the most profound speculative genius of Germany, was strongly opposed to vaccination, which he called "the inoculation of bestiality," and he was enthusiastic about what he regarded as the great discoveries of Beddoes regarding the prevention and cure of consumption. One of these discoveries was the use of digitalis as a remedy for phthisis, which Dr. Beddoes regarded as opening out a brilliant era for humanity, as in his hands it cured a large majority of cases of this disease.

Now, when we see the notions which existed on the subject of medicine amongst these great and highly endowed thinkers, we can form some idea of the views which would have in all likelihood found favour among the masses of mankind, and the effects to which such views were likely to lead, and we can form, too, a fairly adequate notion of the superiority on their own ground of the contemporary leaders of medical science. We can see, also, what important services legitimate medicine has rendered to the world, even if it had only the negative merit of protecting mankind from disastrous and ignorant meddling. Physicians cannot accept the position of mere *curiosi naturæ;* in presence of serious disease they must act with the best means they possess. Failing in this duty they would be justly liable to the reproach of Mephistopheles—

> To grasp the spirit of medicine is easy;
> Learn of the great and little world your fill,
> To let it go at last, so please ye,
> Just as God will!

We must always remember that it is by its utility to the world that medicine must ultimately stand or fall, but we must use the word utility in its widest signification as comprising on the one hand all the special activities of our profession in preventing, or mitigating, or removing human suffering; and on the other all its incidental advantages in aiding the development and progress of human intelligence by taking its position along with other members of the group of sciences of observation.

It is to be regretted, but I fear it is inevitable, that the study of the old humanities must be curtailed, and must even in some measure disappear from medical education. Greek seems doomed past recall, and it will, perhaps, be possible to say at some future day of the medical profession, as Petrarch said of Italy in the fourteenth century, that it did not contain more than ten persons who could appreciate Homer. And yet in putting aside Greek, medical men will miss some of the finest products of the human intellect moulded in the most perfect form. Many of those who take an interest in the study of the subjects I have been imperfectly advocating will be glad to be reminded of what is surely one of the most touching passages in ancient literature, that in which the scene before the death of Socrates is related in the "Phædo" of Plato, when the illustrious old psychologist, after his fetters had been removed, began to bend and rub his leg where the chain had galled it, saying as he rubbed: "How singular is the thing they called pleasure, and how curiously related to pain, which might be thought the opposite of it; for they will never come to a man together, and yet he who pursues either of them is generally compelled to take the other." Our psychologists are to-day still busily engaged in investigating the same problem.

Latin will make a harder fight to maintain its place, and will probably succeed in retaining it. If it should fail it will be impossible not to feel a profound sense of compassion for the physicians of the future, if they are never to be admitted to the simple feasts at the Sabine farm, at which educated men have been charmed guests for so many generations; or if they are never to feel the beauty and finish of the hexameters of Virgil. I do not suggest that grace of style or elegance of diction is to be regarded as of intrinsic value in medical writings—

> Res ipsa ornari negat, contenta doceri.

Works on a subject so changing as medicine is are destined to a comparatively brief existence, and any prolonged or anxious care devoted to their form and finish would be alike unnecessary and fruitless. The classical latinity of Mead and Heberden has not saved their works from all but total oblivion. The same fate is destined, at no remote date, to overtake the eloquent periods of Latham, and the charming lectures of Sir Thomas Watson—lectures which it is surely not merely early prepossession which makes me regard as among the finest English prose of the generation which witnessed their publication. But good writing satisfies the literary conscience of the author, and gives a not altogether undesirable pleasure to the reader.

The pursuit of literature is everywhere being regarded as less necessary—and we must be of our generation—and from a utilitarian point of view it is impossible to give more than a passing regret to those branches of learning which have so long been regarded as the stamp and evidence of culture. What with unconscious irony are called the paying subjects are brought more and more prominently forward in general education, and those studies which bear on professional training will ultimately prevail to the comparative exclusion of all others. But it must be also borne in mind that it is not by the mere accumulation of scientific facts that the physician of the future will gain his most valuable training. It is by those studies which develop and heighten intellectual energy and aid in forming and promoting that flexibility and grasp of mind which enable it to deal with the varying problems which medicine presents in such abundance. It was remarked by Dugald Stewart that Locke owed some portion of his success as a psychologist to his medical training.

"No science could have been chosen more happily," he observes, "to prepare such a mind as that of Locke for the prosecution of those speculations which have immortalised his name; the complicated and fugitive, and often equivocal phenomena of disease, requiring in the observer a far greater portion of discriminating sagacity than those of physics, properly so-called; resembling, in this respect, much more nearly, the phenomena about which metaphysics, ethics, and politics are conversant."

It will always also be of great aid to the physician to be able in dealing with those committed to his care to recognise the influence on them of ideas of hope, of confidence, of endurance; to be able to deduct from their complaints what is the result of an impressionable nervous system and what of pure imagination; to solve, as nearly as may be, the personal equation. These capabilities will supplement beneficially the most refined and accurate physical diagnosis. We need not doubt that the multiform aspects of disease, following, as they do, closely on the track of all the numerous and diversified forms of human energies and activities, will afford ample scope for the freest exercise of the highest scientific faculty, as well as for the employment of the most minute and patient observation. The tendency of the medicine of the future will no doubt be in the direction of greater specialisation. Physicians and surgeons will devote themselves, more and more, to the cultivation of a limited portion of the vast and always widening field of knowledge. Medicine must adapt itself to the varying necessities and requirements of the world. It must prove itself capable of supplying the wants of a civilisation, rapidly becoming more complex in its development, and therefore more varied as well as more exacting in its demands. It must press into its service all knowledge, physical and mental, likely to aid in the furtherance of its mission; accepting the help of its sister sciences, but allowing itself to be dominated by none of them. It must be alike flexible in its methods and steady in its aim; and it must be at once cautious and aspiring, always sane in practice, while bold in

speculation. But at the same time it behoves all those concerned in its guidance, or responsible for the instruction of those who are to become its members, to bear in mind its position as one of the main supports of the tripod of learning, as one of the great factors in the intellectual progress of humanity; being well assured that it cannot sacrifice any portion of its intellectual elevation and dignity without a corresponding sacrifice of its truest and most practical usefulness.

ADDRESS IN SURGERY

BY

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At the Annual Meeting of the British Medical Association held at Nottingham, July, 1892.

ON SYNTHESIS IN SURGERY.

Surgical Unrest.—Surgical Diseases in Canada.—Surgery among the Aborigines.—Hospitals in Canada.—Specialisation and its Dangers.—Necessity of Synthesis as a Corrective.—A Plea for Liberal Education as a Preliminary to Medical Study.

THE feelings with which I rise to address so large and so distinguished an audience are a strange alloy of regret that I must needs fall short of my own desires; of confusion at finding that those to whom the same post of honourable duty has been entrusted in past years have left no branch of surgery untouched; and more than all, of dread lest my beloved Canada should suffer in your estimation at the hands of one who wants, not the will, but the power to do her justice on this momentous occasion.

Permit me, in my country's name, to thank you in all sincerity for the compliment paid to her in inviting one of her children to your shores, and in assigning to him a position of such honour in your deliberations—a position hitherto reserved for the most eminent of your own land—a land teeming with all that is great and noble in our art. Let me assure you that Canada is not unmindful of this fresh token of your regard. She is, as you well know, most firmly attached to the parent State; she glories in your past, she is deeply interested in your future; your glory is her glory; your future is her future; and she is grateful for any thought of her in your councils, especially where science is concerned, and where the common good of mankind is the object.

It was the desire, on our part, to be in closer touch with you which made it possible, last year, for that able and indefatigable worker, Mr. Ernest Hart, to successfully establish those more intimate relations which now so happily exist between members of our profession in the parent State and in the Canadian Dominion. Mr. Hart passed quickly from Vancouver to Quebec, and at his touch Branches sprang as quickly into existence as beacon fires were once lit on the summits of your Welsh hills.

Coming, as I do, to the very apex of surgical art from the wide circumference of its base beyond the seas, it might appear bold were I to attempt, as we sometimes do in Canada, to pass in review the advances in our art during a certain period. There we are accustomed to glean from the United Kingdom, France, Germany, and other countries, the best fruits of their workers, and to place them before the profession, stamped, for the most part already, with the mark of your and of their approbation. But that would here be dangerous, for an address of that nature—however carefully prepared, nicely adjusted, thoroughly combed down, complete and fashioned in all its parts, when leaving the western hemisphere, might, on its arrival here, be found to be wanting in the most recent of its important features—features with which you, in the meantime, might have become familiar—for the advances in our art excel in speed, sometimes, the swiftness of ocean travel.

It has been found by some of my predecessors in this rostrum that the advances in surgery have been so great and so important that to follow them at all closely in their many ramifications would be impossible. This difficulty seems to have occurred to my immediate predecessor—the learned Edinburgh surgeon—and, in his admirable address, he turned at once, and for relief as it were, to surgical rest. But the rest, aptly termed surgical, for which Professor Chiene, following Mr. Hilton, had secured so much attention was objective. It seems to me that with this much needed surgical rest there runs *pari passu* a surgical unrest which is subjective, and which will be my text for a moment.

On this the eastern side of the Atlantic, where, in every branch of commerce, in every trade and handicraft, in every liberal art, in every learned profession, the lines which divide the work to be done by each are, for the most part, clearly and distinctly traced, the ceaseless agitation of life is marvellous, and would seem to favour the view long ago expressed by De Quincey that solitude was, even in his time, becoming a visionary idea in this country. Yet to me, a visitor, it appears life here is calm, quiet, placid when compared with that on the western continent. Here there is time for easy and familiar intercourse; there it is grudgingly given. Here you leisurely perform the functions necessary for the repair of wasted tissue, and the reception of food, recreation and sleep have each their due time allotted to them; there they are unduly curtailed as things which might be realised and converted into currency. This state of unrest everywhere—but especially in the western world—is not favourable to the surgeon, the full capabilities of whose intellect are not unfolded without sufficient occasional leisure and thought and retirement, all of which are, in some measure, denied to him in our new and overactive world. With you, as with us—but, as it seems to me, not so much with you as with us—the average surgeon of to-day is less a man of thought than a man of action. He is constantly liable to disturbance, either from the particular character of his calling, or from the agitation of all around him, of which he soon partakes. He is made to eschew the more meditative habits which would the better fit him to weigh well and to adopt or reject what should be adopted or rejected, without reference to authority, or without being swayed by the influence, not always safe and reliable, of superiority of position or of condition.

Perhaps, at no time in the history of our art have the facilities been greater everywhere than they are at present of arriving at conclusions which may not be sound, and of being misled by representations which may not be strictly true. In the few intellectual centres, in ancient times, opinion was gradually formed in solitude. It advanced in regular progression, and from mouth to mouth, as it were. To-day, with steam and electricity and the wondrous and unceasing development therefrom of vast physical agencies, men are brought nearer to each other. Truth, to-day, travels with the speed of lightning; but error also, and with like rapidity. Opinion, formed in large centres, acts especially on the imagination of those around, and more powerfully still, perhaps, of those at a distance. It does not always convince, but it impresses, and, to quote the words of a classical writer, it has the force of authority rather than of reason; and concurrence in it is not always an intelligent decision, but a more or less blind submission. Our minds are often misled by misrepresentations, and they remain misled till other and truer representations put them right again.

Surgical opinion, in an especial manner, is at first, and for some time, what seems to be thought by every one in general, and by some one, or perhaps no one, in particular. An opinion hurriedly expressed by eminent, or even prominent, or perhaps only self-beguiled authority is adopted; it is propagated; it becomes the opinion of the general body, and although we may have resisted the influence of the individual authority in the first instance, we finally succumb to the voice of that general body of which we are constituents—each part having, without perceiving it, perhaps, done its share in diffusing truth, it may be in extending error.

The views on surgical questions, expressed ere they have been fully considered; hasty reports of surgical cases, and premature records of surgical operations—especially if the operations have been bold and novel—when published within a few days of their performance, are often misleading. Had the publication of so-called successful cases in medical journals for its sole object the elicitation of truth, error in time would be of small moment.

The haste in publishing enables the operator to scatter re-

ports of his "triumphs" broadcast over the land as a bid for further subjects for his skill. Is the journalist quite blameless in facilitating the premature publication of cases which had, it is true, left the hands of the surgeon or the surgical ward of a hospital, but only to terminate fatally in the hands of a medical practitioner, or in a medical ward from the direct, though perhaps not immediate, result of surgical interference? Would that the tutelary deity who is supposed to preside over medical journalism might so ordain that there should be a little less hurry, a little less zeal in taking the public partially into one's confidence, and in publishing successes while they are yet problematical.

In every part of Great Britain error is quickly overtaken and corrected; not so in Canada—a country so vast that portions of it are nearer to Great Britain, and to France, and to Germany than they are to other portions of its own vast Dominion; and whence London or Paris or Vienna may be reached in less time than Toronto or Montreal. Errors reaching such distant and inaccessible portions of the world survive to do their mischief long after they have ceased to delude the minds of men in the larger centres.

In the steadily-increasing number of medical journals all over the world—some of them established in the interests of the public; some in the interests of the profession; some in the interests of a medical school; and not a few in the interests of some nostrum retailed for profit—in all these kinds and qualities America has her share. The exact number published it is difficult to arrive at.

The medical library in connection with the Surgeon-General's Office at Washington, which, under the able guidance of that marvellous worker, Dr. Billings, is unique in extent and completeness, receives 700 medical journals of all sorts a year. Of these, 30 are devoted to dentistry (15 of them from the United States); 38 to pharmacy (8 of these from the United States); 32 to veterinary medicine (2 from the United States); 22 to homœopathy (14 of these from the United States); 9 are eclectic, and all 9 are from the United States—leaving 121 for regular medicine for the United States. Journals on popular medicine are not included in the foregoing list. Some of the journals referred to are conducted with great ability, while a few reach a high level of excellence. Not infrequently, in articles inelegantly written and quaintly expressed, the mechanical genius of the people is conspicuously shown in a manner to command the attention of those more favourably circumstanced. Readers of the journals of both hemispheres have occasionally noticed in yours a greater precision in reporting cases and in stating facts than is generally met with in the western world. You do not so often indulge in unknown quantities, while dates and other circumstances are stated with greater fulness. I have noticed the same features in your discussions. An absence of that precision in America must not, however, be allowed to take from the value of a statement or a report. It is due in great measure to the hurry and unrest, the variety of fatiguing work a surgeon is called upon to do, and the difficulty, even in cities, of having properly qualified clinical assistance. Outside of hospitals there are well-qualified nurses for the rich—their services are beyond the reach of the poor—and they append the temperature and pulse chart; but beyond this there is often no further record till the case is finally summed up by the surgeon, when the details of treatment are added.

Men of action who have left, and are leaving the impress of their intellect in the more practical departments of our art are often obliged to search in their visiting list or their day-book, where the more methodical and leisurely arrangement of your work enables you to be more precise.

Sometimes the facts are drawn from memory and, for all that is essential, correctly drawn, though dates and other precise circumstances are often wanting. It is from this hurried manner of reporting cases that doubt is sometimes felt of their credibility when given without reference to minor parts which are not considered essential to their truth. The older members of this Association can recall how the statement was received from America, some years ago, that a crowbar had been driven through a man's skull without killing him, and how brain matter had been found adherent to the strong bar of iron at a distance of many feet. The number of feet was not given (I cannot give it now) but the statement nevertheless was true, even without the lesser detail of distance.

Some of you will remember how little disposed many were to believe that a sponge probang, charged with solution of nitrate of silver, could be got beyond that watchful sentinel, the epiglottis, and be applied to the larynx. Who doubts it now? The same may be said of Sayre's assertion, discredited at the time, that after excision of the bones of the hip or knee, the joint could be so arranged that the little patient might be borne from one place to another without discomfort and without injury. Many of you have seen Sayre's work.

Were I disposed to dwell on American surgery I could greatly multiply instances of this kind, but that is not my purpose. I shall merely add that it must be apparent to readers on this side of the Atlantic and to those who have visited the western hemisphere, that the American surgeon arrives, in his own way, and with marvellous celerity at the chief points in a case—at its gist, its essence so to speak—by a process which may not be strictly logical, but which is rather of the nature of an intuitive intellectual judgment or perception. He seems to recognise truth, or something he takes to be truth, without the necessity of any elaborate process of ratiocination. This marked quality in the American mind renders him prone to eclecticism, not alone in medicine and surgery, but in philosophy, and even sometimes in matters of theology.

Though the principles of our art are independent of nationality there are conditions peculiar to the different parts of the earth's surface which must be taken into account by surgeons and which to a greater or less degree modify practice. The relatively greater freedom from death which Valentine Mott, more than half a century ago, claimed for surgical operations performed in New York and Philadelphia, I claim, and more advisedly claim, for operations performed in the larger cities of Canada. The inflammations which sometimes follow surgical procedures with us are indeed accentuated, and are marked by much elevation of temperature; but the character of those inflammatory processes is of a simple sthenic type, and not of that irritable form which so often perplexes hospital surgeons in the larger centres of Europe.

The climate of Canada has much to do with this. In many parts of Great Britain mortality, from all causes, increases with the decrease of temperature; with us the reverse is the case. Our winter season, with the temperature of St. Petersburg, is the healthiest; spring and autumn come next in salubrity; while the largest mortality is in July and August, when the temperature is that of the same months in Paris. At certain seasons the atmosphere is so dry that the meat of the buffalo and the red deer, when cut into strips and dried in the open air, may be reduced to powder, forming the pemmican which often alone sustains the aborigine in his wanderings. When you add to this condition of climate the simple frugal habits of the people—well fed, well clothed, well housed—living in a land where, as in Longfellow's Acadie, "the richest are poor, and the poorest live in abundance," you have a sturdy energetic race displaying much power of resiliency when their injuries demand the intervention of the surgeon.

It is, moreover, a people subject to few ailments, and these are of a sthenic inflammatory type. Thorough acclimatisation is found to confer additional immunities. Those who can count the greater number of generations born in Canada are the healthier, while those undergoing the process of acclimatisation do not suffer in the processive state. These remarks do not apply to the descendants of the aborigines who have been allied to the whites. The inflammatory affections met with in the Metis, whether of the French with the Huron or Iroquois, or of the Scotch with the Cree, are for the most part of a strumous type, presenting but few of the characteristics of those affections in either of the unmixed races.

Aneurysms are not common in Canada; chronic rheumatic arthritis is seldom met with; rickets, which the Germans still love to call, yet they cannot say why, the "Englische Krankheit," is scarce; strumous ophthalmia, which is so constantly seen in the hospitals of Vienna, London, and Glasgow is not frequent; and in cancer, especially of the breast, the glandular system is not generally primarily affected, affording thereby a fairer chance of freedom from early recurrence of this disease. (I allude to this disease advisedly, as I observe that some of your more distinguished surgeons recommend removal of the axillary glands in all cases of scirrhus of the breast—advice which, from my experience in Canada, I am not disposed to follow.)

There are no surgical diseases in Canada which have not their counterpart in every portion of Europe—two alone excepted. When, in the words of Milton,

> the parching air
> Burns frore, and cold performs the effect of fire,

frostbites are met with (among the non-acclimatised chiefly); and when snow covers the land, the *mal de raquette* is complained of by those who suddenly, and without preparation, are called upon to make long and hurried journeys on snow shoes.

It is true that, on the eastern coast of New Brunswick in Canada, a few lepers are met with in the lazaretto there; but the disease is not indigenous to the soil. Nearly a hundred years ago two shipwrecked sailors were cast ashore at a place called Tracadie. They were the subjects of leprosy. A French-Canadian woman gave them shelter. In washing their linen she contracted that pitiless disease, and transmitted it to her children. These marrying, a small colony of lepers was formed. The number was at one time about seventy, but is now diminished to twenty-two, who are under the care of the sisters of charity from the Hôtel Dieu Hospital of Montreal. But outside the walls of the lazaretto there is no disease peculiar to the country.

In connection with this subject I may perhaps be permitted to quote the words I wrote some years ago, when dealing with this subject, in a work on the climate of Canada: "In considering the few diseases which, in Canada, afflict humanity, we have reason to be thankful to the All-Powerful Controller of the seasons as of our fate, that in separating us from the great branch of the European family, and in placing us where there are indeed no majestic ruins scattered around to prove past greatness or add to present interest, He has prepared for us a land where we may not only live in peace with all men, but in the assurance that no noxious exhalation will imprint its morbid impress on our countenance; that no pestilential effluvia will enter our nostrils; that no serpent will instil its fatal poison into our veins; that with our breath we shall draw no plague into our blood; and that, though He exposes us to much heat in our short summers and to a temperature in winter which pinches us till we cry out 'This is no flattery,' yet through our intelligence He keeps us in health, comfort, and safety. More than once during my professional career I have endeavoured to map out one single disease or form of disease which we might claim as peculiarly our own, but so far I cannot boast of having made the discovery."

As acclimatisation effects certain changes, it affords also certain immunities from which those not similarly circumstanced cannot expect to benefit. The acclimatised bear injuries well. Living in a simple primitive state, they require only occasional aid from the surgeon, and even less from the physician. Colonists, in thinly settled districts, sometimes send long distances for surgical aid in cases of hernia or dislocation. The *ramacheur*, or *rebouteur*, as he is styled, who is supposed to have an intuitive knowledge of broken bones, and how best to replace them, is often in requisition. In dislocations, however, these irregular practitioners are less fortunate. And although their practice is invariably to find a small bone out of joint, which they incontinently proceed to reduce with an audible snap (of their own hidden thumb and finger, be it added), they do not attempt to reduce dislocations of the larger joints.

I once had a case of dislocation of the hip of fourteen weeks' standing brought to me a distance of fifteen hundred miles. It took six weeks of that time, after the *rebouteur* had done with the sufferer, for the patient to reach Montreal in a box like a closely-fitting coffin. The padding was so perfect that movement of either limb or body was thoroughly prevented during a rough journey.

Domestic surgery in civilised countries might in some things learn a little from the primitive methods of our aborigines. Take as an instance the treatment of the newborn infant. The yielding abdominal walls are never compressed by an unyielding bandage, and the young bird in its nest is not more comfortable than the Indian babe unencumbered by swaddling clothes. As the varied movements of respiration are not impeded, the infant cries but seldom. It never suffers from local troubles as the children of the whites often do. The urine is carried beyond the infant's person, if a male, by an ingenious mechanical support which directs the stream. Feculent matter is received into dry moss, which is to be found, in large quantities, in every wigwam where there is an infant.

If, in the depths of the forest, an Indian breaks his leg or arm, splints of softest material are at once improvised. Straight branches are cut, of uniform length and thickness. These are lined with down-like moss, or scrapings or shavings of wood; or with fine twigs interlaid with leaves, if in summer; or with the curled-up leaves of the evergreen cedar or hemlock, if in winter; and the whole is surrounded with withes of willow or osier, or young birch. Occasionally it is the soft but sufficiently unyielding bark of the poplar or the basswood. Sometimes, when near the marshy margin of our lakes or rivers, the wounded limb is afforded support with wild hay, or reeds of uniform length and thickness.

To carry a patient to his wigwam, or to an encampment, a stretcher is quickly made of four young saplings, interwoven at their upper ends, and on this elastic springy couch the injured man is borne away by his companions. When there are but two persons, and an accident happens to one of them, two young trees of birch or beech, or hickory are used. Their tops are allowed to remain to aid in diminishing the jolting caused by the inequalities of the ground. No London carriage maker ever constructed a spring which could better accomplish the purpose. A couple of cross bars preserve the saplings in position, and the bark of the elm or birch cut into broad bands, and joined to either side, forms an even bed. In this way an injured man is brought by his companion to a settlement, and often it has been found, on arrival, that the fractured bones are firmly united, and the limb is whole again. This is effected in less time than with the whites, for the reparative powers of these children of the forest are remarkable. In their plenitude of health, osseous matter is poured out in large quantity, and firm union is soon effected.

[Dr. Hingston here showed the femur of an aborigine in which the osseous matter was so abundant as not only to unite the fracture, but to form a bed on which the tuberosity of the ischium was made to rest.]

The reparative power of the aborigines, when injured, is equalled by the wonderful stoicism with which they bear injuries, and inflict upon themselves severest torture. They are accustomed to cut into abscesses with pointed flint; they light up a fire at a distance from the affected part (our counter-irritation); they amputate limbs with their hunting knives, checking the hæmorrhage with heated stones, as surgeons were accustomed to do, in Europe, in the time of Ambroise Paré; and sometimes they amputate their own limbs with more *sang froid* than many young surgeons will display when operating on others. The stumps of limbs amputated in this primitive manner are well formed, for neatness is the characteristic of all the Indians' handiwork.

The aborigines are familiar with, and practise extensively, the use of warm fomentations. In every tribe, their old women are credited with the possession of a knowledge of local bathing with hot water, and of medicated decoctions. The herbs they use are known to a privileged few, and enhance the consideration in which their possessors are held.

The Turkish bath, in a simpler, but not less effective form, is well known to them. If one of their tribe suffers from fever, or from the effects of long exposure to cold, a steam bath is readily improvised. The tent of deer skin is tightly closed; the patient is placed in one corner; heated stones are put near him, and on these water is poured till the confined air is saturated with vapour. Any degree of heat and any degree of moisture can be obtained in this way. Europeans often avail themselves of this powerful sudatory when suffering from rheumatism.

The aborigines have their herbs—a few, not many. They have their emetics and laxatives, astringents and emollients—all of which are proffered to the suffering without fee or reward.

The "Indian teas," "Indian balsams," and other Indian "cure-alls"—the virtues of which it sometimes takes columns of the daily journals to chronicle—are not theirs. To the white man is left this species of deception. The necromancing *medicine man* doubtless practises deception, but he is, in turn, impressed by the energy of his own incantations; and

failure, on his part, to cure, exposes him to personal danger. This hurried allusion to the red man seems to me as if chanting his sad funeral dirge. He has been associated with a flora passing, nay, that has passed away. He represents a race much older than the races which have supplanted him, for did he not occupy this land ages before the Aryan race left its Asiatic home? He has, indeed, been supplanted in Canada, but he has been tenderly dealt with by us, as a minor, and with all a minor's rights. Treaties with him have always been honourably adhered to, and we have never qualified him (as he has been qualified by writers south of us), as useless lumber to be got out of the way.

In many parts of Canada, as in other countries not yet wholly covered by the flowing tide of civilisation, practitioners have to cope with difficulties unknown to those whose lines are cast in less primitive places. Now and then the surgeon of practical trend of mind has opportunity to turn that quality, essential in a new country, to advantage. I could in illustration relate many instances, but shall confine myself to one or two. My predecessor in the surgical clinic, the late Dr. Munro, an eminently practical surgeon, was travelling in a wild part of the country when he was asked to see a man suffering from retention of urine. Munro had no catheter with him; many miles interposed between him and an instrument, and the roads were well-nigh impassable. He looked around the log cabin for something wherewith to enter the bladder, but saw nothing. He noticed, however, that the floor was cleanly swept, and that implied the use of a broom. He asked to see the broom. A corn broom was brought to him, and with it he soon entered the man's bladder. How? some will ask. With the handle? No. With the corn tops? No. He had noticed that the corn tops were bound to the handle with wire; this he quickly unrolled; made a loop at the free end; and as he unrolled he straightened the wire by putting his foot into the loop; bent a piece, gave the doubled end a slight curve, and passed it easily into the bladder. The free ends which remained without the body separated somewhat, and the pent up fluid passed between them.

[Dr. Hingston here showed the ingenious contrivance of a country practitioner, near Montreal, for enlarging an opening in the chest wall, which the inventor called a "thoracoretrotome." Both blades cut equally on withdrawing the instrument, yet presented no cutting edge on entering.]

It is not always that the devices which were found to be successful in an emergency are put aside for something which might be better though not so primitive. Some years ago I was present at a meeting of a medical society, not in Canada, it is true, but in one of the more western of the United States. A gentleman from one of the large centres had exhibited an instrument for removing foreign bodies from the nose. He extolled its advantages, was applauded, and everything promised well. I noticed, however, a smile on the faces of many present, when a small nervous man advanced somewhat briskly to the platform. I wish I could give you anything like a faithful sketch of his manner. His style was sharp, his language terse, and personal pronouns were used most sparingly. He commenced somewhat in this fashion: "Mr. President,—Much obliged to the gentleman from the city. Long distance for him to come to show us this instrument; long distance for us out here to send for one. Now, when called to see a child with a cherry or any other kind of stone, or a pea, or a bean, or a bead, or a button in his nose, not going to send all the way to the great city for this instrument, and for the Professor to come with it—for that's what it means. Can do without both. Wherever there's a boy with something in his nose that has no business to be there, there is sure to be a woman in the neighbourhood, and wherever there's a woman there's sure to be a hairpin. Now, with the boy and his nose and something in it and the woman and her hairpin and a live doctor and his jack-knife, nothing more is wanted. With the jack-knife half open, bend the double end, coax this bent end along the roof of the nose, raise the wrist a little, and withdraw with the bent end well down, and if one of the child's toys is there it's sure to come. Would'nt give that instrument (he had made one while addressing us) for the instrument of the gentleman from the great city, and it don't cost as much money. There's not enough of *that* in the backwoods for the Professor."

To return from this digression. Although allusion has been freely made to the primitive manner in which surgery is sometimes practised in Canada, it would be an error to conclude that such is by any means its general state. In the larger Canadian cities surgery, in every department, is pretty much what it is in the more favoured centres of Europe. There is, with us, as much refinement in diagnosis; as much dexterity and courage in performing surgical operations; and as much nicety in the technique. All the cavities of the body—brain, chest, and abdomen—have been explored, and the diseased organs operated upon. Canada follows Europe closely, very closely, in all her work. She has had the boldness—may she be pardoned! to precede Europe in some departments of surgery. The tongue and lower jaw were first removed together in Canada; the innominate and the gluteal arteries were first ligatured there; and the credit of the first nephrectomy, which writers give so generally to Germany, belongs also to that country. But why should Canada be in any way behind? The better classes of her students, not content with receiving instruction in their own medical schools, pass one, two, and sometimes many years in Europe before commencing the practice of their profession in Canada. London, Dublin, Edinburgh, Paris, Vienna, Berlin are never without a contingent of young Canadian graduates, and, as you well know, many of our medical practitioners periodically visit Europe to add to their stock of acquirements and to renew the zest and relish of professional labour.

The medical schools of the country are modelled after your own. Their reputation for honest work is not unknown to you. The curriculum of medical studies is uniform and uniformly thorough.

In our universities, while the Chancellor is invested with jurisdiction over the members of the university, he has not the power to confer degrees in course upon anyone whose name is not furnished to him by one of the Faculties. Degrees in medicine are conferred upon certificate of the Dean or Master of the Faculty, stating that the candidate has been examined and found to be qualified.

In this respect our universities—Protestant as well as Catholic—are formed much on the model of the ancient University of Dublin, for which Clement V gave a brief in the beginning of the fourteenth century. In all our medical schools clinical instruction holds a most important place. Hospitals are numerous, and the material at the disposal of the teacher is abundant.

The erection of hospitals has in later years been, with us, the work of individual effort and of private subscription. Hospitals are met with in all large cities in Canada, and sometimes even in the smaller towns. The last hospital erected in Montreal—the Victoria—is the munificent gift of two of her citizens. The first hospital—the Hotel Dieu—is the outcome of female love and heroism. The history of the latter is so strange, so unique, that I may be pardoned if I allude to it at length. When Jacques Cartier returned to France, after his discovery of Canada, the news of his exploit travelled over France as quickly as was then possible. A French girl, described as young and beautiful, became impressed with the thought that the newly-found country should be the scene of her labours. She succeeded after a time, in fitting out a small barque, with money furnished by a Madame Bullion, and, with twelve sailors, crossed the Atlantic in the spring of 1641. The sea voyage to Quebec occupied three months—it can now be accomplished in one-fifteenth of that time. The journey from Quebec to Montreal by the St. Lawrence, which can now be performed in a night, then occupied eight days. Miss Mance's barque came to anchor at a projecting point off the island of Montreal, then called Hochelaga. Hochelaga was, at that time, the *chef-lieu* of the war-like Hurons. They looked with amazement at the advent of pale-faced men and *one* pale-faced woman—for she was alone of her sex. They soon recovered from their surprise, however, and it was necessary for the colonists to throw up for their protection, as quickly as possible, wooden palisades on the lard or rear approach; the big canoe, as the barque was styled, was a sufficiently imposing defence in front. If a colonist ventured beyond the palisades to gather fruit or berries, or to cut wood, he ran the risk of being pierced with arrows. Half of the

first colonists perished in this manner, and Miss Mance was obliged to return to France in 1649, bringing back with her other recruits; and again in 1658, leaving France with twenty male and female recruits, half of whom died on the voyage of a form of plague. In their attacks on this small force some of the red men were wounded in return, and, when deserted by their comrades, they were brought within the palisades to what they and their tribe considered certain death—according to their own custom in warfare. They soon found the hospital to be a place of woman's tenderest solicitude. When the red man's wounds were healed a repast of dog's meat was prepared for him, and he was permitted to rejoin his tribe to tell what the pale-faced maiden had done for him. It need not surprise us to be told that in the presence of such devotion the warlike Huron soon forgot his ferocity.

A few years later it was necessary for the small colony to move a few hundred yards inland. Word went throughout the Huron Camp, and, before the hour of departure, the aborigines had strewn the ground with leaves and the branches of trees and with wild flowers, saying the earth was not fit to receive the tread of these women. In this way our first hospital was established, and in this way the light of Christianity was brought to the island of Montreal. Here is how the hospital has been sustained. Miss Mance had obtained from the French King a deed of gift in perpetuity of the small piece of land where she had landed, which, at that time, was valueless. It became, however, in the course of years, the centre of the village of Montreal, and eventually the commercial city clustered around it. A century and a third ago, when Canada passed from the rule of France to that of Great Britain, respect was paid by the conqueror to the rights originally conferred by the French King, and the hospital, which at first had but the aborigines for inmates, continued to receive within its walls, as colonisation went on, persons of every succeeding nationality. For upwards of a hundred and fifty years after its, foundation it, alone, afforded asylum to the sick and wounded of Montreal and westward. How many from these shores, when sick and disabled, have there received maternal care! How many of your children, in that then far-off land, had the pillow of death smoothed for them there, and without fee or pecuniary reward! And the same continues to this day; for the property preserved to those religious ladies by a wise conqueror, has, without municipal aid or Governmental patronage, but with economy, sufficed for the wants of the institution.

Between the foundation of this, our first, and the Victoria our last, hospital, other hospitals have been erected—chiefly the Montreal General Hospital, the Western, and the Nôtre Dame; and all that generosity on the part of the public, and zeal and ability on the part of the staff, can effect, are prodigally bestowed. Hospitals, some of them on a large scale, are now met with from the city of Quebec, where the oldest in Canada exists, to Manitoba, the most recent.

In my desire to place before you—and the occasion is so rare—a sketch of what relates to professional life in your greatest colony, I fear I am being beguiled beyond the reasonable and the considerate. I shall turn, and for a few moments, to that in which you in the Old World, and we in the New, have a common interest—the division of professional work. I should much wish to follow the various workers in their recent labours, and to include in general propositions the special work in which they are severally engaged. But the past few years have been so fruitful in bold and daring enterprise; surgery, both in its conservative and in its operative aspects, has made such amazing strides, that the task would be beyond the powers of anyone, even if time permitted. Yet the crude impressions of one *ultra mare* may, possibly, not be without interest to you.

There was a time, not yet in the far past, when the human body, in its entirety, came within the scope and purview of the medical practitioner. As the knowledge of cause and effect in medicine became more fully understood; as facts were multiplied and methodically arranged; as the art of healing became so fully developed as almost to permit it to substitute its precepts, and rules, and directions for those principles which are fundamental, and which belong alone to science; and especially, when morbid anatomy opened a new, and practically inexhaustible field of inquiry, many men gave themselves up, almost exclusively, to a particular branch or section of medical knowledge, and pursued it with such zeal and ardour—not always, perhaps, for the sake of knowledge, but sometimes (let us hope not often) for the sake of its productive application—that to synthetise and unite again under a common head parts which had been segregated, now seems to be almost impossible, even were it advisable, and for two chief reasons:

1. When, in our profession, men of energy devote themselves to any branch of knowledge, and apply their minds thereto with continued attention, they cease to realise that, beyond and around them, there are other branches of our art which are of the same origin, which partake of the same nature, and which cannot be divorced from each other without mutual injury.

2. Although reputed pre-eminence in one department of surgery is admittedly a hindrance to advancement in any other department of the same art; and although pre-eminence narrows the horizon around the worker, and limits the scope and extent of his work; the one so cribbed and confined within those narrow limits, and who obtains pre-eminence within those limits, wins distinction and success more surely and more easily than one not so restricted. "The very narrowness of a man's claims," says a classical writer, "by making them definite and appreciable, is an advantage. The advantage lies in doing a thing which has a name, an appreciable name, and the narrower is the art, the more appreciable are the degrees of merit in that art." One so restricted, provided he excel in his narrow sphere, "will find himself a privileged man in comparison with the philosopher, or the very largest and amplest intellect that ever nature endowed or education expanded."

Now-a-days it is difficult for men, even of superior intellect, and of liberal knowledge, to avoid being drifted away into one or other of the narrow rivulets leading from, or flowing out of the general mainstream of surgery, and becoming so absorbed in the pursuit of partial truth as not to perceive that it is wanting in many parts; that it is incomplete, unfinished, and defective, and can only obtain wholeness when facts are arranged, and when phenomena, however distinct they may appear to be, are brought under a common law. No separate department of surgery, when isolated from its surroundings for the purpose of inquiry can, of itself, become an art. I cannot emphasise this too strongly. It is only when the mode of reticulation of a part with parts around it is understood, that any particular or special object of pursuit in surgery can hope to be dignified with that name. Each part, each division, each subdivision—in a word, each speciality—is as the separate clauses in a sentence, which are essentially "architectural parts, aiding, relieving, supporting each other." As an illustration, let me take, for a moment, the real or fancied disturbances of the functions of certain organs often considered to be the most important of all the organs, compared to which, in the minds of some, the rest of the body (female I mean) is a mere appendage. In many places men have been bold, and in some places—notably in America—even reckless, in taking liberties with them, removing them, sometimes, as if they were of themselves particular or distinct entities, unconnected with, or uncontrolled by, and having little relation to, a thinking faculty of mind which readily receives impressions, which is easily affected by sensations, and which is quickly disturbed by emotions and passions. Has not quackery gained, has not poor woman lost, and has not our profession suffered in honour and dignity, by the refusal or neglect of the surgeon to seek for parallelisms and comparisons in other departments of the art? or perhaps, as it sometimes happens with uninformed minds, by the inability to consider any question by a process of mental abstraction, without which science—that is to say, knowledge of laws and principles, and the interdependence of truths—does not exist.

Is it not the tendency of many other departments or segments of our art to take a part for the whole, and to give to that part a width, an extent, to dwarf into littleness the limit or exterior line of all other departments? Gentlemen: The exclusion of what is cognate diminishes the value of what is accepted in direct ratio to the value of what is excluded. As the process of analysis has gone on till we can scarcely expect to see it greatly extended, it may occur, it has occurred, to many to ask: Is it not time to hark back upon our course, and to see if—in the interests of the public as well as of our art—a more general synthetising is not desirable, when the approximation of parts which have been divided, and

which have been recently kept so much asunder, should not be aimed at?

As long ago as the second decade of the present century, honest John Abernethy, in his remarkably practical essay on the Constitutional Origin and Treatment of Local Diseases, said an evil seemed to him to have arisen from the artificial division of the healing art into the medical and surgical departments. This division, says he, "has caused the attention of the physician and the surgeon to be too exclusively directed to these diseases, which custom has arbitrarily allotted to their care." But medicine, then, was one, and surgery was one. What would Abernethy say to-day, when each section of the human body is apportioned and allotted, and when, paradoxical as it may seem, each part is considered to be greater than the whole?

Whether such specialisation is a mixed or an unmixed good—and I shall not stop to discuss the question—it is the fact that the art of surgery is becoming more and still more divided into an ever-increasing number for special or particular branches of study or pursuit, each branch having its respective province or domain, which, it cannot be denied, is sometimes kept more distinct by an exaggerated estimate of its importance. Yet each must ever remain cognate to, and in close relationship with, every other department of the art, for there are no limits or boundaries to those various departments, and a seemingly intimate acquaintance with one, and a total nescience of others, are crass ignorance of all; for "all are but parts of one stupendous whole," as the poet puts it.

I hope this will not be understood, by anyone, as an expression of a desire to interfere with the pursuit of any particular course, however narrow it may appear to some, however vast to others. My desire is to *extend* the horizon of each, not to narrow it, by showing that all branches of our art are cognate to each other. So long as there is division of labour, there must, indeed, be division of thought; but the narrow limits and boundaries which it is sought to establish must ever be prejudicial. Part is intimately connected with part, and a full knowledge of the functions of any part, and of its derangements, can be had only by those who have a general knowledge of the disposition and arrangement of other parts, and their countless and never-ending relations to one another in that wonderfully-constructed whole—this body which we inhabit.

In view of what has been said, I am impelled to ask: Has the candidate for admission to the study of surgery that mental outfit which would enable him to weigh well the facts and circumstances as they will be presented to him in professional life? Or is it not too frequently the case that his memory has been loaded—overloaded—with material, for the most part ill-digested, but with a minimum of knowledge worthy to be called liberal; and perhaps, withal, with an almost total lack of the power of logical inference which is, as it were, the compass which guides the reason amid the treacherous currents of error to the truth? Memory, however retentive, and stored with facts however great in number, never, alone, in our profession, raised its possessor above mediocrity and maintained him there, save when the science of causes and principles was understood, and when philosophy could be invoked wherewith to analyse facts and to place them in relation to other facts which an irrational eye could not see, and which the unphilosophic mind could not understand. Of course I speak not, here, of genius, which is trammelled by no law save that which belongs to genius.

Never, perhaps, in the history of surgery has the necessity been greater than it is at present to furnish those who are to devote themselves to a cultivation of the art with an adequate mental outfit, to enable them to decide what surgical ailments are from their relations to other phenomena, and to recognise the "consent of the whole constitution with its parts and parts with other parts which may appear to be remote, but which can never be considered quite separately and without reference to an unfailing sympathy—continuous, contiguous, or remote." Accompanying each part or section of the art in its remotest, most intimate penetrail, the facts there gathered, the phenomena there observed, are but segments or fragments of greater parts—of larger phenomena—which the logical mind alone can fairly interpret; for it, alone, can apprehend those facts and phenomena in their various bearings and relations, in their "strong connections, nice dependencies."

It is urged by those who know not, or who value but little, the advantages which a liberal education confers on its possessor, that it is remote from the use and tenour—the needs and occupations of life—and can be well dispensed with; that its utility is not apparent; that its profitableness is questionable. Looking at the question from a mere financial aspect—and that aspect obtrudes itself nowadays into every question—it may be admitted that a liberal education may be fruitless in money-getting; it may be inconvenient at times, when men wish to be untrammelled in their interpretation of the duties of life, or may wish to act without reference to any standard of efficiency, or even of dignity. Such, however, can never be the point of view of the members of a profession which, though perhaps somewhat fallen from its high estate in these days of tradesmanlike arts, still claims to be considered "liberal."

Physicians and surgeons have, in every country, and in every age, been amongst the most learned and the best informed. To-day the difficulty of preserving that distinction is greater than it formerly was. Education, at one time the privilege of the few, is now the possession of the many; and while the separation of professions and the division of labour tend to the perfection of art, according to Dr. Copleston, the same learned authority adds: "But, although the art itself is advanced by this concentration of mind in its service, the individual who is confined to it goes back." Is not the conviction sometimes forced upon us that he was right?

It may seem strange to some of you that, coming from a country where schools are thought to be sparsely established, and schoolmasters not always easily procured, I should not wish to have the status of classical education lowered. On the contrary, we in Canada would say to you in Europe: Elevate the standard of classical attainments, and we raise it with you. Require from aspirants to professional honours that most extensive and varied knowledge which, for want of a better term we call liberal, and we, too, shall demand it. (And here, let me say, I mean by the term liberal knowledge, not classical alone, but something more than classical, though never without it.) Acting independently, every few years, as circumstances permit, we demand more and more of candidates who desire admission to the study of medicine. Within the last two months the Legislature of the Province of Quebec has, to English, French, Latin, geography, history, arithmetic, algebra, geometry, *belles lettres*, and physics, added philosophy, which, with us, always embraces logic and mental or moral ethics. This is a step in advance of many countries. As that science of sciences "includes, locates, and connects, and uses all kinds and modes of knowledge," it will do much to hold together and keep under control every branch of our noble profession, whose members have, in every age, been amongst the most cultivated, and whose social influence—used commonly for good—it is beyond the power of man to measure.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF MEDICINE.

At the Annual Meeting of the British Medical Association held at Nottingham, July, 1892.

BY W. H. RANSOM, M.D., F.R.S., F.R.C.P.,

Consulting Physician to the General Hospital, Nottingham.

ON SOME DISEASES OF PLANTS COMPARED WITH THOSE OF MAN.

As it has been the custom for Presidents of Sections to deliver an address, I have made an endeavour to conform to the usage, and have put into a connected form some of the results of a long though desultory study of diseases of plants seen from the point of view of the student of medicine, to whom nothing can be foreign which touches upon perturbations in the organic world. As the subject is wide I must leave out much, and treat of that which remains as an outline sketch only. I have no pretensions to be considered a

botanist, and I doubt not that many imperfections will appear in the course of these remarks for which I would, by anticipation, crave your lenient judgment.

I shall not touch upon those plant diseases which correspond to general disorders of circulation and nutrition in animals, nor upon those which are essentially destructive of life. Degeneration will be incidentally noticed, because in one admissible sense of the word, it occurs as an essential part of that morbid process with the consideration of which I propose to occupy your attention.

Inflammation in plants might have been the title of this address, as it will deal almost solely with that process, which as I define it provisionally, may be considered as the reaction of living cells to irritation. All such reactions in plants produce what are, or may be called, galls, using the word widely, but some of them which occur in growing points are known as witch-knots. It may be convenient to add that a gall should be considered as a local hyperplasia, or overgrowth of tissue, which differs from a local hypertrophy in that it diverges in structure and form from the normal tissue or organ with which it is related, and injures or at least does not benefit, the plant. The causes of such reactions, or in other words the irritants, I do not doubt may sometimes be mechanical or physical agents, or inorganic chemical substances, but as a matter of fact all those which have been most successfully investigated inhere in living organisms. These organisms are very diverse, so that nearly every order of insects presents us with some examples. Among the acari the Phytopti or gall-mites are the best known; some anguillulæ have long been known to produce galls, and some parasitic fungi as well as certain as yet imperfectly classified organisms also cause galls.

From these diverse sources spring causes which produce results that agree and yet vary. Thus, in all instances there follows local hyperplasia, with modification of structure and form; and in each there is such a definite relation of the process to the irritant, that the evolution of the gall is mainly directed by it, and the product is therefore specific. In the case of galls due to insects, the insect which lays the egg is usually spoken of as the cause of the gall; but, to speak accurately, it is only constantly associated with that cause, which directly inheres the developing embryo *in ovo*, or in the young free larva for a part only of their life and development. Some of the parent insects, while depositing their eggs, wound and kill portions of the plant where the egg rests, and the reaction occurs in the nearest living cells, but the wound is not irritant. Some of them do not wound the tissue where the ovum rests, although neighbouring parts are wounded. In these cases the wounded tissues heal, and the gall growth takes place where the egg rests and develops. Some organisms, such as fungi, produce no wound when they cause galls. There are no grounds for adhering to the view, once held, that the parent insect deposits a virus with the egg. No galls are known to be due to any single act or impulse of any kind. The character of the reaction varies mainly with the irritant, but also in a much less degree with the tissues irritated. The irritant may inhere in an embryo *in ovo*, or in a free hatched lava, or in both, or perhaps in an adult gall mite or in a mycelium, or in other more imperfectly understood organisms, animal or vegetal, if living; and although I grant the possibility that it is sometimes mechanical or physical, yet I think it more probably always is some organic liquid chemical substance, not very diffusible, produced in small quantities either continuously or at short intervals during a short part of the life and development of the parasite, and having a different composition in each species. In some galls, due to the developing embryos of heterogenetic insects, the egg is laid by a mother which differs from the insect which her own egg develops into. Thus the gall is in one sense the product of the embryo of the insect which escapes from the ripe gall, but in another sense it is the product of the mother which laid the egg. It is much to be regretted, I think, that the specific name of the insect which escapes from the ripe gall is often employed to designate the gall itself.

Before I proceed further with these remarks upon galls in general, it will be well to bring under your notice some selected examples, and to show some specimens, photographs, and drawings.

1. The common oak apple is due to the deposition of ova in a bud by the unisexual form Biorhiza aptera derived from a root gall; and it yields the bisexual form teras terminalis, which lays its eggs in the young roots and produces the root galls.

The bud is punctured early in the winter, and its axis is cut quite across just below the lowest green leaflets. At this level the divided tissues are already differentiated. The distal part of the axis with its appendages dies, but is held *in situ* by the bud scales. The abundant ova fill the saw cut and rest upon the axis, but separated from the living cells by a brown crust composed of dead cells and exuded juices. During the winter the embryos develop somewhat, but no gall growth occurs until the early spring, when shortly after one can detect in the unhatched embryos active mandibular movements, the gall plasm begins, by a proliferation with modification of the cells immediately beneath the brown crust. All the elements of the axis take part in this process, and an embryonic meristem is produced, which, bursting through and pushing aside the brown crust, comes into contact with the just escaping embryo. This it rapidly grows around and embeds so closely as to push the eggshell off the embryo and leave it adhering to the young gall where the overflowing growth meets. Successive ova about to hatch come into contact with the outer surface of this embryonic gall plasm, and excite in it a proliferation of cells like those from which they spring, so that the embryos are all separately embedded, the empty eggshells being left at the distal pole of the now composite gall, and retaining there the dead, cut-off axis. I am not sure, but I think the young embryos help with their mandibles to burst their eggshells, and may also tear the brown crust, and thus enable the irritant to reach the cells which react.

Sometimes the insect cuts the axis in the normal way but lays no eggs, and then no gall grows. Sometimes very few, perhaps but two or three, eggs are laid, and then the gall is proportionate. Sometimes eggs are deposited but the embryos do not develop, and then no gall growth occurs, or if the embryos die after a certain stage of development the gall, which had begun, ceases to develop, and soon dies. The first product of reaction, the gall plasm, is, as has been said, an embryonic meristem and quite undifferentiated; it contains no chlorophyl, or next to none, and resembles in some respects a young callus. It has, however, no potentialities such as belong to true callus. During its evolution it passes through a series of changes in its minute structure which are directed in all their stages by the developing embryos or larvæ, and these result in the production of a complex mechanism which serves to feed, lodge, and protect the parasite without advantage to the host, and is markedly heterologous. Greater vigour of growth of the plant increases the size of the gall, but this does not benefit the plant. When the larvæ are fully developed and become inactive the gall ceases to grow, and after some changes comparable to those met with in ripening fruit, it dies, and the insect escapes. The tree loses a bud and some nutritive material, but the neighbouring tissues suffer little injury.

2. The common currant gall of the oak follows the deposit of an egg in a bud early in spring, by the unisexual form Neuroterus lenticularis, itself hatched from the red spangle, and it yields in June the bisexual form Spathegaster baccarum.

Although some living tissues are wounded in laying the egg, this itself rests upon the uninjured upper surface of a young leaflet of which the tissues are then slightly differentiated. The punctured wound simply heals, and the gall plasm springs only from the unwounded part upon which the developing ovum rests. This reaction begins only after a few weeks, when the embryo is about ready to escape. The epidermal cells multiply and are differently modified in successive generations, so, that those which lie next to the embryo become the white food layer, and those which lie next outside it become green succulent parenchyma, and the still more distant cells remain as a slightly modified epidermal layer. All the other elements of the leaf, however, take part in the formation of the gall. During this process the growing gall closely encloses the embryo and pushes up the empty eggshell to the point where the overflowing gall plasm meets. In this example there is no sudden production from differentiated

tissue of an embryonic meristem which subsequently develops; but rather a gradual change of existing cells with slight modification of their characters and arrangements. The outcome is again a mechanism adapted to suit the parasite. The mature insect escapes from the ripe gall, which then soon decays, but when, as sometimes happens, lodgers occupy the gall, kill its inmate, and produce a secondary gall inside, it lives much longer, and indeed as long as the new inmates require its aid.

3. The common red spangle is due to the deposition of an egg by the Spathegaster baccarum in a wound between the surfaces of the young oak leaf in June; and it yields the Neuroterus lenticularis in the following March. Parenchyma, fibro-vascular bundles, and epidermis are all wounded, and a portion of the latter dies at a little distance from the puncture on the lower surface of the lamina. The egg is placed in the wound, and after a few weeks the gall plasm grows at first from the cambiform cells, so as to enclose the embryo and leave the empty eggshell in the puncture. The gall plasm is at first an embryonic meristem without chlorophyl, which bursts through the dead cells of the lamina in that stage. Differentiation of tissue rapidly follows and a very complex and remarkable structure is developed, which has an unusually long and quasi-independent life. In this case the irritant has so directed the course of the evolution of the gall as to prepare in advance stores of material for its further growth after its separation from the tree. The plant suffers very little injury. Often two or more species of spangles are met with at the same time on the same leaf, showing in the strongest manner the prepotent influence of the irritant in determining the character of the reaction.

4. The common nut gall demands a brief notice. It is caused by Cynips kollari, a parthenogenetic insect, which makes a wound, but leaves its egg upon an unwounded very young bud. The wound heals, and the young gall springs from the unwounded cells upon which the egg rests; soon it encloses the embryo by an embryonic meristem which is free from chlorophyl, and then develops into a complex structure which contains chlorophyl, and is extremely heterologous. Beyerinck says of this gall that it is not comparable with root, stem, or leaf, and would seem to resemble a special organ. The direction and duration of the evolution of this gall depend at first upon the developing embryo, and afterwards upon the free larva, as is well shown in the effects of the parasites and lodgers which attack it. It has a short life, and does but little damage to the plant. The period of its growth anticipates that of the normal development of the bud.

5. There are some galls which require notice because the gall proper separates itself from hypertrophied plant tissues which surround it. This outer gall, as it has been called, is usually composed largely of fibro-vascular tissue; it often persists as a part of the parent tree, and although deformed it bears normal buds and shoots. Such are the galls which yield the Andricus inflator and A. curvator.

6. The artichoke gall illustrates a somewhat different mode of extension of the influence of the irritant beyond the true gall. The bud axis, which at its apex bears the gall, carries at its base a large number of modified scales, and these serve as a protection to the true gall before it is thrown off by a sort of dehiscence. In this case the protecting scales and the basal part of the bud axis are not, as in the previous example, mere hypertrophies, and they soon die and are cast off.

7. The willow galls, caused by several species of Nematus, illustrate well the growth of a gall from the wounded surface inside the leaf within which the egg is laid. The gall reaches nearly its full size and perfect structure before the embryo leaves the egg. If the embryo dies, the growth of the gall is at once arrested. The free larvæ are much more voracious than those of Cynipidæ, and soon eat more tissue than is excited to fresh growth, so that the whole centre of the gall is consumed.[1]

The gall growth from the first is a slight proliferation of, and a gradual change of, all the leaf tissues retaining their chlorophyl. The product is not so heterologous as in the previous examples, but not the less does its evolution depend upon the developing embryo.

[1] I may remind you that while the larvæ of the Cynipidæ are not furnished with strong mandibles, or anus, and live only upon very nutritious diet, those of the saw-flies have these organs well developed, and eat coarse food.

8. Many examples might be given of gall production by a free larva as distinguished from production by an embryo in ovo. One of the best is the common globular rose gall, which is often attacked by a lodger, a species of Synergus, the larvæ of which kill the gall producer, consume its food stores, and then excite the growth of secondary galls inside, as well as modify its structure. Many galls excited by colonies of the larvæ of Diptera, or Hemiptera, or by Phytopti illustrate this point also.

9. The galls caused by parasitic fungi or by bacteroids are illustrations of the action of an irritant without producing any perceptible mechanical injury. See the beautiful gall on the Alpine rose, fingers, and toes on the cabbage plant, etc.

10. While some galls are remarkable for their striking and well-defined or exceptional forms and structure, as the cottony gall on the oak catkin and the Bedeguar, many are irregular and variable in form and size, indefinite in outline, and are but slightly heterologous. Between these extremes all gradations are found. Generally galls caused by colonies are more irregular in form as are also those which involve axes or fibro-vascular bundles.

11. Some local hyperplasiæ like the "cankers" are the outcome of mixed causes, and appear to result from the combination in various degrees of a process of healing after injury, often of mechanical origin, with the reactions of the healing tissues to irritation, as well as with destruction due to saprophytic fungi or bacteria.

12. I must refer briefly to witch-knots and allied malformations. Some of them—for example, those on the silver fir and on the wild cherry—are due to parasitic fungi, and some to Phytopti. I think the action of both is upon the very young growing point in a bud, but as yet the causes of witch-knots are not made out, nor has their early development been sufficiently studied. My present view is, that by irritation of the growing point a reaction follows which results in the formation of an excessive number of buds and shoots, which overcrowd and often kill each other. The whole etiology is certainly complex, and involves several factors; but in one species I have found buds with two to five young shoots springing from one base, and exhibiting the action of a process which combines multiplication of organs with anticipation of evolution, or, as the teratologists would say, polycladia with prolepsis.

These examples show some of the grounds upon which is founded the hypothesis, previously stated, that the irritant is an organic chemical substance, and also support the view that the process of irritation is some gentle persisting disturbance of the metabolism of the living cells, during which cell multiplication is inhibited where it first acts, but stimulated just outside that part. Such disturbance is propagated in some unknown way through the gall tissue so as to act differently at different distances in different directions, and may extend to tissues outside the true gall, and varies at different stages of the evolution of the gall.

The process of reaction, which is necessarily conceived of simultaneously with that of irritation, has its source in that fundamental faculty of repair and reproduction which plants, in common with all organisms, necessarily possess. The power of reaction to irritation resides in all the living cells, although most marked in the younger, as is also true of the processes of repair and of reproduction. The process itself may be conceived of as a compensative cell proliferation directed and modified in its character by the irritant, so that the result is at once heterologous and specific.[2]

Two main modes of these reactions can be distinguished: *a*. The first product of irritation is an embryonic meristem, which subsequently undergoes a kind of metamorphosis during its evolution comparable with that of a fertilised ovum, and sometimes produces a semi-independent mass comparable with a new organ and useless to the organism it grows from. *b*. The first product is but a slight modification with proliferation of existing cells, which subsequently change gradually and slightly, so that the result is less

[2] Perhaps the most striking instances of the influence of the irritant in directing the process of reaction so that the result may be to its own advantage are those in which when the gall is ripe and the enclosed insect not furnished with strong mandibles so as to be able to eat its way out of prison, it dehisces as some fruits do, and lets the enemy escape. The delicate mechanism by which this dehiscence takes place is evolved under the influence of the embryo. See the gall upon a species of galium and many others, especially such as are due to diptera and hemiptera.

heterologous and nothing resembling metamorphosis is seen. I am disposed to speak of these successive generations of cells gradually becoming more degraded, in the sense of being less adapted to the wants of the organism which produces them, as being due to a process of true degeneration, and I would not use, as is often done, the same word for a quite different process, namely, that gradual change in the material of a persisting cell which leads to necrosis. In all these reactions the first cell proliferation is independent of the development of fibro-vascular bundles; indeed, the latter waits upon, and is measured by, the former.[3]

I must say a few words about repair in plants. When a part of a living plant is injured it dies, if the damage be serious, and the nearest living cells multiply, so that in wounds of parenchyma one and the same kind of tissue known as cork always results, whatever may have caused the injury, and in wounds which involve the great cambium, repair is effected by another tissue, known as callus, which is always the same whatever may have produced the injury. Repair then is not specific in relation to the cause of the injury, but in similar tissues is always the same. Both cork which is the scar tissue of plants for injuries of parenchyma, and callus which is the same for wounds of axes, are normal and permanent plant tissues, and the latter has within itself all the potentialities of the whole plant, being able to reproduce roots and shoots. The whole process of repair is a physiological one, that of reaction to irritation, a pathological one, and it is only when the two processes are mixed that confusion can arise.

As all the reactions to true irritation are by the hypothesis inflammations in plants, this expression includes both those well defined galls of complex structure and somewhat independent life which are usually called tumours of plants, and also those more variable and indefinite local hyperplasiæ due to irritation which are often so slight as to escape attention, and would more naturally be spoken of as inflammation. In all, however, the irritant directs the reaction and the product is specific. I conceive that malformations, such as witch-knots, etc, belong to the same category, that they differ from galls mainly in that the reaction which produces them results from the irritation of a developing germ, and that it produces rather an abnormal arrangement of otherwise normal organs than a true local hyperplasia.

As morbid processes in plants belong to the domain of general pathology, they may properly be considered in relation to the corresponding processes in animals.

That the reactions of all living tissues to irritants are rightly considered as inflammations I think will receive general assent. Nor can I doubt your support of the proposition that a general theory of inflammation should include all organisms. I do not however know any such theory comprehensive enough to include plants. The latest and perhaps the widest is, I think, that recently put forward by Metschnikoff, in his *Leçons sur la Pathologie Comparée de l'Inflammation*; but it is scarcely wide enough to include plants, although it is founded upon a very wide zoological basis.

With great trepidation I now venture to suggest one which is sufficiently comprehensive, and may be stated somewhat in the following terms:

In virtue of those necessary and inherent faculties by which all organisms repair damage, living cells react in response to true irritations by a proliferation with modification directed by the irritant, and not beneficial to the organisms in which the process occurs.

Those, if any there be, who accept this view of inflammation, will as a consequence consider all inflammations specific, even where the phenomena ascertained do not suffice to prove them to be so. From the purely clinical standpoint many inflammations would still be spoken of as simple or common, but with the progress of etiological knowledge the number of specific inflammations would increase at the expense of those which from lack of etiological knowledge only are called common.[4]

[3] A good illustration of this is seen in the galls upon the oak catkin. Normally, the rachis dies and falls early, but when a gall is developed the basal part of the rachis grows larger and lives longer; indeed, so long as the gall is growing.

[4] By this theory in animals as well as in plants all those tumours which are due to a reaction to irritation would be included in the term inflammation, as probably also would be some of the malformations.

By the adoption of these views I venture to hope our conceptions of the relation which exists between the processes of repair and of inflammation would be more definite and true to nature. The search for causes would be more productive because better defined, and a much-needed distinction would be made between the cause of a species of inflammation and the causes and conditions of the steps of the process in general. We should less often find in the etiological section of a treatise upon some visceral inflammation elaborate statistics relating to age, sex, employment, season, etc., and more often a candid avowal that we know nothing of the true cause, and only something of the conditions, which more or less favour its operation.

Something would, I think, be gained to the science of pathology by its closer association with etiology and our classification of diseases would be improved by an increase in the number of specific maladies.

The arguments I have used in reference to inflammation admit of application to fever, although the equivalent of that process is not yet recognised in plants; but remembering how many fevers are now known to be specific, their intimate connection with inflammations, and the specific effects of poisons and drugs both upon the organism as a whole and upon the several organs and tissues, I am much disposed to advocate such an extension of the doctrine, which is indeed apparently a necessary corollary from the truism that causes are factors which must always affect the results in some degree.

The greater complexity of structure and function in the higher animals than in plants, and especially the more immediate dependence in the former of every tissue and organ upon the integrity of the nervous and circulatory system, sufficiently account for those differences in the inflammatory process which are known to exist.

Although time will not permit me to make such references to authorities as I could desire, I must acknowledge the pleasure and instruction which the perusal of Sir James Paget's address and lectures on this subject afforded me, and I must also mention Beyerinck as the most successful investigator of the development of galls. He availed himself of Adler's discovery of heterogenesis and methods of cultivation, and thus had materials at command of which he has made most excellent use.

Gentlemen, the clock warns me that I must close these remarks. I trust that some of you have been interested, and that not many of you have been repelled, by my heterodoxy. If in some minds the thought has arisen that the subject is not well suited for this Section, I would urge that without pathology there is no science of medicine.

PRESIDENTIAL PROLOGUE

DELIVERED AT THE OPENING OF

THE SECTION OF SURGERY.

At the Annual Meeting of the British Medical Association held at Nottingham, July, 1892.

BY JOHN CROFT, F.R.C.S.,

Consulting Surgeon to St. Thomas's Hospital.

IN taking the chair as President of the Surgical Section at this meeting of the British Medical Association, it is my duty—and it is a very pleasing duty—to offer my best thanks to the executive of the Association, and through the executive to the Association generally, for the honour they conferred upon London when they elected one of London's surgeons to preside on this occasion. I wish that I were more worthy of the distinction which has been so kindly bestowed upon me. It is my intention to economise your time as much as possible, and with this purpose in mind I shall limit my address or preliminary remarks to a brief prologue on the subjects which have been selected for the three days at our disposal. The executive of this Section selected a main or principal subject for each day, a subject calculated to bring together the best workers, thinkers, and speakers of the Association.

In selecting the subject of the surgery of the thorax we were influenced by the knowledge that there are many dis-

eases and injuries of this part of the body which at present are baffling both physicians and surgeons.

I imagine that the surgical treatment of pleural effusions, whether serous or puriform, has been so far advanced during the last ten or twelve years, that certain formulæ may now be admitted: (1) That early evacuation is the best principle to act upon; (2) that the exclusion of air where practicable and the observance of aseptic or antiseptic *technique* should be rigidly observed; (3) that complete and perfect drainage of the cavity under treatment is essential, including counter-openings and large openings into the pleura or other pus-holding cavities; (4) that large cavities require adequately large openings; (5) that ribs and periosteum, intercostal vessels and nerves may be largely excised with advantage immediate and prospective, so long as ordinary precautions are observed; (6) that lack of early and adequate operations are important causes, though not the exclusive causes, of delay in the closing of cavities; (7) that lung abscesses and gangrenes and bronchiectatic cavities, with certain obvious exceptions, are amenable to surgical exploration and treatment; (8) that hydatid cysts in the lung or pleura may be successfully extracted or otherways cured by thoracotomy.

It will not be safe, at the present stage of our experience, to extend these formulæ. They reach as far as amenable cases go, but there remain to be mentioned those instances of disease and difficulty which are found to baffle the physician, whose province it is to define the disease and its locality, and the surgeon, whose province it is to bring surgery to assist medicine.

1. Difficulty of diagnosis, which may cause the physician to delay surgical assistance; for instance, the defining remote, small, pleural effusions and lung abscesses. 2. Procrastination for other reasons. For the latter one can offer no excuse, but for the former difficulty a surgeon can offer this amount of assistance—namely, repetition of exploratory incisions and punctures. 3. When a large cavity is placed under the scapula. 4. When an enormous pleural cavity is bounded on one side by a collapsed, movable, swinging, dangling lung, and on the other side by rigid bony wall.

This is a most formidable difficulty to overcome, and particularly when there is little or no disposition to the formation of granulation or cicatricial tissue. Sponge grafting has failed. Abstraction from the wall of the chest of a great portion of its bony rigidity does not necessarily succeed. This is a condition of things upon which we may hope that the discussion at this meeting will throw some light.

I would ask in this connection this question, Would the removal of the useless swinging lung, at or near its root, be a safe and useful measure? I am disposed to think that its presence is an obstacle to the cessation of discharge from the pleura, and that its removal would be a step half way to cure. I am supposing that the lung is useless as a respiratory organ, and that adequate measures for its fixation have failed of their purpose. The loss of such a spoiled organ should prove to be a gain.

There are two other conditions remaining to be mentioned—namely, tuberculous cavities associated with other tuberculous deposits and multiple bronchiectatic cavities. These, up to the present time, have proved insurmountable diseases and difficulties.

Since the introduction of antiseptics and aseptic modes of operating a decided improvement has taken place in dealing with the pericardium and its troubles. It does not present the same conditions for difficulties and such exceptional states as the organs and cavities we have just been considering.

Surgery of Liver and Gall Bladder.—When one thinks of what our art has accomplished in this branch of abdominal surgery one cannot but feel a rush of exultation and pride at the triumphs which have been recorded. The following are specimen instances of the class of disease about to be brought under discussion, and at the same time that they illustrate the difficulties and wants which have been met with, they further illustrate how boldness, confidence, and skill may prevail to turn aside the threatening issue.

The first is a case for cholecystotomy. First, on opening the abdomen the surgeon found that what had appeared to be a distended gall bladder was the thickened head of the pancreas; the gall bladder was hidden away under the stomach, omentum, and liver, which were so matted together by adhesions as to completely mask it; secondly, the object of the operation was only attained by separating these structures at great risk, including the opening of an extrinsic abscess; thirdly, when at last the bladder had been discovered and opened, the extraction of the concretions cost the loss of much valuable time and the expense of special ingenuity to accomplish their removal with various scoops and forceps; fourthly, when the object of the operation had been so far attained, the surgeon found himself in the position of an adventurer who had slain his enemy but discovered himself unable to retreat; the gall bladder, now laid open, could be neither sewn and closed nor brought into the abdominal wound to be sutured there, nor safely excised; it had to be left; fifthly, this bold and skilful surgeon proved equal to the occasion; he so provided for the drainage of the mixed bile and mucus that it only leaked to such a limited extent as not to cause any serious peritonitis or prevent the ultimate cure of the patient.

The second illustrative case is one in which a surgeon of great local repute found, after he had successfully evacuated the gall bladder of its concretions, that he could not completely bring the edges of the wound in the bladder to the level of the parietal wound! When he had imagined that cholecystectomy was the only measure left to him, an opportunity for closing the peritoneal cavity against the opening into the gall bladder suddenly came to his hand. A piece of omentum presented itself; he seized it and his opportunity; he completely closed the gap by inserting the omentum into it, made the drainage perfect, and brought his case to a successful issue.

Gentlemen, brilliant as are the results obtained in the surgery of the liver and gall bladder by Messrs. Lawson Tait, Mayo Robson, Knowsley Thornton, Jordan Lloyd, Pearce Gould, and others in this country, there remain difficulties yet to be overcome and questions yet to be settled. I here allude to (1) the treatment of hydatid cysts of the liver which have already opened or which threaten to open into the chest: (2) I allude to the question of early operation in cases of cholelithiasis; (3) I allude to the desirability of suturing the incision into the gall bladder and of then closing the abdominal incision and cavity; (4) when the gall stone is impacted in the duct and cannot be reached through the gall bladder, should the duct be incised and the incision sutured, the omentum being employed to strengthen the fastening? (5) I allude to the question of whether ligature of the cystic duct without cholecystectomy is to be preferred to other operations; and (6) I allude to the cases in which cholecystectomy is to be preferred to less radical proceedings. Lastly, the interesting topic of cholecystenterostomy will arise—when it is to be resorted to and the best mode of carrying out the operation.

Treatment of Spinal Abscess.—The subject of the surgical treatment of tuberculous disease is still one of the burning questions of the day. In spinal disease we have a study of tuberculous disease of bones and joints. The essential pathology of the disease is the same whether the neoplasm is in bones or joints of limited mobility—as in the spine—or in the bones or joints of the utmost mobility in the extremities.

In discussing the treatment of tuberculous abscesses connected with disease of the bones and joints of the spine, the vexing questions as to shortening of limbs, arrest of growth from excision of epiphyses, flail-like joints after operation, acute infective tuberculosis after excisions, do not, or should not, embarrass the discussion. No one, so far as I know, has yet attempted cure by excising the vertebral column with its joints. The topics for consideration are therefore fewer than in the surgical treatment of tuberculosis of joints and their bones.

We are not asking you to discuss the tuberculosis of the joints or their bones without or unaccompanied by abscesses, nor the preventive treatment of abscesses, but solely and simply, and without special reference to sequestra, the surgical treatment of tuberculous abscesses associated with spinal disease. In this respect the matter before us should appear to be definite. No doubt we shall hear advocates of the expectant treatment of these abscesses, though I believe that in the face of antiseptic and aseptic modes of evacuating abscesses, the disciples of unadulterated expectant treatment are fast dying out or changing their tactics.

I believe we shall find at least two most remarkable lines of practice put before us in the course of the debate, and that these two widely differ from the old modes of treatment. I will venture to predict that on one side there will be thrown on to the mental screen, as it were, the cure of large tuberculous spinal abscesses, without septic sinuses, by repeated aspirations and iodoform injections, no larger operations than those being performed; and on the other side of the mental screen we shall have depicted the cure of the same condition of large abscesses by free incision, evacuation of all cheesy deposits and sequestra, obliteration of the lining tuberculous membrane without the permanent introduction of an antiseptic, and these proceedings followed by complete closure of the wound without drainage.

What lines of treatment will be suggested or advocated for old cases of spinal disease accompanied by sinuses and lardaceous disease, I forbear to speak of or predict, but whatever courses are put before us by Mr. W. Cheyne, and however numerous they may prove to be, we know that the description and illustration will be by a master hand.

We hope that the time allotted to this Section will prove more than sufficient for the discussion of these three main subjects and the papers which are allied with them. There are other very interesting papers on the list, and these we shall be most anxious to bring forward at the earliest convenient opportunities. As time and opportunity admit they will be called on, and we trust that you will give us credit for being animated by a sincere desire to afford full justice to each author and speaker.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PSYCHOLOGY.

At the Annual Meeting of the British Medical Association held at Nottingham, July, 1892.

By W. BEVAN LEWIS, L.R.C.P.Lond.,
Medical Director of the West Riding Asylum, Wakefield.

ON SOME DESIRABLE EXTENSIONS OF ASYLUM MINISTRATION.

My first and most pleasing duty is to thank you for the honour you have done me in asking me to preside upon the present occasion. There will be many here who could have offered you the results of a much more matured experience, and would have filled more gracefully in every sense this chair; and this I feel more keenly since I have no adequate return to make beyond a review of some of the more interesting aspects of modern asylum life. Anyhow, my remarks, I trust, may not be devoid of suggestiveness and of practical value.

In the strictest sense of the phrase, this is a practical age. We are all looking at our asylums for substantial returns; we look with suspicion upon the man of many words, who has not learnt the secret of the "golden silence," and we all bow to the dictum of the Chelsea philosopher: "Our works are the mirror wherein the spirit first sees its natural lineaments. Hence, too, the folly of that impossible precept, 'know thyself,' till it be translated into this partially possible one, 'know what thou canst work at.'" I propose, therefore, to deal with those eminently practical aspects of insanity and its treatment which embrace the functions of the medical staff, and especially of the asylum pathologist, their mutual relationships and common interests; and, in the next place, the organisation of a nursing staff, the possibility of extending their functions, of augmenting their utility, and of elevating their general *morale* and culture.

The Medical Staff.—The asylum pathologist is an official who has always claimed my earnest interest, for I have watched him in his obscure beginnings, his early checkered career, his almost complete eclipse, and ultimate emergence from the clouds which obscured him. I say a "checkered career," for I know no asylum official whose ascension was met by such lugubrious forebodings by the screech owls of discontent as this unfortunate scion of modern science was subject to. Some twenty years ago the asylum pathologist was a *rara avis*, looked at askance by most superintendents, and even some of the ablest administrators of that day regarded him as an undesirable accretion, a modern scientific sport, to be treated with a certain degree of sympathy if not of pity; above all things, we were to regard this unfortunate one as the very antithesis of the practical man. How this ingenious notion was evolved some might consider undesirable to inquire. For my own part, I think there can be no better tonic for us than to face the question bravely, and seek out some of those wondrous underworkings of the human mind we designate motives, and which are answerable for the many faulty judgments, rash assumptions, and illogical dicta savouring of the narrow, prejudiced mind.

The practical man, to the mind of many, was often the individual who, whilst fully familiar with the economy of the house, might be grossly ignorant of the most important medical and scientific aspects of the cases relegated to his care; he might to a wearisome extent be able to descant on the condition of his crops, indicate to a nicety the yield of his dairy, and be perfectly familiar with the finances of the institution—all, of course, highly necessary and useful acquirements; but yet he might appear mysteriously involved if asked the differential diagnosis of a case of chronic alcoholism from one of general paralysis, whilst to him the tracts of the spinal cord and cerebrum would be a *terra incognita* of blissful innocence. Now, this same "practical man" was often regarded as possessing a sort of monopoly of that much-vaunted quality, common sense—a quality, of course, wholly incompatible with the nature of a scientific visionary; and yet for the life of him, with all this common sense, he could not be made to realise that it was highly essential he should understand the mechanism and derangements of the nervous organisations entrusted to his care and treatment. The explanation of which seeming anomaly was evidently this: That the attribute, common sense, in one stage of intellectual development, becomes very much like common nonsense in a later evolved phase. On the other hand, the elimination of all that savours of mysticism, doubt, and ignorance has ever been effected at the hands of scientific votaries, and not of the self-styled prophets of common sense, and we could, therefore, look with confidence to the scientific inquirer, when he set foot in our asylums as the harbinger of a new and happier era, and as the more approximate realisation of the type of a genuine practical administrator.

To return to our new-fledged pathologist. This much persecuted individual was the subject of most remarkable misjudgments at the hands of those very parties who should have been foster-parents of his youth. One of these misconceptions was this—that he had no *raison d'être* except to figure as a kind of scientific scapegoat, answerable for the sins and shortcomings of his brethren, and he was turned out into a veritable Sahara of arid sand, denied even the cooling streams for which his parched tongue longed, the streams of sympathy and interest from others in his chosen work, and yet the poor afflicted one was held responsible for the so-called "scientific reputation" of the institution.

Another equally cruel conception of his functions was this—that he should flourish and bear fruit in an atmosphere wholly uncongenial to his nature; that it was of no moment whether superintendent and staff were devoid of the slightest interest in his special work, or completely innocent of the teachings of pathology in general: he was still to be the enthusiastic worker, the assiduous plodder, and, at a grievous pittance, pose as a veritable martyr to science.

A third still more cruel assumption was this, that in the choice of his vocation he had decided with the Ascidian when relinquishiug more active habits of life, and attaching itself finally to a rock, with shrunken nervous organisation, to become a mental and physical monstrosity, doomed hereafter to secure no higher level in the animal scale. Yet, despite such adverse influences, our sturdy infant throve and prospered, but it was a sad epoch for the juvenile when the change in local government brought in our county councils. Then, if ever, the birds of evil omen arose, and flapped their dusky pinions, and uttered weird incantations for his benefit—"science in the form of pathology at asylums was for ever doomed." "The councils would have nothing to do with such dreamy and unpractical pretensions." Alas! for premature conclusions. The councils, with no uncertain voice

and almost unanimously, assert the claims of science, not in ours asylums alone, but in every department falling under their control. One committee after another showed their approbation of scientific work; and I may add from personal experience, to the honour of the West Riding committees be it said, that the keenest sense of appreciation has been displayed, and the most ready assistance has ever been forthcoming in the advancement of scientific research in our asylums. Meanwhile, the birds of evil omen are blinking in the dawn, the night of misconception has for ever passed, and the labourer untrammelled has gone forth cheerily to his work.

Can we define the individual we require to supervise the asylum laboratory? Let us see, in the first place, what he should not be. As I have already stated by implication, he should not be a scientific scapegoat. I take it that his name is somewhat of a misnomer—the asylum special pathologist. He is an official chosen to give more special attention to the examination of the nervous system because the labour of such investigation properly conducted is so enormous, and requires such specialised training, and because a vast mass of good material is daily sacrificed in English asylums from want of expert histologists and hands to help them. I have heard before now a distinguished teacher at his college make himself merry at the expense of an asylum pathologist because his chief attention was given to the brain and spinal cord, albeit he was well grounded in general pathology, utterly oblivious, of course, to the nature of such inquiries, and the extreme labour of such special work.

I need not indicate the futility of the pathologist's work in an institution where the clinical records are carelessly kept, or the complete break down of vitally important inquiries from such shortcomings upon the part of his colleagues. I suppose asylums, just as other institutions, will always have occasional feather-bed shams or parasitic developments, whose sole object appears to be to trammel and discourage the efforts of the more sturdy worker, and whose consciences are too warped to realise the criminal negligence of obstructing the advance of scientific inquiry; yet it remains the unquestioned duty of the head of such an institution to discourage the growth and existence of parasites on his staff, and to award a living interest and assistance to the worker. So far for the relationship of the pathologist to the assistant staff. What as to his chief?

I have heard it stated over and over again that a superintendent can foster and encourage pathological research in his institution without taking to himself an active interest in the work; this, I believe, is open to the gravest doubts. Much, of course, in this case will depend upon the community of sympathy existing between the other members of the assistant staff; but still, to suggest that he can wisely supervise, guide, and intervene where such guidance and advice are called for, without a due appreciation of what the pathologist's work involves (for we are speaking of a very specialised work), appears to me as serious a fallacy as that of regarding him as an efficient supervisor in other departments wherein his knowledge may be faulty and his experience meagre. And these young men, let us remember, do require guidance, do require prompting, do seek for encouragement and advice from their superintendent, and very naturally rebel against the false position of being left to their work, to follow altogether their own bent and inclination. Surely, gentlemen, these considerations indicate the necessity that the head of a large institution should take a more real and personal interest in the work of his pathologist; and unless this want be more and more realised, the results accruing from the labours of this official will, I feel convinced, be not equivalent to our expectations.

In the next place, this official should not be the scientific *dilettanti*. We are so accustamed to meet with men of showy parts, whose work and whose talk largely consists of pyrotechnical features—brilliant, sparkling, gloriously tinted, varied in their deviation from a common centre, but alas, so transient, that the prior darkness is rendered still more impenetrable by their phantasmal exit. Such individuals flit from subject to subject, seek nectar in every flower, ask question after question of the scientific sphinx, but never await their solution. They hoard up preparations for work beneath which the shelves of the pathological room laboratories groan in spirit; and cheerily day by day add to a collection for the section knife which would probably find them grey-headed old men ere a tithe of the work were accomplished. I have met with such a man whose aspirations, judging from his preparation jars, extended far into the 21st century. To the scientist let such a one be *anathema maranatha*, for of all the incorrigible natures, his is the most hopeless to reform. The individual is easy of recognition, one of his most prevailing faults being that, like a poor workman, he is for ever quarrelling with his tools, and is never satiated unless he secures the last refinements of science when both his work and his tools are cooly put aside, and *presto!* our brilliant friend has vanished to another field of labour.

Again, the genuine man is not necessarily one of brilliant parts, nor one averse to undertaking wearisome investigation; but he is the quiet, unobtrusive assiduous plodder who does not disdain a preliminary drilling of some years in the most arduous duties of the laboratory.

Now the individual I have been attempting to pourtray is by no means an easy acquisition, and when secured both superintendent and committee will do well to retain him. Admirable assistant medical officers exist in our English asylums with no special training in pathology, who are the fit subjects for such a post, but are just wanting this special training for the work. Now it occurs to me, gentlemen, that this is a difficulty readily removable. There are now several pathological laboratories in active work in English asylums; why should not those institutions where no regular pathologist has hitherto been appointed sanction a leave of absence to their assistant officer for a short course of special tuition at these centres? We have, in a way, inaugurated such a course at Wakefield, and I ask but for its trial at other asylums with a view to a more rapid extension of pathological training. At Wakefield we have a clinical staff, two members of which are attached to the clinical work more especially, whilst the third, or supernumerary, has special opportunity afforded him of devoting all his time to pathological work. I might name several large asylums which have found it serviceable to send their assistant medical officer to us for a short period of special training. I strongly advocate in future the policy of receiving as our supernumerary any assistant medical officer of a British asylum who is desirous of prosecuting such work and learning the special methods of research. In this way, by a limited course of from one to three months at furthest, the assistant might be started on the way to pursue his own independent observations on return to his asylum; and I venture to regard it as highly improbable that any council or committee would deny such an inquirer the facilities for work which might be requisite.

I well remember a distinguished member of this Association—Dr. Yellowlees—years since at Liverpool, urging the necessity for some central laboratory to deal with asylum material, but at the time I was only too painfully conscious of the labour and magnitude of the work so involved to regard it as at all practicable. But I do regard the scheme I have been advocating as a practical solution to the question: How are we to extend scientific inquiry in our asylums and multiply the workers therein? I now take leave of our asylum pathologist, trusting the suggestion may meet with some consideration and response at the hands of my brother superintendents who have laboratory resources available and I would, moreover, call their attention to the preparations from our own museum, an exhibit in the Pathological Section of the Museum here, which have been selected by our pathologist, Dr. Goodall, as evidence that we have in our asylums opportunities of forming a nucleus of a large and important collection illustrative of this special branch of medicine.

My next question is how best to arouse, maintain, and direct the scientific spirit amongst the members of our assistant staff?

The Clinical Staff.—First, I would emphasise the establishment of a clinical staff of assistants in all large asylums, and at least one clinical assistant at all asylums of moderate size. Association with one's brother practitioner is necessarily a stimulus to our professional acquirements; and more especially so when the relationship existing is somewhat that of the teacher and the learner. The residence of the clinical assistant, even for a period of a few months, must be vastly more important to him than any instruction at a course of lectures, how-

ever practical, whilst the reflex upon his superior officer is in itself a healthy influence, which redounds to the welfare of the wards under his charge.

An Asylum's Out-door Patients' Department.—In the next place, one serious drawback to our asylum system is the social and still greater professional severance betwixt the staff and the profession outside; to such an extent has this proceeded, that the "mad doctor," as he has been opprobriously termed, is credited with few of those redeeming features which he truly possesses. Nor is this to be wondered at, since his life is often necessarily that of a recluse at home; his habits, his turn of mind become stereotyped, and a large amount of energy of will is required to save him from a crystallisation of his forms of thought, which would necessarily render him narrowly conservative. His safety largely depends in breaking down the arbitrary barrier established between him and the general practitioner. At Wakefield we have obtained the sanction of the Council to a new departure in an attempt to extend our grasp to that fringe of morbid manifestations on the border-lands of insanity, and such as lie midway betwixt mental and nervous ailments pure and simple; and we are thus securing patients in the earliest stages of mental disease, as also such as suffer from nervous diseases with minor mental ailments, such as would not demand a special asylum residence, and hence would escape us wholly. In short, those many dubious cases where our advice is often sought in consultation, are the chief recipients of this relief. Our work at Wakefield, in this department, has been of the most modest dimensions—the strictest scrutiny being kept upon the system to eliminate all undeserving or improper cases for gratuitous advice; and the greatest security to this end, I may add, lies in the fact that most of our cases are directly sent to us by their medical attendant, who seeks our advice and opinion. I need not indicate how valuable to an assistant staff this department might become; how far it may assist in breaking down the partition wall which severs us in professional life from our fellows, and destroy the narrow sectarian spirit which is so calculated to stupefy and congeal our best faculties, and wrap us in the winding-sheet of self-opiniated complacency and egoism.

Nursing and Ambulance Lectures.—In this connection one cannot emphasise too strongly the admirable scheme developed by the Medico-Psychological Association in the initiation of nursing and ambulance classes for the asylum staff. In this scheme we have the healthiest of all stimuli towards the practical application by the assistant staff of their minor professional attainments; and, enormous as is the value to the nurse and attendant, I regard the movement of distinct advantage to the medical officer who officiates in the class. It would seem, however, desirable to me to stimulate the energies of the younger nursing staff by permitting their attendance at a junior class, for which a primary examination might be held. The enthusiasm with which this movement has been met is sufficiently evidenced by the list of candidates who won the certificate of the Medico-Psychological Association at the last May examination, when fifteen asylums contributed an aggregate of 147 successful candidates.

Outdoor Private Nursing.—For many years I have been forcibly reminded by continuous appeals from the profession around that the desideratum of good mental nurses was keenly felt in the neighbourhood of the West Riding; and since it was inadmissible in connection with our public asylums to spare the services of the regular staff, the only resource was to fall back upon the very limited number of superannuated officials who resided in the neighbourhood, and were fit persons for the service. It appeared to me eminently desirable that a scheme of private nursing in connection with the asylum might be developed, and I obtained the sanction of the Council and Committee to its adoption. As might be supposed, numerous difficulties lie in the way, and it was only after a full consideration of the case by the Government auditor, who met me in the most generous spirit, that such difficulties were removed. The system adopted was as follows: A certain number of skilled nurses are chosen as a private nursing staff, temporarily resigning their posts upon the regular staff, their names being struck off our books, and their wages and incidental expenses being paid out of the private fund accruing from their earnings. Meanwhile we fill up the vacancies so created on the regular staff by probationers, who offer their services unpaid for instruction in nursing, and who succeed to the vacancies occurring from time to time from resignations and other causes. It might be supposed that a difficulty would arise in securing the unpaid volunteer nurse, but this is not the case, as the number of applicants is always in excess of our requirements. Nor, on the other hand, is there any risk run of a surplus staff from the sudden return of several of the private staff, since the volunteer nurses agree, in case of such emergency, to retire on the understanding of succeeding to an early vacancy on the regular staff. Nor, again, is the question of superannuation a difficulty, for such nurses undertake to sacrifice all claims to such allowance ere they enter upon the new service; or, what is more desirable, the private nurses will in future be chosen from members of the later appointed staff who have already been engaged at the West Riding Asylum on an understanding that they relinquish claim to a pension. Each nurse is provided with a copy of printed regulations, and a similar copy is transmitted to the employer upon her engagement.

By this scheme, you observe, we satisfy a much-felt need in the West Riding for the provision of nurses for mental cases; we afford such volunteers the facilities for a change of scene and relief from the tedium of the wards which is very highly desirable, and we enable them to obtain an experience which may prove of considerable value to them in future life, befitting them for higher posts, and giving them more varied and definite aims in life. At the same time, the earnings are slowly accumulating into a substantial fund, which I propose should be devoted wholly to the benefit of the nursing staff. At Wakefield we have hitherto limited our private staff to six nurses, and it is satisfactory to find that their net earnings hitherto would represent a round sum of £400 in the year.

Is it not possible, may I ask, that the scheme might be more generally applied? We have in our county and borough asylums admirable schools for the training of skilled nurses in mental disease, and we have lately had every assurance that our asylum officials would take a lively interest in developing such resources to the utmost.

Gentlemen, my task is done. The questions I have mooted embrace developments which already strike roots into the depths of our asylum life, and I have had time but to skim the surface of such developments. If, however, by any remarks of mine, I have chanced to draw more direct attention to such potentialities as still lie dormant beneath the surface, I shall feel that my task has not been wholly without its reward.

INTRODUCTORY REMARKS

DELIVERED IN

THE SECTION OF PATHOLOGY.

At the Annual Meeting of the British Medical Association held in Nottingham, July, 1892.

By VICTOR HORSLEY, B.S., F.R.C.S., F.R.S.,

Professor of Pathology in University College; Surgeon to the National Hospital for the Paralysed and Epileptic, Queen's Square; Assistant Surgeon to University College Hospital.

In making the following preliminary observations, it is not my intention to interfere with the work of the Section for more than a few minutes. I feel it, however, to be my duty to advert for a moment to the treatment of our subject by those who have to examine in it and teach it in this country at the present time.

However absurd the statement may appear to some, I venture to assert that pathology, as such, is almost unknown among us. The fact is, that what is commonly spoken of as "pathology," taught as "pathology," and made the subject of examinations in "pathology," is nothing of the sort—it is not pathology, it is morbid anatomy.

Suppose a student had paid to be instructed in physiology, and suppose that all his teacher did was, first, to describe the coarse or naked-eye structure of the healthy body, next its minute or microscopical structure, and, finally, to make some crude guesses as to how the various organs worked, should we not say that that student had been defrauded? Yet is not

this picture a fair representation of what is usually done with pathology in this country? We have in London a society whose function, as defined in its title, is to promote the study of pathology, but, unfortunately, it has hitherto been only an emporium of morbid anatomy. Thus, even when during the two last years, as many as 320 papers were communicated to the Pathological Society, not 10, and in 1890 not a single one, dealt primarily with the pathology of any disease. I shall not be misunderstood or thought to depreciate morbid anatomy *per se*, but I regret that in the representative work of the Pathological Society this study should be allowed to usurp the place of pathology.

The pathologist should be the student of disordered function as well as of disarranged structure; morbid anatomy is, therefore, but one side of his work, pathology is the other. As, however, so far as I am informed, there are only three places in England where pathology is taught, the paucity of true pathological research among us cannot be regarded as a matter of surprise. It does not seem to be generally appreciated that what is required at the present day is the accurate determination of the aberrations of normal function, and seeing what strides normal physiology as a science has made, no difficulty attends the pathologist in this new and fertile field. To take a concrete example, the vast range of diseases of the respiratory functions. What a mass of facts has been accumulated in elucidation of the various changes in the structure of the lungs produced by pneumonia, phthisis, etc.; but how many workers have been found to investigate the degree and effect of the loss of the respiratory function, of the disorder of the normal oxygen and carbonic acid ratios? Yet this is what kills, this is the whole work of the disease, and this is what must be solved before the treatment of such diseases can be worthy of mention other than as empirical palliation. This, the pathology of the diseases of the respiratory organs, is a subject before which the facts of morbid anatomy will seem more and more restricted as the intricacy and breadth of the problems it is often supposed to solve are properly considered and appreciated.

To take another example—a much smaller one, but involving most fundamental considerations. I mean the condition spoken of as œdema or dropsy. What is more common at the present day than to hear this condition gravely ascribed to alterations in the blood pressure alone, and chiefly to venous stagnation? Even in this very year, in a great discussion on the point, and one which appeared to many to be fruitful in little but surmises, these notions were freely promulgated and confidently relied upon. Yet they have for more than twenty years been absolutely contradicted by experimental pathologists, and shown to be untenable.

To what, then, are we to ascribe this surprising indifference to pathology?

I have not the slightest hesitation in saying that it is due to want of familiarity with modern progress in physiological and chemical research. Fortunately, laboratories are springing up now on all sides, original investigations are being pushed forward, light and knowledge widely diffused. The reproach that we have been dead-house students rather than true pathologists will, therefore, soon be wiped away.

The British Medical Association, by the establishment of a fund for grants in aid of original investigation and for the foundation of scholarships, has long led the way in this forward movement; and I, perhaps, may venture to express the hope that those who have been enabled by the wise generosity of the Association to add their quota to the great work of destroying ignorance, will use this occasion to demonstrate what they have done with the opportunities thus freely given them. Such, at least, will be in part the endeavour of this meeting.

HEALTH OF THE ITALIAN ARMY.—Official statistics compiled by the Italian Ispettorato di Sanità Militare, under the direction of Colonel Santanera, show that in 1890 the rate of mortality in the Italian army (rank and file) was 11.7 per 1,000, as against 15.3 in 1886, the intervening years showing a steady decrease. Among the officers the death-rate in 1890 was 18.2 per 1,000, as against 33.8 in 1887. The admissions to hospitals and infirmaries numbered 178,974, equivalent to 796 per 1,000 of average strength. The proportion of venereal disease was 30 per 1,000.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION FOR DISEASES OF CHILDREN

At the Annual Meeting of the British Medical Association held in Nottingham, July, 1892.

BY LEWIS W. MARSHALL, M.D.ABER.,

Surgeon to the Children's Hospital, Nottingham

ON THE NEED FOR SYSTEMATIC INSTRUCTION IN DISEASES OF CHILDREN.

HAVING been elected President of this Section, I am told that some introduction to the business of the meeting is expected from me. This I learn with regret, because it is impossible for me to declaim upon any subject in this branch of the work which others who come from the large teaching centres will not be able to do in a more efficient manner. I am disposed, however, to make the plunge, because there is one topic on which I should like to say a few words which has been brought before the Section in previous years by Presidents who were teachers of medicine, but not by anyone who, like myself, is occupied in the general practice of his profession. The topic to which I refer is that of the position which children's work occupies in medical education. Before dealing with this subject it may be well to sketch briefly the history of this Section.

I find it was only as recently as 1883 that we came into life, if the flickering and intermittent existence of the last nine years may be so described. A learned address was given in that year by Dr. Gee. He described the early efforts in children's work of Hippocrates and others, and he was most careful to insist upon the importance of its not being specialised. Most reluctantly we are forced to admit that neither this address nor the able discussion which followed succeeded in "lifting the subject before the profession" with sufficient vigour to ensure its continuance, for it was not till 1888 that the Section reappeared. Dr. Cheadle was the President for that year, and he was obliged to confess that, whilst for 1883 it did "useful and notable work," no "regular or continuous work" was the outcome of it. He also aptly compared us with the American aloe, which only blooms once after many years and then dies down, flowering again after a certain term. The period of incubation, he states, would seem to be a cycle of five years. Happily his prophecy was not true, for in 1890 the Birmingham meeting permitted the "children" to occupy a place. At Bournemouth last year Dr. Goodhart gave us an admirable address, to which we may probably attribute the fact that we are again to the fore. I would have you note, therefore, that, including this meeting, we have been accepted for three consecutive years. I trust we may interpret this to be a happy augury for the future.

My object in wearying you with these facts is that I may add weight to my own belief that children's work is still lightly regarded by the profession, and that the importance of the subject, even in our teaching centres, is not valued as it should be. Dr. Cheadle made much of this, and pointed out with regret the "lamentable ignorance" displayed by those who came before him for examination. Dr. Latham very pertinently remarked that "any class of diseases not falling within the range of professional education, and having no ready opportunities provided for its study, has a good chance of never being studied at all." Nevertheless, three-fourths of our medical students will be actively engaged, in the practice of their profession, with the class of work which, according to these gentlemen, virtually occupies no place in the curriculum. My own opinions are formed from those whom I meet in practice, and from the occasional students drawn from various schools who come to see some work at the Children's Hospital here. Amongst the former some attempt is made to acquire the knowledge of sick children requisite for the easy management of children's diseases. But the difficulties are great. When a man endeavours to obtain this after entering practice, overwhelmed as he usually is by an array of traditional knowledge freely provided by incompetent nurses and anxious parents, he finds the examination of a

crying baby very trying, not to say bewildering. What is the result? He slides into a routine way of treating symptoms, and if a diagnosis is made it is by a "shot" rather than by an actual logical deduction. He sometimes yields himself up, and feebly remarks, as was said to me not long since, that "of course, women know more about babies than we do." With such a state of mind, is it very much to be wondered at that children's diseases appear to him to be included in "teething and worms," water on the brain, and last but not least in its frequency, consumption of the bowels? It is still less surprising that congenital hernia nearly always appears with a phimosis untreated, and, as once happened in a case sent to me, a large empyema on the right side, with the liver pushed downwards to be diagnosed as a case of disease of the liver. Again, I received a case with a request to advise the best form of spinal jacket for a lateral twist in the dorsal region. One-half the chest was filled with fluid. On pointing this out by letter to the medical man by whom the patient was sent, I received a reply to the effect that he was perfectly aware of the effusion, but he hoped to produce absorption by the pressure of a jacket. This man deserved to succeed, but his shrewdness might be better applied.

Whilst giving these illustrations of mistakes which are made in practice, I would say that I believe they are more often than not the result of the unfortunate habit of yielding up the hope of effecting a diagnosis, because of the difficulty which no teaching has ever prepared the practitioner to overcome. I do not attribute it to a want of affection for children in the individual, but believe it to be due to the want of self-reliance which results from an incomplete training.

I think we all here shall be agreed that the first step towards studying satisfactorily children's ailments is the acquisition of the tact before referred to, which is displayed to the patient more by general bearing and by touch than by word of mouth. This way of managing children is not acquired in the class-room, but can only come to those who seek to obtain it by constant association with sick children. Is a general out-patient room the best place for learning it? Are the opportunities which already exist in the large teaching centres as freely used for this purpose as they might be? Amongst the students already mentioned who come to my out-patient room I hear it deplored that this is not the case, and these students are not all from one school. It may be said that the hospitals are open to those who seek for information, but surely it is the duty of those who direct the education of the student to see that he makes use of those opportunities, limited though they may be. Probably, as Dr. Cheadle points out, the desire to do this will be but the sequence of the action of the examining bodies when they imperatively call for some practical knowledge of the subject. The teaching will not then be generally conducted by those who are more interested in the examination of the adult, and who are too apt, perhaps, to ignore babies. I think it would be well for some of these to follow the example of the old Scotch shepherd, who was renowned for his flock of sheep, and, when asked why it was so good, replied, "I aye take care of the lambs."

I have never been able to understand why it appears to be considered *infra dig.* to be acquainted with every detail of baby life. I do not think that I have suffered much because I have made it my business to be able to talk about most things connected with the diet, dressing, and housing of a bairn, neither can I believe that I am justified in assessing the value of the life of my patient by his or her length and weight. A knowledge of these things, which would be included under the heading of "Nursery Hygiene," should be learnt as a student. To a man entering upon his career in general practice, this knowledge would be of great value. If this had been so, would that wretched invention a baby's binder have been so long in vogue? Would the hand-rearing of children have so long continued to be a mere shuffling process of patent foods in the hope that one may prove to be trumps? Should we have had the persistent use of sleeping cordials, euphoniously advertised in this town as "gripe water," with which the baby:

> When crammed with food, and tightened every limb,
> Is dosed to give him comfort?

It were well to add the concluding lines of the above, although the nurse is referred to, and not the doctor:

> Soon may she spare her cordial; not a doubt
> Remains, but quickly he will rest without.

Crabbe in no way overstates the case, as everyone knows who sees much of children's work, and our profession must morally accept an adverse verdict.

The reference to the nurse in the lines above makes me desirous of saying in conclusion a few words about these very necessary helpers of ours. We have too long delegated the sole responsibility of direction in all matters connected with the nursery, whether in health or disease, to the nurse, with whom the public are perfectly satisfied when they learn she is "experienced." Of what does this experience usually consist? Nothing but some years of association with infant life. Even in our nursing institutes, where we have a right to expect from the women who are sent out from them some special aptitude for the care of sick children, it is futile to look for the refinements of diet and dress. Those nurses even who are sent out from the leading obstetric institutions in this country, have but the vaguest notion of what is best for a baby, and are strongly imbued with the traditions of the old wife. It appears to me that in every children's hospital no nurse should receive a certificate declaring her competence until she has shown satisfactory evidence of being up to date in all these matters. With us this has been the practice for some years, and each nurse qualified by our certificate can write a dietary for any period during the first two years of life.

I am quite aware that it is the common custom for children under two years of age to be refused admission into children's hospitals, except for surgical reasons. This is a matter for regret, as to it may be attributed in some degree the defects which exist in connection with infant rearing. If it be granted that it is desirable for all nurses to be systematically trained in every detail connected with infant life, surely it must be necessary for those who enter our profession to be as conversant with the subject, as the direction of the nurse is one of our duties. I cannot complete this addresss without asking you to accept these somewhat crude expressions of opinion in the spirit in which they are given; and I only hope there are those amongst you who will avail themselves of their position and opportunities to help to win more favour for this much neglected work.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PHARMACOLOGY AND THERAPEUTICS.

At the Annual Meeting of the British Medical Association held at Nottingham, July, 1892.

BY J. O. BROOKHOUSE, M.D., M.R.C.P.,
Senior Physician to the General Hospital, Nottingham.

ON SOME POINTS IN PHARMACOLOGY AND MODERN THERAPEUTICS.

Introduction.—New Synthetic Remedies.—Toxins, Antitoxins, and Immunity.—Modern Therapeutics and Modern Diseases.—Recent Advances in the Treatment of Syphilis and of Pneumonia.—Intralaryngeal Injections of Menthol in Pulmonary Phthisis.

GENTLEMEN,—Before we begin the formal business of the day, allow me as your President, and one long residing here, on behalf of the Midland Branch of this Association, and more particularly on behalf of the medical men of this town and immediate neighbourhood, to bid you all a very hearty welcome to Nottingham. At the same time I beg to acknowledge the honour conferred upon me by electing me President of this Section. I am fully conscious of my own imperfections and shortcomings in the discharge of the duties of my office, but the responsibility of my appointment rests upon others, and my best efforts will be put forth not to discredit their choice. I shall rely greatly upon the kindly help of my colleagues around this table, and for my personal failings I ask your kind forbearance and indulgence, hoping that in the end the work of our section may have been done to the advantage and satisfaction of those attending our meetings.

I should be glad if this meeting could be signalised by some distinct and definite advance in medical work—perhaps I might jealousy say in that branch of it in which we more particularly are interested; that some clear steps might be taken to ameliorate and lighten human suffering and prolong human life. But if this is not to be, then may we with confidence anticipate the diffusion of the light and knowledge already possessed. And that this, at least, will result I cannot doubt, for both in our sectional meetings as well as social gatherings, where men of varied mental power and all forms of knowledge are joined in one common purpose, there must necessarily be a large interchange of thought and diffusion of information alike advantageous to ourselves and beneficial to society.

This second aspect of our meeting—the social aspect—is not to be forgotten or despised; as to it, let me express the hope that here may be strengthened and cemented many old friendships, whilst among the younger members of this Association more especially, may new friendships be formed as pleasant and profitable as I trust they may be lasting.

And now, gentlemen, to the subject of my address, which I have entitled "Some Points in Pharmacology and Modern Therapeutics." Medicine, using that term in its largest and broadest significance, is at once an art and a science, and is based upon observation, experiment, and practice. As a science it must necessarily be inexact, for it deals with the highest organism—that of man—under conditions the most uncertain, unstable, and complex. Hence the apparent fallacies in experiment, the errors in observation, and the slow and uncertain advance in practice. Yet not perhaps in equal degree are these difficulties to be met with, for in purely and simply experimental research and laboratory work some at least of the ordinary sources of fallacy may be controlled or eliminated, and thus more definite and correct conclusions be arrived at. To few, however, are such opportunities afforded, and with the rank and file of the profession rests not merely the recognition of disease and its treatment, but to no inconsiderable extent the advance of medicine in its practical issues; for although it is true science has done much, and promises in the near future, with an army of able, devoted, and enthusiastic workers, to do more, yet it is probable that practical medicine will long be more indebted to a rational empiricism than to scientific inquiry. Science, I say, has given us much, if in some instances it may have led to error, yet this need not humiliate us, for in every field of experimental work error exists, and truth is only revealed by long and patient watching.

If, however, it cannot be claimed that experimentally very large additions have in recent years been made to our powers of cure, in two directions at least there have been originated methods of procedure which have already added somewhat to these powers, and which are of great promise for the future. Most of our present remedies are the outcome of experiments made on natural products, animal, vegetable, or mineral, or on compounds which the chemist has put at our disposal in his efforts to penetrate those secrets of nature with which he is specially concerned. For the chemist has not only separated the active principles from vegetable and animal substances, but has produced hundreds of new compounds, both organic and inorganic, some of which have been found of the greatest value as curative agents, for example, bromide of potassium, chloroform, nitrite of amyl.

It has long been known, however, that the action of even the simpler of these substances is the resultant of the properties of the atoms or groups of atoms of which they are composed; that, for example, the atom of bromide and the atom of potassium in bromide of potassium, has each a special physiological influence on certain tissues and organs. These atoms when united produce the physiological results of the molecule of the bromide, but the physiological action of the atoms can usually be traced in the various combinations they are capable of forming. Just in the same way the groups of atoms NO_2 and NH_2 tend to exert a definite influence on the combinations into which they enter, the first influencing the vessels, the second the medulla, and more complex groups have likewise each their own special effect.

Chemistry has taught us that the various organic groups may be combined in an almost infinite variety of ways, and that it is possible thus to produce thousands of new bodies, each of which will have a special action on the tissues and organs according to the groups of which they are composed, and the method by which the groups are united. Of late the chemist and the pharmacologist, working together, have built up for medicinal use a large number of these new compounds, joining together organic groups for definite purposes. In some cases where a group has been found to possess both good and bad properties a second group has been combined with it to antagonise the detrimental quality, as for example in chloralamide, where the group NH_2 has been introduced to stimulate the medulla and thus antagonise the depressing influence of chloral itself on the heart and respiration, leaving thus its sleeping properties unimpaired.

In other cases two groups of atoms possessing active properties have been combined to form a single substance possessing the properties of both, such for example is euphorin (phenyl urethane), where an antipyretic has been joined to a sedative group. In another new remedy, phenocol, the group NH_2, which stimulates the medullary centre, has been introduced into the antipyretic group of atoms known as phenacetin.

At least a score of new substances have been introduced during the past twelve months for the purpose of fulfilling some definite therapeutic want, and though doubtless many, probably the majority, will not be of practical service, still there is evidence that some may prove to be very useful medicinal agents, and there is great hope that with increasing knowledge new compounds will be formed which will be of incalculable value in the treatment of disease.

The second therapeutic departure which I have to note is for the most part one of promise only. I allude to the use of the products of the lower forms of life which are connected with disease, or, again, of the use even of microbes themselves as therapeutic agents. It has been found possible in the lower animals to prevent the fatal termination which usually occurs when certain of these infectious diseases are artificially produced by the injection of micro-organisms connected with other infectious diseases, or in some cases of a toxic substance produced by these organisms. It has been shown, further, that animals, by the injection of certain micro-organisms or their products, may be rendered insusceptible to the evil influence of other infective bodies, which would certainly destroy them were it not for such previous injection, and, moreover, that the injection of the blood serum of an animal which is naturally insusceptible to certain infectious poisons into an animal which is susceptible will in some cases prevent the lethal effects of micro-organisms or their toxines when these are introduced into the tissues of the susceptible animal.

The methods by which immunity is produced and the cure of infective diseases brought about by the injection of micro-organisms and their toxic products has been recently discussed in the Pathological Society, and it forms no part of my province to speak of them. But the question whether the experiments made on the lower animals will enable us eventually to deal effectively with infectious diseases in man is one of great interest and importance.

The first practical outcome of the treatment of tubercle by the toxic substance produced by its bacillus has doubtless so far produced a failure in practice, but in other directions successes have been claimed which may prove to be real. The injection of the blood of animals, such as the goat and the dog, immune, or almost so, to the tubercle bacillus, has been said by some to produce a beneficial effect in phthisis, and there are several cases recorded in which recovery from tetanus has followed the injection of antitoxin, a substance obtained from the blood of dogs artificially rendered refractory to the infective organisms of tetanus.

It is quite possible that some methods of treatment, founded on the knowledge which has been gained by the influence of micro-organisms and toxins, may not prove capable of practical application; if, however, this be the case, certain facts as to this influence are proved, and we have good grounds for hoping that further experiments made on the use of micro-organisms and their products will before long put in our hands new therapeutic agencies for the cure of infectious diseases in man.

Doubtless in this kind of experimental work difficulties may arise from the varying behaviour of different animals under

one and the same toxine, and that in man the results may differ from those seen in the lower animals. For this we are not unprepared, because the varying action of ordinary drugs in man and the lower animals, and between families such as the herbivora and carnivora, have long been known. But notwithstanding these differences, experimentation upon the lower animals has proved of the greatest value to man; and the outcry against this method, and the prejudice against it which still largely exists, is not creditable to the intelligence and candour of its opponents; whilst the progress, in this country at least, of scientific research has been materially hindered by this opposition, and the advantages which would undoubtedly have resulted to man have been thus diminished and retarded.

Any reference to modern therapeutics would be incomplete without a passing glance at modern diseases. I shall, however, do this only incidentally. We, as practitioners, cannot be unobservant of the vast proportionate increase during the past twenty years of diseases of the nervous system. The business and social conditions of daily life are vastly altered. We live at high pressure. Competition, rapidity of travel, ambition, the struggle for wealth, place, and power, with all the anxieties, cares, and worries involved therein, the exactions of social life, what is spoken of as "hurry," and a thousand and one other such things, have undoubtedly been productive of serious functional nerve disturbances previously unknown, whilst others involving coarse lesions have been rendered more common. Further, let me observe that long-continued functional disturbance alone may, and not infrequently does, bring about organic change, such change being the outcome of perverted and impaired nutrition.

In these conditions of physical strain and mental tension we have a state provocative of nerve changes both coarse and subtle, but all degenerative in type. With these therapeutics have not, and cannot, keep pace. The requirement of the sufferer is for speedy, nay immediate, relief, but the call is in vain. We now, no more than formerly, have the power to build up new and healthier tissue. The human machine refuses to acknowledge any law other than the law of nature, and there are no therapeutics outside the universality of her harmonies.

Doubtless, during the past quarter of a century clear and distinct advances have been made in the treatment of disease. Not only have we now more precise knowledge of the causes of disease, but their life-history, if I may so speak, is more perfectly understood and appreciated. I offer an illustration of this in the familiar example of syphilis, and the present method of treating it. In former time, yet within the memory of middle-aged men, it was not uncommon to see the recrudescence of this malady years after its initial signs and supposed elimination from the body. It was not considered necessary to prolong treatment much beyond the disappearance of the local sore and its induration, or at most after the disappearance of "secondary symptoms," as they were commonly called.

The outcome of this practice was the not infrequent recrudescence of the disease, either in the original sufferer or in the infection of wife or children. I do not hesitate to say that the more careful clinical observation of comparatively recent times which has resulted in the prolonged treatment of the disease by mercury and other specific remedies, has materially altered and improved our statistics, and that now it is somewhat exceptional to see its reappearance. Yet this result may not be solely due to the causes I have mentioned. The more precise and careful administration of mercury is, perhaps, largely responsible for the avoidance of the secondary and tertiary forms of the disease. I myself am old enough to have seen not a few cases in which the remedy (mercury) was quite as much responsible as the disease for subsequent destructive changes and deformities, so that I say modern therapeutics has in this particular made a large and important advance. When further we come to consider that even in the present day it is estimated that from 10 to 12 per cent. of the population are syphilitic, the importance of this matter in its bearings upon public health is at once manifest.

Again, to instance recent advance in therapeutics, I would refer to the treatment of the restlessness with delirium in sthenic pneumonia. Formerly opium, in one or other form, was our sheet anchor, but we knew the risks and drawbacks associated with its use—its interference with the functions of liver, kidney, and other glandular organs, but more especially with the elimination of carbonic acid from the lungs, which so retarded not only the normal blood changes which occur in the lung but the consequent metabolic changes which occur between blood and tissue. We now possess remedies, chiefly in the coal tar derivations, which have a single and direct hypnotic action. Here then the advantage is also very considerable. Many other examples, the result of observation and experiment, might be given, but the above afford illustration of my position. Doubtless further examples will be given in the papers and discussions that will follow in this section.

I cannot within the brief limit of time at my disposal refer in detail to the many new remedies prepared in recent years by the pharmacologist and chemist jointly. It is impossible in this address to include even a brief notice of them. Some will doubtless find their place in the pharmacopœia of the future; others will be found not to fulfil the promise which their composition and earlier experiments gave. It should be borne in mind that many of these new compounds have at times powers in certain directions greater than those who introduced them had any idea of. Antipyrin, for example, was at first known only as a reducer of temperature, but clinical experience soon showed it to be a powerful analgesic.

Now, it is for those who are engaged in clinical observation, whether in hospital or private practice, to supplement the work of the chemists and pharmacologists who, on theoretic grounds and laboratory experiments, introduce new remedies. Careful trial and observations of the new remedies by medical practitioners will, I have no doubt, add largely to our therapeutic resources, and lead to a wider knowledge of the conditions in which they are specially useful. As an illustration of this, let me, in conclusion, bring forward my experience with regard to menthol, which, though it cannot be called a new remedy, was introduced into the pharmacopœia for the first time in 1885. Its rubifacient and sedative properties, on external application, first brought it into notice, but I have found it of great value in the treatment of pulmonary phthisis. My experience has thus far been limited to hospital practice, for the difficulties in carrying out the details in private are great.

The method consists simply in the introduction once or twice daily into the trachea of 1 drachm of a 12 per cent. solution of pure menthol in pure olive oil; this is effected by the aid of the laryngoscope, and a syringe specially made with curved tube; the tube is passed through the rima glottidis, about half an inch down the trachea. After a little practice and habituation, the patient feels no inconvenience or discomfort whatever; on the contrary, there arises an agreeable sense of warmth in the chest. One very early result is a marked diminution of the cough and expectoration; the night sweats, if previously existant, cease, the hectic temperatures become much less marked, the curves often go to the normal, and the patients gain in weight. I feel quite persuaded that, if one-half the success that I have seen by this plan had attended the treatment by Koch's tuberculin, it would have been vaunted to the skies. But the menthol treatment is without mystery; it is not elaborate; on the contrary, it is simple, partaking, perhaps, too much of Elisha's direction and advice to Naaman: "Go and wash in Jordan seven times."

I now submit in brief outline the results of treatment of seven cases of pulmonary phthisis, not in any way selected, that have been under my care in the General Hospital. For the careful carrying out of the method, as well as for the notes of the several cases, I am indebted to our resident house-physician, Mr. Tresidder.

But, gentlemen, despite our advances in the directions I have indicated; despite new remedies and new methods of cure, it will have occurred to some of us who have had long experience that the tendency, in increasing measure, of modern thought and practice is towards the recognition and employment of preventive as distinguished from curative medicine. A larger and better understanding and observance of the laws of health, a more perfect knowledge of the causes and spread of disease, the attainment of a higher educational and intellectual standard have in part contributed to this. May not also the thought—too frequently, alas! brought home to

Table of Treatment of Seven Cases of Pulmonary Phthisis.

Name.	Age.	Sex.	How long ill.	Symptoms and Physical Signs.	Treatment.	Result.
R. B.	27	M.	12 months	Cough; expectoration (about 1 oz. daily) of muco-pus; loss of flesh, and loss of energy and appetite; night sweats; temperature hectic, varies between 98° and 102° F.; dulness; deficient entry of air, and tubular breathing and *rales* on right side at apex, both in front and behind; few *rales* on left side, but note here good on percussion.	3j of 12 per cent. solution of menthol in olive oil injected once daily into trachea for 11 weeks, combined with ordinary hygienic measures.	Much improved; temperature is now normal, and there has been an increase of 13 lbs. in weight; general health much better; no night sweats now; physical signs in chest also improved; there now only exists some deficient entry of air and very few *rales* at right apex; seen again nine months after commencement of treatment, and he had then been in full work for some time.
T. D.	22	M.	Ailing some years; worse 3 months, and unable to work for that time	Cough; slight expectoration; loss of flesh, loss of appetite, and night sweats; temperature varies between 97° and 99.5°; impaired resonance at right apex to third space; breathing harsh, and few *rales* here; left lung normal.	3j of a 12 per cent. solution of menthol in olive oil injected once daily into trachea for 7 weeks	Much improved in general health, and signs at right apex are now only with difficulty detected; temperature has ceased to fluctuate; increased in weight 6 lbs.; at a period four months after treatment commenced he was in full work as a fitter in an iron foundry.
A. H.	22	F.	7 weeks	Cough; slight expectoration; pain in the chest; sore throat and hoarse voice; general weakness; temperature usually normal; no night sweats; flattening, deficient movement, dulness to second space on left side, and also tubular breathing over this area; numerous *rales* all over left, both in front and behind, and few at right apex; right side otherwise normal; larynx affected by tuberculous disease.	Ditto as above for 4 weeks	Patient improved somewhat at first, and her weight after the four weeks' treatment had increased 5 lbs., but three months after this she was not so well, and was 1 lb. lighter than at first; the laryngeal affection was much worse, and considerable ulceration had occurred; physical signs also of a cavity have developed at the left apex, and *rales* are much more numerous.
E. S.	40	M.	2 years and 4 months	Cough; copious muco-purulent expectoration; dyspnœa; night sweats; loss of flesh; right apex retracted and dull on percussion; resonance impaired also at left apex; tubular breathing and some *rales* at both apices.	Ditto as above for 6 weeks	At the end of this period of six weeks patient had much improved, and expressed himself relieved as regards cough and expectoration by the injections; night sweats ceased and weight increased 6 lbs.; physical signs in the chest much the same, but somewhat less active.
E. S.	25	F.	6 weeks	Dry and hacking cough; weakness; wasting; night sweats; tenderness; deficient movement, harsh breathing, and numerous *rales* at left apex as far down as third space; lungs otherwise normal; temperature slightly hectic, varying from 97.5° to 100°.	Ditto as above for 8 weeks	Patient seen four months after commencement of treatment, and then looked very much better in face, and expressed herself also as feeling so; cough entirely ceased; physical signs of chest now almost normal, but perhaps breathing is slightly deficient at left apex, and a *rale* is occasionally heard here; she has increased 6 lbs. in weight.
J. M.	27	M.	18 months	Hæmoptysis; cough; considerable amount of blood-tinged expectoration: temperature usually normal, occasionally, however, running up suddenly to 102°, and subsiding again in the course of a week or ten days; dulness at both apices, most on right, extending here downwards to third space; *rales* at both apices both in front and behind, and here also the breathing is harsh, and at left apex in front and at right behind it is distinctly tubular; patient has night sweats.	Ditto as above for 30 weeks with one or two intervals of a week or so at a time	Patient seen eleven months after commencement of treatment, he has lately been at work, the first time for two years and a-half; has increased in weight 15 lbs.; he feels much better in every way; cough is slight, and there is very little expectoration; dulness, deficient entry of air and slight tubular breathing at left apex both in front and behind; *rales* comparatively few, and not heard on right side in front; he has much improved.
R. P.	18	M.	5 months	Cough; expectoration; loss of flesh and energy; weakness; and night sweats; temperature hectic, varies from normal to 102°; dulness, deficient entry of air, moist crepitant *rales* at left apex down to second space; right lung normal.	Ditto as above for 10 weeks	When seen at end of seven months the patient was much improved, and he had increased 9 lbs.; whilst having the injections the cough was relieved and the expectoration diminished; physical examination showed that the disease was inactive at this time; at end of fourteen months he was again seen, and had lately been suffering from an acute attack of lung mischief, from which he was just beginning to get better; physical signs in the chest at this period indicate that the disease is much more active again on the left side; he, however, weighs still 1 lb. more than when first under treatment.

us as doctors—of the inadequacy of curative medicine in grappling with disease constrain us to endeavour rather to anticipate those conditions which appear to underlie and give rise to morbid change? And in matters of personal health this question dominates the entire position. It is unquestionably easier, for instance, to employ measures to maintain the standard of health, even in those, for example, phthisically disposed, than it is to arrest the disease when once in activity. Still the changes in professional as well as public thought and opinion are slow and gradual, and society at large has not yet advanced to that point where the benefits and advantages of preventive are esteemed before curative medicine. The pill and potion, nauseous though they be, retain their charm, and therapeutics divorced from physic is yet a creed hard of acceptance and belief.

Gentlemen, I have ventured to trespass already too long upon your time and attention, but I have endeavoured to bring before you, briefly, though imperfectly it may be, some points in pharmacology and therapeutics which seemed fitting and appropriate to the opening of our Section.

VENEREAL DISEASE IN PARIS AND BRUSSELS.—Among 2,941 registered prostitutes in Paris, arrested for various reasons in 1891, 251 were found to be suffering from venereal disease. Of 2,637 clandestine prostitutes arrested under similar circumstances, 1,153 were infected. The proportion of disease was therefore about 8½ per cent. among the registered women, as against 43 per cent. among the clandestine prostitutes. In Brussels, where the regulations are very strict, the proportion of disease is somewhat less among the registered women, but among the clandestine prostitutes it has recently increased to such an extent that an additional ward has had to be opened in the St. Pierre Hospital for their reception.

CRANIECTOMY.—Dr. Laplace recently performed linear craniectomy on a microcephalic boy, aged 8, in the Philadelphia Hospital. The child's intelligence was rudimentary; he could not articulate and did not understand speech, but showed signs of being pleased with music. The skull was opened for a distance of about 10 centimetres along the left side of the median suture. The boy died the same evening from shock.

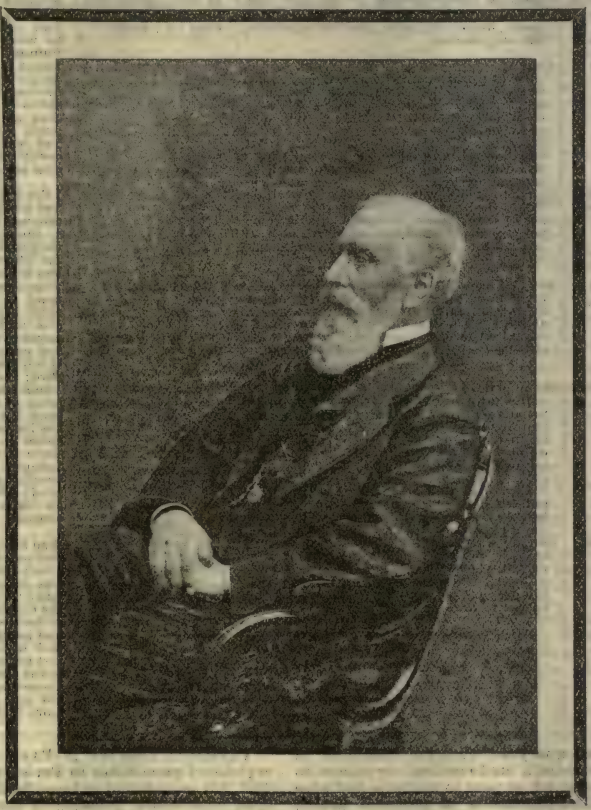
OBITUARY.

WILLIAM DALLA HUSBAND, F.R.C.S.ENG.,

Late President of Council and Treasurer of the British Medical Association.

THE Association is once more called upon to bear the loss of one of its oldest, one of its most attached, and, in his day, one of its most active and vigorous members.

William Dalla Husband—a member for fifty years of the Association, a former President, President of Council and Treasurer—died on July 18th, after more than three years of painful illness, and leaves behind him a gap in the ranks of the friends of the Association which can only be filled with difficulty. It is true that since 1888 Mr. Husband's active services have been lost to the Association, but, up to that time, few men, even among those who have most actively supported it, worked so hard for it as he did.



His services were chiefly given during the earlier and more struggling years of the life of the Association, but they were given with freedom and without stint, and at no matter what cost of personal sacrifice and labour. As a member of the old Committee of Council Mr. Husband's presence could always be counted on, and the more pressing the emergency on any occasion for which that Committee might assemble the more certain was he to be present to advise, to support, and to encourage it in its work; and to those who are able to remember him in his palmy days memory will recall the portrait of a man of strong convictions, of forcible expression, of untiring energy, and of one warmly devoted to the interests of the British Medical Association.

In these days of prosperity—when the Association is able to count its members by many thousands, when the labours of the Council are divided among many active committees, when funds are forthcoming for the furtherance of every branch of work for which the Association was founded—the work is carried on under very different conditions from those which are known only too well to members whose memory can carry them back to the days when the BRITISH MEDICAL JOURNAL was but a small sheet, and its subscribers numbered by hundreds instead of thousands and the income and influence of the Association correspondingly small. Those forty years of struggle and comparative obscurity, however, were the times in which Mr. Husband's work stands out conspicuously in the annals of the Association; and, as a mark of the respect in which he was then held by his colleagues, on July 28th, 1869, he was elected President of the Council—the highest honour it was in their power to confer. This office Mr. Husband held for three years, the term of tenure expiring on August 7th, 1872, when, fortified by the experience and knowledge he had acquired during the period of that presidency, he undertook the duties of Treasurer. This office, in succession to Dr. Falconer, of Bath, Mr. Husband held for a period of six years.

On January 12th, 1881, Mr. Husband resigned this office, and was succeeded by Dr. Wade, of Birmingham; and so great a value did the Committee of Council place upon the work he had done for the Association, that the following resolution was passed as the expression of its gratitude: "That the Committee of Council, through their Chairman, communicate to Mr. Husband their deep regret on the receipt of his resignation; not merely in consideration of the loss which will be sustained by the Association, but likewise for its cause—the serious failure of his health. The proofs Mr. Husband has given, through so many years, of his active interest in the aims and operations of the Association, and the efficient assistance he has rendered alike as President of Council and as Treasurer, fill the Committee of Council with the warmest gratitude; and they desire to express to Mr. Husband their sanguine hope that, by temporary retirement, his health may be restored, and that he may soon again resume a more or less active position in their affairs."

To some extent this hope was gratified, for, though he was never again able to devote himself with the energy of former years to the work of the Association, he yet for some years continued to put in an occasional appearance, and, at all times of difficulty, to support the Council by his advice. But for the last four or five years the Council have seen, and the Association has heard little of him, for the failure of health of which he then complained, and which had induced him to retire from practice and to leave York, first for Bournemouth and eventually for Clifton, deepened into so severe and physically painful an illness, that for nearly three years and a-half he has been completely helpless and entirely dependent upon the love and affectionate services of his family.

As a surgeon Mr. Husband took high rank in and around the city of York; for many years he was looked up to as the leading medical man of the neighbourhood, and to his many friends, and very numerous patients, scattered widely over the district, the news of his death will come with a saddening influence. He had filled the office of Lord Mayor of York and was a Deputy-Lieutenant of West Riding of Yorkshire. He was Consulting Surgeon to the York County Hospital and had for many years been an active honorary surgeon to the same Institution. To his old friends in the Council of the Association, who worked with him in the days of his activity and energy, while they will rejoice to know that he has been released from the bonds of a long, incurable, and physically painful illness, his memory will always remain green, and his example one to be studied and to be followed with loving appreciation for many a year to come.

SIXTIETH GENERAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

FIRST GENERAL MEETING OF MEMBERS—TUESDAY, JULY 26TH, 1892.

THE first general meeting of members was held on Tuesday morning, in the Mechanics' Hall, when Dr. J. ROBERTS THOMSON, the retiring President, occupied the chair.

The minutes of the last annual meeting having been confirmed and signed by the Chairman,

Retirement of President.—Dr. ROBERTS THOMSON, the retiring President, said,—The signing of these minutes is the last official act which I have to perform in virtue of the high and honourable office which, through your kindness, I have held during the past year, and in vacating the chair I have only to renew to you the expression of my warmest gratitude for the confidence which you have reposed in me and for the honour which you have done me in appointing me President of the Association. Believe me it will be the proudest recollection of my life that I have held this post, that I have occupied the chair of the largest medical association in the world. And in leaving the chair I must also express my warmest thanks to all the officials and others with whom I have been brought into contact for their unfailing kindness and courtesy to me, and they have rendered my holding of the post a very easy one indeed. The year has been an uneventful one. There have been no special meetings summoned and no special burning questions have had to be considered. Nevertheless it has been a year of very steady progress. The Association has been steadily increasing in numbers and in its usefulness, and whether we look at its influence through its augmented numbers or the scientific work which is done through the BRITISH MEDICAL JOURNAL or by means of the grants which the Scientific Grants Committee administer, I think we may feel that this last year marks a distinct advance upon those which have preceded it. I have, in vacating the chair, simply to ask you to accord to my successor the same regard for the authority of the chair which you were kind enough to give to me last year, and I can have no better wish for my successor than that he may be able to look back upon as happy a year of office as it has been my pleasure to do.

Installation of New President.—The President-Elect, Mr. JOSEPH WHITE, F.R.C.S., Consulting Surgeon Nottingham General Hospital, then took the chair amid loud applause. Having done so, he said: Let me, in the first place, thank you most sincerely for the great honour you have conferred upon me in asking me to preside over this great meeting of this great Association, and to convey to you, as far as I can, my sense of the obligation and responsibility which your kind offer to me entails. I am quite sure that I shall receive at the hands of the members that support which they have always been glad to accord to one occupying my position, and to lessen, as far as possible, its labours.

Vote of Thanks to Retiring President.—Dr. HOLMAN (Reigate) said he had a resolution to propose to the meeting that he felt quite sure would be carried unanimously—namely: "That the thanks of the Association be given to Dr. Roberts Thomson for the courteous and able manner in which he has filled the office of President during the last year, and that he be elected a Vice-President for life." He need say little as to the work of their late President. Everyone saw what he did for the Association at Bournemouth, and the Council recognised in him a first-class man of business, a clear-headed man, and one that was able to give good advice. The Council would welcome him most heartily as a permanent member of the governing body of the Association. It would be invidious to say that he was the best President they had ever had, because they had had very good ones, but he could safely say they never had a better.

Dr. SAUNDBY (Birmingham) seconded the motion.

The PRESIDENT, in support, said they all felt that they owed a great debt of gratitude to Dr. Roberts Thomson, for the way in which he had conducted the business of the Association. Dr. Holman had said that they could not have a better president, and everyone present felt to his heart that that was true. Personally, he desired to add to what Dr. Holman had said, his great sense of the indebtedness that they lay under to Dr. Roberts Thomson.

The resolution was carried unanimously.

Dr. ROBERTS THOMSON, in reply, said, he felt very much this additional vote of confidence, which had been passed, and the very kind words which had fallen both from Dr. Holman and the President, and if he could in any way, through being linked with the governing body—a permanent honour which had now been so kindly conferred upon him—help forward the work of the Association, he should be only too pleased to devote any time he had at his disposal to that purpose.

The Report of the Council.—Dr. WITHERS MOORE moved: "That the report of Council, together with the financial statement for the year 1891, be received and adopted."

Sir WILLIAM MOORE, in seconding the resolution, said the report showed the vitality and progress of the Association. In every department marks of progress were seen. He could personally endorse the statement that the BRITISH MEDICAL JOURNAL "continued to hold its position in the front rank of medical periodical literature," and that being the case it was only natural that "its circulation continued to increase." Nine hundred and eighty-four members joined the Association last year, and it now numbered 14,000. The Parliamentary Bills Committee had done great work; as one part of it, they were informed that "the concession of compound titles indicating military rank had been attended with excellent results in improving the status and efficiency of the army medical services." The finances of the Association were in very good order. They had about £45,000 to the good, and the managers of this department were entitled to their best thanks. The question of lady doctors was mentioned. He had had a good deal to do with lady doctors, and was sure they ought to be admitted into the Association. Admission was refused years ago, but he hoped a different result would now be arrived at.

Dr. RENTOUL wished to ask the Council at future meetings to give more information in the balance sheet. He had written to the General Secretary for information as to what had been paid for the various departments of literary work. He was informed in reply that the information could not be given. He should like to know why that was so, seeing that the Association was a limited liability company under special licence from the Board of Trade. He did not move a formal amendment, but asked that for the future more detailed information of the expenditure in the various departments should be given in the balance sheet.

Irish Dispensary Medical Officers.—Mr. CURRAN desired, as one of the Irish dispensary medical officers, to tender the thanks of the Irish medical men to the Association for the assistance that had been rendered them, and also to Mr. Ernest Hart for his active efforts on their behalf. Mr. Ernest Hart had, at very great inconvenience to himself, attended the meeting in Dublin last February, at which representatives from all parts of Ireland attended to confer with him, and as the result of that meeting and of the organisations that had been formed *ad hoc* in various counties of Ireland even now something had been done towards redressing their grievances. He hoped that still further efforts would be made in the coming session. It was impossible for men practising in London to realise the difficulties under which the Irish dispensary men laboured. They were very inadequately paid, and, even after forty years' service, if a man incurred the hostility of the board of guardians, he might be sent adrift. They had no holidays unless they themselves paid for a substitute, and under the ticket system they found that wealthy farmers and others had the advantage of free treatment, which was not intended to apply to such persons. He hoped that, with the powerful assistance of the Association and the able leadership of Mr. Ernest Hart, these grievances would be remedied.

Discussions at Branch Councils.—Dr. LOVELL DRAGE wished to call attention to what he believed to be a very great source of weakness to the Association, namely, the method in which subjects were discussed by the Branch Councils. In the

Metropolitan Counties Branch, one of the largest and most important in the kingdom, the members had often absolutely no chance of discussing any question referred to them. There was only one general meeting in the year, that was called at 4.30 and the annual dinner took place at 7.30.

Mr. Lawson Tait said this was a matter for the Branches themselves to deal with, and not for the general meeting.

Dr. Lovell Drage said when the name of the Association was used as backing up legislation, it was their business to see that members had an adequate voice in the discussion of these matters, and he wished to show that one of the most important Branches had no chance of discussing these matters.

Dr. Barron called attention to the 35th By-law, which said that each Branch should be free to govern itself as its members should think fit. The Council could not of itself properly deal with the subject; it was entirely in the hands of the Branches and of Branch members. The question raised was entirely *ultra vires*.

Mr. George Brown urged that the Association, as a whole, should have more frequent opportunity of expressing its opinions in public or general meetings upon important questions. He instanced the Midwives Bill, and complained that no attempt had been made during the year to give the members an opportunity of expressing their collective opinions upon this important question. Some time ago attempts were made to elicit the opinion of the Association upon the important question of the reform of the Medical Acts. The only way in which they could get the Council to move was by a special requisition, signed by fifty members, to convene a meeting. That was done; and then, though the requisition was signed entirely by medical men in London, the meeting was convened to be held at Birmingham. The result was a complete fiasco. After that the laws of the Association were altered, and it required now something like two hundred members to sign a requisition, which was of course prohibitory. The question of hospital reform was also one which should be taken up by the Association as a whole. A Committee of the House of Lords had been inquiring into this subject, and evidence had been placed before it; but what had been done did not represent the voice of the Association as a whole, but of individual members. He hoped that in future the Council would give the members more opportunities of assisting them by general meetings.

Dr. Saundby said Mr. Brown had taken an altogether wrong view of the constitutional position of the Council. They were simply the representatives of the Branches, and whatever the Branches wished them to do they did, and nothing else. If Mr. Brown's Branch was an unmanageable body, or he had got a Council he did not like, why did not he go and vote against them?

Dr. Hugh Woods thought it was the duty of the Council to see that the rights of individual members were protected in the Branches as in every other respect. The Metropolitan Branch Council settled matters by itself, without any reference whatsoever to the Branch. That Council was not representative of the Branch, but was self-elective. The members had no power of voting for the men who represented them on the Council of the Metropolitan Branch. Under these circumstances he appealed to the Council of the Association to protect the rights of individual members of the Branches against a self-elected Council.

Dr. Roberts Thomson said if gentlemen had a grievance with their Branch they must approach the Council, and not come and air their grievances at a general meeting. These questions had nothing to do with the adoption of the report.

Surgeon-Lieutenant-Colonel Ince pointed out as the secret of the difficulty that the quorum of the Association constituting a general meeting, and which was fixed at twenty-five when the Association numbered only a few hundreds, remained at the same number now that they had 14,000 members. What could be the authority of a meeting such as this, when barely fifty men were present outside the Council?

Dr. Groves asked how it was that the resolution passed at Bournemouth on the question of nursing was not referred to in the report?

Dr. Roberts Thomson said, as President of the Association, he was naturally responsible that the resolution should be passed on to the Council, but in the view of certain legal proceedings which had arisen in this matter, he thought it best to wait until their termination, and then the Council could deal with the matter.

The motion for the adoption of the report and accounts was then agreed to.

Parliamentary Bills Committee.—Mr. Ernest Hart in moving the reception and adoption of the report of this Committee, said he need not dwell on the importance of the subjects referred to in the report. They occupied this year, as so often before, a very large part of the Annual Report of the Proceedings of the Association, and in no year had he felt the work of the Committee to be more onerous, more difficult, and yet more promising than during the past year. The first question taken up was that of the Irish dispensary medical officers as to which they had just heard a very satisfactory expression of opinion by Mr. Curran. He felt bound to say that if this part of their work had a very promising aspect, it was also one which would require infinite patience, and if too much was at once expected, disappointment would follow. At the outset they found they had to deal with a question which had occupied the attention of the Irish profession, and to some extent the British profession for a long series of years, and in which, nevertheless, very little satisfactory progress had been made. Notwithstanding the ability and energy of the Irish Medical Association, few people in England could have any idea of the extraordinary position of hardship in which Irish dispensary medical officers were placed. It was quite a common thing there that a man had to live hardly, to work continuously, to traverse great distances, necessitating the use of a horse and car, while his total emolument did not exceed £150 a year. On that he had to educate and keep his family. No holidays were allowed him, and in times of sickness he could not depend upon having a substitute provided for him, and when old age came upon him he had no power to demand superannuation. He might mention as an instance of the hardships that an old man at the age of 85, had recently to do the most arduous and difficult duties, and to keep on at work even to his last gasp, because he had no other means of escaping slow destitution. In his case superannuation was refused. In order to get full details of the whole case a very elaborate schedule of questions had been issued to the whole of the Irish dispensary medical officers, in which labour they had been most ably and kindly assisted by Mr. William Thomson, of Dublin. A very important set of replies were received, which were digested, and on that digest was founded a scheme of remedy. With that scheme they went to the Irish Local Government Board, in concert with the great Irish medical bodies. The Irish Secretary was absent in London, but his permanent officer, who had been in office for over twenty years, entirely sympathised with them, but he said "my sympathy is perfectly barren, but I entirely sympathise with you and I think your case very strong." When they came, therefore, to London they applied for an interview with the Irish Secretary, who was President of the Local Government Board at the same time, but they were refused blank. He was, however, good enough to give him (Mr. Hart) a personal interview subsequently and to listen to his explanation, but the answer he gave was that these gentlemen had made a contract, and, having made that contract, no doubt with their eyes open, they were therefore bound by it, and so long as the Government could get a number of gentlemen to compete for these appointments, however badly paid, it could not be expected that they should pay them better than at the lowest market rate at which such men could be obtained. No doubt, said Mr. Jackson, they got what they were worth. Such was the present state of affairs. At first sight it did not look very promising, but yet he was persuaded they would have an early, quick, and complete victory in this matter, because that doctrine, coming from a great officer of State, was one so monstrous that it could not be sustained either before Parliament or the sense of the country. The civil servants of this country were paid according to a reasonably fair scale, and had also a pension in old age, and he felt sure that in the course of no very long time they would be able to carry their points in spite of the original doctrine of Mr. Jackson. There were other points

with which they would perhaps have more difficulty. The present state of Poor-law medical relief in Ireland was this: tickets for the sick poor were in the hands of the guardians and of the dispensary committee, and in that dispensary committee there usually sat the grocer, the publican, the newsvendor, and the small shopkeeper; those tickets were dispensed on terms which might be conceived by an instance he would mention. Only the other day a girl went to a publican to ask for a red ticket for her father, who was very poor and sick. The answer was, "My good girl, it is a long time since we have seen your father here, and I do not know that I can give you the ticket." These red tickets for the attendance of the doctor were often handed to the patients from the counter by the haberdasher's assistants, and by the newsvendor or the grocer to their customers, their co-religionists and political sympathisers, no matter what their worldly position might be. The case he had mentioned was an extreme one, no doubt, but it was one of a kind so obviously common that it was quite obvious that that part of the Irish Poor-law system also required complete revision. His object in referring in detail to this matter was that the case was one of such extreme urgency and yet of such extreme difficulty, and one in which they would meet with so much opposition that he desired to attract the sympathy of the whole profession of Great Britain as well as Ireland, to a case which concerned the honour of the country and which touched the sympathies of the profession as much as it affected the interests of a particular class. As to other points in the report he would pass them all over with just a few words. As to medical officers in prisons, he might say that the whole question had been carefully worked out by the committee; they had been met by a blank refusal on the part of the Home Secretary to consider the matter. That blank refusal was so often a prelude to an equally speedy surrender, that they had almost as great hopes for the prison medical officers as for the Irish dispensary officers. Mr. Hart then referred to the matter of patent medicines and the sales of poisons, mentioning that a vendor of a secret preparation called chlorodyne had been prosecuted for selling his preparation without labelling it poison, and that a conviction had followed. He had followed up that result by further representations, and steps were, he said, now in course to make that law apply generally, so that shortly all secret medicines of this kind would be labelled poison, and their sale restricted. As to the registration of midwives, he did not in the least understand the complaints of those gentlemen who had just now said that the members of the Association had not been consulted in this matter, and that they had not had the opportunity of expressing their wishes and acting upon them. He would rather say that never in the whole history of this or any other association was there any question in which the members had been so repeatedly and efficiently consulted. Not only had it been discussed incessantly in the columns of the BRITISH MEDICAL JOURNAL and at the annual meetings, but it had been discussed repeatedly in almost every Branch of the Association. He did not know any Branch in which it had not been discussed. It was also amply discussed at the last annual meeting, when he had had the honour to move a resolution that should the Select Committee of the House of Commons which was then in view arrive at any conclusion, all the Branches should be consulted before the Parliamentary Bills Committee took any action in the matter. Further than that, attention was repeatedly called in the BRITISH MEDICAL JOURNAL to the sitting of the Committee, and members were invited to attend it and give evidence, and when application was made to him as Chairman of the Parliamentary Bills Committee to give evidence, he declined on the ground that the members collectively were divided in opinion and had not made up their minds, and he sent in the names of every person who had shown any desire to offer evidence. Among them were the names of Dr. Rentoul, Mr. Brown, Dr. Hugh Woods, and Dr. Lovell Drage—those frequent and well-remembered names at the annual meetings. If those gentlemen were not represented in such a form in their Branch government as they desired, they had the remedy in their own hands. Their Branch Councils were the gentlemen whom they elected, but it was not right that half-a-dozen gentlemen should come there year by year and say they were not represented. Their opinions might not be carried into effect if they were in a minority, but they were represented in their Branch Council, they had the opportunity of calling special meetings of their Branches. But who were the gentlemen who made this complaint? Were they not gentlemen who had taken the opportunity of expressing their opinions at great length a dozen times over and in a variety of places?

Mr. WICKHAM BARNES seconded the adoption of the report. He only desired to say that the movement of the Association on behalf of the Irish Poor-law medical officers must produce great good. At present the English Poor-law medical officers were rather under a cloud. He might mention as a great hardship the case of Dr. Walters, of Cheltenham, which had been brought before them. If every Poor-law medical officer in this country was to be bound to see every case that he was sent to his life would be intolerable and his position perfectly worthless. They would feel it a very great honour if the Association would take up this matter and try and bring about some remedy.

Mr. W. BRADLEY said that as an Irish medical dispensary officer he wished to thank the Association, and also Mr. Hart in particular, for the part they had taken in trying to remedy their grievances. He might also mention that if their case came before Parliament 22 of the Irish members would support it.

Dr. WALTER SMITH said he thought the English Poor-law medical officers had many grievances like the Irish. It had been his pleasure to be on the Council of the Poor-law Medical Officers' Association for the last few years, and he therefore knew that there were many matters in connection with the Poor-law medical service which well deserved the attention of the British Medical Association.

Dr. LOVELL DRAGE asked what action the Association was taking in connection with the new university for London? He noticed that there was no mention of that very important matter in the report, and he thought the meeting should be in possession of the facts.

Mr. ERNEST HART said that the question of the new University for London was essentially a metropolitan one. He had therefore communicated with the President of the Metropolitan Counties Branch. A special subcommittee of the Branch had considered the matter and given evidence. As to the Poor-law Medical Officers' Association, he should like to say that the Chairman and Secretary of the Metropolitan Poor-law Medical Officers' Association had always been specially nominated on the Parliamentary Bills Committee, and that Dr. Rogers, the late Chairman, had always been the subeditor of the Poor-law department of the BRITISH MEDICAL JOURNAL, for which like provision was now made. He had always taken very great interest in the English Poor-law medical officers, and was at their office on any occasion when they chose to submit a programme for redressal of any grievance. The case of Dr. Walters had been very fully explained in the BRITISH MEDICAL JOURNAL.

The resolution was then carried.

Inebriates Legislation Committee.—Dr. NORMAN KERR moved the adoption of this report. In doing so he said that they had to congratulate the Association on the fact that it was largely owing to the interest and the labours of Mr. Ernest Hart, and the able steps which he had taken in the matter on behalf of the Association, that the legislative measures taken to combat the new form of intoxication by ether in Ireland had been promptly, practically, and entirely successful. According to the evidence given before the recent Committee which sat not long ago in connection with Parliament, it had been shown clearly that the consumption of ether had gone down 90 per cent. since it had been scheduled as a poison. That new form of intoxication, namely, by methylated spirit, introduced into a certain part of the north of Ireland by a painter who had gone over there, by drastic measures had been stamped out. They certainly still looked forward to the time when people would consider drunkenness more as a disease, but at present they had to deal with things as they were. In Australia they possessed the legislation to compel inebriates to go into homes, but they did not possess the homes; whilst in England, they possessed the homes, but not the compulsory powers. Therefore, their desire was to see the necessary amendment made in the law, which should put in their hands the power to compel the poor victims of this awful disease to be put under treatment. They wanted to make it compulsory upon them to go

into these homes, and very difficult to come out until they were cured. Another amendment besides that was urgently wanted. They wanted to make proper provision for the poor; all that had been thought of as yet was for the rich and well-to-do—those who could pay large sums every week for maintenance.

Dr. Usher (Melbourne) seconded the motion, and said that he had no doubt the medical profession had a great deal to do with so little being done in dealing with inebriates up to the present time. The only body that had as yet dealt with the matter was the temperance body; but there was to his mind very little doubt that if more was done by the profession, and less left in the hands of people outside, the people themselves would look to the profession for some assistance and cure. He very heartily congratulated the Association, as one of its new members, on what it had done in the way of inducing legislation in this very important matter.

Surgeon-Major Pringle said there was one part of this matter that he should like to add a few words upon, and that was opium smoking. He had had the opportunity of inspecting opium-smoking saloons in London, and he certainly thought the importance of getting rid of such places could not be overestimated. He had visited them nearly all, and felt sure that it would be no hardship to close them. The majority of people who went to such places were sailors, who had been on the sea for some time, and had not tasted opium, and for want of something better to do went into such places. Surely there could not be any loss if they were closed.

The resolution was then carried.

Scientific Grants Committee.—Mr. Butlin, in moving "That the Report of the Scientific Grants Committee for the year 1891 be received and adopted," said it was not necessary to enter into any long explanation of the aims and objects of the Committee, nor to point to work done during the past year. It was a question in the minds of certain members of the Council and of the Committee whether it would be advisable in the next year or two to take some of the money used for scientific grants and apply it for scholarships. The Scientific Grants Committee had appointed a very strong subcommittee to consider the work which had been done by those who had received grants and by the scholars of the Association. When that subcommittee reported to the General Committee, and they again to the Finance Committee, they would, he hoped, be in a position to deal with the matter in such a way as might be an advantage both to the Association and to those who worked for it.

Dr. Isambard Owen seconded the motion.

The motion was adopted.

Scientific Investigation Committee.—Surgeon-General Cornish moved: "That the report of the Committee on Scientific Investigation of School Children for the year 1891 be received and adopted." The report showed that some 20,000 children had already been examined as to their mental condition, and that the results of that examination had been tabulated on a systematised and uniform plan. At the meeting of the Congress on Hygiene and Demography this question was very carefully taken up, and a strong committee appointed to carry on the investigation, which was still proceeding. He hoped the Association would, as in times past, assist liberally with a contribution.

Dr. Barron seconded the resolution. This, he said, was one of the most important committees in connection with the work of the Association, because upon the integrity of the children of the country would depend the future prosperity of the country. The more they could eliminate disease in the young and perfect their physical education the better would it be for England and the world hereafter.

Dr. Shuttleworth, as a member of the committee, wished to point out that they were already getting some practical results. The London School Board had recently established special classes for the special instruction of backward children. It was also found that these backward children required some care on leaving school, and only last week he was invited to attend the opening of a home recently established in Hertfordshire for the care of feeble-minded and backward girls.

The resolution was carried.

Therapeutic Committee.—Dr. Coghill, in moving the adoption of the report of the Therapeutic Committee, said it would be impossible to overestimate its work. He believed every attempt should be made to enlarge its scope, and with advantage a larger proportion of the ample funds at the disposal of the Association might be devoted to this purpose.

Professor Leech seconded the proposition. The committee had already done good work, and it had a great future before it.

Agreed to.

Committee on Hypnotism.—Dr. Galton moved: "That the report of the Committee on Hypnotism for the year 1891 be received and adopted."

Dr. Groves seconded.

Mr. George Brown protested against an important report like that on Hypnotism being submitted without any statement as to the nature of the examination which had been made into this question, or the experiments which had been carried out. It was far too important a question to be got rid of in a slipshod manner. They ought to have a very exhaustive report indeed before pledging themselves to the adoption of the hypnotic method of treatment. Looking at the small number of members present, he would move that the resolution be referred back to the Committee for further examination and report.

Brigade-Surgeon Pringle seconded the amendment.

Dr. Norman Kerr said the report was a very good instance of nothing coming out of nothing. He saw no objection to its adoption, simply for the reason that there was nothing in the whole thing.

Professor Leech said although the report did not say much in favour of hypnotism, it said a little. He should support the amendment because, even before that little was passed, it should be more fully discussed.

Dr. Hugh Woods thought the report might be adopted if the paragraph was omitted, "The Committee are of opinion that as a therapeutic agent hypnotism is frequently effective in relieving pain," etc. If that were omitted, there would be no objection to the report.

Mr. George Brown appealed to the members to refer it back to the Committee; it was not worth adjourning—the whole thing was too small.

The amendment to refer the report back to the Committee was then put to the meeting and carried by a large majority. It was also put as a substantive motion and carried.

Medical Charities Committee.—Dr. Roberts Thomson moved: "That the Report of the Medical Charities Committee for the year 1891 be received and adopted." He recognised than an immense amount of valuable work had been done by the special Committee appointed—namely, Dr. Henty, Dr. Hugh Woods, and Mr. George Brown—in visiting many of the metropolitan charities, and the report which they drew up was largely mentioned in the present report. The Committee had no difficulty in agreeing to their report, with the exception of one member—namely, Dr. Rentoul—who thought the wage limit in the metropolitan area should be reduced to 15s. per week for single applicants and £1 per week for man and wife. The Committee suggested that each Branch should be requested to name the wage limit.

Dr. Bristowe seconded.

Dr. Rentoul moved as an amendment that the report be referred back to the Committee. It recommended that 20,000,000 of people should have free medical treatment and medicine.

Dr. Roberts Thomson asked how far a member of the Committee who had agreed on the report with one single exception was in order in moving that it be referred back—a report which he himself had approved of.

Dr. Rentoul said he did not approve of the report. He brought up several amendments on the Committee, and sent in certain statements to the Council, which were discussed at the last meeting.

The President said any member who was in a minority on a committee had a right to protest at the time, but when the matter was brought before the general meeting it could hardly be right to move an amendment.

Dr. Woods moved that Dr. Rentoul be heard.

Dr. Thomson raised an objection to Dr. Rentoul being heard; he raised the objection to his moving an amendment on the report.

Dr. Rentoul said he wished to refer to the wage limit. The

eport recommended that every single person in the country naking 25s. a week, and every married person making 45s., hould be provided with free medical treatment. That was a ost important point to take into consideration.

Mr. George Brown said it was recommended for the metroolis; it was not intended to govern the country.

Dr. Rentoul said it was a proposal practically for free nedicine. They had free education, and now the British Medical Association was asked to recommend the principle of free medicine. If this was carried out they would require at least 200 more hospitals. Taking London itself, fully 65 per ent. of the population of the East End would be eligible for ree medical treatment if the limit of 45s. were adopted. In Manchester the limits of 12s. and 18s. were adopted as against 5s. and 45s. The Medical Charities Committee had no doubt lone a good work, but it was a pity for the Association to nake itself a laughing stock, and recommend practically free nedicine to three-fourths of the entire community.

Dr. Lovell Drage seconded the amendment.

Mr. Geo. Brown said the work done in this matter was the nost practical piece of work, with a view of effecting anything n the shape of hospital reform, that he remembered to have been done by the British Medical Association, or any other nedical body. It was a matter of surprise and grief to him hat Dr. Rentoul should take the view he had done and come orward with such a drastic proposal as to refer this report back o the Committee. He began to doubt whether Dr. Rentoul was eally a hospital reformer at all. The result would be that this question would remain stagnant for a whole twelvemonth, and nothing would even be done in the way of the recommendations by the Association with regard to that important reform. He thought Dr. Rentoul and Dr. Drage would have shown their gratitude to the Committee by accepting the half loaf if they could not get the whole one. The recommendations contained in the report were very practical, and if put before the hospital authorities they would be received by them in a considerate spirit. The wage limit of 25s. and 45s. was only a compromise. They did not recommend that everybody who did not get 25s. a week should go to a hospital, but simply that an inquiry officer in doubtful cases should recommend that that limit should be observed. The proposition was a very fair one, and should be supported by the Association.

Dr. Felce supported the amendment. He did not want it to go forth from the Association that every man earning 25s. or 45s. was entitled to medical relief. People could obtain medical advice and medicine now in some cases at 4d. a head, and it could not be said that people earning two guineas a week could not pay that small sum.

Dr. Hugh Woods supported the motion. Any reform must commend itself not only to the judgment of the profession but also of the public, and on inquiry he found that the views of the hospitals were not in many cases in favour of restricting the advantages given to the poor. It would be utterly impossible to present to the public and the authorities of the hospitals recommendations as stringent as they themselves might think desirable. It would be an immense gain in the first instance to establish the inquiry system, and he hoped at a future meeting the Association would be able to discuss the recommendations to the hospitals to lower the limit.

Dr. Leech said the report stated that "no members of clubs, etc." should be "eligible for relief except in special cases recommended in writing by the medical attendant." He did not see the reason for that.

Mr. Brown said it was supposed that there might be some doctors who had large clubs who might really like their patients to go to hospitals to get free medical attendance.

Dr. Isambard Owen thought it would be inadvisable to at once adopt the report. He had nothing to say against its recommendations, but it would be difficult to get the London hospitals to treat them with that seriousness which the Association would wish if it was represented to the governing bodies, as no doubt it would be, that they were passed hurriedly without proper consideration at the fag end of a meeting, when there were not 50 members present.

Dr. Roberts Thomson said he did not read that small meeting quite in the way Dr. Owen had done. If the members of the Association felt that the Committee had made a mistake, they would have been present to protest against it. He read their absence rather as a fact that the Association were satisfied with the work the Committee had done, and were ready for the Report to be passed. He hoped the amendment would not be adopted. Those who supported Dr. Rentoul had hardly fairly looked at the report, because that distinctly excluded the whole of the country beyond the metropolis in the wage limit mentioned. At the initiatory stage of their work they felt that no universal wage limit could even be applied. The chief object of the report for the next year, so far as the country was concerned, would be to elicit from the Branches their opinion as to a wage limit.

The amendment was then put to the meeting, when the numbers for and against were equal—17 to 17. The President gave his casting vote against the amendment.

Dr. Hugh Woods moved the adjournment of the meeting.

This was negatived.

Dr. Felce moved as an amendment the omission of the words fixing the limit of the relief at "25s. per week; or, if married, 45s. per week."

The amendment was put to the meeting, and negatived by 15 votes against 14.

The motion for the adoption of the Report was then put and carried.

Opening of the Health Exhibition.

At the conclusion of the Council meeting on Tuesday morning a large number of members of the Association, with their friends and members of the Corporation of Nottingham, went over to the Guildhall, where a Health Exhibition, which had been organised under the superintendence of Dr. Boobbyer, the Medical Officer of Health for Nottingham, and other local gentlemen, was announced to be opened by the Mayor (Councillor R. Fitzhugh, J.P.) and Sir W. B. Foster, M.P. Amongst those who were present were Dr. Bristowe, Mr. A. Brown (Borough Engineer), Professor F. Clowes, Mr. R. Evans, J.P., Professor Heaton, Dr. A. Whitelegge, Dr. J. S. Tew, Dr. Charles Harrison, Dr. Withers Moore, Dr. Roberts Thomson, and Dr. J. Ransom.

The exhibits, which consisted mostly of sanitary appliances, were tastefully arranged in a large marquee erected in the yard. The Sheriff (Mr. J. H. Green), Alderman Blackburn (Chairman of the Health Committee), and Lady Middleton occupied seats on the platform, from which the opening ceremony took place.

At the outset of the proceedings Dr. Boobbyer announced that Sir Walter Foster, owing to indisposition, would be unable to be present.

The President-elect (Mr. Joseph White) expressed the pleasure it gave him to be present at the opening of the Health Exhibition. For many years it had been the custom at the meetings of the British Medical Association to have a Museum showing the advance of medical science in its varied applications, and the Sanitary Department had always held a very important place. It had this year been attempted to extend that department, and it was peculiarly appropriate that that extension should be made in Nottingham, because for many years Nottingham had stood in the forefront of those towns which had seen the importance of sanitary advance, and had tried to remedy its defects. It therefore gave him very great pleasure, on behalf of the British Medical Association, and, indeed, the whole medical profession, to express their sense of the exertions made year after year by the authorities of the town, and to welcome the happy thought which had led to the exhibition about to be opened. He had great pleasure in declaring the exhibition open, and hoped that it would not only meet with a great amount of success, but that its results would be of the utmost importance.

The Mayor of Nottingham said his duty was a very pleasing one. He had, as Mayor of the borough and as the representative of the Corporation and inhabitants, to give the British Medical Association a hearty welcome. If the Health Exhibition was likely to be a great success, it was largely due to the zeal shown by their medical officer of health, Dr. Boobbyer, in its promotion. It was an important undertaking, and more particularly so, because he might say that medical men now depended more upon sanitary arrangements than upon their own medical skill. He offered the Association a hearty welcome, and assured them that the Corporation and the Health

Committee would do all in their power to add to the enjoyment of the visit and to help to its successful issue.

Alderman BLACKBURN (Chairman of the Health Committee) said the idea of the Health Exhibition proceeded mainly from the suggestion of their medical officer, who had worked indefatigably in its behalf. He hoped the exhibitors would meet with their due reward, and that the Health Committee would, by their aid, receive some assistance in solving the difficult sanitary problems which had to be dealt with.

Dr. BOOBBYER briefly acknowledged the kind references which had been made to his services, and the proceedings terminated.

ADJOURNED GENERAL MEETING: TUESDAY EVENING, JULY 26TH.

THE adjourned general meeting was held in the Mechanics' Hall on Tuesday evening, when there was a large attendance. The PRESIDENT (Mr. Joseph White) was in the chair, and the Bishop of Southwell occupied a seat on the platform.

Foreign Members and Delegates.—The PRESIDENT said they were favoured that evening with the presence of a number of foreign professors and others who had been invited to be present, and who had responded to that invitation. He would read the names of those gentlemen, and if they were present he would be pleased if they would come on the platform. The following gentlemen then answered to their names, and were greeted by the President amid loud applause: Professor Dr. W. Ebstein, Göttingen; Dr. Emil Pfeiffer, Wiesbaden; Professor Dr. L. von Schroetter, Vienna; Brigade-Surgeon-Lieutenant-Colonel E. F. Drake-Brockman, F.R.C.S. and Professor W. H. Hingston, Montreal.

President's Address.—The PRESIDENT then delivered the annual address, which appears on page 225.

Professor W. H. HINGSTON (Montreal) said he was deeply sensible of the honour conferred upon him by the Chairman in asking him to propose a vote of thanks to the President for the address with which he had just favoured them. He almost envied Mr. White in the happy circumstances which surrounded him. He was there in Nottingham in the presence of a most sympathetic audience; he had laboured there for years and years, and his name was synonymous with all that was honourable and dignified in their profession; and they knew that in all the amenities of life, in his social and professional relations, he had always been the dignified and honourable gentleman. He was particularly pleased with the presence of the Lord Bishop of Southwell. It had more significance than would at first sight appear. His lordship dealt with divine immutable truths, whilst they dealt with truths as they appeared to them by searching those natural laws which were as unchangeable even as the divine laws. And if they were not successful, it was simply that they did not appreciate and comprehend with their finite judgment those laws which by the law of the Maker Himself were destined to remain more or less hidden.

Sir F. BATEMAN said that when he entered the room he had no idea that he should be called upon to take more than a passive part in the deliberations. He had the honour of seconding the vote of thanks to the President for his address. When he heard that Mr. White was to give an address he confessed that his expectations were very highly raised, but however highly raised they had been more than realised, for a more interesting and instructive address it had never been his privilege to listen to. He would like to emphasise one point and express his gratification, and that was that the President had laid such marked stress upon preventiveness. He certainly thought that the motto of all of them should be *principiis obsta.*

The resolution was put by the President of the Council and carried by acclamation.

The PRESIDENT briefly acknowledged the kind words which had been spoken of him. He said that after the patient manner in which they had listened to his long address he would not inflict a long speech upon the meeting, but he desired to convey to them all in the most emphatic manner he could his very great feeling of gratitude for the kind way in which they had received his address.

Railway Servants' Eyes Committee.—Dr. MACKEY (Brighton) said that in the unavoidable absence of Mr. Macnamara, it had devolved upon him to move the adoption of the report of the Committee on the efficient control of railway servants' eyesight. The report had already been practically adopted by the Council, and an abstract of it having appeared in the BRITISH MEDICAL JOURNAL, it was not necessary for him to say very much in support of the resolution. He would only say that until the Committee took the investigation in hand hardly anyone could clearly realise how backward the country had been and how negligent in its duty in relation to the attention which should be given to carefully examining railway servants before they were permitted to assume positions of responsibility on the railways. There was not a single country of importance on the continent which had not some regulations as to the control of railway servants. So far the Committee had merely collected facts, and much was still required to be done to influence the officials to take action in the matter. Already they had some encouraging promise of success following their labours, and they hoped the Association would reappoint the Committee.

Mr. HODGES said he had been desired to second the resolution. Fortunately, perhaps, for the members of the Association, he knew nothing whatever about the matter, but he was quite content to know that the report was drawn up at the direction of the Council and by men whose reputations were great and above reproach.

The resolution was carried unanimously.

Anæsthetic Committee.—Professor VICTOR HORSLEY said he had the honour to propose that the statement of the Anæsthetic Committee should be adopted. He wished to mention that it was not a report, but a statement as to the work to be done and the hints that had already been received. The work was of two kinds—clinical and, he hoped, experimental. The clinical work had been organised and arranged according to the schedule which was in members' hands, and the experimental work, he hoped, would assist them in the discovery of impurities in anæsthetic agents.

Mr. CROFT said that, as an old hospital surgeon, he had great pleasure in seconding the proposal. He had seen anæsthetics administered in 14,000 cases, and he thought he might claim to have some reason for supporting the resolution.

The resolution was then carried.

Payment of Members of Council.—Surgeon-Lieut.-Col. INCE, who was received with much laughter, said that he rose to propose the motion which stood in his name, and he desired at the outset to say that he was not joking. This was a serious question, and he wished to keep as serious a countenance as he could. That was the sixtieth anniversary of the British Medical Association. For over fifty years their Council and many others performed their duties in a purely voluntary and honorary manner. Their esteemed President had that evening given them a very admirable account of the history of the Association. He had described the exterior and various parts of it in very admirable language, but he had failed to dissect the interior. He begged leave to propose "That the acceptance of any remuneration by the members of Council or any of the committees for attendance is alien alike to the spirit and to the dignity of this our fraternal and professional Association, and should therefore be discontinued." There were, he felt sure, some gentlemen present, who would say that free medical aid to poor people was demoralising, and he would ask if free medical aid was demoralising to the poor, what must be free railway fares? Let it always be remembered that their Council were gentlemen with sensitive, delicate feelings, who would be shocked at receiving anything of the kind. He wished to observe the rules of logic, and he desired to define the term "remuneration," because he had been told that these gentlemen did not receive remuneration. He had consulted the dictionary in their splendid library and it stated that the word signified "the payment, or equivalent, for services, loss, or sacrifice." To return, therefore, the railway fares of these gentlemen was to give them a payment for loss or sacrifice. Therefore, he most distinctly asserted that the word "remuneration," was proper and correct. He scarcely required to define the word "alien;" it meant hostile or adverse. He would say no more on that, but he proposed in the course of about five minutes to divide his remarks into three parts. In the first part he might roughly run over the history of the question;

in the second place he would just consider the arguments for and against it; and, thirdly, he intended to consider the moral aspect. As to the first part, in order to be perfectly correct, he took the opportunity, and he might call it the pleasure, of going through the reports of their annual meetings in the British Medical Journal, and he desired to read a few extracts from these reports. The speaker then referred at length to the Liverpool meeting of 1883—which he said was described as a disorderly one—and to the subsequent annual meetings at which this question had been discussed, and said that at all the meetings before that at Leeds in 1889 motions in favour of the payment of members had been negatived, but that at the Leeds meeting it had been carried when there were not more than twenty people in the body of the hall. Of course there were the members of the Council on the platform. Surgeon-Lieutenant-Colonel Ince was then proceeding to his next point when the Chairman pointed out that his time had elapsed; and contenting himself with saying that he hoped they would purge themselves of the taint of filthy lucre, he resumed his seat.

Mr. Lloyd seconded the resolution.

Dr. Rentoul moved as an amendment "That while not recommending the payment of members of committees either for services or time given on behalf of the Association, that from henceforth each member attending the meetings of the Parliamentary Bills Committee be paid first-class return railway fares out of the funds of the Association, thus following the course adopted in the payment of the railway fares of members of our Council, and also those of the General Medical Council." He did not, he said, like to be personal, but he desired to say that although Lieutenant-Colonel Ince did not do much for the Association, he drew his guinea a day from Her Majesty's Treasury.

(At this remark there were loud remonstrances from the hall of "Personal," "Sit down," "Withdraw.")

Surgeon-Lieutenant-Colonel Ince: I beg leave to say that I am not in the least offended at what Dr. Rentoul has said. He is entitled to every latitude in that direction. We know that Dr. Rentoul has been before the House of Lords.

Dr. Rentoul proceeded to say that as the Association was now quite rich enough to bear the cost, his resolution should be carried. In the case of the payment of railway fares to Council, he found that only £274 each year had been so paid. He thought that less than that would pay the railway fares of the members of the Parliamentary Bills Committee. At present the Parliamentary Bills Committee was badly attended—indeed, he had heard from the office that the average attendance for the last four years was only nine. If they wished the Branches in Ireland to be thoroughly represented on the Parliamentary Bills Committee, then their travelling expenses should be paid. It was absurd to ask members to lose a day and a night in travelling, their hotel expenses in London, in simply going to London to do the work of the Association.

The General Secretary said he had had no communication with Dr. Rentoul upon the subject of the Parliamentary Bills Committee attendances. It was not true that there were only nine; generally there were twenty or thirty, and sometimes as many as forty.

Dr. More Madden seconded the amendment. He said the Association was ruled entirely from the platform. That was a mistake. Members had a right to come forward at the annual meeting to take part in the discussions, whether their opinions were in consonance with, or were hostile to, those of the Council. The amendment was one that ought to commend itself to the great body of practitioners, inasmuch as it was entirely in favour of their interests. It was not in their interests that the representative government of the Association should be in the hands of a small number of gentlemen, however exalted their position, but rather that its humblest members should come forward and take part in its concerns and management. The principle of paid representation was one which in every department of public life was coming to the front, and it would be very hard if it were not permitted in their Association.

Mr. Butlin said, as this was in great part a financial question, it was his duty as Treasurer to say a few words. He must first correct Dr. Rentoul with regard to their financial position. The Association had not £45,000—that was the assets of the Association. The cash amount in hand was about £30,000. It had been the policy of Treasurers and Presidents of Council for a good many years past gradually to increase the invested balance until it should equal two years' expenditure, and then it was considered they would only be in a sound financial position, and not even then what was termed a rich association. It was reasonable that they should have a goodly sum of money in hand, so that, in the case of any great trouble arising, they might be able to carry on their business without showing the white feather in the face of certain very important rivals, or rivals who might at any time spring up. With regard to the payment of the Parliamentary Bills Committee, he could not see why they should be paid more than the members of other Committees. There was just as much reason for paying the one as the other. Dr. Rentoul had just been put on the Parliamentary Bills Committee, and it was rather curious that he should select that one; it would have been better taste on his part to have picked out some other Committee if he wished to try this question, and not the one on which he had recently been appointed. To vote on this one question now would be a very rash proceeding, because no one could give anything like a reasonable idea of the amount of expense which would be incurred. With regard to Surgeon-Lieutenant-Colonel Ince's proposition, there was some difference between the members of Council and the members of Committees. It was thought right that every Branch should be represented, and they wanted as far as possible to bring the representatives of Branches from distant parts of the country. He had himself spoken and voted in favour of the payment of the railway fares of such representatives, so that they might be at any rate reimbursed money out of pocket.

Dr. Douglas thought a list of the attendances of members of each committee should to be published.

Mr. Ernest Hart said every time the Committee met a full list was given in the British Medical Journal of the attendance.

Dr. Douglas said what he required was a complete list at the end of the year. He should also like more details as to expenditure; what, for instance, were the railway expenses of the Council last year, as then they could form some idea what would be the expense in the case of the Parliamentary Bills Committee. Whilst fully sympathising with the feeling that had prompted Surgeon-Lieutenant-Colonel Ince in bringing forward his resolution, he at the same time felt that as the Council was nothing in its government if it was not representative, it could never be fairly representative if members coming from distant parts of the country were placed at a disadvantage. The reason why the Parliamentary Bills Committee was exceptional was obvious. It was not a special Committee, having a special narrow object; it was a permanent and representative Committee, in which all the Branches were represented; a Committee dealing with the most important subjects the Association could deal with. He sincerely approved of the amendment, and it was only right and fair that it should be carried into effect if the funds would permit. What were the travelling expenses of the Council last year?

Mr. Butlin: Just under £300.

Mr. Ernest Hart, as Chairman of the Parliamentary Bills Committee, said during the twenty-two years of the Committee's existence no one member had ever suggested that he required payment until Dr. Rentoul, its newest member, now came forward to do so. It was a mistake to say that the Committee were asking to be paid. The proposal had never been submitted to him as Chairman, and the Committee had had no opportunity of considering it. There was not, as Dr. Madden had suggested, a preponderance of metropolitan members on the Committee, and the reports of their proceedings showed a large preponderance of provincial members. If the vote were carried it would not in any way add to the efficiency of the Committee, which had for years done a great work without it. It would cost not less than from £300 to £500 a year. It would also form a precedent which it would be impossible to resist for the payment of all other Committees. It was quite beyond the question to say that this Committee differed in certain respects from the other Committees. The Journal and Finance Committee, the Habitual Drunkards Committee, and the Committee on Medical Reform had all

had to meet year after year, and must consist largely of men coming from a distance, and whose work was quite as well worthy of pay if payment was to be the test of merit of the Parliamentary Bills Committee.

Dr. Ward Cousins pointed out that the expenses of the Executive and permanent members of the Council were not paid.

The amendment proposed by Dr. Rentoul was then put to the meeting and lost.

The motion as moved by Surgeon-Lieutenant-Colonel Ince was also put to the meeting and negatived.

Second General Meeting.

The second general meeting was held on Wednesday afternoon in the Mechanics' Hall, the President in the chair.

The General Secretary read out the names of the representatives of the Branches on the Central Council.

Annual Meeting, 1893.—Dr. Withers Moore said he had the pleasure of announcing to the meeting that the Association had received a very hearty and cordial invitation from the city of Newcastle-upon-Tyne to hold the next annnal meeting there. Never having been in that city, he could not descant upon its beauties or advantages, but they all knew it to be a large centre of industry. The invitation was backed up by the municipality of the town, and also more especially by the University of Durham. It was certainly a most cordial invitation, and when they considered the importance of the town of Durham and the interest which attached to it, with its magnificent cathedral and also the University, they would all look forward with pleasure to the visit. If they were happy in the choice of a town they were still more happy in the gentleman whom the profession of Newcastle had chosen as their president. He should ask the meeting to elect Dr. Philipson as President-Elect. He had long been known to the Association as one of its active members, and had always taken a great interest in all that concerned the Association. He (Dr. Withers Moore) felt sure that if they elected him as their President for the coming year they would be doing an honour to Newcastle and the University of Durham, and would at the same time be doing an honour to the Association. He begged to propose: "That the invitation to hold the annual meeting in the year 1893 in Newcastle-on-Tyne be accepted with thanks, and that Dr. Philipson be appointed President-Elect."

Mr. Wheelhouse, in seconding the resolution, said he had a lively recollection of the way in which they had been received at Newcastle on a former occasion, and felt sure that they would again have not only a very warm invitation but a very hearty reception when they got there. They would, unfortunately, miss one of their friends there (Dr. Heath), who had always been to the fore in all the affairs of the Association that related to Newcastle. They would miss his genial deportment and kindly face, and they would not go to Newcastle without some little feeling of depression on that account. Still there were many good friends who were no doubt not only anxious to receive them but were willing to give them the heartiest reception possible.

The resolution was then carried unanimously.

Dr. Philipson thanked the meeting on behalf of the profession of Newcastle-on-Tyne and the northern counties for having selected Newcastle as the place for the annual meeting of the Association next year. He could ensure the members a very hearty welcome and that every effort would be made by the profession to make the meeting a success. He also desired to thank the President of the Council and Mr. Wheelhouse, both of whom were old friends of his, for the very kind and flattering way in which they had introduced his name. It would be his earnest endeavour so to perform the duties of his office as to merit the approval of the members.

Vote of Condolence.—Dr. Withers Moore announced that at the Council meeting which had been held that morning a vote of condolence to the family of the late Mr. W. D. Husband had been unanimously agreed to.

Address in Medicine.—Dr. James Cuming then delivered the Address in Medicine, which will be found on page 230.

Professor Gairdner moved a hearty vote of thanks to Dr. Cuming for his able address, and bore testimony to his great appreciation of its usefulness. There were, he said, points in the argument, especially at the commencement, with which he did not quite agree, but he must say that Dr. Cuming had given them all something to think about which would do them a great deal of good.

Dr. Clifford Allbutt seconded the motion.

Dr. Holman desired to add as a rider to the resolution that the address should be printed in a separate form, so that they might have it for all time.

This was agreed to, and the resolution was carried.

Dr. Cuming having briefly thanked the members, the meeting adjourned.

Extraordinary General Meeting.

This meeting, which was largely attended, was held at 2 o'clock on Thursday in the Albert Hall, Nottingham, to consider the question of the admission of women as members of the Association.

The question was brought forward, according to notice, by Dr. Galton, who moved "that Article 4 of the Articles of Association be altered by expunging the words 'No female shall be eligible for election as a member of the Association.'" He wished the task had been taken up by some older member of the Council, but it was the fact when any yeoman's work had to be done in the Association, it generally fell to the lot of the general practitioner to perform it. Referring to the history of the question, he said the wide-viewed founders of the Association had not any idea in their minds of any such disabling clause as he was now asking them to remove. It was first introduced at the Bath meeting, in 1878, after a plebiscite of the members, in which 4,161 out of 7,000 voted, 3,072 against the admission of women, and 1,051 in favour. His first argument in support of the present motion was that the times were changed with reference to this very question. The question against the general admission of women to the profession no longer existed. In 1878 there were but eight lady members of the profession who had gallantly struggled through the various portals into the profession. There were now 135 lady members. Mr. Sibley, in his address to the metropolitan Branch in 1877, said if it was conceded that women should have the opportunity of proving that they were capable of overcoming all the difficulties of the situation, and of practising their profession with success, it became a question upon what terms they were to be admitted. Upon this there was but one answer. If they were allowed to enter at all, let them be admitted freely, and on the same footing as men. The battle against their admission was over, and all that remained was that they should be admitted freely. One argument at the Bath meeting was that it was indelicate to discuss medical matters in the presence of women. That contention could no longer be maintained. There was not a novel published that did not teem with the records of disease, and even on the stage some of the most revolting types of hereditary disease were exposed to the public view. The times were changed and were, he hoped, changed for good. As to the tactics of the opposition, they had all seen the small boys that played in the streets, and they saw how one little fellow drew out of the game because the game was not played as he liked. He hoped that for ever this gutter policy would be discontinued in the Association. It was unworthy of it and of their profession when its great leaders adopted such a policy, and showed that their ill-fitting garments hung upon them like full-grown clothes upon the shrunken shanks of a pantaloon. Moreover, experience had shown how futile was this threat of resignation, and how little to be dreaded; it was only *brutum fulmen*. His next argument was the benefit that this change would bring to the Association. In olden times, when despots ruled Eastern countries, those old rulers used to disguise themselves, and go about to remedy and punish injustice and tyranny. No despot ruled this Association. He was quite sure that to any stranger who attended the meetings, the severe criticism to which the Council was subjected by some of its members would lead them to suppose that most repressive things were done in that Council. No despot ruled the Association, but none the less was it incumbent upon the members who were its rulers to remove the stamp of injustice from its enactment that no female should be eligible as a member, seeing tha

one of the first principles of justice was that every individual should have the free and full enjoyment of those advantages which were acquired by his nature or his ability. He held that the retention of the clause in the articles was a positive injury to their good name, and its removal would promote the two great objects of the Association—its efficiency and harmony—its efficiency by admitting those who had special peculiarities in the different walks of life, and its harmony in removing a question which must lead, until it was settled, to differences of opinion. His third argument was derived from the great repute and high standing of the members he was asking them to admit. No breath of scandal had sullied the fair fame of any of their sisters in the profession. The London University, true to its high functions of removing disabilities, had admitted women to its convocation, and their rare and occasional utterances were fruitful in good to the course of university policy. Ladies were admitted to the Irish Graduates' Association and were honoured members of it. Of 135 registered medical ladies, 22 were graduates of the University of London. One great motive for reopening the question arose from the action of the Colonial Branches. The Sydney and New South Wales Branch had passed a resolution asking the Council to reconsider Rule 4, so as to enable the Branch to admit women. Similar resolutions had been sent from Branches at the Cape of Good Hope, Melbourne, and Victoria, South Australia. He had taken up this question not only because he had an earnest desire to see justice done for those whose cause he was pleading, but because the Association was essentially a provincial one, and the Colonies might be included in the provinces. He hoped, in conclusion, that this disability would be removed from their rules, and that the righteousness of Nottingham might wipe out the injustice of Bath.

Mrs. Garrett Anderson, in seconding the resolution, said she thought its terms should be somewhat modified, and it should read to admit more women into the Association, because she was still in it. The first question she desired to ask was whether the exclusion of medical women from the Association could do any good? She could not believe that it would; it seemed to her mind impossible that it could. Women were now coming into the profession in large numbers. The number in the profession now was 140. There were 130 students in the schools at the present time, so that the numbers would go on increasing from year to year. There was one school for women in London, two in Edinburgh, two in Glasgow, and one in Dublin. Then, as to the influence of the admission of women, she felt much that keeping them out did harm in the way of diminishing the *camaraderie* of sympathy between the two sides of the profession. It seemed a pity that there should be growing up in the minds of women in the profession anything approaching to hostility or separate interests against men. It could not be expected that medical women should be more than human, and if they were given the cold shoulder in every way, it could not be expected that they should have any feeling of solidarity with the other members of the profession. She thought that feeling of such great importance and such a precious one that those who arrived at establishing it should make men feel that the professional reputation of their *confrères* was as precious to them as their own. She thought, too, that the change proposed would be doing considerable good to the women themselves, in bringing them more into touch with the vast body of the profession. It would doubtless do their professional knowledge much good. She thought it possible that in many ways women would be able as time went on to contribute to the sum total of knowledge as regards the health of women. Was this the moment to give way in the struggle? They had waited now for some seventeen or eighteen years, and now was the time for action. She was pleased to hear that the Colonies were asking for the change. It should be borne in mind that the number of women in the Colonies and in India was much greater than a few years back. Some of them were leading lives of great solitude at their posts, and were often confronted with the greatest responsibilities. She had heard of a lady having to perform Porro's operation and also ovariotomy, and it was a tremendous tax upon them not to be in touch with their professional brethren, being able to receive such friendly help and aid from them as they ought to be able to expect. She could not believe that in doing that which was strictly and purely an act of justice they could go far wrong. She heard people fear the effects of one thing or another, but she had come to distrust fears more than ever as a guide. They were all disciples of Darwin and his great theory of evolution, and here before their eyes was the great evolution of women out of one stage into another, and if they were all really good Darwinians they would help this evolution. She very heartily seconded the resolution.

Mr. Brown, in support, said he did not rise to move an amendment, and he trusted no one would. The resolution had been proposed in a very eloquent manner by Dr. Galton, who had given them very good reasons why they should reverse the verdict taken at Bath. He ventured to hope that that would be the unanimous opinion of the meeting. They had now arrived at a time when the evolution of women demanded that her position be recognised in the medical profession. They had been admitted for the last seventeen or eighteen years into a profession which was greater than the British Medical Association; and, as they had been admitted to the greater, he thought they would be stultifying themselves if they refused them the less—refused them admission to the British Medical Association. He knew that to some of his friends it would be a surprise that he should get on that platform and advocate the admission of women; for probably there was no one who at the Bath meeting worked harder to oppose the resolution for their admission than he did. He did so then because he thought it was not universally recognised in the Colleges that it was right and proper to admit women to the medical profession, he still thought it would be very much better for women themselves if women were not in the profession. He thought himself that he could do the work of a surgeon or of an obstetrician very much better than any woman who had ever tried. He thought, too, that he should be expressing the feelings of medical men generally if he said that that was their idea too. But as they had got the women with them let them give them a fair field, showing them no hostility, showing them, he hoped, no particular favour because they were ladies. Let them see what women could do. He felt sure that they could not do much harm. He trusted they would be much improved by them, but at all events they would be pleased to see them with them. He had very great pleasure in appearing that day in support of the resolution that the rule be rescinded and that medical women be admitted as members.

Surgeon-Major Pringle said that recently he had the pleasure of reading a paper in the Obstetrical Section on women's work in India, and the need and the necessity of it. The Chairman of that Section then said that the treatment of women in India was no treatment at all, but only a barbarity, and he (Dr. Pringle) could say from his own knowledge that there was a world of work for women in India, such as people had not the least idea of in this country. The Government had considered it to be their duty to recognise and use these women. Lady Dufferin's scheme was evidence that their work was wanted; and if the British Medical Association declined to admit them on the same terms as they admitted men, they would be doing their best to stultify the efforts of the Government to minister to the poor women of India.

Dr. Stewart said it had been mentioned by one of the speakers that women doctors were admitted early into the Irish Medical Schools' and Graduates' Association. He, as Secretary of that Association, had great pride in saying that they led the van in that matter after an experience of it for fourteen years. He might say that they had always enjoyed the association of the women, and that the Association had benefited largely by their presence.

Surgeon-General Cornish, as representative of the South Indian Branch, spoke of the most excellent medical work which women were doing in India, both officially and privately. He most cordially supported the proposition.

Mr. Lawson Tait said that as it would be necessary to hold a meeting shortly to confirm this resolution it would be better that it should not be passed here, as they might be met with a surprise majority at the next meeting. He was in favour of the proposal himself.

The General Secretary said it was necessary that the

majority in favour of the resolution should be three-fourths.

A vote was then taken, and the PRESIDENT declared the resolution carried by a large majority, only about 3 or 4 hands being held up against it out of a meeting of about 300.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the Committee of the Association of Fellows of the Royal College of Surgeons was held on July 21st, at 36, Grovesnor Street, W., Mr. GEORGE POLLOCK, President, in the chair. There was a full attendance. Mr. Vincent Bell (Rochester) and Mr. J. J. Parnell (Streatham) were introduced as newly-elected members of the Committee.

The minutes of the last meeting having been read and confirmed, the HONORARY SECRETARY read letters of regret for inability to be present from Mr. George Jackson (Plymouth) and Mr. George Helm (Truro).

A report was presented by the HONORARY SECRETARY with reference to the recent meetings and the annual dinner. After the payment of expenses of the dinner a small balance was handed over to the Treasurer for the General Fund.

The Committee briefly discussed the question of the arrangements and order of procedure which should obtain at the new meetings of Fellows at the College of Surgeons, and it was decided that for the present no steps should be taken by the Association in connection therewith.

Two letters from Mr. Holmes, addressed to the President, were read by Mr. POLLOCK. They referred to an incident which occurred at the meeting of the Fellows on July 7th and to a collateral matter of some importance to the Association arising out of that incident. A prolonged discussion ensued upon these topics, and ultimately a letter was drawn up, which was directed to be signed by the President and Honorary Secretary of the Association and to be forwarded to the official referred to in the letter of Mr. Holmes. It was further decided to take no definite action with reference to the points raised in the discussion until the meeting of the Committee in October next.

On the motion of Mr. ALLINGHAM, a unanimous vote of congratulation was passed to Mr. Tweedy on his successful election to the Council of the College on July 7th.—In supporting the resolution, Mr. POLLOCK took the opportunity of saying that he did not congratulate Mr. Tweedy so much as he congratulated the College on having secured the services of a councillor whose presence at the meetings of the Council would prove a tower of strength to his colleagues.—In reply, Mr. TWEEDY cordially thanked the Committee for the resolution which had just been passed in his favour, and said that he had been greatly influenced in persevering in the reform movement and continuing to work on the Committee of the Association by the example set by Mr. Pollock as President of the Association. He hoped to be able to act in the Council of the College in strict accordance with the views and principles which he had supported in the Committee of the Association.

This concluded the business of the meeting, and the Committee adjourned.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

THE provincial general meeting of the above Association (which now numbers nearly 700 members) was held at University College, Nottingham, on Wednesday, July 27th. In the absence of the President (Director-General Dick, C.B., R.N.), Dr. HEATH, of St. Leonard's, was called to the chair. There was a large attendance of members.

The Council reported that since the last general meeting a signal victory over the monopolists of hospital appointments had been achieved at Hastings, where, by a majority of 78 to 33, the governors of the East Sussex Hospital had repealed, after full discussion, the rule restricting honorary staff appointments to those holding London diplomas.

Professor CUMING, M.D. (Belfast), proposed, Dr. DOUGLAS Leamington) seconded, and it was unanimously resolved: "That the Association records its satisfaction at the success of the Council's proceedings in reference to the rule formerly in force at the Hastings and East Sussex Hospital by which diplomates of the Irish Royal Colleges of Physicians and Surgeons were excluded from competition for honorary appointments on the staff of that institution."

The Council also reported that Lord Sandhurst's Committee of the House of Lords had published as an appendix to their lately-issued Report a statement, prepared on behalf of the Association, setting forth the injustice of the restrictive rule as it exists still in the greater number of the large London hospitals.

A vote of thanks to the Chairman concluded the proceedings.

ASSOCIATION INTELLIGENCE.

NOTICE OF EXTRAORDINARY GENERAL MEETING.

NOTICE is hereby given that in accordance with the Companies' Acts and the Articles of Association, an Extraordinary General Meeting of members will be held at the offices of the Association, 429, Strand, on Wednesday the 24th day of August next at 2 o'clock in the afternoon, to consider, and if thought necessary, to confirm the special resolution passed by the statutory majority this day at an Extraordinary General Meeting of members held at the Albert Hall, Nottingham, namely, "That Article 4 of the Articles of Association be altered by expunging the words 'No female shall be eligible for election as a member of the Association.'"

July 28th, 1892. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

NORTH WALES BRANCH.—The forty-third annual meeting will be held at the Corsygedol Hotel, Barmouth, on Wednesday, August 3rd, at 1 P.M., when, after the usual routine business, the following papers will be read:—H. Drinkwater, M.D., Wrexham: Symptoms and Diseases produced Reflexly by Morbid Conditions of the Nose; John Williams, M.D., Bethesda: Malignant Growth in the Groin; H. J. Roberts, M.R.C.S., Penygroes: Some Points in the Treatment of Compound Fractures; W. Williams, M.A., M.D.(Oxon.), Dolgelly: Notes of a Case of Puerperal Septicæmia; F. H. V. Grosholz, M.K Q.C.P.I., Towyn: Cases of Poisoning by (1) Phosphorus, (2) Atropine, (3) Strychnine, (4) Cocaine; Case of Complete Dislocation of Foot Forwards; W. Jones Morris, M.R.C.S.: Aphasia; H. R. Jones, M.A., M.D (Cantab.), Liverpool: Early Welsh Medicine. It is hoped that Dr. William Alexander, F.R.C.S., Liverpool, will be able to attend and read a paper on Abdominal Surgery. Dinner at 4 P.M.; tickets 5s. Any member of the Association who may be in the vicinity is heartily invited to attend.—W. JONES MORRIS, Honorary Secretary, Portmadoc.

GLASGOW AND WEST OF SCOTLAND BRANCH.

THE summer meeting of this Branch was held on July 13th at the Royal Lunatic Asylum, Gartnavel; Dr. ALEXANDER NAPIER, the President, being in the chair.

Inebriates Bill.—The matter of the Inebriates Bill was brought before the attention of members by a circular from Dr. Norman Kerr. It was unanimously agreed that the Branch would homologate any action taken by the Council of the Association, by petition or otherwise, to promote the passing of the Bill.

Demonstration.—Dr. YELLOWLEES, Physician-Superintendent of the Asylum, thereafter gave an interesting demonstration of a number of cases, chiefly of melancholia and of general paralysis of the insane.

Vote of Thanks.—On the motion of the PRESIDENT, he was awarded a very hearty vote of thanks.

IN the report of the Inebriates Legislation Committee, which was published in the BRITISH MEDICAL JOURNAL of July 23rd, it was stated that the Committee had recommended the addition of "Dr. Fisher, of Melbourne," as a member thereof; the name should have been "Dr. J. E. Usher."

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

SUBSCRIPTIONS to the Association for 1892 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, JULY 30TH, 1892.

THE NOTTINGHAM MEETING.

THE meeting in progress at Nottingham has shown as a distinctive feature a close attention to administrative, professional, and scientific questions. It is likely to prove one of the most valuable of the annual meetings as regards the more serious aims and dignified pursuits promoted by such congresses. The number of reports presented by standing and special committees was unusually great, and the reports themselves were for the most part of an elaborate, useful, and promising character—so much so that, in all but one case, they elicited only expressions of satisfaction and congratulation, which, from their tenor and influence, they well deserve. The report of the Council announced an extremely satisfactory state of numerical and financial progress; 984 new members had been elected during the year, making a total of 14,267 members on the books, so that the rate of growth of the membership still continues unchecked, notwithstanding that the margin open for recruiting new members obviously diminishes in proportion as the steady extension of the roll grows nearer to the absorption of the whole working profession of Great Britain within the ranks of the Association. By far the larger part of these new applications for membership have, as usual, been received at the office as an immediate consequence of the half-yearly issue of a specimen number of the BRITISH MEDICAL JOURNAL to members of the profession outside the ranks of the Association, so that the BRITISH MEDICAL JOURNAL still maintains its value as the chief recruiting agent for membership as well as the means of binding the Association together, and giving effect to its aims of promoting scientific knowledge and influencing professional and public opinion in the direction of progress. The steady increase in its circulation, which now exceeds 17,000 weekly, leads not only to a large annual addition to the list of subscribing members, but by the corresponding increase in the income from advertisements, which is due to its overwhelming superiority in circulation over any other medical journal in Great Britain; it adds very largely to the financial resources of the Association, and puts at the disposal of the Council, committees, and members, a large surplus for public objects, for scientific grants, for the maintenance of the library, and kindred purposes, while it admits of a considerable annual investment out of the excess of receipts over expenditure. In this respect the balance-sheet presented showed very favourable results for the year. Upwards of £15,000 were received for subscriptions, upwards of £1,500 from sales of the JOURNAL to other than members, and £14,475 from advertisements; so that after contributing £2,000 towards the general expenses of the Association, there was a surplus for the year of £3,861, leaving a total balance of excess of assets over liabilities of £45,199. The presence of this considerable reserve is apt to induce assaults upon it, and to proposals for expenditure which do not always commend themselves to prudent administrators. These took this year the form of a suggestion that, following the precedent which was made some few years ago of payment of the railway fares of representative members of Council, payments should now be made on a similar scale to the members of the very numerous Parliamentary Bills Committee.

To this the Treasurer, as the chief guardian of the exchequer of the Association interposed cogent and well-founded objections. In the first place, payment of the railway fares of members of the Committee of Council was only made after such proposal had been repeatedly rejected by the Council itself, and by a long succession of general meetings, and when so made, it was strictly limited to Branch representatives; and this was only carried at a very small meeting, at the express instance of some spokesmen for distant Branches, who professed themselves unable to make such payment on their own behalf, and because it was thought desirable that in this great governing Committee which controls the funds, and administers the affairs of the Society, every possible facility should be afforded for the presence at the meetings of the representatives of all the Branches. In the second place, the financial position of the Branches has for the most part so improved by the continued accession to their numbers that most of them are provided with an annual surplus of the money subscribed as a Branch subscription for Association and Branch purposes; so that many of them expend parts of their surplus in charitable donations, in entertainments, or in other agreeable and useful extraneous purposes, which obviously admit of modification, if thought necessary, in directions more directly cognate to the purposes of such subscription. For the most part it is certain, however, that such payment as was now suggested is neither desired nor desirable. All the permanent members of the Council, vice-presidents, etc., would at once have an equal claim on the purse of the Association, and all other committees would have claims which cannot be sensibly distinguished from those of the Parliamentary Bills Committee. In saying this we shall not be thought insensible to the special value and far-spreading importance of the work of the Parliamentary Committee to the welfare of the profession and the reputation of the Association; and it is only fair to the members of that Committee to add that the claim has not been put forward by them, that no communication had been made to the Committee prior to the bringing forward of this proposal at the general meeting by a gentleman who has only just been added to the Committee, and has not yet had an opportunity of taking his seat.

The proposal of Surgeon-Colonel Ince to rescind altogether the standing order for paying the fares of representative members of Council met with much favour and obtained a large number of votes, but many voted against it, although they approved of the principle on the ground that it was undesirable to interfere with the arrangement which was come to after many years' discussion, and has now worked well for several years. It is a very good maxim to let well alone.

A good deal of time of the general meetings was, as usual,

occupied by half-a-dozen gentlemen, most of whom figure every year in a similar capacity, and who in the intervals are apt to encroach somewhat severely on our space. Some of these performances are condoned by reason of the amusement which they cause; but it is none the less to be feared that to these familiar incidents must be attributed some of the weariness and indifference which the mass of the members present at the annual congress evince in respect to the business meetings, and the very small attendance at them. This latter feature is not without danger, and may well be a source of anxiety. A good deal of the business touching the administration of the affairs of an Association of 14,000 members is conducted at "general meetings" at which the attendance seldom exceeds fifty, and sometimes falls perilously near to the very low minimum of twenty-five, which is fixed by the laws as the quorum. From the necessities of legal form such meetings have very large powers, and resolutions passed at them are of wide and binding effect; nevertheless, it is clear that the conclusions adopted at such scanty gatherings are not always deserving of a moral weight corresponding to their legal importance. Since the business meeting has been put on the roll of proceedings early on the first day of the meeting, and separated from those meetings the scientific character of which proves so much more attractive, the attendance at this first meeting has fallen to a lamentable and sometimes ludicrously small proportion. The reasons for the arrangement were no doubt very cogent at the time it was made, and it may not be thought advisable at the moment to alter it; nevertheless, this is a state of things which has such obvious dangers and disadvantages that the question deserves to be stated and may require reconsideration with a view to obtaining a much larger attendance at the business meetings and a less risky form of legislation than that which might at any moment occur at such "general meetings.

The Sections have provided the members with an unusually rich programme of particularly well-chosen subjects for discussion. The results will be shown in successive weeks in our pages, and will constitute a very solid addition to the new knowledge of the year. The reports will afford a critical appreciation of most of the best work which has been recently published, and which has passed under review in the respective departments. The arrangements for the general meetings, sectional meetings, reception room, and museum have been admirable. A magnificent suite of rooms has been placed at the disposal of the Association by the authorities of the town of Nottingham and the Council of the University College. When the last meeting took place at Nottingham in 1857, the Association, after twenty-five years of existence, mustered only eighty or ninety members at its congress, who met in one small room known as the Assembly Room. Now, even the magnificent accommodation provided hardly suffices for the present extended organisation of Sections, and certain of them overflowed into another building. These historical details, and the general view of the progress of the Association since its meeting in 1857, are ably dealt with in the President's address, which sets forth with much eloquence and clearness the past, the present, and the future of the Association, and the value of meetings such as that now in course, "not only for work, but for pleasure; for the pleasure of renewing old friendships, and for the pleasure of making new ones; for the pleasure of imparting knowledge, and for the pleasure of receiving it; for that instinctive pleasure which arises from the first meeting of men whose names we know and whose labours we have long appreciated, but whose personal influence we have never before felt."

There are important matters yet to be dealt with in the later days of the week, which will come under review in our next issue.

ADDRESS IN MEDICINE.

The yearly addresses at the British Medical Association may be taken as landmarks or records rather than original contributions to science. The Address in Medicine, by Dr. Cuming, of Belfast, is a very efficient landmark, but it is more than this; for, though contributing no fresh theories and no startling discoveries, it calmly surveys our present position, and boldly faces certain questions which must be felt by many teachers of medicine to demand answers. The address is chiefly concerned with four points. First, that of medical education; secondly, the new cellular pathology and phagocytosis; thirdly, mental physiology and pathology, and the necessity for their more complete and thorough teaching to medical men; and, lastly, the methods of treatment apart from drugs, and the adaptation of the profession to its changed surroundings.

Regarding the question of medical education, Dr. Cuming, as a graduate in arts, looks with sadness at the withdrawal of literary culture from the education of the future medical man, yet he recognises that there are limits, and rather narrow ones, to human capacity, and that science must be considered before literature. But as each science is heaping up higher and more huge pyramids of facts, so it is impossible for men aiming at general knowledge to master the facts of the so-called exact sciences. Medical men must aim at as much literary culture as they can get, and must be rather fed on the principles of science than gorged with indigestible facts. We fear the chemist will cry out against the intensely practical view of his science which Dr. Cuming takes, but we are inclined think that the chemist will in time be inclined to think it true of his science what J. J. Rousseau said of botany—that it was a misfortune for botany when it fell into the hands of the doctors, for they only sought simples for cures, and did not really study botany as a science.

Though we do not see our way to a chemical pathology or a chemical therapeutic, yet we should regard any real neglect of instruction of chemistry with regret. Already the day has passed when chemistry for a medical student meant ability to detect an acid and base in solution by analysis, and men are taught to regard chemical principles rather than individual reactions; as with chemistry so must it be with the other sciences. Their professors must be prepared to give a clear, broad definition of their science, and leave the specialist to proceed further. Dr. Cuming says, "It may be urged that the study of the ancillary sciences, as they have sometimes been called, is of high importance to the discipline of the intellect, and tends to develop the habit and power of careful and accurate observation; and this may be admitted in the fullest and most ungrudging manner"; the powers of the mind must, however, be husbanded, and one cannot go on with this endless storing of facts. We are inclined to believe that the best preparation for a medical education is a sufficient

training in the observation and recording of facts, and a very thorough training in literary exactness. Hence a good training in Greek or Latin, followed by natural science, would leave a mind ready to receive and able to arrange and appreciate what was set before him. If a medical student knows how to learn he will do better than if he is a scientific smatterer.

Dr. Cuming's remarks on phagocytosis are worthy of notice. He is sceptical of the almost volitional selective power of simple cells, and he is inclined quietly to laugh at the advocates of this transference of function of conscious organisms to amœboid cells. We leave him to these enthusiasts, merely saying that very precise selection and apparent choice is a property of simple chemical substances.

Dr. Cuming's special attraction is towards nervous questions, and hypnotism is reviewed in a calm judicial way. He urges men to study philosophy and mental physiology, pointing out very clearly that many problems of mind may be solved by the study of pathological states more efficiently than by mere experiments. He gives examples of defects of memory and the difficulty of explaining these on general principles, and we should all be grateful to him for endeavouring to remove from our eyes the distorting lenses of preconceived notions as to the functions of mind. As long as we stick too closely to theories we shall make very slow and irregular progress; we must use these not as direction posts but as stepping stones.

A very necessary criticism of the rapidly-growing army of nervine remedies is introduced into the lecture. Without in any way denying their possible utility, he himself evidently prefers to trust in general measures, and only to appeal to them as a last resource and in dire necessity.

The eloquent way in which he points out our duty to our age and our surroundings deserves careful reading, and we cannot do better than conclude this notice in his own words: "Medicine must adapt itself to the varying necessities and requirements of the world. It behoves all those concerned in its guidance or responsible for the instruction of those who are to become its members to bear in mind its position as one of the main supports of the tripod of learning, and as one of the great factors in the intellectual progress of humanity, being well assured that it cannot sacrifice any portion of its intellectual elevation and dignity without a corresponding sacrifice of its truest and most practical usefulness."

THE ADDRESS IN SURGERY.

For the first time in the history of the Association one of the addresses to the general meeting has this year been delivered by a colonial member of the British Medical Association. Professor Flint and Professor Gross have been heard as representatives of our American colleagues, and it was only right that the first opportunity should be taken to ask a representative of one of the many colonial Branches which have recently been called into existence to become a spokesman of the science and practice of our art in Greater Britain.

Dr. Hingston, as he reminded the meeting, represents one of a chain of Branches only recently formed. Canada had long held aloof from the organisation of the British Medical Association, and several attempts to form Branches in that great Dominion had, from one cause or another, failed. Last year, however, during a visit by Mr. Ernest Hart to that great continent, in travelling from the Pacific to the Atlantic, he took occasion to address a meeting of medical men in Winnipeg, the central city of the Far West—a city which only fifteen years ago was removed by three months of difficult travelling from the coast, and which Lord Wolseley only reached in his Red River Expedition after a toilsome progress of twelve weeks, to accomplish which with a body of troops he reckoned among his greatest feats of arms. Winnipeg is now a great and flourishing city, and Fort Garry—from which the rebel Riel escaped as Lord Wolseley drew nigh to it—is now looked upon as a curious antique, so rapidly does history make itself in these vigorous offshoots of our great dominion.

At Winnipeg, in March of last year, some thirty medical men peacefully pursuing the healing art assembled to greet the Editor of the British Medical Journal, amid the surroundings of a new civilisation, and they responded so heartily to the invitation which was addressed to them to join the brotherhood of the British Medical Association that every man in the room put down his name as a candidate for membership, and a Branch was forthwith formed. Toronto, which had coyly held back, now followed cordially the new precedent; and at Montreal, under the impulse of the surgical orator of this week, a meeting—summoned with only a few hours' notice to confer with Mr. Ernest Hart—so warmly entered into the aims and objects of the Association as he expounded to them that a large and important Branch sprang at once into existence.

Professor Hingston, who presided over the new Branch, was invited by the Council to the distinguished post of Orator in Surgery at the present meeting; and he has fulfilled his task in a scholarly and reflective spirit, which amply justifies the compliment implied in the invitation addressed to him. He justly accepted it as a token of regard from Great Britain to Canada, and in response he assured the meeting in his opening words of the firm attachment of this great Colony to the parent State. "She glories," he said, "in your past, she is deeply interested in your future; your glory is her glory, your future is her future; and she is grateful for any thought of her in your councils, especially where science is concerned, and where the common good of mankind is the purpose." Usefully employing the occasion to compare some of the characteristics of medical progress on the Eastern side of the Atlantic with the traditions of the West he described himself as impressed with the calm, quiet, and placidity of the medical life in this country, and on the great Continent of which Canada forms part. The rush of life in a new community, with unbounded facilities of expansion, and great inducements to the constantly increasing development of vast physical agencies, tends, he thinks, to haste, which is often misleading. Operations are instantly reported before their final results can be ascertained, and cures are prematurely assumed without adequately taking into account the important element of comparative figures. Canada is a country so vast that, as Dr. Hingston reminds us, portions of it are nearer to Great Britain, France, and Germany than they are to other portions of its own vast dominion. From some of these London, Paris, or Vienna may be reached in less time than Toronto and Montreal; and even errors put forward sensationally in Europe, after reaching such distant and sometimes inaccessible portions of the world, remain, he complains, to

do their mischief long after they have been dispelled in the larger and older centres. Hence he puts in a plea for care in the publication of impressive declarations of progress on this side of the Atlantic, lest they should speedily affect far distant centres, and introduce mischiefs not readily cured. This warning is, however, obviously addressed to Berlin rather than to London, for he especially notes that readers of the journals of both hemispheres have noticed in British journals a greater precision in reporting cases, and in stating facts, than that which always obtains in the Western world.

Discussing some distinctions between the diseases and practice of Canada and of Great Britain, he claims a greater freedom from death for operations performed in the larger cities of Canada than in Europe. Professor Hingston declares that his claim is well-grounded, and we are content to accept it as such, although he furnishes no proofs of which we should subsequently be glad to have details. He attributes it to the excellence of the climate and to the simple and sthenic character of inflammatory processes; and he asserts that acclimatisation confers many immunities. Aneurysms are not common in Canada, chronic arthritis is rare, and so are rickets and strumous ophthalmia. The glandular system is less apt to be affected with cancer, and his experience in Canada does not dispose him to follow the practice of many distinguished British surgeons who advise removal of the axillary glands in all cases of scirrhus of the breast. He gives some hints from the primitive practice of the aboriginal Indians, and somewhat oddly he seems to regard the profuse formation of osseous matter around the fractured femur of a native as a proud testimony of the plenitude of the aborigine health.

Turning to the modern practice of surgery in the great Canadian cities, he justly claims for his colleagues as much refinement in diagnosis, as much dexterity and courage in performing surgical operations, and as much nicety in technique as in the great European cities. The tongue and the lower jaw, he reminds us, were first removed together in Canada, the innominate and the gluteal arteries were first ligatured in Canada, and he mentions also that to Canada and Montreal belongs the credit of the first nephrectomy, although he modestly does not say what we may venture to claim for him, that it was Dr. Hingston himself who was the first to remove the tongue and the lower jaw, and that it was himself also who preceded Simon, of Heidelberg, by several months, and the French and British surgeons by much longer periods, in removing the human kidney. Dr. Hingston's position as surgeon to the Hôtel Dieu has afforded him great opportunities of which he has well availed himself, for he has performed there many operations on the brain and spleen, and has done much good work in every department of surgery. The history of the Hôtel Dieu he tells with sympathetic admiration of the womanly love and heroism which founded the hospital at Hochelaga among the savage Hurons, almost as soon as the news of the discovery of Canada by Jacques Cartier had spread through France. It was a woman, Madame Bullion, who supplied the funds to fit out a small barque navigated by twelve sailors, which, in the spring of 1641, traversed the Atlantic, taking three months to accomplish a voyage which is now completed in one-fiftieth of the time. The one pale-faced woman, a *religieuse* named Mance, whose tender solicitude first carried to the red Indian the tidings of Christian sympathy and love for the sick and suffering, obtained from the French king a deed of gift in perpetuity of the small piece of land where she had landed, which at that time was valueless. It is now the centre of the city of Montreal, and the funds so obtained have sufficed for 150 years to maintain the community of Catholic sisters, and to endow the hospital which they have ever since carried on without municipal aid or governmental patronage. Since then other great hospitals have been erected by the liberality of the citizens of Montreal, one of them recently by Sir Donald Smith, in which nothing is wanting either on the part of public generosity or medical skill and zeal to bring the latest conquests of science to the bedsides of the sufferers.

The latter part of Professor Hingston's address is taken up with the discussion of the tendency to divide surgery into an ever-increasing number of special branches of study, each having its respective province. Into this discussion we need not follow him, but it is interesting to notice that the representative of Canada comes here to plead in favour of the older and larger views of the phenomena of life, the strong connections and nice interdependencies of departments which it is too much the modern tendency to treat as segments or fragments having each a separate individuality. The tendency is now in Canada, as in Great Britain, to demand more and more extensive and varied knowledge, classical and literary, from aspirants to professional honours; and of late the Legislature of the Province of Quebec has added philosophy as a compulsory subject of preliminary medical education. This is of good augury, and we may congratulate Canada as well as the Association on the breadth, thoughtfulness, and liberality of views which characterise this interesting oration. It will no doubt afford a precedent for other similar invitations in future years, and both the mother Association and the affiliated Branches will profit in an increasing degree from this close intercourse of thought and experience between Great Britain and her Colonies. No more distinguished colonial representative could have been selected to inaugurate the precedent which this occasion has afforded, for, in addition to the surgical achievements to which we have referred, Professor Hingston's career has been one of great honour and usefulness.

Fifteen years ago he yielded to the solicitations of his professional brethren, and accepted the nomination offered to him and was elected Mayor of Montreal. He at once proceeded to create a board of health for the city. An epidemic of small-pox broke out, which was attributed by writers to vaccination. This created wide-spread alarm and hostility to vaccination, chiefly among the French portion of the inhabitants. Dr. Hingston wrote a pamphlet in English and in French on vaccination, which the Town Council caused to be printed and sent to every inhabitant; the result was that the whole population was soon a vaccinated one. Some years later a second epidemic of the same nature made its appearance; Dr. Hingston was invited by the Government to accept the presidency of the Board of Health with much greater power than he hitherto possessed. He accepted, formed boards of health all over the country, and other provinces of the Dominion followed the example. He has received every honour the profession could confer upon him; he has been President of the Canada Medical Association, President of the College of Physicians and Surgeons, and many times President of the

Medico-Chirurgical Society, and Vice-President of the British Association for the Advancement of Science.

Dr. Hingston has written a good deal on surgical subjects, and has contributed the article on lithotrity to the *International Surgery* (vol. 6). His work on *The Climate of Canada, and its Relations to Life* is the most considerable from his pen. But no doubt he will reckon this last honour and the address which is his response to it as among the crowning satisfactions of a well-spent life.

ELECTROPATHIC AMULETS.

Primitive medicine dealt largely in amulets; savage medicine men have always employed them in their art. In the South Sea Islands, when a patient sends for the disease charmer to dismiss the demon of sickness the "doctor" always asks for part of his fee on account, so that he may purchase the necessary charms, which usually consist of a few pebbles, a fish bone, a dog's tooth, and other rubbish. The amulet has always been with us; it was used by the priests of ancient Egypt; the Greek physicians did not discard it; "Abracadabra" was a potent charm; Pliny was devoted to amulets, Pascal always wore one, and amongst all peoples in all times not alone the lowest and most ignorant, but the more cultivated and educated, have hung something round their bodies or carried about with them some worthless object to cure their disorders or protect them from evil. The amulet of the last decade of the nineteenth century is the "electropathic" belt. Electricity is so little understood by non-scientific people, yet works such wonders daily before their dazzled eyes that it is as mysterious to the great mass of civilised mankind as the potent drug, the deadly juices of a plant are to the naked savage in a tropical forest. It is a sort of living being, a wonder-working spirit that can do anything. We can hardly be surprised, therefore, that the mysterious force which lights our streets, drives our engines, carries our messages, and executes our criminals should be thought to possess in properly regulated doses some curative effect. Our nervous system is suggestive of electrical action, from our childhood we have been accustomed to shocks from a toy battery and even fashionable physicians use currents of electricity in the treatment of various forms of disease.

Here then was a grand opening for the quacks who ever hover about the fields of medical practice. The mystery man saw his chance, the goddess Elektra was harnessed to his gilded chariot, science perforce must blow his trumpet, the triumphs of Edison helped to sell electric belts, and Faraday helped counter-jumpers to become "specialists" in hernia. The faith in amulets, unhappily, cannot be destroyed by any demonstration of their intrinsic worthlessness; it is in vain that we turn out the contents of the medicine man's greasy bag, or strip the shark's tooth of its manifold wrappings, the charms are believed in just the same. Count Mattei's "remedies" for cancer have been analysed, and it has been proved that his bottles contained nothing but distilled water. What of that? cried the believers; shall electricity be weighed in scales and the vital force be measured by a galvanometer? Last week at the Bloomsbury County Court an important case of this sort was tried before Judge Bacon. The Medical Battery Company, of Harness celebrity, sued a Mr. Jeffery for the value of an "electropathic belt" supplied for the "prevention of a rupture." The patient, who is a banker's clerk, went to the plaintiff's place and said he was suffering from what he feared was a rupture. He was introduced to the hernia-"specialist," who said in his examination that though he was not "qualified" he had treated 16,900 cases of rupture during the seven years he had been employed by Mr. Harness. This specialist, Mr. Simmonds by name, had received no medical education, though he had studied hernia since he was nine years old, when he should have been reading *Robinson Crusoe;* before he entered the service of the Medical Battery Company he was a salesman in the Oriental furniture line. We know that the east is the home of mystery, and was the origin of civilisation, though we do not know how the sale of Oriental furniture should tend to make a man a hernia specialist. Nevertheless, that is how Mr. Simmonds graduated, and that is why he failed to diagnose the bank clerk's rupture. He sold him a belt for 5 guineas "to give tone to the muscles by electricity," but, as it did nothing but chafe the sufferer, the latter consulted a regular practitioner after wearing the thing a month, and was fitted with a truss, which effectually relieved him. The belt wearer then bravely refused to pay for the worthless apparatus; hence the action, which was noteworthy from the fact that expert electrical evidence was produced for the defence in the person of Mr. T. E. Gatehouse, M.I.C.E. This gentleman certified that the belt possessed no electrical power whatever; that it was utterly useless; that what current there was would not go through the body, it being the webbing and skin merely which forms the internal circuit. Dr. Rowntree stated that he had examined the patient, who was suffering from rupture, and must have been so afflicted when he consulted the seller of the belt. The judge gave judgment for the defendant on his counter-claim, and ordered the £2 which he had paid on account to be returned to him. It is to be hoped that other sufferers who may be tempted to try the remedy which Mr. Jeffery found so ineffectual may take warning by his experience.

THE ANNUAL MEETING AT NOTTINGHAM.

The sixtieth annual meeting of the British Medical Association commenced in Nottingham on Tuesday. The Mayor and Corporation of Nottingham placed the Grand Jury Room in the Guildhall at the disposal of the Council for its meetings, and the general meetings have been held in the Mechanics' Hall; reports of these meetings up to the time of going to press will be found at another page. Excellent accommodation for the meetings of the Sections—with the exception of that of Public Medicine, which has met in the Mechanics' Hall—has been provided in University College. A description and drawing of this great institution were published in the British Medical Journal of June 4th.

A Guide to Nottingham and its Neighbourhood has been edited, at the request of the Local Executive Committee, by Dr. C. H. Cattle, and has been presented to members attending the meeting. The volume, in addition to information of the ordinary kind to be found in guide books, contains descriptions of the medical institutions, and the University College, specially written for the occasion. The account of the General Hospital traces its history from its foundation in 1782, since which it has steadily grown in size and importance, the last addition having been made in 1878, when a two-story pavilion, detached from the rest of the hospital, was erected. Among physicians who laid the foundation of future fame during their connection with it have been Dr. Marshall Hall, at one time physician, and Dr. Sibson, house-surgeon from 1835 to 1848. It is noted as an interesting circumstance that Mr. Thomas Wright, at present one of the consulting

surgeons, is the grandson of one of the original surgeons to the hospital; and that in the intervening period of over a century the institution has never been without the services of some member of the same family. The Children's Hospital stands opposite the General Hospital; it was started in 1869, and was enlarged in 1877, so that it now has beds for thirty children. The Borough Isolation Hospital at Bagthorpe, about three miles from the centre of the town, is also described in this volume; it contains eighty-two beds in four blocks, and is provided with the most modern appliances.

An exhibition of sanitary appliances, organised by Dr. Boobbyer, Medical Officer of Health for Nottingham, one of the Secretaries of the Section of Public Medicine, and Dr. Arthur Whitelegge, Medical Officer of Health to the West Riding, with the co-operation of the Corporation of Nottingham, was opened on Tuesday morning by the President of the British Medical Association (Mr. Joseph White), who in a short speech complimented the Corporation of Nottingham on the interest which it had shown in public health questions. He expressed the hope that the exhibition would have the effect of increasing public interest in such matters. The Mayor of Nottingham also addressed the meeting, and Alderman Blackburn spoke briefly on behalf of the Health Committee of the Corporation. The exhibition, which is installed in the Drill Hall, an open space in connection with the Town Hall, contains contributions from about fifty exhibitors, and among them are many of the principal manufacturers of sanitary and drainage apparatus. There were also a number of other articles exhibited, including spring beds for epileptics, operating tables, sick couches, and so on.

The annual Museum was divided into four sections, in addition to the special exhibition of Sanitary Appliances referred to above. Of these, the Sections of Pathology and Anatomy and Physiology were placed together in a large well-lighted room designed for the purpose. It contained an important set of drawings and preparations lent by the Museum of the Yorkshire College, Leeds. The West Riding Lunatic Asylum also showed a large number of microscopical preparations and preparations of brains. Professor Sheridan Delépine showed some specimens of tubercle bacilli presenting well-marked enlargements, apparently spores; these preparations had been made by Dr. Crombie in Calcutta, who had observed that the appearance was only seen during the hot season. Dr. Byrom Bramwell sent a number of drawings, as did also Dr. Radcliffe Crocker, Dr. Colcott Fox, and Dr. A. Bruce. Mr. A. Pringle showed some microphotographs, and Dr. Mackenzie some venous pulse tracings. Drawings and specimens were also exhibited by Mr. Michie and Mr. Watson, by Dr. Snow, by Dr. Donald Stewart, and Mr. A. A. Kanthack. Dr. W. B. Ransom exhibited microscopical specimens and photographs of actinomycosis. Altogether the collection was of more than ordinary interest, and contained much which was of a most instructive character.

By the invitation of the Chairman and members of the Health Committee of the Nottingham Corporation a party of members connected with the public health service visited the Nottingham Isolation Hospital at Bagthorpe on Wednesday, and were entertained at lunch by the Chairman of the Health Committee and the medical officer of health. Among those present were Sir Walter Foster, M.D., M.P.; Sir William Moore, K.C.I.E; Dr. Tatham, Dr. Monckton Copeman, Dr. Reid, Dr. Simpson, Dr. Aldred, Dr. Thresh, Dr. Barwise, Dr. Tew, Dr. Mumby, Dr. Manley, Dr. Charles Harrison, Dr. Groves, and Surgeon-General Cornish. After lunch the visitors made a careful inspection of the whole hospital, and before leaving, Sir Walter Foster expressed on their behalf unqualified satisfaction with all details of its construction and administration.

On Tuesday afternoon a special service was held in St. Mary's Church, Nottingham. The sermon was preached by Dr. Ridding, Bishop of Southwell, who took for his text Matthew xi, 2 to 6, "When John had heard in the prison the works of Christ he sent two of his disciples. And said unto Him, 'Art Thou He that should come, or do we seek for another?' Jesus answered and said unto them, 'Go and show John again those things which ye do hear and see! The blind receive their sight, and the lame walk, the lepers are cleansed, and the deaf hear, the dead are raised up, and the poor have the gospel preached to them. And blessed is he whosoever shall find none occasion of stumbling in Me.'" The preacher said that the profession of medicine must needs string up every thoughtful follower to a higher human level of spirit than was created by the occupations belonging to other professions directed more entirely to the promotion of settlement of the relations of property and material wealth. He did not use vague words of hollow compliment when he said that, for he spoke to men whose life of healing was its own reward, its own pleasure. Success might bring other rewards, the satisfaction of power and skill and material wealth and honour, but loyalty to the art of medicine meant a care for healing for its own sake. It was plain to experience what a difference there was between the unintelligent pounder of labelled drugs on a routine system or a balance of chances, and a physician reading the actual facts of a case by the light of general scientific knowledge made real by varied experience.

On Wednesday evening the Mayor and Mayoress gave a *conversazione* in Nottingham Castle, which contains a very fine collection of pictures, pottery, and other artistic objects. Music was provided by Twinn's band, by the Fraser quintette, and by the Nottingham Borough Police band. At an early hour the main rooms became very crowded, but the space was so ample that it was possible to circulate in the connecting corridors, one of which contained the magnificent collection of Wedgwood china, lent to the town by Mr. Felix Joseph.

The National Temperance League entertained members at breakfast on Thursday, in the Albert Hall. The chair was taken by Mr. T. E. Ellis, M.P., and addresses were delivered by the Chairman, Professor Horsley, Mr. Pearce Gould, Dr. Norman Kerr, Dr. Murdoch Cameron, and Dr. Cohen.

The Ninth Annual Meeting of the Medical Sickness Annuity and Life Assurance Society was held in Nottingham on Wednesday, under the presidency of Mr. Ernest Hart. The reports and balance sheet were approved on the motion of the Chairman, seconded by Dr. Clifford Albutt. A vote of thanks was accorded to Mr. Sibley, on his retirement from the post of Treasurer, and Mr. H. H. Clutton was elected in his stead. Sir Edward Clarke, Q.C., M.P., was elected Honorary Arbitrator in the place of the late Mr. Michael, Q.C.

The greater part of the Thursday session of the Section of Pathology was occupied by a discussion on the Causation of Cancer, opened by Professor Sheridan Delépine, who criticised views recently advanced by Dr. Ruffer in the British Medical Journal. Dr. Ruffer, in reply, defended his interpretation of the microscopical appearances observed by him and others. Dr. Russell (Edinburgh) and Dr. Sims Woodhead both expressed the view that it was not yet possible to form a decided opinion as to the relation of parasites to cancer. Dr. Boyce also spoke, and Professor Delépine replied.

In the Section of Therapeutics Professor Gairdner opened a debate on Dyspnœa and its Treatment by Drugs, which was well sustained and excited much interest. Professor Gairdner also made a statement as to the circumstances which led him to resign the chairmanship of the Therapeutic Committee.

SECTION OF MEDICINE.

In the Section of Medicine, after the President had delivered the address which is published at page 241, a discussion on Peripheral Neuritis was introduced by Dr. J. S. Bristowe, F.R.S., who, after some preliminary observations, proceeded to discuss some of the varieties of the disease, illustrating his remarks by references to cases. The divisions of the subject which he more particularly dealt with were alcoholic peripheral neuritis, and a form to which he proposed to apply the term hysterical peripheral neuritis; he referred also to peripheral neuritis occurring as a sequel to influenza, and to other groups of cases in which the causation was obscured. The discussion was continued by Dr. Byrom Bramwell, who said that from a prognostic point of view cases of peripheral neuritis might be classified into acute, or subacute, and curable cases, and chronic and incurable cases. Dr. Handford dealt chiefly with the occurrence of "mixed cases," in which the disorder owned a mixed cause, or was inextricably confounded with some other disease. Dr. Davies Pryce made some remarks on diabetic neuritis, and Dr. Headley Neale showed a case of rheumatic neuritis. Dr. Frederick Taylor observed that it was remarkable what a number of poisons and morbid conditions might bring about neuritis. Drs. C. R. Drysdale, Frank M. Pope, F. J. Freeland, and Septimus Gibbon also spoke.

SECTION OF SURGERY.

The Section of Surgery was opened by a brief introductory address by Mr. John Croft, the President. A discussion on the Surgery of the Thorax was opened by Mr. Rickman Godlee, who advised that the incision should be made below the ninth rib, just in front of the angle of the scapula; that a short drainage tube only just entering the thorax should be used; that in the first instance the thoracic cavity should not be irrigated; if the fluid were foul at first, it would usually, in the course of two or three days, become sweet. If, however, it continued to be foul after such an interval, he recommended irrigation. In double empyema he preferred to operate on one side first, and to defer the treatment of the other side for a short time. In cases of extreme distension in which it was dangerous to give an anæsthetic he advised drawing off the fluid with an aspirator without an anæsthetic, and then proceeding to the incision of the chest under an anæsthetic. Abscess of the lung was nearly always the result of bronchiectasis; he knew of one case only in which opening of the abscess had been followed by recovery. He had not operated on a case of abscess or cavity in the apex, and was not disposed to advise interference. In performing the operation of incision of the chest, he cut down on to the pleura, and passed stitches through the pleura with the view of inserting them through the subjacent lung. In case the lung were adherent or separated from it by fluid, the stitches, while they were of no use, were harmless. But if the lung were in contact and there were no adhesions, it was prevented by the stitches from retracting. The pleura was then opened and the lung explored with the aspirating needle. Mr. Pearce Gould, who was the next speaker, agreed with Mr. Godlee in the main points which he had raised, but was an advocate of irrigation from the first.

SECTION OF OBSTETRIC MEDICINE.

The business of the Obstetrical Section was opened by its President (Dr. Galabin), who discussed the value of abdominal section for extrauterine gestation, placenta prævia, accidental hæmorrhage, and puerperal perimetritis. He also dealt with the transfusion of saline fluid, the use of antiseptics in midwifery, and adenoma of the uterus. A discussion on the Treatment of *Post-partum* Hæmorrhage, opened by papers by Drs. G. E. Herman, More Madden, and John W. Byers, was well sustained, among those who took part in it being Drs. Robert Barnes, Cullingworth, and Horrocks. Dr. Murdoch Cameron described the mode of employing a peculiar form of pessary, applied to the surface of the uterus for the purpose of preventing hæmorrhage in Cæsarean section.

SECTION OF PATHOLOGY.

The Section of Pathology had provided a long programme, which it applied itself to work steadily through. After the introductory remarks of the President, papers on Jaundice by Drs. Vaughan Harley and William Hunter were read. Dr. Mott and Mr. Marshall gave lantern demonstrations illustrating a paper on the Path of Afferent Impulses in the Cord. Dr. A. E. Wright described his investigations into methods of altering the coagulability of the blood. Dr. George Murray, Arthur Davies, and Dr. Stansfield (for Dr. Claye Shawe) read papers on the Treatment of Myxœdema by the Injection of Thyroid Juice. In the afternoon a series of demonstrations were given. Dr. Sidney Martin exhibited and described lantern slides illustrating his researches on diphtherial paralysis. Professor Horsley read a paper on Œdema, and Dr. Max Walthard one on Septic Peritonitis. Dr. William Ransom showed with the electric microscope preparations illustrating the pathology of tabes dorsalis. The Secretary demonstrated for Dr. Laurence Humphry a brain with a tumour of the gyrus fornicatus; during life there had been no marked sensory loss.

SECTION OF OPHTHALMOLOGY.

The President, in his opening remarks, recalled the fact that not many years ago the papers on ophthalmological subjects at the meetings of the Association were scattered through other Sections; a separate Section for Ophthalmology was instituted in 1880, and since then its meetings had been very successful. He referred in feeling terms to the death of Sir Wm. Bowman and of Mr. Thos. Sympsom, the latter of whom was to have been one of the Vice-Presidents of the Section at this meeting. He then briefly touched upon several items in the programme before the Section. A discussion on the Treatment of Diseases of the Lachrymal Apparatus was opened by Mr. C. Higgens, and continued by Messrs. Berry, Adams Frost, Tosswill, Beaumont, Benson, Snell, Teale, Thompson, Doyne, Hewetson, Wray, Mackay, Richardson Cross, Hodges, Hern, and the President. This was followed by a paper on Massage in the Treatment of some Forms of Eye Disease, by Surgeon-Captain H. R. Whitehead. The author of the paper and several gentlemen who spoke expressed the opinion that massage, which seems to have been much more extensively employed abroad than in this country, is of great value in the treatment of several intractable diseases of the eye, notably chronic corneal infiltrations. Mr. Whitehead also spoke of its value in some cases of deeper disease, for example, chronic iritis. Mr. Hewetson gave an account of the treatment of interstitial keratitis by syndectomy—a method which he has followed for some years. Mr. Richardson Cross read a paper upon Three Cases of Empyema of the Frontal Sinus, and discussed the methods of treatment to be adopted in this malady. A paper on a Case of Tumour of the Right Orbit, Operation, Recovery, by Mr. J. Farrar, followed; and in the discussion which ensued, Mr. Higgens, Mr. Frost, Mr. Hewetson, and Mr. Doyne took part.

SECTION OF DISEASES OF CHILDREN.

In the Section of Diseases of Children, which was very well attended, after the President had delivered the address, which is published at page 249, a spirited discussion on the Diagnosis and Treatment of Acute Croupous Pneumonia, was introduced by Dr. Goodhart, who in the first place discussed the question of the possibility of abortion of pneumonia, which, he observed, it was most important to answer before any definite opinion could be formed as to the influence of drugs or other treatment. He was disposed to make an affirmative answer, though he admitted that the question was one of much difficulty. He did not advise resort to a very active line of

treatment, and expressed the opinion that many did not realise that warmth was as potent a remedy as cold, though he considered that the ice bag was a very valuable method of treatment, which might be adopted in all but the youngest children, though it was not without dangers of its own. Dr. C. N. Gwynne, in continuing the discussion, expressed the opinion that the ice treatment could never be adopted as a routine method; Dr. D. B. Lees, on the other hand, urged that when used with reasonable caution it was perfectly safe, and was the best and most effectual form of antipyretic, much safer than drugs. Dr. W. J. Tyson insisted on the importance of early diagnosis. Drs. More Madden, Mackenzie (Burnley), Freer, King (Chester), and Mansel Sympson, and the President also took part in the discussion, which occupied the whole of the first day, after the delivery of the President's Address.

SECTION OF PHARMACOLOGY AND THERAPEUTICS.

The proceedings of the Section of Pharmacology and Therapeutics commenced with the reading of the address by the President, which is published at page 250. A discussion on Cardiac Tonics was introduced by Dr. W. H. Broadbent, who discussed the relative value of digitalis, strophanthus, and other cardiac tonics, giving his preference for the first named. In the discussion which followed, Dr. Lauder Brunton spoke of the value of rest associated with measured work in the treatment of organic cardiac disease. Among others who took part in this well-sustained discussion were Professors Clifford Allbutt (Cambridge), Ebstein (Göttingen), Oliver (Newcastle), and Drs. Lindsay, Stockman, and Handford. In the afternoon Dr. Lewis Jones gave a demonstration on the methods of measuring the rapidly-alternating currents furnished by induction machines. It has always been a great desideratum to know the actual amount of current employed when a patient's muscular excitability is tested by the Faradic current. This factor has varied very considerably with the instrument employed, and its estimation has been at most a matter of guess. Dr. Jones has now introduced a milliampèremeter, capable of measuring such currents, and he finds that with normal muscles it is necessary to employ currents amounting to 4, 5, and even 6 milliampères before painful impressions are evoked. He finds the previously-accepted statement that 1 milliampère is sufficient to be quite unreliable. He finally, by producing very rapid alternations of the current from a constant battery, showed that the effects of such a current were so modified thereby as to very closely resemble those produced by the ordinary Faradic current.

SECTION OF LARYNGOLOGY.

The Section of Laryngology was opened by a few introductory remarks by the President, who specially welcomed the presence of Professor von Schroetter, of Vienna. A discussion ensued upon the subject of Nasal Neurosis, and Professor Schroetter read a paper on Neurotic Diseases of the Larynx. He discussed in the first place the occurrence of unilateral paralysis of the lateral crico-arytænoid muscle, and secondly, ataxic movements of the larynx. Papers were read also by Drs. William Hill, Robertson, and Scanes Spicer.

The discussion on Dr. Galton's motion in favour of the admission of qualified registered female medical practitioners as members of the Association took place on Thursday; Dr. Galton's motion was seconded by Mrs. Garrett Anderson, who, in a cogent, moderate, and well-expressed statement, set out some of the reasons for admitting this now numerous and highly qualified class of practitioners to the membership of the Association. Other speakers strongly supported the same view, Surgeon-General Cornish and Dr. Pringle speaking of the admirable work done by female practitioners in medicine in India. Dr. Stewart, Secretary of the Irish Graduates' Association, detailed the favourable experience of that Association by the admission of qualified lady members. No one spoke in opposition to the motion, which when put to the vote was carried in a considerable audience almost *nem. con.*, only three or four hands being held up against it. The result was greeted with loud general and long-continued acclamations, and the meeting passed to the next business.

We regret to announce the death of Dr. James Cameron, medical officer of health for Hendon, which occurred a few days ago, in consequence of a carriage accident.

At a meeting of the Middlesex County Council on Wednesday, July 27th, Dr. W. B. Gordon Hogg, of Chiswick, was appointed Coroner for the Western District of the county. The salary attached to the office is £480 a year. Dr. Gordon Hogg, who is a graduate of Edinburgh University (M.D., 1873), was a member of the Middlesex County Council until March of the present year.

The following appointments have been made in Local the Government Board office to fill the vacancies consequent on Sir George Buchanan's resignation and Dr. Thorne Thorne's appointment as Principal Medical Officer: Mr. W. H. Power to be Assistant Medical Officer, Dr. H. F. Parsons to be Second Assistant Medical Officer, and Dr. H. T. Bulstrode to be Medical Inspector.

The Central Committee charged with the organisation of the Eleventh International Medical Congress, to be held in Rome in 1893, has decided that it shall take place at the end of September. Local committees in Lombardy, Piedmont, and other parts of Italy are helping in the preparations which are being made, and no effort is being spared to make the meeting a success.

HEROES AND MARTYRS.

We deeply regret to have to announce the death of Dr. Tilden from typhoid fever, contracted, it is believed, from bacillary infection, arising in the course of a research which he was conducting on the bacillus of typhoid. Dr. Tilden was intending to bring some of the results of his pathological studies before the meeting of the British Medical Association now in progress at Nottingham. It will be remembered that Dr. Mahomed similarly fell a victim to his scientific and self-sacrificing ardour. Such incidents in the history of the devoted labourers in medical research have been only too sadly common of late. Three students of St. Thomas's have suffered the dangers which the modern heroes of the physiological and pathological laboratory have to face. One—Mr. Lucas—died from infection in studying puerperal septicæmia; another becoming infected with local tuberculosis, was saved by amputation of the finger, but not without serious constitutional injury. Dr. Spear, one of the ablest of the inspectors of the Local Government Board, died not long since from constitutional infection with anthrax, of which he was making a careful prophylactic study; and another inspector, Dr. Monckton Copeman, only the other day came nigh to a catastrophe from a similar cause. The silent heroism of the medical scientist who pursues knowledge amid much surrounding peril is often passed unnoticed, but is none the less worthy of honour and respect.

PROPOSED INTERNATIONAL MEMORIAL OF SEMMELWEIS.

At the invitation of Sir Spencer Wells, a preliminary meeting was held at his house on July 25th, to consider a proposal to erect in Buda-Pesth a memorial statue to commemorate the work of a man who may be justly called the Father of Antiseptic Midwifery. It was Semmelweis, as is well known, who first demonstrated the true cause of puerperal fever. By

the practical application of his teaching on the subject the mortality of parturient women in the Vienna Lying-in Hospital was reduced from more than 16 per cent. to 1.27 per cent. in less than two years. In the words of Hebra, in 1849, "The importance of his work for the maternity department and for hospitals in general, but particularly for the surgical wards, is beyond calculation, and not only worthy of consideration by all men of science, but of special appreciation by the Government." Nothing has been done since the death of Semmelweis, in 1865, to perpetuate the memory of so great a benefactor of the human race. By the desire of the Central Committee in Buda-Pesth, Sir Spencer Wells has inaugurated a movement here, and it has been decided to call a meeting, in London, towards the end of October, when various proposals may be fully discussed. At the preliminary meeting there were present: Dr. Duka, representing the Hungarian centre; Dr. Black, President of the Obstetrical Society. Dr. Glover, Dr. Grailly Hewitt, Sir Joseph Lister, Bart., Dr. Playfair, and Dr. Priestley. Dr. Boxall, Hon. Sec., read letters expressing approval of the scheme, and regretting inability to attend, from Sir Andrew Clark, President of the College of Physicians, Sir R. Quain, President of the Medical Council, Sir James Paget, Dr. Herman, Dr. Cullingworth, Dr. Routh, and Dr. Champneys. Anyone desiring further information should communicate either with Sir Spencer Wells, or with Dr. Boxall, or Dr. Cullingworth, who are kindly acting as Honorary Secretaries until the first meeting.

THE NEW LONDON AVENUE AND PRESENT INHABITANTS.

THE great improvement contemplated in London in the neighbourhood of Holborn and the Strand will displace approximately 2,614 persons, that is to say, if the method of taking only so much property as would be required for the new street is adopted, and 4,227 persons if the other method of taking sufficient property to allow of an independent development of all surplus land is gone upon. The Public Health and Housing Committee of the London County Council have divided these people into three classes: (1) Those who are dependent for their livelihood upon occupations in the locality involving exceptional hours of labour or attendance; (2) those who are engaged in such occupations as those of hawkers and costermongers; and (3) those to whom living in this particular neighbourhood is not absolutely necessary. For the first class it is agreed that land must be acquired in the immediate neighbourhood and buildings erected. The total number of such persons is not likely to be fewer than 500 if the larger area is agreed to. For the second class it is proposed to acquire the surplus land in Rosebery Avenue and to erect buildings not more than one mile from their present residences; in the event of the larger area being taken this number to be rehoused will be about 700. Then there will be still 1,650 to find homes for, and for these it is intended to acquire land outside London, and arrangements made with artisans' dwellings companies or builders to build cottages to accommodate them. No displacement will be made until the necessary accommodation has been furnished elsewhere, and the improvement will consequently be made in sections so as avoid any large displacement at one time. One great difficulty lies in the fact that a large number of the properties which would be scheduled under "insanitary" are so intermixed with business premises that it is hard to indicate any large area which could be properly dealt with under Part I of the Housing of the Working Classes Act. To overcome this it is hoped that in the Bill for the improvement the special provisions of the Act of 1890 as to compensation will be embodied.

MORTALITY FROM ENTERIC FEVER IN INDIA.

AN evening contemporary recently described an archæologist as "a person who remembers what has been said, done, or written the week before." Shocked by the excessive mortality among young soldiers in India, a cavalry officer, writing in the *Army and Navy Gazette* of July 2nd, beats this record by some years. After describing the system under which drafts for India are mostly composed of immature lads as radically bad, he adds "that they are sent there too young I do not think any practical officer will deny;" but not wishing to discuss this subject, he proceeds to record his personal experience as to the cause of the mortality in the following terms: "Some years ago I commanded a troop of a regiment stationed in India. One morning during the hot weather I noticed a young soldier looking very pale and languid, and asked him how he felt. He replied: 'Not very well, sir.' I gave orders that he should be sent before the doctor. The following day I again saw the man, looking if anything worse. I felt his pulse, and from his appearance ordered him at once to hospital. Two days later I was surprised to see him again at stables. On questioning him I found he had only been detained for the day, and had had medicine. As he appeared worse than before, I sent for a sick report, and made out the form myself, sending the man with a non-commissioned officer to hospital. Five days later I read the burial service over this young soldier; he had died of typhoid fever. Those who know the course taken by the fever will draw but one conclusion." Few medical readers of this extract, which is given in full for their edification, will fail to surmise the one conclusion which this "practical" officer intends Tommy Atkins to draw from his touching narrative; but who is the writer, and who is the doctor whose professional reputation he assails? Both are anonymous, and the latter possibly mythical, while the sad story is, let us hope, a story in more senses than one. If it be not so, and if the officer who was cognisant of the neglect, to which he now, after the lapse of years, attributes this young soldier's death, did not, at the time, take steps to have the matter investigated, and the neglect, if any, punished, he should for his own reputation's sake hold his peace; if he did he should have stated the result. When a soldier is placed in a position of danger, whether it be from an enemy whom he is about to meet in mortal combat, or from the pestilence which gives no warning of its approach, he derives the greatest comfort and support from unbounded confidence in his medical officers, and the man who would undermine that confidence by such unworthy insinuations as are implied in the above extract inflicts a grave injury on the service at large. The increasing prevalence of, and mortality from, enteric fever among the British troops in India demand a fuller consideration than can be bestowed upon so vast a subject in a few paragraphs. Much has been recently written on the etiology, pathology, and geographical distribution of this disease, by able men familiar with the soldier's everyday life and surroundings in that country, and these have demonstrated that two of the more important factors to be dealt with are: the youth of the soldier, and the conditions under which he passes the first year of his service in India. To deal effectively with these will cost money, and this will probably be refused so long as the government out there, as well as at home, are enabled to rub on by such expedients as they can command. An exhaustive inquiry into the whole subject, by a thoroughly competent and independent commission, would probably be the wisest course to adopt. Public opinion once awakened, and attraction effectively fixed on the subject, remedial measures would be sure to follow.

PLAYGROUNDS FOR BOARD SCHOOL CHILDREN.

IT is now upwards of sixteen years since Mr. Ernest Hart, as Chairman of the National Health Society, investigated the subject of the utilisation of the playgrounds attached to the Board schools as recreative open spaces for the use not only of Board school children, but of the great population of metropolitan children whose chief playground is found in the stony streets and paved alleys of London, where they are subject to all the perils of street traffic, and in constant

danger of life and limb, at the same time that they are apt to become a nuisance to others. The return then obtained showed that a very large acreage of open space, obtained at the cost of an expenditure of upwards of half a million, a sum now probably greatly increased, was practically unutilised throughout the summer evenings and on Saturdays and Sundays. Repeated applications to the School Board by the National Health Society, and subsequently by the Public Boulevards and Gardens Association, which is a flourishing and important offshoot of that society, having now a vigorous and useful separate organisation, have gradually influenced the School Board so that representations which were at first received with little favour, or at best with a sympathetic *non possumus*, have been steadily growing in favour, and have been adopted in a number of cases in schools having large playgrounds under the control of the Board. The main difficulty has been the provision for the payment of caretakers by the enlightened and generous sympathy of Lord Meath and members of the Public Gardens Association—private liberality led the way—and in a number of instances the cost of caretaking was provided by private subscription. Obviously, however, the charge is a public one, and should be met, so far as relates to the full utilisation of these playgrounds purchased, out of school rates for the benefit of the school children from the School Board funds. Acts of Parliament, however, are apt to be incomplete and restrictive in their financial application, and the auditors have recently disallowed charges incurred in connection with keeping the grounds open out of school hours. This is intolerable and not to be borne. Representations have been made by the Board on this subject to the central authorities, which will, it is hoped, override the decision of the auditors; and the Board have now carried, by an overwhelming majority, a resolution in favour of keeping the playgrounds open on Saturdays, and considering the feasibility of opening them on Sundays. We are glad to say that the four clerical members of the Board were among the warmest in supporting this resolution. The necessity of providing the children with some more suitable recreation ground than the streets is now universally recognised, and we may congratulate the National Health Society and the noble President of the Public Gardens Association on the rapid growth of public opinion, which they have done so much to develop and to mature.

SCOTLAND.

THE BANFF SLANDER CASE.

DR. JOHN BARCLAY, of Banff, has recovered damages to the amount of £200 from Mr. Robert Duncan, a factor for Chamber's Hospital, Banff, who had stated that Dr. Barclay had been dismissed from the hospital for taking indecent liberties with some of the nurses. As soon as the fact came to Dr. Barclay's knowledge, he instituted proceedings against Mr. Duncan in the Court of Sessions for slander, damages being laid at £1,000. After hearing all the evidence, the jury, after a deliberation of twenty minutes, gave a unanimous verdict for the pursuer, and fixed the damages at £200. The utmost sympathy is felt in the North of Scotland for Dr. Barclay, where for many years he has been personally popular and greatly respected.

THE ADMISSION OF WOMEN TO ABERDEEN UNIVERSITY.

A REPORT was submitted from the Senatus to the University Court intimating that the Senatus had remitted to all the faculties and the committees on science degrees to consider and report on the subject of the admission of women to instruction and graduation in the University. The Faculties of Arts and Divinity and the Science Committee unanimously reported in favour of the admission of women to instruction and graduation on the same conditions as men; the Faculty of Law reported to the same effect so far as regarded the law classes, and that the class of medical jurisprudence might be dealt with in the same way as the other medical classes; the Faculty of Medicine unanimously recommended that women be admitted to graduation in medicine, but that meanwhile it is not advisable to provide the necessary teaching. Mr. P. J. Anderson, in moving a part of his resolution at a meeting of the University Court, which was: "That the Court sanction the admission of women to graduation in all the faculties of the University of Aberdeen," contended that the attitude of such a University as that of Aberdeen ought to be an attitude of welcome to all students of both sexes, irrespective altogether of the professional use to which their studies were to be devoted. He admitted that in the peculiar circumstances of that University it might be inadvisable to offer instruction in every subject to women, particularly in medicine. Consequently, he was quite prepared to modify his motion to bring it into accordance with the report of the Senatus. Mr. Anderson's motion was unanimously passed. The remainder of Mr. Anderson's resolution was: "That the Senatus be requested to report before the next ordinary meeting of the Court regarding the provision for the instruction of women which it is desirable to make within the University." This also was unanimously passed.

IRELAND.

DR. R. BROWNE has been appointed a Justice of the Peace for the County of Carlow.

THE SURGEONCY TO THE QUEEN.

WE are in a position to state that the office of Surgeon to the Queen in Ireland has been offered to and accepted by Sir William Stokes. The vacancy was caused by the death of Mr. William Colles, and there were several candidates for the distinction. The appointment of Sir William Stokes will receive hearty approval as being well merited. He has been throughout his life an untiring worker at surgery, and his writings, at once graceful and solid, have made his name familiar to all who are readers of the literature of the profession.

VACCINATION.

DURING the March quarter there were in Ireland 12,512 persons successfully vaccinated; in 4,520 cases the operation was postponed, and 29 children were reported as insusceptible of vaccination. The deaths of 1,866 unvaccinated children under 3 months of age were registered during the quarter, making a total of 18,927 children with regard to whom particulars as to vaccination were ascertained. The births registered during the quarter came to 26,978, or a difference of upwards of 8,000, and this discrepancy is accounted for by the fact that in a large number of districts there were comparatively few vaccinations, in consequence of the severity of the weather and the prevalence of influenza.

HOLIDAYS FOR IRISH DISPENSARY MEDICAL OFFICERS.

WE are very glad to hear from Dr. G. Langley Tuthill, of Portlaw, that the Board of Guardians of the Carrick-on-Suir Union have sanctioned the request of the Portlaw Dispensary Committee to pay his *locum tenens* at the rate of two guineas for each week during his month's leave. The formal sanction of the Local Government Board remains to be given, which will no doubt not be withheld, as there are already good precedents for this wise and liberal course.

PROCEEDINGS OF SECTIONS.

SECTION OF PUBLIC MEDICINE.

Wednesday, Thursday, Friday, July 27th, 28th, 29th.

Sir B. Walter Foster, M.D., M.P., President.

President's Address.—In opening the proceedings of this Section, Sir Walter Foster, M.P., who presided, said that he had not prepared any special address, as, in his view, the time at the disposal of the Section should be devoted as fully as possible to the discussions which were set down and which were so largely of a practical nature. He was very pleased to have the opportunity of expressing his sense of the honour which the Association had done him in putting him in that position, especially because, while actively engaged in practice as a physician, he had given considerable attention to the subject of public health on more than one occasion. He regarded the subject as one of the most important in connection with the annual meeting of the British Medical Association, appealing, as it did, not only to the profession, but to the public at large. The profession was naturally divided into two branches, one connected with the cure of disease and the other with the preservation of the health and wellbeing of the public. In the first the relation was between the doctor and his patient, and was connected closely with the scientific development of the profession, while the other branch dealt with the preservation of the life of the community, and appealed, especially in the complex civilisation in which we lived, to the prevention of disease. The great importance of the subject and its increasing recognition by the public, had caused the creation of very large numbers of experts in this subject, and the public now confided the care of their health to these men. Public medicine really meant the relation of certain members of the medical profession to the wellbeing of the community at large, founded on a scientific knowledge of the causes, distribution, and methods of infection of disease, and the mode of preserving the public health. There was no function so important to a medical man, even although it involved enormous responsibility; if well performed, it would meet with speedy recognition at the hands of the citizens among whom he laboured. Throughout the country the position of medical officer of health was obtaining this recognition, both from local authorities and from the State. Recent legislation in connection with the Local Government Board, had been specially associated with developing the functions of these officers. In England they were as yet a little behind Scotland in the matter of sanitary legislation, and the good effects of the English legislation on the subject had been marred by defective clauses in connection with the health government of large county areas. In Scotland they had better materials to work upon, and the late House of Commons had inserted certain clauses in the Local Government Act for Scotland, which had placed the medical supervision of the county areas of that part of the kingdom under a very good and increasingly effective system of sanitary administration. In factory legislation for manufacturing districts and on all sides, this branch of the profession was obtaining, as it were, a larger share in the management and the control of the complex civilisation in which we lived. This he looked upon as very satisfactory to the members of the profession. One of the objections which reached him as a public man was that this increase of power would lead to a kind of medical tyranny. They had suffered in the past from clerical tyranny, and was it not likely that they might suffer in the future from medical? He did not anticipate such an event. Supervision could not justly or appropriately be called tyranny, because the supervision would be made by local authorities who were elected by the people, and it would be under their control that the functions of the officer would be exercised for the attainment of a common object, and not for the sake of his particular opinions. The medical profession had always aimed at such a high standard of honour in connection with its varied duties, and this afforded no slight guarantee that the duties of medical officers would be performed without offending or prejudicing the public. Another argument against thus increasing the powers of health officers was that legislation tended more and more to interfere with the liberty of the subject. It was said that the Notification of Diseases Act had interfered with the liberty of the subject, but it was with the liberty of spreading infectious disease. Individual liberty in a civilisation like ours becoming every day more complex must be interfered with when it became a detriment to the whole community. Effective legislation would diminish the destruction produced by many diseases which had for so long run riot among the public. For instance, effective isolation might stamp out infectious diseases like scarlet fever, measles, and small-pox; or at any rate might reduce them to comparatively small proportions. On these grounds legislation in the future would have to proceed very much on the same lines as it had done in the past. The duties of the medical officers would become of greater and greater value to the public and be still more appreciated by the State, and the office of public health would become one of the most distinguished to which a medical man could aspire. In conclusion he hoped that the Local Government Board, the local sanitary authorities, and the medical officers of health would be brought into closer relations, and that a larger number of inspectors would be appointed to give advice to local officers, to act in fact as consultants sent from the central authority to aid and advise the local men. This would provide the highest scientific opinion without placing too much power in the hands of the central authority.

Legal Restraint upon the Employment of Women in Factories before and after Childbirth.

Dr. George Reid, M.O.H. Staffordshire County Council, said that it was not his intention to attempt to gauge the proportional responsibility that should be attached to the various admitted causes of infant mortality; it was generally admitted that, among these, injudicious feeding took a prominent place, not so much, probably, as a direct cause, but by reason of its predisposing influence on ailments for which insanitary conditions were mainly responsible. It would, therefore, be reasonable to expect to find a marked difference in the infant death-rate among communities differing in no appreciable degree as regards their material surroundings, but presenting prominent distinctions in the sense of hindrances to providing infants with the food which nature intended they should have; any cause which took the mother away from home at a time when she should be suckling her child must prejudicially affect the health of that child, and thus predispose it to fatal diseases, which, under more favourable dietetic conditions, it might have resisted or overcome. Now the administrative county of Stafford was, he observed, divided into two populous areas, one in the north and the other in the south, each composed of abutting urban districts (central Staffordshire being mainly rural). As regarded the general sanitary conditions, no apparent distinction could be drawn between the northern and southern towns, but in one respect—namely, occupation—the two populations differed considerably. In the south of the county the people were mostly engaged in coal mines and iron works, in which the element of female labour must be disregarded; while in the north the chief industry was potting, in which large numbers of married women were engaged. Collation of the reports of the various medical officers of health, for the information of the Staffordshire County Council, showed that the infant death-rate was much higher in the north than in the south of the county, a circumstance which had been proved by figures covering, in most cases, a period of ten years, and which showed a rate of 182, as compared with 158. This difference was not to be attributed to any appreciable difference in local conditions. An inquiry had been instituted with the view of determining, if possible, whether and to what extent female labour would account for the marked difference in the rates. In order to substantiate the conclusions drawn from the figures I am about to give (Dr. Reid continued), it is necessary to explain shortly the nature and scope of the inquiry. In the first place, the population included in it amounts to 529,501, and it covers a period of ten years; the element of chance, therefore, is not likely to invalidate the conclusions. In dividing the towns into groups for the purpose of comparison, those which are distinctly rural as regards density of population, as well as others which are largely residential, have been excluded, the only towns included being those having distinctly artisan populations. Of

these there are 26, with populations varying from 32,121 to 2,454, and a total population of 438,712. These towns have further been subdivided into three groups, according to the relative proportion of married women engaged in work. I should like to have arrived at this classification on the actual figures of the census, but this was impossible, as, in the case of towns under 50,000 inhabitants the returns are not published, and although I applied to the Census Office authorities for permission to extract the figures, my application was refused. It became necessary, therefore, to adopt another plan of classification, and this, with the kind assistance of the medical officers of health, I was enabled to do. In addition to blank forms for decennial returns of infant deaths, etc., a circular letter was sent to each medical officer of health, explaining fully the object of the inquiry, indicating the general basis of the classification, and inviting qualifying comments where such were considered necessary. From this information, amplified in certain cases by further details from various employers of labour, the industrial towns have been subdivided into three broad classes as follows: (1) towns in which married women are largely employed in work; (2) towns in which married women are engaged to a less extent in work; and (3) towns in which few married women are engaged in work. In the first group are placed those towns where one chief industry is in operation in which married women are largely engaged; the second group comprises those towns in which different industries are carried on, in some of which married women are employed in considerable numbers; in the third group are those towns where the industry or industries do not admit of the employment of married women. From the returns obtained I am able to give the averages of the general death-rate, the zymotic death-rate, and the death-rate from diarrhœa during the decennial period:

STAFFORDSHIRE.

Average Rates in Groups of Towns for 10 years—1881-90.

	Mean Population.	Deaths in Children under one year per 1,000 Births.	General Death-rate per 1,000 of Population.		Zymotic Death-rate per 1,000 of Population.	Deaths from Diarrhœa per 1,000 Births.
			Actual.	Hypothetical.		
Class I. — Many Women engaged in Work	112,078	195	22.8	19.8	3.17	28
Class II.— Fewer Women engaged in Work	161,560	166	19.4	18.9	2.45	20
Class III.—Practically no Women engaged in Work.	165,074	152	18.1	18.1	2.46	19

As regards the infant death-rate, in the first group of towns, namely, where married women are largely engaged in factories, etc., 195 children die during the first year of life in every thousand born, as compared with 152 in the third group which embraces towns where practically no married women are engaged. In other words, 28 per cent. more infants die in the former than in the latter. Again, in the second group consisting of those towns intermediate between the other two as regards the number of married women engaged in work, the figures are 166, a decrease of 15 per cent., as compared with the first group, and an increase of 9 per cent. as compared with the third. Bearing in mind that the only apparent dissimilarity as regards conditions in the three groups of towns which are likely to influence infant life, is the relative proportion of married women in each, who, through being engaged in trade, are prevented from suckling their children, to say the least of it, it is extremely probable that to this circumstance the unfavourable infant death-rate is to be attributed. Granting that this is the case one would expect to find that the death-rates from diarrhœa would show a proportionate decrease in the three groups. The figures show that this is the case, although not to the extent one would have anticipated. In the table the general death-rate is given as well as the zymotic rate. As regards the former, it is interesting to notice that the high rates in Groups I and II are almost entirely owing to the excess of deaths among infants, for, if we take a hypothetical infant mortality, corresponding with that of the third group of towns, and work out the rates on that basis, the result is that the actual death-rates in the first two groups are reduced from 22.8 and 19.4 to 19.8 and 18.9 respectively. This fact may be taken for what it is worth, in support of the statement that the general local conditions in each group of towns are fairly identical. It may be said that in attributing the excessive infant mortality entirely to female labour, the effect of the probable excess of illegitimate births in towns where men and women work together has been disregarded. Allowing for this, however, and supposing that the illegitimate births in the one case amount to 10, and in the other to 5 per cent., reckoning the infant death-date among illegitimate children at 350 per 1,000 births, this would only have the effect of increasing the rate in the first group of towns about ½ per cent., an amount which is not worth considering. So much for Staffordshire. Let us now see how the figures for other towns in England compare with those just given. Here, in one sense, our information is more accurate, for in the case of towns whose populations exceed 50,000, the exact number of women engaged in work is given; on the other hand, not knowing the precise nature of the work carried on in different towns, it is impossible to say what proportion of the female workers are married, and also, as outsiders, we cannot estimate the possible influence that local conditions may have in causing infant ailments. Another source of error exists in the fact, that while the census figures refer to sanitary districts, the Registrar-General's figures embrace the registration districts, although, in is true, the town populations of these constitute the greater part in each case. Among the large towns, the proportion of women engaged in work varies from 25 to 6 per cent. of the respective populations. By dividing these towns into three groups, in accordance with the preponderance of female workers, the following are found to be the infant death-rates and diarrhœa death-rates per 1,000 children born under each group, as derived from the Registrar-General's returns for the years 1871-80, the last that are published in the form of a summary:—

ENGLAND.

Rates in Groups of Towns, excluding London, whose Populations amount to 50,000 and upwards, 1871-80.

	GROUP I. Over 15 per cent. of Female Workers.	GROUP II. Under 15 and ever 10 per cent. of Female Workers.	GROUP III. Under 10 per cent. of Female Workers.
Population ...	2,645,357	1,500,954	1,127,010
Deaths in infants under one year per 1,000 births ...	175	171	154
Total diarrhœa deaths per 1,000 births ...	36	37	32

As these figures are for a different decennial period to those given in the case of Staffordshire, even if in other respects they were comparative, which they are not, they cannot be used for the purposes of comparison. I give them for what they are worth, without any comment, except that they support rather than otherwise the conclusions I have drawn from the figures for Staffordshire. In conclusion, Dr. Reid asked whether legislative interference was not called for? It might not be reasonable to require women who had children entirely to give up work which took them away from their homes, but if a compulsory period—say of three months at home after their confinements—was established by law, it could not be looked upon as a hardship, and its influence for good would be great; infants would then have the chance of getting a good start in life, and would thus be better able to contend against illness. The month's absence from work which was imposed by Section 17 of the Factory and Workshops Act, 1891, is of little practical utility so far as infants are concerned. He thought that a special Commission ought to be appointed by the Legislature to inquire into the whole matter.

The President said that the carefully prepared paper which had been read by Dr. Reid must commend itself to the close attention of all who were interested in this most important subject. The figures which had been presented were particularly valuable, and he did not think they could have a better proof of the useful kind of work which county medical officers of health could carry out than had been afforded by Dr. Reid's paper. If in various districts of the country the same kind of interest was taken in compiling statistics bearing upon great public questions like this, work connected with public health would advance by strides year by year, not only in public estimation, but in public usefulness.

Dr. Tatham (Manchester) said he should not like his silence to be interpreted as meaning that he had no feeling on the matter or that he did not think it one of great importance. Many years ago, in Salford, the question of the employment of women in factories, as influencing the death-rate among their children appeared to him to be so important that he took very considerable trouble in making investigations in regard to it. He had published some reports on the subject and he had had the honour a little time ago of being invited to give evidence before a Royal Commission. He was afraid that he got into hot water rather because, with the object of restraining the employment of young mothers in factories, he ventured to suggest that a limit should be imposed in regard to the time at which puerperal women might return to the factories. He was considerably taken to task over the matter, it being said that he was going to interfere with trade and ruin working men and their families. He failed to see it himself at the time, and he failed to see it now, after having given the matter long and most anxious consideration. He felt certain that the rate of infant mortality was considerably increased by the practice which obtained in most large manufacturing towns of allowing women to return to work within a week or ten days after their confinement. It meant—and he spoke more especially of Manchester and Salford—the delegation of the duties of the mother to some young member of the family, probably to a girl of 12 or 14 years of age, the mother only seeing the child early in the morning and during the night. To reduce the rate of mortality arising from this particular custom it would be desirable to impose some legislative check on the employment of women in factories within a certain period of their confinement.

Surgeon-Major Pringle alluded to the great importance of inquing into the quality of the milk sold in tins. Milk of bad character was very largely used in the feeding of children, and it was very desirable that steps should be taken to ascertain its real character. Condensed milk, he had found, was often used because it was cheaper, and in relation to the question under discussion, it was of importance to remember that from the occupations they followed in factories, mothers were often prevented from suckling their children.

Dr. Aldred (Manchester) spoke of the use of narcotics in the case of young children as one of the causes of excessive mortality. He lived in a densely-populated district, and he found that women having their living to earn often put children out to nurse with some old crone who could scarcely nurse herself. The latter took the infant for the small pittance probably of 2s. or 2s. 6d. a week, and in order that she might keep the child quiet in the day-time, she administered some cordial which invariably contained opium. The result was that the child often slept all day, and when the mother came home in the evening she found the child wide awake. Naturally it had had its sleep out and wanted to be playing about. The mother did not quite understand it, and, in order that she might have a night's rest, administered some similar preparation, with the consequence that the child was dosed both night and day. He thought that some legislation should be put in force that might prevent this frequent cause of mortality.

Dr. Thresh (Chelmsford), Medical Officer of Health for Essex, referred to his experience in Manchester, where he said he had seen as many as six children asleep in a large soap box. It was the custom of certain persons to take care of children in the absence of their mothers. They gave the infants a little paregoric in the morning, the result being oftentimes that they had no food for the rest of the day. He thought that in cases where children were taken in to nurse in the manner in which he had described, there should be an adequate system of supervision. In Manchester and Salford the taking of children in this way was made a regular means of gaining a livelihood by many elderly people. In large towns it was not uncommon for mothers to return to their work at the factories within a week of their confinement. This obviously was prejudicial to the health of the women, and prejudicial also to the children. Those who had given the subject serious consideration must recognise that the time had come for some legislative interference.

Dr. Groves (Isle of Wight) advocated the establishment of *crèches* under proper regulations for the care of children whilst the mothers were engaged in the factory. The children were not only under proper care and received proper food, but as they got older care was taken that they were properly amused. As a result of the establishment of the *crèches*, the rate of mortality amongst the children of *employées* in a factory as to which he had information had diminished very largely indeed.

Dr. H. G. H. Monk (Shrewsbury), as an old practitioner in a rural district, spoke of the difficulty experienced oftentimes in obtaining a good and abundant supply of milk in country places. This applied particularly to labouring people who required the milk for their children. At a place only 9 miles from Nottingham, at one farmhouse only out of every eight or nine was it possible for the labourer or any other inhabitant to obtain the necessary supply of milk, the explanation of this being that the milk was despatched to the markets in the large towns.

Dr. Simpson (Manchester) said he presumed the object of the discussion was to suggest some remedy for a state of things which they deplored. The suggestion which had been thrown out for the establishment of *crèches* was an admirable one, and one which would, no doubt, do a great deal towards diminishing the rate of mortality amongst the infants; but he was rather disposed to take exception to the responsibility of the supervision being thrown upon the State. He thought it was far better for people, as far as they could, to help themselves. This was a matter for voluntary action rather than for State interference. The moral responsibility rested upon manufacturers, who brought people together in large numbers.

Dr. Strachan (Dollar), speaking from twenty-five years' experience, expressed the opinion that it was far better that pure milk should be given to children than that milk should be mixed with water.

After some observations from Dr. Mumby (Southsea),

Dr. Butterfield (Sevenoaks) said that when he occupied the position of medical officer of health for Bradford he had considerable experience of the ill effects of the employment of women in the worsted and spinning mills in that town. During several periods when autumnal diarrhœa was particularly rife in Bradford he made special inquiry in regard to the food given to the infants. He generally found that the children, in the absence of the mothers at the factories, were left to the care of some old woman, who fed them on bread and water, in which there was but an infinitesimal proportion of milk. The matter was one, in his opinion, calling for very serious attention.

The President said that one of the great objects he had had in view in Parliament in drawing attention to the question of allotments and the distribution of land among labourers was that the men might be afforded the means of obtaining proper nourishment for their children. He thought that until the policy of "three acres and a cow" was more generally recognised they would not get all that was needed in this direction. In reference to this matter, he did not think that central action was altogether desirable. What they needed rather was that steps should be taken locally to effect a remedy. He deprecated the habit of constantly saying that the State must do this and do that. In relation to legislation on this subject he thought that the trade of the country had also to be considered. Trade competition was now so keen, and foreign competitors had become so skilled, that the greatest caution was necessary so that there should be no undue hampering of trade. Nottingham afforded a notable example of the difficulties connected with the carrying on of one of the most important and one of the most valuable of the artistic industries of the

country. If in Nottingham they were to interfere to any large extent with female labour the result must be, as elsewhere, to take away a large amount of trade from the country. Yet whilst recognising this there was the higher question beyond it all, of the well-being of the children. If evils resulted from the present system they ought not to allow trade competition to offer up a hecatomb of victims every year. The remedy seemed to him in the direction of some wise local action. There might with advantage be a system of control instituted with regard to the nursing of young infants, either when established in connection with factories or independently. He was convinced it would be a very valuable arrangement if local authorities would undertake the supervision of places where children were left during the absence of their mothers at work. He was above all anxious that they should not rely too much on the State, but rather that a healthy opinion should be developed in each manufacturing centre, and that local authorities should undertake the necessary work in consonance with the wishes of the inhabitants of the district. This would be much preferable to central action on the part of any department sitting at Whitehall or elsewhere.

Dr. REID, in replying on the discussion, said it had been taken for granted by the speakers that children were largely affected through the engagement of their mothers in factories. That was the main point he wished to establish. It was capable of proof that where women were engaged in factories the infant mortality was much higher than where they were not so employed. Whatever the secondary cause might be, the main cause of the increased mortality was undoubtedly the employment of women in factories. With regard to the quality of tinned milk and the supervision of food of children in general, these were matters which affected all children more or less, irrespective of position; he agreed with the importance of what had been said as to the use of narcotics in contributing to increased mortality. He thought it would be a great advantage if the period within which women, according to the Factory Acts, were allowed to return to work after their confinement was extended from one to three months. It would be possible if the period were extended for children oftentimes to have three months' suckling, whereas at present they had often none at all. One month, as at present provided for by the Act, was useless. The woman knew that at the end of the month she could return to work, and therefore she did not think it worth while to commence to suckle the child at all, whereas if the period were extended to three months very different conditions would obtain. He thought it would be of advantage if a State inquiry were instituted with a view to concentrate the evidence and produce statistics that would lead to legislative action being taken. He suggested that a resolution should be passed to the effect "that in view of the apparent injurious influence on the lives of infants arising from the practice of married women leaving their homes to engage in work this meeting is of opinion that it is desirable that a special commission should be appointed to inquire into the whole question with a view to possible legislation."

The PRESIDENT suggested that the better plan would be to call the attention of the Parliamentary Bills Committee to the matter, so that they might discuss it with a view of considering what steps should be taken to draw Parliamentary attention to it. He suggested a resolution in these terms: "That the attention of the Parliamentary Bills Committee be called to Dr. Reid's paper and the discussion thereon, with a view to taking action for obtaining the attention of Parliament to the cause of infant mortality pointed out in the paper and during the debate."

Dr. REID said that he would accept the resolution. He was particularly anxious, however, that it should be made quite clear that it referred to the cause of infant mortality arising from the employment of women in factories.

Sir WALTER FOSTER inserted words to indicate this; and Dr. Reid, having withdrawn his proposal, the resolution was carried in the following form: "That the attention of the Parliamentary Bills Committee of the Association be called to Dr. Reid's paper, and the discussion thereon, with a view to taking action for obtaining Parliamentary inquiry into the influence of the employment of women in factories on the mortality of infants."

EPIDEMIC CEREBRO-SPINAL MENINGITIS.

Dr. H. G. MONK (Assistant Medical Officer of Health for the Shropshire Combined Sanitary District) described an epidemic in a Shropshire village. In May, 1891, Dr. Thursfield, M.O.H. for the Shropshire Combined Sanitary Districts, was informed of the prevalence of fever in a certain village. A visit was at once paid by Dr. Monk, and subsequently by Dr. Thursfield. Dr. Monk made a second visit three weeks later. The village occupied a very healthy situation on the crown of a hill, about half a mile west of the Severn. The soil was partly sand and partly clay. The village had a good supply of excellent water, raised by means of a ram from a spring beneath the hill. Sewage was disposed of in closet cesspits, periodically emptied, and dug into the gardens belonging to the houses. The houses were mostly of brick, and formed two long streets running at right angles to each other, with open spaces at the back. The population numbered about 250, and was engaged in agriculture and mining. There were forty-three cases in the outbreak, wholly confined to children of ages varying from 12 months to as many years, and the symptoms, although decided, were in most of the cases mild, resembling the first class or division of the disease as described in Quain's *Dictionary*, that in which the disease lasts from one to three weeks. In this outbreak the average duration of illness was about twenty days, some few cases convalescing very slowly. The symptoms were similar in most of the cases, and were particularly characterised by suddenness of onset, vomiting, vertigo, headache—principally occipital—and great prostration, this last symptom being especially sudden. As an example, the case of a boy, aged 8, was given; he was taken ill whilst at school, and sent home by the master. His home was about half a mile from the school, and he managed to get about half way, and, then failing entirely in strength, had to be carried the remainder of the distance. On the second day of the attack he suffered from pains all over the head, stiff neck and back, rise of temperature, and shivering followed by sweating. Retraction of the neck showed itself usually on the second day. Constipation was present in nearly all the cases. Other symptoms were drowsiness, herpes labialis, hyperæsthesia, and sudden fits of screaming in young children. Besides the herpes no rash was noticed. Two cases were fatal out of the forty-three, one death being returned as a death from meningitis, the other from fever. Unfortunately no *post-mortem* examination was made in either case. The fact that the epidemic was confined entirely to children at once pointed to the school. Investigation at the school-house revealed the fact that a few weeks previous to the outbreak of cerebro-spinal meningitis a sharp attack of diarrhœa affected nearly every child in the school; some were worse than others, and nearly every child who suffered from the one complaint suffered also from the other. This suggested that the poison was contained in the motions or emanated from them, seeing that the very few children affected who did not attend school were brothers or sisters of children who did attend. The water also was suggested as a source, but had it been so adults as well as children would most certainly have suffered. Another reason why the school may most certainly be considered the source of infection was the fact that, after closure of the school and thorough disinfection of the schoolroom with sulphur, and of the closets by chloride of lime, no further cases occurred. Some of the causes usually mentioned as predisposing were undoubtedly present. The outbreak occurred during the latter end of April and beginning of May, directly after a long period of severe frost, when the parents of many of the children had been out of work, so that the usual supply of food would be diminished. Secondly, the children were undoubtedly weakened by having suffered from a sharp attack of diarrhœa, so that from both causes they might have been in a low state of vitality. This state was such as had been noticed in other instances in which meningitis had been epidemic, as amongst young recruits. Excessive fatigue had also been recorded amongst the predisposing causes, especially bodily fatigue, and mental work should probably be included also. The disease was first thought to be influenza. During the recent second epidemic of influenza some letters appeared in the medical journals arguing that epidemic influenza and cerebro-spinal meningitis were one and the same disease. In

the epidemic described the difference between the two diseases was well seen, as immediately following the cerebro-spinal fever epidemic, influenza invaded the village. Children who had suffered from meningitis suffered again from influenza, and men and women, as well as children, were attacked by influenza but not by meningitis. The two diseases certainly had points of similarity, but in influenza the temperature rose suddenly and with the onset of the disease, whilst in meningitis it usually began to rise after about twenty-four hours, and did not reach the height that it might attain in influenza. In influenza abdominal pain was a constant symptom, whereas abdominal pain was entirely absent in the meningitis cases. Diarrhœa and purging occurred during influenza, but during the actual attack of meningitis were certainly absent. Absolute loss of power over the limbs was not often noticed in influenza, but was frequently noticed during meningitis. In some cases of influenza, running of the eyes and nose and frontal headache were marked, there was no running in the meningitis cases, and the headache was usually occipital, and at times all over the head. Retraction of the head was not marked in all the cerebro-spinal cases, and in no case was the condition of opisthotonos reached. Some observers had mentioned retraction of the head as a symptom that at times occurred, but Dr. Monk during the last three epidemics had not met with it. One symptom there was in common was slowness of convalescence, which in the meningitis cases was generally preceded by severe sweating, leaving the patient almost helpless for a few days. In examining a large number of death returns, odd cases in which the cause of death was certified as cerebro-spinal meningitis would be met with, and Dr. Monk thought it might be said that cerebro-spinal meningitis occurred in two forms, epidemic and sporadic, of which the sporadic variety was certainly the more common, and at the same time more severe, being nearly always fatal. In the epidemic described age seemed to have had a great effect in determining the victims, young children alone suffering. Sex made no difference, the numbers of males and females being about equal.

Sir W. Moore regarded the disease as a phase of some other kind of fever.

Dr. Thresh said it was probable the disease would be more frequently found if carefully looked for. Cases of that character had been mistaken for typhoid fever.

The President said that eighteen or twenty years ago there was a considerable epidemic in the Midlands of cerebro-spinal meningitis. He was called into consultation over many of the cases, and practitioners generally were exceedingly puzzled by them. They were nearly all looked upon as cases of typhoid fever. That idea existed for some time. He was convinced that there were many cases which were regarded as cases of typhoid which were really cases of an epidemic of the kind referred to by the reader of the paper. One great distinction which should be borne in mind was that these cases, especially in regard to adults, commenced with a very high temperature, which ran up to 103° or 104° on the second day, and sometimes on the first day.

Methods of Dealing with Town Refuse in the Midst of Populous Districts.

Dr. John W. Mason (Medical Officer of Health, Town and Port of Hull) said that the subject was of paramount importance to the well-being of a community; the more frequently and efficiently refuse was collected and disposed of the better was the health of a community. The reports of the Health of Towns Commission and the Sewage of Towns Commission and the reports of the medical officers of the Privy Council and Local Government Board gave ample evidence on this head. With the natural growth of large towns the question of the collection and disposal of town refuse required the serious consideration of those responsible for the public health and welfare of the population. From the geographical position of some towns the water-carriage system commended itself, as being not only the most efficient from a public health point of view, but as that which was least injurious; where there existed no natural outfall, from the low-lying position of the town or tidal influences, the introduction of auxiliary steam power affected that which had otherwise not been provided for by natural gravitation. In other towns irrigation or precipitation had to be resorted to to obviate or minimise the nuisance. In those towns where the water-carriage system was not universal, and where the supplementary pail, privy, or midden system predominated, the question of its disposal, together with the trade refuse, arose. The advantages of the pail over the privy and midden systems had been generally acknowledged; it was more cleanly, the accumulations less, and by its more frequent removal and by the free distribution of disinfectants during the process of collection the nuisance occasioned thereby was minimised. The first question which naturally arose was, By whom should the collection of these matters be undertaken? Should the corporation or sanitary authority themselves undertake it, or should they relegate the duty to others—namely, contractors? In contrasting the contract system, the need for control and supervision, the changes it necessarily imposed in the collection, the irregularities owing to those engaged not being accustomed to the particular district and work, and the inconvenience and annoyance caused to the public by frequent neglects of duty must be borne in mind. From a monetary point of view the contract system was the most economical, the cost of collection averaging about 3s. a year for each house, but varying with the character and situation of the town. In Hull this matter had recently been under consideration, and Dr. Mason had, with a deputation from the corporation appointed by the Works and Sanitary Committees, visited various large towns and collected much evidence relative thereto. This deputation had been satisfied that this important duty should not be delegated to others, and that it was more efficiently and expeditiously carried out by a corporation or sanitary authority providing the necessary accommodation for workmen, plant, horses and equipment. It would be advantageous in large urban populations that a daily collection of such matters, together with the scavenging of streets and courts, should be performed. When the public came to appreciate that the retention of house refuse anywhere near a dwelling house was a source of danger, they would insist upon its daily or more frequent removal. The accumulation of refuse in depôts or otherwise should not be tolerated, and the conveyance thereof into the suburbs of large towns had called forth protests from both residents and pedestrians. How best to dispose of such matter was now engaging the attention of sanitarians, and, with the great increase of our artisan population, it was our first duty to consider how these matters might be disposed of as quickly and effectually as possible, so as to in no wise prejudice the public health. It was computed that the amount of solid and fluid excreta discharged daily by a population of 1,000 persons was about 156 lbs. solid and 260 gallons fluid; and in order to deal effectually with the disposal of town refuse in the future, all houses proposed to be erected at an annual rental of £15 and upwards should be provided with a watercloset and dustbin. The annual money value of the excretal refuse of a mixed population might be estimated at 6s. 8d. to 7s. a head, but it was not practicable to realise any such value, as it was impossible to collect the whole of the fæces and urine unmixed with other substances which were valueless for agricultural purposes. Dr. Mason suggested that to deal effectually with the refuse of large and populous districts the area should be divided for purposes of sanitary administration into districts, and that destructors should be erected, having, where procurable, railway and wharfage accommodation, to which all excreta and town refuse collected (including that from slaughter-houses and all condemned food) should be taken, and that of a manurial value disposed of; failing which, this matter, together with trade refuse, should be cremated. From his experience in a seaport town he could not recommend that the refuse should be taken out to sea and unshipped, as was practised in some towns on the sea coast. In Hull, in which the privy system was in vogue, the collection was weekly, and the privies were so constructed as to hold only one week's accumulation. The excreta, etc., became the property of the contractor, and must be removed outside the borough immediately after the collection. In the erection of the destructors the probable increase of the district in which they are proposed to be erected must be borne in mind and provision made, where necessary, for future extensions. It had been estimated that each cell of a destructor would de-

stroy on an average 6 tons a day, although some authorities exceeded this estimate. Concentration of plant might be more economically worked; but Dr. Mason was of opinion that, for convenience and administrative purposes, their distribution over an extended area would be conducive to the least possible nuisance. The collection of such matters should be performed between the hours of sunset and sunrise, and should be completed before business operations had commenced. The refuse which was not disposed of for manurial purposes should not be allowed to accumulate, but should be cremated. In the spring and summer months it was easy to dispose of these matters for agricultural purposes, but in the winter, owing often to severe weather and impassable roads, accumulations occurred, and it was then that the neglects, especially in the contract system, occurred. The destructors for the special districts should contain sufficient cells to be capable, on an emergency, of destroying the whole of the effete material of a population of the district in which it was situate. This could easily be accomplished in large towns, and smaller towns might benefit themselves by combining and carrying into effect such a system. The manurial value of such matters was small, and its conveyance into the country districts was a possible source of nuisance and danger. The matter so treated in the destructors might be used for the filling up of vacant spaces and the formation of roadways, and, as in Manchester, Leeds, and some other large towns, for the manufacture of a useful mortar. The heat generated by the destructors could be economised for the driving of engine power for the working and building of plant required for other purposes. With a view of obtaining greater heat during the process of combustion, the adoption of steam jets had been practically carried into effect, and it had been demonstrated beyond doubt that they increased temperature, produced increased draught, less smoke, and more rapid combustion. Experiments with the pyrometer had shown that an average temperature of 1,464° F. had been maintained. Owing to these modern additions, destructors were no longer a source of possible nuisance to the neighbourhood in which they were erected, and public prejudice and sentiment against their erection had thus been diminished.

Dr. BOOBBYER said the subject was one of peculiar interest in the town of Nottingham, which, in common with other towns, was suffering acutely from the difficulty of disposing of its refuse as manure.

Dr. GROVES said it was one of the most important questions of the day. The health of the population in the vicinity of sewage farms should be considered.

Surgeon-Major PRINGLE spoke of the difficulty as it presented itself in India, and

Dr. BARWISE said the pail closet system ought not to be tolerated.

Dr. THRESH mentioned a useful destructor of refuse which could be placed at the back of a fireplace.

Dr. MASON replied, remarking that the conclusion arrived at was that all matter which was not of manurial value should be destroyed by fire.

The Prevention of Phthisis and Syphilis.—Dr. C. R. DRYSDALE (London) remarked that, although much had been recently attempted in the prevention of contagious fevers, phthisis and syphilis were still allowed to continue to torment the human race with scarcely any impediment. In the consideration of the possibility of preventing any given disease, the main question was, was it contagious? If so, all admitted that such a disease might be greatly lessened in its ravages. There were many points of similarity in the pathology of phthisis and syphilis; but, whilst everyone admitted that syphilis was a contagious disease, a large minority, or perhaps even a majority of practitioners in this country were still unconvinced that phthisis was often communicated by contagion. Since he had become acquainted with the inoculability of tubercle on the lower animals in the year 1867, and had repeated the experiments of Villemin at Hampstead, he had been thoroughly persuaded that contagion must be the cause of a very large proportion of the cases of consumption occurring in thickly-peopled states. The hypothesis of contagion could alone account for the facts observed, namely, that phthisis was most prevalent in crowded cities (Vienna, Paris, Berlin), and rare in sparsely inhabited countries, such as Iceland, or in mountainous districts, which could not support great agglomerations of men. History, too, showed that phthisis had attacked the natives of North America and of Polynesia soon after the entrance of Europeans into their countries, and that, in the bovine species, tuberculosis only attacked animals which were kept in close stables, and thus exposed to contagion. The hypothesis, then, that phthisis was contagious was now quite sufficiently proved to entitle the medical world to act upon it. Segregation was evidently the only way of lessening the spread of this disease. Sanatoria should be constructed for the cure of phthisis in country districts, and no longer in cities; and patients affected with the disease should be sent to some healthful spot on the coast, or on the southern slopes of the higher hills or mountains, where outdoor occupations should be provided for them, so as to enable them to pass most of the day out of doors. The sputum and dejections of the phthisical should be carefully removed and quickly destroyed, and the healthy should not share the same couch with the phthisical. A far less important cause of contagion of tubercle was the meat and milk of cows, and the flesh of pigs; and it was clear that the customs of the Jews ought at once to be carried out in all large cities, and those animals infected in the slightest degree with tuberculosis should be rigorously removed from the market. This measure would speedily effect the removal of tuberculosis from cattle, for animals maintained in good hygienic conditions did not suffer from tuberculosis. Every improvement in the condition of the people tended towards lessening crowding into small tenements, one of the chief causes of contagion of phthisis; and there were some signs that poverty would not continue to be such a prevalent feature of civilisation as it had been. So that, if phthisis were coped with in a determined manner in the near future, there was every prospect of seeing it become very much less prevalent; and even if the contagion hypothesis were found not to be productive of so much good as it promised, it was the bounden duty of the present generation to make an essay with that ideal. *A priori*, it would seem that the nature of syphilis should make it one of the most easily preventable of all diseases. In this case there was a fixed virus present, which was only communicated by members of the human race to one another, and occasionally the disease was hereditarily transmitted. Hence it could, ought, and would be prevented whenever society had made up its mind that it was an intolerable evil. The French system of the regulation of prostitution and the examination of such women had had a long trial in France, Belgium, and elsewhere, but had been found to be unfit to cope with the evil. In Paris, only between four and three thousand women, out of a vastly superior number of possible candidates for police examination, could be persuaded to submit to a measure, which Dr. Crocq, of Brussels, said they ought to welcome for their own sakes. Dr. Drysdale found, on investigating the incidence of syphilis in Paris and in London, that Paris had in all probability a far greater amount of true syphilis in proportion to its population than London. Dr. Möeller showed last October, in a statistical paper on this subject at Brussels, that the diminution of venereal diseases which had taken place of late years in the Belgian army had been far greater in cities where police regulation of this kind had been absent than it had been in those under such examinations. The French system, he suspected, would never be tolerated, either in the United Kingdom or in any English-speaking community. Women would not consent to be treated like the lower animals; they claimed equal rights with men. In the face of this certainty, it seemed clear that other preventive measures must be devised. Were there any? In the first place, medical practitioners should be more carefully instructed than heretofore in the pathology of syphilis. All contagious cases of primary or secondary syphilis should be treated, if possible, in hospitals. Soldiers with true syphilis especially should be so treated. Practitioners should warn their patients that they were in a contagious condition, and that laws existed, even in this country, which rendered the communication of such contagion a penal offence, and entitled husbands or wives to sue for divorce on the plea of adultery and cruelty if infected by a partner. Eventually, perhaps, phthisis and syphilis would be considered to be notifiable diseases.

After a few remarks from Surgeon-Major PRINGLE,

Dr. H. Simpson (Manchester) said the greatest danger in the matter of the spread of phthisis was the reinfection of the patients upon their return to the hospitals. In Manchester they had started a small scheme of notification. Dr. Tatham had been good enough to allow them to notify cases of disease to him, and after that notification the arrangement with the consent of the people was that the dwellings of the patients should be disinfected. In that way a small start had been made, which he trusted would be very extensively followed; if carried out generally, it would tend to diminish this great evil.

Dr. Drysdale, in reply, said he was delighted to find that Manchester was so far advanced on this question, and he hoped her example would be followed in other towns.

The President also expressed the pleasure it had given him to hear the remarks of Dr. Simpson on this point.

MEDICAL NEWS.

Dr. W. Soltau Fenwick has been appointed Medical Tutor to the London Hospital Medical College.

The New York Pasteur Institute, which was established and conducted by Dr. Paul Gibier, has been closed owing to want of funds.

Presentation.—Dr. Henderson (Merthyr Vale) was on July 14th presented with an illuminated address and a purse of £50 from the inhabitants of Merthyr Vale as a mark of their esteem and respect.

The Paris Municipal Council has voted a sum of 20,000 francs for the fitting of public fountains in Paris with hygienic filters, in the quarters where the Seine is the source of the water supply.

Hospital Saturday Fund.—The total amount on behalf of this fund reached nearly £10,000, of which sum £4,000 has been paid into the central office during the past week from district committees, as the result of last Saturday's Ladies' Street Collection.

Mr. Robert A. Barnes, who recently died in St. Louis, has left more than a million dollars for the erection and endowment of a hospital. In honour of the generous testator, the new medical school recently opened in St. Louis has been named the Barnes Medical College.

A separate pavilion for cases of diphtheria is being built in connection with the St. Anne Children's Hospital in Vienna, and will be opened on October 1st. It is to contain a special department, which will be exclusively devoted to the treatment of cases by intubation, and provision will be made for the accommodation for the mothers of the little patients.

The Local Government Board have approved the Sanitary Institute as a body whose certificate that a person has by examination shown himself competent for the office of sanitary inspector under the Public Health (London) Act, 1891, shall be sufficient for the purpose of the requirements in Section 108 of the Act.

The Sanitary Convention.—Reuter's Agency, dating from Rome, July 18th, states. The Turkish Ambassador yesterday signed the Venice Sanitary Convention. All the requisite signatures having now been affixed to the Convention, it has been despatched by the Italian Government to the signatory Powers with a request that they will send the ratifications by July 31st.

Literary Intelligence.—The Council of the British Medical Temperance Association are about to issue a new medical paper, dealing mainly with medical temperance topics. Alcoholic and other forms of inebriety will be specially treated, while hygiene and general medicine will not be ignored. The title of the new venture will be the *Medical Pioneer*, and the journal will be issued monthly. Among the promised contents are original articles, reports of medical and surgical cases, with reports on alcohol from home and foreign sources. The price has been made low (twopence a number) in order to secure a wide circulation among the members of the profession, by free distribution.

Medico-Psychological Association.—The following gentlemen have passed the examination of the Medico-Psychological Association of Great Britain and Ireland, entitling them to the certificate in Psychological Medicine:—At Aberdeen on July 16th, Messrs. F. S. Ainley, G. Cruikshank, A. B. Dalgetty, A. Davidson, R. Ferguson, W. Hector, F. Kelly, T. B. Law, G. B. D. Macdonald, W. C. B. Pieris, W. H. de Silva, R. S. Trotter; at Edinburgh on July 18th, Messrs. S. C. Brush, C. R. Nair, D. A. Welsh, J. B. Yeoman.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Casimiro Aced, Director of the Lunatic Asylum of Mazorra, Cuba; Dr. A. E. da Fonseca, formerly Assistant Professor of Medicine and Therapeutics in the Medical Faculty of Rio de Janeiro; Dr. Levi Bartlett, of Brooklyn, grandson of Dr. Josiah Bartlett, who signed the Declaration of Independence, aged 86—Dr. Levi Bartlett, who had been fifty-five years in practice, was the son, grandson, and great grandson of physicians; Dr. J. H. Randolph, formerly Superintendent of the Florida State Insane Hospital, aged 83; Dr. Washington M. Ryer, one of the "pioneers" of San Francisco, and at one time Surgeon-General of the State of Nicaragua, aged 71; Dr. J. F. Hamilton, Medical Director of St. Mark's Hospital, Salt Lake City, and the "pioneer in hospital work in Utah," aged 62; Dr. N. W. Condict, for many years a leading physician of New York, aged 83; Dr. G. F. Gill, Professor of Diseases of Children in the St. Louis Medical College, aged 49; Dr. J. Suydam Knox, Professor of Obstetrics and Diseases of Children in the Rush Medical College, Chicago; Dr. Emilio Pi y Molist, of Barcelona, an eminent Spanish alienist, and an able writer on medical and literary subjects, aged 67; and Dr. Roelof Theodor Hart, of Amsterdam, a well-known Dutch physician, aged 55.

American Jottings.—The demand for male nurses appears to be increasing in the United States. The Mills Training School for Male Nurses, which was started in connection with the Bellevue Hospital in New York in 1888 has already outgrown the limits of the original installation, which was thought to be sufficient for at least ten years to come. It has been found that whenever an intelligent young man takes up nursing as a calling he becomes "thorough and enthusiastic."—The Supreme Court of Arkansas has decided that a medical man who makes a *post-mortem* examination at the request of the coroner is entitled to a reasonable fee for the work. Hitherto, it is stated, many boards of commissioners and judges in the United States have refused to sanction payment for such services.—Post-graduate instruction seems to flourish in Chicago. That city, which already rejoiced in two post-graduate colleges, now finds a third necessary to meet the needs of its rapid growth. It is to be called "The Clinical College of Medicine and Speciality Hospital."—The *Virginia Medical Monthly* for June contains a report by Dr. Stuart McGuire of a case of dermoid tumour in a girl. The cyst contained about 2 gallons of fluid, in which floated a large amount of hair. Growing from one side of the cyst wall were a well-formed penis and testicles, and just beneath them were three large teeth firmly imbedded in a gum.—A gang of negroes at Brooklyn recently attempted to lynch the health officers for removing a negress suffering from small-pox to the hospital.—A Chicago "cancer curer," of the suggestive name of Walker, recently died of cancer.—A lady has just taken her M.D. degree at St. Louis under circumstances of difficulty to which the inferior male creature, fortunately for himself, can never be exposed. A few weeks before the date of examination she presented her husband with a ninth "olive branch," and eleven days after the interesting event she was again in her place in the lecture room.—A Philadelphia newspaper says: "It is estimated that 90 million dollars' worth of fraudulent food products are annually disposed of in the United States, either mixed with good articles or sold in place of them." No wonder Cousin Jonathan suffers from indigestion!

MEDICAL VACANCIES.

The following vacancies are announced:

COUNTY ASYLUM, Shrewsbury.—Junior Assistant Medical Officer; not over 27 years of age. Salary, £100 per annum, and £8 in lieu of beer, with board, lodging, and washing. Applications to the Medical Superintendent by August 10th.

DEACONESSES' INSTITUTE AND HOSPITAL, Tottenham.—Resident House-Surgeon. Salary, £90 per annum. Applications to Dr. M. Laseron, Director.

GENERAL HOSPITAL, Birmingham.—Two Assistant House-Surgeons. Board, residence, and washing provided. Applications to the House Governor by August 1st.

HORTON INFIRMARY, Banbury.—House-Surgeon and Dispenser. Salary, £60 per annum, with board and lodging. Applications to C. H. Davids, Honorary Secretary, 27, Marlborough Road, Banbury, by July 30th.

LEEDS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Two Surgeons; married. Salary, £208 per annum, midwifery fees, and residence, and rates and taxes paid. Applications to Charles H. Wilson, 8, South Parade, Leeds, by August 6th.

LEEDS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Surgeon. Salary, £120 per annum, and midwifery fees.

LEEDS PUBLIC DISPENSARY, near Briggate.—Junior Resident Medical Officer. Salary, £85 per annum. Applications to the Secretary of the Faculty by August 6th.

LIVERPOOL STANLEY HOSPITAL.—Honorary Physician. Applications to the Honorary Secretary, J. E. Bennet, Esq., Meadowcroft, Aintree, by July 30th.

LIVERPOOL STANLEY HOSPITAL.—Honorary Surgeon. Applications to the Honorary Secretary, J. E. Bennet, Esq., Meadowcroft, Aintree, by July 30th.

MANCHESTER ROYAL EYE HOSPITAL.—House-Surgeon. Salary, £70 per annum, with residence, board, and washing. Applications, endorsed "House-Surgeon," to the Chairman of the Board of Management by August 9th.

PHARMACEUTICAL SOCIETY OF IRELAND.—Examiner in Practical Pharmacy; to hold office for one year, but eligible for re-election annually for four additional years. Applications to Arthur Ferrall, Registrar, 67, Lower Mount Street, Dublin. Election on August 3rd.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House-Surgeon; appointment for six months. Board, residence, and washing provided, and honorarium of £10 10s. at expiration of term. Applications to T. A. Fisher Hall by August 1st.

ROYAL UNITED HOSPITAL, Bath.—Honorary Physician; graduate in medicine of one of the Universities of Great Britain or Ireland, and Fellow or Member of British College of Physicians. Applications in writing, with certificates and qualifications, to the Committee not later than 11 A.M. on August 11th.

TOTTENHAM HOSPITAL.—First Resident House-Surgeon; registered and duly qualified. Salary, £90 per annum. Term for one year. Apply by letter, with testimonials, to M. Laseron, M.D., Director.

WREXHAM INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £80 per annum, with furnished room, board, coal, and attendance. Applications, on forms to be obtained of the Secretary, to George Whitehouse, Secretary, 27, Regent Street, Wrexham, by August 17th.

YORK RETREAT.—Assistant Medical Officer; experienced in lunacy practice; unmarried; under 35. Salary, £150 per annum, with board and lodging. Applications to the Chairman of the Committee on or before August 10th.

MEDICAL APPOINTMENTS.

BARENDT, Frank H., M.D.Lond., F.R.C.S.Eng., appointed Pathologist to the Royal Southern Hospital, Liverpool, *vice* Charles J. Macalister, M.B., C.M.Edin., M.R.C.P.Lond., resigned.

BERESFORD, Robert De La Poer, M.D.Glas., L.R.C.P., L.R.C.S.Edin., re-appointed Medical Officer for the Whittington District of the Oswestry Union.

BRADBURY, John Augustus, M.R.C.S.Eng., L.S.A., appointed Medical Officer of the Wigan District and the Workhouse of the Wigan Union.

BULSTRODE, Herbert Timbrell, M.A., M.D.Cantab., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Inspector to the Local Government Board.

CARNELLEY, M., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Gotham Sanitary District of the Basford Union.

CROOM, John Halliday, M.D., F.R.C.P., F.R.C.S.Edin., appointed Physician to the Edinburgh Maternity and Simpson Memorial Hospital.

DRUMMOND, Wm. Blackley, M.B., C.M.Edin., appointed Resident Physician to the Royal Edinburgh Hospital for Sick Children.

FENWICK, W. Soltau, M.D.Lond., M.R.C.P., appointed Medical Tutor to the London Hospital.

FRAZER, E. E., M.R.C.S., L.R.C.P., L.S.A., appointed House-Surgeon to the Royal United Hospital, Bath, *vice* L. H. Walsh, M.R.C.S., L.R.C.P.

GREEN, Mr. A., appointed Medical Officer for the Churchstanton District of the Taunton Union.

GURNEY, Harold, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Harwich and Dovercourt Town Council, *vice* W. W. Hardwicke, M.R.C.P., L.R.C.S.Edin., resigned.

HARDY, Chas. Maurice, M.B., B.S.Durh., reappointed Medical Officer of Health for the Rural Sanitary Authority, Darlington.

HILL, A. Bostock, M.D., L.R.C.P., L.R.C.S.Edin., reappointed County Analyst to the Warwickshire County Council.

INCE, W. H., Ph.D.(Würzburg), Demonstrator of Chemistry in University College, Liverpool, appointed Demonstrator of Physics and Chemistry in the Medical School of St. Thomas's Hospital.

JOHNSON, T. C., M.B., C.M.Edin., appointed Medical Officer of the Middleham Western District of the Leyburn Union, *vice* W. R. Naylor, L.R.C.P.Lond., M.R.C.S.Eng., resigned.

LAKE, Richard, F.R.C.S., appointed Registrar and Pathologist to the Hospital for Diseases of the Throat, Golden Square, W.

LAWSON, Joseph, M.B., L.R.C.S.I., appointed Medical Officer to the Todmorden Union.

LUCAS, Albert, L.R.C.P.Lond., F.R.C.S.Eng., appointed Resident Surgical Officer at the General Hospital, Birmingham, *vice* Geo. H. R. Holden, M.A., M.B.Camb., resigned.

MCKAY, Joseph Boyle, M.D.R.U.I., appointed Medical Officer and Public Vaccinator for the Fifth or Risborough District of the Wycombe Union, and Medical Officer of the Union School at Bledlow.

MACLENNAN, D. U., M.D.Edin., appointed Medical Officer for the North Widnes District of the Prescot Union.

NUTT, Horace, M.R.C.S.Eng., appointed Medical Examiner on the Society's Staff by the Equitable Life Assurance Society of the United States for the Sherborne District, Dorset.

PARSONS, H. F., M.D.Lond., M.R.C.S.Eng., appointed Second Assistant Medical Officer to the Local Government Board.

PARSONS, Francis John Crane, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Bridgwater Town Council.

PARTINGTON, William, M.B., C.M.Glas., appointed *pro tem.* Medical Officer of Health to the Tunstall Local Board, *vice* J. M. Cumine, L.R.C.P., resigned.

PIGG, Mr. C. R., appointed Medical Officer of the Caldicote District of the Chepstow Union, *vice* Arthur C. Dixey, M.D., resigned.

POWER, W. H., M.R.C.S.Eng., appointed Assistant Medical Officer to the Local Government Board.

PROSSER, Frank, M.B., C.M.Glas., appointed Medical and Vaccination Officer for the Rainford District of the Prescot Union.

ROBERTSON, Geo., M.B., C.M.Aberd., appointed Medical Officer to the Glenfoundland Lodge of Oddfellows, Insch, Aberdeenshire, *vice* Dr. G. B. Currie, resigned.

ROBERTSON, W. Ford, M.B., C.M.Edin., appointed Resident Physician to the Royal Edinburgh Hospital for Sick Children.

RYAN-TENISON, Edward Heron, M.R.C.S.Eng., L.S.A., appointed Medical Officer of Health to the Bexhill Local Board.

SPEECHLY, Harry Martindale, M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to the London Hospital.

STEELE, Jonathan, L.R.C.P.&S.Edin., L.F.P.S.Glas., appointed Medical Officer of Health for the Kidsgrove Urban Sanitary Authority, *vice* A. B. Great-Rex, M.D., resigned.

SYMONDS, Horatio, F.R.C.S.Edin., of Oxford, appointed Honorary Consulting Surgeon to the Faringdon Cottage Hospital.

SYRETT, Frank, M.R.C.S.Eng., appointed Resident Medical Officer to the Children's Hospital, Newcastle-on-Tyne.

VERNON, H., L.S.A., appointed Assistant Medical Superintendent of the Infirmary of the Parish of Paddington.

WALSH, L. H., M.R.C.S., L.R.C.P., L.S.A., appointed Resident Medical Officer to the Royal United Hospital, Bath, *vice* E. H. Biddlecombe, L.R.C.P.Lond., M.R.C.S., resigned.

WARREN, E. C., L.R.C.S.Ed., appointed Medical Officer of Health to the Gillingham Local Board.

WATSON, J., M.B.Durh., F.R.C.S.Eng., L.R.C.P.Lond., appointed House-Physician to the Wolverhampton and Staffordshire General Hospital.

WILLIAMS, E. R., M.D., appointed Surgeon to H.M. Prison, Carmarthen, *vice* W. Lewis Hughes, M.R.C.S., resigned.

DIARY FOR NEXT WEEK.

TUESDAY.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND, Anatomical Theatre, University of Edinburgh, 4.30 P.M.—Exhibits:—Professor Sir William Turner: A series of specimens. Dr. Symington: (1) A Human Heart, with unusual arrangement of the anterior papillary muscle; (2) Specimen illustrative of the Mode of Closure of the Ileo-cæcal Valve. Papers:—Professor Cleland: A Contribution to the Comparative Anatomy of the Ankle-joint. Dr. Birmingham: (1) Extreme Anomaly of Heart, with history; (2) Spina Bifida, with abnormality of skull. Dr. Musgrove: (1) The Costo-Sternal Articulations; (2) The Blood Vessels and Lymphatics of the Retina, with lantern slides. Dr. Symington: A Note on the Fascia Dentata in the Human Brain.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

MARRIAGES.

OWEN—DAVIES.—At Llanymynech Parish Church, on the 20th inst., by the Rev. Ll. Wynne-Jones, Rector of the Parish, assisted by the Rev. W. Thomas, Vicar of Bwlch-y-Cibau, Owen Trafford Owen, M.B., C.M., of St. Alban's Place, Blackburn, to Marion Elizabeth, eldest daughter of J. W. Davies, of Yyrnwy Bank, Llanymynech.

WATERHOUSE—HARKER.—On July 27th, at the Church of St. Laurence Middleton-St.-George, co. Durham, by the Rev. John Groves, Vicar of Redcar, assisted by the Rev. C. Jackson, M.A., Rector of the Parish, Herbert Furnivall Waterhouse, M.D., C.M.(Edin.), F.R.C.S.(Eng.), of 81, Wimpole Street, Cavendish Square, W., eldest son of the late Rev. Charles J. Waterhouse, M.A.(Cantab.), to Edith Florence, only daughter of John G. Harker, Esq., Middleton-St.-George.

DEATH.

DOUTY.—On July 12th, at Moulsford, Berks, J. Harrington Douty, M.R.C.S., Medical Superintendent of the Berkshire County Asylum, aged 34.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names,—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

J. N. MILLER asks information concerning Mexican *pulque*, and where it is to be got.

CLUB SECRETARIES.

N.G. asks: Can any club doctor tell me of an efficient check on a club secretary who pays me for less than the number of members, and who is unwilling to give me a list?

MENTAL ARITHMETIC FOR YOUNG CHILDREN.

M. PATERSON, M.B., C.M. (Grangemouth), writes: Can any of the readers of the BRITISH MEDICAL JOURNAL, conversant with the effects of modern education on the brains of the young, answer definitely for me a question which I have been recently asked? I am assured that certain inspectors of schools in Edinburgh insist on rapid mental arithmetical work to be done by children of 6 or 7 years.

In some instances certain classes have been condemned because a given standard of rapidity was not attained, several lines of figures being thus dealt with. A strain of this kind, and especially when dealing with abstract numbers, must surely have an injurious effect on the young brain.

THE SYSTEMATIC EXAMINATION OF THE BLOOD.

SELOC asks where he can obtain information on the modern methods of clinical study of the blood.

*** Our correspondent might consult (*a*) Ehrlich, *Farbenanalytische Untersuchungen*; (*b*) Friedländer, *Mikroskopische Technik*. The latter book will give him the method of study. Friedländer is translated, but the latest German edition, which is edited by Eberth, should be procured. Mr. Kanthack's method for staining the eosinophile leucocytes, which is a modification of Ehrlich's method, is more rapid. The literature on blood in disease is enormous, but Mr. Kanthack mentions enough references to give a fairly good start. (*Cf.* The Diagnostic Value of the Eosinophile Leucocytes in Leukæmia and Hodgkin's Disease, BRITISH MEDICAL JOURNAL, July 16th, 1892.)

ANSWERS.

E. WHITESIDE; C. GAMMELL; G. W.—We do not undertake to recommend medical advisers.

J. G.—Our correspondent would do well to communicate the facts to the Royal College of Physicians of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow, from which it would appear that the person referred to has obtained licences.

OBSTETRICAL SOCIETY'S EXAMINATION FOR MIDWIVES.

Y. Z.—Herman's *Midwifery*, published by Cassell and Co., is very suitable.

THE GILCHRIST TRUST.

DR. JOSEPH KEAY had perhaps better communicate direct with the Trustees of the Gilchrist Trust.

THE GLOBE ACCIDENT INSURANCE COMPANY.

B.H.A.—It appears that the scheme is not one which should receive the support of the medical profession. People who are able to pay £1 15s. a year for insurance are probably in the position to recompense their medical attendant adequately. There is an obvious absurdity in attending a well-to-do country gentleman, who has broken his thigh out hunting, and to get as a maximum six guineas. No mention is made of distance, so that the unfortunate practitioner might have to go 5, 10, or more miles for each visit. Provided some wage limit were fixed, say £3 per week, and the distance to be travelled did not exceed one mile from the practitioner's house, there is, perhaps, something to be said for the scheme, but as put forward by the insurance company, it is one which will, we hope, receive no countenance from the medical profession.

L.R.C.P. LOND.

SURGEON asks what are the best books to read for the final L.R.C.P. Lond. on Medicine, Midwifery, Diseases of Women, Hygiene, and Forensic Medicine?

*** Medicine, Taylor's *Practice of Medicine*; Midwifery, Galabin's *Midwifery*; Diseases of Women, Galabin's *Diseases of Women*; Forensic Medicine, Husband's *Forensic Medicine*; Hygiene, Wilson's *Hygiene*.

NOTES, LETTERS, Etc.

OXYGEN AND INVERSION IN NARCOSIS.

MR. GEORGE FOY (Dublin) writes: The letters of Mr. Long and Mr. Stead in the BRITISH MEDICAL JOURNAL of July 23rd are unusually valuable—the first as showing the value of oxygen gas in cases of anæsthetic narcosis, and the second letter as an evidence of the unreliable character of the ordinary means of resuscitation. For years past I have urged on the medical profession the value of inversion and the inhalation of oxygen gas in such cases. In recommending this latter I have followed the example of such well-known writers as Davy, Blanchet, Duroy, Faure, Gianetti, Ozanam, P. Bert, and others. Those who desire to know the value of inversion in chloroform narcosis will find Dr. J. J. Chisholm's cases of resuscitation by inversion in my book, *Anæsthetics: Ancient and Modern*.

LOCUM TENENS AND LIFE ASSURANCE FEES.

M.D.EDIN. writes: L.M.D.'s note in the BRITISH MEDICAL JOURNAL of July 16th forcibly reminds me of a similar case which occurred in my practice some years ago. During my holidays my temporary assistant examined a life for insurance, and claimed the fee. On my return home I referred him to the specific terms on which I engaged him. After a little humming and hawing he was convinced of his error, and handed me the fee. Since then I have always informed my *locum tenens* that all fees earned in any and every department of his professional function belong solely to me. Such an arrangement (written) should save bother, and mayhap heart burnings to not a few doctors and assistants.

MENSTRUATION DURING PREGNANCY.

DR. AND. M. T. RATTRAY (Portobello, N.B.), writes: A few days ago I vaccinated the child of a woman whose age is 23 years. She looked epileptic, judging from the prominent lips and enlarged alæ nasi, etc. She is almost bald, and has no hairs on the eyebrows or under eyelids. Her family history is good. She was married six years ago, and has had five children. She began "to take fits" when she was supposed to be gone six weeks in her second pregnancy, and kept menstruating till the full time. Since then she has been very subject to these attacks; she can seldom make sure she is pregnant till "quickening" takes place, after which she hardly escapes a period without a copious menstrual flow. She informs me but for these fits she was never in better health, and her confinements have invariably been excellent, and her recoveries all that could be desired.

EPITHELIOMA OF THE LIP IN WOMEN.

DR. GEORGE G. SINCLAIR (Esk, co. Durham) writes: In the BRITISH MEDICAL JOURNAL of July 16th there is a case reported by Mr. J. R. Purdy, M.B., C.M., of the Removal of an Epithelioma from the Lower Lip of a Woman. As such cases are apparently rare, the following adds one more to the list.

In February, 1891, I was called to Mrs. M., to give my opinion regarding a large wart that was growing on her lower lip. After careful examination I pronounced it to be an "epithelioma," and advised her to have it removed. She then informed me she had previously consulted two doctors, who had pronounced it to be the same. I operated a few days afterwards, injecting cocaine on either side, and making the usual V-shaped incisions. The patient said she had no pain whatever from the operation. The wound healed by first intention. The patient informed me she had never smoked in her life.

ROBBERIES AT DOCTORS' HOUSES.

THEODORE SENIOR GARDINER, 45, described as a surgeon, of 75, Frithfield Gardens, Shepherd's Bush, was charged at Marylebone Police on Saturday with stealing from 15, Wimpole Street a pair of opera glasses, a cigar case, an ophthalmoscope, and other things, valued at £8, the property of Dr. West; further, with being in the possession of a cigar case, an umbrella, a case of surgical instruments, two magnifying glasses, an inkstand, and other property, supposed to be stolen. The evidence showed that the prisoner had called at Dr. West's house in his absence and was allowed to go in and write a note. The property was missed after he had gone, and some of it was found on him after he was arrested. A further charge was brought against the prisoner of stealing a pair of opera glasses, a pair of gold spectacles, and other articles, valued at £15, the property of Dr. William Hope, from 54, Curzon Street, Mayfair. In this case the theft had been effected in a somewhat similar manner. A pawnticket relating to the things was found on the prisoner at the police station. Another charge was brought against the prisoner of stealing a book, valued at 12s., the property of Mr. John Greenfield, from 11, Brook Street, Hanover Square, on July 15th, under similar circumstances. When called on for his defence the prisoner said his wife, who had money of her own, left him and knew he was penniless and homeless. He tried in many directions without success to get employment, and his disappointments and miseries must have preyed on his mind and must have made him commit these indiscretions. Mr. Cooke committed him for trial on the cases before the Court, and granted a formal remand to see if any other persons came forward to prosecute.

TETANUS DUE TO PUNCTURE OF HYPODERMIC NEEDLES.

DR. ELIE ANDERSON (Paris) writes: In the BRITISH MEDICAL JOURNAL of July 9th Mr. C. Osburne reports a case of tetanus due to the puncture of a hypodermic needle. As he seems to be under the impression that the accident is not of frequent occurrence, allow me to mention that whilst I was in the island of Mauritius in the year 1889 one of the principal medical men there told me that he dreaded using the hypodermic syringe because he had repeatedly seen tetanus result from the pustules or abscesses that occasionally form at the point of injection. I was myself one evening called in to see a malarial patient to whom a *confrère* had, in the forenoon, given over a dozen hypodermic injections of a quinine solution. Tetanus had ensued eight hours after, and the case terminated fatally. On another occasion a neighbour similarly treated (three or four injections had been given) for malarial fever, got rid of his fever, but, on taking a drive a few days later on, he complained of stiffness at the back of the neck. This quickly developed into tetanus, from which he died. I have no right to believe that the needles used in the above cases were not clean, but, if the late Professor's Trélat's opinion be correct, that tetanus is due to a microbe inhabiting the horse, I can easily conceive how the medical man in Mauritius, who drives in his buggy by the side of his coachman or groom, unwittingly becomes the contagion-bearer to his patient. With regard to the treatment, the one which seemed to give good results at the Civil Hospital of Port Louis was a stimulating liniment composed of capsicum and lin. sinapis co. rubbed all over the body, in addition to the administration of large doses of chloral internally.

DISLOCATION OF OUTER END OF CLAVICLE.

MR. GEORGE HARDEY (West Haddon) writes: Surgeon-Major Hamilton's interesting case of dislocation of the outer end of the clavicle upwards induces me to ask of your readers whether they have ever seen this displacement reduced. I have never seen the end of the clavicle again brought into apposition with the acromion. In labouring men the accident occurs from the person falling upon the point of the shoulder when carrying a weight on the opposite shoulder. In the hunting field it occurs from the person being pitched upon the shoulder; the arm being fixed to the side, the acromion is drawn downwards and the trapezoid ligament ruptured; the coracoid may also be injured. The case treated as a fracture of the clavicle gives a good result, but most surely the clavicle never comes into place again. I have known a "bone-setter" call this accident a "fractured shoulder." It is desirable that this kind of case should be seen by another surgeon, the accident explained to the patient, or it may be made an advertisement against the medical man in charge of the case.

CONSUMPTIVE PATIENTS SENT TO VICTORIA.

MRS. M. G. SERJEANT (57, Russell Street, Melbourne), co-founder of the Sanatorium for Consumptives, Echuca, Victoria, writes: Nearly every weekly steamer brings us consumptive sufferers, numbers of them penniless, only to die in loneliness and exile.

For the past three years my friend, Mrs. Henry Varley, and myself have been doing all we can for this class of sufferers. With the assistance of friends, we took a house to accommodate fourteen at a time, inland and in a dry atmosphere; but, alas! we cannot provide for a tithe of the poor sufferers who apply to us, who have left England vainly thinking that a voyage and residence in Melbourne will cure them. Who can describe their heart-break to find they are doomed to die, far away from home, and friends, and comforts, which they have no means to procure? The majority of the patients we send up go quite free, but a graduated charge is made to suit their circumstances if they have a little money, but 25s. a week is the highest; this includes doctor and trained nurse; some pay 10s., some 15s., the deficiency is made up by public subscriptions, but we are finding it harder each year to raise the funds, as the Victorians naturally say, "Why should the dying, penniless people be sent here?" And the pronounced cases of advanced phthisis that constantly arrive, and tell us they are sent by their medical man, is increasing. I want to ask these gentlemen if they realise what it is to exile a dying man to a far-off land with false hopes, forcing him to be dependent on the charity of strangers; and I would urge that more care be taken. In very early cases of incipient phthisis a residence in inland Australia does good; but the patient must have the means to provide for himself, as up-country life is rough and hard, and even the best accommodation is very comfortless. My late husband, Mr. George Serjeant, Surgeon, himself a sufferer from pulmonary disease, took a great interest in these sufferers, and to him is due the small home where we receive them, and for his dear memory's sake I help to carry on the work. I enclose you a short account of it, and would gladly correspond with people who wish to know more about it, but I do trust the cruelty of recklessly sending hopeless cases will be checked.

*** The accompanying document states that during the first two years over 100 patients were received in the sanatorium, which is managed by a matron and a local visiting committee. There is also a central committee, which meets monthly in Melbourne, under the presidency of Mr. Theo. Kitchen, of Kew.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Dr. Althaus, London; An Associate; Mr. R. Ackerley, Ashburton; Mr. W. Anderson, London; Anatomical Society of Great Britain and Ireland, Secretary of the, London; Messrs. Allen and Hanburys, London. (B) Dr. R. D. Batten, London; Mr. H. Barclay, South Canterbury; Mr. W. Bartlett, Bideford; Dr. E. Berdoe, London; Mr. G. A. Bromfield, London; Dr. T. H. Barendt, Liverpool; Dr. A. G. Bateman, London; Miss A. H. Beal, Roseneath; Dr. Fletcher Beach, Dartford; Mr. W. Black, Edinburgh; Mr. M. Strahan, Dublin; Mr. E. H. Brook, London; Sir G. Buchanan, London; Mr. H. C. Bourne, London; Mr. T. Browne, Isle of Man. (C) Cynic; Mr. C. C. Claremont, Southsea; Mr. W. Bruce Clarke, London; Dr. G. Cowen, New Malden, Surrey; Mr. H. Collier, London; Dr. Leonard Cane, Peterborough; Mr. J. Brenden Curgenven, London; C. F. P.; Dr. E. Kenneth Campbell, London; Mr. P. Campbell, Usk. (D) Dr. S. D. Delépine, Manchester; Mr. C. J. Drummond, London; Mr. A. Doran, London; Mr. J. Dickie, Grimsby; Dr. T. O. Dudfield, London; Mr. Percy Dunn, London; Dr. J. Dreschfeld, Manchester; Dr. L. Drage, Hatfield; Dr. A. Duke, Dublin; Dr. J. Dilworth, Fermoy; Dr. Dukes, Croydon; Messrs. Park Davis and Co., London. (E) Mr. S. G. Edge, Norwich; Mr. G. Evans, Llanelly; *Electrical Review*, Editor of the, London; Mr. J. R. Elicott, Buffalo, New York; Dr. J. Edmunds, London; Mr. J. Elliott, Smithborough. (F) Dr. W. Frier, Waringstown; Fair Play; Mr. E. J. Foulston, Liverpool; Sir Joseph Fayrer, London; Mr. G. Foy, Dublin; Major L. Flower, London; Felix; Mr. H. J. Ferdinando, Calcutta. (G) Dr. G. Lovell Gulland, Edinburgh; Dr. E. Goodall, Wakefield; Mr. R. J. George, Port Isaac; Mr. J. B. Griffiths, Enfield. (H) Humanity; Dr. Hacon, Christchurch; Dr. A. Hill, Birmingham; Dr. Halliburton, London; Hamilton Association, Secretary of the, London; Dr. W. H. Hamer, London; Mr. W. E. Hoyle, Manchester; Mr. J. Lawrence Hamilton, Brighton; Mr. J. Spencer Hill, London; Dr. C. A. Harvey, London; Dr. A. C. Hartley, Bedford; Mr. L. M. Hungerford, Dongarra; Mr. A. D. Hughes, Solva; Mr. T. Holmes, Woodbridge; Mr. R. E. Haines-Cory, Bournemouth. (I) Inquirer. (J) Mr. J. Brindley James, London; Dr. C. E. James, Kilkenny; Dr. R. Jones, Redhill, Surrey; Mr. V. L. W. Jones, St. Clears; Dr. Joyce, Cranbrook; Mr. G. S. Johnstone, Birmingham. (K) Mr. E. C. Kingdon, Nottingham; Mr. A. A. Kanthack, Cambridge; Dr. Norman Kerr, London; Dr. J. F. Keith, Hyderabad, Sindh. (L) Mr. D. Legge, Smethwick; Law Life Assurance Society, Manager of the, London; Dr. Lush, Weymouth; Dr. Lattey, Southam; Mr. F. Lancaster, London; Surgeon-Captain S. F. Lougheed, M.D., Bengal; Mr. T. G. Lithgow, Farnborough. (M) Dr. L. Marshall, Nottingham; M.D.; Mr. G. H. Makins, London; Mr. P. Michelli, London; Mr. J. M. Miller, Largs, Ayrshire; Mr. James MacMunn, London; Mr. E. T. Murdoch, London; Mr. J. MacKenzie, Farnmouth; M.R.C.S.; Surgeon-Captain M. D. Moir, Helensburgh. (N) North-Eastern Hospital for Children, Secretary of the, London; Mr. R. G. Naylor, Audlem; N. G.; N. E. R.; Mr. P. Newell, Crowborough; Nemo; Mr. F. Nichols, Deacon. (P) Mr. T. Percival, Knottingley; Mr. F. Purvis, Paris; Mr. D'Arcy Power, London; Mr. A. Porter, Spalding; Dr. H. Campbell Pope, London; Mr. J. J. W. Pearcey, Accrington; Surgeon-Major J. C. H. Peacocke, Karachi; Mr. F. T. Paul, Liverpool; Mr. M. Paterson, Grangemouth; Mr. T. H. Pounds, Derby. (R) Mr. A. W. Mayo Robson, Adel; Royal College of Surgeons of Ireland, Registrar of the, Dublin; Mr. C. Roberts, London; Mr. A. M. T. Rattray, Portobello, N.B.; Dr. G. Reid, Stafford; Mr. G. H. Robertson, London; Mr. L. A. Ruffer, Goldner Adler, Nürnberg; Messrs. Rogers, Chapman, and Thomas, London; Mr. A. Rajasingham, Aberdeen; Mr. G. Robertson, Insch, Aberdeen. (S) Mr. N. W. Spicer, Chard; Surgeon-Captain, Pirbright; Seloc; Mr. W. Stockwell, Bath; Mr. G. A. Sala, London; Messrs. E. Street and Co., London; Mr. Severin Senator, Berlin; Mr. H. Symmonds, Oxford; Mr. H. M. Speechly, Herne Hill; Mr. W. Johnson Smith, London; Dr. E. H. Starling, London; Scotus; Mr. W. Stockwell, Bath; Mr. M. Smale, London; Society of Apothecaries, Secretary of the, London; Sister Elsie, London; Dr. Anderson Stuart, New South Wales; Mr. E. Street, London; Dr. C. G. Skinner, Manchester. (T) Mr. H. E. Thornton, Nottingham; Mr. W. H. Tomlins, Droitwich. (U) Dr. Urquhart, Perth. (W) Mr. W. Roger Williams, Preston; Mr. E. White Wallis, London; Dr. Bertram C. A. Windle, Birmingham; Dr. W. Hale White, London; Mr. Wynn Westcott, London; Mr. G. R. Williamson, Newcastle-on-Tyne; Dr. D. Wilson, Lenzie. (Y) Dr. Burney Yeo, London; Mr. N. E. Yorke-Davis, London; etc.

BOOKS, ETC., RECEIVED.

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Annual Register of Births and Marriages. By A. Locke. 1891. London Charles Dickens and Evans. Price 10s.

St. Thomas's Hospital Reports. By Dr. Hadden and Mr. Anderson London: J. and A. Churchill. 1892.

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Traitement de la Phtisie Pulmonaire. Par G. Daremberg. Paris: J. Rue et Cie. Price 3f. 50c. 1892. Vols. 1 and 2.

The Structure and Functions of the Brain and Spinal Cord. By Victo Horsley, B.S., F.R.C.S., F.R.S. London: Charles Griffin and Co. 189

De la Périnéotomie et de ses Applications. Par le Dr. Ch. Willem Paris: Vve Babé et Cie. 1892.

*** In forwarding books the publishers are requested to state t selling prices.

ADDRESS IN BACTERIOLOGY

BY

G. SIMS WOODHEAD, M.D.Ed., F.R.C.P.Ed,

Director of the Laboratories of the Royal Colleges of Physicians (Lond.) and Surgeons (Eng.).

At the Annual Meeting of the British Medical Association held at Nottingham, July, 1892.

Mr. President and Gentlemen,—Had it been announced twenty years ago that one of the annual addresses delivered before this Association would be devoted entirely to a review of the subject, or part of the subject, of bacteriology, such announcement would have been received as coming under the category of prophecies not likely to be fulfilled, and, gentlemen, without claiming any very large share of modesty or self-depreciation, I cannot but feel that it is to the unexpected fulfilment of this imaginary prophecy that I owe my present position—a position that would be only too eagerly sought after from the honour that its occupation confers on the holder, were it not that the responsibilities placed on his shoulders must necessarily weigh heavily enough to interfere most seriously with the full enjoyment of the honour.

Bacteriology, though a comparatively new science, has already made so deep an imprint on the science and practice of medicine that the enumeration in catalogue form of the various facts upon which, according to our present knowledge, the solution of important medical and surgical questions depends, would occupy a much longer time than we have at present at our disposal; it will be my aim, therefore, to indicate very briefly the extension and limitation of bacteriology in its relation to medicine. It may be stated at the outset that in this matter extremists have little claim to be considered, and that, although most thoughtful men maintain that bacteria play a most important *rôle* in the production of disease, it is equally certain that no claim for anything beyond such important share can be claimed for the most virulent of pathogenic microbes.

Outside the question of the relation of micro-organisms to the special forms of surgical fevers, a knowledge of the life-history of bacteria and the relation of these organisms to specific infective disease is essential to every scientific student of medicine; so definitely, indeed, has this come to be acknowledged, that in all our Public Health examinations a knowledge of bacteriology is insisted upon, whilst in many of our civil and military appointments both at home and abroad a fairly intimate knowledge of the theories as to the relations of bacteria to disease is looked upon as constituting a most important qualification in the case of candidates presenting themselves for examination.

If, then, the public services are taking up this position, how much more important is it that an important Association such as that which I have now the honour to address should wish to encourage its study by such means as they have in their power. As you, gentlemen, are aware, some of the earliest and best work on bacteriology has been done by some of your research scholars, and many of those who have begun this work under the auspices of our Association have made it part of their life work. To mention one example only out of many, Mr. Watson Cheyne's accurate work on the Life-History of the Bacillus Tuberculosis, and on the Special Relation of this Bacillus to Tubercle of Bones and Joints, forms a most valuable contribution to bacteriology and surgery.

It has been too much the fashion to look upon bacteriology as an art rather than a science. It was supposed that if we were able to obtain evidence that a definite micro-organism was associated with a specific disease, and that if we could find a means of destroying this organism, or of preventing its access to the tissues, the limits of bacteriological teaching would be reached. Thanks, however, to the genius of such men as Pasteur, Koch, and Lister, bacteriology is now looked upon as a branch of science the study of which may afford us help in the solution of even fundamental problems in biology; it has assumed such importance, that into its service have been pressed the general biologist, the botanist, and the pure physiologist; whilst all who practise medicine and surgery feel that they must, at least, be conversant with the principles that underlie its study. I know there are some who will not agree with this, and who will tell us that we are bacteria mad; and whilst acknowledging that in taking up this comparatively new subject we may have been led to attach undue importance to it, it must be conceded that, studied in its broader aspects, it has enabled us to grapple with some of the most difficult questions in medicine. Can an astronomer be accused of narrowness of vision because sometimes he is found looking through the telescope which covers a limited field, and is studying with especial care a small area of the heavens? Which of us can tell of the boundless space and the countless worlds that are opened up by these seemingly narrow studies? The observer collects his data, applies the laws of physical science as at present set forth, formulates and proves new laws, and opens up and argues on a world so utterly beyond us, that his facts to those uninitiated read like the wildest fiction, and his descriptions like poetry and romance.

It would be a waste of time, gentlemen, were I to attempt to trace the history of fermentation, of putrefaction, of septic conditions, and of the relation of bacteria to certain diseases, but it may perhaps be of advantage to insist that there has been a continuous evolution and extension of our theories in regard to the nature of the action and interaction of bacteria on the tissues and organs of the human body. First, there was the mechanical theory, in which it was maintained that death of the host was due to the impaction of groups of micro-organisms in the capillary vessels; then came the theory that these organisms used up the oxygen so rapidly that the tissues received an imperfect supply, and somatic death ensued. Both of these may be partial explanations, but we have now presented to us quite different explanations. The administration of phosphorus is followed by grave changes in the tissues, and fatty degeneration occurs—how this is brought about it is difficult to say; similar degenerations are found in certain diseases set up by micro-organisms. Do such organisms, then, when introduced into the body, act directly by taking up and using for their own purposes the oxygen which would otherwise be applied to the nutrition of the tissues? This appears to be very unlikely. Do they attack the tissues directly, making their way into their substance, and so devitalise them that they are unable to perform their proper functions? Do the products formed by these organisms act directly on the cells, and interfere with their functional activity, causing direct devitalisation and degeneration of the protoplasm? Do the cells when called upon to perform extra work in getting rid of these organisms or of their products—which in either case must be looked upon as foreign bodies—undergo such excessive stimulation that the supply of oxygen is not equal to the demand, so that the functional activity of the cells is in excess of their facilities for nutrition, their protoplasm then undergoing changes described as cloudy swelling, followed by fatty degeneration exactly like those met with in phosphorus poisoning?

At one time it would have been deemed impossible to answer these questions; but as the study of the chemistry of bacteria has been utilised, our information on these points has become more and more definite, and as such definite information has been obtained, it has become possible to indicate some at least of the processes that are going on in certain of the specific infective diseases, and to draw inferences, some of which, however, have still to be put to the proof, as to the methods to be adopted in waging war against bacteria.

One of the most important outcomes of the study of the relations of bacteria to disease is that we have now a pathological chemistry, which, though only in its infancy, has a great future. Hitherto physiological chemistry has merely been elaborated and extended in order that it might be applied to the examination of certain products and excretions met with as the result of diseased conditions of various organisms; but beyond enabling us to make search for slightly modified physiological products, this physiological chemistry has helped us but little.

The influence that bacteriology has had on medicine and surgery is best appreciated when some special process or condition is followed in its etiology, progress, and termination;

for example, the study of bacteriology has revolutionised our conception of the whole subject of inflammation, and has enabled us to bring into harmony theories and interpretations of facts which hitherto have appeared to be diametrically opposed to one another. Virchow's observations on the changes in the fixed and parenchymatous cells were supposed to clash with the processes of emigration of leucocytes and changes in the walls of the vessels set forth by Wharton Jones, Waller, and Cohnheim and his disciples. A battle royal waged between those who held that there could be no inflammation without vascular phenomena and those who maintained that these vascular phenomena were merely secondary events. Metschnikoff points out, however, that in the human subject and the higher animals, on which experiments were at first exclusively made, it is impossible to set up any definite irritative changes without calling to our aid traumatism or some form of chemical irritation; and also that in such experimental subjects even the tissues which in a normal condition are extravascular have, under the slightest irritation, a tendency to return to their embryonic vascularised condition. It was then found that certain bacteria when introduced into the tissues had the power of setting up rapid inflammatory changes; and lastly, when the pathologist and the zoologist combined to ascertain whether changes comparable to those set up in inflammation could be set up either by bacteria or through their irritant products, when brought in contact with lower unicellular organisms or with simple organisms in which no blood vessels are ever developed, another advance was made.

Roser (quoted by Metschnikoff) maintains that inflammation is a disease due to infection by microbes, and that the phenomena observed in repair are really the result of inflammation, or rather that they constitute those processes that end in resolution or the cure of inflammation itself. At one time such a theory would have been received with ridicule, and even now it is impossible to prove that inflammation is in all cases due to the presence of micro-organisms or their products.

It is only by a careful study of the processes described as occurring in lower organisms that we can gain any accurate conception as to the differences in the processes set up by mechanical injury and those induced by the presence of micro-organisms. But we have now undoubtedly come to look upon inflammation as only one of a series of changes, all of which work towards a definite end: first, the getting rid of foreign bodies, whether organic or inorganic, whose presence might exert a deleterious influence on the tissues in which they are lodged; and secondly, to repairing the breach that has been left at the point at which these foreign bodies have entered or been ejected.

The soluble products derived from pure cultures of micro-organisms are now known to be composed of a large number of different substances, to isolate which various attempts—many of them unsuccessful—have from time to time been made. None have been more successful than those carried on in this country by Burdon Sanderson, Sidney Martin, Brunton and McFadyean, R. W. Philip, Hankin, Ruffer, Crookshank and Herroun, William Hunter, Cartwright Wood, and others whose work, though not so frequently referred to, is still of great value. To no one was this fact more evident than to one whose loss to pathology we have now cause to deplore. I refer to Sir William Aitken, whose death deprives the profession of one whose greatest concern it was to advance and encourage the study of pathological chemistry—especially in the sense in which we are now using the term—amongst his followers. His address delivered before the Pathological Section of the Association at the meeting held in Glasgow was full of suggestion and of the results of research. He had grasped the true value of the subject, and, although in recent years, owing to failing health, he had been unable to carry on original research himself, he was still able to leave the imprint of his mind on the subject the welfare of which he had so near at heart, by the encouragement that he gave to younger men, both by his advice and by the enthusiasm which he still retained with his ripening experience.

In order that we may focus more accurately the nature of the work which has been done in this connection, let us confine our attention to a single disease—diphtheria—in which, as the result of the use of bacteriological and chemical methods in its study, we can now recognise with a moderate degree of certainty, not only that we have to do with a specific organism, but also how it acts.

Loeffler, who first made pure cultures of the diphtheria bacillus, originally described by Klebs, found that, after removing the microbe from the liquid nutrient culture medium, by passing it through a cylindrical porcelain filter and injecting the filtrate into a guinea-pig, he was able to determine not only the same kind of local reaction that was obtained when the organism itself was introduced into the subcutaneous tissue, but also those paralytic symptoms, so characteristic of the later stages of diphtheria. Then by extracting with a watery solution of glycerine, filtering, and dropping the filtrate into absolute alcohol he obtained a flocculent precipitate, which could be washed and rewashed with alcohol without passing into solution. This substance, readily soluble in water, still retained its power of setting up distinct local reaction after being washed, dissolved, reprecipitated, and again dissolved.

Roux and Yersin, accepting Loeffler's statement that the poisonous material appeared to be a ferment-like body, repeated and extended his experiments. They made observations on the nature of the swelling set up at the point of inoculation by the organisms or by the poisons; they noted that, although there might be congestion and effusion into the serous cavities, evidences of fatty degeneration of the liver and kidney, and characteristic diphtheritic paralysis, no organisms could be found beyond the seat of inoculation. From this they argued that the poison formed at the seat of inoculation must be diffused by the lymphatics and vascular circulation into every part of the body; that it might attack the nervous and muscular tissues, especially, apparently, the peripheral nerves, so giving rise to degenerative changes in them and in those tissues which appear to be involved in the process of conversion, secretion, and excretion of the poisonous substances.

These observations were entirely in accord with clinical experience. The degenerations that are met with in the kidney and the liver in cases of diphtheritic animals are essentially similar to those found in children who have succumbed to this disease, whilst the symptoms of peripheral paralysis and the changes in the nerves appear in the two cases to correspond in the most minute features. These observers were convinced that it was some special part of the products of the diphtheria bacillus that gave rise to these symptoms, and they, after various experiments, came to the conclusion that the active substance was not actually precipitated by the alcohol, but that it was entangled and carried down by the alcoholic precipitate.

Sidney Martin, going a step further, succeeded in separating definite substances, each of which, appearing to exert a definite effect on certain tissues and functions, gives rise to special symptoms and pathological changes. He compared their physiological effects with similar or allied substances obtained from anthrax patients and cultures, and from cases of ulcerative endocarditis and tetanus and found that the albumoses—intermediate products between non-dialysable albumens and dialysable peptones, substances comparable as regards their structure and chemical reactions to those formed during the process of peptic digestion—could be separated not only from the membrane of diphtheritic patients, but also from the spleen and blood of the same patients, and from pure artificial cultures of the Klebs-Loeffler organism as cultivated by Klein and himself, and that they produced very definite local effects when injected subcutaneously—a condition that was usually accompanied by marked rise of temperature, paralysis, fatty degeneration of certain of the peripheral nerves—both motor and sensory—of the heart muscle, and in a minor degree of certain other organs. These features were observable even when a single dose only was given, but were much more marked when small but oft-repeated doses were exhibited. The marked wasting and degeneration, which in many cases appeared to be progressive and continuous, indicates that we have here to do with a direct poisonous action of the albumoses on the protoplasm of tissues that they specially affect.

Dr. Martin, who had previously described a powerful alkaloid or organic base in the products of the bacillus anthracis, and in the blood and organs of anthrax patients, was naturally led to look for a similar substance in the diphtheria products; but here, as if to accentuate the difference that may exist between the poisonous substances produced by two different organisms, he found not an organic base, but a substance which he speaks of as an organic acid, as, although it was separable by the same processes as those used to isolate the base or alkaloid, it was found to be acid in character. This organic acid had, however, the same (but markedly feebler) physiological action as the albumose, also giving rise to nerve degeneration.

In the diphtheritic membrane where, as in ulcerative endocarditis, the organism is growing on coagulated fibrin, a substance which is readily digested by, and prepared for, the nutrition of the organisms found in these diseases, albumoses are always found accompanied by an extremely virulent substance entangled in the proteid of the membrane, and precipitated by alcohol. This substance is similar in all respects to the ferment-like body described by Roux and Yersin. It is attenuated by heat, destroyed by boiling, and is characterised by the same (but more intense) physiological actions as the albumose and the organic acid, extremely minute doses producing very grave symptoms.

Diphtheria, then, is entirely dependent for its specific symptoms on the diphtheria bacillus, experiment corroborating in a most remarkable manner clinical observation. This bacillus does not readily attack healthy individuals, but where there is slight ulceration of the throat or slight fibrinous exudation on the surface of the tonsils or the posterior surface of the velum palati, diphtheria often makes its appearance. Sometimes the exudation appears to be associated with the local action of the diphtheria bacillus itself, but usually the diphtheritic process appears to be grafted on small patches of ulceration and exudations. Experiment offers the explanation of this fact. The diphtheria bacillus does not appear to have a very marked power of attacking healthy mucous membrane; but when it finds a nidus in devitalised cells or coagulated fibrin, it is able to produce its special secretion or "enzyme," part of which acting on the fibrin, just as the "enzyme" met with in the stomach acts on food, rapidly transforms the insoluble and undialysable fibrin into soluble albumoses, some of which in turn are utilised for the nutrition of the micro-organism, whilst the remainder of the "enzyme" and the products of its action on the fibrin, absorbed by the lymphatics and blood vessels, are carried into the system, where they act on the tissues and organs already mentioned, and, after being broken down into lower molecular combinations, are excreted. Before, however, we can accept this ferment-like body as an enzyme, the power of conversion of a large quantity of proteid must be more definitely proved.

It is to the presence of these three sets of products that the symptoms of diphtheria and the changes met with in the tissues are due, and, as Dr. Martin points out, all three sets of poisonous substances may be obtained from pure cultures of the specific diphtheritic organism.

In diphtheria, then, the bacillus is the primary infective agent. It, as a result of its vital activity, produces a powerful "enzyme"—Martin's secondary infective agent. Part of this "enzyme" acting locally on the coagulated fibrin on which the organism is subsisting, converts it into various soluble products known as albumoses; some of the "enzyme," being absorbed, continues the process of conversion in those tissues and organs in which it is allowed to remain long enough in contact with the proteids contained in the fluids of the body. This conversion, as Martin points out, is specially well marked in the spleen, through the spaces of which the blood passes extremely slowly, so that it is allowed to remain in contact with the "enzyme" for some time, during which the albumoses are broken down into much less complex chemical substances, the most important of these in diphtheria being the organic acid, whilst in anthrax it is an alkaloid or organic base, the less complex organic acid being less virulent than the albumose, whilst those bodies of still less complex molecular constitution appear to be little more noxious than ordinary effete products.

The semi-final product of the bacillus of anthrax is, however, the most active cause of death, the alkaloid exerting a far more powerful physiological action than the intermediate albumoses, which in diphtheria act so much more energetically. It is interesting to note how the definite changes set up by these poisons correspond to those set up by inorganic poisons, such as phosphorus, antimony, and some of the other compounds which induce fatty degeneration through a direct action on the protoplasm, which—unable to obtain extracellular material to carry on its functions under increased stimulation—has to fall back, as it were, on its own protoplasm, which is rapidly converted from proteid into fatty matter. Here, then, with the protoplasm overstimulated and wasted, and with the products still present in the blood, the process of wasting becomes more and more profound; owing to the previous wasting even normal stimulation is now excessive; the degeneration may go on even after the poison has been removed, and ultimately the patient may die of failure of certain organs when all danger from the direct action of the poison appears to have passed by. We now know that in the case of the microbes of blue suppuration, hog cholera, tetanus, tubercle, and some other diseases, the poison is actually combined with the protoplasm of the micro-organism, and it is quite possible that in these cases of "marasmus" the toxin may be given up for long after the organisms themselves are dead, and thus may keep up irritation and stimulation of the protoplasm; the condition of "marasmus" being thus continued after the microbes are dead, and therefore—as was at one time supposed—innocuous.

Bacteriological chemistry thus supplies another diagnostic factor in the detection of specific infective disorders. Martin points out that to Koch's four cardinal rules a fifth may be added, that is, that the secondary infective agent, the chemical poison separable from the tissues in the natural disease, should exert a definite physiological action, and that this should be similar both chemically and physiologically to the products obtained from a pure artificial culture of the primary infective agent—the micro-organism. Specific chemical differences may not always be present, but by combining what we know of the chemistry of these products with their physiological or pathological action we may still be able to determine how far a disease is specific and how far therefore it is due to the presence of a primary infective agent. By the assistance of the above factor it may be possible to unravel the etiology of certain disorders which up to the present have defied the most pertinacious efforts of the pathologist and bacteriologist.

But, gentlemen, it is not within the reach of everyone engaged in general practice to make chemical examinations; though, from the lucid way in which some of our recent workers have set forth their methods, it is a comparatively easy matter to carry on the first stages of the processes from which point the expert may continue the research. It is possible, however, as Roux and Yersin have pointed out, for everyone engaged in attendance on patients in whom the presence of diphtheria is suspected to settle the question for themselves, and to gain information not only for their own guidance in the treatment of the case, but also for the use of the medical officer of health, whose duty is often rendered both difficult and unpleasant, where any doubt as to diagnosis in such cases is present.

Roux and Yersin found that if they remove part of the diphtheritic false membrane by means of a platinum needle flattened at the end to form a kind of spatula, pass the same needle without recharging over the surface of a series of layers of specially-prepared blood serum, and incubate at from 33° to 35° C., the diphtheria bacillus is the only micro-organism usually met with that makes its appearance within twenty hours. Colonies visible to the naked eye as small rounded greyish-white points (the centre of which, owing to the somewhat greater thickness, is more opaque than the periphery) are then seen; so rapid is the further growth of these colonies that they are large, well-developed discs before any other organisms form colonies at all visible to the naked eye; from these pure cultures may be readily obtained, and may be examined at once or sent to some expert bacteriologist. The appearance and rapidity of the growth alone are quite sufficient to justify the medical attendant of the case in deciding that he is dealing with diphtheria, information which cannot be obtained by or linary methods of diagnosis, especially in those very doubtful cases, where the patches are comparatively small and ill-defined.

Quite recently Dr. Sahkaroff has utilised the boiled white of egg as a culture medium for this diagnostic purpose. He takes a boiled egg, removes half the shell with care, and with a knife that has previously been heated cuts from the surface small strips just large enough to go into a test tube, which may be sterilised by heat in the following manner. Put two-thirds of an inch of water into a test tube, plug the opening with cotton wool, and allow to boil briskly over a spirit lamp or Bunsen flame. As soon as a little more than half of the water has boiled away, put aside to cool; the egg is then placed in the tube. Cultures are made as on the serum, and incubated at from 35° to 38° C., and at the end of twenty-four hours small greyish growths, from which cultures or cover-glass preparations may be made, appear on the glistening surface of the coagulated albumen. This method may not be quite so accurate as the serum method, but it is so easy to carry out that it should prove invaluable as a diagnostic aid in doubtful cases of diphtheria.

I should here like to suggest that the Association for the Advancement of Medical Research, which has already done such valuable work, not only in encouraging but also in controlling research, might undertake to assist in this matter. If properly supported by the profession, it might undertake to supply media of various kinds to those who wish to engage in this kind of work, for, although it is entirely a matter of money at present, it cannot but be felt that a small subscription (if a large number of members of the profession would take this in hand) would be ample to enable such a scheme to be carried out, and, moreover, although I do not see how the Conjoint Colleges could be expected to do more than they have done in facilitating research in this country, I feel sure that if any well-matured plan, backed by sufficient funds to pay for a couple of young men who, with slight training in experimental work, would be able to prepare and do the rough examination of material, were placed before them, they would not be unwilling to place some accommodation at the disposal of the Society in order that the scheme might have a fair chance of proving successful. A retaining fee might be paid to certain experts whose duty it should be to give reports on specially interesting cases. At present there is no organisation or centralisation; specimens, badly preserved, are sent up in a haphazard way, accompanied or followed by a note to the effect that it is hoped that the person to whom they are sent will examine and send a report if the expert happens to be interested in the special subject he will make a very thorough examination, and will forward a report sooner or later, if he is not, there are ten chances to one that the specimen will be left until he has sufficient leisure without it interfering with his own proper work, and as young men of our profession are, as a rule, not endowed with too much of the good things of this world they are usually so occupied with their own investigations and with trying to make both ends meet, that the examination is put off to the Greek Kalends. If, however, men were specially retained and paid a moderate fee for each investigation, they would be eager to do the work and would feel that they were not neglecting their own interests or the interests of those depending upon them, whilst those for whom the examinations are made would have far less reluctance in sending specimens for examination were they but assured that they were taking up no one's time without making some adequate return. Not only so, but an investigation for which a fee is charged is always of more value both to practitioner and patient than an examination—done in the leisure moments of a friend or acquaintance—for which no charge is made.

I should not have mentioned this matter did I not believe that pathology suffers very greatly from the want of some such organised plan of work; it is not a matter which any private individual can take up, but it is one that if taken up by the Association mentioned—especially if backed up by a grant from this Association—might prove of enormous value to the profession at large. It would, of course, be necessary to make a fixed charge for each examination, the charge varying with the nature of the work, but it might be that every subscriber of a guinea and upwards per annum should have the privilege of having his specimens examined for half the tariff price.

I had intended to deal to-day with the subject of antitoxins—that is, substances which are said to be formed when bacteria or their poisonous products are injected into the fluids or tissues of an animal; and which are supposed to be the important factors, not in the production of immunity, but in the actual cure of specific infective diseases. I find, however, that Dr. Sternberg, in a recent address on the practical results of bacteriological researches,[1] goes into this matter very thoroughly, and gives a short summary of the result obtained in numerous experiments with anthrax, rabies, diphtheria, tetanus, croupous pneumonia, swine erysipelas, and also with ricin (the active poisonous principle in the castor-oil bean), and abrin (the similar product of the jequirity bean), all of which are brought forward to support the theory that wherever a poison is developed in the body, an antitoxin—a substance which is supposed to neutralise the effect of the poison—is rapidly developed, with the result that neither specific organisms nor their poisons can continue to have any effect on the animal host. Many of the experiments made by different observers who have laid claim to the presence of these antitoxins have failed to give results in the hands of other workers. It cannot, merely on this ground, be assumed that the first results are inaccurate, for all who have experimented with bacteria know only too well that the results they have been able to obtain have differed so greatly when the conditions of the experiment have been only slightly modified, that the personal element of the equation in these problems, in which we are to a certain extent groping in the dark, must necessarily be a most important factor. On the other hand, it should be distinctly understood that until the crucial experiments have been repeated time after time in different schools, and under all known conditions, by all who are determined to obtain reliable data, we are not justified in accepting them as proved.

Allowing that many of the experiments are perfectly reliable, the results obtained by various workers at different diseases have been so contradictory that it may well be asked what is the explanation of such divergences. In the first place, there is not a sufficiently marked line of demarcation drawn between the curative effect of the antitoxic action and the production of immunity; the two are perfectly distinct, though they are too frequently inextricably confounded in respect to the interpretation of experiments. For example, it is quite possible that an antitoxin when introduced either into a pure culture of a specific organism or in the body of an animal in which this organism is growing, may prevent or neutralise the action of the toxin formed by this same organism whilst it may not exert the slightest influence in inducing an increased insusceptibility to the attack of the same organism; on the other hand, it is found, as Metschnikoff has recently demonstrated for hog cholera, that the serum from an animal vaccinated against this disease (which is then supposed to contain the antitoxin), just as in the case of serum from an unvaccinated animal, allows of a most luxuriant growth of the hog cholera organism, and that it certainly exerts no antitoxic action when injected into an animal suffering from the disease. But when the serum from a vaccinated animal is injected from time to time into the circulation of a non-vaccinated animal, which is, sometime afterwards, inoculated with hog-cholera virus, it is found to confer, just as Martin found in anthrax blood similarly treated, a very marked insusceptibility to the disease, whilst the serum of animals not previously rendered immune to the disease, when injected into non-vaccinated animals, exerts no protective influence, the disease being developed just as in animals previously unexperimented upon.

If now we consider that this serum from vaccinated animals serves as an excellent cultivating medium for the growth of the micro-organism of hog cholera, as, too, we find that when sterilised products of a culture of hog cholera bacillus or the blood taken from an immune animal do not interfere with the action of the special poison when introduced simultaneously into the circulation, it must be concluded that such sterile product does not act directly either on the bacillus or on the poison produced by the bacillus; on the other hand, as this same substance introduced into the circulation of the animal undoubtedly exerts a certain protective influence, we are compelled to the conclusion that this serum—or rather some body present in it—must act directly on the protoplasm of the cells of the body. Metschnikoff argues

[1] *Intern. Journ. of the Med. Sci.*, July, 1892.

that it must act as a specific stimulant, for it is generally accepted that there is a specific protection for most specific diseases.

It is, of course, not necessary to assume that only the migratory leucocytes are so modified, for although the leucocytes, on account of their motility and powers of migration and emigration, are first called upon to resist the attacks of invading organisms and their products, all the cells—especially those in contact with the circulating fluids—must become modified as they come in contact with the circulating poisons, and thus be gradually inured to carry on their work, even under extremely disadvantageous conditions, for there can be little doubt that these other cells have frequently to help, under special stimulation, to join issue with the micro-organisms and their products that have passed beyond the sphere of operation of the leucocytes at the point where the primary invasion occurs.

It is to this ultimate modification of the protoplasm of the cells of the body under the influence of organic or inorganic therapeutic agents that we must look for our future triumphs in the treatment of specific disease where vaccination has not been resorted to, or has failed. Of this direct action on protoplasm there are only two or three examples, but there can be little doubt that quinine and arsenic in malaria, and mercury and perhaps iodide of potassium in syphilis, act somewhat in this manner.

Should it be definitely proved that antitoxins are formed as the result of the action of certain bacteria on the tissues and fluids of the body, an antitoxic method of treatment—as at present within our reach—could prove of little practical value, for in the cases where any definite results have been obtained, very large quantities of the blood or serum from immunised animals have been used in order to obtain the results described, and it is difficult to imagine how it would be possible to obtain for our purpose sufficient of the specific antitoxins from living animals, however vaccinated; whilst the risks to patients would be so great that such treatment would be unjustifiable. We may, however, still hope for something better.

There is one point of view from which we must look at these chemical products quite apart from the organisms that produce them. One of the theories as to the effect of such chemical poisons in protecting an animal against the attacks of any but the most virulent organisms or against enormous doses of less virulent organisms must, so far as our knowledge goes, be based on what may be called the acclimatisation theory, according to which various cells and tissues of the body become so accustomed to the presence of certain poisons when administered in small but gradually-increasing quantities, at definite intervals, that when large doses are actually formed within the body, the tissue cells are still able to react, to carry on their phagocytic functions, and thus to treat pathogenic organisms as mere saprophytes. Such a consideration as this would at present lead us to classify the methods of inoculation into at least two groups: (1) those where the tissues have to become accustomed to the presence of a poison only, as in diphtheria and endocarditis, in both of which the poison can be developed only at the surface of the body, where fibrin or some similar substance is present but is so far removed from the action of the cells that the organism is able to grow and produce its special poison, the local tissues being directly attacked by both bacilli and poison but the general tissues having the poison only carried to them.

Tetanus might also be included in this group, though here the conditions are somewhat different. Here it may be possible so to acclimatise the tissues (as also in the case of hydrophobia) that the poison which, under ordinary accidental conditions, finds its way into a wound would have practically no effect, in which case the organisms introduced at the same time would also be dealt with by the tissues. In the case of diphtheria and infective endocarditis, where an enormous quantity of poison may be formed, and where, as we know, products administered experimentally have devitalised the tissues instead of increasing their resistance, the hope of inoculation proving useful does not seem to be very bright, though it may be that the introduction of exceedingly minute doses at certain definite intervals may confer a certain degree of protection. Where, however, pathogenic organisms are able to make their way into the lymphatics and blood vessels, the prospects of obtaining good results from inoculation are much more favourable, as, if once an animal can become accustomed to the presence of the poison, the microbe itself can have little chance with the leucocytes and the tissues.

The two processes—the antitoxic and immunisation by specific acclimatisation—are perfectly distinct from those on which Koch's treatment of tuberculosis is said to depend for its success. If a certain quantity of a sufficiently dilute escharotic be injected under the skin, slight inflammation accompanied by exudation of leucocytes, proliferation of the connective tissue cells, and localised formation of new connective tissue, is set up. If, however, a first dose be followed by a second, a second by a third larger and more concentrated dose, the tissues may undergo necrotic changes, a slough is formed, and what is called reaction takes place; the slough gradually separates from the reacting tissues in which connective tissue is formed. This is exactly what takes place when tuberculin is administered: the tuberculin alone is not sufficient to cause any serious damage to the tissues, but, along with the poison that is formed by the tubercle bacilli in the areas affected, it intensifies the necrotic action associated with tubercle, especially in the immediate neighbourhood of the bacilli, and in this way the partially devitalised or dead tissues may be got rid of more rapidly by sloughing than in cases in which no treatment is attempted. Sad experience, however, has taught us that the increased dose of the poison so acts on the tissue in the zone some distance from the area of actual sloughing, that in certain cases at any rate it becomes much more susceptible to the attacks of the tubercle bacilli, and thus the disease seems to spread more rapidly after the administration of tuberculin; and although it is possible, though certainly not yet proved or even probable, that very minute doses of tuberculin may have a salutary and perhaps a protecting influence on the tissues, the clinical results up to the present have not been sufficiently satisfactory to encourage the hope that we have in tuberculin a substance that will exert any permanent favourable influence on the course of an attack of tuberculosis.

It is fitting that at a meeting of medical men whose aim is the advancement of science, some slight attempt should be made to show that one of the greatest advances in the history of bacteriology has been initiated by members of this Association. It is only recently that in again going over the literature of anthrax I have come to a knowledge of certain facts. Although I was constantly associated for eight years with my friend and master, Professor Greenfield, he never once mentioned a claim to what I now look upon as justly his due in connection with the preventive inoculation of anthrax.

Duguid, as reported by Burdon Sanderson in 1880, had observed, in 1878, that when splenic fever or anthrax is transmitted by inoculation from cattle to small rodents, such as small guinea-pigs, and then back again to cattle, the character of the disease so transmitted is much milder than that of the original disease acquired in the ordinary way; the rodents die but the bovine animals inoculated with their blood or with the pulp of their diseased spleens recover. There seemed to be little doubt at the time these experiments were made that the question as to the attenuating effect of passing the bacillus anthracis from a cow to a guinea-pig had been settled, though from the fact that cattle appear to be much less susceptible to direct inoculation than they are to the bacillus when introduced by the alimentary tract, doubts have been expressed as to the real value of these experiments as although the same anthrax when passed through a series of guinea-pigs appeared to have its virulence diminished, there was not sufficient proof given that the attenuating influence which appeared to exist extended to those cases where feeding experiments were conducted. These doubts, however, cannot detract from the value of the observations made, as they were, at so early a period.

In view of Pasteur's success in the production of an attenuation of the microbe of fowl cholera this appeared to give promise of successful results in the production of immunity against the attacks of anthrax. In May, 1880, Greenfield, who at the Brown Institution had made careful cultivation and inoculation experiments on the anthrax bacillus, announced in "An Enquiry into the Nature, Cause, and Pre-

vention of Splenic Fever, Quarter Evil and Other Diseases,"[2] that he had been able by artificial means to prepare a protective anthrax virus.

After referring to Duguid's experiments and the results obtained by the direct method of inoculation, Greenfield says: "Seeing that the object of my experiments was to inoculate bovine animals with a virus modified by its transmission through the guinea-pig, it may appear that it would be desirable, in order to have the full effect of such modification, either to inoculate directly from the guinea-pig or from a cultivation not far removed from it. But there would be many practical advantages if it were found that, having once transmitted the virus through one guinea-pig or a series of them, its modified property was subsequently maintained in the artificial cultivation. I have therefore kept this in view, and have tested the effect of successive generations of the artificially prepared poison," and he further says "it would have been a great advantage if I had been able to test side by side with these cultivations derived from the guinea-pig other cultivations derived direct from a bovine animal. But in every case cultivations from the latter have failed owing to the commencement of decomposition in the material sent to us."

Using an infusion of the hay bacillus or aqueous humour of the sheep or ox, more especially the latter, Greenfield made his cultivations in closed glass tubes, about a quarter of an inch in diameter, drawn out at both ends to a fine capillary tube and sealed. These tubes, about an inch in length, and half filled with cultivating fluid, were carefully inoculated with a capillary tube containing a minute quantity of the blood, or only rubbed on the spleen of the animal which had died of anthrax, were sealed immediately after inoculation, and kept at a temperature of about 35° C.

After carefully describing five experiments made on cattle and sheep, in which the results were certainly most satisfactory, Greenfield says "it must be evident to anyone who considers the matter that there are many points which must be determined by experiments of a much more extensive character than any I am able to carry out at the Brown Institution. If, as I hope, it should prove on further experiment that the earlier results are confirmed and that the inoculation of bovine animals with the bacillus anthracis cultivated artificially after transmission, through guinea-pigs or some other animal, serves to render bovine animals totally or partially insusceptible to the disease when transmitted by the usual channels, one great step will have been taken. But there will yet remain the questions—Is the mortality from inoculation by this method a high one, or do even a small percentage of animals die? What are the conditions under which inoculations may be best performed, and does age exercise an important influence in the fatality? And, lastly, for how long a period is protection from attack conferred?"

"To settle these points the inoculation of a large number of animals will be necessary, and their subsequent exposure to sources of contagion at favourable periods."

These facts and statements, taken in conjunction with the observations published in the *Proceedings* of the Royal Society for June of the same year, make it evident that in his serial cultivation experiments, during which he obtained attenuation of the virus, Greenfield's object was to obtain a vaccine which, when inoculated, would induce a milder but protective attack of the disease with which he was dealing, and whatever fault may now be found with the method used—and it must be remembered that at this period bacteriology was an almost new science and the methods were only in process of development—he obtained the results at which he was aiming.

It has been stated that his results could not be relied upon, but these statements are not based on his experiments or on those carried on in the way that he described, but on various modified experiments. I have therefore thought it necessary to repeat a number of his experiments, following his directions as accurately as possible, and as a result, although the experiments are not yet completed, I have found that, although I am not able to agree with all the interpretations put on the observations, the main facts themselves are unassailable, especially as regards the modification of the appearance of the organism under cultivation in the media mentioned.

At the time that Greenfield was obtaining his results with cattle, Toussaint was working away on young dogs and sheep, and in July, 1880, he described the results that he had obtained on these animals, and a little later he gave his method of preparing the attenuated virus with which he protected animals against the action of a virulent anthrax.

In connection with Toussaint's experiments Pasteur, than whom few men have been less rash in drawing conclusions, was satisfied that his method of preparing vaccine was valueless; but Roux, an exceeding accurate and careful observer, and one of Pasteur's disciples, repeating the experiments, corroborated the results obtained by Toussaint; he found that his earlier experiments, published immediately after those of Greenfield, were to be relied upon, and that although the bacilli were destroyed at 55° C., the spores remained alive, and, what was more important, their virulence was attenuated.

Owing to the conditions under which scientific work must be carried on in this country, and to the comparatively slight interest that is taken in these matters by our wealthy classes generally, and owing to the restrictions that were placed upon the most necessary experiments, Greenfield was unable to test on a large scale the value of his observations, but he had laid the foundation of what was ultimately to become one of the greatest discoveries in modern medicine, and there can be little doubt that Wooldridge, in working out his admirable and epoch-making researches on protective inoculation, was following and extending these original researches carried on in the Brown Institution.

In stating this, I am not detracting in the slightest degree from the brilliant work done by M. Pasteur, who, thanks to the wonderful results that he had previously obtained in other departments of research, was able to command the opportunities of carrying on his work on a most magnificent scale; and his results, published in May, 1881, may be said to be an edifice built on a triple foundation of his own work on fowl cholera, and that of Greenfield and Toussaint on anthrax; for although, as Pasteur pointed out, the earlier workers had not been able to eliminate many fallacies, theirs was the rough pioneer work which opened up a new country, cut rough and often circuitous roads, and made possible the advance of those who were to build up and elaborate the work that has since been and is still being done.

There is an old fable that when Truth was sent by the gods, owing to some mishap it fell from the clouds of Olympia to the hard, matter-of-fact world below, and was smashed into a thousand atoms. Not only had Truth been beautiful in itself, but the shattered fragments still retained so much beauty of form, colour, and material, that each became the desire of those amongst whom it fell. In the general scrimmage that ensued, many took part, and some were successful, each bearing away in triumph his small fragment, he and his friends fondly imagining that it represented the whole beautiful image. Gentlemen, the first step towards reconstructing this image is for each one to acknowledge that his fragment is but part of a great whole; when this is done, let each bring his own fragment, be it large or small, and submit it for examination and measurement, to be fitted in by himself and by others. From time to time, men of deeper and wider views, capable of fitting together not only their own fragments, but those of others that have been prepared to their hands, come forward, and the original form is thus daily further and further outlined. We are now but gathering and combining the smaller fragments into larger pieces, and it may be that in this finite existence of ours we shall see the limbs or joints merely, but through the association and working together of many, all animated by the same desire, these smaller fragments will be gradually fitted together, so that even we may gain some conception, however crude and imperfect, of the wonderful form of Truth as it left the gods.

[2] Vol. xvi of the *Journal of the Royal Society of England* (I mention this paper because it was published rather earlier than the note in the *Proceedings* of the Royal Society, and because the evidence there given as to the success of this method is far more complete and satisfactory than that contained in the latter paper).

The annual general meeting of the British Dental Association will be held at Owens College, Manchester, on August 11th, 12th, and 13th, and the annual dinner will be held at the Grand Hotel, Manchester, on August 12th, at 7 p.m.; H. C. Quinby, Esq., President, in the chair.

INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF THE

SECTION OF OBSTETRIC MEDICINE.

At the Annual Meeting of the British Medical Association held at Nottingham, July, 1892.

By A. L. GALABIN, M.D., F.R.C.P.,

Obstetric Physician to Guy's Hospital.

ON RECENT PROGRESS IN OBSTETRICS.

Gentlemen,—In opening the business of this Section, I shall be mindful of the limited time available for the important discussions and papers which are announced, and shall confine myself to a few very brief remarks on some subjects in which recent progress has been made.

The most striking feature in our department having been the extension and success in surgical methods of cure, it is natural that, in obstetrics, novelties have been fewer than in gynæcology; and that, even in obstetrics, the influence of the brilliant surgical achievements attained in gynæcology has made itself felt. Thus there is, perhaps, no subject in obstetrics to which so much attention has been directed as that of extrauterine fœtation, and the successful results to be obtained by early diagnosis and operation in this condition. The frequent reports of cases which appear in the journals seem to indicate that early extrauterine fœtation must be a much commoner cause than had formerly been supposed of hæmatocele and peritonitis. Much has been added, also, to our knowledge in respect to the frequency of blighted ovum in extrauterine fœtation. The subject of the so-called tubal abortion, or extrusion of an early ovum through the patent end of the tube into the peritoneal cavity, is still a matter for some controversy. If there is no embryo, no obvious placental tissue, and merely a mass of clot distending the tube or extruding out of it, the opinion of microscopists might possibly differ as to the recognition of very scanty traces of chorionic villi amongst the clot. At any rate, I have been convinced, from my own experience, that such a clot may be formed in a Fallopian tube, with open extremity, without any extrauterine fœtation at all.

In extrauterine fœtation in the later months of pregnancy, with a living fœtus, where the prognosis of operation is so very much graver than in the earlier months, I believe that an improved knowledge of the pathology may have an important influence upon the treatment. The opinion appears to be gaining ground that a large proportion of those cases which were formerly reckoned as abdominal pregnancies really belong to the class of intraligamentous pregnancy, which twenty years ago was not even included in the nomenclature. The term to be used is here not quite settled, and I would venture to express a preference for the term "intraligamentous" over its synonyms of "subperitoneo-pelvic" and "subperitoneo-abdominal." For a tubal or a normal uterine pregnancy is equally subperitoneal, and it is purely a question of the size of the ovum, just as it is in normal pregnancy, whether it lies entirely below the pelvic brim or is partly contained in the abdomen. The term "mesometric" might perhaps be suggested, if "intraligamentous" is not considered definite enough, assuming that the word "mesometrium" is accepted as a synonym for the two broad ligaments together.

Assuming, then, that many or most of these advanced extrauterine pregnancies are intraligamentous, it follows that the ovum gets between the folds of the broad ligament by separating the mesosalpinx, as an ovarian tumour does by separating the mesovarium. It may be expected, therefore, that something of a pedicle may be made for the sac in many or in most cases, and the whole placenta removed, although the difficulty of separating adhesions may be great, on account of the vascularity of the sac: for most operators find that, in the case of ovarian or broad ligament cysts the cases become fewer, with increase of their experience, in which they are unable to secure the base of the cyst with ligatures, even though it descends deeply into the broad ligament, and have to be content with stitching it to the edges of the abdominal wound.

We have had two cases of advanced ectopic fœtation in Guy's Hospital within the last few months, in which it proved possible thus to remove the whole placenta after a prolonged perseverance in separating the sac from its adhesions. The fœtuses were indeed dead, but the placental circulation appeared to be continuing with much activity. One of these, under my own care, proved to be a case of pregnancy in a rudimentary uterine horn; the other, under my colleague Dr. Horrocks, was a case of intraligamentous pregnancy. The convalescence in these cases was as simple as after an ovariotomy, and contrasts strongly with the danger which must always exist if a placenta has to be left with a full circulation still passing through it. For then the patient's life almost hangs upon the placenta being saved from early decomposition. If the villi decompose within a day or so, while still bathed in an active blood stream, there must be sapræmia if not septicæmia, and very probably early hæmorrhage as well.

I think there is a further question whether, in some cases of intraligamentous pregnancy, the tube may not dilate and remain unruptured up to the later months. In one case under my care in Guy's Hospital, which ended fatally after full term, the pathologist was of this opinion. It is certain that, apart from pregnancy, the dilated tube may get between the folds of the broad ligament. I have met with one instance in which the tube was distended with 36 ounces of pus, and formed a tumour above the level of the umbilicus, simulating an ovarian tumour. Here it was found not only to be between the folds of the broad ligament, but to burrow underneath the sigmoid flexure, its muscular walls being greatly hypertrophied, and everywhere perfectly distinct.

Not to speak of Cæsarean section for pelvic contraction, there are some other instances in which the attempt has been made to extend the triumphs of abdominal surgery to obstetrics. Among these I may mention the proposal to treat certain cases of placenta prævia or accidental hæmorrhage by Cæsarean section. In placenta prævia it appears to me that the older resources of the obstetric art, especially the performance of bipolar version, as soon as the cervix will admit two fingers, are so thoroughly effectual that they are not likely to be superseded by anything better. But in a few rare cases of accidental hæmorrhage the case is different. With an undilatable cervix and a severe hæmorrhage not arrested by puncture of the membranes, the outlook is so unpromising that the alternative of Cæsarean section may well be entertained, and has actually been practised with success.

The treatment of peritonitis in puerperal septicæmia by abdominal section and drainage of the peritoneal cavity has scarcely, I think, yet justified the hopes which were raised at first, or established itself as a procedure likely to have a wide application. Where peritonitis is due to a pre-existing disease of the tubes, it is, indeed, the most rational treatment, and offers the hope of success. But where the septic process begins in the uterus or vagina and extends in all directions, other tissues beside the peritoneum may be fatally affected. Moreover, we have then to reckon with the increased virulence which microbes appear to acquire in the puerperal woman. And the experience of abdominal section apart from pregnancy appears to show that, if any specially septic contagion is conveyed, even drainage of the peritoneal cavity will not always ensure safety; and that, moreover, in such cases, even a plastic peritonitis may suffice to kill, without any formation of pus. Even if the whole puerperal uterus be removed by hysterectomy, although the primary site of septic absorption is removed, there is the probability that septic foci will have spread to, and will be left behind in, the broad ligaments. This operation has, indeed, been tried in puerperal septicæmia, but not, I believe, with a favourable result; and one can hardly suppose that patients suffering from a fatal form of this disease would be well able to withstand the shock of hysterectomy.

I have only once been tempted to perform abdominal section in puerperal septicæmia. The operation did not save the patient, and the lumps at the side of the uterus—which, it was suspected, might be due to tubal disease—turned out to be cellulitic. The tubes, though inflamed, and doubtless the channel of conduction of the inflammation to the peritoneum, were not dilated or distended, nor did they obviously contain pus.

The treatment of *post-partum* hæmorrhage has been im-

proved of late years by the extended use of hot water, and more recently by the introduction of the plan of plugging the uterus. For the treatment of the resulting anæmia in severe cases, I think a hopeful prospect is afforded by the success of the plan of intravenous injection of large quantities of hot water, which was, I believe, suggested on physiological grounds by the late Dr. Wooldridge, was introduced at Guy's Hospital by Mr. Arbuthnot Lane, and has been practised there extensively in surgical cases. The novelty here consists in the quantity of fluid used—6 pints or more instead of 1 or 2 pints only, which formerly it was the practice to inject in *post-partum* or other forms of hæmorrhage. In puerperal cases it has been tested by the Honorary Secretary of this Section, Dr. Spencer, but we have not yet found a case to justify it in our Guy's charity. In the practice of Guy's Hospital this treatment has been adopted, not only for hæmorrhage but for other conditions of shock and collapse.

It has thus been shown that the operation is free from the risks attendant upon the transfusion of blood, and that, even apart from any previous emptiness of the vessels, it is a powerful cardiac stimulant. I did not come into contact with these cases personally, but I have heard the story of a man who had cut his throat in delirium tremens and was brought in pulseless and apparently lifeless. Up to 4 pints of saline solution he showed no signs of life; but before 6 pints had been injected he not only came to life, but resumed his delirium tremens sufficiently to fight with the operators. A treatment which can produce such results seems tempting for some cases of *post-partum* hæmorrhage, provided always that the hæmorrhage itself is arrested; otherwise the saline fluid would doubtless only wash the rest of the blood more effectually out of the vessels.

Of more importance probably than any operative improvements is the saving of life likely to be obtained by the gradual extension and perfection of antiseptic midwifery in private practice. The triumphs of antisepsis in lying-in hospitals have often been celebrated. In private practice a similar transformation cannot be looked for, because there were not the same disastrous results to be remedied; but even here there has been room for improvement. The advance attained in the course of years may be illustrated by the records of the Guy's Hospital Lying-in Charity, which corresponds more nearly to private practice than to the conditions existing in a lying-in hospital. For the first twenty-one years of its existence the total death-rate was 7.1 per 1,000; for the next twelve years 4.4 per 1,000; for the following ten years 3.4 per 1,000. For the next few years it remained about the same; but for the last three years, since the use of mercuric chloride as an antiseptic for hands and non-metallic instruments has been introduced, it has been only 1.3 per 1,000; and the proportion of deaths from septicæmia has been reduced to less than one-third of what it previously had been. Thus the mortality has been reduced to less than one-fifth of what it was thirty or forty years ago, although even the former rate was not greater than that which has been estimated as the general puerperal mortality for the country at large. I think these statistics give ground for the belief that the general puerperal mortality of the country is capable of still further reduction if stringent antiseptic precautions are universally adopted. In estimating results I believe that the only fair test to take is the total maternal mortality over a sufficiently large number of cases, and not the septicæmic mortality, because, when the death is attributed to a cause other than septicæmia, it is often very difficult to say whether a septic element may not have had some share in the causation.

Turning now to the department of gynæcology, the progress in pathology has been at least as marked as in the success of treatment. This has resulted in part from the practice of early abdominal section in doubtful cases, and the discovery of the initial stages of tumours, as well as of the morbid anatomy of inflammatory conditions and hæmorrhages which formerly were not subjected to operation at all. A subject of interest among the conditions thus revealed is the importance of adenoma in the diseases of the uterus and its appendages, and the close relation it sometimes has to inflammation. Thus it is now recognised that the ordinary proliferous cystoma of the ovary is, in fact, an adenoma, and that the fluid contained in the cysts is mucus. Again, it has been contended that the growth of the Fallopian tube, which has generally been described as papilloma, should rather be regarded as adenoma, since it arises from proliferation of the longitudinal ridges of the tube, which are glandular in their function. This view renders it perhaps easier to understand why the extension of such a growth to the peritoneum is not necessarily malignant, and how it is that patients in whom such an extension has been discovered on abdominal section have not infrequently remained afterwards in good health.

It is in the cavity of the uterus that the relation of adenoma to inflammation is most marked, while here, as a general rule, the adenomatous condition shows no tendency to form a tumour, properly so called, or to extend to other parts. Thus the so-called villous or fungoid endometritis, which so often comes into notice as a source of hæmorrhage, is histologically much more an adenomatous growth than an inflammation. Nor is this condition in the uterus limited to the time of life at which adenomata are common generally. Recently, in a lady, aged 72, who had suffered for some weeks from uterine hæmorrhage, I scraped from the uterus with a sharp scoop soft masses which to the naked eye had all the appearance of cancer. But microscopic sections showed that they consisted of pure adenoma, exactly like the fungoid prominences found on a smaller scale in younger women. Adenoma taking the form of a defined and limited tumour is much more rare; but I have met with a remarkable case in a patient aged about 40. She suffered from hæmorrhage, and a smooth growth was felt presenting at the os uteri, and taken to be a fibroid tumour. On dilating the cervix the growth was found to be soft and friable, and it was feared that it was malignant. Nevertheless it proved to be possible to enucleate it from the wall of the uterus, notwithstanding profuse hæmorrhage, and it appeared to have a definite capsule. On section the growth yielded a milky juice in abundance like cancer; but on microscopic examination it proved to be adenoma, and the patient has remained free from any recurrence after an interval of seven years. In the cervix the relation of adenoma to inflammation is equally marked, and the sequence of events can be more easily traced at that part of the cervix originally covered with squamous epithelium. The squamous epithelium is thrown off from inflammatory irritation, with the exception of the deepest palisade layer, which assumes the character of cylindrical epithelium, and proliferates so as to form both prominences and depressions. Thus the so-called erosion may be at once papillary and follicular, and though not forming a tumour is in reality glandular growth, and can often be cured only by destruction by means of caustics or scraping.

Time will not permit me to refer to recent surgical advances in gynæcology, such as the various modes of dealing by abdominal section with pelvic abscesses chronically discharging, according to the various primary sites of suppuration; or to the extension of the operation of total extirpation of the uterus to fibroid tumours and other conditions not of a cancerous nature. Some subjects of this nature are to be dealt with in discussions or papers announced for this Section; and I look forward especially to the discussion on the treatment of fibroid tumours, to be inaugurated by Mr. Thornton, for an elucidation of the burning questions now a subject of controversy in this department.

APOTHECARIES' WEIGHTS.—With the object of preventing mistakes in dispensing, the Superior Sanitary Council of Austria, has decreed that weights of 1, 2, or 5 centigrammes shall in future be triangular or square in shape, while those of 10, 20, and 50 centigrammes shall be hexagonal, and shall, moreover, be distinguished from the smaller weights by their colour. This, it is pointed out, can easily be effected by using different metals or different alloys in the construction of the larger weights.

AT the recent annual meeting of the Brussels Medical Graduates' Association held at the Holborn Restaurant, the thanks of the Association were voted to Dr. Younger, the retiring chairman, and Dr. Skinner was elected chairman for the ensuing year. The resignations of Dr. Gayton, the treasurer, and Dr. Steele, the honorary secretary, were received with regret, and Drs. Younger and Greenwood were elected in their places. Drs. Steele, Brookhouse, Buck, Burland, and Thomas were elected to fill up five vacancies on the Council. The members and their friends afterwards dined together.

SIXTIETH GENERAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION

Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

PHARMACOLOGY AND THERAPEUTICS.

THURSDAY, JULY, 29TH, 1892.

J. O. BROOKHOUSE, M.D., President.

A DISCUSSION ON DYSPNŒA AND ITS TREATMENT BY DRUGS.

What is Dyspnœa?—Professor GAIRDNER began by remarking that he had been invited to contribute to this discussion without any opportunity of regulating its terms. Otherwise he should perhaps have been inclined to object to the extremely wide range and indefinite character of what might be considered to be implied in the word dyspnœa. Dyspnœa was not the name of a disease nor even of a symptom, but rather of a group of symptoms differing greatly, and almost indefinitely, in different cases. He would, therefore, contribute to the discussion what might perhaps not be considered so much a directly therapeutical dissertation as one intended to clear the way for this, by showing the variety of the physiological and pathological circumstances, on which the drugs to be discussed might be expected to act.

The Varieties of Dyspnœa.—The Greek physicians appeared to have recognised three types of dyspnœa, thus briefly defined by Celsus: "When the difficulty of breathing is moderate and not suffocating, it is called dyspnœa; when it is more vehement, so that the breathing is more sonorous, and wheezing, it constitutes asthma; when the breathing can only take place in an erect position it is termed orthopnœa." All these words still remain with us, but the question as to how far and in what essential particulars they differ remains also. But perhaps we should not, on the whole, find that the exact pathology corresponding with each or any of them is settled even now. At all events, it might be said that it was vain to discuss the treatment by drugs of dyspnœa, without some kind of preliminary attempt to show how, and in what, cases of dyspnœa differed *inter se*. This he could only attempt in so far as was necessary for practical purposes. Dyspnœa, however arising, must be manifested in three distinct ways: (*a*) By the presence of a peculiar sensation, the *besoin de respirer* in an abnormal sense; (*b*) by a chemical change in the blood corpuscles, which, in its higher degree, constitutes cyanosis; (*c*) by increased activity of the respiratory reflexes, and consequently of the respiratory movements. Not infrequently all these groups of phenomena coexisted, but not necessarily in an equal or proportionate degree. In some cases cyanosis was not apparent, while the others were. In other cases, as in congenital malformations of the heart, cyanosis might be the leading phenomenon, and be quite out of proportion to the other. The *rationale* of this discrepancy was not always clear; but the following considerations might help somewhat towards its being cleared up, especially in a practical sense, and with a relation to the present discussion.

Idiosyncrasies.—The minimum degree of dyspnœa which could be called pathological was what was popularly termed shortness of breath; indeed, among the individuals of the human family, even when not obviously out of health, there were all kinds and degrees of difference in this respect. In some it would appear that either from an organisation in which the excess breathing power was always low, or from an undue sensitiveness of the respiratory reflexes, the least exertion always brought about the sensation of dyspnœa, and, with increased or panting efforts to breathe, going up a hill or running a race was practically out of the question. Dr. Gairdner instanced a case of two brothers among his older relatives who both attained an age beyond 70, and each of whom was subject in a greater or less degree to this infirmity, insomuch that in one of them, from the earliest childhood, it had been quite impossible for him to undertake the smallest activity at even the most moderate pace without constantly stopping "to admire the view," as he said. This peculiarity was so well known that it formed part of the individuality, but without in the slightest degree suggesting general bad health or pulmonary disease of any kind. The person in question was not cyanotic, had a good fresh colour, and was a fair average man as regards bodily condition. He was never known to wheeze, and had no notable disorder of the lungs or heart. He died, in fact, of disease of the glands of the abdomen, at a fairly advanced age. His brother, who in a less degree had the same symptom, died at 73 of a cerebral attack, but having been a fairly healthy man otherwise. The converse of this was that in other cases very serious invasions of the essential breathing power or of the respiratory mechanism were comparatively little accompanied by breathlessness. For example, one patient, with one pleura habitually so choked full of fluid that he had to be tapped many times, not from urgency but because remedies failed to remove the effusion, was particularly noted as breathing throughout when at rest at the rate of 16 in the minute and as suffering but little discomfort. In another patient, with a long previous history of spinal disease, who died rapidly after a drunken bout, it was found that the disease involved more or less pressure on the cord above the origin of the phrenic nerve; nevertheless he had been able to pull on for many years after the lesion was healed, and to enlist in the army and to serve for 18 years without any suspicion being entertained of practical disability from this cause. It was evident that in such cases, through habit or otherwise, some kind of accommodation had taken place, so that the graver results of the physiological difficulty were compensated or were at least not represented by the sensation and other attributes of breathlessness in a higher degree.

The Causes of Dyspnœa.—As the apparent symptomatology differed so must, in some degree, the therapeutic indications. In other words, the sensation of dyspnœa, the cyanosis, and the increased efforts to breathe were manifestations which might lead to different, and sometimes separate, if not diverging, indications for treatment. Further, dyspnœa itself being a mere symptom, or rather group of symptoms, the cause of the dyspnœa went for much in respect to therapeutics by drugs and otherwise. The removal or mitigation of the cause was often the real or only key to the effective treatment. It was desirable to draw certain distinctions.

I.—*Dyspnœa Due to Hæmatic Causes.*

Dyspnœa might be of purely hæmatic origin, as in anæmia, and especially pernicious anæmia. The blood corpuscles or oxygen carriers in this case were both few and inefficient, and the tissues were consequently not properly fed with oxygen. In this variety there was no cyanosis, and little even of the sensation of dyspnœa when the person was at rest; there was no great effort; the respiration as well as the pulse was often slow, and langour with general weakness were the prevailing conditions. There was no orthopnœa as a rule, but the moment any effort was made the respiration and the pulse quickened to a great degree, and the patient became at once breathless and exhausted. In this case the therapeutical indication was manifestly to restore hæmoglobin to the corpuscles, and increase their number. Iron, arsenic, careful regulation of the hygienic conditions, of the bowels, of the food, and of exercise constituted the treatment. Failing these, an attempt might be made by the inhalation of oxygen gas to bring about *pro tempore* a more just balance as between the blood and the tissues; but none of the ordinary pulmonary or cardiac drugs could be expected to give relief.

II.—*Dyspnœa Due to Pulmonary Causes.*

Again, dyspnœa might be due to pulmonary causes, in the first instance, exclusively; and then the nature of the cause would, more than anything else, dominate the treatment. The typical case here was bronchitis with emphysema; here cyanosis was often present, and might even be extreme during the exacerbation; there might also be a distinctly paroxysmal element which, however it was to be accounted for physiologically was practically to be designated spasmodic asthma. The breathing was greatly embarrassed, but became not so much accelerated as laborious. The whole disturbed mechanism of the respiratory act showed that the patient was under a mechanical or vital necessity to make every single

respiration tell, by inspiring to the full extent of his vital capacity. Here most commonly orthopnœa was well marked, and all the accessory muscles of thoracic respiration were thrown into full activity. Now, in this class, it was only by meeting the causes that treatment could do much, or, possibly, not anything at all. Inhalation of oxygen might, indeed, be suggested as a palliative, and was probably of benefit in some cases, but it could only go a short way. The one great therapeutical indication was the removal, as far as possible, of the obstruction to the passage of air through the smaller bronchial tubes into the air cells. Hence the general recognition, in a practical sense, though not perhaps theoretically, of a class of medicines called expectorants, and well known in detail to all.

Expectorants.—Now, what were expectorants from the theoretical point of view? Dr. Gairdner indicated that he had fully discussed this subject in a paper written so long ago as 1863 in the *Glasgow Medical Journal*. But he felt bound to confess that the conclusions in this paper were either not well known, or had not been distinctively adopted by the profession. He could only afford time on this occasion to indicate very briefly the line of argument; it was that the muscular lining of the bronchial tubes subserved a purpose both in health and disease which Dr. Gairdner had endeavoured to indicate by calling them the scavenger muscles. All the impurities which were inhaled daily, all the superabundance in quantity or alteration in character of the mucous secretion over the vast surface of the bronchial ramification, required that there should be a constantly operating force to remove obstructions, and to bring within the range of the ciliary movements in the laryngeal tube, or of the action of coughing, etc., such accidental obstructing matter as required removal. The action of expectorants, in Dr. Gairdner's opinion, was mainly, if not conclusively, to quicken and regulate this deobstruent function by acting either on the bronchial muscles directly, or on the reflexes which secured their activity in accordance with the need. Many or most of the lesions of which pulmonary dyspnœa was a part were accompanied by a great disturbance, or, as it might be called, paralysis of this deobstruent function, which therefore, in the strictest sense of the word, might by called by the name of pneumoparesis, a name, however, which had already been employed by Dr. B. W. Richardson, who was the first to use it, applying it chiefly or exclusively to the vascular system of the lungs. Had this term not been already appropriated, something like it would, in Dr. Gairdner's opinion, have applied still better to what he had called the scavenger muscles of the bronchial tubes. Here the therapeutics consisted essentially of such remedies (usually drugs) as acted specifically on these muscles, or upon the reflexes appertaining to them, quickening their expulsive efforts, and so helping to secure an unimpeded passage to the air.

Dyspnœa from Vesicular Obstruction.—But there was a quite distinct group of cases of dyspnœa of pulmonary origin, the typical instance of which was to be found in a perfectly uncomplicated case of acute lobar or so-called croupous pneumonia. Here the obstruction was not on the way to the air vessel, but in the air vessel, and accordingly no strained efforts of the muscles of respiration could be of any avail except by simply accelerating the rhythm of respiration, and thus admitting a more frequent succession of inhalations of fresh air to the still obstructed vessels. Nature, indeed, told us that this was so; the patient in pneumonia when uncomplicated, however his breathing was accelerated (say, to 40 or 50 to 60 in the minute), lay flat on his back, had no orthopnœa, breathed without straining effort, and had an entirely different physiognomy from the preceding group of cases, even though he might be equally or more cyanotic for the time. Expectorants were here only of use in so far as they kept clear the avenues to such parts of the lungs as were still capable of admitting air; in this way they might be valuable, though they were not of the essence of the treatment.

Opium in Dyspnœa.—In this group, and still more in the preceding group of cases, in short, in all cases of dyspnœa having a pulmonary or bronchial origin, opium was notoriously a drug which required to be used with great caution. Now in therapeutics it was requisite if possible to know why drugs were contraindicated as well as why they are indicated. As a matter of fact opium had quite recently been advocated in pneumonia by several great authorities, and it was difficult to deny absolutely that there were cases in which it might be used. At the same time the caution just referred to was, Dr. Gairdner observed, none the less necessary. He gave an illustration of this point from a case in hospital which had occurred to him not long ago; it was a case of pure and simple pneumonia in a young man previously in good health, a case which, according to all precedents, ought to have had a favourable crisis and a good recovery. The resident assistant at this time was an exceedingly able young graduate who was very quick to see the lesson read by the following details, which, he had observed to Dr. Gairdner, he would remember to the end of his life. On paying the morning visit, just about the critical period of the disease, Dr. Gairdner found the patient apparently dying, cold, and nearly pulseless. Observing that the pupils were also somewhat contracted he inquired, "Has he had any opium?" It appeared that quite small or moderate doses had been administered with other remedies during the night. The patient was pulled through but only by employing all the most extreme resources proper to such a state of collapse. The danger, for a few hours, was extreme, and the recovery, though in the end good, was undoubtedly far less satisfactory than might have been the case.

Dyspnœa from Laryngeal or Tracheal Obstruction.—Dr. Gairdner next alluded very briefly to the cases in which an obstacle exists in the upper part of the air passages, larynx, trachea, etc. The treatment of these cases by drugs is in many cases subordinate to the only really effective interference where even that is possible by surgical measures.

III.—*Dyspnœa due to Extrapulmonary Causes other than Hæmatic.*

The remaining cases he would for the purposes of their discussion compress into one great and diverse third group, namely, cases in which the initial lesion was not essentially of the lungs, or at least not within the air passages and in the air cells, but outside of these or outside the pulmonary apparatus altogether. Cardiac dyspnœa in all its many varieties, dyspnœa attendant on pleural and pericardial effusions and dropsical swellings of all kinds, to which must be allied for therapeutical purposes dyspnœa from œdema of the tissue of the lungs themselves, must all be held as within the large and multiform group. Uræmic dyspnœa occupied a doubtful position corresponding with the present doubtful condition of its pathology. It might be, no doubt often was, attended by œdema of the lungs, but it was probably not wholly caused thereby; perhaps it was in part hæmatic, or perhaps neurotic. The essential point in the therapeutics of this great group was and must be, if possible, the removal of the cause, whether a fluid or other effusion, when that was present and distinctly operating by pressure on the mechanism of respiration. Again, in cases of cardiac origin, the essential point was to strengthen the heart by cardiac tonics or relieve over distension of its right side so as to overcome the difficulties it had in contracting and keeping up circulation in the lungs. It was to be remembered in this connection that dyspnœa was quite as effectually caused by an obstacle which prevented the access of the blood to the air in the vesicles as by an obstruction in the bronchi to the access of air to those vesicles. It was also to be remembered that, as Cohnheim had put it, the normal respiratory movements, and *a fortiori* the respiratory efforts of dyspnœa, favoured the pulmonary circulation, so that there was at every point action and reaction between the two great systems of the circulation and respiration, and the remedy which acted upon the one acted also on the other.

Diuretics.—With respect to the great majority of cases in this group, where there were obstructing matters which could not be dealt with by the administration of expectorants, it was well always to remember the maxim of Baglivi—propounded originally, no doubt, from the point of view of experience, without reference to any such physiological or psychological principles as were here set forth—"in morbis pulmonum ad vias urinæ ducendum." The principle was that the blood required to be reduced in volume *pro tempore* by the elimination of water, and this ought to be done both as rapidly and as safely as possible—that is to say, with as little injury and strain as possible. If the urgency of the symptoms would allow of this elimination taking place by the kidneys, according to Baglivi's principle it was as a rule

best to employ active diuretics, and especially saline diuretics; and among these Dr. Gairdner had an old and abiding preference for cream of tartar as at once the most manageable, the most popular, and the most safe of all diuretics, a fact verified by the experience in Scotland, at least, of much more than a century. But even in the case of those cardiac tonics—especially digitalis and strophanthus, which had, as some held, only incidentally a diuretic action—it might fairly be affirmed that their action as cardiac tonics was most secure and most efficient when it is accompanied by diuresis. In the employment of all these remedies Dr. Gairdner had been in the habit of paying close attention both to the quantity and the character of the urine, and when the former was greatly reduced, as it usually was before active remedies were begun, it was the increase in quantity—in favourable cases the rapid and enormous increase in quantity—that told of the safe action of the remedy. Where such increase in quantity did not take place, the tonic action either of digitalis or strophanthus was apt to end and the toxic action to begin.

Drastic Cathartics.—In some cases the kidneys refused to act, or acted with difficulty, under remedies, owing either to disease in their texture or to peculiarities in their innervation. In London, ever since the time of Dr. Bright, it had been usual to prescribe drastic cathartics, and to discountenance diuretics in such cases. Without admitting that this practice was a good one or even correct in principle, it might be at least said that when the urgency of the case required some other emunctory than the kidneys, the skin was in most cases to be preferred to the bowel. But warm baths and the diaphoretic regimen generally could be employed only in a limited number of such cases, and these not the most grave. It was precisely, however, in such cases that we had a remedy of most unquestionable power and efficiency in jaborandi or pilocarpin, the rapid action of which on the skin—and also in many cases simultaneously on the kidneys and other excreting organs—made it a therapeutic agent of the highest value, which only required to be mentioned with a *caveat* because in some cases, particularly of cardiac dyspnœa, it might, like every other form of extremely active remedy, produce incidentally too much prostration.

Venesection.—Finally, Dr. Gairdner wished to state that, although not included in the plan of the present discussion, venesection, now so much disused, was still applicable to some of these cases in a higher degree than any other remedy.

Professor Leech, in commencing the discussion, said: As Dr. Gairdner has pointed out in his admirable address, the subject of dyspnœa is a wide one, since it is only a symptom which has many causes. I propose, however, only to allude to the medicinal treatment of the dyspnœa occurring in some disturbances of the respiratory organs and in cardiac troubles. In many respiratory affections, as pneumonia and pleurisy, the dyspnœa is not usually the symptom which drugs are used to control; but in others, as in some forms of bronchitis and in asthma, the relief of dyspnœa, continuous or paroxysmal, is the main consideration. In the treatment of bronchitis, with such dyspnœa the presence or preponderance of moist lung sounds affords an indication of some value in treatment. If only dry sounds are heard, and yet dyspnœa is considerable, we may, in the absence of other causes, look upon it as caused either by a turpid condition of the bronchial mucous membrane, more or less lined, it may be, with adhesive mucus, or to spasm of the muscles surrounding the bronchi. Doubt has in late years been cast on the existence of such spasm, but, as Professor Fraser has pointed out, the marked relief which at times follows the use of the nitrites, that is, of drugs which relax the contraction of involuntary muscular fibre points to spasm of the bronchial muscle as the most probable cause of some dyspnœic conditions, for there is no evidence that nitrites relieve by calming the central nervous system. There may in genuine asthma be a condition of diaphragmatic spasm, but in the paroxysmal dyspnœa of bronchitis the evidence of bronchial spasm seems strong. It is in the dyspnœa with dry lung sounds that the nitrites often give relief. Nitrite of amyl, as has long been known, may stop a dyspnœic attack, but the nitrites of ethyl and soda and nitro-glycerine are far more effective. The effect of amyl nitrite only lasts about two minutes, whilst the influence of the other nitrites and nitro-glycerine lasts three hours or more. I find a teaspoonful of a 3 per cent. solution of ethyl nitrite the most convenient form for administering a nitrite in dyspnœa. Failure of nitrites to relieve dyspnœic attacks may be due to the patient being refractory to the action of nitrites, which is not very uncommon, or to the dyspnœa being connection with a turgid mucous membrane. For the relief of dyspnœa which nitrites have failed to cure the vapour of ammonia may be tried. The vapour may be inhaled with care from warm water or diffused in the room. When inhaled it tends to relieve that craving for cold fresh air from which dyspnœic patients so often suffer. This failing, some of the many powders which are formed for the relief of asthma may be tried. It is worthy of note, as Dr. Fraser has pointed out, that the vapour of a considerable number of the powders and cigarettes which are sold to relieve asthma contain nitrites. The vapour of some contain a pupil dilator, while a third class of powders give off vapours containing both nitrite and a pupil dilator. Should opiates be given to relieve dyspnœic attacks? I have no doubt they relieve at times, but I follow Dr. Gairdner in the view he has expressed that their administration is dangerous. Lobelia I do not rely much on. Nor have I found jaborandi or its alkaloid pilocarpin of much value. I think I have seen pilocarpin cause dangerously profuse secretion in the bronchi. When the dyspnœa accompanies a bronchitis with abundant moist rhonchi, nitrites are rarely of any value. Here ammonia and the vapours produced by burning mydriatic vegetable substances seem most useful. From the use of opiates in these cases especially I have seen more than one fatal result. To the value of iodide of potassium with expectorants in the treatment of both forms of bronchitis it is not necessary to draw attention. With regard to the treatment of dyspnœa in cardiac disease I will allude chiefly to one point—the value and safety of opiates. If there be no considerable lung complication, they may usually be given, and given freely, for the relief of dyspnœa, and especially to prevent that nocturnal dyspnœa and insomnia which is a source of so much suffering in advanced cardiac disease. Dover's powder is at times effectual, but subcutaneous injection of morphine if often necessary. Here, too, the nitrites are occasionally of value by dilating the vessels, and thus easing the work of the heart.

Dyspnœa in Migraine: Cardiac Dyspnœa without Orthopnœa.—Dr. Handford (Nottingham) alluded to the frequent occurrence of urgent dyspnœa in attacks of migraine. The speed of respiration might be quickened from 16 to 30, or more, in the minute; and was readily increased by slight exertion. While largely neurotic, and closely allied to gout, it was probably immediately due to the toxic action of the products of imperfect digestion, and was speedily relieved by saline aperients. In cardiac dyspnœa the total absence of orthopnœa in a certain number of most severe cases was very remarkable. In his experience, such cases were usually fatal within a few days or weeks. He believed the explanation to be that the right heart was chiefly affected: owing to the anatomical position of the right auricle, the upright position did not, by gravitation, favour the passage of blood into the ventricle to anything like the same extent as in the case of the left auricle and the left ventricle.

The Causation of Dyspnœa in Pleural Effusions: the Dangers and Uses of Opium: Nitrites in Uræmic Dyspnœa: Salicylate of Soda: Venesection.—Dr. Oliver (Newcastle-on-Tyne) said he was glad to take this opportunity of saying with what pleasure he had listened to Professor Gairdner's remarks on dyspnœa, and how he, with many hundreds of old students, gladly acknowledged the soundness of the medical instruction received from their Professor of Medicine in Glasgow University. With Professor Gairdner's observations as to the frequent absence of dyspnœa in pleural effusion, Dr. Oliver quite agreed. As an illustration he would mention the case of a young man who had recently presented himself at the Newcastle Infirmary, complaining of some gastric symptoms only, but as the patient was pale and looked ill, without feeling very ill, he was admitted, and on examination Dr. Oliver found the right chest absolutely dull from clavicle to base. On account of the absolute nature of the dulness and the extent of it, he tapped the patient's chest and removed 120 ounces or more of fluid, yet there had been no dyspnœa from first to last, all the time

the man was carrying this great amount of fluid in his chest. In these cases, when dyspnœa occurred, it was due, not so much to simple pressure on one lung by fluid, as the collateral hyperæmia of the other lung, which was apt to be established in these cases. With all that Professor Gairdner said in regard to the dangerous symptoms that might arise in pneumonia on the administration of opium—especially in the most serious cases and near the crisis—all must agree. It checked secretion, or rather elimination, and thus gave a twist to the course of the disease—throwing a patient whose state up to that time was hopeful into the almost moribund condition in which Professor Gairdner found one of his patients, to whom a subordinate had given opium. Dr. Oliver, however, thought that in some cases of bronchitis and of emphysema, accompanied by orthopnœa, the administration of morphine might be beneficial. In a case lately under his care, in which expectorants of all kinds had been freely tried, orthopnœa continued night and day, accompanied by sleeplessness and great exhaustion, and it was not until small doses of morphine were given that relief was obtained. Here, no doubt, the indications was to soothe the over-excited and exhausted respiratory nerve centre, to send it to sleep, so to speak, and allow it to recuperate for a few hours. The morphine in this case did that from the moment of its administration, and the result was that the patient made an excellent and a lasting recovery. Professor Gairdner had truly said that in cases of dyspnœa, during a uræmic cause, the one line of treatment likely to give good results was that which acted upon the kidneys and increased the flow of urine. These were just the cases in which the nitrites alluded to by Professor Leech did good. They opened up the contracted peripheral arteries, which were preventing the entrance of a sufficient quantity of blood to the respiratory centres. It was starved, so to speak. Nitrites opened up the peripheral arteries, flushed the respiratory centre, took the strain off the heart, and thus relieved the dyspnœa. These were the cases that lent some weight to the opinions put forth by Professor Bouchard, who had shown that during the day particular classes of toxic products were formed, which exercised a narcotic effect upon the brain centres, whilst those formed during the night had an opposite effect. It was the elimination of these toxic products by the kidneys that seemed to give relief to dyspnœa. With reference to what had been said as to the employment of pilocarpin, Dr. Oliver could also speak favourably of the value of salicylate of soda in cases of pleural effusion that owned a rheumatic cause. In regard to venesection there could only be one opinion, namely, that the principles for its employment still remained the same in spite of the condemnation of its excessive practice years ago. There was dyspnœa dependent upon, or associated with, dilatation of the right side of the heart. Dr. Oliver had seen such excellent and immediate results follow the abstraction of several ounces of blood, that he had repeated it again and again with equal success. So much had this been the case that even in cases of aortic regurgitation, attended by alarming dyspnœa amounting to orthopnœa, he had seen the withdrawal of blood from the arm followed not only by immediate relief, but by such a condition of cure that patients had been able to return to their employment. It was many years now since Professor John Reid, of St. Andrews University, showed that when animals were dying, or had just died, asphyxiated, there was extreme distension of the right side of the heart. With the heart of the animal exposed, Reid showed that the distension was too great to allow the chambers to contract, and that if a small quantity of blood was removed from the large veins going to the heart, the immediate diminution of the contents of the heart seemed to stimulate the heart to contract, and the heart, which had previously been quite quiescent, again began, and continued, to beat. It was thus that venesection acted; it diminished venous pressure and aided the circulation through the right side of the heart, and thence of the lungs.

Belladonna: Hot-air Baths: Tight Lacing.—Dr. WILBERFORCE SMITH (London) referred to the use of three remedies in different forms of dyspnœa: (1) In "spasmodic paroxysms" relief was in a certain proportion of cases obtained from belladonna, preferably a few drops given with little or no water, in order to secure rapid absorption; or administered by a spray-producer. (2) In "congestive" cases the cautious use of the hot-air bath, so easily extemporised, was valuable. (3) In regard to the dyspnœa of anæmia it was to be noted that careful spirometer observation on anæmic girls indicated a difference of 20 to 40 cubic inches in the expiratory capacity, according as the observation was made with or without the corset—a fact which at once suggested one element in treatment.

Aconite.—Mr. FREDERICK PEARSE, F.R.C.S. (Southsea) referred to the value of large doses of aconite. In some cases of dyspnœa occurring in acute spasmodic asthma and in the dyspnœa associated with tumultuous action of the heart and throbbing of the large arteries, aconite in one or two large doses would produce almost immediate relief. The preparation suggested was the strong tincture of aconite known as Fleming's, given in 5-minim doses. In many other forms of dyspnœa associated with spasm or with temporary but sharp febrile action, aconite was of extreme value.

Influence of the Patient's Expectation of Cure.—Dr. NORMAN KERR (London) said that as a former sufferer from spasmodic asthma, he found relief temporarily from every drug, including whisky, but each drug in turn rapidly lost its power. The first dose acted as a charm, the second fairly well, the third not at all, but, in fact, aggravated the distress. Expectation in his opinion, that is, expectation of relief from the trial of a fresh remedy, was the main factor in procuring alleviation; he, therefore, usually varied the medicines he prescribed.

Value of Oxygen and Strychnine.—Dr. HUTCHINSON (Scarborough) asked Professor Gairdner to give his experience in the use of oxygen inhalation, and the internal use of strychnine in cases of pneumonia requiring stimulation of the respiratory centres. Dr. Hutchinson stated that he had been somewhat disappointed with the results in the cases in which he had tried it, and he thought that some authoritative statement on this subject would be of great use to the profession at large.

The Use of Opium: Trinitrine.—Dr. CAITLE (Nottingham) drew attention (1) to the fact that there were certain classes of cases of dyspnœa of pulmonary origin in which the administration of opium was permissible and even imperative. (*a*) In subacute bronchitis small doses of opium in the form of tinct. camph. co., combined with stimulant expectorants, often gave relief and did no harm. (*b*) Again, in the cerebral variety of acute pneumonia the salient symptom was delirium and not dyspnœa. In these cases morphine, in doses of a quarter to half a grain, given hypodermically, might be necessary to produce rest, and did not injuriously affect the respiratory difficulties. (2) In certain cases of uræmic asthma due to chronic contracting kidney morphine appeared to be the only drug capable of affording substantial relief, and at the same time did not seem to interfere with the excretion of urea. With the object of relieving this form of dyspnœa, nightly doses of morphine might be given for months to some patients. He had found trinitrine also useful, but inferior to morphine, in relieving the breathing. Great caution should be used as regards morphine until the patient's idiocyncrasies had been gauged as far as possible.

Iodide of Potassium: Digitalis and Belladonna: Venesection.—Dr. WALKER (Pollokshaws) desired to mention the benefit obtained in some cases from the use of iodide of potassium. In cases of a gouty or rheumatic nature it acted remarkably well. It would also in some cases be found that a combination of digitalis and belladonna was very useful. Lastly he had found venesection an effective method of relief.

Dr. HAYWARD and Dr. COGHILL also made some remarks.

ON THERAPEUTIC COMMITTEES AND THEIR POSSIBLE USES.

Professor GAIRDNER (Glasgow) said: I have asked permission to introduce some remarks into the business of this section. Last spring it happened that I was appointed without my own concurrence in the least degree and by the unanimous voice of the Committee to be the chairman of the Therapeutic Committee of the British Medical Association. I accepted the appointment under certain reserves and with certain misgivings, which were entirely overcome when I found, some time afterwards, that the Committee were at one with me in desiring that I should accept the chairmanship upon the conditions and with the reservations that I had myself made. About a year later it was discovered that the branches I had hoped to engage in the work did not, as it were, come to the rescue, and accordingly I found myself in the position of a

defeated minister. I had accepted office for a particular purpose and with a particular policy in view, and I had found that the policy had broken down completely, and therefore it appeared to me the proper course was to resign the chairmanship, which I did. The resignation has been accepted with regret, but the circumstances which made me address this Section are that I did not think all through the proceeding that the matter had been brought fairly before the public. I did not think the Branches who were written to and engaged in the matter were properly informed as to what my wishes were. I do not think the public knows or that the members of the British Medical Association know anything about it, and this has happened because the papers that I myself issued as indicating the policy I wished to follow have never been published. Now mind, I am not blaming anyone, I am not wanting to raise a storm or make a personal point of this at all. I am not wishing to make any sort of mischief or disagreeableness, I am only stating as matter of fact that I am standing here on the footing of a defeated minister, having resigned my portfolio to the Association without its knowing why I have resigned it. It is quite true that a short circular letter from Dr. Sidney Martin was issued to each Branch, but the papers in which I indicated more or less the lines which I considered it desirable to follow have never been published. Not only so, but I have received a letter from the Committee of Reference of the British Medical Journal to say that in their opinion they are not to be published. Now I am not quite willing to acquiesce in this, and all I want this Section to do is to listen to a few passages out of these papers and to say whether my views were not reasonable, or, at all events, worthy of coming before the public more deliberately and more decidedly than they have done. I omit everything that is not essential, and I begin here: "Of the therapeutic work of the Committee it may be said, to begin with, that it not only constitutes, or ought to constitute, the larger part of our work, but from the very necessities of the case it must be conducted on lines differing essentially from the pharmacological work. The latter is capable of a very direct initiative and can be carried out on a general plan by physical investigation with experiments planned in the laboratory or otherwise so as to obtain quite definite results and subject them to all the necessary corrections; but in therapeutic inquiries, strictly so called, you must of necessity pursue quite a different method and be contented with much less satisfactory results. You must, in the first instance, secure a field for observation. You cannot make, according to preconceived arrangements, the particulars you want in respect of diseases on which to test your medical agents. Secondly, you must have men of skill known as such to perform your experiments, and more or less precisely to record the results; but the point to which I wish your attention generally directed now is that not only must you have a wide field of competent men, but you must, as the first step thereafter, cause these men individually and collectively (to whatever extent you apply the collective method), to be impressed with the idea *a priori* that the experiment you wish to be made falls within the line of their duty, and is indeed obligatory on them as dealing with sick humanity. In other words, the men whose assistance you wish to secure are physicians first and therapeutic experimentalists afterwards, and it is not competent for you to require of them to subordinate the first of these characters to the second. Hence it arises that the collective method of investigation is only in a very limited degree applicable to the kind of inquiries with which we are now concerned. You cannot, as a rule, advise in London and put into the form of a schedule an inquiry as regards a particular remedy—say a new remedy—which will have the force of an appeal in carrying the conviction that the experiment so advised is the right one to be made, as viewed from the physician's point of view; but unless this conviction is obtained your experiment cannot be made at all, or, if it is made, it will be in a very half-hearted fashion. Hence it arises that in this element of personal conviction you have a barrier at the outset to what many call "control" experiments on a considerable scale. The men who will give a remedy are, by a kind of natural selection, predisposed in its favour; the men who are not so predisposed will usually abstain from giving the remedy, and in general will be quite right so to abstain. You must in the end take the results with this base of what may be called 'natural selection,' or you will have no results worth speaking of at all." I omit here a paragraph which is not important. "If you have followed me thus far in this line of argument, and the Committee are convinced of it because all agreed with it, you will see why my mind inclines to a multiplicity of small local committees rather than to one only, guided and governed mostly from London as the absolute centre of suggestion and reference. Not but that I believe that a central therapeutic committee will have its functions greatly enhanced and its way cleared for advance by co-operating in advising and by controlling rather than initiating the great variety of research of the local committees. You have obtained the necessary starting point, and, having done so, it would remain for the central committee to record the conclusions and the results which have been arrived at by the local committees. If the central committee found the results unsatisfactory they might say so, or open up the question again on other grounds, or refer to another committee, or remit the conclusions back again to the original committee. In any case the central committee would have still more important functions in becoming the medium of communication between local committees at a distance, or between these and the Association. Very important inquiries might thus be made. The local committees would be safe from the premature and biassed judgments which were now put forth upon certain drugs and which were the mere despair of therapeutics." Now my complaint is that all this pleading never reached the Association; it not only was not published in the British Medical Journal, but it was kept back owing to the machinery by which the work of committees is confined to the committees. The new start initiated by the Therapeutic Committee ought to have received the largest possible publicity, to have been discussed by the Association at large at the very commencement, in which case there might have been some sort of hope of getting these local committees constituted and of their doing something. Instead of this the result has been that, except in Glasgow (where the committee has been constituted but could hardly be induced to meet) and in Dublin (where the committee is still in existence although it has not done anything yet), all the Branches that were applied to simply ignored or left the matter alone, and the policy has come to a state of dead failure and utter stagnation. That is attributable entirely to the Journal having either declined, or at all events having not published the basis of the remarks upon which the local committees were called for and asked for. Now, gentlemen, I am not complaining. This is not to me a matter of personal importance; personally I am not inclined to press it, especially when I consider the severe labour and occupation which would have been imposed upon me had I continued chairman of the committee. Unless a position of that kind is filled *con amore* no good ever can come of it. I do not think, therefore, that the policy has had fair play; and I will go further and say that sooner or later something of this kind will require to be done. I am perfectly satisfied that without therapeutic organisation in all our great medical centres therapeutics will go to the dogs. We are all getting more and more in therapeutics to be the victims of what in American politics is called the "machine." It is either a scientific machine, such as Dr. Sidney Martin or Dr. Lauder Brunton, and all the great authorities in London who are working away at therapeutics in their libraries and laboratories—a kind of machine that is highly honourable; or it is a kind of machine that has found its way even into this room. It is the latter I am most afraid of. It is the "touting" machine. We see touting right and left, so much so that we are not allowed now to make up our own prescriptions. It is this apothecary in London and that physician in New York who keep urging on us combinations of remedies used by themselves, and there is no ill to which human nature is heir that has not got its sole and universal remedy advertised all over the world. Any medical man requires simply to send his attestation that he has tried this remedy in numerous cases and always found it effective, to secure to himself that his name will get all over the world. It is that "touting machine" that is perverting all our therapeutics and lying at the root of biassed judgment. How all these great advertising firms manage to "nobble" the profession is a mystery to me. A good many years ago a whisky, called the "D.D. Whisky," used to be advertised under the patronage of all the medical

journals in this country, but it is never heard of now. But still it is just one instance among many of the touting plague. The evil consists in this, gentlemen, that if a firm or a man, pharmaceutist or doctor, chooses to take what, up to a certain point, is legitimate means of advertising and puffing, if he simply chooses to put it into the proper channels for acquiring a certain amount of publicity in connection with his name, but chiefly and above all to connect his name with a remedy; it is not of the slightest consequence whether the remedy is absolute and unmitigated trash, nay, whether it is dangerous or whether it is the greatest possible boon to mankind, it is not of the slightest consequence, because before it is found out he will have made his money, if he has only puffed and touted it well, before there is time to find out whether it is good, bad, or indifferent. Well, before there is time to find out whether it is good, bad, or indifferent, he will have made an indescribable number of guineas. That is a great snare. There is a constant golden bait held out to the man who will manage to get even a certain temporary or makeshift presentation of a particular therapeutic agent, and in consequence of that golden bait (I am not attributing anything to the honourable member of the profession, but it is applied to the advertising firms) it is of far less consequence that the remedy should be good than that it should be something that can be well touted and well advertised. I had hoped that by constituting a nucleus of therapeutic inquiry in London, and by attaching to this nucleus a number of largely independent and self-regulating centres of inquiry and investigation in the provinces, so that local errors might be effectually controlled—I had hoped that we might establish a kind of barrier, a protection against the constant invasion of bad, useless, and worthless things, and, on the other hand, to advance the interests of true therapeutic science.

The CHAIRMAN (Dr. Sidney Martin) said that as Secretary of the Therapeutic Committee from its formation he might make a few remarks on the subject which Professor Gairdner had brought forward. The Committee had done everything in their power to institute the formation of therapeutic committees in different parts of the kingdom in accordance with Dr. Gairdner's scheme; they had communicated with the Councils of fourteen of the largest Branches, and in only one was there a committee formed—namely, in Dublin. As far as was known, however, no work had as yet been done. From the other Councils either no answer had been received, or one in the negative. The scheme, therefore, had undoubtedly failed. Why it had failed might have been that the Councils of the Branches were not bodies of an organisation suitable to the formation of therapeutic committees. But it might be possible in future to form such committees, which would be active in work, and would be effectual in counteracting that puffing and advertising of drugs by certain members of the profession, the forcible condemnation of which by Dr. Gairdner must be welcome to all.

Local Treatment of Lupus with Sulphurous Acid.—Dr. A. J. HARRISON (Clifton, Bristol) described a method of treating lupus, which in his hands had resulted in cure, and exhibited photographs of patients before treatment, as well as the patients themselves after treatment. Nine of the cases occurred in females, varying in age from 17 to 61 years; the duration of the disease varied from four to forty years. As regards severity, the cases varied in size from a small patch on the cheek—1½ inch by 1 inch—to involvement of nearly every feature of the face; and in one case—in addition to the face—the whole of the left arm; from 4 inches above the elbow to the tips of the little and ring fingers was affected. This case, although from the commencement (at the elbow) of twenty years' duration, was now rapidly improving, and there was every reason to believe would be cured. As a proof of the severity, one had been scraped seventeen times in the Leeds Infirmary, and had been treated besides at Harrogate, Ilkley, London, and Bristol. This case he regretted he was not able to show. Case I. J. W., aged 24, was present. Up to 9 years of age he was perfectly healthy; his father, mother, and brother were all healthy. One day he got wet through to the skin, and came home at night chilled. An acute illness followed, and he had erysipelas or eczema, or both. (The medical man who attended him had been dead several years.) The result was that he became very ill, was said to be going off in a decline, and had to be carried about and treated like a baby. One spot on the forehead—the result of the acute skin affection—never healed, and a fall upon the face was followed by the development of lupoid growth, which spread rapidly. He was afterwards treated at the Bristol Children's Hospital, at the Infirmary and the General Hospital. The disease, however, extended from the forehead to the right cheek, lips, and nose, and to the other cheek. He went into Devonshire, his native place, for a change, but got no better, and whilst there his back became affected. In January, 1891, he was one of a number of patients admitted into the Bristol General Hospital, in order to be treated with tuberculin. At this time nearly the whole of his face and forehead were affected, and inside his mouth he had lupoid masses—a large one as big as half a hazel nut inside the left cheek, and four smaller ones on the right. The place on his back was a large irregular circle, measuring about 9 inches by 7 inches. Although the reaction with the tuberculin was very marked, no improvement seemed to follow, and at the end of fifteen weeks he left the hospital no better. On January 1st, 1892, the treatment recommended by Dr. Harrison was commenced at home. The face was treated actively until May 5th, and since then he had improved weekly; the only application being a little bland ointment. The place on the back was next treated, and responded most actively. Case II. J. C., rather a delicate-looking young woman of 22. She had a lupoid ulcer on the left cheek, near the ear, about 1½ inch long by 1 broad. Her family history was not good. The complaint had commenced as a small red lump about seven years earlier. She had been under Dr. Harrison's care throughout the whole period of the disease, sometimes better, sometimes worse. She began the active treatment on February 23rd, and on March 12th, seventeen days afterwards, she was practically cured, the healing in her case, being really marvellous. Case III. E. M., aged 17, very fairly healthy-looking. When 7 years old, a hard, red spot showed itself on the right cheek and gradually spread. She was treated at the Bristol Children's Hospital, at the Infirmary, where the place was scraped, with partial success, and later on at the General Hospital. On February 27th, the special treatment was commenced. At this time she had a large lupoid, scabby mass, on the right cheek, and great redness of the mucous membrane of the nostrils, especially the right. She improved rapidly, and on April 16th was "nearly cured." Then she became rather slack in the treatment. Case IV. R. J., aged 41, was left a widow at 28 years of age, and had to work as a seamstress for her living. In going to her work one day she got wet through, and worked in her wet clothes. This exposure was followed by a severe illness, accompanied by erysipelas of the face and head. She was confined to bed for three months. Almost six months afterwards a little red spot appeared on the left cheek, and gradually spread until the complaint assumed very much the form which it had when Dr. Harrison first saw her. About a year ago menstruation ceased, and at this time a second spot appeared near the left ear, which slowly increased. Treatment was commenced on February 27th, and, although she experienced a good deal of pain, she persevered, and very soon showed improvement. This case was the only one which had any internal treatment; she took a tonic because she was weak and suffered from neuralgic attacks. For many years past he had taken a very active interest in the Zoological Gardens at Clifton, and the study of the diseases of the animals had been a subject of very great delight to him. About four years ago the monkey house had become very unhealthy from overcrowding and bad ventilation, and a large number of the monkeys died from tuberculous disease of the lungs and bowels, one or the other or both. The monkey house was emptied, disinfected with burning sulphur, cleaned, repainted, and the ventilation improved. It was then reoccupied, and the monkeys remained quite healthy until last autumn, when it became overcrowded. The advantages of sulphur in a free or combined state were also shown by the improvement in many cases of acne rosacea, several skin affections, and lupus derived from ichthyol taken internally (this drug being very rich in sulphur), and also from the application of lotions containing sulphur. The powerful properties of nascent bodies were also well known. Dr. Harrison had read a paper at the annual meeting of the Association at Cardiff advocating the treatment of tinea tonsurans by

nascent biniodide of mercury formed deep down in the roots of the affected hairs. As lupus was, in so many particulars, like a tuberculous disease, if not really a skin manifestation of tubercle, it was thought that sulphur and sulphurous acid might do good. Eventually the following plan was worked out, and tried on a case of lupus with marked benefit:—An aqueous solution of hyposulphite of soda, gr. 40 to ℥j (No. I lotion or night application) was applied to the affected parts by means of lint covered with gutta percha tissue or oil skin, the object being to saturate the tissues thoroughly with this soda salt. The next morning No. II or the day lotion, consisting of pure hydrochloric acid (*B.P.*) ♏v in water ℥j, was applied. In this way, deep down in the diseased structures, a quantity of nascent sulphur and sulphurous acid were formed. The result was that the lupoid tissue was destroyed and unmistakable evidence of a return to health was soon seen. The lotions were changed night and day; and the only pain or smarting experienced was when No. II succeeded to No. I. This treatment must be continued for weeks, and varying in different cases. Scabs and scales quickly disappeared and an ulcerated surface, which soon shows a tendency to heal, was obtained. Milder measures must succeed or be used as alternatives. In cases of superficial lupus, where the ulceration process had not been deep, the application of the following cosmetic paint was very useful: Take powdered starch, ℥j; oxide of zinc, ℥j; calamine, ℥jss; glycerine, ℥j; rose or elder flower water, ℥j. This, painted on several times in succession, formed a protective, and disguised the erythematous appearance of the skin. It might be used either alone, or it might succeed the use of the two lotions of soda and acid, the former being applied during the night, and the latter, say, from 10 A.M. until 2 P.M. Where the ulcerative process had been deeper he found an ointment more beneficial. Take of vaseline and lanoline of each 1 oz., spermaceti ℥ss, oil of eucalyptus ℥ss, and very finely powdered boracic acid ℥j; melt and mix the ingredients together, and scent with oil of cloves or roses if required. This last application was the only one which Case I had used for about two months to his face. In conclusion, Dr. Harrison said (1) that he made no distinction of kind between lupus vulgaris and lupus erythematosus, so-called, or if the terms were preferred, between exedens and non-exedens; (2) that lupus depended upon a microbe or bacillus, not distinguishable microscopically from Koch's bacillus; (3) that lupus had no connection whatever with syphilis, though syphilis might be coincident.

Dr. GIBSON (Harrogate) agreed as to the value of sulphur in lupus.

Dr. NORMAN WALKER (Edinburgh) asked if Dr. Harrison really considered these cases were cured. He did not think any of them could be really so called, and in some of them he could distinctly see the apple jelly nodules. Personally he doubted if lupus were really at all curable. Lupus vulgaris and erythematosus were, if not clinically, at least in their morbid histology, absolutely distinct diseases, and he was not aware that anyone had ever claimed to find tubercle bacilli in a case of lupus erythematosus, nor had inoculation been successful.

After some remarks from Dr. GRIFFITHS and Dr. EDWARDS, Dr. O'NEILL (Belfast) expressed the opinion that the results were not likely to be any more permanent than after scraping.

Dr. SIDNEY MARTIN (Chairman) insisted on the necessity of distinguishing pathologically between the two classes of lupus.

Treatment of Delirium Tremens.—Dr. NORMAN KERR said that delirium tremens might be either a morbid condition produced by nervous exhaustion or a malady developed as an effect of alcoholic poisoning. He believed that it was the latter, and arose from the cumulative specific action of the poison on the cerebral tissue through the alcoholisation of the blood. Acting on this belief, for some time past he had aimed at eliminating the poison as speedily as possible. So far as he knew, this plan was first suggested in 1854 by Dr. Alexander Peddie, who generally prescribed antimony. The most serviceable drug in Dr. Kerr's hands, however, had been liquor ammoniæ acetatis. The main point was to avoid the administration of alcoholic liquors, opiates, chloral, bromide of potassium, and the like. These drugs tended only to aggravate the symptoms. The best hope of cure lay in natural exhaustion inducing sound refreshing sleep. The differing results of narcotic and non-narcotic treatment were strikingly exemplified in the case of a publican who, when 48 years old, was treated for his second attack by opium and bromide of potassium, and in his third attack, two years later, by liquor ammoniæ acetatis. In the former seizure, though the narcotic draught at bed-time induced some sleep, the patient, after the second night, invariably awoke feeling confused and heavy, stuperose, and with no relish for even the lightest food; the only craving was for spirits. The delirium steadily became more intense, until it took four strong men to restrain him. The patient persisting in refusing food, dashing the cup with great force against the walls whenever he had the chance, and becoming more and more maniacal, to save his life, as a favour, Dr. Kerr procured him admission into the workhouse. He was there put into a padded room, and left to rave and storm at his pleasure. Strong coffee was given to him, which he at first angrily refused, but, latterly, craved for, no medicine at all being administered. Though at first he was hardly expected to survive, he made a good recovery in a week, but felt very weak and languid for some weeks afterwards. His succeeding attack was characterised by even graver symptoms; he had a fit (apparently epileptic) in the early stage of the delirium. As it was, for various reasons, extremely undesirable that he should be taken to the workhouse again, he was treated at home. From first to last no narcotic nor anæsthetic was given. The only medicine used was liquor ammoniæ acetatis. A drachm was given every hour, till he perspired freely, and after that the dose was gradually diminished to 15 minims, the intervals being extended to four hours. In about seventy hours he had a short sleep, and in four hours more a quiet sound sleep which lasted for twenty hours. Thereafter, except when aroused to take nourishment, he slept naturally. All delusions and hallucinations disappeared on the fourth day of the attack. In eight days he was at his usual occupation again behind the bar. The contrast between the effects of the treatment during the two illnesses was most marked. During the first, when awake he was constantly delirious, heavily stupid, or violent, continually trying to get in and out of bed. During the second, he always awoke with head clearer, less confused, and a readiness to take food. During both attacks milk and soda, beef tea, meat juice, and chicken broth were relied upon to sustain the strength. No alcohol was prescribed on either occasion. In incipient cases, or indeed during the height of the attack, Dr. Kerr would prefer, if its application could be relied upon, a hot or cold wet pack, frequently repeated if necessary, to induce sleep. But in the absence of a skilled bath attendant, he had found the liquor ammoniæ acetatis by far the most effective, acceptable, and reliable remedy which he had tried. By this method of wooing natural sleep, the first step in the cure, the patient's brain and nervous system was left undisturbed by any narcotic or anæsthetic; and the *vis medicatrix*, which, after all, was the most powerful factor in recovery from disease, had "a fair field and no favour."

Dr. ODELL referred to the difficulty of cutting off all stimulants. He sometimes found it necessary to have recourse to narcotics to procure sleep.

Dr. ROBBS concurred with Dr. Norman Kerr in condemning resort to alcohol, and in advocating the use of hot baths.

DR. H. LELOIR, the distinguished dermatologist of Lille, whose scientific mission to Norway in 1884 resulted in the publication of an admirable monograph on leprosy, has now been entrusted by the French Government with a similar mission in Roumania, where his duty will be to study various affections of the skin, particularly leprosy, scrofulo-tuberculosis, and certain dermatoses of parasitic origin.

THE STUDENT POPULATION OF FRANCE.—This census of the student population in France, which is taken every year on January 15th, gives a total in all Faculties for this year of 22,328, as against 20,785, the number for last year. Of these students, Paris claims 9,837, the provincial schools having together 12,121. There are, however, 4,500 students of medicine and pharmacy in Paris, as against 3,549 in the provinces. The figures thus given do not include the "free" or "Catholic" Faculties. These had in all 931 students in 1891; this number has now risen to 1,022.

MINUTES OF THE PROCEEDINGS OF SECTIONS.

THE following pages contain the minutes of the proceedings of the ten Sections of the sixtieth annual meeting of the British Medical Association held in Nottingham. The sectional meetings were held on the mornings of Wednesday, Thursday, and Friday, July 27th, 28th, and 29th. All the Sections met within the buildings of University College, with the exception of the Section of Public Medicine, which held its meetings in the Mechanics' Lecture Hall. These minutes will afford a general bird's-eye view of the papers read and discussions held in the Sections, and will serve to indicate the large amount of sound scientific and clinical work accomplished and the facilities which such meetings afford for the interchange of knowledge.

A. MEDICINE.

President: WILLIAM HENRY RANSOM, M.D., F.R.S. *Vice-Presidents:* FREDERICK TAYLOR, M.D.; ISAMBARD OWEN, M.D. *Honorary Secretaries:* SIDNEY PHILIP PHILLIPS, M.D.; FRANK MONTAGUE POPE, M.B.

Wednesday, July 27th.

The PRESIDENT delivered an introductory address on Some Diseases of Plants Compared with those of Man, which was published at page 241 of the BRITISH MEDICAL JOURNAL of July 30th.

A discussion on Peripheral Neuritis was introduced by Dr. J. S. BRISTOWE, F.R.S., and continued by Drs. Byrom Bramwell and H. Handford, Professor Stewart (of Montreal), Drs. Davies Pryce, Hedley Neale, Drysdale, Frederick Taylor, Pope, Freeland, Septimus Gibbon; and the President and Dr. Bristowe replied.

Papers were also read by Dr. P. BLAIKIE SMITH on Peripleuritis, and Dr. H. HANDFORD on Rheumatic (Peripheral) Neuritis Associated with Distinct Joint Affection.

Thursday, July 28th.

A discussion on the Prognosis and Treatment of Ascites was opened by Dr. W. B. CHEADLE, and continued by Professor Schroetter (Vienna), Professor Semmola (Naples), Drs. Samuel West, Bristowe, Ratcliffe, Stacey Wilson, Tyson, Mackie, and Drysdale; Dr. Cheadle replied.

Professor SCHROETTER (Vienna) read a paper on Sympathetic Complication Associated with Paralysis of the Recurrent Laryngeal Nerve.

A paper on the Treatment of Pericarditis by the Ice-bag was read by Dr. D. B. LEES.

Dr. GORDON (Exeter) read a paper on Tuberculous Bronchopneumonia.

Dr. SAMUEL WEST read a note on Bleeding, with Illustrative Cases.

A paper on Gout of the Intestines was read by Dr. HAIG.

Dr. SANDWITH (Cairo) read notes of 350 Cases of Phthisis.

A paper on Idiopathic Tachycardia by Dr. GORDON DILL was taken as read.

Friday, July 29th.

Professor SEMMOLA, of Naples, read a paper on the Treatment of Diseases of the Heart, upon which Dr. Drysdale, Sir Frederic Bateman, and Dr. Johnston-Lavis made some observations, and Professor Semmola replied.

Dr. EMIL PFEIFFER, of Wiesbaden, read a paper on Uric Acid Excretion in Gout.

Dr. BYROM BRAMWELL made a communication on the value of Perimeter Measurements in Brain Disease.

Surgeon-Colonel HARVEY read a note on the Recent Epidemic of Cholera in Srinagar (Kashmir); after a brief discussion a resolution was adopted, and directed to be forwarded to the Council of the Association, expressing the opinion that similar epidemics will occur in the future unless sanitary reforms are introduced, and strongly urging the adoption of such reforms as experience has approved.

Dr. FRANCIS HAWKINS read a paper on some Complications and Sequelæ of Infectious Fevers.

Dr. HUGH LANE read a paper on the Neuroses of Chronic Rheumatoid Arthritis.

A paper on the Association of Sensory Disorders with Visceral Disease was read by Dr. J. MACKENZIE.

Dr. WILBERFORCE SMITH made a communication on Weight Measurements in Chronic Diseases.

Dr. G. LORIMER contributed a paper on Gouty Phlebitis.

This concluded the business of the Section.

B. SURGERY.

President: JOHN CROFT, F.R.C.S. *Vice-Presidents:* WILLIAM NEWMAN, M.D.; W. J. PILCHER, F.R.C.S. *Honorary Secretaries:* FREDERIC S. EVE, F.R.C.S., ALEXANDER RICHARD ANDERSON, F.R.C.S.

Wednesday, July 27th.

The PRESIDENT made some introductory remarks, published at p. 244 of the BRITISH MEDICAL JOURNAL of July 30th, in which he sketched the general outlines of the topics which had been chosen for discussion.

A discussion on the Surgery of the Thorax was opened by Mr. RICKMAN J. GODLEE, and continued by Mr. Pearce Gould, Dr. Newman, Mr. Jordan Lloyd, Mr. Charters Symonds, Dr. Ward Cousins, Mr. Eastes, Mr. J. R. Ratcliffe, and Mr. Mayo Robson; Mr. Godlee replied.

Papers were also read by Mr. JORDAN LLOYD, on Injury to the Pancreas as a Cause of Effusion into the Lesser Peritoneal Cavity; by Mr. HARRISON CRIPPS, on Rectal Excision for Cancer, the Selection of Suitable Cases and Prognosis (remarks being made on this paper by the President and Dr. Snow); and by Dr. C. H. MARRIOTT, on A Successful Case of Simultaneous Ligature of the Subclavian and Common Carotid Arteries for Aneurysm of the Innominate Artery.

Thursday, July 28th.

A discussion on the Surgery of the Liver and Gall Bladder was opened by Mr. MAYO ROBSON, and continued by Mr. Lawson Tait, Mr. Jordan Lloyd, Mr. R. C. Chicken, the President, Dr. George Harley, and Mr. Eve; Mr. Mayo Robson replied.

Mr. BRUCE CLARKE read a paper on the Removal of Hydatids of the Liver.

Mr. CHARTERS SYMONDS gave a review or thirty-three cases illustrating the Surgical Treatment of Goitre; Mr. Butlin, Mr. Lund, Mr. Bush, and Mr. Mayo Robson commented on the subject; Mr. Charters Symonds replied.

A New Method of Performing Intestinal Anastomosis was described by Mr. MAYO ROBSON, and discussed by Mr. Bruce Clarke.

Dr. G. H. HUME related a case of Gastro-enterostomy; and Mr. T. R. MORISON showed a specimen from a successful case of Ileo-colostomy, and from a case of Combined Excision of the Pylorus and Gastro-enterostomy; Mr. Mayo Robson made some remarks on these cases.

Mr. GILBERT BARLING read a paper on Appendicitis.

Dr. WARD COUSINS made a communication on Female Lithotrity.

Friday, July 29th.

A discussion on the Treatment of Spinal Abscess was opened by Mr. WATSON CHEYNE, and continued by Mr. Keetley, Mr. Noble Smith, Mr. Charters Symonds, Mr. Jordan Lloyd, and the President; and Mr. Watson Cheyne replied.

A paper on the Later Results of Laminectomy for Paraplegia was read by Mr. ARBUTHNOT LANE.

Papers on the Restoration of the Lost Function of Micturition by Mr. REGINALD HARRISON, and on a case of Supra-pubic Lithotomy by Dr. BEVERLEY, having been read, they were discussed by the President, Mr. Eastes, Mr. Symonds, and Professor Hingston; and Mr. Harrison replied.

Dr. F. SIDNEY GRAMSHAW read a paper on the Treatment of Chronic Ulcers of the Leg by a New Method.

The proceedings were brought to a close by the adoption of votes of thanks to the President and Secretaries.

C. OBSTETRIC MEDICINE.

President: ALFRED LEWIS GALABIN, M.D. *Vice-Presidents:* GEORGE ELDER, M.D.; HERBERT OWEN TAYLOR, M.D. *Honorary Secretaries:* HARRY MICHIE, M.B., HERBERT RITCHIE SPENCER, M.D.

Wednesday, July 27th.

The PRESIDENT delivered an address which is published at page 291.

Papers on *Post-partum* Hæmorrhage were read by Drs. G. F. HERMAN, T. MORE MADDEN, and J. W. BYERS; the discussio

was taken part in by Drs. Horrocks, Herbert Spencer, Purslow, Donovan, Murdoch Cameron, W. Walter, Robert Barnes, T. E. Hayward, F. Pearse, Robertson, Mr. Stanmore Bishop, Mr. Colin Campbell, Mr. C. H. Watts Parkinson, Drs. Sidney Gramshaw, Nagel, Dempsey, Cullingworth, Batchelor (Dunedin), and the President; and Dr. Herman replied.

A paper by Dr. Murdoch Cameron, on the Prevention of Hæmorrhage in Cæsarean Section, was discussed by Drs. Heywood Smith, Herbert Spencer, and Batchelor.

Dr. Headley Neale read a paper on Septic Hydræmia following Miscarriage.

A paper by Mr. T. Borough, on Ergot as a Muscular Tonic During Pregnancy, was taken as read.

Thursday, July 28th.

Dr. Braithwaite described an Operation for the Radical Cure of the Worst Cases of Retroflexion. Drs. Heywood Smith, Leith Napier, Batchelor (Dunedin), the President and Dr. Nagel made remarks on the subject; and Dr. Braithwaite replied.

Communications on Champetier de Ribes's Bags for Dilating the Cervix Uteri, were made by Drs. G. E. Herman, and H. R. Spencer; and Drs. Barnes, Murphy, and Cameron made some observations on the subject, to which Drs. Herman and Spencer replied.

A paper on Stoltz's Operation for Cystocele was read by Dr. Leith Napier, and discussed by Drs. Heywood Smith and Batchelor.

Dr. W. Bain (Manchester) read a paper entitled a Consideration of the Less Obvious Causes of Retardation in the First Stage of Labour.

A case of Tubal Gestation, in which both tubes were gravid, successfully operated upon by Dr. W. Walter, was related by him. Dr. A. W. Edis discussed the Diagnosis of Early Ectopic Gestation. Remarks were made by Drs. Michie, Herman, and Cullingworth; and Dr. Walter replied.

Friday, July 29th.

A discussion on the Treatment of Uterine Fibroids was opened by Mr. Knowsley Thornton. A paper on the Electrical Treatment of Uterine Fibroids was read by Dr. H. McClure; and a paper on a case of Vaginal Myomectomy by Dr. James Murphy. The discussion was continued by Drs. R. Horrocks, Leith Napier, W. J. Tivy, Mr. Lawson Tait, Drs. Elder, Michie, Bishop, Cameron, Heywood Smith, Batchelor, Spencer, Cullingworth, and Mackey.

A paper on the Anatomy of the Hymen was read by Dr. Cullingworth.

A paper by Dr. Christopher Martin on the Occurrence of Extraperitoneal Hæmatocele after Pelvic Operations was taken as read.

D. Public Medicine.

President: Sir B. Walter Foster, M.D., M.P. *Vice-Presidents:* Joseph Littlewood, M.R.C.S.; Charles Harrison, M.D. *Honorary Secretaries:* Philip Boobbyer, M.B., James Scott Tew, M.D., Sydney Monckton Copeman, M.D.

Wednesday, July 27th.

Sir Walter Foster opened the proceedings by delivering a brief introductory address, which was published in the British Medical Journal of July 30th, p. 275.

Dr. George Reid introduced a discussion on Legal Restraint upon the Employment of Women in Factories before and after Childbirth, in which the following took part—Dr. Tatham, Surgeon-Major Pringle, Drs. Aldred, Thresh, W. L. Hunter, Groves, Monk, Simpson, Strachan, Mumby, Butterfield, and the President. A resolution was adopted, which was printed at p. 278.

Dr. H. G. Monk read a paper on Epidemic Cerebro-spinal Meningitis, upon which Sir W. Moore, Dr. Thresh, and the President made some observations.

A discussion on the Methods of Dealing with Town Refuse in the midst of Populous Districts was introduced by Dr. John W. Mason, and continued by Drs. Boobbyer, Groves, Surgeon-Major Pringle, and Drs. Barwise and Thresh; and Dr. Mason replied.

Dr. C. R. Drysdale read a paper on the Prevention of Phthisis and Syphilis, upon which Surgeon-Major Pringle and Dr. Simpson made some remarks; and Dr. Drysdale replied.

Thursday, July 28th.

A discussion on Hospitals for Infectious Disease was opened by Dr. H. T. Bulstrode, and continued by Drs. E. W. Hope, Alfred Hill, Whitelegge, Boobbyer, Copeman, Surgeon-Major Pringle, Drs. Groves, Walter Smith, and Mason.

Dr. J. W. Mason opened a debate on Methods of Dealing with Town Refuse; it was continued by Drs. Boobbyer, Groves, Pringle, Barwise, Simpson, and Thresh; and Dr. Mason replied.

A note on Small-pox in Pudsey a century ago was read by Dr. W. Lovell Hunter; Dr. Whitelegge and Surgeon-Colonel Harvey made some remarks.

A paper on the Notification of Erysipelas and Puerperal Fever was read by Dr. Thresh, and some observations thereon were made by Dr. Barwise.

A paper on Endemic Typhoid Fever was read by Dr. Tew.

Friday, July 29th.

A discussion on the Nomenclature of Notifiable Infectious Diseases was opened by Dr. E. F. Willoughby, and continued by Drs. Whitelegge, A. Hill, Mitchell Wilson, Groves, Boobbyer, Watt, Tew, Aldred, Mumby, and Manley; and Dr. Willoughby replied.

A paper on the Influenza Epidemic of 1892 in London considered from a Statistical Point of View was read by Dr. F. A. Dixey, Fellow of Wadham College, Oxford; and Drs. Willoughby, Whitelegge, and Tatham made some observations on the subject.

Dr. Alfred Hill described an Improved Form of Waste Water-closet, upon which Drs. Reid, Mitchell Wilson, Simpson, Groves, and Wheatley made some remarks.

Dr. Hope read a paper on Tuberculous Meat and its Condemnation, and the subject was discussed by Drs. Simpson, Hill, Boobbyer, and Watt.

This concluded the business of the Section.

E. Psychology.

President: William Bevan Lewis, L.R.C.P. *Vice-Presidents:* William Barney Tate, M.D.; Henry Rayner, M.D. *Honorary Secretaries:* Fletcher Beach, F.R.C.P.; Evan Powell, M.R.C.S.

Wednesday, July 27th.

The President delivered an address on Some Desirable Extensions of Asylum Ministration, which was published at page 246 of the British Medical Journal of July 30th. A vote of thanks to the President for his address was adopted on the motion of Dr. Rayner, seconded by Dr. Murray Lindsay.

A discussion on Psychoses after Influenza was opened by Dr. Julius Althaus, and continued by the President, Sir Frederic Bateman, Drs. H. Rayner, Goodall, Murray Lindsay, Urquhart, Mickle, Batty Tuke, Corner, J. P. Richards, Richardson, and Aldridge. The following resolution, moved by Dr. Urquhart and seconded by Dr. Rayner, was adopted: "That a recommendation be made to the Council that a Committee be appointed to consider the influence of influenza on the insane in asylums."

Dr. Jules Morel, Belgian Commissioner in Lunacy, gave an Account of the System of Medico-psychological Examination of Prisoners in Force in Belgium. Drs. Urquhart and Rayner and the President commented on the subject.

A paper on the Variation in Type of General Paralysis was read by Dr. F. St. John Bullen, and discussed by the President, Dr. Morel, and Dr. Mickle.

Thursday, July 28th.

A discussion on Neural Action Corresponding to the Mental Functions of the Brain was opened by Dr. Francis Warner, and continued by the President and Drs. Mickle and H. Campbell; Dr. Warner replied.

A paper on Minor Psychical Disturbances in Women was read by Dr. H. Campbell, and discussed by Drs. Urquhart, Robertson, Warner, Dunn, and Johnston-Lavis; and Dr. Campbell replied.

Dr. J. Macpherson made some remarks on the Influence of Intestinal Disinfection in Some Forms of Acute Insanity.

Friday, July 29th.

A paper on Paranoia and its Relationships was read by Dr. E. L. DUNN, and the subject was discussed by Drs. Hack Tuke, Mickle, Peeke Richards, Rayner, Macpherson, Goodall, and the President.

A discussion on Insanity as a Plea for Divorce was introduced by Dr. LIONEL WEATHERLEY, and continued by Dr. James Stewart, Rayner, Hack Tuke, Kingsbury, Douglas, and Sutherland.

Reports were read by Dr. FRANCIS WARNER on the Mental and Physical Condition of 50,000 Children, seen in 106 schools; and by Dr. POPE, on a Special Class in the Leicester Board School. Mr. Abel Clerk, of the Nottingham School Board, and Dr. Shuttleworth, made some observations on the subject, and the following resolution was adopted on the motion of Dr. Rayner, seconded by Dr. Murray Lindsay: "That the Section of Psychology, having heard Dr. Francis Warner's explanation of the report on the mental and physical condition of 50,000 children seen in 106 schools, as presented to the Association, beg to draw the attention of the Council to the desirability of obtaining its publication."

The PRESIDENT showed and described an improved Reaction Time Instrument.

Papers by Dr. LLOYD TUCKEY on the Value of Hypnotism in Chronic Alcoholism; and by Mr. ROBERTSON, on the Use of Hypnotism among the Insane, were read. Mr. Robertson also related a case illustrating the Evil Effects of Hypnotism produced by Public Performers. The papers were discussed by Drs. Draper, Hack Tuke, Bedford Pierce, and J. Stewart.

Papers by Dr. EDRIDGE GREEN, on Perception, with Special Reference to Colour Perception; and by Dr. ROBERT JONES, on Microcephalus, were taken as read.

This concluded the business of the Section.

F. Pathology.

President: VICTOR HORSLEY, F.R.S., F.R.C.S. *Vice-Presidents:* SAMUEL WEST, M.D.; SHERIDAN DELÉPINE, M.B. *Honorary Secretaries:* ALEXANDER BRUCE, M.D.; WILLIAM BRAMWELL RANSOM, M.D.

Wednesday, July 27th.

The PRESIDENT made some introductory remarks, published at page 248, on the Teaching and Study of Pathology in the United Kingdom.

A paper on the Pathology of Obstructive Jaundice was read by Dr. VAUGHAN HARLEY, and one on Toxæmic Jaundice by Dr. WILLIAM HUNTER. Dr. George Harley read some remarks on the same subject.

Dr. MOTT and Mr. C. D. MARSHALL, F.R.C.S., gave a lantern demonstration illustrating a paper on the Path of Afferent Impulses in the Cord.

A paper on the Methods of Altering the Coagulability of the Blood was read by Dr. A. E. WRIGHT.

Papers on the Treatment of Myxœdema by the Injection of Fresh Thyroid Juice were read by Drs. GEORGE MURRAY, ARTHUR DAVIES, and STANSFIELD (for Dr. T. CLAYE SHAW).

A paper on Pancreatic Diabetes was read by Dr. VAUGHAN HARLEY. This concluded the business of the morning session.

The Section met again in the afternoon, when Dr. SIDNEY MARTIN gave a lantern demonstration illustrating his researches on Diphtherial Paralysis.

The PRESIDENT read a paper by Dr. Max Wälthard on One Factor in the Causation of Septic Peritonitis.

Dr. WILLIAM RANSOM showed, with the electric microscope, preparations illustrating the Pathology of Tabes Dorsalis.

The SECRETARY demonstrated for Dr. LAURENCE HUMPHRY a Brain with a Tumour of the Gyrus Fornicatus, no marked sensory loss having been observed during life.

Thursday, July 28th.

Mr. STILES (Edinburgh) demonstrated a series of photographs of Microscopical Sections of Mammary Carcinoma.

The greater part of the sitting was occupied by a discussion on Cancer, in which Professor Sheridan Delépine, Drs. Boyce, Ruffer, Snow, Russell, Sims Woodhead, Mr. Morton, Mr. Roger Williams, and Mr. Cecil Beadles took part. Professor Delépine replied.

Dr. MUIR read a paper on Leucocythæmia.

A paper on General Paralysis in Adolescence was read by Dr. MIDDLEMASS.

In the afternoon demonstrations were given by Dr. MICHELL CLARKE on Endothelioma of the Dura Mater; by Dr. MACKENZIE on the Venous Pulse; by Dr. RUXTON on Peripheral Neuritis in Lunatics; by the President on Œdema; by Dr. RISIEN RUSSELL on the Structure of Recurrent Laryngeal Nerve and the Pathology of Laryngeal Paralysis; and by Dr. DAWSON TURNER on High Potential Electricity.

Friday, July 29th.

Professor SHERIDAN DELÉPINE related a case of Hemiplegia with unusual Eye Symptoms, upon which the PRESIDENT made some remarks.

A paper by Professor G. TIZZONI and Dr. E. CENTANNI on a Chemical Vaccine for Rabies was read by Dr. BRUSCHETTINI.

Papers on Immunity were read by Drs. A. A. KANTHACK and CHARLEWOOD TURNER; and the subject was discussed by Drs. RUFFER, BOYCE, and W. B. RANSOM.

A paper on the Effects Produced on Secretion by the Injection of Large Doses of Pure Cultures, by Drs. RUFFER and SHERRINGTON, was read.

Dr. EVANS read a paper on Geotropism in Bacterium Zopfii.

Papers on the Madura Foot of India were read by Drs. A. A. KANTHACK and SURVEYOR, and the last-named made a communication on a Parasite Found in the Liver of the Rat.

Dr. W. B. RANSOM described the appearances of the Fungus found in a case of Actinomycosis.

A note on Phagocytosis in relation to Erysipelas was read by Mr. T. J. BOKENHAM.

Mr. HARRIS made a communication on the Bacteriology of a Case of Cerebral Abscess.

This concluded the business of the Section.

G. Ophthalmology.

University College, Room 33, First Floor.

President: PRIESTLEY SMITH, M.R.C.S. *Vice-Presidents:* FRANK HY. HODGES, F.R.C.S.Ed.; CHARLES HIGGENS, F.R.C.S. *Honorary Secretaries:* ERNEST CORY KINGDON, M.B.; H. W. DODD, F.R.C.S.

Wednesday, July 27th.

The PRESIDENT delivered a short introductory address.

Papers were then read by Mr. CHARLES HIGGENS, F.R.C.S., on the Treatment of Diseases of the Lachrymal Apparatus, and by Dr. A. H. BENSON on the Treatment of Stenosis of the Nasal Duct. The discussion on these papers was taken together. Messrs. Berry, Adams Frost, Tosswill, Beaumont, Snell, Pridgin Teale, Tatham Thompson, Bendelack Hewetson, Wray, Mackay, Richardson Cross, Hodges, Hern, and the President took part; and Mr. Higgens replied.

Surgeon-Captain H. R. WHITEHEAD read a paper on Massage in the Treatment of Eye Diseases, and was followed by Mr. BENDELACK HEWETSON with a paper on Ten Years' Experience of the Effects of the Treatment of Interstitial Keratitis by Syndectomy without use of Specific Drugs. A discussion followed, in which Mr. S. Snell, Mr. Hodges, Mr. Berry, and Brigade-Surgeon-Lieutenant-Colonel Drake-Brockman took part.

Papers by Mr. F. RICHARDSON CROSS on Three Cases of Abscess of the Frontal Sinus, and Dr. FARRAR on a Case of Tumour of the Right Orbit, Operation and Recovery, were discussed by Mr. Adams Frost, Mr. Bendelack Hewetson, Mr. Higgens, Mr. Doyne; and Mr. Cross replied.

Thursday, July 28th.

A communication on the Pathology of some Intra-ocular Tumours was read by Mr. J. B. LAWFORD, and discussed by Mr. Doyne, Mr. Adams Frost, Mr. Richardson Cross, Mr. Snell, Mr. Hewetson, and the President; and Mr. Lawford replied.

Mr. G. E. WILLIAMSON described a case of Primary Sarcoma of the Iris, and exhibited microscopical sections.

Dr. J. H. BELL (Bradford) read a Chapter in the Early History of Nystagmus, Dr. COCKING read a paper on Miners' Nystagmus associated with Torticollis, and Dr. J. COURT a paper on Miners' Nystagmus, its Causes and Relation to the Lighting of Mines. The subject of Miners' Nystagmus was discussed by Mr. Snell, Mr. Tatham Thompson, Dr. Pegler, the President, Mr. Hewetson, and Mr. Lawford.

Friday, July 29th.

Mr. Sydney Stephenson read a paper on the Surgical Treatment of Trachoma, and the subject was discussed by Mr. Lawford, Mr. Adams Frost, Mr. Wray, Mr. Cross, Mr. Dodd, Dr. A. Sandford, Brigade-Surgeon-Lieutenant-Colonel Drake-Brockman, Dr. Benson, and Mr. Snell; and Mr. Stephenson replied.

Dr. G. Mackay made a communication on the Quantitative Estimation of the Colour Sense, and showed the apparatus used by the Dutch railway ophthalmic surgeons. Mr. Adams Frost and Mr. Bickerton made some remarks, and Dr. Mackay replied.

A paper on Aseptic Ophthalmic Surgery as practised at the Bradford Eye and Ear Hospital was read by Dr. Bronner, who also showed a sterilising apparatus for eye instruments and bandages. These communications were discussed by Mr. Cross, Mr. Lawford, Mr. A. S. Percival, Dr. Drake-Brockman Mr. Hodges, and the President; and Dr. Bronner replied.

Mr. A. S. Percival read a paper on the Relationship of Convergence to Accommodation, and Mr. Doyne made a communication on a question of Refraction.

A paper on the Association of Shipping Disasters with Defective Eyesight and Colour Blindness was read by Mr. T. H. Bickerton.

Papers by Dr. Edridge-Green, on the Registration of Defects of Colour Vision; by Dr. Fergus, on a Modification of Foerster's Box for testing the light sense; and by Dr. McGillivray, on Recent Tests for Colour Blindness, with reference to the quantitative estimation of the colour sense, were taken as read; as was also a paper by Mr. A. V. Ford, on the Chloride of Sodium of the aqueous humour as the exciting cause of cataract.

This completed the business before the Section.

H. Diseases of Children.

President: Lewis Walter Marshall, M.D. *Vice-Presidents:* James Davison, M.D.; Winfred Benthall, M.B. *Honorary Secretaries:* D'Arcy Power, F.R.C.S.; Edward Mansel Sympson, M.D.

Wednesday, July 27th.

The President opened the proceedings by reading an address on the Need for Systematic Instruction in the Diseases of Children, which was published at p. 249 (July 30th). A vote of thanks to the President, proposed by Dr. H. Ashby, and seconded by Dr. Samuel West, was carried unanimously.

Dr. F. Goodhart then opened a discussion on the Diagnosis and Treatment of Croupous Pneumonia in Children. A well-sustained discussion followed, in which Drs. H. Ashby, C. N. Gwynne, D. B. Lees, Tyson, T. More Madden, James Mackenzie, Samuel West, E. Mansel Sympson, E. L. Freer, Smith, J. D. King, and the President took part; and Dr. Goodhart replied.

Thursday, July 28th.

The whole of the meeting on this day was taken up by a discussion on the Treatment of Severe Club Foot, which lasted three hours; it was introduced by Mr. Walsham, and the other speakers were the President, Mr. A. H. Tubby, Dr. Muirhead Little, Mr. J. Ewens (Bristol), Mr. Luke Freer (Birmingham), Mr. Noble Smith, Mr. Thomas (Birmingham), Mr. Firmin-Cuthbert (Gloucester), Mr. C. R. B. Keetley, Mr. H. A. Reeves, and Dr. Henry O'Neill (Belfast); Mr. Walsham replied.

Friday, July 29th.

A paper on the Treatment of Scoliosis was read by Mr. E. Luke Freer, and discussed by Mr. Ewens, Mr. Walsham, and the President; and Mr. Freer replied.

The President showed a case of Congenital Dislocation of the Left Tibia Backward.

Papers on the Treatment of Ringworm were read by Dr. A. Eddowes and Dr. Abraham, and discussed by Drs. G. B. Barron, A. J. Harrison, and Norman Walker; and Dr. Eddowes replied.

The results obtained from the Analysis of more than One Hundred Specimens of Human Milk were given by Dr. Emil Pfeiffer, of Wiesbaden.

A paper on Overgrowth of the Inner Tuberosity of the Tibia as a Cause of Genu Valgum independent of Elongated Inner Condyle of the Femur was read by Mr. Ewens, and discussed by Mr. Walsham, Mr. Noble Smith, Mr. Morton, and Dr. Braidwood. The paper was illustrated by photographs.

Mr. Noble Smith demonstrated a Splint for Genu Valgum.

Dr. P. Murray Braidwood read a paper on Nervous Disorders following certain of the Acute Infectious Diseases of Childhood, upon which Dr. Mansel Sympson made some remarks.

This completed the business before the Section.

I. Pharmacology and Therapeutics.

President: Joseph Orpe Brookhouse, M.D. *Vice-Presidents:* Charles Augustus Greaves, M.B.; Sidney Harris Cox Martin, M.D. *Honorary Secretaries:* Charles Henry Cattle, M.D.,; Thomas Jessopp Bokenham, L.R.C.P.

Wednesday, July 27th.

The President delivered an address on Some Points in Pharmacology and Modern Therapeutics, which was published at page 250 (July 30th).

A discussion on Cardiac Tonics, and the Indications for their Use was introduced by Dr. W. H. Broadbent, and continued by Dr. Lauder Brunton, F.R.S., Professor Clifford Allbutt, F.R.S., Professor Ebstein (Göttingen), Professor Oliver, Drs. Lindsay, Handford, Ralph Stockman, A. J. Harrison, and the President; Dr. Broadbent replied.

A paper on the Dietetic Treatment of Diabetes was read by Prof. Ebstein.

Thursday, July 28th.

A discussion on Dyspnœa and its Treatment by Drugs was opened by Professor Gairdner, of Glasgow, and continued by Professor Leech (Manchester), Dr. Handford (Nottingham), Professor Oliver (Newcastle), Drs. Wilberforce Smith, Pearse, Norman Kerr, Hutchinson, Cattle, and Walker; Dr. Hayward and Dr. Sinclair Coghill also made some observations.

Professor Gairdner, as retiring Chairman of the Therapeutic Committee, made some remarks on Therapeutic Committees, their possible uses; Dr. Sidney Martin made some observations on the same subject.

Dr. A. J. Harrison made some remarks on the Treatment of Lupus, and showed some cases; remarks were made by Drs. Gibson, Norman Walker, Griffiths, Edwards, O'Neill, and Sidney Martin.

A paper on the Treatment of Delirium Tremens was read by Dr. Norman Kerr, and discussed by Drs. Odell and Robbs.

Friday, July 29th.

A discussion on Anæsthetics was opened by Dr. Dudley Buxton, who read a paper on the bearing of Recent Physiological and Chemical Research on the Question of Anæsthesia. The discussion was continued by the President of the Association (Mr. Joseph White), Drs. Laurence Turnbull, F. Hewitt, Ralph Stockman, Sidney Rumboll, George Rowell, and the Chairman (Dr. Sidney Martin); and Dr. Buxton replied.

Dr. A. P. Chadbourne, of Berlin, described the Local Anæsthetic Properties of a new Coca Base.

Papers on the Hæmatemesis of Anæmic Young Women, by Dr. Henry Handford; on the Influence of Harrogate Water on the Excretion of Urea, by Dr. J. Liddell; and on the Treatment of Bilious Sick Headaches by Massage, by Dr. Symons Eccles, were taken as read.

J. Laryngology.

President: Richard Atkinson Hayes, M.D. *Vice-Presidents:* Donald Stewart, M.D.; T. Mark Hovell, F.R.C.S.Ed. *Honorary Secretaries:* John Macintyre, M.B., Donald Rose Paterson, M.D.

Wednesday, July 27th.

The President made a few opening remarks, and took occasion to acknowledge the honour done him by selecting him for that office, and to welcome Professor Schroetter, of Vienna.

A discussion on Nasal Neuroses was opened by Drs. Stewart and Bronner, and continued by Mr. Hovell, Dr. Lennox Browne, Drs. Scanes Spicer, Dundas Grant, Watson Cheyne, Robertson (Newcastle), Pegler, Barr, Semon, and Macintyre,

Professor SCHROETTER made some observations on Neurotic Diseases of the Larynx, upon which Dr. Semon made some remarks; and Professor Schroetter replied.

A paper on Rhinalgia was read by Dr. WM. HILL.

Dr. ROBERTSON discussed the Treatment of Ozæna and Recurrent Nasal Polypi by Opening and Draining the Antrum of Highmore, with illustrative cases.

Dr. SCANES SPICER read a paper on Some Points in the Diagnosis and Treatment of Chronic Suppuration of the antrum of Highmore, and described cases in illustration.

Thursday, July 28th.

Dr. MACINTYRE gave a demonstration of drawings and microscopical preparations illustrating the Relationship of Bacteriology to Diseases of the Throat.

A paper on the Importance of a Systematic Course of Physical Voice Training at Schools or Colleges, especially with regard to its Influence on Prevalent Throat Troubles in Public Speakers and Others, was read by Dr. ARTHUR SANDFORD; on Faults in Voice Production which Lead to Throat Disease, by Mr. LENNOX BROWNE; on Throat Affections peculiar to Voice Users, by Dr. JOHN M. HUNT; and on a Frequent Cause of Irritation of the Throat in School Teachers, by Mr. RICHARD ELLIS; Drs. BENNET and BARR made some remarks on the subject of Voice Production; and Mr. Browne and Dr. Hunt replied. The following resolutions proposed by Dr. SANDFORD were adopted: 1. "In consideration of the injurious influence exercised upon the vocal organ by improper use of its function, and of the insufficient attention hitherto given to the subject of systematic voice training, the members of the Laryngological Section of this Association desire to urge upon educational governing bodies the importance of more general recognition of this subject as a distinct branch of education, especially in the case of those preparing for the career of public speakers. They would also suggest the advisability of at least an elementary knowledge of the physiology of the vocal organs and of the principles of scientific vocalisation in school teachers and others associated with the education of the young. 2. That this resolution be forwarded to the Council for their consideration as to what steps may be desirable for the furtherance of this object."

Friday, July 29th.

Dr. BRONNER read a paper on the Use of Trichloracetic Acid in the Treatment of Ozæna; upon which Mr. Lennox Browne made some remarks.

Dr. THOMAS BARR read a paper on the Importance of Guarding against Injury to the Middle Ear when Treating the Nasal Passages and Nasopharynx; upon which Professor Grüber made some remarks.

A paper on Nasal and Respiratory Spinal Curvatures, by Mr. H. A. REEVES, was taken as read.

A discussion on the Etiology and Treatment of Granular Pharyngitis was opened by Mr. T. MARK HOVELL and Mr. Mr. LENNOX BROWNE, and continued by Drs. Donald Stewart, Hunt, Ellis, Barr, Jacob, Warden, Professor Grüber, Dr. Macintyre, and the President; Mr. Hovell and Mr. Browne replied.

ERRATUM.—In the report of the proceedings of the adjourned general meeting on Tuesday, July 26th, with reference to the report of the Committee on Railway Servants' Eyesight, two mistakes were made in the names. The adoption of the report was moved by Dr. Mackay, of Edinburgh, who has worked most zealously for the Committee, and obtained valuable statistics from various railway companies embodied in the report. Dr. Mackay's motion was seconded by Mr. Charles Higgens, Ophthalmic Surgeon to Guy's Hospital.

DEATH OF DR. HENRY CROLY.—WE very deeply regret to announce the death of Dr. Henry Croly, of Rathfarnham, Dublin, which occurred on July 31st. The deceased gentleman was formerly medical officer of the dispensary district in which he lived, but retired some years ago. He had attained the advanced age of 86 years. Dr. Croly, who was father of Mr. H. G. Croly, enjoyed the respect of the profession in the highest degree for his ability and rectitude, and his death is very sincerely regretted.

THIRD GENERAL MEETING.

THE third general meeting was held on Thursday, July 28th, in the Albert Hall, the PRESIDENT in the chair.

The Address in Surgery, which appeared in the BRITISH MEDICAL JOURNAL of July 30th, p. 236, was delivered by Dr. W. H. HINGSTON.

Mr. LAWSON TAIT, in proposing a vote of thanks to Dr. Hingston, said that in his prettily worded prologue Dr. Hingston apologised for himself in that he came before them as a child of Canada. It would be seen that Dr. Hingston was a well-grown and remarkably good-looking child, and in that respect he very fairly represented the country from which he came. He (Mr. Lawson Tait) regretted that Dr. Hingston had not told them more in his own eloquent words of the country from which he came, for he had most modestly kept in the background much that might have been said in praise of the progress of that immense district. Only as recently as the year 1866 that great Dominion was practically in a condition of rebellion. Since then not only had it become peaceable and tractable, from the Red Indians up to the highest class of the immigrant population, but it was now one of the most successful, the richest, and most promising countries of the world. Without being political, he might say that that change had been effected very largely by the Canadians being left to themselves. The surgical progress of Canada had kept pace with the national progress, and no better example of its progress could be presented than Professor Hingston himself. When he (Mr. Tait) landed in Canada for the purpose of addressing the Canadian Medical Society, he thought that he should escape with some very average contribution to surgical literature, delivered to a small handful of, perhaps, thirty or forty men. But he found that he had to reconsider what he was going to do, for he addressed some hundreds of men who were their equals in every way. Sitting at the dinner table at Dr. Hingston's right hand, he remembered conversing with a young gentleman who spoke very fluently and cleverly about everything except the practice of medicine and surgery, and he thought he had obtained the advantage of getting a lay Canadian whom he could pump upon Canadian politics. The conversation was most interesting, and when he at last took the liberty to ask with whom he was conversing, the reply was, "I am the Professor of Anatomy in the University of Winnipeg." He had heard of Winnipeg as being in the year 1871 "two mud huts and a post office," and in 1884 he found a man who was paid a good salary—a competent, clever, and intelligent gentleman—who had to do nothing but teach anatomy in the University of Winnipeg. That showed what had been done in twelve years, and that was the way in which progress was made in Canada. It was intellectual progress just as much as it was material progress. The professional work in Canada was quite up to the level of anything in Europe. He heard addresses and lectures given, and saw operations performed which would have reflected credit on the mother country. He thought that Dr. Hingston had hardly given his countrymen their due merit. Men came to attend the Canada Association not only from Winnipeg, but from Frazer River and distances which would mean very much the same as a journey to Constantinople. He would how ask many members there were of the British Medical Association who would be willing to travel not scores of miles, but thousands of miles, in order to attend its annual meetings? He did not believe there was a single member present who would do it. It was to him a very great pleasure to meet Dr. Hingston again, and to express the hope that he would live long to grace the profession in his own country.

Mr. CROFT had infinite pleasure in supporting this proposal. He was a new acquaintance of Dr. Hingston's, and it was one of the proudest moments of his life that he had the opportunity to say that he had become one of his acquaintances, for no one could come within reach of his influence without feeling that he had been in contact with one whose influence must do him good. Dr. Hingston was a son of Canada. He had come, as Mr. Lawson Tait had implied, thousands of miles, to be present at these meetings. They welcomed him, and hoped that he would take back to his friends in Montreal, very pleasant recollections of Nottingham. He could assure

him that whenever any of his brethren came to England they would meet with a most hearty welcome.

The President said everyone present must feel grateful to Professor Hingston for the labour he had undertaken and the pleasure he had afforded them. They already felt intimate with him and hoped that that intimacy and friendship might long exist. He asked them to receive the resolution with acclamation.

The resolution was carried by acclamation.

Dr. Hingston said he was deeply grateful to the Association for the warmth of the reception that they had given him. He was grateful to Mr. Lawson Tait and Mr. Croft for the very kind words they had thought fit to use in his regard. On his return to Canada, though without their eloquence, he would try to imitate their warmth in conveying to his colleagues on the other side a faint impression of what he had experienced amongst his English brethren.

The late Dr. C. A. Walters, of Cheltenham.—Dr. D. B. Balding, in bringing forward the resolution of which he had given notice, said his first duty was to thank the Council for permitting him to move this resolution. He had some hesitation in applying for the privilege, but thought that the gravity of the case justified him in making the application. The present year seemed to have been specially fruitful in developing cases of censure of members of their profession. At its commencement there were five or six cases of more or less severe censure passed by different coroners and coroners' juries. In nearly all those cases the censures were certainly unjust, and he might also say they were illegal. He spoke with some confidence in this matter because, having been for nearly twenty years a coroner, he had felt it his duty to make himself acquainted with coroners' law. In saying that these censures were illegal, his opinions were founded principally on a judgment given by Mr. Justice Coleridge many years ago in the case of Dr. Burncastle, of Croydon. The law remained the same as it was then, and Mr. Justice Coleridge, in giving his decision, said that the jury having decided that the evidence did not justify a criminal verdict, no one had more right to pass any opinion on the medical officer who had given evidence in the case than they had a right to pass an opinion upon either the learned judge or any one else who had nothing to do with the matter. That judgment had never been questioned, and it was decisive on the point that coroners' juries had no business to criticise medical men and to stigmatise them, seeing that those censures were of necessity published in all the local papers, and had more or less serious effect. He was sorry to have to make rather strong remarks in reference to any of his brother coroners, but the necessity justified his doing so. What induced him to bring this matter forward was the case of Dr. Harrison, at Chester, who for a very trivial fault within the last three months was called upon to resign by the Local Government Board. Those who took the trouble to investigate the case admitted that that censure was out of all proportion to the fault. Dr. Harrison would not have resigned, but unfortunately he held two other Local Government Board appointments, and, if he had not resigned, he would have been deprived of them. The case was brought under the notice of Mr. Ritchie by two members of the House of Commons, but they could not succeed in inducing the President of the Board of Trade to alter his decision, highly desirable as it might have been. The case of Dr. Walters had occurred still more recently. It was not necessary to go into all the details, for they had appeared in the journals. It had been twice brought before the Council of the Poor-law Medical Officers' Association. Dr. Walters's fault, if any, was a very trivial one, but nevertheless he was suspended by the guardians of the Cheltenham Union, and some most cruel remarks were made in reference to him. The case was referred to the Local Government Board, and, much to the astonishment of Dr. Walters and his friends, instead of his being acquitted he was severely censured. The fault after all lay with the guardians. They had been treating as a pauper a woman in receipt of a very considerable property, who had had £100 during the last twelve months, and had £30 deposited in the savings bank at the time she was in receipt of relief. When these facts became public the guardians stopped her relief, admitting that she ought never to have been a pauper at all. But they did more than that. A bill came back to the guardians for £7 7s. for the maintenance of the child in the hospital, which child Dr. Walters had refused to attend as a pauper. The guardians did not pay it but ordered this woman to pay it—the same woman with regard to whom they had suspended Dr. Walters for not attending her child. Could anything be more inconsistent than for a board to act in that way? He (Dr. Balding) was in correspondence with Dr. Walters in reference to this case, and he very confidently looked forward to this unjust decision of the Local Government Board being revoked. After waiting several days for a letter, what was his pain and disappointment when, instead of receiving a communication from him, he had a letter from a near relative to say that he was dead. Without attributing Dr. Walters's death entirely to his treatment, his daughter, in writing, used these words: "We cannot help feeling that his death has been accelerated by the cruel treatment he has received from the Cheltenham Board of Guardians and from the Local Government Board." He (Mr. Balding) had been to the Local Government Board himself about this matter, and he must admit that he had received a very severe snubbing. That made him more decided that he would not let the matter rest. The Local Government Board was a very difficult body to deal with. It was impossible for Dr. Walters or his friends to fight that Board. It was very questionable whether the Association could fight that Board, but he was not sure that they might not be able to exert some pressure. The President of the Local Government Board must be held responsible for what had been done. Mr. Ritchie was at the present time without a seat in Parliament. The Government had been trying to find a seat for him; they had not done so, and he could not fancy that there was any constituency in England that Mr. Ritchie could face without meeting with the strong opposition of the medical profession. He concluded by proposing: "That in the opinion of this Association the decision of the Local Government Board in reference to the case of the late Dr. Walters of Cheltenham was unjustifiably severe, and that it is incumbent on this Association to use its best endeavours to promote a reconsideration of the case."

Mr. Wickham Barnes, in seconding the resolution, said one important point in the case was this, that the application for relief came without an order, and, speaking as Secretary of the Poor-law Medical Association, that fact was very important to all Poor-law medical officers throughout the kingdom. If they had to attend cases without orders their lives would be made miserable and their appointments would not be worth having. The mother sent a messenger to Dr. Walters to attend the child without any order. Dr. Walters immediately said: "Get an order, and I will come." The order could have been obtained in five minutes. They did not do it, but called in another medical man, showing that the woman had money and was not a subject for Poor-law relief. It was most important that something should be done in the matter, because if things were left as they were appointments throughout the United Kingdom would be rendered unbearable if the medical officers had to go to every case simply upon a verbal appeal from the patient. It was a very strong case, and one that ought to go a little further. He hoped that a deputation would be appointed to go to the Board upon the matter.

Mr. George Brown said he should be sorry to say anything against the resolution, but he did not think that it was one that ought to be passed hastily. The statements made at present were *ex parte*. He did not think that motions of that kind should be brought forward unless they knew all the facts. It was the first time in the history of the Association that its members had been asked to form themselves into a Court of Appeal to pass a vote of censure upon any public body. The motion should be altered so as to refer the matter, if thought sufficiently important, to a committee or to the Council, and for the Council to act. The Association had not sufficient facts before it to enable it to form a judgment. It was a case of apparent injustice, but he certainly was not prepared to vote for a motion of censure. Moreover, if they took this as a precedent, where on earth would this business end? It was not only that there was one case of injustice, or two cases; he had known scores of cases of apparent injustice quite as worthy of their attention and censure as the present one. If they took upon themselves to make the Association

a Court of Appeal for every Poor-law medical officer or every servant of a public body, they would take upon themselves a function for which the Association was never intended. If necessary, he would move an amendment that the case be referred to the Council of the Association with power to act.

Dr. BALDING said his motion did not censure the Local Government Board. It simply stated they should use their best endeavours to get a reconsideration of the case.

Dr. STEWART said he would move as an amendment that the Parliamentary Bills Committee should take the matter in hand and dispose of it in accordance with the terms of the resolution. Looking at the history of various matters which had been done in the past, he thought it as well that the executive should, by resolution, be called upon to act in such a matter, and their hands would be strengthened if they received a direct instruction from the Association. If Dr. Balding would accept as a rider to his resolution that the Parliamentary Bills Committee be requested to take such action as they might think fit, that would meet his views, but he did not think the resolution should go before the public without some such addition.

Dr. BALDING said he was quite ready to accept the addition.

The resolution that: "In the opinion of this Association the decision of the Local Government Board in reference to the case of the late Dr. Walters of Cheltenham was unjustifiably severe, and that it is incumbent on this Association to use its best endeavours to procure a reconsideration of the case," together with the rider: "That it be referred to the Parliamentary Bills Committee with the request that they should take such action as they may think fit," was then put to the meeting and carried.

CONCLUDING GENERAL MEETING.

The concluding general meeting was held in the Mechanics' Hall on Friday afternoon, when there was a large attendance. The PRESIDENT (Mr. Joseph White) occupied the chair.

Dr. G. SIMS WOODHEAD delivered the Address in Bacteriology, which appears on page 285.

Surgeon-Colonel HARVEY, in moving a vote of thanks to Dr. Sims Woodhead for his able address, said that if there was one point which had struck him more than any other it was that bacteriology, although the youngest branch of medical science, had already got to such encyclopædic dimensions that it must practically be left to experts. They must never forget that the chief *raison d'être* of the medical profession was to care for the sick, to alleviate suffering, to cure disease, and to evade death; and that the average practitioner engaged in fighting the battle of disease from morning to night and from night to morning had to meet the bacillus in his patient, and had no time to hunt him down in a pathological laboratory; and although it was important that he should keep himself thoroughly *au courant* with all that was going on, he must be content to leave the necessary calculations and analyses to experts, and could give very little time to purely scientific work. How, then, were they to get the necessary paid experts to do this work? The love of science would do much, and to that they owed the enormous progress already made, but the love of science would not provide a man with food and raiment, or enable him to meet the exigencies of life; and therefore it was necessary that those who gave themselves up to scientific work should be able to live by it. The Colleges had done much, and the profession felt that it owed a deep debt of gratitude to the Royal Colleges of Physicians and Surgeons for the magnificent pathological laboratory which they had established; and he thought that those Colleges were to be heartily congratulated on having obtained the services of Dr. Sims Woodhead. He thought that his practical suggestions and proposal of that particular point were not the least important among the many contained in his very able address.

Dr. EDDISON (Leeds) seconded the resolution. He regretted very much that one of the distinguished band of pathologists had not been chosen to second the resolution, but for some reasons it was perhaps a good thing that a practitioner of medicine should be the exponent of what he was sure everyone of them felt; all practitioners were dependent on pathologists, but the dependence was of so fundamental a character that it was sometimes forgotten. He was sure they all congratulated themselves that they had been present on the first occasion when there had been an address on bacteriology at one of their meetings. He hoped it would not be the last. Indeed, he felt sure it would not be. Those who came after Dr. Woodhead would have an admirable example to follow; all must have been struck by the way in which he had emphasised not what he had done, but what other men had done. So much did that strike him, that when Dr. Woodhead came to the interesting fable of the broken image, he waited in vain for the list of fragments which had been picked up in which he had taken a personal part, and yet everybody in the room knew that if they were to go all over the country and try to find a man who would be accepted by his brethren—who, after all, were the best judges—as a good exponent of the science of pathology in this country, they would name Dr. Woodhead.

The PRESIDENT said that before putting the resolution he desired to say how glad he was they had determined last year to give bacteriology a special address, and had chosen Dr. Woodhead as their orator. They had all looked forward with the greatest possible interest to the address they had now received, and he thought they would all agree with him that they had not been disappointed.

The resolution was then carried by acclamation.

Dr. SIMS WOODHEAD, in returning thanks, said he certainly was not worthy of all the praise that had been bestowed upon him, but the subject of his address was worthy of all that could be said of it. Although he was a pathologist first and a bacteriologist afterwards, he still felt that he did take sufficient interest in the matter to accept the offer to deliver an address in it. He esteemed it a very great honour to be asked to give that address. He now only desired to thank the members for the exceedingly hearty way in which they had received his address.

EXPERIMENTS ON LIVING ANIMALS.

Mr. HUTCHINSON moved the following resolution, which was received with general and strong expressions of approbation: "That this general meeting of the British Medical Association records its opinion that the results of experiments on living animals have been of inestimable service to man and to the lower animals, and that the continuance and extension of such investigations is essential to the progress of knowledge, the relief of suffering, and the saving of life." The way in which you have received the resolution, he said, confirms me in the opinion which I expressed when I was first asked to propose it: that it is superfluous. My task will be not so much to justify the resolution itself as to explain the motives of those who have thought it advisable on the present occasion to bring it before you. Within the ranks of our own profession it may be said, almost with literal truth, that there are no two opinions as to the value of properly conducted vivisection experiments. As regards the public it may also be held that the opposition which found such vehement expression 20 years ago has gradually dwindled away as the facts have become better known. Whilst this has undoubtedly been the general result it has not, however, been without certain local and partial exceptions. We still hear every now and then of local hostility, not only to the practice itself, but even to individuals who have ventured to support it. In this way I am assured that not infrequently much injustice is done. The subject is also occasionally brought under public discussion under conditions in which it is scarcely suitable for members of our profession to enter the arena. A notable instance of this is, I am told, impending. At the forthcoming Church Congress there is to be a debate on vivisection, and leading members of our profession have been invited to attend and defend it. Two, whose names were I to mention them would command universal respect, have declined that invitation, for a reason which I am confident you will approve. They hold that it would be unbecoming in them to discuss a question of medical science before such a court. It is not that for one moment we deprecate inquiry or that we fear its issue. On the contrary, we have not the least doubt that the result of discussion will be favourable to the cause of truth, and we are glad that the clergy should seek on this, as on other subjects, to form sound opinions. We hold, however, that in searching for light in this matter they must be content to take the recorded verdict of scientific men, and not demand that the leaders of thought in these matters should waste their time and patience in personal ex-

planations before bodies of men by no means well qualified to weigh their arguments. This, then, is our occasion. You are here assembled in open meeting, you are the representatives of all branches of the profession from all parts of the United Kingdom and the colonies, and I have to ask of you that you will convey by our unanimous vote on the resolution which I have proposed the expression of your opinion on this important question. Those at whose suggestion I am acting seek this expression not in the least for any influence that it may have on opinion in our own profession. That is not needed. We are availing ourselves of a general meeting of the British Medical Association (by far the largest and most important of its kind in the world) in order to obtain an expression of sentiment which may be effective with the public. Nor are we here, as you well know, as the representatives only of experimental science; a very large majority of us are what is understood as practitioners rather than investigators. For myself, I may say that I never in my life performed more than the very smallest number of experiments on living animals, and that for twenty years past I have not done or witnessed a single one. Nine-tenths of those who are before me could, I have little doubt, make similar statements. Thus it cannot be said that our testimony to the value of experiments is biassed by our having taken a personal share in that which we defend. We come rather as practical men desirous to acknowledge the great debt which medical and surgical art owes to those who lay the foundations upon which we build. It seems to us an ungrateful and a cowardly thing that we should stand in any degree aside and leave others to incur odium where we, and the public through us, reap the advantage. I appeal to you whether it be not the duty of all who entertain the opinions expressed in the resolution before you to come forward and stand shoulder to shoulder with the experimenters, of whose conduct we thoroughly approve and whose discoveries we so highly value. Let us say to the public without the least hesitation we are at one in this matter, and that we entertain not the slightest doubt that experiments of this kind are, in the long run, a great gain as regards the health and happiness of both animals and men. We claim that we are humane men—members of a humane profession—we are as strongly attached to our horses and our dogs as any can be; we abhor and detest every form of cruelty; we hold, however, that to call practices "cruel" which have for their reasonable aim the saving of life and the mitigation of suffering is an abuse of terms. In the words of one of our representative men—the late Sir William Gull—we reply to accusations of this kind: "There is in the whole world no cruelty more cruel than ignorance," and it is this cruel ignorance which we, by experiment, seek to dispel. Whilst we thus make claim to be as humane as others, and indignantly repel any imputation to the contrary, we at the same time put forward in all modesty, but still with firmness, another claim of a different kind. It is simply this, that we understand the details of the question in dispute far better than others. This is no personal boastfulness, for to understand is our duty and part of our daily vocation. I shall not of course enter upon any detailed statements as to the benefits to science which have occurred from experiments. They may possibly be touched upon by those who follow me, but, if not, it is wholly needless, for you know them as well as we do. Why, the whole of the admirable address to which we have just listened from Dr. Sims Woodhead, pregnant as it was in every sentence with suggestions for the further extension of practical knowledge, had its base on experiment, and nothing else. Without such methods of investigation our knowledge of bacteriology would have been impossible, and the discoveries of Pasteur and Koch could never have been made. That these methods are at present practised in excess is wholly untrue, and the public conscience is well safeguarded by the law which regulates them. To such State regulations we make no objection whatever. That of which we do complain is that experiments, when judiciously planned, should be branded as cruelty, and that those who perform them should be subjected to social annoyance and loss. I must now leave the matter in your hands. I do so with much confidence that the vote of this large meeting, when taken after the free discussion which is to follow, will convey to the public in terms which cannot be misinterpreted the important fact that the medical profession is at one in this matter, and that those of us who do not experiment yet give to those who do our cordial approbation and hearty support.

Dr. W. H. Ransom, F.R.S., in seconding the resolution, said he would add very few words to what had been so eloquently said by Mr. Hutchinson. The resolution clearly and sufficiently commended itself to such an audience as the one before him. He only desired to say that the price of liberty was constant vigilance, and such vigilance was needful for them if they desired to maintain liberty on behalf of those engaged in the pursuit of knowledge and in advancing knowledge for the benefit of man and animals. If they desired to maintain for them that liberty they must be constantly vigilant lest there was any further infringement on it.

The motion was carried unanimously.

The President of the Council (Dr. Withers Moore) then moved on behalf of the Council the following resolution: "That it be an instruction to the General Secretary that every committee should be called together before the meeting of the Council in the following April." He spoke of the great inconvenience that existed by being compelled to call all the committees together before the October meeting of the Council, and the need for some reform in the way suggested.

Surgeon-General Cornish seconded the resolution, which was carried unanimously.

The President of the Council said that there were in the agenda two resolutions which were passed at the Sectional meetings last year. It was now necessary for the Association to pass those resolutions in order that the Committees which they had been referred to could go on with their work. He therefore begged leave to move the following resolutions:—

From the Section of Public Health:

Resolved: "That this Section, learning that public corporations and other local authorities desiring to erect crematoria are impeded or prevented from doing so by the present state of the law, request the Parliamentary Bills Committee to take that subject into consideration, and to adopt necessary measures to procure a change of the law."

From the Section of Psychology:

Resolved: "That this meeting is of opinion that a scientific commission of inquiry should be appointed by the Government for the purpose of determining the conditions of portions of the school population as to the average development and brain power among them, ascertaining the number of such as are imperfectly developed, their distribution, and the probable causes of such defects."

A form of memorial to the Government was also adopted.

Resolved: "That in the opinion of this Section popular exhibitions of hypnotism, and of persons under the influence of hypnotic suggestion, should be prohibited, and that the Council of the Association be requested to make representations to the proper authorities urging the necessity of such restrictions."

The President said there were certain resolutions remaining to be passed which, although somewhat matters of form, were nevertheless very important. They were resolutions of thanks to many who had so kindly helped them during the meeting. He begged leave to move:

"That the warm thanks of the Association be given to the Corporation of the Borough of Nottingham, the Committee of the University College, and the Professorial Staff for the use of the University College and other buildings for the purposes of the meeting."

"That the hearty thanks of the Association be given to the Worshipful the Mayor, Mr. R. Fitzhugh, for his brilliant reception at the Castle on Wednesday last."

"That the best thanks of the Association be given to the members of the Midland Branch for their hospitable reception and garden party in the Arboretum."

"That the cordial thanks of the Association be given to Lord and Lady Middleton, Mr. H. R. Clifton, and Mr. and Mrs. J. W. Leavers for their pleasant and enjoyable garden parties."

"That the thanks of the Association be given to the Presidents and Committees of the various clubs—namely, the County Club, Old Nottingham Club, Southern Division Conservative Club, and the Liberal Club for the use of their houses to members of the Association."

"That the warm thanks of the Association be given to the Right Reverend the Lord Bishop of Southwell for his eloquent sermon, and to the Vicar and Churchwardens of St. Mary's Church for their kindness in receiving the Association."

"That Canon Trebeck and the Chapter of Southwell Minster be thanked for their kindness in inviting members of the Association to visit the cathedral."

"That the cordial thanks of the Association be given to his Grace the Duke of Devonshire, his Grace the Duke of Portland, and his Grace the Duke of Rutland, for their generous hospitality and for their great kindness in receiving the members of the Association."

"That his Grace the Duke of Newcastle, the Right Honourable Lord Middleton, the Right Honourable Lord Manvers, Viscount Oxenbridge, the Governors of Lawn Hospital, the Worshipful the Mayor of Lincoln, Lady Whitworth and Sir Wm. Welby Gregory be warmly thanked for their kind reception and hospitality to the members of the Association."

"That the warm thanks of the Association be given to Dr. Handford for his successful work in organising the meeting, and to Dr. Carline as treasurer, and for having organised the admirable museum of the meeting."

"That the warm thanks of the Association be given to Dr. Kingdon, Dr. Cattle, Dr. Owen Taylor, Mr. Henry Williams, and Dr. Powell, for their successful labours, and to the various Committees for their able and willing help in forwarding the success of the meeting."

There were, he said, three of these resolutions to which he could not help attaching very special weight. In the first place he desired to thank the Mayor and the Corporation of Nottingham not only for what they had consented to do, but also for all they had willingly and voluntarily done, to make the meeting of the Association the success which he trusted they would all feel it had been. Next he desired to express his great indebtedness to the members of the staff of the University College, many of whom had put off their holidays for some days in order to serve the Association. And then, too, as a last word, he desired most heartily to thank Dr. Handford and the Local Committee for all their efforts during many months to bring the meeting to its successful issue.

Dr. Withers Moore seconded the resolutions, which were carried unanimously.

The President then left the chair.

Dr. Withers Moore: There is one more duty left to us to perform, and that is to evince our gratitude to our worthy and most able President. You have all appreciated his kindness and liberality, and the anxiety he had evinced that this meeting should be the success it had been. Mr. White has laboured most assiduously during the year to make all the arrangements connected with this meeting as complete as possible, and I think you will all agree that he has been favoured with signal success. Whether we consider his able address, his kindliness of heart, or the ability with which he has presided over our meetings, we must all feel that he has proved himself to be a model president. I ask you to accord to him a warm and cordial vote of thanks for his conduct in the chair. I beg therefore to move, "That the warmest thanks of the Association be given to Mr. Joseph White, for presiding so ably and courteously over this, the Sixtieth Annual Meeting of the British Medical Association."

Mr. Noble Smith seconded the resolution which was carried by acclamation.

The President: Allow me to thank you as emphatically and as kindly as I possibly can for the expressions of kindness you have evinced towards me. Everything I have done has been a matter of the greatest possible pleasure.

The meeting then terminated.

The Annual Dinner.

The annual dinner of the Association was held in the Mechanics' Institute, on Thursday evening, when the large hall was appropriately decorated. Mr. Joseph White (President of the Association) occupied the chair, and was supported on the right by Lord Belper, the Mayor of Nottingham (Mr. R. Fitzhugh), Professor Philipson, of Newcastle (President-elect), Dr. Withers Moore (President of the Council), Sir Frederic Bateman, Mr. Ernest Hart, Professor Gruber (Vienna), Professor Semmola (Naples), Brigade-Surgeon-Lieutenant-Colonel Drake-Brockman, Professor V. Horsley; on the left by Colonel Seeley, M.P., Rev. Canon Richardson, Mr. Lawson Tait, the Sheriff of Nottingham (Mr. J. A. H. Green), Mr. Jonathan Hutchinson, Professor Cuming (Belfast), and Professor Hingston (Montreal).

On the removal of the cloth the usual loyal toasts were given by the President, and duly honoured.

Mr. Priestley Smith then gave "The Navy, the Army, and Reserve Forces." He said he was glad to think that medical men had some interest and share in the service of the Forces. He claimed for the profession that, horrible as war was, the profession's members alone could do for humanity what was done in time of battle for both the army and the navy.

Brigade-Surgeon-Lieutenant-Colonel Drake-Brockman, in responding, said that, as to the navy, he was not in touch with it, owing to his absence from England for so many years. He did not believe that they had any grievance to complain of, and, as far as he knew, they got on "swimmingly." As to Her Majesty's medical service and the Indian medical service, he had been brought more into contact with them. Of late he must say they had had their grievances. At that gathering he stood as a quasi-military man as well as in the capacity of a medical man, and, as far as his own feelings were concerned, he would rather sink the former and maintain the latter. He knew that the circumstances of the medical officer in the military service demanded that a combatant officer should recognise their medical officer, and that the recognition should be mutual. The services were deeply indebted to Mr. Ernest Hart and to the British Medical Journal for important benefits, and he should be ungrateful if on their behalf he did not acknowledge it with much gratitude.

Sir Frederic Bateman proposed "The Houses of Parliament," observing that there were none who better acknowledged the labours of the Houses of Parliament than the members of the British Medical Association. He claimed that the English system of Parliamentary machinery was the admiration of the whole world. They had in their ranks men like Sir Walter Foster and Dr. Farquharson who were members of Parliament, and to whom they looked to protect their legitimate interests.

Lord Belper, responding on behalf of the House of Lords, said he would take that opportunity of thanking their President and the members of the Association for the hospitality they had extended to those resident in the town of Nottingham and neighbourhood upon numerous occasions during the week. It had not been within his power to accept any other invitation than the one to be present that night, but it had not only been a great pleasure, but a great honour to him to meet the Association. It was an honour to him to see so many members whose kindness and courtesy they appreciated. He felt that perhaps as a member of the House of Lords he might not be a person so interesting as a newly-elected member of the House of Commons. The new members of the House of Commons came before the country with, as it were, a fresh draught of the elixir of life. Those who belonged to the Upper House had nobody who would even give them a tonic unless it was one of rather a dangerous character to their health; in fact, if he was to believe all he saw in the papers at the present time, they were being judged for something it was supposed they were going to do at some future date. He saw around him members of a profession whose pleasure and duty it was to minister to the ills that flesh was heir to, and he hoped and trusted that if the House of Lords ever came for their aid they would be inclined to try and mend them, and not to make an end of them.

Colonel Seely, M.P., returned thanks on behalf of the House of Commons. He claimed that the House of Commons had been successful in maintaining liberty, justice, order, and security and the honour of the Empire. That was their first and great duty, but it had many other duties in endeavouring to improve the condition of the people of England, and in that it might be considered that they were fellow-workers with the Congress in Nottingham, which had for its object to render the people of England healthier than they had been, and to find out the cause of disease and the remedy for it. Parliament had also its duty in endeavouring to remove all the causes of disease which were removable, which diseases were very numerous. It was their duty to obtain for the people pure water, good drainage, and freedom from infectious diseases, and in that he thought they were seconding the objects

of the Congress in meeting there. It was often very costly to provide good water and good drainage, but those who knew anything of the poor knew that the most costly thing of all for England was disease. There was no better economy than for Parliament to pass such measures as would tend to promote the health of the people. Might he add how much honoured they felt at the presence in Nottingham of so many distinguished members of a noble profession, and how much they hoped that their deliberations would be to the advantage of the community, and that their visit to the town had been agreeable and pleasant to them?

Mr. Lawson Tait proposed the next toast: "The Town and Corporation of Nottingham." He observed that it was with singular pleasure that he rose to propose this toast, based upon the fact of his being a citizen of Nottingham. It happened that he was consulting surgeon to one of the hospitals. During the last twenty-two or twenty-three years he had known a great deal of the city of Nottingham. He had, with their worthy Sheriff, who sat next to him, gone over its past history, starting at a remote period. He had, therefore, discovered what were the Sheriff's functions, which appeared to be to wear a very handsome gold badge and preside at executions. He believed that the present Sheriff had fulfilled all those functions with perfect satisfaction to himself except the last. His only regret was that the assizes had just gone by without a surgical operation! Of the large number of annual meetings of the Association which he (Mr. Tait) had attended, he could speak of none with more satisfaction than their meeting in Nottingham. They had had greater meetings in Birmingham, Glasgow, and Edinburgh, but it sometimes happened that the greater the meeting, the less the business done. They had had small meetings at Bath and Bournemouth, but this meeting at Nottingham had so far been a model gathering. There had been a large attendance at the various Sections, which had been very well looked after. There was not a member of the Association who would not leave Nottingham without being satisfied with the city and the work done. The toast having been heartily drunk,

The Mayor of Nottingham, in response, said he thanked the members of that great Association for the very enthusiastic manner in which they had greeted him. In the name of the inhabitants of the town he wished to welcome the representatives of the noble profession there represented. That was, he believed, for many of them, their first visit to Nottingham, and he trusted that they had been pleased with what they had seen. Some might be unaware that they had a population of over 200,000, and that Nottingham was the seventh largest town in the kingdom. The inhabitants of the borough were naturally very proud of it. The Corporation consisted of men who, he hoped, thoroughly understood their work and were anxious to do their duty. The Corporation attended well to sanitary arrangements, and members of the Association who had seen the Epidemic Hospital would believe that it was second to none in the kingdom. They had also large undertakings in gas and water, and he hoped that in a short time they would undertake the lighting of the town with electricity. They had also, at a short distance from the town, something like 100 acres of land set apart for the disposal of sewage, and it would perhaps surprise some to learn that they were able to dispose of 6,000,000 gallons a day. As a corporation they were most anxious to do that which was right for the welfare and prosperity of the people of the town. He was very pleased to know that last week their death-rate had been very low, and he thought that when they saw the death-rate for this week it would be still more favourable.

The Rev. Canon Richardson then proposed the toast of the evening, "The British Medical Association." He observed that the meeting of the Association in their town ought to be, and was, a most impressive event to them. It made them realise many things. If they took up the morning papers and looked at them only cursorily they must recognise that activity of research was going on everywhere. They knew that in Nottingham they had now many varieties of skill, manipulation so delicate that it might seem almost miraculous—a skill to seize and use the untameable forces of Nature, a skill to investigate the mysterious alliance between the powers of sense and the powers of soul. They knew that those great gifts and endowments were not inspired by the mere vulgar love of riches, but by a noble love of humanity, by the desire to help humanity, to wipe tears from men's eyes and lift burdens from men's shoulders. He was sure that many who came there came with very lofty ideals of their profession. They knew that they scrutinised their hurts and pains, not with the steely gaze of scientific curiosity, but with a heart softened and with eyes of sympathy and compassion. And it was that union of wisdom and beneficence that made them admire so much many whom they had known in that great profession, and when to that great knowledge and great beneficence was added all that wide culture which came from a varied experience of the world and of all sorts and conditions of men, from a wide acquaintance with the masterpieces of literature and art, they were not surprised that all these conditions combined to produce characteristics of the rarest and subtlest excellence. There were many such; they were all privileged to know them. They were also proud that a townsman was presiding over so great a body of intellect and genius. They were proud to hear a day or two before that men of other towns and countries thought well of him and spoke well of him. It had fallen to his lot, as it had fallen to the lot of every man, to thank individual members of that profession, sometimes with the lips, and often (when that had been impossible) by the pressure of the hand, but it was a great privilege now to thank them as a body, and to feel that he was the mouthpiece of millions of dumb men and women who felt in the depths of their hearts how great a debt humanity owed to the noble and sacred art of the healer.

The toast was enthusiastically drunk.

Dr. Withers Moore, in response, said it must be gratifying to all the members of the Association to hear the kindly words with which the reverend dignitary had brought this toast before their notice. The connection between the two professions was of very ancient date, and carried them back to mediæval times, when priests, besides performing their own great function, undertook that of healing the sick. But the advance of science required at last that they should be severed, and yet not totally so, for so long as mind and body were so indissolubly united on this earth, so long would the functions of the two professions ever and anon overlap each other, and therefore was it of the last importance that the two professions should be in a position of harmony with one another. But his duty was to return thanks for the Council, and he hoped he might take the very flattering way in which they had received the toast as an indication of their satisfaction at the way in which the Council had managed the affairs of the Association during the past year. Certain it was that they had only one anxious and earnest wish, and that was to maintain this great Association in all its integrity, and to carry out the ascertained and collective wishes of the members to the best of their ability. That was the third, and he believed it would be the last, time he should have the honour of replying to this toast, for should he be alive and able to attend the dinner at Newcastle, he would then be relegated to that little band of presidents and past-presidents of the Council. His interest then in this great Association would be none the less, but as this was the last occasion on which he would respond to this toast, he might be permitted to allude to one or two matters connected with the government of the Association. The members of the Council were the great bulk of them what he might call Unionists, but they had a very strong feeling that Home Rule was good for the Branches, but he thought that some members of the Branches did not perhaps recognise that principle sufficiently, or they would not keep writing to him to bring such and such matters before the General Council. It must be obvious to everyone that it was impossible in the short time allowed at the quarterly Council to do their necessary business that they could contend with all the wants of individual members throughout the country. They had their own Branch Councils and they ought to look to them for redress of any grievances that occurred. His sympathies were largely with the general practitioner, and he thought there was a good deal the Association might do to improve their position. For one thing he should like to see pensions to Poor-law medical officers made compulsory after a certain time. He should also like the question taken up as to how far the gentlemen of the sixpenny and shilling dispensaries were fit to be members of the Association. He also desired to say a few words as to the

officers with whom he had been associated during the last few years. And first as to the able editor of the BRITISH MEDICAL JOURNAL. He felt sure that all the members would agree with him when he said that Mr. Ernest Hart was second to none amongst his eminent *confrères* who edited medical journals throughout the world. He would even go further than that. Mr. Hart was well able to hold his own amongst the greatest editors of lay periodicals of whatever country they might be. Mr. Hart had brought their JOURNAL to such a pitch of excellence that it was a sort of model Journal for all other medical journals throughout the world. Mr. Hart was very ably seconded in his work by Dr. Dawson Williams, and the Reference Committee, and everybody in his proper place down to the smallest little devil in the printer's office, who co-operated in bringing out their weekly JOURNAL. Everyone must be struck with the great amount of work in connection with their annual meetings which devolved upon the local committee, and in the case of their visit to Nottingham, he wished heartily to thank that Committee for all they had done, but as those committees were not peripatetic there must be some master mind which helped to carry out the arrangement so harmoniously, and he felt sure that all the members would agree with him when he said that that master mind for these arrangements was their General Secretary, Mr. Fowke, who was thoroughly bound up with the British Medical Association, and whose one desire was to do his best to promote its interests. And if further evidence were needed of the business capacities of their staff, he might inform them that the advertisements formerly produced only about £2,000 a year, whereas now they produced upwards of £14,000. Such being their prosperous condition, he ventured to hope and believe that by the time the lease of their present premises was out they would be in a position, without trenching upon their reserve fund or reducing their grants for scholarships and scientific research, to spend from £50,000 to £60,000 upon the purchase of a site and the erection thereon of suitable buildings for the purposes of the Association, and worthy of the great profession which it represented. Thus would they take a prominent place among the great institutions of the country, and thus would they have a medical home of their own, a rallying point at which all their brethren might assemble, still ever bearing in mind the great object of their Association, which was the advancement of medical science and knowledge and the furtherance of friendly relations between individual members.

Mr. JONATHAN HUTCHINSON proposed the next toast, that of "The President," Mr. Joseph White. It would, he said, be easy for him to make a long speech in praise of Mr. White, and he could speak of him in many capacities, for he had done things which were worthy of the highest praise. He had known Mr. White for many years as a personal friend, and he had known nothing of him but that of which he could speak in the highest terms of praise. But there were special reasons why they should receive the toast with enthusiasm. Mr. White's duties were only just commencing, and in proposing the toast of his health he (Mr. Hutchinson) desired to express his appreciation of the manner in which he had commenced his year of office. The meeting at Nottingham had thus far been a great success, and they all knew to what an extent the success of that meeting depended upon the energy of the President who had been appointed for the year. But their President's duties did not end with that meeting; he had to preside over an institution which he ventured to assert was second to none in the world in its importance to medical progress and medical science, and that duty would draw to a very considerable extent upon his energy. The British Medical Association had had many excellent and energetic Presidents, but never did it commit its destinies to anyone in whom they had more thorough confidence for the ensuing year than they had in Mr. Joseph White. He could say more in praise of Mr. White, but he would content himself with asking that great meeting to drink to his health and happiness during his presidency and in all future years.

The toast having been enthusiastically honoured,

The PRESIDENT, in response, said he desired to express in a few words—and those as emphatic as he could—his thanks to the members present for the very kind manner in which they had received the toast. From no source could it have come more acceptably than from Mr. Hutchinson, whom he had known for many years, and for whom the feeling of all whom he knew was one of increasing respect. It had been said that much depended upon the President, but he assured them that, while he accepted the office of President with a considerable amount of misgiving and sense of the responsibility involved, he had been greatly relieved by the manner in which the officials of the Association and all his colleagues had assisted him.

Mr. ERNEST HART proposed the next toast, "The Colonial Branches." He said that when that great British statesman and orator, Canning, made it his boast that he had called into existence the New World in order to redress the balance of the Old, he could hardly have foreseen, even with his transcendent abilities and prophetic vision, the illimitable development of those great territories and colonies that our national genius for war and commerce had founded. Even now to home-keeping minds it was difficult to realise how vast were the interests represented in the toast that he was about to propose. In the one colony, for instance, Canada, in which their three most recent Branches had been formed, they had a territory thirty times as great as Great Britain, stretching from the hyperborean borders of the Arctic sea to the Atlantic, with a latitude corresponding to France, Germany, Spain, and England. And in the newest ground of that marvellous dominion of grass lands and forest, of glacier-mountains, prairie, and cornfield, and of internal seas—where one had the luxury of being seasick 2,000 miles from the ocean—the first of their Canadian Branches and the most recent had been formed at Winnipeg, a place as to which Lord Wolseley not many years since made it his boast that he was able to conduct an army there in two months from Montreal, a distance which was now traversed in three days in a palace car, lighted by the electric light, and provisioned by a French *chef*. It was in that town of Winnipeg only a short time since that he had had the honour of addressing a considerable body of professional men on a site now worth millions of dollars, but which, in loving memory, had been sold for "a cow and a drink," and the cow was stolen while the vendor was imbibing the drink. In Montreal and Ontario were to be found great cities with universities, medical schools, and hospitals, which might be envied even here. But it was not only Canada with which they were connected by their Branches. Those who had taken an interest in the report of the work of the Colonial Branches must have remarked with the greatest satisfaction that these Branches exercised a marked influence over the legislative advance of each colony represented, as well as over the social position and sanitary progress of the respective communities. The recommendations of the Australian, West Indian, South African, and other colonial Branches were respected, and commanded attention in the highest Imperial Councils. Lord Knutsford had frequently consulted the Parliamentary Bills Committee as to Colonial ordinances. He would only add a word or two as to the Indian Branches. They had with them that evening a gentleman whose name was not upon the list, but who was a distinguished and active member of their Association in India, who had travelled home direct from Kashmir, and who landed only the previous day, and on landing had telegraphed to him to arrange so that he might come direct to that meeting of the Association to tell them the history of the great pestilence of cholera which had broken out in Srinagar, and was advancing upon Europe through Russia, to report to them the causes of the fearful outbreak, to invoke the assistance of that Congress, to ask them to consider certain resolutions which would react upon the Government of India, and put in their hands locally means of combating and preventing any future outbreaks of this terrible disease. He might say the gentleman's name was Surgeon-Colonel Harvey. He thought the members could have no better example than that of the importance of the Branches to the Association and to the Empire, and of the way in which their wide extension and reciprocal interaction promoted the general welfare. But he had to couple with this toast the name of Professor Hingston, of Montreal, a man who had received every honour that his townsfolk in Montreal could confer upon him. He had been Mayor, and had presided with conspicuous ability over their great sanitary organisation, and in asking the members to drink to the Colonial Branches with the name of Professor Hingston coupled with them, he felt he was asking them to drink to the health of one who was in

every way calculated to do honour to the profession, and to ably represent his fellow-citizens.

The toast having been duly honoured,

Professor Hingston, in reply, said he was deeply sensible of the honour of having his name associated with so important a toast, and of the kind and graceful way in which Mr. Hart had proposed it. The rising of the Branches in Canada seemed to have been only the work of a moment, and it was mainly the work of one man. Mr. Hart came to them from the Pacific coast. He sent letters in advance all over the country. The profession everywhere assembled to receive him, and Branches were created in all the important towns of Canada. They were formed as quick as beacon fires on Welsh or Scotch hills in times past. They all in Canada desired to be in closer touch with the parent Association. For himself, he was under a deep debt of obligation to the Association for the honour they had done him in asking him to give an address before it. Six years ago he had come to this country, and at Brighton very quietly took his place, and at the end of the meeting Sir Walter Foster moved that the rules be suspended in order that he (Professor Hingston) might be created an honorary member of the Association, and from that moment to the present he had met with the most genial kindness. The recollection of the cordiality with which he had been received in Nottingham would never fade from his memory, and if he could convey to his professional brethren in Canada a little of what he felt he knew he should be doing them and the Association no harm. He felt that night a little in a prophetic vein. Six years ago the British Association for the Advancement of Science did Canada and Montreal the honour of coming to hold their meeting there, and he trusted that at no very distant date the British Medical Association would see their way to paying Canada a visit. They would there find a heterogeneous population—French, English, Scotch, and Irish—but amongst them all an intense love of British institutions and a very deep attachment to Her Most Gracious Majesty Queen Victoria; and if the Association could do them the honour he suggested he could assure for the members a most cordial and hearty welcome.

Dr. Handford, proposing "Our Guests," said that it was with peculiar pleasure he desired to give that toast. Without the generous aid and cordial co-operation of the municipal authorities of the borough, together with the professors of University College, it was no exaggeration to say that the British Medical Association could not have held its annual meetings in Nottingham, or indeed, within the limits of the Midland Branch. The Mayor had already spoken of how willingly that help had been rendered. They were all pleased to see in their town so many representatives of the Colonial Branches, and Professor Hingston had most eloquently spoken of the closeness of the tie that bound them to the parent Association. They had endeavoured, and he hoped not unsuccessfully, to show them that medicine knew no limits of nations or of empires, and that British hospitality was not confined by race or country. They were also pleased to see so many representatives of the great medical schools of France, Germany, Austria, and Italy, of the East and of the West, of the Old World and the New, and North and South, and he had great pleasure in asking them to drink to the health of the guests, coupling with the toast the names of Professor Gruber, of Vienna, and Professor Semmola, of Naples.

Professor Gruber, in response, alluded to the esteem in which the work of the members of the British Medical Association was held abroad and thanked the Association for the great hospitality they had extended to those who had visited the meeting from abroad. They knew, he said, in his country how much they owed to English men of science and specialists. For the British Medical Association he could not speak otherwise than in the words of the academic speech: "Vivat, crescat, floreat."

Professor Semmola (Naples), speaking in French, asked pardon for his inability to adequately express his ideas in English. But to his mind, so far as expression of feeling was concerned, all languages were equally good. And if English words failed him they would all, he knew, accept the heartfelt sentiment of thanks which he desired to offer to the Association for their kind invitation, and for the welcome which he had received during that anniversary of an Association which had, in a striking manner, during sixty years, by its annual meetings, showed that the medical profession in England exercised a great and beneficent power. Each year that passed in a more and more eloquent manner proved the important *rôle* which medicine played in the progress of civilised nations. He desired to say that next year the International Medical Congress would meet in Rome. As he stood there, the only Italian member of the Committee of that Congress, and considering himself the interpreter of the desires of his *confrères*, and in the name of all his medical friends in Italy, he desired to tender to the Association a very hearty invitation to attend that Congress in Rome. They would try to offer them the heartiest welcome, and it was possible that his brethren would be able to show that they had profited by the example which had been set in England, which had always been mistress in the art of hospitality. And, in addition, he might say that there was a hearty sympathy subsisting between Italy and England, which was a relationship producing a condition most favourable to the advance of medicine. And it was in consequence of that sympathy as an addition to the toast that he asked them heartily to drink to the health of the Queen of England, the Prince of Wales, and Queen Margaret of Italy. "God save the Queen," was then sung, and the proceedings terminated.

The speeches were during the evening interspersed with vocal selections very ably rendered by Madame F. Lymm, Miss Honeybone, Mr. E. S. Waring, and Mr. E. Dunkerton.

Erratum.—Mr. John Croft, in the report in the British Medical Journal of July 30th, page 260, of the adjourned General Meeting held on Tuesday at Nottingham, said that anæsthetics had been administered for him in about 4,000 cases, and not as there stated. He also made an appeal to the members present to respond to the request made to them in the circulars of the Anæsthetic Committee.

EXCURSIONS FROM NOTTINGHAM.

Surrounded as Nottingham is by numbers of places of historical and antiquarian interest and of noblemen's seats famed for the beauty of their surroundings and the priceless treasures of art of all kinds which they contain, it may readily be conceived that amongst the pleasures of the Nottingham week, not the least noteworthy were the many and varied excursions to these places which the local committee arranged for the benefit of the many visitors to the meeting.

Excursion to Southwell Minster.—On Thursday afternoon a party of 50 ladies and gentlemen went some 15 miles by the Midland Railway to view this famous edifice. The weather was superb and added greatly to the pleasure of the outing. At the entrance to the Minster the party was met by Canon Smith, who gave an interesting description of this famous collegiate church, which, since 1884, has been the cathedral church of the new diocese then formed. The Minster is of Norman and early English architecture. The two western towers, the nave, with its massive pillars, and the transepts are of the former period; the eastern end of the church is of the latter style. The chapter house is octagonal and is in the decorated style; and the carving in and at the doorway of this building, which it would be difficult to overpraise, forms possibly the chief glory of Southwell. Its richness, the truthfulness to Nature shown in its details, and its splendid state of preservation after an existence of five or six centuries, are almost unprecedented. The ancient library of the Minster is in an upper room, and contains the early muniments of the Norman church. These were shown to the visitors. Tea was served in the Archbishop's palace, partially restored, which adjoins the Minster, at which Drs. Elliott and Willoughby received the visitors. Mr. C. J. Symonds and Mr. Jordan Lloyd, on behalf of those present, proposed a very hearty vote of thanks to Canon Smith and the local medical practitioners for their kind entertainment, to which the Canon replied. The party then returned to Nottingham.

Buxton.—On Friday afternoon a party of 150 gentlemen and 50 ladies was conveyed at the cost of the Duke of Devonshire by special train to Buxton. The portion of the Midland Railway from Matlock to Buxton (which is nearly 1,000 feet above the sea) ascends to the latter place, through very fine scenery. The journey itself consequently gave zest to the expedition, and the fineness of the weather added thereto. The exhila-

rating character of the atmosphere at the Spa was quickly manifest to the visitors, who, upon arrival at the town station, were most courteously received by the medical practitioners of the locality, and at once taken off to the St. Ann's Cliff and the mineral baths, which are fitted with modern appliances of all kinds. A garden party was subsequently held in the Buxton Gardens, where a band played several pieces of music, whilst tea and other refreshments were provided at the expense of the local committee. The gardens and surrounding hilly country showed to perfection in the sunshine. After tea a group was photographed. The Devonshire Hospital and its huge central-domed pavilion were inspected, and the return special train speedily brought the visitors from the heights of Buxton to the quiet pastoral beauties of the country lying below Matlock. All the visitors felt that their best thanks were due to the members of the local committee for the trouble taken to entertain them and to arrange that their visit should be without fatigue.

Belvoir Castle and Denton Manor. — It would not be easy to name an excursion at any recent meeting of the Association which has given more unalloyed pleasure to those who joined it than did this. The expedition started from Nottingham by special train on the Great Northern Railway on Saturday morning, in dull weather, which, however, improved as the day went on, and after midday was of the finest—warm and cloudless. On arrival at Stathern, carriages were in attendance to convey the party through the woods to Belvoir. The mausoleum, chapel, armoury, and magnificent State apartments of the castle were visited, whilst the far-famed collection of pictures, busts, and tapestry was minutely inspected. The views from the different rooms and castle walls were much admired. His Grace the Duke of Rutland most hospitably entertained the company at luncheon in the noble dining-room of the Castle, the Hon. Mr. Scott, agent to his Grace, occupying the chair. Dr. C. J. Hare, on behalf of those present, proposed a very hearty vote of thanks to the Duke and Duchess, for their hospitality, and took occasion to remark that the kindness with which the members of the Association had been received and entertained in Nottingham and its vicinity during the week could not have been surpassed. The Hon. Mr. Scott, in replying, read a telegram from the Duchess, deploring that her Grace and the Duke were unfortunately detained in London, and so could not personally receive their guests. The health of the Duke and Duchess, and that of the Hon. Mr. Scott, was drunk with enthusiasm. The company then separated into various parties, which, under the guidance of Mr. Shipman, of Grantham, medical attendant to the Duke, Ingram, the gardener, and Mr. Marvel, inspected the gardens, which are sheltered by surrounding hills, and are of the widest extent. Assembling at the kennels at 3.30 P.M. the visitors were received by Frank Gillard, the Belvoir huntsman, who exhibited two packs of fox hounds. In perfect sunshine the party next drove to Denton Manor, where Sir William and Lady Welby and members of their family most kindly received and entertained the guests at tea. The house and its valuable artistic contents, the grounds, and the adjacent church, were all minutely inspected. A drive to Grantham, where the party separated, concluded this most enjoyable excursion.

Chatsworth.—About 120 members and their friends visited Chatsworth on Saturday, under the skilful guidance of Drs. Mutch, Boobbyer, and Moxon. Much more of the house and its wonderful art treasures was shown than on ordinary occasions, and the fountains in the beautiful gardens were in full play. In the absence of the Duke and of his agents in London at the wedding of Mr. Victor Cavendish, the heir presumptive to the dukedom, which was then taking place, the visitors were received by Dr. Wrench, of Baslow, physician to the Duke's household. After doing ample justice to a most sumptuous lunch which had been provided, a hearty vote of thanks was passed to the Duke of Devonshire, and a congratulatory telegram sent to the bride and bridegroom. The drive was continued by Haddon Hall to Stancliffe, where the party were most graciously receive by Lady Whitworth herself. Tea was set out in a marquee on the lawn, while an excellent band played a well-selected programme of music. The extreme beauty and vast extent of grounds, once the well-known Darley Dale stone quarries, and now a lovely garden in the most perfect order, excited universal admiration.

Lincoln.— The party, numbering about 40, arrived at Lincoln by special train at 10.45, where they were received by the appointed guides, Mr. C. G. Dalton and Dr. Mansel Sympson. The majority were then at once taken under the guidance of Mr. Watkins, F.R.I.B.A., to see the very interesting Norman range of buildings called John of Gaunt's Stables, but really the home of St. Mary's Guild, and the fine Saxon towers of St. Peter-at-Gowts and St. Mary-le-Wigford. A limited party meanwhile had the pleasure of seeing over Messrs. Clayton and Shuttleworth's engineering works. Soon after 11.45 the united party assembled in the Guildhall, when they were welcomed by the Mayor, Mr. W. W. Richardson and the Sheriff, Mr. Alexander Trotter. Mr. Watkins then gave an account of the room and of the regalia. The party then drove to the Arboretum, and most of them walked through to the Upper Gate, which is just opposite the hospital. The situation, on a fairly steep hillside, lends itself to varied landscape gardening, and the views in and from the grounds were much admired. At the hospital the party were met by the rest of the hospital staff, Dr. Mitchinson, Dr. Harrison, and Mr. Cant (Dr. Carline meeting them later on), the house-surgeon, Dr. Watkins, and the matron. The institution was warmly praised by the visitors, the new children's ward, due to the far-seeing generosity of Mr. J. Ruston, and the out-patient department being specially noticed. Several patients of much interest were shown to the visitors. The party was driven through Eastgate, Bailgate (getting a glimpse of the Roman Arch at Newport), Westgate, to The Lawn. Here, after having stopped to see the beautiful statue of Dr. Charlesworth, who was identified with the best interests of The Lawn (a private lunatic hospital) for many years, they were heartily welcomed by the President, Viscount Oxenbridge, and many of the governors of the institution. After lunch (which was provided in a spacious marquee in the grounds, a band playing at intervals outside), his lordship gave the toast of "The Queen and the Royal Family," and that of "The Visitors from the British Medical Association at Nottingham." In so doing he gave a brief sketch of the history of the hospital from its opening in 1820, when Dr. Charlesworth commenced lessening the amount of physical restraint, in which he was ably seconded by Mr. Gardiner Hill, resident medical officer in 1835; restraint was entirely abolished in 1837. Dr. Connolly was so impressed by a visit to the Asylum that he carried out the same principles at Hanwell. Mr. F. Bateman (Whitchurch), member of the Council of the British Medical Association, responded in suitable terms; Mr. Alexander Leslie-Melville proposed the health of the Mayor and Corporation and the Sheriff, to which the Mayor and the Sheriff responded in very humorous speeches. The Mayor proposed Lord Oxenbridge's health, to which his lordship briefly replied. After leaving the hospital, not much time was left for a survey of the Cathedral, under the kind guidance of Canon G. S. Harvey, who rapidly and lucidly pointed out the architectural history of the fabric. Most of the visitors stayed for the 4 o'clock service. The remainder were taken by Dr. Sympson over the ruins of the Bishop's Palace, and as the sky was of almost Italian blueness, the views of the ruins, the Cathedral, the city, and the distant landscape, were of great loveliness. The day was worthily finished by the garden party in the castle grounds, given by the Mayor and Mayoress of Lincoln. A refreshment tent was placed on the grass almost in the middle of the area, and the Militia band enlivened the proceedings with a charming selection. The Mayor had asked many of the leading citizens and their families, as well as those medical men in the city who were members of the British Medical Association, to meet the visitors from Nottingham.

The Case of Dr. Walsh of Ballyshannon. — We have received a letter from Dr. Robert Saunderson, of Edenderry, suggesting that some help should be tendered by the profession to Dr. Walsh, of Ballyshannon, whose case we have already referred to. We do not know what his circumstances are, but if they are such as to need monetary aid, we have no doubt that his brethren in Ireland will give it.

ROYAL COLLEGE OF PHYSICIANS.

The ordinary quarterly comitia of the College was held on Thursday, July 28th, Sir A. Clark, Bart., President, in the chair.

Drs. Donald Hood and J. E. Ranking were admitted to the Fellowship, and Dr. E. A. Birch, resident in India, was admitted to the Fellowship *in absentiâ*.

The following gentlemen were admitted Members: J. R. Bradford, M.D.; C. P. Lovell, M.B.; F. J. McCann, M.B.; S. C. Smith, M.D.; and N. T. Wood, L.R.C.P.

The Licence of the College was granted to 134 gentlemen who, with only two exceptions, had presented themselves before the Conjoint Board. Diplomas in Public Health were granted jointly with the College of Surgeons to those gentlemen who had passed the examination.

Communications were received from the Foreign Office, the first enclosing a copy of the Japanese Pharmacopœia, and the second drugs from Chefoo, in China, with the Consul's report. On the suggestion of the President, the drugs were referred to Dr. Mitchell Bruce and Dr. Hale White for report.

Communications were received from the Secretary of the College of Surgeons relating to matters of joint interest to the two Colleges.

An application from the Corporation of Nottingham for the loan of some of the College portraits for an exhibition of pictures to be held during the visit of the British Medical Association was, as such applications invariably are, declined, and it was incidentally mentioned that it was at Nottingham that on a former occasion some of the College works of art were injured, since which time the rule not to lend them has been in force.

A communication from the Hospital for Women, Leeds, applying for recognition as a school was received, and after some explanatory remarks by the Registrar was referred to the Committee of Management.

An application from the Yorkshire College, Leeds, for a copy of the arms of the College to be reproduced in the hall of that institution was acceded to.

Letters of thanks were received from Dr. Brouardel of Paris, Professor Corradi of Pavia, and Herr Korosi of Buda-Pesth, for the copies of Harvey's MSS. lectures presented to them by the College in connection with the meeting of the International Congress of Hygiene in London in 1891.

The College Seal was affixed to the lease of the ground and premises in the Savoy in the joint possession of the two Colleges.

A report was received from the Censors' Board, and after a discussion in which Sir Henry Pitman, the President, Sir Dyce Duckworth, Dr. Theodore Williams, and Dr. Russell Reynolds took part, it was resolved, on the motion of Dr. Pavy, seconded by Sir Richard Quain, "That this College regards the sale and purchase of practices or the transfer of patients from one physician to another for a pecuniary consideration among Fellows or Members of its body as contrary to the traditions and practice of the College, interfering with the freedom of patients, and derogatory to the position of a physician."

A report was received from the Fever Hospitals Committee, and the recommendations therein made were agreed to, to the following effect:—

1. It is not desirable that attendance at a small-pox hospital be a part of the compulsory course in fevers.
2. It is desirable that if accommodation can be provided in connection with the ships the students should reside there during their course of study.
3. It is desirable that the ordinary course of study be not less than one fortnight or more than three weeks.
4. Having regard to the fact that there is a considerable space of ground abreast of the hospital ships, it is desirable that students should not leave the premises during their period of residence.
5. It is desirable that the rules relating to discipline and breach of discipline in force in the case of the fever hospitals should apply in the case of the small-pox hospital ships, and that students be required to conform to the regulations affecting the medical and other residents of the ships.
6. It is desirable that each student should wear a suit of his own clothes, to be disinfected or destroyed before leaving the ships.
7. That the suggestion of the Metropolitan Asylums Board that the charge for board and lodging be not more than 12s. a week be approved.

An application for permission to hold a meeting in the College received from the Committee appointed to raise a memorial to Semmelweis in Buda-Pesth, was acceded to.

The following were elected, on the nomination of the President and Council, to hold the subjoined offices:

Censors: William Howship Dickinson, M.D.; William Overend Priestley, M.D.; Sir George Buchanan, M.D.; Walter Butler Cheadle, M.D. *Treasurer:* Sir Dyce Duckworth, M.D. *Emeritus Registrar:* Sir Henry Pitman, M.D. *Registrar:* Edward Liveing, M.D. *Harveian Librarian:* William Munk, M.D. *Elected Members of the Library Committee:* Joseph Frank Payne, M.D.; Isaac Burney Yeo, M.D.; Robert Farquharson, M.D.; Norman Moore, M.D. *Curators of the Museum:* William Wegg, M.D.; William Howship Dickinson, M.D.; William Cayley, M.D.; Norman Moore, M.D. *Finance Committee:* Charles John Hare, M.D.; William Selby Church, M.D.; Thomas Tillyer Whipham, M.D. *Examiners:*—Chemistry and Chemical Physics: William Odling, M.B.; Charles William Heaton, F.C.S.; William Ramsay, F.R.S.; Charles Edward Groves, F.R.S.; Auguste Dupré, Ph.D. Materia Medica and Pharmacy: John Mitchell Bruce, M.D.; Daniel John Leech, M.D.; Walter Baugh Hadden, M.D.; William Hale White, M.D.; Cecil Yates Biss, M.D. Elementary Biology: Frederick Gymer Parsons, L.R.C.P.; Peter Chalmers Mitchell, B.A. Elementary Physiology: Henry Lewis Jones, M.D. Physiology: Edward Albert Schäfer, F.R.S.; Thomas Oliver, M.D.; Frederick Walker Mott, M.D. Osteology and Anatomy: Seymour Taylor, M.D.; Humphry Davy Rolleston, M.D. Medical Anatomy and Principles and Practice of Medicine: Philip John Hensley, M.D.; Alfred Baynard Duffin, M.D.; Joseph Frank Payne, M.D.; John Cavafy, M.D.; Frederick Thomas Roberts, M.D.; Arthur Ernest Sansom, M.D.; William Henry Allchin, M.B.; James Frederick Goodhart, M.D.; David Bridge Lees, M.D.; James Kingston Fowler, M.D. Midwifery and Diseases Peculiar to Women: John Braxton Hicks, M.D.; John Williams, M.D.; Charles James Cullingworth, M.D.; Thomas Crawford Hayes, M.D. Surgical Anatomy and Principles and Practice of Surgery: Nottidge Charles Macnamara, F.R.C.S.; John Neville Colley Davies-Colley, F.R.C.S. Public Health: (Part I) Arthur Pearson Luff, M.D.; (Part II) Edward Seaton, M.D.

The quarterly report of the Examiners for the Licence was received and adopted.

The quarterly report of the Finance Committee was received and adopted. It included an estimate for the cleaning and decoration of the College and the supply of electric light, and the announcement that the President had generously contributed the sum of £500 towards the expense thereby incurred was received with great applause, and a cordial vote of thanks passed to him for his munificence.

The annual reports of the Library Committee and of the Curators of the Museum were received and adopted.

A report from the Committee of Management, recommending that the West Riding Lunatic Asylum, Wakefield, be recognised for the attendance required under the new regulations, was received and adopted.

The quarterly report of the Laboratories Committee was received and adopted, and the President made a feeling allusion to the death of Dr. H. J. Tylden from typhoid fever contracted in the cause of science.

A list of books presented to the College during the quarter was received, and thanks returned to the donors.

THE INTERNATIONAL CONGRESS OF EXPERIMENTAL PSYCHOLOGY.

When the first Congress of Experimental Psychology was held in Paris three years ago under the presidency of Professor Richet, it was scarcely expected that at the next meeting it would have attained its present magnitude. In place of a meeting of some 40 or 50 members there are between 200 and 300, gathered together from all parts of the Continent, as well as representatives from the other side of the Atlantic at the Congress which is now being held at University College, Gower Street. Professor Sidgwick is the President, and the following are the Vice-Presidents: Professor A. Bain, Professor Baldwin, Professor Bernheim, Professor Ebbinghaus, Professor Ferrier, Professor Hitzig, Professor Liégeois, Professor Preyer, Professor Delbœuf, Professor Richet, and Professor Schäfer.

The proceedings commenced on Monday, August 1st, with an inaugural address by the President, who offered a cordial welcome to the members. He spoke of the increasing importance which the study of psychology had attained, more especially on the Continent, but he pointed out that good work had been done in this country for two centuries by a line of eminent thinkers, from Locke and Hume down to Bain and Spencer in our own day. He concluded his able address by calling attention to the fact that a special Section had been constituted for papers chiefly physiological, and another for hypnotism and cognate subjects, so that the two Sections could work side by side. This arrangement had been made so that the Congress might be as truly and as impartially representative as it possibly could be of all schools of psychology, and, without wishing to deprecate in any way the value of the study of hypnotism as applied to hystero-

epileptic patients at Salpêtrière, he thought that the broader lines on which the school of Nancy had worked were those which investigators in England, and he believed in Europe generally, had principally followed.

The following papers were also read: By Professor Bain, On the Respective Spheres and Mutual Helps of Introspection and Psycho-Physical Experiment in Psychology; by Professor Grüber (of Roumania), on Certain Phenomena of Coloured Audition: by Professor Ribot, on the Result of an Inquiry as to Concepts; by Professor Pierre Janet, on Certain Cases of Amnesia.

On August 2nd papers were read in Section A by Professor S. E. Henschen (of Upsala), on the Visual Path and the Visual Centre; by Professor A. Schäfer, on the Functions of the Prefrontal Lobes; and by Dr. Augustus D. Waller, F.R.S., on the Functional Attributes of the Cerebral Cortex.

In Section B a joint paper by Dr. Liébault and Professor Liégeois (Nancy), on a Case of Suicidal Monomania cured by suggestion during induced sleep, was read; also a paper by Dr. Fredi van Eeden, on the theory of Psycho-Therapeutics; Dr. Bernheim's paper on the Psychic Character of Hysterical Amaurosis; and a contribution by Professor Liégeois, on the Female Poisoner of Aïn-Fezza, were also read. Following the papers Dr. Bramwell gave a demonstration of certain psychical phenomena in persons under the influence of hypnotism.

At ten o'clock on Wednesday, August 3rd, the proceedings were continued before a large audience, and the following papers were read:—In Section A, Dr. Verriest read a paper on The Physiological Basis of Rhythmic Speech; Dr. Mendelssohn on Investigations into the Parallel Law of Fichner; Professor Heymans, on Inhibition of Presentations. In Section B, Professor Delbœuf spoke on the Appreciation of Time by Somnabulists; Professor Hitzig, on Attacks of Sleep and Hypnotic Suggestion; and Mr. Myers, on the Experimental Induction of Hallucinations. At the General Session Professor Baldwin made a communication on Suggestion and Will. The President, Professor W. James, and M. Marillier presented Reports of the Census of Hallucinations; Professor Beaunis made some observations on Psychological Questioning. After the reading of the papers, Dr. Bramwell (of Goole), gave some further illustrations of the phenomena of hypnotism and the power of suggestion in the sleeping and waking state.

THE LORDS' COMMITTEE AND THE HOSPITALS

CONFERENCE OF HOSPITAL MANAGERS.

AT the invitation of Lord Sandhurst, Chairman of the Select Committee of the House of Lords on Metropolitan Medical Charities, a well-attended conference of hospital managers and secretaries was held at Spencer House on July 22nd.

On the motion of Lord SANDHURST, the Lord Mayor presided. Messrs. P. Michelli and C. L. Todd were chosen honorary secretaries.

The CHAIRMAN said he regarded it as a great honour to be asked to preside at that important meeting, and he did not do so merely as Lord Mayor, but as being deeply interested in the charities of the metropolis, and as president for the time being of the Sunday and Saturday Hospital Funds. For three sessions of Parliament a Committee of the House of Lords, presided over by Lord Sandhurst, had been making an inquiry into the working of the London Hospitals, and he thought he might fairly say that the warmest thanks were due to the Committee for their exertions in this direction. All were agreed that the voluntary system was the right one. There was no doubt that while the Hospital Saturday and Sunday Funds resulted in the raising of a substantial amount, yet it did not meet all their requirements. If the Hospital Saturday and Sunday Committees were strengthened from the governing bodies of the different hospitals it would be a great improvement.

LORD SANDHURST said, although he had served on the Lords' Committee as Chairman for two years, he thought it only right for hospital managers—of whom he himself was one—to make suggestions on the subject with which the Committee had to deal, and that the report issued by the Lords' Committee should be given their very careful consideration. It would not be a wise thing to decide at that meeting whether there should be a central board or not; that was too much to decide off-hand. It would be a practical plan if they elected a Committee which should consider the matters contained in the Lords' report, and call another conference to express an opinion whether the scheme set out in the report was a good one, or whether there should be another. He would move "that a committee of this conference be appointed to take into consideration the conclusions arrived at by the Lord's Committee on Metropolitan Hospitals, and to report as to the composition and duties of the proposed voluntary central board, with such other scheme as may be arrived at after due deliberation." He should be sorry if anything political entered into these discussions affecting the management and welfare of hospitals. Most prominent among the bodies connected with the censorship of hospitals were the Sunday and Saturday Hospital Funds' Committees, and he would suggest that members of those two bodies should be placed on the hospitals committee, which it was proposed to form. It would be an advantage, also, if they could secure some strong, impartial outside man, to join the committee, and he would suggest the name of Mr. Diggle, the Chairman of the London School Board, who, he knew, took a great interest in this question, and would bring a strong and most impartial mind to bear upon it. They knew the difficulties they encountered in getting funds sufficient for the needs of the hospitals, and that showed that the confidence of the public in the management of such institutions was not quite what it ought to be. While there were some hospitals which had lately come in for substantial legacies, which had enabled them to keep their heads above water, there were a number, which, owing to lack of funds, had been compelled to close beds, and, if evil times came a day might come when the State or the municipality might say, "These institutions are very good, so far as they go, but they have got no money and they cannot keep themselves going." When annual subscriptions were not more than equal to paying wages, it showed that there was some lack of confidence on the part of the public. It was said that the House of Lords' Committee wanted to do away with the individuality of the hospitals, and establish something like the Bureau Central, in Paris; but, on the contrary, they thought that individuality was good, and they were anxious to see it preserved, because by generous rivalry the efficiency of hospitals was promoted. Lord Sandhurst concluded by moving his resolution.

Sir RUTHERFORD ALCOCK briefly seconded the motion.

Sir DOUGLAS GALTON suggested that the motion read, "That the Committee consider the conclusions arrived at by the Lords' Committee, and report to a future conference." He wanted to leave entirely open the question whether the resolutions on the Lords' Committee should be adopted or not. Lord Sandhurst's resolution took it for granted that a central board should be formed; but he viewed with very great apprehension the formation of a central board for the inspection of hospitals; it would tend to become a board of control, and in that way diminish the interest which the numerous gentlemen who now took part in the management of hospital affairs showed in such matters.

Mr. H. W. HUNT seconded the amendment.

Sir SYDNEY WATERLOW hoped Lord Sandhurst would allow the withdrawal of the latter part of his resolution, as it dealt with a matter that should not be settled that day. Let a committee be appointed to consider the Lords' report, and ascertain if there was a unanimous desire to carry it out. A central board without power would be useless, and more harm than good would arise, he thought, if the board were given examining powers.

Lord SANDHURST accepted Sir D. GALTON's amendment, with the provision that the committee consider the whole of the recommendations in the Lords' report, and report upon them to another conference.

Mr. BOUSFIELD preferred that the original words of the resolution should remain. If not, it would be desirable that the committee provide rules on which the central body should act. He felt sure the public would much value the advice of such a central body.

Lord SANDHURST proposed that the following form the committee: Mr. R. Acland, Sir D. Galton, Mr. W. Bousfield, Mr. Diggle, Mr. Henry Lucas, Mr. Shaw-Stewart, Mr. Burdett, Sir S. Waterlow, Sir Andrew Clark, and himself.

The motion was agreed to; and the proceedings closed with votes of thanks to the Lord Mayor for presiding, and to Earl Spencer for the use of his residence.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, AUGUST 6th, 1892.

THE NOTTINGHAM MEETING.

The later days of the Nottingham meeting amply fulfilled the promise of the first day. The attendance was not only extremely satisfactory in point of numbers, but was up to the highest mark in quality. Considerable as was the interest attaching to the Saturday excursions to the Dukeries, Chatsworth, and Lincoln, the site and occupations of Nottingham did not hold out so attractive a prospect to the mere holiday makers as have some of the meetings in localities in which the immediate surroundings are essentially picturesque, and hence this element was less conspicuous than at some former meetings. On the other hand, the extremely well-arranged and interesting programmes devised for the Sections had attracted a very large proportion of the most capable clinicians and scientific observers in the kingdom. Among those taking part in the proceedings were a great proportion of the flower of men of thought and culture, and especially the coming men. The younger workers in the great schools and universities have met those isolated students of scientific medicine who carry on their researches throughout the year far from the great laboratories and centres of medical education, but whose work is none the less valuable and all the more praiseworthy, and who find in reunions such as this the opportunity of controlling their results, and of submitting their own work to welcome criticism. In all these respects the Nottingham meeting may challenge comparison with any which has ever taken place in the history of our Association, and it may be doubted, indeed, whether the scientific and progressive side of clinical medicine, surgery, and pathological research have ever been so strongly represented at any national congress either in subjects or in representative men. Some of the sectional debates were of singular merit and ability. Not only were they worthy (as was observed by a very critical participant in them) of the greatest societies on their most brilliant field days, but went beyond them, especially in the representation of all the schools of thought and work drawn from every part of the kingdom.

The Sections.

When the Association last met in Nottingham (in 1857) the whole of its business, as the President took occasion to remind us in his opening address, was transacted in a single room, that is to say, all the assemblies were practically general meetings. At the present day the growth of the Association and the increase of interest in its annual meetings has kept pace with the ever-increasing complexity of medical science, and the scientific work is done in ten Sections which have been at Nottingham, in spite of some counter attractions, exceedingly well attended. The programmes of the various sections had been well thought out beforehand; the subjects chosen for discussion were generally of an interesting character, and such as are engaging the attention of the most active workers of the day in the various departments of professional activity.

We publish in another column the minutes of the several Sections as kept by the secretaries, and from them a particular estimate of the character, variety, and excellence of the work done during the three sessions may be formed. Each day's work in each section was full; indeed, the Section of Pathology found its programme so full that it held informal gatherings each afternoon, at which demonstrations were given. This Section has never before been so elaborately organised, though at Birmingham it reached a very high level of excellence. Thanks to the energy and enthusiasm of the officers of this Section, with Professor Victor Horsley at their head, a series of discussions and demonstrations were organised, of which it is hardly too much to say that they gave a picture of nearly all the most valuable work in pathology recently accomplished in this country. Professor Horsley was able to give a practical illustration of his thesis that pathology is a living science, and to be advanced, and even comprehended, only by the study of function. No one would desire to minimise the importance of morbid anatomy; without the sound basis afforded by it pathology could not exist, but it is the foundation and not the whole of pathology. This obvious truth appears to have been somewhat allowed to sink out of view in the practical working of some of our pathological societies, and we apprehend that the object lesson at Nottingham will not be lost upon them. Certain it is that a better idea of the general movement and intention of modern pathology would be obtained by a person who followed attentively the three days at Nottingham than from a whole session's attendance at an ordinary society.

The Section of Surgery held some highly practical discussions, which, as is shown by the number of speakers who took part in them, excited a great deal of interest; and the Section of Diseases of Children had a most animated debate on an important surgical subject—the treatment of severe club-foot. It is one of the great merits of such gatherings as those which take place at the annual meetings of the Association that they afford opportunities for comparison of experience between men, often solitary workers, who without them would know each other only through the printed page. Direct personal communication removes misapprehensions; a good black board, and a few sentences exchanged by word of mouth, will often clear away obscurities more effectually than reams of paper, especially in a subject such as surgery, in which *technique* counts for so much.

The Section of Medicine was mainly occupied with the discussion of topics of such immediate practical importance as peripheral neuritis and ascites; and the Section of Diseases of Children devoted one session to the treatment of croupous

pneumonia. These debates will be fully reported in our columns, and readers will be able to recognise the large amount of valuable material brought forward and to understand the interest which was awakened by them at the time. We hope to publish in our next number one of the shorter papers read—a note on the recent epidemic of cholera in Kashmir, by Surgeon-Colonel Harvey, who only arrived in England from Srinagar, the centre of the epidemic, during the progress of the meeting. The sister Section of Psychology was busily engaged during the three days, and got through an immense amount of work, of which we hope to publish reports at an early date. A debate took place on the somewhat novel subject of the psychoses observed after influenza, which served to reveal a varied field of observation and inquiry which is far from being exhausted. A second debate on the relation of insanity to divorce raised some questions of considerable social importance; at its conclusion certain propositions were put to the vote, and the result showed complete unanimity on two points, namely, that insanity existing at the time of marriage, or wilful concealment of the fact of insanity were sufficient pleas for divorce, and very considerable divergence of opinion on the third, namely, whether insanity coming on after marriage should be reckoned a plea for divorce. The Section of Pharmacology and Therapeutics also provided some good discussions, in which well-known authorities took part; of one of these we print a report elsewhere.

The Section of Obstetric Medicine, if it did not present any striking novelties, devoted its time to a business-like discussion of the subject brought before it. The subject of the treatment of *post-partum* hæmorrhage is of unfailing interest, not only to specialists but to everyone engaged in general practice. An instance in which the extraordinary coincidence of tubal gestation occurred in both Fallopian tubes was reported to this Section, and will be read with as much interest as it was heard.

Of the more strictly special Sections, that of Ophthalmology, besides debating the subject of the treatment of disease of the lachrymal apparatus and hearing a number of interesting papers, found time for a most animated discussion of miners' nystagmus, which brought into prominence the widely-divergent views held by various men of special experience as to the causes—whether insufficient lighting or constrained attitude—which bring about, or perhaps combine to bring about, this curious and distressing affection.

In the Section of Laryngology, in addition to debates on granular pharyngitis and nasal neurosis, a bacteriological demonstration in connection with diseases of the throat and nose was given.

Those members of the Association whose interests or inclinations led them each morning to the Public Medicine Section had no reason to repent of their choice. The list of subjects for discussion was of more than ordinary promise, and this was fully borne out by the results. In his introductory remarks Sir Walter Foster took a hopeful view of the prospects of preventive medicine, and referred to the need for strengthening the Local Government Board, county councils, and the sanitary service generally.

The first discussion had for its subject the employment of women in factories before and after childbirth, and was opened by an admirable paper by Dr. Reid, county medical officer for Staffordshire. Upon the basis of ten years' statistics, drawn from three groups of Staffordshire towns, Dr. Reid showed that the rate of mortality was lowest in the towns where fewest women were employed in factories, and highest where the conditions were reversed. The excess of mortality in the latter group was chiefly but not entirely due to a far heavier death-rate among infants, especially from diarrhœa. This the author attributed to the fact of their being deprived of their natural food, and he advocated the exclusion of the mother from factory work until three months after the birth of the child. After a spirited debate it was resolved to refer the matter to the Parliamentary Bills Committee, with a view to calling the attention of Parliament to it. The staple trade of Nottingham being largely carried on by female labour in factories, Dr. Reid's paper was the means of attracting a large measure of local interest to the proceedings of the Section.

In the discussion on town refuse disposal the sound doctrine was laid down that the refuse should be collected at short and regular intervals by the sanitary staff, and that such part as could not be utilised for manurial purposes should be cremated. Modern improvements have given us destructors which will, if required, burn even night-soil without appreciable nuisance, and possibly in the near future many towns will be compelled to follow the example of Bradford in this respect. It is interesting to learn that in Hull there is a weekly cleansing of privies, as required by the model by-laws, so that the prevailing scepticism as to the existence of any district in which that particular by-law is carried out may now be abandoned.

The debate on fever hospitals raised several important issues, which were discussed from many different points of view. Opinions were divided as to the finality of the diagnosis given in notification certificates, where the question of removal to hospital came in, and especially in regard to the diagnosis between small-pox and chicken-pox. It was evident, however, that the divergence was chiefly due to the varying conditions under which notification and removal to hospital are carried on in different localities. There was practical unanimity as to the necessity for isolation hospitals in every district, and as to the folly—obvious to all who have had practical experience of the management of such hospitals—of making any charge for the admission of ordinary patients. Dr. Bulstrode's opposition to "temporary" hospitals was well-founded and well-timed, and in full accordance with the present policy of the Local Government Board. Dr. Lovell Hunter contributed an excellent, though brief, epidemiological study of an outbreak of small-pox in a Yorkshire village a century ago, but the length of the previous discussion prevented due justice being done either to this or to the two next papers by Dr. Thresh (on the notification of erysipelas and puerperal fever) and Dr. Tew (on endemic typhoid fever).

At the third and last meeting of the Section a discussion upon the nomenclature of notifiable diseases gave opportunity for the expression to the general feeling of dissatisfaction caused by the looseness of some of the terms employed in the present schedule. Doubts—some of them a little far fetched—have often arisen as to the precise meaning (for notification purposes) of diphtheria, croup, erysipelas, cholera, and especially puerperal fever. It was proposed to

overcome this difficulty by making the schedule more explicit, and some changes in that direction would certainly strengthen the Act.

Next came a condensed but most interesting statistical study of the three recent epidemics of influenza in London by Dr. F. A. Dixey, and then Dr. Hill, of Birmingham, read a paper on house drainage, which led to an animated discussion upon the merits of slop-closets. The general verdict was decidedly favourable to this development of the water-carriage system, which has made considerable headway since the publication of Dr. Parsons's report.

Very instructive also, in another way, was the visit paid to the Nottingham Fever Hospital at Bagthorpe, where 87 per cent. of the notified cases of scarlet fever are now voluntarily isolated in a hospital which is justly regarded as a model of its kind.

The Admission of Women.

In the final days of the general meeting two important subjects were discussed, and on both of them large audiences pronounced almost unanimous decisions. The question of the admission of women to the Association was brought into the region of discussion by the action of several of our Colonial Branches, some of which, finding the present restriction inconvenient, had invited ladies duly qualified and registered to attend their meetings, while others made a direct appeal for the removal of the restriction which prohibited the admission of women. The resolution in favour of altering the by-laws, as modified in 1878 when the restriction was made, was moved by Dr. Galton, a leading member of the Council and a representative of the South-Eastern Branch, and seconded appropriately enough by Mrs. Garrett Anderson, who was elected a member of the Association before 1878. The voice of all who spoke was in favour of what was described as a measure of justice and an acceptance of the altered state of things.

The number of medical women on the *Register*, it was stated, is now 130, and 140 are now being educated under the conditions laid down by the Medical Council and the large number of universities and corporations which now admit duly-educated women to the *Register*.

The warm applause with which the successive speakers was greeted indicated the very general and even enthusiastic feeling on the part of the several hundred members present in favour of such a change, and the resolution was carried without any opposition. On the show of hands it was carried very nearly without a dissentient, only about four hands being held up in the whole assembly against the motion. Among those who voted in favour were many who, like one of the speakers, had on a former occasion warmly opposed such admission, but who now felt that the time had come when it would be neither graceful nor consistent with the existing state of facts to maintain the restrictive rule of 1878. It is needless to say that a resolution so consonant with the general state of educated public opinion has been received by the press generally throughout the kingdom with expressions of warm approval and congratulation. "The British Medical Association," says one influential organ of public opinion, "yesterday removed a blot from its escutcheon;" and this is the prevalent character of the comments on the proceedings of that day in medical and lay journals.

Experiments on Animals.

Another highly-important resolution was that moved by Mr. Jonathan Hutchinson, reaffirming the enormous value to medicine of experimental research on animals as a valuable and indispensable aid to the progress of the art and science of medicine. The immediate motive of this resolution was, it is understood, some vexatious proceeding which had taken place in Nottingham. But it also had, and was intended to have, the value of an authoritative declaration of the mature convictions of a great body of experienced and practical representatives of medicine and surgery assembled in congress.

It will be of special value to the forthcoming Church Congress at Folkestone, where this subject is likely to be discussed by speakers who will probably, as on former occasions, profess to have doubts of the vast usefulness and immeasurable importance of experimental physiology for the progress of medicine and surgery, and who will base upon those doubts arguments which would otherwise have far less weight, and appeals which in the presence of such an affirmation as that made last week become sterile and ineffective. Of course, persons having special sources of information, such as Miss Frances Power Cobbe no doubt possesses, are not to be influenced by the matured conclusions and solemn declarations of men such as Hutchinson, Clifford Allbutt of Cambridge, Lauder Brunton, Broadbent, Gairdner of Glasgow, Cuming of Belfast, and others who took part in this annual meeting. We notice that the Editor of the *Globe*, in printing one more of the singularly dogmatic and abusive writings of this lady, asks for assurance and proof that vivisection is useful to the advancement of medical knowledge. We might refer him to the whole of the publications of the Society for the Promotion of Medicine by Research, of which, no doubt, the Honorary Secretary, Mr. Stephen Paget, will be happy to furnish him with copies. But the fact is that ladies such as Miss Frances Power Cobbe, and prelates such as Bishop Barry, who take the matter in hand for the Church Congress, are not willing to be convinced by any scientific statements on the subject. They have had before them now for many years the vast amount of evidence furnished in detail by Professor McKendrick, Professor Burdon Sanderson, Sir James Paget, Mr. Erichsen, and others, to the Royal Commission which sat and reported on the subject in 1875. They have before them the resolutions and speeches at the great International Medical Congress in London—the great parliament of the medical world—they have the unanimous testimony of the whole of the leaders of the medical profession, and the united voice of the thousands of medical men throughout the world. They have cognisance of the vast benefits to man and to animals themselves achieved from the work of men such as Pasteur and Koch abroad, and Lister, Lauder Brunton, and Spencer Wells, to mention only a few names, at home. To affect to have doubts on the subject is, therefore, good evidence either of complete ignorance of the facts of the case, which has now been stated over and over again in a most authoritative manner, or of an intention to ignore that evidence for the purpose of a foregone conclusion. It is well, therefore, that the British Medical Association, at a meeting so largely composed of what is called the purely practical element in the profession, should once more reaffirm from its experience those conclusions as to

the question of the usefulness of vivisection to mankind, since that ground is to be gone over again by incompetent persons at the Church Congress. At any rate, it is well to reaffirm that the whole mass of knowledge, thought, and experience in the medical world is against the objectors now as decidedly and as conclusively as it was when the subject was first authoritatively discussed before the Royal Commission of 1875. That Commission then declared that it saw no reason to doubt the humane spirit with which such investigations were conducted in Great Britain, nor could it entertain any doubt of the vast importance to humanity and of the good results achieved by such researches.

The Annual Dinner: An Important Announcement.

At the annual dinner, which was in every way a satisfactory and successful function, the most noteworthy feature was furnished by a speech by Dr. Withers Moore, President of Council, who, after mentioning that this was the last year of his successful and useful term of office, and paying some well-meant and kindly compliments to the executive officers of the Association, announced, what it may be presumed will prove to be a new official programme, by the declaration that the Council intended at no distant date, and at the expiration of their present lease, to set aside £50,000 to £60,000 for the purchase of a freehold site and the erection of suitable buildings to form a metropolitan home for the Association, and one which would be worthy of the great profession which it represented. It is seldom that so important an announcement is made on a convivial occasion, but its significance, coming from so careful and discreet an officer as Dr. Withers Moore, is obvious, and the information will be received with much interest by the Association at large. Thus the annual meeting at Nottingham may be pronounced to have been at once valuable in its scientific, public, and professional aspects, and successful in those social aspects, of which the pages of the British Medical Journal of this and last week will already have given a very agreeable impression. Those pages will have indicated also the great debt which we all owe to the President, the Local Secretary, Dr. Handford, and to the organising members generally at Nottingham for their energy, laborious devotion, hospitality, and kindness in arranging all the details of this very interesting meeting.

THE CENTENARY OF NON-RESTRAINT.

The British Medico-Psychological Association held its annual meeting this year in the city of York, to mark its sense of the benefits conferred upon the insane by the foundation of the Retreat in the midsummer of 1792. Similar associations in the United States, Russia, Austria, Germany, France, Belgium, Holland, and other countries recognised the interest and importance of the event thus commemorated by sending their greetings. No national rivalries appear to have chilled the expression of the most cordial felicitations on the occasion, and the last number of the *Journal of Mental Sciences* contains ample evidence of this generous sympathy in former days. The same journal contains materials which enable us to appreciate the motives which led to the building of an institution destined to exert so remarkable an influence in reforming the treatment of lunatics in this country.

Considerable dissatisfaction had been felt for several years prior to 1792 in the management of a lunatic hospital at York, established in 1776 by public subscription. In 1791 a lady patient died. Her friends had come from a distance during her illness to see her, but their wish to do so was denied. The event was shrouded in mystery, and suspicions already aroused as to the treatment of the inmates were intensified. A citizen of York known for his philanthropy, and a member of the Society of Friends, took the affair to heart, and proposed the establishment of a new asylum, where the patients should be treated with kindness, and where the feelings of their friends should be consulted. William Tuke could not possibly at that time have a perfect conception of the needs of the insane as we now recognise them, but he broke with the past, and started upon an untrodden path. His merit lies not in writing fine words, but in doing the right thing. Little by little the idea grew and formulated itself, so to speak, in a great work of benevolence and intelligent skill, the outcome of common sense and philanthropy.

Perhaps, after all, it was an advantage that he had no knowledge of medical custom or theory, for at that period the profession did not shine in its treatment of insanity. In fact, mental medicine was at is lowest ebb, and was summed up in the well-known epigram of Lettsom. Tuke's proposition, coldly received at first, was eventually carried into effect; but for this purpose liberal donations from his co-religionists as well as himself became necessary. He ensured success by residing in and directing the house, and subsequently by obtaining the services of an excellent man, Jepson, possessed of medical knowledge although unqualified, who cordially helped him to carry out his plans. It is evident that a resolute will, strong sense of duty, pity, and good sense were essential, and with these qualities the projector of the institution was in a large measure endowed; but more than this, he not only knew where to find his tools, but how to use them.

We have been at some pains to discover what manner of man he was, and the portrait accompaning the article referred to appears to justify the description given of him in an obituary notice. "In person, William Tuke hardly reached the middle size, but was erect, portly, and of a firm step. He had a noble forehead, an eagle eye, a commanding voice, and his mien was dignified and patriarchal." His evidence before the Select Committee of the House of Commons presents a striking picture of the treatment introduced at the Retreat, although evidently not reported *in extenso*. It is satisfactory to know that after more than a quarter of a century's devotion to the welfare of the institution he did not pass away without knowing that the reform in lunacy was progressing, and gave promise of further extension and utility. That he impressed his mark upon his age is proved not only by the quoted testimonies to the contrast presented by the management of the Retreat to that of contemporary institutions, but by the action taken by Parliament in probing the festering wound to the bottom, and initiating lunacy legislation, which by slow yet sure degrees led to enactments made to protect the lunatic and to provide for accomodation in asylums which are now the pride of England. With regard to mechanical restraint, its abolition is stated to rest, not with the Retreat but with Gardiner Hill, Charlesworth, and with Conolly, who attributed his remarkable career in this direction mainly t

ıe Retreat, and observes that, "although, certainly, restraint 'as not altogether abolished at that establishment, it un-ottbtedly began the new system of treatment in this country, ınd the restraints resorted to were of the mildest kind." To ïm the article in the *Journal of Mental Science* pays a glowing ·ibute of praise for the ultimate developments of lunacy ·form. Now that the battle of humanity has been fought, ınd the combatants have gone to their rest, their respective ıare in the work can be and is judged with calm impartiality, ıd their respective merits justly recognised. This remark pplies to those who laboured in France as well as in our own ountry, and at the dinner of the Medico-Psychological ssociation at York, a collateral descendant of Pinel was resent to do honour to the Retreat on attaining its centenary, hile this physician's health was fittingly proposed by Dr. ack Tuke, who ungrudgingly paid a warm tribute to the ıeritorious act of Pinel in the dark days of the French Revo-ıtion, in knocking off the cruel fetters of the insane at the icêtre. That there should be such a recognition of noble ·forms initiated so long ago in the two countries, is unmis-ıkable evidence on the one hand of the profound impression ıey produced, and on the other, of the cordial relations 'hich exist between the alienists of France and England. As 'e have intimated, not a trace of jealousy or rivalry appears ı this very pleasing episode. Would that the same happy ·eling of international goodwill characterised all the victories f good over evil, and knowledge over ignorance, at home and broad!

The Anthropological Congress was opened at Ulm in avaria on August 1st. Professors Virchow, von Waldeyer, on Nothnagel, and Ranke of Munich, were among those resent.

Most of the notices in the daily press gave the date of the pecial general meeting to confirm the resolution passed at he General Meeting at Nottingham, as to the admission of omen to the Association, as Tuesday, August 16th. The orrect date, as announced in the British Medical Journal ast week, is Wednesday, August 24th.

We are requested to state that the following have been dded to the list of Honorary Presidents of the International ongress of Obstetrics and Gynæcology:—England: Dr. obert Barnes, Dr. Thomas Keith, Mr. Lawson Tait, and rofessor John Wallace. Scotland: Dr. Murdoch Cameron. reland: Dr. A. V. Macan and Dr. More Madden.

Mr. Passmore Edwards has given a convalescent home to is native county, Cornwall. It was formally opened by Irs. Edwards on August 1st. The home is at Perranporth, bout nine miles from Truro on the north coast. Mr. Ed-ards has given £3,000 towards its endowment, and handed over to the governors of the Royal Cornwall Infirmary, ruro.

Professor Virchow has been elected Rector of the Uni-ersity of Berlin for 1892-93. The long delay in according him this honour has been a matter of surprise abroad, ut is understood to be in some way connected with the adical political opinions of the veteran pathologist. In nally according him this recognition, the University of erlin has done itself an honour, but can hardly add to the eputation of Virchow.

The *Gazette* announces that the Queen has been pleased to give directions for the following appointments to the Most Distinguished Order of Saint Michael and Saint George: To be Ordinary Members of the Third Class or Companions of the said Most Distinguished Order, Mr. Francis Volcy Pougnet, M.D., Member of the Council of Government of Mauritius, Visiting and Superintending Surgeon of the Civil Hospital, Port Louis; and Mr. Edgar Aubert, Mayor of Port Louis, in recognition of services rendered in connection with the recent disastrous hurricane in Mauritius.

It will be seen from a letter from Dr. Wynn Westcott, published elsewhere, that he contradicts the current statement to which we referred, that he retired from the membership of the Islington Vestry after the death of Dr. Tidy. Dr. Westcott informs us that he retired shortly before that gentleman's death with the view of becoming his successor as medical officer in the event of his expected resignation on the score of chronic ill-health. We are glad to assist in having all the facts accurately stated so far as they can remove any unpleasant impression produced by the series of events to which we have referred.

INEBRIETY "GOLD CURES."

We have received a circular from a third American company for the "cure" of inebriety, which has found a habitat in London. The company state in their circular that their "gold cure" has been attended by "marvellous results" in the United States. There is nothing in the circular to show whether a secret remedy is employed, but the publication of testimonials from persons who state that they have been cured is of a similar kind to what we have been accustomed to in the commending of patent medicines and secret specifics. It is stated that there is a registered English physician on the premises, and that the treatment has been watched by a London practitioner. In the interest of the medical men referred to it is desirable to ascertain the real character of this undertaking, and whether it deals with secret nostrums, as in certain contingencies their connection with a company of the kind might necessitate inquiry by their colleges.

THE LATE MR. SAMUEL LANE.

We deeply regret to have to announce the death of Mr. Samuel Armstrong Lane, the founder, and for many years the principal, of the School of Medicine adjoinining St. George's Hospital, and one of the founders, and for many years surgeon, of St. Mary's Hospital. Mr. Lane died at the ripe age of 90, and, having long since retired from professional life, is little known to the younger generation, but by a great number of those of earlier entrance into professional life he will long be remembered as a most accomplished teacher of anatomy, an urbane, courtly, and ceremonious gentleman of rigid integrity, great courage and strength of will, and unfailing kindness of heart. He was the last of the school of the Hunters, Graingers, and Bells. The story of the foundation of his private school which he successfully conducted for so long a series of years in successful rivalry with that of St. George's Hospital is one of the most interesting in medical history. This courtly, old-fashioned, and mild-mannered gentleman fought a most successful and gallant battle against overwhelming odds, and ended by winning universal esteem and a large share of affection. With him die the traditions of a school and a period which has hardly any living representative. Mr. Lane was also senior surgeon of the Lock Hospital, and a member of the Council and Board of Examiners of the College of Surgeons. He retained his health and faculties till within a few weeks of his death.

THE RIGHTS AND RULES OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

The Royal College of Physicians has issued a small volume containing the Charter, Bye-laws, and Regulations, together

with the Acts of Parliament especially relating to the College. The Charter of Incorporation was granted by "Henricus [VIII], Dei gratiâ Rex Angliæ et Franciæ et Dominus Hiberniæ." To check men who profess physic rather from avarice than in good faith, to the damage of credulous people, the King determined, after the example of Italy and other nations, to found a college at the instance of his three physicians, John Chambers, Thomas Linacre, and Fernandi de Victoria, together with three others, Nicholas Halsewell, John Francis, and Robert Yaxley, and the Cardinal Archbishop of York, Chancellor of our kingdom of England. This was in September, 1518. The first Act of Parliament is dated 1522-3, and recites the charter. Two other Acts were passed in the reign of Henry VIII, and Queen Mary in 1553 confirmed and extended the powers of the College, giving it power to commit unruly members to prison, there to be safely kept at their proper cost and charges "until such time as such offender or offenders, or disobedients, be discharged of the said imprisonment by the said President and such persons as by the said College shall be thereunto authorised"—truly a short and simple way with persons violating the ethics of the profession. With this Act the older enactments come to an end, and the Medical Act of 1858 practically brought the College into line with the other corporations. The great bulk of the by-laws are thoroughly technical and special, but those dealing with the duties and conduct of Fellows, Members, and Licentiates contain most salutary regulations as to conduct in consultation and in practice.

GLANDERS IN GREAT BRITAIN.

In February last we drew attention to the increase of glanders among horses in Great Britain and the unsatisfactory condition of the laws relating thereto. The inquiry held at St. Bartholomew's Hospital by Mr. Langham on the body of Margaret Bristow, wife of an ostler, residing at Compton Mews, Brunswick Square, reveals a state of affairs which must be regarded as the more deplorable when we consider that with a proper recognition of the nature of the disease and the efficient use of rational measures its existence in horses could be most materially reduced, if not altogether annihilated. At the inquest referred to it was found that the woman Bristow had died of glanders, and it was stated that another woman from the same mews was then in the hospital suffering from the same disease. The number of cases in man reported as glanders is not large. It is possible that all may not be recognised, for in the lower animals in whom the disease offers greater facilities for close study, its manifestations are found to be very varied. The revelations at the coroner's court should be quite sufficient to excite the interest of all classes of the community in the eradication of so fatal a malady—a malady known to be highly contagious and communicable to man, and for the suppression of which there appears to be but the semblance of adoption of the most feeble means. The jury in this case, with their verdict of "death from glanders," passed a censure for "gross carelessness" on the owner. We could hope that if the censure be deserved the law may provide such punishment as may be deterrent to others, but when we realise the fact that 21 days may elapse after a special report by the veterinary inspector declaring an animal to be affected before its slaughter may be legally enforced, we can scarcely hope that horse owners or those employed amongst horses can have a proper appreciation of the danger to which they are subjected. Beyond this most important consideration of the menace to human life there would appear to be no lack of incentive from a pecuniary point of view. We are informed from a reliable source that in 1891 a large horse-owning company suffered by this disease the loss of a sum exceeding £10,000, while in 1890 another company, with a much smaller number of horses, lost a similar amount, between two and three hundred animals having been affected and destroyed. Glanders often exists in a form unappreciable except to the expert, and our present imperfect system, or want of system, of inspection affords opportunity to unprincipled persons of working diseased animals and of suppressing any suspicion which may exist. We hear rumours at the present moment that the authorities are about to prosecute one or two large horse owners for such suppression and for working animals suspected of glanders in public conveyances. Between 80 and 90 per cent. of cases of glanders occurring in Great Britain are found in London and its immediate environs, while Liverpool and Glasgow supply a large proportion of the remnant. With the recognition of glanders and farcy as merely manifestations of the action of the same poison the adoption of a thorough system of inspection, immediate slaughter of affected and suspected cases (the latter made practical by compensation for animals found on *post-mortem* examination not to be affected), reasonable grounds are afforded for the hope that the disease may be stamped out in this country, thus removing a source of danger to human life and preventing great national pecuniary loss. Whether the executive be the Board of Agriculture or the County Council there is here a field for useful work.

ELECTROPATHIC AMULETS.

Mr. A. J. L. Gliddon writes to us with reference to the statement that Count Mattei's remedies for cancer have been subject to analysis which does not prove that his bottles contain anything but distilled water. Mr. Gliddon is anxious to state that Mr. Stokes analysed some of "the electricities," but he made no analysis of the globule remedies, "upon which alone," says Mr. Gliddon, "we depend for curative treatment. The electricities," he adds, "are simply used to remove pain or stop hæmorrhage." We turn to a pamphlet which accompanies the letter, and under the head of "The Electricities" we read the following: "Of the vegetable electricities, those which are oftenest used are the white, red, and yellow. The doctor should avoid using these remedies on patients suffering from angivitis, or who were troubled with palpitations of the heart, aneurysm, or convulsions. Except in these cases, they may be used as a remedy for arthritis, for rheumatism, and for partial paralysis. When one wishes to arouse exhausted forces, or to dissipate drunkenness, it is enough to touch the sympathetic nerve, and in these cases the effect is instantaneous." These are apparently the electricities which proved, when Mr. Stokes analysed them, to give no other reaction than that of distilled water. It is no necessary to comment on this *reductio ad absurdum*.

DEATHS UNDER CHLOROFORM.

Dr. Danford Thomas held an inquiry on July 31st at the residence of General Bishop, Ealing, into the circumstances attending the death of James Mathey Meadow Bishop, age 35, assistant superintendent of police, whose death took place on Saturday last while he was undergoing an operation under the influence of chloroform. Dr. Arthur John Hogg of Ealing, stated that he had been attending the deceased since his arrival from India. He was suffering from liver disease, and it was decided that an operation was necessary for the removal of a deep-seated abscess in the liver. Mr. Bruce Clarke, surgeon, of St. Bartholomew's Hospital, undertook to perform the operation on July 30th. The deceased was put under the influence of chloroform, which he took very well, and all went well until the operation was nearly completed, when he suddenly gave a gasp and expired. Artificial respiration was kept up for over half an hour, but to no effect. Death was due to syncope from sudden failure of the heart. The jury returned a verdict of "Death from misadventure."—The Liverpool coroner held an inquest on July 26th on the body of Mrs. Sarah Smith, aged 37, who died under chloroform. Her husband said his wife had for some time suffered from neuralgia due to decayed teeth, and obtained a subscriber's order for the Dental Hospital, Mount Pleasant

and on July 23rd underwent the operation during which she died. She was a strictly sober woman. Dr. J. E. Gemmell said he had administered chloroform upwards of 1,500 times without a mishap. He found Mrs. Smith a fit subject for the operation. She had to undergo several difficult extractions of teeth, and it was absolutely necessary to give her an anæsthetic for the purpose. He gave it to her slowly, and after she had breathed 30 drops her pulse became weak, and she had an epileptic fit, during which the heart failed, although respiration continued, aided artificially, for thirty minutes. All the known restorative remedies were tried, and extra professional help summoned, but without avail. He attended the *post-mortem* examination, and assisted thereat. He found the heart and kidneys unhealthy, corresponding to gradual changes which would not manifest themselves either to the patient or her friends during life, nor were these conditions recognisable to a medical man. Dr. A. Barron, who made the *post-mortem*, and Mr. Gilmore, house surgeon at the Dental Hospital, gave similar evidence. The jury returned a verdict of "Death through failure of the heart's action whilst under the slight influence of chloroform."

THE LEAMINGTON PARRICIDE.

In this case, which caused very great excitement in the Midlands, though little was known or thought about it in London, the issues involved are far-reaching, and the ruling of the judge will probably be quoted as an authoritative one. In brief outline the facts of the case are as follows: The prisoner was a young man belonging to a family in which, on both sides, there were evidences of nervous instability (such as epilepsy and insanity), was subject to fits of an epileptic nature, and was unlike the rest of his family, and instead of being a successful man of business always managed to lose money and get into trouble. He lost money in New Zealand. He was given another chance in America, and there he developed ideas that his father was against him, and had, in fact, poisoned the minds of those near him. From the evidence it would appear that the notion that he had been badly treated by his father had begun to grow before this even, for he said that at school he was not treated well, in so far that he was not allowed proper clothes or pocket money. From his failure in America he returned, and was allowed a fair sum to live upon; he did nothing but complain of bad health and bad treatment. He went abroad, and was there treated hydro-therapeutically, but he still maintained that his whole family were against him. He wrote many threatening letters, which, when read in Court, bore the character of the persecuted lunatic's letters, being very long and very argumentative and full of repetitions. He was thought to be nervously ill, and was sent to some general physicians, who did not recognise the gravity of his symptoms, and he was allowed to return home, then, in the coolest and most deliberate way, shot his father, expressing satisfaction that he had rid the world of a monster. There was no doubt about the facts. The question really was whether he was insane, and, if so, his insanity was such to remove him from guilt. The prosecution was conducted in the most satisfactory way, the counsel for the Crown at once saying he only wanted truth to be vindicated. The trial really consisted in demonstrating that the prisoner's father had been in all things extremely generous, and had not in the least degree given any reason for the notions of the prisoner. The medical officers for the Crown gave evidence, and they (with the single exception of the surgeon to the gaol, whose mind was made up from the "facts observed by himself," and was not influenced by the history of the general nature of the acts), gave the strongest evidence of the insanity of the prisoner, for Dr. Shepherd was willing to admit that the acts of the man were more like those of a person under delusions than not; and Dr. Whitcomb of Birmingham definitely classed the prisoner as one suffering from monomania, with ideas of persecution. After such evidence, it was thought well to take the experts' evidence (or some of it), for the prisoner and Drs. Blandford and Savage testified to their belief in the insanity of the prisoner; and the trial was ended. The great point of interest was that Mr. Justice Wright took the following line in his summing up: He said that many, if not all, criminals belonged to the nervous type, to which also did lunatics, but this was no reason for excusing criminals; though many criminals with insane tendencies might be aware of the nature of the act they committed, it was not enough to show that a criminal was aware of this to enable one to say at once that he was responsible; that, in fact, as in this case, a man might fully recognise that using a revolver would kill a man, and that for killing another, one might be hanged; yet the person shooting might be irresponsible, for in one case he might not be able to resist an impulse, and in another, such as the one under consideration, he might believe he was not doing harm. In fact, if a man's act was the direct outcome of an insane delusion, he ought not to be held responsible for the act. He pointed out that premeditation and deliberation had nothing to do with the matter, and we believe that he took a clear and very independent view of the case, and that justice was served in the verdict of "Guilty, but that the prisoner was not responsible, being insane at the time of the committing of the act."

BUYING A PRACTICE.

We have often had occasion to call attention to the extreme caution which is necessary on the part of medical men who are induced by advertisements to purchase practices. We are disposed to think that they very often do so without taking the advice of experts either as to the financial or legal aspects of the contract into which they are entering. Medical agents are on the whole a very trustworthy and intelligent body of men, but it is obvious that the agent who is acting on behalf of a client, who is vendor, is bound, in virtue of his agency, to think specially of the interests of that client, and while careful to avoid any misrepresentation or statement which goes beyond the facts put before him by his client, it is not within the sphere of his duty to investigate all the counterbalancing contingencies and considerations which ought to be fully present to the mind of the buyer when he is making his bargain. Moreover, it not infrequently happens that the purchaser and vendor think it wise, although it is always very foolish, to dispense with the intervention of a third person, and conduct the negotiation with the unaided assistance of that rare, much over-rated, and very misleading possession, which is often miscalled common sense, and which is resposible for more errors, follies, and short-sighted proceedings than perhaps any other quality with which educated gentlemen are prone to credit themselves. In law, as in medicine, a man who selects himself as his client is apt to be very ill-advised. *Caveat emptor* is a maxim of which judges never lose sight, and a considerable margin of rose-coloured statement is allowed on the part of the vendor before the judicial mind will acknowledge that there has been legal misrepresentation. On the other hand, the purchaser must show not only that he exercised to the full his right of careful investigation before entering into a contract, but also that he has done nothing since the completion of the contract which could be considered either as contributory negligence, or as waiving any part of his rights, or sleeping upon them, or condoning the acts for which he subsequently comes into court to complain. We are led to make these observations by the report of a recent case in the Court of Queen's Bench, in which Mr. Justice Wright has just given judgment. It was an action by a medical gentleman carrying on his profession at New Cross Road, for rescision of contract, and to recover damages on the ground, as the plaintiff alleged, that he had been induced to purchase the medical practice there upon a misrepresentation as to its value. The alleged value of the practice was £660 a year; the actual receipts for the first quarter were about £25, and further experience did not improve the prospects of emolument. Nevertheless, the Judge

decided that the practice had been purchased not merely upon the facts set out in the advertisement, but subject to explanation verbally given as to the nature of the practice and the causes of a recent falling off, and in the end he gave judgment in favour of the defendant on all points; among the reasons being, that the plaintiff had not exercised due care in the transaction, and that his subsequent action had not preserved unimpaired whatever rights of action he might otherwise be supposed to possess. The moral is obvious, the result of the case leaves the defendant free from imputation or liability; nevertheless the plaintiff, who paid some hundreds of pounds for his purchase, finds himself in a very unfortunate position. His misfortunes may be useful to others, if they remind gentlemen in search of a practice, and willing to pay for it, that they had better not trust their own unaided abilities in making bargains of the kind, but that after considering for themselves all the social and professional aspects of the bargain they may find considerable advantage from being advised at each step by a financial and legal expert.

MAGAZINE RIFLES AND AID TO THE WOUNDED.

We have received the report of a lecture recently delivered at the United Service Club, Secunderabad, by Surgeon-Captain Nichols, of the Medical Staff, on the action of the small-bore weapons and their influence on the medical service in time of war. The General commanding the district presided, and many regimental and departmental officers were present. It is gratifying to find officers of the purely combatant service and medical officers joining in publicly discussing subjects of such importance to the army at large as the probable influence of the rifles now introduced into all European armies, on future warfare, and on the means of most efficiently rendering help to its victims. The following is a summary of the conclusions which the lecturer submitted to the meeting: Magazine rifles will multiply the number of very severe wounds within limited distances, and, owing to their longer range and greater accuracy, will increase the general number of wounded by extending the fighting area. The means of aiding the wounded will, at the same time, be pushed back further to the rear. The new bullets, from their small size, hardness, and increased force, will render wounds inflicted beyond a limited area, when not in vital parts or implicating bones, more amenable to treatment. The general increase in the number of wounded to be provided for will be beyond the means of the Army Medical Service to cope with, and, therefore, volunteer aid by neutrals may be fitly employed, under the control of the Army Medical Department, as well on the field of battle itself as in the hospitals in rear of the army. The organisation for this purpose should be at once settled. It will be seen that the foregoing conclusions closely agree with those which have been arrived at, not only in our own country, but also on the Continent.

SCOTLAND.

The 129th meeting of the Scottish Universities Commission was held on Tuesday, July 19th.

EDINBURGH ROYAL INFIRMARY.

We understand that Mr. A. G. Miller, who becomes by rotatation Senior Surgeon in the Edinburgh Royal Infirmary, in succession to Mr. John Duncan, whose term of office expires at this time, has made an arrangement by which the Hospital will retain the services of Mr. Duncan during the rest of Mr. Miller's term of office, a period of something like five years. The work is, we believe, to be in part joint work, and in part divided. The arrangement has been homologated by the managers. It has not, however, met with the unanimous approval of the medical and surgical staff, who look upon it as an innovation and a somewhat dangerous precedent.

SANITARY ASSOCIATION OF SCOTLAND.

The eighteenth annual congress of this Association was held in Marischal College, Aberdeen, under the presidency of Lord Provost Stewart, who was supported by the Marquis of Huntly (the Hon. President of the Association), Dr. Farquharson, M.P., and Dr. Duncan, Glasgow. The Marquis of Huntly delivered a presidential address, in which he referred to the enormous strides made of recent years in sanitary science and practice, and suggested that town and county councils should do more than had been done in the past to remove the cause of tuberculous diseases that were common to the north of Scotland. A discussion was introduced by Dr. Carmichael. Dr. Farquharson, M.P., expressed an opinion that the Legislature should take steps, on the lines agreed to at the last conference, that animals affected with tuberculosis should be killed, and compensation given. Professor Mathew Hay, Aberdeen, spoke to the fact that in almost every part of the country far too little attention was paid to the space given to the accommodation of milk cows. Other papers dealing with technical subjects were read. On the invitation of the Town Council, the members lunched in the Town and County Hall, Lord Provost Stewart presiding, and in the evening the delegates dined in the Palace Hotel under the presidency of the Marquis of Huntly.

IRELAND.

Dr. R. Browne Carey has been appointed a Justice of the Peace for the County of Carlow. (The name was incorrectly given last week.)

THE LATE DR. ASHFORD, OF SANDYMOUNT, CO. DUBLIN.

Dr. Ashford, of Sandymount, recently died at an advanced age. For many years he had endeared himself to the poor of the adjacent districts of Ringsend and Irishtown; and in remembrance of these services a meeting of the inhabitants of the districts in question was held last week for the purpose of taking the necessary steps to open a public subscription list to raise a monument to his memory.

IRISH DISPENSARY DOCTORS' HOLIDAYS.

We have much pleasure in announcing that the Board of Guardians of Monaghan Union have, by 17 votes to 6, granted their dispensary medical officers and union infirmary surgeons fourteen days' leave of absence every year, substitutes being paid by the union. This concession, which is a direct result of the agitation begun and kept up in these columns, should encourage the Irish Poor-law medical officers to fresh efforts for their emancipation from the oppressive and degrading conditions under which they have hitherto held their appointments.

PARLIAMENT AND IRISH DISPENSARY DOCTORS.

At the recent election, Mr. M. McD. Bodkin, Barrister-at-Law, who was returned for North Roscommon, identified himself strongly with the cause of the Irish dispensary doctors. In a circular addressed to the medical officers of the division, he said "The subject is one on which I have always felt strongly, and I willingly pledge myself that if I am returned to Parliament I will labour strenuously, in conjunction with the Irish Medical Association, for the removal of Irish medical grievances, especially in regard to the visiting ticket system and retiring pensions." This circular is a proof of the recognised influence of the dispensary medical officers in an election contest. The importance of conciliating them has not before been recognised, and we hope that our friends will be encouraged to press forward their organisation with all the energy they possess.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

Centenary of the Retreat, York.

The fifty-first annual meeting of the Medico-Psychological Association was held on July 21st at the Retreat, York, in honour of the centenary of the foundation of that institution. The proceedings commenced at 11 o'clock by a general meeting of members for the receipt of reports, the election of officers, and the transaction of other business.

Dr. Yellowlees moved the following resolution, which was adopted unanimously: "That the Medico-Psychological Association of Great Britain and Ireland, assembled in its annual meeting at the York Retreat, desires to place on record its admiration of the spirit which animated William Tuke and his fellow workers a hundred years ago, its appreciation of the mighty revolution which they inaugurated, and its thankfulness for the beneficent result which their example has secured in the humane and enlightened treatment of the insane throughout the world."

Various matters were discussed, and committees were appointed to revise the rules as to the question of proxy voting, to consider and report on the subject of public asylum dietaries, and to compile and reissue a handbook of instruction to nurses and attendants on the insane.

It was resolved "That a copy of the report of the Care and Treatment Committee be sent to each county councillor, and to each member of committees of asylums not managed by county councils within the United Kingdom; that application should be made to the Home Office for the preface of the word 'Royal' to the name of the Association; and that a Board of Education be appointed to consider all questions affecting medico-psychological teaching."

Suggestions were also presented from a committee for the improvement of the rules for the training, examination, and certification of attendants and nurses of the insane; these were discussed and for the most part agreed to. Dr. Needham and Dr. Féré were elected honorary members.

After luncheon, provided by the Retreat Committee, Dr. Baker, the president, delivered his address. He took for his subject Hospitals for the Insane, their power and influence in the treatment of mental ill-health. He considered that such hospitals were factors for good in two distinct ways: (1) They possessed, or ought to possess, every possible power and appliance for the care, treatment, and cure of the insane, and everything that brains and money could obtain. (2) All the money obtained from the remunerative patients was spent liberally and impartially in promoting the welfare, comfort, and cure of the patients who were not remunerative, whether they paid anything or nothing. As a means towards the first object, special accommodation for special cases of mental illness had been made and numerous villas had been built in the grounds of the hospital; there had been an increased number of resident medical officers, and educated ladies and gentlemen whose mission in life was to live amongst and minister to the insane should be almost universally employed.

In the evening the members and a number of invited guests, among whom were Dr. Morel, Belgium; Dr. Semelaigne, great grandnephew of the illustrious Pinel; and the City Sheriff, dined at the Station Hotel. Numerous letters of regret for non-attendance and congratulations to the Association and the Committee of the Retreat on the completion of the centenary of its foundation from official bodies at home and abroad were read by the honorary secretary, Dr. Fletcher Beach.

ROYAL COLLEGE OF SURGEONS.

An ordinary Council was held at the College on August 1st. The minutes of the last quarterly council were read and confirmed.

The Secretary reported the death of Mr. Le Gros Clark, F.R.S., a past-president of the College, and it was unanimously resolved that a letter expressing sympathy with the friends of the deceased should be sent.

It was announced that the Museum and Library would be closed as usual during the month of September for the purposes of cleaning.

Sir William Mac Cormac was re-elected a member of the the Court of Examiners, and Mr. N. C. Davies-Colley was elected to the vacancy in the same court occasioned by the retirement of Mr. Thomas Bryant; Dr. H. J. Campbell was elected a professor of comparative anatomy for the ensuing collegiate year.

The price of the recently published catalogue of pictures and busts in the College of Surgeons was fixed at 2s. 6d.

It was resolved that the annual meeting of Fellows and Members of the College should be held on November 3rd, at 3 P.M. Messrs. Hulke, Pick, and Marcus Beck were elected as a Committee to draw up the report to the Fellows and Members.

The Council, in pursuance of their resolution on July 14th, elected a Committee, consisting of Messrs. Macnamara, Rivington, and Tweedy, with the President and Vice-Presidents, to consider and report on the standing rules, and to submit a revised copy to the Council.

The following motion by Mr. Macnamara was carried *nem. con.*: "That it be referred to the Nomination Committee to consider and report to the Council whether any, and if so what, alterations are desirable in the arrangements for the Museum and other Lectures."

The next meeting of the Council will take place on October 13th.

CHOLERA.

It would seem that the precautions taken by the Russian authorities have at least had the effect of checking the speed with which the epidemic of cholera is travelling westward. It is now officially admitted that it has got a foothold in Nijni Novgorod, where 80 deaths a day are said to be occurring, and there can be little doubt that it has reached Moscow, though the cases have been comparatively few. A railway traveller has died in St. Petersburg soon after his arrival. These extensions are in continuation of the movement up the Volga. It has also spread due eastward in the Rostov country, and a statement, since contradicted, has been published to the effect that it has appeared in Galicia within the Austrian frontier.

The near approach of the epidemic has not unnaturally put the sanitary authorities of the German empire on the alert, and our Berlin correspondent gives below the substance of an official document, which is understood to have been inspired, if not written, by Dr. Koch. The minute practical directions which it contains as to prophylactic measures will be read with interest and advantage, because they are of a simple character and carried out with materials which can be obtained anywhere. A great responsibility rests upon the medical profession in European countries at the present time, and in Great Britain and Ireland, where, at any rate in ports and populous places, the sanitary service is well organised and fairly well equipped, the best prophylactic will be to give immediate notice of any suspicious case to the medical officer of health. The method of dealing with infectious diseases has now been so far elaborated and perfected that it has become a special department of knowledge, and the private medical practitioner or householder who, in the face of the present peril, would attempt to isolate or disinfect with private resources would commit not only an illegal but an extremely foolish act.

Our Berlin Correspondent writes: The official *Reichsanzeiger* of July 28th contained an article on cholera and its treatment under the headings: (1) information as to the nature of cholera, and of measures to be taken during an epidemic; (2) instructions on the subject of disinfection in cases of cholera; and (3) hints to practitioners, showing them how to assist in preventing the spread of the epidemic. The first section is meant for the benefit of the general public, and consists of eighteen paragraphs of sound common sense, warning, and advice. The second names as the best disinfecting substances milk of lime, chlorinated lime, a solution of potash soap (soft soap), a solution of carbolic acid, steam sterilisation, and the boiling temperature. Exact directions for preparing the milk of lime are given as follows: 1 litre of broken up quicklime is mixed with 4 litres of water, that is to say, $\frac{1}{4}$ of a litre of water is poured into a vessel, and the quicklime is slaked in it. The rest of the water is then stirred

in. The solution thus obtained may be kept in a well-closed vessel, which must be shaken before use. The solution of soft soap is made by dissolving 3 parts of soap in 100 parts of water, that is, about a pound of soap in 17 litres of water. The solution is made more effective by the addition of 1 part in 20 of carbolic acid, stirred in while still hot, in order to disinfect by boiling. The articles to be disinfected must be boiled for half-an-hour in water, the water to be kept at boiling point and to cover the articles completely.

Careful and minute instructions are given for the disinfection of the evacuations of cholera patients, for the disinfection of bedding, furniture, floor, walls, closets, etc. If by mischance disinfecting substances should not be at hand, it is recommended that such articles as cannot be burned should be exposed to the air, but protected from rain, in a warm, dry, and if possible, sunny place, for six days.

The hints to medical practitioners chiefly draw attention to the necessity of immediately communicating the occurrence of each case to the district medical officer and to the police authorities. Each case is to be isolated and proper attendance to be provided. Where death has occurred before the arrival of the doctor, the corpse effects are to be locked up until the arrival of the police or of the district medical officer.

In Hamburg, steerage emigrants are forbidden to leave the train at the station; they are conveyed direct to the wharf, where they must remain in specially constructed pavilions until their ship leaves. In Thorn and Schillus all passengers by river steamer from Russia have to undergo examination, and further at five stations near the Russian frontier (Kattowitz, Schoppinitz, Reyslowitz, Pless, and Ratibor), an examination of railway passengers from Russia has been instituted, and temporary hospitals erected.

In consequence of the preparations for combating a possible outbreak of cholera in Germany, the prices of disinfecting substances have risen materially. Crude carbolic acid has risen 50 per cent., chloride of lime 10 per cent., perchloride of mercury 50 per cent., and permanganate of potassium about 10 per cent.

Our Paris Correspondent writes: At a recent meeting of the Comité Consultatif d'Hygiène Publique M. Proust stated that the choleriform epidemic in the environs of Paris broke out afresh on July 16th and 17th. At present it is dying away; Paris and the army have entirely escaped contagion. The Conseil has forbidden ice formed from the pond of Epinay-Enghien to be sold or used, the water of the pond being contaminated by sewage water. The municipal laboratory has provided all the police stations with copper sulphate, to be used to disinfect dwellings inhabited by cholera patients notified by medical men.

THE ARMY MEDICAL SCHOOL.

THE sixty-fourth session of the Army Medical School, Netley, was brought to a close on July 29th, Colonel Hanning Lee, late Assistant Adjutant-General at Netley, giving away the prizes. There was a large attendance of senior officers and other members of the medical staff, and of ladies. Professor J. Lane Notter announced the results of examinations for the Indian and British Medical Services, and the awards of prizes.

Dr. Allchin then addressed the officers. He pointed out that it was obviously the duty of the medical officers of the army to do what they could for the prosecution of their common science and their art. The records of the Army Medical Service abounded with names which it was almost invidious to mention. Yet, standing out from them were such names as Maclean and Longmore. There were also Sir Joseph Fayrer, and an old fellow student of his own, the late Professor Timothy Lewis. Theirs was a calling ample enough in itself, and honourable enough. By remembering that they were members of the medical profession first of all, they would best add lustre to the Queen's commission, which they had the honour to hold; would best do their duty to their fellowmen in the calling which they had chosen to pursue; and best add to the renown and credit of the profession to which they had the high honour of belonging.

Sir Joseph Fayrer also spoke, and, in the course of some eminently practical remarks, paid a touching tribute to the memory of the late Sir William Aitken.

Surgeon-Major-General Hinde said he was happy to be able to say that, as head of the hospital, he had not heard a single complaint of neglect of duty or disorder amongst the gentlemen present. He trusted that everyone would remember it was his bounden duty to carry out the orders of those set above him. He had to thank them for their good discipline.

The guests then adjourned to the Medical Staff mess for afternoon tea.

BRITISH MEDICAL SERVICE.

THE following is the list of surgeons on probation of the Medical Staff of the British army who were successful at both the London and Netley examinations.

	Combined Marks.		Combined Marks.
*H. A. Hinge	5,660	W. D. Erskine	4,807
†J. G. M'Naught	5,646	A. G. Thompson	4,796
H. A. Bray	5,641	A. J. Chambers	4,793
T. M'Dermott	5,515	G. A. Moore	4,682
E. W. Slayter	5,341	R. C. Lewis...	4,638
H. S. Thurston	5,191	R. F. E. Austin	4,612
L. P. More	5,042	W. H. O'Reilly	4,552
C. O'C. Hodgens	4,944	N. Marder	4,493
A. F. Tyrrell	4,889	E. H. Condon	4,476
W. P. Ryall	4,851	G. S. Mansfield	4,433
T. P. Jones...	4,843	F. Faichnie	4,399
G. S. Walker	4,833	H. W. K. Read	4,397
W. J. Smyth	4,820		

* Gained the Montefiore Second Prize.
† Gained the Herbert Prize of £20.

INDIAN MEDICAL SERVICE.

THE following is the list of surgeons on probation in Her Majesty's Indian Medical Service who were successful at both the London and Netley examinations.

	Combined Marks.		Combined Marks.
*P. B. Haig...	6,062	G. M'I. C. Smith	5,418
T. W. A. Fullerton	5,908	H. M. Earle	5,398
†R. H. Maddox	5,841	J. G. Hulbert	5,337
‡E. V. Hugo	5,819	F. E. Swinton	5,172
H. G. Melville	5,786	S. H. Burnett	5,168
A. O. Hubbard	5,631	T. Jackson	5,102
C. G. Robson-Scott	5 594	P. C. Gabbett	5,076
H. A. Smith	5,450	J. L. Macrae	4,603
D. R. Green	5,428		

* Gained the Montefiore Medal and prize of 20 guineas, with the Martin Memorial Gold Medal and the Prize in Clinical Medicine presented by Surgeon-General W. C. Maclean, C.B.
† Gained the De Chaumont Prize in Hygiene.
‡ Gained the Prize in Pathology presented by Sir Joseph Fayrer, K.C.S.I.
The prizes are awarded for marks gained in the special subjects taught at the Army Medical School. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in the above lists.

TRAINED MALE NURSES

NURSING is especially the function of women, and there is no department of public usefulness in which the tender genius and educated sympathy of women has asserted itself with greater usefulness and acceptance than this. Nevertheless, in the exigencies of medical practice there are certain classes of cases in which not only tenderness and skill, but strength and physical endurance, are taxed to an extent which is almost beyond the powers of ordinary women. We need not particularise the cases, for they come frequently within the sphere of ordinary medical observation. For such cases Miss Jane Hamilton made provision in founding the Hamilton Association for providing trained male nurses, which held its seventh annual meeting recently under the presidency of Sir Joseph Fayrer. The report was a very satisfactory one. The number of private engagements last year was 3,090, showing an increase on the year of 23 per cent. on the hospital work done by the Association, and a similar increase in mass age, the private nursing remaining about the same. Great pains are taken to have the nurses properly trained—a matter of some difficulty—and to select only suitable persons, over whose conduct careful watch is kept. The reports on this head have been very satisfactory, and we do a service to our medical readers in calling their attention to the good work done by the Association, and the facilities which it offers for meeting an undoubted social want.

ASSOCIATION INTELLIGENCE.

NOTICE OF EXTRAORDINARY GENERAL MEETING.

Notice is hereby given that an Extraordinary General Meeting of members will be held at the offices of the Association, 429, Strand, London, W.C., on Wednesday the 24th day of August next at 2 o'clock in the afternoon, to consider, and if thought fit, to confirm the special resolution passed by the statutory majority this day at an Extraordinary General Meeting of members held at the Albert Hall, Nottingham, namely, "That Article 4 of the Articles of Association be altered by expunging the words 'No female (duly qualified) shall be eligible for election as a member of the Association.'"

July 28th, 1892. Francis Fowke, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS FOR 1892. ELECTION OF MEMBERS.

A meeting of the Council will be held on October 26th, 1892. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than October 5th, 1892.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NORTH OF ENGLAND BRANCH.

The twenty-eighth annual meeting of this Branch was held at Sunderland on July 19th. Thirty-four members were present, and the retiring President, Dr. Drummond, in the chair.

Installation of New President.—After the reading of the minutes, Dr. Drummond introduced Dr. Murphy, the President-elect, and vacated the chair in his favour.

President's Address.—Dr. Murphy delivered the annual address, in which he dealt practically with some questions in abdominal surgery.—A hearty vote of thanks to the President was proposed by Dr. Broadbent, seconded by Dr. Gowans, and carried unanimously; and it was further resolved that the address be printed and circulated.

Officers and Council.—On the motion of Dr. Foss, seconded by Dr. Smith, it was resolved that the Council of the Branch be re-elected, with Dr. Hind of Stockton in place of Dr. Blandford (who becomes a member *ex officio* as President-elect); that the representatives on the Council of the Association be re-elected; and that the Secretary of the Branch be elected the Representative on the Parliamentary Bills Committee in place of Dr. Philipson (who becomes *ex officio* a member of the Committee as President-elect of the Association); and that Mr. Williamson be re-elected Secretary and Treasurer.—It was proposed by Dr. Philipson, seconded by Dr. Oliver, and unanimously carried, that Dr. Blandford of Norton be the President-elect, and that the annual meeting in 1893 take place at Stockton-on-Tees.—Dr. Blandford thanked the members for the honour conferred upon him, and accepted office.

Proposed Invitation of the Association to Newcastle.—It was resolved, on the motion of Drs. Eastwood and Drummond (of South Shields) that the Arrangements Committee for the meeting of the Association in Newcastle-on-Tyne consist of Drs. Philipson, Drummond, Hume, Murphy, Oliver, and the Secretary. It was further resolved that Dr. Philipson and the President of the Branch should propose and second the invitation to the Association to meet in Newcastle-on-Tyne in 1893.

Votes of Thanks.—On the motion of Dr. Wood, seconded by Mr. Black, it was resolved that a vote of thanks be accorded to the retiring President, to the Council, and the officers of the Branch.

Dinner.—The annual dinner took place at the Queen's Hotel, the President, Dr. Murphy, in the chair; twenty-five were present.

MALTA AND MEDITERRANEAN BRANCH.

A meeting of this Branch was held on May 27th, Professor S. L. Pisani, C.G.M.O., Vice-President, in the Chair.

Proposed Legislation as to Venereal Disease.—After reading and approving the minutes of previous meeting, the Secretary read the negative answer given by the Malta Government to the recommendations made by a select committee of the Branch, namely, to render more strict the law in Malta with regard to the Infectious Diseases Act, by keeping under observation public prostitutes when presenting doubtful symptoms of venereal disease, thus preventing the spreading of such diseases.

Delegates to Annual Meeting.—Two of the members of the Branch at present in England were selected to represent the Branch at the forthcoming annual meeting of the British Medical Association in Nottingham.

Election of Branch Members.—Seven officers of the Medical Staff were unanimously elected to be members of the Malta and Mediterranean Branch.

Dates of Quarterly Meetings.—It was resolved that the quarterly meetings be held at fixed dates, which will be made known to all members at the beginning of each year, so that they may prepare papers to be read at each meeting. The meeting then adjourned.

DORSET AND WEST HANTS BRANCH.

The summer meeting of this Branch was held at Christchurch on July 20th. Dr. Peter William MacDonald, President, in the chair. Twenty-two members and visitors were present.

Election of New Members.—Mr. Frederick Charlton, of Handley; Mr. George Daunt, of Ilchester; Mr. John Ewens, of Clifton; Dr. James Mathews Heron, of Dorchester; Dr. Charles Drummond Muspratt, of Bournemouth; and Dr. Charles William Wilson, of Bridport, were elected members of the Branch.

Next Meeting.—It was resolved that the autumn meeting should be held at Sherborne.

Causes and Treatment of Abortion.—A discussion on the causes and treatment of abortion was opened by Dr. Sawton, and taken part in by Dr. McLean, Dr. Griffin, Mr. Parkinson, Mr. Gardner, Mr. Horsfall, Mr. J. R. Philpot, and the President.

Paper.—Mr. H. V. Rake: A Case of Apparent Intussusception of Three Days' Standing; recovery without sloughing.

The late Mr. W. D. Husband.—On the motion of Dr. Vawdrey Lush (Ex-President), seconded by the President, it was resolved unanimously: That the Members of the Dorset and West Hants Branch of the British Medical Association express their sincere regret at the news of the death of Mr. W. D. Husband, a former much esteemed member of their Branch, and desire to convey to Mrs. Husband and the other members of his family their sympathy in their sad bereavement.

Dinner.—After visiting Mr. Hart's admirable museum of British Birds, and the famous Priory Church, the members and friends dined together at Newlyn's Hotel.

University of Edinburgh.—The annual graduation ceremonial in Medicine, Science, and Law in the University of Edinburgh took place on Monday, August 1st.

SPECIAL CORRESPONDENCE.

MELBOURNE.

The Deeming Trial.—The Coroner's Inquiry.—The Forthcoming Medical Congress.—Medical Titles.—Electric Cable Accident.—Tuberculin.—Sanitary Societies in Australia.

The recent trial of the murderer Deeming, who was executed for the murder of his wife at Windsor, in Victoria, and who also murdered his first wife and children at Rainhill, in England, has attracted a good deal of attention from a medico-legal point of view. In connection with this case numerous matters of interest have come prominently forward. In the first place, the legal definition of insanity. Previous to the well-known M'Naughton case, I believe the legal criterion was the capacity of knowing the difference between right and wrong in the abstract. By that celebrated case, which was one of delusional mania, the definition was restricted to the capacity of knowing the special act of which the criminal was accused. In the Coulston case, where the criminal murdered a husband and his wife, an appeal was made in this colony to the Full Court as to whether the judge had not misdirected the jury in bringing all insanity under this definition. It was held for the first time by a Full Court that the M'Naughton definition was to be applied to all forms of legal insanity. Of course the profession here, as elsewhere, regard this definition as far too restrictive, but it is somewhat astonishing to find how the press and lawyers generally cling to this ancient idea. As regards the Deeming trial, few have excited more interest anywhere. The Crown medical witnesses early decided that the criminal was not insane from a medico-legal point of view; on the other hand, the medical evidence for the defence could not see their way to come forward with an expert opinion, the case representing phases of uncommon complexity. This hesitation was, to a large extent, owing to the fact that all the man's statements were unreliable to start with, though some, and these of importance, seemed to contain more or less truth, and certainly have since to some extent been verified.

The profession everywhere will regret that the Government saw fit to refuse a *post-mortem* examination. What gave a very peculiar aspect to this refusal was the following paragraph which appeared the morning after the execution in the press. "After the coroner and the jury had performed their task, the phrenologist and the waxwork makers were permitted to make an examination of the body and to take a cast of the skull." The procedure in our criminal courts when the question of the sanity of a prisoner is under discussion might very well receive some modification at the hands of the judicature. It is undignified to see medical evidence pitted against medical evidence. Both the prosecution and the defence appoint their experts in accordance with the requirements of their own particular side. The opinion of an expert is usually obtained before he is placed in the witness-box, and the defence would certainly not subpœna medical evidence without knowing that it will be in their favour. The evidence must therefore be partial to one side or the other, and this weakness becomes evident to all. The evidence in such a case ought to be in the first instance restricted to proving that the prisoner committed the murder, after which the question of sanity at the time the murder was committed should be decided by another jury, composed of medical experts empannelled on the same lines as the ordinary jury, is selected, and whose verdict should be considered by the judge simultaneously with the verdict of the jury of laymen. I cannot allow the Deeming trial to pass without referring in the most complimentary terms to Dr. Neild, who conducted, as coroner, the intricate proceedings of the inquest. The press was unanimous in eulogising the masterly character of his summing up, the clearness and precision of his directions, and the regular and methodical manner in which the business of his court was conducted. It is hoped that the temporary appointment as coroner will be made permanent in Dr. Neild's case.

The Intercolonial Medical Congress is to be held in Sydney in September. It is anticipated that it will be a great success.

At the next meeting of the local Branch of the Association the question of medical titles is to be discussed. It will be moved that the members of this Branch use only the titles to which they are legally entitled.

We have had our first electric light accident. During a thunderstorm a wire broke, and falling across a road was caught hold of by a man, who began to roll the loose end up to place it out of the way. While doing this, as long as the wire was insulated, he felt no effect, but as soon as he came to the broken and exposed end his hand clung to the wire and he found it impossible to tear himself away. He screamed with pain, and a bystander goodnaturedly came to his rescue, and, catching hold of him with both hands was on the point of trying to tear him away when he fell dead at his feet. After a few seconds more of intense agony another bystander rushed up with an axe and cut through the wire. The first man, although able to appear at the inquest, is still suffering severely from the shock.

Dr. Springthorpe is continuing to test tuberculin. He has two cases of lupus which seem to be considerably improved. In cases of phthisis he still holds to the opinion and considers it supported by his results, that it is superior to anything else that we have. He has abandoned it in advanced cases.

There is a movement on foot to incorporate the Sanitary Institute of Victoria in the Australian Health Society, so that the latter shall be able to undertake analogous work to the Sanitary Institute of Great Britain. The importance of this will be undersood when it is remembered that this city of half a million is shortly to change its present insanitary disposal of sewage for a more comprehensive system of water sewage, designed by the eminent engineer Mr. Mansergh.

SHEFFIELD.

Firth College.—Fatal Blow from a Cricket Ball.—Medical Men and Educational Overpressure.

The report of the Principal of Firth College shows steady and satisfactory progress in that institution. It is, indeed, the more satisfactory, for the increase of students shows itself in those attending the day classes, and thus being those who are better able to take advantage of the means for acquiring knowledge which the college affords than those who have been only able to enter for evening classes.

The death of a junior partner in a large drapery establishment has occurred as the result of a blow from a cricket ball. The injury was received on April 5th, but death did not take place until July 16th. He was apparently hit in the upper part of the abdomen early one morning, went afterwards to his business, but had to return home.

Mr. Favell took the opportunity of a certificate distribution meeting recently to make some sensible remarks as to the way medical men regard educational matters. He did not think too much was made of educational overpressure; they did not like education less but they liked health more. They were, indeed, rather like the members of a political party if they were not less attached to their party, but it had gone on too fast for them; and, though not wishing to be thought to be speaking against education, he did think it was desirable to put the drag on sometimes.

CORRESPONDENCE.

INFECTIOUS DISEASES IN SEASIDE LODGINGS.

Sir,—May I draw attention to a difficulty that is not uncommonly met with by medical men in watering-places and may I venture to suggest a remedy?

The problem is, What to do with a case of scarlatina occurring in a lodging-house in which there are two or more families residing?

The best course, no doubt, is to send the patient to the fever hospital. But the hospital may be full, and parents often resist, most strenuously, such a step, and before it can be legally enforced, much valuable time may be lost.

They usually wish to take the child (it is generally a child) home, but this they cannot do, as no public conveyance is allowed to carry a case of scarlatina. They are then left in possession of a whole house for six or more weeks, for the season's rent of which they are responsible. They have al

pay for disinfection, re-papering, and such necessary processes.

I venture to say, that in such cases, all the embarrassment and trouble that is given, is often—indeed commonly—quite unnecessary. If twenty years' experience has made me sure of anything, it is, that scarlatina in its early stage is not infectious. I have over and over again seen a child with a brilliant scarlatinal rash, who has been sleeping in the same bed with a healthy child, fail to communicate the disease. Indeed, I have never seen it given in this way during the first two days from the appearance of symptoms. It is, I believe, admitted that in this stage scarlatina is non-infectious.

Why, then, may not a medical man order the removal of a child, under such circumstances, by carriage or by railway? As the law stands at present, it is unjustifiable and penal. But might not a provision be made whereby a medical man might certify that, although the supposed case is one of scarlatina, yet, as it is in a non-infectious stage, the patient may travel in a public conveyance? If such a modification of the law could be obtained, much trouble and inconvenience both to doctors and the public might be spared.—I am, etc.,

Broadstairs. THOS. F. RAVEN.

THE SO-CALLED GOLD TREATMENT OF INEBRIETY.

SIR,—The BRITISH MEDICAL JOURNAL of July 23rd contains a personal attack by the chief proprietor of one of the American trading companies running a "gold cure" in London, on a member of the Association, whom he erroneously appears to believe was the sole means of preventing a meeting of the Church of England Temperance Society, to hear the claims of his commercial undertaking exploited (who intervened only for the public good and to save the character and influence of that Society, in common with the Editors of the BRITISH MEDICAL JOURNAL, *Lancet*, and *Medical Press and Circular*, as well as other members of the profession). I do not understand personalities, but I may say that your correspondent's reference to my practice and myself are as inaccurate as are the following statements in his letter. I did not call on him "three times," I did not "compliment him on the great work he had done," I did not write "complimentary phrases in the fly leaf" of a copy of my treatise on *Inebriety*. (In fact, I wrote nothing in the book.) I did not suggest that a prelate had no business to preside at a meeting to "consider new proposals for the cure of drunkards."

The facts are these: I had known of this commercial operation for years, and would have continued to take no notice of it but for the pressing request of a well-known member of the profession, who was impressed by the chief proprietor of one of these secret "cures" with the account of his "cures." At my friend's request I consented to see the gentleman in question, hoping that he would agree to disclose his treatment, not to me, but to the profession for their consideration, as I was informed he had promised to my friend he would do, some day. I called on him; he was out. He then arranged to call on me, but did not arrive at my house till I had been obliged to leave. I then called on him by appointment. I heard all he had to say, courteously I hope, but expressed no opinion of his statements except that they were "marvellous," which opinion I still hold. I told him distinctly that neither I nor any respectable member of the profession in Britain could have anything to do with a proprietary secret remedy. I added that it was the duty of all honourable medical practitioners to place the details of their treatment openly and without reserve before the profession. To Bishop Barry I simply wrote that it would be a public scandal if a prelate took the chair at a meeting, one effect of which would be to float a financial enterprise to buy the right to use, in the United Kingdom, a proprietary secret remedy and process.

Your correspondent states that there is gold, but no strychnine nor atropine, in his remedies. Your readers would do well to read the evidence of an eye-witness who has seen the so-called treatment at the headquarters in America, Dr. J. E. Usher, of Melbourne, in his *Alcoholism and its Treatment*.

I know of four American companies (three of which are already located in London) owning and carrying on a similar "marvellous" alleged curative treatment, and "the cry is, 'still they come.'"—Yours, etc.,

Grove Road, N.W. NORMAN KERR, M.D.

*** It was hardly necessary for Dr. Kerr to defend himself from an attack of the kind, which carries its own refutation in its text. We happen to be able to confirm Dr. Kerr's statements, if indeed anything which he says can be considered to need confirmation.

HYDERABAD CHLOROFORM COMMISSION.

SIR,—In your editorial notice on the album of tracings of the Hyderabad Chloroform Commission, published in the BRITISH MEDICAL JOURNAL of June 4th, I venture to submit that the writer of the notice has scarcely done the subject justice. The tracings themselves are not discussed by him by way of confirming or refuting an argument, although they furnish evidence worthy of consideration from the Hyderabad Commission's point of view. Let that pass. The tracings are facts which will receive consideration sooner or later, and we can afford to wait for the future. But in alluding to the covering letter to the Prime Minister of Hyderabad, the writer of the notice makes Dr. Lawrie say that during the last four months "Mr. C. H. Leaf, M.B.Cantab., has been able to demonstrate to him that stoppage of the heart after arrest of the respiration by chloroform is much more common than the Commission had supposed." There is surely some strange mistake here. My experiments certainly do go to prove that stoppage of the heart, such as that which occurred in Experiment 178 of the Commission, takes place more frequently than the Commission supposed, but you leave out the qualifying phrase which is most essential, that the stoppage of the heart referred to is "reflex stoppage through the vagus nerve." Having omitted this essential qualification, the writer of the article has a laugh against Dr. Lawrie for saying that "the heart is the chloroformist's best friend," and thinks himself justified in retorting that Heaven should help him from such a friend. If, however, Dr. Lawrie's most important letter is printed *in extenso*, as it ought now in common fairness to be, the whole question will assume a very different aspect.

After all is said, these are side arguments, and have nothing to do with the main question, which is: Is it right or wrong to take the pulse as a guide in the administration of chloroform? One school studies and watches the pulse. For what? For what the other school says can only be signs of improper inhalation or over-dose, which are invariably due to the method of administration. The writer of the article claims that sufficient evidence has not been produced to prove that the *dicta* of the Hyderabad Commission are correct. What is the evidence on either side? On the one hand there are deaths—so numerous that it seems to be a question as to whether chloroform should not be discontinued as an anæsthetic. On the other hand, there is a record of forty-five years with no death at all. With all due deference, it seems to me that the *dicta* are on the side of the anæsthetists, and the *probata* on the side of the school represented by the Hyderabad Commission.—I am, etc.,

Hyderabad. CECIL H. LEAF, M.B.Cantab.

*** From the above letter it appears that the stoppage of the heart referred to, which is now found to occur more frequently at Hyderabad than the Commission had supposed, is "reflex stoppage through the vagus." We did not consider it advisable to discuss the further tracings furnished from Hyderabad, because perusal of them did not, in our opinion, modify the data for the views already fully discussed by us six months ago.

WHAT IS AN ASEPTIC WOUND?

SIR,—I venture to think there are not a few surgeons like myself who for some time have felt increasing difficulty in being able accurately to define—to a student, for instance—what is to be understood by an aseptic wound. I had hoped, in reading the Report sent to the Scientific Grants Committee of the British Medical Association, by Mr. C. B. Lockwood, "On Aseptic and Septic Cases," published in the BRITISH MEDICAL JOURNAL of May 28th, 1892, that such a clear definition as is required would be forthcoming. I found, however, confusion worse confounded. In the opening remarks of his report the following definition occurs: "No wound was called

aseptic unless its sterility had been proved by the inoculation of cultured media from it. . . . When nothing has grown upon the cultures the wound has been called aseptic." Later on in the same report the following paragraph is met with: "Often, however, cultures inoculated from antiseptic wounds contain several kinds of cocci. For instance, after operating for the radical cure of irreducible epiploceles of both right and left sides, I found the cultures which had been inoculated when the dressings were removed on the eighth day gave diplococcus albus on the right side, and diplococcus albus and citreus on the left."

I presume the word antiseptic is used here synonomously with aseptic. It will thus be seen that in these two paragraphs there is a direct contradiction. What appears from a clinical point of view to be—and is accepted as such by the author—an aseptic wound is, in terms of the definition and experiment proof, a septic one.

The error, however, proves, I venture to think, the futility of attempting any definition depending solely on the ascertained existence or non-existence of micro-organisms in a wound. If we can only speak of a wound as aseptic, after appealing to cultivation experiments, the term for all practical purposes becomes useless. For, as Mr. Lockwood sufficiently shows, a wound may heal in a perfectly ideal way and yet micro-organisms be present. It may, of course, be that they are of a nonpathogenic class; or, if pathogenic, they are rendered powerless by the fluids or cells of the wound.

If I ventured a further criticism of the definition that an aseptic wound is one in which there are no microbes, it would be to ask, Is the use of simply gelatine tubes or agar-agar a sufficiently decisive means of enabling one to say that microbes are or are not present? I should say not. Again, a tuberculous abscess is due to and may contain tubercle bacilli. Is such an abscess or the resulting wound a septic one? An application of the above test would prove it an aseptic wound, for the bacilli would not grow on either gelatine or ordinary agar-agar. Although, if the test were carried further, as in some of the author's cases, guinea-pigs or other susceptible animals inoculated would show signs of disease, and possibly succumb.

For these various reasons, therefore, I cannot see how the word aseptic can receive any other definition than what may practically be termed a purely clinical one; and in the light of advancing bacteriological science, such a limit to its definition becomes even more necessary.

I greatly appreciate Mr. Lockwood's work, but only regret the ambiguity of his terminology. As I have already pointed out, the word antiseptic is apparently used synonymously with aseptic. Such an extension of the term is unfortunate, and of course its application etymologically incorrect. A wound may be called antiseptic, but only in the sense that it is protected against septic inoculation, and such protection is not usually understood to be in the wound *per se*, but in the agents used. Therefore its proper use is only in connection with agents used against sepsis. It would manifestly be absurd and incorrect to speak of an aseptic surgeon, yet obviously reasonable to call him an antiseptic.

The growth of the science of bacteriology has led to the introduction of many new terms, and it behoves those who specially labour in this field to be careful in the way in which they use old terms and burden our medical nomenclature with new ones. For teaching purposes especially do we need terms etymologically correct, clear in their application, and accurate in their definition.—I am, etc.,

Glasgow. A. ERNEST MAYLARD, B.S.Lond.

THE FUNCTIONS OF THE PROSTATE.

SIR,—With the idea of trying to determine the functions of the prostate, I have for some years past dissected this gland in all the animals whose bodies I could procure, the points I bore in mind chiefly being: (1) The degree of development in these animals which possess the greatest and least sexual activity respectively; (2) the weight of the organ in comparison to the weight of the testicle; (3) the comparative amount of glandular and muscular elements, and the connection of the latter with the muscular coats of the bladder. As to No. 1, I cannot say that the most actively sexual animals always, or even as a rule, possess the largest prostates. As to No. 2, the only animal whose prostate I found equal to the weight of the testis was the common seal; here each in the young adult weighed 2½ oz. As to No. 3, with the exception of the seal, whose prostate is well formed and muscular, I found the glandular to preponderate greatly, as a rule, over the muscular elements in all the animals I examined. In the boar this is especially well marked, the boar's prostate being entirely racemose, very succulent, and with little or no muscular elements.

As to the connection of the muscular tissue with that of the bladder, in no animal examined have I found such a direct attachment as is the case in the well-known anatomy of the human prostate, for connected directly with it by both ends is the detrusor muscle at least.

Now although investigations such as these tend to point to the almost entirely sexual character of the gland in the lower animals, and although the observations of Hunter on the effects of castration strengthens the supposition, the intimate muscular relations of the human prostate with the bladder points to a partial subordinate urinary function as well. Moreover, Leuckhart, supported by Virchow,[1] points out that well-formed females possess a prostate (not the uterus) close to the meatus urinarius.

Bearing in mind the muscular connections of the prostate, ought we not to be prepared to find retention in senile change dependent sometimes on causes other than obstruction? Is not the prostate in one sense a buttress for the bladder, and a focus of attachment for its fibres?

Whatever degenerates this buttress in age, or even relaxes it in earlier life, will either degenerate or relax the detrusor or change its focus of attachment, and hence partial, or it may be complete, failure of expulsive power.—I am, etc.,

Crouch End. JAMES MACMUNN.

SEA SICKNESS.

SIR,—I have been an amateur sailor from childhood, and within the last few years I have, in search of health, sailed many thousand miles to various parts of the world, so that I have seen sea sickness in all its aspects. Never having felt any tendency to sea sickness myself I could watch phenomena and minister to my less fortunate fellow-voyagers.

On the first appearance of premonitory symptoms I gave an aperient pill. This is a first and essential step, when it is remembered that in the excitement of leaving home that department is apt to be neglected. When the aperient had taken effect, and not till then, I bound the patient tightly, even to the verge of discomfort, from armpit to pubes. The readiest and best bandage was a folded sheet, pinned with many pins. He was then placed horizontally on the right side, with the knees flexed, his back to a fixed surface, and a portmanteau or other heavy article placed in front of him in order to make him so far a part of the moving mass of the ship. Now there is a point where the three main diameters of the ship coincide—the point of least possible motion—so he was placed in the nearest available place to this point.

A tumblerful of warm water was administered, but soon rejected, carrying up with it any residuum of food or mucus that occupied the stomach. In half an hour another glass of pretty warm water was given, which was generally retained. In a short time the sick one fell asleep and awoke in an hour or two greatly relieved.

Prophylactics were avoided and all entreaties to get some particular form of medicine were gently but firmly disregarded. After some hours of this seeming restraint and privation a small quantity of arrowroot and milk gruel was given. Milk at sea is usually that compound of sugar and cheese called preserved milk, condensed milk, etc. The fresh article is fortunately procurable on some of the great lines. Oat flour, stale bread, pounded biscuits, and such like were found best to begin with, and there was no undue hurry to give stronger food, in obedience to the popular idea that the system must not be allowed to go down.

The bandage was not taken off for days after the sufferer was allowed to resume the erect posture.

As to alcohol in all its forms and modifications, it was almost completely ignored. The mucous surface of the stomach must be let alone or have applied to it the least irritating substance. The body being at rest there is less waste to re-

[1] *Münch. illust. med. Zeitung*, 1852.

pair, the eyes being closed there are no dreadful calculations going on about the great changes in the relative position of things surrounding, the body being horizontal the weakened heart is aided in its labour and the brain is more regularly supplied.

Medicines were failures in my hands. In this, as in the other ills that flesh is heir to, there are intractable cases that need, perhaps, a more complicated treatment than this simple and homely one of mine; but, fortunately, I have not seen such. As in "meddlesome midwifery," so in fussy and varied treatment of the sea sick have I seen very unsatisfactory issues.—I am, etc.,

Glasgow. J. Pirie, M.D.

Sir,—As I have travelled many voyages as medical officer in the Castle Line of mail steamers to South Africa during all sorts of weather, I have had excellent opportunities of treating sea sickness in all its forms. From my experience I think sea sickness may be attributed to two principal causes.

1. *Derangements of the Digestive System.*—I have noticed that when at sea, if there was any motion of the vessel and I had taken anything to disagree with my digestion, I felt the qualms of sea sickness coming on, which were, however, immediately relieved as soon as I had taken some of the medicine which I shall presently mention. People who intend going an ocean voyage generally for a few days before embarking are rushing about seeing their friends, sometimes having no meals, or only at irregular intervals, and consequently soon get indigestion, so that when they get on board and have leisure to have full meals they soon become sea sick.

2. *Disturbances of the Nervous System.*—These may be due to central influences, as anticipation and fear of becoming ill on board (passengers being constantly sick at sight even of their ship), but also to some extensive disturbance of the vaso-motor and vaso-dilator nerves, as we find the patient, when beginning to feel sea sick, becomes not only blanched and cold (proving that the blood leaves the surface), but has a sense of discomfort in the epigastrium, the vessels in the abdomen having become congested with the blood which should be flowing through the systemic vessels. This theory is borne out by the fact that if the epigastric region be tightly bound round with a broad flannel bandage, the sympathetic nerves, thus stimulated by the warmth and pressure to proper action, the flow of blood in the abdominal vessels is regulated to its normal proportions.

My theory received ample confirmation in the case of a man under my charge who had vomiting before he came on board. He complained of a constant sinking feeling in the epigastrium during the heaving of the ship, which nothing relieved till I had his abdomen tightly swathed in flannel, when the sea sickness immediately ceased.

I have stopped sea sickness in 95 per cent. of my cases by carrying out the above treatment combined with sodii bicarb., vij; sodii bromid., ℥ss, in a wineglassful of water. This is sipped every few minutes, the patient keeping in the recumbent position. The *rationale* of this treatment seems to be that the soda neutralises acidity in, and acts as a sedative to, the stomach, while the bromide has a soothing effect on the nervous system, and tends to quiet any apprehensions patients may have of being sea sick.

I think Dr. Halket's remedy of gr. xxx of antipyrin three times daily before embarking, and to be used one or two days afterwards, is too lowering when the action of the heart may be already weakened through abstention from food or from vomiting.—I am, etc., F. Gillett Cory.

Bournemouth. L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond.

Sir,—I have had many opportunities of studying sea sickness while surgeon to the Royal Mail Steam Packet Company. In some cases everything I could think or hear of has been tried in vain, but I have often produced a wonderful change by the careful administration of chloral hydras in full doses. The drug (I was in the habit of using the syrup) should be given early; if possible before the "hot stage," so well known to sufferers, comes on. I never found preliminary purging of any use, but when passengers came on board anti-cipating sickness always advised a hearty meal of curry and rice. This hint was given me by the chief steward of one of the Cunard liners, and though of course by no means infallible, I have known this plan succeed with many people who have never before been at sea without suffering badly from *mal de mer*. I have always attributed this to the stomachic and stimulating nature of the food, for in my experience a meal of any other preparation has by no means the same effect, not in any way helping a patient, to whom the curry had been of the greatest service. I have on several occasions prevented sickness by inhalations of nitrite of amyl. My experience with regard to the insane is similar to that of Mr. Stradling, and, though I have often attended insane passengers, cannot remember a case of sea sickness among them.—I am, etc.,

Herbert McD. Phillpotts, L.R.C.P., M.R.C.S.Eng.

Ealing.

Sir,—I shall feel obliged if you allow me to refer Dr. Ridge and any of your readers who are interested in the etiology of this subject to an article I wrote upon it in the October number of the *Nautical Magazine* (1891). A lengthy extract therefrom was printed in the London *Globe* of October 23rd (367, Strand), a few copies of which, I am told, still remain.—I am, etc., J. R. Stocker, M.B., B.S.Lond.

Glasgow.

"SCARLET RUNNERS."

Sir,—Among the many cases published by you of "Scarlet Runners" improperly given to Irish dispensary doctors, perhaps nothing beats the following.

Some years ago I held a dispensary in Ireland. One of my wardens applied at the dispensary for medicine for himself, presenting a ticket, and prescribing a box of aperient pills, which, being new to the work, I gave him. Some months afterwards he in person called at my house during my absence from home, and left a red ticket for himself. On calling at his house, distant from mine about three miles, I was told he was digging potatoes, and that I could go to him; which I did, to learn that he only wanted another box of the same kind of pills, which he found very suitable for general family use.—I am, etc., P. A.

PROFESSOR JOHN MARSHALL ON THE BRAINS OF MEN AND WOMEN.

Sir,—As the *Journal of Anatomy and Physiology* is not accessible to many of your readers, and Professor Marshall's paper on this subject in the current number is of a highly technical character, you would confer a favour by publishing the following paragraph, which contains the conclusions he formed from his exhaustive examination of the late Dr. Boyd's *post-mortem* weights and measurements of sane persons who died in one of the London workhouse infirmaries, and published many years ago.

"We are finally led to the conclusion," says Professor Marshall, "that although a woman, judged by her height of of body alone, has less cerebral matter, and judged by her weight of body alone, has more cerebral matter than man; yet, when both sexes are judged by an assumed common measure, which in each has reference to both these factors, their cerebral endowment is seen to be practically equal; so that the discrepancy which appears to exist in the cerebral ratio is thus fairly reconciled."

And further on he expresses the opinion (which women and short men are at liberty to dispute) that "the true explanation of the difference as to cerebral endowment and power between the sexes may possibly be once more remitted to the absolute, rather than the relative, amount of brain substance possessed by each; a brain mass of 1,000, even if associated with a large corporeal machine, being more vigorous and energetic as a mental organ than a brain mass of 909 associated even with a comparatively smaller body."

Professor Marshall concluded, from some data supplied by Dr. Boyd from the Somerset Asylum, that the brains of lunatics were relatively to the body heavier than those of sane persons; and we may, therefore, infer that weight of brain is not a criterion of the relative intellectual powers of the two sexes.—I am, etc.,

Eccleston Street, S.W. C. Roberts.

CANCER PARASITES.

SIR,—There are several points in the paper by Dr. Ruffer and Mr. Walker, on "Parasitic Protozoa in Cancer," which appeared in the BRITISH MEDICAL JOURNAL of July 16th, to which it seems desirable to call attention; for although the paper only purports to be a preliminary note, yet there have been so many "cancer organisms" discovered and prematurely announced of late years, that it surely behoves the discoverers of any new "parasitic" bodies to be certain that their premisses are firmly established. The authors seem, however, to have reasoned that, because they have seen the bodies described in cancers and nowhere else, and because they cannot explain them on the hypothesis of degeneration, etc., that therefore they must be parasitic protozoa. No reason is assigned for regarding them in this light, except the authority of M. Metschnikoff, and one would certainly like to know the grounds on which that eminent *savant* arrived at this conclusion.

Again, we are informed that "the parasites have a strong affinity for aniline dyes," but we are not told for which of the dyes of the accompanying list this affinity is strongest, though some of the stains mentioned are nuclear and others protoplasmic. Now there are at least four common appearances in cancer cells which closely resemble one or other of the figures in the paper, and which can only be distinguished by their behaviour to staining reagents; and until we know how these "parasitic" bodies do react, it seems to me that we are entitled to identify the appearances described with what is already known, and to suspend belief in a new explanation of them until adequate proof is afforded us. The paper of Soudakewitch, whom the authors regard as "the first who clearly demonstrated the presence of parasites in carcinoma," is even less exact than that of Dr. Ruffer and Mr. Walker; and I cannot refrain from thinking that these gentlemen would do well to define with distinctness their reasons for regarding these bodies as "parasitic protozoa," and to formulate precisely their behaviour to stains and other results.—I am, etc.,

Edinburgh. G. LOVELL GULLAND.

SUBCUTANEOUS SUTURE OF FRACTURE OF PATELLA.

SIR,—Dr. D. W. Aitken describes a method of suturing the patella in the BRITISH MEDICAL JOURNAL of July 23rd, which I put into practice at the Liverpool Royal Infirmary more than a month ago, using a stout silk ligature. The patient is doing well. The drill I employed was very similar to one previously described and figured by Dr. Aitken, but was made for me by Mr. Reynolds, of Liverpool, quite a year ago, for this purpose, though it was only last June that I met with a suitable case in which to try it.—I am, etc.,

Liverpool. F. T. PAUL.

DIGITALIS AND AORTIC REGURGITATION.

SIR,—I should like to add my experience as to the use of digitalis as a remedy in the above condition, believing as I do that many of the unsatisfactory results in the treatment of aortic regurgitation by digitalis are due in a great measure to too large a dosage. In treating these cases now I rarely employ more than 2 or 3 min. doses of the tincture, in combination with 4 or 5 min. liquor. ferri perchlor. Since prescribing this quantity I have had excellent results, and in no case have I observed anything but benefit to the patient, though previously after larger doses epistaxis and faintness have occurred, so that at one time I had some misgivings as to the suitability of the drug in the treatment of this disease; but now, having ascertained the value of digitalis by small doses, I can confirm all that has been said in its favour. The fact is digitalis is a much more powerful drug than is generally supposed, even 1 min. doses producing an effect on the pulse rate. I believe the evil consequences ascribed to the drug, that is in prolonging the diastole and increasing the regurgitation, to be merely theoretical, or at any rate much exaggerated, because by a judicious use of the drug increased vigour is, imparted not only to the cardiac muscle but also to the muscular coat of the arteries, they are better supplied with blood, consequently tone and elasticity are increased, greater contractile power on the column of blood is induced, and further, an increased facility to its onward flow, a more regular heart's action, and an improved nutrition is the result.—I am, etc.,

Bournemouth. E. R. HAINES CORY.

IRISH DISPENSARY DOCTORS.

SIR,—In reply to a paragraph in a leading article published in the BRITISH MEDICAL JOURNAL of July 23rd, I am induced, in simple justice to the Board of Guardians of the North Dublin Union, to mention that for several years back they have granted to any medical officer who, in compliance with the existing law, presents a medical certificate merely stating that he requires rest from official duty owing to overwork, an annual holiday, practically for one month, the expense of *locum tenens* being borne by the board of guardians.

I am an urban dispensary medical officer since 1879, and I have periodically enjoyed the rest so kindly allowed me, and I am sure I only speak the sentiments of my colleagues when I state that our dispensary committee, presided over by Mr. John McDonnell, have at all times shown their wish and anxiety to mitigate the grievances to which we are subject so far as present circumstances permit.—I am, etc.,

Dublin. MICH. STRAHAN.

THE DISABILITIES OF IRISH GRADUATES.

SIR,—In the BRITISH MEDICAL JOURNAL of July 30th, giving an account of the recent meeting of the Irish Medical Schools' and Graduates' Association at Nottingham, you report that the following resolution was passed:

"That the Association records its satisfaction at the success of the Council's proceedings in reference to the rule formerly in force at the Hastings and East Sussex Hospital, by which diplomates of the Irish Royal College of Physicians and Surgeons were excluded from competition for honorary appointments on the staff of that institution."

Allow me to state that there has at no time been a rule excluding diplomates of the Irish College of Surgeons from such appointments.—I am, etc.,

WILLIAM S. GANT,
Secretary Hastings, St. Leonards, and East Sussex Hospital.

THE MEDICAL OFFICERSHIP OF HEALTH FOR ISLINGTON.

SIR,—In your record of the election of medical officer of health for Islington I regret to find that you make a statement to my discredit for which there is no foundation. You say, "On the death of Dr. Tidy, Dr. Westcott immediately resigned."

As a matter of fact I handed in my resignation to the vestry clerk at a time when Dr. Tidy was actually attending a meeting of the Public Health Committee. Dr. Tidy died unexpectedly three weeks afterwards. He was known to be in a chronic state of ill-health, and had been so for several years, and did contemplate resigning in my favour, but no one anticipated his early death.

Camden Road, N. WYNN WESTCOTT, M.B.

LONDON WATER SUPPLY AND CHOLERA.

SIR,—In view of the risk of cholera, will you allow me to suggest that as soon as Parliament meets a Bill should be introduced by the President of the Local Government Board to prevent the water companies in London from cutting off water for non-payment of or dispute about rates? In case of a change of Government, the Bill might be adopted by the successor in office; and I much wish that some medical authority, such as Lyon Playfair or Walter Foster, could, at the present juncture, be placed at the head of the Local Government Board.—I am, etc.,

Lincoln's Inn. J. THEODORE DODD.

THE REGISTRATION OF MIDWIVES.

SIR,—I have read again my letter in the BRITISH MEDICAL JOURNAL of July 16th, and can find no errors, accidental or otherwise. May I ask Dr. Humphreys to point them out and correct me?

I am very glad to find that he agrees with me in my opinion that the evils which at present beset some classes in the com-

munity during the puerperal period are economic in their origin. As he is apparently one of those who have to show the wide differences between theory and practice, I am afraid I must ask him to reconcile the theory of the registration of midwives with the practical question of the removal of these economic causes. Many of us, Bœotians no doubt, have found this a difficulty, but Dr. Humphreys, with his wider and more varied experience, will doubtless triumph over us. I may be Bœotian, but I think I can follow argument if he will kindly confine himself to that method of carrying on controversy. The date of his letter to which I replied is July 2nd.—I am, etc.,

Hatfield. LOVELL DRAGE.

OBITUARY.

FREDERICK LE GROS CLARK, F.R.C.S., F.R.S.

A WELL-KNOWN and striking figure has just passed away from us in Mr. Frederick Le Gros Clark, a former President of the Royal College of Surgeons, and surgeon to St. Thomas's Hospital.

Mr. Clark was born in Mincing Lane in 1811, and was educated at Iron Acton in Gloucestershire. At the age of 16 he commenced his professional studies as an articled pupil under Mr. Travers, then senior surgeon to St. Thomas's Hospital, and three years later, at the close of his school curriculum, he obtained the Cheselden medal for proficiency in surgery and surgical anatomy. After spending a session in Dublin he became an assistant demonstrator in the University there, and subsequently enlarged his experience in Paris, Berlin, Göttingen, and Edinburgh.

In 1839 he was appointed assistant surgeon to his *Alma Mater*, in which post, and in that of lecturer on descriptive and surgical anatomy, he remained until the death of Mr. Tyrrell in 1853, when he was promoted to the vacant place on the surgical staff. He next succeeded Mr. John Flint South in the Chair of Surgery, and continued to lecture until, after thirty years of office, he terminated his active connection with the hospital in 1873, retiring with the title of consulting surgeon.

His relation to the College of Surgeons was no less distinguished. He became a member of the Council in 1864, and as Hunterian Professor of Surgery and Pathology delivered a course of lectures on Surgical Diagnosis, Especially in Reference to Visceral Lesions, in the summers of 1867 and 1868. In 1872 he was elected a Vice-President, and in 1874 was chosen for the crowning office of President, delivering the Hunterian Oration from the presidential chair in the following year. He held in addition several important surgical appointments, and was also a prominent member of the Salters' Company, in which he twice filled the office of Master. As an author he was well known by his *Anatomy and Physiology of the Nervous System*, published as early as 1836; his translation of Dupuytren's *Diseases and Injuries of the Bones*; his *Outlines of Surgery*, which passed through a second edition in the hands of Mr. Wagstaffe in 1870; by his Hunterian lectures, and by numerous other works, all marked by wide research and a clear and polished diction.

After his retirement from practice he built for himself a charming retreat at Sevenoaks, where he spent the rest of his days. He retained his activity and displayed a lively interest in the advance of his profession almost to the last. His strength began to fail about eighteen months ago, but he continued to enjoy the society of his friends and to make occasional journeys to town until the middle of June, when he was forced to take to his bed. He died on July 19th, and was buried at Riverhead on the 23rd amidst innumerable demonstrations of respect from his private friends and the public bodies with which he had been associated.

Mr. Clark was a splendid representative of the educated surgeons of the older school—a man of high general culture, versed in all the professional lore that the home and Continental schools of his time could teach, and conspicuous for operative skill in the days when the operator required faculties that modern science has rendered less essential. His personality was peculiarly attractive. All who knew him can easily recall the tall, strong, upright figure that retained its symmetry to the end, the clearly cut aristocratic features that only grew more handsome with advance of years, and the dignified courtesy of manner that so perfectly harmonised with the stately physique; but it was not given to all to know the simplicity and gentle kindliness of nature, marked by the rather stern lines that early sorrow had graven on his face. His friends and patients always learned to love and trust him, and there are yet living many of his old pupils, who have reason to cherish a grateful and affectionate recollection of the warm sympathy with which he continued to watch and aid their progress.

J. HARRINGTON DOUTY, M.R.C.S., L.S.A.

IT is with feelings of regret we have to record the sudden death of Mr. J. Harrington Douty, Medical Superintendent of the Berks County Asylum, Wallingford, at the early age of 34, and after an illness of only a week's duration.

Mr. Douty received his medical education at the Middlesex Hospital, where as a student he had a most successful career, gaining the first entrance scholarship, and subsequently the Broderip scholarship. He held the post of house physician at the hospital for two successive periods.

In 1882 he was appointed Assistant Medical Officer to the Worcester County and City Asylum; and in 1887 was elected Medical Superintendent of the Berks County Asylum, as successor to the late Dr. Gilland.

He had an extensive and accurate knowledge of his profession, to which he was much attached; and during the few years he was engaged in asylum work he showed great ability and foresight as an adminstrator, and endeared himself to the patients and staff, by whom he was highly respected.

He was the author of several papers bearing on mental science, which are marked by clearness and originality of thought, and accuracy of observation.

MEDICO-LEGAL AND MEDICO-ETHICAL.

HIGH COURT OF JUSTICE.

QUEEN'S BENCH DIVISION.—JULY 23RD.

(Before Justices WRIGHT and BRUCE).

ALLINSON *v.* THE GENERAL COUNCIL OF MEDICAL EDUCATION.

MR. R. T. REID, Q.C. (with him Mr. Muir Mackenzie), on the part of the Medical Council, moved to dissolve an injunction which had been granted upon the *ex parte* application of the plaintiff, restraining the General Council of Medical Education from publishing their decision to erase the name of Mr. Allinson from the *Register* of medical practitioners for alleged professional misconduct. This alleged misconduct was that Mr. Allinson had tried to attract practice by systematically advertising. He, on his part, denied that he had ever authorised the publication of any advertisement that would justify the Council in the course which they had pursued. If the injunction could continue to exist it would prevent the Council from publishing the half yearly minutes of their transactions, a publication which was very useful to the whole medical profession. Under the Medical Act of 1858 the Council was authorised to keep a register of practitioners, and to remove the name of any person who, after due inquiry, had been found guilty of certain misconduct by the General Council. This gentleman had, after due inquiry, been adjudged so guilty by the Council, and they were the only body which had to decide such a question. There was really no reason for restraining the Council from publishing what had happened, for the whole thing appeared in other papers at the time, and the decision was openly announced in the Hall of the Medical Council. The statute said that where the name of a practitioner was erased from the *Register*, he could no longer recover his fees but this consequence in no way depended upon the publication of that decision.

Mr. Justice Wright: The plaintiff suggested that he, having brought an action against the Council for the restoration of his name to the *Register*, the injunction should be dissolved pending the trial of that action.

Mr. Young, on behalf of the plaintiff, showed cause against the motion. He said that as soon as the decision of the Council was announced, the plaintiff gave notice that he should apply for the injunction, and he also issued a writ seeking for the restoration of his name in the *Register*. When that injunction was applied for, the judges, Mr. Justice Mathews and Mr. Justice Vaughan Williams, read a number of documents that were in the case, and granted the injunction without making any observation whatever. This proceeding seemed to have acted like a "composing draught" upon the Council, as, for long after, they took no steps whatever towards dissolving the injunction, so they probably suffered no great inconvenience from its existence. All that was asked for was that the injunction should not continue in existence pending the trial, so that the Council should not be allowed during that time to do the plaintiff the great injustice of publishing the fact that his name had been erased from the *Register*. His contention was also that the action of the Council was null and void because there had been no due inquiry into the case previous to the decision.

Mr. Justice Wright expressed no opinion whatever upon the question whether what the plaintiff had done amounted to "infamous conduct" within the meaning of the Act of Parliament. Of course, the plaintiff

might or might not succeed in his action, but the existence of the injunction would make no difference in the position of the parties, and therefore there was no real substance in the matter. Looking at the contents of the affidavits, there was certainly a good deal of evidence in favour of the Council. They could not assume that the plaintiff would succeed at the trial of his action, and they could not interfere with the action of the Council so long as their decision in this case stood.

Mr. Justice Bruce thought that it would require a very strong case to justify an injunction restraining the action of the Council so long as the action against them remained untried.

The injunction was dissolved, the costs of this application to be the defendant's costs in the action.

QUEEN'S BENCH DIVISION.—AUGUST 3RD.

(Before the LORD CHIEF JUSTICE and a Special Jury.)

FULLAGAR *v.* GROVES.

SIR C. RUSSELL, Q.C. (with whom was Mr. Foote), said the learned Judge and the jury would not be troubled with this case; but it was necessary that he should state who the parties were and what the case was about. The plaintiff was a Miss Fullagar, the daughter of a professional gentleman, and she, having found it necessary to earn her own livelihood, went into training as a hospital nurse at St. Mary's Hospital, in London, and other places; and ultimately became district nurse to the Newport District Nursing Society, in the Isle of Wight. She remained there some time, and in the course of her duties certain differences arose between her and the Committee of Management of Ladies, and her connection with the Society terminated. After it was terminated the defendant, who was a medical gentleman of respectability, residing in the Isle of Wight, attended the annual meeting of the British Medical Association at Bournemouth, and delivered a speech which there could be no doubt contained reflections upon the professional capacity of the plaintiff, and which was published in the BRITISH MEDICAL JOURNAL in its official report of the proceedings of the meeting. Upon that publication plaintiff's advisers, at her instance, took prompt steps to call the attention of the journal to the subject, which at once published a complete apology, and paid the plaintiff a moderate sum by way of damages and costs. The plaintiff felt bound to court inquiry, and to vindicate herself in a public court against the person who was the author of the charges, and accordingly this action was brought. Learned counsel for the defendant had felt bound to follow the course which had been taken by the BRITISH MEDICAL JOURNAL, and would state that they could not support the pleas, including the plea of justification which they had placed upon the record. They would unreservedly withdraw the plea of justification, and he must ask his lordship to enter judgment for the plaintiff for 40s. and costs.

Mr. Lockwood, Q.C. (with whom were Mr. Dickens, Q.C., Dr. Blake Odgers, and Mr. Fraser), on behalf of the defendant, said the speech in question was made by Dr. Groves in the course of his attendance at the meeting of the British Medical Association at Bournemouth. The defendant unreservedly placed himself in the hands of his counsel, who had advised him to withdraw the plea of justification, and consent to the terms mentioned.

Judgment for the plaintiff for 40s. and costs accordingly.

SPECIALIST DISPENSARIES.

CYNIC.—In regard to the "Dispensary for Diseases of the Heart, Digestion, and Nervous Diseases," with a resident physician and an "Esquire" for secretary, and which, according to "Cynic," has been daily advertised in the *Manchester Evening News* for more than a year without any protest "from the Manchester fraternity," so far as he is aware, we may observe that, derogatory to the profession, and injurious, moreover, to the true interests of the public, as is the modern practice of assuming the distinctive titles and status of public institutions, and parading private speculations as dispensaries, so insensible to professional rebuke do the promoters of such institutions appear to be, that our correspondent's suggested "pillory" for such in the columns of the BRITISH MEDICAL JOURNAL would, we take it, prove inadequate to restrain them. The only effective remedy, as we have repeatedly pointed out, is the rigid enforcement of the restrictive laws of the respective colleges of which the offending practitioners are members; in relation to which we may suggest that, if the local Medico-Ethical Association could, in their corporate capacity, be induced to take part in representing such cases to the licensing authorities, it could not fail to influence the latter, and thus render individual action (to which most practitioners are naturally greatly averse) unnecessary.

DOOR PLATES.

C.B. writes: I am about to start in practice in Liverpool and Warrington and I wish to know if I should be offending against the code of medical ethics if I put on my house two plates—one on the railing outside thus: Dr. C. B., F.R.C.S.Eng., and the other on the door: C. B., M.D.Lond.?

*** Although there is no ethical rule that condemns the suggested suffixes on the door plate it would, in our opinion, not only be contrary to good taste but would be unappreciated by the public. Our correspondent may consult with advantage *The Young Practitioner: His Code and Tariff*, on page 7 of which it is noted in reference to the point in question that "when entitled thereto it is better to put 'Dr.'..... than ....., 'M.D.' The former not only looks best but has the advantage of being understood by all classes." The varied duplicate plate might be regarded as especially undesirable.

SUBSTITUTES.

EDINA.—Visits made on behalf of an absent brother practitioner are usually regarded in the light of a mutual interchange or reciprocation of work, and no remuneration should be accepted other than for railway fare and like expenses.

With regard to the second query, the following is the rule laid down in the *Code of Medical Ethics*, chap. ii, sec. 5, rule 12: When a practitioner is called in, or otherwise requested, to attend at an accouchement for another, and completes the delivery, or is detained for a considerable time, he is entitled by custom (except in the case of illness, etc., provided for by Rule 3) to one-half of the fee; but on the completion of delivery, or on the arrival of the pre-engaged accoucheur, he should resign the further management of the case. In a case, however, which gives rise to unusual fatigue, anxiety, and responsibility, it is right that the accoucheur in attendance should receive the entire fee. Note.—In either event, when the officiating accoucheur is a stranger or a non-acquaintance of the family doctor, the full fee should be tendered to him."

CLUB CONSULTATIONS.

M. T.—A surgeon to an Oddfellows' or Foresters' Court, we believe, is not entitled to charge an extra fee for consultation; he is the sole judge as to the necessity for a consultation, and many practitioners decline consultations in the case of club patients, unless there is an obvious necessity for one, but if this is the case no charge is usually made.

DRAX.—The question is a somewhat difficult one to decide in view of the fact that the charge must necessarily differ from the customary fee for an ordinary consultative journey. We have referred the matter to an expert, with a request that a private communication may be forwarded for the information and guidance of our correspondent.

INQUIRER.—That our British Honduras correspondent has an indisputable moral claim "to be remunerated for the extra work" alluded to, there can, we think, be no reasonable doubt; and, moreover, that "B." would have acted wisely, and in his own true interest, to have willingly conceded it; but as to "A.'s" legal right thereto, we are not, in the absence of a copy of the agreement referred to, in a position to express an opinion thereon.

DR. C. and DR. A.—The medico-ethical and moral points involved in the correspondence which has passed between Dr. C. and Dr. A., in relation to the case of Miss ——, have been carefully considered: the length of the statement—17 quarto pages—alone inhibits its insertion as a model (under exceptional provocation to the contrary) of a temperate and courteously-worded statement of alleged facts, and, as such, accepted by the latter. It is due, also, to Dr. C. to note that it has seldom devolved upon us to comment on a case in which the aggrieved party has throughout exhibited a more unselfish and ethically-courteous acquiescence in the wishes of a lady patient (whom we hold blameless in the matter), and her advising friends, than he; or who, on the other hand has, in our opinion, met with a more ungrateful return for an all-important diagnostic and other service rendered to the *fiancée* of the inculpated practitioner, whose cynical letter, moreover, of June 29th, we regretfully think tends to add contumely to injury.

It is always a source of regret to us to criticise, otherwise than favourably, the procedure of a brother practitioner; but we should fail in our ethical duty both to Dr. C. and Dr. A. if we refrained from expressing our conscientious opinion that the latter, however unwittingly, has medico-ethically and morally erred in his professional relations to the former.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF: EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office orders with the notice. The first post on Thursday mornings is the latest by which advertisements can be received.

A SURGEON-MAJOR, expecting to be ordered abroad at the beginning of next year, desires to exchange with a Surgeon-Major lately arrived home. Address, stating terms, "Omega," care of Sir Charles McGrigor, Bart., and Co., 25, Charles Street, St. James's Square, London, S.W.

THE NAVY.

THE following appointments have been made at the Admiralty: FREDERICK J. BURNS, Surgeon, to the *Swiftsure*, July 21st; GEORGE WILSON, Surgeon, to the *Seagull*, lent, July 21st; ERIC E. KERSHAW, Surgeon, to the *Nelson*, lent, July 26th; GEORGE B. MURRAY, Fleet-Surgeon, to the *Forth*, lent, August 1st.

Surgeon N. C. RIDLEY has been placed on the retired list of his rank, with a gratuity, July 13th. He was appointed Surgeon August 22nd, 1869.

ARMY MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL WILLIAM JOHNSTON, M.D., retires on retired pay. He was appointed Assistant Surgeon, October 2nd, 1865; Surgeon, March 1st, 1873; Surgeon-Major, October 2nd, 1877; attained the rank of Lieutenant-Colonel, October 2nd, 1885; and made Brigade-Surgeon-Lieutenant-Colonel, January 13th, 1892. He served as senior medical officer during the operations against Sekukuni in the Transvaal in 1878, and was present at the storming of Tolyana's Stadt; in the Zulu war of 1879 as senior medical officer of the column under Colonel Rowlands on the Swazie border; was in charge of the field hospital with Colonel Baker Russell's force in the operations against Sekukuni in 1879, and was present at the storming of the stronghold (mentioned in despatches; medal with clasp). He also served in the Boer war of 1881 in command of a bearer company of the Army Hospital Corps.

The *London Gazette* of Tuesday last announces that the Queen has been

pleased to give and grant unto Surgeon-Captain Richard Charles Kirby Laffan, Army Medical Staff, Her Majesty's royal licence and authority that he may accept and wear the insignia of the Order of the Osmanieh of the Third Class, which His Highness the Khedive of Egypt, authorised by His Imperial Majesty the Sultan, has been pleased to confer upon him in recognition of his services whilst actually and entirely employed beyond Her Majesty's dominions in the service of His Highness as Inspector of Hospitals to the Egyptian Sanitary Department.

An exchange has been sanctioned between Surgeon-Captain H. A. De Lom, Home Establishment, and Surgeon-Captain A. L. H. Dixon, on the Bombay Establishment.

Surgeon-Captain H. A. De Lom, just arrived from England, is posted to Bombay District for general duty.

Surgeon-Lieutenant-Colonel W. B. Slaughter and Surgeon-Captain J. W. Cockerill, who are serving in the Madras command, have leave of absence, the former for one month on private affairs in extension, the latter from June 8th to October 7th, on medical certificate, also in extension.

Administrative medical officers in charge of military districts will in future be styled Principal Medical Officers, and those senior in stations where administrative officers are not found will be known as Senior Medical Officers.

The following Surgeon-Captains, having completed, on July 31st, twelve years' service, attain the rank of Surgeon-Major: G. H. Sylvester, W. J. Macnamara, M.D., D. O'Sullivan, E. O. Milward, C. R. Woods, M.D., M. J. Macnamara, J. O. G. Sandiford, M.D., R. L. Love, M.D., H. W. Murray, M.B., M. W. Kerin, A. Peterkin, M.B., J. Harran, E. L. Maunsell, W. Heffernan, R. W. E. H. Nicholson, J. G. W. Crofts, W. Dugdale, D. L. Irvine, E. R. Cree, M. O'C. Drury, J. H. Nicholas, D. F. Franklin, and H. Saunders.

Surgeon-Captain William Halloran Bennett, M.B., died at Longford, suddenly, on July 29th, in his 33rd year. He was the second son of the late Major-General R. Bennett, of the 46th Regiment, and was appointed Surgeon-Captain, May 30th, 1885.

Surgeon-Major William Barrett, M.B., late of the 71st Regiment, died at Edinburgh on August 1st at the age of 76. He was appointed Assistant Surgeon, October 26th, 1843; Surgeon, March 28th, 1854; and Surgeon-Major, December 18th, 1864; and retired from the service, June 20th, 1865.

INDIAN MEDICAL SERVICE.

Surgeon-Captain A. H. Nott, Bengal Establishment, is appointed to act as civil surgeon of Hooghly.

Surgeon-Captain J. T. Calvert, Bengal Establishment, is appointed to act as civil surgeon of Chittagong during the absence of Surgeon-Lieutenant-Colonel W. F. Murray.

Surgeon-Captains J. G. Jordan and T. Grainger, of the Bengal Establishment, received charge on June 8th of Jessore Gaol and Champarun Gaol respectively.

Surgeon-Captain W. H. Gray, Bengal Establishment, assumed charge of the civil medical duties of Dera Ismail Khan on June 4th, relieving Surgeon-Captain C. E. Sunder.

Surgeon-Lieutenant R. K. Mitter, Madras Establishment, has passed the examination in Hindustani by the lower standard.

Brigade Surgeon-Lieutenant-Colonel W. R. Hooper, Bengal Establishment, Civil Surgeon of Lucknow, is appointed to hold visiting medical charge of the Hardoi District, in addition to his own duties.

Brigade-Surgeon-Lieutenant-Colonel, R. Jameson, M.D., Bengal Establishment, Deputy Sanitary Commissioner, on return from furlough, is appointed to the 1st Circle, comprising the Agra and Meerut Divisions.

The services of Surgeon-Major A. E. R. Stephens, Bengal Establishment, officiating Superintendent of Lucknow Central Prison, are placed at the disposal of the Government of India in the Home Department.

Surgeon-Captain R. Robertson, Madras Establishment, is appointed to act as Second Surgeon Madras General Hospital, and as Professor of Pharmacy and Materia Medica, Madras Medical College.

Surgeon-Captain H. W. Stevenson, Bombay Establishment, Superintendent of Mahableshwar, in the District of Satara, is appointed a magistrate of 2nd class in that district, and will exercise the powers with which he is hereby invested within the limits of the Hill Station of the Mahableshwar, and is also invested with jurisdiction to try cases arising under Section 62 of Bombay District Police Act IV of 1890.

The undermentioned officers have been granted leave of absence as specified:—Surgeon-Lieutenant-Colonel Wilson, M.D., Bengal Establishment, civil surgeon of Hazareebagh, for one year on medical certificate; Surgeon-Captain J. M. Cadell, M.B., Bengal Establishment, 11th Bengal Infantry, for four months on private affairs; Surgeon-Major G. A. Cones, Bengal Establishment, 2nd Queen's Own Bengal Light Infantry, to proceed to England on medical certificate; Surgeon-Major W. Owen, Bengal Establishment, Factory Superintendent Behar Opium Agency, privilege leave for three months on private affairs; Surgeon-Captain P. C. H. Strickland, Madras Establishment, for four months in extension; Surgeon-Major F. F. MacCartie, M.B., Bombay Establishment, Health Officer of Port of Bombay, private leave for three months from date of Surgeon-Captain Crimmin's return from leave, or from such subsequent date as he may avail himself of it; Surgeon-Captain J. G. Hojel, M.B., Bombay Establishment, medical officer 5th Bombay Cavalry, to Australia for three months on medical certificate.

Surgeon-Captain T. E. Dyson, M.B., Bombay Establishment, received charge of the office of Deputy Sanitary Commissioner, Goojerat Registration District, on June 20th.

Surgeon-Major Daniel Kearney, Retired List, Madras Establishment, died at his residence, Richmond Town, Bangalore, aged 63, from a stroke of paralysis. The deceased gentleman originally belonged to the Subordinate Medical Department, and in 1856 he served with the force under Captain Moore, Her Majesty's 35th Foot, in the Zonuzafun District, against the insurgent Minloung. He then proceeded to England, and competed for the Indian Medical Service, and in 1860 was appointed an assistant surgeon, and posted to do duty in the General Hospital, Madras. After completing eighteen years' service he retired on July 1st, 1878, with the rank of surgeon-major, and settled in Bangalore.

Surgeon-Major H. Hamilton, Bengal Establishment, is transferred, at his own request, from the medical charge of the 10th Bengal Infantry to the officiating medical charge of the 5th Bengal Cavalry, *vice* G. S. A. Ranking.

Surgeon-Captain D. G. Marshall, Bengal Establishment, is appointed to the officiating medical charge of the Bengal Sappers and Miners, *vice* Surgeon-Lieutenant-Colonel J. Young.

Surgeon-Captain C. H. James, Bengal Establishment, is transferred from the officiating medical charge of the 20th Punjab Infantry to the officiating medical charge of the 3rd Sikh Infantry, *vice* Surgeon-Captain J. T. Calvert.

Surgeon-Lieutenant B. G. Seton, Bengal Establishment, is appointed to the officiating medical charge of the 2nd Punjab Infantry, *vice* Surgeon-Captain A. H. Nott.

Surgeon-Captain H. Smith, Bengal Establishment, is appointed to the officiating medical charge of the 2nd Battalion 1st Goorkha Rifles, *vice* Surgeon-Lieutenant-Colonel R. N. Stoker.

Surgeon-Lieutenant-Colonel E. Palmer, Bengal Establishment, has leave of absence to the hills, on medical certificate, for five months.

Surgeon-Major H. St. C. Carruthers, Madras Establishment, is granted special leave, on urgent private affairs, for six months.

ARMY MEDICAL RESERVE.

Surgeon-Major G. S. Elliston is promoted to be Surgeon-Lieutenant-Colonel.

THE VOLUNTEERS.

Surgeon-Lieutenant J. Cunningham, M.B., 1st Argyll and Bute Artillery, is promoted to be Surgeon-Captain, July 23rd.

Surgeon-Lieutenant J. R. Thomas, M.D., 4th Volunteer Battalion the Devonshire Regiment (late the 4th Devonshire), is promoted to be Surgeon-Major, July 23rd.

Surgeon-Lieutenant J. H. Edwards, M.D., 1st Surrey (South London), has resigned his commission, which was dated January 7th, 1891.

Mr. Walter Alexander Atkinson, M.B., is appointed Surgeon-Lieutenant to the 1st Surrey (South London), July 23rd.

Mr. Thomas Nesbitt Wright is appointed Surgeon-Lieutenant to the 2nd Volunteer Battalion Queen's Own Royal West Kent Regiment (formerly the 3rd Kent), July 23rd.

The undermentioned Surgeon-Lieutenants have resigned their commissions: R. H. Jones, 6th Lancashire Artillery, dated June 28th, 1882; D. L. Hubbard, 1st Cheshire and Carnarvonshire Artillery, August 11th, 1888; E. D. Wellburn, 1st Volunteer Battalion West Riding Regiment (late the 4th West Riding), November 29th, 1890.

Surgeon-Captain W. Stephenson, 2nd Volunteer Battalion East Yorkshire Regiment (late the 2nd East Riding), is promoted to be Major, July 30th.

Surgeon-Captain K. Maclean, 4th Volunteer Battalion Cheshire Regiment (late the 4th Cheshire), has resigned his commission, which was dated February 1st, 1889.

Erratum.—In the British Medical Journal of June 11th, Surgeon-Captain F. E. Fenton was erroneously described as Surgeon-Lieutenant.

VOLUNTEER MEDICAL STAFF CORPS.

The annual inspection of the Norwich company of the Volunteer Medical Staff Corps took place on July 21st. The officers on parade were Surgeon-Captain Richardson, Surgeon-Lieutenant Cosens, and Captain Mills. At the close of the inspection, Surgeon-Colonel Giraud, P.M.O. Eastern District, who conducted it, expressed himself well pleased with the drill both at the barracks and field.

ASSOCIATION OF MEDICAL OFFICERS OF THE MILITIA OF CANADA.

The first annual meeting of the Association of Medical Officers of the Militia of Canada, was held at the Canadian Military Institute at Toronto, on June 2nd. Dr. F. W. Strange, President, in the Chair. After the constitution and by-laws had been adopted, an address was delivered by the President, in which he said, that for the twenty-six years during which the militia of Canada, as at present organised, had existed, the medical officer of a battalion had been but a regimental unit. One of the objects of the Association was, by binding these units together, to give them their proper place in the military history of their country, and to impart an interest and an increased efficiency in the performance of the work in which they were engaged. The status and rank of the regimental medical officer also needed some consideration. The most important object of the Association, however, was the furtherance of professional knowledge. The reading and discussion of papers on military medicine, surgery, and hygiene, had hitherto received no attention in Canada. Among the communications presented to the meeting were the following: "Ambulance Work during the Franco-Prussian War," by Dr. Warren; "Some Brain Wounds, with Results," by Dr. Daniel Clark, some time Inspector of Surgery in the United States Army; and "Some Experiences of a Surgeon during the American War," by Dr. Wm. Canniff.

AMBULANCE CHALLENGE SHIELD.

The competition for the Ambulance Challenge Shield of the Volunteer Medical Association, which was open to regiments of Yeomanry Cavalry, to Volunteer Corps, and to the Honourable Artillery Company, took place on July 16th at Wellington Barracks. The examining officers were Surgeon-Captains Bedford and Tyrrell, Army Medical Staff Aldershot, and Surgeon-Major Watson, and Surgeon-Captain J. E. Squire, London Companies Volunteer Medical Staff Corps. Amongst other officers present were Lieutenant-Colonels O. M. White and Pocklington, Brigade-Surgeons of the East London and Surrey Brigades; Surgeon-Majors Luke Freer, Baines and Kiallmark (Royal Bucks Hussars); Surgeon-Captains H. F. Stokes, Senior Medical Officer Instructor, Volunteer Ambulance School of Instruction; W. H. Bull, Knott, R. Sleman, St. Clair

Gray, and Surgeon-Lieutenant Whitcombe. Several of the competing teams had travelled long distances in order to compete, one coming from Dundee, another from Glasgow, and others from Liverpool and Birmingham.

Each team was examined in drill and first aid, the former being judged by Surgeon-Captains Bedford and Squire, the latter by Surgeon-Major Watson and Surgeon-Captain Tyrrell. No wagon drill was given, at which disappointment was felt by some of the competing teams, but the omission was unavoidable: the usual requisition had been sent in to the officer commanding the Army Service Corps at Chelsea Barracks, but owing to the manœuvres which are taking place at Aldershot this week, all available transport had been sent there, and consequently none was available for the competition.

In declaring the result, Surgeon-Captain Bedford spoke very highly of the drill of the 3rd Volunteer Battalion Hampshire Regiment, and of the excellent marks which the 2nd Volunteer Battalion Liverpool Regiment had obtained in first aid. On adding up the total number of marks it was found that the 2nd Volunteer Battalion, East Surrey Regiment, were first, and that they had obtained seven more marks than any other team. The instructor of this team was Sergeant Smaul, of the Volunteer Medical Staff Corps, and at the previous competition in 1891 they only lost the shield by one point.

The marks of each detachment are given below.

Regiment.	Station.	Points in Drill.	Points in First Aid.	Total.	Place.
2nd V.B. Liverpool Regiment ...	Liverpool	39	50	89	Second
Birmingham Rifle Brigade	Birmingham	45	40	85	Fourth
1st V.B. Highland Light Infantry	Glasgow	40	40	80	Fifth
3rd V.B. The Black Watch	Dundee	44	25	69	Seventh
1st Middlesex Vol. R.E.	London	46	40	86	Third
3rd V.B. Hants Regiment	Portsmouth	48	30	78	Sixth
Royal Bucks Hussars	Bucks	43	25	68	Ninth
2nd V.B. East Surrey Regiment ...	Wimbledon	46	50	96	First
1st Bucks R.V.C.	High Wycombe	45	24	69	Seventh

The London corps had had a preliminary competition at which the 2nd V.B. East Surrey and the 1st Middlesex Vol. R.E. had tied, and both teams were therefore allowed to compete again.

INDIAN PAY.

A VICTIM, writing from India, says: It is a subject of general regret that a correspondent of the BRITISH MEDICAL JOURNAL of May 21st did not give fuller details of Indian pay, a subject so interesting to a large number of juniors in the medical staff. I attach a table showing the total pay and allowances of these surgeons, paid monthly in rupees, with the equivalent in English money at the exchange value of 1s. 3d. per rupee:

	£	s.	d.
Surgeons on appointment ... ... Rs. 317 8	0 = 20	10	1½
,, after 5 years' service ... Rs. 335 12	2 = 21	13	8½
,, ,, 6 ,, ,, ... Rs. 433 10	2 = 28	0	1½
,, ,, 10 ,, ,, ... Rs. 451 14	5 = 28	3	6½

These rates are based on the ranks in the Warrant of 1858, as the Indian Government have refused to recognise the Warrant of 1879, and the English pay included in the total is converted into Indian rupees at the rate of 2s. 6d. per rupee, the following being the amounts so converted:

	s.	d.	
Surgeon on appointment	10	0	daily
,, after 5 years' service	11	6	,,
,, ,, 10 ,, ,, ...	13	0	,,

The advantages of the last Royal Warrant, therefore, notwithstanding Mr. Curzon's statement to the contrary, have not been extended to India, and the fact remains that a Surgeon-Captain, whatever his seniority, is forced to serve in an unhealthy country for less pay than he gets at home.

*** While strongly impressed with the grievous injustice of not extending the provisions of Royal Medical Warrants financially to India, we repeat that it does not seem altogether right to calculate the worth of the rupee at the exchange value only; its purchasing power in India, although depreciated, is still considerably greater than its exchange value. In any case, however, it is an unfair juggle to calculate English pay at the utterly fictitious rate of 2s. 6d. per rupee, a value which we think never attached even to the old sicca rupee.

ON the same subject A. B. writes: The answer of the Secretary of State for India to Sir Guyer Hunter's question relative to the pay of the medical staff in India is not the correct one. He stated that "the rates of pay are based partly on rank and partly on length of service, but have no direct relation to the rates in force at home, nor do they vary with any variation of those rates." But Army Regulations, India, vol. I, part I, para. 308, states: "Grade pay and unemployed pay of medical officers and veterinary surgeons are composed of pay proper and Indian allowances." Again, in para. 310, the "pay proper" is defined "the pay proper of an officer of the British service is his English pay." It thus appears that if the Indian regulations were fully carried out the medical staff would receive English pay *plus* Indian allowances.

*** The more the explanation put into the mouth of the Secretary of State for India is looked at, the more it seems untenable and indefensible.

ANOTHER correspondent writes: All medical officers who have joined the medical staff since 1879 entered into a contract with the Home Government to serve under the provisions of the Warrant of that year. It becomes, therefore, a legal question how far these officers can be compelled to serve the Indian Government under the provisions of the Warrant of 1858, still in force in that country, but long since legally obsolete and abrogated in so far as they are concerned. If the Indian Government cannot be forced to recognise Royal Warrants, in equity, therefore, the Home Government should make up any loss in pay to its servants temporarily lent to India.

THE CHAIR OF PATHOLOGY AT NETLEY.

MR. E. KENNETH CAMPBELL, M.B. Edin., F.R.C.S. Eng., writes: Not holding a medical commission in Her Majesty's Imperial or Indian Army, I am privileged, with your permission, to endorse your remarks concerning the passing over of the medical officers of the services in the election of Professor to the Chair of Pathology at Netley. As I understand, this chair was instituted especially with reference to the elucidation of the pathology of those diseases which specially affect armies and those living in tropical and sub-tropical regions. There are in the army and Indian medical departments gentlemen of very considerable renown, distinguished graduates and diplomates of their universities and colleges, men who have had greater experience of the pathology of the kind of diseases just indicated than any others on the face of the globe. What inducement is there, Sir, for young men of professional distinction and eminence to enter a service which entails long-continued residence in dangerous climates, when posts such as these, to which they are legitimately entitled to aspire in the lapse of years, are denied them?

Taking all these circumstances into consideration, and without wishing to be in any way personal, I think all those who will view the matter impartially must admit that the present appointment is not only an anomaly *per se*, but an injustice *de facto*, and will agree with me in saying: *Palmam qui meruit ferat*—let him who has won the palm bear it!

POST GRADUATE COURSE OF STUDY.

ARMY MEDICAL STAFF writes: The junior members of the Medical Staff are greatly indebted for your advocacy of study time on full pay. Its necessity is evinced by the large number of reported failures yearly in qualifying for promotion. If granted in the navy why not in the army? The case of a junior in this matter returning home after a lengthened foreign tour is really hard; he is generally knocked about from station to station, with light baggage in which it is impossible to carry books, and in the middle of such movements is expected to pass an examination abreast of all the recent advances in hospital practice: it is not fair. It is therefore reasonable that at least four months' study time on full pay should be granted to brush up his knowledge and pass with credit to himself. The existing regulations as to special leave are almost a dead letter, and the junior who applies for it is looked upon as a shirk.

*** We trust this matter will soon receive the earnest attention of the Secretary of State for War. Without encouragement or opportunity of study it is absurd and vain to expect army medical officers in their roving life to keep abreast in professional advancement. If rumour be correct, a considerable number have lately failed in the professional examinations for promotion, which is not only a strong argument for study time, but might also suggest to the authorities the question whether the standard of examination has not lately been pitched a little too high for strictly practical ends, to test which is the real object in view.

PRECEDENCE.

ROYAL SURGEON writes: It is feared in India that the mess order issued by the Commander-in-Chief, Bombay, is the first of a series whose aim it is to "explain away" the most solid advantages attached to the compound titles and the so-called "substantive" rank. Is it not also absurd, he writes, that young second lieutenants of a few weeks' service are often detailed as a garrison duty to visit hospitals, and record in writing that they found "no irregularities" and "all correct" (or otherwise). Such reports by youngsters of hospitals in charge of surgeon-lieutenant-colonels is most derogatory, and calculated to lower the position of medical officers in the eyes of the patients and others under their command.

*** We were under the impression that only the field officers of the day now visited hospitals. The system of hospital visiting is a relic of a bygone day, when medical officers were supposed to be incapable of exercising the smallest function of command either in hospital or out of it. We believe it is a duty combatant officers as a rule much dislike, and perform in a very perfunctory fashion.

THE EMPLOYMENT OF RETIRED MEDICAL OFFICERS.

A CORRESPONDENT writes that the employment of eighty retired and eight militia medical officers at home stations deprives those on the active list of a year to a year and a-half home service each tour. Nor can it be in the interests of the service that forty-one of these eighty-eight, not liable to be recalled, are employed in the responsible duty of recruiting, as many are at the depôts. Medical officers on the active list are often sent to do the duty of these officers while on leave. In no other branch of the service are like practices permitted.

VERAX also writes: There are two sides to every question, and those who frequently advocate the return to duty of retired medical officers only see one side. The employment of seventy or eighty retired officers causes a corresponding decrease in the numbers on the active list, and consequently a shorter tour of home service. I notice a correspondent advocates retired claims to colonial appointments. This would practically leave only the plains of India to the active list. Unless the authorities want to destroy the active list some stop must be put to the present system. Will retired officers take up appointments in unhealthy foreign stations?

*** We should be very sorry to think that the real interests of both the active and retired lists were other than identical, which we fully consider them to be. The exceedingly valuable right or privilege of retirement at comparatively early periods was conceded financially to medical officers only on the grounds that they remain liable for service up to 55, and eligible for certain appointments to 65 years of age. Even if this operates somewhat hardly on the active list, would it be better to curtail the privilege of retiring or leave matters as they are? We would counsel those who feel the pressure to look a little ahead—to the time when retirement, and perhaps an appointment, will be personally probably very acceptable. At the same time, we imagine the employment of retired medical officers has reached its limits, and the shortening of the period to 60 years may be desirable. We understand it is the opinion of those able to judge that, both financially and in the best interests of the service, the employment of retired officers has been a success.

THE MEMORANDUM.

SURGEON-MAJOR RETIRED thanks us for the wise and expedient memorandum in *re* retired medical officers. He says, having had the rank of lieutenant-colonel previous to retirement, and having been obliged to retire through illness caused in and by the service, surely in equity and justice he should be permitted to use the title of surgeon-lieutenant-colonel. Medical officers of the auxiliary forces are permitted on retirement by *Gazette* notice to retain their rank. The undefined position of retired medical officers causes many heart-burnings in social life, and deters young medical men of good position from entering.

BRIGADE-SURGEON RETIRED writes: One of your correspondents is quite right in saying that so-called retired medical officers, liable to be recalled up to 55 years of age, are not retired at all, the proof of which is that their names are retained in the active list, and they are not allowed to go abroad or settle in a colony indefinitely, but to do so have to apply periodically for permission. He urges they should be placed in the same position as other half-pay officers, and like them be employed at home or in the colonies.

DEPUTY SURGEON-GENERAL RETIRED writes: I am much interested in your memorandum; the want of a military title is especially felt by retired medical officers. Although I have the above title, in society I am only Dr. ——. The compound titles are good, but in the end purely military titles must come.

DEO DATA writes: In *re* the memorandum, 1. Compound titles.—(*a*) The word brigade should be omitted, and surgeon-lieutenant-colonels divided into two classes, A and B. (*b*) It is a very divided question whether the new titles should be extended to retired medical officers, and if given at all they should only be extended to those liable to be recalled as who 382 of the Royal Warrant. (*c*) It would be good if no retired medical officer was employed under said Article after 55 years of age. (*d*) I am against the new titles being given to all retired officers. 2. Full application of Warrant to India.—The Medical Staff should be paid in English pay wherever they are, with allowances (*batta*) for service in India. 3. Foreign tours.—Should be limited to three and five years, and after the completion of a full tour the period of home service should be definitely laid down, say to four years. 4. Study time.—Three months after completion of seven years' service. 5. Exchanging.—I agree with your remarks. Further, as far as practicable medical officers, like regiments, should have or be allowed the option of alternating their foreign tours between India and the Colonies.

*** The opinion of those on the active list as to extending the new titles to retired officers may be much divided; but we cannot see what harm it would do to the former. The proposal to define home tours would, we fear, be scarcely practicable, and could always be overridden by service exigencies. We think it of much value to medical officers that they should serve in all parts of the world, and tours be as much as possible divided between India and the Colonies.

PRINCIPLE AND PRECEDENT complains that we did not exactly grasp or express his real meaning, which was that it is not thought necessary to supplement the military title by using or naming the particular branch in cavalry, engineers, pay, or army service corps. It is not considered necessary to indicate even purely honorary rank. But the compound titles were supposed to prevent misrepresentation on our part.

*** We are sorry we did not fully express our correspondent's views; the drift of his argument is now clear enough.

ARMY MEDICAL RESERVE.

A CORRESPONDENT is informed that he will find the objects and conditions of the Army Reserve of Medical Officers set forth in the Warrant of 1888; and if he will also refer back to the numbers of the BRITISH MEDICAL JOURNAL of that period he will find the advantages or disadvantages of joining that body fully discussed.

SURGEON-CAPTAIN J. BATTERSBY, M.S., has passed the Examination in the lower standard in Hindustani.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF GLASGOW.

THE following candidates have passed the Fourth (Final) Professional Examination for the degrees of M.B. and C.M.:—

(A). Candidates who took Pathology in Fourth Professional Examination:

H. C. Anderson, C. J. Babes, T. Barrowman, E. Beck, R. Bishop, J. J. Boyd, W. L. Brown, A. Chalmers, M.A., J. E. Chalmers, D. Charters, J. Cochrane, W. Craik, J. D. Davies, R. G. Dick, T. Divine, J. Fisher, W. Fulton, H. N. Gardiner, J. Gillespie, P. N. Grant, T. Hamilton, D. Harris, W. S. Harrison, W. M. Holmes, R. K. Howat, J. Johnson, H. Kerr, M.A., D. C. Laird, R. Langmuir, M.A., J. Lindsay, M.A., J. B. Littlejohn, E. J. Morris, W. M'N. Muat, P. H. Murray, A. C. M'Arthur, J. M'Glashan, J. A. Macintosh, J. M'Kay, A. J. M'Kechnie, G. M'Lauchlan, P. C. MacRobert, C. O'Neill, W. A. Paterson, R. Ramsey, W. Roberton, L. A. Rowden, T. L. Shields, W. N. Sime, A. R. Smith, C. Stewart, D. R. T. Strong, D. Wallace, A. Watson, J. Watt, J. Whitehouse, C. F. Wylie, A. A. Young, M.A., J. C. Young.

(B). Candidates who passed Pathology in Third Professional Examination:

W. H. M. Alexander, J. E. Bow, W. B. Brodie, W. M. Brown, A. P. Campbell, D. B. Campbell, J. Carslaw, M.A., A. Cluckie, J. Cochrane, R. Cook, A. B. Craig, J. R. Dalrymple, J. S. Davies, M.A., J. Don, M.A., W. W. Don, McN. Downie, A. R. Ferguson, A. Finlay, A. Forrest, M.A., F. F. Frew, A. Graham, R. Guy, J. B Hartley, Æ. Henderson, E. D. S. Heyliger, H. E. Jones, N. Keith, T. Kirkwood, M.A., T. D. Laird, H. Lawrie, H. C. Marr, R. M'F. Marshall, J. D. R. Monro, M.A., J. Morton, W. C. Murray, J. H. MacArthur, W. M'Call, A. H. M'Cracken, J. M'Donald, M.A., A. S. M'Pherson, W. M'Walter, G. Nicoll, J. Paterson, M.A., W. F. Paton, M.A., W. J. Richard, M.A., J. J. Robb, J. A. Robertson, M. T. Stack, W. Steel, W. C. Steele, J. B. Stevens, R. Taylor, J. Thomson, J. M'D. Vallance, A. Wauchope, C. Wilson, W. S. Young.

Doctors of Medicine.—I. With Commendation: H. Highet, M.B., C.M. (Thesis: The Broncho-pneumonia of Influenza as it Occurs in the Adult Subject); A. G. Park, M.B., C.M. (Thesis: Defects of Speech.

II. Ordinary Degree.—J. Duncan, M.B., C.M. (Thesis: An Outbreak of Typhoid Fever; its Clinical Features and Treatment); P. Fraser, M.B. (Thesis: An Analysis of Ten Years' Medical Certificates of the Cause of Death); R. A. Morton, B.Sc., M.B., C.M. (Thesis: Hypnotism, with Special Reference to its Phenomena as manifested in Hysterical Subjects, and its Application as a Therapeutic Agent); J. Muir, M.B., C.M. (Thesis: Diphtheria; its Pathology and Therapeutics as primarily a Local Disease); J. F. Muir, M.B., C.M. (Thesis: Typhus Fever); J. S. M'Conville, M.A., M.B., C.M. (Thesis: Chloroform Anæsthesia); A. Shanks, M.B., C.M. (Thesis: Epilepsy; its Symptoms, Causes, and Modern Treatment); J. P. Simpson, M.B., C.M. (Thesis: Puerperal Eclampsia, with Illustrative Cases); J. Somerville, M.B., C.M. (Thesis: Sheffield Grinder's Disease); W. C. Taylor, M.B., C.M. (Thesis: Observations on Small-pox and Vaccination, with Cases); A. Tindal, M.B., C.M. (Thesis: The Treatment of Insomnia in Fevers).

Doctor of Medicine (Old Regulations).—R. Cook, L.R.C.S.Ed. (Thesis: The Abortive Treatment of Gonorrhœa).

Bachelors of Medicine and Masters of Surgery.—I. Honours: *J. Morton; J. Carslaw, M.A.

II. High Commendation.—J. M'Donald, M.A.; J. Paterson, M.A.; C. Wilson; R. Bishop; A. R. Ferguson; J. D. R. Monro, M.A.; W. B. Brodie.

III. Commendation.—W. M. Holmes, R. Taylor, J. Don, M.A., H. C. Marr, W. M'Walter, A. A. Young, M.A., Hugh Kerr, M.A., W. L. Brown, W. J. Richard, M.A., W. Roberton, L. A. Rowden.

IV. Ordinary Degrees.—W. H. M. Alexander, H. C. Anderson, C. J. Babes, T. Barrowman, E. Beck, J. E. Bow, J. J. Boyd, W. M. Brown, A. P. Campbell, D. B. Campbell, A. Chalmers, M.A., J. E. Chalmers, D. Charters, A. Cluckie, Jas. Cochrane, John Cochrane, R. Cook, A. B. Craig, W. Craik, J. R. Dalrymple, J. D. Davies, J. S. Davies, M.A., R. G. Dick, T. Divine, N. Downie, A. Findlay, J. Fisher, A. Forrest, M.A., J. F. Frew, W. Fulton, H. N. Gardiner, J. Gillespie, A. Graham, P. N. Grant, R. Guy, T. Hamilton, D. Harris, J. B. Hartley, Æ. Henderson, E. D. S. Heyliger, R. K. Howat, J. Johnson, H. E. Jones, N. Keith, T. Kirkwood, M.A., D. C. Laird, R. Langmuir, M.A., H. Lawrie, J. Lindsay, M.A., J. B. Littlejohn, R. M'F. Marshall, E. J. Morris, P. H. Murray, W. C. Murray, A. C. M'Arthur, A. H. M'Cracken, J. M'Clashan, J. A. Macintosh, J. M'Kay, A. J. M'Kechnie, G. M'Lauchlan, P. C. MacRobert, C. O'Neill, W. A. Paterson, R. Ramsey, W. F. Paton, M.A., R. Ramsey, J. J. Robb, W. N. Sime, A. R. Smith, M. T. Stack, W. Steel, W. C. Steele, D. R. T. Strong, J. Thomson, J. M'D. Vallance, D. Wallace, A. Watson, J. Watt, A. Wauchop, J. Whitehouse, C. F. Wylie, J. C. Young.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

THE following gentlemen having passed the necessary examinations have been admitted by the two Royal Colleges Diplomates in Public Health:

A. R. Aldridge, M.B Edin., Edinburgh; H. C. L. Armin (Surgeon-Captain Indian Medical Staff), L.R.C.P., M.R.C.S., Charing Cross; W. H. Bailey, M.B. Lond., M.R.C.S., St. Bartholomew's; W. J. Best, M.R.C.S., London; H. H. Coates, L.R.C.P., M.R.C.S., St. Bartholomew's; J. Gay, L.R.C.P., M.R.C.S., St. Bartholomew's and King's College; J. H. Gibson, M.D.Q.U.I., Dublin and Belfast; J. M. Hall, M.B.E.U.I., Belfast and King's; J. C. Hoyle, L.R.C.P., M.R.C.S., St. Bartholomew's; H. E. Mann, L.R.C.P., M.R.C.S., St. George's; W. Y. Orr, M.B.Edin., Edinburgh and King's; G. Preston, L.R.C.P., M.R.C.S., Manchester; J. D. Priest, M.R.C.S., St. Bartholomew's; T. F. Ricketts, L.R.C.P., M.R.C.S., Guy's; G. I. Schorstein, M.B.

* Mr. Morton gains the Brunton Memorial Prize of £10, awarded to the most distinguished Graduate in Medicine of the year.

Oxon., Oxford and London; S. R. Scott, L.R.C.P., M.R.C.S., Charing Cross; F. Tratman, M.B.Lond., L.R.C.P., M.R.C.S., London and Bristol; J. Wilkie, M.B.Lond., University College and St. Bartholomew's.

Eight candidates were referred.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE following candidates, having conformed to the by-laws and regulations, and passed the required examinations, were at the meeting of the College on July 28th admitted Licentiates of the College:

Ali, S., Lahore Medical School
Atcherley, J., Leeds
Baker, J. C., St. Bartholomew's
Ballance, H. A., University College
Banham, C. W. R., London
Barnes, H. C., London
*Blake, H. E., University College
Bliss, E. W., Birmingham
Bond, W. E., St. Bartholomew's
Bowie, R. A., McGill Coll., Montreal
Brimacombe, R. W., St. Mary's and Birmingham
Brown, H. C., Birmingham
Bull, S. A., Westminster
Bunch, F. V., University College
Buttar, C., St. Bartholomew's
Carwadine, T., Middlesex
Cazalet, G. W., London
Charles, B., St. Bartholomew's
Cross, G., St. Thomas's
Cutcliffe, M., St. Bartholomew's
Darker, G. F., St. Thomas's
Davies, R., Edinburgh
Dixon, C. A., Leeds
Dove, F., London
Dunderdale, R. H. W., Liverpool
Eames, E. T. P., London
Edwards, F. W., St. Thomas's
Fowler, J. S., Edinburgh
Fraser, H. St. J., Guy's
French, H. C., King's College
Fyffe, R. J., London
Gaskell, A., University College
Gedge, A. S., St. Thomas's
Girdlestone, H. E., St. Thomas's
Gladstone, R. J., Aberd. & Middlesex
Goodwin, T. H. J. C., St. Mary's
Graydon, A., St. Thomas's
Griffith, R. C., Toronto
Griffiths, S. A. E., Middlesex
Hague, J., Manchester
Hainworth, E. M., St. Thomas's
Hamlen-Williams, T. R., Middlesex
Harris, F. D., St. Mary's
Hartnell, E. B., Bristol and Guy's
Harvey, J. R., Guy's
Heath, A. D., University College
Hemsted, E. S., St. Mary's
Henry, R., St. Thomas's
Hepburn, M. L., St. Bartholomew's
Hessey, J. D., Middlesex
Hogg, R. H., Univ. of New Zealand
Jaffé, C. S., St. Thomas's
James, R. B., Birmingham
Jenkins, J. E. M., Charing Cross
Jones, J., University College
Kent, S., Cambridge and St. Barth.
Killery, St. J. B., St. Bartholomew's
Knapp, M. H., Cork and St. Mary's
Langford, M. C., London
Lightfoot, J. P., King's College
Loos, W. C., University College
McCormack, C. V., Liverpool
Mackeson, G., Guy's
Milner, A. E., Bristol
Milton, A. R. O., St. Thomas's
Morley, G. F., St. George's
Morton, J. L., St. Mary's
Musgrave, C. B. T., University Coll.
Nellen, G. F. M., Middlesex
Newton, H. W., Middlesex
Nicol, J. M., Leeds
Ortlepp, A. J., St. Mary's
Osborn, F. A., Guy's
Parrott, A. G., London
*Perceval, F., St. George's
Perry, S. H., King's College
Perry, W. A., University College
Pethybridge, W. L., St. Bartholomew's
Pickering, R. N. U., St. Bartholomew's
Posnett, E., Leeds
Potter, W., St. Thomas's
Powell, W. A., St. Mary's
Randall, M., University College
Ransome, H. F., Manchester
Renny, E. G., St. Thomas's
Rock, C. H., St. Thomas's
Russell, J. R., King's College
Sawers, J. L., University College
Scheurer, J. G., London
Scotson, F. C., Manchester
Selby, E. W., University College
Selby, W., St. Bartholomew's
Shaw, A. E., St. Mary's
Sims, J. H., St. Thomas's
Smith, E., St. Thomas's
Smith, N. I., Middlesex
Smith, W. R., King's College
Spencer, C. G., University College
Sproat, J. H., Birmingham
Squibbs, R. E. P., Middlesex
Staddon, H. E., St. Thomas's
Steggall, S. L. J., Charing Cross
Stewart, J. A., Charing Cross
Strange, A., London
Sutcliffe, W. G., St. Thomas's
Swabey, M., St. Bartholomew's
Sylvester, H. M., St. Bartholomew's
Templeton, G., Edinburgh
Thomas, R. S., Middlesex
Tipping, H. H., Birmingham
Toller, N. P. F., St. Thomas's
Tweedy, R. C., St. Bartholomew's
Vincent, W. J. N., Durham & Lond.
Vinrace, M. H., Bir. & Univ. Coll.
Wall, F., Ceylon and Middlesex
Walter, R. A., St. Bartholomew's
Walters, A. R., Cambridge & Lond.
Walters, F. W., London
Watkins, W., London
Wesley, W., University College
West, W. G., St. Bartholomew's
Wheatcroft, E. W., Guy's
White, J. A. H., Birmingham
Williams, G. C. W., St. Thomas's
Williams, H. J. E. H., Middlesex
Williams, H. W. S., Univ. Coll. & Liv.
Willock, E. H., St. Thomas's
Willson, J. W., Charing Cross
Windsor, F. N., Manchester
Winter, L. A., St. Bartholomew's
Withers, F. E., St. Bartholomew's
Wright, S. F., St. Thomas's
Wroughton, W. C. H., St. Thomas's
Wysard, A. T., St. Thomas's

* Candidates who have not presented themselves under the regulations of the Examining Board.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentleman having passed the necessary examinations, and now attained the legal age (twenty-five years), was admitted a Fellow of the College, namely: Mr. Drew Douglas, M.B.Lond., L.R.C.P.Lond.

The following gentlemen having passed the necessary examinations, and having conformed to the By-laws and Regulations were admitted Members of the College, viz.:

Ali, S., L.R.C.P.
Atcherley, J., L.R.C.P.
*Austin, J. H. E., L.R.C.P.
Baker, J. C., L.R.C.P.
Ballance, H. A., L.R.C.P.
Banham, C. W. R., L.R.C.P.
Barnes, H. C., L.R.C.P.
*Blake, H. E., L.R.C.P.
Bliss, E. W., L.R.C.P.
Bond, W. E., L.R.C.P.
Bowie, R. A., L.R.C.P.
Brimacombe, R. W., L.R.C.P.
Brown, H. C., L.R.C.P.
Bull, S. A., L.R.C.P.
Bunch, F. V., L.R.C.P.
Buttar, C., L.R.C.P.
Carwardine, T., L.R.C.P.
Cazalet, G. W., L.R.C.P.
Charles, B., L.R.C.P.
*Councell, R. W., L.S.A.
Cross, G., L.R.C.P.
Cutliffe, M., L.R.C.P.
Darker, G. F., L.R.C.P.
Davies, R., L.R.C.P.
Dixon, C. A., L.R.C.P.
Dove, F., L.R.C.P.
Dunderdale, R. H. W., L.R.C.P.
Eames, E. T. P., L.R.C.P.
Edwards, F. W., L.R.C.P.
Fowler, J. S., L.R.C.P.
Fraser, H. St. J., L.R.C.P.
French, H. C., L.R.C.P.
Fyffe, R. J., L.R.C.P.
Gaskell, A., L.R.C.P.
Gedge, A. S., L.R.C.P.
Girdlestone, H. E., L.R.C.P.
Gladstone, R. J., L.R.C.P.
Goodwin, T. H. J. C., L.R.C.P.
Graydon, A., L.R.C.P.
Griffith, R. C., L.R.C.P.
Griffiths, S. A. E., L.R.C.P.
Hague, J., L.R.C.P.
Hainworth, E. M., L.R.C.P.
Hamlen-Williams, T. R., L.R.C.P.
Harris, F. D., L.R.C.P.
Hartnell, E. B., L.R.C.P.
Harvey, J. R., L.R.C.P.
*Hawley, F. H., L.S.A.
Heath, A. D., L.R.C.P.
Hemsted, E. S., L.R.C.P.
Henry, R., L.R.C.P.
Hepburn, M. L., L.R.C.P.
Hessey, J. D., L.R.C.P.
Hogg, R. H., L.R.C.P.
Jaffé, C. S., L.R.C.P.
James, R. B., L.R.C.P.
Jenkins, J. E. M., L.R.C.P.
Jones, J., L.R.C.P.
Kent, S., L.R.C.P.
Killery, St. J. B., L.R.C.P.
Knapp, M. H., L.R.C.P.
Langford, M. C., L.R.C.P.
Lightfoot, J. P., L.R.C.P.
Loos, W. C., L.R.C.P.
McCormack, C. V., L.R.C.P.
Mackeson, G., L.R.C.P.
*Michie, W. A., M.B. Aberdeen.
Milner, A. E., L.R.C.P.
Milton, A. R. O., L.R.C.P.
Morley, G. F., L.R.C.P.
Morton, J. L., L.R.C.P.
Musgrave, C. B. T., L.R.C.P.
Nellen, G. F. M., L.R.C.P.
Newton, H. W., L.R.C.P.
Nicol, J. M., L.R.C.P.
Ortlepp, A. J., L.R.C.P.
Osborn, F. A., L.R.C.P.
*Parker, W., L.R.C.P.
Parrott, A. G., L.R.C.P.
Perry, S. H., L.R.C.P.
Perry, W. A., L.R.C.P.
Pethybridge, W. L., L.R.C.P.
Pickering, R. N. U., L.R.C.P.
Posnett, E., L.R.C.P.
Potter, W., L.R.C.P.
Powell, W. A., L.R.C.P.
Randall, M., L.R.C.P.
Ransome, H. F., L.R.C.P.
Renny, E. G., L.R.C.P.
Rock, C. H., L.R.C.P.
Russell, J. R., L.R.C.P.
Sawers, J. L., L.R.C.P.
Scheurer, J. G., L.R.C.P.
Scotson, F. C., L.R.C.P.
Selby, E. W., L.R.C.P.
Selby, W., L.R.C.P.
Shaw, A. E., L.R.C.P.
Sims, J. H., L.R.C.P.
Smith, E., L.R.C.P.
Smith, N. I., L.R.C.P.
Smith, W. R., L.R.C.P.
*Soden, T. A. B., L.S.A.
*Soilleux, G., M.B. Melbourne
Spencer, C. G., L.R.C.P.
Sproat, J. H., L.R.C.P.
Squibbs, R. E. P., L.R.C.P.
Staddon, H. E., L.R.C.P.
Steggall, S. L. J., L.R.C.P.
Stewart, J. A., L.R.C.P.
Strange, A., L.R.C.P.
Sutcliffe, W. G., L.R.C.P.
Swabey, M., L.R.C.P.
Sylvester, H. M., L.R.C.P.
Templeton, G., L.R.C.P.
Thomas, R. S., L.R.C.P.
Tipping, H. H., L.R.C.P.
Toller, N. P. F., L.R.C.P.
Tweedy, R. C., L.R.C.P.
Vincent, W. J. N., L.R.C.P.
Vinrace, M. H., L.R.C.P.
Wall, F., L.R.C.P.
Walter, R. A., L.R.C.P.
Walters, A. R., L.R.C.P.
Walters, F. W., L.R.C.P.
Watkins, W., L.R.C.P.
Wesley, W., L.R.C.P.
West, W. G., L.R.C.P.
Wheatcroft, E. W., L.R.C.P.
White, J. A. H., L.R.C.P.
Williams, G. C. W., L.R.C.P.
Williams, H. J. E. H., L.R.C.P.
Williams, H. W. S., L.R.C.P.
Willock, E. H., L.R.C.P.
Willson, J. W., L.R.C.P.
Windsor, F. N., L.R.C.P.
Winter, L. A., L.R.C.P.
Withers, F. E., L.R.C.P.
Wright, S. F., L.R.C.P.
Wroughton, W. C. H., L.R.C.P.
Wysard, A. T., L.R.C.P.
*Young, J. C., M.D. New York

* Candidates who have not presented themselves under the Regulations of the Examining Board in England.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW.

THE quarterly examinations for the Triple Qualification in Edinburgh took place in July, with the following results:

FIRST EXAMINATION.—Of 73 candidates, the following 47 passed: A. E. Clayton, South Shields; R. Wolfendale, Tutbury; F. G. W. Deane, Barbados; J. A. Finch, Norwich; J. D. Begley, Portaferry, Ireland; Johanna Fleck Gilchrist, Shotts; Isabella Hardie Curr, Auchtermuchty; S. Nicolson, Partick; Annie Caroline Smith, India; R. L. Brown, Victoria; Margaret Penelope Monro, Edinburgh; J. W. McBrearty, New Zealand; J. Graham, Workington; P. T. Finn, Ballymote; Sexandra Mary Campbell Geddes, Bombay; Agnes Lillie Cousins, Madagascar; Annie Gillespie, Newry; P. J. Sheedy, Kilkee; W. W. Valence, Northumberland; E. A. R. Laing, Boyle; A. W. Ball, Liverpool; E. J. McC. Morris, co. Cork (with honours); Gertrude Keith, Edinburgh (with honours); J. Barry, co. Cork; A. L. Levy, Melbourne; Mary Finch Nannetti, London; D. F. O'Kelly, co. Limerick; S. James, S. Wales (with honours); D. Ritchie, Greenock; A. G. Kewley, Derbyshire; Sarah Brown McMordie, Belfast; Rosa Turner, London; Ella Cecilia Rawlinson, Norfolk; G. P. Searle, Tewkesbury; J. Scott, Northumberland; Emily Francis FitzSimons, Tralee; M. H. Enright, Listowel; Elizabeth Shaw Cotton, Bara; F. A. Molloy, India; Elizabeth Lalio Ewan, Aberdeenshire; Winifred Jane Pierce, India; Agnes Irene Sinclair Coghill, Thurso; D. J. M. Vallange, Dollar; A. Smyth, co. Derry; E. E. S. J. Galbraith, co. Cork; J. Gallie, co. Cork; and C. S. Langley, co. Cork.

The following candidates passed in the respective divisions:

In Chemistry.—Mary Harriett Simson.

In Biology.—Flora Rosina Cartwright Wood, Mildred Jane Wallace; Ethel Louie Starmer, and W. H. Cox.

In Biology and Physics.—J. G. Murray.

SECOND EXAMINATION.—Of 50 candidates, the following 38 passed: D. D. Muir, Edinburgh; E. C. Hayes, Dublin; M. Wilson, Boness; A. A. Sakir, Mauritius; H. W. Vaughan, Devon; E. A. Rowan, Kilkenny; A. A. Hill, Norwich; A. Y. C. Holt, Cheshire; A. O'Leary, co. Cork; Florence Ulick O'Sullivan, co. Kerry; T. O. Jones, Anglesea; H. Gillies, Argyllshire; Lydia Ann Leney, Lewes; W. E. Vice, South Africa; J. K. Brownlees, Ballymena; R. Fairweather, Balfron; Florence Ada Holt, Yorkshire; Elizabeth Mari-

anne Erskine, Glasgow; Lillias Jane Thomson, Montrose; M. Breen, co. Limerick; R. L. Brown, Victoria; H. Marmion, co. Down; Charlotte Rhoda Hodgins, co. Tipperary; Eleanor Agnes Montgomery, Belfast; Ella Stewart Caldwell, Edinburgh; Mary Buchanan Lee, Liverpool; Jessie Ballard Ferguson, India; E. Smith, Durham; A. B. Ryan, co. Limerick; F. A. Hadden, India; J. W. Stoker, Durham; W. Kirkby, Lincolnshire; L. T. Jones, Anglesea; Beatrice Ritchie, Perth; Mary Janet Dodds, Corstorphine; W. Shaw, Halifax, Yorkshire; C. E. G. Bateman, Norwich; and R. J. Black, co. Derry.

The following candidates passed in the respective divisions:

In Anatomy and Physiology.—J. A. McIlroy.

In Physiology.—C. W. Lawson.

In Materia Medica.—C. Purdon, J. A. Meeke, C. A. C. Jones, G. H. Monkhouse, and J. B. Voortman.

Final Examination.—Of 103 candidates the following 59 passed and were admitted L.R.C.P. and S.E. and L.F.P. and S.G.: W. A. Lloyd-Davies, Abergele; W. Wilson, Ormskirk; J. F. Robertson, Edinburgh; F. W. Pogson, Seacroft, near Leeds; P. Noonan, Victoria; Alice Marion Umpherston, Lasswade; G. H. Peake, Madagascar; E. F. E. Baines, Hampshire; C. G. Rae, Glasgow; Elsie Maud Inglis, India; P. T. Tolputt, Folkestone; A. E. Berry, Madras; J. M. Ratnayeke, Ceylon; D. K. McDowell, Montreal; F. Christie, Scarborough; J. A. Bouck, Chester; J. S. Martin, Ballynahinch; H. Brown, Alford; G. W. Ancrum, Gloucestershire; W. J. Langley, co. Waterford; E. J. Gilleran, Roscommon; F. C. Rogers, Cheshire; R. R. Stitt, Birkenhead; D. J. Murphy, Youghal; J. W. Collett, Chittagong; A. J. Meikle, Inverary; D. Donald, Aberdeen; A. G. Ginders, Exeter; W. Moody, Kennyeully; C. A. Smith, Leeds; A. J. Thomas, Toronto; S. de Kock, Cape of Good Hope; G. A. Harbison, Melbourne; M. Lawan, co. Limerick; T. Bennett, Clonakilty; H. E. Connor, Derry; A. Norman, Southampton; E. C. W. Hughes-Games, Isle of Man; W. Barwise, Wigan; A. B. Ryan, co. Limerick; J. J. Harvey, Madras; A. J. McNickle, co. Tyrone; T. F. Devane, Cork; T. F. Roche, Mallow; W. B. Arthur, Dundee; T. J. Selby, Cumberland; J. F. Colahan, Dublin; R. J. Bodkin, co. Galway; S. W. Pitcher, Australia; A. Fernie, Gloucestershire; H. B. Williams, Denbighshire; P. E. Overton, Warwickshire; G. T. C. Adams, New South Wales; A. Dryden, Edinburgh; S. Gawn, co. Antrim; C. Ryall, Isle of Wight; J. L. Benson, London; J. A. Walsh, Kilkenny; and H. P. Weston, Manchester.

The following candidates passed in the respective divisions:

In Medicine and Therapeutics.—I. Baldwin, H. A. E. Noble, H. A. Jones, J. L. S. Sherlock.

In Surgery and Surgical Anatomy.—G. H. Johnston, W. M. Keal, Edith Grace Collett, and G. H. K. Ross.

In Midwifery and Medical Jurisprudence.—N. G. Douglas, E. McC. Campbell, C. H. Hibbert, T. Dawson, O. Gilmore, J. H. D. Stephenson, G. H. Johnston, A. A. Hill, H. A. E. Noble, T. H. Lawrie, T. Lawson, L. Paterson, R. R. Hughes, A. Robertson, J. L. S. Sherlock, A. H. Brown, and G. H. K. Ross.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.

The following gentlemen, having passed the requisite examinations, have been admitted Fellows of the College since last publication:—

F. J. Wilkinson, L.R.C.S.E.; W. S. Crawford, L.R.C.S.E.; J. T. M. Giffen, L.R.C.S.E.; H. A. Powell, M.R.C.S.Eng.; and R. P. Brooks, M.R.C.S. Eng.

The following gentlemen, having passed the requisite examinations, were admitted Licentiates of the College:—

A. W. Ramiro, J. C. Palmer, A. Stuart, L. G. Smith, P. D. Hormasji, C. Scatchard, and J. E. Stott.

The following gentlemen, having passed the requisite examinations, were admitted Licentiates in Dental Surgery:—

T. Nash, H. A. Matheson, J. Malcolm, and J. J. Martin.

SOCIETY OF APOTHECARIES OF LONDON.

Pass List, July, 1892.—The following candidates passed in:

Surgery.—E. C. Adams, St. Bartholomew's Hospital; W. Ashby, Guy's Hospital; R. S. Berry, St. George's Hospital; F. Clarke, St. Bartholomew's Hospital; W. R. Clarke, Belfast; G. Cross, St. Thomas's Hospital; C. G. L. Dähne, St. Bartholomew's Hospital; C. P. T. Edwards, University College; C. G. Hoysted, Charing Cross Hospital; E. A. Humphreys, Owens College, Manchester; G. C. Jeaffreson, University College; F. Melandri, Bologna; H. W. Oborn, St. Thomas's Hospital; R. N. U. Pickering, St. Bartholomew's Hospital; H. Richardson, Owens College, Manchester; A. B. Rogers, Owens College, Manchester; R. L. Romer, St. George's Hospital; G. Schilling, St. Thomas's Hospital; T. A. B. Soden, Charing Cross Hospital; S. J. Stuck, Middlesex Hospital; A. J. Temperley, London Hospital; L. P. Tomlinson, St. George's Hospital; W. E. Toyne, Edinburgh; C. Webb, St. George's Hospital; W. R. Willey, St. Mary's Hospital.

Medicine, Forensic Medicine, and Midwifery.—H. S. Elliott, St. George's Hospital; W. H. F. Noble, University College and London Hospital; E. Le F. Payne, St. Mary's Hospital; H. R. Phillips, Cambridge and Manchester; H. E. B. Porter, London Hospital; J. H. F. Way, St. Thomas's Hospital; S. Wilkinson, Liverpool.

Medicine and Forensic Medicine.—F. Melandri, Bologna; A. L. Roper, Cambridge and Guy's Hospital.

Medicine and Midwifery.—F. A. Arnold, London Hospital; W. R. Clarke, Belfast; G. Cross, St. Thomas's Hospital; W. D. Johns, Durham; G. W. Lilley, Yorkshire College, Leeds; J. N. Martin, St. Bartholomew's Hospital; G. A. Peake, Bristol.

Medicine.—H. J. van Leent, Guy's Hospital.

Forensic Medicine and Midwifery.—S. P. Hopewell, London Hospital; J. A. Procter, King's College; F. Spurr, Middlesex Hospital; A. J. Temperley, London Hospital; J. B. Tindall, King's College.

Forensic Medicine.—H. F. Ransome, Owens College, Manchester; S. A. L. Sodipe, University College; C. Webb, St. George's Hospital.

Midwifery.—W. D. Akers, St. Mary's Hospital; F. N. Roth, St. Mary's Hospital.

To Messrs. Ashby, Hoysted, Humphreys, Phillips, Pickering, Porter, Ransome, Rogers, Romer, Sodipe, Spurr, Toyne, Way, and Webb was granted the diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery.

HOSPITAL AND DISPENSARY MANAGEMENT.

A convalescent home for women, to be managed by women, was recently opened at Great Wakering, Essex. The institution has been established by the lady collectors of the Hospital Saturday Fund, who have recently formed a Convalescent Home Fund Association. It is estimated that there will be accommodation for 400 or 500 patients each year.

HEREFORD COUNTY AND CITY LUNATIC ASYLUM.

The average number of patients admitted for the last ten years into this asylum has been 66; during 1891 the number was 81. Speaking of the condition of those admitted with regard to their probable recovery, Dr. Chapman says they were more than usually hopeless. No fewer than 41 out of the 81 were either congenital cases or were of over twelve months' duration when admitted, and 15 of the number were over 70 years of age. Dr. Chapman thinks the reason why a so much greater proportion of aged patients should be sent to this asylum is because the population of the county is stationary or diminishing.

Dr. Chapman, the committee, and the chaplain in their respective reports, pay a feeling and well-merited tribute to the memory of Mr. D. E. Morris, who died during the year. He had been for eighteen years assistant medical officer to the asylum, and "his sudden removal while yet in the prime of manhood was deeply deplored by all."

LIMERICK DISTRICT LUNATIC ASYLUM.

The Inspectors of Lunatic Asylums have addressed a communication to the governors of this institution, pointing out the urgent need that exists for the appointment of an assistant medical officer, the Limerick Asylum being probably the largest in the world which has only a single resident medical officer attached to it. The governors had hesitated about making the appointment, thinking if they did so the tenure of office of the apothecary would be terminated. This was a mistake, and a notice of motion was handed in for next month that an assistant medical officer be appointed for the asylum.

THE VISITING AND RESIDENT STAFF OF HOSPITALS.

A difficulty of a most unusual kind, judged by European standards, has arisen between the visiting medical staff of the Brisbane Hospital and the committee. It appears that the committee are in favour of a system—a necessity in earlier days and in out-of-the-way places—by which the resident staff was given almost complete control of the management and treatment of the patients. At the Brisbane Hospital, however, the following rule was early made: "The visiting surgeons shall have placed under their charge all the patients, instructing the resident house-surgeon as to their treatment." This rule, which is to the same effect as that which is in operation in all the hospitals of Great Britain, Ireland, and in all or most of those of other countries, has been tacitly set aside, and the visiting staff, finding themselves thus placed in a false position, have resigned. Professor Anderson Stuart has been consulted on the matter, and his reply, published in the *Brisbane Courier*, of course condemns such an indefensible arrangement as that which has found favour with the committee of the Brisbane Hospital. A public meeting has been held in Brisbane, under the chairmanship of Dr. Bancroft, and it was clearly seen that medical opinion in the colony was opposed to the resurrection in the capital of the colony of a system which has now become an anachronism. The announcement that such a system still found defenders in the capital of Queensland has been received with the greatest astonishment by the medical profession in this country.

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HOSPITAL SATURDAY FUND.

The following amounts have been received on behalf of this fund from district committees as the result of last Saturday's ladies' street collection, namely: Western suburban London, £375 (increase upon last year of £40); Woolwich, £280 (increase of £40); West Ham, £147 (increase £10); Wood Green, £84 (increase £10); Balham and Tooting, £165 (increase £50); St. George's and Westminster, £580 (increase £100). The following amounts were collected at some of the principal stations in the central districts, namely: Stock Exchange, £39 15s. 9d.; the Bank, £33 11s. 1d.; Charing Cross, £28 11s. 1d.; Covent Garden, £26 15s. 8d.; Metropolitan Meat Market, £21; Mansion House, £15; Baltic Chambers, £15 19s. 8d.; Peabody's Statue, £15 2s.; Old Broad Street (National Bank), £13; Corn Exchange, £13 5s.; Coal Exchange, £13 10s.; Shipping Exchange, £10 18s.; Wool Exchange, £10 7s.

CORK DISTRICT ASYLUM.

The total number of patients in this important institution during the year 1891 was 48 in excess of any previous year. The number under treatment is stated to have been 1,305, namely, 654 males and 651 females, a very curious approximation of the sexes, the rule being more females than males. Dr. Oscar Woods gives the death-rate at 6.5 per cent. on the average number of patients resident, and this is the lowest of any year in the records of the asylum. Attention is also called to the fact that, as usual, consumption heads the list with 33 per cent. of the whole of the deaths. The inspector of lunatics on visiting the asylum found seven patients suffering from typhus fever, and expresses regret that in such a large and unfortunately at present overcrowded asylum no structural provision has been made for the complete isolation of patients suffering from acute infectious diseases. It would appear that since 1883 there have been no fewer than five outbreaks of typhus fever alone in the asylum.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

BY-LAWS UNDER THE PUBLIC HEALTH (LONDON) ACT.

THE delay in the issue of the London Council's by-laws under the Public Health (London) Act, 1891, is due, it seems, to the fact that the provisions of the Public Health Act have not sufficiently enabled distinctions to be made between the subject matter to which the Council's by-laws must relate, and that which must be dealt with in the by-laws of the sanitary authorities. This difficulty has still to be overcome. The Council hope the Local Government Board will shortly exe press its views on the subject, as it is time the by-laws wer- settled.

ENGLISH URBAN MORTALITY IN THE SECOND QUARTER OF 1892.

THE vital and mortal statistics of the thirty-three great English towns dealt with by the Registrar-General in his weekly returns are summarised in the accompanying table. During the three months ending June last, 83,633 births were registered in these thirty-three towns, equal to an annual rate of 32.9 per 1,000 of their aggregate population, estimated at upwards of ten millions of persons in the middle of this year. In London the birth-rate was equal to 31.4 per 1,000, while it averaged 34.0 in the thirty-two provincial towns, and ranged from 22.2 in Huddersfield, 26.8 in Brighton, and 28.1 in Croydon, to 37.5 in Gateshead, 37.9 in West Ham, and 39.0 in Sunderland.

During the quarter under notice 49,509 deaths were registered in the thirty-three large English towns, which corresponded to an annual rate of 19.5 per 1,000. In London the rate of mortality was equal to 18.9 per 1,000, while it averaged 19.9 in the thirty-two provincial towns, among which the death-rates ranged from from 13.1 in Croydon, 14.0 in Brighton, 14.6 in Portsmouth, and 15.6 in West Ham, to 22.6 in Salford, 22.7 in Oldham, 23.7 in Liverpool, and 24.6 in Manchester.

The 49,509 deaths registered in the thirty-three towns last quarter included 6,479 which were referred to the principal zymotic diseases, equal to an annual rate of 2.6 per 1,000; in London the zymotic death-rate was as high as 3.2, while it averaged 2.1 per 1,000 in the thirty-two provincial towns, among which it ranged from 0.8 in Gateshead and in Brighton, 0.9 in Bradford, and 1.0 in Newcastle upon-Tyne, to 2.8 in Birmingham, Halifax, and in Sheffield, 2.9 in Preston, 3.1 in Manchester, and 3.7 in Sunderland. The 1,666 deaths referred to the principal zymotic diseases included 2,574 which resulted from measles, 1,666 from whooping-cough, 737 from diarrhœa, 625 from diphtheria, 566 from scarlet fever, 276 from "fever" (principally enteric), and 35 from small-pox. The 2,574 fatal cases of measles recorded in the thirty-three towns during the quarter under notice were equal to an annual rate of 1.01 per 1,000, and exceeded the average. In London the rate of mortality from this disease was as high as 1.51 per 1,000, while it averaged only 0.65 in the thirty-two provincial towns, among which measles showed the highest proportional fatality in Sheffield, Birkenhead, Liverpool, Leicester, Birmingham, and Halifax. The 2,574 deaths referred to whooping-cough were equal to an annual rate of 0.66 per 1,000; in London the rate of mortality from this disease was 0.59 per 1,000, while it averaged 0.70 in the thirty-two provincial towns, and was highest in Bristol, Bolton, Wolverhampton, Preston, Salford, and Sunderland. The 737 fatal cases of diarrhœa were equal to an annual rate of 0.29 per 1,000; among the large towns the highest death-rates from this disease were recorded in Salford, Preston, and Burnley. The 625 deaths referred to diphtheria were equal to an annual rate of 0.25 per 1,000; in London the rate of mortality from diphtheria was as high as 0.41 per 1,000, while it averaged only 0.13 in the thirty-two provincial towns, among which this disease showed the highest proportional fatality in Sheffield, Oldham, Salford, Derby, and Portsmouth. The 566 fatal cases of scarlet fever were equal to an annual rate of 0.22 per 1,000; in London the death-rate from this disease was 0.25 per 1,000, and slightly exceeded the mean rate in the thirty-two provincial towns, among which the highest scarlet fever death-rates were recorded in Manchester, Gateshead, Oldham, Preston, and Cardiff. The number of scarlet fever patients in the Metropolitan Asylum Hospitals, which had been 1,416 and 1,175 at the end of the preceding two quarters, had risen again to 2,117 at the end of June last; the admissions, which had been 1,783 and 1,327 in the preceding two quarters, increased to 2,668 during the three months ending June. The 276 deaths referred to different forms of "fever" (including typhus, enteric, and simple and ill-defined forms of fever) were equal to an annual rate of 0.11 per 1,000, which was considerably below the average. In London the "fever" death-rate did not exceed 0.08 per 1,000, while it averaged 0.13 in the thirty-two provincial towns, and was highest in Plymouth, Norwich, Preston, and Wolverhampton. Of the 35 fatal cases of small-pox registered during the quarter under notice in the thirty-three towns, 24 occurred in London, 4 in Liverpool, 3 in Halifax, and 1 each in Croydon, Cardiff, Oldham, Leeds, and Newcastle-upon-Tyne. One hundred and ninety-five small-pox patients were admitted into the Metropolitan Asylum Hospitals during last quarter, and 35 remained under treatment at the end of June.

The rate of infant mortality in the thirty-three towns, measured by the proportion of deaths under 1 year of age to registered births, was equal to 138 per 1,000. In London the rate of infant mortality was 128 per 1,000, while it averaged 145 in the thirty-two provincial towns, among which it ranged from 89 in Brighton, 103 in Croydon, 110 in Cardiff, and 112 in

Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the Second Quarter of 1892.

TOWNS.	Estimated Population in middle of 1892.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœa.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
33 Towns	10,188,449	83,636	49,509	32.9	19.5	2.6	6,479	35	2,574	566	625	1,666	276	737	138	1.9
32 Provincial Towns	5,925,155	50,242	29,465	34.0	19.9	2.1	3,101	11	964	305	188	1,036	186	411	145	2.6
London	4,263,294	33,394	20,044	31.4	18.9	3.2	3,378	24	1,610	261	437	630	90	326	128	0.9
West Ham	217,113	2,051	847	37.9	15.6	2.2	117	—	45	14	13	31	3	11	112	3.1
Croydon	106,152	744	348	28.1	13.1	1.2	31	1	4	3	3	17	1	2	103	—
Brighton	116,424	779	406	26.8	14.0	0.8	24	—	5	1	1	5	4	8	89	3.4
Portsmouth	163,667	1,191	594	29.2	14.6	1.3	53	—	4	3	12	21	7	6	118	0.5
Plymouth	85,610	641	379	30.0	17.8	1.1	24	—	1	3	1	2	6	11	122	0.8
Bristol	223,592	1,708	1,142	30.6	20.5	2.4	136	—	39	14	5	61	3	14	140	1.1
Cardiff	136,181	1,248	582	36.8	17.1	1.8	61	1	1	29	3	9	3	15	116	2.1
Swansea	92,344	827	421	35.9	18.3	1.7	40	—	2	4	2	23	3	6	146	1.9
Wolverhampton	83,519	719	431	34.5	20.7	2.6	55	—	15	—	3	26	7	4	147	1.4
Birmingham	483,526	4,117	2,562	34.2	21.3	2.8	332	—	185	21	19	64	7	36	144	4.7
Norwich	102,736	811	442	31.7	17.3	1.0	26	—	2	—	2	8	8	6	152	1.1
Leicester	180,066	1,569	875	34.9	19.5	2.4	108	—	63	7	2	14	3	19	182	2.5
Nottingham	215,395	1,682	897	31.3	16.7	1.5	83	—	31	9	6	22	6	9	125	2.6
Derby	95,908	762	449	31.9	18.8	1.6	37	—	2	2	7	18	—	8	151	2.0
Birkenhead	101,264	901	462	35.7	18.3	2.5	64	—	33	3	2	14	5	7	129	0.6
Liverpool	513,790	4,576	3,039	35.7	23.7	2.7	340	4	168	26	11	69	24	33	154	4.1
Bolton	116,261	978	602	33.7	20.8	2.2	65	—	1	8	5	36	1	14	148	1.5
Manchester	510,998	4,549	3,140	35.7	24.6	3.1	390	—	132	48	24	129	22	35	163	2.1
Salford	201,058	1,851	1,133	36.9	22.6	2.7	134	—	5	9	13	70	11	26	169	3.9
Oldham	134,221	1,023	761	30.6	22.7	1.8	59	1	14	14	8	17	2	3	148	1.8
Burnley	90,589	780	459	34.5	20.3	1.9	44	—	3	1	1	19	5	15	191	—
Blackburn	122,238	959	615	31.5	20.2	1.8	54	—	2	4	1	29	7	11	180	2.9
Preston	109,038	941	599	34.6	22.0	2.9	80	—	2	16	3	34	9	16	170	5.3
Huddersfield	96,599	534	451	22.2	18.7	1.5	37	—	16	6	—	12	1	2	185	2.9
Halifax	84,097	590	457	28.1	21.8	2.8	59	2	45	3	1	3	1	4	173	5.3
Bradford	219,262	1,583	992	29.0	18.1	0.9	51	—	4	6	2	25	1	13	147	2.3
Leeds	375,540	3,303	1,753	35.3	18.7	1.1	106	1	6	20	7	44	7	21	139	0.9
Sheffield	329,685	3,087	1,722	37.3	21.0	2.8	227	—	96	8	20	77	10	16	129	4.1
Hull	204,750	1,896	853	37.1	16.7	1.4	74	—	—	5	1	47	7	14	126	4.0
Sunderland	132,839	1,290	741	39.0	22.4	3.7	123	—	37	3	2	61	8	12	157	1.1
Gateshead	88,588	829	378	37.5	17.1	0.8	17	—	—	9	—	6	1	1	122	1.1
Newcastle-on-Tyne	192,205	1,743	933	36.4	19.5	1.0	50	1	1	6	8	23	3	8	144	1.3

West Ham, to 180 in Blackburn, 182 in Leicester, 185 in Huddersfield, and 99 in Burnley.

The causes of 949, or 1.9 per cent., of the 49,509 deaths in the thirty-three towns during the second quarter of this year were not certified either by registered medical practitioners or by coroners. The proportion of uncertified deaths in London did not exceed 0.9 per cent., while in the thirty-two provincial towns in averaged 2.6 per cent. All the causes of death were duly certified in Croydon and in Burnley; in the other towns the lowest proportions of uncertified deaths were registered in Portsmouth and Birkenhead, and the highest in Liverpool, Sheffield, Birmingham, Preston, and Halifax.

ZYMOTIC MORTALITY IN LONDON.

The accompanying diagram shows the prevalence of the principal zymotic diseases in London during each week of the second quarter of the current year. The fluctuations of each disease during the period under review, and its fatal prevalence as compared with that recorded in the corresponding weeks of recent years, can thus be readily seen.

Small-pox.—Twenty-four deaths from this disease were registered in London during the second quarter of this year, the average number in the corresponding periods of the preceding ten years, 1882-91, being 91. Of these 24 deaths, 16 only were of London residents, of whom 4 belonged to St. Luke, 3 to Bethnal Green, and 1 to each of nine other sanitary districts. One hundred and ninety-five small-pox patiohts were admitted into the Metropolitan Asylums Hospitals during the quarter, against 63 in the first three months of 1892, and 35 remained under treatment at the end of June.

Measles.—The fatal cases of measles, which had increased from 246 to 336 in the preceding three quarters, further rose to 1,610 during the three months under notice, and were nearly double the corrected average number. Among the various sanitary areas of the metropolis the highest proportional fatality of measles was recorded in Hammersmith, Fulham, Chelsea, Westminster, Marylebone, St. Pancras, Strand, Whitechapel, St. George-in-the-East, Limehouse, and Newington.

Scarlet Fever.—The deaths referred to this disease, which had been 169 and 159 in the preceding two quarters, rose again to 261 during the three months ending June last, and exceeded by 38 the average number in the corresponding periods of the preceding ten years. Among the various sanitary districts this disease showed the highest proportional fatality in Westminster, Bethnal Green, St. George-in-the-East, Newington, and Plumstead. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, which had been 1,416 and 1,175 at the end of the preceding two quarters, had increased to 2,117 at the end of June. The number of cases admitted to these hospitals, which had been 1,411, 1,781, and 1,327 in the preceding three quarters, rose again to 2,363 during the three months ending June last.

Diphtheria.—The fatal cases of diphtheria in London, which had been 335, 365, and 328 in the preceding three quarters, rose to 437 during the quarter under notice, and exceeded by as many as 184 the corrected average number. Among the various sanitary districts the highest proportional fatality of diphtheria was recorded in Hammersmith, St. James Westminster, Hackney, London City, Whitechapel, and Limehouse. The cases of diphtheria admitted into the Metropolitan Asylums Hospitals, which had been 412, 411, and 410 in the preceding three quarters, rose to 538 last quarter, and 255 patients remained under treatment at the end of June last.

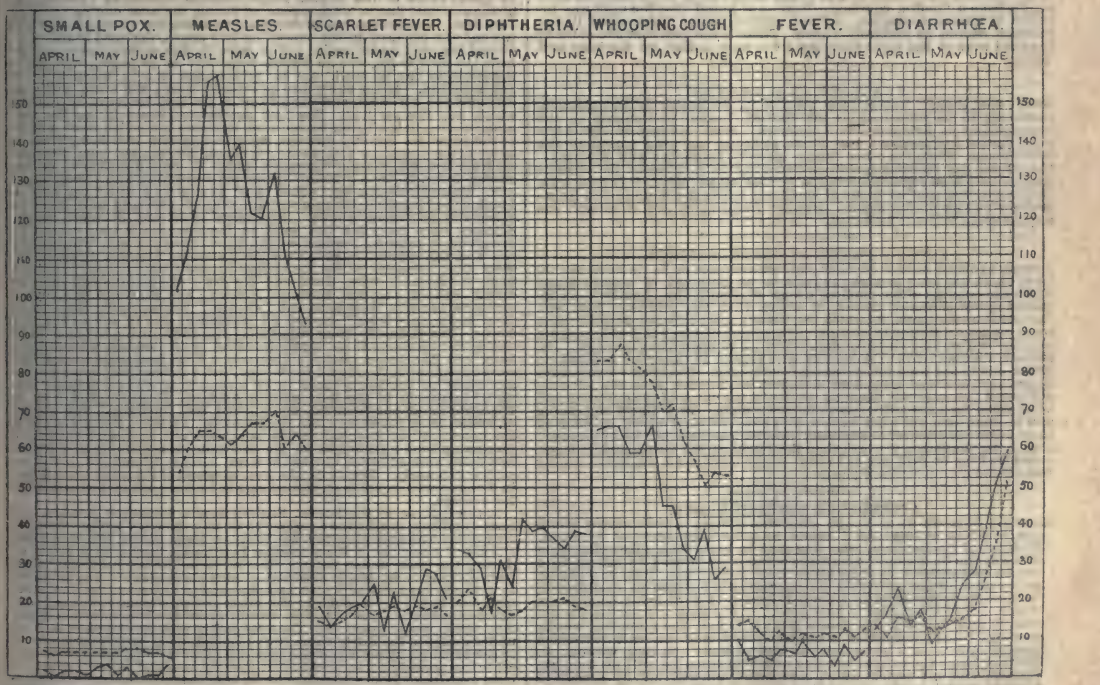
Whooping-cough.—The deaths referred to this disease, which had increased from 374 to 1,473 in the preceding three quarters, declined to 630 during the three months under notice, and were 283 below the corrected average number. Among the various sanitary districts of the metropolis whooping-cough was proportionally most fatal in Whitechapel, St. George-in-the-East, Limehouse, Mile End Old Town, St. Saviour Southwark, St. George Southwark, and Newington.

Fever.—Under this heading are included deaths from typhus, typhoid fever, and simple and ill-defined forms of continued fever. The deaths referred to these different forms of "fever," which had been 220 and 80 in the preceding two quarters, were 90 during the quarter under notice, and were 64 below the corrected average. Of these 90 deaths from "fever," 3 were certified as typhus, 83 as enteric or typhoid fever, and 4 as simple and ill-defined fever. There was no marked excess of "fever" mortality in any of the sanitary districts of the metropolis during last quarter. The Metropolitan Asylums Hospitals contained 57 enteric fever patients at the end of June last, against 141, 206, and 73 at the end of the preceding three quarters; the new cases admitted into these hospitals, which had been 404 and 112 in the previous two quarters, were 116 during the three months ending June last.

Diarrhœa.—The 326 fatal cases of diarrhœa recorded in London during the quarter under notice exceeded by 71 the corrected average number.

In conclusion, it may be stated that the 3,378 deaths referred to the principal zymotic diseases during the second quarter of the current year were 667, or nearly 25 per cent., above the corrected average number in the corresponding periods of the preceding ten years, 1882-91. The mortality from measles, scarlet fever, diphtheria, and diarrhœa showed an excess, while that from small-pox, whooping cough, and "fever" was considerably below the average. Among the various sanitary districts the highest zymotic death-rates last quarter were recorded in Hammersmith, Fulham, Chelsea, Whitechapel, St. George-in-the-East, Limehouse, and Newington.

Deaths from Zymotic Diseases in London during the Second Quarter of 1892.



Note.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding week of the preceding ten years, 1881-90, corrected for increase of population.

THE NOTIFICATION OF MEASLES IN LONDON.

THE prevalence of measles in London during the last few months has caused the questions of school closure and of the advisability of making measles a notifiable disease to be again brought into prominence. The former question has apparently caused some friction between the school board authorities and one or more medical officers of health. The difficulties, on the other hand, which at once suggest themselves in connection with the other question are very formidable. The magnitude of the problem of providing means of isolation and hospital accommodation in the case of measles is appalling; again, measles is so infectious in its early stages as to make it extremely doubtful whether the most prompt and efficient action could be attended with anything like the benefit which accrues from the adoption of preventive measures in a disease like scarlet fever; and, in the third place, there is the question of expense.

Much good would result from the co-operation of school authorities with health officers, and this makes it all the more a matter for regret that there is an unfortunate tendency in some instances on the part of the former to resent the efforts made to prevent the spread of the disease by the latter. The weightiest argument in favour of the notification of measles is the control which it would give over school infection, and if we cannot yet count upon hearty co-operation between schoolmasters and medical officers of health it would appear premature to agitate for the compulsory notification of measles in London.

NOTIFICATION IN DEVONSHIRE.

AMONG medical officers of health there is practical unanimity as to the value of the Notification Act, and it is somewhat of a novelty to hear of opposition from that quarter. At the last meeting of the Newton Abbott rural sanitary authority deputations attended from Torquay and other adjoining local boards with the object of urging the authority to adopt the Notification Act for the rural distict. According to the report in the *Western Morning News*, Dr. Harvey, the health officer for the district, expressed a preference for cleanliness, and the services of an additional inspector, to notification and quarantine. This seems to imply one of two things—either that for some reason notification and cleanliness are incompatible in Newton Abbott, or that the one renders the other unnecessary. The latter alternative is at variance with what we know of the epidemiology of many of the infectious diseases, and certainly not in accordance with the experience of other districts. The question is to be decided at the next meeting of the rural authority.

SCARLET FEVER IN SOUTH-EAST LONDON.

THE recent outbreak of scarlet fever in the south-east of London and other places has been found by Dr. Hamer, the assistant medical officer of the London Council, to be due to the distribution of an infected milk supply from a London cowshed. It was not found that the milk was infected by human contagion, and the circumstances under which it was infected cannot be precisely stated. There is the fact that five cows in the shed were at the time suffering from an eruption on the teats and udder.

SMALL-POX IN YORKSHIRE.

SMALL-POX, though not gaining ground in Yorkshire as an epidemic, continues to be prevalent in the Halifax Union, particularly in the borough and at Brighouse and Rastrick. From Halifax infection has been carried to Greetland, and a case at Leeds has been traced to the latter place. From the other centre—namely, Brighouse and Rastrick—the disease has recently spread in two directions. Five or six cases at Knottingley have resulted from the arrival of an infected person from Brighouse, and another focus of small-pox has been set up in the Holmfirth district by similar means. Neither Knottingley nor Holmfirth has any means of efficient isolation.

ENTERIC FEVER AT NORTHALLERTON.

NORTHALLERTON affords another ominous instance of *fin de siècle* sanitation, which has been brought to light by an outbreak of enteric fever. From the remarks of the medical officer of health (Dr. Lumley), as reported in the *Yorkshire Herald*, it seems that the outbreak has been limited to a small area, in which the water supply is partly derived from wells open to pollution by sewage. The sewers receive the drainage from ashpits—a plan long since condemned by all competent authorities. Reference was also made to stagnation of sewage in an imperfect and leaking drain, and to the need for systematic scavenging. The Local Government Board have declined to send an inspector to inquire into the circumstances of the outbreak, deeming, no doubt, the cause of the outbreak and the duty of the local authority sufficiently plain. Very likely something will be done now, but what explanation has the local board to offer of their failure to discover and remedy these dangerous conditions years ago? Unless Northallerton is worse than the neighbouring towns and villages,—and we have no evidence as to that—there is scope for the North Riding County Council in sanitary matters.

ATTENDANCE WITHOUT ORDER.

MEDICAL OFFICER OF 20 YEARS' STANDING writes: In the BRITISH MEDICAL JOURNAL of July 16th I regret to notice the death of Dr. C. A. Walters, of Cheltenham, who was said to have been suspended from office by the Cheltenham guardians because he refused to attend to a parish case without an order either from a guardian, relieving officer, or overseer. I maintain that he was perfectly justified in declining if he thought proper to do so, unless it was a case of great emergency, which it does not appear to have been. In the book written by Messrs. Craven and Coppock (barristers-at-law), I find the following words, namely: "A medical officer is not bound to attend any case without a regular order, but if he be sent for and attends the case without an order or treats the patient as being under his care he will be held responsible for any neglect which may occur, and will not be permitted to plead in justification the want of an order." If medical officers are to be suspended or dismissed in the same way as Dr. Walters was the regulation of the Local Government Board is a farce, and I am very glad to find that the Council of the Poor Law Medical Officers' Association is taking the matter up, and I hope the Cheltenham Guardians will be taught the state of the law, especially when it is reported that the mother of the sick child had £30 in the savings bank, and she therefore thought proper to call in another doctor.

A CURIOUS POINT AS TO MEDICAL ATTENDANCE ON PAUPERS.

AT a recent meeting of the Shardlow (Derbyshire) Board of Guardians, a question, which we are not aware has hitherto been raised formally, was brought forward—namely, whether a person in receipt of outdoor relief when ill is compelled to have the attendance of the district medical officer if friends subscribe and pay for attendance by a private practitioner. The question was left unsettled by the board, who appeared unwilling to come to a decision upon it. We may point out that, though to the uninitiated there may may appear no reason for objecting to private medical attendance on patients in receipt of relief, relieving officers and some boards of guardians, however, prefer such patients to be under the care of their own medical officer, as they sometimes consider it necessary to disregard certificates given by private practitioners holding no position of responsibility; and who, they think, may perhaps sometimes be a little too liberal to the patients at the expense of the ratepayers.

LEAD SERVICE PIPES.

AT a recent meeting of the Queensbury Local Board it was resolved: "That it shall no longer be compulsory on the part of water consumers to put in lead service pipes from the board's mains, but pipes of such a class and quality as satisfy the waterworks manager."

QUALIFICATION OF MEDICAL OFFICER OF HEALTH.

A COUNTRY PRACTITIONER asks: When an appointment of a medical officer of health is to be filled by a rural sanitary authority, is it compulsory for the said authority to appoint a D.P.H. over any other applicant who has not got the D.P.H., other things being equal?

*** No, unless the population of the rural sanitary district, or combination of districts, exceed 50,000; and even in that case three years' previous consecutive service as medical officer of health of a district, or combination of districts, having a population of 20,000, is to be regarded as equivalent to a diploma in sanitary science. (See Section 18 of Local Government Act, 1888).

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,303 births and 3,467 deaths were registered during the week ending Saturday, July 23rd. The annual rate of mortality in these towns, which had been 17.1 and 17.9 per 1,000 in the preceding two weeks, declined again to 17.7 during the week under notice. The rates in the several towns ranged from 11.1 in Cardiff, 11.5 in Portsmouth, 12.1 in Brighton, and 12.8 in Bradford, to 19.9 in Hull, 20.1 in Birkenhead, 21.3 in Blackburn, and 21.5 in Bolton. In the thirty-two provincial towns the mean death-rate was equal to 18.3 per 1,000, and was 2.2 below the rate recorded in London, which was 19.0 per 1,000. The 3,467 deaths registered during the week under notice in the thirty-three towns included 625 which were referred to the principal zymotic diseases, against numbers increasing from 477 to 598 in the preceding four weeks; of these, 282 resulted from diarrhœa, 135 from measles, 81 from whooping-cough, 53 from diphtheria, 41 from scarlet fever, 27 from "fever" (principally enteric), and 6 from small-pox. These 625 deaths were equal to an annual rate of 3.2 per 1,000; in London the zymotic death-rate was 4.4, while it averaged only 2.3 in the thirty-two provincial towns. No deaths from any of these zymotic diseases were recorded last week in Burnley, while they caused the lowest death-rates in Newcastle-upon-Tyne, Swansea, and Wolverhampton, and the highest rates in Croydon, Leicester, London, Preston, and West Ham. Measles caused the highest proportional fatality in Huddersfield, Sunderland, West Ham, and Halifax; whooping-cough in Portsmouth, Salford, Croydon, Hull, and Preston; and diarrhœa in Croydon, Norwich, London, West Ham, and Leicester. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 53 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 37 in London, 4 in Birmingham, 4 in Manchester, and 2 in Liverpool. Four fatal cases of small-pox were registered in London, 1 in Halifax, and 1 in Sheffield, but not one in any other of the thirty-three large towns; 11 small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 4 in the Highgate Small-pox Hospital, on Saturday last, July 23rd. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, and in the London Fever Hospital on the same date was 2,671, against numbers increasing from 1,226 to 2,488 on the preceding seventeen Saturdays; 382 new cases were admitted during the week, against 301 and 323 in the preceding two weeks. The 158 deaths from diseases of the respiratory organs in London were equal to an annual rate of 1.9 per 1,000, and were 24 below the average.

In thirty-three of the largest English towns, including London, 6,589 births and 3,374 deaths were registered during the week ending Saturday, July 30th. The annual rate of mortality in these towns, which had been 17.9 and 17.7 per 1,000 in the preceding two weeks, further declined to 17.3 during the week under notice. The rates in the several towns ranged from 6.3 in Burnley, 10.3 in Brighton, 11.8 in Croydon, and 12.9 in Gateshead to 20.5 in Salford, 20.6 in Wolverhampton and in Leicester, 22.8 in Sunderland, and 25.9 in Liverpool. In the thirty-two provincial towns the mean death-rate was 17.1 per 1,000, and was 0.4 below the rate recorded in London, which was 17.5 per 1,000. The 3,374 deaths registered during the week under notice in the thirty-three towns included 585 which were referred to the principal zymotic diseases, against numbers increasing from 477 to 625 in the preceding five weeks; of these, 286 resulted from diarrhœa, 127 from measles, 56 from whooping-cough, 54 from scarlet fever, 41 from diphtheria, 18 from "fever" (principally enteric), and 3 from small-pox. These 585 deaths were equal to an annual rate of 3.0 per 1,000; in London the zymotic death-rate was equal to 3.7, while it averaged 2.5 per 1,000 in the

thirty-two provincial towns. No fatal case of any of these diseases was recorded last week in Huddersfield; in the other towns they caused the lowest death-rates in Burnley, Hull, Newcastle-upon-Tyne, and Blackburn, and the highest rates in West Ham, Leicester, Sunderland, Cardiff, and Preston. Measles caused the highest proportional fatality in West Ham, Croydon, Birkenhead, Salford, Halifax, and Sunderland; scarlet fever in Preston; whooping-cough in Swansea and Nottingham; and diarrhœa in London, West Ham, Cardiff, Birmingham, Leicester, Derby, and Preston. The mortality from "fever" showed no marked excess in any of the large towns. The 41 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 25 in London, 3 in Liverpool, 2 in West Ham, 2 in Norwich, and 2 in Manchester. Two fatal cases of small-pox were registered in Bradford, and one in London, but not one in any other of the large towns; 6 small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 3 in the Highgate Small-pox Hospital, on Saturday last, July 30th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 2,864, against numbers increasing from 1,226 to 2,671 on the preceding eighteen Saturdays; 382 new cases were admitted during the week, against 323 and 382 in the previous two weeks. The 155 deaths from diseases of the respiratory organs in London were equal to 1.9 per 1,000, and were 23 below the average.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, July 23rd, 934 births and 512 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 19.3 to 17.2 per 1,000 in the preceding four weeks, rose again to 18.4 during the week under notice, and was 0.7 per 1,000 above the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were recorded in Perth and Leith, and the highest rates in Edinburgh and Dundee. The 512 deaths in these towns included 66 which were referred to the principal zymotic diseases, equal to an annual rate of 2.4 per 1,000, which was 0.8 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Glasgow and Paisley. The 243 deaths registered in Glasgow included 25 from measles, 6 from whooping-cough, and 3 from diphtheria. The death-rate from diseases of the respiratory organs in these towns was equal to 2.1 per 1,000, against 1.9 in London.

During the week ending Saturday, July 30th, 847 births and 488 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.2 and 18.4 per 1,000 in the preceding two weeks, declined again to 17.5 during the week under notice, and was slightly above the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were in Leith and 14.3 in Aberdeen, and the highest rates 19.4 in Glasgow and 22.3 in Greenock. The 488 deaths in these towns included 54 which were referred to the principal zymotic diseases, equal to an annual rate of 1.9 per 1,000, which was 1.1 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Aberdeen and Glasgow. The 249 deaths in Glasgow included 11 from measles, 11 from whooping-cough, and 2 from scarlet fever. Six fatal cases of measles were recorded in Aberdeen. The death-rate from diseases of the respiratory organs in these towns was equal to 1.1 per 1,000, against 1.9 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, July 16th, were equal to an annual rate of 23.7 per 1,000. The lowest rates were recorded in Dundalk and Galway, and the highest rates in Lurgan and Kilkenny. The death-rate from the principal zymotic diseases averaged 3.0 per 1,000. The 162 deaths registered in Dublin were equal to an annual rate of 24.2 per 1,000 (against 24.6 and 21.8 in the preceding two weeks), the rate during the same period being 18.3 in London and 14.3 in Edinburgh. The 162 deaths registered in Dublin included 13 which were referred to the principal zymotic diseases equal to an annual rate of 1.9 per 1,000), of which 9 resulted from measles, and 4 from enteric fever.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, July 23rd, were equal to an annual rate of 21.8 per 1,000. The lowest rates were recorded in Dundalk and Wexford, and the highest rates in Lurgan and Newry. The death-rate from the principal zymotic diseases averaged 3.0 per 1,000. The 133 deaths registered in Dublin were equal to an annual rate of 19.8 per 1,000 (against 21.8 and 24.2 in the preceding two weeks), the rate during the same period being 19.0 in London and 20.1 in Edinburgh. The 133 deaths registered in Dublin included 13 which were referred to the principal zymotic diseases equal to an annual rate of 1.9 per 1,000), of which 7 resulted from measles, 1 from diarrhœa, and 2 from whooping-cough.

MEDICAL NEWS.

At an examination for Inspector of Nuisances held at Norwich last month, thirty-eight candidates presented themselves, of whom eleven passed.

College of State Medicine.—The annual meeting of Fellows of the College of State Medicine was held on July 22nd; Sir Thomas Crawford, K.C.B., in the chair. The report for 1891 was read and adopted. The work of the College had been very successful during the year, and the College had been self-supporting. Further efforts will be made to extend its usefulness as a teaching institution in connection with public health.

The Order of the Royal Red Cross has been conferred by the Queen upon Miss E. M. Lickfold, Acting Superintendent Indian Nursing Service, for her services during the Hazara campaign in 1888.

At the examination in Practical Chemistry for admission to the Institute of Chemistry of Great Britain and Ireland held last month, thirty-seven candidates presented themselves, of whom nineteen, including one lady, were successful.

On and after September 1st the medical teaching in Birmingham will be conducted in the Mason College, and Queen's College will cease to have any connection with medical education. In future the medical school of Birmingham will be "The Queen's Faculty of Medicine, Mason College, Birmingham."

Medico-Psychological Association.—The following candidates passed the examination of proficiency in Psychological Medicine at Bethlem Hospital on July 7th, and were awarded the certificate:—Frank Belben, E. Milliken Goldie, W. A. Haslam, R. J. Hutchinson, Robert H. Lloyd, J. H. Sprout, W. F. Umney. Dr. George M. Robertson obtained the medal and prize of ten guineas for the best essay, and Drs. Nathan Raw and George R. Wilson were bracketed equal for the Gaskell Prize.

British Medical Temperance Association.—The annual prizes of £10 and £5, offered to third-year students by the British Medical Temperance Association for a written examination on alcohol, have this year been awarded as follows:—First prize, Mr. D. F. Harris, B.Sc.Lond., of Glasgow University; second prize, Miss E. J. Moffatt, of the London School of Medicine for Women. Honourable mentions were also awarded to Messrs. S. J. G. Carré, F. Chown, W. A. Mackay, and M. A. Saltmarsh. The examiners were Professor McKendrick, Dr. Moir, Dr. Morton, Dr. Richardson, Professor Simpson, and Professor Sinclair.

The holiday (post-graduate) courses given by the "docenten" and assistants of the Berlin University will commence on September 22nd and terminate on October 22nd. The courses included normal and pathological anatomy and histology, materia medica and pharmacology, medicine, psychological medicine, nervous diseases and electro-therapeutics, surgery, ophthalmology, otology, laryngology and rhinology, obstetrics and gynæcology, dermatology and syphilis, diseases of the urinary and reproductive organs, and hygiene and public medicine. Full particulars can be obtained from Herr Anders, Mauerstr. 54, I. Berlin.

Literary Intelligence.—A work by Dr. Behring, entitled "The Practical Limits of Blood Serum Therapeutics, and Methods of Immunisation, with the Object of Obtaining a Curative Serum," will shortly be published by George Thieme, of Leipzig.—Medical journals increase and multiply in Russia as elsewhere. The vast majority of them are published in St. Petersburg. In 1875 the number published was 8; at the beginning present year this had risen to 33. The number of monographs on medical subjects has risen from 34 in 1877 to 324 in 1891, the increase being particularly marked since 1888, when making of medical books sudden rose from 81, the output for the previous year to 146. The numbers for 1889 and 1890 were respectively 198 and 254.—A new medical journal, the *Gazetta Medica di Pavia*, has been established under the auspices of the Pavia Medico-Chirurgical Society.—The *Anales de la Asistencia Publica* and the *Anales del Departamento Nacional de Higiene* of Buenos Ayres, have been amalgamated under the title of *Anales de Higiene Publica y de Medicina Legal*.—The *Journal of Orificial Surgery* is the title of a new periodical published at Chicago, under the editorship of Drs. E. H. Pratt, F. D. Holbrook, and E. L. Smith. "Orificial Surgery" is good, as Polonius would say, but as some of the "orifices" communicate with each other, it is to be hoped that strict lines of delineation have been drawn, so that there shall be no quarrelling among the various orificialists.—The two journals devoted to microscopy in the United States, the *American Monthly Microscopical Journal* and the *Microscope*, which have hitherto been incompatible elements, have now—like Justice and Peace—met and kissed. The *Microscope*, which is the younger publication of the two, has been bought up by its older standing rival; but both periodicals will be continued separately, though under the same management,

the *Microscope* being devoted more particularly to the wants of beginners and amateurs.—Dr. Pagel, of Berlin, has published the complete Latin text of the "Chirurgia" of Henri de Mondeville, a French surgeon of great repute at the beginning of the fourteenth century, who is frequently quoted by Guy de Chauliac. The work, which has never before seen the light, is published by A. Hirschwald, of Berlin, contains a study of synonyms, and a glossary prepared by Herr Steinschneider. M. Nicaise will shortly bring out a French translation of this interesting book, which is an important "document" in the history of surgery.—A history of medicine in Mexico (*Historia de la Medicina en Mexico des de la Epoca de los Indios hastor la Presente*) has been published by Senor Francisco A. Flores, who is, we believe, a medical student. The history is divided into three periods—the first, or "theological" period, which dates from the remotest epoch of ancient Mexican history to the year 1521; the second, or "metaphysical" period, extending from 1521 to 1833, and comprising the three hundred years of the Spanish dominion and the first twelve of national independence; and the third, called by the author the "positive," namely, scientific period, which comes down to the present day.

MEDICAL VACANCIES.

The following vacancies are announced:

BURY DISPENSARY HOSPITAL, Bury, Lancashire.—House-Surgeon. Must hold medical and surgical diploma. Salary, £60 per annum Testimonials to Secretary, Mr. Henry Webb, Brentwood, Bury.

COUNTY ASYLUM, Shrewsbury.—Junior Assistant Medical Officer; not over 27 years of age. Salary, £100 per annum, and £8 in lieu of beer, with board, lodging, and washing. Applications to the Medical Superintendent by August 10th.

EDAY, Orkney.—Resident Medical Officer. Salary, £70 per year with practice. Applications, with testimonials, to be sent to Inspector of Poor, Eday, Orkney.

HINTON DISTRICT, Sturminster Union.—Medical Officer and Public Vaccinator. Salary, £40 per annum, with fees. Applications, with testimonials, stating age, to be sent to Mr. B. Cheesman, Clerk, by August 20th, 1892.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Must be registered medical practitioner and unmarried Salary, £90 first year, with board, rising to £100 second year. Applications, accompanied by testimonials, to be sent to the Secretary, by August 27th.

LEEDS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Two Surgeons; married. Salary, £208 per annum, midwifery fees, and residence, and rates and taxes paid. Applications to Charles H. Wilson, 8, South Parade, Leeds, by August 6th.

LEEDS PUBLIC DISPENSARY, near Briggate.—Junior Resident Medical Officer. Salary, £85 per annum. Applications to the Secretary of the Faculty by August 6th.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon, at the end of this month, for six months. Board and lodging provided in lieu of salary. Applications, with testimonials, to be sent to C. W. Parver, Honorary Secretary, by August 16th.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT.—Honorary Assistant Medical Officer; doubly qualified. Applications, with testimonials, to Secretary, C. W. Hunt, by August 20th.

MANCHESTER ROYAL EYE HOSPITAL.—House-Surgeon. Salary, £70 per annum, with residence, board, and washing. Applications, endorsed "House-Surgeon," to the Chairman of the Board of Management by August 9th.

ROYAL UNITED HOSPITAL, Bath.—Honorary Physician; graduate in medicine of one of the Universities of Great Britain or Ireland, and Fellow or Member of British College of Physicians. Applications in writing, with certificates and qualifications, to the Committee not later than 11 A.M. on August 11th.

SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds.—House-Surgeon. Salary, £100 per annum. Applications, stating age and qualifications, with testimonials, to Secretary, by August 22nd.

THORNBURY UNION.—Medical Officer for the Almondsbury District; doubly qualified, and must reside in the district. Salary, £70 per annum, with extra fees. Applications to Thos. Harvey, Clerk to the Guardians, Thornbury, by August 25th.

WREXHAM INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £80 per annum, with furnished room, board, coal, and attendance. Applications, on forms to be obtained of the Secretary, to George Whitehouse, Secretary, 27, Regent Street, Wrexham, by August 17th.

YORK RETREAT.—Assistant Medical Officer; experienced in lunacy practice; unmarried; under 35. Salary, £150 per annum, with board and lodging. Applications to the Chairman of the Committee on or before August 10th.

MEDICAL APPOINTMENTS.

ATKINSON, Walter Alexander, M.B., B.S.Durh., appointed Surgeon-Lieutenant to the 1st Surrey (South London) Rifles.

BISHOP, Henry Draper, L.R.C.P.Lond., M.R.C.S.Eng., appointed House-Surgeon to the London Hospital.

DOLAMERE, W. H., M.R.C.P., L.R.C.P., L.D.S., appointed Assistant Dental Surgeon to the Dental Hospital of London.

DONAGAN, A. E., L.D.S., R.C.S.Edin., appointed Dental Surgeon to the Royal Institution for Deaf and Dumb Children, Birmingham.

DRUMMOND, J. H. G., L.R.C.P., L.R.C.S.Edin., appointed Public Vaccinator in South Australia.

EKINS, A. E., appointed Public Analyst for the County of Hertfordshire.

FARR, E. A., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer to the Post Office, Andover.

GURNEY, Harold, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Borough of Harwich and Medical Officer of Health to the Port of Harwich, *vice* W. W. Hardwicke, M.D.St.And., M.R.C.S., L.R.C.S.Edin., resigned.

HACKIN, C. F., M.B., B.Ch.Durh., appointed Public Vaccinator for Woodonga, Victoria, Australia.

HAYWARD, Arthur E., M.R.C.S., L.S.A., appointed Public Vaccinator for the Brixham and Churston Districts of the Totnes Union, *vice* — Green, deceased.

HILL, A. B., M.D.Giessen, L.R.C.P., L.R.C.S., D.P.H.Camb., appointed Public Analyst for the County of Warwickshire.

JONES, R. Hughes, L.R.C.P., M.R.C.S.Eng., appointed Medical Officer for the Penryn District of the Falmouth Union.

KAUFFMANN, O. J., M.D.Lond., M.R.C.P., M.R.C.S., appointed Physician for Out-patients and Pathologist to the Queen's Hospital, Birmingham, *vice* — Crooke, resigned.

KEBBELL, C., L.R.C.P.Lond., M.R.C.S., appointed Honorary Visiting Physician to the Brisbane Hospital, Queensland.

KIRTON, C. I., M.B., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer for the Kirton District of the Shoreditch Union.

MCFARLANE, Mr. A., appointed Medical Officer for the Fourth District of the Aylesbury Union.

MCKINNON, A. A., M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant House-Surgeon to the Royal Albert Hospital, Devonport, *vice* Mr. J. George, resigned.

MARKS, C. F., M.D.Irel., M.R.C.S., appointed Honorary Visiting Surgeon to the Brisbane Hospital, Queensland.

MORSHEAD, E. G. A., M.D.Brussels, L.R.C.P.Lond., M.R.C.S., appointed Surgeon to the Loyal St. Mary's Lodge of Oddfellows, *vice* — Butler, resigned.

MORTON, W. B., M.B.Lond., M.R.C.S., L.R.C.P., appointed Medical Officer at Wonford House.

STACY, John H., L.R.C.S., L.R.C.P.Edin., appointed Public Vaccinator for the City of Norwich, *vice* William Guy, M.D., deceased.

STURGE, W. Howard, M.B.Lond., appointed House-Physician to the London Hospital.

TAYLOR, W. F., M.D.Canada, M.R.C.S., D.P.H.Lond., appointed Honorary Ophthalmic Surgeon to the Brisbane Hospital, Queensland.

TEICHELMANN, E., L.R.C.P.Irel., F.R.C.S.Eng., appointed Surgeon Lieutenant in the Medical Department South Australian Military Forces, and also appointed Public Vaccinator in South Australia.

THOMSON, J., M.B., C.M.Edin., appointed Honorary Visiting Surgeon to the Brisbane Hospital, Queensland.

TILSTON, E., L.R.C.P.Edin., M.R.C.S., appointed Honorary Visiting Surgeon to the Brisbane Hospital, Queensland.

TURNER, N. H., L.R.C.P.Lond., M.R.C.S., appointed Surgeon to the Royal Institution for Deaf and Dumb Children, Birmingham.

WARDEN, Chas., M.D.Aberd., F.R.C.S.Edin., M.R.C.S., appointed Honorary Consulting Surgeon to the Royal Institution for Deaf and Dumb Children, Birmingham.

WARD, D., appointed Medical Officer of the Christchurch District and of the Birkbeck Workhouse of the Camberwell Union.

WILSON, T. S., M.B.Edin., M.R.C.P.Lond., M.R.C.S., appointed Honorary Consulting Physician to the Royal Institution for Deaf and Dumb Children, Birmingham.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

ROCKLIFFE.—On August 2nd, at 9, Charlotte Street, Hull, the wife of William Craven Rockliffe, M.A., M.D., of a daughter.

MARRIAGES.

BATTERHAM—CAMPBELL.—On July 26th, at All Souls, Clive Vale, Hastings, by the Rev. H. K. Whelpton, M.A., assisted by the Rev. E. F. P. Durnford, B.A., John Williams Batterham, M.B., F.R.C.S., to Mabel Caroline, only daughter of the late Bruce Campbell, of the Inner Temple, Barrister-at-law.

COLE-BAKER—LYSTER.—On July 13th, at St. Peter's Church, Dublin, G. Cole-Baker, M.B., Assistant Master, Coombe Hospital, 28, Lower Baggot Street, to Florence, widow of the late Philip T. Lyster, Barrister-at-Law, Resident Magistrate.

JOSS—BENNY.—At Loch Park House, Denny, Stirlingshire, on July 27th, by the Rev. John Maclaren, D.D., Larbert, assisted by the Rev. Alexander Oram Macgregor, B.D., Denny, John Joss, M.A., M.B., C.M.Aberd., to Jean Cuthill Gray, elder daughter of Michael Benny, M.D.Edin., M.R.C.S.E. No cards.

MACKENZIE-BOOTH—SHAW.—At the parish church of St. John's, Pinner, Middlesex, on July 28th, by the Rev. Marcus Ramsford, James Mackenzie-Booth, M.A., M.D., C.M.Aberdeen, to Margaret Mackenzie, daughter of the late James Shaw, Esq.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

Central London Ophthalmic. *Operation Days.*—Daily, 2.

Charing Cross. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operation Days.*—W. Th. F., 3.

Chelsea Hospital for Women. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. Th., 2.30.

East London Hospital for Children. *Operation Day.*—F., 2.

Great Northern Central. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, Tu. Th., 2.30; Ear, M. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

Guy's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

Hospital for Women, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

King's College. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—Tu. F. S., 2.

London. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

London Temperance Hospital. *Hours of Attendance.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

Metropolitan. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

Middlesex. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

National Orthopædic. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

North-West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, Tu., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

Royal Free. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

Royal Orthopædic. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

Royal Westminster Ophthalmic. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

St. Bartholomew's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2, Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

St. George's. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 3; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

St. Mark's. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, W., 8.45; females, Th., 8.45. *Operation Day.*—Tu., 2.

St. Mary's. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

St. Peter's. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 2.30 and 5, Th., 2, F. (Women and Children), 2, S., 3.30. *Operation Day.*—W., 2.

St. Thomas's. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), Tu., 4, F., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

Throat, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

University College. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th., 1.30; S., 2.

West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

Westminster. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not Later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted, will be found under their respective headings.*

QUERIES.

S. M. asks where a phosphorescent handle for a night bell can be procured

ANSWERS.

Treatment of Sciatica.

Surgeon-Captain S. F. Lougheed.—There is nothing better than Dr. Gowers's account of sciatica in the new edition of the *Diseases of the Nervous System.*

NOTES, LETTERS, Etc.

British Medical Benevolent Fund.

Mr. Edward East, Honorary Secretary of the Fund, writes to state that parcels of clothing should be addressed to him, care of J. H. St. John and Sons, 44, Seymour Place, W., during the ensuing two months.

Salol in Cholera.

Dr. James Couldrey (Scunthorpe) writes: On therapeutical grounds, should not salol be tried in cholera? I should certainly recommend it with tr. chloroformi et morphinæ internally; hypodermic injections of ether in the collapse stage might also be used.

The Muzzling Order for Dogs.

Dr. C. R. Illingworth (Accrington) writes: As the above order has again been enforced in this district, owing to a case of hydrophobia, I ask to be allowed to state my conviction that this painful and annoying system would rapidly become obsolete if the bites of these much-abused dumb creatures were always treated upon rational principles.

Inasmuch as hydrophobia is a disease of microbic origin, all that is necessary is to see that the wounds are constantly bathed with a penetrating germicidal agent until healing has taken place. Let there be an agreement amongst the members of the profession that the residents in the southern counties will use one agent of this nature for all dog bites and poisoned wounds; those in the northern another; those in the western another; and the eastern another, for one year or more if desirable. I guarantee the result will be satisfactory.

Hotel Charges: A Warning.

Dr. Norman Kerr (London, N.W.) writes; In the list of apartments and hotels published in the British Medical Journal prior to the Nottingham meeting, some hotels were given as charging 9s. for bed and attendance, others 5s. or so (I forget the exact amount). As has usually been the case, I was very kindly offered private hospitality, but unwilling to disturb domestic arrangements for the brief stay I can generally make at the place of meeting I chose one of the latter hotels. To my surprise the actual charge was 10s. 6d. per night for bed and attendance. On remonstrating the reply was that the published tariff had been printed in the Journal without the authority of the hotel management. Having no time to spare I could only pay this overcharge. I have since heard from other members staying at the same hotel that the local Association officials stated that the hotel management had authorised the publication of the tariff in the Journal. I had secured a bed some time before the date of meeting, and had received no intimation of the raising of the ordinary hotel rate when I received from the hotel management an acknowledgment of my order for a bed. The accommodation and attendance were excellent, and I am glad to be able to add that this is the first occasion on which I have ever been overcharged at these meetings. In future I would advise members desirous to put up at a hotel to write for the tariff before engaging a bed.

SMALL-POX AND VACCINATION.

DR. THOMAS PERCIVAL, M.O.H. (Knottingley, Yorks), writes: I appended the following table to a report to the Knottingley Local Board on a recent outbreak of small-pox.

It shows the order in which the cases occurred, and proves the good effect of vaccination in mitigating the severity of the disease. The only unvaccinated case died, and none of the others had been revaccinated.

Name, Age, etc.	Date of Commencement.	Particulars of Vaccination.	Course of Disease: Result.
Ada D., aged 21, returned from Brighouse on May 24th, her master having died of small-pox	May 25th	Vaccinated; 3 good marks	Mild attack; very few spots; soon well; no marks.
Amelia D., aged 17, sister of above; slept with her	June 6th	,,	,,
W. D., aged 27, brother of above; visited their house	,, 14th	Vaccinated; 4 good marks	,,
Annie D., aged 26, wife of above	,, 24th	Not vaccinated.	Very bad attack; spots confluent and general; died July 8th.
Isabella T., aged 18; worked in same shop as W. D. and his wife	,, ,,	Vaccinated; 3 good marks	Mild attack; very few spots; soon well; no marks.

There are several other persons in Ada D.'s home—father, mother, and children; all vaccinated. None were attacked.

In Isabella T.'s home: Father vaccinated as a child, and had a mild attack of small-pox many years ago; mother, who nursed her, revaccinated on June 28th, 1892; sister, revaccinated on June 28th, 1892; brother, aged 14, vaccinated, first time, on June 28th, 1892. None of these were attacked.

FRIENDLY SOCIETIES AND MEDICAL AID ASSOCIATIONS.

FAIRPLAY writes: A very large amount of illogical nonsense has been written against these societies and associations. There are but very few medical men who have not, at some period of their lives, been doctors to a club, or to an association of some kind or other. Until comparatively a few years ago the scores of different clubs in every large town were medically attended by as many different medical men, and no one thought of considering it *infra dig.* Now these clubs amalgamate and employ only one or two doctors.

If it be not *infra dig.* to attend one club for £40 per annum, why, in the name of reason, should it be *infra dig.* to attend six clubs for £240 per annum? The whole outcry against these societies seems to me to be of the "sour grapes" order.

A great deal is made of the degradation involved in attending a patient for twopence a week, and the medical man who does so is considered a fit man to be "boycotted." Then why not "boycott" all the big colliery and ironworks doctors, hundreds of whom are drawing their thousands per annum from their appointments, all made up from the "twopence" a week of the poor workmen, who are too often left to the mercy of an unqualified assistant, or at best of a poor underpaid and overworked qualified one. No, Sir, there is a great deal to be said in favour of these associations. From a medical standpoint they offer young qualified medical men, who have no capital, the only possible chance of promotion out of the ranks of assistants. Where is the assistant to be found who gets twopence or even a penny a week for each of the patients who are supposed to comprise his principal's practice? Be the practice worth £500 a year or £2,000 a year, the poor assistant gets the same wage—in the majority of cases less far than the butler or cook. Then why blame him if he aspire to double his salary by accepting an appointment which enables him to live and not merely exist?

EPITHELIOMA OF THE LIP IN WOMEN.

DR. HERBERT BARCLAY (Waimete, South Canterbury, New Zealand) writes: I noted a case mentioned in the BRITISH MEDICAL JOURNAL of March 26th, "Epithelioma in the Upper Lip of a Woman." It does not appear to have been the result of smoking or of other local irritation. The case reminded me very much of a woman who consulted me for a growth on the lower lip some time ago. It was the size of an acorn, hard, ragged, and horny on the surface, and caused some disfigurement. Knowing how rare epithelioma in this situation is, the patient appeared to understand that I was in a little doubt. She then remarked that she had better tell the whole truth; and her statement was that she lived among the hills at a long distance from any other habitation, that her husband was away for weeks at a time, and that, feeling lonely, she had sought comfort in a pipe. Hence the growth and the necessity for its removal.

It is possible that in all the cases mentioned of cancer of the lip in women the patients have not been as candid as mine. Had there not been some hesitation in making a diagnosis in this case the facts would probably not have come out.

A REMEDY FOR THE DUSTBIN NUISANCE.

M.D. writes: It may be useful to call attention to a little contrivance by which the nuisance arising from the storage of putrescible vegetable matter, etc., in the dustbin may be prevented—namely, the Household Refuse Destructor, invented by Mr. W. Tupper, of 72, Gloucester Road, Kew. This consists of a box or cell placed in the flue, immediately above the kitchener; its bottom and sides are formed of iron gratings, and its front is a door, hinged at the bottom, and with cheeks at the sides, so that as it falls forward it form a hopper. The whole cost of such an apparatus, which Mr. Tupper fixed for me a year ago, was £1. It has acted well, and not got out of order; and, what is more, there has been no difficulty in getting servants to use it, as it is no more trouble to throw refuse into it than into the dustbin. Vegetable waste placed therein gets gradually dried, and smoulders away; the residual ashes fall through the grating, and are removed with those of the fire. There is no interference with the draught, as sufficient space is left in the flue at either side. The advantage of the Household Destructor over burning the refuse in the fire is that refuse can be placed in it at once, while a hot fire is being kept up for cooking; whereas, to put wet refuse on the fire itself would damp it so much as to interfere with cooking, and the burning has to be deferred till cooking is finished.

A PLEA FOR A POST-MORTEM EXAMINATION.

A CONVICT under sentence of death at Valence for the murder of a monk, who had throughout strenuously denied his guilt, as a last resource requested that a *post-mortem* examination of his body might be made in order to conclusively prove his innocence. It was asserted as a fact that the real murderer of the monk was the subject of an ulcer in the stomach, which the convict declared would not be found to be the case in his body. We do not know whether this last wish of the condemned man was acceded to, but it seems that the test, if applied, was used too late to be of any diagnostic service; a preliminary laparotomy before execution would have been more to the purpose, but we certainly are not in a position to say that the absence of an ulcer in the stomach would have proved his innocence or its presence his guilt, and we should much prefer to let his guilt be decided by the ordinary rules of evidence. If we remember rightly, the convict Deeming tried to make use of the same sort of *ante-post-mortem* evidence, if we may so call it, in favour of his insanity, but without much success.

LETTERS, COMMUNICATIONS, ETC., have been received from:
(A) Dr. J. Anderson, Ulverstone; Army Medical School, Netley, the Secretary of the, Netley; Mr. F. F. Allen, Wisbech; Mr. J. G. Adami, Cambridge. (B) Dr. F. N. Brown, Firbright; Mr. H. Burdett, London; Mr. H. Clarence Bourne, London; Black Lion; Dr. Fletcher Beach, Dartford; Dr. F. C. Batchelor, Stockton-on-Tees; Dr. Balding, Royston; Mr. H. D. Bishop, Weston-super-Mare; Bartimæus. (C) Mr. P. W. R. Cornish, London; Mr. J. Couldrey, Doncaster; Mr. P. O'Connell, Chicago; Mr. H. N. Custance, London; Dr. G. Cowen, New Malden; Mr. J. R. Chibnall, London; Mr. M. Charteris, Glasgow; Mr. H. L. Crocker, Portland; Mr. R. Bourne Carey, Borris, co. Carlow; Mr. H. A. H. Claridge, Walsall; Messrs. Cleghorn, Harris, and Co., London; Mr. H. Collier, London. (D) Mr. J. T. Dodd, London; Mr. W. H. Dolamere, London; Mr. L. J. Dodds, Mowbray; Surgeon-Major H. L. Donora, Tipperary; Sheridan Delépine, M.B., Bowdon. (E) Mr. E. East, London; Dr. A. W. Edis, London. (F) Forceps; Fourness Barrington, M.B., London; Messrs. W. Forbes and Co., Nottingham; Mr. W. Adams Frost, London; Mr. R. Fitzmaurice, Haywards Heath. (G) Messrs. C. Griffin and Co., London; Dr. E. Goodall, Wakefield; Mr. A. J. L. Gliddon, London; Mr. W. L. Gant, St. Leonards; Mr. H. Gatehouse, London. (H) Mr. Harroll, Ilkeston; Mr. Hawkins-Ambler, Liverpool; Mr. W. W. Hardwicke, Dovercourt; Mr. J. Hutchinson, London; Dr. C. Holman, Reigate; Dr. A. Hill, Birmingham; Mr. G. Hamlyn, Nottingham; Dr. Vaughan Harley, London; Dr. T. Hunt, Manchester; J. M. Hunt, M.B., Liverpool. (I) Dr. C. R. Illingworth, Accrington. (J) Mr. Jacking, Greenwich; Mr. Basil F. Jackson, Sturminster Newton. (K) Mr. J. B. Kenny, Killeshandra; Mr. A. A. Kanthack, Cambridge; Mr. S. Kiffard, Newmarket; Staff-Surgeon G. Kirker, Gibraltar. (L) Mr. A. S. Lacoupere, London; Dr. W. M. Leslie, London; Mr. W. A. May, Devonport; Mr. J. A. Liebmann, Rondebosch; London Counties Medical Protection Society, Secretary of the, London; Mr. P. M. Laffan, Dublin; L.R.C.P., etc.; Liverpool Patent Lint Co., Secretary of the, Liverpool. (M) Mr. W. F. MacDonagh, Twickenham; Messrs. J. McKeever, Son, and Livesey, Carlisle; M.B.A.; Mr. F. P. Maynard, Burdivan; Mr. J. Nixon Morris, Devonport; Member; Mr. F. W. H. Myers, London; Miss M. McCarthy, Cambridge; M.D.; Mr. W. B. Morton, Lancaster; Mr. R. S. Marsden, Birkenhead; Dr. Mickle, London; Mr. F. Hone Moore, Littleport; Mr. T. S. Matthews, Burnham; Miss M. Marshall, Cambridge. (N) Messrs. A. Newton and Co., London. (O) Messrs. Osborne and Mercer, London; Messrs. Oppenheimer and Co., London. (P) Mr. C. E. Paget, Manchester; Mr. J. Penberthy, London; Pes; Mr. H. M. Philpotts, Ealing; Mr. W. Pogson, Leeds; Mr. G. G. Parsons, Coventry. (R) Dr. Robinson, Attercliffe; Mr. T. F. Raven, Broadstairs; Dr. J. J. Ridge, Enfield; Mr. F. J. Rymer, London; Rus; Dr. W. C. Rockliffe, Hull. (S) Mr. A. Sykes, Hillesdon; Mr. J. H. Stacy, Norwich; Mr. D. W. Samways, Southsea; Mr. J. B. Spearing, Chelmsford; Dr. W. Wilberforce Smith, London; Dr. Telford Smith, Lancaster; Dr. S. W. Smith, Cheltenham; Sir E. H. Sieveking, London; Mr. A. Seymonds, Perth; Mr. S. Snell, Sheffield; Dr. E. Mansel Sympson, Lincoln; Dr. Savage, London; Surgeon-Major C. Sibthorpe, Rangoon. (T) Mr. B. Dutton Taplin, Shrewsbury; Miss Isabel Thorne, London; Dr. Thresh, Chelmsford; Truth; Mr. J. H. Targett, London. (W) Mr. R. W. Wilson, Croydon; Dr. Hale White, London; Mr. T. Windsor, Manchester; Dr. W. Walter, Manchester; Wellwisher; Dr. Outterson Wood, London; Mr. Crawford Warren, Dublin; Dr. W. Wynn Westcott, London; Dr. F. Williams, Liverpool; Dr. Whitelegge, Wakefield; Mr. A. H. Walker, Cranleigh; etc.

SIXTIETH GENERAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

MEDICINE.

W. H. Ransom, M.D., F.R.S., President.

A BRIEF SKETCH OF THE EPIDEMIC OF CHOLERA IN SRINAGAR, KASHMIR, MAY-JUNE, 1892.

By Surgeon-Colonel R. HARVEY, M.D., D.S.O.

Having been deputed by the Government of India to investigate the recent epidemic of cholera in Kashmir, it has struck me that it might interest the Association to have a short sketch of its medical history.

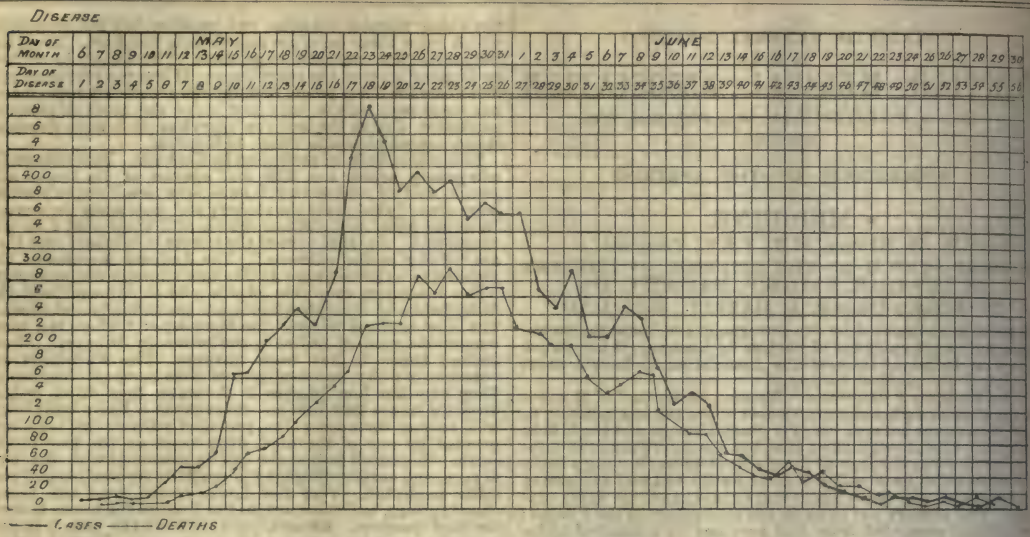
The Kashmir Valley—the "Elysium on Earth" of Moore—is an alluvial valley about 5,000 feet above the sea, nestling in the Himalayas between the Pir Punjal Range and the Hindu Khush. It was originally a lake, but the river Jhilam eventually cut its way through to the plains of India, leaving a basin about 90 miles by 30 miles of most fertile soil and surpassing beauty, with a perfect climate and an inexhaustible water supply. The country fell to us on the annexation of the Punjab; but, being separated from that province by a hundred miles of intervening hills, was sold by us to the Maharajah of the neighbouring state of Jammu—one of the greatest mistakes we ever made. Until two years ago the country was altogether inaccessible, except on foot or horseback; but a road for wheeled conveyance has now been opened, with a great and growing increase of traffic as a natural consequence, and, as another consequence, an increased liability to imported disease.

The past history of cholera in Kashmir is very imperfect, and no information can be got from the State records. Twenty thousand persons are said to have died of it in Srinagar, the capital, in 1843. There was a very severe outbreak in 1867 after the great fair at Hardwâr, and another bad epidemic in 1879, while in 1888 about 10,000 people are estimated to have died, of whom 3,500 were in Srinagar. Severe epidemics, then, are becoming more frequent, and the intervals between them are shortening. To those who believe—as I do—that cholera is not an air-borne poison, but is invariably carried by human intercourse, the opening of the Jhilam valley road makes it absolutely certain that the danger of the importation of cholera germs has increased, is constantly increasing, and cannot be diminished. To those who believe, as I do, that as seeds cannot grow without a suitable soil, so cholera germs—bacterium, bacillus, or what not—cannot grow unless they, too, find a congenial soil; these questions arise: Does such a soil exist in Kashmir? and if so what means can be taken to sterilise it? For I pass over as utterly futile and impracticable any possibility of excluding the seed. While an absolute believer in the *theory* of quarantine, I am equally convinced, by long and repeated personal experience, by the experience of the world in general, by common sense and an elementary knowledge of human nature, that efficient quarantine, and especially land quarantine, is impossible; and, if impossible, then not to be attempted, since it engenders a false sense of security, interferes terribly with business and trade, inflicts great hardships on those subjected to it, and gives them a common interest in evading it. Posts of observation, with efficient arrangements for isolating and treating actual cases are excellent, and may prevent the ingress of the disease; but the true method of dealing with cholera and all allied diseases is to make them impotent for evil by such sanitary measures as shall make it impossible for them to flourish if introduced. That sanitary measures will do this experience abundantly teaches. Cholera has been banished from Fort William, where it was formerly very severe and fatal; it is now very rare in the European quarter of Calcutta and in the large cantonments of Upper India. It is unknown in the Fort at Kohat, though that station has more cholera than all the other frontier stations put together, but the conditions which cause these cases are absent from the Fort. These are instances from my own experience. The history of cholera in England teaches the same lesson. It has not prevailed epidemically for many years, and, though repeatedly introduced, has never been able to take root since the great advance in sanitation during the last few years has, as it were, deprived it of a congenial soil in which to flourish.

This soil it finds in perfection in Kashmir. No words could adequately depict the filth and squalor of its towns and people, and of no country I have seen are Cowper's words more true: "God made the country and man made the town." Here are some descriptions which will show that I do not exaggerate. Dr. Ince says of the streets of Srinagar that they are "filthy in the extreme." The Judicial Member of the Maharajah's Council says in the last administration report: "The insanitary condition of the city of Srinagar and the filthy habits of the inhabitants are proverbially notorious." The chief medical officer of the State says: "There is a most lamentable want of ordinary sanitation in Srinagar.....from ancient times it has been unswept. The Kashmiris are notoriously filthy, and negligent of even personal cleanliness. They care not how impure is the water they drink, or how dirty the house they live in. Srinagar is a badly built town, with narrow tortuous paths, provided with no drainage, and peopled by one of the most dirty races on the face of the earth. The result is that the soil is saturated with the filth of ages, and surface cleansing is partially impossible and partially neglected. Very few householders have any water-closet (privy), and the courtyard or front of the house is used for that purpose. *Barustal-gus* ('filth at the door') is proverbially admitted to be a mark of affluence. Human ordure is scattered broadcast all over the town. From the roads and houses on the river bank drains carrying slush filth and sewage empty into the river, in which the washermen wash unclean clothes, the dyers wash their dyes, and the butchers entrails of animals. The consequence is that the water of river, as it flows through the city, is little better than liquid sewage. The people have a scrupulous respect for all old and insanitary practices, and any innovation is looked upon as an oppressive measure." A committee appointed to investigate the outbreak of 1888 tells the same story. "The majority of the inhabitants use the public streets or lanes or the courtyards of their own houses for the purpose of nature. This has been going on from time immemorial, and, consequently, the soil is contaminated to a degree by the accumulation of filth. Private houses, with some few exceptions, have no privy, and even these few privies are seldom cleansed. Year after year this evil has been growing, as the removal of filth is a thing unknown. A staff of fifty sweepers (scavengers) is employed for conservancy work over an area of about four square miles, and that only for eight months in the year." "The water of the river Jhilam.....is far from being pure for drinking purposes." "The canals inside the city.....are mostly silted up, and in the absence of any means of flushing them the water in them frequently becomes simply liquid sewage." "Other insanitary evils exist, such as overcrowded burial grounds, unclean slaughter-houses, want of proper surface drainage, dirty cowhouses, filthy tanks of green slime," etc.

In consequence of the recommendations of this committee, a few extra scavengers were engaged and certain sanitary by-laws sanctioned, but after a very careful examination of every part of the town, I can bear testimony that the above descriptions, terrible as they are, are substantially true of the Srinagar of to-day. It is not too much to say that the inhabitants eat filth, drink filth, breathe filth, wear it, sleep on it, bathe in it, and are steeped in and surrounded by it on every side; and till this state of things is altered, it is as certain as fate that epidemics of cholera at shorter and shorter intervals must continue to recur.

There can, I think, be no doubt that the disease was imported, although it is as usual difficult to trace direct connection between the early cases. In 1888 the disease was imported from Jammu by His Highness the Maharajah's camp. This year it was prevalent in the Rawal Pindi district to the south, and the Hazára district to the west, early in April. A case was brought into Marri on April 23rd, others occurring at Garial and Bagla on the Kashmir road a day or two after-



wards. The first case in Kashmir was at Domel, where the two roads from Pindi and Hazára meet, on April 24th. The first case in Srinagar was on May 6th in a boatman from Baramulla, the terminus of the cart road, and on the same day official reports were received that six deaths had occurred at that place. Once introduced into such a soil as I have described it spread like wildfire as shown in the table.

	Cases.	Deaths.
1st week	120	37
2nd ,, ...	1,105	472
3rd ,, ...	2,682	1,455
4th ,, ...	2,507	1,803
5th ,, ...	1,620	1,193
6th ,, ...	622	525
7th ,, ...	184	218
8th ,, ...	48	33

The total number of registered cases in Srinagar was 8,928, and of deaths 5,736, out of a population of about 124,000. The maximum number of cases, 499, was reached on May 23rd, and the highest tale of deaths, 298, on May 28th.

An illustration will suffice to bring these figures home. In the English epidemic of 1866 some 300 deaths in a week in London caused a considerable scare. Yet a week of pestilence on the Srinagar scale of May 28th, would give nearly 80,000 deaths instead of 300. Imagination refuses to picture the material and moral effect of such a calamity.

The general sanitary conditions of the towns and villages in the district is said, and, so far as I saw, is rightly said to be similar to that of Srinagar, that is to say, sanitation does not exist. Every villager seized with the disease away from his home made at once for his village, and in this way foci of infection were widely scattered over the valley, with the result that a very incomplete system of registration showed over 5,000 cases and 4,000 deaths between May 18th and the end of June, and the disease was still going on at the rate of over 200 cases and deaths daily. The type was about as malignant as I have ever seen; 65 per cent. of the Srinagar cases died, and at the height of the epidemic as many as 40 per cent. of the cases died within 24 hours. Every part of the city suffered, and there was hardly a house where there was not one—or many—dead, whole families being swept away in some instances. A complete panic took possession of the people. The shops were shut, the streets deserted, and business entirely suspended. The officials whose duty it was to distribute food from the State granaries to the poor—of whom there are 30,000 to 40,000—refused to leave their houses, and the people unable to get grain were driven to eat all sorts of unwholesome food, thereby rendering themselves more obnoxious to attack. A drought of unprecedented severity had reduced the river to the lowest level on record, and the canals from which most of the people get their drinking water to mere chains of isolated cesspools; and a great fire on May 7th had burnt down a crowded area half a mile by a quarter of a mile in extent, and caused great overcrowding in the surrounding quarters.

All that care and forethought and liberal expenditure could do under the circumstances was done to stem the tide of disaster. In each of the eight divisions of the town two native hospital assistants, trained after the English method, and two *hakims* of the old Yunáni school were employed, plentifully supplied with medicines, disinfectants, and medical comforts. A cholera hospital was established for the poor and homeless. Application was made to adjacent British districts and medical schools for additional assistance in native doctors and scavengers. Printed notices telling the inhabitants what to do to avoid the disease, or in the event of its attacks, were widely circulated, and large sulphur bonfires were lighted all over the town. Every case reported was visited at once and put in charge of a hospital assistant or *hakim*, at the choice of the patient or his friends; and the chief medical officer, Dr. A. Mitra, spent many hours daily in visiting the sick and seeing that the orders given were carried out by his medical subordinates.

Developed cholera is, however, not a disease for which medicine can do much, and the carelessness and ignorance and prejudice and superstition of the people rendered these measures of less effect than might have been expected. Directions to boil all drinking water and advice to take preventive medicine, or at least to apply for medicine at the earliest approach of symptoms, were deliberately and systematically disregarded as temptations to Providence, and the sulphur fires were at first extinguished for the same reason. Very many of the sick absolutely refused all medicine, on the ground that if God had willed them to die they had to die, and if to live medicine was unnecessary. Others pretended to take it, but did not do so; many had themselves bled to fainting, and hundreds took purgative medicines to carry off the disease in that way. As a rule they refused to do anything towards cleaning their courtyards or houses, and I repeatedly saw people placidly eating, by the side of cholera patients, rice on which flies fresh from the discharges were settled in crowds. The majority of the population are Mussulmans, and their dead were mostly buried in the city itself, where small but densely crowded burial grounds are everywhere met with. Discipline, never strong, was at an end, and all the municipal by-laws were set at naught. A staff of about 120 scavengers

—about 1 per 1,000 inhabitants—had a task more impossible than that of Hercules in the stable of Augeas, when it is remembered that there is no such thing as a conservancy cart in Srinagar, and that the men have themselves to remove as well as to collect the filth from the whole city.

The European community lives for the most part in a quarter by itself; but here also the sanitary arrangements leave much to be desired, although superficial cleanliness is attended to. After four fatal cases had occurred among them, the principle laid down in army regulations of a move from the infected locality was had recourse to, and they left for Gulmarg, a small settlement 8,500 feet above the sea, about thirty miles from Srinagar. Two cases of cholera developed themselves soon after arrival, and the disease then ceased, no case originating at Gulmarg. The bulk of the people were ladies and children, and the move was, in my opinion, an eminently wise one, although it has been criticised as cowardice. They could have done no manner of good by remaining below, and there can be no doubt a number of additional deaths would have occurred.

Such is a brief, and necessarily a very brief, sketch of the local conditions and of the course of the epidemic, and it now remains to say a few words as to the recommendations made with a view to the avoidance of similar disasters in the future. I may mention that Kashmir is a quasi-independent state, and that the British Resident, who is our ambassador there, has no power of initiative beyond the giving of advice, and no executive power whatever. All power, all initiative, are in the hands of His Highness the Maharajah, an orthodox Hindu of the strictest kind. The Council contains some educated and enlightened men, but these are probably a minority, and few if any of them will oppose the known wishes of the Maharajah. The members of the municipality are almost without exception prejudiced and ignorant men, to whom all innovation is distasteful, and who think the ways of their fathers good enough for them. Public spirit, as we understand it, is unknown, and the municipality can do nothing whatever without the special sanction of the Maharajah. The sole income of the corporation is an annual grant of 20,000 rupees, some 18,000 rupees of which is spent on establishment, so that no funds are at present available for structural improvements. Added to all this there is a strong dislike to European interference, a vast amount of religious fanaticism and superstition; and vested interests of all kinds standing in the way of sanitary reform. In spite of the recommendations of a strong committee after the epidemic of 1888, nothing whatever has been done, and it remains to be seen whether the terror of the present visitation may not fade so rapidly as to lead to a similar result this time. The money difficulty I look upon as the least. The inhabitants of Srinagar are practically untaxed, and although any taxes proposed may be resented, they will be paid. It was not in my province, however, to make suggestions as to how funds were to be provided for the necessary improvements, or how these improvements were to be carried out. Limiting myself to the purely medical aspects of the case, I had to show how all the conditions favourable to cholera were present in such abundance that constantly recurring epidemics were inevitable so long as the conditions remained unaltered, and to point out the means necessary to put the city in a satisfactory sanitary condition. Things being as I have described, it is clear that nothing short of complete reconstruction would suffice for this; but as a practical sanitarian I had to look to practical and possible reforms to be worked out gradually as occasion serves and funds can be made available.

The chief recommendations were (1) a survey of the city with a view to the prevention of floods, and the working out of a general plan of improvement to be carried into effect piecemeal whenever a great flood or fire or earthquake makes it possible to Hausmannise any particular quarter. (2) The rebuilding of the burnt-out quarter upon strictly sanitary lines, with wide main streets, and all lanes and alleys wide enough to permit the passage of conservancy carts. (This proposal has already been negatived by anticipation at a municipal meeting, on the ground that it would interfere with ancestral homes, though these have already been utterly destroyed by the fire.) (3) A systematic attempt to place the conservancy of Srinagar on a proper footing by the provision of public and private latrines, and an efficient system of scavenging. (4) A supply of pure water distributed in pipes thoughout the city, with hydrants at such short intervals as shall take away all temptation to use and all excuse for using any other water. (5) The deepening of existing canals, and the provision of means for flushing them, so as to remove as much as possible all sources of impurity. In connection with this a scheme of surface drainage to carry off rain water. (6) The prohibition of further burials within the city, and the provision of new graveyards outside. (7) The provision of playgrounds and open spaces as lungs for the city. (8) The relegation of cowhouses, tanneries, and slaughterhouses to the suburbs. 9. The forbidding of the digging of holes—which are rapidly converted into middens—to obtain earth for building purposes, and the filling up of the hundreds already existing.

How far these recommendations may be accepted in theory, how far carried out in practice, remains to be seen. I have little doubt that the water supply will be got, as some work was actually done in this direction after the outbreak of 1888, and the authorities have an instance of its value in their twin capital of Jammu. That city was decimated by cholera in 1888. New waterworks have recently been opened, and this year it has entirely escaped, although the disease has been prevalent all around, and one or two cases have been imported. This will in itself go far to diminish danger, and if, as I hope, the conservancy is put on a proper footing, that will be another great gain. I have hopes, too, that the burnt quarter may, after all, be rebuilt on sanitary lines, and be a model to the rest of the city; but it must be years on years before we can hope to change the character and habits of the people, and till this can be done the want of individual cleanliness in person and clothes and houses may go far to countervail the advantages of public hygiene. I believe, however, that the best way to teach private cleanliness is to enforce public sanitation, and I hope that my investigations may so strengthen the hands of the Maharajah and the Resident, and, if need be, the Government of India, as to bear down opposition and compel improvement.

The President (Dr. W. H. Ransom, F.R.S.) recommended that a resolution urging the adoption of sanitary reforms in Kashmir should be adopted.

Dr. Sinclair Coghill had listened with very great interest to Surgeon-Colonel Harvey's paper, which, in view of the approaching epidemic wave of cholera, possessed special importance, as showing to what an extent insanitary conditions, personal and general, determined the spread of this terrible disease. Dr. Coghill had for eight years lived continuously in a part of China where even more insanitary conditions existed than those described by Surgeon-Colonel Harvey as present in Kashmir, and could, without reserve, endorse his views as to the causes of the extension of such epidemics and the steps necessary to be taken with a view to the modification of their intensity if not of their prevention. He had therefore great pleasure in proposing the following resolution:

That this meeting of the Section of Medicine of the British Medical Association, being of opinion that the recent great mortality from cholera in Kashmir—the details of which have been brought before it—was due to the total absence of sanitation, considers that similar epidemics are certain to recur unless sanitary reforms are introduced, and strongly urges the adoption of such reforms as experience has approved.

Surgeon-General Cornish, C.I.E., in seconding the resolution, pointed out that the very destructive epidemic of cholera in Kashmir was only an offshoot of the still greater epidemic which, having passed through Afghanistan and Persia, was now so prevalent in Russia, and was threatening the whole of Europe. He looked with great concern on the prospect of the present epidemic, which more resembled the epidemic of 1831-3 than any other that had occurred in the past sixty years. Surgeon-General Cornish alluded to the great difficulty of getting Indian native officials to take up sanitary reforms.

The resolution was carried unanimously.

Surgeon-General Cornish then moved:

That the resolution which has just been passed be sent in the usual manner to the Council of the Association.

The resolution was seconded by Dr. Barron and carried unanimously.

PUBLIC MEDICINE.

Sir B. Walter Foster, M.D., M.P., President;
Dr. J. Tatham, Acting Chairman.

SOME POINTS IN CONNECTION WITH HOSPITALS FOR INFECTIOUS DISEASE.

Dr. H. T. BULSTRODE, Assistant Medical Officer of the South-Western Fever Hospital, London, in introducing the subject, dealt with certain circumstances which impaired the popularity and effectiveness of hospitals for infectious disease.

1. Wooden or corrugated iron huts, which it was impossible to keep warm in winter, put up hastily and imperfectly under stress of an epidemic, and which constantly required, but seldom obtained, repair, were often the only provision made. It might be that the building was of brick, but it consisted, perhaps, of a couple of ill-ventilated cottages situated next door to the cemetery, and presided over by a "Mother Gamp."

2. Occasionally the unpopularity was apparently due to the proximity of the building to the workhouse, and its consequent association with pauperism and disgrace. An excellent instance of the deterrent effects of pauperism was to be found in the history of the Metropolitan Asylums Board. Prior to 1887 a relieving officer's order was necessary in order to obtain admission into the Board's hospitals, and the consequence was that only a very small proportion of those attacked with scarlatina applied for admission. This restriction was in 1887 removed, and since that date a much wider use had been made of the hospital provision.

3. It was undesirable that any charge should be made for admission into the general wards of a fever hospital. Graduated payments produced distinction and jealousies. It was expedient to provide, if possible, separate accommodation for the wealthier classes, but this was best done by means of private wards, for which payment should be demanded. At the London Fever Hospital and the Wardell Convalescent Home a charge of £3 3s. a week was made for such accommodation.

4. It was to be feared that in a large number of fever hospitals the nursing was not first class, and the patients were often entrusted to people who had had little or no special training. There were several reasons for this: the risk to life was considerable; the employment was often of a very temporary character; the social ostracism to which those engaged in the work were subjected was no imaginary evil; and, lastly, the monotony of fever nursing was such that few good nurses seemed to care for a very long experience of it. It was impossible to eliminate all these drawbacks, but much might be done by offering wages and comforts in some degree commensurate to the trying nature of the occupation.

If a justice of the peace could compel a patient to leave his home because he had not proper isolation accommodation, the patient on his side had a right to expect that he should at any rate receive comfortable lodging, good food, and proper nursing, as some sort of compensation for having to leave his home and friends. The success of an infectious hospital could only be measured by the proportion of first attacked cases it was able to tempt within its walls. During a considerable portion of a patient's stay in hospital, he was, approximately speaking, in a healthy state of mind and body, and, in proportion as this was so, the minor restrictions and limitations necessarily imposed upon him were likely to give rise to discontent and grumbling.

While ill in bed with acute fever he was content with his surroundings, but when he was practically, except for infection, well, he needed ample resources of recreation and amusement to diminish the monotony of his exile. For this reason there should, at all fever hospitals, be a recreation ground, and a piece of asphalte for the patients to take exercise on in wet weather. In large towns convalescent homes, such as those attached to the acute hospitals of the Asylums Board, were of course a great boon, while a popular and discreet matron, with a well-trained and active staff under her, was an important element in the hospital's popularity. In many fever hospitals the regulations as regards the visiting of patients were unnecessarily stringent. It could hardly be seriously urged that there was much danger in the visiting of patients suffering from enteric fever, or, if proper precautions were taken, from diphtheria. Even in scarlet fever, in an experience of three years at one of the largest fever hospitals in the metropolis, he had only met with one case in which there was the least suspicion of a visitor having contracted the disease from a patient. Of course, the visitors were in almost every case adults, and therefore, but little susceptible to scarlet fever, diphtheria, or enteric; and it would be a working basis to exclude all visitors under twenty-one years of age. He stated that the following regulations were in force in the hospitals of the Metropolitan Asylums Board:

> Visitors are further advised not to enter the wards in any of the hospitals when in a weak state of health, or in an exhausted condition, but to partake of a good meal before entering the hospitals. They will be required, when in the wards, to carefully avoid touching the patient, or exposing themselves to his breath, or to the emanations from his skin; and will not be permitted to sit on the bed or handle the bedclothes, but will be allowed to sit on a chair by the bedside at some little distance from the patient. Visitors will also be required to wear a wrapper (to be provided by the Board) covering their dress when in the wards, and to wash their and faces with carbolic soap and water before leaving the hospital, or to use such other mode of disinfection as may be directed by the medical superintendent. Visitors are strongly urged not to enter any omnibus, tram-car, or other public conveyance immediately after leaving the hospital.

In dealing with small-pox, there was little doubt that visitors should, as far as possible, be absolutely excluded, since it was a most difficult matter to disinfect the clothes and hair, especially of women, so as to prevent the carriage of infection. When visitors were practically excluded it was the more desirable that every facility should be given patients to communicate by letter; an efficient apparatus should be provided for the disinfection of the letters. An ordinary hot-air bacteriological steriliser was perhaps the best and most economical apparatus. In large institutions where a Washington Lyon stove was used, the letters might be disinfected by simply turning the steam into the outer jacket. The removal of the patient from his home to the hospital often afforded an opportunity for the exercise of considerable tact and discretion on the part of those immediately connected with it. A request was sometimes made that the ambulance might call after dark, as its appearance outside a house of business was naturally a serious blow to it, and was calculated to allay the notification of the disease. Requests of this kind should, as far as practicable, be granted. The ambulance should be provided with good springs, rubber tyres, air mattresses and cushions, good ventilation, and facilities for washing and disinfection. Close and ill-ventilated ambulances were not only detrimental to the patient, but a cruel and unnecessary hardship on the nurse or attendant. A basket, under the control of the nurse, containing stimulants and milk, should be provided for the use of the patient on long journeys, while in the winter hot water bottles and foot warmers should be carried.

A somewhat serious drawback connected with infectious disease hospitals was the occasional recurrence of disease in the home of a patient apparently due to, or at any rate intimately connected with, his return from hospital. Cases had come under his notice in which patients, after having been in hospital three, four, five, and in one case eight months, had apparently taken scarlet fever back to their homes on their return thither. In some cases the explanation was presumably to be found in the retention by the mucous membrane of the air passages of infection inhaled during the patient's stay in a highly infectious atmosphere. In others the evidence was in favour of its being due to imperfect disinfection on the part of the sanitary authority, or rather those officials who represented it. An instance would make the point clearer. A notice was sent to the friends of a patient that, on a certain day, their child would be discharged from hospital. Unfortunately, some complication supervened which prevented the discharge, but three or four days from the time when the first notice was sent scarlet fever broke out in the house. In this and parallel cases the explanation probably was the taking out from some box or cupboard of imperfectly disinfected clothes which the child had worn before being taken to hospital. It was a good practice for the medical officers of the hospital to warn the patients that there was some risk in placing a child, fresh from a highly infectious atmosphere, into the same bed with a susceptible brother or sister; and Dr. Hopwood, medical superintendent of the London Fever Hospital, stated that this was the practice he had adopted for some years past. Passing the patients through convalescent homes might do something to mitigate

the evil, but unfortunately these cases sometimes occurred after discharge from convalescent homes for infectious diseases.

In spite of all efforts, it was to be feared that the occasional outbreak of other diseases of an infectious nature in wards devoted to one specific fever could never be completely obviated. There must, from time to time, be imported into fever hospitals cases which were incubating other diseases, such as scarlet fever, measles, or whooping-cough. Much might be done by cultivating an observant spirit amongst the nurses and encouraging them to look for any fresh symptoms. It was most important that the temperature of all patients, even during convalescence, should be taken and recorded at least once daily. The employment and education of intelligent women as ambulance nurses, who would inquire diligently into what history there might be of the recent occurrence of infectious disease in the patient's home, would do something to diminish the risk. In one instance he had prevented an outbreak of varicella in a ward by acting upon the report of the ambulance nurse, who stated that the disease had just recently been present in the patient's house. The patient was isolated, and ten days afterwards came out with chicken-pox.

What, he asked, was the exact value of the medical certificate which certified the disease from which the patient was suffering? It appeared to him that, from a legal point of view, all responsibility must rest with the signer of the certificate, and in the event of a patient wrongly diagnosed contracting the disease for which he was admitted, there could be, assuming the certificate to have been acted upon, no blame to be attached to the authorities of the hospital. In many cases admitted into hospital with a certificate of scarlet fever there were few signs or symptoms to support a diagnosis, the accuracy of which was eventually confirmed by a typical desquamation. In diphtheria the secretion on the fauces might be of a very doubtful nature and yet diphtherial paralysis subsequently ensue. The moral responsibility of the medical officer, however, remained, and in practice the position simply resolved itself into the medical officer exercising his best judgment in the disposal of the cases. In those cases which had the disease for which they were certified or nothing, the evil results of adhering to the certificate, though bad enough, were not very far-reaching; but in the case of a patient certified as suffering from, say, scarlet fever, but really a victim of some other disease, such as measles, it assumed a much more serious aspect, and in the interests of the majority of the patients the case must be excluded from the wards. To return the patient at once in the ambulance was not a proceeding calculated to obtain or retain the goodwill of the general profession, whereas to admit the patient was to submit him and the other inmates to a reciprocal danger.

The answer to the question was the provision of ample and efficient isolation accommodation. Isolation wards were required for cases wrongly diagnosed, for noisy and delirious patients, for those suffering from venereal diseases, and for cases of other infectious diseases which might crop up in the general wards, such as measles, varicella, variola, whooping-cough, mumps, ringworm, etc. Cases in which more than one infectious disease existed at the same time could not be refused admission, yet their admission entailed the sole use of an isolation ward. This fact of the frequent coexistence of infectious diseases was one which had hardly been kept sufficiently in mind in planning fever hospitals, as the demand they made upon the isolation accommodation was really very considerable. The proportion of isolation accommodation to beds in hospital should be a pretty high one.

Dr. E. W. Hope observed that hospitals for infectious disease were an important link in the chain by which infectious disease was controlled. Their object was to afford prompt and attractive means of isolation of infectious sickness, in order by this means to minimise or suppress such forms of sickness. Hence, in order to ensure full utility, the structure, site, and administration must be such as to ensure the confidence of the profession and the public. They must, moreover, be worked together, with—(1) An efficient system of notification; (2) an appropriate sanitary staff for purposes of routine inspection and investigation, and available in any special emergency; (3) an ambulance service; (4) and also full means of carrying out the requirements of the Public Health Act, so far as they related to disinfection and cleansing of infected houses and clothing. With these essentials every inducement and facility should be held out to the public to avail itself of the hospital. The result would appear in the diminution of the zymotic death-rate, as well as in the number of cases of zymotic sickness, and consequently in the number of patients requiring to be treated in the hospital. Hence a very much less number of beds would be required than the 1 per 1,000 of inhabitants, and the cost and extent of hospitals for infectious disease would tend to lessen. But it was not wise to have only the minimum hospital accommodation, and it was most undesirable to charge for patients admitted to the hospital. Ratepayers supported the hospital, and ratepayers should have the right to use it. He could not agree that the responsibility for the accuracy of the certificate should rest with the medical man signing it.

Dr. Whitelegge thought that the responsibility for removal to hospital was not covered by mere certification in pursuance of the Notification Act. The notification certificate had to be sent even if the patient was dying. Where the certificate was accompanied by a definite statement that the patient was fit for removal, there could no longer be any difficulty. In small-pox, and to a less extent in other isolated diseases too, the notified cases included a serious percentage of mistaken diagnoses, and in small-pox, at all events, it was assuredly not safe to send a notified case to hospital without confirmation of the diagnosis by someone with special experience—be he M.O.H. or medical superintendent of the hospital. As to the question of charges for admission, it had surely now been decided by the experience of all hospitals for infectious diseases; where special indulgences were desired, they should, of course, be paid for. In all other cases the hospitals should be free; and they were not free if charges were even nominally made and then remitted. The institution of such charges brought in a trifling income, at the cost of the greater part of the efficiency of hospital isolation. Whilst so much had been done in large towns to deal with infectious disease, it was a matter of regret that in country districts they had not yet settled the question whether it was desirable to have an infectious hospital at all.

Dr. Boobbyer said that Nottingham had recently been provided with a new isolation hospital, which many of those present had visited on the previous day. The hospital had been completed for twelve months, and notwithstanding the confident prediction of many self-constituted judges that it would never be anything more than an empty monument of its builder's folly, it had, during that brief period, become so popular that no less than 87 per cent. of all the notified cases of scarlet fever had, during the second quarter of the current year, been removed to it without the use of compulsion in any single instance. The Health Committee had done all in their power to make it popular. A code of rules had been adopted regulating the work and conduct of all its inmates and officers. The staff had been very carefully chosen, the nurses, as far as possible, being drawn from the educated classes. The available accommodation in the permanent wards, with an allowance of 2,000 cubic feet to each bed, was insufficient to accommodate all the cases requiring removal. For the time being, therefore, the temporary wards still standing on the enclosure had been brought into use, and an arrangement made by which acute cases could be housed together and provided with 2,000 cubic feet per head of air space. Each case, as convalescence was established, was drafted out into less ample wards. The minimum bed space of any part of the hospital was 1,200 cubic feet, all space above a height of 14 feet being ignored. Six small isolation or quarantine wards for doubtful or other exceptional cases had been provided, and as many as four of these had been in use on one occasion for doubtful cases alone. As an example of an exceptional case, there was at the present time in hospital one in which acute chicken-pox was superadded to unmistakable desquamation after scarlet fever. Dr. Boobbyer and his predecessors had alike advised the Health Committee to make no charge for the treatment and maintenance in hospital of ordinary cases, whatever the class to which they belonged. This advice had borne fruit, for no compulsory charge was now made to anyone. No class distinctions were made in the hospital, but a judicious arrange-

ment frequently promoted the comfort and social intercourse of patients. By statistics already published elsewhere Dr. Boobbyer had been able to show that isolation, as now practised at the Nottingham Infectious Hospital at Bagthorpe, had the effect of diminishing the spread of infection through the agency of the persons isolated by more than 50 per cent. Taking 100 primary hospital cases, it was found that some 23 per cent. additional cases occurred in the houses from which they were removed within three weeks of their removal and after their return home, the latter constituting only one-sixth of all. For every 100 home cases the result of a years' experience went to show that nearly 60 per cent. additional ones had to be looked for during the progress of the cases at home. It was interesting to note in the first place that the present hospital mortality (2.5 per cent.) was less than one-third of that occurring among similar cases outside, and in the second that the cause of death in more than half the fatal hospital cases was malignant—that is, intractable—scarlet fever, whereas such death cause was returned in only about one-third of the home cases. Kidney and other complications, fostered by injudicious treatment and exposure, was a far more frequent occurrence at home than in the hospital. Hospital patients were usually kept in bed for three weeks; it was almost impossible to observe such a rule at home. The average duration of stay in Bagthorpe Hospital for all normal cases was some seven weeks and a-half. He had estimated from the office register the number of patients coming to hospital in successive years from houses above a £50 rental, and had discovered that during the past year the percentage of such admissions had risen nearly 100 per cent. compared with similar periods in the past.

Dr. A. HILL, medical officer of health for Birmingham, said that the large diminution of zymotic diseases was attributable in a great measure to the fever hospitals, although, of course, other agencies had been at work. The benefit of such hospitals was that they educated the public to the value of isolation, and much of the prejudice against them had disappeared. Overcrowding an hospital was, of course, a very great evil. There was great difficulty in educating the committee of management up to the point of believing that there was any harm in overcrowding. It was difficult to convince them that if the cubic space was diminished mortality was increased, and there was a marked increase in the severity of the disease. That was particularly noticeable in small-pox. The question of responsibility for the diagnosis and notification of disease was a matter of great importance. He held the view that the medical man who certified the case was to be held entirely responsible for the diagnosis. If he was not an expert, what was he? He was an expert in the practice of medicine, and if, after seeing the patient day after day, he could not diagnose a rash and come to a conclusion as to the true nature of the disease, he could not see that the medical officer of health, dropping in when required, should be expected to be able to do so. He did not think it was fair he should be asked to take the responsibility; if, however, it were meant that the responsibility for the final diagnosis should rest with the superintendent of the hospital, he quite agreed, because there were many variations in the manifestations of diseases. Hence the value of wards in which doubtful cases could be put. There was a difficulty about a medical officer of health stepping in and interfering with the diagnosis of the regular medical attendant—he would be at loggerheads with every practitioner in the town. He (Dr. Hill) would not presume to do so, and when he was requested to do so he always declined. The idea of charging for admission to fever hospitals was exploded. In Birmingham they were willing to accept payment if people were willing to pay, but they never intended to exact it. Payment had been taken from the guardians for pauper cases, but it was seen to be inimical to the interests of the hospital, and it was announced that the hospital was for the benefit of all without charge.

Dr. S. MONCKTON COPEMAN thought that, as an addition to the usual isolation accommodation provided by sanitary authorities, it would be advisable, at any rate in large centres, to make arrangements also for the temporary housing of persons turned out of their homes during disinfection. In a recent epidemic of typhus fever which he had investigated several persons had undoubtedly received infection from friends who had paid them a visit during the performance of disinfection in their own homes. If this state of things could only be remedied, it was quite conceivable that the extra expense involved would be more than repaid to the authority by the smaller number of cases which it would be necessary to admit to the local isolation hospital.

Dr. GROVES (Isle of Wight) said that if the subject were of interest to the medical officers or health of districts in which isolation hospitals obtained, it was of far greater moment to those who administered districts which had no isolation hospital. In a health resort, for example, there was great liability to the introduction of infectious disease. In such districts it was necessary to make dangerous cases paupers, in order to protect the community from, possibly, an outbreak of small-pox. As to the diagnosis of cases, it was most undesirable that the medical officers of health should not go behind the notification. If a case of chicken-pox were diagnosed as small-pox, much trouble might be caused; but it was better so than that the medical officer of health should interfere. Should he once enter upon that course, there was nothing but trouble before him. The medical officer of health in a district of health resorts had to be especially careful, because there would be some who would vote themselves outside the operation of the Notification Act, and would excuse themselves upon the plea of the trade interests of the particular resort. As to the payment for admission to an isolation hospital, the more reasonable course would be to pay a person suffering from infectious disease to go into the hospital; any way, the sanitary authority should thank the patient for assisting to protect the community by consenting to isolate himself at the expense of the community. As to the cost of isolation hospitals. At Nottingham, for a visit to the isolation hospital of which so many of the section had been indebted to Dr. Boobbyer, and the Chairman of the Sanitary Committee of the Town Council, they seemed to have got hold of the right end of the stick, for, notwithstanding the large outlay, the worthy alderman said the ratepayers would be only too glad if there were no occasion to use the hospital.

Mr. WALTER SMITH (Chairman St. Pancras Health Committee) considered that in doubtful cases it was advisable that the medical officer of health should see the patient if requested by the attending medical attendant, but that it was absolutely necessary that the medical officer of health should be debarred from private practice. He recommended that a resolution should be passed by this meeting to that effect. He advised also that in future the Metropolitan Asylums Board should be altogether separated from the guardians. At present many patients objected to go to these institutions, thinking they would be classified as paupers. He would also recommend that every isolation hospital should have a probationary ward in which doubtful cases could be put until a proper diagnosis could be made.

Dr. MASON spoke of the advantages of hospital isolation, which was essential in carrying into effect the compulsory notification of diseases. In Hull they had erected a modern hospital. Each block was distinct in itself for administrative purposes, affording accommodation for a sister and nurses in charge. Probationary wards were erected to receive patients suffering from diseases of a doubtful character. No charge was made to patients received into the public wards; special rooms were set apart for the reception of private cases, for which £2 2s. per week was charged. The duration of stay in hospital was about eight weeks, and the cost per patient about £5. The responsibility of removal and isolation of patients in hospital devolved upon the medical officer of health, the responsibility of the medical practitioner ceasing after notification for removal to hospital.

Dr. TATHAM, the Chairman, suggested, with respect to the question of responsibility in the diagnosis of infectious disease, that the existing differences both in opinion and practice amongst medical officers of health might possibly be explained by the varying conditions under which these officers severally exercised their functions. Above all things it was desirable, from a preventive point of view, that the early removal of even suspicious cases should be secured; and in order to accomplish this, with reasonable safety to the patient, it was necessary that every fever hospital should contain wards, or preferably a separate block of wards, for the isolation and observation of such cases, apart from the infected parts of hospital. Reference had been made by Dr

Copeman to the desirability of providing apartments for the isolation of the families of infected patients, pending the disinfection of the infected home. He (the Chairman) might mention that in Manchester, in Leeds, and he thought in other places, such a provision did exist—a house, or houses, being kept ready for this purpose by the sanitary authority. Referring to the new isolation hospital recently erected at Bagthorpe by the Corporation of Nottingham, Dr. Tatham spoke of it in terms of high commendation; both as regards the site, and as regards the design and general arrangement of the hospital.

On the motion of the Chairman, a cordial vote of thanks was unanimously passed to the chairman and members of the Nottingham Health Committee for their hospitality and kindness in the arrangements they had made for the convenience of the Section, and for the facilities which they had offered the members for the inspection of the new Isolation Hospital at Bagthorpe.

THE NOTIFICATION OF ERYSIPELAS AND PUERPERAL FEVER.

Dr. JOHN C. THRESH, medical officer of health Essex County Council, said: Recently, when summarising the reports of the district medical officers of health in the county of Essex, the statistics with reference to erysipelas and puerperal fever attracted my attention. Wishing to compare them with similar statistics for other counties, I was surprised to find how little attention was given to either disease by the county medical officers, for in three county reports only did I find the information required. In no case was any reference made to their relative incidence in various parts of the county. In fact, they were not alluded to at all except in the tables of sickness and mortality. In my own county, I find the district medical officers of health rarely comment either upon the origin or distribution of these diseases. Some have remarked upon the difficulty experienced in getting cases of puerperal fever notified, but the impression evidently is that no good purpose is served by the notification of these diseases, and that they are not worthy of comment. In 1890, I found that the type of disease prevalent in our rural districts was much more fatal than that in the urban districts, the mortality per 100 cases being 9 in the former and 5 in the latter. Last year the difference was still more marked, since the death-rate per 100 cases in the country districts had fallen to 1.8, whilst in the towns it remained as in the previous year. I have not been able to find such marked variations in any other county (*vide* Table). That during different epidemics of

Erysipelas.

Deaths per 100 Cases Notified in Urban and Rural Sanitary Districts in various Counties.

	Urban Districts.	Rural Districts.	Both.
Warwickshire, 1890 ...	14.8	7.3	11.8
Durham, ,, ...	8.0	11.7	9.7
Yorkshire, W. R., ,, ...	16.0	15.5	15.8
Essex, ,, ...	5.6	8.9	7.0
Esse 1891 ...	1.8	8.9	5.1

Erysipelas.

Case-rate and Death-rate per 100,000 Population.

	Urban Districts.		Rural Districts.		Whole County.	
	Case-rate.	Death-rate.	Case-rate.	Death-rate.	Case-rate.	Death-rate.
Warwickshire, 1890	52	8	39	2.5	43	5
Durham, ,,	58	5	41	5	48	5
Yorkshire, W.R., ,,	32	5	70	11	46	6
Essex, ,,	77	4	59	5	67	5
Essex, 1891	74	1⅓	71	6	73	4
Derby, 1890	—	8	—	7	—	5
Worcester, ,,	—	4	—	3	—	3⅓
Stafford, ,,	—	4½	—	5	—	4½

most zymotic diseases the mortality-rate varies enormously is very well known, if not understood, but I was quite unprepared to find that the mortality from such a disease as erysipelas should vary within such wide limits (1.8 per cent. in Essex Urban, 1891, and 16 per cent. in West Riding Yorks Urban, 1890). Not only does the case mortality vary, but the number of cases notified in proportion to the population differs exceedingly. Thus in 1890, in West Riding Yorks Urban, 32 cases per 100,000 population were notified, whilst in the towns of Essex the proportion was 77 per 100,000. Yet the death-rate in the Yorkshire districts from erysipelas was higher than in Essex. In 1890 also the rural districts in the West Riding had a death-rate from this disease of 11 per 100,000, whilst that for the corresponding portions of Warwickshire was only 2.5, yet in the urban districts of the latter county the death-rate from erysipelas was considerably higher than in the towns of the former. I am anxious to hear any explanation which may be offered concerning these variations. I know that by some it will be suggested that the statistics are valueless, or only prove that in many districts every roseolar blush is notified as erysipelas, and they will urge this as a reason why the disease should not be notified. I do not now incline to this view, for even if we assume that this wholesale notification of roseola accounts for the excessive number of cases in certain districts, it does not account for the fact that the death-rate varies within almost as wide a limit (1.3 to 11 per 100,000 population). These and other interesting facts brought out even by these imperfect tables constitute, in my opinion, a plea for the retention of erysipelas on the schedule of diseases to be notified. It is only by collecting such statistics that these differences are discovered, and by multiplying our observations we may at length obtain a clue as to the cause. That there is some relation between erysipelas and puerperal fever has already been surmised from a comparison of the curves plotted from the respective death-rates for series of years, and from the fact that in certain forms of puerperal fever a streptococcus closely resembling that of erysipelas can be obtained from the tissues and cultivated. The exact relationship of these diseases remains to be ascertained, and may prove to be closer than is usually supposed. If medical officers of health judiciously but thoroughly investigate each case of puerperal fever notified, the results cannot fail to be instructive, and will probably throw a flood of light upon this subject. Reference to the register of cases notified should show at a glance whether a medical man is attending or has recently been attending any case of erysipelas. It is unfortunate that the general medical practitioner evinces an unmistakable objection to notify cases of puerperal fever. This is much to be regretted, since it is a constant source of friction, especially where the medical officer of health is himself in private practice. In many reports which I have examined, I find the only reference to puerperal fever is a brief note explaining that the cases were not notified or were only notified after death. In other reports I find the number of deaths exceeds the number of cases of fever notified. Such omissions vitiate our statistics. It would doubtless be a serious matter to prosecute a medical man for not notifying such a case, but so long as puerperal fever remains scheduled notification should be enforced. In a case with which I am acquainted the accoucheur had in the morning attended a patient suffering from erysipelas. In the afternoon, after changing his clothes and washing his hands in carbolic lotion, he delivered a woman. Within a week she died from puerperal fever. A fortnight later a second patient died shortly after childbirth, death being certified as due to pelvic cellulitis. The woman was stated to have jumped from a chair a short time before her delivery, and it was assumed that she had suffered some internal injury, and that this was the cause of the cellulitis. The symptoms set in the day after delivery. Was this a form of puerperal fever? And this leads up to the question, What is puerperal fever? Is there both a septic and an aseptic form? and are both alike notifiable? If the septic forms only are to be notified, is there any distinct line of demarcation between these and the aseptic form, or do they merge the one into the other by insensible gradations? Is there a traumatic peritonitis or cellulitis which may follow delivery which, though associated with marked febrile symptoms, is yet distinct from any of the forms of puerperal fever, and is therefore

not to be notified? With reference to both puerperal fever and erysipelas, so much remains to be learnt from the notification and investigation of cases, that I am in favour of retaining both on the schedule of diseases to be notified, although the statistics for the first few years will not be very reliable. That continued notification will ultimately result in a decrease in the mortality from both causes I see no reason to doubt. The fact that they have to be notified is teaching the public to look upon them as diseases which are in a great measure preventable; and whilst medical men and midwives pay greater attention to the antiseptic mode of treatment, the patients supplement their efforts by improving the sanitary condition of their homes and their surroundings.

Dr. Sergeant (Lancashire County Council) recommended the inclusion of erysipelas in the list of notifiable diseases. Experience had shown him that puerperal fever could be communicated by a person suffering from erysipelas, and notification was important to prevent such an occurrence. Erysipelas, again, had frequently a connection with insanitary conditions, and these could be remedied if information were obtained by notification. Certainly the small additional expense to the sanitary authority ought not to prevent erysipelas being notified.

Dr. Barwise, with reference to the notification of erysipelas, stated that he was decidedly against its inclusion under the Act. Admitting that it was true that puerperal fever might be caused by erysipelas, the same was true of pyæmia, septicæmia, and, in fact, of all septic purulent inflammations. It was also possible for puerperal fever to be conveyed from the poison derived from a cadaveric examination; why not, on the same grounds, make every medical man notify every *post-mortem* examination? It was on record that a practitioner in New York who suffered from ozæna spread puerperal fever. Why not notify ozæna therefore? The remedy, in his opinion, was the education and registration of midwives, not notification.

THE NOMENCLATURE OF NOTIFIABLE DISEASES.

Dr. Willoughby, while admitting the difficulty of diagnosing obscure cases, and, indeed, most diseases in the earliest stages, especially of recognising the true nature of cases of anomalous or nontypical characters, insisted on the fact that notification was abused on the one hand, and evaded on the other. Some men engaged in a lower class of practice, notified, for the sake of the fees, every sore throat as diphtheria, or erythema as erysipelas; while others, yielding to the prejudices of their wealthier patients, evaded notification by describing the cases during life, and certifying them after death by names which were either inaccurate, or, if synonymous, were not notifiable. Diphtheria was thus called "croup" or "diphtheritic throat," and even puerperal fever "septicæmia," which by an unfortunate omission was not in the schedule. When fears were by this means allayed, it could not be expected that strict isolation, efficient disinfection, and other precautions would be enforced. Errors of diagnosis, through ignorance or negligence, as reporting small-pox as varicella, or scarlatina as measles, or *vice versâ*, led to the spread of the disease on the one hand and the sending of cases of trivial disease to infectious hospitals, endangering the lives of the patients, on the other. To prevent these various abuses, he would have the fee, if retained, reduced to a shilling, which would minimise the temptation to false notification, while he would certainly refuse it in cases of inexcusable error, and impose a fine, not only for neglect to notify, but for sending cases to hospital under erroneous certificates. This would lead men in doubtful cases to call in the aid of others in whose judgment they had confidence, while the medical officer of health, if a competent expert, and not engaged in private practice, might with great advantage to all parties offer his advice freely to all. Much, however, might be effected by a revised schedule, clearly indicating what forms of disease were included in, and what excluded from, the several expressions. Under the one or other group would be placed all ambiguous or equivocal designations, so that notification could not be evaded by the use of names not at present in the schedule, nor except by deliberate misrepresentation could cases be notified that ought not to be. He was strongly in favour of including measles, since its notification enabled the sanitary authority to arrest outbreaks, and check their spread by isolating the cases in their own homes; but he maintained that hospital accommodation ought to be provided for grave cases occurring among the very poor, since they were attended by a high mortality and were the cause of much blindness. Erysipelas, properly so-called, was always connected with insanitary conditions, and, though it might have been contracted elsewhere, its notification would often lead to the discovery and removal of such defects. Puerperal fever was an unscientific expression; it was a generic term including every form of blood poisoning occurring in the puerperal state, the infective material being derived from without or within, and either simply putrefactive or specifically pathogenic. The word croup should be banished from medical language, indicating, as it did, in popular parlance, any affection of the larynx, diphtherial or catarrhal. The name of cholera should not be allowed save in the event of the importation of the epidemic disease; and such expressions as varioloid retained only in the explanatory clauses—that is, be relegated to oblivion. The revised schedule would be as follows:

Small-pox (including so-called varioloid).
Cholera (Asiatic, not the so-called cholera nostras, cholera infantum, sporadic cholera or cholerine).
Diphtheria, pharyngeal, laryngeal, and nasal (including infectious and so-called diphtheritic sore throat, membranous and infectious croup, but not simple catarrhal, non-infectious, or spasmodic croups).
Erysipelas (traumatic and so called idiopathic, but not erythemata, without the characteristic doughy swelling of the part).
Scarlatina or *scarlet fever*.
Typhus fever.
Enteric or *typhoid fever*, including gastric, infantile remittent, etc.
Relapsing fever.
Continued fever, so-called.
Puerperal septicæmia, or *fever* of every kind.
N.B.—The names in brackets not to be used at all; but, if included, to be returned under the respective headings.

Dr. Whitelegge agreed with Dr. Willoughby in the main, but asked whether the amplification of the schedule, and the introduction of additional technical terms, would not render "householder notification" even more hopeless than it was now. In any case, the suggestion of systematic verification of the diagnosis by the medical officer of health was impracticable; and even if practicable, would be impolitic, since it would at once introduce complications. Small-pox and typhus were now unfamiliar diseases to many practitioners, and the necessary verification would usually take the form of a consultation requested by the notifying practitioner. Dr. Whitelegge had at first doubted the wisdom of including erysipelas and "continued fever" in the schedule, but was now inclined to the contrary opinion, notwithstanding the looseness of the sense in which these terms were used by some practitioners.

Dr. Sergeant, while agreeing generally with the views expressed by Dr. Willoughby, desired to say that from his experience of notification in Lancashire, dating from 1877, he was satisfied that medical practitioners carried out the duties imposed upon them in a creditable manner; instances of cases being reported for sake of the fee were exceptional. When *bonâ fide* notifications were made, they should be accepted by the medical officer of health, and he ought not to be required to verify the diagnosis. In case of removal to hospital, the medical officer of health should be responsible for the fitness of patient for removal, and, if possible, each case should be previously visited by him after communication with the medical attendant. He objected to the medical man incurring any responsibility in case of the patient being removed. The medical officer of health should be responsible for the fitness of the patient for removal; and, if possible, each case should be previously visited by him after communication with the medical attendant. The fee of 2s. 6d. for notification was fair, and he would not recommend a lower fee. He was further of opinion that medical men should not be deprived of paying patients without some compensation, and this suggestion had been favourably accepted by a committee of a corporation with which he was connected in the early days of notification.

Dr. Alfred Hill regretted that his experience did not agree with that of Dr. Sergeant, that there was no such thing as false notification. He was quite certain that he had known many such; he knew of one instance in particular where scores of so-called typhoid cases were notified by one particular practitioner, which on inquiry turned out never to have been confined to bed, and in the course of a few days to

be eating and running about as if nothing had happened. The medical man attending the cases above referred to subsequently left the town, with the result that such cases of typhoid no longer occurred. Numerous cases of common sore throat were reported as diphtheria. There were from the first many reasons for concluding that these were not diphtheria; as was subsequently proved by the course and termination of the cases, and especially by the fact that their mortality was altogether out of proportion to that of true diphtheria. He did not wish to cast any reflection upon the general character of the medical profession, but it would be unreasonable to suppose that there were not some black sheep in the medical as well as other flocks. He could not understand the objection to the intimation on the notification certificate of the "fitness" and "willingness" of the patient for removal to hospital. It was true it was not required by the Notification Act, but as it entailed no trouble on the medical man—indeed, saved him the trouble of being interviewed or of answering subsequent inquiries—and as it saved trouble on the part of the M.O.H. and loss of time, and was of advantage to everybody concerned, including the patient, it seemed to be desirable on every account. In Birmingham such a note was printed at the foot of each notification certificate, and all that the medical attendant had to do was to leave the note unaltered if the case might be removed, and simply to insert the word "not" in the contrary case. He held that it was altogether out of the question that the M.O.H. should be held responsible for the correctness of the diagnosis; this duty must be, as a matter of necessity, imposed on the certifying practitioner, who was to be assumed to be as competent as the M.O.H.; if it were not a necessity, the interference of the M.O.H. would be indignantly resented, and would lead into a sea of trouble and difficulty. As regarded the hardship of removal to hospital of cases which would otherwise be a source of profit to the private practitioner, this contingency was avoided in Birmingham by the permission to every practitioner to attend his cases in the hospital, where he receives every facility for access to and examination of his patient at all times, and his prescriptions were dispensed free of cost.

Dr. Groves thought it most desirable that some explanatory notes should be affixed to the list of notifiable diseases. It was absurd that there should be hundreds of cases of erysipelas in a year in a comparatively small population. He again protested against the medical officer of health going behind the notification of the medical attendant; it was better that an authority should be put to considerable expense in isolating a case of chicken-pox which was notified as small-pox, than that the medical officer of health should intrude upon the case. As regards the giving and paying for certificates, the medical profession gave a large amount of time and trouble gratuitously for the protection of the education, war, naval and other public departments, to say nothing of insurance and such-like companies, and it was desirable that all certificates in connection with the public health should be paid for.

Dr. Mitchell Wilson (Doncaster), said he wished to guard the medical officers of health against taking up the position of criticising the diagnoses of the medical practitioner who had notified a case of infectious disease. Their real position ought to be one of mutual consultation when asked; at other times they should accept diagnoses in all good faith. Mistakes occurred, but these were not wilfully made, and very frequently the public safety was more carefully guarded by a doubtful case being reported than by neglecting to report some of these doubtful cases.

Dr. Boobbyer said he thought it best to obtain the notifier's opinion as to the question of removal in any particular case by getting him to signify upon the notification form sent in whether he "approved" or "disapproved" of it. The practice of notification might very well be extended to several other diseases than those now included in most of the schedules. Much could be learnt, and much good could often be done in the way of prevention by its agency in the case even of these diseases. Erysipelas and puerperal fevers might be taken as examples of the class. The additional responsibility which the obligation to notify placed upon the medical man was calculated to have an educating influence upon him. He thought it inadvisable for medical officers of health or their assistants to take upon themselves the responsibility of deciding upon the diagnosis in ordinary circumstances. After the removal to hospital, however, they were not only entitled but actually under an obligation to separate from others, and subsequently to return to their homes, as soon as possible, all cases in which an erroneous diagnosis had been formed. It became necessary at times to urge upon certain practitioners to exercise, in their own interests and those of their patients, the utmost care in forming a diagnosis.

After some brief observations from Dr. Aldred,

Dr. Tew (Nottingham) said he considered that there was a wide distinction to be made between the conditions under which medical officers of health in large towns and in large country districts were called upon to perform their duties. In the latter they were practically required to assist in the diagnosis of all doubtful infectious cases when requested to do so.

Dr. Watt (M.O.H. Aberdeenshire) wished to ascertain what would be the position of the medical officer of health in case of legal action being raised in consequence of a patient being removed to a hospital on an erroneous diagnosis. Would the medical officer of health be held in no way responsible, and would this be the view held by his board? The relation between the medical officer of health and the general practitioner should be such as was on the previous day well described by Dr. Tatham, and should be undoubtedly aimed at by all medical officers of health.

Dr. Mumby was glad to say there was no friction between the medical officer of health and general practitioners in Portsmouth as to notification. Medical practitioners not infrequently called upon the medical officer of health to meet and consult upon some cases of a doubtful character before notification had been made. After notification the medical practitioner must take the responsibility of his statutory duty. With regard to continued fever, it was an interesting fact that among the 150 medical practitioners in Portsmouth, only eight had during the last six years notified any case of that disease.

Dr. Manley pointed out that there was one Public Health Act in which there was a definition of cholera.

Dr. Willoughby, in replying on the discussion, alluded to the large proportion of utterly unqualified men who had charge of so-called dispensaries in London.

ON THE INFLUENZA EPIDEMIC OF 1892 IN LONDON.

Dr. F. A. Dixey said: Since the end of 1889 London has been visited by three successive outbreaks of influenza, each more destructive than its predecessor. The disease has never been entirely absent from London during the time referred to; the three great epidemic waves are nevertheless perfectly well-marked and distinct. I propose to refer to them as the epidemics of 1890, 1891, and 1892 respectively; though the last-named belongs partly to the close of 1891. The first two epidemics are being dealt with by me elsewhere[1]; it is the last—that of 1892— which forms the main subject of the present communication.

The epidemic of 1892 ran a more typical course than that of 1891, especially in regard to (1) the rapidity of its rise and decline, and (2) the time of year of its incidence. Like that of 1890, it culminated in the third week of January, whereas that of 1891 reached its height in the third week of May. The great epidemic of 1847-8 was most fatal in the beginning of December.

Table I[2] gives the number of deaths returned in London week by week during four epidemics as primarily due to influenza. It enables the various outbreaks to be readily compared with regard to their severity and duration, as well as to the time of year of their occurrence.

The number reached by the fatal cases of influenza in the maximum week of 1892 is the highest on record (506). The nearest approach to it is 374, the maximum weekly fatality in 1847, in which number, however, are included cases where influenza was a secondary cause only.

Influence of Meteorological Conditions.—In 1890 mild weather and south-west winds prevailed during the rise and first part of the fall of the influenza mortality; in 1891 the rise of the epidemic coincided on the whole with a rise of temperature,

[1] *Epidemic Influenza.* Clarendon Press, Oxford.
[2] Derived from the Weekly Returns of the Registrar-General.

but the period of greatest intensity was accompanied by unusual cold. The meteorological conditions that obtained during the epidemic of 1892 are shown in Table II.

TABLE I.—London. *Weekly Deaths from "Influenza" during Four Epidemics—1847-48, 1890, 1891, 1891-92.*

Weeks.	Deaths.	Weeks.	Deaths.	Weeks.	Deaths.	Weeks.	Deaths.
1847. 44	1	1890. 1	4	1891. 11	1	1891. 49	8
45	2	2	67	12	3	50	17
46	4	3	127	13	7	51	19
47	4	4	105	14	3	52	37
48	33	5	75	15	9	1892. 1	95
49	198	6	38	16	10	2	271
50	374	7	30	17	37	3	506
51	276	8	24	18	148	4	436
52	142	9	23	19	266	5	314
53	137	10	24	20	310	6	183
1848. 1	102	11	11	21	310	7	79
2	102	12	17	22	303	8	61
3	80	13	13	23	249	9	34
4	58	14	10	24	182	10	30
5	47	15	7	25	117	11	35
6	45	16	9	26	56	12	20
7	27	17	4	27	40	13	14
8	33	18	2	28	29	14	13
9	18	19	3	29	18	15	7
10	11	20	2	30	17	16	8
11	10	21	1	31	6	17	8
12	16	22	1	32	10	18	11
13	8			33	9	19	10
14	6			34	7	20	4
15	9			35	12	21	3
16	11			36	4		
17	7						
18	3						
19	—						

the materials for which, as for the other tables in this paper, are collected from the "Weekly Returns" and other publications of the Registrar-General's Department at Somerset House.

Table II.—London, 1891, 1892. *Temperature, Rainfall, Force and Direction of Wind, etc., and Mortality from Influenza.*

Week.	Influenza No. of deaths.	Temp. of air. Average mean daily value in degrees Fahrenheit.	Temp. of air. Departure from average of 20 years.	Rainfall in inches.	Wind. General direction.	Wind. Horizontal movement of air. Departure from average of 20 years.	Humidity (Saturation=100).
1891						Miles.	
49	8	44.9	+ 2.3	0.96	S.W.	+1907	83
50	17	40.7	— 0.1	0.51	V.	+ 229	79
51	19	29.1	—10.2	0.02	C.	—1341	93
52	37	43.0	+ 4.5	0.56	S.W.	+ 852	86
1892							
1	95	33.1	— 4.6	0.09	W.	+ 219	80
2	271	30.3	— 7.3	0.01	N.	— 938	84
3	506	37.4	— 1.7	0.13	E. & S.W.	— 959	90
4	436	42.7	+ 2.7	0.11	W.S.W. & S.W.	+ 716	87
5	314	41.5	+ 0.9	0.29	S.W. & W.S.W.	+ 579	81
6	183	43.3	+ 3.9	0.19	N.N.W. & W.S.W.	— 339	86
7	79	30.7	— 8.3	0.56	V.	+ 246	72
8	61	40.9	+ 1.1	0.68	S.E.	—1039	90
9	34	33.5	— 6.9	0.17	N.E.	+ 294	74
10	30	31.6	— 9.1	0.17	V.	— 561	74
11	35	41.4	+ 0.2	0.32	S.W.	— 281	77
12	20	41.4	+ 0.8	0.28	E. & N.E.	— 580	86
13	14	42.7	— 1.8	0.17	N.E. & E.	— 135	63
14	13	53.4	+ 6.8	0.00	N.E. & E.N.E.	— 333	65
15	7	41.3	— 5.9	0.67	N.E.	— 463	75
16	8	47.1	— 1.0	0.20	V.	— 328	72
17	8	45.1	— 3.4	0.55	N.N.W. & W.S.W.	— 181	70
18	11	44.7	— 4.8	0.15	N.E. & N.	— 32	74

It is not easy, from the facts here adduced, to trace much connection between the influenza mortality and conditions of temperature or rainfall. It is, however, worthy of notice that the outbreak of 1892, occurring at nearly the same time of year as that of 1890, but differing widely from it in regard to its severity, was also marked by great differences from the latter epidemic in point of meteorological accompaniments. The conditions of temperature, rainfall, and force and direction of wind were almost exactly reversed; and it is possible that the fall of temperature, dryness of the atmosphere, absence of rain, and lightness of prevalent winds at the beginning of 1892 may have helped the mortality to reach its extraordinary height.

Effect on the Mortality from other Diseases.—One of the chief characteristics of an influenza epidemic is the effect it produces on the mortality from other diseases. The disorders most conspicuously affected are, as is well known, those of the respiratory system; but others are influenced in an almost equally marked degree. The annexed table gives details of the relation between the mortality due to various causes of death and that attributed primarily to influenza during the course of the 1892 epidemic.

The principal facts are contained in Table III. Besides the rise in the mortality from the respiratory diseases, the augmented fatality of phthisis, diseases of the circulatory system, and whooping-cough is noticeable, as is also the increase in the number of deaths attributed simply to "old age." Another diagram (No. 1) exhibits the dependence of the mortality ascribed to the two main respiratory diseases, bronchitis and pneumonia, on the presence of influenza for the whole period from October, 1889, to July, 1892. It will be seen that in every instance of the prevalence of the latter, the curves representing the mortality from the two former rise far above the average. The peculiar significance of these curves lies in the fact that the presence of influenza as the primary cause of death was not recognised in any of the cases which they represent; otherwise they would have appeared in the Registrar-General's returns under the head of "influenza," and not under that of "bronchitis" or "pneumonia" as the case may be.

An increased mortality from all or most of the causes that have been mentioned characterises all influenza epidemics, and not that of 1892 alone. It is impossible to believe that the invariable coincidence between the rise of these various causes of death and influenza is accidental, and the conclusion seems inevitable that influenza itself is the determining cause, though it does not so appear in the returns furnished to the Registrar-General. This being the case, in estimating the mortality of any particular epidemic it is necessary to allow for the deaths returned under other heads than that of influenza. Computed in this way, the deaths due to the three late epidemics of influenza in London appear approximately as in Table IV:

TABLE IV.—London. *Deaths in Three Epidemics.*

	1890.	1891.	1892.
Deaths from influenza	600	2,200	2,170
Total deaths due to epidemic	2,800	5,800	8,000

The numbers for 1892 are made up as in Table V:

TABLE V. London. *Causes of the Mortality due to the Influenza Epidemic of 1892.*

Cause of Death.	Number of Deaths.
Influenza...	2,170
Bronchitis	2,770
Pneumonia	830
Other respiratory diseases	200
Whooping-cough	490
Phthisis...	245
Diseases of circulatory system	450
Brain diseases, etc.	230
Old age	175
Other causes	440
Total	8,000

Fatality of Influenza compared with that of Cholera.—Table VI has been framed in order to show the relative fatality of four epidemics of influenza in London as compared with that of the four historic outbreaks of cholera

TABLE III.—London, 1891, 1892. *Weekly Deaths from Influenza and Other Causes, with Percentage Departures from the Mean of 10 years.*

Week.	Influenza.	Phthisis.	Per Cent. Departure from Mean (10 years).	Bronchitis.	Per Cent. Departure from Mean (10 years).	Pneumonia.	Per Cent. Departure from Mean (10 years).	Pleurisy.	Per Cent. Departure from Mean (10 years).	Other Diseases of Respiratory system.	Per Cent. Departure from Mean (10 years).	Whooping-cough.	Per Cent. Departure from Mean (10 years).	Premature Birth.	Per Cent. Departure from Mean (10 years).	Old Age.	Per Cent. Departure from Mean (10 years).	Apoplexy.	Per Cent. Departure from Mean (10 years).	Epilepsy.	Per Cent. Departure from Mean (10 years).	Other Diseases of Brain and Nervous System.	Per Cent. Departure from Mean (10 years).	Diseases of Circulatory System.	Per Cent. Departure from Average (10 years).	Enteritis.	Per Cent. Departure from Mean (10 years).	Accidents of Childbirth.	Per Cent. Departure from Mean (10 years).	All Causes.	Per Cent. Departure from Mean (10 years.)
1891																															
49	8	137	−19	205	− 26	100	− 10	5	− 6	28	− 20	56	+ 9	30	−25	42	−22	32	−34	8	+31	74	−13	118	− 14	8	+ 21	4	+ 18	1462	−15
50	17	134	−24	209	− 33	97	− 15	2	− 72	23	− 50	71	+ 45	48	+27	38	−38	40	−21	9	+55	72	−20	125	− 8	7	+ 9	4	+ 5	1449	−19
51	19	204	+20	358	+ 11	131	+ 10	8	+150	49	+ 12	93	+ 82	31	−19	40	−29	44	− 4	8	+18	61	−35	148	+ 3	7	− 8	2	− 33	1771	− 2
52	37	258	+41	927	+169	256	+113	9	+ 27	120	+135	180	+174	45	+15	90	+36	79	+39	12	+30	134	+40	317	+106	10	+ 5	4	− 18	3599	+77
1892																															
1	95	177	− 6	740	+ 82	246	+ 72	5	− 44	79	+ 47	153	+107	59	+37	80	+14	45	−17	4	−47	91	−14	178	+ 4	14	+133	9	+100	2679	+31
2	271	238	+22	867	+102	285	+ 93	3	− 58	79	+ 52	166	+116	56	+30	81	+20	68	+28	9	+22	111	+ 7	247	+ 45	12	+ 45	5	− 4	3271	+57
3	506	228	+21	1035	+171	317	+123	7	− 3	99	+102	170	+122	63	+37	123	+77	69	+44	15	+95	120	+23	254	+ 57	8	+ 5	6	+161	3761	+88
4	436	211	+26	841	+146	255	+104	7	− 8	73	+ 49	155	+ 76	55	+32	119	+92	53	+12	10	+37	162	+60	230	+ 50	18	+105	11	+182	3365	+78
5	314	188	+ 5	492	+ 63	215	+ 86	9	+ 64	35	− 23	137	+ 55	36	−10	81	+27	45	− 9	8	+ 6	114	+10	161	+ 19	19	+ 43	4	− 9	2500	+38
6	183	179	+ 5	368	+ 11	140	+ 16	6	+ 2	40	− 6	104	+ 9	44	+ 6	42	−32	50	+ 6	13	+56	82	−14	141	− 6	9	+ 30	7	+ 89	2010	+ 9
7	79	159	−13	268	− 18	137	+ 16	4	− 37	39	− 6	100	+ 10	63	+64	50	−16	40	−15	4	−55	82	−20	137	+ 2	10	+ 37	7	+ 32	1693	− 6
8	61	189	+ 2	291	− 6	116	− 7	8	+ 38	29	− 34	69	− 20	43	+ 5	41	−32	47	+ 6	8	−	99	− 4	141	− 5	14	+ 87	6	+ 46	1829	− 1
9	34	158	−12	227	− 31	114	− 1	3	− 64	26	− 30	67	− 19	41	− 4	50	−14	36	−23	7	−	69	−34	128	− 7	7	+ 35	3	− 42	1545	−15
10	30	166	−11	288	− 13	123	− 7	8	+ 29	29	− 34	89	+ 6	60	+49	51	− 2	14	−16	16	+98	100	− 9	140	− 5	9	+ 18	5	+ 11	1808	− 4
11	35	181	+ 1	315	− 8	165	+ 29	4	− 38	35	− 14	91	+ 11	59	+53	62	0	53	+15	8	+21	82	−25	168	+ 13	16	+125	1	− 74	1983	+ 6
12	20	154	− 1	256	− 17	164	+ 24	7	+ 8	29	− 29	92	+ 11	50	+24	48	−31	42	−12	11	+75	100	− 5	140	0	13	+ 76	9	+100	1744	− 5
13	14	170	− 3	220	− 24	168	+ 34	7	+ 6	27	− 28	80	− 8	47	+22	45	−21	37	−22	10	+43	85	−14	177	+ 29	7	+ 6	7	+ 71	1753	− 2
14	13	178	− 2	200	− 20	169	+ 40	8	+ 15	22	− 42	65	− 22	54	+46	55	− 1	46	+ 1	11	+77	114	+12	143	+ 10	10	+ 64	3	− 3	1812	+ 5
15	7	147	−15	148	− 40	164	+ 21	7	− 2	23	− 26	66	− 20	48	+24	48	−15	50	+11	12	+43	70	−33	120	− 7	8	+ 29	7	+ 40	1590	− 8
16	8	158	− 9	202	− 6	143	+ 18	9	+ 23	29	− 10	66	− 24	38	− 5	50	−14	47	+10	7	−23	74	−24	132	− 2	12	+ 32	4	+ 21	1715	+ 1
17	8	149	−16	138	− 34	135	+ 9	10	+ 28	23	− 28	59	− 29	40	+ 2	39	−27	46	+ 1	10	+83	94	− 2	141	+ 20	9	+ 15	9	+125	1619	− 3
18	11	173	−	131	− 31	135	+ 14	7	− 10	21	− 34	59	− 27	48	+23	44	−11	33	−26	9	+14	84	−10	124	− 7	11	+ 66	6	+ 46	1549	− 6
19	10																														
20	4																														

there is here given not only the actual number of the deaths but the deaths in proportion to the population. From these it is seen that since the beginning of 1890 the number of victims that have succumbed to influenza in London has absolutely, though not relatively, exceeded the number of those that fell in the great cholera epidemic of 1849.

TABLE VII. London. *Actual Number of Deaths, and Proportion of Deaths to Population in Eight Epidemics.*

Year.	Deaths.	
	Actual Number.	Number in Proportion to Population.
1832 (cholera)	5,275	0.003517
1847-48 (influenza)	5,250	0.002390
1849 (cholera)	13,611	0 005920
1854 ,, ...	10,708	0.004280
1866 ,, ...	5,572	0.001791
1890 (influenza)	2,800	0.000866
1891 ,, ...	5,800	0.001380
1892 ,, ...	8,000	0.001860

The Epidemic in its Relation to Age.—It is characteristic of influenza that it leads to little fatality among infants and young children. Different epidemics differ in the extent to which the middle-aged and old are affected respectively. In the 1890 outbreak a very high relative mortality was experienced by persons between the ages of 40 and 60. In 1891 the chief sufferers were those between 60 and 80, and Table VII will show that the same holds good of the epidemic of 1892. This is interesting in relation to the fact that the mortality from pneumonia was relatively more affected in 1890 than that from bronchitis, the reverse being the case in 1891 and 1892. Pneumonia, as compared with bronchitis, is a disease of middle rather than of advanced life, and the fact that it seems to have been a more frequent complication of influenza in 1890 than subsequently no doubt explains the

TABLE VII.—London, 1889 and 1892. *Actual and Percentage Number of Deaths at Different Ages from Influenza and other Causes.* (The numbers for 1889, when there was no influenza, are given for comparison.)

	Ages.							All Ages.
	0-1	1-5	5-20	20-40	40-60	60-80	80-	
Influenza.								
10 weeks: 52nd of 1891 to 9th of 1892, influenza at height.								
No. of deaths	77	108	61	255	568	784	163	2,016
Per cent.	4	5	3	13	28	39	8	100
Pneumonia.								
10 weeks: 52nd of 1891 to 9th of 1892, influenza at height.								
No. of deaths	373	557	78	229	408	396	40	2,081
Per cent.	18	27	4	11	19	19	2	100
1889, first 22 weeks, no influenza.								
No. of deaths	457	612	105	211	310	288	33	2,016
Per cent.	23	30	5	11	15	14	1	100
Bronchitis.								
10 weeks: 52nd of 1891 to 9th of 1892, influenza at height.								
No. of deaths	941	759	56	168	1,132	2,476	518	6,050
Per cent.	15	12	1	3	19	41	9	100
1889, first 22 weeks, no influenza.								
No. of deaths	989	788	51	120	682	1,683	355	4,708
Per cent.	21	17	1	3	15	36	8	100
All Causes.								
10 weeks: 52nd of 1891 to 9th of 1892, influenza at height								
No. of deaths	4,912	3,982	1,070	2,706	4,960	6,865	1,547	26,042
Per cent.	19	15	4	10	19	26	6	100
1889, first 22 weeks, no influenza.								
No. of deaths	7,231	5,728	1,958	3,916	5,914	7,094	1,585	33,426
Per cent.	22	17	6	12	18	22		100

exceptional age incidence of influenza mortality in the first of those years.

The figures given in Table VII afford additional evidence that the bronchitis and pneumonia of the influenza period are not the ordinary bronchitis and pneumonia, for the age incidence is seen to be considerably modified by the presence of the epidemic, notably in the direction of the relative lowering of infant mortality.

Dr. WILLOUGHBY said that the connection between meteorological conditions and cholera was direct, namely, that of temperature and humidity on the microbes in the soil and water. In influenza it was only the indirect influence of weather on the complications following influenza and causing death, it might be, long after. The spread of influenza was certainly wholly the result of personal intercourse, as was well seen in its first invasion of Europe in 1889. When men travelled on foot or by caravan it advanced slowly, when by rail at railway speed. Mountain ranges, such as the Carpathians, arrested or diverted its course, and lines of passenger steamships determined the date of its appearance in North and South America, India, Australia, etc., and notably in India itself where the effects of facilities or absence of intercommunication were forcibly exhibited. In towns it spread most in Government offices, barracks, etc., where large numbers of persons were employed together, and next in shops. In the country farmers were most heavily affected, for though they might live far asunder they crowded together at market once, twice, or thrice a week; the trades-people led a more secluded life. Subsequent epidemics did not show this, having been due rather to recrudescence than invasion.

Dr. WHITELEGGE said that the variable period of the year at which influenza prevailed in different parts of the kingdom confirmed the view that the season as such had little to do with the outbreak, but it was at least possible that weather conditions, besides influencing the frequency and fatality of complications, might greatly affect the mechanical facilities for spreading infection, especially through air. The secondary waves of mortality from respiratory diseases were most clearly shown by Dr. Dixey's charts. Similar "shadow waves" were to be found in regard to scarlet fever in the mortality from kidney diseases, while respiratory diseases caused increased mortality during epidemics of measles or whooping-cough.

The CHAIRMAN (Dr. Tatham) referred to experience of influenza epidemics in Manchester, and stated that he had undertaken a study of the statistics.

Dr. DIXEY, in reply, said that with regard to Dr. Whitelegge's opinion as to the independence of atmospheric conditions shown by influenza, he agreed that it was a most significant fact that the premonitory rise of bronchitis and pneumonia in 1890 took place in weather that ought, according to general experience, to have led to a greatly diminished mortality from those diseases.

WASTE WATERCLOSETS.

Dr. ALFRED HILL (M.O.H. Birmingham) said: If there is one question which is exempt from dispute or difference of opinion it is that cleanliness and purity are essential to health. The doctrine is not new, for it stands prominent in the system of the Mosaic dispensation, it is presented more or less completely in the teachings and practice of the Greeks and Romans, and it has never been quite lost sight of during even the most degraded portions of the Christian era even when personal filth was exalted by certain fanatical orders of priests into a positive virtue. The whole history of modern sanitary effort is that of contests with filth, which has long been regarded as inseparably bound up with many, and the worst, diseases. Some of these were specially and most appropriately designated by Sir John Simon "filth diseases." These diseases are propagated through the media of air, water, and soil; and the last important inquiry of the Local Government Board by Dr. Ballard into the etiology of the most fatal of all the zymotic diseases of childhood—diarrhœa—is all in the direction of the purity of these media: pure air, uncontaminated water, wholesome food. In the early abolition of the most crying sanitary evils, as cesspits, other gross accumulations of surface filth, impure drinking water, stagnant air vitiated by overcrowding in houses, workshops, mines, hospitals, ships, gaols, and other confined spaces, a marked improvement was effected in public health, a great reduction of mortality was realised, and a greater duration of life was attained. But latterly there has been somewhat of a lull in sanitary work, with the result that sanitary improvement has not been so marked in the last decennium as in the previous one, with one or two exceptions. I am fully aware that the evils "that flesh is heir to" are not all the outcome of filthy surroundings; some are the result of immoral lives; some are produced by artificial habits and overstrain; and others are the result of infections of a specific kind, which would spread under any circumstances even in a community whose sanitary arrangements and personal habits were above reproach. But even here we do not know how much is due to filth somewhere, and even if filth is not the cause of some diseases, it can hardly be denied that it is a condition which favours their attacks and intensifies their character. While, therefore, admitting that there would be disease if filth were abolished, I contend that it would, under the circumstances, be enormously diminished both in degree and kind, and that we are justified in holding the view that filth is still the great predisposing, if not exciting, cause of the great amount of ill-health existing in communities. It is not my intention to refer to all the filthy conditions surrounding human habitations; they are too numerous. I wish to refer only to those connected with the various methods of dealing with excremental refuse. After long observation I have come to the conclusion that if we are to continue the onward march of sanitary progress, to obtain a higher degree of health, a happier existence, and an extended duration of life, especially in towns, all the methods of interception and retention of excreta and other polluted matters must be abolished, and be replaced by a simple, cheap, and rapid means of conveying them from our midst to a position where they not only can do no harm, but where they may be made to contribute to the benefit of populations. The primary provision for the disposal of excreta is some form of privy or closet. The principal forms are the old ashpit midden, the pail or pan with the use of ashes as in Manchester, or without the use of ashes as in Rochdale, the "Goux," and the earthcloset. I have nothing to say about any of these except to utterly condemn them for use in communities on the ground that they all intercept and retain in our midst what Nature has told us in unmistakable language should be at once removed to a distance, what decency has emphatically condemned, and experience has shown to be a most prolific source of sickness and death. Knowing, as we do, the baneful effects of a large exposed surface of fæcal matter fresh and putrid, normal and infective, I would ask: Is it likely that towns can enjoy the highest attainable health while breathing the effluvia and drinking the exudations, however diluted, of such a mass of the most offensive and poisonous matter, intended and made by Nature to be offensive so that natural disgust might prompt its removal or proper disposal, and if not removed allowed to be poisonous, and so reading a sterner lesson to the careless and the ignorant in the low health, the disease, and the death which inevitably result from the disregard of a simple and natural law. If these receptacles were situated always in the free open air at a distance from dwellings, where abundance of air could gain access to them and exert its oxidising influence, they would be less objectionable; but instead of this they are in almost all cases near to houses, pails are frequently only 3 feet from the doors of the houses, while in the case of ashpit middens one of the walls of the dwelling house not uncommonly forms also one of the sides of the pit, absorbing its gaseous and liquid filth and conveying it to the air of the dwelling, contaminating it and the interior of the wall and floor. Not infrequently the liquid filth from the pit flows over the floor and into the foundation. It is impossible to conceive anything more filthy or dangerous. Again, if the surface of these receptacles constituted an area of a limited extent they might be regarded with less apprehension; but, as a fact, the area is enormous, and in a large town amounts to many acres. It appears hard to avoid the conclusion that as long as these and so many other filth conditions are allowed to remain among communities, the contest with disease will be unequal and unsuccessful. The filth diseases so fostered will continue to maintain their ground, and the death-rate will undergo only very slow and very slight diminution. The only method to supplant

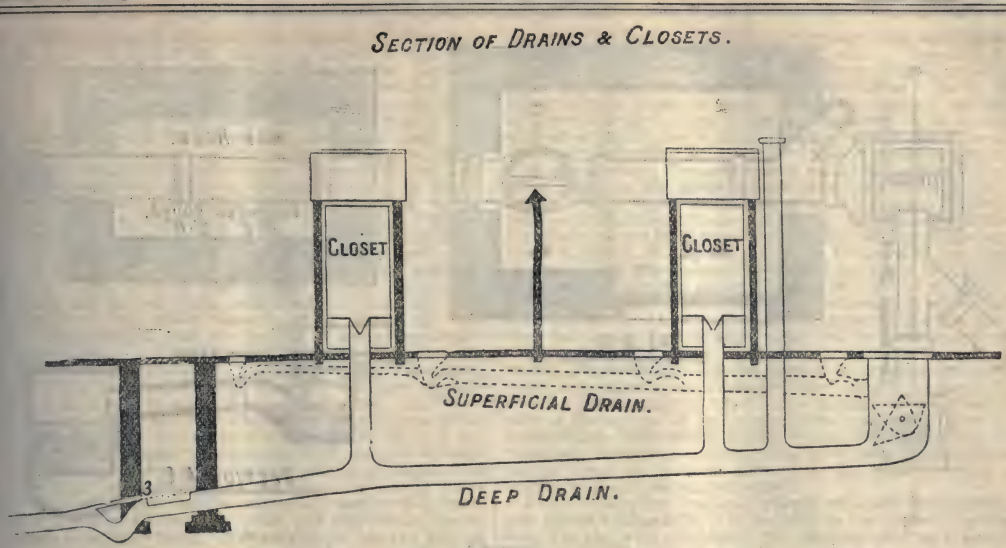


Diagram 1.

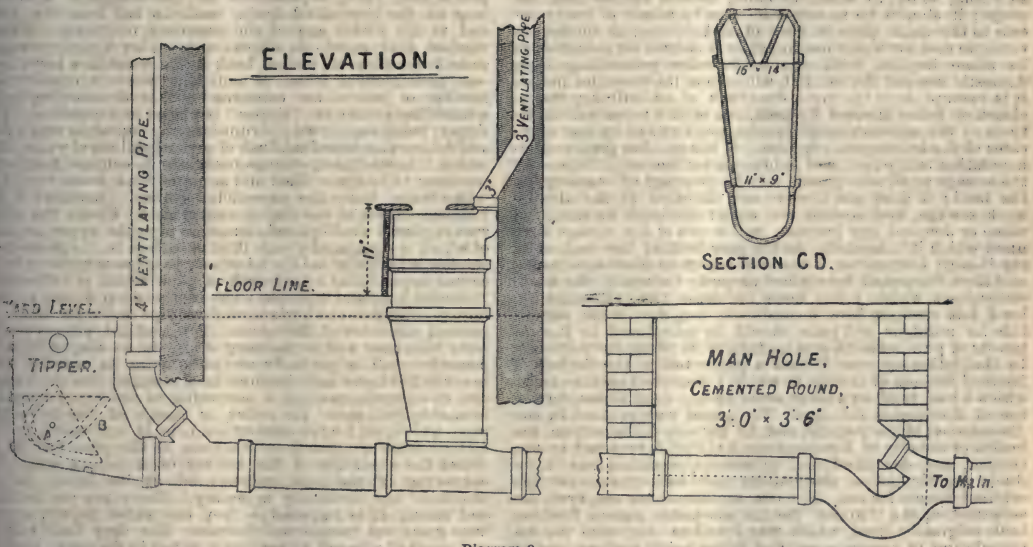


Diagram 2.

the existing interception systems is that of water carriage, and this is not new. Ancient Rome is found to have had its water closets, and as we are following her example in conducting abundant and pure water supplies from long distances to our towns, so we cannot do better than imitate her in the use of the watercloset. As a consequence of improved knowledge and greater refinement no other arrangement is admissible for decent houses; but there is no reason in limiting a good system in this manner, and if it is found best for one kind of house it is best for all, receiving only such modifications as the difference of circumstance requires. A watercloset suitable for a high-grade house is of course not suitable for the houses of the poorer classes; its too complex, and therefore delicate, mechanism would soon cause it to be broken or otherwise disordered, and the cost of repairs and the consequences of obstruction and damage would be so serious as to render them impracticable. Again, the small dwellings of the lower working classes are not favourable to a closet inside the house. These differences of conditions admit of, and, indeed, demand a closet of a different kind—a closet which, while it replaces the midden and the pail by a water-carriage system, does not require to be placed inside the house, and is so arranged as to dispense with cistern pulls, cranks, valves, or, indeed, any fittings of a mechanical

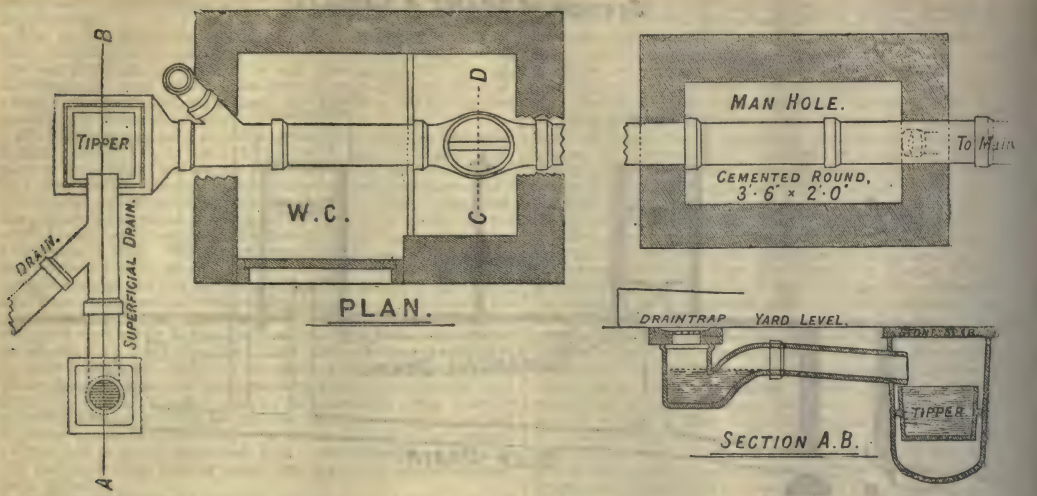


Diagram 3.

kind, thus saving much expense; it should consist of parts so strong as not to admit of being broken by the roughest usage; it should be so constructed as to admit of ready access to the drain pipe in case of obstruction; it should involve no cost for water inasmuch as it should be actuated, as its name implies, with the waste water proceeding from domestic use and the rainfall, while from its essential nature it is exempt from the great drawback of an ordinary water-closet of being affected by frost, one of the principal objections to the water-carriage system put forward by the advocates of the interception system. It has another great recommendation to the notice of public authorities who dispose of the sewage as all sewage ought to be disposed of—namely, on the land; it does not involve any dilution of the already weak sewage, and so does not either diminish its manurial value or demand any increase in the area of the sewage farm upon which it is treated. In the year 1886, at the request of my Health Committee, I made a report on the waterclosets, and then suggested for cottage property the use of the waste watercloset, which I had been for some time excogitating, for I felt strongly how desirable it was that some substitute for middens and pans should be introduced in the interests of public health and for the credit of sanitary science. In the following year I read a paper before the Society of Medical Officers of Health in which I described such a closet, which I had tried on a large scale in one long series for the use of thirty-nine cottages. The paper was printed in the *Transactions* of the Society, and in my annual report on the health of the city of Birmingham for 1890, I recurred to the subject, and described and illustrated modifications introduced by Mr. Allen, the builder who had constructed the original closets for me. The two modifications are, first, the substitution of a "tipper" for the automatic siphon flushing tank originally used, which was found to clog from the accumulation of grease, soap, and other solid matters, and to necessitate the occasional cleaning out of the tank, the contents of which, moreover, were offensive; and, secondly, an arrangement at the top of the perpendicular pipe immediately under the seat for preventing the entrance of improper matters which could cause obstruction; it consists of a head piece provided with a slit $2\frac{1}{2}$ inches wide, extending from front to back. The working model in the exhibition will show at a glance the construction and working of the closet. I propose now, in calling your attention to the diagrams, to explain briefly in detail the various parts and features of the closet. Diagram 1 represents a section of premises where the system is in operation, and indicates the point at which slop water issues from the backs of the houses, two such points only being represented on the diagram. A surface trap on the superficial drain, made to fall from the sewer end to the distal end of the premises is shown. Having reached that point, its direction is either simply reversed so as to continue its course back to the sewer at a lower level—an arrangement which is sufficient where a considerable number of houses are concerned—or, at the turning point, a tumbling cistern or "tipper," is placed in a chamber. This tipper, being supported on trunnions, tips up when nearly full, and delivers an abundant flush of several gallons of water, after which it immediately swings back into its original horizontal position, to be again filled and actuated by a fresh supply of waste water from the superficial drains. Diagrams 1 and 2 show sections of the drains and closets. Under the closet seat is placed a salt-glazed stoneware pipe, the upper aperture of which is oval, and about 16 × 14 inches in its diameters, the lower aperture is 11 × 9 inches; this lower opening is received into a collar on a length of pipe which is cylindrical, 22 inches long and 9 inches wide in the deep drain, so that the opening into the horizontal drainpipe is larger than the general diameter of the same. The vertical pipe, running from the closet seat to the deep drain, is so shaped that its posterior wall is perfectly vertical, while its anterior wall, towards the lower end, inclines in a straight line backwards and downwards, causing a narrowing of the lower aperture, to enable it to enter the collar, or flange of the horizontal pipe, which, as I have already said, is 11 × 9 inches in diameter. This peculiarity in the form of the pipe has for its object the obviation of the soiling of it during use. The narrowing of the pipe, represented at its lower end, is of course not absolutely necessary. The pipes are so thick and strong it is impossible they can suffer injury, except from great and intentional violence. The deep drain may be composed of pipes of either 6 or 9 inches in diameter, and for 8 or 10 feet before the siphon should have a somewhat increased fall, in order to carry everything through it. No siphon should be fixed at a distance of less than 10 feet from the nearest watercloset. A manhole or inspection opening (Diagrams 1 and 3), not less than 3 feet 6 inches × 2 feet in diameter, is placed at the point of the drain nearest the sewer, enabling any accidental stoppage to be removed without difficulty. The floor of this manhole is provided with a pipe, the upper half of which is removable, so converting it into an open channel; but it is found desirable in these closets to place the upper convex half of the pipe loosely in position on the lower half, as indicated by the dotted line. The object

of this is to prevent an accumulation of paper, or other light substances, at the exit of the floor pipe, which is otherwise liable to occur. It is very desirable to have several manholes on the line of the deep drain; they are constructed at a trifling cost, and are extremely convenient and economical. In case of obstruction of the drain, immediate access to it is obtained on removing the cover, and the drain each way, owing to the introduction of the raking arm can be raked, and any obstructing object cleared away with the least possible trouble, time, and cost. Where the series of closets is extensive, some of the vertical pipes may act as air inlets, others as outlets, causing some degree of nuisance. This result may be prevented by the insertion of a ventilating shaft, connected with the highest point of the deep drain, and running up the side of the house in a suitable position. Diagrams 2 and 3 show the details of the pipes. All pipe-joints are to be made with Portland cement. The superiority of the waste watercloset is becoming very widely acknowledged, and the system is being introduced into many towns. In Nottingham it has been experimentally tried, with, I hear, satisfactory results; in some Lancashire and Yorkshire towns, and many others, it has been already largely adopted, and is about being so by others; in Providence, in America, it has been accepted in consequence of the medical officer there having read a description of it in my annual report. In cases where it has failed to give satisfaction the cause is either the inherently vicious arrangment of the particular form adopted, or the improper laying of the pipes. There are many modifications of the waste watercloset, so that it becomes necessary to point out the advantages or the defects of some of them. Fowler's closet has two glaring defects: its supply of water is too much like a "trickle," and the presence of a bend trap at the bottom of the shaft prevents the feeble stream carrying away the contents. The presence of such bends is also objectionable in the case of a series of closets, for the reason that even with a "head" of water from a siphon tank or a tipper the force of the current becomes so weakened by the obstruction as to be inefficient in the later members of the series, which consequently are never freed from their fæcal contents. A bend-trap under the closet is admissible only for single closets supplied with a brisk flush of water. Similarly I object to the slight "dishing" even of the drainpipe under the lower opening of the shaft, for the same reason that a small stream of water is too weak to remove the contents. The feature which I regard as the cardinal one of the form of closet proposed by myself, and which, as far as I know, is possessed by no other, is the absence of any form of trap or dish, which, while it is altogether unnecessary, is unquestionably disadvantageous. I spoke just now of a supply of water so small as to amount only to a "trickle." Now, it is only with such a small supply that my proposed form of drainpipe will efficiently act, and the reason is not difficult to perceive. Fæcal matter has a specific gravity very nearly identical with that of water, so that when lying upon a smooth wet surface, with a very slight incline, it is carried away with perfect ease by a very minute current of water; but such would not be the case if it lay in a depression, however shallow. It is unnecessary for me to say that personally I have no pecuniary interest whatever in any form of closet; I desire only that in the public interest the best form should be adopted; and now that attention is being actively drawn to this subject, it appears to me desirable to take advantage of the present occasion when so many medical men and medical officers of health are met together, to give an opportunity for a study and a discussion of the question. If any proof were needed of the importance and interest of the subject, it is furnished by the fact of Dr. Parsons's recently published "Report to the Local Government Board on Slopclosets and Troughclosets." This report may be studied with very great advantage, as it presents a large amount of very valuable information, well arranged and illustrated. The objections most commonly urged against the waste watercloset are that they are not quite free from odour in some cases, and that they may become obstructed by the introduction of various matters. Now, none but the very best watercloset are quite free from odour, and neglected watercloset are quite as bad as the waste or slop-closets; but the same amount of perfection is not demanded in the latter as in the former, because they are simply out-of-door substitutes for the midden privy and pan, and do not require, therefore, the same degree of purity. Moreover, the odour perceived is generally that of urine, and is no worse than that proceeding from any ordinary urinal. As to obstruction, that is just as easily caused by careless, reckless, or ignorant tenants in an ordinary watercloset as in a waste watercloset, while the manhole connected with the latter enables any obstruction to be removed at the smallest possible cost and trouble. The more recent modification of the single closet has the slit basin placed at a lower level, so as to admit of being itself washed clean at each flush. With experience of the closet there can be no doubt that it will be further improved from time to time. In very low neighbourhoods it would be a great advantage to exercise periodical supervision of the closets; it would entail much less trouble and expense than the present system of removal of pan and midden contents. I leave the subject of troughclosets as outside that of the waste watercloset, because in the first place they are not actuated by waste water, but by fresh; and in the second place, the water required is very large in volume, which is objectionable on the ground of expense and in relation to sewage farms; moreover, they can only be employed where a water supply is "laid on," and they partake considerably of the nature of an interception system, owing to the considerable time which is allowed to elapse between the flushings. I think the verdict upon the system of waste watercloset must be in their favour, on the triple ground of health, convenience, and economy.

Dr. Reid said that medical officers of health undoubtedly had reason to thank Dr. Hill for having instituted a system which might, with confidence, be recommended as a substitute for the objectionable privy system of excretal removal. Experience of slop waterclosets in various towns in which they had been in operation for a considerable time, went to prove that these appliances might confidently be recommended in cases in which the system was applicable. As regards the particular form of closet to recommend, the speaker had had considerable experience of Duckett's, and he was of opinion that it was not open to the objection mentioned by Dr. Hill.

Dr. Mitchell Wilson said that all medical officers would agree in according praise to Dr. Hill for bringing forward a design which was a great improvement on the old arrangements. Whilst readily recognising that, he felt bound to say that he scarcely approved of the idea of sloping pipes. He thought it would be better that the pipes should be laid at such a level that they would retain a small quantity of water.

Dr. Simpson (Manchester), thought that in the Allen method and in the Duckett closet an objectionable point was that the flushing took place so far below the seat of the closet, so that soiling of the sides of the closet must occur. He thought the flushing should wash all the surface that was filthy.

Dr. Groves (Isle of Wight) observed that the kind of method used for filth removal must depend upon the character of the sanitary district. If there were sewers into which closets could discharge, it was most desirable that a flushing arrangement should be fixed to them. The ordinary closet for cottages was that with the hopper pan without flushing arrangements usually. If the slops could be admitted at the slit of the hopper with a rush by means of the apparatus of Allen's closet, it would be a great gain in such places, as it was an economical arrangement. In districts where there were no sewers, water carriage of filth was to be avoided, because it necessitated cesspits, which were objectionable where there was no independent water supply. If pan closets were used the flush admitted at the top of the pan kept it fairly clean, or, at any rate, far cleaner than they would be kept by the flush below the pan.

Dr. Wheatley (Blackburn) stated that in that town there were 300 or 400 slop waterclosets. Some of them were of the Duckett type, and others were hopper closets, flushed by a hopper beneath the seat. It was found that the powerful objection to these closets was the odour which was always associated with them. The better class working population objected to them, and much preferred the ordinary water closet, whilst in the very poorest districts they were found very frequently to get out of order. For these reasons, and

because Blackburn had a very good water supply, no new slop waterclosets were at the present time being put in.

Dr. Whitelegge called attention to the need for periodic renewal and revision of the information given in Dr. Parsons's report. Further experience was being gained, and further improvements introduced constantly, but there was at present no way for any authority desiring to adopt a better system, to find out what had been done since the date of Dr. Parsons's inquiry.

The Chairman (Dr. Tatham) also made some remarks, and expressed the opinion that the closets were not suitable for indoor use.

Dr. Hill, in replying on the discussion, said, in regard to the admission of rainfall to the closets, that where the dual system was in use the rainfall would be excluded from the closet, but in Birmingham the sewers carried the rain water as well as the sewage matter. That being so, he thought they were quite justified in dealing with the matter in the manner in which he had suggested. He objected to a trap under the seat. It had its advantages, no doubt, for it stopped foul air; but he objected to it because it was apt to lead to an accumulation in the bend where the flushing was not sufficient. Modifications of the system which he had suggested had been tried in Birmingham but had failed. Flushing would not altogether obviate the difficulty which was experienced. There must also be rubbing and friction. It had been said in the course of the discussion that long shafts were objectionable, but in certain districts long shafts were inevitable. Where they could be used, it was, of course, desirable that short shafts should be employed. He had not a word to say against earthclosets in the country; but it was not with the country he was dealing. They had never contemplated the use indoors of the closets which he had been describing. He looked upon them as a substitute for middens, in which respect they were an enormous improvement. The soiling of the shaft was an objection; but it occurred in neglected watercloset, which necessarily required some attention, and where it was not given by the users it should be furnished by the scavengers who removed the ashes.

THE CONDEMNATION OF TUBERCULOUS MEAT.

Dr. E. W. Hope, Assistant Medical Officer of Health, Liverpool City and Port, said: Cattle, pigs, poultry, and rarely sheep, are all liable to be affected with tubercle, but it is in cattle, and more especially milk cows, that tuberculosis is met with. The flesh of the tuberculous animal is affected in varying degrees, and much diversity of opinion exists as to the stage at which the flesh should be condemned. Opinion is practically unanimous that in advanced stages of tuberculosis the consumption of the flesh should be prohibited, not that every observer is prepared to state that its consumption would give rise to specific inoculation, but on the general grounds that the flesh is so deteriorated as to possess no longer the nature, quality, and properties of wholesome nutritious meat. Thus far the position is a simple one, and any practical butcher can recognise when the disease has advanced so far as to prejudice the quality of the meat. Tuberculosis is known by various names, such as "grapes," "wasting," "pearls," and the like, the first term being perhaps the commonest, from the fancied grape-like arrangement of the nodular tuberculous masses frequently found adhering to the chest walls. The most common seats of the disease are the lungs, pleuræ, and other serous membranes; the liver, lymphatic, and other glands are often affected, sometimes the marrow and the nervous system, and it is also alleged that bacilli have been found in the flesh. The extent of the local lesions varies widely; they may be limited to a single nodule, or almost the entire organs mentioned may be invaded, their tissues destroyed by caseous or calcareous masses or by liquefying pultaceous matter. Grape-like aggregations of various sizes attached to serous membranes are extremely common, and the condition left by stripping them away with the costal pleuræ, with a view to conceal the appearances of disease, should at once attract attention and lead to a close examination. The various conditions are all forms of one and the same process, and caused by a microbe which, growing in the tissues, gives rise to the tubercles, and which, by reason of its being thrown off from the diseased animal in quantity, renders the malady a contagious one. The temperature which is most favourable to the growth of the microbe is that of the ordinary body heat of a warm-blooded animal, say 98° to 100° F. A temperature of or below 32° F. appears to kill it, as does also continued exposure above 108° F. These are points of considerable practical moment, as suggestive of the probable effects of cooking or of refrigeration upon the bacillus. It is regarded as established that the infectious discharges of a tuberculous animal remain actively virulent in this climate for a long time after they have been cast from the body, and stalls and sheds may thus become a source of danger unless thoroughly cleansed. Inhalation appears to be the usual way in which the microbe enters the body, a circumstance which would be anticipated from the frequency with which the lungs are the seat of the disease; on introduction into the blood the disease may spread so rapidly as to constitute acute or general tuberculosis, or on the other hand it may be limited for a considerable time to the point of entry and neighbouring lymphatic glands, which local lesions are frequently the only ones detectable, producing during life no symptom whatever, the animal being slaughtered in prime condition. As the malady progresses, emaciation and weakness become marked, milk diminishes and is poor in quality; when the animal is slaughtered the extensive signs of the disease already described are met with, the flesh is soft, skinny and dropsical, the fat wet and flabby, the carcass in short presenting every sign of unsound meat. A very important and much discussed question is: At what stage is the flesh of a tuberculous animal unfit for human consumption? Some observers contend that the whole carcass should be destroyed if the merest trace of tubercle is discovered, even though the carcass may be otherwise in prime condition. The general practice, however, in this country is to condemn any carcass in which the disease is extensive, or has progressed so far as to cause deterioration of the flesh. In Prussia, where very great care is taken in inspecting meat, the law is to this effect: "The condition of the flesh of a tuberculous animal is to be regarded as dangerous to health when the meat contains tuberculous nodules, or the tuberculous animal has begun to show emaciation; while, on the other hand, the meat is to be regarded as fit for food when the masses of the tubercle only occur in an organ, and in general the beast is well nourished." The French decree says: "The flesh of tuberculous animals shall be excluded from consumption (1) if the lesions are generalised, that is to say, not confined; (2) if the lesions, although localised, have invaded the greater part of an organ, or are by an eruption on the walls of the chest or the abdominal cavity." That the tubercle bacillus may be introduced into the body by swallowing is shown by the fact that tuberculous secretions, mucus, saliva, portions of tubercles from diseased tissues, and cultures of the bacilli have been swallowed by various animals, and some of these animals have subsequently developed the disease. It will be noted that in all of those cases the presence of the bacilli was demonstrable in the tissues swallowed—the most diseased parts were, in fact, carefully selected for the experiments. There is obviously a vast difference between eating masses of tuberculous matter and eating the properly cooked flesh of an animal which is sound except for the presence of, say, a nodule in the lung. In the report of the inquiry of the Departmental Commission appointed by the Privy Council in 1888 to inquire into the subject of tuberculosis, no case of tuberculosis in man from eating the flesh of tuberculous animals was stated, although witnesses were fully interrogated upon this point. Professor Bang, of Copenhagen, thinks that experiments show that the muscular tissue is so unfavourable a nidus for the tubercle bacilli that they do not multiply in it. He is of opinion that the seizure of the meat of every tuberculous animal is too severe a measure, and where the lesion is localised he does not consider that the consumption of the meat is attended with danger.

Dr. Simpson said although the flesh of an animal, where tubercle was localised in the lungs, might be healthy, bacilli might be carried by the manipulations of the butcher, and deposited on sound flesh.

Dr. Alfred Hill said the practice he followed with regard to the flesh of tuberculous animals and the views he held were quite in accordance with those of Dr. Hope. He did not regard the presence of tuberculosis in the lungs or other local organ as rendering the flesh unfit for food. Before condemn-

ing it as unfit, he should require evidence either of ill-health before slaughter, or of a vitiated condition of the meat. Mere inferiority of the meat would not necessarily cause it to impart tuberculosis, but he would then condemn it because of its inferior quality, and as a prudent measure of precaution. It had never been proved, as far as he knew, that the eating of the apparently healthy flesh of an apparently healthy animal, although affected with local tuberculosis, had produced the disease. As long as human tuberculous disease diminished coincidently with the use of more animal food than ever, and the greater prevalence of animal tuberculosis than ever, he should consider it unjustifiable to condemn such meat out of regard for both the meat trade and the consumer. As to milk from tuberculous cows, it had not been found that tuberculous disease among children was increasing. As soon as proof could be adduced of injury, instead of mere theoretical speculation, he should be prepared to change his views and his procedure in regard to the use of such meat and milk.

Dr. Boobbyer thought it was impossible to adopt the proposal that meat should not be destroyed until tuberculous disease had affected the condition of the whole animal. In Nottingham they followed the rule of destroying animals which were in an extremely emaciated condition indicating disease. There were some cases, however, in which animals appeared to be in a perfectly good condition until they were cut open and the disease was discovered.

Dr. Watt (Aberdeenshire) thought it would be well if the plan recommended by Dr. Hill could be followed, but considered that, for several reasons, it would be unsafe. If any part was affected, the whole carcass should be destroyed. With regard to tuberculous milk, experiments on animals had shown that consumption of milk from tuberculous cows produced tuberculosis. It would be most important to establish a systematic inspection of dairy cows, as carried out in Denmark, to detect tuberculosis at the earliest possible period in the cows. It had been said that the tubercle bacilli could not live in the acid secretion of the stomach, but that did not apply to their spores, which might be absorbed and carried by the lymphatics to the glands.

The Chairman (Dr. Tatham) contended that the practice of many sanitary authorities in relation to this matter could not be justified. Either tuberculous meat was dangerous or not. He thought it was dangerous, and that therefore every carcass which was tuberculous should be destroyed.

Dr. Hope, in reply, said that every anxiety was shown by the sanitary authority to protect the public health, and to prevent the consumption of noxious materials as food. Further evidence would be necessary before additional steps could be taken with successful results in regard to the destruction of alleged tuberculous animals.

Sir John Arnott has given a cheque for £1,000 to be allocated among the Cork Hospitals.

The Berlin Academy has voted a sum of 800 marks to Professor Wernicke, of Breslau, towards the expense of the revision of his *Atlas* of cerebral anatomy.

The Nightingale Fund.—The report of the Nightingale Fund for the year 1891, which has just been issued, states that seven special probationers, and twenty nurse probationers, were entered on the register of nurses after satisfactorily completing their year of training; twenty-eight obtained appointments, either at St. Thomas's Hospital, or elsewhere. Important changes have taken place in the teaching medical staff, owing to the retirement of Dr. Bristowe and Mr. Croft. Dr. Ord has undertaken to give the course of lectures on medical subjects, and Dr. Seymour Sharkey has accepted the office of instructor and medical attendant. The death of Dr. Bernays, who gave annually a course of lectures on heat, air, water, and diet, is recorded as a great loss to the training school. Sympathetic reference is made to the death of Sir William Bowman, who took an active interest in the school. Miss Vincent, the Matron of St. Marylebone Infirmary, Notting Hill, reports that twenty-three new candidates had been admitted to the training school there, and that many of those who had left the school after the completion of their training had received appointments.

MEMBERS PRESENT AT THE ANNUAL MEETING.

The following names of members and visitors attending the annual meeting were entered in the books provided for the purpose:

Abraham, P. S., M.D., London
Adam, A., M.D., Boston
Adami, J. G., M.D., Cambridge
Adler, M., L.R.C.P., Hanley
Airling, J. H., M.D., London
Aldred, Henry, L.K.Q.C.P., Manchester
Aldridge, Charles, M.B., Plympton
Alexander, S., L.R.C.P. Ed., Bulwell
Allbutt, T. C., M.D., Cambridge
Allen, Richard G., M.R.C.S., Belper
Allen, H. M., F.R.C.P., Brighton
Allison, J., M.B., Kettering
Alston, Hy., M.B., Trinidad
Anderson, A. R., F.R.C.S., Nottingham
Anderson, Mrs. Garrett, M.D., London
Aplin, Alfred, M.D., Nottingham
Arbuckle, H. W., M.D., Thorne
Arbuckle, John B., M.D., Kilmarnock
Archibald, J., M.D., Loughborough
Armistead, W., M.B., Sheffield
Armytage, F. F., L.R.C.P., Rotherham
Arnison, W. C. M.D., Newcastle-on-Tyne
Arthur, J., L.R.C.P., Windgate
Ashby, H., M.D., Manchester
Ashdown, K., M.D., Lincoln
Ashford, Edwin C., M.R.C.P., Bath
Ashwell, Herbert G., M.R.C.S., Nottingham

Bagshawe, F., M.D., St. Leonard's-on-Sea
Bailey, H. B., M.D., Loughborough
Bailey, T. R., M.D., Bilston
Bain, William, L.R.C.P., Manchester
Balding, D. B., F.R.C.S., Royston
Bamford, C. R., M.R.C.S., Uttoxeter
Banks, Leonard P., L.K.Q.C.P.I., Sutton-in-Ashfield
Bark, J., F.R.C.S., Liverpool
Barker, A. J., M.D., London
Barnes, J. W., F.R.C.S., London
Barnes, W. R., M.D., Lyss
Barr, T., M.D., Glasgow
Barron, G. B., M.D., Southport
Barry, P. J., L.K.Q.C.P.I., Dublin
Barton, G. H., M.R.C.S., Market Rasen
Barwise, S., M.B., Derby
Batchelor, F., M.D., Dunedin, New Zealand
Bateman, Sir F., M.D., Norwich
Bateman, F., M.B., Whitchurch
Batten, R. W., M.D., Gloucester
Beaumont, W. M., M.R.C.S., Bath
Bell, J. B., M.D., Bradford
Bennett, F. W., Leicester
Benson, A. H., F.R.C.S., Dublin
Benthall, W., M.B., Derby
Berridge, R. E., M.B., Sunderland
Berry, Frederick, M.D., Watford
Berry, G. A., M.B., Edinburgh
Berry, H. P., M.B., Grantham
Bevan, W. C. P., M.D., Alton
Beverley, Michael, M.D., Norwich
Bickerton, T. H., M.R.C.S., Liverpool
Bingham, H., M.D., Belfast
Bingham, John, M.D., Alfreton
Birt, George, M.B., Stourbridge
Bishop, E. S., F.R.C.S., Manchester
Black, J. G., Surg.-Capt. M.S., Coleraine
Blackburn, W., M.R.C.S., Nottingham
Blake, W. H., M.B., Harpenden
Blakesley, H. J., F.R.C.S., Leicester
Blandford, J. W., Stockton-on-Tees
Blurton, E. F., M.B., Nottingham
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Hodges, Frank H., F.R.C.S., Leicester
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Hollings, Robert, M.D., Wakefield
Holloway, L. F., M.R.C.S., Erchfont
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Johnson, S. E., L.R.C.S., Birmingham
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Pegge, W. J., M.R.C.S., Beeston
Pegler, L. H., London
Penberthy, W., M.R.C.S., Nottingham
Penny, Dep. Surg.-Gen. J. C., London
Percival, A. S., M.B., Newcastle-on-Tyne
Perry, S. H., L.R.C.P., Birmingham
Philipson, G. H., M.D., Newcastle-on-Tyne
Phillips, S., M.D., London
Philpots, E. P., M.D., Bournemouth
Pierce, Bedford, M.D., London
Pilcher, W. J., F.R.C.S., Boston
Pinkerton, Chas., M.D., Southport
Polson, G. Y., M.B., Southwell
Pope, E., M.R.C.S., Tring
Pope, F. M., M.B., Leicester
Porter, F. C., M.R.C.S., Nottingham
Pott, F. H., M.D., Bournemouth
Potter, H., M.R.C.S., Ilkeston
Powell, Evan, M.R.C.S., Nottingham
Power, D'Arcy, M.B., London
Powne, B. L., M.R.C.S., Chard
Prankerd, O. R., M.D., Brighton
Pratt, Alfred, M.D., Lincoln
Pratt, R., Leicester
Price, William, M.B., Cardiff
Pringle, Robert, M.D., Brigade-Surgeon, London
Pryce, Thos. D., M.R.C.S., Nottingham
Putsey, W. H., M.D., Derby
Pye-Smith, R. J., F.R.C.S., Sheffield

Raley, Surg.-Major John, Bedford
Ramsden, H., M.B., Dobcross
Rand, John, F.R.C.S., London
Rankin, James, L.F.P.S.G., Kilmarnock
Ransom, W. B., M.D., Nottingham
Ransom, W. H., M.D., Nottingham
Ratcliffe, J. R., M.B., Birmingham
Rayner, H., M.D., London
Reeves, H. A., London
Reid, Surg.-Capt. J., H.M.S., Rothwell
Rentoul, R. R., M.D., Liverpool
Rhodes, James, Glossop
Rice, W. R., M.D., Coventry
Richards, J. E., L.R.C.P., Huddersfield
Richards, Joseph P., M.R.C.S., Ealing
Richardson, W., M.D., Isle of Man
Rigden, B., M.R.C.S., Canterbury
Ringrose, E., L.R.C.P., Newark
Ritchie, James, M.B., Oxford
Roberts, James, M.B., Nottingham
Roberts, R. J., M.B., Lowestoft
Robertson, C., M.D., Birmingham
Robertson, J. A., Stilton
Robertson, R., M.D., Ventnor
Robertson, W., M.D., Newcastle-on-Tyne
Robinson, W. T. G., M.D., Poole
Robson, A. W. M., F.R.C.S., Leeds
Roddick, T. G., M.D., Montreal
Rolston, John, M.D., Devonport
Roper, W. R., M.D., Cambridge
Ross, J. A., M.D., Folkestone
Rothera, F., M.D., Beeston
Roulston, R. J., M.D., Newtown Stewart
Rowell, George, F.R.C.S., London
Ruffer, M. A., M.D., London
Rugg, G. P., M.D., London
Russell, A. P., M.B., Lincoln
Russell, W., M.D., Edinburgh
Ruxton, W. L., M.B., Sheffield
Rygate, D. J., L.R.C.P., Cambridge
Rygate, J. J., M.B., St. Leonard's
Rygate, J. R., L.R.C.P., Bridgwater
Rygate, R., L.R.C.P., Banbury
Ryan, S., L.R.C.P., Sheffield

Sandford, A. W., Cork
Sandwith, F., M.R.C.S., Cairo
Saundby, Robert, M.D., Birmingham
Savill, Thos., Thos., M.D., London
Scewen, J. S., M.D., Derby
Scofield, H. C. L., M.B., Netherfield
Scott, A. W., M.D., Woodhouse
Semon, Felix, M.D., London
Sergeant, E., L.R.C.P., Preston
Serres, J. J., Loughborough
Sharp, J. A., L.R.C.P., Derby
Sharpe, W. C., M.B., Matlock
Shea, J. G., L.R.C.S., Chesterfield
Sheen, Alfred, M.D., Cardiff
Shives, John, M.D., Liversedge
Shuttleworth, G. E., M.D., Lancaster
Simpson, H., M.D., Manchester
Sinclair, David, M.B., Bristol
Smith, A. M., M.D., Glasgow
Smith, E. G., Birmingham
Smith, Heywood, M.D., London
Smith, J., M.B., Radcliffe-on-Trent
Smith, J. Priestley, M.R.C.S., Birmingham
Smith, J. W., M.D., Ryton-on-Tyne
Smith, L. G., Tottenham
Smith, Noble, F.R.C.S.Ed., London
Smith, P. B., M.D., Aberdeen
Smith, W., M.D., London
Smith, W., M.D., London
Snell, Enoch, M.R.C.S., Nottingham
Snell, Simeon, Sheffield
Snook, S. P., M.R.C.S., Weymouth
Snow, H., M.D., London
Somer, James, M.R.C.S., Broadclyst
Somerville, John, L.R.C.P.I., Bletchley
Southcombe, A. G., London
Southern, J. A., M.R.C.S., Derby
Spanton, W. D., Hanley
Spence, W. J., L.R.C.P., Leicester
Spencer, H. R., M.D., London
Spicer, Scanes, M.D., London
Spowart, T., L.R.C.P., Sheffield
Sprott, W. J., M.D., Beeston
Stafford, W., M.B., Nottingham
Stamp, W. D., L.R.C.P., Plympton
Stanger, Wm., F.R.C.S., Wakefield
Stansfield, R. K., M.B., Sutton
Stark, N., M.B., Glasgow
Stear, H., M.R.C.S., Saffron Walden
Steele, S. T., M.R.C.S., Morley, Leeds
Stephen, G. N., M.R.C.S., Cyprus
Stephens, Edward, L.R.C.P., Ilminster
Stephenson, A., M.D., Nottingham
Stephenson, Sydney, M.B., London
Sterling, R., L.R.C.P., Stoneyford, co. Kilkenny
Stevens, G., Bury St. Edmunds
Stevens, W. Goldie, L.R.C.P., Renfrew
Stevenson, George, M.D., Stretford
Stewart, James, F.R.C.P.Ed., Clifton
Stewart, Jas., M.D., Montreal
Stewart, Donald, M.D., Nottingham
Stewart, R., M.R.C.S., Leicester
Stiles, H. J., M.B., Edinburgh
Stockman, Ralph, M.D., Edinburgh
Stoker, G., F.R.C.S., Dublin
Strachan, John, M.D., Dollar
Street, A. F., M.D., Westgate-on-Sea
Surveyor, N. F., M.D., Bombay
Sutherland, H., M.D., London
Sutton, Frederick, M.R.C.S., Gainsborough
Sutcliffe, J., Stalybridge
Swain, E., M.R.C.S., Hitchin
Swain, J. M., M.R.C.S., Long Clawson
Sykes-Ward, A., M.D., Nottingham
Symes, W. S., L.R.C.P., Chesterfield
Symonds, C. J., London
Sympson, E. Marsh, M.D.

Tait, Lawson, L.R.C.P.Ed., Birmingham
Tapson, J. A., L.R.C.P., London
Tate, W. B., M.D., Nottingham
Tatham, John, M.D., Manchester
Taylor, C. H., M.B., Derby
Taylor, C. V., M.D., Nottingham
Taylor, Frederick, M.D., London
Taylor, G., M.R.C.S., Matteshall
Taylor, H. Owen, M.D., Nottingham
Taylor, J., F.R.C.S., Chester
Taylor, J. M., L.R.C.P., Burslem
Teale, T. P., Leeds
Tew, J. R., M.D., Nottingham
Thimbleby, John, F.R.C.S., Spilsby
Thomas, G. Danford, M.D., London
Thomas, Jabez, F.R.C.S., Swansea
Thomas, R. H., M.R.C.S., Ibstock
Thomas, W., M.B., Birmingham
Thompson, J., M.R.C.S., Nottingham
Thompson, J. C., M.B., Galveston, Texas
Thompson, J. Roberts, M.D., Bournemouth
Thompson, J. T., M.B., Cardiff
Thompson, M., L.R.C.P.Ed., Dorchester
Thompson, W., F.R.C.S., Leeds
Thomson, G., M.B., East Retford
Thomson, H. A., Edinburgh
Thomson, J. F., Felling-on-Tyne
Thresh, J. C., Chelmsford
Tibbies, J. T., M.R.C.S., Melton Mowbray
Tibbles, W., M.R.C.S., Nottingham
Tidey, S., M.D., Montreux, Switzerland
Tobin, T. J., M.D., Ilkeston
Tobin, W., F.R.C.S., Halifax, Nova Scotia
Tosswill, L. H., M.B., Exeter
Travell, J. W., M.B., Nottingham
Treasure, W. B. C., M.R.C.S., Cardiff
Tresidder, W. E., M.B., Nottingham
Trevelyan, E. F., M.D., Leeds
Trouton, G. W., M.B., Hereford
Truman, C. B., M.D., Nottingham
Tubby, A. H., F.R.C.S., London
Tuckey, C. L., M.D., London
Tuke, D. Hack, M.D., London
Tuke, J. B., M.D., Edinburgh
Turner, J., M.D., Edinburgh
Turner, F. C., M.D., London
Tylecote, J. H., M.D., Stone
Tyson, W. J., M.D., Folkestone

Urquhart, R. R., M.D., Perth
Usher, J. F., M.D., Melbourne

Vinrace, Dennis, M.R.C.P., London
Vinrace, John, M.D., Birmingham

Walker, Benj., M.D., Kirkby-Stephen
Walker, D. J. G., M.B., Lincoln
Walker, H. S., F.R.C.S., Leeds
Walker, J. B., M.D., Huddersfield
Walker, J. S., M.D., Hanley
Walker, N., M.D., Edinburgh
Walker, W., M.D., Glasgow
Wallace, R. S., L.F.P.S., Manchester
Walsham, W. J., F.R.C.S., London
Walter, W. H., M.D., Nottingham
Walter, W., M.D., Manchester
Warburton, E. S., Treherbert
Ward, A. O., M.D., Tottenham
Warden, C., M.D., Birmingham
Waring, Alfred, M.B., Okell, Nottingham
Waring, F. J. A., M.R.C.S., Brighton
Warner, Francis, M.D., London
Watkins, J. W., M.D., Newton-le-Willows
Watson, J., M.D., Manchester
Watson, James, M.B., Nottingham
Watson, T. A., M.B., Sunderland
Watt, J. P., M.B., Aberdeen
Weatherley, L. A., M.D., Bath
Webb, G. F., M.R.C.S., Dawlish
Webb, Henry L., M.R.C.S., Cheadle
Webster, T. J., M.R.C.S., Merthyr Tydvil
West, S., M.D., London
Westwood, H. O., L.R.C.P., Bingham
Wheatley, J., M.D., Blackburn
Wheelhouse, C. G., F.R.C.S., Filey, Yorks.
White, G. G., M.R.C.S., Nottingham
White, H. W., L.R.C.P., Bradford
White, Joseph, F.R.C.S.Ed., Nottingham
White, S., M.D., Sheffield
White, T. H., M.R.C.S., Lincoln
White, Wm., M.D., Hadfield
Whitehead, Surgeon-Captain H. R., A.M.S., Netley
Whitelegge, A., M.D., Wakefield
Whitham, Alfred, Adlington
Wild, G. S., M.R.C.S., Bootle
Wilks, J. H., M.B., Sheffield
Willan, G. T., Melton Mowbray
Williams, Dawson, M.D., London
Williams, E., M.R.C.S., Leicester
Williams, H., M.R.C.S., Nottingham
Williams, J., M.D., Swinton
Williams, J. M., M.R.C.S., South Devon
Williams, M., M.R.C.S., Leicester
Williams, P. Watson, M.D., Clifton
Williams, W. R., F.R.C.S., Preston
Williamson, G. E., F.R.C.S., Newcastle-on-Tyne
Williamson, J. M., M.D., Ventnor, Isle of Wight
Willmore, F. W., M.R.C.S., Walsall
Willoughby, E., M.D., London
Willoughby, J. F. D., M.R.C.S., Southwell
Wilson, Frederick, L.R.C.P., Hull
Wilson, H. P. C., M.D., Baltimore
Wilson, J. M., M.D., Doncaster
Wilson, R. M., M.D., Derby
Wilson, S., M.R.C.S., London

Wilson, Theodore, S., M.D., Birmingham
Windley, Wm., M.R.C.S., Colston Bassett
Wise, R. S., M.D., Banbury
Withers, O., M.R.C.S., Nottingham
Woakes, E., M.D., London
Wood, T. Outterson, M.D., London
Wood, W. J. H., Boston
Woodhead, G. Sims, M.D., London
Woodhouse, T. J., M.D., Putney
Woods, Hugh, M.D., London
Wray, C., F.R.C.S., London
Wray, G. B., M.R.C.S., Nottingham
Wrench, E. M., Baslow
Wright, C. J., M.R.C.S., Leeds
Wright, F. M., M.R.C.S., Nottingham
Wright, G. E., Wimbledon
Wright, James, M.R.C.S., Bottesford
Wright, Thomas, M.D., Nottingham
Wright, Walter, Bacup
Wright, W. H., L.R.C.P., Derby
Wylie, John, M.B., Stewarton, N.B.
Wynne, E. S., M.B., Rainhill
Wynne, J. Darley, M.B., Nottingham
Yorke, Wm., L.R.C.P., Loughborough
Young, W., M.R.C.S., Wimbledon

Also the following guests attended the meeting:

Dr. A. Bruschettini, Bologna
Professor Wilhelm Erbstein, Göttingen
J. Morel (Commissioner in Lunacy), Ghent, Belgium
W. A. Morton, M.D., Limerick
Dr. Wilhelm Nagel, Berlin
Dr. Roussell, Paris
W. G. Scott, M.R.C.S., Auckland, New Zealand
Dr. Laurence Turnbull, Philadelphia
Dr. Emil Pfeiffer, Wiesbaden
Professor C. Jacobs, M.D., Brussels
J. D. Lafferty, M.D. Calgary, Alberta, Canada
A. P. Chadbourne, M.D., Boston, Mass.
W. Thomson, M.D., Algiers
Thomas Barclay, M.B., Melbourne
Dr. E. A. Spilsbury, Toronto
Dr. L. F. Hockwart, Vienna
Dr. Ad. Meyer, Zurich
Dr. Hermann Schrötter, Vienna
W. H. Sergeant, Nottingham
Professor Schrötter, Vienna
J. J. Chisholm, M.D., Baltimore
Walter W. H. Tate, M.B., London
Professor Josef Gruber, M.D., Vienna
Deputy Inspector-General R. Domenichetti, Louth

ANNUAL MUSEUM.

SANITARY AND AMBULANCE APPLIANCES.

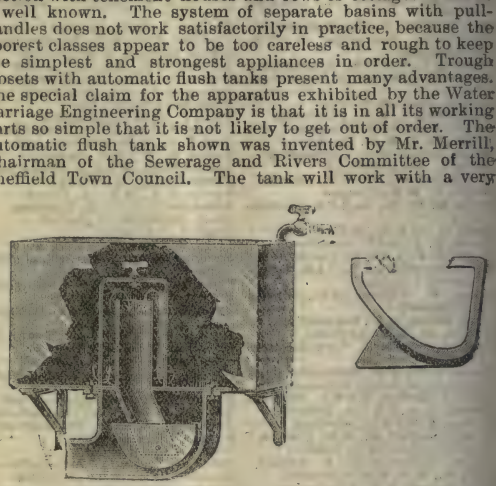
THE section of the annual museum which is devoted to sanitary and ambulance appliances received this year a special extension. The Nottingham Corporation assigned to it a large covered wood-paved drill shed at the rear of the town hall, and the exhibition was organised by Dr. Boobbyer, the medical officer of health, with whom Dr. Whitelegge was associated as Honorary Secretary. The ceremony observed at the opening of the exhibition was reported in the BRITISH MEDICAL JOURNAL on July 30th, page 259. The exhibition contained much that was interesting and instructive, and many of the appliances were shown in action.

Messrs. FOSTER AND COOPER, of Nottingham, the firm by whom the new infectious hospital of the Nottingham Corporation has recently been furnished, showed a number of hospital appliances. Among these were improved bed Tables and Lockers made from suggestions by Dr. Boobbyer, who also showed the original patterns. One of the lockers shown by Messrs. Foster and Cooper has a removable top which falls easily in its place over the locker, and, when removed, forms a bed table of strong construction and convenient design. The other locker, which is on castors, has a sliding top which can be pulled out over the bed to serve as a bed table. When not in use, two flaps fold down over the top of the locker out of the way. As agents for Messrs. Chorlton and Co., of Manchester, and Messrs. S. B. Whitfield and Co., of Birmingham, this firm exhibited a number of Hospital Bedsteads presenting various improvements.

Messrs. BILLINGTON BROS., of 2, Cambridge Street, Liverpool, showed a number of Wire-wove Mattresses adapted to bedsteads. The most novel of the designs was an epileptic bed; the mattress was of wire, and on each side was raised about a foot above the level of the bed, and curved over, thus forming a flexible but firm side to the bed, which had the double advantage of contributing to keep the patient from falling out of bed, and of preventing injury from striking against the sides during a fit.

Messrs. MERRYWEATHER AND SONS, LIMITED (London) showed several pumps and other appliances, the most noticeable of which was a Hydraulic Sewer Flusher. In cleansing sewers by flushing, in order to reach the upper part of the sewer, it is necessary to have a head of water which shall completely fill the pipes, and the quantity of water required for this purpose is large, a great deal being practically wasted. The new sewer flusher is designed to accomplish the cleansing of all parts of a sewer more effectually and with a moderate quantity of water. The demonstrations given appear to show that it is well designed to do this; the essential point in the invention is a cylindrical tube pierced by small holes arranged so that water forced through them shall play in all directions; this is the flusher; it is connected with a hose, and water under pressure is driven into it and issues from the perforations at a high speed, so that the several streams impinge upon the sides of the sewer with great force. The flusher can be mounted on wheels, and so pushed through a large sewer.

The WATER CARRIAGE ENGINEERING COMPANY, LIMITED (Mowbray Street, Sheffield) showed an Automatic Flush Tank and Trough Closet in working order. The difficulty of finding a thoroughly reliable form of closet for use in connection with tenement houses and rows of cottages in towns is well known. The system of separate basins with pull-handles does not work satisfactorily in practice, because the poorest classes appear to be too careless and rough to keep the simplest and strongest appliances in order. Trough closets with automatic flush tanks present many advantages. The special claim for the apparatus exhibited by the Water Carriage Engineering Company is that it is in all its working parts so simple that it is not likely to get out of order. The automatic flush tank shown was invented by Mr. Merrill, Chairman of the Sewerage and Rivers Committee of the Sheffield Town Council. The tank will work with a very



small trickle of feed water. The principle of its action is as follows: When the feed water has risen in the tank as high as the bend of the siphon, it runs down the long leg into the tipping bucket, which is placed in the chamber underneath. When it has risen in this tipping bucket to the bottom of the long leg it traps the siphon. In the act of trapping it slightly compresses the air in the pipe, and as a consequence the feed ceases to run down the long leg until the water in the tank has risen sufficiently high to form a head with a pressure sufficient to overcome the air pressure in the siphon. This slight head forces more water down into the tipping bucket, which compresses the air in the siphon still more and consequently requires a greater head to force more water down. When the tank is filled to the required level the tipping bucket is also filled to its tipping point, and it then casts over and discharges its contents, untrapping the siphon and releasing the compressed air contained in it, the head of water in the tank instantly charging the siphon. The trough used with this apparatus has also some special features; as will be seen from the section, it is narrowed at the bottom as in an egg-shaped sewer, and has a straight back and front from end to end. It is contended that by this arrangement the water has the greatest scouring power, and, as the result of the narrowed bottom, rises higher in the trough for the same quantity of water.

Mr. JOHN JONES (Sidney Street, Chelsea) exhibited a model designed to show both bad and good conditions of House Drainage, and Systems of Ventilation. He also exhibited a number of sanitary appliances, among others an Automatic Double-seal Air-tight Manhole Cover; the cover is double, the inner cover being arched. The arch collects the moisture which rises from the drain, and it runs down into a deep groove into which the cover fits, forming an air-tight water-seal; the top-cover is flat with the surface of the ground, and fits into another groove, which may be filled with suitable material. The principle is applied in various ways to suit varying circumstances. The same manufacturer showed drain stoppers, bag and screw expanding, which are used to plug a drain when applying the water test. It is stated that the stoppers have been much used, and found both convenient

and effectual. He also showed an ingenious air inlet ventilator for house drains; the talc was hung from the sides instead of from the top. This modification is said to render the valve more sensitive.

A Patent Asphyxiator for applying the smoke-test to drains, and for the destruction of vermin in holes, was shown by Messrs. John Watts, of Bristol.

Mr. F. Cooke (Nottingham) showed various Sanitary Appliances for houses, hospitals, and asylums; certain of these were in work. A Deluge Washdown Closet was fitted with an automatic injector. Hospital Sinks of various sizes and patterns were shown, and appeared to be of very good workmanship and design.

Mr. W. T. Allen (Gravelly Hill, Birmingham) exhibited patent Automatic Waterclosets for flushing with waste water. The principle of these closets was described at length by Dr. Alfred Hill before the Public Medicine Section. The working model (full size) which was shown, afforded good evidence of the force of the flush obtained.

Messrs. Sallory and Son (of Nottingham) exhibited a number of Domestic Sanitary Appliances of good design, and Mr. G. Jennings, of Lambeth, also showed specimens of sanitary apparatus, sinks, and a grate in terra-cotta, providing for the admission of warm fresh air.

Messrs. Hughes and Lancaster (Ruabon and Westminster) exhibited drawings and models of apparatus used for the working of the Shone System of House and Town Drainage. The chief apparatus is a Hydro-Pneumatic Sewage Ejector, of which a working model in glass was exhibited. The apparatus which is worked by compressed air is made in sizes from 50 to 2,000 gallons; it can be fixed for the drainage of separate buildings, and where the basement are below ordinary gravitation sewers, they can be drained into a Shone Ejector, supplied with compressed air, and the latter will eject the basement drainage into the sewer above. Wherever ordinary gravitation cannot be had to an extent sufficient to make the drains or sewers self-cleansing, the district or town may be divided into sections. The gravitation drains or sewers within each section may be laid at the necessary self-cleansing inclinations, and the drains or sewers so laid carried to the ejector stations. These ejector stations are connected with some central air-compressing station, the compressed air being carried to them through small iron pipes laid in the streets.

Mr. Henry Ellison, Jun. (Cleckheaton) who exhibited preparations of a Coal-tar and Eucalyptus Disinfectant (called Carboline by him), also showed a small Automatic Disinfector for cisterns and waterclosets. It is claimed that it is easily fixed, and puts a definite quantity of the disinfectant into the water at each time of using.

Messrs. James Duckett and Son (Burnley) showed Automatic Slop Waterclosets, in working order, and Messrs. J. Tylor and Sons, Limited, London, exhited a number of Domestic Sanitary Appliances, as did also Messrs. Danks and Sons, Limited, of Nottingham.

Mrs P. Monkhouse showed a Bed Lift designed by her, and also a combined Foot-rest and Foot-warmer, which was of simple construction, and if used with care, calculated to be useful to invalids.

Mr. John Carter (London) showed a Bedstead or Cot for cases of hip disease, and also a new Operating Table which allowed the patient to be turned over into any position which the operator might require.

Prolonged Fast.—Signor Succi, who is in Naples, has commenced a new fast there. A committee has been formed to watch him and observe the phenomena of circulation, respiration, weight, etc., and a bulletin will be issued daily. Similar observations were made on Tanner and Succi in London, and the results were published in the British Medical Journal of March 29th, 1890, p. 764; April 5th, 1890, p. 819; April 12th, 1890, p. 876; April 19th, 1890, p. 935; April 26th, 1890, p. 996; May 3rd, 1890, p. 1056; June 21st, 1890, p. 1444. They did not prove, however, to be of any considerable physiological interest and value, and it was not thought necessary to follow them up on subsequent occasions. It is possible that further results may be arrived at, but it is hardly probable; and the attempt to give a scientific character to this kind of public exhibition might well have been thought to be exploded by past failures.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

Objects of the Society.—Advantages for Incoming Members during 1892-3.—Payments made by the Society.—Economical Management.—The Provision for Accidents.—Special Cases Illustrative of Benefits.—Membership and Character of Mortality.—The Life Assurance Fund.—Deaths, Resignations, and Appointments.

The annual meeting of this Society was held in the Mechanics' Lecture Hall, Nottingham, on Wednesday, July 27th, Mr. Ernest Hart in the chair. Among those present were Dr. C. Aldridge (Plympton), Dr. Clifford Allbutt (Cambridge), Dr. H. Child (Liverpool), Dr. C. R. Davidson (Nottingham), Dr. W. Donovan (Birmingham), Dr. W. A. Elliston (Ipswich), Dr. L. M. Griffiths (Bristol), Dr. J. C. Grinling (Birmingham), Dr. J. Hern (Darlington), Dr. D. de Vere Hunt (Cardiff), Dr. G. Jackson (Plymouth), Dr. J. S. Johnston (Bletchley), Dr. A. Lindow, Dr. McDonald, Dr. F. R. Mutch (Nottingham), Dr. Neville, Dr. W. Newman (Stamford), Dr. Pinkerton, Dr. J. J. Serres (Loughborough), Dr. A. G. Southcombe (London), Dr. P. B. Smith (Aberdeen), Dr. W. Smith (London), Dr. W. D. Stamp (Plympton), Dr. J. H. Stowers (London), Dr. Swinton, and Dr. G. Taylor (Mattishall).

The minutes of the last annual meeting held at Bournemouth were read and confirmed.

Objects of the Society.

Mr. Ernest Hart, in moving the adoption of the ninth annual report for the year ending June 30th, after referring to the objects of the Society, said the record of the work done in the past, set out in detail in the report, would commend itself as being exceedingly satisfactory. He had prepared a few figures made up to date in order to enable them briefly to review the progress, inasmuch as this meeting would precede the actuarial valuation which would be presented at or shortly after the next annual meeting.

Advantages for Incoming Members during 1892-3.

It was advisable to put together some of the leading facts, because any members of the profession who might enter the Society during the present year would probably be entitled to participate in certain advantages which would result from the dealing with the surplus in the last year of the second quinquennial period, and some steps for dealing with the profits now accumulated would no doubt follow the approaching second quinquennial valuation.

Payments made by the Society.

The rough figures showed that since 1884, when he first took steps for founding the Society, it had paid to its members £17,202 for sickness claims, £2,850 for death claims, and had accumulated as a reserve a sum of nearly £60,000.

Economical Management.

The management of the Society was placed in the hands of a committee, which was elected annually by the members, who gave the whole of their services gratuitously, and it had been carried on at a cost of less than one-half of the original amount, which was estimated at 10 per cent., and which was probably the lowest margin of safety. They had up to the present time, however, carried on the work at a cost of less than 4 per cent. of the premium income, a result all the more satisfactory because the work of the Society was far more complicated than that of ordinary assurance societies, whose outlay on management and commission often ranged between 20 and 30 per cent., and in the case of societies dealing with sickness payments and small annuities even much higher than that. A great number of payments had to be made in small sums, and the correspondence and the whole of the office work was far more considerable than that of an ordinary fire, life, or accident insurance society. Only one other Society which in any way compared with the Medical Sickness, Annuity, and Life Assurance Society was a Society formed for making similar payments to nurses, the Royal National Pension Fund, which was carried on for the benefit of nurses; they had not been able to keep their expenses under 10 per cent., although ably conducted by eminent business men, who worked without fee or reward, so that they were prosecuting their work under very

favourable conditions. The Medical Sickness, Annuity, and Life Assurance Society made, therefore, a remarkable record in this respect also. The number of sickness claims paid since the commencement of the Society amounted to 1,186, while the number of accidents had been as large as 135, which was a very unexpected and remarkable fact.

THE PROVISION FOR ACCIDENTS.

At some future time, he suggested, they might call the Society the Medical Sickness, Annuity, Accident, and Life Assurance Society, for accidents were treated by them as sickness, and paid for as such, and this had added to the strain upon the funds to a very remarkable extent—to the extent of more than 10 per cent. of the whole of the claims. Medical men, often travelling in light traps and on horseback and by night in the country, were very liable to serious accidents. Mr. Ernest Hart said that, in addition to the figures in the report, it was always interesting to have a few individual facts, and he had therefore had prepared a statement to illustrate the sudden character of sickness which was apt to overtake even young and healthy men, and the enormous advantages which some young men, who seemed less likely to need the help of the Society, had derived from their providence in joining it.

SPECIAL CASES ILLUSTRATIVE OF BENEFITS.

The first case he referred to was a gentleman who had joined among the first 300 members in March, 1884; his age was 34, and he paid £3 8s. 7d. per quarter, entitling him to four guineas a week during sickness and £50 annuity. When he joined he had a perfectly clean record; he had never had any illness, and his state of health was, to all appearance, sound; but in February, 1885, within fifteen months of his joining, he was seized with an illness which soon declared itself—locomotor ataxy. He had paid into the Society up to the end of June £113 3s. 3d., and he had received 384 weeks' sick pay, amounting to £863 2s., so that *the balance in his favour already was £749 18s. 9d.*, and he would be entitled to sick pay of £2 2s. a week for a further period of twenty-three years should he live to the age of 65, and then to an annuity of £50. Another gentleman joined in December, 1884, at the age of 29. He paid £17s. 5d. a quarter for three guineas a week; he also had a perfectly clean record, but was taken ill in 1888 with nervous disease, and had been on the fund ever since. He had paid into the Society £41 2s. 6d., he had received 219 weeks' sick pay, amounting to £385 17s. 6d., and he would be entitled to £1 11s. 6d. per week sick pay for a further period of twenty-nine years, when, as he did not enter the annuity fund department, his sick pay would cease. The next case was that of a gentleman who joined in 1886 at the age of 32, and paid £1 19s. 3d. a quarter for four guineas a week during sickness. In May, 1888, he became affected with acute renal disease, and in September of the same year chronic albuminuria, with a train of evil symptoms. In all he had had 164 weeks of sick pay, for which he had received £401 2s., and he had paid into the Society £61 5s. 10d., so that *the balance in his favour was already £339 16s. 2d.* He was entitled to two guineas per week for a further period of seven years. The last case was that of a gentleman who joined in perfect health, and became affected in October, 1885, with a form of debility and palsy, which developed into paralysis agitans. He had received £429 18s., having paid into the Society £191 8s. 11d., so that *the balance in his favour was already £238 9s. 1d.* The Chairman said he could enumerate a number of other cases of similar import, but these sufficed.

MEMBERSHIP AND CHARACTER OF MORTALITY.

As to the year's operation, Mr. Hart said he had only to call attention to the fact that the rate of increase in the numbers of the Society continued to be satisfactory, seeing that it was attained without advertising, agency, or commissions, and chiefly by the recommendations of members and largely by the aid of the publicity afforded by the BRITISH MEDICAL JOURNAL to their proceedings. There was now a total membership of 1,232 members. The accidental and unforeseen nature of the disabling illnesses constituting the bulk of the causes of claim was also notable and instructive. Out of 234 claims paid, 123 claimed were for influenza, 21 for accidents, 16 for rheumatism, 14 for catarrh, 10 for bronchitis, 5 for pneumonia, leaving only therefore a very small proportion to any constitutional disease, and indicating very satisfactorily the value of the safeguards which were imposed by the full preliminary declaration and medical examination which was required, and, again, was another test of the soundness of the work of the Society. Although there was an epidemic of influenza last year, the sickness actually experienced was less than that which was provided for.

THE LIFE ASSURANCE FUND.

Their Life Assurance Fund being registered under the Friendly Societies' Act, the Society could not insure for more than £200, which was not an adequate sum. It was a sum of great importance to a working man, but it was insufficient for a medical man who wished to make an allowance for his children or wife. When the Society began operations it began without share capital, and the whole of the capital now in hand had been accumulated. Having now this £60,000 available as reserve, it would, he suggested, be quite worth considering the question of raising the limit life assurance to a much higher figure; and he (the Chairman) hoped that the meeting would allow him to consult an actuary on the subject as to the best means of carrying out this object. It would require the investment of £20,000 in Consols as a preliminary proceeding.

DEATHS, RESIGNATIONS, AND APPOINTMENTS.

Mr. Hart said that the Society had to deplore the death of Mr. C. J. Radley, who had from the first acted as Secretary to the Society, and they had been fortunate enough to secure the services of Mr. C. J. Drummond, who was a person of great experience, and possessing all the requisite qualities. They had also to regret the retirement of their much esteemed friend Mr. S. W. Sibley, who had from the first acted as one of the treasurers, and they had been very lucky in securing as his successor Mr. H. H. Clutton, of St. Thomas's Hospital, who, he was sure, would make, with Dr. G. E. Herman, a very valuable officer. They had also been obliged to fill the place of the late Mr. W. H. Michael, Q.C., one of the arbitrators of the Society. In the place of Mr. Michael, whose loss the Society would deplore, Mr. Hart asked the meeting to elect the Solicitor-General, Sir Edward Clarke, who was much interested in this class of society and who had kindly consented, at his request conveyed through Mr. Drummond, to act as arbitrator. The Chairman concluded by moving the adoption of the report.

Dr. CLIFFORD ALLBUTT said he was always very glad to do all in his power to further the objects of the Society, in which he took a very great interest. He considered it a great honour to take part in that meeting. The Society was most beneficent in its operations and happily most prosperous. No doubt this was largely due to the great administrative power of its founder, Mr. Ernest Hart, who had guided its proceedings with paternal affection and immense ability. Thanks were due also to the honorary council and the paid council. Dr. Allbutt went on to say that it was perfectly amazing that so large a number of medical men slept on their pillows quietly at night, and yet did not take advantage of the benefits of such a Society. He had the greatest possible pleasure in seconding the adoption of the report.

Dr. WALTER SMITH moved the following resolution: "That it is not expedient or just to the existing members that second class lives should be admitted to the sickness class at present; and that the further consideration of the matter be adjourned until the next annual meeting after the quinquennial valuation." He said that the matter came before the committee some short time before the last annual meeting at Bournemouth, when it was referred back to the committee, who had reconsidered the matter, and were of the same opinion. Dr. Smith said he objected to the admission of second class lives for the reason that the Society had no precedent for it, and had no experience to go upon, and as the Society was so young it would be a pity to run any risk with regard to accepting these second class lives. The Society knew that there was a great deal of trouble and time taken in this matter, but they might not always have Dr. De Havilland Hall to look into these particular cases. He thought the matter should be adjourned

until after the next quinquennial valuation. Rather than accept them as second class lives, from which they received only 11s. 4d. extra per annum, which was such a small amount, it would be better to receive them as first class lives. Dr. Smith said the Society might, perhaps, not come out so well at the next quinquennial valuation, and for that reason he thought it advisable not to interfere with the success of the Society. He had a prospectus of another society—the Sickness Accident Assurance Society—and he could not find that there was any sickness society which had ever adopted the principle of accepting second class lives.

Dr. W. Donovan said he had great pleasure in seconding the resolution proposed by Dr. Smith. Considering the very satisfactory way in which the Society had gone on up to the present, it would almost be a pity to accept second class lives. It was understood, of course, that every man who was accepted would be in good health.

After some further discussion the motion was put to the meeting and carried by 10 votes to 5.

Certain alterations in the rules were proposed and adopted.

Dr. De Vere Hunt proposed and Dr. C. Aldridge seconded a vote of thanks to the officers and committees of the Society, which was carried unanimously. Dr. Hunt said that it was difficult to express and impossible to repay the obligations which the profession at large and the members of this Society in particular owed to Mr. Ernest Hart. Dr. De Havilland Hall gave to the work of the Society an immense amount of highly skilled labour. Their warm thanks were due also to the other honorary officers and to the executive council.

The following resolution, proposed by Dr. L. M. Griffiths, was also carried: "That the best thanks of this general meeting be tendered to S. W. Sibley, Esq., for his valuable services as Treasurer of the Society since its inception, coupled with the heartiest wishes for his welfare on his retirement from office."

On the motion of Dr. J. S. Johnston, seconded by Dr. J. J. Sebbes, it was resolved: That the following officers and members of committees be and are hereby elected for the ensuing twelve months: *Chairman:* Mr. Ernest Hart, London. *Vice-Chairmen:* Dr. Clifford Thomas Allbutt, London; Dr. J. B. Priestley, Manchester; Dr. W. Bruce, Dingwall; Mr. W. G. Burnie, Bradford; Dr. T. M. Dolan, Halifax; Dr. M. Greenwood, London; Dr. De Havilland Hall, London; Mr. D. De Vere Hunt, Cardiff; Mr. T. V. Jackson, Wolverhampton; Mr. J. Brindley James, London; Dr. W. M. Ord, London; Mr. R. J. Pye-Smith, Sheffield; Mr. J. Bain Sincock, Bridgwater; Mr. Noble Smith, London; Mr. Lawson Tait, Birmingham; Mr. F. Wallace, London. *Treasurers:* Dr. G. E. Herman, London; Mr. H. H. Clutton, London. *Members of the Executive Committee:* Mr. E. Bartlett, London; Mr. F. S. Edwards, London; Dr. A. S. Gubb, London; Dr. J. W. Hunt, London; Dr. J. Pickett, London; Dr. W. K. Sibley, London. *Trustees:* Mr. Ernest Hart, London; Dr. W. M. Ord, F.R.C.P., London; Mr. J. R. Upton, London; Sir T. Spencer Wells, Bart., London. *General Committee:* Dr. F. J. Allan, London; Mr. R. S. Charsley, Slough; Dr. G. W. Crowe, Worcester; Dr. C. Firth, F.R.C.S., Gravesend; Dr. W. Frazer, Bournemouth; Mr. L. M. Griffiths, Clifton; Dr. F. R. Mutch, Nottingham; Dr. W. Newman, Stamford; Dr. W. Smith, London; Mr. W. J. Stephens, Brighton; Mr. H. P. Symonds, Oxford; Mr. W. Thomas, Birmingham. *Arbitrators:* Sir Edward Clarke, Q.C., M.P.; Dr. R. Farquharson, M.P.; Mr. J. Vesey Fitzgerald; Professor W. T. Gairdner, M.D.; Mr. J. W. Stephenson.

A hearty vote of thanks to the Chairman brought the proceedings to a close.

THE BRITISH ASSOCIATION.

The proceedings of the Congress of this great Association as usual contained a considerable amount of matter of much interest in the basic and collateral sciences by the study of which the progress of medicine is strengthened and promoted. It is impossible, with the great number of important matters pressing on our space on every side just now, to do justice to the full interest of the proceedings, but we make reference to a few of the more important subjects dealt with which have direct connection with the institutes of medicine, as physiology used to be called, and is still wisely and suggestively called in some older universities.

Professor William Rutherford, M.D., F.R.S., delivered the presidential address in the Section of Biology, and chose the subject of colour blindness. After referring to his lecture at the meeting of the Association held in Birmingham in 1886 on the Sense of Hearing, in which he criticised the current theory of tone sensation, Professor Rutherford said: The subject I propose to discuss on this occasion is not the cause of the different kinds of sensation proper to the different sense organs, but the cause of some qualities of sensation producible through one and the same sense organ. Professor Rutherford then, after shortly dealing with different theories of hearing and smell, proceeded: The sensory mechanism concerned in sight consists of the retina, the optic nerve, and the centre for visual sensation in the occipital lobe of the brain. In the vertebrate eye the fibres of the optic nerve spread out in the inner part of the retina, and are connected with several layers of ganglionic cells placed external to them. When a beam of white light is dispersed by a prism or diffraction grating, the ether waves are spread out in the order of their frequency of undulation. The undulations of radiant energy extend through a range of many octaves, but those able to stimulate the retina are comprised within a range of rather less than one octave, extending from a frequency of about 395 billions per second at the extreme red to about 757 billions at the extreme violet end of the visible spectrum. The ultra-violet waves in the spectrum of sunlight extend through rather more than half an octave. Although mainly revealed by their chemical effects, they are not altogether invisible; their colour is a bluish-grey. The only optical—that is, strictly physical—difference between the several ether waves in the visible or invisible spectrum is frequency of undulation, or, otherwise expressed, a difference in wave length. The chromatic—that is, the colour-producing—effects of the ether waves depend on their power of exciting sensations of colour, which vary with their frequency of undulation. Colours are commonly defined by three qualities or constants—hue, purity, and brightness. Their hue depends upon the chromatic effect of frequency of undulation or wave length. Their purity or saturation depends on freedom from admixture with sensations produced by other colours or by white light. Their brightness or luminosity depends on the degree to which the sensory mechanism is stimulated. Prof. Rutherford then discussed the theories of colour sense propounded by Sir Isaac Newton, Clerk Maxwell, Young, and Von Helmholtz, and then proceeded to deal with the important question of colour blindness.

In the same Section the Committee of the Marine Biological Association at Plymouth made a very interesting report through Miss Florence Buchanan, B.Sc. The influence of food and surroundings on colour were dealt with in a brilliant experimental paper by Mr. E. B. Boulton, F.R.S., in which he showed that a sensory stimulus producing changes of colour in the lepidopterous larvæ did not act through the eye as in the case of the chameleon, frog, and sole, but through the skin; some definite pigment was formed, the change not so rapid as in those animals. It was possible to modify the colour of a caterpillar only once or twice in its lifetime.

Professor Herbert McLeod, in the course of his remarks as President of the Section of Chemical Science, made the following observations on microbes as chemical agents. These organisms, he said, were capable of producing chemical changes which entirely surpassed all the results hitherto obtained by the chemist in his laboratory. That the transformation of sugar into alcohol and carbonic anhydride in the ordinary process of fermentation was due to a living organism had been known for some years; the important transformation of ammonia into nitrons and nitric acids in the soil had been shown to be due to organisms which had recently been investigated by many chemists; it was possible to transform ammonia into these acids in the laboratory by oxidation under certain conditions and at a high temperature, whereas the organism did the work quite as efficaciously at the common temperature. Other organisms had the power of producing complex organic poisons by the alteration of some of the constituents of the animal body, and the relation of these products to the study of diseases was of the highest possible importance.

In the same Section the impurities of town air were the subject of a paper by Dr. G. H. BAILEY, who said, that during the past twelve months the Air Analysis Committee of Manchester, in conjunction with the Royal Horticultural Society, had been engaged on the analysis of the air of large towns. A large amount of information having been already collected by previous observers as to the carbonic acid in the air, it was thought desirable to devote more special attention to such impurities as sulphurous acid and organic matter. Furthermore, since the object in view was not merely to collect data, but to lay the foundations of what may be termed chemical meteorology, the atmospheric conditions prevailing at the time of the observation have been noted. From the results of several hundreds of analyses carefully conducted in London, Manchester, and Liverpool, the following conclusions were drawn:—(1) That in clear breezy weather the amount of sulphurous acid is less than one milligramme per 100 cubic of air. (2) That in anticyclonic periods it rises very considerably, and in times of fog maxima of 34 and 50 milligrammes have been recorded for the worst districts of Manchester and London respectively. (3) That wherever an open space or a less-densely populated area occurs there is a very marked diminution in the amount of impurities in the air. (4) That an increase in the amount of sulphurous acid is accompanied by at least as large an increase in the amount of organic impurities in the air. (5) That smoke, promoting as it does the formation of fog, and preventing free diffusion into the upper stratum of the air, must be regarded as the principal cause of the impure state of the atmosphere in large towns.—Sir DOUGLAS GALTON said he hoped the Manchester Committee would pursue its inquiries.—Mr. A. E. FLETCHER, inspector of factories, said, that while smoke from factory chimneys might be stopped, it was hard to see how household fires could be attacked. He had found passing the air that entered houses through cotton filters successful.

Dr. G. H. BAILEY also read a paper in Section D on the Conditions affecting Plant Life in a Town Atmosphere. He said that a series of observations extending over more than a year showed that (1) whilst the record of light for the suburbs of a large town fell below that of a country district, there was a still greater falling off, to the extent of 50 per cent., or even more, within the town area. For the same period of the year the measure for bright sunshine was 10 to 20 times that for dull weather, and as much as 300 times that during dense fog. An hour's sunshine at midday in June gave 5 times the record of that for December. Comparative measures for sunshine taken simultaneously in Switzerland, Torquay, and the suburbs of Manchester were in the proportion of 20 : 11 : 3. (2) The amount of sulphurous acid in town air in heavy weather was 10 to 20 times that in bright, clear weather, and in fog the proportion was still greater. (3) Freshly-fallen rain collected in Manchester showed as much as 70 parts per million of sulphuric acid. Snow was usually more free from sulphurous acid than rain.

In the Section of Anthropology the President (Professor MACALISTER) gave interesting descriptions of skulls from the Upper Congo, of the features of the brain of an aboriginal Australian, and the facial characters of ancient Egyptians as illustrated by skulls of an undoubted antiquity.

The use of narcotics in the Nicobar Islanders was explained by Mr. E. H. MAN. The habit was common among many of the races of Transgangetic India and the Archipelago of taking frequent quids of betel nut and quicklime throughout the day. So firm a hold had this practice on both sexes that "betel-quid-taking-time" was a recognised expression signifying an interval of some fifteen minutes' duration. Betel-chewing was commenced at the age of 10 or 12, but, though the practice was discouraged by the parents, instances were by no means rare of children who had acquired the habit before attaining 6 and even 4 years of age. Among the supposed benefits resulting from the custom were preservation of the teeth and mitigation of the attacks of malarial fever. The sense of taste did not seem to be vitiated, nor the appetite impaired. Cranial and facial deformations were considered by the natives of the central and southern communities to be of the highest importance, and to the production of them the Nicobarese mother devoted much care and attention during the first two years or so of a child's life. The method used did not cause the infant any discomfort.

Dr. CLOUSTON, in the course of a long review of the progress made in criminal anthropology, said that one conclusion was forced upon him. If there was not an absolutely marked criminal type all would agree that criminals fell far below a high anatomical and physiological standard of brain, body, and mind. The weak point in criminal anthropology was that while criminals had been weighed, measured, observed, and described, the classes of society from which most of them came, but who had not been convicted of breaking the law, had not been observed in the same way and had not had the same scientific tests applied to them. There was little use in ganging the criminal by the standard of the well-fed, the respectable, and the comfortable classes of society. The scientific method would be to apply the test to whole sections of the lower labouring classes of society, including the criminals. There was a large class of human beings whose brains suffered manifestly from arrested development. This existed in any and every degree, and might extend to any and every mental and moral faculty. A being only slightly imbecile in mind had many anatomical and psychological resemblances to the criminal. Scientific anthropology that covered the whole ground must deal with the idle, the vagrant, the pauper, the drunkard, the imbecile, the epileptic, and the insane, as well as the criminal. If inquiry established physical, hereditary, and psychological bases of criminality the State would have to treat the criminal from a point of view entirely different from the primitive method. Such was the contention of the modern school. The developmental aspect of the question had not obtained the observation it deserved. Many were criminals because their brains were the same as those of their ancestors, and their environment had changed only in the present generation. In some districts of the country there were actually no criminals, yet when some of the people of those districts went to live in great cities they became habitual criminals. The too sudden exposure to new environments and conditions was one of the great factors of criminality and of certain forms of insanity. The latter years of adolescence were those in which the great inhibitory moral and social faculties that fitted men to live in a well-ordered civil modern society attained such perfection as they were capable of, and it was before this period that most of our criminals became such. It was in the early years of adolescence that epilepsy arose in the greatest degree. The essential likeness of the epileptic and the criminal brain was one of the most striking of Dr. Benedikt's observations. What were to the physician symptoms of diseases were to the policemen and the magistrates proofs of criminality. A curious change in the hard palate was often found in criminals, idiots, and epileptics, and the hard palate had a close relationship to the base of the anterior lobes of the brain in man. He had seen and studied many cases of crime or vice in which moral responsibility did not exist. All considerations pointed to two great sources of criminality. The first was the not fully evolved man who was fitted to do his work in a primitive society, but who could not accommodate himself to the conditions of a life of a highly organised and extremely artificial modern society, and who fell into criminality through his environment. The second was the non-developed man, whose development had been arrested towards the end of the period of adolescence before his inhibitory moral quantities had attained their full strength. Dr. Benedikt, of Vienna, said that there did not exist a criminal type. There were very great differences between the brigand and the common thief, between the forger of the educated class and the epileptic and other degenerate persons. The study of the normal was not sufficiently advanced to enable them to note abnormalities with certainty. They must study the classes from which criminals came, and must not confuse the poor and the miserable with the criminal classes. —M. MANOUVRIER claimed for Dr. Benedikt priority over the Italian school in the publication of the results of investigations with respect to criminal anthropology.—The PRESIDENT said there was really no hard-and-fast line between the criminal and the non-criminal. Criminality was the result of two sets of factors—personal disposition and external circumstances. He did not think it would ever be possible to deal with these organic problems with mathematical precision; they must be content to deal with averages in a rough-and-ready way.

MATTEISM: AN EXPOSURE.

By G. W. POTTER, M.D.,

Chairman of the Mattei Investigation Committee.

It may be known to many readers of the British Medical Journal that in response to certain representations made by Lady Paget in a monthly periodical, and by Mr. W. T. Stead in the *Review of Reviews*, a committee of investigation was formed in the early part of last year, to inquire into the claims of Count Mattei and his followers to be curers of cancer "without the knife." The committee consisted of the late Sir Morell Mackenzie, who was appointed its first chairman, Mr. Lawson Tait, and myself. It was open to question whether or not such an investigation as was proposed to the committee was expedient in the public interests. Speaking only for myself, I may be permitted to say that Matteism seemed to me to be an unusually dangerous form of quackery, that it was assuming large proportions, that in deference to popular clamour it was beginning to be practised even by regular medical practitioners; and it appeared that to bring to light its true character would be an important public service. There is no reason to doubt that the other members of the committee held similar views. Mr. Lawson Tait expressed his scepticism freely; and Sir Morell Mackenzie never doubted that the result of the committee's investigations would be the exposure of pretensions that were false and mischievous. Notwithstanding this, we were all steadfastly resolved, if we should find ourselves mistaken, and if Mattei's potions really should cure cancer in some inconceivable way, that we would admit our error and make known the true state of the case.

For my part, however, I strove to introduce a stipulation that the Matteists should at least tell us what their remedy consisted of before we proceeded to further investigation; but this stipulation was not accepted. As some of our medical brethren have a little misunderstood the position and intentions of the committee, it may be desirable to state that we entered upon our duties merely as a committee of observation, not of supervision or direction. We were asked, not to treat cases, but to see and admit cures in the making, exactly as we might have been asked to see and admit the reality of the miracles at Lourdes, or of the wonders said to be wrought at Bethshan. To this there could be no ethical objection; nor, so far as I can see, was it in any way inexpedient. On the contrary it was, under the peculiar circumstances, highly expedient, as the result has convincingly shown.

At the outset the Matteists expressed themselves willing to accept as subjects of treatment cases of *bonâ-fide* cancer, by whomsoever introduced, provided they were still in the "first or second stage." To this limitation the committee made no objection. But when it began to be necessary to put these protestations into practice, a spirit of caution, not to say of extreme timidity, laid hold of the Matteists. Patient after patient was sent in, but declined by the cancer curers on one pretext or another. So much was this the case, that Mr. Lawson Tait was several times on the point of making a premature exposure of what he considered discreditable tactics. Even Mr. Stead himself began to think that he might have been deceived. This unlooked-for hesitancy was an early indication that in Matteism all is not gold that glitters, and that the Matteists themselves are very well aware of the fact.

The most cautious calculator may sooner or later find himself in a dilemma; and that was exactly the position in which the Matteists found themselves. Mr. Stead, without at all intending it, had proved to be their most dangerous enemy. They were between Scylla and Charybdis. If they persisted in refusing every case sent in, Mr. Stead must expose them in the *Review of Reviews;* if they accepted cases which they could not cure, the believers in open and honourable methods of medicine, whose criticism the Matteists themselves had demanded with such well-simulated earnestness, would equally expose their failure to the light of day. Thus hemmed in on all sides, they were obliged to accept some cases for experiment; and ultimately they agreed to treat five patients out of a large number submitted to them—all women, all, with one doubtful exception, suffering from cancer of the breast, and all certified by competent surgeons, not members of the committee and not Matteists.

The committee appointed a graduate in arts and medicine of the University of Cambridge to act as their paid registrar. His duties were to watch the cases in detail, from week to week, and to make periodical reports. The members of the committee themselves also, in turn, regularly inspected the cases and noted their progress. It may be desirable here to state that the registrar, whose name I am not at liberty to mention, proved to be a most discreet, conscientious, and intelligent officer, and I much regret that he does not permit me to claim for him that honourable recognition of his important service to truth and good morals which every right-thinking medical man will be anxious to accord. To him it is largely due that the committee has been enabled to expose what they believe to be a worthless and impudent system of quackery.

Some of the patients accepted by the Matteists for treatment were at first located for a time in St. Saviour's Hospital, Osnaburgh Street; but this arrangement proving impracticable, they were dealt with as out-patients at one of the Matteist depôts. The committee, recognising that they were observing an experiment in the utility of which they had no *a priori* faith, and which was being tried on five human beings, felt that they were bound to explain to the patients at the outset exactly how matters stood. The five women were therefore separately and solemnly informed that not one of the members of the committee or their registrar had any faith whatever in the value of the treatment which the Matteists were employing, and that the wisest thing for every one of them to do would be to seek aid at a hospital or privately at the hands of a competent surgeon. This advice notwithstanding, all the patients elected to undergo the Mattei treatment.

The five cases were under observation for exactly a year. That period was quite long enough for definite changes of a favourable or unfavourable character to manifest themselves in all or most of the cases. At first the Matteists professed great confidence of favourable results. A few months after the commencement of the experiment Sir Morell Mackenzie unhappily became very ill, and the meetings of the committee were interrupted and not recommenced until after his death. The registrar, however, saw the patients every week, and I, being resident in London, was kept thoroughly conversant with the course of events. On the death of Sir Morell Mackenzie it seemed necessary either to strengthen the committee by the addition of other medical men resident in London or to dissolve it, as Mr. Lawson Tait lived at too great a distance from town to take any personal part in the work. Mr. H. A. Reeves, F.R.C.S.E., and Mr. John Hopkins, F.R.C.S., both consented to join the committee and to see the investigation carried to a conclusion.

Thus strengthened by competent practitioners resident in London, we felt that a thorough and conclusive inquiry could be conducted to completion. A visiting rota was agreed upon, and each member of the committee promised to attend weekly in turn, along with the registrar, at the depôt to inspect the cases. All this was faithfully carried out. When the Matteists discovered that they were dealing with men who intended to give them as much latitude as they pleased, but who were also minded to see what use they would make of it, they took fresh and more obvious alarm. They wrote to the committee, through Mr. Stead, representing that the treatment of the five cases was likely to be very prolonged and to cause much inconvenience to the members of the committee, as well as to delay indefinitely the publication of the report which was so anxiously looked for. They therefore proposed that, as they had several old cases on hand which they professed to have cured previously, the committee should see those ancient cases and publish their report upon them.

Mr. Stead expressed himself as thoroughly ashamed of his champions. He, unfortunately for himself, had been fully convinced that Matteism was an inspiration, and that Mattei and all his followers, but especially his medical followers, were loyal lovers of truth. Though the members of the committee sympathised deeply with the editor of the *Review of Reviews*, it is hardly necessary to state that they did not see their way to accept and report upon ancient cases exclusively vouched for by the testimony of the interested "cancer curers," and of which they had no opportunity of verifying the diagnosis at the outset or watching the progress. This was the second attempt made by the hardly pressed Matteists

to escape from the plight into which they had brought themselves.

It now became obvious to all the parties concerned that the Matteists must either cure their cases or ignominiously give up the contest. But the cases could not be cured by any such means as were employed. On the contrary, the cancerous growths all continued to progress exactly as if no treatment whatever had been used. Some developed slowly, others more rapidly: but one, which had presented an unbroken surface at the outset, very soon became deeply ulcerated and excavated, and even the Matteists themselves were obliged to admit that "it seemed to be getting worse." Then happened an apparently irrelevant circumstance which the cancer curers seized upon, as a drowning man catches at a straw. One of the smaller medical papers not knowing the real facts of the case, called in question the expediency of the inquiry. The members of the committee then publicly explained the *status quo*. Whereupon the Matteists wrote to Mr. Stead, pretending that one of the conditions of the inquiry had been violated; and that, therefore, they declined to continue the treatment of the cases under the observation of the committee. Mr. Stead explained to them that they were under an absolute misapprehension; that no condition had been violated: that what had happened was that the committee had made a rule for its own guidance to the effect that nothing was to be published relating to the cases, without the authority of the committee; that the Matteists were not members of the committee and therefore had nothing to do with its rules; that, moreover, even the rule made by the committee for its own regulation had not been violated, inasmuch as nothing had been published relating to the facts of the inquiry, but only an explanation of the sceptical attitude of mind in which the committee had entered upon its work had been given to the medical profession; and that, moreover, the Matteists had known of that atttitude of mind from the very first, and had professed that it was the one mental attitude of all others which they themselves had wished the committee to hold.

But Mr. Stead's protests were all in vain. In vain he told the Matteists that they had invited inquiry; in vain he urged that to convince believers was a superfluous task; what was necessary was to convince unbelievers; and that the unbelievers were ready and waiting to be convinced. In vain he urged upon them that if the five cases were to be ultimately really cured, even unbelievers could not deny the actual and material facts; and that, moreover, if they did, he (Mr. Stead) was there to convict them of falsehood, and to denounce them before the whole professional and non-professional worlds. In spite of these almost pathetic protests and adjurations, the Matteists positively and repeatedly declined to continue the treatment of the cases under the observation of the committee, in any way whatever. This was the third attempt on the part of the Matteists to escape from the investigation they had directly courted. This final attempt at escape was successful. The Matteists took to flight, and ran, figuratively speaking, as fast and as far as their legs could carry them. Is any comment demanded upon facts like these?

What are the medical aspects of the Mattei treatment? There are no medical aspects of any kind. Matteism, in the deliberate judgment of the committee, consists exclusively of vulgar, unadulterated, unredeemed quackery. Mr. Stokes analysed the "electricities," the potions of the Matteists, and found them to yield no other reaction than that of plain distilled water. The results of administering these substances to patients entirely coincided with the results of chemical analysis. Water is the potent magician which, when taken in unquestioning faith, makes some of the deluded victims of Matteism feel that they are relieved of their pains. Even the poor creature whose cancerous growth is ulcerated and excavated, and whom the Matteists themselves admit to be "worse," persists in declaring herself improved, and pathetically anticipates the day of her perfect cure.

There is nothing more to be said. The story is as old as the world. The savage trusts to his amulet; the civilised man, both in the upper and lower circles, submits himself with childish, if not childlike, simplicity to the pretences of the quack. It is a strange world; but, such as it is, open and honourable medicine has to live and work in it, and must make the best it can of so wonderfully varied an environment.

CHOLERA.

THE epidemic of Asiatic cholera in Russia, which is abating in the south-eastern towns first attacked, has extended to the west. It is now admitted officially that it has broken out in Moscow, where 9 cases and 4 deaths occurred on August 5th. On that day there were in the whole of Russia 6,076 cases and 2,901 deaths, while on August 7th the numbers as given officially had declined to 4,261 cases and 2,177 deaths. Estimates based on official statistics are to the effect that 25,000 persons had succumbed to cholera in the Russian Empire down to the end of June. It seems to be certain that no case of Asiatic cholera has yet occurred in Austria or Germany.

Our Paris correspondent writes: The epidemic of choleriform diarrhœa continues to diminish in Paris. M. Lozé, Police Prefect, has addressed to the police commissaries of Paris directions to be observed in bringing the bodies of persons dead from a contagious disease. The death is to be immediately notified, and the house visited by the medical inspector. The mayors of commune towns, etc., are directed to enforce burial sooner than usual, and to require that the body be enveloped in a winding sheet, steeped in a solution of perchloride of mercury. The coffin must be hermetically closed, and contain a bed of wood dust 5 or 6 centimetres deep. These burials are to take place in the commune where the death has taken place; if the corpse is conveyed elsewhere to be buried it must be placed in a metallic coffin. The epidemic of choleriform diarrhœa in the environs of Paris, caused an interesting discussion at the Société Médical des Hôpitaux. M. Netter always discovered in the stools of patients suffering from choleriform diarrhœa the coma bacillus isolated by Koch, in Calcutta cholera, but presenting characteristics which differentiate it from Koch's cholera bacillus of laboratories; it is shorter, more curved, and thicker. In Paris, the cholera cases had no relation with the comma bacillus. Medical men of the environs maintain that the Seine water is the sole cause of the epidemic, and the fact that in a part of Argentine supplied with Seine water cholera nostras broke out, whilst in another part of the village furnished with Oise water there were no cases, supports their view. In both parts the population is principally of the working classes, and the sanitary conditions equally bad.

Our Berlin correspondent writes: The police authorities in Berlin have issued a notice as to the prevention of cholera. It consists of two paragraphs—a prohibition and a warning. The prohibition forbids the importation into or passage through Berlin and Charlottenburg of all old clothes, bed or other linen, rags, etc., fruit, fresh vegetables, butter, and soft cheese from Russia until further notice, under punishment of par. 327 of the common law—that is, imprisonment up to two years. The warning is with reference to the clothes and luggage of travellers from Russia, to the straw, hay, and such like packing material in which wares from Russia—especially eggs—are packed, and gives minute instructions as to burning, disinfecting, washing the clothes, disinfecting the hands that have touched the articles mentioned, etc. Similar instructions have been issued in Potsdam, Lubeck, and several other towns. The German medical papers and reviews are busy with the cholera question. The *Deutsche medicinische Zeitschrift* publishes a paper by Brieger and Wasserman, both belonging to the Koch Institute, on Preventive Inoculation against Asiatic Cholera. The writers have succeeded in rendering guinea-pigs immune to cholera by injections with cholera bacilli cultivated on extract of the thymus gland and not heated. The Government Department for Medical Matters has addressed a circular to the Provincial Government representatives (*Regierungs-präsidenten*), asking them to obtain and send in the names of medical men—especially those in posts at hospitals and universities—able and ready to carry out bacteriological examinations in connection with cases of supposed cholera, and who are willing to assist the Government medical officers (*Kreis-physici*) if cholera should break out.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, AUGUST 13th, 1892.

BRITISH MEDICAL ASSOCIATION: SOME ADMINISTRATIVE QUESTIONS.

The Functions and Work of Sections at Annual Meetings.

It has been an old-standing complaint, and one which has been too lightly passed over by those who guide and direct the Pathological Society of London and other pathological societies in the kingdom, that their proceedings are far too largely given over to the exhibition and discussion of specimens of morbid anatomy. Dr. Hadden, whose competence to appear as the advocate of the societies will not be disputed, takes up the cudgels in their defence in a letter which will be found in another column. It is, perhaps, hardly necessary to reopen the discussion as to the relative importance of the record of pathological appearances and conditions, and the continuous display of what are known as "soup-plate specimens." We have had a good deal to say on this subject for some years now without producing the definite and marked reform in the mode of conducting the works of these societies, which is, in our opinion, inevitable and much to be desired. Some change there has been, as Dr. Hadden says, during late years in the direction indicated, and the discussion of pathological processes, at one time wholly ignored, has come to take a recognised place in the debates on special occasions. But even now the exhibition and dry record of rare specimens of abnormal tissues has an enormous preponderance in the proceedings, and one which does not augur well either for the continued popularity of the London society or for its useful influence on the growth of pathological research. The excuse has usually been the difficulty of obtaining suitable men and subjects to illustrate the work of the more philosophical and modern school. The best answer to such objection will be found in the remarkable record of the three days' work in the Pathological Section at Nottingham. Here were passed under review in the course of three sittings of three hours and three sets of afternoon lantern demonstrations a highly instructive series of preparations and specimens, illustrated and discussed, which might supply half a session of similar material for the Pathological Society of London, to the great profit and advantage of the workers, whom such discussions will at once encourage and enlighten, and to the members of the Society generally. This method of utilising the Pathological Section was, if we remember rightly, first organised and developed at the Birmingham meeting by Dr. Sheridan Delépine. We felt it our duty then to make special efforts to assist and encourage his most successful plans, and to secure for him some little contribution towards special expenses, and the good result is shown in the yet more highly developed and yet more successful results obtained this year under the able, suggestive, and energetic initiative of the President of the Section for this year—Mr. Victor Horsley. It may well be hoped that the proceedings of this Section will not only have succeeded in their purpose for the moment, but will exercise a lasting and useful influence on the progress of pathological research in this country for years to come, and will react upon the pathological societies of the great centres.

It may be noted that a good deal of the work brought before the Section had previously been shown in various stages at a most important and valuable Society which has been formed in London to make good some of the defects which we have indicated. This Society is limited to thirty members, and by its constitution is bound to publish no transactions, and to make no report of the researches in progress which are brought before it; each member is in honour bound not in any way to trench upon the actual investigations in progress, the nature of which is disclosed and discussed at such meetings. This most excellent Society is one to which it is already esteemed a privilege to belong, and by which young English workers in scientific medicine are likely greatly to profit.

So numerous were the contributions addressed to other Sections of the annual meeting, that it is made a complaint in an interesting article in the *Medical Magazine* for August, the new monthly review to which we have before referred, that more topics were selected for discussion at Nottingham, as on previous occasions, than could be adequately dealt with; and that more papers are as a rule announced than there is time to read or criticise. Our contemporary suggests that some of these numerous papers were not so much addressed in reality to the Section as dictated by a desire to appeal to a larger audience through the medium of the British Medical Journal, and that the present system is often "as severe as it is a useless tax on energies which might be better employed than in getting together uninteresting material to enable would-be specialists to have their names appear in the British Medical Journal." "We do not know," continues the article from which we quote, "what method is usually adopted; whether all papers offered are accepted, or whether some sort of selection is exercised; but it does seem that a limit might be set to the number of these contributions." It adds that in "one department this year as many as forty papers were announced to be read and discussed, and no section has a number less than a dozen." These remarks we may to some extent endorse, without in any way detracting either from the usefulness of the Sectional debates, or from the care with which they are prepared. We may add, however, that the chairman and secretaries of Sections have not only the right, but the duty, of making a selection; and that they are every year informed beforehand of their right in this respect, and are requested to exercise it freely. This privilege and duty does not, however, seem always to be sufficiently appreciated by the officers of Sections. It does not necessarily follow because papers are offered that they should be either accepted or announced. It is no doubt sometimes, perhaps often, a difficult and invidious task to de-

cline contributions offered, often in many Sections at once, by gentlemen of the class indicated; but in the interest of the Section itself it is exceedingly desirable that a somewhat stern, though conscientious and eclectic, choice should be made among the papers offered. It by no means follows that all such papers should either be received or that their titles should be forwarded to us by the officers for repeated preliminary publication. It must be obvious to the officers of Sections that they frequently announce an impossible, or, as our contemporary somewhat severely puts it, a fictitious programme, including a certain proportion of papers of no real value, which they do not intend to have read, which certainly we do not intend to publish, but which they accept as a form of inexpensive and easy politeness.

We concur with, we believe, the majority of thinking men, in considering that a more severe exercise of the function of selection would purify the list of many well-worn subjects, which, even though they be offered by more or less well-known specialists, might with advantage be eliminated from the list on the score of time, and relegated to local societies, which have more abundant opportunities of meeting, and which can better deal with material of this sort.

Some of the subjects treated in the Sections, especially in those of Public Health and Medicine, had a very wide national interest, and will form the basis of future action on the part of the permanent committees of the Association. Among these may especially be mentioned Dr. Reid's important paper on the excessive infant mortality among the children of married women working in factories, a paper which has already attracted great attention among the leading journals in the great centres of labour: and the resolution passed in the Section of Medicine on the prevention of cholera in Kashmir at the instance of Surgeon-Colonel Harvey, who made it his business, after travelling direct from Kashmir, to come on to the Association meeting immediately after landing in London, and to give a most valuable and interesting account of the epidemic at Srinagar, against which only a few weeks ago he was engaged in doing battle. This resolution will be reported to the Government of India, and will, it is likely, exercise an important influence on the future course of sanitation in the great native State of Kashmir.

No more striking example of the value of the interaction of our Indian Branches with the mother Association could be afforded than by this example of the rapid communication, from a distant and outlying part of the Empire to the centre, of its sanitary conditions and urgent needs, the immediate result being that the influence of the parent Association is exercised to remedy these far-off evils—far-off, indeed, in their region, but coming very near home when, as in this case, the fatal epidemic generated afar has stalked through Afghanistan and the Persian Empire into Asiatic Russia, and from Russia to the doors of Europe.

A large number of foreign and colonial visitors were present at Nottingham, including distinguished representatives of our newly formed Branches in the Dominion of Canada, and we could have wished that men such as Drs. Roddick, Cameron, and Stewart, well qualified as they are by experience, had been able to stay longer, to take more vigorous part in the work with Sections. We may hope at no distant date to see some of the best work of the numerous foreign and colonial Branches of the Association more fully represented at the annual meetings.

SCARLET FEVER IN THE METROPOLIS.

The prevailing epidemic of scarlet fever is exciting an amount of alarm somewhat out of proportion to its real importance, as judged by the number of deaths registered. The "scare," moreover, arises out of a state of affairs which, rightly understood, should inspire confidence rather than cause panic. The known cases are more numerous, probably, than in any former epidemic, but this is due to notification, which was not in operation in 1887 when scarlet fever was last epidemic. The present epidemic, like that of 1887, finds London unprepared with respect to hospital accommodation, and the alarm which is so prevalent is undoubtedly traceable to this cause. Because the Asylums Board have had some difficulty in providing beds for the numerous cases requiring isolation, it is too hastily assumed that the epidemic is dangerous and far-reaching, the fact being that the difficulty of the managers is mainly the result of the growing popularity of the hospitals, now that they are free to all comers, that the mode of admission has been simplified to the utmost, and that the relief afforded to the sick entails no loss of political or social status.

To explain the present difficulty, if this be not too strong an expression, seeing that no patient has hitherto been denied, or is likely to be denied, admission, we must go back to the year 1882, when the Royal Commission emphasised in their report the insufficiency of fever hospital accommodation. They recommended provision of sites and buildings capable of accommodating 3,000 patients, about half in London and the rest in two or three country convalescent hospitals, and they urged the immediate necessity of providing another hospital for East London. Unfortunately, these recommendations have been but partially carried into effect. The Asylums Board, it is true, resolved some years ago to provide a new hospital in London for acute cases, but no pressing occasion having arisen—not that there has not always been plenty of scarlet fever, but because the public generally did not make much use of the hospitals—they abandoned the intention, and proceeded to erect the Northern Hospital for Convalescents at Winchmore Hill, which is now doing admirable service. If the managers are to be blamed in the matter, it must be for want of foresight. They failed to forecast the probable effect of the depauperisation of medical relief in the hospitals, by the Diseases Prevention (London) Act in 1883, and of their own judicious action in facilitating the admission of patients by measures which, at the time they were taken, had no warrant in law, but all of which have been legalised by the Public Health (London) Act, 1891.

To the end of 1886 there had been no pressure upon the managers' resources, and in May, 1887, they reported that "the number of fever patients annually under treatment at any one time during 1886, though in advance of those of the previous eight years," did not exceed 742; so that, as it was further stated, "up to the present time the recommendation that the managers should provide for 3,000 fever patients had not been justified by subsequent experience." And yet in 1882, and again in 1883, the deaths in London from scarlet fever exceeded 2 000. Very shortly, however, after the publication of the report above cited, the recommendation of the Commission was justified, for long before the end of 1887 the managers were compelled to provide beds for upwards of 2,600 patients at one time, the great bulk of whom were suffering

from scarlet fever. Nevertheless, it was not until 1891 that they set themselves seriously to look out for a site for a new hospital; and when this had apparently been found, at Tottenham, the Local Government Board—why, we cannot divine—refused their sanction to its acquisition. We trust that the renewed application for the Board's sanction just made will receive due consideration. Fortunately, however, the managers had erected at their Gore Farm Estate, at Darenth, a small-pox convalescent hospital for some 600 patients. This hospital, never yet called into requisition for its intended purpose, is proving now, as it did in the autumn of 1890, a valuable addition to the managers' resources, which, moreover, are about to be supplemented by costly provision of temporary hut hospitals in the grounds of some of their London hospitals.

So much having been said on the history of fever hospital provision, it will not be out of place to state a few facts in illustration of the benefits London has derived from the creation of the Asylums Board, by an act due to the initiative of Mr. Ernest Hart, Dr. Anstie, and Dr. Joseph Rogers, in 1867, with relation to the subsequent very remarkable reduction in mortality from scarlet fever. The deaths from this disease in 1887, when it was last epidemic, were 1,443; in 1888 the deaths were 1,214. In 1889 there was a further fall to 785, succeeded by a slight rise, in 1890, to 858. In 1891 the number of deaths was 589, and the smallest on record. During the twenty-eight weeks of the current year, to July 16th, only 464 deaths were registered from this cause, and yet the applications for admission to the hospitals have been even more numerous than in 1887. The inference to be drawn from this fact is that it has become the practice to isolate in hospitals many of those mild cases which in pre-notification days would have been treated, and no doubt concealed, at home. This view is borne out by the fact that whereas in 1887, when the disease was distinctly epidemic, 5,900 cases were admitted; and in 1891, the year of minimum mortality, the admissions were no fewer than 5,262. It is further borne out by the remarkable diminution in the mortality per cent. of patients treated in the hospitals. The average rate in twenty years (the first hospital having been opened at the end of 1871) was 9.78. Disregarding three years in each of which less than 1,000 cases were admitted to the hospitals, the rate in fourteen years, between 1875 and 1891, was 10 62 per cent.; but in the first half-period, the average annual number of cases treated being 1,670, it was 12.48, whilst in the second half-period, the average annual number of cases treated being 4,251, the rate was 8.76 only.

The diminution in scarlet fever mortality in London since the establishment of the hospitals, and more especially since they have become so generally used, is remarkable. The Registrar-General first differentiated this disease from diphtheria in 1859. In that year the deaths from scarlet fever in London were 3,841; in 1860 they were 2,017, the population then being, in round numbers, 2,750,000. In the ten years 1861-70 the total deaths from this cause were 34,391, the mean population being 3,000,000. In 1869 and 1870 the deaths were 5,841 and 6,040 respectively, equivalent to 1.84 and 1.87 per 1,000 persons living. The rate for the ten years was 1.14. The first hospital was opened, as we have stated, in 1871, and in the decennium 1871-80 the deaths from scarlet fever fell to 21,247, the mean population being 3,500,000. The largest number of deaths in any one year was recorded in 1875, namely, 3,677, equivalent to 1.06 per 1,000 persons living, the rate for the ten years being 0.60 per 1,000. In the last decennium, 1881-90, the deaths still further fell to 13,268, the mean population being 4,000,000. The largest number of deaths in any one year was registered in 1881, namely, 2,114, being at the rate of 0.55 per 1,000 persons living, the rate for the ten years being 0.33 per 1,000.

Put into another form, the above figures give the following striking results. Had the mortality in the decennium 1871-80 been as great, proportionally to the population, as in 1861-70, there would have died, not 21,247, but 39,123—a difference of 17,876. Again, had the mortality in 1881-90 been as great, proportionally to the population, as in 1861-70, the deaths would have been, not 13,268, but 45,855—a difference of 32,587. Compared with the decennium 1871-80, the years 1881-90 show a saving of life to the extent of 11,000. We may add that, comparing the quinquennium 1887-91, during which the hospitals were utilised to an immense extent, with the quinquennium 1882-86, there is a most satisfactory decline in the scarlet fever death-rate from 0.34 to 0.23 per 1,000 persons living: the rate in 1891 (0.14 per 1,000) was unprecedentedly low.

The above figures may be usefully compared with the admissions to the hospitals. In the decennium 1861-70, as we have seen, there were no hospitals in London for scarlet-fever. Between 1871 and 1880, the admissions to the Asylums Board hospitals were 7,433; the numbers in 1874, in 1879, and in 1880 only, exceeding 1,000: they were close on 2,000 in the last-named year. The average mortality per cent. in these ten years was a trifle over 12.0. In the ten years 1881-90, the admissions were 31,578, and the average annual mortality about 9.6 per cent. only; the reduction, doubtless, being due to the increasingly large numbers of admissions of mild cases.

It was in 1887 that the general public and the profession appear first to have fully appreciated the value of the hospitals; the admissions of scarlet-fever cases in that year having sprung up to 5,900, or treble the number in any previous year. In the five years 1887-91 the admissions of scarlet-cases were 26,625, or an annual average of 5,325. The deaths in London from this cause in these five years were 4,889 (including 1,443 in 1887), or an average of 978, numbers which compare most favourably with all previous records.

Another strikingly interesting fact, as showing the influence the hospitals have exercised in reducing the scarlet-fever mortality in London, is the growing percentage of deaths in hospitals to total deaths from this cause.

In 1878 only 7 per cent. of the deaths occurred in the London Fever and the Asylums Board Hospitals. From this date the proportion has risen, year by year, until, in 1891, it reached 60 per cent. Yet one more fact. Notification has been practised two full years—1890, and 1891. In the former year, 15,330 cases of scarlet-fever were notified, of which 6,537 (nearly 43 per cent.), were admitted to the Asylums Board Hospitals alone. In 1891, the notified cases were 11,398, and the admissions 5,267, or more than 46 per cent. In these two years the deaths in hospitals were 510 and 357 respectively, only 348 and 232 deaths having occurred outside the hospitals, among the 8,793 and 6,136 cases not removed thereto for isolation. These figures show a percentage mortality, in home-treated cases, in 1890, of 3.95, compared with 7.8 in hospital-treated cases; and in 1891, of 3.8 as compared with

6.8. The conclusion to be drawn from this fact would seem to be that a large proportion of the severe cases (as well as very many of the milder ones) are now removed to hospital, and that the bulk of the home-treated cases are of a mild character. A further and final conclusion we would deduce from the above facts and figures is that, so far from the large number of cases admitted to hospitals being a proper subject for alarm, it may be safely taken as the measure of our security against any dangerous spread of the epidemic; whilst from the continually increasing use made of the hospitals, we may reasonably hope never again to suffer such terrible mortality from scarlet fever as in some of the earlier years dealt with in the present article.

WE are asked to state that the library of the Obstetrical Society will be closed from August 22nd to September 22nd.

A REUTER'S telegram from Cape Town states that it is understood that Dr. Edington has succeeded in discovering the microbe of African horse sickness.

ON the motion of Sir William Turner, seconded by Sir George Stokes, F.R.S., it was proposed at the recent meeting of the British Association at Edinburgh that Dr. Burdon Sanderson, F.R.S., Professor of Physiology at Oxford, be President at the Nottingham meeting next year, and the resolution was carried by acclamation.

THE Honorary Librarian of the British Medical Association has received from Mrs. Alfred Carpenter a valuable gift of a series of important works, bearing chiefly on hygiene and public medicine, from the library of her late husband, Dr. Alfred Carpenter, formerly President of Council of the Association. They are upwards of 250 in number, and constitute a very valuable addition to an important department of the Library.

OUR Berlin Correspondent writes: Professor Alfred Graefe—cousin to the late Albrecht v. Graefe, and himself an oculist of distinction—received an ovation last week on the occasion of his retiring from his Professorship in the University of Halle. A banquet was given in his honour, and professors and students were one in their warm appreciation of his labours as a teacher and as an operator during the twenty years of his work in Halle.

THE OVER-SUPPLY OF DOCTORS.

THE cry is still they come, and in increasing numbers. It will be noted with mixed feelings by the struggling practitioners who find it hard to get a living with their utmost efforts, and who have to content themselves with starting sixpenny dispensaries or attending clubs at 2s. a head, that the number of medical degrees conferred at the recent capping at Edinburgh University was the largest on record, including 202 Bachelors of Medicine, and 60 Doctors of Medicine. What hard struggles await many of these still happy and unconscious recruits in the fierce battle of life that lies before them!

MR. GLADSTONE.

WE notice that the London correspondent of an important provincial paper states in a paragraph which has been extensively copied by the press that, although "Mr. Gladstone has doubtless, as his friends assert, been suffering from nothing more dangerous at present than a feverish cold, which may be expected to run its course and pass away, nevertheless, the general state of the right hon. gentleman's health is the reverse of satisfactory, all statements to the contrary notwithstanding, and this afternoon rumours were abroad that Sir Andrew Clark had declined to sanction his undertaking the leadership of the House of Commons beyond the brief session that is impending. London drawing-rooms are also much occupied with the story that when the result of the Midlothian poll was announced to Mr. Gladstone he had a severe fainting fit, which must have alarmed his friends, so that the probability would seem to be that when Lord Salisbury's Government has received its 'quietus,' the Old Parliamentary Hand will be compelled to hand over the reins to Sir William Harcourt, and sink, in the words of Lord Chesterfield, 'into insignificance and an earldom.'" We have the best authority for entirely contradicting the whole statement. It is entirely untrue that Sir Andrew Clark has ever thought or said anything of the kind. Mr. Gladstone is, we are fully enabled to state, as sound and as able to do work as any other man of his age has been or could be, and to the end *labor vitæ vita est.*

THE PERSISTENCE OF SMALL-POX IN YORKSHIRE.

SMALL-POX smoulders on in the Yorkshire towns. Further cases have occurred recently in Leeds, Bradford, Sheffield, Wakefield, and Batley, but they have been few in number. At Halifax and Dewsbury the numbers have increased somewhat, notwithstanding the efforts of the respective corporations; and a sharp outbreak has occurred at Handsworth, near Sheffield, where means of isolation are conspicuous by their absence. Sporadic cases have appeared in several other parts of the country, and the persistence of the epidemic through the season at which decline was antecedently probable is causing grave apprehension as to its course during the coming winter.

EXCEPTIONAL CHILDREN.

A PAPER was read by Dr. Warner on the results of the observations made at the instance of the British Medical Association and the Charity Organisation Society into the physical deviations from the normal of 50,000 school children before the Anthropological Section of the British Association during its session at Edinburgh, and subsequently the Association adopted the following resolution: "That the Council be requested to draw the attention of the Local Government Board to the desirability of the publication of the report on the examination into deviations from the normal amongst 50,000 children in various Board schools which had been presented to the Board by the British Medical Association." Dr. Warner made a communication, which will be published shortly, to the Section of Psychology of the annual meeting of the British Medical Association, and the Section adopted a resolution similar to that quoted above.

DRINK AND PRISON.

"WHAT can be done with a woman who spends the waning years of her life between drink and prison?" The *Daily Telegraph* sorrowfully and pertinently asks this question concerning Jane Cakebread, aged 63, who has been over three hundred times before the magistrates in various courts of the metropolis, and who has spent years in prison solely through drink. Our able and benevolent contemporary recommends "the boasted and boastful religious agencies to which thousands of pounds roll in yearly to try to do something for her." But it will not be useless to remind this powerful organ of public opinion that the case of Jane Cakebread is only one horrid example of many thousands, within daily observation, in which religious influences prove ineffective, unless aided by putting the physical basis on which they are brought to bear into the condition of being a more or less normal and healthy instrument. Nor does mere punitive imprisonment for short periods suffice. The only means, which long and painful experience has approved to be efficacious in the treatment of habitual inebriety, is preventive detention under circumstances where isolation from alcoholic temptation is combined with suitable moral influence and medical and

dietetic treatment. At present such treatment can only be applied at the voluntary request of the drunkard. The British Medical Association has now for many years demanded as a great national boon, and a means of economy, mercy, and social good order, that compulsory detention and reformatory treatment shall be vested in the hands of magistrates, under suitable conditions and with proper restrictions. The satisfactory, though necessarily very restricted and limited, action of the present law—mainly due to like medical representations through the late Dr. Dalrymple, M.P., and Dr. Lush, M.P.—justify its extension to the poor and semi-criminal classes. The matter is, we are glad to say, now receiving close attention from a Departmental Committee of the Home Office, before which the Inebriety Committee of the British Medical Association has represented its views, and it is much to be hoped that early legislative modifications in the sense indicated may be effected.

CORONERS' INQUESTS.

"Death from natural causes." This stereotyped verdict was returned the other day at an inquest in Pelsall on a boy aged 10, who, whilst at play shortly after tea, had been taken ill, looked very red in the face, and froth was visible on his face; it was surmised that he had had a fit. He died shortly afterwards. Evidence having been given by a person named Mary Jane Lewis, whose name we do not find amongst the list of qualified practitioners, a verdict as above was returned. As we so constantly have to complain of such scandalous occurrences as the above, it is only right that we should take notice of an occasion when a coroner has had ground for complaining of the medical man, rare though such opportunities are.—The coroner for the city of Oxford has recently addressed a letter to the governing body of the Radcliffe Infirmary, calling attention to the fact that a certificate had been given in the case of a man admitted for a fractured thigh, and the matter was only brought to his notice through the refusal of the registrar to accept the certificate. Of course such a proceeding on the part of the medical officer was improper, but it seems probable that it was due to inexperience on the part of the officer in question. The other matter complained of in the letter, viz., that the resident officer kept the coroner and jury waiting before he appeared to give evidence, is surely one that would be better dealt with by a little mutual forbearance and courtesy, than by a formal complaint to the governing body published to the world at large through the medium of the local journal.

PROVISION FOR SICKNESS AND OLD AGE.

The report of the ninth annual meeting of the Medical Sickness Annuity and Life Assurance Society, published at page 365, will doubtless be read with great interest on account of the prosperous, beneficent, and useful year's operations, not only by the twelve hundred members of that Society, but also by the many who, without feeling for themselves the immediate necessity of such a provision, are anxious to see it made for and by others. The few illustrative cases selected by the founder of the Society in his address will probably be thought not only interesting and suggestive in themselves, but indicative of the extreme suddenness and tragic terrors of the maladies and disablements which from time to time overtake the youngest and the healthiest, and those whose professional life, begun and carried on under promising conditions, seems to foretell exemption from such pathetic calamities. The frequency of disabling accident and of contracted disease amongst healthy medical men is also clearly brought out. It is satisfactory to note that the principle which, after great thought and deliberation, the founder recommended and the Society adopted, of introducing a system of fixed annuity for old age in lieu of sickness pay, is that which is now being almost universally advocated by social reformers such as Mr. Chamberlain, the Rev. S. A. Barnett, Mr. Booth, and the Chief Ranger of the Foresters Society in the addresses and schemes issued by them respectively. The Society has to deplore the loss of its most efficient secretary, Mr. C. J. Radley, who at the time of his death was himself Chief Ranger of the great Foresters Society. In his place has been elected a most able and efficient man, Mr. C. J. Drummond, from the same class as Mr. Radley, and who in important public capacities has shown unusual ability and praiseworthiness. The office of the new secretary, Mr. Drummond, is 21, Dalmore Road, West Dulwich, S.E., and he will readily furnish information and supply documents to any who may be led by this report to desire further information and to consider the question of making due provision for themselves against unforeseen calamity. The distressing frequency and urgency of appeals addressed to us and to the various medical benevolent charities seem to render some provision of the kind a public duty to themselves, their family, and their profession on the part of nearly all.

DETERIORATION OF WATER IN DIRTY CISTERNS.

The cleansing of cisterns and water-tanks, a thing never to be safely neglected, calls for special attention at this season of the year, and Dr. W. Sedgwick Saunders, the medical officer of health to the City, did well in enforcing its necessity in his last report to the Commissioners of Sewers. Too often, however, there are insuperable difficulties in the way owing to the inaccessible position in which the cistern is placed, due to the neglect of the water companies to enforce the provisions of their own regulations—one of which, the 13th, requires that the cistern shall be placed in such a position that it may be inspected and cleansed. It is by no means uncommon to find the cistern placed under the floor of a bedroom, over a water-closet which it also supplies, or in the roof; and, when in the latter position, not seldom without a cover, contrary to the requirements of the same regulation. The companies have been remiss in carrying out what we may call the sanitary provisions of the regulations, and we may instance the 14th, which provides for the removal of waste-pipes connected with drains. For twenty years they have had the power, by serving a simple notice, to effect this sanitary improvement, but have never been induced to do it, although the necessity of the step was constantly impressed on them by the late water examiner, Sir Francis Bolton, and, some years ago, by the Local Government Board also. It is of little avail that they supply well filtered water if it is allowed, as so frequently is the case, to become contaminated in filthy and neglected receptacles. The matter is one well deserving of the attention of the sanitary authorities, whose hands, we hope, will be strengthened shortly by the by-laws for the purpose, which they are authorised to make under the provisions of the Public Health (London) Act, 1891.

CHOLERA INTELLIGENCE OFFICER.

Surgeon-General Cornish is, we think, well advised in bringing to public notice the inadequacy of the present official sources of information in this country concerning the progress of cholera and other epidemic forms of pestilence, but especially cholera. We do not make it a matter of complaint against any individual official in that singularly ill-constituted but most ably officered department of Government which is our only representative of a public health department—namely, the Medical Department of the Local Government Board. It is not the moment or the occasion to deal with this very pressing question of organisation, but that which we have to speak of to-day is the extreme deficiency—we might almost say the utter absence—of any organised intelligence department by which the progress of epidemic diseases by Asiatic or Continental routes to our shores can be followed and traced; this has been brought especially to our notice in the efforts which we have made to follow, for medical and public information, the march of the serious epidemic of cholera which prevails in distant parts, but which is approaching the confines of Europe along

the lines of commerce and travel. In these efforts, and with the object of constructing, from week to week, cholera maps tracing the march and history of this epidemic from our Indian possessions through Afghanistan and Russia, we endeavoured to tap the sources of information which should be available for public purposes on such subjects at the Medical Department of the Local Government Board and at the Foreign Office. We have met, as indeed to the credit of both offices it should be stated is characteristic of them, with nothing but the utmost courtesy, but, as a matter of fact, the information did not exist in either office, and what we have done in the way of map making and of tracing has been due to the telegraphic agencies of the great public journals and of private geographers. The same difficulty was palpable in the case of the recent influenza epidemic. Pending the complete reorganisation of the Public Health Department of the Local Government Board, which is at present constructed after the most illogical, imperfect, and fragmentary system, or want of system, and is treated with an extremity of illiberal neglect by the Treasury, even in questions of small expenditures on great public objects, it is at least essential for the public welfare that one or more officers should be appointed to create something in the nature of a medical intelligence department, and that it should correspond with a similar officer or officers in the Foreign Office, by whom documentary evidence should be collected, systematised, and forwarded for digest and consideration. Some valuable services in this direction was for several years furnished by the late Mr. J. Netten Radcliffe, whose connection indeed with the Local Government Board as one of its valued officers was due to his journalistic employment by us many years since during the cholera epidemic in 1866. The information which Mr. Radcliffe was able to cull and select from a great variety of home and foreign sources in tracing the cholera epidemic, and the bubonic plagues of the East, was so valuable that Mr. Simon permanently employed him as an inspector of the Local Government Board; he prepared a series of reports on these subjects, which were and have been since of the utmost service to this country in dealing with quarantine questions and with the methods of adverting and arresting epidemic disease. So limited, however, is the staff of the Medical Department, and so imperfectly framed is its constitution as a public health board, that these researches were cut short, and have altogether ceased since his death. It will, we believe, be generally admitted that such a gap urgently needs to be filled. We have all the more national responsibility in this matter, inasmuch as it is one of our own possessions which is the chief birthplace, source, and origin of the diffusion of cholera, the worst of the Asiatic plagues which from time to time devastate Europe.

HEROES AND MARTYRS OF SCIENCE.

Professor Herbert McLeod might have added to his address at Edinburgh that bacteriology is not only a singularly difficult, financially unremunerative, and costly research, but a source of peril. We mentioned recently four deaths and several severe forms of illness produced incidentally in the enthusiastic and self-sacrificing study of experimental medicine by British medical men and students. From several communications which we have since received it is evident that the danger is one which, if on the one hand it should not be over-rated, is on the other worthy of more serious attention than it has yet received. To this list of quite recent cases of contracted disease which we then gave we regret to have to add that of M. Vignal, the distinguished bacteriological experimenter on the staff of the Collége de France, whose admirable work has made him well known and much esteemed in this country, with which he is connected by descent and marriage. M. Vignal, in the pursuit of his studies of the varieties and means of prevention of tuberculosis, has unfortunately become infected, and his health is suffering considerably from his devotion to this all-important research. Happily there is reason to hope that it may be re-established; but for this much patience will be required, and in the meantime his researches have been seriously interrupted, and a humanitarian pursuit which can ill spare labourers so devoted, able, and disinterested has been deprived of his services.

RESTRICTION OF THE SALE OF POISONS.

Important and wide-spreading results, likely to be of great public benefit, have followed the recent prosecution by the Treasury of the vendor of a leading patent medicine containing a powerful narcotic poison but not labelled, a practice which had been carried on generally in the trade for many years with impunity. This prosecution was undertaken by the Public Prosecutor at the instance of Mr. Ernest Hart, Chairman of the Parliamentary Bills Committee of the British Medical Association, who forwarded a series of analyses of so-called patent medicines, soothing syrups and balsams, and ague drops, many of which are, in fact, solutions of powerful narcotics (opium, morphine, chloral), or narcotic poisons (strychnine, belladonna, etc.); he pointed out the frequent cases of poisoning occurring from the impunity with which such poisonous compounds had been allowed to infringe the law, and to be put on sale at stores, by grocers and others indiscriminately, bearing the Government stamp, and without being labelled poison as the law properly requires. Following upon this conviction, Mr. Ernest Hart called the attention of the Council of the Pharmaceutical Society to the statutory duty imposed upon that council to protect the public in these respects against such infringements of the law, and it is now announced that proceedings are being systematically taken with satisfactory results. In consequence penalties have been quietly paid by large dealers, who have promised not to offend again. From the report of the Society's solicitor it appears that "nine persons or firms have paid penalties and costs for selling poisons in contravention of the Pharmacy Acts, and several other cases are standing over for hearing. Information as to numerous breaches of the Act in different parts of the country has been received, and proceedings have been authorised in thirty-three cases." This dangerous and illegal practice, so long carried on with impunity on a large scale, is in fact now likely to be put an end to if due diligence is exercised, and thus a very salutary reform has been effected by a simple decisive vindication of the law on which the British Medical Association and the Public Prosecutor may be congratulated. It is only surprising that it was left for a private body to protect the public interests by putting in motion public bodies such as the Treasury and the Pharmaceutical Society for the performance of a protective duty inherent in their constitutional powers, but which has been so long neglected. Once set in motion, however, both have acted with an effective vigour which deserves public acknowledgment.

SERVICES BY THE WAY.

The brilliant services rendered to the Empire by our Indian medical officers are by no means confined to their technical medical duties, in which capacity alone they have rendered immeasurable services to their fellow-countrymen and the world at large; nor are they limited by the gigantic progress which has been effected under their immediate direction and inspiration in the sanitation of that vast domain, although this in itself has been a work of such great effect in saving life amongst the toiling millions of our Asiatic Empire that the world has never seen its like, nor have we anything in European experience to compare with the extent of the work done. But outside their own immediate sphere as professors and practitioners of curative and preventive medicine, they have been able to render incalculable services in a variety of collateral departments of social and administrative activity for which their general scientific education and special acquirements have peculiarly fitted them. What is meant here

will be sufficiently indicated without being at all fully expressed if we recall the work of such men as Sir George Birdwood and Brigade-Surgeon Hendley in the development of the industrial arts of India and their economic products, in philological studies, and in the ethnological and historical records of the Empire; of Sir J. MacNeil in the sphere of politics; of Sprenger in philology; of Sir Joseph Fayrer, Dr. Day, and Jerdan in investigations of zoological and marine fauna and the snake poisons: of Norman Chevers on the jurisprudence and poisons of India; of Mouat and Cornish on gaol administration; of Wallich, Royle, Waring, Anderson, Thompson, Trimen, and George Watt in the utilisation of its economic plants, food resources or drugs, or of the two eminent medical men whose recent loss we have to deplore, and of whose imperial services in directions outside their immediate professional occupations a brief obituary notice has this week to be given all unworthy of their distinguished life work. Forbes Watson and Bellew were men who would have acquired distinction and rendered good service to their country if confined to home pursuits, or in whatever walk of life. Watson's appointment as assistant surgeon in the Bombay Medical Service in 1850 brought him into a wider sphere. His studies on the nutritive value of Indian food grains and of the dietary of our soldiers, and the intimate knowledge which he acquired of the commercial, artistic, and ethnological interests of India, enabled him to accomplish results of lasting importance to the trade of the empire, and to other of its vital interests. Bellew was not less able and distinguished in his researches on philological or ethnological questions. We cannot here do justice to the value of their work, but at least we can commemorate briefly their names, and record the sense of pride and satisfaction with which the medical profession is able to number among its ranks men so useful to their country, so lofty in their aims, and so capable and devoted in their life-work.

GREAT BRITAIN OR THE CONTINENT.

A good many correspondents have written to us to ask for advice as to whether it is safe this year to take a Continental holiday in view of the near approach of cholera, and the prevalence in so many places of typhoid and choleraic diarrhœa, as well as the impediments of travel likely to be caused at any moment by necessary sanitary restriction on travel. Without presuming to answer such queries authoritatively, we may say that the general conditions even of cities such as Paris and of the French and Swiss towns generally are not yet such as to inspire confidence or to ensure safety at such a time, and we think that the great mass of British holiday makers will be far safer in exploring the innumerable beauties of England, Scotland, and Ireland than in crossing the Channel this year. Even in Paris, where the British teaching of the incalculable importance of the purity of water supply in averting typhoid, cholera, etc., has been greatly taken to heart, authorities still from time to time distribute pestilential and poisonous drinking water from the Seine, which, in view of the high intelligence and thorough appreciation with which the French sanitarians have assimilated the facts and conclusions arrived at by British sanitarians, is as inexplicable as it is profoundly to be regretted. The recent epidemic in Paris is undoubtedly and now confessedly due to this distribution of polluted drinking water by the authorities; but, indeed, throughout France there exists in other towns dangerous insanitary conditions which may at any time make them the foci of local epidemics of the kind. At any rate, those who travel on the Continent should take the utmost precautions as to their drinking water, and in the avoidance of those abominable holes which in so many places still do duty for sanitary arrangements, and must beware of the constant escapes of sewer gas even in better constituted establishments where the plumbing is habitually of a very defective character, and far below the standard of safety; even the siphons of *eau de seltz* are often so many poison traps, as there is no absolute security as to the source from which that aërated water is drawn. Great care should be taken to avoid excesses of strange diet, and the liberal supply of ice which is given at table to conceal the flavour of inferior wine should be absolutely avoided. Such ice is often either made artificially from impure water, which is by no means purified by the act of freezing, or gathered from infected ponds or rivers. As to this danger M. Pasteur has recently sounded a timely note of alarm.

MEDICAL MISSIONS.

For some time past some supporters of medical missions had thought that the annual meetings of the British Medical Association would afford opportunities for bringing the claims of medical missions before their professional brethren. Accordingly they resolved to give a breakfast at Nottingham, and to ask to it a number of medical men, and some medical missionaries at home. Thanks to the excellent arrangements of a local committee, a most successful breakfast gathering in the council chambers was arranged. Dr. Roberts Thomson presided, and the company included a hundred medical men, with a few clergymen. Dr. Henry Martyn Clark, of Umritsur, showed by many examples drawn from his own experience the need of medical missions, for the ignorance of native treatment entailed endless sufferings. Medical missions were the key which unlocked every home closed not only to Christian but to all European influences. He quoted the opinion of an influential native gentleman that medical missions and missions to the Zenanas were the most effective forms of missionary enterprise. "By the one you win our homes and by the other you win our hearts. If you Christians were wise you would flood the land with medical missionaries." Dr. Hoernlé (late C.M.S., Persia), after a brief reference to the excellent work done by Drs. Arthur and Ernest Neve in Kashmir, emphasised the need of fully trained medical men ready to put their hands to anything. In fact, the opportunities for good professional work were so abundant abroad, that no man who loved his work was called to make any sacrifice. Dr. Locke, of Bristol, for many years civil surgeon in the Indian Medical Service, as a disinterested friend showed that medical missions were necessary to supplement the work of Government dispensaries and hospitals, and, besides, reached classes untouched by them. Dr. Lankaster finally spoke of the advisability of all university societies having subcommittees of medical men to assist them in the carrying on of medical missions. A vote of thanks to the local committee moved by the chairman brought the proceedings to an end.

VILLAGE WATER SUPPLIES.

While the large towns are going farther and farther afield in search of pure water, some of the smaller communities remain in worse plight than ever, owing to the exhaustion of their local supplies by the works established by their more powerful neighbours. A small community has no chance against a wealthy corporation in a Parliamentary fight over a water bill, and in the past much injustice has been done in this way. An appeal has been made to the Maldon Rural Sanitary Authority by the inhabitants of Purleigh, whose water supply is failing, it is alleged, in consequence of the London water companies pumping enormous volumes of water, and thus gradually drying up the wells. In this instance it seems that a sufficient supply can be obtained at moderate cost from another source, but such is not always the case. It has been suggested that as the sanitary authority have no power to press the water company in the matter, the Essex County Council should take up the question. The county council has even less power than the sanitary authority to interfere with existing conditions. What can be done, and has been done, in Yorkshire, is for the county council to watch for farther encroachments of the kind, and to step in if it seems that injustice to a small and weak community is

likely to result from any Bill before Parliament. Their *locus standi* in such matters is now fully established.

THE BICKLEY OUTRAGE.

THE injuries inflicted upon Miss Philbrick, one of the victims of the extraordinary outrage at Bickley, are, we learn, of a most serious nature. There is a compound comminuted depressed stellate fracture of the left squamo-parietal region, and there are also signs pointing to fracture of the base of the skull in the frontal region with laceration of brain substance. On August 6th an operation was performed, the bone elevated, and certain pieces removed from the brain. The patient recovered consciousness six hours later. Paralysis of the facial nerve, which was present, is passing away. The patient takes nourishment well, but the temperature is febrile and the pulse rapid. She is being attended by Drs. Mathews and Curtis, and by Dr. S. Zichy Woinarski, of the Ballarat Hospital. Miss Wood (who was seen by Sir William Mac Cormac) received the discharge full in the face, sustaining a large ragged wound in the centre of the cheek, and some particles of unburnt powder found their way into the cornea. There was no apparent motive of robbery or other crime—nothing to account for the assault but an insane impulse to injure something. This is a common symptom in connection with epilepsy, and it is a subject to which we have frequently called attention, especially with regard to the watchful care necessary to be exercised over known epileptics during the intervals between the attacks to which they are subject. If the prisoner in this case should prove to be a known epileptic, and the fact of his being seized with a fit on leaving the court would seem to lead to that belief, grave responsibility will rest upon those who allowed him to have possession of so dangerous a weapon as a loaded gun. With regard to the legal aspect of the assault, we must wait till the case is settled by the court before commenting upon it.

SCOTLAND.

SCOTCH UNIVERSITIES COMMISSION.

WE understand that those portions of the medical ordinances, respecting which a re-hearing was granted, have been confirmed by the Universities Commission without modification, and also by the Privy Council, to whom a further appeal was made.

EDINBURGH MEDICAL MISSIONARY SOCIETY.

THE directors of the Edinburgh Medical Missionary Society have offered the post of Superintendent of the Mission, vacant by the death of Dr. John Lowe, to Dr. Edwin Fry, of Travancore, who is a son-in-law of Dr. Lowe. Dr. Fry was a distinguished student of Edinburgh University, who graduated in 1887. For some time Dr. Hoernlé had been acting as Dr. Lowe's coadjutor, and since Dr. Lowe's death has filled his place as Superintendent. A strong feeling had been shown by many graduates in and about Edinburgh that Dr. Hoernlé would have filled the position thoroughly well, but the directors seem to have thought otherwise.

THE EDINBURGH ROYAL INFIRMARY AND THE MEDICAL EDUCATION OF WOMEN.

THE managers of the Royal Infirmary have arranged to transfer a number of nurses and servants to their recently acquired property in Lauriston Lane, and thus they will be able to set free a number of beds for the reception of additional patients, which new beds will allow them to comply with the request of the Edinburgh Association for the Medical Education of Women that a certain number of their students should be admitted to clinical training in the infirmary. At the usual weekly meeting of the managers of the Royal Infirmary on August 8th, details connected with the working of the scheme for the clinical instruction of lady students were discussed. Two wards (each having twenty beds) are to be set aside for these students, one for medicine and one for surgical cases. These wards are on the ground floor of the surgical side of the hospital, and are to be solely for the use of lady students. These students are also to have liberty to attend the eye, ear, throat, nose, and skin wards.

ABERDEEN UNIVERSITY EXTENSION.

A MEETING of the Aberdeen University Court was held on August 8th in Marischal College, the Marquis of Huntly in the chair. A prolonged discussion took place on some proposals having for their purpose the question of extending the University buildings. As a result of the deliberation the following resolution, moved by Dr. Angus Fraser, and seconded by Professor Matthew Hay, was adopted: "That the architect be instructed to present to the Court estimate and block plans on the lines of the memorandum previously submitted by him, showing how and at what cost the whole of the arts, science, medical, and law classes could be accommodated at Marischal College buildings." Later on in the discussion, the Rev. Dr. Smith, Newhills, moved, and Professor Milligan seconded, the following addition: "That the Court instructs the architect to furnish block plan and estimate of new buildings at King's College, affording accommodation for classes of botany, chemistry, and natural history." Sir William Geddes moved, and Professor Pirrie seconded, the previous question. On a vote being taken, the motion of the Principal, Sir William Geddes, was lost by nine votes to three. The Marquis of Huntly then called attention to a letter which he had received from the Chancellor of the Exchequer, wherein it was stated that "the sum of £5,000 is the maximum amount which it is estimated can be spent on the University Extension during the current year," and the Marquis pointed out that it was desirable to obtain the £5,000 from the Treasury as soon as possible, and that steps should be taken to secure the promised sum. It has also been agreed to recommend the Town Council to apply for powers in their Bill which is to be presented in Parliament for dealing with Grayfriars Church and the other properties necessary for the extension of the University, the executive undertaking to pay the cost of this portion of the work. The total subscriptions intimated up to the present time amount to £29,266 5s. It was stated that it was intended to call up the first instalment of the contributions on October 1st.

IRELAND.

LORD ZETLAND has conferred the honour of knighthood on Dr. Philip Crampton Smyly, who has been physician to his Excellency for some time. Sir Philip Smyly is also surgeon to the Meath Hospital.

IRISH MEDICAL ASSOCIATION.

A MEETING of the Limerick City and County Branch of this Association was held on August 6th, presided over by Dr. O'Callaghan, New Pallas. After some discussion had taken place in reference to the grievances of Poor-law medical officers, the following resolution was passed: "Resolved: That in future breaches of professional etiquette do form subjects for debate, and if necessary will be liable to censure by the Association."

LEAVE OF ABSENCE FOR DISPENSARY DOCTORS.

WE have received a letter from Dr. Laffan, of Tara, in which he states that the Dunshaughlin Guardians have granted holidays to him and paid his *locum tenens*. He suggests that a clause should be introduced into the Bill giving power to the Treasury to pay half the cost of employing substitutes in the various unions. Unless this is done he fears that it is open to grave doubt whether applications for a month's holiday at the expense of the ratepayers will receive any but scant support from the various boards of guardians.

THE BRITISH MEDICAL ASSOCIATION:

Its Constitution and its Annual Meetings: A Warning and Suggestion.

A correspondent writes: The remarks in the British Medical Journal of July 30th on the smallness of the number of members attending the general meeting of the Association on the first day for business purposes will very well bear further discussion.

The evil is undeniable and the mischief patent. It is clear that a scanty meeting of 25 or upwards at a great annual congress of a thousand or two out of a total of 14,000 members is a body quite unsuitable to be charged with the power and duty of making changes or giving directions which are of binding character and may affect fundamentally the financial, administrative, and general policy of the whole Association.

The legal power of such a gathering, however, as is pointed out in the article in question, and, as probably most of us have long been thinking, although none have said so fully and publicly, is anomalous and altogether out of proportion with its moral weight. This is often true as to the composition as well as the numbers, as everyone who happens to have been present at such business meetings or to have read the reports in the Journal will readily admit. There is the same small permanent knot—the sempiternal Mr. George Brown, the unintentionally comic Dr. Ince, who vainly pleads that he may be taken seriously, Dr. Rentoul, Dr. Hugh Woods, and a small tail of loquacious irreconcileables of various hue whose lucubrations we are condemned to read at painful length and most distressing frequency throughout the year in the Journal, and who generally at these meetings almost monopolise the scanty half-hours available for discussion, while leading or influential members of the Association are conspicuous by their absence or their silence.

Nevertheless, it is such a meeting which on the first day—now specially set aside for business—sits in judgment on the reports of the great central Council of the Association—a body incomparably more important, and elected deliberately by each Branch by such methods as to secure a full representation of all the members. Such a scanty general meeting is, indeed, in point of capacity for legislative purposes or in representative character, far less trustworthy than even an ordinary Branch meeting, or than some Branch Council meeting. Before this haphazard assembly of three or four score—always largely reinforced by faddists, irreconcileables, and spouters—come Council reports on much that is most vital to the finance and the policy of the Association, for revision and possibly for revolutionary treatment. It is as if the decisions of our houses of Parliament were to be submitted for approval or revision to annual "public meeting" of qualified voters, held in the market place—held now in the Mechanics' Institute of Nottingham, at another time in Plymouth, Bournemouth, or in any other town chosen, as it offered itself—to banquet the Ministers in accidental but hospitable succession.

The evil, the folly, and the danger of such a constitution is considerable. What is the remedy? To me it seems obvious. The great sources of power in the Association are the members in their Branches. There they have time and there they have adequate opportunities for business discussions and for deliberately electing representatives to do their business; and such representatives present themselves annually for re-election or for rejection, accordingly as they have done their business well or ill. They do not derive their power from what is facetiously called "the general meeting;" they are not elected by it, and it is quite illogical and absurd that they should render to this fortuitous and scanty concourse of what are usually more or less unimportant atoms the account of their stewardship; clearly they owe that account to their electors—the members in Branch assembled, who are the true sources of power and the basis of representative government in the Association.

This, moreover, was fully recognised when in the new and revised constitution, now in force, the power of election of even a portion of the governing Council of the Association was taken away from "the general meetings" and put into the hands of the Branches.

If such a meeting was admitted and decided not to be the proper body to be entrusted with the election of even a part of the governing Council, *a fortiori* it is not the proper body in whom to vest the control of the whole of that Council and of all its Committees; with the further power to initiate laws, lay down policies, and enact directions overriding, it may be, decisions of the whole of the elected representatives of the whole of the Branches.

It was a great oversight in the construction of the new constitution that, when the duty of electing the governing Council was placed in the hands of the Branches, the logical sequence was not carried out. The Council cannot properly be responsible to the body which does not elect it, and which it does not represent.

It is absurd and mischievous, and may at any moment be exceedingly dangerous, to vest in a casually composed assembly of a few dozen gentlemen, meeting often in the most distant localities, the power of controlling a great representative Council—of overmastering the Branches, and of taking into its own hands the destinies of an Association of 14,000 professional men. It is especially so when this body has deliberately confessed its weakness, and divested itself of even the indirect share which it once had of taking a share in the election of the governing body.

I suggest that this dangerous farce should be ended, and that the constitution of the Association be so altered as that:

1. The Council and its Committees cease to present its reports to what is now called "The Annual General Meeting."

2. That the annual meeting be wholly devoted to scientific, social, and professional purposes, omitting the dismal ceremony of the "business meeting," or reducing to merely formal purposes.

3. That the reports be published in the British Medical Journal as at present, and that it be competent to the Branches to discuss such reports at the next ensuing meeting of each Branch, and to forward comments or suggestions on the report to the Council through their representatives.

It will be a great relief to the Association at large to be relieved of this useless and superfluous part of the proceedings at the annual meeting, which are not only quite uninteresting to the members generally—as the ridiculously small attendance proves—but of which the published reports are, I am sure, rarely read, and when read are sometimes apt to raise a smile of derision or a blush of shame, while they are obviously pregnant with peril.

I trust this matter will be now thoroughly ventilated in the columns of the British Medical Journal, and well discussed in the Branches, and that the Council will take it into their consideration. The present proceedings appear to me to be illogical, superfluous, an indignity to the Branches, and not creditable to so great an Association.

ASSOCIATION INTELLIGENCE.

NOTICE OF EXTRAORDINARY GENERAL MEETING.

Notice is hereby given that an Extraordinary General Meeting of members will be held at the offices of the Association, 429, Strand, London, W.C., on Wednesday the 24th day of August next at 2 o'clock in the afternoon, to consider, and if thought fit, to confirm the special resolution passed by the statutory majority this day at an Extraordinary General Meeting of members held at the Albert Hall, Nottingham, namely, "That Article 4 of the Articles of Association be altered by expunging the words

'No female shall be eligible for election as a Member of the Association.'"

July 28th, 1892. Francis Fowke, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS FOR 1892. ELECTION OF MEMBERS.

A meeting of the Council will be held on October 26th, 1892. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than October 5th, 1892.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

PROCEEDINGS OF THE COUNCIL.

At a meeting of the Council, held in the Grand Jury Room, Guildhall, Nottingham, on July 26th, 1892:—

Present:

Dr. W. WITHERS MOORE, President of Council, in the chair.
Dr. J. R. THOMSON, President.
Mr. JOSEPH WHITE, President-elect.
Mr. H. T. BUTLIN, Treasurer.

Dr. G. BARRON, Southport.
Dr. F. BATEMAN, Whitchurch.
Dr. J. S. BRISTOWE, F.R.S., London.
Surgeon-Genl. W. R. CORNISH, London.
Dr. J. H. GALTON, Upper Norwood.
Dr. BRUCE GOFF, Bothwell.
Dr. H. HANDFORD, Nottingham.
Mr. J. H. HEMMING, Kimbolton.
Dr. C. HOLMAN, Reigate.
Mr. T. R. JESSOP, Leeds.
Mr. EVAN JONES, Aberdare.
Dr. D. J. LEECH, Manchester.
Mr. JORDAN LLOYD, Birmingham.
Mr. R. H. B. NICHOLSON, Hull.
Mr. C. H. W. PARKINSON, Wimborne Minster.
MR. F. M. POPE, Leicester.
Dr. J. ROLSTON, Devonport.
Dr. W. RUSSELL, Edinburgh.
Dr. R. SAUNDBY, Birmingham.
Mr. H. STEAR, Saffron Walden.
Dr. J. STRACHAN, Dollar.
Mr. LAWSON TAIT, Birmingham.
Mr. C. G. WHEELHOUSE, Filey.

The minutes of the last meeting having been printed and circulated, and no objection having been taken, were signed as correct.

Read letters of apology for non-attendance from Dr. Parsons, Dover, and Dr. Barnes, Carlisle.

Read letter from Dr. Ady in reply to a letter from the General Secretary, which the latter had been instructed to write.

Resolved: That the 92 candidates whose names appear on the circular convening the meeting, together with the 13 candidates on the supplementary list, be and they are hereby elected members of the British Medical Association.

The General Secretary reported that the representatives from the Bombay, Burmah, Jamaica, Montreal, Melbourne, Sydney and New South Wales, Trinidad, and Tobago Branches had notified their intention of being present.

Resolved: That the minutes of the special meeting of the Scientific Grants Committee of the 21st July last be received, approved, and the recommendations contained therein carried into effect.

The minutes of the Scientific Grants Committee contain the recommendation that Dr. Haycraft be appointed a Scientific Scholar.

The General Secretary reported that the following notices of motion had been received for the Annual Meeting, and had been placed upon the agenda accordingly.

Dr. Galton had given notice that he would move at an Extraordinary General Meeting to be held on Thursday, July 28th, at two o'clock in the afternoon, the following resolutions:—

(1) That Article 4 of the Articles of Association be altered by expunging the words, "No female shall be eligible for election as a member of the Association."

(2) That By-law No. 1 of the By-laws of the Association be altered by expunging the words, "provided that the power of such Council or Branch Council shall only extend to the election of male persons."

Dr. Rentoul had given notice that he would move:—

"While not recommending the payment of member of Committees either for their services or for their time given on behalf of our Association, that from henceforth each member attending a meeting of the Parliamentary Bills Committee be paid first-class return railway fare out of the funds of the Association; thus following the course adopted in the payment of the railway fare of members of our Council, and by the General Medical Council."

Read list of attendances of Members of the Council for the past twelve months, as follows:—

LIST OF ATTENDANCES OF COUNCIL—SIX MEETINGS.

	Total attendances.
Dr. J. R. Thomson, Bournemouth, President ...	5
Dr. W. Withers Moore, Burgess Hill, President of Council	6
Mr. Joseph White, Nottingham, President-Elect ...	5
Sir H. W. Acland, K.C.B., Oxford, Vice-President ...	0
Mr. H. T. Butlin, London, Treasurer	6
Mr. Alfred Baker, Birmingham, Vice-President ...	0
Sir J. T. Banks, Dublin, Vice-President	0
Dr. Henry Barnes, Carlisle, R.	0
Dr. G. B Barron, Southport, R.	3
Mr. B. Barrow, Ryde, Vice-President... ...	0
Dr. F. Bateman, Whitchurch, R.	4
Dr. J. Mackenzie Booth, Aberdeen, R.	0
Dr. T. Bridgwater, Harrow-on-the-Hill, Vice-President	5
Dr. J. S. Bristowe, London, R.	6
Dr. J. W. Byers, Belfast, R.	2
Dr. J. S. Cameron, Leeds, R.	4
Dr. W. Carter, Liverpool, R.	3
Surgeon-General W. R. Cornish, London, R.... ...	3
Dr. J. Ward Cousins, Portsmouth, R.	5
Dr. H. Radcliffe Crocker, London, R.	6
Mr. T. W. Cresse, Norwich, R.	3
Dr. G. W. Crowe, Worcester, R.	4
Dr. J. Cuming, Belfast, Vice-President	2
Dr. A. Dempsey, Belfast, R.	1
Dr. T. M. Deas, Exeter, R.	3
Mr. E. Donaldson, Londonderry, R.	0
Dr. J. Langdon H. Down, London, R	6
Dr. D. Drummond, Newcastle-on-Tyne, R.	2
Mr. George Eastes, London, R.	5
Dr. W. T. Edwards, Cardiff, Vice-President	0
Dr W. A. Elliston, Ipswich, R.	4
Sir B. W. Foster, Birmingham, Vice-President ...	4
Mr. R. S. Fowler, Bath, R.	1
Professor W. T. Gairdner, Glasgow, Vice-President...	1
Dr. J. H. Galton, London, R....	6
Dr. E. Glascott, Manchester, R.	4
Dr. Bruce Goff, Bothwell, R....	5
Dr. Ogilvie Grant, Inverness, R.	2
Dr. T. W. Grimshaw, Carrickmines, R.	3
Dr. H. Handford, Nottingham, R.	6
Mr. John D. Harries, Shrewsbury, R.	1
Mr. J. H. Hemming, Kimbolton, R.	3
Mr. G. F. Hodgson, Brighton, R.	3
Dr. Holman, Reigate, Vice President	4
Professor Sir G. M. Humphry, Cambridge, Vice-President	0
Mr. T. Vincent Jackson, Wolverhampton, R. ...	2
Mr. T. R. Jessop, Leeds, R.	3
Mr. Evan Jones, Aberdare, R...	4
Dr. W. M. Kelly, Taunton, R.	0
Dr. D. J. Leech, Manchester, R.	4
Mr. Jordan Lloyd, Birmingham, R.	4
Mr. C. N. Macnamara, London, Vice-President ...	5
Mr. W. Jones Morris, Portmadoc, R...	2
Dr F. Needham, London, R....	5
Mr. R. H. B. Nicholson, Hull, R.	3
Mr. C. H. W. Parkinson, Wimborne Minster, R. ...	5
Dr. C. Parsons, Dover, R.	5
Dr. F. M. Pope, Leicester, R.	1
Dr. John Rolston, Stoke, R.	4
Dr. W. Russell, Edinburgh, R.	4
Dr. R. Saundby, Birmingham, R.	3
Dr. A. Sheen, Cardiff, R.	5
Mr. S. W. Sibley, Bletchingley, R.	0
Dr. E. Markham Skerritt, Clifton, R....	6
Mr. Noble Smith, London, R...	6
Mr. Henry Stear, Saffron Walden, R....	4
Dr. J. Strachan, Dollar, R.	0
Mr. Lawson Tait, Birmingham, R.	5
Mr. J. Taylor, Chester, R.	2
Dr. T. W. Trend, Southampton, R.	4
Dr. A. R. Urquhart, Perth, R....	3
Dr. W. F. Wade, Birmingham, Vice-President ...	3
Mr. F. Wallace, London, R.	4
Dr. A. T. H. Waters, Liverpool, Vice-President ...	2
Mr. C. G. Wheelhouse, Filey, Vice-President ...	4
Dr. G. E. Williamson, Newcastle-on-Tyne, R. ...	1
Mr. Alfred Winkfield, Oxford, R.	3

* The letter R signifies Representative of a Branch.

At a meeting of the Council for 1892-3, held in the Grand Jury Room, Guildhall, Nottingham, on July 27th, 1892:—

Present:

Dr. W. Withers Moore, President of Council, in the chair.

Mr. Joseph White, President.

Mr. H. T. Butlin, Treasurer.

Dr. G. B. Barron, Southport.
Dr. F. Bateman, Whitchurch.
Dr. R. W. Batten, Gloucester.
Dr. J. S. Bristowe, F.R.S., London.
Dr. J. W. Byers, Belfast.
Mr. Andrew Clark, London.
Surgeon-Genl. W. R. Cornish, F.R.C.S., London.
Dr. J. Ward Cousins, Portsmouth.
Dr. H. R. Crocker, London.
Dr. J. Cuming, Belfast.
Dr. A. Dempsey, Belfast.
Dr. D. Drummond, Newcastle-on-Tyne.
Mr. George Eastes, M.B., London.
Dr. W. A. Elliston, Ipswich.
Sir B. W. Foster, M.D., M.P., Birmingham.
Dr. J. H. Galton, Upper Norwood.
Dr. Bruce Goff, Bothwell.
Dr. H. Handford, Nottingham.
Mr. J. H. Hemming, Kimbolton.
Dr. C. Holman, Reigate.
Mr. T. R. Jessop, Leeds.
Mr. Evan Jones, Aberdare.
Mr. Jordan Lloyd, Birmingham.
Mr. R. H. B. Nicholson, Hull.
Mr. C. H. W. Parkinson, Wimborne Minster.
Dr. W. Russell, Edinburgh.
Dr. R. Saundby, Birmingham.
Dr. A. Sheen, Cardiff.
Mr. Noble Smith, London.
Mr. H. Stear, Saffron Walden.
Dr. J. S. Strachan, Dollar.
Mr. Lawson Tait, Birmingham.
Dr. L. H. Tosswill, Exeter.
Dr. A. R. Urquhart, Perth.
Mr. C. G. Wheelhouse, Leeds.
Dr. G. E. Williamson, Newcastle-on-Tyne.

Read letters of apology for non-attendance from Dr. H. Barnes and Dr. Grimshaw.

Read letter from Dr. Long Fox, stating the desire of the members of Bristol to invite the Association for 1894.

Resolved: That the letter be received and entered on the minutes.

The General Secretary reported that the following gentlemen had been elected representatives of the various Branches for the ensuing twelve months:—

Aberdeen, Banff, and Kincardine Branch.—J. Mackenzie Booth, M.D., 231, Union Street, Aberdeen. *Adelaide and South Australia Branch.*—(No return.) *Barbados Branch.*—(No return.) *Bath and Bristol Branch.*—R. S. Fowler, F.R.C.S.Ed., 6, Belmont, Bath; E. Markham Skerritt, M.D., Thornbury House, Richmond Hill, Clifton, Bristol. *Bermuda Branch.*—(No return.) *Birmingham and Midland Counties Branch.*—Jordan Lloyd, F.R.C.S., 22, Broad Street, Birmingham; Robert Saundby, M.D., 88A, Edmund Street, Birmingham; Lawson Tait, F.R.C.S., The Crescent, Birmingham. *Bombay Branch.*—(No return.) *Border Counties Branch.*—Henry Barnes, M.D., 6, Portland Square, Carlisle. *British Guiana Branch.*—(No return.) *Burmah Branch.*—(No return.) *Cambridge and Huntingdon Branch.*—Henry Stear, M.R.C.S., Saffron Waldon, Essex. *Cape of Good Hope Branch.*—(No return.) *Colombo (Ceylon) Branch.*—(No return.) *Dorset and West Hants Branch.*—C. H. W. Parkinson, M.R.C.S., Wimborne Minster. *Dublin Branch.*—T. W. Grimshaw, M.D., Priorsland, Carrickmines, co. Dublin. *East Anglian Branch.*—T. W. Crosse, F.R.C.S., Norwich; W. A. Elliston, M.D., Ipswich. *East Yorks and North Lincoln Branch.*—R. H. B. Nicholson, M.R.C.S., 21, Albion Street, Hull. *Edinburgh Branch.*—William Russell, M.D., 46, Albany Street, Edinburgh. *Glasgow and West of Scotland Branch.*—Bruce Goff, M.D., The Lindens, Bothwell, Lanarkshire. *Gloucestershire Branch.*—R. W. Batten, M.D., 1, Brunswick Square, Gloucester. *Griqualand West Branch.*—(No return.) *Halifax (Nova Scotia) Branch.*—(No return.) *Hong Kong and China Branch.*—(No return.) *Jamaica Branch.*—(No return.) *Lancashire and Cheshire Branch.*—G. B. Barron, M.D., Summerseat, Southport; E. H. Dickinson, M.D., 41, Rodney Street, Liverpool; C. E. Glascott, M.D., 23, St. John Street, Manchester; D. J. Leech, M.D., 96, Mosley Street, Manchester; James Taylor, F.R.C.S., Newgate Street, Chester. *Leeward Islands Branch.*—(No return.) *Londonderry and North-West of Ireland Branch.*—E. Donaldson, L.R.C.P.I., 49, Great James Street, Londonderry. *Malta and Mediterranean Branch.*—(No return.) *Manitoba and West of Canada Branch.*—(No return.) *Melbourne and Victoria Branch.*—(No return.) *Metropolitan Counties Branch.*—J. S. Bristowe, M.D., 13, Old Burlington Street, W.; Andrew Clark, F.R.C.S., 71, Harley Street, W.; H. Radcliffe Crocker, M.D., 121, Harley Street, W.; George Eastes, M.B., 35, Gloucester Place, Hyde Park, W.; Noble Smith, F.R.C.S.Ed., 24, Queen Anne Street, W.; F. Wallace, L.R.C.P., Foulden Lodge, Upper Clapton, N.E. *Midland Branch.*—H. Handford, M.D., 14, Regent Street, Nottingham; F. M. Pope, M.D., 4, Prebend Street, Leicester. *Montreal Branch.*—(No return.) *North of England Branch.*—David Drummond, M.D., 7, Saville Place, Newcastle-on-Tyne; G. E. Williamson, M.D., 22, Eldon Square, Newcastle-on-Tyne. *North of Ireland Branch.*—J. W. Byers, M.D., Lower Crescent, Belfast; A. Dempsey, M.D., 26, Clifton Street, Belfast. *North Wales Branch.*—W. Jones Morris, M.R.C.S., Portmadoc. *Northern Counties of Scotland Branch.*—Ogilvie Grant, M.B., Queen Mary's House, Inverness. *Oxford and District Branch.*—Alfred Winkfield, F.R.C.S., 26, Beaumont Street, Oxford. *Perthshire Branch.*—A. R. Urquhart, M.D., James Murray's Royal Asylum, Perth. *Punjab Branch.*—(No return.) *Reading and Upper Thames Branch.*—F. Bateman, M.B., Whitchurch, Oxon. *Shropshire and Mid-Wales Branch.*—John Davies Harries, M.R.C.S., 5, Belmont, Shrewsbury. *South-Eastern Branch.*—J. H. Galton, M.D., Chunam, Sylvan Road, Upper Norwood, S.E.; G. F. Hodgson, M.R.C.S., 52, Montpellier Road, Brighton; C. Parsons, M.D., 2, St. James's Street, Dover. *South Indian and Madras Branch.*—Surgeon-General W. E. Cornish, C.I.E., 8, Cresswell Gardens, S.W. *South Midland Branch.*—J. H. Hemming, M.R.C.S., Kimbolton. *South Wales and Monmouthshire Branch.*—Evan Jones, M.R.C.S., Aberdare; A. Sheen, M.D., 28, Newport Road, Cardiff. *South-Western Branch.*—P. M. Deas, M.B., Wonford House, Exeter; L. H. Tosswill, M.D., 28, West Southernhay, Exeter. *Southern Branch.*—J. Ward Cousins, M.D., Riversdale, Kent Road, Portsmouth; Theophilus W. Trend, M.D., 1, Grosvenor Square, Southampton. *Staffordshire Branch.*—T. Vincent Jackson, F.R.C.S.Ed., Waterloo Road South, Wolverhampton. *Stirling, Kinross, and Clackmannan Branch.*—John Strachan, M.D., Gladstone Terrace, Dollar, N.B. *Sydney and New South Wales Branch.*—(No return.) *Tasmania Branch.*—(No return.) *Thames Valley Branch.*—J. Langdon H. Down, M.D., 81, Harley Street, W. *Toronto Branch.*—(No return.) *West Somerset Branch.*—W. M. Kelly, M.D., Crescent, Taunton. *Worcestershire and Herefordshire Branch.*—G. W. Crowe, M.D., 42, Foregate Street, Worcester. *Yorkshire Branch.*—J. S. Cameron, M.D., 6, Ridgemount, Cliff Road, Leeds; T. R. Jessop, F.R.C.S., Park Square, Leeds.

Resolved: That the Council of the British Medical Association desire to record their sense of the great loss the Association has sustained by the death of their late colleague, Mr. W. D. Husband. To those who are able to remember the earlier years of the Association, and who can call to mind the unwearying assiduity with which Mr. Husband sought at all times, through evil report and good report, to advance its interests and further his success, his death will cause a feeling of deep sorrow, for they cannot fail to recognise how great his services were, and how, by the unflinching firmness with which he at all times declared his views of the right policy of the Association to follow, he assisted to guide it through difficult and perilous times, and to bring it to its present high position. Few men have shown so great earnestness in its welfare as did Mr. Husband, and by the removal of few could the Association have suffered so great a loss.

A deputation from Newcastle-on-Tyne, consisting of the following gentlemen, attended the Council, and presented a cordial invitation to hold the annual meeting at Newcastle in 1893:—Dr. Philipson, Dr. Murphy, Dr. Drummond, Mr. Williamson, Dr. Arnison, Dr. Hime, Dr. Oliver, Dr. Broadbent, Dr. Blandford, Dr. Beveridge, Dr. Percival, Dr. Lawrence, Mr. Ellis, and Dr. Pearcey.

Dr. Philipson, in presenting the invitation, stated that the invitation receives the heartiest support of the members of the University of Durham and the College of Medicine, Newcastle-on-Tyne, also of the honorary medical and surgical staff of the Royal Infirmary, the Dispensary, and other medical institutions.

Dr. Murphy also spoke, and dwelt on the warmness of the invitation.

Resolved unanimously: That it be recommended to the annual meeting of to-day that the cordial invitation to Newcastle be accepted with warm thanks, and that Professor Philipson be nominated President-elect.

At a meeting of the Council for 1892-3, held in the Grand Jury Room, Guildhall, Nottingham, on July 28th, 1892:—

Present:

Dr. W. Withers Moore, President of Council, in the chair.

Mr. Joseph White, President.

Dr. G. H. Philipson, President-elect.

Mr. H. T. Butlin, Treasurer.

Dr. G. B. Barron, Southport.
Dr. F. Bateman, Whitchurch.
Dr. J. S. Bristowe, F.R.S., London.
Dr. J. W. Byers, Belfast.
Mr. Andrew Clark, London.
Surgeon-Genl. W. R. Cornish, F.R.C.S., London.
Dr. J. Ward Cousins, Portsmouth.
Dr. H. R. Crocker, London.
Dr. J. Cuming, Belfast.
Dr. A. Dempsey, Belfast.
Mr. George Eastes, M.B., London.
Dr. W. A. Elliston, Ipswich.
Professor W. T. Gairdner, M.D., Glasgow.
Dr. J. H. Galton, Upper Norwood.
Dr. Bruce Goff, Bothwell.
Dr. H. Handford, Nottingham.
Mr. J. H. Hemming, Kimbolton.
Dr. C. Holman, Reigate.
Mr. T. V. Jackson, Wolverhampton.
Mr. T. R. Jessop, Leeds.
Mr. Evan Jones, Aberdare.

Dr. D. J. LEECH, Manchester.
Mr. JORDAN LLOYD, Birmingham.
Mr. R. H. B. NICHOLSON, Hull.
Mr. C. H. W. PARKINSON, Wimborne Minster.
Dr. W. RUSSELL, Edinburgh.
Dr. R. SAUNDBY, Birmingham.
Dr. A. SHEEN, Cardiff.
Mr. NOBLE SMITH, London.
Mr. H. STEAR, Saffron Walden.
Dr. J. STRACHAN, Dollar.
Mr. J. TAYLOR, Chester.
Dr. G. E. WILLIAMSON, Newcastle-on-Tyne.

Read letter of apology for non-attendance from Dr. Dickinson, of Liverpool.

The General Secretary reported that an extraordinary general meeting had been called to consider the alteration of the articles, in the Albert Hall, Nottingham, at 2 o'clock in the afternoon, and that should the discussion be prolonged over the time at which the hour for reading the Address in Surgery had been fixed, the extraordinary general meeting would be adjourned until after the Address in Surgery had been delivered.

The President of Council reported that the gentlemen on the Journal and Finance Committee who retired and were ineligible for re-election for this year, in accordance with By-law 29, were Mr. Jessop and Dr. Saundby, and one of the three gentlemen whose dates of appointment were equal, namely, Dr. Glascott, Dr. Skerritt, and Dr. Trend; of whom Dr. Glascott retired.

A ballot was then taken to elect three new members of the Committee. Mr. Parkinson and Mr. Andrew Clark were appointed scrutineers, and reported that Dr. Bruce Goff, Dr. Roberts Thomson, and Dr. Bristowe, F.R.S., had received the greatest number of votes.

Resolved: That in accordance with By-law 29, the following fifteen members of the Council, together with the President, President-elect, President of the Council, and Treasurer, be appointed the Journal and Finance Committee for the ensuing twelve months:—Dr. T. Bridgwater, Dr. Bristowe, F.R.S. Dr. J. Ward Cousins, Dr. T. W. Crosse, Dr. Bruce Goff, Dr. T. W. Grimshaw, Dr. C. Holman, Dr. C. Parsons, Dr. A. Sheen, Dr. E. M. Skerritt, Mr. Lawson Tait, Dr. Roberts Thomson, Dr. T. W. Trend, Dr. W. F. Wade, and Mr. C. G. Wheelhouse.

Resolved: That the gentlemen whose names are as follows be appointed the Parliamentary Bills Committee for the ensuing twelve months: The President, *ex officio;* President-elect, *ex officio;* Dr. Withers Moore, President of Council; Mr. T. H. Butlin, Treasurer; Mr. S. H. Agar, Mr. D. B. Balding, Dr. H. Barnes, Mr. J. Wickham Barnes, Dr. Robert Barnes, Dr. G. B. Barron, Dr. R. W. Batten, Dr. T. Bridgwater, Dr. J. W. Browne, Dr. J. S. Cameron, Dr. E. M. Cooke, Surgeon-General W. R. Cornish, Dr. G. W. Crowe, Mr. W. P. Davies, Dr. P. M. Deas, Dr. Walter Dickson, Dr. J. Langdon H. Down, Mr. George Eastes, Mr. T. M. Evans, Dr. R. Esler, Dr. J. Ferguson, Sir B. W. Foster, Mr. E. H. Galton, Dr. C. E. Glascott, Dr. Bruce Goff, Dr. Ogilvie Grant, Dr. W. C. Grigg, Dr. T. W. Grimshaw, Dr. A. J. Harrison, Dr. C. Harrison, Mr. Ernest Hart, Mr. W. R. Heath, Mr. J. H. Hemming, Dr. C. Holman, Dr. A. Emrys Jones, Dr. Robert Jones, Mr. Hugh R. Ker, Dr. W. G. Lowe, Dr. D. MacAlister, Mr. N. C. Macnamara, Dr. G. B. Mead, Dr. W. J. Mickle, Dr. F. Needham, Dr. D. Nicolson, Professor A. Ogston, Dr. H. O'Neill, Dr. William Ord, Mr. C. H. W. Parkinson, Dr. H. H. Phillips, Mr. J. Prankerd, Dr. R. R. Rentoul, Dr. James Ritchie, Mr. Walter Rivington, Mr. Noble Smith, Mr. W. D. Spanton, Dr. J. Strachan, Dr. James Stuart, Dr. G. D. P. Thomas, Dr. T. W. Thursfield, Dr. A. R. Urquhart, Mr. F. Wallace, Mr. G. E. Williamson, and Mr. A. Winkfield.

Resolved: That the gentlemen whose names are as follows be appointed the Inebriates Legislation Committee for the ensuing twelve months: The President, *ex officio;* the President-elect, *ex officio;* Dr. W. Withers Moore, President of Council; Mr. H. T. Butlin, Treasurer; Dr. T. Bridgwater, Mr. D. B. Balding, Dr. C. Cameron, Dr. G. B. Clark, Dr. C. R. Drysdale, Mr. George Eastes, Dr. J. W. Eastwood, Dr. R. Farquharson, Sir B. W. Foster, Professor W. T. Gairdner, Dr. W. C. Garman, Dr. J. Hill Gibson, Dr. Alexander Grant, Mr. F. J. Gray, Dr. C. J. Hare, Mr. H. R. Ker, Dr. Norman Kerr, Mr. R. H. B. Nicholson, Surgeon-Major G. K. Poole, Mr. J. Prankerd, Surgeon-Major R. Pringle, Fleet-Surgeon G. Robertson, Dr. G. D. P. Thomas, Dr. E. H. Vinen, Dr. Wynn Westcott, and Dr. H. W. Williams.

Resolved: That the Premises and Library Committee for the ensuing twelve months consist of the gentlemen whose names are as follows: The President, *ex officio;* the President-elect, *ex officio;* Dr. W. Withers Moore, President of Council; Mr. H. T. Butlin, Treasurer; Dr. T. Bridgwater, Dr. J. Ward Cousins, Dr. W. C. Grigg, Dr. C. Holman, Mr. N. C. Macnamara, Mr. C. G. Wheelhouse, and Mr. Ernest Hart, appointed Honorary Librarian.

Resolved: That the gentlemen whose names are as follows be appointed the Trust Funds Committee for the ensuing twelve months: The President, *ex officio;* the President-elect, *ex officio;* Dr. W. Withers Moore, President of Council; Mr. H. T. Butlin, Treasurer; Dr. T. Bridgwater, Sir B. W. Foster, Mr. N. C. Macnamara, Dr. R. Saundby, and Mr. C. G. Wheelhouse.

Resolved: That the Scientific Grants Committee consist of the following gentlemen for the ensuing twelve months: The President, *ex officio;* the President-elect, *ex officio;* Dr. W. Withers Moore, President of Council; Mr. H. T. Butlin, Treasurer; Dr. T. L. Brunton, Dr. J. Ward Cousins, Professor D. Ferrier, Sir B. W. Foster, Professor M. Foster, Dr. Bruce Goff, Dr. H. Handford, Mr. Ernest Hart, Dr. C. Holman, Professor V. Horsley, Mr. T. Vincent Jackson, Dr. E. E. Klein, Sir Joseph Lister, Dr. D. MacAlister, Mr. N. C. Macnamara, Dr. C. Parsons, Professor P. Redfern, Professor J. Burdon Sanderson, Dr. R. Saundby, Professor E. A. Schäfer, Dr. Roberts Thomson, Dr. A. Waller, and Dr. S. W. Wilks.

Resolved: That the Therapeutic Committee consist of the following gentlemen for the ensuing twelve months: Dr. W. H. Broadbent, Dr. Mitchell Bruce, Dr. T. Lauder Brunton, Professor T. Cash, Dr. T. Cranstoun Charles, Dr. M. Charteris, Professor T. R. Fraser, Professor W. T. Gairdner, Dr. W. Hunter, Dr. D. L. Leech, Dr. James Little, Professor D. MacAlister, Dr. Sidney H. C. Martin, Dr. M. McHugh, Dr. W. Murrell, Dr. C. Y. Pearson, Dr. Sydney Ringer, Sir William Roberts, Dr. R. Saundby, and Dr. W. Whitla.

Resolved: That the gentlemen whose names are as follows be appointed the Representatives of the Association on the Committee for the Scientific Investigation of the State of School Children, etc.: Dr. H. Ashby, Dr. Fletcher Beach, Dr. Bridgwater, Dr. J. L. H. Down, Dr. C. Holman, Dr. W. W. Ireland, Dr. F. Needham, Dr. G. H. Savage, Dr. G. E. Shuttleworth, Dr. D. Hack Tuke, Dr. F. Warner, and Dr. Yellowlees.

Resolved: That the gentlemen whose names are as follows be reappointed the Medical Charities Committee for the ensuing twelve months: Dr. W. Withers Moore, President of Council; Mr. H. T. Butlin, Treasurer; Mr. J. Wickham Barnes, Mr. W. G. Bott, Dr. T. Bridgwater, Dr. J. B. Brierley, Dr. J. S. Bristowe, Mr. George Brown, Dr. G. W. Crowe, Dr. J. L. H. Down, Dr. Ogilvie Grant, Dr. Major Greenwood, Dr. F. de H. Hall, Mr. Ernest Hart, Dr. G. Henty, Dr. J. Brindley James, Dr. J. R. Thomson, Mr. F. Wallace, and Dr. Hugh Woods.

Resolved: That the Reference Committee be appointed for the ensuing twelve months as follows: Dr. W. Withers Moore, President of Council; the Treasurer represented by Dr. T. Bridgwater; Dr. D. MacAlister; Dr. Isambard Owen.

Resolved: That the Anæsthetics Committee be reappointed as follows: Professor T. Annandale, Dr. Joseph Bell, Mr. Woodhouse Braine, Professor G. Buchanan, Mr. H. T. Butlin, Dr. Dudley Buxton, Dr. J. W. Byers, Professor M. Cameron, Professor John Chiene; Dr. C. Childs, Hon. Secretary; Mr. John Croft, Professor E. Duncan, Mr. A. E. Durham, Mr. George Eastes, Dr. Galabin, Dr. Frederic W. Hewitt, Mr. Jonathan Hutchinson, Chairman; Sir Joseph Lister, Professor William Macewen, Sir George H. B. Macleod, Mr. Mills, Professor A. Ogston, Dr. W. V. Snow, Mr. T. Pridgin Teale, Mr. David Wallace.

Resolved: That the Committee on Hypnotism be reappointed as follows: Dr. W. H. Broadbent, Dr. T. S. Clouston, Dr. D. Drummond, Professor W. T. Gairdner, Dr. G. C. Kingsbury, Dr. F. Needham, Dr. Connolly Norman, Dr. C. W. Suckling, Dr. D. Hack Tuke, Dr. T. Outterson Wood, Dr. D. Yellowlees.

Resolved: That the President, the President-elect, and the President of Council, the Treasurer, Dr. Drummond, Dr. Oliver, Dr. Hime, Dr. Murphy, Mr. Williamson, Dr. Handford, Dr. Parsons, and Mr. Noble Smith be appointed the Arrangement Committee to consider the arrangements for the annual meeting at Newcastle.

Resolved: That the Branch Organisation Committee be appointed to consist of the gentlemen whose names are as follows: The President, *ex officio*; the President-elect, *ex officio*; the President of Council, *ex officio*; the Treasurer, *ex officio*; Mr. C. G. Wheelhouse, Surg.-Gen. W. R. Cornish, Dr. J. Ward Cousins, Dr. J. Cuming, Dr. J. Langdon Lown, Dr. Dempsey, Sir B. W. Foster, M.P., Dr. Bruce Goff, Dr. W. C. Grigg, Mr. A. Jackson, Dr. C. Parsons, and Dr. T. W. Trend.

Resolved: That the Committee on Railway Servants' Eyesight be appointed for the ensuing twelve months as follows: Mr. W. M. Beaumont, Mr. T. H. Bickerton, Mr. G. A. Critchett, Dr. C. E. Fitzgerald, Dr. J. B. Lawford, Dr. D. Little, Mr. N. C. Macnamara, Dr. George Mackay, and Mr. Priestley Smith.

READING AND UPPER THAMES BRANCH.

The annual meeting of the Reading and Upper Thames Branch was held at the Mansion House, Newbury, on Thursday, July 21st.

Election of Officers and Council.—Mr. Robert Birch, Newbury, was elected President, and Dr. Moody-Ward, Reading, President-Elect; and the President, the President-Elect, Dr. Bateman, Dr. Price, Dr. Dickson, Dr. Tench, Dr. Phillips (Honorary Secretary), and Messrs. O. C. Maurice, Royds, and Holderness were elected on the Council. Dr. Bateman was re-elected as Representative of the Branch on the Council of the Association. Dr. Phillips was re-elected as Honorary Secretary, and also as Representative of the Branch on the Parliamentary Bills Committee.

Annual Dinner.—The members present at the meeting afterwards dined together in the Council Chamber, eight of the leading medical men of Newbury and neighbourhood being present as the guests of the Branch.

THAMES VALLEY BRANCH.

The following is a list of the officers for 1892-3: *President:* Dr. N. H. K. Kane; *Vice-Presidents:* Dr. F. J. Wadd and Dr. Jeaffreson; *Council:* Dr. Williamson, Dr. Wyman, Dr. Viney, Dr. Atkinson, Dr. Langdon Down, and Dr. Ward; *Representative on Council and Parliamentary Bills Committee:* Dr. Langdon Down; *Hon. Sec. and Treasurer:* Dr. R. N. Goodman, 3, Grove Crescent, Kingston-on-Thames.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Extension of Royal Infirmary.—Ear Hospital.—Infectious Diseases in Schools.—Ancoats Hospital.—Victoria University.

From time to time reference has been made to the question of the extension of the Royal Infirmary, Manchester, either on its present site or elsewhere. A committee has just reported advising the erection of an addition to the infirmary on its present site by extending the present frontage to Piccadilly by two wings, each 150 feet in length, the new wards to be planned on the pavilion system. In the two new wings accommodation will be provided for 168 patients, but alterations in the other parts of the present buildings bring down the actual increased accommodation to 120 beds. The total cost is estimated at £40,720. On the report being submitted to the last meeting of the trustees of the institution the adoption of the report was duly moved and seconded, but the following amendment was carried: "That the trustees are of opinion that whilst it is manifestly important that the infirmary should be retained on its present site in the utmost state of efficiency any extension of the accommodation thereon is very undesirable." A poll was demanded, so that the final fate of the proposed extension cannot be determined until this has taken place.

The Manchester Ear Institution has established some beds for the treatment of in-patients. The total number of patients treated in a year exceeds 1,000.

In view of infectious diseases involving the closing of the schools in some parts of the city the Committee of the Manchester and Salford Sanitary Association have sent to teachers tracts "On the Early Symptoms of the Common Infectious Diseases of Childhood."

The medical report presented to the annual meeting of subscribers to the Ancoats Hospital states that during the past 12 months over 1,000 cases were treated, and that it had been a matter of constant experience that there would be four or five applicants for every vacant bed. The Chairman (Mr. James Jardine) intimated a subscription of £1,000, and another £1,000 in memory of the late Oliver Heywood was announced.

The examinations for the degrees of M.B. and Ch.B. of the Victoria University have just been concluded, and a list of them will be found elsewhere in the British Medical Journal. The University Scholarship in Medicine, recently founded by the Victoria University for proficiency in knowledge of the subjects of the Second M.B. Examination, that is, in anatomy, physiology, and materia medica, has been awarded to Mr. S. W. Brook, of Owens College.

CORRESPONDENCE.

THE STUDY OF PATHOLOGY.

Sir,—I had not the pleasure of hearing Mr. Horsley's introductory remarks in the Section of Pathology, but the report in the British Medical Journal of July 30th no doubt correctly represents his address. His remarks on the duties of the Pathological Society ought not to pass without comment. It must be allowed that there is some truth in his observation that the Society has hitherto been mainly "an emporium of morbid anatomy," and there are others who no doubt hold the same view. It has often been said of late that morbid anatomy is "worked out;" and it is certainly the case that the advance of pathology proper has put morbid anatomy somewhat in the shade.

The Pathological Society has for its object "the cultivation and promotion of pathology," and I confess that I am among those who are of opinion that it still fulfils the general object for which it was instituted. That pathology in its restricted sense has not received the amount of attention of the Society which its importance warrants is due in part to Mr. Horsley himself, who has not contributed for many years any one of his numerous investigations to the *Transactions* of the Society. The Society has undoubtedly given encouragement to the discussion of general pathological subjects. Mr. Horsley's numerical statement is apt to be misconstrued. During the last session three entire meetings were devoted to a debate on phagocytosis and immunity, and in the preceding session papers of great value were read on the cultivation of the tubercle bacilli, on the contagiousness of cancer, and on psorospermosis. It should be borne in mind by those who criticise the shortcomings of this Society that it has an important educational function. No doubt some contributions are made which have no great original value, but the influence of such on practice cannot be too highly estimated. I trust that the subject of morbid anatomy will in future continue to occupy a large share of the attention of the Society. There is still a good field for original research, and it will be an evil day for the practice of medicine and surgery when deadhouse material falls into neglect.

I have trespassed beyond the lines which Mr. Horsley's remarks directly touch, because, whether he wishes it or not, his views may tend to the discouragement of morbid anatomy, although he disclaims any such object. I have only to say in conclusion that many would be glad if Mr. Horsley and others who work at pathology proper would help to fill the gap at the Pathological Society.—I am, etc.,

Welbeck Street, W. W. B. Hadden.

THE ADMISSION OF WOMEN TO THE ASSOCIATION.

Sir,—At a meeting of about three hundred members at the Annual General Meeting, it was decided on July 28th to admit women into membership of the British Medical Association.

I was unable to be present, as I had to leave Nottingham on important business connected with Epsom College. I offer no opinion for or against the admission of ladies, but I desire to record my emphatic protest against a hasty legislation by which a radically organic change in our laws is sought to be confirmed on August 24th, a date when so many medical men are compelled to be absent on their hardly-earned holidays.

Notice of motion was given in on July 6th, and this reversal of a previous decision of the whole body of members is to be carried through in six weeks. There has been no debate in Council on this subject; there has been no expression of opinion from the very large majority of the Branches: and the opinion of the general body of members has not been taken whether they desire to reverse their previous decision or no.

I have seen for many years with what careful forethought and deliberation our by-laws have been built up, and I cannot but protest against a precedent being set up which may be fraught with grave danger in the future.—I am, etc.,

Homburg. C. HOLMAN.
Vice-President British Medical Association.

SIR,—A special general meeting, held in London, on a certain day, at a fixed hour, does not appear to me the best way to obtain the feeling of the members of the British Medical Association on any suggested change of the rules of the Society. Surely it would be possible to send each member a voting paper with his BRITISH MEDICAL JOURNAL, the voting paper to be filled up and returned by a certain date, either to the Secretary of his Branch or to the General Secretary.

It appears to me that there is great danger to the Association in the present method, as a snap vote might be easily taken.—I am, etc.,

Harley Street, W. G. CHARLES WILKIN.

SALINE TRANSFUSION FOR HÆMORRHAGE.

SIR,—I should like to be allowed to make a few remarks concerning Dr. Galabin's allusion to the above treatment in his address published in the BRITISH MEDICAL JOURNAL for August 6th.

It is, I believe, to Goltz, Kronecker, and Sander, and not to Wooldridge, that the credit is due for physiological proof of the efficacy of copious intravenous injection of normal salt solution in the treatment of severe hæmorrhage, and this method was employed by others, and by myself at University College Hospital, years before Mr. Lane's first case at Guy's (1891). Particulars of eight cases (out of over 11,000 labours) in which I have employed it during the last five years will be found in the *Lancet* for January 11th and 18th, 1892. Mr. Lane, in two cases he has published, injected three pints and a-half; improvement will, in my experience, usually take place after two pints or less have been injected, and this may be repeated, if necessary. Too copious or too rapid injection is attended by great risk of overdistension of the heart, as shown by precordial pain and pulsation of the veins. The smallest quantity which will restore the patient's pulse and improve the general condition should be injected—preferably by the irrigation bottle.—I am, etc.,

Mansfield Street, W. HERBERT R. SPENCER.

LONDON DIPLOMATES AND THE PROPOSED TEACHING UNIVERSITY FOR LONDON.

SIR,—Your correspondent, Mr. A. Greenwood, puts his case in a very one-sided way *re* the London diplomates and the proposed teaching university for London. He speaks of the injustice of vested interests, and the downright prohibition which a candidate for a degree would meet with on presenting himself for graduation. He would be required, he says, to go through a complete re-examination without having any allowance made for his double qualifications. I suppose he is well aware that this holds good in the case of a Scotch graduate presenting himself for the diplomas of the London colleges. With the exception of the M.R.C.P. diploma (under certain stated circumstances) his degree and passed examinations count for nothing, and he has to go over his whole examination again. Nay, more, his courses of lectures may be quite insufficient for admission to the college examinations, and he may be required to attend several classes again. Of all vested interests and trades unionism that I have ever met with, those which maintain in the colleges of London are the most flagrant examples.

One word more. Your correspondent speaks of the "smaller clinical opportunities of the north." What does he mean by this? The clinical material at the hand of a student in Edinburgh or Glasgow University is two or three times more than that afforded a student at Westminster or King's.—I am, etc.,

SCOTUS.

CARPENTER AND DUKES FUND.

SIR,—Dr. Arthur Carpenter (son of my lamented friend the late Dr. Carpenter) and myself beg to return sincere thanks for publishing our case in the BRITISH MEDICAL JOURNAL, with lists of contributors towards the fund to defray the heavy expenses brought upon us, which costs the judge ordered to be paid to the plaintiff. We also beg to thank our friends, Dr. Coles, the Treasurer, and Dr. Richardson, the Secretary of the Croydon Medical Society, for their kind assistance and generous support, the South-Eastern Branch of the British Medical Association, the Council of the British Medical Association, and all other medical brethren who have so kindly contributed towards the fund.

We trust that the Parliamentary Bills Committee will succeed in their efforts to frame a Bill for altering the defects in the protective clauses of the Lunacy Act, so that in future medical men shall not be subjected to an action at law unless a guarantee be given that the costs shall be paid by the party against whom the verdict shall be given by the jury. I may add that Dr. Carpenter earnestly hoped that the publication of our case might be the means of bringing about an alteration of the lunacy laws. We hope that this wish may come to pass very soon.—I am, etc.,

Croydon. M. CHAS. DUKES, M.D.

DISLOCATION OF THE CLAVICLE.

SIR,—It seems only fair to Professor Chiene to state that in a case of dislocation of the outer end of the clavicle which he saw with me, a similar apparatus to that suggested by Surgeon-Major Hamilton was used. Though a better result than is usually got was obtained, yet the treatment proved so irksome, and the subsequent stiffness and œdema of the limb were so great, that I was led to suggest the subcutaneous operation which was lately described in your columns.—I am, etc.,

Edinburgh. DAVID W. AITKEN.

MR. FREDERICK LE GROS CLARK.

SIR,—May I be permitted to point out, in reference to the obituary notice of Mr. Frederick Le Gros Clark, printed in the BRITISH MEDICAL JOURNAL of August 6th, that no mention is made of his having been for many years Demonstrator of Anatomy at St. Thomas's Hospital, where, in 1839, I became his colleague? Mr. Tyrrell's death occurred in 1843, not 1853.—I am, etc.,

Dorking. JAMES DIXON.

ON THE FUNCTION OF THE PROSTATE.

SIR,—With reference to the letter on the "Function of the Prostate" in the BRITISH MEDICAL JOURNAL of August 6th, may I draw attention to a series of papers which I published in the *Journal of Anatomy and Physiology*, vols. xxvii. p. 474, xxiv, pp. 27, 526? My results accord in part, though not altogether, with those obtained by Mr. MacMunn. I am still engaged upon the same subject, and hope before long to publish the results of further researches.—I am, etc.,

Cambridge. JOSEPH GRIFFITHS.

NAVAL AND MILITARY MEDICAL SERVICES.

THE ARMY MEDICAL REPORT FOR 1890.

THIS important annual return has recently been issued, drawn up in the usual comprehensive yet concise form, and containing much interesting matter.

The health statistics of the entire British Army, at home and abroad, are first given collectively; and then in detail separately, for the United Kingdom and Foreign Stations. We learn broadly that during 1890, while the ratios of admissions and constantly sick were somewhat higher, those of deaths and invaliding were a little under the average of the decade 1880-89. In the Home report, by itself, we find there was a small yearly increase in admissions, deaths, and constant inefficiency (it was the influenza year), yet still there was improvement over the ten years. Thus, despite inevitable fluctuations in annual periods, the health of the army shows steady, if slow, improvement every decade.

Glancing at some of the diseases, we would call attention

to the remarkable absence of one—small-pox, of which there was not a single case during the year; the same immunity is found in the German Army, and, indeed, wherever vaccination and re-vaccination is persistently and thoroughly carried out: foolish anti-vaccinationists conveniently ignore such facts.

In enteric fever there was a slight decrease in the admission ratio, which was 1.3 per 1,000. While not a single case of this disease occurred in the Thames administrative district, half of the whole were in Ireland, and half of that in Dublin; but even in that focus of the disease the cases were only half of the preceding year, a result attributed to the closing of the notorious Royal Barracks. It is next to certain that were full sanitary precautions taken, this disease would practically disappear from the home statistics of the army.

During the early part of 1890 influenza affected every district in the kingdom, but was worst in the Home and Eastern divisions, of which London may be considered the centre. But only eight deaths were directly attributed to it out of 3,584 admissions, although it left in its train serious sequelæ, chiefly in the form of lung affection. Although the ratios for venereal disease, in all its forms, were slightly favourable, yet the army in 1890 suffered a constant inefficiency of 17.07 per 1,000, from this undoubtedly largely-preventable cause. There were twenty-one suicides, representing a curious and constant yearly average, of which thirteen were by gunshot injury, showing that the suicidal soldier seizes the weapon nearest to his hand. It is worth remarking that it is not the recruit or young soldier, bullied and driven to desperation by harsh treatment, as some would have the public believe, who lays violent hands on himself, but an older man; the average age of the suicides was 25½, and the average service 6½ years.

The source of the greatest waste in all armies is invaliding, which was slightly greater in 1890. The chief causes were diseases of the circulatory and nervous systems, including mental affections, and tubercle. A large amount of invaliding from heart affections takes place during the first year of service among neurotic youths, who break down under training and drill. The blame for this waste is often thrown on recruiting officers, unreasonably, we think, by ill-informed and, we fear sometimes ill-intentioned, critics. We will not deny that some of this waste might be prevented by greater strictness in primary examination, but the bulk of it is unavoidable. Temporary and functional cardiac irritability is very common among town-bred recruits, often from abuse of tobacco or alcohol; but it more often disappears under good living and regular army habits than otherwise. It would, therefore, be absurd to make it in every case a cause of rejection, and lose the many who improve to avoid the few who break down.

As regards recruiting in 1890, we find that 33,362 recruits were passed out of 55,367 inspected, or about 60 per cent. This is a low average of rejections, but not through any less thoroughness in the medical examination, as is apparent by the fact that only 293 were, under the special regulation, found unfit during the first three months; for it is in that period faulty examination would likely be found out. We are glad to find that the number of recruits bearing marks of vaccination increases somewhat.

We can only indicate the general features of the health of our troops abroad, which to the full are as important as those of home. During 1890, their health in nearly all our garrisons and colonies was of a fair average character.

In India, the most important of all, the vital statistics of 1890 did not, fortunately, call for special comment, but maintained the usual features of non-epidemic years. Of the three Presidencies, Bengal continued to show the highest ratios of sickness, although followed hard by Madras, which is now handicapped by Upper Burmah. Enteric fever, the scourge of our young soldiers in the East, was rather less prevalent, although still lamentably frequent. Although it goes on all the year round, it is more frequent and fatal during the third quarter. The highest admission rate occurs among soldiers during their second year of service in India. Cholera in 1890 claimed its usual number of victims, but was non-epidemic.

No reports or papers by individual officers of the Medical Staff are published in this report, as in former years, which we think is a pity; they were often most interesting and instructive, and were a literary stimulus, especially to younger officers. We once more compliment the compilers of this valuable Blue Book on the great care, accuracy, and skill which it displays.

ARMY MEDICAL STAFF: EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office orders with the notice. The first post on Thursday mornings is the latest by which advertisements can be received.

A Surgeon-Captain who has completed half his tour of service in Bengal is anxious to exchange with one similarly situated in Gibraltar, Malta, Egypt, or Cyprus. Address, stating terms, to No. 2,655, British Medical Journal Office, 429, Strand, W.C.

ARMY MEDICAL STAFF.

Surgeon-Captain E. G. Browne, serving in the Bengal Command, has leave of absence for six months on medical certificate.

Surgeon-Captain J. Battersby, serving in the Bengal Command, has passed the examination in Hindustani by the lower standard.

Surgeon-Captain B. L. Mills, M.D., serving in the Bengal Command, at the examination held in May last, qualified in Military Law.

Surgeon-Captain William Howard Bell died at Preston on July 28th, aged 31. His commission was dated.

Surgeon-Colonel E. C. Markey, C.B., who is serving in the Madras Command as Principal Medical Officer, Madras District, is granted accumulated privilege leave for ninety days from July 10th.

Surgeon-Major Stephen Masset Webb, M.D., late of the 36th and 23rd Regiments, died at Plymouth on August 3rd, in the 64th year of his age. He entered the service May 19th, 1854, and retired on half pay, July 25th, 1876. He served at the siege of Sebastopol in the winter of 1854-55, and received the medal with clasp and the Turkish medal.

INDIAN MEDICAL SERVICE.

The services of Surgeon-Major A. E. R. Stephens, Bengal Establishment, are temporarily placed at the disposal of the Bengal Government.

Surgeon-Major J. Anderson, M.B., Bengal Establishment, Civil Surgeon of Bareilly, is appointed to the Visiting Medical Charge of Budaun District, in addition to his other duties.

Surgeon-Captain H. E. Drake-Brockman, Bengal Establishment, Civil Surgeon, is transferred from Etah to Mirzapore.

Surgeon-Captain C. H. L. Pale, Madras Establishment, is appointed to be Civil Medical Officer, Mandalay Shore, in addition to his military duties, *vice* Surgeon-Captain S. A. C. Dallas, transferred.

Surgeon-Captain M. P. Kharegat, Madras Establishment, has passed the examination in the Burmese language by the lower standard.

Surgeon-Captain J. K. Kanga, Madras Establishment, is appointed to the Officiating Medical Charge of the 17th Madras Infantry.

Brigade-Surgeon-Lieutenant-Colonel S. B. Hunt, Madras Establishment, Surgeon 3rd District, is appointed Officiating Principal Medical Officer, Rangoon District.

Surgeon-Captain H. W. Stevenson, Bombay Establishment, is appointed Superintendent of the Central Gaol at Yerrowda, in addition to his own duties as Superintendent of Mahableshwar, during the absence of Surgeon-Lieutenant-Colonel S. M. Salaman, M.D.

Surgeon-Captain W. D. Sutherland, Madras Establishment, is appointed to be Civil Medical Officer, Port White, in addition to his military duties, *vice* Surgeon-Captain C. L. Williams, transferred.

Surgeon-Major C. L. Walker, M.D., Madras Establishment, is appointed a Lay Trustee of St. Mary's Church, Calicut.

The services of Surgeon-Captains F. C. Pereira and E. H. Wright, of the Madras Establishment, are placed temporarily at the disposal of the Public Department.

Brigade-Surgeon-Lieutenant-Colonel W. Finden, Bengal Establishment, 7th Bengal Cavalry, has leave of absence for four months on medical certificate; and Surgeon-Major C. C. Smith, M.B., Bengal Establishment, Civil Surgeon of Budaun, has privilege leave for three months from July 27th.

Surgeon-Lieutenant-Colonel James Davidson, M.B., Bombay Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel, April 2nd. He entered the service as Assistant-Surgeon, September 30th, 1867, and served in the Abyssinian war in 1867-68 as Assistant-Surgeon attached to the General Hospital at Zoulla (medal).

Surgeon-Captain W. W. Webb, M.B., Bengal Establishment, whose commission dates from September 30th, 1882, is transferred to the half-pay list, August 22nd.

THE VOLUNTEERS.

Surgeon-Lieutenant D. Laing, M.D., 1st Forfarshire Artillery, is appointed Lieutenant in the same corps, August 6th. Lieutenant Laing joined as Surgeon-Lieutenant, April 18th, 1888.

THE VOLUNTEER MEDICAL STAFF IN THE FIELD.

The mobilisation at Aldershot last week was attended with fine weather. The large number of 40,000 troops, both regulars and volunteers, were in quarters or under canvas near the town. It was noticed that all the volunteer brigades, to the number of five, had their bearer companies out doing good work close up to the fighting line.

In the case of the Welsh Border and East London Brigades, the excellent plan has been adopted of forming the bearer company on the strength of one regiment; all ranks wear the Medical Staff Corps uniform with the authorised exceptions. The plan is found to work admirably. On the other hand, in most if not in all the other brigades which have formed bearer companies by taking a certain number of men from each regiment of the brigade, the result has been to take away all the regimental stretcher bearers and to leave no "first line of assist-

ance." The Volunteer Medical Staff Corps sent companies to Aldershot and Netley, and did good work at both stations.

The battalion of Volunteer Medical Staff Corps at Aldershot, under the command of Surgeon Lieutenant-Colonel Norton, was composed of the following companies: London, Edinburgh, Leeds, Aberdeen, and Glasgow. They took their part in the operations at Aldershot, and were highly complimented when inspected by the Principal Medical Officer of Aldershot for their intelligence, conduct, and discipline; they did credit to their commanding officer.

MORE RANDOM WRITING.

C. F. P. writes: In the *Nineteenth Century* for this month, page 99, in an article entitled "Jamaica Resurgens," his Grace the Duke of St. Albans makes the following fling at army surgeons:—

"Yellow fever has never raged in Jamaica since the days of *Tom Cringle's Log*, and the principal fever doctor of the island can boast that he has never lost a patient from this cause; but when a military doctor mistakes a yellow fever case for delirium tremens, and, to prevent repeating the error, treats the next case of drink as yellow fever, fatal results are not surprising."

This, Sir, in my opinion, is neither creditable to the writer of the article nor to the "principal fever doctor of the island," whoever he may be, and from whom the information appears to have been derived.

*** All will regret finding a noble duke writing such rubbish, which would be discreditable to the veriest literary hack. If he penned this on the authority of anyone not ashamed to respond to or acquiesce in the ridiculous title of "principal fever doctor," then we say he has been grossly misled as to the historic prevalence of yellow fever in Jamaica, and we have no doubt equally shamefully misinformed as to the practice of army medical officers in the treatment of the disease. Why should His Grace go out of his way to gratuitously insult a whole body of public servants?

ERRATUM.—In the Pass List for the Indian Medical Service, published in the BRITISH MEDICAL JOURNAL of August 6th, p. 324, the prize-winners were incorrectly given. The correct list is as follows: Mr. P. B. Haig gained the De Chaumont Prize; Mr. R. H. Maddox, Sir Joseph Fayrer's Prize in Pathology; and Mr. E. V. Hugo, the Montefiore Medal, the Martin Memorial Gold Medal, and the prize given by Surgeon-General Maclean in Clinical Medicine.

MEDICO-LEGAL AND MEDICO-ETHICAL.

SUPREME COURT OF JUDICATURE.
COURT OF APPEAL.—AUGUST 8TH.

(Before the MASTER OF THE ROLLS and Lords Justices BOWEN and KAY).

ALLINSON *v.* GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THIS was an appeal of the plaintiff from an order of Justices Wright and Bruce dissolving an injunction granted in June last, and which restrained the publication of the decision of the Council directing the removal of plaintiff's name from the *Medical Register*. The plaintiff was a medical man practising in London, and it appeared that the Council, after inquiry, had struck out his name from the *Register* on the ground that he had sought to attract practice by advertising.—Mr. Schultess-Young, on behalf of the plaintiff, contended that the Council had no right to publish to the Medical School of Edinburgh the fact that they had erased his name from the *Register*, as he had not done anything which justified such a course.—Lord Justice Bowen said in effect they were asked to restrain the Council from doing what they had a statutory right to do. There was really no appeal from their decision.—The Master of the Rolls, without calling upon the counsel for the respondents, said the Council had acted under their statutory powers, and there was no ground for suggesting that they had acted otherwise than *bonâ fide* and honestly in the matter.—The appeal was therefore dismissed, with costs.

THE ISOLATION OF SCARLET FEVER.
COUNTY OF LONDON SESSIONS.

(Before Sir P. H. EDLIN, Q.C., Chairman, sitting at Clerkenwell.)

ELIZABETH WILLIAMS appealed against a conviction by Mr. Curtis Bennett, dated June 10th, and a fine of £10 and £2 2s. costs, for having obstructed the execution of an order made by Mr. Curtis Bennett on June 4th for the removal to the Western Hospital of Emily Williams, a person suffering from a dangerous infectious disease. Mr. Macmorran, who appeared for the Treasury on instructions from the Home Office in support of the magistrate's decision, said that the appeal was against a conviction under Subsection 2 of Section 66 of the Public Health (London) Act, 1891, 54 and 55 Vict., chap. 76 for obstructing the execution of an order made under the first subsection of the same section for the removal of a child suffering from scarlatina. A great deal of feeling had, he said, been imported into the case. Public comments had been made and questions had been asked about it in the House of Lords. The Home Secretary had already remitted the fine and costs, so the appeal was against a mere record. The appellant was a respectable woman in humble circumstances. She "kept a mangle"—a fact which made it all the more desirable that her child should be removed. The order was made upon the application of a medical man, and the magistrate afterwards heard the evidence of doctors on both sides, and decided as well as he could between them, and he took what was the safer course under the circumstances. The officer to whom the order was addressed went with an ambulance for the child, but could not find her. It was afterwards found that she had been removed to a hospital, and eventually the order was executed and she was taken to a fever hospital. He submitted that the Court could not go behind the order for removal. This was not an appeal against the order, but against a conviction for obstructing the execution of it.

Mr. Bartley Denniss, for the appellant, said the liberty of the subject was in question. If there was a conflict of testimony it was the plain duty of the magistrate not to send the child to a fever hospital, where she would be sure to catch the fever and probably die. [Sir P. H. Edlin: Had you a right of appeal against the order? If you had, why did you not exercise it?] Section 125 gave a right of appeal to "any person who deems himself aggrieved by any conviction or order made by a court of summary jurisdiction on determining any information or complaint under this Act." But the order was not made "on determining any information or complaint," and therefore there was no appeal against it. [Sir P. H. Edlin: Then if we are to enter into the question of the validity of the order, we are in reality trying an appeal against it, an appeal which the Act does not give.] There must come a time when a man can be heard. If not, it would be possible to get an order behind his back by producing a medical certificate, and he must walk straight into a hospital and have no opportunity of producing evidence as to his true state of health.

Sir P. H. Edlin.—It may be that the statute is deficient in that respect, and this case may be a hard one. But are we, therefore, to make bad law? If, however, it were shown that the order was made on insufficient grounds and the child was not suffering from the infectious disease, that might go in mitigation of punishment.

Mr. Macmorran.—There is no question of punishment here, for the Home Secretary has remitted the fine.

Mr. Denniss then went at some length into the facts which were reported when the matter was before the Police Court.

It was alleged on behalf of the appellant that the child was not suffering from scarlet fever or scarlatina at all, and that she was out at play when the officer came for her.

The case was then adjourned, and when again called on,

Mr. Denniss said his clients had reconsidered their position, and in view of the opinion expressed by the learned Chairman at the last hearing, they did not persist in the appeal.

Mr. Macmorran said he was instructed not to ask for costs.

The learned Chairman said this case came before the Court under exceptional circumstances, inasmuch as the Home Secretary had, pending the appeal, thought it right to remit the penalty and costs. It had been said that the order was made *ex parte*. Such orders were necessarily *ex parte* and had to be immediately executed. The course which the magistrate had adopted appeared to have been a just, proper, and prudent one. But the only question for this Court was, an order having been made which was good upon the face of it, had the execution of it been obstructed, and, if so, was the appellant a party to the obstruction? The appeal must be dismissed, but, after what Mr. Macmorran had said, without costs.

THE DERBY APOTHECARY CASE.

ACTIONS BY THE APOTHECARIES' SOCIETY: PENALTY RECOVERED.

AT the Derby County Court, on Tuesday, his Honour Judge Kenelm Digby gave judgment in the three actions brought by the Apothecaries' Society against Christopher Jones, herbalist, of Derby and Ripley. The plaintiff Society sought to recover three separate penalties of £20 each against the defendants for three alleged offences against the provisions of the statute for better regulating the practice of apothecaries throughout England and Wales. The hearing took place a fortnight since, and his Honour then reserved his decision.

In the course of a lengthy judgment, his Honour said that the questions raised at the trial of the actions were (1) whether the evidence established that the defendant did, as charged in the particulars, on May 6th, 1892, act or practise as an apothecary in Derby within the meaning of section 20 of 55 Geo. III., c. 194; and (2) whether, if the first question were answered in the affirmative in more than one of the three actions, more than one penalty was recoverable. After detailing the evidence *in extenso*, and observing that, according to the defendant's card, he "removed tumours, cancers, and abscesses without cutting; also removed the germs of consumption, even when they were given up," the judge said that the special case relied on was not an isolated instance of advice asked and given as to an appropriate medicine for a particular ailment, but as he found in fact was one of a series of acts. Upon these facts it was contended on behalf of the defendant that no case of acting or practising as an apothecary within the meaning of section 20 of the statute had been made out. It was argued that there could be no acting as an apothecary unless the person mixed and compounded the medicine with his own hands; and, further, that the medicine must be compounded and prepared for the case of the particular patient. In the present case there was (the judge said) certainly no evidence of compounding of medicine or pills at Derby, but the medicine and pills supplied were made up at Ripley, and brought to Derby. In justice to the defendant it should be stated that there was no evidence that the medicine or pills were otherwise than harmless. If a compounding or preparing of medicine, whether with reference to the particular case or not, was a necessary ingredient in the offence of acting or practising as an apothecary, he should hold that no offence had been made out, and that judgment must be for the defendant. If, however, all that was necessary was that the practitioner should select and prescribe the medicine which he proposed to think was adapted to the particular case, then, in his opinion, the offence was complete. His Honour then proceeded to deal with the meaning of the words in section 20, "act or practise as an apothecary," and the cases in which they had been raised, and remarked that the words of the fifth section which were relied upon referred to that part of an apothecary's duty now usually discharged by chemists, and consisted in making up the prescriptions of licensed physicians, and imposed a penalty upon the refusal of an apothecary to make up the prescription, and upon improperly making up the prescriptions of physicians. There was nothing, however, in the words of this section to show that the making-up of medicines was regarded as the whole of an apothecary's duty—indeed, the section itself referred to the sale of medicines as well as to their compounding as within the provision and duty of the apothecary. In referring to the cases which had been cited, the learned judge said, in the case of Woodward *v.* Ball, Judge Williams, in summing up to the jury, was reported to have said "The practising as an

apothecary is the mixing up and preparing medicines prescribed by a physician or other medical practitioner, or by the party himself." There was nothing to show that these words were intended to contain an exhaustive definition of the functions of an apothecary. There was no more fertile source of error than to apply the words used by a judge with the intention only of giving a description of an offence large enough to cover the facts with which he was dealing, as if they contained, or were intended to contain, an exhaustive definition, covering every possible instance of the offence in question. Even in the case referred to, the evidence would be found to be directed to the selling of medicines rather than to the preparing of them. On the other hand, it appeared to him that the cases of the Apothecaries' Company *v.* Nottingham and another were decisive that it was not necessary that the medicine prescribed should be compounded by the practitioner, that it was enough if he selected the medicine for the patient, instead of the patient selecting it for himself. If he did this he acted or practised as an apothecary. He added, "I think it was proved in the present case that the defendant was in the habit of prescribing medicine selected by himself, and that the case in question was an instance in which he did, according to his general practice, so select and administer medicine. I think that this was acting as an apothecary within the meaning of the Act, and therefore in this (the first of the three actions) I gave judgment for the plaintiffs for the penalty of £20." With reference to the other two cases, his Honour said the plaintiffs had made each instance of the visits to the defendant by different persons the foundation of a separate action, and claimed three penalties as for three distinct offences, and the question he had to determine was whether, under the words of the statute, ("the person offending shall, for every such offence, forfeit and pay the sum of £20,") the advising and prescribing for these three persons consecutively under the circumstances stated constituted three offences or one offence. After citing the cases raised, he said no single case had been furnished to him in which more than a single penalty was recovered, and the inference appeared to him to be that in this respect expressions were not wanting of weighty opinions in favour of the view that the offence consisted not in a single isolated act, but in a course or habitual action. It was not necessary for him to attempt to define what would constitute a separate offence under the Act of George III. All that it was necessary for him to say in the present case was that he felt bound to follow the ruling of Lord Tenterden in the case of the Apothecaries' Company *v.* Bentley, and to decide that the advising and prescribing to three different patients consecutively on the same day constituted but one offence under the statute, and therefore that the judgment which he had already given in the first of these cases was a bar to the recovery of further penalties by the plaintiffs in the second and third cases. In these cases, therefore, there would be judgment for the defendant, and in each case the costs would follow the decision.

His Honour gave leave to appeal.

TINCTURE OF OPIUM OR LAUDANUM.

At Nottingham on August 9th three local chemists were summoned under the Adulteration of Food and Drugs Act for selling tincture of opium, commonly called laudanum, which was not of the nature, substance, and quality demanded by the purchaser. The prosecution was undertaken by Mr. F. B. Harris (from the office of the Town Clerk), who was instructed by Dr. Phillip Boobbyer, Medical Officer of Health for Nottingham.

The first case was that of Frederick Lumby, chemist, of Nottingham, and the inspector of nuisances stated that he purchased six ounces of laudanum for 1s. 6d., a sample of which was analysed by Dr. E. B. Truman, the public analyst, and found to contain no morphine at all. In answer to defendant the inspector stated that he did not ask for tincture of opium, but for tincture of laudanum. Dr. Boobbyer, Medical Officer of Health for Nottingham, stated that the only opium allowed to be used by the *British Pharmacopœia* was that obtained from Asia Minor. It was generally known as Smyrna opium, although it did not all come from that country. This opium contained about 8 per cent. of morphine, and the *Pharmacopœia* allowed a variation from 9.5 to 10.5. His contention was that anything sold as laudanum without any particular laudanum being specified should be made according to the *Pharmacopœia*.

The defendant said, in defence, that he had had twenty-one years' experience, and, in company with others, he had always regarded tincture of opium and laudanum as two distinct drugs, laudanum only being supplied to the general public. The preparation supplied to the inspector was asked for under the name of laudanum, and it was a preparation made on the premises from crude opium instead of dried opium, and to that extent it might possibly be weaker than the *Pharmacopœia* directed. He did not admit that the drug contained no morphine. If the inspector wanted the *Pharmacopœia* preparation, he should have asked for tincture of opium. The magistrates expressed the opinion that the case was proved and imposed a fine of £5.

Wm. Widdowson, chemist, of New Basford, was charged with a similar offence, and the analyst's certificate was to the effect that there was only 0.206 of morphine instead of 0.754.

Dr. Boobbyer, in answer to a question raised by defendant, said that he did not recognise any legitimate distinction between tincture of opium and laudanum. Laudanum was the popular designation and synonym, and his authority was *Owen's Tables*. The *Pharmacopœia* did not recognise popular designations.

The defendant said that he had circulars in his hand from some of the largest wholesale chemists in the country, in which tincture of opium and laudanum were quoted separately.

The magistrates said that in this case they would give the defendant the benefit of the fact that the drug did contain a little morphine, and he would be fined £3.

Albert E. Beilby, Ilkeston Road, chemist, was charged with selling 5 ounces of laudanum which only contained 0.51 of morphine instead of 0.754. The inspector, who stated that he bought all the tincture of opium the defendant had, further stated that the defendant asked him if he wanted the *B.P.* tincture, and he replied, "Yes, certainly." For the defence, Mr. Linford, F.C.S., chemist to Messrs. Lofthouse and Saltmer, of Hull, and an examiner in pharmacology for many years, stated that the tincture of opium supplied by his firm to the defendant was of full strength. The analysis of opium was not a very easy one, and he had doubts about the analysis submitted to the court. Similar prosecutions with respect to sweet nitre had always failed. The defendant said that when he ordered the drug he specially mentioned the *B.P.* quality, and he paid the market price, 3s. 2d. per pound. He sold the article in good faith, and he would ask that the third part in the possession of the inspector might be analysed by the Government analyst at Somerset House. The Bench said that they were inclined to think that the article was sold in good faith and they would inflict no penalty.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

Intermediate Examination in Medicine, July, 1892.—Pass list. Entire Examination:

First Division.—A. Armer, Guy's and St. Bartholomew's Hospitals; Dorothea Caine, London School of Medicine for Women; T. V. Cunliffe, Owens College; P. J. Edmunds, B.Sc., University College; J. Ganner, Queen's College, Birmingham; S. Gillies, St. Bartholomew's Hospital; J. P. Hall, Owens College; H. G. Lawrence, St. Mary's Hospital; P. McDougall, B.Sc., Owens College; F. C. Sprawson, King's College; E. C. Taylor, Guy's Hospital.

Second Division.—H. R. Andrews, London Hospital; E. Louise C. Appel, B.Sc., London School of Medicine for Women; J. Ashton, St. Mary's Hospital; G. F. Bergin, Bristol Medical School; J. S. Boden, King's College; J. J. Coleman, Guy's Hospital; H. W. Collier, Guy's Hospital; P. R. Cooper, B.Sc., Owens College and Manchester Royal Infirmary; F. G. Crookshank, University College; T. V. Crosby, University College; A. H. P. Dawney, University College; J. C. Edgar, Owens College; D. E. Evans, St. Mary's Hospital; G. G. Genge, St. Thomas's Hospital; H. T. Gillett, St. Bartholomew's Hospital; T. Gregory, Owens College; A. G. Gullan, University College, Liverpool; J. C. Hibbert, University College; A. L. Home, St. Thomas's Hospital; J. H. Horton, Guy's Hospital; R. L. Jones, University College; J. P. Kitson, University College; W. D. Knocker, St. Thomas's Hospital; T. P. Legg, St. Bartholomew's Hospital; C. H. Melland, Owens College and Manchester Royal Infirmary; D. Morrison, University College; E. E. Murray, University College; M. J. O'Flanagan, B.Sc., Owens College; B. A. Richmond, Guy's Hospital; F. W. Robertson, St. Bartholomew's Hospital; R. H. Steen, Queen's College, Belfast; Helen Swatman, London School of Medicine for Women; F. R. Vellacott, Guy's Hospital; C. F. Wakefield, Guy's Hospital; G. H. C. Way, University College.

Excluding Physiology:

Second Division.—J. N. Brown, University College; J. S. Chater, St. Bartholomew's Hospital; G. W. Gostling, University College; M. L. G. Hallwright, Queen's College, Birmingham; G. R. Harcourt, St. Thomas's Hospital and King's College; A. Hunnard, University College; S. P. James, St. Mary's Hospital; Amelia Maitland Le Pelley, London School of Medicine for Women; W. M. Price, Guy's Hospital; A. E. Reynolds, University College; S. E. Shoppee, University College; W. Smith, Bristol Medical School; J. E. Waite, University College; A. Young, Sheffield Medical School and University College.

Physiology only:

First Division.—W. Branson, Sheffield Medical School and University College; C. R. Colley, Guy's Hospital; E. F. H. Hardenberg, Guy's Hospital.

Second Division.—R. Bebb, London Hospital; D. A. Chaning-Pearce, Guy's Hospital; S. F. Gibbs, St. Bartholomew's Hospital; T. O. Halliwell, St. Thomas's Hospital; H. W. Hart, Westminster and Guy's Hospitals and King's College; N. Instone, Guy's Hospital; J. Nicholson, The Yorkshire College; H. S. Revell, University College; W. H. Stoddart, University College.

Intermediate Examination in Medicine, July, 1892.—Examination for Honours:

Anatomy.—First Class: F. J. Steward (Gold Medal), Guy's Hospital. Second Class: L. J. Miskin, St. Thomas's Hospital. Third Class: R. Corfe, St. Mary's Hospital; J. S. Bolton, B.Sc., University College; G. B. Hunt, University College; G. H. Sowry, St. Bartholomew's Hospital.

Physiology and Histology.—First Class: F. Fraser (Exhibition and Gold Medal), St. Bartholomew's Hospital; F. J. Steward (Gold Medal), Guy's Hospital; A. R. Cook, B.Sc., University of Cambridge. Second Class: H. Nolan, Guy's Hospital; W. S. Handley, Guy's Hospital; A. Salter, Guy's Hospital; E. J. Tove, St. Bartholomew's Hospital. Third Class: J. S. Bolton, University College; A. Bousfield, B.Sc., King's College; E. L. Abrahams, B.Sc., University College; H. J. Scharlieb, University College.

Organic Chemistry.—First Class: F. J. Steward (Exhibition and Gold Medal), Guy's Hospital; A. Bousfield, King's College; H. Nolan, Guy's Hospital. Third Class: W. S. Handley, Guy's Hospital; J. S. Bolton, University College; E. J. Toye, St. Bartholomew's Hospital.

Materia Medica and Pharmaceutical Chemistry.—First Class: H. Nolan (Exhibition and Gold Medal), Guy's Hospital; R. S. Hardman, Owens College and Manchester Royal Infirmary. Second Class: J. S. Bolton, University College; S. W. Brook, Owens College. Third Class: E. J. Toye, St. Bartholomew's Hospital; R. J. Warrington, Owens College; R. H. Norman, Westminster Hospital; F. Fraser, St. Bartholomew's Hospital; T. A. Starkey, University College; J. Currie, St. Bartholomew's Hospital.

VICTORIA UNIVERSITY.

Examination Lists.—(Candidates' names are in alphabetical order throughout.) Faculty of Medicine.

First Examination (Part II, Biology).—L. P. Anderson, University Col-

lege; G. Ashton, Owens College; J. T. Auld, Owens College; F. J. Batten, University College; E. Bennett, Owens College; J. W. Bennett, Owens College; R. Bleasdale, Owens College; A. W. Bollans, Yorkshire College; H. M. Brown, Owens College; W. J. F. Burges, University College; R. W. Carmichael, Owens College; J. B. Clarke, Owens College; H. M. Crake, University College; H. R. Cross, Yorkshire College; F. Darlow, Yorkshire College; H. M. Henderson, University College; V. R. Hendry, University College; K. H. Jones, Owens College; E. Ladyman, Owens College; A. T. Lakin, Owens College; J. R. Lambert, Yorkshire College; G. G. Lawson, Owens College; A. Lomas, Owens College; F. E. Marshall, University College; J. G. Martin, University College; W. H. S. Nickerson, Owens College; G. C. Phipps, Owens College; A. McL. Pilcher, Owens College; F. S. Pitt-Taylor, University College; A. H. Priestley, Owens College; G. Renshaw, Owens College; A. L. Rhind, Owens College; A. T. Sissons, Owens College; J. E. Smith, University College; H. H. Smith, Owens College; H. Stansfield, Owens College; G. C. Walker, University College; L. S. Whitwam, University College; A. Wightwick, Owens College; A. A. Wood, University College; J. Wood, Owens College; H. C. Woodhouse, Owens College.

Second Examination.—T. P. Andrew, Owens College; H. E. Annett, University College; H. Armstrong, University College; G. H. Bishop, Owens College; W. C. T. Brown, Owens College; J. S. Dockray, Owens College; T. F. Higgins, Owens College; M. B. James, Owens College; W. A. Kidd, University College; E. O. Libbey, Yorkshire College; J. A. MacLaren, Owens College; F. S. Mathwin, Owens College; T. Morris, University College; W. A. Newall, Owens College; J. J. O'Hanlon, University College; S. J. Ross, University College; L. E. Scanlon, Owens College; H. A. Scott, Owens College; J. S. Taggart, Owens College; S. W. Thomson, Owens College; F. J. de C. Veale, University College; E. Webster, Owens College; W. B. Williams, University College.

Final M.B. and Ch.B. Examination (Part I).—The following have satisfied the Examiners: J. H. Ashworth, Owens College; H. A. Bold, Owens College; H. S. Brightmore, Owens College; A. Byers, Owens College; D. H. Cheetham, Owens College; C. A. Davies, Owens College; E. A. Goulden, Owens College; E. Harrison, Owens College; H. C. Heathcote, Owens College; J. Jones, Owens College; A. Leigh, Owens College; Y. H. Livesay, Owens College; E. S. Miller, University College; R. L. Wood, University College.

Final M.B. and Ch.B. Examination (Part II).—The following have satisfied the Examiners: J. C. Buckley, Owens College; F. J. H. Coutts, Owens College; J. H. Crocker, Owens College; W. E. Davies, University College; A. Greenhalgh, Owens College; W. McClelland, University College; C. R. Marshall, Owens College; J. B. Mawdsley, University College; A. Murgatroyd, Owens College; A. J. Partridge, University College; C. H. G. Ramsbottom, Owens College; G. Stowell, Owens College; W. H. Waddington, Owens College; W. A. Wilkinson, Owens College.

The following have been awarded honours: First Class: J. H. Crocker, Owens College; Second Class: C. R. Marshall, Owens College.

Examination for Diplomas in Sanitary Science.—The following have satisfied the Examiners: W. G. Dreaper, W. Fraser, L. A. Irving, T. J. Monaghan, R. H. Quine, L. Youatt.

UNIVERSITY OF EDINBURGH.

NEW MEDICAL GRADUATES.—At the Graduation Ceremonial of the University of Edinburgh the following gentlemen received the degree of Doctor of Medicine (the title of the thesis is given after each name): R. D. R. Allison, M.B., C.M. (with second-class honours), 1889; Vesical Calculus: its Etiology, Varieties, Diagnosis, and Treatment, with Historical Sketches and Geographical Distribution. G. T. Beatton, M.B., C.M., 1887; the Complications of Scarlet Fever. ***G. S. Brock, M.B., C.M. (with second-class honours), 1880; Bilharzia Hæmatobia (*in absentiâ*). **A. W. Campbell, M.B., C.M., 1889; Alcoholic Neuritis: its Clinical Features and Pathology. **H. M. Chasseaud, M.B., C.M., 1890; Intra-Ocular Injections: an Experimental Study. *H. M. Clark, M.B., C.M., 1881; Observations concerning Malaria, especially as met with in Indian Practice. E. W. Clarke (B.Sc.), M.B., C.M., 1885; On Appendicitis: with special reference to Diagnosis. *F. G. Clemow, M.B., C.M. (with second-class honours), 1885; Some Recent Suggestions for the Treatment of Pulmonary Consumption (*in absentiâ*). J. O. Closs, M.B., C.M., 1882; Dysmenorrhœa and Oöphoritis (*in absentiâ*). *G. M. Cullen, M.B., C.M., 1889; The Human Thyroid Gland: its Early Literature, its Anatomy and Histology, with some Considerations with regard to its Functions. J. A. Dick, (B.A.), M.B., C.M., 1890; Obstetrical Palpitation: the Art of Palpitation applied to the Diagnosis of Obstetrical Conditions (*in absentiâ*). W. Doig, M.B., C.M., 1881; The Diagnosis of Extrauterine Pregnancy before Rupture and its Treatment. **E. H. Ezard, M.B., C.M., 1887; The Transmission of Tuberculosis to Man from Domestic Animals by the Agency of Food Substances derived from them. *R. J. Fox, M.B., C.M., 1887; On certain Morbid Fears, with Remarks on the Influence of Fear on Disease. E. V. Gibson, M.B., C.M., 1890; Fifty Cases of Sciatica treated by Acupuncture, with Analysis and Remarks. ***A. L. Gillespie, M.B., C.M., 1888; Gastric Digestion: an Experimental and Clinical Study of some Points with regard to the Peptic Digestion of Proteids. *W. W. Hall, M.B., C.M., 1884; Essay towards Determination of the Peculiarities of Cancerous Epithelium. *A. H. Hallen, M.B., C.M., 1889; The Climate of the Western Intertropical Coast Regions of Africa. *J. G. Havelock, M.B., C.M., 1887; The Brain in 800 Cases of Insanity. *J. H. Keay (M.A.), M.B., C.M., 1876; The Recent Literature of Indigestion. J. T. Kitchin, M.B., C.M., 1887; Typhus Fever in Whitehaven, with Recollections of a Personal Attack in 1890. *G. Leslie, M.B., C.M. (with second class honours), 1881; The Physical Relations of Idiocy and Imbecility. *W. Lockwood, M.B., C.M., 1888; On the Antiseptic Treatment of Typhoid Fever. *A. J. MacGregor, M.B., C.M., 1888; Historical Landmarks in the Treatment of Insanity. N. J. M'Kie, M.B., C.M., 1887; Spurious Biliary Colic. *C. W. S. Magrath, M.B., C.M., 1880; Some Observations on the Use of Salol in Typhoid Fever (*in absentiâ*). C. J. L. Mansel, M.B., C.M., 1889; Ophthalmia. E. F. Maynard, M.B., C.M., 1889; Malignant Endocarditis. R. T. Meadows, M.B., C.M., 1885; Diphtheria as a Primary Local Infective Disease, and the Treatment of Severe Post-Diphtheritic Paralysis by the Subcutaneous Injection of Strychnia. W. G. Mitchell (M.A.), M.B., C.M., 1885; Exophthalmic Goitre. B. G. Morison, M.B., C.M. (with first-class honours), 1878; the Pathology and Treatment of Abortion. A. W. Munro, M.B., C.M., 1883; Leprosy, with Special Reference to its Outbreak in Australia (*in absentiâ*). W. Murray, M.B., C.M., 1879; The Relation of Environments to Disease among Colliers as Exemplified at Parkfield during the Years 1889-1892 (*in absentiâ*). A. B. Northcote, M.B., C.M., 1888: Influenza, with Special Reference to the Hull Epidemic of 1891. J. W. Pare, M.B., C.M., 1885; New Zealand as a Sanatorium for the Invalid from Pulmonary Disease and the Constitutionally Weak. W. M. Parham, M.B., C.M., 1889; Coma: its Clinical and Practical Aspects. *J. Playfair, M.B., 1873; Hysteria in Children. **T. D. Poole, M.B., C.M., 1889; Vaccination Eruptions. R. J. Pope (B.A.), M.B., C.M., 1890; Modern Therapeutics of Certain Ocular Affections. **J. Russell (M.A.), M.B., C.M., 1888; Study of Lead Poisoning. C. B. B. Savory, M.B., C.M., 1888; Cause and Effect in Relation to the Symptoms and Signs of Scarlet Fever. *J. B. Simpson (M.A.), M.B., C.M., 1887; Puerperal Fever: its Etiology and its Prophylaxis. G. A. van Someren, M.B., C.M., 1882; Brief Account of an Epidemic of Influenza, so called, occurring in Orange, New South Wales, as seen in Practice (*in absentiâ*). G. H. H. Symonds, M.B., C.M., 1884; Beri-beri or Kakke, an Endemic Disease of the Peripheral Nervous System (*in absentiâ*). W. E. Thomas, M.B., C.M., 1885; On Influenza. I. Thompson, M.B., C.M. (with second-class honours), 1888; Epidemic Influenza, with Special Reference to the Epidemic of 1889-1892. J. C. Thomson (M.A.), M.B., C.M. (with second-class honours), 1888; The History and Present Position of Clinical Surgery; Surgical Characteristics of the Chinese; and the Prospects of Western Surgical Practice in China (*in absentiâ*). G. Thornton, M.B., C.M., 1890; Chronic Gastric Dyspepsia, with Special Reference to the Removal and Examination of a Portion of the Contents of the Stomach during Digestion as an aid in the Diagnosis and Treatment of the Disease. *A. Turner, M.B., C.M., 1885; Asylum Therapeutics, 1892. ***W. A. Turner, M.B., C.M. (with first-class honours), 1887; Observations on the Anatomy and Physiology of the Central Nervous System. T. Walcot, M.B., C.M., 1887; The Etiology, Pathology, and Diagnosis of Diphtheria, with Notes of Fifteen Original Cases. *E. Walker, M.B., C.M. (with first-class honours), 1884; Our Present Knowledge of the Condition of Fever. T. H. Ward, M.B., C.M. (with first-class honours), 1887; Notes on the Use of some Hypnotics in Asylum Practice. W. M. G. Watson, M.B., C.M., 1888; Dissertation on a Case of Primary Ventricular Hæmorrhage. S. R. Webb, M.B., C.M., 1890; Influenza: an Historical, Etiological, Clinical, and Therapeutical Inquiry. W. H. Weston, M.B., C.M., 1882; Artificial Anæsthesia. ***A. J. Whiting, M.B., C.M., 1889; Contributions to the Comparative Histology and Experimental Physiology of the Spleen, with Observations on Blood Formation. ***T. S. Wilson (B.Sc.), M.B., C.M. (with second-class honours), 1883; Original Research into Cardiographic and Clinical Evidence as to the Character of the Diastolic Expansion of the Ventricles, etc. A. B. Winder, M.B., C.M., 1884; Plumbism in Huddersfield from Lead-polluted Water. *R. Wise, M.B., C.M., 1888; Headache: A Clinical Study.

*** means that a gold medal has been awarded for the excellence of the thesis.

** means that the candidate was deemed worthy of competing for the theses medals.

* means that the candidate was commended for his thesis.

At the same time the following gentlemen received the degree of Doctor of Science:

In the Department of Chemistry.—J. F. Marais, B.A., B.Sc. (Thesis: On the Derivatives of Amido-Tertrazolic Acid).

In the Department of Public Health.—R. W. D. M. Cameron, M.D., B.Sc. (Thesis: Personal Hygiene; its Principles and its Scope in relation to Legislative Action, or the Interdependence of Personal and Public Health); C. Houston, M.B., C.M., B.Sc. (Thesis: Microbes in the Soil); W. G. A. Robertson, M.D., B.Sc. (Thesis: Sugars and Sugary Foods).

The following gentlemen received the degree of Bachelor of Science:

In the Department of the Physical Experimental Sciences.—F. Beddow, J. W. Horne, J. A. Murray, C. Stewart.

In the Department of the Natural Sciences.—J. S. Flett, M.A.; J. D. F. Gilchrist, M.A.; D. M. Hutton; R. Pollok, M.A.; B. L. Seawell.

In the Department of Public Health.—D. W. Currie, M.D.; J. H. Jones, M.B., C.M.; A. W. Messer, M.B., C.M.; T. H. Milroy, M.B., C.M.; A. Simpson, M.D.; J. Sutherland, M.B., C.M.; J. D. Williams, M.D.; J. B. Young, M.B.

In the Department of Agriculture.—J. Bayne, M.A.

The following 203 gentlemen received the degrees of M.B. and C.M.: R. E. Adamson, J. Allan, G. W. Anderson, S. Anderson, M.A., R. H. Armstrong, G. J. Bagram, T. B. Barber, G. F. Barnardo, T. M. Bassano, L. B. Beddie, M.A., G. Bell, H. P. D. A. Benson, J. J. Beveridge (M.A.), G. Bill, C. H. Bond, D. C. Bremner, J. C. Brown, T. M'L. Brown, H. J. M. Browne, **A. Brownlie, W. M'Q. Brunton, D. H. Burn, F. S. Butler, G. Butten, D. G. Campbell, W. S. Campbell, J. F. Carruthers, J. G. Christie (M.A.), P. G. Cilliers, F. H. A. Clayton, G. H. Cock, H. D. Coles, A. B. J. Coope, R. A. Corson, S. G. Davidson (M.A.), R. Davies, J. L. Dick, G. Dickson, E. C. Dobie, C. W. Donald, *A. Douglas (M.A.), W. E. Dubourg, **C. C. Easterbrook (M.A.), *D. C. Edington, F. L. Ehrke, *J. J. Evans, R. E. Evans, F. M. Fellows, *A. Fells, T. Fentem, W. Fletcher, E. G. Fortune, *J. S. Fowler, M. H. Foye, J. A. Fulharty (B.A.), R. B. Garland, W. S. Gibb, W. Gordon, W. B. Gow, *R. W. Gray, W. Gray, V. Green, W. H. Gregory, E. E. T. B. Greville, G. K. Grimmer (B.A.), R. L. Guthrie (M.A.), T. C. Guthrie, H. H. Hadden, G. Halley (M.A.), J. A. Hamilton, F. J. Hare (B.Sc.), L. E. Hardy, E. Hawkins (M.A.), W. E. Haworth, A. Hendry, D. B. Hewat, H. M'D. Hewer, J. R. Higson, G. H. Hogg, **G. Home, A. H. Hopkins, C. J. Hugo, G. F. Hulme, F. H. G. Hutchinson, A. Ingram, L. G. Irvine (M.A.), Sir B. S. Jareja, J. H. Johnston, *R. G. Johnston, G. Johnstone, H. B. Jones, ** Lim Boon Keng, R. Knox, J. T. C. Laing, W. D. Lawrie, **R. M. Leslie (M.A., B.Sc.), J. R. Liddell, E. S. Littlejohn (B.A.), P. V. Locke, W. F. Macarthur, **D. Macaulay (M.A.), J. M'Clew, J. M'Clymont, J. M'Donald, A. M'Ewen, J. G. Macindoe, J. M'Kerrow, W. L. Mackinlay, J. Maclean (M.A.), J. Macmillan (M.A., B.Sc.), A. H. M. Macmorran, *G. W. F. Macnaughton, *P. O. Malabre, G. Mann, J. M. Martin, G. B. Mathieson, R. Maxwell, A. J. Meikle, D. Melville, C. K. Millard, A. Mirza, A. Mitchell, G. B. Mitchell, A. R. Moon, J. E. Moorhouse (M.A.,

B.Sc.), J. Morison, G. C. Munnik, J. H. Murray, M. G. Naidu, G. Newman, E. M'K. Nicholl, J. M'D. Nicoll, P. W. Nicol, A. Nobbs, T. E. Nuttall, L. J. H. Oldmeadow, C. Parker, W. H. Parkes, D. W. H. Paterson, C. R. Pearce, G. Peterkin, R. O. Petrie (M.A.), W. H. Pimblett, G. W. Pollard, C. F. Ponder, G. Porter, R. Prondfoot, W. G. Putnam (B.A.), J. R. M. Rae, M. A. Reid, W. N. Robertson, O. D. Robson (M.A.), W. Rogers, H. A. Rowland, L. Russell, P. W. Schmidt, W. Scott (M.A.), R. Scheult, W. G. Sellar, J. B. Shaw, *P. W. Shaw, C. D. Simitopoulos, A. T. Simpson, W. P. Simpson, H. J. Slane, T. G. Sloan (M.A.), A. S. Smith (M.A.), W. R. Smith (B.Sc.), W. Somerville, W. Spettigue, W. Sproule, J. Stoddart (B.A.) (*in absentia*); A. Stuart, J. Sutherland, *A. G. Talbot (B.A.), M. W. Talbot, G. Templeton, C. Thompson, J. L. Thompson, C. Thomson, H. T. Thomson, W. Tibbits, F. J. du Toit (B.A.), R. M. Truter, D. A. Turkhud, C. C. B. Tyrie, A. Walker (M.A., B.Sc.), J. Wallace, J. M. Walls, A. E. Watson, D. C. Watson, J. K. Watson, E. J. Weightman, V. Werdmüller, J. R. Whait, W. J. White, H. Whittome, R. M. Williams, J. C. Wilson, J. W. Wilson, L. Young, M. Young, W. Young.

** preceding the name indicates that the candidate passed with First-class Honours; while * indicates Second class Honours.

The following gentlemen had been awarded and received the various scholarships and prizes herein named: The Ettles Scholarship to R. M. Leslie (M.A., B.Sc.), M.B., C.M.; the Beaney Prize in Anatomy and Surgery to A. Brownlie, M.B., C.M.; the Stark Scholarship in Clinical Medicine to R. M. Leslie (M.A., B.Sc.), M.B., C.M.; the Freeland Barbour Fellowship in Anatomy, Physiology, and Pathology to G. Home, M.B., C.M.; the Goodsir Memorial Prize divided between G. N. Stewart, D.Sc., M.D., and A. J. Whiting, M.D.; the Gunning Victoria Jubilee Edward Forbes Prize in Zoology to G. Wilson, M.A., B.Sc.; the Gunning Victoria Jubilee Alison Prize in Public Health and Medical Jurisprudence to A. Houston, M.D.; the Buchanan Scholarship in Gynæcology to J. L. Dick, M.B., C.M.; the James Scott Scholarship in Midwifery to C. C. Easterbrook (M.A.), M.B., C.M.; the Wightman Prize in Clinical Medicine to D. A. Welsh (M.A.); and the Falconer Fellowship in Palæontology and Geology to G. S. Corstorphine, B.Sc.

Professor ANNANDALE delivered the time-honoured address to the graduates. He congratulated the new graduates and gave them some sound advice of medical ethics and courtesy, and indicated some of the difficulties they would presently encounter in the discharge of their professional duties. He also spoke of the increase of the profession and of the competition that thereby necessarily arose.

SECOND PROFESSIONAL EXAMINATION for the Degrees of M.B. and C.M.—The following candidates have passed this examination:

W. Bannerman, F. W. Barton, R. W. Blair, C. W. Branch, R. St. G. S. Bond, W. R. Center, H. O. Corfield, E. P. Dickin, C. E. Gabitis, W. H. Gaunt, T. B. Moore, B.A.; F. L. Phillips, G. B. Pieterson, C. E. Salt, J. H. Seon, W. E. Scott-Moncrieff, T. D. S. Shaw, John Sorley, M.A.; A. P. Steavenson, J. G. Walker, A. C. Ainslie, M.A.; R. Y. Anderson, C. H. H. Cazalet, W. B. Clarke, D. M. Conacher, James Gray, W. B. Hetherington, John Hume, P. W. McVean, David Murray, C. G. Murray, W. H. Coupland, E. A. Dent, G. A. Dickson, P. G. Edgar, Arthur Foster, J. R. Gilmour (with distinction), D. A. Greaves, Evans Jones, J. L. Leadbetter, J. A. Lee, Donald McDonald, W. L. Malcolm, E. L. Owen, J. M. Pereira, S. W. Prowse, B.A.; C. H. Ridley, A. A. Ross, J. M. Wishart, L. Grant, F. H. Hardman, J. E. Hewlett, T. J. Jehu, W. H. Jones, John Kippax (with distinction), G. C. Laing, John Lawrie, A. McNeil, B.A.; G. R. Plante, J. H. Reynolds, T. W. H. Robson, M.R.C.S. Sibbald, H. W. Vaughan Williams, J. W. T. Walker, E. E. Waters, J. A. J. Wood, R. T. Wright, M.A.; J. M. Morris, M.A.; P. J. Sharp, W. E. Smith, Ayatullah, J. R. Crease, Henry Fergusson, J. M. Menzies, Henry Scott, C. H. Adamson, Harry Armistead, D. J. S. Burt, D. N. Chatterjee.

The following candidates have passed in the first division (that is, Anatomy and Physiology) of the same examination:

T. G. Lewis, H. P. Elliot, A. L. Jones, A. J. Mollroy, F. O. N. Mell, I. M. Menzies, A. G. P. Thomson, Thomas Stuart, H. de M. Alexander, James Anderson, William Bethune, C. S. Cautrell.

The following candidates have passed in the three subjects (Chemistry, Botany, and Zoology) of the First Professional Examination for the Degrees of M.B. and C.M.:

J. W. Anderson, W. H. Barrie, C. B. Crampton, P. Deb, J. W. Edwards, W. Evans, F. B. Feast, R. M. Gibson, C. M. Hector, W. H. Hill, G. Halliday, J. R. Lord, W. M. Macdonald, D. D. M'Neill, J. Mason, J. A. Milroy, A. S. B. Powell, R. G. Ralston, J. E. Rosenstein, W. A. Skinner, F. O. de Lousa, G. E. Stewart, W. E. W. Strickland, D. G. M. Teague, F. W. Lwidale, W. A. C. Uscher, J. Watt, J. J. Williams, C. W. Eames, A. B. Blair, J. Gray, C. R. Scott, D. N. Anderson, J. Ballantyne, J. A. Bayne, F. J. C. Botha, T. A. Brennan, R. M. Broughton, W. T. Buchanan, D. A. Cameron, H. J. Cardale, A. G. Carment, S. Carmichael, A. W. G. Clark, J. M. Coates, J. Crawford, J. Davidson, H. Dewar, A. Dickson, J. H. S. B. Douglas, S. Ducat, W. Duncan, A. M. Fleming, F. Gardiner, W. A. Gemmell, J. Gilmour, A. Y. Greenwood, R. M. Hall, F. A. Hardy, J. Henderson, J. J. Hewison, J. Hirst, J. D. C. Howden, A. L. Husband, J. M. Jeffrey, J. Kirk, B. L. L. Learmonth, R. M. Leith, W. Lillie, R. E. Loney, P. C. Luttig, A. Macdonald, F. B. Macdonald, J. M'Donald, J. A. Macfarlane, T. H. Macfie, F. M. M'Intosh, D. M. Mackay, C. Maclaurin, J. MacMaster, A. D. Macpherson, M.A.; C. M'Vicar, M.A.; W. K. Mander, J. L. Marjoribanks, J. Massey, G. St. Masson, E. Matthew, F. H. Merry, F. K. Mompie, D. Morison, H. M. Morton, T. M. Ness, A. T. Park, H. C. Pearson, J. P. Peterson, C. Porter, J. A. Rees, W. Ritchie, W. T. Ritchie, W. H. Robb, D. Roger, D. R. Rowlands, A. H. Rutherford, J. Stenhouse, T. H. Stevenson, F. G. Taylor, F. S. C. Thompson, R. Thornton, H. F. L. Taylor, J. W. de Vos, A. Wallace, G. A. Welsh, A. E. White, J. H. White, A. E. Williams, W. O. Williams, W. W. Wood, A. D. Yule, J. F. Holden, W. H. Price, J. Stoddart, H. Waters, and T. E. Watson.

In Botany and Zoology.—B. M. Bone, J. W. A. Daman, H. O. Hobson, G. Nisbet, S. K. Norris, R. B. Purves, J. Robertson, J. B. Wilson, H. L. Apthorp, J. R. W. Armour, S. O. Browne, J. M. Callender, E. W. Ellis, J. O. Fox, J. Graham, J. Grieve, N. Gunn, J. C. Hastings, E. H. Irwin, T. N. Johnston, E. H. Jones, C. A. D. Lander, G. C. Low, J. D. M'Crindle, C. St. J. Moses, R. Mudie, J. G. P. Murray, W. D. Osler, G. W. Robertson, J. G. Ross, G. A. Sander, R. Selby, G. B. Serle, J. D. Slight, M.A.; F. S. Stanwell, C. R. White, J. F. Wolfe, W. Finlay, W. A. Young, C. H. Kruger, and C. A. Phillips.

In Botany, Zoology, and Physics.—C. M. Cooper, J. B. Cusine, R. K. Howden, and A. H. Watt.

In Botany and Physics.—A. E. Richard, H. Sibbald, J. H. R. Morron.

In Botany, Chemistry, and Practical Chemistry.—A. H. Aljar, J. M. Dawson, W. G. C. Geekie, J. H. Henderson, T. Plummer, J. B. Stuart, J. M. Grieve, and C. Williams.

In Zoology, Chemistry, and Practical Chemistry.—F. Acton, G. J. Blackmore, T. Johnstone, M.A., I. A. Khan, A. L. Low, T. M. Metcalfe, G. L. Roberts, J. W. L. Spence, J. F. Strickland, W. B. Thain, H. S. Brockway, and H. Malcolmson.

The following have passed the examination for the Second B.Sc. in the Department of Natural Science:

J. S. Flett, R. Pollok, and B. L. Seawell.

The following candidates have passed in the subjects of Zoology and Botany for the First B.Sc. Examination:

J. G. Anderson, A. A. Born, W. B. Duffus, J. Henderson, R. Hutchison, G. W. Miller, A. R. Scott, R. Lees, E. J. Taylor, W. Thompson, J. Nesbit, and J. R. Roberts.

In Zoology.—T. J. T. Craig.

In Botany.—T. C. Giffen, G. P. Lishman, S. C. Mahorlanobis, A. D. Russel.

UNIVERSITY OF ABERDEEN.

THE following Candidates have received Degrees in Medicine and Surgery:—

Degree of M.D.—J. M. Bett, M.B., C.M. (Thesis: Influenza); J. H. Brooks, M.B., C.M. (Thesis: Thoracic Aneurysm, treated by Distal Ligature of the Left Carotid Artery); A. Brown, M.A., M.B., C.M. (Thesis: Notes on some cases of Chronic Endometritis); J. F. Craig, M.A., M.B., C.M. (Thesis: On Foreign Bodies in the Alimentary Canal, including Entozoa); L. Durno, M.B., C.M. (Thesis: The Rational Application of General Blood-letting); A. C. Ferguson, M.A., M.B., C.M. (Thesis: On Puerperal Eclampsia); J. A. Macdonnell, M.B., C.M. (Thesis: New Zealand as a Health Resort): *W. Milligan, M.B., C.M. (Thesis: The Etiology, Pathology, Symptomatology, Complications and Treatment of Otitis Media Purulenta, Acuta et Chronica); J. P. Philip, M.B., C.M. (Thesis: The Etiology of Acute Croupous Pneumonia); W. S. Robertson, M.B., C.M., [Graduated under Old Regulations.]—F. W. Robinson, M.B., C.M. (Thesis: Observations upon cases which occurred in my private practice); A. Simpson, M.A., M.B., C.M. (Thesis: On Puerperal Insanity).

*The Thesis of W. Milligan was considered worthy of "Highest Honours."

Degrees of M.B. and C.M.—A. S. Adams, A. Anderson, M.A., W. Bodie, M.A., G. G. Bothwell, R. Cunliffe, C. M. Dawson, H. T. Dawson, R. Ferguson, M.A., J. Fraser, G. Geddes, J. Gillespie, F. B. Graham, A. Hogg, M.A., A. Innes, W. S. Joss, M.A., T. B. Law, D. A. M'Combie, J. T. Marr, C. W. Marshall, T. Massie, A. D. Milne, C. Mitchell, H. M. Mitchell, D. Neil, A. W. Paterson, W. H. Silva, W. Sinclair, M.A., A. T. Smith, J. Sutherland, J. T. West.

Graduation Honours.—The following gentlemen graduated with Honours—(Honourable Distinction)—J. Gillespie, A. T. Smith, J. T. West.

The John Murray Medal and Scholarship was awarded to W. Trethowan.

Diploma in Public Health.—J. S. Cooper, M.B., C.M.; W. Thomson, M.B., C.M.; *D. M. Tomory, M.B., C.M.

The following candidates have passed the First Division of the *First Professional Examination* for the degrees of M.B. and C.M.—A. B. Anderson, J. M. Anderson, T. B. Anderson, P. H. Bannister, G. Byres, C. Cameron, J. F. Christie, W. Cockburn, H. W. H. Cowan, G. Cowie, J. M. P. Crombie, R. W. Cruickshank, T. D. Cumming, H. Dunbus, G. M. Duncan, C. H. Dyer, C. I. Ellis, A. Falconer, G. E. H. Le Fanu, A. Fenton, J. Fletcher, J. Fraser, A. T. Gage, H. R. Gardner, E. K. Gawn, K. Gillies, W. G. Grant, H. M. W. Gray, D. V. Haig, A. J. Hynd, P. W. Ironside, G. H. Johnston, W. A. Kinloch, R. Lindsay, M. M'Bean, A. D. Mackie, J. M'Lennan, J. R. M'Mahon, J. G. S. M'Pherson, A. M. Malcolm, W. R. Matthews, W. A. Milligan, A. G. Milne, J. A. Milne, J. W. Milne, G. Mitchell, D. K. Moody, W. Murray, J. W. Myers, W. M. Philip, J. A. Rae, A. Ramsay, G. A. Reid, C. Ritchie, A. Robb, A. Rose, G. B. Scott, J. E. Skinner, H. E. Smith, J. R. Smith, A. Thomson, A. G. A. Thomson, J. W. Thomson, F. J. Troughton, J. S. Warrack.

The following candidates have completed the *First Professional Examination.*—L. Adam, **J. M. Andrew, J. H. I. Brown, W. B. Brown, W. Cartwright, C. G. Cowie, W. P. Crombie, J. Dawson, W. E. G. Duthie, P. Grant, A. D. Kelly, **P. Macdonald, R. C. Macfie, E. L. Mansel, J. G. Milne, J. Moncur, J. T. Park, J. L. Salmond, R. M. Trotter, R. Turner.

The following candidates have passed the *Second Professional Examination.*—G. G. M. Black, R. H. Boulton, A. Brown, G. A. Bruce, A. Campbell, W. Christie, A. F. A. Fairweather, S. J. C. Fraser, D. Grant, J. F. Hall, **P. Howie, R. Johnston, W. S. Joss, **A. W. Mackintosh, C. J. Milne, R. Mitchell, H. Munro, W. W. Pearse, A. Ponnambalam, C. W. Profeit, E. Proudlove, M. W. Renton, R. A. Slater, J. Smith, G. Sturrock, J. Thomson, F. M. Tindall, R. M. Trotter, A. V. Trow, L. Valentine, A. Watt, V. O. Wright.

* Indicates that the candidate has passed "with credit."

** " " " with much credit."

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, IRELAND.

THE undermentioned candidates have been successful at the Conjoint Examinations held during the month of July, 1892:

First Professional Examination.—J. C. Baskin, J. W. Benson, W. P. Beveridge, G. E. Caithness, D. F. Clarke, H. F. Conyngham, Gerald Corcoran, W. M. Cummins, G. G. Delap, J. C. Edge, E. A. Fenton, Thos. FitzGerald, R. Glynn, R. M. Hamilton, P. P. Harold Barry,

W. J. Healey, C. E. Hodgson, C. R. Horrell, W. E. Jolliffe, W. M. Jones, C. A. Kenny, C. B. Martin, H. B. S. Montgomery, J. Morrissey, J. A. M'Munn, M. O'Brien, W. H. Odlum, J. J. O'Reilly, T. J. Perkins, J. T. Potter, F. J. Purcell, A. S. Sainpey, R. W. Scully, J. N. Shee, E. W. Siberry, Miss L. F. S. Strangman, Miss M. S. P. Strangman, R. H. Walpole, F. C. Wright, A. H. V. Young.

Second Professional Examination.—E. A. Bourke, A. W. N. Bowen, D. T. Carroll, T. P. Conlon, M. A. Corcoran, G. E. Creighton, E. A. Culligan, G. S. Davidge, J. H. J. L. Davys, K. Delaney, M. Delaney, J. Dwyer, T. A. Greene, A. M. J. Halligan, T. Hennessey, T. C. Lauder, A. Leventon, Jas. Lynch, P. F. Lyons, H. G. Martin, J. C. Martin, E. A. Meeke, E. J. Moore, J. J. Morrissey, P. F. Morrissey, D. J. O'Brien, W. A. Pope, E. F. Power, A. C. Seale, M. G. Sterling, A. F. Studdert, W. A. Twigg, E. J. Tynan.

Third Professional Examination.—G. H. Ayres, J. Behane, A. C. Callaghan, H. Carre, W. J. Coney's, L. F. Corbet, J. J. Dolan, C. P. Hannan, R. J. Harvey, E. L. Hunt, H. Hunt, P. K. Joyce, H. H. Moffat, C. E. Murphy, H. M'Dermott, J. G. M'Lannahan, M. J. O'Brien, W. F. Pigott, T. A. Poirotte, J. H. Power, W. F. Roe, C. R. Rothwell, R. Somerville, H. R. Sweeney, W. Taylor, Miss E. A. Tennant, H. G. Thompson.

Fourth Professional or Qualifying Examination.—The following candidates, having passed the final examination, are entitled to admission to the licences of the colleges in medicine, surgery, and midwifery: A. Aikin, W. H. G. H. Best, W. Black, E. L. Cambie, A. J. S. Cooper, C. F. H. Cowell, G. W. Elsner, J. K. Freyer, E. T. Goode, E. W. A. Guinness, G. Hamilton, R. B. Hunt, W. S. Kane, H. G. P. Le Fanu, J. P. Marnell, H. Moore, R. M'Combe, V. E. J. M'Donagh, R. H. Oliver, J. M. O'Callaghan, S. J. C. Prittie Perry, J. M. Reddington, F. O. Stoker, J. Turnbull.

Passed Group A, Medicine: W. H. Anderson, C. R. Chichester, J. F. Elliott, H. G. Falkner, G. A. Fleming, M. C. D'E. Jordan, W. H. Parr, N. I. Townsend, F. Warren.

Passed Group B, Surgery, etc.: W. H. Anderson, H. J. Falkner, F. M. Golding, F. A. Madden, W. G. F. Posnett, N. I. Townsend, F. Warren.

Passed Group C, Midwifery, etc.: C. R. Chichester, F. M. Golding, P. Peacocke, S. W. Wilson.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

DENTAL EXAMINERS.—At a meeting of the President, Vice-President, and Council held on Thursday, August 4th, the following were elected Dental Examiners: John Barton, F.R.C.S.; Henry Gregg Sherlock, F.R.C.S., L.D.S.; William Stoker, F.R.C.S.; Thomas Studley, L.D.S.; Charles Wall, L.D.S.; Montgomery A. Ward, F.R.C.S. The examinations are held in November, February, and May.

ERRATUM.—In the Pass List of the Conjoint Board for the D.P.H., published in the BRITISH MEDICAL JOURNAL of August 6th, page 335, the second name should be "Arnim."

OBITUARY.

SAMUEL ARMSTRONG LANE, F.R.C.S.,

Consulting Surgeon to St. Mary's Hospital.

To have lived an honoured life to the age of 90, to have retained to the end full mental activity, and to have passed quietly and painlessly away is a happy lot which falls to but few men, but it possesses in Mr. Lane's case this much of difficulty in commemorating his life that there are few who can be referred to as his contemporaries in early life, whilst his modesty and reticence were such that we can find no biographical material extant in which it is recorded. Possibly the publication of this brief and imperfect notice may bring us contributions from retired seniors in the profession who were his contemporaries during his early life and his period of combat and struggle, or who had authentic details of them from his own lips or other sources.

Samuel Armstrong Lane became a Member of the Royal College of Surgeons in 1829, having been a pupil of the Windmill Street School, and of St. George's Hospital. His early career gave immediate promise of the qualities which afterwards throughout life distinguished him. He was an earnest and able student, an accomplished anatomist, and a thorough surgeon. He aspired to become a member of the surgical staff of St. George's Hospital, but he was opposed by Mr. Cutler, a relative of Sir Benjamin Brodie, whose influence was and long remained all-powerful at St. George's, as ultimately, in virtue of his great qualities, it became throughout the profession. The contest was severe; Lane was defeated, and, as he thought, unjustly and hardly treated. Bitter feelings arose during the contest, which lasted for many years and prevented the possibility of his joining the staff of this hospital.

Lane, however, was not to be daunted by obstacles however great, and he founded for himself a school of anatomy and medicine in immediate contiguity to St. George's Hospital, at 1, Grosvenor Place. The school was built out at the back of his house, extending into the once famous Tattersall's yard. This school he immediately made famous by his admirable qualities as a teacher, his clear power of exposition, his thorough anatomical knowledge, and his skill in applying that knowledge to practical surgical principles and details. The early history of the school remains to be written, and the materials are not in our hands, but there are a considerable number of its pupils who can bear testimony to the practical and yet philosophical teaching by which they profited, and to the knowledge of character and firm yet gentle wisdom with which he selected and co-ordinated the work of the colleagues with whom he surrounded himself.

Among the best known of the lecturers whose names recur to memory are those of Vesalius Pettigrew, humorous, perhaps, to a fault, but bright, enthusiastic, and interesting as a lecturer on anatomy; Pilcher, an excellent and solid surgeon, of considerable power of fluent exposition; Ballard, since the Senior Inspector of the Local Government Board, most methodical, exact, systematic, and trustworthy of lecturers on medicine; Thomas King Chambers, a stately but original-minded and highly-informed medical thinker; Rogers, a brilliant chemist, whose appearances at the great trials of Palmer and others were more sensational than exact; Lankester, eloquent, attractive, and sometimes almost entrancing as a lecturer on biological and dietetic subjects; Billings, the first who ever taught histological anatomy in London by completely organised methods of practical demonstration and literary work; Marcet, physiological chemist, who still stands in the very foremost rank of that department of science, and who brought to his work in early days a contagious enthusiasm and a munificent dispensation of his personal wealth in carrying out this then much neglected department of teaching. Beside these in the later years were ranked Spencer Wells, Spencer Smith, William Adams, the eminent orthopædic surgeon, James Lane, Ernest Hart, the then youngest of teachers in anatomy in the metropolis; Deville, that most profoundly accomplished and devoted Parisian teacher of anatomy, who was for political considerations for a time expelled from his native country; and others whose names might fitly be inscribed in this weighty list.

When St. Mary's Hospital was founded, largely by his efforts, all the circumstances marked Lane out for the senior surgeoncy. He transferred to that hospital his valuable museum and collections, and a number of his colleagues and lecturers became attached to the staff of St. Mary's Hospital and School, among whom the Lanes, Spencer Smith, and Thomas King Chambers were for many years prominent figures.

At an early date he had been elected to the surgical staff of the Lock Hospital, and this circumstance brought him a considerable practice in that department of medicine. He was, however, utterly adverse to specialising, and he was unwilling to lessen his interests or abdicate his position as a surgeon and anatomist for any one special department of surgery. Of his characteristics in this and some other respects, one of his most eminent pupils speaks in a memorandum which we subjoin, as also of his scientific work, for Lane was from first to last an unceasing and devoted student of anatomy and physiology, and it is much to be regretted that, while he taught so ably, he published so little.

To the last he retained the characteristics which had marked him throughout life; singularly courteous, urbane, and even courtly in his manner, he dressed always in the old-fashioned style of swallow-tail coat and black satin stock. He was industrious and active, but deliberate, and never hurried. His dignity of manner made him universally respected, and even venerated, amongst that critical and not always easily-managed class—the medical students of the last two generations; but though stern enough when occasion required it, and well able to maintain the strict discipline and high standard of conduct in his school, his temper was so even, his nature so gentle and liberal, and his sympathy with his students so unfailing, that he never lost his hold on the affection and respect of even the most incorrigible *mauvais sujet*. In the stormy times of his struggle and rivalry in the difficult conduct of a school adjoining but yet not rivalling the official teaching of St. George's Hospital, he bore himself with extreme firmness; and although some irritation and much friction must have occurred, and did occur, especially

in the earlier years, in the end it may, we believe, be said that he had conciliated all the opposition which had not been overcome, and passed his later life surrounded by professional friends and without an enemy. He was rarely, if ever, seen at the Societies, and he had no taste for the lighter pleasures of London life and society, but he found a congenial retreat in country life, and his later years have passed placidly and happily.

One of his favourite pupils, who has since attained distinguished eminence, and is now himself enjoying well-earned retirement, writes to us:—

"The memory of Samuel Armstrong Lane will ever be cherished by his pupils. Generosity, gentle and thoughtful, endeared him to all. Through the exercise of the noble qualities of his mind, he taught them much more than anatomy; and no one in his day taught that better than he did. He instilled into his pupils the spirit of independence and energy; and they are not few who owe their success in life greatly to his influence upon them. His own career fell short of the highest honours of his profession, not from any lack of ability or energy, but entirely because success in the ordinary sense could only be achieved by work that brought money. And this he did not want, and would not seek. Two striking examples of this resolution deserve to be recorded. He was one of the first surgeons to practise ovariotomy. He was a dexterous operator, and was quite conscious that distinction, wealth, and honours could be won, as others have since won them, by pursuing this line of enterprise. He would not commit himself to any special career; so he abandoned the prizes which were within his grasp. Another example is even more characteristic. He had undertaken to publish in the *Lancet* a course of lectures on syphilis, on which subject his position as Surgeon to the Lock Hospital gave him pre-eminent opportunities to invest with authority. The scheme laid down for this course was on the broadest scale. It was designed to embrace every cognate subject that could throw light upon it. Six lectures were published, which attracted the deepest interest and excited the liveliest expectations from the readers of that journal. But here he stopped. He resolutely resisted the pressing request of Mr. Wakley to continue them. And why? One argument urged upon him was that it would make his fortune. A pupil of his then connected with the *Lancet*, put this before him. His reply was, that it was exactly for that reason that he stopped. He had no family, and did not want to make money; and he felt that if he continued the course, he should become known as a special surgeon in that department. To this he could not yield. The history of his share in founding St. Mary's Hospital has been fairly stated. Certainly no greater mistake was ever made at St. George's than that of rejecting his candidature for the surgeoncy. He was not a man to be beaten or to stand out in the cold. He immediately set to work to found a new hospital and a fitting field for the exercise of his passion for teaching. He had taught anatomy for many years, and he determined to teach surgery. The same pupil to whom reference has been made was then proceeding to study in Paris. He was commissioned to collect information as to the statistics of the Paris hospitals, and their relation to the general population, and the demands upon them. The information so obtained was used by Mr. Lane in the movement which resulted in the foundation of St. Mary's. To this hospital he transferred his museum; and what was more, his energy, his skill, and a reputation as a teacher which could hardly be surpassed. Mere honours he did not care for. He served for some years on the Council of the College of Surgeons, but declined the Presidency."

FORBES WATSON, M.A., M.D.

We regret to announce the death of Dr. Forbes Watson, after a protracted illness. According to an able obituary notice, published in the *Times*, John Forbes Watson, the son of an Aberdeenshire farmer, was born in that country in the year 1827. He was originally intended for the same pursuit as his father, but the latter, with rare sagacity, foresaw that the abolition of the corn duties would make farming a bad business in these islands, and sent his son to the University of Aberdeen to prepare himself for the medical profession. He did exceedingly well at the University, taking the degree of M.A. before he was 20. At this early period he devoted his attention specially to the influence of food and climate on the human body, a subject which engrossed his mature consideration. He acquired a practical experience in his profession both at Guy's Hospital and in Paris during the cholera outbreak in 1849.

In 1850 he received the commission of assistant surgeon in the Bombay Medical Service, and sailed for India in medical charge of 200 of the Company's recruits. On his arrival he was attached to the artillery, and served on the frontier of Sindh. He also acted as temporary lecturer on clinical medicine at the Grant College, but in 1853 he was compelled by ill-health to return to England. He then devoted his attention to sanitary matters, was associated with Stenhouse in investigating the sanitary applications of charcoal, and proposed to the Court of Directors a commission to inquire into the nutritive value of the food grains of India and the feeding of troops at sea. His suggestion was adopted, and his inquiry resulted in the acquisition of an immense amount of valuable information, and the institution of some practical reforms. As a reward for this work he was, in 1858, appointed reporter on the products of India and director of the India Museum, and in that capacity he acted as referee to the Secretary of State on all questions connected with Indian products and manufactures. The duties of this office brought him into contact with the commercial and manufacturing classes interested in the International Exhibitions of 1862 in London, 1867 in Paris, 1873 in Vienna, and 1870-4 at South Kensington. His object was to render not only each exhibition, but the India Museum especially, a picture of India in its scientific, commercial, artistic, and ethnological aspect. In this he only partially succeeded, but there can be no doubt that the long fight he made for a great Indian museum prepared the way for the Imperial Institute. In 1879 this department at the India Office was broken up, and he retired from the service. He then paid a second visit of more than a year's duration to India, which he had left nearly thirty years before. During this visit he repeated his former experiments on points showing the influence of climate in the body.

The last years of his life were devoted to the same objects, and his great work on *Fibres and Fibre-yielding Plants* is the standard authority on the subject. Of his many other literary and scientific productions it need only be said that they have placed him, in the opinion of those competent to judge, on the level of Prinsep and Sir William Jones. As a man, Dr. Forbes Watson was remarkable for his kindliness of heart, engaging manners, and untiring energy; and the work he accomplished in promoting trade between India and England is great and enduring.

H. W. BELLEW, M.D., C.S.I.,

Surgeon-General Bengal Army.

We regret to record the death of Dr. Henry Walter Bellew. In announcing his death, the *Times* observed that with him had passed away another of the few remaining members of that Anglo-Indian school that helped to build up our empire by acquiring a thorough knowledge of the natives based on a sympathetic intercourse with them. As an Oriental linguist Dr. Bellew was well known; as a sanitary commissioner his views were distinguished by a practical insight into the customs of the people, which suggested remedies that were as efficacious as they were willingly adopted. As an explorer his gift of observation supplied minute and interesting information regarding regions that had either been unknown or little known before his visit, while as a political officer and a representative Englishman on the Punjab frontier he gained the confidence of native chiefs and of the natives generally in a high degree.

Dr. Bellew was the son of the late Major H. W. Bellew, Assistant-Quartermaster-General Indian Army, and was born in India on August 30th, 1834. In 1854 he went out to the Crimean war, returned home in 1855, and went to India in 1856. There he joined the Guides, and shortly after was sent on the famous mission to Candahar with Major H. B. Lumsden, since better known as Sir Henry Lumsden. Dr. Bellew published a *Journal of a Mission to Candahar in 1857-58*. During the Ambeyla campaign he rendered good service, and subsequently as Civil Surgeon of Peshawur he became a centre of

influence all along the frontier, and in 1864 published a *General Report on the Yusufzais*, which is still a standard work on the topography, history, the antiquities, tribal subdivisions, government and customs, climate and productions of the country. His *Grammar and Dictionary of the Pukhto Language* was long a standard work on the subject. In 1871 he accompanied Sir Richard Pollock on a political mission to Persia, and obtained material for his valuable work, *From the Indus to the Tigris*, a grammar of the Brahui language, and other scientific matter. In 1873-74 he was deputed on the embassy to Kashghar and Yarkand, and in *Kashmir and Kashghar* he gave an admirable description of the peoples, especially of the latter country, including several references to "Kunjut," which has latterly been brought under our influence by the name of "Hunza." His friendship with the Ameer Shere Ali, and his great knowledge of frontier affairs, pointed him out to Lord Lytton as the most competent person for the post of Chief Political Officer at Cabul during the war with Afghanistan in 1879. Illness, unfortunately, compelled him to give up the post, and he was succeeded by Mr. (now Sir) Lepel Griffin. His stay in Cabul furnished the material for *The Races of Afghanistan*, published in 1880, and for his valuable contribution to the ethnography of Afghanistan, regarding which he submitted an important work to the International Congress of Orientalists held last year; on which occasion, also, at a meeting presided over by the Hon. G. Curzon, M.P., he expounded his views on a number of linguistic and other identifications between Greek and Afghan tribes, a subject which occupied his attention to within a few hours of his death.

Dr. Bellew had long been ailing from gastric disorders, brought on by excessive overwork and exposure. He retired in November, 1886. He will be mourned by more than one generation of friends, colleagues, and brother officers. At his express wish his body will be cremated. Dr. Bellew was married to Isabel, sister of another famous explorer—General Sir Charles MacGregor—and leaves two daughters and a son.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Tuesday, August 9th.

Tuberculosis Commission.—MR. FIELD asked the President of the Board of Agriculture whether the report of the Tuberculosis Commission had been received, or when it might be expected; and whether the destruction of animals without compensation to the owner was to continue when the animals had been purchased in public market under the supervision of a Governmental veterinary inspector, but subsequently condemned by another authority.—MR. CHAPLIN said the report of the Tuberculosis Commission had not been received, but he was informed by the Secretary of the Commission that the experiments undertaken by them were rapidly approaching a termination, and that a number of valuable facts had been conclusively proved. There was still, however, a very large amount of material to be examined microscopically, and it might be necessary to summon further scientific witnesses. For those reasons it was impossible at present to fix with precision the date of the conclusion of the inquiry. With reference to the second paragraph of the question, the hon. member was in error in supposing that animals could be destroyed by any public authority in consequence of their being affected with tuberculosis, and that such animals were purchased in public market under the supervision of a Governmental veterinary inspector.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERY RETURN.

THE Registrar-General has just issued his return relating to the births and deaths registered in England and Wales during the second or spring quarter of this year, and to the marriages in the three months ending March last. The marriage rate was equal to 11.7 per 1,000, and was slightly below the mean rate in the corresponding periods in the preceding ten years.

The births registered in England and Wales during the three months ending June last were 332,385, equal to an annual rate of 31.7 per 1,000 of the population, estimated by the Registrar-General to be nearly twenty-nine and-a half millions of persons. This rate was 1.3 per 1,000 below the mean rate in the second quarters of the preceding ten years, and, with one exception, was lower than the rate in the second quarter of any year on record. The birth-rates in the several counties during the quarter under notice ranged from 23.9 in Rutlandshire, 25.2 in Sussex, and 26.2 in Surrey to 36.6 in Staffordshire, 36.7 in South Wales, and 37.3 in Monmouthshire. In thirty-three of the largest English towns the birth-rate last quarter averaged 32.9 per 1,000, and was 1.2 above the general English rate. In London the birth-rate was 31.4 per 1,000, while it averaged 34.0 in the thirty-two provincial towns, among which it ranged from 22.2 in Huddersfield and 26.8 in Brighton to 37.9 in West Ham and 39.0 in Sunderland.

The births registered in England and Wales during the quarter under notice exceeded the deaths by 100,394; this represents the natural increase of the population during that period. It appears from returns issued by the Board of Trade that 122,740 emigrants (including 48,518 foreigners) embarked from the various ports of the United Kingdom at which emigration offices are stationed; of these, 37,306 were English, 7,702 Scotch, and 29,115 Irish. The proportion of British emigrants to a million of the respective populations of the three divisions of the United Kingdom were 1,269 from England, 1,895 from Scotland, and 6,271 from Ireland. Each of these proportions showed a decline from that recorded in the corresponding periods of the preceding three years.

During the second quarter of 1892 the deaths of 131,991 persons were registered in England and Wales, equal to an annual rate of 18.0 per 1,000 of the estimated population. This was 1.2 per 1,000 below the mean rate in the preceding ten second quarters, and with three exceptions was below the rate recorded in the corresponding period of any year since civil registration was established in 1837. Among the urban population of the country, estimated at about nineteen millions of persons, the rate of mortality during the quarter under notice was 18.5 per 1,000; in the remaining and chiefly rural population of about ten and a half millions, the rate was 17.2 per 1,000. The urban rate was 1.4, and the rural rate 0.7, per 1,000 below the mean rates in the second quarters of the preceding ten years. Among thirty-three of the largest English towns the death-rate averaged 19.5 per 1,000; in London the rate was 18.9, while in the thirty-two provincial towns it averaged 19.9 per 1,000, and ranged from 13.1 in Croydon, 14.0 in Brighton, and 14.6 in Portsmouth to 22.7 in Oldham, 23.7 in Liverpool, and 24.6 in Manchester.

The 131,991 deaths registered in England and Wales during the three months ending June last included 4,183 which resulted from measles, 3,552 from whooping cough, 1,670 from diarrhœa, 1,315 from diphtheria, 1,223 from scarlet fever, 787 from "fever" (including typhus, typhoid, and simple continued fever), and 99 from small-pox; in all, 12,829 deaths were referred to these principal zymotic diseases, equal to an annual rate of 1.8 per 1000, against an average rate of 1.9 in the preceding ten corresponding quarters. The mortality from measles and diphtheria showed an excess, while that from each of the other principal zymotic diseases was below the average. Of the 99 fatal cases of small-pox, 29 occurred in Dewsbury, 24 in London, and 4 in Liverpool.

The rate of infant mortality, or the proportion of deaths under 1 year of age to registered births, was equal to 148 per 1,000, and very slightly exceeded the mean proportion in the corresponding quarters of the preceding ten years. In London the rate of infant mortality was 128 per 1,000 while it averaged 145 in the thirty-two provincial towns, among which it ranged from 89 in Brighton, 103 in Croydon, and 110 in Cardiff, to 182 in Leicester, 185 in Huddersfield, and 191 in Burnley.

The mean temperature of the air during the quarter at the Royal Observatory, Greenwich, was 53.4°, and was 1.1° above the average; it showed an excess in March and April, but was slightly below the average in June. The rainfall amounted to 5.4 inches, and was nearly half an inch below the average.

PROPOSED FEVER HOSPITAL AT TOTTENHAM.

THE Local Government Board, after refusing more than a year ago to sanction the acquirement by the Asylums Board of a site for a new fever hospital at Tottenham without giving any reason for so doing, excepting that some people objected to the position, are now making inquiry by Dr. Bridges and Mr. Hedley, concerning the fresh application of the managers for leave to purchase the land. We have no wish to prejudge the result of this inquiry but shall be glad if it turns out that the site, which is 850 ft. by 800 ft. and comprises an area of 15 acres, is as well adapted for the purpose as was alleged when sanction was originally asked for confirmation of the provisional contract for the purchase. It was stated to be in all respects suitable for the erection of a hospital, being ample in area, of a convenient shape, and readily accessible by main thoroughfares from those districts of the metropolis which the proposed hospital is intended to serve. It is, moreover, only about a quarter of a mile from St. Ann's station on the Tottenham and Hampstead Junction Railway, Midland Company. Referring to the objections urged against the site by owners and occupiers of adjoining property the managers averred that they were "only such as might be urged against any site in any district." If property is diminished in value by the erection of a hospital, that fact furnishes good ground for making compensation. But given a good site in a district needing such accommodation the requirements of public health should be the first and paramount consideration, as we trust they will be on the present occasion.

FEES FOR MIDWIFERY ON OVERSEER'S ORDER.

V. L. J. writes: A district medical officer receives an overseer's order to attend a midwifery case and does so. The guardians at a subsequent meeting relieve the patient but refer the medical officer to the overseer for his fee. Can the guardians refuse to pay, and if the medical officer has to sue, is he to sue the guardians or the overseer?

*** The case is not fully stated. Our correspondent does not say whether the order was given on an emergency or not; but if he decides to sue, we should recommend him to sue the overseer.

MEDICAL FEES FOR WORKHOUSE INQUESTS.

R. W. W. writes to ask where he can procure a copy of Mr. Poland's opinion as to the right of workhouse medical officers to fees at coroners' inquests?

*** We believe that if our correspondent were to address a polite note to the Clerk of the London County Council he would supply him with a copy of the opinion, or the substance of it; or he might, perhaps, obtain the information he requires from any one of the coroners whose jurisdiction is within that of the London County Council.

TYPHOID FEVER AND THE NOTIFICATION ACT.

We have received two further communications in reference to the annotation under the above heading in the British Medical Journal of July 23rd. The only new point raised is that of disinfection in cases of typhoid. Is it enough that "disinfection of the motions has been carried on throughout the disease," or is the medical officer of health justified in requiring the disinfection of "the sick room and its contents" at the end of the case? Speaking without knowledge of the special circumstances, and upon general grounds only, we should say that disinfection of clothing (and perhaps of other articles in the room) is quite necessary, but it is not usually considered essential to fumigate the room.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 5,782 births and 3,395 deaths were registered during the week ending Saturday, August 6th. The annual rate of mortality in these towns, which had declined from 17·9 to 17·3 per 1,000 in the preceding three weeks, rose again to 17·4 during the month under notice. The rates in the several towns ranged from 9·4 in Wolverhampton, 10·0 in Gateshead, 10·8 in Croydon, and 10·9 in Burnley to 21·1 in Birkenhead, 21·4 in Cardiff, 23·9 in Sunderland, and 25·3 in Liverpool. In the thirty-two provincial towns the mean death-rate was 17·5 per 1,000, and slightly exceeded the rate recorded in London, which was 17·2 per 1,000. The 3,395 deaths registered during the week under notice in the thirty-three towns included 623 which were referred to the principal zymotic diseases, against 625 and 585 in the preceding two weeks; of these, 300 resulted from diarrhœa, 126 from measles, 61 from scarlet fever, 57 from diphtheria, 54 from whooping-cough, 25 from "fever" (principally enteric), and not one from small-pox. These 623 deaths were equal to an annual rate of 3·2 per 1,000; in London the zymotic death-rate was equal to 3·5, while it averaged 3·0 per 1,000 in the thirty-two provincial towns, among which the lowest rates were recorded in Halifax, Brighton, Croydon, and Newcastle-upon Tyne, and the highest rates in Liverpool, Sheffield, Sunderland, Birkenhead and West Ham. Measles caused the highest proportional fatality in Bristol, Salford, West Ham, Oldham, and Sunderland; scarlet fever in Swansea, and Plymouth; whooping-cough in Preston, Burnley, and Birkenhead; "fever" in Sunderland; and diarrhœa in Derby, Bolton, Sheffield, Portsmouth, Leicester, West Ham, Liverpool, and Cardiff. The 57 deaths from diphtheria recorded during the week under notice in the thirty three towns included 42 in London, 3 in Birmingham, and 2 each in West Ham, Preston, and Sheffield. No death from small-pox was registered in any of the thirty-three towns; 7 small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 4 in the Highgate Small-pox Hospital, on Saturday last, August 6th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, and in the London Fever Hospital on the same date was 2,995, against numbers increasing from 1,228 to 2,864 on the preceding nineteen Saturdays; 346 new cases were admitted during the week, against 382 in each of the preceding two weeks. The 143 deaths from diseases of the respiratory organs in London were equal to an annual rate of 1·8 per 1,000, and were 47 below the average.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, August 6th, 886 births and 514 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18·4 and 17·5 per 1,000 in the preceding two weeks, rose again to 18·5 during the week under notice, and was 1·1 per 1,000 above the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 14·0 in Greenock and 16·3 in Edinburgh, and the highest rates were 18·9 in Perth and 19·9 in Glasgow. The 514 deaths in these towns included 83 which were referred to the principal zymotic diseases, equal to an annual death-rate of 3·0 per 1,000, which was slightly below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Glasgow and Aberdeen. The 256 deaths in Glasgow included 16 from measles, 16 from diarrhœa, 5 from scarlet fever, and 3 from diphtheria. Two fatal cases of diphtheria were recorded in Leith. The death-rate from diseases of the respiratory organs in these towns was equal to 2·8 per 1,000, against 1·8 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, July 30th, were equal to an annual rate of 23·6 per 1,000. The lowest rates were recorded in Kilkenny and Londonderry, and the highest rates in Galway and Dundalk. The death rate from the principal zymotic diseases averaged 2·2 per 1,000. The 190 deaths registered in Dublin were equal to an annual rate of 28·3 per 1,000 (against 24·2 and 19·8 in the preceding two weeks), the rate during the same period being 17·5 in London and 16·3 in Edinburgh. The 190 deaths registered in Dublin included 13 which were referred to the principal zymotic diseases (equal to an annual rate of 1·9 per 1,000), of which 8 resulted from measles, from diarrhœa, 1 from whooping-cough, and 1 from simple fever.

MEDICAL NEWS.

A death from tropic malarial fever has occurred in Berlin.

Mr. M. W. Milton, Secretary of the Metropolitan Drinking Fountain and Cattle Trough Association, writes that, owing to the continued spread of glanders and the possibility of the constant use of the drinking troughs for horses and cattle of that association being in any way conducive thereto, the committee have reluctantly decided to close all their troughs in the metropolitan district for a period of two months, by which time it is hoped the epidemic may have been stamped out.

Cæsar Hawkins.—So little biographical material relating to Cæsar Hawkins is available that the following extract from the *London Evening Post* for July 28-30th, 1737, may be of interest: "We hear that Cæsar Hawkins, Esq., Surgeon to his Royal Highness the Prince of Wales, and to the 1st Troop of Grenadier Guards, is soon to be marry'd to a daughter of Ambrose Dickens, Esq., Serjeant-Surgeon to his Majesty." Hawkins did not marry Miss Dickens, but took for his wife Sarah, daughter of Mr. John Coxe. On the death of Ambrose Dickens, Cæsar Hawkins succeeded to the office of Serjeant-Surgeon.

Death from Hydrophobia.—Mr. A. C. Lyne Glubb, county coroner, held an inquiry recently at Saltash, with respect to the death of a boy aged 13, which took place on August 1st, from the effect of a bite received on July 6th. This is the second death from hydrophobia due to bites by the same dog, a Chinese chow-chow, recently brought home by a passenger in the troopship *Himalaya*. The dog was shot immediately after the occurrence. Dr. R. T. Meadows, medical officer of health, who attended the lad, stated that when the first death took place he wrote to the Chairman of the Sanitary Committee of the Town Council, and a muzzling order was issued on July 26th.

Dr. Robert Jones, Medical Superintendent of Earlswood Asylum, and formerly Assistant Medical Officer at Colney Hatch, has been the recipient of a testimonial, consisting of a spirit stand and claret jug, presented by the officers and staff "as a token of their admiration of his brave act in saving the life of a little child at the risk of his own." As mentioned in a previous issue, Dr. Jones sucked the obstructed tube in a case of tracheotomy for diphtheria which was under his care. The father of the rescued patient, who is employed at the asylum, in making the presentation, gratefully expressed the general feeling of the subscribers when he declared that the act was worthy of the Victoria Cross.

The Seamy Side of San Francisco.—Dr. Stallard, physician to the San Francisco Polyclinic, has published a lecture in which he attacks vigorously the sanitary administration of that city. Parenthetically he refers to the hospital as being little better than a barn, and to the nursing and dietary in equally uncomplimentary terms. Californian statistics appear to be rather uncertain quantities, but Dr. Stallard has satisfied himself that the death-rate of San Francisco, and especially the mortality from diphtheria and typhoid fever, is unduly high. The cause he finds in the multiplication of enormous sewers of deposit, ill constructed, often flat or even ascending, and imperfectly flushed. The remedies advocated are better municipal government, smaller sewers on the separate system, and regular automatic flushing.

MEDICAL VACANCIES.

The following vacancies are announced:

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House Physician for six months commencing October 1st. Applications with testimonials to be sent to the Secretary at the Office, 24, Finsbury Circus, E.C., by September 8th.

COUNTY ASYLUM, Lancaster.—Assistant Medical Officer. Salary, £100. Applications with testimonials to Medical Superintendent.

DEVONSHIRE HOSPITAL, Buxton.—House-Surgeon. Salary, £100 per annum, with furnished apartments, board, and washing. Applications with recent testimonials to Mr. Joseph Taylor, Secretary, not later than August 20th.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon. Appointment for six months. Residence, board, and washing provided. Applications to the House-Governor by August 27th.

HINTON DISTRICT, Sturminster Union.—Medical Officer and Public Vaccinator. Salary, £40 per annum, with fees. Applications, with testimonials, stating age, to be sent to Mr. B. Cheesman, Clerk, by August 20th.

INISHOWEN UNION (MOVILLE DISPENSARY).—Medical Officer. Salary, £120 per annum and fees. Applications to Mr. John Bradley, Honorary Secretary. Election on August 30th.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Must be registered medical practitioner and unmarried. Salary, £90 first year, with board, rising to £100 second year. Applications, accompanied by testimonials, to be sent to the Secretary, by August 27th.

KENT COUNTY LUNATIC ASYLUM, Barming Heath.—Senior Assistant Medical Officer. Salary, £250 per annum, increasing two annual instalments of £25 each to £300. Fully qualified. Applications to Mr. Francis R. Howlett, 9, King Street, Maidstone, by August 24th.

KENT COUNTY LUNATIC ASYLUM, Barming Heath.—Second Assistant Medical Officer. Salary, £180. Applications to Mr. Francis R. Howlett, 9, King Street, Maidstone, by August 24th.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon, at the end of this month, for six months. Board and lodging provided in lieu of salary. Applications, with testimonials, to be sent to C. W. Parver, Honorary Secretary, by August 16th.

LONDON COUNTY COUNCIL.—Assistant Medical Officer of Health, not less than 26 or more than 40 years of age. Salary, £300 per annum, rising by annual increments of £50 until it reaches £600 a year. Applications on forms to be had at the office of the Council to H. De La Hooke, Clerk to the Council, Spring Gardens, S.W., by September 10th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—House-Surgeon for six months. Salary, at rate of 50 guineas per annum. Applications and testimonials to Mr. E. Wilson Taylor, Secretary, not later than August 25th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Junior House-Surgeon for six months. No salary, but an honorarium of 5 guineas will be given on satisfactory completion of term. Applications and testimonials to Mr. E. Wilson Taylor, Secretary, not later than August 25th.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT.—Honorary Assistant Medical Officer; doubly qualified. Applications, with testimonials, to Secretary, C. W. Hunt, by August 20th.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer, doubly qualified, unmarried, and not less than 25 years of age. Salary, £150 per annum, with board and residence. Applications to the Chairman of the Board by August 20th.

NOTTINGHAM BOROUGH ASYLUM.—Second Assistant Medical Officer; unmarried. Salary, £100 per annum, with apartments, board, and washing. Applications with testimonials to Medical Superintendent by August 30th.

SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds.—House-Surgeon. Salary, £100 per annum. Applications, stating age and qualifications, with testimonials, to Secretary, by August 22nd.

THORNBURY UNION.—Medical Officer for the Almondsbury District; doubly qualified, and must reside in the district. Salary, £70 per annum, with extra fees. Applications to Thos. Harvey, Clerk to the Guardians, Thornbury, by August 25th.

WREXHAM INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £80 per annum, with furnished room, board, coal, and attendance. Applications, on forms to be obtained of the Secretary, to George Whitehouse, Secretary, 27, Regent Street, Wrexham, by August 17th.

MEDICAL APPOINTMENTS.

BAILEY, J. Harold, M.B., Ch.B.Vict., appointed House-Surgeon to the Wirrall Children's Hospital, Birkenhead, *vice* J. D. C. Allen, M.B., C.M.

BELL, W. K., L.R.C.P.Lond., M.R.C.S.Eng., appointed, Medical Officer for the Shaldon District of the Newton Abbott Union.

BLAKEMAN, Charles J., M.R.C.S., L.R.C.P.Lond., appointed Resident Medical Officer to the City Hospital South, Grafton Street, Liverpool.

BOYD, James D., M.B., C.M., L.F.P.S.Glas., L.R.C.P.Edin., appointed Public Vaccinator, Bendigo, Victoria, Australia.

BOYD, James Paton, M.B., C.M.Glas., appointed Assistant-Physician to the Glasgow Royal Infirmary.

BRASE, Mr. A., appointed Medical Officer for the First District of the Exeter Union.

BROWNING, George, M.R.C.S.Eng., L.S.A., reappointed District Medical Officer of the Wortley Union.

BRYAN, Frederick, M.B., M.R.C.S., L.S.A., appointed Senior Assistant Medical Officer to the London County Asylum, Colney Hatch, *vice* W. H. George, deceased.

BULMAN, F., M.B., appointed Medical Officer of the Workhouse of the Newport Union, Mon.

BURLAND, H., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Finedon Sanitary District of the Wellingborough Union.

BURNETT, John R., M.B., C.M.Edin., M.R.C.S., L.R.C.P., appointed House Surgeon to the East London Hospital for Children.

CHARLES, W. H., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer to several Collieries in the Swansea Valley.

CORNER, F., M.R.C.S., L.R.C.P.Lond., appointed Medical Superintendent at the temporary Infirmary at Plaistow of the Parish of Kensington.

CRAIG, J. W., M.B., C.M., appointed Clinical Assistant to Fife and Kinross District Asylum, Cupar.

CURWEN, Eliot, M.B., B.C.Camb., M.R.C.S., L.R.C.P., appointed House-Surgeon to the London Hospital, *vice* Dr. G. H. Sequira.

DOWLING, N., L.R.C.P.Lond., M.R.C.S., appointed Health Officer for the Borough of Portland, Victoria, Australia.

FIGGIS, S. Bradley, M.B., C.M.Edin., appointed House-Surgeon to Deaconesses' Hospital, Tottenham, *vice* Olaf Kioster, M.B., C.M.Edin., resigned.

FLINN, J. J., L.R.C.P.Edin., M.R.C.S., appointed Medical Officer for the Belmont Road Workhouse of the West Derby Union.

FOSBROKE, G. H., M.R.C.S.Eng., L.S.A., D.P.H.Camb., appointed Medical Officer for the Pershore Union.

GRATTE, C. B., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Marshfield Sanitary District of the Newport (Mon.) Union.

HEARNDEN, W. C., M.R.C.S., appointed Medical Officer for the Headley Sanitary District of the Epsom Union.

HECTOR, E. B., M.B., C.M.Edin., appointed Medical and Vaccination Officer for Drighlington, Tong, and East Bierley.

HEWAT, Matthew, M.B., C.M.Edin., appointed Medical Officer of Health for Mowbray, Cape Colony.

HIRST, S. C., M.D.St.And., M.R.C.S., reappointed Medical and Vaccination Officer for Thornbury and Tyersel.

HOWES, H. A., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glas., appointed Medical Officer for the Hemingsby Sanitary District of the Horncastle Union.

JESSOP, John Wm., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Workhouse and the Horncastle Medical Relief District of the Horncastle Union.

LONGBOTTOM, William, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Brightside District.

MCLENNAN, Donald U., M.D.Edin., appointed Medical Officer for the North Widnes District of the Prescot Union.

MALCOLMSON, J. A., M.D., M.Ch.Irel., appointed Medical Officer for the Middlesbrough Sanitary District of the Middlesbrough Union.

MILLAR, A. Pollock, M.D., Q.U.I., M.Ch., appointed Medical Officer of Health to the Nelson Corporation.

NUNES, Herbert Fitz Stephen, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A.Lond., appointed House-Surgeon to the Lying-in Institution and Hospital for Women, Brighton, *vice* S. F. Mathews, resigned.

OSMOND, Edward B., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the No 1 District of the Pontefract Union.

PATON, Robert John, M.B., C.M., L.R.C.P., L.R.C.S Edin., appointed Medical Officer of the St. Wollos District of the Newport Union, Mon.

PERKINS, H. A., M.D.Edin., M.R.C.S., appointed Honorary Medical Officer to the Totnes Cottage Hospital.

PHILLIPS, D. W., M.R.C.S., appointed Medical Officer for the Second Sanitary District of the Winslow Union.

POGSON, W., F.R.C.S.Eng., reappointed Medical Officer of Health to the Leeds Rural Sanitary Authority.

PROSSER, Frank, M.B., C.M.Glas., appointed Medical Officer of Health to the Rainford Local Board.

SIMMONS, Harold, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., appointed Assistant Medical to the Fulham Infirmary, Hammersmith, *vice* Dr. A. Scott, resigned.

SKINNER, David S., M.D Brux., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Willesden Local Board.

SMITH, Ernest N., jun., appointed Assistant Medical Officer at the Infirmary of the Fulham Union.

SMITH, K. R., M.D.Lond., B.Sc., M.R.C.S., appointed Honorary Medical Officer to the Totnes Cottage Hospital.

SNADDEN, James, M.B., C.M.Edin., reappointed Medical Officer for the No. 1 and No. 4 Districts of the Wortley Union.

SPOWART, Thomas, L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer for the Second District of the Wortley Union.

SUGDEN, H. C., M.R.C.S., L.R.C.P.Lond., L.S.A., appointed Senior House-Surgeon to the Bury Dispensary Hospital, Bury.

VICKERS, C. W., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Paignton Sanitary District of the Totnes Union.

WALKER, Philip C., M.A., M.B., B.Ch., B.A.O.Dub., appointed Resident Medical Officer to the City Hospital, Parkhill, Liverpool.

WALL, Dr., appointed Medical Officer for the No. 3 District of the Pontefract Union.

WICKHAM, O. A., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Third Sanitary District of the Parish of St. Mary, Islington.

WILLIAMS, E. R., M.R.C.S., L.R.C.P.Lond., appointed Surgeon to Her Majesty's Prison, Carmarthen, *vice* W. L. Hughes, resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

BEACH.—On July 30th, at Darenth Asylum, Dartford, the wife of Fletcher Beach, M.B., F.R.C.P., of a son.

BROWNING.—On June 25th, at Hao Meng Fong Hospital, Ningpo, Mid-China, the wife of F. W. Browning, of a son.

MARRIAGES.

MORISON—MORISON.—On August 3rd, at the Parish Church, Broadhempston, by the Rev. F. T. Chamberlain, Vicar of the parish, Fred. Hughes Morison, M.B., C.M.Edin., D.P.H., of West Hartlepool, to Lizzie, second daughter of Captain Morison, of Elm Park, Broadhempston.

MUSPRATT—KNOX.—On August 3rd, at the Church of the Ascension, Balham Hill, by the Rev. Hubert Curtis, Charles Drummond Muspratt, M.D., F.R.C.S., of Bournemouth, son of Henry Muspratt, late Bengal Civil Service, to Mabel, daughter of Ralph Henry Knox, C.B., of Trouville Road, Clapham Park, Accountant-General of the Army.

THOMAS—SPENCE.—On July 27th, at Huntly, N.B., by the Rev. Dr. Semple, W. Thelwall Thomas, F.R.C.S., of 75, Rodney Street, Liverpool, to Anabel Roxburgh, youngest daughter of A. Spence, Esq., of Huntly.

DEATHS.

MACFARLANE.—On August 3rd, at Stonegreen Hall, Great Missenden, Alexander William Macfarlane, M.D., F.R.C.P.Edin., of 6, Manchester Square, W., aged 46.

SOUTTER.—At his residence, 8, Cumberland Terrace, Finsbury Park, London, N., Mansfield Collier Soutter, M.R.C.S.Eng., A.K.C.Lond., in his 49th year.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

Central London Ophthalmic. *Operation Days.*—Daily, 2.

Charing Cross. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operation Days.*—W. Th. F., 3.

Chelsea Hospital for Women. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. Th., 2.30.

East London Hospital for Children. *Operation Day.*—F., 2.

Great Northern Central. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, Tu. Th. 2.30; Ear, M. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

Guy's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

Hospital for Women, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

King's College. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—Tu. F. S., 2.

London. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

London Temperance Hospital. *Hours of Attendance.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

Metropolitan. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

Middlesex. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

National Orthopædic. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Days.*—W., 10.

North-West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, Tu., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

Royal Free. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

Royal Orthopædic. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

Royal Westminster Ophthalmic. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

St. Bartholomew's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

St. George's. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

St. Mark's. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, W., 8.45; females, Th., 8.45. *Operation Day.*—Tu., 2.

St. Mary's. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

St. Peter's. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 2.30 and 5, Th., 2, F. (Women and Children), 2, S., 3.30. *Operation Day.*—W., 2.

St. Thomas's. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), Tu., 4, F., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

Throat, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

University College. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th., 1.30; S., 2.

West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

Westminster. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., F. Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted, will be found under their respective headings.*

QUERIES.

A Father's Bitter Cry.

Country Doctor writes: I have a son who, having spent some years at one of the London hospitals, has failed repeatedly to satisfy his examiners: I have therefore decided to send him abroad. The question comes, Where, and how? which is the likeliest Colony for him to succeed in, and to whom can I apply for information? Any advice or assistance in the shape of suggestions would be gratefully received.

ANSWERS.

Dr. J. Anderson.—Newsholme's *Vital Statistics* (Sonnenschein).

Scalpel.—Such a course as our correspondent mentions would, in our opinion, be wholly contrary to his express moral as well as legal obligations.

Books for Public Health Examination.

D.P.H. had better master thoroughly one of the smaller handbooks (Whitelegge's, Louis Parkes's, or Wilson's), including sanitary legislation, and supplement his reading, as far as time permits, by studying Parkes's *Manual*, Galton's *Healthy Dwellings*, Klein's *Micro-organisms and Disease*, and Wynter Blyth's *Manual*.

NOTES, LETTERS, Etc.

An Appeal.

We venture to appeal to the readers of the British Medical Journal on behalf of the widow of a medical man in bad health and in very straitened circumstances from causes over which she had no control. Any contributions sent to us will be thankfully acknowledged, and further particulars of the case given if required.—Charles G. Skinner, M.D., Harpurhey, Manchester; W. E. Husband, M.R.C.S.Eng., L.R.C.P. Lond., 56, Bury New Road, Manchester; Arthur E. Durham, 82, Brook Street, London, W.

Hotel Charges.

Dr. R. W. Carter (Weymouth) writes with reference to Dr. Kerr's note on hotel charges: I was with many others a victim to these heavy charges at the late meeting at Nottingham. The hotel at which I stayed was advertised in the British Medical Journal at 5s. bed and attendance, and I secured accommodation there a week in advance. After I had settled myself in the hotel I was informed that the charges would be 12s. a day, which I had to pay with the best grace I could, and the landlady kindly volunteered the statement that she could get a guinea a day if she liked. I think such arbitrary ways are likely to deter members from attending these meetings, and make the published tariffs in the British Medical Journal unreliable.

Morbus Anglicus.

Dr. G. Gumpert (Manchester) writes: In reading the Address in Surgery delivered by Dr. Hingston at the recent meeting of the British Medical Association, I find that the learned professor is labouring under a mistake which I should like to correct. "Rickets," Dr. Hingston says, "the Germans still love to call, yet they cannot say why, the Englische Krankheit." The reason why the disease in question is called Morbus Anglicus or Englische Krankheit is by no means unknown to the German medical man, nor is it far to seek, considering that the disease first became generally known through Glisson's immortal work, *Tractatus de Rachitide sive Morbo Puerili, qui the Rickets Dicitur*, the probably first edition of which appeared in 1650. Dr. Glisson says in this treatise that the disease had made its appearance thirty years previously in Dorsetshire and Somersetshire, spreading afterwards to other parts of England. I, however, very much doubt if very many medical men, who take no special interest in etymology, can explain why "the English disease" is called rickets or rachitis.

THE PATHOLOGY OF MEMORY.

ADJUA writes: On reading Dr. James Cuming's address at the annual meeting of the British Medical Association at Nottingham, I noted that he advances the theory held by Herbert Spencer that the quickening of the circulation in the brain causes a rush of unusually vivid ideas and makes the memory more distinct than usual. This theory at once called to my mind a story, which I have often heard my father relate, of the time when he served as an army doctor on the West Coast of Africa some thirty years ago. He was ordered to a station named McCarthy's Island on the river Gambia, about 200 miles inland. The only white men in the place were Captain K — and a doctor, whose name I forget, the rest of the small population being composed of the black inhabitants and a body of native soldiers. The favourite—indeed, his only—amusement by which he whiled away the hours in this world-forgotten spot was reading. Towards the end of the first few weeks he was interesting himself very much in Allison's *History of Europe*, and while studying it was struck down with a remittent fever. During the period of his illness he was nursed by Captain K. and the doctor mentioned some little way back. The attack was a very severe one; when he was fairly convalescent Captain K. told him that one night, when the delirium was at its height, he heard him make an extraordinarily powerful and eloquent speech of some considerable length in a perfectly clear and connected manner. On hearing this my father asked him if he would recognise it on hearing it again; he said certainly, as it had made a great impression on him. Among some books on a table at the bedside was Allison's *History of Europe*, which my father took up, and opening it began to read the chapter on which he was occupied when the fever overtook him. Captain K. and the doctor at once recognised it, and stated that as far as their memories would serve them not one single word of the many pages which the speech occupied was omitted during its repetition by my father in his delirium. I thought this fact might possibly be of some interest, as it bears so directly upon the remark made by Dr. Cuming.

THE PROFESSION AND THE POLICE COURTS.

M. B. A. writes: It not infrequently happens that in the police and criminal court intelligence published in the daily papers prisoners are described as "physician," "surgeon," "medical man," whose in nine cases out of ten their names are unknown to the *Medical Register*. Surely it is, or if not should be, one of the plainest duties of the General Medical Council to protect the fair fame of our profession from these unjust aspersions. When a person charged with any misdemeanour before the court is incorrectly reported to be a solicitor, it is usual for a prompt denial from the Incorporated Law Society to appear in the papers containing the report. Societies instituted for the protection of other professions (for example, accountants, architects, etc.) are quick to protect the honour of their members; only the Medical Council seems careless to guard the honour of the profession it represents. I believe it is an exceedingly rare occurrence for a true charge to be brought against a legally qualified medical man, but I, personally, have not once seen a disclaimer from the General Medical Council when charges have been reported against persons calling themselves members of the medical profession, but whose names do not appear on the *Register*. The General Medical Council should see that each court possesses a current number of the *Register*. If this is so, at present the false descriptions of which I complain are the less excusable, and should be promptly contradicted through the press by the Secretary of the General Medical Council. The good name of the profession should be too precious to allow it to go by default, as it too frequently does in these cases.

NATURAL VERSUS ARTIFICIAL MINERAL WATERS.

A. S. G. writes: Analyses of mineral waters do not always account for their medicinal properties, in degree if not in kind. Chemists assure us that this or that water has been found to contain certain ingredients in certain proportions; nevertheless the addition of these salts to water does not give more than a coarse resemblance to the natural product, and from a therapeutical point of view the difference is often even more striking. Even if one takes the dried salts yielded by the waters on evaporation, the same difference is perceptible, and neither chemists nor physicists are able to explain in what the discrepancy consists and how it may be overcome. Sir Henry Thompson was one of the first to call attention to the discrepancy in therapeutical effects observed between natural and artificial mineral waters. In his work on *Diseases of the Urinary Organs* he insists upon the fact that the quantity of sodium and magnesium salts contained in an average dose of a purgative water, such, for example, as Hunyádi Janos, administered in any combination from a druggist's drawer, would have little appreciable action. The patient, he observes, might perhaps be made to feel uncomfortable, but there would rarely be any noticeable action of the bowels. Further on, he confirms what has been said about the inefficacy of the dried salts. "If you evaporate a quantity of Friedrichshall or Hunyádi Janos water in a warm bath, so as to avoid decomposition of the salt and retain the water of crystallisation, thus obtaining as perfect a product as a chemist can produce, and administer three times as much of this salt as that which exists in a dose of the natural water, you will probably not produce such efficient or certain results as the small quantity contained in the natural water ensures." It is evident, therefore, that there is something which distinguishes the action of natural mineral waters from the action of salts which are made by pharmaceutical processes. These facts are interesting, because there is a great temptation to endeavour to improve on nature, and there is a tendency to assume that chemistry has said its last word in this respect. We know what are the component principles of opium, and can isolate them for therapeutical purposes; but if mixed in the proper proportions, the sum total would not correspond by any means to the natural product. Even in so simple a matter as a lemon squash, one made with citric acid and essence of lemon is easily distinguishable from that made with the natural juice of the fruit. It does not, of course, follow that the pharmaceutical blend will not often answer the purpose fully as well as the original water; indeed, from a therapeutical point of view, the value of this or that mineral water is no doubt liable to be overstated for commercial reasons, but the effects are not identical, and in a numerous class of cases the difference may be of great importance.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Mr. Samuel W. Abbott, Boston; D. W. Aitken, M.B., Edinburgh; Dr. James Allan, Leeds; Another Member of the B. M. Association. (B) Mr. J. B. Bailey, London; Mr. H. C. Bourne, London; Dr. E. Berdoe, London; Dr. R. Barnes, North Berwick; Mr. G. F. Blake, Dublin; J. H. Bailey, M.B., Manchester; Surgeon-Major W. F. Bennet, Bandon; Messrs. W. H. Bailey and Son, London; Mr. T. H. Bickerton, Liverpool; Dr. T. J. Burroughs, Crondall. (C) Mr. W. N. Clemmey, Bootle; Mr. Edward Cotterell, London; Dr. M. Cameron, Glasgow; Cave; Dr. R. W. Carter, Weymouth; Country Doctor. (D) Mr. Q. R. Darling, Hereford; Mr. James Dixon, Dorking; Dr. H. T. Dawson, Williamstown; A Disgusted Sexagenarian. (E) Dr. J. Edmunds, London; Dr. C. R. Earley, Ridgway, Pa.; Sister Elsie, London. (F) Mr. W. Adams Frost, London; Dr. R. Farquharson, London; Surgeon-General Faught, Aldershot; Dr. Hingston Fox, London. (G) Mr. J. K. Gooday, Birmingham; Dr. E. Goodall, Wakefield; Mr. C. H. Graham, Wolverhampton. Dr. E. Gumpert, Manchester; General Hospital, House-Governor of the, Birmingham; Dr. J. Griffiths, Cambridge. (H) Mr. A. Hawkins-Ambler, Liverpool; Mr. Nelson Hardy, London; Dr. J. Haddon, Canonbie, N.B.; Dr. W. W. Hardwicke, East Molesey; E. V. Hugo, M.B., London; Mr. M. M. Hewat, Mowbray; Mr. Timothy Holmes, London; Mr. Victor Horsley, London; Hospital for Women, Assistant Secretary of the, Brighton: Dr. G. Halket, Glasgow; Dr. G. Hewitt, London; Surgeon-Major H. Hale, Nantwich; Brigade-Surgeon S. Hodder, Grouville; Mr. Hagen, London. (I) Dr. C. R. Illingworth, Accrington. (J) Mr. R. S. Jaques, Felling-on-Tyne; Mr. B. P. Jackson, Kensington; Dr. D. James, Bradford. (K) James King, M.B., Bedford Leigh; Dr. Keeley, London; Dr. G. C. Kingsbury, Blackpool; Mr. S. Kiffard, Newmarket. (L) J. Lloyd, M.B., Birmingham; Mr. H. Lowenfeld, London; Mr. J. Lawrence-Hamilton, Brighton; C. H. Lovely, M.B., Dawlish. (M) Mr. A. W. McMichael, Birmingham; Dr. T. Marsden, Bridgwater; Dr. J. W. Moore, Dublin; Mr. P. Monti, London; Mr. G. Mellin, London; Mr. J. H. McGee, Melbourne; Dr. T. W. Maccall, Southport; Surgeon Maitland, Ootacamund; Dr. A. T. Myers, London; John M. Miller, M.B., Largs; Dr. J. McFadyean, Leith; J. W. MacMuir, M.B., Sheffield. (N) Messrs. F. Newbery and Sons, London; Messrs. Newton Chambers and Co., Sheffield; Mr. B. Nowel, London. (O) Dr. R. J. O'Brien, London; Dr. Isambard Owen, London; Mr. A. T. O'Reilly, Sydney, N S.W. (P) Messrs. Park, Davis, and Co., London; Mr. J. Penberthy, London; Dr. G. W. Potter, London; Pilgrim; Dr. P. K. Picard, London; Dr. H. H. Phillips, Reading. (R) Mr. James Robertson, Edinburgh; Mr. W. Robinson, London; Dr. J. R. Reynolds, London. (S) Surgeon-Captain A.M S; Dr. Charles Skinner, Manchester; Mr. F. Stevenson, London; Mr. T. D. Spair, Bath; Mr. F. W. Sandworth, Haslemere; Mr. Priestley Smith, Tylingdales; P. W. Sullivan, M.B., Cork; Mr. T. A. Saunders, Grahamstown; Dr. H. P. Spencer, London; Scalpel; Mr. R. R. Sleman, Netley; Messrs. H. Smith and Gorringe, London; Mr. J. Gordon Smith, London; Spes; Dr. R. Savage, London; Mr. D. S. Skinner, Kilburn. (T) Mr. W. T. Thomas, Liverpool; Mr. A. H. Tubby, London; J. C. Thresh, M.B., Chelmsford; Dr. Tanford, Boston; T. E. A. (U) Mr. J. R. Upton, London. (V) Mr. H. H. Vignoles, Wakefield. (W) Dr. Whitelegge, Wakefield; Mr. G. O. Whittaker, Manchester; Mr. E. R. Williams, Carmarthen; Mr. H. Webster, Bradford; D. White, M.B., St. Leonards-on-Sea; Dr. W. Walter, Manchester; Dr. L. A. Weatherly, Bath; Mr. J. W. Wilkinson, London; Mr. J. J. Wells, London; Dr. J. Wigmore, Tiverton-on-Avon; Mr. G. C. Wilkin, London; Dr. Outterson Wood, London; etc.

BOOKS, ETC., RECEIVED.

Cancer of the Mouth, Tongue, and Œsophagus. By Frederic Bowreman Jessett, F.R.C.S.Eng. London: Ballière, Tindall, and Cox. 1892.

Surgical Treatment of Neuralgia. By William Rose, M.B., B.S Lond., F.R.C.S. London: Baillière, Tindall, and Cox. 1892. Price 4s. 6d.

Die Syphilis und die venerischen Krankheiten. Von Dr. Ernest Finger. Leipzig und Wien: Franz Deuticke. 1892.

Les Microbes Pathogènes. Par Ch. Bouchard. Paris: J. B. Baillière et Fils. 1892. 3f. 50c.

Ptomaines, Leucomaines, and Bacterial Proteids. By Victor Vaughan, Ph.D. Philadelphia: Lea Brothers and Co. 1891.

The Geographical Distribution of Disease in Great Britain. By Alfred Haviland. London: Swan Sonnenschein and Co. 1892.

Das Geschlechtsverhaltnis der Geburten in Preussen. Von Dr. C. Dusing Jena: Verlag von Gustav Fischer. 1890.

Ambulance Lectures. By Dr. G. H. Darwin. Manchester: J. E. Cornish.

Asiatic Cholera. By N. C. Macnamara. London: Macmillan and Co. 2s. 6d.

Anæsthetics. By Dudley Wilmot Buxton, M.D., B S. London: H. K. Lewis. Price 5s.

Transactions of the American Surgical Association. By J. Ewing Mears, M.D. Philadelphia: P. Blakiston, Son, and Co.

*** In forwarding books the publishers are requested to state the selling prices.

SIXTIETH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION
Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

PATHOLOGY.

Professor Victor Horsley, M.B., F.R.C.S., F.R.S., President.

OBSTRUCTIVE AND TOXÆMIC JAUNDICE.

The Pathology of Obstructive Jaundice.[1]

By VAUGHAN HARLEY, M.D.[2] (Grocer Research Scholar).—It has hitherto been a generally accepted pathological doctrine, that when bile is prevented from finding its way from the liver and gall-bladder into the intestines—no matter whether the obstruction in the common bile duct be due to a stricture, a biliary concretion, or a cancerous or other tumour—the pent-up bile finds its way out of the hepatic bile ducts and biliary appendages by osmosis, is taken up by the blood capillaries and transported through the intermediary of the hepatic veins into the general circulation, from thence to be again eliminated through the instrumentality of other blood capillaries—chiefly by those of the kidney—producing what is called bilious urine. At the same time a certain amount of the bile pigment, leaving the blood capillaries, impregnates the solid tissues of the body, particularly the skin, and giving to it the yellow tint designated jaundice. That is to say, the blood capillaries have been regarded down to the present time as the channels, both of ingress and egress of the bile, into and out of the general circulation.

While working, in 1891, in the Physiological Institute of Leipzig, Professor Ludwig called my attention to a paper by Dr. Küffrath, entitled, "On the Absence of Bile Acid from the Blood after Ligature of both the Common Bile and Thoracic Ducts."[3] In this paper were related four experiments made on dogs, in two of which not only was no bile acid, but no bile pigment, present in the blood. As this observation suggested the idea that perhaps the occurrence of obstructive jaundice, after ligaturing the common bile duct, might be prevented by placing a ligature on the thoracic duct, from Küffrath, having only kept the animals he operated on alive for two and a-half hours, his not finding bile in the blood did not furnish the requisite evidence to enable us to decide whether the occurrence of jaundice after occlusion of the common bile duct could even so much as be retarded, far less totally prevented, by ligaturing the thoracic duct. For it is well known that the important element of time is required for jaundice to set in, and it takes about twenty-four hours in the human being for jaundice to become apparent after the common bile duct is obstructed, I thought it might be well not only to repeat Küffrath's experiments but to make others on a more extended scale, so as to ascertain if possible if the obstructive jaundice which occurs after ligaturing the common bile duct could be prevented by ligaturing the thoracic duct, and if so to attempt to find an explanation of such a strange phenomenon as the ligaturing of one duct counteracting the effects of the ligaturing of another having no known functional or anatomical connection with it. For the mere fact of bile having been found in the chyle[4] of the thoracic duct when the common bile duct is occluded could scarcely in this case be regarded as a fact of much importance, for under such circumstances bile is equally found in other fluids of the body.

It seemed to me all the more desirable to put Küffrath's observation to the test of more extended experiment, for from his having only kept the animals he operated on alive for 2½ hours there was just the possibility that they had scarcely had sufficient time to recover from the effects of the shock of such severe operations, and the shock itself might have so disarranged the biliary functions as to prevent the bile getting into the circulation.

The task I undertook was therefore twofold—1. To find out if the occlusion of the thoracic duct prevented the occurrence of obstructive jaundice. 2. If it did, to endeavour to discover the cause.

The following are the results of a series of experiments I undertook at the Leipzig Physiological Institute, with the kind and valuable assistance of its Director, Professor Ludwig.

As it would take up too much time and space to give full details of each experiment I shall only give a general outline of the way in which the inquiry was conducted and a tabular view of the results of the operations with a brief summary of the facts ascertained and the conclusions drawn from them.

A most important point in conducting an inquiry of this kind being naturally to try and keep the animals experimented on alive for a sufficient length of time after such a severe operation as the ligaturing of both the thoracic and common bile ducts to admit of reliable data being obtained, my first endeavour was to restrain, as far as possible, the activity of the dog's digestive functions while they were under the influence of the operations. This I found could most easily be done by giving them no food for from ten to seventy-two hours—most frequently from twenty-four to forty-eight—before they were operated on, and withholding it from them for from one to seven days after the operations were performed, according to their varying physical conditions. Those animals that suffered but little from the shock of the operations received food in small quantities at a time from the first twenty-four hours onwards.

When operating on the bile ducts, in order to avoid any deleterious results that might arise from the occurrence of any sudden backward bile pressure, on account of the abrupt stoppage of its normal flow into the intestines, before ligaturing the ducts a cannula was first inserted close to their entrance into the digestive canal, and as much bile as possible withdrawn from them and the gall bladder. Immediately after this was done the common bile duct was doubly ligatured, and the portion lying between the ligatures excised.

In operating on the thoracic ducts, I found that when they alone were ligatured the animals did not suffer much in health—indeed, sometimes not at all, if the precaution had been taken not only to keep them fasting for some hours before operating, but, after the ducts were ligatured, they were fed solely on an entirely fat-free diet. So markedly was this the case, that in most instances in which it was done the dogs not only rapidly recovered from the effects of the operation, but lived for weeks, and even months; and not only so, but actually gained in weight, in spite of their thoracic ducts being ligatured. More than this, even the additional ligaturing of the common bile ducts did not appear to be dangerous to life if the bile ducts were first occluded and the ligature not applied to the thoracic ducts till a few days afterwards.

The only essential precaution necessary was, apparently, in the feeding; for all went on well when the dogs were fed solely on a diet containing only small quantities of proteids, proteids being the kind of diet which forms most bile.

When the thoracic and bile ducts were ligatured at different times, it was frequently noticed that a few days afterwards the animals appeared drowsy, and slept more than was usual in such cases, though in all other respects they appeared well. On the other hand, when the thoracic and bile ducts were both ligatured at the same time, the animals frequently died within a few days after the operation, in consequence of rupture of the common bile duct, apparently from the too sudden over-distension of the duct by the bile, and its escape in quantity into the peritoneal cavity inducing fatal peritonitis. The rupture of the ducts appears to be due solely to the reduction of the retained bile by absorption into the blood being totally prevented, owing to the channel of communication between the bile-absorbing vessels and the general circu-

[1] This paper is an extension of one I left with Professor v. Frey, to communicate to the Congress für Innere Medicine, at Leipzig, during my absence in England. It contains all the most important results I have obtained in the inquiry up till now.

[2] From the Physiological Institute, Leipzig.

[3] *Du Bois-Reymond's Archiv. f. Physiol.*, 1880, p. 92.

[4] Tiedemann and Gmelin, in 1827, discovered that after ligature of the common bile duct lymph in the thoracic duct contained bile (*Die Verdauung nach Versuchen*, vol. 2, p. 40), while later Fleischl (*Arbeit. d. physiol. Anst. zu Leipzig*, 1875, p. 24) and Kunkel (*ibid*, 1876, p. 116) found lymph collected from thoracic fistulæ in the neck after ligature of the common bile duct, was rich both in bile pigment and bile acid, although none was detectable in the blood.

lation having been completely and suddenly cut off. This is borne out by the fact that in no instance did a rupture occur when the common bile ducts were alone ligatured; and still further by the fact that, notwithstanding the frequency with which the common bile duct is suddenly and completely occluded in the human being by an impacted gall stone, rupture of the ducts from over-distension with bile is a rare accident.

As all the animals in whose cases no untoward complications supervened after the operation soon regained perfect health, except that they seemed more thirsty and had better appetites than usual, and as some even gained in weight, I agree with Dr. Noël Paton[5] in thinking that if food be judiciously given, both as regards kind and quantity, the mere absence of bile from the digestive canal does not materially interfere with digestion and assimilation.

As it was necessary in this inquiry that the urine of the animals should be obtained in as pure a state as possible, each dog, after being operated upon, was kept separately in a place suitably arranged for collecting the urine.

All the urine was daily examined, not only for bile pigment and bile acid (dog's urine contains only taurocholic acid), but likewise for sugar and albumen; and although in no instance was sugar found, albumen was discovered in the urine of some of the cases immediately after the operation. Its presence, however, was apparently due to some merely temporary cause, as it usually disappeared in a day or two. Indican was sometimes present in the dog's urine; and whenever it was, in order to be perfectly certain that bile pigment was also present, I employed Huppert's test.

The bile pigment was precipitated after adding lime water to the urine, with a solution of ammonium carbonate as a compound of bilirubin and calcium. This was filtered, and the precipitate washed, and while still moist put into a test tube along with some alcohol, and heated to boiling. If bile pigment was present the liquid became of a green colour. The calcium precipitate was further tested for bile pigment with nitric acid. The bile acid was separated by Hoppe Seyler's method. The urine was precipitated with lead acetate and ammonia. The precipitate was washed with water, and then extracted with boiling alcohol. To the filtrate a few drops of solution of carbonate of sodium were added, and the whole evaporated. The dry residue was then extracted with absolute alcohol and filtered; to the filtrate an excess of ether was added, which precipitated the taurocholate of soda in amorphous form, or after standing some time in ice, in long needle-shaped crystals. The absolute alcohol extract was either directly tested, or the crystals separated and dissolved in water. The test was then completed according to Von Udránszky's method by treating with a weak solution of furfurol and H_2SO_4. The reaction of the colour test was further confirmed by spectroscopic examination. By following this method I found I was able to detect very small quantities of bile acid. So small, indeed, that they would otherwise have escaped notice in the bile-stained urine.

I will now give in a tabular form the results of my experiments.

TABLE I.—*Showing the result in nine cases after the bile and thoracic ducts had been ligatured at the same time. Arranged according to the duration of life** :—

No. of Experiment.	Lived.	Bile absent from the urine for	Cause of Death.
1	20 days	11 days	Killed.
5	18 ,,	17 ,,	Rupture of bile duct.
2	7 ,,	7 ,,	Peritonitis.
6	7 ,,	6 ,,	Rupture of bile duct.
20	6 ,,	4 ,,	Killed.
4	5 ,,	4 ,,	Rupture of bile duct.
3b	4 ,,	4 ,,	Rupture of bile duct.
3a	3 ,,	3 ,,	Peritonitis.
10	3 ,,	2 ,,	Rupture of bile duct.

* See my paper on the "Interference with Icterus in Occluded Ductus Choledochus." *Proceedings* of the Royal Society, vol. 51, p. 114.

Here it is seen that (contrary to what happens when the common bile duct only is ligatured), after both ducts were ligatured bile did not appear in the urine. In one of the cases, as is shown, the bile did not make its appearance in the urine for seventeen days after the ducts were ligatured, and then only on the day the bile duct ruptured. It will be observed that in another case the bile, after being absent from the urine for eleven days, made its appearance in it, just as if jaundice had supervened from the common bile duct having been alone ligatured.

As these results appeared very paradoxical, and yet there was no reason to doubt their exactitude, another method of experimenting was adopted, and, instead of ligaturing both ducts at the same time, obstructive jaundice was first established by ligaturing the common bile duct, and then, after from two to thirteen days, the thoracic duct was likewise ligatured in order to see if its closure in that case would check the jaundice.

In this series of experiments yet another change was made, inasmuch as the dogs were kept alive for from eleven to fifty-six days after the operations.

TABLE II.—*Showing the Results which followed in Eight Cases where the Thoracic Ducts were not Ligatured until after the intervention of Obstructive Jaundice, arranged according to the time allowed to elapse between the two operations.*

No. of Experiment.	Thoracic Duct ligatured after the Choledochus.	Urine contained Bile until	Urine free from Bile.	Killed.
7	On 13th day	26th day	—	27
14	,, 9th ,,	56th ,,	—	56
13	,, 7th ,,	23rd ,,	—	23
8	,, 6th ,,	14th ,,	From 15th to 18th day	18
9	,, 6th ,,	11th ,,	—	11
15	,, 5th ,,	6th ,,	From 6th to 13th day, returned on 14th day	31
17	,, 4th ,,	16th ,,	—	16
16	,, 2nd ,,	7th ,,	From 7th to 15th day	28

While in Table I it was noticed that, it spite of obstructive jaundice being well known to make its appearance within at least forty-eight hours after complete occlusion of the common bile duct, neither bile acid nor bile pigment appeared in the urine of the nine dogs in whom the thoracic duct was ligatured at the same time as the common bile duct—except in one with ruptured bile duct—within seventy-two hours. In Table II it is seen that in the eight dogs in which obstructive jaundice had been brought about by ligaturing the common bile duct, not only did the bile pigment disappear from the urine so soon as the thoracic duct was operated on, but also the bile acid which had appeared in the urine after the bile ducts were ligatured. Notwithstanding this, however, after a few days' interval both the bile acid and pigment reappeared in the urine, just as if the thoracic duct had never been ligatured at all. Here, then, was a double problem; for not only had the disappearance of the jaundice after the ligaturing of the thoracic duct to be accounted for, but also the reappearance of both bile acid and bile pigment in the urine, in spite of the thoracic duct still remaining ligatured.

Seeing that the ligaturing of the thoracic duct had in the first instance checked the jaundice-producing effects of the obstructed common bile duct, and yet after a time the ligatures on them ceased apparently to possess the power of preventing bile reaching the urine, I was led to suspect that some structural change or changes had occurred in the ducts themselves, which might in some way or other furnish a clue to these perplexing phenomena.

Therefore all the thoracic ducts were, after the death of the animals, not only critically examined from their commencement to their termination, but they were likewise injected not only with the view of discovering if any structural lesion had occurred in them, but in order to ascertain if by any chance any form of vicarious communication had been established which would permit of their contents gaining access to the general circulation.

The adoption of this plan was, fortunately, attended by the desired result, and even more, for it led to the solution of all the obscure, and at first sight incomprehensible, results met with in the inquiry. For it clearly showed that, contrary to the hitherto entertained pathological doctrine, the bile which stains the skin and discolours the urine in cases of obstructive jaundice is not absorbed into the general circulation by the blood capillaries at all, but solely by the lymphatic system of vessels; and that it does not reach the general circulation by the hepatic veins, but by the thoracic ducts. This was conclusively proved by the following facts:

1. In many cases the injected thoracic ducts showed that an anatomical communication had taken place below the poin

[5] Noël Paton, BRITISH MEDICAL JOURNAL, May 7th, 1892.

of ligature and the right innominate vein, through the instrumentality of greatly-enlarged pre-existing collateral lymphatic vessels, which, after traversing the lymphatic glands situated in the upper part of the mediastinum around the trachea, coalesced, and formed supplementary chyle ducts, which emptied into the right innominate vein, and vicariously performed the transporting functions of the thoracic duct.

2. In every case in which sufficient time was allowed to elapse after placing a ligature on the thoracic duct to permit of the development of the above-mentioned anastomatic system of collateral lymphatic vessels, in direct connection with the innominate vein; such a supplementary system was invariably found to be present.

3. It was particularly noticed that in every case where no such vicariously acting collateral system of lymphatics had developed after the thoracic duct had been ligatured, either at the same time as the common bile duct or after it, no bile substances were detectable in the urine. It is, therefore, evident that it is only the lymphatic system of vessels, and not the blood capillaries, that possess the power of absorbing bile, and transporting it into the general circulation, seeing that the blood capillaries during the whole time the above-mentioned changes were going on had been in no way interfered with.

4. That the blood capillaries should, in cases of obstructive jaundice, take no share in the absorption of the bile pent up in the hepatic bile ducts and biliary appendages, appears all the more extraordinary from the fact that they take such an active part in its elimination from the blood. This is seen in the elimination of the bile pigment and acid by the renal capillaries, and the staining of the skin yellow in cases of jaundice on account of the cutaneous capillaries excreting the bile pigment into the rete mucosum. These facts prove that the endothelium of the blood vessels only permits of the passage of biliary matters through it in one direction, and I think it not improbable that the same law that holds good in the case of biliary substances holds equally good for all other substances throughout the body, lymphatics alone absorbing them, and blood capillaries only eliminating them.

5. The fact that bile acid and bile pigment were found in the urine in cases in which the bile ducts had accidentally ruptured, in spite of there being no supplementary communication between the thoracic ducts and the general circulation, in no way militates against this view; for in the cases in which rupture of the bile ducts occurred, the bile escaped into the abdominal cavity, and from thence would be absorbed by the lymphatics of the diaphragm, and reach the general circulation without passing along the thoracic ducts at all.

As in cases of obstructive jaundice in man, important changes take place in the condition of the liver tissues as well as of the bile ducts and hepatic blood vessels. The livers of the dogs were examined after death both by the naked eye and microscope.

Not only were the bile ducts found to be so enlarged that many of them readily admitted the point of the forefinger, but the small, so-called, bile capillaries were so greatly increased in size that they were visible to the naked eye, even without the aid of injection. It was indeed fortunate that they did not require to be injected; for, strange to say, in spite of this enormous enlargement of the hepatic bile channels, all my endeavours to fill them with injection totally failed. It seems that other experimentors have met with the same difficulty. As more than one of them have stated, that although the bile ducts of rabbits (as I have found) can be injected readily, they never succeeded in injecting the bile ducts of dogs. This fact leads to the belief that in the bile ducts of dogs there exists some mechanism, such as may be as valves, which prevents the injection going the reverse way to the bile stream. Although I have searched for the cause, I have hitherto been unable to discover it.

As it is well known that in every case of obstructive jaundice in the human subject the liver becomes enlarged, in consequence of the backward pressure of the pent-up bile, while later on, if the pressure against its secreting structure be continued, it gradually contracts, and ultimately becomes atrophied, I examined fine sections of the tissues of the livers of some of the dogs microscopically. Some of the sections were made from pieces of the liver which had been merely hardened in a solution of bichromate of potash, others from portions of liver the blood vessels of which had been injected previous to having been hardened in the potash solution. In both cases the first thing that attracted attention was the unusually compressed and atrophied appearance of the hepatic cells. For not only did the cells look as if they had been squeezed together, but all their nuclei seemed to be much nearer to each other than they ought to be (Fig 1 *a*), just as is seen in cases of advanced nut-meg liver in the human subject, while the spaces between the cells, occupied by the

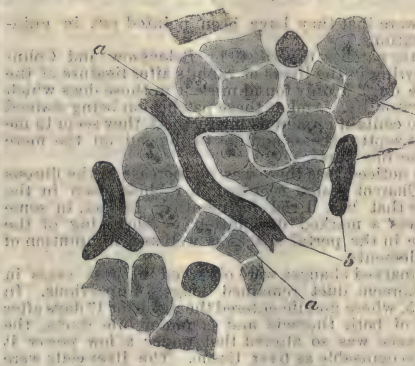


Fig. 1.—Section of the liver of a dog after the common bile and thoracic duct had been ligatured thirty-one days. Injected specimen. (*a*) Contracted liver cells, with nuclei, apparently nearer together than in normal. (*c*) A general widening of the spaces between groups of cells (perivascular spaces) in which lie the blood vessels. (*b*) Portal capillaries filled with injection.

portal capillaries appeared to be proportionally widened (Fig. 1 *c*). Moreover, it was distinctly seen in the injected specimens that the separation of the hepatic cells as well as their compressed appearance was not due to any enlargement of the blood vessels (Fig. 1 *b*) but to quite another cause. The injected vessels were seen not to press against the cells at all but to lie surrounded by a loose network of reticular fibres which in great part filled up the space between the hepatic cells, that is to say, the lymph spaces which normally surround the blood vessels These, in fact, were the perivascular lymphatics of MacGillavry[6] and Budge,[7] which had become enlarged by the backward pressure of the pent-up lymph. The effect of the backward pressure of the bile was seen in the small bile ducts in the interlobular spaces being so widened as to be in some cases as large as the corresponding portal veins. They, however, still contained their

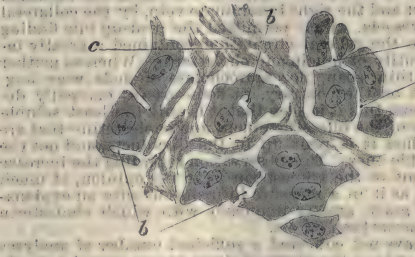


Fig. 2.—Section of dog's liver after both the common bile and the thoracic ducts had been ligatured for twenty days. Uninjected specimen. (*a*) Small bile ducts running among the liver cells. (*b*) Bile canaliculi originating in the hepatic cells. (*c*) Reticulated film in perivascular lymph spaces. The portal capillaries, from not being injected, are not visible.

columnar epithelium. From the bile capillaries were seen (Fig. 2 *a*) extending in between the liver cells numerous fine open spaces (bile canaliculi), some of which not only ran into

[6] MacGillavry, Zur Anatomie der Leber (*Wien. Akad. Sitzber.*, vol. 50, Abth. 2, 1865, p. 207).

Budge, Ueber die Lymphgefässe der Leber (*Berichte der K. Sächs. Gesell.*, 1875, p. 161),

the hepatic cells themselves but originated in blind extremities within them (Fig. 2 *b*). This origination of the bile canaliculi has already been pointed out by Pflüger and Kupffer in rabbit's and frog's livers by means of injection or Chrzousczewsky's natural injection with sulph-indigotate of sodium. They found that the intercellular bile canaliculi give off minute twigs, which penetrate the liver cells and there originate in vacuole-like enlargements exactly as in my cases.

I am not aware that they have been pointed out in uninjected preparations.

The necrotic patches described by Beloussow and Cohnheim as occurring in the livers of rabbits after ligature of the common bile duct[3] I only found present in those dogs which died from peritonitis. And as these patches on being stained were found to contain numerous micrococci, they seem to me to be due to a septic process and not to depend on the mere ligature of the bile ducts.

It was also noticed that there was no increase in the fibrous tissues, as Charcot stated occurred in rabbits, even in the cases of dogs that had lived for months. In fact, in some cases there was a marked diminution or shrinking of the fibrous tissue in the portal spaces as well as a diminution of its cellular elements.

The most marked changes were observed in those cases in which the thoracic duct remained longest impervious. In Experiment 5, where no bile entered the urine for 17 days after the ligature of both thoracic and common bile ducts, the liver appearance was so altered that under a low power it was hardly recognisable as liver tissue. The liver cells were separated from one another by large spaces; the cells, more granular than normal, frequently contained vacuoles as large as a nucleus, and in some the nucleus was absent. The portal spaces were greatly shrunk, and in none could the bile ducts be found. The spaces between the cells were here and there filled up with *débris*.

The bile collected from the gall-bladders before applying the ligature to the common bile duct was compared with the bile found in the animal's gall-bladders after death, as regards the relative proportions of mucin, fat, cholesterin, lecithin, soap, and taurocholate of soda they contained.

TABLE III.—*Containing the average of Bile collected from three Dogs' Gall-bladders:—*

	Before Ligature.	After Ligature.
Mucin	0.738 p.c.	1.890 p.c.
Fat	1.448 p.c.	1.309 p.c.
Lecithin	0.401 p.c.	0.372 p.c.
Cholesterin	0.034 p.c.	0.557 p.c.
Soap	3.231 p.c.	3.299 p.c.
Taurocholate of Na	12.689 p.c.	10.055 p.c.

The results show that specimens of bile taken from the gall-bladder after the death of the dogs, in which a vicarious communication had been established between the ligatured thoracic duct and the right innominate vein, by the collateral lymphatic vessels, which permitted the pent-up bile finding its way into the general circulation, contained a greatly increased quantity of mucin and cholesterin. Whereas neither the fat, lecithin, soap, nor taurocholate of soda were augmented, but on the contrary, in some cases, markedly decreased. From this it is seen that it is only the least soluble constituents of the bile—the mucin and cholesterin—that are increased when it is pent up in the bile ducts, and not the readily soluble ones. This observation regarding the increase in the amount of the cholesterin is, in my opinion, of much importance, as it in a measure furnishes us with an explanation of the much greater frequency with which cholesterin gall-stones occur than others.

As yet I have not collected a sufficient number of analyses of the bile, where the thoracic duct was so completely obstructed as to prevent bile appearing in the urine, to allow me to make any definite statements regarding all the changes occurring in it. The foregoing being the most important facts elicited in the inquiry, the following are the conclusions which, I think, may justifiably drawn from them:—

1. That, contrary to accepted pathological doctrine, the bile which is eliminated by the urine and deposited in the skin in cases of obstructive jaundice, does not find its way into the general circulation through being absorbed by the blood capillaries.

2. It is the lymphatic system of vessels alone which absorbs the biliary matters in obstructive jaundice, and it is through the instrumentality of the thoracic duct that they reach the general circulation.

3. After the thoracic duct has been ligatured for some days, supplementary ducts form by the coalescence of either entirely new or pre-existing small collateral lymphatics from the thoracic duct at a point below the seat of ligature, through which its lymph stream passes vicariously into the right innominate vein.

4. That after the common bile duct is ligatured the whole of the constituents of the pent-up bile do not become equally concentrated, the less soluble, such as cholesterin and mucin, being by far the most concentrated.

5. From the dogs experimented on having in many cases not only lived but even gained in weight after bile was prevented from finding its way into the duodenum, it may be inferred that the admission of bile into the digestive canal is not absolutely essential to life.

6. That ligaturing the thoracic duct not only prevents the occurrence of obstructive jaundice, after the occlusion of the common bile duct in dogs, but checks it even after it has set in.

[3] Beloussow, *Arch. f. exp. Pathol. u. Pharm.*, vol. 14, p. 200, 1881.

TOXÆMIC JAUNDICE.

By WILLIAM HUNTER M.D. Assistant Physician, London Fever Hospital.—I propose in this communication to direct attention to certain points in the pathology of those rarer forms of jaundice, which from being apparently unaccompanied by any obvious obstruction, are often termed non-obstructive, and being always preceded by changes in the blood, are frequently termed hæmatogenous. I have thought the term "toxæmic" as applied to this variety of jaundice in some respects preferable to either of the two above mentioned. It carries with it a clinical, as well as a pathological significance, and its use in this relation seems to me amply justified, because the entire features of this variety of jaundice can be so exactly reproduced by the action of certain poisons on the blood that there is, in my opinion, little room for doubt that a similar agency is at work in its production when met with in disease.

The term non-obstructive, so frequently applied to this form of jaundice, is in reality wrongly so applied, because, as will presently be seen, notwithstanding the absence of any very striking cause of obstruction, the jaundice is essentially obstructive in its nature.

The term hæmatogenous more fitly describes its nature, pointing as it does to some antecedent change in the blood as an important factor in its production. Certain objections attach, however, to its use. As first employed, this term, as applied to jaundice, had a significance of its own, and implied a certain theory as to the nature of the jaundice in such cases. It was used to indicate that the blood was the actual seat of formation of the bile pigments circulating in it. The question whether such a hæmatogenous formation of bile pigments could occur was at one time the subject of much discussion. I need not detain you now with the evidence adduced for or against such a view, for, in my opinion, the question is no longer a debateable one, having been answered conclusively in the negative by the recent experiments of Stern, and Minkowski and Naunyn. Taking advantage of a peculiarity in the blood supply to the liver in pigeons and geese, which allows the blood supply to the liver to be cut off without an immediately fatal result, these observers have shown that when the liver is cut off from the circulation the formation of bile pigment ceases.

A hæmatogenous jaundice, in the older sense in which it was formerly believed to exist, can therefore no longer be spoken of. A jaundice connected with and dependent upon preceding changes in the blood does, however, exist, and would be more correctly described by the term "hæmo-hepatogenous" applied to it by Afanassiew, or as I have ventured to suggest, for the reasons above stated, "toxæmic."

Before passing to the subject proper of this communication (namely, the mechanism by which the jaundice is caused in such cases), let me briefly recall what we already know of the mode of action of poisons in producing jaundice. For most of our information regarding this subject we are indebted to the careful observations of Stadelmann, supplemented by those of Afanassiew. In both cases their chief observation

were made with the drug toluylenediamin. It is not too much to say that the study of the action of this drug has contributed more to our knowledge of the nature of the more obscure varieties of jaundice of which I speak than all previous observations put together, and it is for this reason that its action deserves our particular attention.

The facts so far established by these observations relate to certain well-marked changes in the quantity and quality of the bile following the administration of this drug. Three stages can be recognised. 1. In the first, lasting from about the third to the eighth hour, the quantity of bile is considerably increased (it may be 1½ to 2 times its previous amount), and at the same time there is a notable increase in the quantity of bile pigments it contains. 2. In the second stage the flow of bile becomes gradually less, till finally it almost ceases altogether, and the bile itself becomes entirely changed in its character, becoming more and more viscid and the bile pigments less and less. This stage lasts a varying period of time, from the eighth to the thirty-sixth or forty-eighth hour, or even longer, and it is during it that the jaundice becomes more and more pronounced. When at its height, instead of dark-coloured bile we have nothing but a thick viscid, almost colourless, mucus escaping from the bile duct. 3. In the third stage the flow of bile is again gradually re-established, the bile becomes less viscid, and bile pigments again reappear in it in quantity.

One further circumstance remains to be noted, that at no period along with this increase in bile pigments is there any corresponding increase in the bile acids. On the contrary—and this is the remarkable point—the excretion of bile acids is not only relatively, but also absolutely, diminished throughout the whole period comprised within the action of the drug. This fact appears to me of particular interest when taken in connection with the clinical differences observed to exist between this variety of jaundice and that due to obvious obstruction. One of the chief differences, as is well known, is the absence of bile acids from the urine in the former as compared with its presence in the latter; and this absence was held to denote that in the former case the jaundice could be in no sense obstructive. There was a tacit assumption that along with a formation of bile pigments there must necessarily be a corresponding formation of bile acids, and that absorption of the one must always be attended by absorption of the other.

The point not recognised—and it is one to which I would now draw especial attention—is that there are certain conditions of the liver cells in which a largely-increased formation of bile pigments may be unaccompanied by any corresponding increase in the bile acids, or may even be attended by an absolute diminution in their amount. Such a condition is typically produced by the action of a poison like toluylenediamin. Notwithstanding the excessive degree of jaundice produced in dogs by this drug, and the presence of large quantities of bile pigment in the urine, bile acids are only to be found in the urine in small quantity, and even then they make their appearance somewhat later, and after twenty-four hours or more. As to the nature of the jaundice in such cases there can be no doubt that it is obstructive in its character. Not only are all the constituents of the bile to be found in the urine, although, as has just been stated, in somewhat altered proportions, but the distended condition of the smaller bile ducts with viscid inspissated bile is conclusive evidence on this point.

These, then, are the chief facts with regard to this variety of jaundice, established by the observations above referred to, and my own observations enable me to confirm their general accuracy.

It is clear from them that one of the chief factors in the production of the obstruction is the increased viscidity of the bile. Stadelmann considers that it is the only factor, and that this change in the character of the bile is in some way or other directly related to the action of the poison on the liver cells. It is certainly, according to him, in no way related to any catarrhal condition of duodenum or bile ducts, for no such condition, according to his observations, is to be found. Afanassiew, while attaching all due importance to this increased viscidity of the bile, is disposed to refer the obstruction, in part at least, to another factor, namely, compression exerted upon the small bile capillaries by a hyperæmic and an œdematous condition of the surrounding tissues.

Such a condition, along with a corresponding dilatation of blood vessels and lymphatics of the liver, he describes among the effects of poisoning with this drug; and he considers them to be due partly to a weakness of the heart observed in such cases, partly to a blocking up of capillaries with altered red corpuscles. His conclusions are based on actual measurements of the diameter of these various vessels in different conditions—in health, during starvation, after section of the nerves of the liver, and after acute and chronic poisoning with toluylenediamin.

With reference to these statements of Afanassiew, I would first remark that as to the sufficiency of these conditions—presuming them to exist—to produce an obstruction to the flow of bile such as we meet with in these cases, it is, in my opinion, permissible to have very reasonable doubt. Afanassiew himself admits that he could not find any compression of the interlobular bile ducts such as he assumes to exist. It is permissible even to doubt whether the changes he describes exist as factors at all in producing the jaundice. I have not myself found them to exist in any degree at all sufficient to bring about such a result. In particular, I have not found any obstruction of blood capillaries with remains of red corpuscles such as he describes. Moreover, I would point out that the method he adopted of measuring the vessels of the liver in different conditions appears to me to be an imperfect one, and conclusions drawn from data so obtained subject to great fallacies. That variations in the size of the vessels of the liver occur in different conditions is a fact familiar to all histologists; but it is difficult to understand how such a factor alone could cause compression of the bile ducts and produce jaundice when we remember to what a degree such a dilatation occurs in chronic venous congestion of the liver without any such obstruction.

I am disposed, then, for these reasons amongst others, to attach an altogether secondary importance to the condition of vessels and lymphatics of the liver described by Afanassiew as a factor in the production of the jaundice in these cases. The main factor, if not the only one, is undoubtedly the increased viscidity of the bile.

The only question that then remains is to what this increased viscidity is due. Stadelmann, as we have seen, considers it a primary one, unconnected with any change in the bile ducts, and referable to some peculiar action of the poison on the liver cells. My own observations come into direct conflict with those of Stadelmann on this point, and it is to this divergence in our results that I would here specially direct attention. As one of the constant changes accompanying the action of toluylenediamin in dogs—the animals in which this drug constantly produces jaundice—I find a well-marked congestion and catarrah extending from the bile ducts downwards to the duodenum. So obvious is this action of the drug that by giving larger doses of the drug I find it is possible to produce an intense hyperæmia and œdematous thickening of the duodenal mucous membrane, the most marked feature of which is, perhaps, its strict limitation upward. Its upward limit is more or less sharply defined by the line of the opening of the bile duct, and it is around this opening that it has its greatest intensity. Downwards it extends a considerable distance, usually involving, although in gradually lessening degree, the mucous membrane of the whole of the duodenum. The lumen of the duodenum is found filled with clear, thick, viscid inflammatory mucus, free from all bile pigment, and similar mucus is seen exuding from the opening of the bile duct.

I have already described and represented these appearances in a paper on the Pathology of Duodenitis, published in the *Transactions of the Pathological Society of London*, 1890. A catarrhal condition of the bile ducts of even a far lesser degree must lead to their obstruction with viscid mucus. The interesting feature of this catarrh, and the one to which I wish particularly to draw attention, is that it is produced from above downwards. It is not a catarrh extending upwards from the duodenum, the manner in which catarrh of the bile ducts is usually described as arising, but it is produced from above downwards, the duodenum being affected secondarily to the bile ducts. The substance or substances which have this irritant action are contained in the bile and are being excreted with the bile. In all my experiments the drug was administered subcutane-

ously, and the only channel by which it could reach the duodenum was through the bile. The mucous membrane of the stomach and even of the duodenum above the opening of the bile duct was as pale and normal as that below the opening of the bile duct was hyperæmic and inflamed.

In its lesser degrees the inflammatory catarrh in this way produced quickly passes off—in thirty-six, forty-eight, or seventy-two hours, according to its intensity. Animals killed, for example, five or six days after a small dose of toluylene-diamin may show no trace of this condition, that is, if the dose has been small and the jaundice has already disappeared in whole or in part. It is this circumstance that explains, in my opinion, how this condition of duodenum was missed by Stadelmann. On referring to his first paper, in which, as he says, he failed to find any trace of duodenal catarrh, I find that he did not kill his animals till ten or twelve days later—till, in fact, they had recovered from the jaundice.

It seems clear to me, then, as the result of the foregoing observations, that our conceptions both as to the mechanism and mode of causation of the jaundice arising from the action of poisons on the blood must be considerably modified. The importance of catarrh of the bile ducts in the production of jaundice has long been insisted on. In addition, however, to a catarrh of duodenum and bile ducts arising in the manner usually described, namely, affecting the duodenum first and the bile ducts only secondarily, the foregoing observations show that another, if not a more common, way in which such catarrh may arise is by the action of the bile and of certain irritants contained in the bile, the catarrh extending from above downwards, not, as has hitherto been supposed, from the duodenum upwards. I am disposed to go even further, and to conclude that a considerable number of cases that we comprise under the designation of "catarrhal jaundice," and regard as secondary to catarrh of the duodenum are probably produced in the way I have now described.

Dr. George Harley, after complimenting the President on his opening address, in which he said he had struck the key-note of pathology, observed that hitherto it had always been believed that when the gall ducts were obstructed the bile was absorbed by the capillaries of the blood vessels, carried into the general circulation, and eliminated again by the capillaries. Chemistry had shown, however, that the bile was not absorbed at all by the capillaries of the blood vessels, but by the lymphatics, and was carried through the thoracic duct into the general circulation. Another important point in this paper was that the animals lived and thrived and even gained weight after both the bile and thoracic ducts were ligatured. That showed that bile was not necessary for the purposes of nutrition.

Professor R. Boyce called attention to the fact that after ligature lasting over several months no change was observed in the tissues around the bile ducts, which observation tallies with those of Dr. Goodhart; whereas it appeared from the experiments of Charcot, Gombault, and others that considerable overgrowth of fibrous tissue occurred as the result of the blocking of the duct. As a matter of fact, in the experiments of the French observers, microbes were present in large quantities in the bile ducts on the tenth day, and it was consequently obvious that the hepatitis observed was microbic in origin. Dr. Harley's paper substantially proved this view.

THE PATHOLOGY OF AFFERENT IMPULSES IN THE SPINAL CORD.

Dr. Mott showed by the lantern a number of photographs of the spinal cords of monkeys on which hemisection had been performed. The unilateral distribution of the ascending degeneration and the absence of crossed anæsthesia were insisted upon. The ending of Gowers's ascending anterolateral tract in the vermis cerebelli was also shown.

Mr. C. D. Marshall, F.R.C.S., illustrated similarly his experiments on cats, in which hemisection of the cord also produced anæsthesia only on the side of the lesion. In reply to questions by Dr. Mott, Mr. Marshall said that so far as the anterolateral fibres in the cat were concerned, he had not traced them beyond the spinal cord, and had not followed them into the medulla oblongata at all. He had experimented on three monkeys, and had found in all of them exactly what Dr. Mott described. A weak clip put on the side of investigation was taken no notice of, but a clip put on the other side was taken off and thrown away. If the clip were strong enough to be distinctly painful, signs of discomfort were shown on either side, and if the animal could see it on the paralysed side it would take it off, but if it could not see the clip, though conscious of the sensation, it could not find its exact locality.

Professor Horsley remarked that the experiments he had made, with Professor Gotch, which had been referred to, were in exact accordance with the results described by Dr. Mott and Mr. Marshall, as regards the transference of the afferent impulses in the spinal cord.

ON METHODS OF ALTERING THE COAGULABILITY OF THE BLOOD.

Dr. A. E. Wright reviewed the conditions which must be satisfied before any plasma that was made the basis of chemical investigations in clotting experiments could be accepted as representing the normal living blood. Further he dealt with the question as to how far the participation of the leucocytes was capable of being estimated by ascertaining their numerical diminution in plasmata rendered incoagulable. Dr. Wright, in reply to an observation by Professor Boyce, to the effect that the oxalate was a fixing agent said that in his opinion the oxalate did not act as a fixing agent. In reply to Dr. Mott, who asked whether the white blood corpuscles do not remain behind in the tissues, Dr. Wright replied that there were chemical reasons for thinking that they did not, as a substance was found in peptone plasma which Dr. Harding had said to be identical with the substance found in white blood corpuscles.

Professor Horsley said that Dr. Wooldridge long ago pointed out that the leucocytes, while apparently disappearing from the circulating blood, as a matter of fact were aggregated into clumps.

PHARMACOLOGY & THERAPEUTICS.

J. O. Brookhouse, M.D., President.

ON THE VALUE OF A NEW COCA BASE: BENZOYL, Ψ TROPEÏN (TROPACOCAINE)[1], AS A LOCAL ANÆSTHETIC.

By ARTHUR P. CHADBOURNE, M.D.,
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A new alkaloid has recently been isolated by Giesel[2] from the leaves of a "Small-leaved Coca-plant" of Java; and its chemical constitution and properties have been thoroughly studied by Liebermann,[3] who proved that the substance was benzoyl-pseudo-tropeïn, and succeeded in separating the pseudo-tropeïn, and then from it made benzoyl-pseudo-tropeïn synthetically.

Pseudo-tropeïn from the Java coca is considered by Liebermann to be chemically identical with the pseudo-tropeïn from *Hyoscyamus niger*; and it therefore belongs to the atropin series (tropeïn group of Ladenburg). The accompanying table shows the close chemical relationship between atropine and cocaine; but though the former can be artificially made from the latter, one step in the reverse process is, I believe, as yet only theoretical, and a dotted line therefore connects tropidine with anhydro-ecgonin.

From the presence of benzoyl-pseudo-tropeïn in a species of coca-plant, it might be expected to resemble cocaine in physiological action; but, on the other hand, its chemical constitution points to a physiological action not unlike that of atropin. Actual experiment has shown that benzoyl-pseudo-tropeïn is a powerful local anæsthetic, resembling, but not identical in local action with cocaine. In the eye it causes neither the ischœmia characteristic of the *true anæsthetics* (cocaine), nor the marked irritation and hyperæmia of the group of substances called by Liebreich *Anæsthetica dolorosa*; but is physiologically a connecting link between the two classes.

[1] The compound word Tropa-cocaine is so suggestive of the peculiar relationship which exists between this new coca-base and the alkaloids atropine and cocaine, that the name *Tropeïn*, which was used at the meeting of the British Medical Association at Nottingham, has been discarded in the present paper.

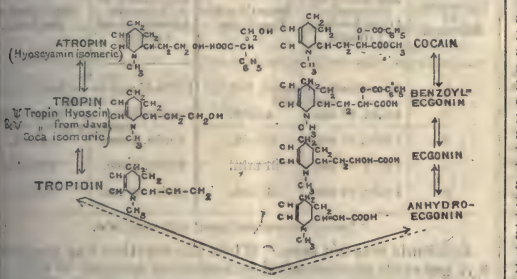
[2] *Pharmazeut. Zeitung*, xxxvi, July 4th, 1891.

[3] *Bericht. deutsch. Chem. Gesellsch.*, xxiv., 1891, pp. 2336-2345; *ibid.* xxv., 1892, pp. 927-939.

The synthetical hydrochlorate of the base, if dissolved in physiological salt solution, seldom causes even temporary smarting or hyperæmia; but the preparation made directly from the leaves is more irritating, probably because of slight impurities. The alkaloid is almost insoluble in water, and the synthetical hydrochlorate of benzoyl-pseudo-tropeïn has been used in all experiments on which the present paper is based.

The chemical name of the alkaloid (benzoyl-pseudo-tropeïn) seems unsuited for medical purposes, and tropacocaine has been substituted for it in the following pages.

The substance was most kindly given to me by Prof. Oscar



Liebreich, who received it from Prof. C. Liebermann, and the greater part of the material came direct from the laboratory of the latter. I am also indebted to Dr. F. Giesel, of the Braunschweig Chinin Fabrik, for a smaller amount, which proved identical with the Liebermann preparation. "Benzoyl-pseudo-tropeïn," bought of Zimmer and Co., was much more toxic and irritating than the above proparations; but after purification this difference disappeared.

The necessary details of the experimental methods will be published later. All were controlled by exactly similar experiments with cocain hydrochlorate (Merck), which was always first tested for purity with potassium permanganate.

Physiological and Toxic Action of Tropacocaine on Animals.

The experimental work was done in the Pharmacological Institute of the University at Berlin, and it gives me much pleasure to acknowledge my indebtedness to Professor Liebreich and also to Dr. Langgaard for their great kindness and disinterested assistance.

Cold-Blooded Animals ("Spring Frogs").

General Action.—All of the toxic symptoms are seldom seen in typical clearness in a single frog, but they usually overlap and obscure each other to a greater or less degree. Some individual variation in the degree of susceptibility to tropacocaine is also seen, but it is much less than with cocaine. The following table of doses is based on twenty-seven experiments, each having a cocaine control:

	Tropacocaine.	Cocaine Hydrochlorate (Merck).
Apparently inactive	Less than 0.001	Less than 0.0005
Recovery within 6 hours ...	0.001 to 0.003	0.0005 to 0.001
Recovery within 24 hours ...	0.005 to 0.01	0.001 to 0.005
Recovery later than 24 hours	0.01 to 0.02	0.005 to 0.01 (occasionally 0.005 fatal.)
Fatal	0.02 and over	0.01 and over (10 times fatal, once probable recovery.)

When the toxic symptoms develop slowly, as is best seen after repeated small doses, there is first an *excited stage* with increased activity and voluntary co-ordinated movement, followed by a *period of depression*, during which movement grows less frequent, but is at first co-ordinated and voluntary, though later inco-ordinated and uncertain. The *convulsions* sometimes begin before voluntary movement has ceased, and are first seen in the posterior legs. They may be clonic, clono-tonic, or pure tonic—named in order of onset and degree of severity. During the convulsions respiration is infrequent and irregular, and the general cutaneous reflex is increased. *Coma* is always present if the dose has been large enough, and the cutaneous reflex is gradually lost, but lasts much longer than with cocaine. Recovery may be complete after coma has lasted two or three days, perhaps longer. Generally the stupor passes off gradually, but sometimes all the stages are seen in inverse order, though of shorter duration.

Action on the Nervous System.—In general, the central nervous system is first stimulated and then depressed, beginning anteriorly and gradually extending posterad. The *cerebral* stimulation and depression, also the symptoms from the *cerebellum* and *medulla* have been already mentioned. The *convulsions* seem to be independent of any action on the spinal cord; for after section anterad the medulla, they remained unchanged; while after section of the cord posterad the medulla, no convulsions were present, and none could be produced by artificial stimulation; also after mid-spinal section, the convulsions were always typical anterior, but absent posterior to the cut. The *spinal cord* is at first stimulated, later depressed, and with large doses paralysed. The paresis is usually well marked before the convulsions have entirely ceased. Local paralysis of the *sensory nerve endings* near the point of injection appears early, but the general action on the peripheral portions of the sensory nervous system is probably a stimulation, followed by more or less depression before paralysis of the spinal cord prevents its detection. Moderate paresis of the *motor nerve endings* and slight paresis of the *motor nerve trunks* is also present.

Local Action on the Skin.—Local cutaneous anæsthesia is complete in less than a minute after the injection of a 1 per cent. solution, and usually lasts until paresis of the spinal cord is well marked.

Local Action on the Eye.—Complete anæsthesia is generally seen in from half a minute to a minute after the application of a 1 per cent. solution. Complete anæsthesia seldom disappears in less than a quarter of an hour, and usually lasts much longer. No symptoms of irritation were detected.

Action on the Heart and Circulation.—No acceleration of heart rate was noted in the frog, but a steady decrease in rate and increasing distension of the venous system and auricle with very dark blood. The ventricle seems to empty itself completely almost or quite to the time of heart stillstand, and for some time afterwards if stimulated externally.

Action on the Voluntary Muscle.—The voluntary muscle of the frog is probably unaffected by tropacocaine during life. Muscle nerve preparations show slight loss of activity, but only when strong solutions have been used. Cocaine seemed to have no effect on the muscle substance.

A Comparison of the Action of Tropacocaine and Cocaine on the Frog shows that the difference between the two substances is chiefly a quantitative one: (1) Cocaine is at least twice as poisonous as tropacocaine; (2) local anæsthesia is produced more quickly, and probably with a less concentrated solution of tropacocaine than of cocaine; (3) the severity of the toxic action of tropacocaine corresponds much more closely with the dose than in the case of cocaine, and therefore unexpectedly severe poisoning is less frequent; (4) recovery is quicker after tropacocaine; (5) hyperæmia, ischæmia, and symptoms of irritation are apparently absent, the same being also true of the cocaine controls, in which no ischæmia was detected.

Warm-blooded Animals (Rabbits).

General Action.—There seems to be very little variation in the severity of the toxic action of a given dose of tropacocaine in different rabbits, and the doses can therefore be more accurately determined than for frogs.

As already said, rabbits vary but little in the degree of susceptibility to tropacocaine, and the severity of the toxic action corresponds closely with the dose. There is, however, a marked individual variation in the kind of symptoms produced, and any one of several distinct series may be present. It will be found, however, that the action on the cerebrum, cerebellum, medulla oblongata, or spinal cord, when considered as a whole, does not vary, and the individual variation must therefore be in the relative susceptibility of the different elements (perhaps centra would be a better word) which make

up these great divisions of the central nervous system. In the rabbit, therefore, individual variation in susceptibility is of kind rather than of degree; while after cocaine, and to a less degree after tropacocaine, frogs show individual variation

	Tropacocaine.	Cocaine.
Inactive dose*	Less than 0.06	Less than 0.03 (in two instances 0.045 given apparently without effect).
Toxic but not fatal; convulsions present in all	0.08 to 0.4 (twice recovery from 0.5)	0.05 to 0.15 (once recovery, five times death from 0.2).
Fatal	More than 0.5	More than 0.2.

* Per kilo of rabbit's weight; based only on experiments in which a single subcutaneous injection was given and the animal then left free; 29 experiments, each with a cocaine control.

in the degree and not in the kind of susceptibility. This distinction is not without a practical bearing, for variation in degree of susceptibility is often dangerous, as is shown by the unexpected toxic cases from small doses of cocaine in medical practice, while variation in the kind of susceptibility might be confusing, but would be less likely to lead to serious results.

After repeated small subcutaneous doses there is first a period of cerebral stimulation, in some cases shown by activity and exaltation, in others by fear and attempts to hide. A quiet interval follows, with less and less frequent but voluntary and co-ordinated movements. Incoordination and extreme difficulty in maintaining the equilibrium are next seen, and soon give place to the convulsive stage. After moderate doses the convulsions are most severe and last longest. After large doses the convulsive stage is comparatively short, and coma with failure of the respiration and death develop quickly. As the respiration grows less and asphyxia increases, there is much salivation and accumulation of secretion in the air passages, especially in the trachea, and to a less degree in the lungs, as can be seen *post mortem*. Coma with diminution in the cutaneous reflex gradually replaces the convulsions, and death follows from failure of the respiration, the heart beating for some time after respiration has completely stopped.

Recovery is usually by a gradual passing off of the stupor, though rarely the preceding stages are seen in inverse order but of shorter duration.

Action on the Nervous System.—With rabbits as with frogs the different parts of the central nervous system, beginning with the most anterior and gradually extending posterad, seem to be first stimulated and later depressed; death occurs, however, before the paralytic action has become as great as in frogs. The stimulation of the cerebrum, followed by depression; and the inco-ordination of movement, followed by loss of equilibrium, from the action on the cerebellum and medulla oblongata, have been already described. During the comatose stage the general stimulation of the cutaneous reflex passes into depression. The convulsions cease after division of the cord below the medulla, and show no tendency to return even if the animal is left quiet until recovery, nor can they be produced by artificial stimulation. With cocaine also no convulsive element was present, nor could it be produced artificially.

Local Cutaneous Action.—Comparing the results of over thirty experiments with a like number of cocaine control experiments, it seems that (1) tropacocaine causes complete local anæsthesia of the skin more quickly than cocaine; (2) the local anæsthesia lasts on the average longer than cocaine; (3) the extent of the anæsthesia is possibly greater with tropacocaine; (4) a $\frac{1}{2}$ per cent. tropacocaine solution causes in most cases marked diminution in cutaneous reflex near the point of injection, but with a similar cocaine solution this is slight or absent. In one instance, however, a 1 per cent. cocaine solution seemed to act more quickly and powerfully than a similar solution of tropacocaine. In seven experiments with the same solution the reverse occurred.

These results show that tropacocaine acts more quickly on the rabbit's cornea than cocaine, and that both cause complete anæsthesia. From the average of the experiments it seems that a weaker solution of tropacocaine than of cocaine will produce complete anæsthesia, but this is less certain when the experiments, and not the average, are compared.

Mydriasis was occasionally present, but was less constant than with cocaine.

Local Action on the Eye: Average of Experiments in which One Eye was used for Tropacocaine and the Other for Cocaine.

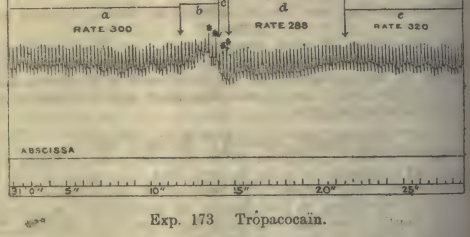
	Tropacocaine.		Cocaine.	
Percentage of Solution.	Beginning of Complete Anæsthesia of Cornea.	Duration of the Same.	Beginning of Complete Anæsthesia of Cornea.	Duration of the Same.
$\frac{1}{2}$	Anæsthesia present, but incomplete.		Little if any anæsthesia in most cases.	
1	2 min. 30 sec.	4 min.	Incomplete in most cases, perhaps in all.	
2	1 min. 40 sec.	20 min.	2 min. 3 sec.*	14 min.
4	1 min. 30 sec.	21 min.	2 min. 3 sec.	13 min.
5	1 min. 30 sec.	35 min.	4 min. 40 sec.	13 min.

* Data of one experiment not complete.

Ischæmia was not seen. When the solution was made with a $\frac{6}{10}$ per cent. physiological salt solution instead of with distilled water there was seldom any congestion. With distilled water the hyperæmia usually disappeared within a minute, and no other sign of irritation was noted, unless a few winks just after the solution was put into the eye can be so called.

Action on the Heart and Circulation.—In a rabbit that is normal, except for the necessary connection between the carotid artery and recording apparatus, repeated small doses of tropacocaine at first increase the pulse-rate, but there is usually no considerable temporary rise in blood pressure, like that usually seen after cocaine. Almost at the same time the

FIG. I.



Exp. 173 Tropacocain.

Carotid pulse (tonogram) of rabbit during violent convulsion.

x: 31 minutes after *subcutaneous* injection of Tropacocain 0.08 pro kilo of animal's weight.

a: Before beginning of convulsion.

b: Rigor and twitching; at * and * springing movements.

c: Violent springing motions * *

d: Rigid; respiration hardly visible.

e: Convulsion ended.

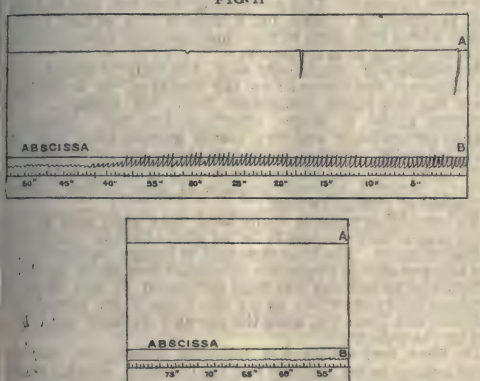
(Curve from left to right.)

recoil elements of the pulse excursions grow more accentuated, and stand at a lower level, thus showing a diminished tonus of the peripheral vessels; and a very slight but steady fall in the primary blood-pressure curve begins. A little later secondary curves appear, which are synchronous with the respiration, and show that the central vasomotor function has not been lost.

Fig. 1 is a typical curve during a violent convulsion. The tremor and twitching cause the first rise in pressure (*b*), this is increased by the springs, which are shown on the tracing by the higher pulse excursions; the pressure then falls (*c*), though the higher pulse excursions still occur with the springing movements. As rigidity begins the tension again rises (*d*), but the respiratory curves are slight or absent during the tonic stage of the convulsion (*d*). The pulse-rate is somewhat, but not very greatly, increased during the convulsions.

Quite a rapid fall in tension and pulse-rate precedes the maximum of toxic action, and, though the pulse excursions are at first high, they later become smaller, and, after respiration stops the curve is exactly like one during asphyxia, the heart beating for some seconds after all respiratory movement has ceased (Fig. 2).

FIG. II



Exp. 40. Tropacocaïn.

(A) *Respiration*, and (B) *carotid pulse* (tonogram) of rabbit.

x 30½ minutes after *subcutaneous* injection of Tropacocaïn 0.04, in 5 aqueous solution.

Post Mortem: Electric stimulation caused good cardiac contraction 30 minutes 25 seconds later than point marked *

(Curve from right to left.)

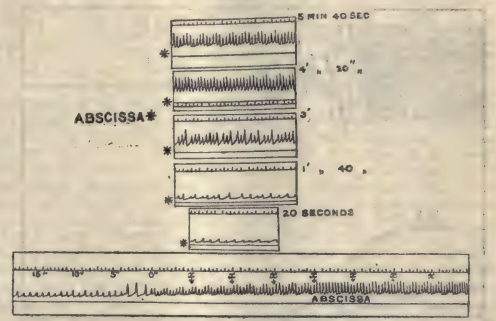
When artificial respiration is used, and apnœa carefully voided, the convulsions are less severe, and the pulse tracing more regular. Recovery also follows a larger dose. The venous condition of the blood, therefore, in part accounts for the convulsions. Under these circumstances, death is probably always from cardiac paralysis (Fig. 5).

Curare, in doses not large enough to affect the circulation, excludes the influence of the muscular and respiratory elements in the tracing, and the pulse curve is almost regular. After section of the spinal cord below the medulla oblongata the tracings correspond almost exactly with those obtained after curare has been used, due allowance being, of course, made for the fall in pressure after section of the cord. The direct and indirect action on the voluntary muscles and respiration is therefore the chief cause of the irregularities seen in pulse-tracings. When the toxic action on the circulation is *limited to the direct influence on the heart and vessels*[1] there is a moderate increase, followed by decrease, in pulse-rate, and a very gradual but steady fall in blood pressure. Almost until death pressure on the abdominal aorta proves that the action of the heart muscle is comparatively strong.

[1] Both the vagi and the accelerator nerves of the heart cut, the cardiac vagus endings paralysed with atropine, and the spinal cord cut below the medulla oblongata.

Intravenous injection (jugular) more or less completely paralyses the motor ganglia in the heart, and quickly lowers the tonus of the peripheral vessels. If injected rapidly there may be almost instant heart still-stand (Fig 5), but if more slowly there is slowing in pulse-rate with fall in blood pressure (Fig. 4); and the symptoms of the general action

FIG III.



Exp. 142. Tropacocaïn.

Carotid pulse (tonogram) of rabbit.

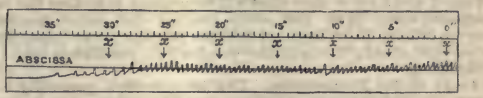
Vagi and accelerator nerves cut, cardiac endings of vagus paralized with atropin, and section of spinal cord below the medulla oblongata made before curve begun. Artificial respiration.

x x x x x x x *Intravenous* injection (jugular) of Tropacocaïn 0.001, in 5 aqueous solution. Total pro kilo of animal's weight 0.0065.

(Curve from right to left.)

develop later. The amount of cardiac depression depends on the concentration and length of time that the drug is in direct contact with the inner surface of the heart. Half an hour to an hour after heart still-stand direct electric stimulation of the outer wall generally gives strong cardiac contraction, and if no clot has formed in the interval good excursions will be seen on the tracing. Cocaine curves after intravenous injection are similar, and the comparative toxic action of the two drugs will be at once evident from Figs 3 and 4.

FIG IV



Exp. 141. Cocaïn control of Exp. 142.

Carotid pulse (tonogram) of rabbit.

Vagi and accelerator nerves cut, cardiac endings of vagus paralized with atropin, and spinal cord divided below the medulla oblongata, before pulse curve was commenced. Artificial respiration.

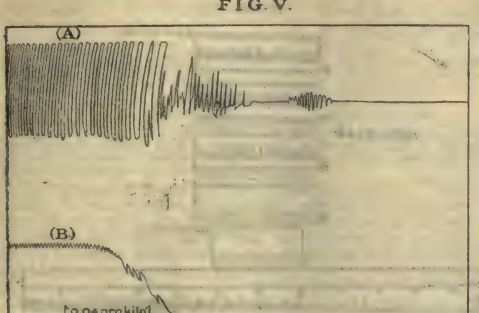
x x x x x x x *Intravenous* injection (jugular) of Cocaïn muriat. (Merck.) 0.001, in 5 aqueous solution. Total pro kilo of animal's weight 0,006.

(Curve from right to left.)

Action on the Vagi and Sympathetic Nerves of the Heart.—As is to be expected when rabbits alone are used, the results are conflicting. In most instances the vagus seems to be at first more easily stimulated than normal, and this continues nearly or quite until death; sometimes, however, there is apparently a diminution in transmitting power, followed by

a return to the normal; and in a few cases there seems to be a period of complete paralysis. The practical point, however, is that after section of both vagi, and also when the endings have been paralysed with atropine, no appreciable change in the pulse curve can be detected. After section of both cardiac sympathetics the pulse curves were not altered.

FIG. V.



Exp. 185. Tropacocain.

(A) *Respiration*, and (B) *carotid pulse* of rabbit—(tonogram) *Intravenous* injection (jugular) of Tropacocain 0.04, in 5 aqueous solution.

Three slight gasps 5½ seconds after *

Post Mortem: Electric stimulation caused good cardiac contraction 5 minutes after *; 15 minutes after * no contraction visible.

(Curve from left to right.)

Action on the Respiration.—After repeated small subcutaneous injections the respiration is at first somewhat more rapid and irregular; during the convulsions extremely irregular and very shallow, and, as coma develops, it becomes slow and superficial, with occasional deep gasps. After large subcutaneous doses there is rapid slowing, then the breathing suddenly becomes extremely rapid and shallow, then slow again, and after a few deep gasps ceases. With intravenous injection the action on the respiration is subordinate to that on the heart; after the general symptoms appear, it is as after subcutaneous injection.

Figs. 2 and 5 show that after subcutaneous injection the respiration stops first, the heart beating for some seconds longer; while, when injected into the jugular, there is quickly heart still-stand, though the respiration continues until a little later.

Action on the Temperature.—The temperature generally begins to rise before the convulsions, and its maximum is reached about the time of the maximum of the toxic action of the drug. When recovery follows, the temperature is usually normal before the animal is completely well. The increase in temperature is sometimes 3 or 4 degrees Centigrade. With cocaine the increase in temperature is relatively greater, and the return to normal less quick.

Action on Dogs.—The general action of small doses, the local cutaneous action, and also that on the eye, is the same as in the rabbit. No further experiments were made because of the limited amount of the material.

Summary of the Action of Tropacocaine on Warm- and Cold-blooded Animals.

The most important differences between the action of tropacocaine and cocaine on animals are probably the following:

1. Tropacocaine is less than one-half as toxic as cocaine.

2. The depressing action both on the cardiac motor ganglia and the heart muscle, especially the latter, is much greater with cocaine.

3. Local anæsthesia, both of the eye and skin, is much more quickly complete with tropacocaine, and is possibly of longer duration.

4. Slight hyperæmia is occasionally present, but quickly disappears, while with cocaine only ischæmia is seen.

5. Mydriasis is usually absent, but always seems to be less than after cocaine.

6. Solutions of tropacocaine are moderately antiseptic, and retain their strength for at least two or three months. Cocaine solutions often begin to lose their activity when only three or four days old.

Action of Tropacocaine on the Human Eye.

Professor Schweigger has most kindly allowed a thorough trial of tropacocaine to be made in his clinic, and after several months' use he makes the following comparison between it and cocaine: The muriate of tropacocaine causes complete anæsthesia more quickly than a cocaine solution of the same strength. This anæsthesia does not last as long as that produced by cocaine, but a drop or two of the solution can be added from time to time, and complete anæsthesia thus kept up as long as is necessary.

Mydriasis was occasionally seen, but only in slight degree. No ischæmia was present; on the contrary, in a few cases there was very slight congestion for a few seconds. A few patients spoke of slight smarting, but this disappeared almost immediately and was hardly greater than that from distilled water. Both of these symptoms are much less when the tropacocaine has been dissolved in physiological salt solution—$\frac{1}{4}$% per cent. aqueous solution of pure sodium chloride—instead of distilled water.

No harmful symptoms of any kind were seen, and in most cases tropacocaine seems to be as good—in some cases better—than cocaine. For the extraction of foreign bodies from the eye tropacocaine is preferable to cocaine because of its quicker action, and iridectomy has been performed in less than two minutes after one or two drops of a 3 per cent. tropacocaine solution had been put upon the eye and without pain being felt by the patient.

Dr. Silex, first assistant of Professor Schweigger, has used tropacocaine in his practice and has obtained similar results. He has performed tenotomy in less than half a minute after applying a 3 per cent. tropacocaine solution, and the operation was painless. In all cases a 3 per cent. solution was used, and whether a weaker solution would give as good or a stronger better results is yet to be proved.

It is to be hoped that tropacocaine will soon be given a trial in other than ophthalmic work, and for actual use the synthetically prepared hydrochlorate of tropacocaine is to be recommended.

PSYCHOLOGY.

WILLIAM BEVAN LEWIS, L.R.C.P.Lond., Medical Director of the West Riding Asylum, Wakefield, President.

PSYCHOSES AFTER INFLUENZA.

DR. ALTHAUS claimed attention for this subject, not only because it was new but also on account of its own intrinsic interest and importance, which was scientific as well as practical. Psychoses after influenza differed in many particulars from other post-febrile mental affections, and were so frequently met with that they could not be simply considered to be curiosities of medical practice, as was the case with psychoses after measles, etc. He drew a broad line of distinction between the initial delirium, which might set in at any period of the acute stage of the complaint either preceding all other symptoms or occurring when the fever had commenced, or, indeed, at any time during the progress of the feverish attack, and the true psychoses of convalescence, two conditions essentially different in every way which should not be mixed up together. He then proceeded to consider the post-influenzal psychoses in connection with other better known post-febrile mental affections, namely those occurring after rheumatic and typhoid fever, pneumonia, intermittent fever, the acute exanthemata, erysipelas, cholera and whooping-cough; and exhibited a table showing the influence of sex, age, general and special predisposition in th

roduction of these affections, their duration, and eventual esult, whether cured, uncured, or fatal. He then submitted number of points connected with this subject for discussion, llustrating each question from his own experience and that ublished by other observers. These questions were the following:—1. Were psychoses after influenza more frequent han those which occurred after other infectious diseases? . What was the influence of sex and age in the causation of hese affections? To illustrate this he showed here a curve xhibiting the occurrence of post-influenzal psychoses in the everal decades of life, drawing attention to the circumstance hat this curve showed a close analogy to what happened in yphilis, as in both disorders the third decade of life appeared most liable to these psychoses, and the three middle ecades preponderated greatly over the other five at both extremities of life. 3. What was the influence of predisposition n the production of these psychoses? 4. What was the average duration of post-influenzal psychoses? He stated that hey had generally a longer duration than mental affections een subsequent to the acute exanthemata, erysipelas, and neumonia, and resembled in their often somewhat protracted ourse the analogous conditions seen after rheumatic, intermittent, and typhoid fever. 5. What was the proportion of ured, uncured, and fatal cases? The prognosis of post-influenzal psychoses appeared to be not so favourable as that of imilar affections, after intermittent fever, erysipelas, and hdera, which all got well without exception; nevertheless it as fairly good, the amount of recoveries being upwards of 50 er cent. 6. Was there any relationship between the severity f the feverish attack and the subsequent appearance of sychoses? 7. What length of time might elapse between he feverish attack and the outbreak of the psychosis? 8. Was here any special form of psychosis caused by influenza which oes not occur after other fevers? 9. What was the influence f the fever and the special virus of the malady—grippo-toxin -in the production of these psychoses? 10. What was the nfluence of treatment on the course of these psychoses? 11. ow did influenza affect the insane? 12. What treatment ould be resorted to for post-influenzal psychoses?

Discussion.

The President said that he had been struck more especially y the fact that a distinct line of demarcation separated the sane community from the sane with reference to the ulterior sults of influenza. He had looked with considerable inrest and anxiety for any alteration of the mental phases of ania, melancholia upon the onset of influenza amongst e insane, or for any modification in the type of the insanity sulting therefrom, hitherto without result. On the other nd, all recognised the special implication of the sane, and ore especially of the neuropathic constitution. Only quite cently he had seen a case of apparent general paralysis lit) by influenza, and the same week a case exhibiting tabetic mptoms passing into general paralysis as the spinal symoms disappeared. We also were familiar with conditions stuporose and anergic states, with extreme lack of willwer associated with severe cephalalgia and trifacial neulgia. Why this notable distinction betwixt such symptoms llowing influenza in the insane and sane? It might posbly be attributed to the lower level of conscious activity preted by the insane in the first place. He had been struck th Dr. Althaus's remarks upon the predominance of influenza mongst the female residents at an asylum referred to, and le special proclivity of the laundry residents. The exrience gained at Wakefield Asylum quite coincided with is.

Sir Frederic Bateman said he considered that no more portant subject could engage the attention of the profession this time than that introduced to the meeting by Dr. thaus. He had seen several cases lately illustrating Dr. thaus's remarks as to the effect of the toxin of influenza alysing the nerve cells when the ordinary symptoms of luenza were absent. He mentioned some cases that had llen under his observation, where very obscure mental mptoms had occurred, which could be explained in no other y than on the supposition that the patients had been exed to the influenza poison. He invited the experience of ose present as to whether they had observed psychoses in sons who had been exposed to the poison of influenza, and who had developed none of the ordinary symptoms of that disease, but whose clinical history was marked by mental disturbance that could be explained in no other way than on the supposition that the toxine of influenza was the sole factor.

Dr. Rayner hoped that the superintendents of large asylums would express their opinions as to whether there had been any great increase of insanity due to influenza. So many cases were admitted to asylums in which influenza was ascribed as the cause that there should be a considerable increase in the total number of occurring cases, unless other causes had coincidently gone into abeyance.

Dr. Goodall observed that it appeared of but little use to discuss the symptomatology of influenza as far as psychoses were concerned, since the kinds of disorder were so diverse. He thought it of particular interest that chronic paranoia had been cured by influenza, as recorded by Metz. Such influence as influenza had in producing insanity was probably due to the circulation of a toxin. At any rate, the agency of fever could not be invoked in many cases. If the effects in these cases could be regarded as due to toxic influence, much interest would attach to the mode of action of those organisms which produced abscesses and diffuse surface inflammations in the insane. He did not suppose that the beneficial effect which such diffuse inflammations had upon existing psychoses could be ascribed simply to a "counter-irritation." He should like to hear the opinion of others as to the congestion, inflammation, and opacity of the pia-arachnoid, which had been described in persons dead of influenza who had been insane during life. He did not think these appearances were at all common, and when present they were often doubtless ascribable to lung disorders.

Dr. Murray Lindsay said that at the Derby County Asylum there were 130 cases of influenza during 1891, the resident staff having, as in so many other public institutions, been attacked in much larger proportion than the patients. About seven-eighths of the attendants suffered, the women in rather larger numbers than the men; whilst only about one-seventh of the patients were attacked, cases being three times more numerous among the female patients than among male patients. The disease began in the kitchen, extended to the laundry, and then invaded the wards. Among the 130 cases 3 deaths of females occurred from bronchitis following influenza at the ages of 55 and 68. No death occurred among the men. During 1891, out of a total of 140 admissions, there were 6 or 7 cases in whom the insanity was attributed to influenza, the form of mental malady being melancholia, showing no specific difference or variation in type compared with other forms of melancholia due to other causes. Some other cases of influenza had occurred last spring among the staff and patients, but both last year and this year there had been no second attack of influenza.

Dr. Urquhart referred to his experience of two epidemics at the Perth Royal Asylum; the first seemed to be characterised by an apparent immunity on the part of the insane, the second affected the patients extensively and seriously. He could not report any mental improvement resulting from an attack in the case of an insane patient; indeed, if any change had occurred, it was for the worse. The general health of the establishment had actually deteriorated, as shown by the loss of body weight (especially on the male side), observed six months after the epidemic had disappeared. Dr. Urquhart referred to the *post-mortem* appearances described by Dr. Althaus, and stated that in his experience no apparent pathological changes had occurred in consequence of the toxic action of influenza. The deaths were due to pneumonia occurring in feeble and debilitated cases, mostly with old-standing cardiac disease. With regard to the causation of psychoses in connection with influenza, Dr. Urquhart was of opinion that the statements put forward by friends of patients should be received with extreme caution. In only one case, in his experience, did the mental malady arise in consequence of influenza uncomplicated by other causes. Dr. Urquhart referred to a case in which a sharp attack of influenza ended in an acute mania, which soon subsided under asylum care. In other cases in which influenza was stated to be the cause, it appeared rather that influenza was the last straw to upset the mental balance, not that it was the sole cause operating. Dr. Urquhart concluded by moving the following resolution,

which was seconded by Dr. RAYNER, and adopted, "That a recommendation be made to the Council that a Committee be appointed to consider the influence of influenza on the insane in asylums."

Dr. JULIUS MICKLE had observed a considerable number of cases of insanity in which the causative factor had been an attack of influenza. Although some of the examples he had observed were of the maniacal type, and some had had symptoms of that type before they came under the speaker's care, it had, however, given place to symptoms of another type. Most frequently the symptoms were of a depressed type. Some of these latter were cases of melancholia in its various varieties, but Dr. Mickle had not observed the great predominance of the hypochondriacal variety of melancholia as quoted from one authority by the reader of this paper. Other depressed cases were of the acute hallucinatory type of insanity with dread, anxiety, and similar symptoms. In other cases consciousness was more impaired—dreamy and confused—the cases tending towards the clinical aspect of stuporous insanity. He related an interesting example of "functional" hemiplegia, hemianæsthesia, and hemianalgesia, which underwent recovery under his observation. Dr. Mickle questioned the propriety of admitting, without the most extremely careful investigation of the whole history of the case, as post-influenzal psychoses cases arising six months after recovery from an attack of influenza, and, in support of this, referred to cases he had observed in which multiple peripheral neuritis, attributed to influenza and following it by a few months, were really examples of the production of that disease by another factor, the effect of the influenzal attack being merely assisting and predisponent, enabling the real causative factor to act when less potent and milder than would otherwise be sufficient.

Dr. J. BATTY TUKE considered the paper important as showing the value of co-operation between general and alienist physicians. He took exception to the assumption that all post-febrile psychoses were the result of a toxin, inasmuch as many were merely anæmic. He thought that no case should be referred to influenza after long periods unless linking symptoms could be traced. Out of 14 cases of neurosis he had found 8 insane and 6 hysterical; the latter were all well-marked neurotic subjects, of the insane only 1. He remarked on the great variety of symptoms, and referred to two he had observed in which conscious delusion was prominent.

Dr. H. CORNER said that at Bethlem Hospital nearly forty cases of post-influenzal insanity had occurred; about half of them were melancholic and about half maniacal. There was a distinct class in which confusion was the chief mental symptom. Neurotic inheritance was very common. Dr. Althaus had referred to three cases of general paralysis under the care of Dr. Percy Smith in Bethlem, but there was a much larger class of cases admitted as "(?) G.P.I.," following influenza, and they had formed a large percentage of the post-influenzal cases admitted. These cases exhibited many of the physical signs of general paralysis, but many of them had got quite well. Almost any nervous symptom might follow influenza, for example, cephalalgia, trigeminal neuralgia, insomnia, loss of memory, tremors of face, tongue, and limbs, tremulous and hesitating speech, epileptiform seizures, syncopal attacks; symptoms of peripheral neuritis were also said to occur, for example, paræsthesia, neuralgia pains, and changes in the reflexes; unequal pupils were also noted in one case of post-influenzal insanity. All these symptoms might occur in general paralysis of the insane and also might complicate simple influenzal psychoses; the difficulty in diagnosing between cases of ordinary insanity following influenza, when complicated by other nervous symptoms, and general paralysis of the insane was great.

Mr. J. PEEKE RICHARDS said during his connection with the Hanwell Asylum he had more than a quarter of his female patients, 1,141 in number, stricken down with influenza, but in no single instance did he find that the type of the mental disease had changed or altered in character; in those cases of recurrent mania in which the individual was fairly quiescent an attack of acute insanity did not supervene. He was of opinion that influenza as a cause of mental disease was much exaggerated, and that this was due in great measure to the fashionable tendency to attribute all sorts of disease to that complaint.

Dr. WM. RICHARDSON said that the Isle of Man Asylum suffered from the first epidemic of influenza, the disease attacking one-fourth of the patients and one-third of the staff. More women than men were attacked, and there were two deaths, both in women, and due to the complication of bronchitis. One of the most marked features of the insane patients affected by influenza was the condition of quiescence into which the mischievous, boisterous patients passed. While the attack of influenza had, as a rule, no permanent visible effect on the patient's mental condition, in one case of subacute mania in a woman some improvement in her mental condition appeared to result from the influenza. During the last epidemic every effort was made to keep the patients and staff away from the neighbouring villages and farms, where the disease was present in a severe type, and these efforts were so successful that the inmates and staff of the asylum escaped the epidemic altogether.

THE PSYCHOLOGICAL EXAMINATION OF PRISONERS.

Dr. JULES MOREL (Commissioner in Lunacy, Belgium) said that an inquiry undertaken at the instance of M. Lejeune, Minister of Justice for Belgium, had resulted in showing that a very large proportion of unruly prisoners (in one prison eight out of fourteen) were lunatics. In consequence special commissioners were appointed to make systematic medico-psychological examinations of prisoners. There were three such commissioners, and each was charged with making the necessary examinations in about twelve prisons. The commissioners directed the removal to asylums of all prisoners whose psychical state was incompatible with the habitual regimen of the prison; they arranged for the treatment in the prison itself of all recent cases of mental disease giving some hope of early recovery with proper treatment; and they called the special attention of the prison officials to doubtful cases. The system, in addition to the service which it rendered by providing a skilled specialist to determine the genuineness of symptoms of insanity, would, if extended so as to embrace all the prisons of a country, in time result in the creation of a body of notes which would be of great use to the judicial authorities in dealing with prisoners who had suffered previous convictions. M. Morel considered that every prison with a population of 1,000 should have a special ward for lunatics. Only incurable cases should be sent to criminal lunatic asylums. Imbecile convicts should receive special care, and should not be liberated before the expiration of their sentences, as they formed a very large proportion of the second-term prisoners.

The PRESIDENT thanked M. Morel for his paper, and expressed the opinion that in this country not only the medical officers of Her Majesty's prisons, but even the responsible Government department, were becoming convinced of the necessity of supervision by the alienist in large prisons. The department was now alive to the importance of appointing to medical posts in prisons only those who had received tuition in asylums.

Dr. URQUHART supported the recommendations made by M. Morel, whose experience gave special value to his opinion. The development of a similar system was urgently to be desired in England.

Dr. H. RAYNER believed that the establishment of such a system would be of great advantage both to the criminals and to society, since certain criminals required treatment and not punishment.

VARIATION OF TYPE IN GENERAL PARALYSIS.

Dr. F. St. JOHN BULLEN (Assistant Medical Officer, West Riding Lunatic Asylum, Wakefield) gave the results of an inquiry into variations of type in general paralysis. He had abstracted over 250 cases of general paralysis, taking only the male cases which terminated in death, from the books of the Wakefield Asylum for the years 1880-90, and had received communications from many superintendents of asylums on the subject. The general conclusion at which he had arrived was that although the type of general paralysis could not be said to have changed universally, yet it was probable that in some feature or another some alteration was to be noted very generally. In some localities prominent changes were apparent in the whole form. The admission rate of general paralysis varied greatly in different asylums, and seemed to move with the diminution of rural occupations; it was much

higher, for instance, among the colliery workers of Derby and Durham than among the agricultural labourers of Leicestershire, Rutland, and Hereford. There was also a very marked disproportion between the types found in different districts. Dr. Smith (of the Durham County Asylum) had informed him that the cases he received were boastful and elated, and the reports of that asylum showed that by far the larger proportion of deaths from general paralysis were returned as "mania of general paralysis." On the other hand, of the last 66 cases admitted into the Wakefield Asylum, over 50 per cent. were demented on admission, and afforded no history of previous excitement. Dr. Clouston allied the calm demented type with quiet rural districts. In the class of cases received into private asylums there was no evidence of any change of type. In Dr. Bullen's experience the sthenic type of mania was less often observed, and was less pure, and there was a greater frequency of primary demented cases, and an earlier onset of dementia in cases in which emotional manifestations were primary. An increase in the ratio of melancholic to maniacal symptoms, also, had possibly taken place. The statistics at Wakefield did not confirm the opinion that a lowering in the age at which attacks took place was in progress, nor did they indicate any alteration in the duration of the disease, which was on the average two years and a-half. The ratio of women to men showed a slight increase when the admissions for 1859, 1860, 1863, 1864 were compared with those for 1886 to 1890. There was probably some variation in the relative frequency of occurrence of convulsive and apoplectiform seizures, the former being less sthenic, less frequent, and not of the same fatal significance. The statistics from Wakefield, however, did not support this, which seemed to be the general opinion very clearly, for the apoplectiform attacks were largely in excess of the convulsive. Dr. Bullen also thought it probable that meningo-encephalic adhesions were less marked, though the proportion of cases in which they were found remained unchanged.

Dr. Jules Morel stated that though general paralysis was on the increase in Belgium, the symptoms were less severe and the patients more demented. The disease, however, was not less fatal.

Dr. Mickle thought that the alleged change of type was to a slight extent real, being due to a tendency to a change of type from the excited, expansive, maniacal forms of mental disease to forms of a depressed type; to a much larger extent it was due to a more general recognition of the various forms of symptoms presented by the disease. At one time few recognised any form but the expansive form with ambitious delirium, and when he had drawn attention to the demented form twelve and fifteen years ago he had been met with adverse criticism, though he believed it to be general paralysis in its purest form.

NEURAL ACTION CORRESPONDING TO THE MENTAL FUNCTION OF THE BRAIN.

Dr. Francis Warner, after tracing the visible display of the evolution of mental faculty in the infant, dwelt upon the period of inhibition of movement which preceded the manifestation of a new action (attention), and inferred that it corresponded to active neural changes in which groups of cells temporarily inhibited from motor action were being arranged in groups for the new action which followed. This was illustrated by the use of formulæ; this preparatory (dialactic) action was supposed to represent the earliest form of a neuro-mental act. There appeared to be a law of wide-spread import concerning cellular growth and action, that "like cells well-nourished and thus performing their function synchronously under control of some stimulus tend afterwards to act together in similar groups, and this tendency is strengthened by repetition." In adult life neural arrangements corresponding to ideas were formed by sight of objects and the printed page, while a train of thought was represented by a series of dialactic neural acts formed according to the law given above.

The President observed that much interest attached to the neural actions underlying attentive ideation and volitional activities. He gave reasons for the assumption that attention was of sensory, and not of motor nature, though motor accompaniments of course occurred; all would recognise the attitude of a strained attention—the furrowed brow, the suppressed breathing, and other phenomena; and it became interesting to note the disorders of such motor adjustments in certain forms of mental disease. In chronic alcoholism the twitching of the forehead, the unilateral spasm of the brow muscles—features which distinguished the chronic alcoholic patient from the general paralytic—the sudden arrests of articulation, and lapses of attention, which snipped a word or a phrase in two, indicated a disorder of the motor adjustments associated with speech. There was much misunderstanding and confusion as regards volitional activities, but all would agree that the initial change was always one of a faint mental rehearsal, which issued in a libero-motor current, a translation from sensory to motor realms before the act was accomplished. The one important feature to recognise was that the current passes through a centre which Dr. Bastian would term a kinæsthetic centre—an intermediate centre of resistance as Dr. Bevan Lewis preferred to call it—through which all such stimuli must pass to be interpreted into volitional actions. In this translation from the kinæsthetic to pure motor realms occurred the psychical accompaniment which he would designate will. The all-important point was that before these centres could act the initiating phase of consciousness had passed away. Our appreciation of the guidance we afforded our movements was due altogether to the ingoing sensory currents aroused by the act itself.

Dr. Mickle said that the infant inherited a very slight nascent degree of co-ordination of some of the higher centres, and its early movements were due to this fact. The co-ordinated activity of some lower centres was inherited in a somewhat complete condition, as, for instance, those of the centres concerned in deglutition and phonation. He traced the gradual establishment of co-ordination of higher nerve cell and fibre apparatus, and discussed the phenomena of attention and volition.

Dr. H. Campbell said that all parts of the body might be dynamically affected from the highest level of the cortex; this appeared from the effects of emotion on non-nervous parts of the body, and also by the phenomena of attention directed to a particular part of the body. In the act of attention there occurred an agitation of the sensori-motor representatives in the highest level of the part attended to. The mechanism of voluntary muscular action was similar.

Dr. Warner, in reply, observed that it was desirable, for the purpose of physical study, to describe mental states in terms of the physical expression. The main fact which he wished to insist upon was the representation of mental acts by groups of centres, not by single centres.

MINOR PSYCHICAL DISTURBANCES IN WOMEN.

Dr. H. Campbell said that women, under all conditions tending to upset the general health, were very liable to psychical disturbance. Let any woman, no matter how sane, be housed and fed like the average woman of the "slums," and she would manifest, at some time or other, certain symptoms, being of course most prone to them during pregnancy, when weakened by nursing, at the climacteric, or if suffering from menstrual derangement. Cases displaying these symptoms come to the London hospitals by the thousand, and they were interesting as marking the borderland between sanity and insanity. Dr. Campbell's observations were based upon an analysis of some 200, no one of which went on to insanity. Cases manifesting the insane diathesis were excluded as belonging to a different class, and, as far as possible, cases of hysteria were excluded also. 1. Depression of spirits was almost universally felt, the patient complaining of being gloomy, depressed, etc., and generally seeking seclusion. With the dejection there was almost always a tendency to cry—patient felt "as if she could cry at anything," and would say that "a good cry does her good." As in the case of true melancholia, so here, the patient was generally (in somewhat more than two-thirds of the cases) worst in the morning; indeed, these cases merged imperceptibly into "melancholy without delusion," in which the patient might feel quite well in the evening. The influence of cheerful surroundings, or the reverse, was most marked. 2. Irritability was generally present. *a.* Sensorial Irritability. There was hyperæsthesia of all the special senses, impressions on the sensory end organs, provoking sensations which were acutely and unpleasantly felt; above all, there was an intolerance of noises—the patient started

"at the slightest sound." The less specialised sensations were likewise intensified, as was shown by the unpleasant effect of a mere jar. *b*. Emotional Irritability. Anger was easily aroused; the individual acted upon the spur of the moment, lapsing, as Spencer would say, from the voluntary to the automatic. Some would attribute this to loss of self-restraint—that is, to a weakness of restraining impulses, but the strength in these cases of the actual motives, intensified as they were by the universal hyperalgesia, must not be forgotten. Irritability, like dejection, was generally worst in the morning. The two might rise and fall together, or they might alternate. Their relation to one another was therefore interesting. In true melancholia, be it remembered, there was rather a blunting than an irritability of the sensory system. 3. Fear, like anger, was readily excited. It was not strange that these two emotions, both primitive, should attain prominence in slight mental dissolution. The patient was "afraid to do anything," to go out alone, or even to open the door; superstitious fears, as of the dark, were also not uncommon. Thus pervaded by fear, and her auditory centres in a hyperæsthetic state, it was no marvel that she was "startled by the slightest noise," such as "a knock at the door," or even "the fall of a cinder." Nor was the fear excited by sense impressions only—it might arise spontaneously. Vague ill-defined fears were common, and though the borderland of sanity was not crossed, it was by no means uncommon for the patient to feel "as if someone were pursuing her," or "as if she had murdered somebody." Less frequently there was a more definite apprehension, as of fire or disease, though the latter was much rarer in women than in men. No cases of agoraphobia, claustrophobia, or mysophobia had been met with. 4. Feeling of Impending Insanity. It was very usual for the patient to feel "as if she were going out of her mind." The condition often accompanied vertical headache, and while sometimes it was probably nothing more than vertiginous confusion, at others it was certainly more than this. Thus one woman felt "as if she would go raving mad," others complained of "rash" feelings. The suicidal impulse was by no means uncommon among those who never become insane. Similarly the woman might have a homicidal impulse against her children—an impulse for which her irritability was largely responsible. 5. Loss of memory and power of attention was common, notably at the climacteric. The woman would lose herself in conversation, or forget what she was talking about. Mere giddiness was partly responsible for this, but certainly not entirely. 6. Hallucinations were rare, but might without doubt occur in the sane. Hallucinations of hearing—the variety most common among the insane—was not once met with; hallucinations of sight were, however, noted in a few cases. 7. Often the patient suffered from unpleasant dreams; she dreamt of dead bodies, of murder and bloody sights, or of being shot. Now, if a woman were imagined to be suffering from the several symptoms just enumerated (excepting hallucinations, which were rare), a picture of a highly distressing condition of mind was obtained, which, from its very frequency, apart from other considerations, deserves the attention of the alienist. As regards the causation of the above symptoms, it had to be decided how far they were due to imperfect nervous organisation, as determined by heredity and environment, and how far to the operation on the nervous system of a vitiated plasma, such as necessarily accompanies any interference with the general health. That defective organisation predisposes to psychical disturbance was certain; but recent investigations on ptomaines, leucomaines, and uric acid made it equally certain that it might also result from the operation of poisoned plasma, for on the substitution of a normal plasma for an abnormal, the symptoms vanished as if by magic. At the same time, it had to be remembered that the molecular structure of nervous tissue might be so affected by the prolonged action of the poison, that even though this condition of the plasma might be rectified at once, some time must elapse before the nervous tissue could recover itself.

Dr. URQUHART said it was important for those who were practising in asylums to learn how the minor psychoses were developed, treated, and cured in the outer world. He referred to the routine practice in asylums of giving well-considered nourishment in the early morning to melancholic and irritable patients when they first awoke. While the relative importance of toxines and degenerating plasma could not yet be assessed, still treatment directed to the elimination of toxic elements from the system and to the giving of suitable nourishment was sanctioned by the thesis advanced by Dr. Campbell.

Dr. G. M. ROBERTSON advanced a physiological view of sleep. The metabolic processes which took place in the brain were of two opposing types: (1) the anabolic, the building up, or feeding of the nerve cell; and (2) the katabolic, or burning up, or energising of the cell. The former took place at night when the brain was anæmic, and the cell protoplasm not fully oxygenated, for nerve energy had to be produced by the burning up of protoplasm. The burning-up process, which required much oxygen, took place by day, when the blood stream brought an abundance of oxygen. In an excited brain the nerve cells would be in action at night, and hence, owing to the scanty supply of oxygen, would degenerate and lead to exhaustion in the morning. When the blood supply was increased after taking food this morning, depression passed off.

Dr. WARNER remarked on the frequency of delusions and ocular illusions in women, and the importance of discovering them, as when kept secret they might engender the fear of insanity.

Dr. DUNN observed that Dr. Mercier had insisted on the importance of the somatic nerve currents in the production of slight melancholia.

Dr. JOHNSTON-LAVIS considered the condition described by Dr. Campbell to be due to low nutrition, at a period when vitality was at its lowest. These depressed states were common in Italy, in France, on account of the late breakfast, but were relieved by the early cup of coffee. Caffeine or any drug that increased the blood supply would relieve the condition.

Dr. CAMPBELL replied briefly.

THE INFLUENCE OF INTESTINAL DISINFECTION ON SOME FORMS OF ACUTE INSANITY.

Dr. JOHN MACPHERSON (Stirling District Asylum) said that every asylum physician must regret the necessity for the employment of narcotic and hypnotic drugs in medical practice among the insane. After a night's sleep obtained by a sedative narcotic, he had found that the excited patient was noisier and more troublesome, and the melancholic more disturbed in mind. The reaction thus produced had to be overcome by the continuous administration of the drug, usually in increasing doses. It was known that constipation tended to aggravate the symptoms of acute mental disease, and a temporary improvement followed the emptying of a loaded intestine. In every acute case of insanity a marked disorder of the gastro-intestinal tract was present; though secondary it must exercise an irritating effect upon the general bodily functions, and lead to the absorption of poisonous bodies the products of putrefactive changes in the gastro-intestinal tract. Calomel and other forms of mercury in purgative or laxative doses would induce sleep; some other purgatives had a soporific influence, and, as Dr. Lauder Brunton had pointed out, nux vomica had a mild hypnotic influence. It was known that certain forms of gastric and hepatic derangement were accompanied by mental depression; there was a form of melancholia which might even be described as visceral, and in all cases of melancholia there was a concomitant intestinal derangement. The disordered state of the digestive system, permitting as it did of the formation of poisonous ptomaines, was a source of further complication and aggravation of acute mental disorders. In a healthy stomach, the antiseptic action of the gastric juice ensured the destruction of pathogenic organisms. He had been led to the following line of treatment arising out of these considerations: In the first place, on the admission of a suitable case, the stomach was washed out, and a dose of calomel varying from gr. ii to gr. iv was given. For the first week the stomach was washed out every day or every second day, and the bowels were regulated with compound rhubarb powder, or cascara and liquorice. On the morning of the second day, the administration of naphthalin was commenced; the dose given was gr. x three times a day between meals; this gradually increased until as much as gr. lx or lxxx was given in the course of twenty-four hours. He had found naphthalin exert a far stronger influence than beta-naphthol. With the view of preventing its putrefactive fermentation, nitrogenous food also was, as far as possible, eliminated from the diet. No ill effects were noticed, though

in one case as much as gr. cxx was given in twelve hours; appetite was unaffected, and the body weight increased steadily in most of the cases. The removal of anæmia was a very marked effect of the treatment. The pigmentation and dryness of the skin observed in melancholia were favourably influenced. In a few cases a single dose, but in the majority of cases the continuous administration of the drug for two or three days, led to restoration of the sleep habit. When fully under the influence of naphthalin, the patient slept normally and naturally for seven or eight hours, and awoke refreshed, and without the restlessness and other evil effects observed after narcotics. The sleep-inducing powers of naphthalin were, therefore, probably indirect, and due to the suppression of causes which prevented sleep. Its action on the mental symptoms also was probably indirect. It cut short some of the attacks, chiefly milder examples of melancholia. In the majority of cases it did not shorten the period of mental disturbance, but it caused the rapid disappearance of mental distress and motor restlessness of melancholia, the suicidal became quieter, and the tendency to impulsive acts was diminished in all the cases. Dr. Macpherson was not yet prepared to make any statement as to acute mania, though in one case of acute mania in an adolescent it induced normal sleep. In some cases in which the drug was used, it failed to produce any effect, but this was probably due to the doses given not being large enough. The influence of the drug, therefore, was to modify and abate the distressing and more violent symptoms, and to hasten a condition resembling commencing convalescence.

Dr. Sutherland asked for a formula for the administration of naphthalin.

Dr. Goodall questioned whether naphthalin in the doses given could have any antiseptic influence.

Dr. Johnston-Lavis mentioned a case of acute mania, and a case of melancholia in an aged woman benefited the one by calomel, and the other by large enemata of olive oil and menthol.

Dr. Rayner considered the subject one of great importance, and recalled the observations of Dr. E. Blake as to the effects on skin, joint, and nervous system of the absorption of pus.

Dr. Urquhart mentioned a series of experiments he had made, eighteen or twenty years ago, with hyposulphite of soda; he had since used eucalyptus, which was probably as efficacious as naphthalin.

Dr. G. M. Robertson observed that in the insane the gastric juice was not secreted normally, so that putrefaction was specially liable to occur; it was not necessary to use an antiseptic strong enough to kill the organisms, as Dr. Goodall appeared to assume; it was sufficient to enfeeble their action. He thought that we were on the eve of an era of new treatment. He had used beta-naphthol with good results.

Dr. Macpherson, in reply, said that the test of the disinfectant action of a drug in the intestine was the effect it produced on the sulphates of the urine, and Dr. Goodall would see by a reference to Dr. William Hunter's paper in the British Medical Journal (vol. ii, 1890, page 84) that beta-naphthol had a wonderful effect. Further, the fæces of patients treated by naphthalin were almost devoid of smell. Naphthalin was a difficult drug to administer, as it was not readily soluble, and had an unpleasant odour. He did not advocate the exclusive use of naphthalin, and was glad to hear that good results had been obtained from other antiseptics. Naphthalin had the advantage of being safe, which all antiseptics were not.

PARANOIA AND ITS RELATIONSHIPS.

Dr. E. L. Dunn read a paper on paranoia, in which he remarked that chronic paranoia was generally admitted to occur in two forms: primary, which was the important and typical form, and secondary, which was the termination of a previous psycho-neurotic state. Of the forms generally recognised, the most frequent was paranoia persecutoria; in it there were four stages: (1) restlessness and suspicion; (2) delusions of persecution, the delusional conceptions becoming systematised under the influence of aural and other hallucinations; (3) ideas of grandeur appeared; (4) dissolution of the delusional states and weak-mindedness. Dr. Dunn reviewed the literature of the subject at some length, and then proceeded to discuss the various symptoms *seriatim*. In referring to the statement of Metz and Roller that two cases had recovered after influenza, he remarked that remissions might occur with complete latency of symptoms. Dr. Dunn then discussed the various theories which had been advanced as to the pathological lesion underlying the condition. In secondary paranoia a small group of delusions remained and became systematised as an outcome of previous psycho-neurosis, almost always melancholia, profound weakening of all intellectual processes, monotonous delusions, and apathy were the characteristics of this condition, which ended in profound dementia. Having mentioned the occurrence of alcoholic paranoia, Dr. Dunn proceeded to discuss the diagnosis of the disorder.

Dr. Hack Tuke, while fully admitting the importance of recognising persecutory mania, observed that the widest difference of opinion existed as to the definition of paranoia. If it could be proved that the stages followed each other with regularity, there might be some justification for the adoption of a separate term. Systematised delusional insanity would suffice for a large group of the cases.

Dr. Mickle divided paranoia as follows: A, depressed: (1) persecutory, (2) hypochondriacal, (3) querulous; B, expansive: (1) ambitious, (2) religious, (3) erotic. Further, some cases of paranoia were hereditary mental degenerates, while others belonged to the psycho-neurotic group. He described and contrasted the symptoms in these two groups.

Mr. J. Peake Richards thought the term "paranoia" quite unnecessary.

Dr. Rayner thought that the appearance of symptoms of exaltation were dependent on the improvement in the general health of the patient, while if this improvement did not occur exaltation was not observed. If this were so, then the second and third stages described could not be regarded as stages of a definite pathological process.

After some remarks by Dr. Macpherson as to the *délire chronique avec évolution systematique* described by Magnan,

Dr. Goodall expressed the opinion that the term "paranoia" might be used to describe that form of insanity which, commencing with auditory hallucination, passed through stages of persecution and exaltation, and terminated in weakness of mind.

The President shared the objection to the introduction of the term, because he doubted whether the group of symptoms had sufficient cohesion to justify its use. So far as he understood the term, there was in paranoia persecutoria the necessity for a psychopathic basis. He maintained that there was no form of insanity which was not accompanied by affective disorder. He would affirm that the degenerative class had arrived at a level—through former parental emotional storms—at which affective disorder was no longer possible in most instances. He maintained that what was termed "paranoia" was simple delusional insanity engrafted on a degenerate or psychopathic basis. He gave reasons for believing that systematisation depended only on the incidence of insanity in a psychopathic subject, and that too great an emphasis had been given to it.

In reply, Dr. Dunn insisted that there was a certain class of cases now described as delusional insanity which deserved to be separated for purposes of clinical teaching, prognosis, and care.

INSANITY AS A PLEA FOR DIVORCE.

Dr. Weatherley said that some alteration in divorce law generally was a growing necessity. To all engaged in the practice of psychological medicine this necessity with regard to "insanity as a plea for divorce" was very striking. The present legal definition of the amount of mental unsoundness required to dissolve marriage contract was far too narrow. The existing law upon the plea of insanity with regard to divorce was that, if one of the contracting parties was insane at the time of the marriage contract, it was void. Sir James Hannan, in the case of Durham *v.* Durham, had laid it down, "that the amount of insanity that would invalidate a marriage contract was a want of capacity to understand the nature of the contract and the duties and responsibilities which it created," and he added, "that he did not consider the contract was one which required a large degree of intelligence to comprehend." A very large proportion of the 80,000 odd lunatics resident within the walls of English asylums would therefore be capable in the eyes of the law of entering into marriage

This fact, then, stamped as radically wrong the legal idea of the amount of insanity required before it could be brought forward as a plea for divorce. All would recall cases of lunatics, whose intelligence, whose reasoning, would readily admit of their perfectly understanding the nature of the marriage contract, its duties, its responsibilities; and yet whose marriage, and the resulting multiplication of mentally deficient children, would be nothing short of a crime. The decision as to unsoundness of mind of one of the parties to a marriage contract should not be settled by any laid-down definition of what constitutes sufficient insanity; but each individual case should be taken on its merits, and if the evidence was strong enough to admit of the respondent in such a suit, being certified as a person of unsound mind, at the time of the marriage, the question of insanity should be determined in the affirmative. If it were proved that marriage with a lunatic was entered into with full knowledge of the mental condition of the other contracting party, then no claim for dissolving the tie could, or should, be entertained —if this plea was brought forward by the sane party to the contract. On the other hand, if anyone marries a lunatic knowingly, and with evident intention of thereby procuring money belonging to the insane party to the contract, then the lunatic by his or her next friend should be entitled to move for a divorce on the plea of insanity. The next question was, whether the insanity, prior to marriage, of husband or wife, the knowledge of which had been purposely kept from the other party, should not be a valid or reasonable plea for divorce. If insanity should occur after marriage, and it could be proved that it had an existence prior to the date of fulfilment of the contract; and further that this fact had been entirely kept a strict secret, it ought to be a ground for divorce. Insanity of one of the contracting parties prior to marriage, and which had been kept from the knowledge of the other contracting party, should be a plea for divorce. Incurable insanity after marriage should be ground for divorce in certain cases, but it would be necessary to enact that proved insanity must have existed for at least seven years, and be pronounced incurable before the plea could be entertained.

Dr. RAYNER was of opinion that insanity should always be a bar to the validity of marriage, and that an individual contracting marriage with an insane person should, in the eye of the law, be treated as taking advantage of an infant. Insanity ought not to be a ground for divorce, it should be regarded as a bodily disease, and should not be separated from others in legal treatment. The maintenance of the contract would make persons more careful as to family tendencies; nobody ought to be relieved from the duties undertaken by marriage. He also thought that no term ought to be set after which insanity should be considered incurable.

Dr. HACK TUKE fully agreed that insanity at the time of marriage should be a plea for nullity, as was already admitted at law. Marriage entered into when the insanity of one of the parties was concealed should be invalid, but he could not admit that insanity supervening after marriage constituted a plea for divorce.

Dr. KINGSBURY thought it might be asked whether a sane party ought not to get relief when the marriage had taken place in a lucid interval between two attacks of insanity. Where there had been no concealment he thought that relief should not be sought.

Dr. DOUGLAS (Leamington) thought that mind being of the essence of the marriage contract, an insane person was practically dead to the duties and obligations of the marriage state, and that therefore insanity might be a justifiable plea for divorce.

Dr. SUTHERLAND mentioned some extreme cases of separation for long periods owing to insanity. He would recommend the employment of experts, and would allow not less than five years and not more than ten, as justifying a divorce taking place.

Dr. STEWART (Clifton) thought that the question should be confined to "incurable insanity." In the case of Baker (which had become historic as being the first in which, the wife having committed adultery after her husband was placed under control, a divorce was decreed without the consent of either party), the issue turned on the point as to whether the husband's insanity was absolutely incurable. Those who agreed with Dr. Weatherley had two difficulties to face: (1) The public had been educated to look upon insanity as a physical disease, and would want to know why a difference should be made between it and other physical diseases in this connection. But the answer of Dr. Weatherley was convincing on this point. (2) Legal authorities insisted upon definitions of insanity which could not be accepted by the medical profession. A striking illustration of this was lately afforded in the divorce case of Hanbury *v.* Hanbury. Seven years was too short a period during which the party should have been under continuous legal care for insanity before husband or wife could apply for a divorce. He would extend it to ten years at least. With this exception he was quite in accord with the reader of the paper, which was a model of succinctness.

At the conclusion of the discussion a vote was taken on each of the following pleas:

1. Is insanity at the time of marriage a sufficient plea for divorce?—*Answered unanimously in the affirmative.*

2. Is a fraudulent marriage (that is, a marriage contract in which the existence of insanity in one of the contracting parties was wilfully concealed) a sufficient plea for divorce?—*Answered unanimously in the affirmative.*

3. Is incurable insanity, after a specified time of skilled supervision, a sufficient plea for divorce?—*Ayes*, 17; *noes*, 13.

REPORT ON EXCEPTIONAL CHILDREN.

Dr. FRANCIS WARNER gave the results of the examination of 50,000 children seen in 106 schools, and explained the main facts by means of coloured charts. Dr. Warner dwelt upon the differences between the children in Poor-law schools, certified industrial (criminal classes), and in homes and orphanages, showing the lower conditions of development found among certain groups. National characteristics among the English, Irish, and Jewish children were noticed, showing the great superiority of the latter in freedom from defects and mental dulness, while their power of resistance was greater. It was, he said, somewhat surprising to find that 10,000 children in upper class elementary schools compared with 26,000 in poorer schools showed the superiority of the latter in physical and mental status.

Dr. FRANK POPE (Leicester) read a note on the establishment by the Leicester School Board of a special class for feeble-minded children. He recalled the history of the investigation of the question. At the Glasgow meeting, 1888, a committee was appointed by the Section to conduct an investigation as to the average development and condition of brain function among the children in primary schools. At the Leeds meeting, 1889, a report of the committee was read, and a further committee was appointed, and a discussion took place on papers by Drs. F. Warner and Fletcher Beach on the subject, the latter strongly urging the necessity of special instruction in primary schools for children of weak brains, and Dr. Shuttleworth prepared and issued a memorandum as to such classes as organised in Norway. At the International Congress of Hygiene and Demography there was again a discussion on the subject, and as the outcome of this another committee was appointed, which was added to by the nomination to it of several members of this Association, and it was their report which had been brought forward by Dr. Warner. Under these circumstances, it appeared desirable to bring before the Section a short account of a class for the special training of feeble-minded children that had during the last two months been established by the Leicester School Board, and which might rank with those of the London School Board instituted about the same time, as the first attempt to deal practically with the difficulty. As medical officer to the Leicester School Board, it had been his duty to examine those children who were declared by their parents to be unfit for school, and who were unprovided with medical certificates to that effect. During five or six years he saw several who came under the category of feeble-minded children, and as far back as 1888 had strongly pressed on the Board the desirability of starting a special class for such cases, and backed up the application by a letter which Dr. Langdon Down kindly wrote stating his opinions on the matter. The Board, however, at that time, while recognising the need of providing for such cases, thought the difficulties in the way too great, among the chief being the impossibility of providing a class that could

be easily reached by children from all parts of the town, and the fear that teachers would rid themselves of any cases that were more than usually troublesome by sending them to the special class. However, this year, partly owing to the interest taken in the matter by Mr. H. Major, B.A., the head inspector of the Board, and Miss Warren, the inspector of infant schools, a class had been formed. It comprised nine children at present. The present class was held in a class room of a large board school, and consisted of four boys and five girls. One case, which had been admitted on the teacher's report, having been found to be really intelligent, was sent back to the ordinary class. The room in which the class was held was bright and ornamented with pictures, natural history objects, flowers, grasses, etc., and had growing plants in a window box outside. Some difficulty was felt as to what would be the best course of training to pursue, and how to find a teacher to undertake the class. Miss Warren, however, selected one of the most intelligent of the female kindergarten teachers under her supervision, and drew up a special scheme of work. The occupations followed were:—

Short scripture lesson—oral. Physical exercises—balls, skipping rope, drill, marching, battledores, extension movements, etc. Reading—with movable letters. Kindergarten games. Counting—dominoes and ninepins. Sorting—beans, beads, etc. Writing—copying from print or from writing; dictation impossible. Paper folding. Object lessons—animals and plants. Weaving—a name given to plaiting strips of different coloured paper. Drawing and painting—the very simplest forms of both; drawing principally squares and circles, and painting filling up these squares with colour; few can choose their own colour from the box to match a copy. Clay modelling—this succeeds best of anything of an artistic nature. Order lesson—this consists in teaching the children to do as they are told, put chairs in a row, clear table, dust chairs or objects. Mosaic work—with coloured tablets. Building—with bricks. Physical geography—with sand, making islands, lakes, capes, etc. Sewing and knitting—for both sexes; they can all sew a little, and can knit with knitting frames but not with pins. Hardly any one of these subjects was continued for more than a quarter of an hour.

In addition the children were encouraged to bring natural history objects to the class to form a museum, and these were used for the object lesson. When more classes were formed over the country no doubt some of the above subjects would be eliminated and others introduced. At all events a beginning had been made, and the children taken from the neglect which they must experience at the hands of a teacher of a large class of children with normal intelligence. It was too soon to speak of results, but the teacher could already notice an improvement in the manner of the children. When they entered the class, though well behaved, they took little interest in the proceedings, were listless, and as if under restraint, probably from having been expected in other classes to sit still and hear subjects of which they understood little; now they were interested and inquisitive. It was not proposed to include more children than twelve in one class; it was hoped to start others when there were more than that number to be provided for. The selection of cases was made partly by the medical officer and partly by the inspector on the report of the teachers that children were mentally unfit to profit by the ordinary curriculum of the school. It would be a source of great satisfaction to all who felt an interest in the education of this class of cases to find that practical steps were being taken to develop the latent powers of these weak brains, and to make useful, though perhaps humble, members of society of those who otherwise might remain mere burdens on it.

Mr. Abel, B.A., Clerk of Nottingham School Board, remarked upon the assistance which must be rendered by such interesting tabulation as that made by Dr. Warner, towards discovering the extent and causes of defects of development, etc., and methods most calculated to remove them. He referred to the number of cases of dull children of apparently good physical development, and of small weakly children with excellent mental development. He also suggested that the superior physical development of Jewish children might largely be accounted for by the operation of their religious regulations upon the food and personal sanitary conditions of themselves and their parents. He suggested, further, that the number of cases of defective development amongst upper and middle class children could probably be largely accounted for by the survival of weakly children who would die in infancy or early childhood if they had been of the poorer classes. Mr. Abel described the efforts made by the Nottingham School Board, by giving prominence to physical education, to concrete experimental teaching, and to classification by attainments rather than age to correct the evils noted by Dr. Warner. He also noted that the Nottingham guardians sought to remove the evils noted by Dr. Warner as exaggerated in the case of institutions by sending union children without uniform to the ordinary Board schools.

Dr. Shuttleworth (Lancaster) congratulated the Section on the important results of the inquiry on school children, for which a committee was appointed in 1888. No one could have listened to the interesting explanation by Dr. Warner of the statistics of the examination of the first 50,000 children without being impressed with the importance, not only of the educational, but of social, problems upon which the inquiry would throw light. It seemed to him of great importance that the work of the Committee, which Dr. Warner so ably conducted, should go on, and, if possible, upon an extended scale; for it was essential, in order to ensure scientific accuracy in the results, that the inquiry should be carried on not only in London, but throughout the kingdom, on a uniform plan, and co-ordinated by some one who (like Dr. Warner) had acquired experience in the methods which had proved most satisfactory. With regard to practical issues, he rejoiced to find, from Dr. Pope's paper, that the Leicester School Board, like that of London, had instituted special instruction for exceptional children, a plan which had been carried on with success for many years in Norway and many parts of Germany.

The following resolution was proposed by Dr. Rayner, seconded by Dr. Lindsay, and carried:

That the Section of Psychology, having heard Dr. Francis Warner's explanation of the report on the mental and physical condition of 50,000 children seen in 106 schools, as presented to the Association, beg to draw the attention of the Council to the desirability of obtaining its publication.

NOTES ON HEALTH RESORTS.

VIII.—ST. MORITZ.

By St. Clair Thomson, M.D.Lond., M.R.C.P.Lond.,
Swiss Federal Diploma, St. Moritz Bad.

As a pendant to Dr. Archibald Garrod's notes on Schwalbach in the British Medical Journal for July 2nd, a few particulars about St. Moritz may be of interest. Both possess iron acidulous springs, and a decision has sometimes to be made between the two. Schwalbach has the stronger iron source, but at St. Moritz the climate has a more pronounced effect. In many cases it is advisable to commence a "cure" at Schwalbach and complete it in this Alpine valley.

Situation.—The greater part of Switzerland is separated from Italy by a narrow chain of high Alps, traversed by deep and comparatively sunless valleys. The south-eastern corner, however, consists of a huge elevated plateau, fifty miles in diameter. This mass is framed in by mountains sheltering in their midst the Engadine, the highest inhabited valley in Europe. At an elevation of 6,000 feet above the sea the valley, which runs from north-east to south-west, is practically level for fifteen miles, with a width of a mile and a half.

Climate.—The Engadine is fully exposed to the sun, and, instead of being bleak and barren, as most resorts of this altitude would be, trees grow at a higher elevation than elsewhere. In no other part of Europe can grain and vegetables be cultivated at a similar height above the sea. The line of perpetual snow is much higher than elsewhere, and the glaciers, which at Grindelwald descend to 3,140 feet, are not found lower in the Engadine than 6,300 feet above the sea level. The valley affords the beneficent influence of an inland Alpine climate, diminished atmospheric pressure, increased solar radiation, dryness of atmosphere, rapid evaporation, protection from nearly all except south-westerly winds, marked difference between sun and shade and day and night temperatures, and remarkable purity of the air.

The Waters.—The springs at St. Moritz, three in number, are all cold, charged with carbonic acid, and contain iron in the digestible form of carbonate. The old spring is used almost entirely for the baths. The second, or Paracelsusquelle, has been the one generally used for drinking; it contains 0.038 parts of iron per litre, that is, $\frac{3}{5}$ths of a grains in 35 ounces, and is charged with 1,956 cubic centimetres of car-

bonic acid. The third spring (Surpunt), has only been opened this season. It contains 0.05 parts of iron in a litre, and compared with the last-mentioned spring it has less lime and is not so cold (7° C. instead of 3 to 5½° C.). The amount of carbonic acid is about the same. The Swiss doctors were in the habit of ordering the water to be drunk before breakfast, but for English and American visitors it is customary to take it between 9 and 12 A.M., or between 4 and 5 in the afternoon. The baths are generally taken during the morning. The water is artificially heated to about 90° F., a temperature which in successive baths is gradually lowered to 78° F. To avoid loss of carbonic acid, the heating is done by forcing steam into the water, either after the bath is filled, or (as in the newer baths) before it enters the bath tub. The patient lies down full length in the bath and is covered with boards, leaving only an opening for the head. Thus boxed up, he remains from ten to twenty minutes, and is encouraged to remain quiet in order that the bubbles of gas may develop on the surface of the body. It is this rich supply of carbonic acid which is the only factor in these baths, and it is due to its stimulating action that the temperature of the water can be reduced to a lower degree than could otherwise be borne. The iron is of course, as regards the bathing, of no importance. The newer baths are of faience or copper, instead of wood, and in them the system of covering the patient with boards has been abandoned. There is also a special douche house, masseurs and masseuses, gymnastic instructors, and teachers of Swedish movements.

Indications.—St. Moritz is indicated wherever a strong tonic is desired, if the patient can bear the altitude or the waters, or both. Hence it is suited for chlorosis and anæmia; when convalescence is protracted or after acute disease (typhoid fever, pneumonia, malaria, severe accouchements, etc.); after pleurisy; in tuberculosis in early or arrested stages, and as a prophylactic; in many disorders peculiar to females and dependent on anæmia; in asthma, hay fever, chronic bronchitis, and emphysema; in undeveloping children, especially with enlarged lymphatic glands, and after treatment for post-nasal growths or other forms of nasal obstruction; hysteria, neurasthenia, and nervous prostration; insomnia; and the large class of those who are run down, over-strained, or suffering from various forms of "nerves."

Contra-indications.—The climate would render a visit unadvisable in severe chlorosis, advanced and progressive tuberculosis, malignant tumours, epilepsy, chorea, rheumatism, diabetes, certain forms of albuminuria, aneurysm, fatty degeneration of the heart, and valvular disease, more especially when compensation is giving way. But all such lists are defective, as the question is not one of this or that disease, but of the general condition of the patient, and whether he requires and can support such a strong tonic as Engadine air, especially when taken with St. Moritz water.

Season.—The season lasts from June 15th to September 15th. The course lasts from three to five weeks.

Routes.—From the railway terminus at Loire several roads lead to St. Moritz; they all require about thirteen hours in diligence or private carriage. A less well known but shorter route (as regards driving) is to cross the St. Gothard to Menaggio, which is reached on the afternoon after leaving London, and then to ascend by Chiavenna to the Engadine. This route only requires eight hours in diligence, and Promontogno (at 2,700 feet) affords a pleasant intermediate station. It also avoids going over high passes; the St. Julies is 7,500 feet above the sea, that is, 1,500 feet higher than St. Moritz.

Clothing.—Intending visitors should bring a supply of warm clothing. It may not be required, yet on many evenings a fire is acceptable, and a snow storm in the course of a summer is not unknown.

COMPENSATION TO MEDICAL WITNESSES.

[FROM A LEGAL CORRESPONDENT].

The question of fees payable to medical men for giving evidence is one of considerable interest both to the profession and to the public. The recipients naturally want to get as large fees as possible, and those who have to pay as naturally wish to keep their expenditure within reasonable limits. Still the medical profession have no reason to complain that individual members of the public are unduly disposed to economy; where they have to avail themselves of skilled testimony, they are prepared to pay an adequate remuneration for it. It is well recognised in all branches of life, that trained intellects cannot be expected to work without being paid by those who require their assistance; and the amount of the payment is in proportion to the professional eminence of the persons consulted. When a man brings an action against a railway company or a public body, involving questions of medical or engineering skill or any other scientific knowledge, it is almost a matter of course that both sides shall employ skilled scientific witnesses. Their services are of course bespoken before the case comes on for trial, and the scale of remuneration for their assistance has at the same time been arranged, usually to the satisfaction of all the parties concerned. But when the litigation is not between individuals or corporations, but between the Crown as representing the community and an individual accused of crime, the possibility of making a satisfactory bargain seldom exists. Fees to all persons concerned in the conduct of an ordinary criminal prosecution are regulated by a scale, which was framed many years ago, and is distinguished more for the items which are altogether omitted than for the adequacy of the allowances for which it provides. For instance, jurymen get nothing for their services, not even their travelling expenses—ordinary witnesses are paid for their time at a rate which an artisan nowadays would refuse, and are allowed for their travelling and lodging expenses an amount notoriously less than the actual outlay necessary to keep them in the assize town—professional men are generally treated as ordinary witnesses—but lawyers and medical men may be remunerated for their time at the rate of a guinea a day, though their lodging allowance is no better than that provided for others, namely, 2s. 6d. a night. Witnesses called on behalf of a prisoner are remunerated according to the same scale as those called on behalf of the Crown, except where they may have made a private bargain for better terms. Such cases are, of course, rare, for their services are not often required on behalf of wealthy defendants. The only exceptions to the above inadequate payments are to be found in the comparatively few cases where the prosecution is conducted by the Treasury instead of by the county. When the Treasury intervenes, the fees paid, we believe, are better. We have, for instance, never heard that the medical specialists in insanity, who are consulted on the question of a murderer being irresponsible for his acts, complain of being badly paid for their work. If the Treasury would undertake the payment of all professional witnesses who are necessarily called in criminal cases, and would pay them on the same scale as those who are called in the few cases where the Treasury prosecutes, the medical profession would have much less ground for complaint than they have at present. But it is useless to hope for this. The majority of criminal prosecutions are pretty sure to be conducted on a system more or less similar to that now in force. All that can be expected is that the present scale of costs shall be revised, and settled on a more liberal basis. If the public once realises that individuals now are frequently not only put to considerable trouble, but are also actually out of pocket, when discharging their duties to society, the public will demand a change. Members of the medical profession more frequently than any other body are sufferers from the present state of things, and therefore are more than anyone else interested in getting it altered. The more frequently and the more effectively they can direct attention to the injustice which prevails, the sooner will the desired change be effected. If those who know and feel the grievance will not bestir themselves, no alteration can be expected.

SANITARY MATTERS IN SPAIN.

Some time ago the French Government commissioned Dr. C. Delvaille to visit Spain, and report upon its sanitary condition and administration. The outcome of this enterprise is a report of 124 pages, full of interesting information. Upon the whole, the picture is a much more favourable one than might have been expected; and as Professor Brouardel says in an introductory note, Spain is in certain respects in advance of other countries. Dr. Delvaille traces in outline the recent history of each branch of the public sanitary services, and the successive steps of legislation up to the present time. The organisation and working of each branch are described at some length, including not only the sanitary government of provinces, towns, and ports, but also the provision of hospitals and asylums of all kinds, and the system for the relief

of the poor. Among the hospitals are special institutions for leprous patients in certain localities, though isolation is also practised in private houses. As regards pellagra, Dr. Delvaille takes the view that the disease is one of malnutrition, and not dependent upon the maize fungus (*verdet*). Measles is common in Spain, he tells us; but scarlet fever rare. A system of notification of infectious diseases is in operation. Quarantine is directed against yellow fever and plague as well as cholera. Vaccination is organised and gratuitous, but only indirectly obligatory as a condition of school attendance. Prostitution is under strict regulation, with registration and periodic examinations. Most of the large towns seem to have a satisfactory water supply, although in some cases the quantity is unduly small, notably at Orviedo, where only 11 litres are supplied per head per day.

A striking contrast is drawn between Cadiz and the neighbouring town of San Fernando. The former is well sewered and the entire death-rate is nominal; in the latter sewers are replaced by leaky unventilated cesspools, and the death-rate from enteric fever is 3.1. Unfortunately, we are not told whether these statistics relate to a single year or to a term of years; nor is it clear how the calculation is made that of the two rates given above, one is only sixty times as high as the other. Madrid, Barcelona, and other leading cities are still imperfectly sewered; but Alicante, like Cadiz, seems to have little to complain of in this respect. The disposal of the dead is evidently a weak point, shallow graves and catacombs being still tolerated even in such vast centres of population as Barcelona. Dr. Delvaille describes with strong approval the well-equipped public laboratories, the primary purpose of which is the analyses of food samples.

THE BRITISH DENTAL ASSOCIATION.

Annual General Meeting.

The thirteenth annual meeting of the British Dental Association was held at Manchester on August 11th, 12th, and 13th. On the evening of August 10th the Mayor of Manchester entertained the members of the Association at the Town Hall, where a large gathering congregated to give a welcome to the guests of the evening. The business of the Association commenced at Owens College, which had been kindly placed at the disposal of the Association, Mr. J. Smith Turner, the retiring President, being in the chair.

Treasurer's Report.

The Treasurer's report showed that the Association was in a financially successful condition.

Secretary's Report.

The Secretary stated that the Association was actively engaged in promoting the best interests of the dental profession. The question of "covering" was before the proper tribunal, whose decision might be expected at no distant date.

Dentistry in the Navy.

Another result of the Association's efforts to arouse a proper interest in, and appreciation of, dental surgery in connection with the army and navy medical services had recently been published. The Medical Director-General of the Navy, recognising the justice of the claims made for certain branches of the service receiving dental attention, had ordered a limited number of naval surgeons on furlough to various hospitals with a view to their acquiring a knowledge of the elements of dentistry, more especially those relative to the immediate relief of pain. This was a recognition of the necessity of dental education and dental skill being required for the naval service generally. It was hoped in time to accomplish much on behalf of both the army and navy, and also of the training institutions which supply recruits for both services.

Teeth of School Children.

The report of the Committee of Investigation of the Teeth of School Children showed results so far which might be considered satisfactory.

Next Year's Meeting.

An invitation for the next year's meeting to be held at the World's Columbian Fair, at Chicago, was, with regret and thanks to the executive of the Dental Section, refused, and it was decided to accept the invitation of the Central Counties Branch, and to hold next year's meeting at Birmingham, and, as an experiment, it was arranged to hold the meeting in April.

Retiring President's Address.

Mr. Smith Turner read his valedictory address, in which, having pointed out some of the dangers and difficulties attending the administration of professional associations, thanked the members for their consideration during his many years of official work. He was then by acclamation elected a Vice-President.

President's Address.

Mr. Quinby, of Liverpool, was then inducted to the chair by the retiring President, and delivered an interesting address on so-called American Dentistry and its loss of prestige in this country owing to the unprofessional behaviour of many of its exponents. He quoted some words of a letter to the *Times*, by a member of the profession, pointing out that dentistry was catholic and that in every country all that was valuable was taught at the dental schools, and no secret processes practised.

Treatment of Crowding.

An important discussion was conducted on the desirability of removing the six-year-old molars in cases of crowding of the dental arch, and some valuable models illustrative of this method of treatment were shown by Dr. Davenport, of Paris. The general feeling of the Association seemed to be that for crowding in the front of the mouth the best result was obtained by the removal of the bicuspids.

Demonstrations.

Mr. Mummery gave an interesting lantern demonstration illustrating the micro-organisms of dental caries and also some beautiful ones showing phagocytes at work.—Dr. Hewitt and Mr. Rowell gave an interesting demonstration on anæsthetics, and several other demonstrations were given of a purely technical character.

Museum.

A very valuable museum was arranged illustrating irregularities of the teeth in the dental arch, and abnormalities in shape and form and structure of individual teeth; and when the various reports of the subcommittees appointed have been received, much valuable information should result. There was an excellent collection of microscopical slides on view, which were constantly changed.

Social Festivities.

The social part of the meeting was in all respects a great success. A garden party in Peel Park given by the Mayor of Salford, a *conversazione* given by the Manchester Odontological Society, and the entertainment at Buxton by Mr. Quinby, were in all senses marked successes, and good examples of the hospitality characteristic of the Midland district. The annual dinner was held at the Grand Hotel, and owing to want of space was rather crowded. One speaker struck a happy chord when he spoke of the dental department of the "healing art family" as the youngest brother; and that this was recognised in Manchester was shown from the fact that the Manchester Pathological Society had admitted dentists to its membership. We may again congratulate this "young brother" among associations on its success, and wish it every prosperity.

Medicine in Algeria.—A Committee has been formed at Algiers for the study of medical questions such as medical and surgical geography, syphilography, gynæcology, hydrology, flora and fauna, and public assistance in their relation to the climatic and social conditions of the colony. The object proposed to themselves by the Committee is not so much the codification of a system of medicine specially adapted to Algeria, as the collection of a body of facts on which definite conclusions as to etiology, treatment, and prophylaxis may be based. The Committee numbers among its members Drs. Bruch, Gros, Herail, Malosse, Merz, Rey, Planteau, Trolard, and other prominent practitioners in Algiers.

THE ILLEGAL SALE OF POISON.

WE mentioned last week that the action recently taken by the Public Prosecutor in regard to the illegal sale of proprietary medicines and other articles containing poison is being steadily followed up with great public advantage. It may, indeed, reasonably be expected that the anomalous state of things which has prevailed for so many years will now be put a stop to, and that the efforts made by Mr. Ernest Hart, with the approval of the Parliamentary Bills Committee of the British Medical Association, to obtain a more appropriate observance of the provisions of the Pharmacy Act in respect to the safety of the public, will be attended with success. It may be as well, therefore, to clearly define and explain the position. The Act defines the articles which are to be deemed poisons, and in the sale of which certain specified precautions are to be observed in order to prevent accident and misuse. With that object, it is provided that poisons are to be distinctly labelled, and that the sale of them is to be restricted to registered chemists and druggists, who have been certified to possess the knowledge requisite for dealing with poisons. The restriction of trade imposed by these provisions has been found conducive to the public interest, and to be unattended with inconvenience; but hitherto the salutary influence of the Act has been only partial. By a strange misconception it has been supposed that the provisions of the Act do not apply to the secret medicines and other proprietary articles which are liable to stamp duty under the 44 and 52 George III. The only ground for this supposition is a loose application to those articles of the term "patent medicine." Medicines and proprietary articles which are the subjects of letters patent under the Great Seal of England are, among others, liable to stamp duty, and it is true that some of the provisions of the Pharmacy Act in regard to poisons do not apply to such patented articles; but the great majority, if not the whole, of the secret medicines and proprietary articles to which the term "patent" is applied in ordinary parlance, are not the subjects of letters patent, and they are therefore in no way entitled to the exemption provided for patent medicines in the Pharmacy Act. Consequently, if any such article contains a poison within the meaning of the Act, it is, in the eye of the law, a preparation of that poison, and as such its sale is unlawful, unless the provisions of the Act are complied with.

That the position in which proprietary articles stand in regard to the law is really that above stated has long been apparent to persons conversant with the subject, and the application of the law to such articles has been prevented only by the secresy maintained as to the nature and composition of these articles. The Government stamp, which is the sign that the articles are subject to taxation, has been regarded as an indication that they are the subjects of letters patent, and thus an enormous evasion of the law in regard to the sale of poisons has been systematically practised. Though many of the articles now referred to contain poison, they have been sold without having the poison label, which would be requisite even in the case of true patent medicines. Potent and dangerous narcotic preparations have thus been extensively sold in all kinds of shops, and with no more precaution than if they were absolutely harmless. In many instances fatal consequences have followed, and it is impossible to estimate what other evil effects have been the result of this mischievous practice. But it is certain that no conditions could offer more serious sources of danger to the public, and that there is urgent necessity for enforcing the provisions of the Pharmacy Act in regard to all secret medicines and proprietary preparations containing poison.

We are glad to learn that the Council of the Pharmaceutical Society has already moved in this matter, and that satisfactory progress is being made towards general compliance with the law. From the fact that proprietors of secret remedies are of their own accord taking steps, by labelling and otherwise, to make known the presence of poison in their preparation it may be inferred that they recognise the illegality of the practice hitherto followed. It is upon the proprietor of these articles that the onus lies of conforming to the law and protecting retail vendors from liability to prosecution and penalties for the unlawful sale of preparations containing concealed poison. In the absence of labels disclosing the presence of poison as the law requires, retailers of these preparations may unknowingly commit an offence, but they will be none the less liable to the consequences of doing so. Already we learn that a number of such prosecutions have been instituted, and that the persons proceeded against have paid the penalties with promises not to offend again. This is in some measure encouraging, but it must not be overlooked that the illegal sale of poison in the form of preparations bearing the medicine stamp is a very widely-spread source of danger. It is the effectual stoppage of that practice we look to as the result that must be attained, and not merely the infliction of a few penalties here and there. It is to be hoped therefore that the notice which we understand is about to be issued by the Council of the Pharmaceutical Society will have the effect of directing serious attention to this matter and bringing about the reform which is so requisite.

THE IRISH DISPENSARY MOVEMENT.

HOLIDAYS FOR IRISH DISPENSARY DOCTORS.

WE continue to receive gratifying proofs that the agitation recently set on foot by the BRITISH MEDICAL JOURNAL, for obtaining an annual holiday for the wretchedly-paid and hard-worked Irish dispensary doctor, is already bearing good fruit. In a copy forwarded to us by one of our medical correspondents of the *Derry Sentinel* of August 11th, containing a report of a meeting of the Strabane Board of Guardians, we find that:

Mr. Simms, in accordance with notice of motion, moved that the medical officers of the Strabane Union be allowed an annual holiday of two weeks, as convenient for them and consistent with the due discharge of their duties, with substitute provided at the expense of the rates. In their medical officers the Board had educated gentlemen performing arduous duties among the poor of the district. The excessive strain on the endurance of these officers was such that they frequently had to apply for leave of absence on the ground of ill-health, and the Board had to provide a substitute. If the medical officers were granted a fortnight as holidays there would be much less sick leave and a saving to the rates. He had calculated that a fortnight to each of their six officers, at three guineas per week to the substitutes, would involve an outlay of £36 per annum. Half of this would be borne by the Treasury, and the remainder would be on their valuation such an infinitesimal amount that no ratepayer could be the poorer.

The proposal was discussed in a very fair spirit, and ultimately adopted by a considerable majority.

THE CONSTITUTION AND ANNUAL MEETINGS OF THE BRITISH MEDICAL ASSOCIATION.

THE ASSOCIATION: ITS HOME AND FINANCIAL STATEMENTS.

Dr. GEORGE C. KINGSBURY writes: The important announcement made by Dr. Withers Moore at the annual dinner, that "the Council intended, at no distant date, to set aside £50,000 to £60,000 for the purchase of a freehold site and the erection of suitable buildings to form a metropolitan home for the Association," will, as you say in your last issue, be received with much interest by the Association at large.

I should hope, however, that before the Council commits itself and us to such a scheme, it will give the body of members an opportunity of expressing its opinion on this "new official programme."

The financial position of our Association is now most satisfactory, as according to the last year's statement the total assets exceed our liabilities by £45,195, and on the year's working there is a surplus of £3,861.

Personally, I feel proud to be a member of so flourishing an Association, and convinced that from a purely monetary point of view, the proposal of the Council is amply justified, but as an individual member I should like to have time to think if this will be the wisest way to spend our £50,000, and if a "metropolitan home" would be the greatest boon the money might confer on the greatest number of our members.

At the moment I fancy the great bulk of our members are very well satisfied with the handsome offices in the Strand, and I would like to read a discussion in the BRITISH MEDICAL JOURNAL on some alternative schemes for the employment of the £50,000.

I would suggest that this sum might be better devoted to (1) providing pensions for aged medical men who had been members; or (2) assisting the widows and orphans of deceased members; or (3) founding a British Medical Association Col-

lege for the education, at reduced rates, of the children of poor members, and, free, of the orphans of deceased members.

Fifty thousand pounds invested at 4 per cent. would yield an annual income of £2,000. This sum would give £100 a year each to twenty incapacitated members, or £50 a year each to forty necessitous families. If, again, £10,000 was spent on building a college, the remaining £40,000 would furnish it with a working income of £1,600 per annum.

Of course, it may be urged that men should be provident, and make provision for their own old age, and for their widows and orphans; and, further, that Epsom College is already in existence. But some men never are in a position to save money, some lose what they have saved; and, again, Epsom College is not nearly adequate to meet the applications which it receives.

Many other ways of spending the money will suggest themselves, such as the founding of additional research scholarships for the furtherance of science; but my object in writing will be served if this letter induces the Council to ascertain the general feeling of the Association before embarking on the Metropolitan Home scheme.

It must not be lost sight of that even if the Association should declare against the project now, it need only be postponed, as with the funds so rapidly increasing, the Council will soon find itself with another surplus as large as they hold at present.

One of Those in the Dark writes: Dr. Moore's announcement that we are to be asked shortly to expend about £60,000 on building a house in London, which is to be a permanent metropolitan home for the Association, is indeed, as is stated, an "important" one, and is, it may be assumed, a prelude only to a further statement by him, which will give a little more light than his well-expressed but very brief announcement at the dinner, which was very imperfectly heard, and is hardly, I should think, fully reported. What sort of a home is this to be? In the present house an insurance office appears to have been converted into a building of which the main honours are given to a sumptuous ground floor, set aside for an army of bookkeepers, and a huge mahogany sale counter, while the committees are unceremoniously pushed up into low-pitched quaint little rooms at the top of the house, and the library (altogether an after-thought for utilising the Council room) is stated to be already in need of further accommodation.

Will Dr. Moore tell us whether the new house for which this grand sum is asked (more than we have got, by-the-by—is it not?) will provide a little better accommodation for country and service members?—say, a few dressing-rooms, a place to leave one's bags, the possibilities of a cup of tea, a respectable waiting-room, and one or two interview rooms. Might not the bookkeepers be a little less obtrusive, and the higher sides of the Association and its work a little more in the foreground? At present there is none of the accommodation I speak of, and to get to the library one has to run the gauntlet of a counter full of clerks and newspaper boys, and to find one's way through a swing glass office partition to a staircase hidden from view which leads up to the Council Room (so marked) in which the books are kept. To reach the committee rooms one has to climb the most breath-taking lofty staircase I ever had the pain of mounting, past walls daubed with the black smears of the fingers of the printers' boys, whom one constantly meets on the stairs, and the cornices thick with accumulated dust, finally reaching a little labyrinth of ill-ventilated low-pitched rooms most inconveniently situated, and apparently part of a very ill-built old dwelling-house subsequently taken in.

I cannot make out from any published statement, but I suppose there can be no objection to our knowing, since this we are now told is a limited company, of which we are the proprietors and members, what has been the amount of money spent on our present house and its contents? I suppose its conversion to its present use was costly; if so, to what amount? We have not been long in it, when and why are we to move out of it? It will be very interesting, especially to country members, to know how far the new £60,000 house will really be a home for them, even for a few hours, when they have to come to London; what is to be, speaking generally, the plan of its construction; and what accommodation it will afford for our committees, library, reading-rooms, and for the other subsidiary purposes which I suggest.

Will our kindly and courteous President of Council oblige us with information on these distinct and various heads, financial and social. It will be much appreciated by the members at large, and it is only reasonable it should be made known to us in further explanation of the brief after-dinner statement. I am inclined to think if we had been taken into the confidence of the Council, or its house committee, when the present site and house were selected we should have demurred to a great many of the existing arrangements, or deficiencies of arrangement, as not conducive to the dignity of the Association or the comfort of its members. It is too late to grumble afterwards, but a little preliminary open council on the points indicated may, it will be felt by the members at large, and no doubt also by Dr. Withers Moore, be very fairly asked from him.

Rusticus Expectat writes: The intimation of our esteemed President of Council that it is in contemplation by the Council to ask for the approval of the members of the Association of an expenditure of something like £60,000 on the purchase of a freehold and the erection of a building suitable as a metropolitan home for the Association, will come like a cold douche upon the majority of the members.

It rather rudely awakens most of us from the impression that we had a permanent home at 429, Strand, of a very grandiose character, and certainly one on which there has been a very large expenditure.

The published financial statements are not very explicit on this head, and a good many items are mixed together, no doubt for very good reasons, but as Dr. Withers Moore has thrown out this semi-official intimation it will, I am sure, be agreeable to the members generally, as it is necessary for their comprehension of the position and proposal thus put before them, if he will explain the facts and figures a little more explicitly to us.

First, then, it would be very useful if the members were informed what is the nature of their property in the premises at the Strand. It has, I believe, been pretty widely assumed to be either copyhold or freehold. We have heard more than once of the fine property which our financial administrators have secured for us in our present stately premises, but I cannot find it anywhere stated what is its tenure, or for how long we hold it. If a freehold or a copyhold, or even a long leasehold for over sixty years of the ordinary nature of a trusted security, such as generally constitute the widest latitude for investments of a public association such as ours, it must be valuable property, however heavily mortgaged. I rather assume, however, from Dr. Moore's speaking of the future provision of a permanent home that it is leasehold.

Secondly, if so, it is important towards our forming a judgment that members should know (*a*) the date at which the lease was purchased, and the sum expended on purchasing the lease (including legal expenses, surveyor's fees, etc.), terms of lease when purchased, and the unexpired term now; (*b*) the outlay sunk in alterations and fittings, decorations, etc., at the outset and up to this date, including amount annually set aside for depreciation of such lease and fittings; (*c*) the estimated realisable cash value of the property to-day, or at the time at which our new move is to be made. Everyone visiting the present building must have been struck with the considerable structural changes which have been made in the old Briton building, with which so many of us were only too sadly familiar as a specimen of unfortunate medical finance in former days.

The general clerks' office on the ground floor, I have always thought very spacious and imposing, and the council room, lately used also as a library and reading room, lofty and handsome, although judging from the piles of books about the floors it is apparently already rather cramped for space. The rooms at the disposal of the committees are on the other hand difficult of access and evidently inconvenient in many ways.

I can only guess from the annual balance sheets presented, but it looks on the face of them as if something like £10,000

to £15,000 had been spent in the last few years on improvements, fittings, and depreciation. Perhaps the Treasurer, Mr. Butlin, or Dr. Withers Moore, will kindly supplement the information before us and let us have these necessary items for our judgment of the proposal put before us by the President of Council. It is rather a large expenditure which has been made, if my rather vague and necessarily uncertain deductions from the compressed financial statements published are any way near the mark, although I by no means imply it is necessarily too large, or that it has been in any way improvident. But now those of us who are at all accustomed to dealing with house property, and who have been flattering ourselves that the members had a property not altogether unworthy to be considered a metropolitan home of the Association, may be expected to ask for a little information when asked publicly by a high official to prepare for an expenditure of £60,000 more to provide a permanent home, while our total property accumulated, as announced by our Treasurer, is only £35,000. It is evidently reasonable that we should know how much has been invested in outlay on what it appears now is to be only our temporary home. (1) What has been our expenditure in this temporary home? (2) What is the cash value of the property acquired by such expenditure? (3) How long shall we have our present house over our heads, and when shall we have to make a move and find the said £60,000 for brick and mortar purposes, and what cash return shall we get for our late expenditure on our Association house when we do move?

Of course, such details could not well be given in an after-dinner speech, and all this information it will be easy for our excellent officials to give in a statement in the BRITISH MEDICAL JOURNAL. They can thus be read leisurely, and discussed deliberately, before a suitable audience, as their great importance obviously demands, and as cannot be done either at a dinner or at the general meeting.

PLEAS FOR THE STATUS QUO.

IN reply to "A Correspondent," Dr. HUGH WOODS writes: These suggestions for "the ending of this dangerous farce" are objectionable and impracticable, and any attempt to carry them out would endanger the future of the Association.

As regards the annual meetings, anyone who attended them will have observed that, while the meeting in the morning of the first day is apt to be very small, that in the evening is full and well attended as a rule. The "unimportant atoms," etc., are just as much in evidence at the latter; but members have had time to come in from distant places without disturbing those sacred hours usually devoted to repose. Again, no meeting of ordinary mortals will properly discuss subjects varying from the Eyesight of Railway Servants to Hypnotism and Hospital Reform for more than two hours at a time without respite or refreshment. What is wanted is not so much any revolutionary change in the constitution of the Association as a little common sense in the arrangement of the annual meetings

I quite agree with Dr. Wilkin as to the desirability of sending voting papers to all the members; but when I brought forward the proposal of proxy voting in order to allow of this, it was negatived by a considerable majority. Dr. Holman ought, I think, to be content with the very complete safeguard provided by law against hasty alteration of Articles of Association. If that does not suffice, probably no other safeguard would do so. I hope, however, that Dr. Holman's remonstrance may prevent any tampering with the constitution of the Association in the way suggested by the writer mentioned above.

I think myself that it would be much better if it were required that notice of any resolution to be brought before the general meetings should in every case be published at least once in the BRITISH MEDICAL JOURNAL before the meeting at which it is brought forward. And this ought to apply to any motions to refer back or alter reports of Council or Committees, such reports being published so as to allow time for notices of objection. The present method, by which resolutions of vital importance can be brought forward without the knowledge of the members of the Association generally on the shortest notice, seems to me objectionable and dangerous, but this can easily be rectified without casting the Association into the melting-pot again.

Mr. GEORGE BROWN writes: Referring to the communication in the BRITISH MEDICAL JOURNAL of August 13th on the constitution of the Association, I must express my surprise and regret that you should allow an anonymous correspondent to apply opprobrious epithets through the columns of our JOURNAL to other members of the Association, the least worthy of whom is probably as anxious to promote the success of the Association as he is himself.

The paucity of the attendance at the first general meeting at Nottingham, of which your correspondent complains, is not due to any lack of interest on the part of the members, but to the fact that the hour at which it was convened (11.30 A.M.) rendered it impossible for members residing at a distance to attend unless they reached Nottingham overnight, or left their homes at an unearthly hour in the morning. When, a few years ago, the Council invariably convened the first general meeting for 2.30 P.M., or later, on the opening day, it rarely happened that fewer than 300 members were present when the President commenced the proceedings. If it is necessary to have a sermon from a bishop on the opening day of the meeting, let the ceremony be got through in the morning before the regular business of the meeting commences, as was done at the Bath meeting in 1878, and, I believe, at other meetings since.

I fail to see why the Council should shrink from submitting their annual report and balance sheet to the members at a general meeting. It may be distasteful to the members of the Council to be compelled to submit to the criticism of "faddists, irreconcileables, and spouters;" but that is the penalty all have to submit to who undertake to direct and control great public companies, and I doubt whether they will be able to avoid it without the friendly aid of an Act of Parliament—of which there is little hope as long as "Ireland blocks the way."

To talk of referring the report and balance sheet to the Branches is folly, because, even if legal, it might readily become an evil and serious danger to the stability of the Association. Better submit to those ills we have than fly to others that we know not of. Moreover, it is as well to remember—what your correspondent appears to be ignorant of—that thousands of our members are not attached to any Branch, and to refer all business to the Branches would be to disfranchise a large proportion—probably more than half—of the members.

Your correspondent's complaint that he is compelled to read the lucubrations of loquacious irreconcileables in the BRITISH MEDICAL JOURNAL "at painful length and most distressing frequency throughout the year" does not apply to "the sempiternal Mr. George Brown," seeing that a contribution to the BRITISH MEDICAL JOURNAL from my pen rarely appears more frequently than once in two or three years.

In the concluding portion of his communication, your correspondent vaguely refers to something which occurred at the Nottingham meeting calculated "to raise a smile of derision or a blush of shame," and obviously pregnant with peril. May I ask him to be a little more precise? If peril awaits us we ought to know from what quarter and in what shape. Derision, shame, or peril notwithstanding, I have the satisfaction of knowing that on every occasion I addressed the members at the Nottingham general meetings, a majority of those present recorded their votes in favour of the proposals I supported. As long as I find I am acting in unison with the majority of the members of the Association, the smiles or frowns of your anonymous correspondent are a matter of indifference to me.

THE MODE OF ELECTION OF BRANCH REPRESENTATIVES ON THE COUNCIL: AN APPEAL FOR INFORMATION.

J. S. writes: The discussion by a correspondent in the BRITISH MEDICAL JOURNAL of August 13th, p. 379, and the points which he raises as to the "undeniable evil," and "potent mischief" are made at an appropriate time, coming immediately after the general meeting, and will no doubt give rise to a lively, and it may be hoped a useful, correspondence. It may, however, perhaps be usefully suggested that it is as well not to take these things too seriously. No doubt there is a ridiculous side to a small meeting of thirty or forty gentlemen debating and over-ruling at a meeting of accidental com-

position, and in a more or less remote town, the deliberate decisions of the council of 100 carefully-elected representatives of 14,000 members, but it does not necessarily follow that the proceedings are therefore a dangerous farce. After all, twenty-five earnest-minded men may perhaps sometimes arrive at safer conclusions than 14,000, and even when twenty-five are gathered together their conclusions are not always to be despised. Granted, as I suppose no one will deny, that some of the proceedings at these meetings have their ludicrous side, good-natured people will not be disposed to treat the hilarity with a smile of derision, nor need the fact that there is a little clowning and occasional ranting at such meetings excite "derision," nor need it raise the "blush of shame" except on the cheeks of the very sensitive. Even the Imperial Parliament is not without its Mortons, its McNeills, and its Kellys, and it is not to be supposed that members of the British Medical Association are so more than ordinarily reasonable and lucid, that its general meetings should not be the occasional resort of chronic obstructives of the kind described by your correspondent as "loquacious and irreconcilables." The subject may as well be discussed, as discussed it evidently must be, with calm and good temper, and something of that human tolerance which so greatly facilitates progress of affairs amongst fallible mortals.

Moreover, there are one or two *lacunæ* in your correspondent's argument which seem to require filling up before he can expect all his statements to be accepted or his conclusions to be adopted. Thus he speaks of the General Council as a thoroughly representative body elected by the members in their Branches to transact the business of the Association, in the same way that Parliament transacts the business of the country by representatives elected in counties and boroughs. To a large extent, no doubt, the analogy holds good, but to make it conclusive and binding, we ought to know how those representatives are elected, and whether they are elected by the members at large in a free and constitutional manner, and on some uniform method. It is far from certain, and it is not alleged in the correspondent's argument that this is so. If, as is stated, and indeed was a matter of urgent complaint at the Nottingham meeting, the representatives of the Branches on the Council are elected in some Branches by very restrictive and incomplete methods, which tend to limit the electoral privileges of the members in their Branches, it is obvious that the representative character of the Council is considerably weakened, and that its claim to be considered the Parliament of the Association is imperfect. The complaint, as stated at the Nottingham meeting, appears to imply that in such Branches—the Metropolitan Counties Branch being specially mentioned—the members have little or no opportunity from one year's end to the other of discussing their own affairs or the affairs of the Association or of their Council; and it was alleged at the last general meeting of the Metropolitan Counties Branch that the mode of election of the Council of the Branch and of the representatives of the Branch on the Central Council of the Association was such as to deprive the members generally of any fair power of nomination, or of altering the character of their representation except by some form of cabal. A resolution appears to have been moved at the meeting of that Branch, which indicates that the allegation has some solid foundation in the minds of many members, that the Council is a self-nominated body, which issues shortly before the general meeting a house list of members of Council proposed for re-election, and of new members proposed by the Council to take the place of those retiring, and as this official list is a prerequisite for their election, and carries with it in any case the whole weight of official recommendation, they practically have in their own hands the re-election of three-fourths of their own body, and the election of one-fourth whom they recommend.

Moreover, it is stated that they have in the same way in their own hands the nomination of their representatives on the Council, and that this generally ends in the nomination, so to speak, by the secretaries of themselves as representatives on the Council, and their election as such. This is really very much as if, in a Parliamentary election, the aldermen of a borough, having previously issued official lists re-electing themselves and suggesting the members who should be added, were entrusted with nomination and election of the member of Parliament to represent the borough. It is understood that in many Branches a much more popular and constitutional form of election is in practice. But it would be as well if the secretaries of the Metropolitan Counties Branch would inform us how far the impression conveyed to the meeting by the complaint of Dr. Hugh Woods and others is a correct one, as to the mode of election of Branch Council and the representatives on the General Council. It would be exceedingly interesting if the British Medical Journal could inform us what is the method employed in each Branch for the election of the Branch Council and of the representatives of the Branch on the General Council. Obviously, whatever be the amount of latitude, or as is now the favourite autonomy, allowed to each Branch in the management of its own affairs, in matters relating to the administration of the whole Association and the constitution of its large representative Council, the franchise should be such as to leave it open to any limited number of persons to make nominations for the election with due notice, which nomination should be issued by the Branch Council together with the notice summoning the meeting. Is this what is done in any of the Branches? At any rate, some clear statement on this head would appear to be necessary before it could be assumed that the Council is really representative of all the members in their Branches, as it is described in the statement referred to.

Unattached Members.

Not a Branch Member writes: There is one omission which greatly vitiates "A Correspondent's" argument in the British Medical Journal of August 13th. It speaks of the members of Branches assembled as though they were the whole Association. Without taking the trouble of counting what are called unattached members, it may probably be assumed that they amount to two or three thousand. What method of representation is allotted to them? Are they disfranchised by the present constitution, and cannot steps be taken for their enfranchisement? At present they have no opportunity of voting in any form for the election of representatives on the Council. The army and navy medical officers form a very numerous body of the Association; they are scattered over the face of the earth, and many of them necessarily unattached to Branches; their interests are considerable, and they constitute an important part of the Association; and their subscriptions add a great deal to its income. Are they represented or to be represented?

The Sections and the Council: A Complaint.

A Member of Sections writes: There was one curious little incident at the annual meeting which seems to deserve notice, as indicative of what would appear to be either a flaw in the constitution or carelessness in working it.

On the Daily Journal at Nottingham were enumerated two or three resolutions passed by Sections in August, 1891, on subjects of a good deal of professional and public importance requesting the Council and the Parliamentary Bills Committee to take certain proceedings and make certain representations on the subject of obstacles in the existing law to sanitary proceedings, and the forbidding of hypnotic performances as a matter of public amusement and by unqualified persons.

These resolutions, it was announced, could not be acted upon because they had not been submitted to the last annual meeting, and they had therefore to be thrown over for a year, and were brought before the last day's general meeting at Nottingham and passed without a word of discussion together with a host of complimentary votes before an audience which appeared hardly to include even the statutory 25. What is the explanation of this? Does the constitution require that representations made by resolutions in sections must come before an annual general meeting before either the Council or the Parliamentary Bills Committee can consider them? On looking through the minutes of the Council and of the Parliamentary Bills Committee as published in the Journal I cannot find that one of these resolutions, in which I feel some interest, have been considered or acted upon by either body, and the action taken in bringing them before the annual meeting at Nottingham, after an interval of twelve months, together with the reason stated in the programme for so doing, appears to indicate that they were

not brought before either of these Committees in the meantime, but were deferred, on the question of form, for twelve months. It is not at all clear to one not intimately versed in the laws and by-laws whether any such resolutions should require to be brought before an annual general meeting before the Council or Parliamentary Bills Committee can take them into consideration. If this is the law, and perhaps the JOURNAL can say whether it is and how the by-law which requires it is worded, surely the secretaries of sections ought duly to be informed of this formal necessity, and advised and required at once to forward to the General Secretary copies of any resolutions of the kind passed in the sections in order that he might submit them in the course of the actual general meetings held daily for the purpose of transacting business. In this way the delay of twelve months might be avoided.

It may be noticed that a resolution of this character, of which the BRITISH MEDICAL JOURNAL speaks last week, and one of great public importance and justifying the cosmopolitan influence and usefulness of the Association and its Branches, was passed in the Section of Medicine at the recent Nottingham meeting, and referred to the Council to take action thereon. This resolution is that respecting the necessity for large and active sanitary measures in the native state of Cashmir, one of the birthplaces of the epidemic of cholera which has now passed the European frontier, while it is throwing the whole of Europe into a state of alarm and costly preparation, and yet more costly interference with commerce and travel. According to the course taken in respect to resolutions dealt with in the dilatory manner referred to, this resolution also will have to be thrown over for twelve months, since it was not brought up before the final annual meeting at Nottingham, but only the resolutions passed in the sections twelve months before. If this be really due to any defect in the constitution of the Association it might as well be remedied, while other amendments are being considered; if it be the result either of neglect or imperfect information, it might also be as well to take care that such neglects are not repeated, and that full information should be supplied to the secretaries and officers of sections from year to year.

THE ADMISSION OF WOMEN TO THE ASSOCIATION: A CONSTITUTIONAL ARGUMENT.

FAIR PLAY writes: Under the guise of conservatism Dr. Holman supports a proposition which is revolutionary, and with an assumption of constitutionalism he puts forward an argument which, if examined, seems to be subversive of the present constitution of the Association, and contrary to its spirit and letter.

The constitution of the British Medical Association, over the revision of which Sir Walter Foster and his colleagues on the Council took much pains, expressly provides that any change which is to be made in the laws and by-laws of the Association shall only be made after due notice has been given and officially published in the JOURNAL of the Association, at a special general meeting of the Association, specially summoned by the Council; also by published notice, which notice shall set forth the business to be transacted, and that no other business shall be transacted at such meeting.

All this was duly done in the present instance. Moreover, the question of summoning such meeting, and the form of resolution to be submitted to it was submitted to the representative Council of the Association, on which all the Branches are represented, and was decided by them affirmatively.

The advocates of the sovereign power of the Branches will therefore note here with satisfaction that the Branch representatives concurred in the regular and constitutional proceeding adopted; that the proposal was the outcome of the suggestion of, I think, three Branches, one or two of which, feeling the injustice and inconvenience of the particular by-law brought under consideration, had felt called upon to evade it by inviting as visitors the reputable and legally-qualified practitioners whom it artificially excluded under the temporary influence of a now decayed and evidently almost extinct prejudice. The resolution itself was proposed, according to the published record, both in the Council and at the special general meeting, by a representative of one of the largest Branches, of which Dr. Holman himself is a distinguished ornament.

Thus not only were both the spirit and the letter of the law acted upon in the very fullest possible or conceivable manner, but (by the Branch initiation of the proposal and its endorsement by the Representative Council as a resolution proper to be submitted to a duly summoned and duly noticed special general meeting, as by law provided), some additional theoretically desirable guarantees were afforded.

But, says our excellent Vice-President and ex-Treasurer, why not give all this the go-by and take a preliminary *plébiscite*? Where will he find a warrant for this proposal in the constitution of the by-laws? That was indeed a method of defeating representative government introduced by Napoleon III., who aimed at securing a vote from those who could be depended upon as having neither heard the arguments or weighed the facts; but at any rate, there is no provision for such a proceeding to anticipate decisions of a special general meeting in our constitution.

Indeed the whole of that constitution itself, involving as it did momentous changes, and indeed the reconstruction of the administrative fabric of the Association, was carried and confirmed by precisely the method which Dr. Holman now treats as insufficient in theory—although not only adequate, but the only adequate method in law—to change a solitary by-law. The new constitution was put, in the same way, before the same kind of meeting; it was confirmed in the same way, and at the same place of meeting as that now selected; except only that the attendance in both instances was, I believe, small, and far from being unanimous.

This particular special general meeting at Nottingham was apparently the largest ever held. It was estimated in the various medical journals at between 300 and 400. The resolution was carried with only four or five dissentients and received with general acclamation. This large attendance was secured by putting the motion immediately before the address of Professor Hingston, to which a large and influential audience would be naturally attracted. This intelligent method of giving substantiality to all the proceedings formally laid down by the laws, and avoiding even the possibility of a snatch vote, was crowned with success, and secured a very large and influentially constituted meeting, which included a large attendance of the Branch representatives and the Council on the platform as well as a well-filled floor of the hall, including a number of leading men from all parts of the country. It contrasted very strongly and favourably with the average general meeting or with the special general meeting held at Birmingham to decide I know not what important question, at which it was stated in the course of the Nottingham meeting there were for a long time only twenty-four members present, principally members of the Council, and when at last, after a dreary waiting and sending out to secure a quorum of twenty-five, a stray member wandered into the room, he was received with a burst of cheering which highly gratified his pride of popularity, until the succeeding and continued hilarity explained the nature of the service he had rendered and the special reason of the demonstration of welcome which had greeted him. I do not know that the force or validity of the proceedings of that meeting were ever doubted, or that it led Dr. Holman or any other member present to make a proposal to over-ride it.

Moreover and finally, even if Dr. Holman had got his *plébiscite*, it would be of no legal effect; under the existing constitution he would and should have to submit it to the very kind of special general meeting which has been repeatedly held, and which the law provides shall be the governing power, but to which he now objects; and it alone could make, as it has made, a legally binding resolution on the subject.

If Dr. Holman wants to make a change in the constitution, which may be very salutary, that is a matter open to him in the future. And the lines for such a change are suggested in the argument of a correspondent in the BRITISH MEDICAL JOURNAL of August 13th, page 389. But those propositions were broached then only for the first time in continuation and development of an argument put forward in the leading article of August 6th on the Nottingham meeting; and as they would involve a remodelling of the constitution of the Association, and a shifting of the source of power, together with a corresponding alteration of the machinery, this will require naturally more than a week's consideration.

Meantime, let us continue to pursue openly and firmly as heretofore the course of legality and constitutional prescription.

C. Howell Collins (Chew Magna) writes: I quite agree with the letter of one of our Vice-Presidents, and that of Mr. G. Charles Wilkin, which appeared in the British Medical Journal on August 13th, and wish as an old member of the Association (1847), to add my emphatic protest against the suggested alteration in Article 4, and the manner in which it is proposed to confirm "the resolution" of the meeting at Nottingham—without every opportunity being first given to all our Branches to discuss the question of the desirability, or otherwise, of reversing their former decision.

I consider, also, that every member should have the power of recording his vote in some such way as recommended by Mr. Wilkin.

Such a radical change in our laws ought to be well debated and considered before being confirmed (or not) by a comparatively small number of associates who may find it in their power to attend at the meeting to be held at the offices of the Association on the 24th inst.

CHOLERA.

The most important piece of news during the last week is that Asiatic cholera has crossed the Russian frontier, and has caused a considerable number of deaths in and about Lemberg. It is thought probable that the infection may have been imported in rags, in which article of commerce the Jewish inhabitants of the district do a considerable trade.

Major L. Flower, Sanitary Engineer to the Lee Conservancy Board, has addressed the following circular letter to the sanitary authorities in the Lee watershed:

In view of the probable importation of Asiatic cholera into this country and the necessity of preventing pollution to sources of water supply may I ask that, as in 1884, when I made a similar request, you will kindly inform me of any contamination which may come under your notice, and that you will see to abatement of nuisances, such as offensive manure heaps, overflows from cesspools, privies, and such matters in detail which may contribute to the fouling of the river Lee and the tributary streams thereof.

Our Paris Correspondent writes: M. Proust has informed the Comité Consultatif d'Hygiène that the epidemic of choleraic diarrhœa has almost disappeared from the environs of Paris, and the districts supplied with Marne and Oise water continue to enjoy an immunity from the epidemic. Courneuve, 300 yards from Aubervilliers, but supplied with pure water, has not furnished a single case of cholera. The Mayor of Argenteuil writes to the *Temps* to correct exaggerated accounts of the epidemic there. The deaths were from four to five a day among a population of 14,000. Now there is in the same commune an epidemic of typhoid fever, which causes from two to three deaths a day. Four large filters are established for supplying potable water and water for household purposes. Dr. Biron, Médecin en Chef of the Argenteuil Hospital, states that the epidemic broke out the second week in June. At the onset it was a benign form. The absence of rain had lowered the level of the Seine river, and all the filth accumulated on its banks, deposited there by the Paris sewers, was immediately exposed to the rays of the sun. The Oise water being insufficient, Seine water replaced it; the inhabitants were thus poisoned by air and water. The cases of cholera nostras increased, and resembled greatly in its symptoms Indian cholera, killing in a few hours, but differed by being much less contagious and not spreading. The epidemic was the most severe at a village called Mazagran, inhabited by Belgian and Italian earth labourers, who neglect the simplest elements of hygiene. The Argenteuil Hospital, always insufficient, was besieged. The Municipal Administration created 25 beds. The total number of deaths during the epidemic, including infantile cholera, always abundant at this season, amount to 220. The working classes only have been attacked. At the Conseil d'Hygiène Dr. Dujardin-Beaumetz stated that during the last fifteen days there were 72 deaths in the environs and 4 at Paris. In case of a severe epidemic disinfection could not be sufficiently rapidly effected. The present staff would be inadequate. Dr. Dujardin-Beaumetz urged that a disinfecting service should be organised for the environs of Paris. Baron Larrey, Dr. Ollivier, and others present at the meeting regretted the many instances of mistaken diagnosis; peritonitis, typhoid fever, etc., have been described as cholera, transport carriages and inspectors have been sent on useless errands. Dr. Proust stated that among fourteen cholera patients sent to his ward half were suffering from other disorders. In Dr. Ollivier's ward a child was admitted with the diagnosis of cholera, whereas peritonitis was the cause of the illness, and resulted in its death. The *Temps* has ably protested against the exaggerated accounts of the cholera epidemic published by some organs of the press, and was attacked by Dr. Daremberg in the *Débats*. The *Temps* in a few lines published an excellent answer, drawing a distinction between exaggeration and truth. A few cases of cholera nostras have appeared at Gonesse, a village near Aubervilliers. The mayor states that recently a workman arrived from Aubervilliers, and died at Gonesse from cholera. The hospital physician gave the clothes to a poor man to burn; instead of burning them he took them home; he died, his daughter, son-in-law, and granddaughter, who lived with him. Cholera nostras also prevails at Duguy, Blanc-aux-Mesnil. At Rouen three deaths in one family; all three occurred in a few hours. At Villiers le Bel a few cases have been notified, but not at present any deaths.

Rags from Baltic Ports.—The Local Government Board have issued an order that from and after August 19th, and until further notice, "no rags, bedding, or disused or filthy clothing, whether belonging to emigrants or otherwise, from any foreign port in Europe north of Dunkirk, other than ports of Norway, Sweden, and Denmark, shall be delivered overside, except for the purpose of export, nor landed in any port or place in England or Wales."

OBITUARY.

MANSFIELD COLLIER SOUTTER, M.R.C.S.Eng., A.K.C. Lond.

We regret to record the death of Dr. Mansfield Collier Soutter, of Finsbury Park, N., who died at the age of 48 somewhat unexpectedly after a few days' acute illness following upon a chronic cystitis, from which he had suffered for many months. He commenced his professional studies at the Edinburgh University in 1866, and, coming up to London, completed them at King's College, London, taking the M.R.C.S.Eng. in 1870. In 1879 he was licensed and subsequently ordained by the Presbytery of the Scottish Church in London to the charge of St. Andrew's, Stepney, which charge he maintained for ten years. He has been a well-known figure and practitioner in Finsbury Park for the last twenty-two years, where he has been universally respected. He took a great interest in every good work carried on in the neighbourhood, and was ever to be seen maintaining the causes of truth, purity, and temperance. He was a Fellow of the Gynæcological Society of London, in which branch of his professional work he took an especial interest. His loss is mourned, not only amongst his patients and friends, but by the whole neighbourhood, as was testified by the numerous mourners gathered at his grave at East Finchley.

JOHN JEWEL EVANS.

We have to record the death of Mr. J. J. Evans, of St. Neots, Hunts, on July 26th, at the age of 86 years. He had been in failing health for some considerable time, but was out in his bath chair as usual two days before his death.

Mr. Evans was originally a pupil of the Northampton Infirmary, and for a short time practised in the town. He removed to St. Neots in 1830, where he lived for sixty-two years, and remained in the active practice of his profession till 1879, when he retired in favour of Mr. Good.

Mr. Evans completed his medical education at St. George's Hospital, London. He was for many years a member of the British Medical Association, and in 1869 was President of the Cambs and Hunts Branch, occupying the chair at a combined meeting of this Branch and the East Anglian held in the town of St. Neots.

During the whole course of his professional life Mr. Evans made the subjects of insanity a special study, and was seldom

without mentally afflicted patients in his house. He was of very active habits and disposition, all his spare moments being devoted to science in one or other of its numerous branches. He was never without a hobby, his usual habits being to master one, then lay it aside and take up another. During the later years of his life, when free from the cares of practice, he made the study of natural history his chief subject of interest, and accumulated a large collection of valuable specimens, which, in the jubilee year, he presented to the town of St. Neots. He was, in his day, a keen sportsman, being a good shot and very fond of boating and fishing.

Professor HERMANN VON MEYER.

We regret to announce the death of Dr. Georg Hermann von Meyer, some time Professor of Anatomy in the University of Zürich, which occurred at Frankfort-on-the-Main on July 21st. He was born in that city on August 16th, 1815, and was therefore within a few weeks of completing his 77th year when he died. Professor von Meyer studied at Heidelberg and Berlin under Tiedemann and Johannes Müller, qualified as *Privat Docent* at Tübingen in 1840, and was called to Zürich as Prosector of Anatomy in 1844, becoming Professor shortly afterwards. He contributed largely to scientific literature, his principal publications being a *Textbook of Anatomy* (Leipzig, 1856), and *Statics and Mechanics of the Human Skeleton*, besides works written in a more popular style on the mechanism of speech, the anatomy of the foot, etc. Professor von Meyer resigned his chair at Zürich some years ago, and spent the rest of his life in his native city.

DENIS DANIEL REDMOND, F.R.C.S.I.

Very many will hear with great regret of the death of Mr. Denis D. Redmond on August 11th. He had been ailing for a couple of months, and had sought health by taking a holiday, but he had only just returned when he developed symptoms which indicated disease of the kidneys, from which he died. He was ophthalmic and aural surgeon to St. Vincent's Hospital, assistant surgeon to the National Eye and Ear Infirmary, and Lecturer on Ophthalmology in the Catholic University, Dublin, and although still a young man, having qualified in 1878, enjoyed a very considerable practice. He was a great student, and his attainments were many. He was a most accomplished electrician; several electrical instruments were invented by him with the view of utilising this powerful agent in the treatment of ophthalmic and aural affections. Essentially a modest man, he wrote little, but he was held in high regard by his fellows as a skilled oculist and a highly-informed surgeon. Mr. Redmond's death makes a a vacancy in the Examining Board of the Royal University.

RUDOLPH DEMME, M.D.,

Professor of Pharmacology, University of Berne.

In Rudolph Demme, whose death was recently announced in the British Medical Journal, Switzerland has lost one of the most distinguished of her medical teachers and practitioners. He was the son of Dr. Hermann Demme, at that time Professor of Surgery in the University of Berne.

Born at Berne in June, 1836, he had just completed his 56th year when he was called away in the fulness of his scientific and professional activity. He began the study of medicine in the university of his native city, afterwards supplementing his knowledge and enlarging his experience by visiting the schools and hospitals of Vienna, Paris, and London. On returning to Berne after his scientific *Wanderjahr*, he was appointed assistant to the well-known physiologist Valentin, and some time later assistant physician in the medical clinic of which Biermer was then director. In 1862 he qualified as *Privat-docent* in diseases of children, and was appointed physician to the Jenner Children's Hospital at Berne, a post which he continued to hold till his death, to the great advantage both of the institution and of medical science. In 1877 he was elected clinical professor of children's diseases, and in the following year he was called to the Chair of Pharmacology in his Alma Mater.

Throughout his whole career Demme acted up to the spirit of Carlyle's precept, "Produce! produce!" His pen was never idle, and in his *Klinische Mittheilungen aus dem Gebiet der Kinderheilkunde*, issued yearly since 1862 as part of the annual report of the Jenner Children's Hospital at Berne, he has left a record of his clinical experience which, for breadth of scope, fulness of detail, and painstaking accuracy of observation, stands almost alone in pædiatric literature. Among his other works may be mentioned one on Myocarditis and Pernicious Icterus, and articles on Diseases of the Thyroid Gland and on Anæsthetics in Gerhardt's *Handbuch der Kinderkrankheiten*. In addition to his intellectual titles to respect, Demme was a loyal colleague, an honourable practitioner, and an honest and straightforward man. His patients trusted him without reserve, and his pupils loved him as a friend as much as they venerated him as a teacher. To the medical faculty of Berne his loss is almost irreparable.

HOSPITAL AND DISPENSARY MANAGEMENT.

HOSPITAL SATURDAY FUND.

The recent ladies' street collection is reported to be £5,448 19s., being an increase upon last year of £505. The amount of the workshop collection was £5,798, making a total of £11,246 19s.

HOSPITAL SUNDAY FUND.

The report of the Committee of Distribution states that the total amount available for distribution, after allowing for liabilities and the usual current expenses, was £40,228, of which £40,118 15s. was recommended for distribution to 120 hospitals and 53 dispensaries. The amount distributed last year was £43,157, but that sum included a large donation from the Duke of Cleveland. If the duke's donation were deducted, the amount available for distribution showed an increase this year of about £1,000 over that of last year. Reference was made by Sir Sydney Waterlow to the report of the Lords' Committee, in which he complained that there was a grievous mistake. In their analysis of the evidence, the Committee stated that the funds of the Hospital Sunday Fund were distributed according to the needs and merits, but in their conclusions they said that the funds were distributed according to the work of each hospital. That was distinctly wrong, and, as an instance, he mentioned that to St. George's Hospital, which had nearly 100 beds more than St. Mary's Hospital, the committee recommended a grant of £1,354, whereas the grant recommended to St. Mary's was £2,187. The reason was that St. George's had received legacies amounting to £27,030, and had an income from invested property amounting to £15,100, whereas St. Mary's had had no legacies, and their income from invested property was £2,170. In the past year there were 16 institutions whose methods of management fell short of the due standard. The executives of these 16 were invited to confer with the Distribution Committee of the fund, and to "offer explanations." Seven elected to leave their awards entirely in the hands of the committee, and of the other 9 only 1 was recommended for award on the full basis; 5 were relegated to a reduced scale, and 3 were shelved altogether. The justification for this appeared in the discussion later, when the chairman explained with regard to one in particular that it was managed on a method which enabled the leading spirit to draw in the dual capacity of secretary and medical officer £450 of the total income of £565.

WILTS COUNTY ASYLUM.

The total number of patients under care during the year 1891 was 816. The recovery rate was 34.5 per cent. upon the admissions, and the death-rate 9.6 per cent. Attempts were made to give effect to the powers given the Committee under the new Lunacy Act to remove suitable cases to the workhouses; twelve patients were so removed, but the Committee state that under existing circumstances, and until boards of guardians show a greater desire to receive and provide adequate supervision for such cases the number of patients so removed must necessarily be limited. Mr. Bowes, the medical superintendent, in his annual report, calls attention to the case of a patient who, under various aliases has been an inmate of several asylums. This patient was found "not insane," and was consequently discharged.

INSANITARY CONDITION OF MERCY HOSPITAL, CORK.

The Public Health Committee of the Corporation recently received a deputation from the Mercy Hospital, who pointed out its insanitary condition, with a view to secure a grant from the Corporation. As the hospital is corporate property, the Public Health Committee were unanimous in recommending that the necessary alterations should be carried out at a cost of about £400, and it was decided to submit the plans and specifications to the Law and Finance Committee of the Corporation.

Deaths in the Profession Abroad.—The death is announced in his seventieth year of Dr. V. Podwyssozki, Professor of Pharmacy and Pharmacognosy in the University of Kasan. He was originally a lawyer, and did not enter the medical profession until he was 50 years of age. He was associated with Dragendorff in some of his chemical researches.—Dr. Theodor Engelbrecht, formerly Professor of Physiology in the Surgical and Anatomical School at Brunswick, and a well-known authority on pomology, died on August 4th.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, AUGUST 20th, 1892.

THE WORK OF THE LATE ADMINISTRATION AND OF THE NEXT.

I.—Sanitary Legislation.

At the present moment, when a new Parliament has been elected and a new Government is being formed, it is instructive to glance at the work of the late Parliament to see what progress has been made in the cause of sanitary reform, and what remains still to be accomplished. In doing so one cannot but regret that this question is sometimes seriously prejudiced by contact with questions of purely party politics, from which, however, we endeavour here to keep strictly aloof. But, on the whole, it is a matter for congratulation that measures having for their objects the improvement and maintenance of the public health can be, and generally are, dealt with on their own merits, and without regard to political bias, although the political starting point is, no doubt, not without its influence on the lines of even sanitary administration.

Looking back over the past six years, the sanitary reformer finds much cause for satisfaction. Considerable attention has been given to questions relating to the public health, and although many opportunities have been thrown away, and many important proposals have been thrust aside by matters of more transient value, much has been done towards the long-needed reorganisation of local and sanitary administration. Public opinion, too, has by the very prominence assumed by local government questions, been educated and enlightened.

Amongst the most important measures passed by Lord Salisbury's Government—indeed, amongst the greatest measures of late years—must be placed the Local Government Acts of 1888 and 1889, whereby representative county government has been definitely established throughout England and Wales and Scotland. In England the smaller bodies—the local sanitary authorities and Poor-law guardians—remain, however, still to be reorganised, and until this has been done the scheme of reform remains maimed and incomplete. But the establishment of county councils as intermediate local authorities, elected on a broad popular basis, into whose hands are gathered the various tangled threads of local affairs, has laid the foundation of an efficient system of local self-government such as we have long advocated.

As regards sanitary administration, the functions and powers assigned to the county councils are far too limited; but this is a defect which will, we trust, ere long be remedied, and one which cannot too early engage the attention of the new Government. Owing in a great measure to the representations and efforts of the Chairman of the Parliamentary Bills Committee of the British Medical Association, acting in concert with the medical officers of health, power was given to county councils by an amendment introduced into the English Act to appoint a medical officer of health; but Mr. Ritchie could not be persuaded to make such appointment obligatory, consequently the duty has been, as was feared, ignored in a large majority of the English counties. Where it has been made use of, however, in England, and a county health officer has been appointed—as in the case of London, of the West Riding, Staffordshire, Warwickshire, and elsewhere—the useful influence which it is possible for a county council to exercise in local sanitary administration has been very clearly illustrated.

More successful were Mr. Hart's efforts in connection with the Scotch Bill, with the concurrent aid of the Scottish Sanitary Association. In that case clauses were accepted by the Lord Advocate making the appointment of health officers by county councils compulsory, and ensuring to the various local officers the security of tenure which is essential to a fearless and efficient discharge of frequently unpleasant duties.

Another Act of great importance is the Public Health (London) Act, 1891. By it order was evolved from chaos, and the metropolis was given the intelligible sanitary code for which we had been asking for many years. Previously the public health law of London was scattered through some thirty separate statutes, and was, moreover, very inadequate to the wants of a great city. In many respects London was worse off than the smallest provincial borough. In the new Act, however, the duties of both local authorities and individuals are very distinctly set out. "Shall" is much more frequently used than in any of the previous Acts, and, among other improvements, the medical officers of health have been given greater security in their appointments, being removable only "with the consent of the Local Government Board, or by that Board, and not otherwise."

It will thus be seen that in the Scotch Local Government Act and in the London Public Health Act an all-important advance has been made in the interests of medical officers of health and the public whom they serve, and the advantages which have been obtained—not, however, without a hard struggle—in these instances must, in the interests of the country, at the earliest opportunity be secured for the larger body of health officers throughout the remainder of the kingdom. Security of tenure and adequate remuneration are essential to an efficient discharge of a health officer's important public duties, and these privileges may, moreover, be reasonably claimed by the large body of practitioners who have made sanitary science their special study, and have chosen the public health service as the sphere of their labours. It is needless here to recount the many instances of hardships to which medical officers of health have, under the existing system, exposed themselves by faithfully performing their duty. The security of tenure has been already officially put before the Government by the Parliamentary Bills Committee on former occasions, and now that it has been conceded for the metropolis and for Scotland, a precedent has been enacted which we shall not be slow to use when the

further measures for completing the reform of local sanitary administration come forward for settlement.

We must defer discussion on the other useful measures which became law during the last Parliament, and on the points which need special attention in the future. But any reference to the sanitary legislation of the last six years would be very incomplete without some recognition of the many services rendered in these respects by Mr. Ritchie during his Presidency of the Local Government Board. We shall have occasion to refer to some shortcomings and defects noticeable in his period of administration in parts of the work of the department over which he presided, but rarely has so much good work been achieved for public health, in a single parliament, as during his six years of office.

THE POSITION OF THE PHYSICIAN AND THE FREEDOM OF THE PATIENT.

THE Censors' Board of the College of Physicians of London passed on July 11th, and the College adopted unanimously, it is stated, on July 28th, a resolution, "That this College regards the sale of practices, or the transfer of patients from one physician to another for a pecuniary consideration, among Fellows or Members of its body, as contrary to the traditions and practice of the College, interfering with the freedom of patients and derogatory to the position of a physician."

We are all glad to see the College still fulfilling actively now, as in times past, important functions as a *censor morum*, and the bulwark of professional honour. The spirit of the resolution is obviously good, and much trouble has been evidently taken with the wording. Both, however, suggest some considerations which it will be salutary to submit to professional discussion; which seem to require some further explanations and elucidation from the responsible officials, and which we venture to commend to the able and accomplished President of the College who signs the memorandum.

The "transfer of patients from one physician to another for a pecuniary consideration" is essentially an allotropic form of expressing the sale of the goodwill of a practice; but it covers, no doubt, much more, including some forms of "arrangement" which have from time to time occurred in the higher walks of practice, and into which we need not here too curiously enquire. As a rule, in London at least, there is very little opportunity among Fellows and Members for open transfer of a practice in such form as to constitute it a valuable consideration. It is a sin to which metropolitan Fellows of to-day, who have put forward this dignified communication, are in the nature of things not much tempted. How it may be with certain of the Members who are in general practice it might not be so easy to say. In the country towns it may be surmised that the practice now prohibited may have been from time to time prevalent, and innocently carried out among Members, and without afterthought of injuriously affecting the higher dignity of their order.

This clause, however, confines the question, by its wording, within somewhat narrow limits, which are materially widened by the considerations subsequently stated in the later sentences of the document.

The sale of practices or the transfer of patients from one physician to another for a pecuniary consideration is denounced as "interfering with the freedom of patients" and "as derogatory to the position of a physician." But, is not the Licentiate of the College of Physicians a physician; is it not clearly implied by the wording of his diploma? The wording of the diploma is: "I, A.B., President of the Royal College of Physicians of London, with the consent of the Fellows of the same College, have, under the authority given to us by Royal Charter and Act of Parliament, granted to C.D., who has satisfied the College of his proficiency, our Licence under the said Charter, *to practise Physic*, including therein the practice of Medicine, Surgery, and Midwifery, so long as he shall continue to obey the Statutes, Bye-laws, and Regulations of the College relating to Licentiates." Does the College now implicitly exclude the whole body of its Licentiates from the class of physicians, and intimate an intention to deprive them of that title? "General practitioner" is of course a not very elegant or explicit kind of abbreviated slang, which only long habit and the chaotic state of the title question has rendered tolerable as a description; it certainly is not a title. "General practitioner of what; and practitioner of what generally?" The Licentiate must not allow himself to be called doctor, for M.D. is a university title, and doctor is a rendering of it and not as the dictionary says—"Man skilled in any profession." "One who undertakes to cure disease." "An able and learned man."

But, having laid hands on the dictionary and appropriated the title of doctor and restricted its meaning to the university graduate, does the College intend to declare its Licentiate to be neither doctor nor physician? Must the "wise physician skilled our wounds to heal, and more than armies to the public weal" be understood henceforth exclusively to mean a Fellow or Member of the Royal College of Physicians of London, and must the fleet physician or army doctor be henceforth titles tabooed to all but the limited higher order of the venerable College in Pall Mall and the rest be known only as "Army L.R.C.P.s?" Under this interpretation the greater part of the physician's work in the army and navy is done by the lower order, to whom are permitted, by exclusion, the things derogatory to the position of a physician. For we doubt whether many Fellows or Members from Pall Mall have been found to take upon themselves duties of military service; the number on active service to be found in the two services might probably be counted on the ten fingers.

Does then this self-denying declaration not rather overpass the limits of justice, not to say generosity? Does it not, in its rigid definition of class virtue, depreciate the standing of the great and growing body of Licentiates in intimating that to them may be permitted that which is to be considered derogatory to the position of a physician? "Practice and tradition," indeed; they are well chosen phrases on which to base limitations, however strict, and the College is obviously well entitled to define the character and range of its traditions, and to lay down an authorised interpretation of the practice which it imposes upon its higher order of diplomates. But when it comes to a question of what is not derogatory to the whole class of physicians, the case is very different; very different, indeed, inasmuch as no one college has the monopoly of the title of physician any more than, as we have long believed, any one class in the London College has a monopoly of it.

There are physicians hailing from Scotland and from Ireland. It cannot of course be intended to claim that the title is limited to the Members and Fellows of London. The warning therefore extends itself to the others also, and by what authority, and with what assent? Being now given, do the other Colleges of Physicians endorse it? Do they homologate its sharp distinctions?

So much as to the purely professional side of the circular; but there remains its wider and final clause, which appears to set out the fundamental reasons for the new Article towards a medical Athanasian Creed. If the goodwill of a practice be a valuable and honestly saleable article, there does not appear to be anything intrinsically and *primâ facie* derogatory in the conveyance and sale of it, unless there are reasons of public or private morality and welfare which make it undesirable or objectionable. Such reason is, therefore, logically declared in this grave pronouncement. It is tersely stated to be a practice "interfering with the freedom of patients." Freedom is a sacred thing, and not lightly to be tampered with; in this country it is the appanage of the meanest citizen, and of all alike. "Freedom of trade" and "freedom of contract" are cogent phrases well known to the politician and economist, and much in vogue in Parliament and in the law courts. The College may well take pride in voluntarily imposing fetters and restraints on the liberty of its own Fellows and Members, in order to preserve intact and to enlarge the "freedom of patients."

We are not quite satisfied, however, that the proposition is quite sound in substance and accurate in statement, even as applied to the limited class of Fellows and Members. It may, for example, be open to doubt whether a patient's freedom is fettered more by the sale of a practice to a successor than, let us say, by the recommendation of a particular consultant to a patient during illness. No doubt his inclination is biassed and his judgment influenced by the knowledge that Mr. A. has sold his practice to Dr. B.; perhaps still more so by the fact that he has taken Dr. B. into partnership, and sent him to see some of his patients, and participate in his practice and profits; but the patient retains his freedom in both cases, and may and very often does decline to be attended by that particular consultant or successor. But does it not also restrain the freedom of the patient when the eminent consultant says, "I shall not have time to visit you, because you are so far off, or because your complaint will require more frequent attendance than I could give, or because your complaint is too trivial, or because my fees would be too high for your limited means," all frequently sound and honourable reasons; but "I shall send my young friend, Dr. ——, who is a very capable young physician, and who assists me in my practice; he will attend you, and, if necessary, he can call me in from time to time, and I will come, or you can occasionally come to see me."

But admitting that "the restraint of freedom of patients" is a sacred object for which the College of Physicians is peculiarly bound to legislate—how does this basis of prohibition look when we come to regard it, as by its very essence and force it must be regarded, from the public point of view? We say that this, and not any arbitrary or self-denying or dignified class distinction must be the criterion of this proposition; for it goes outside the limits of tradition and practice, which may be at will and wisely compressed within whatever artificial boundaries and behind whatever fences it may be thought well to set up. It is a reason based on the *salus populi*, and aiming not at the maintenance of the professional dignity of any one class, but at the public welfare, broadly and unrestrictedly. It makes wide the bounds of freedom. But then how, if this is so, is that permitted in the corporal which in the captain is flat blasphemy? To restrain the freedom of a patient—if to sell a practice or to introduce a successor be an act of restraint on the freedom of patients—must be an act as injurious to the welfare of the public, if done by a gentleman holding the licence of the Royal College of Physicians of London, as by one holding the diploma of Member. The question here is not as to what is derogatory to the position of one class or of another—between which, it seems, distinctions are drawn, wisely or unwisely we need not at this moment inquire. It matters little to the person suffering restraint of freedom whether his captor wears an epaulet or a cross-belt, or whether he wears the sergeant's or the private's stripes. If the sufferer is robbed of his freedom the relative difference in the status of his assailant is but poor consolation. Nor can a Licentiate, so far as we can see, be more privileged in principle to make such infringement than a Fellow or Member.

It is not to be supposed that some, at least, of these considerations have not occurred to so acute and well-read a dialectician as the eminent physician whose name is officially appended to the document. We fully expect to be found guilty either of some error of interpretation, or of some defect of deduction. But, meantime, we—and we think the body of Members and Licentiates also—will await with some interest an explanation or vindication of the apparently weak points in this circular.

ALCOHOLISM AND ITS TREATMENT.

While differences of opinion still exist among medical practitioners as to the effects of the strictly regulated use of alcoholic beverages, all are agreed that alcohol, taken in large doses—a term which must always be interpreted relatively to the tolerance of the individual—or in small quantities frequently repeated, is one of the deadliest of poisons. It is an enemy, to use the words of remorseful Cassio, that not only steals away the brains, but wrecks and leaves in ruins the whole house of life. Though preachers and legislators, from Solomon and Lycurgus downwards, have shown themselves keenly alive to the moral evil of drunkenness, our knowledge of its baneful effects on the body is comparatively recent. Evidence is now rapidly accumulating, however, which goes to show that alcohol is, directly or indirectly, responsible for more disorder of function, more varied and far-reaching lesion of structure, and more mental and physical incapacity and suffering than perhaps any other single known cause of disease. It is, perhaps, characteristic of our time that an evil which used to be looked upon as more needing the divine than the physician should now be coming to be regarded as a bodily disease within the range of our therapeutical batteries.

The satisfactory results which have followed the recognition of the fact that insanity can be more successfully treated by the ordinary medical art than by the exorcism of hypothetical evil spirits, seem to justify the hope that good effects may also be obtained by the application of the same prin-

ciples to the treatment of drunkenness. Beginnings have already been made in this direction, both in our own country and abroad—especially in the United States; and even allowing a liberal discount for not unnatural enthusiasm on the part of the pioneers of this new therapeutical advance, the results have so far been sufficiently encouraging to warrant the belief that they are on the right track. At any rate, considering the magnitude of the evil which they are honestly attempting to combat, their efforts should not be dismissed with the easy sneer of pseudo-scientific incredulity, but should be watched with sympathetic interest by all members of a profession whose guiding principle should ever be to "*try* all things and hold fast to that which is good."

A very full account of the methods of treating the disease of inebriety is contained in an interesting work by Dr. J. E. Usher, of Melbourne,[1] which has just been published. Dr. Usher has not spared pains in collecting his materials; he has been in personal communication with most of the men of special experience in the treatment of alcoholism both in America and in Europe, and he has visited several of the "homes" and other establishments where the victims of the disease are received for treatment. From these sources of information, reinforced by his own experience, which has been considerable, he has compiled a book, which though small in size is solid in substance. The subject is dealt with in a candid and reasonable spirit that makes the reader disposed to look leniently on certain marks of haste in the preparation of the work. After some introductory chapters on the different forms of alcoholism, the pathological changes characteristic of the disease, Dr. Usher discusses its relation to insanity and crime. Under the head of "Alcoholic Trance and Crime" he cites, mainly on the authority of Dr. T. D. Crothers, some curious instances of crimes, such as murder and horse stealing, committed by drunkards with every appearance of premeditation though without any consciousness or subsequent memory of the act. The records of the police-court bear testimony to the frequency with which the plea of having been "drunk and knowing nothing about it," is advanced by defendants charged with violent assaults and other offences, but the bench usually shows a decided indisposition to accept this as an "extenuating circumstance." On the whole the judges are we hold right in this matter, for while it is no doubt true that alcoholism may induce a condition of trance or "cerebral automatism" which renders a man unconscious of what he is doing, precisely the same thing might be said of anger which is, in the words of Horace, a "short madness." The day may come when medical experts will be able to diagnose mental anæsthesia and paralysis of the moral sense with as much certainty as they now recognise corresponding lesions of the bodily framework, and to separate what is sin or crime from what is disease; but that time is not yet, and in the present state of knowledge those who administer the law can only be guided by broad principles which safeguard the interests of society, though their rigid application may in exceptional cases be hard on the individual. On the legal relations of alcoholism, however, the reader may do worse than consult Dr. Usher's book, where he will find a digest of authorities and leading cases bearing on the subject.

With regard to treatment Dr. Usher, in the first place, follows those who plead for a modification of the present law, which would make the detention of inebriates compulsory, instead of being dependent on their own consent. "Habitual drunkards (criminal or otherwise) must be treated as diseased persons," and he urges that, as there are two classes of lunatic asylums, there should be two kinds of institutions, criminal and non-criminal, for inebriates. He does not, however, give any help towards a solution of the numerous legal difficulties which surround this question.

The most useful part of Dr. Usher's book is that dealing with the use of drugs in the treatment of alcoholism. He is no believer in any one preparation as the "sovran'st thing on earth" for the cure of drunkenness. Like other diseases, it must be attacked on sound therapeutic principles; the "temperamental peculiarities" of the patient must be taken into account, and co-existent morbid conditions and tendencies must be combated and neutralised. An essential element in any method of treatment is the existence in the patient of a real desire to be cured. The first step, therefore, must always be the strengthening of such will power as the patient may have left, and the author is careful to point out that harshness, threats, and abstraction of sympathy are all out of place in such cases. Another necessary preliminary is to prevent the patient from obtaining alcohol. Dr. Usher describes in full detail the method of treatment which he favours. It consists in the administration during four or five days of a mixture containing nux vomica; sedatives, such as bromide of potassium, chloralamide, or paraldehyde, being given at night, if the patient suffers from sleeplessness. The best hypnotic, in Dr. Usher's opinion, is hyoscine given hypodermically in doses ranging from $\frac{1}{150}$ to $\frac{1}{100}$ of a grain. If absolutely necessary, one ounce of whisky or brandy daily may be allowed, but not for a longer period than seven days. After the fifth day a mixture containing manganese and chloride of gold and sodium—why chloride of gold?—with the addition of strychnine if indicated, is given for two or three weeks. Iron is given when a tonic is required, and euonymin with pepsine is naturally found useful when hepatic symptoms are prominent. Our author has also tried with good results the hypodermic injections of nitrate of strychnine on which Professor Portougaloff and other practitioners in Russia, Germany, France, Italy, and elsewhere pin their faith, in alternation or combination with belladonna, and which is alleged to be the active agent in various secret and "institutional" treatments. Portougaloff has treated more than 500 cases of chronic alcoholism by this method with, he alleges, almost invariable success. Some of the patients relapse from time to time, but, to quote the Professor's own words, "a repetition of the treatment invariably sets them right for another year." Dr. Weir-Mitchell and Dr. J. Da Costa, of Philadelphia, Dr. Bovee, of Washington, Dr. J. G. Jewell, of San Francisco, and Dr. Edmund Andrews, of Chicago, also make strychnine injections the sheet anchor of their treatment of alcoholism. Dr. Branthwaite, the resident physician of the Dalrymple Home in London, has also used strychnine in combination with other remedies in a number of cases with excellent results. Dr. J. L. Gray, of La Porte, Indiana, gives chloride of gold and sodium with nitrate of strychnine and a small quantity of atropia internally, and also injects gold and strychnine under the skin. The patients are seen four times a day, and the gold and strychnine are rapidly increased until the limits of tolerance are reached. Whisky is given in care-

[1] *Alcoholism and its Treatment*, Baillière, Tindall, and Cox, London, 1892.

fully-regulated doses. The treatment lasts from three to six weeks. Dr. Gray has treated more than 200 cases in this manner, and believes that about 70 per cent. are cured. Dr. T. D. Crothers is of opinion that cocaine, atropine, morphine, and strychnine may neutralise the alcoholic tendency, but he believes that a tendency to cerebral hæmorrhage and heart failure often follows these methods of treatment. In many cases he has found that the tinctures of iron and cinchona appease the craving for drink. He treats alcoholism on general principles without relying on any supposed specific. He has had more than 3,000 cases under his care with a proportion of cures, after periods of from ten to fifteen years, averaging between 30 and 40 per cent.

From all this it will be seen that the treatment of inebriety by drugs—though still, it may be supposed, in its infancy—has already proved its title to a place in legitimate medicine. In dealing with this disease two points have to be aimed at: first, the breaking of the vicious habit; and secondly, the neutralisation of the immediate evil effects that may follow the deprivation of the accustomed stimulus. The former object is only to be attained by a determined effort of the patient's own will, aided, if need be, by *force majeure* in one shape or another; but drugs may be of service even here by causing symptoms which interfere with the patient's enjoyment of his noxious pleasure—in other words, by making him so ill in other ways that alcohol loses its charm for the time. It may, perhaps, be admitted that this is a legitimate method of treatment if it can be carried out without danger, that is to say, if the remedy is not as harmful as the disease. One of the objectionable features of more than one of these secret treatments, however, is that highly dangerous drugs, such as atropine, seem to be used for the purpose in a way likely to be most injurious to the patient's health. As regards the second point mentioned above, the use of strychnine as a substitute for the alcoholic stimulant to which the nervous system has become accustomed has a perfectly rational therapeutic basis; but here also the drug must be used with the utmost circumspection. As for cocaine, morphine, *et hoc genus omne*, though each of them may be beneficial under certain circumstances, their use is always fraught with the terrible danger that the devil of drunkenness may be replaced by another not less tyrannous and destructive.

After all, while gladly welcoming help in the war against drink, wherever it may come from, we are more inclined to rely for the ultimate suppression of the evil on the education of public opinion, on enlightened and well-directed legislation, and on the other methods of prevention advocated with such devotion and success by the National Temperance League and the other organisations which have banded themselves together in this philanthropic crusade.

GLANDERS: ITS EVILS AND THE CURE.

The increase of glanders among horses, indicated by us in the early part of the year, has apparently continued, and the report of several deaths of human beings has aroused public interest. It is not creditable to the sanitary organisation of Great Britain that in London alone £40,000 or £50,000 and a varying number of human lives are annually sacrificed to a disease comparatively easy of prevention. It cannot be complained that the nature of the disease has not been studied, or that we have gained no positive knowledge thereon. Bacteriology has demonstrated the causal factor of the so-called glanders and farcy to be "bacillus mallei," and has extracted from a cultivation of the organism "malleine," which has a marked effect on the lesion, and is indicated for use on the diagnosis of the disease. The question naturally arises, Who is responsible for the non-application of information which experimental science supplies?

The authorities are evidently alive to the prevalences, if not to the dangers, of the disease, and manifest some activity in prosecuting owners of affected animals. Surely sanitary science should provide other means in addition to the infliction of punishment on the sometimes guilty, often ignorant, owners of affected animals. The power to deal with the suppression of contagious diseases of animals is vested in the Board of Agriculture, and effectual use of this power has recently stamped out foot-and-mouth disease and pleuro-pneumonia of cattle. This success is strong testimony to the advantage of dealing decisively by the action of a central authority with such epizootics. The defective state of administration of the laws relating to the diseases of animals largely depends on their permissive nature, or on the duties being assigned to local authorities.

A brief review of the laws referring to glanders will reveal some gross defects. Most striking is the recognition of glanders and farcy as two distinct diseases, for which different methods may be employed. Thus, while provision exists for the slaughter of horses, asses, and mules properly declared to be affected with "glanders," we find in the Act and published official interpretation no such provision in cases of farcy. The distinction thus made between the manifestations of the same disease has been fruitful in maintaining the existence of the malady, for there is an impression, very generally acted on, that the subject of farcy may be treated by remedies, while the subject of glanders must be slaughtered. This slaughter is to some extent provided for by the Animals Order of 1886, Section 62, which is a fair sample of the regulations referring to the disease. The section is as follows:—

"Where a person having a horse, ass, or mule in his possession, or under his charge, gives notice to a constable that the horse, ass, or mule is affected with glanders, or a person is convicted, by reason of his having failed to give such a notice, in respect of any horse, ass, or mule, then if at any time thereafter it appears to the local authority, on a special report of a veterinary inspector or veterinary surgeon, that the horse, ass, or mule is alive at the end of *fourteen days* after the receipt by the local authority of that special report, the local authority may, if they think fit, within *seven days* thereafter, serve on the owner of the horse, ass, or mule a notice in writing requiring him to slaughter it, or to permit them to slaughter it."

"If in any case the owner fails to comply with the requisition of the local authority, he shall be deemed guilty of an offence against the Act of 1878, unless he shows that the animal is not affected with glanders."

It will be seen from this that more than three weeks may elapse after detection before an order for slaughter can be applied. Indeed, unless a horse affected with glanders has been exposed there is no power to deal with him except by fining the owner.

The chief defect, however, in the legislative measures for the suppression of glanders is the want of systematic inspection of horses and stables. The adoption of such a system could not fail to decrease our losses from the disease in question, and must be fraught with many advantages not only to horses but human beings who are necessarily brought into contact with them. There are no more unhealthy dwellings than those to be found in the lower class mews of the

metropolis. Previous to 1885 the cowsheds and their neighbourhood afforded as little comfort and cleanliness. The Contagious Diseases (Animals) Act of 1878 conferred on the Privy Council the power to make orders as to dairies, cowsheds, etc. In 1886 the Dairies, Cowsheds, and Milkshops Order was promulgated. This order provides for the registration of all cowkeepers, etc., inspection of cattle and dairies, and for regulating lighting, ventilation, cleansing, drainage and water supply. The carrying out of the provisions of the order has had the effect of improving every condition associated with these matters, and the adoption of a thorough system of inspection of stables would be equally effectual.

We are pleased to note the action of the Cattle Trough Association, and ready to acknowledge the philanthropic spirit which instigated the provision of the troughs, but we must say, and that as forcibly as we can, that they must be regarded as potent means of spreading glanders. Any other view is impossible when we realise the facts that a discharge from the nostril is the commonest accompaniment of glanders, that this discharge contains the virus which is not immediately killed in cold water, and that on entering by the respiratory or alimentary tract or through an abrasion it produces the disease. The provision of water taps from which each driver could draw into his own pail would obviate all the risks arising from this source.

It has been currently reported that the Board of Agriculture would be approached on the subject of taking action to prevent further spread of the disease; but there does not appear to be any organisation. Representations ought to be made, urging the necessity of applying the powers already possessed with a view to the eradication of the disease.

Between 80 and 90 per cent. of the cases occur in London and its immediate neighbourhood. The factors specially conducing to this appear to be non-inspection of horses and stables; want of power to slaughter immediately affected and suspected animals; open drinking troughs, public and private; and turning horses out to grass without previous inspection or other precaution. The reality of the last danger is emphasised by the report that at a sewage farm near London last week, two horses out of sixty grazing in the same pasture were found to be suffering from glanders, and others were suspected. It is impossible to estimate the mischief which may follow the distribution of these animals to their several homes. The present situation is special, and appears to call for a systematic inspection of all stables and horses by experts specially appointed for the purpose, and prohibited from engaging in private practice. Their districts would include various local authorities, and it would be necessary that the inspectors should be directed by the central authority. Power should be given to enforce immediate slaughter of affected and suspected animals, and in cases where, on *post-mortem* examination, the disease was not found to exist, compensation should be given to the owner. Open drinking troughs should be prohibited; and no animal should be moved for turning out with others without a certificate from an inspector as to freedom from the disease, and of not having been in contact with diseased animals. These are the most important points.

Compensation for all animals killed of glanders would doubtless prove an incentive to notification of the disease, and often an immense relief to deserving poor who, by loss of their horses, are deprived of their means of sustenance. It is, however, difficult to see how statutory provision could be made for compensating the poor and deserving without placing a premium on trickery of the horse coper or unscrupulous owner. The door to the latter would be partly closed by the inspection suggested, without which we fear it would encourage fraud on an extensive scale. This danger has probably been recognised by the authorities, who in other diseases have made provision for it. It is to be hoped that in conjunction with vigorous inspection they may be able to devise some means for lessening the hardship of compulsory slaughter.

Surgeon-Captain R. H. Firth, of the Army Medical Staff, has been appointed Assistant Professor of Military Hygiene in the Army Medical School at Netley.

Our Berlin Correspondent writes: Public health inspectors are to be appointed in Berlin. This English institution has already been imitated in Vienna and is much needed in Berlin.

It is officially announced that the Queen has nominated Professor Sir George H. B. Macleod, M.D., Surgeon in Ordinary to the Queen in Scotland, to be for a further period of five years from September 15th, 1892, a Member of the General Council of Medical Education and Registration of the United Kingdom for Scotland.

The Tantah Fair, the largest held in Egypt, began on Friday, August 12th, and it will continue for a fortnight. There are grave doubts whether the Government has acted wisely in allowing it this year on account of the cholera, and the pilgrims who are returning from Hedjaz. Enormous crowds will be sure to assemble, and the sanitation of the place is very imperfect.

The important services which Dr. Thorne Thorne has been able to render during his tenure of office, first as assistant medical officer and more recently as principal medical officer to the Local Government Board, have been recognised by the outgoing Government, upon whose recommendation the Queen has appointed Dr. Thorne to be a Companion of the Bath.

We understand that the delay in the publication of the Report of the Commission on Leprosy, appointed in 1889, at the instance of the Prince of Wales, is due to its having been thought necessary to forward the Report to India for printing and publication there, in order that the expenses of such publication may not fall on the revenue of this country. Arrangements will, however, be made for simultaneous publication in India and in this country. The Commission is not unanimous on some points, and the grounds of difference will be dealt with in an appendix to the Report.

TOMATOES AND CANCER.

Now that the time of the abundance of tomatoes is come, the voice of the cancer querist is heard in the land, and such journals as open their columns to the anxious inquirer about things in general, and things medicinal in particular, are occupied with settling the doubts of those who are afraid to eat this succulent vegetable lest they should be sooner or later afflicted with cancer. Some of the answers are even more foolish than the questions, such as that of a correspondent, who, while consoling the readers of the journal, whose subscribers were interested in the subject, assured them that the tomato is more likely to be a preventative than a cure for cancer; he adds that he has treated cancer "with great success;" "its cause is very simple" (simpler even

than tomatoes), and he "does not think its cure should be so hopeless a case as its appears to be." If the popular belief were that this innocent and much maligned vegetable was a cure for cancer, we could understand it on the principle of the "doctrine of signatures," which is a superstition at least as ancient as Pliny. The tomato may be suggestive of certain tumours, to the ignorant mind reasoning from analogy of similar superstition, they should be considered as remedies for such diseases. That they should be believed to cause the disorder is as contrary to the tradition of the most respectable superstitions as it is contrary to common sense.

SALOL IN CHOLERA.

Every day, writes our Berlin Correspondent, brings new remedies against cholera. In the *Deutsche Medizinische Wochenschrift* Dr. W. Loewenthal recommends the use of salol. He has made many experiments on animals, and lately the remedy has been tried in a cholera epidemic on the Phillipine Islands, where, as Dr. Loewenthal alleges, the results have been surprisingly good, of 53 cases only 3 ended fatally.

ELECTROPATHIC AMULETS.

We have received a further letter from Mr. A. J. L. Gliddon in reference to the observations made by us in page 320 of the British Medical Journal of August 6th, requesting us to state on his behalf, as the manager of Count Mattei's remedies, that for the cure of cancer they depend not on the electricities but the globules, and that the use of the electricities in cancer cases is to remove pain, stop hæmorrhage, etc. All the same, according to the report of the Committee of Investigation, the patients watched by them were not cured by any of the remedies used by the Matteists.

SIR W. H. FLOWER.

Professor William Henry Flower, C.B., has been promoted to be a Knight Commander of the Bath. Sir W. H. Flower, who was educated at University College and the Middlesex Hospital, became a Fellow of the Royal College of Surgeons in 1857, and was some time afterwards appointed Conservator of the College Museum. During his term of office he not only made many important contributions to the science of comparative anatomy, but very greatly increased the efficiency of the collection, so that his appointment to be Director of the Natural History Museum, the post which he still holds, appeared to be inevitably indicated.

PEERAGES IN POSSE.

The rumour that the President of the Royal Academy is to be made a peer in sequence of the peerage conferred on Mr. Alfred Tennyson has not been confirmed, but it has been met with plaudits of approval in the press, and would certainly be entirely in accord with public opinion that peerages ought not necessarily to be confined to wealthy business men, or meritorious civil servants and parliamentarians. If Lord Armstrong, Lord Tennyson, and Lord Leighton, why not also Lord Jenner, Lord Paget, Lord Lister, or Lord Wells?

THE MINISTERS OF HEALTH.

The announcement that Sir Walter Foster, M.D., has accepted the post of Parliamentary Secretary to the Local Government Board will be received with great satisfaction by the medical profession. The department has many important relations directly and indirectly with medical science, and the services of a physician who has devoted special attention to questions affecting public health cannot fail to be of the greatest value to the Government in the legislation which is promised for next session. It is generally understood that the completion of the scheme of local government in the counties by the creation of parish councils — with, we hope, increased sanitary efficiency, improvement of the registration law, and possibly temperance legislation — will be among the earliest Government measures. Certain of these questions have an important relation to public health, and we have confidence that the new Minister will bring valuable knowledge and experience to bear on their solution. Sir Walter Foster filled recently the office of President of the Public Health Section at the meeting at Nottingham of the British Medical Association, of which he is also a vice-president; his address on local government was remarkable for the stress which it laid on development of local sanitation on sound administrative principles. Looking at the constitution of the new Local Government Board, it may be said that the appointment of Mr. H. Fowler as President is one which will bring an unusual amount of authority and experience to the solution of all these questions from the point of view of the municipal government of large towns, as on many occasions Mr. Fowler has shown his almost unrivalled knowledge of this department of the subjects. Upon the rural aspects of the question Sir Walter Foster has constituted himself an authority by his work both in Parliament and elsewhere during the last six years. This is, we believe, the first occasion on which a member of our profession has been appointed a member of the Government, and this recognition of the claims of the medical profession to take its due share in the political life of the country we accept as a sign of a new and wiser departure.

HYDROPHOBIA IN CORNWALL.

A serious outbreak of rabies and hydrophobia has occurred in Cornwall. Several persons have been attacked by a rabid dog, which appears to have been roaming at large in the neighbourhood of Saltash. Two lads, named Smale and Clatworthy, have already died from hydrophobia, and it is to be feared that these are but the prelude to other cases. The official career of Mr. Chaplin thus closes with a grim object lesson in the utter worthlessness of his remedy for this terrible scourge. The attempt to stamp out rabies by stamping a name or a number upon a dog's collar recalls the old belief in an amulet as a safeguard against sorcery. Mr. Chaplin, moreover, cannot shelter himself under the plea of ignorance. Early last year his proposal to withdraw the muzzling regulations was met by a vigorous protest from the Society for the Prevention of Hydrophobia, signed by many eminent scientific authorities, including Professor Victor Horsley, Mr. Huxley, Professor Ray Lankester, Sir Joseph Lister, Sir Spencer Wells, Sir Henry Roscoe, Dr. Tyndall, and by a number of the highest authorities on dogs, amongst whom were the Master of the Buckhounds, Mr. Irwin Cox, Mr. George Fleming, and Mr. Everett Millais. The Minister of Agriculture, however, in his superior wisdom, ignored the facts laid before him, and, as a natural consequence, we are now face to face with a recrudescence of the disease, which the memorialists warned him would inevitably occur unless universal muzzling and quarantine were rigorously enforced.

THE JEWS, THE HITTITES, AND THE AMORITES.

Our Berlin Correspondent writes: At the Anthropological Congress held at Ulm an interesting and highly suggestive paper on the anthropological position of the Jews was read by Dr. v. Lüschan, of Vienna. He began by confessing his inability to define the word Semite. It embraced a number of Oriental races, and stood for a distinction more linguistic than ethnological. The home of the primitive Semites seemed to have been in Arabia, though some researches point to the neighbourhood of the Upper Euphrates. More than 60,000 skulls of Hebrews, Phenicians, Aramæans, and Bedouins have been examined, and the result was a bewildering number of varieties. The Bedouins alone could be considered a physically distinct race, their characteristics being a long, narrow head, a short, slightly bent nose (not the so-called Jewish

nose), which type was probably that of the primitive Semites. The examination of the Hebrews gave very different results, 50 per cent. decidedly brachycephalic, 11 per cent. fair haired, with genuine Jewish noses (different from the nose of the primitive Semite), and 5 per cent. only just dolichocephalic. Thus only a small fraction were really Semites. The Crusaders had been held responsible for the percentage of the fair-haired type among the Hebrews—but it had been proved that races that mixed with the Hebrews in times of old were fair—the Amorites and the sons of Enak, of whom mention is made in the Bible. Dr. v. Lüschan's researches had led him to the conclusion that the brachycephali among the Hebrews were descended from the Hittites. Thus the modern Jews might be considered as descendants from (1) the Arian Amorites, (2) the Semites proper, and (3) the Hittites. In the discussion which followed Dr. v. Lüschan's paper, Professor Virchow remarked that he too had noticed the large percentage of brachycephalic heads amongst the Semitic races, and that a large number of skulls found at Hissarlik which he had examined, were almost exclusively brachycephalous. But he had come to the opinion that skull examination did not form the only criterion for the characterisation of race; great weight must be given to the examination of the skin. Dr. Alsberg, of Cassel, remarked that much mingling between the Jews and non-Semitic races was spoken of in the Bible. As regards the Hittites, who were as yet an unsolved problem, he thought it likely that they were a Mongolian race.

HOSPITAL ABUSE.

The abuse of hospitals by persons in a position to pay for the medical treatment which they require is as common or commoner in the United States as it is in this country, and there is the same difficulty in finding an effectual remedy for the evil. A plan which has been tried with satisfactory results at the Ophthalmic Hospital and Dispensary, Cincinnati, may be worth mentioning. A paper is put into the hands of applicants for treatment who are thought to be unsuitable subjects of medical charity, which reads as follows:—

It has been suggested that you are not a proper subject for treatment in this hospital. This institution is for those in poverty and distress *only*, and it will be necessary for you to furnish evidence on this blank, from some responsible party, that you are a proper person for the recipiency of its charity.

(Signed) _____

Executive Officer, Ophthalmic Hospital.

Date, _____, 189—.

_____ is known to me to be worthy of the charity offered by the above institution.

(Signed) _____

STREET STENCHES.

A recent writer, commenting on the filthy state of the by-streets in the West End of London, extols the Continental system under which the occupier is forced to sweep daily before his own door as far as his premises go and half the road in front of his house. The dust so collected is put into a box or basket, which is then allowed to remain on the pavement until the dust cart comes round to remove it. The police have the supervision and the enforcement of this sweeping. The writer considers that a great saving of expense is thus effected, but if it fell upon each occupier to cleanse and scavenge the street opposite his house (as was the case so far as the foot pavement is concerned before the passing of the Public Health (London) Act) the rate might be saved but not the ratepayer, for he would pay someone to do the work or do it himself—in either case expending in time or money probably a much greater sum than would purchase the cleansing of the small portion of street opposite his door by the municipality. The cleanliness of London pavements and roads and streets should always be a public matter, and we have no sympathy with certain local authorities who are agitating for the repeal of Section 29 (compelling sanitary authorities to cleanse the pavements) of the Public Health (London) Act, but we wish the full intention of the section carried out. The by-streets in the west of the metropolis generally are insufficiently scavenged; not a few are extremely offensive, being left from Saturday to Monday or Tuesday, or longer, without being touched, and Section 29 is, in its practical result, a failure. Why? The answer is obvious; most of the London surveyors opposed the clause in the London Bill placing upon the surveyors new responsibilities when the Bill passed; the surveyors, backed up by the local authorities, have never risen to the occasion; insufficient labour is employed; the labour is not of the right kind; a third of the scavengers should be in hospital; too little advantage of mechanical appliances is taken, and nothing is done to encourage invention. For instance, who has ever seen in use in the metropolis a machine for cleansing pavements? Yet such are in existence. The County Council will do a real service by making a searching inquiry as to the amount of labour and of machinery used in scavenging by each local authority. It would also be of considerable utility to encourage by grants of money the invention of improved appliances for sweeping, watering, disinfecting, and cleansing the public streets and pavements. The Public Health (London) Act is not in fault; it is the unwise parsimony of the local administrators. There is no valid reason why every metropolitan alley and court should not be at all times perfectly sweet—far more so than the corresponding places on the Continent, which we decline to take as models of purity.

THE PAUPER'S PIPE.

Is it the case, as stated so widely this week, that there are only three workhouses in which the inmates of the workhouse are allowed any tobacco, and that at Bourne, the latest of the three, "the consent of the Local Government Board has been given on the condition that it is only allowed to men above 60?" If so, why? We know all the objections to pampering the able-bodied pauper; but if tea, why not tobacco? Hard fare and hard work, if you please, for the worthless and able-bodied; but if one alkaloid of daily use and comfort, why not another? What is there to be said against the man's pipe that may not be urged against the woman's teacup? Surely this is an unreasonable and unnecessary privation, unless where punishment is needed and intended. We hope the example of the three unions will be contagious, and widely followed.

"COLONIES" OF LUNATICS IN FRANCE.

The "family" system of treating lunatics which has been so successfully carried out in Belgium, at Gheel, and more recently at Lierneux, and also in Scotland and in the United States, has not till quite lately found favour in France. At the instigation of M. Charles Féré, however, the General Council of the Seine Department instituted in 1891 an inquiry on the subject. As the result of this inquiry the Council, at a meeting held on July 12th, adopted a report presented by M. Deschamps, in which a proposal was made that a first "family colony" of 100 patients suffering from senile dementia, and belonging exclusively to the category of harmless lunatics, shall be established at Dun-sur-Auron in the Cher Department.

INEBRIATES AND REPEATERS.

In an interesting paper Dr. J. F. Sutherland gives some striking information as to inebriates convicted for various offences against the law. He first points out that though over a million apprehensions, or 1 to 33 of the population, have been effected by the police in the United Kingdom during one period of twelve months, the number of individuals is very much less, one person representing in many instances from ten to fifty apprehensions in one year. More than half a million were for petty offences. Of the 137,000 persons convicted of the more serious charges, 100,000 were first offenders or casuals, 27,000 intermediates, and 10,000 habituals. Women are three times more prone to these

offences than men. The connection between simple drunkenness and the three other petty offences of disorderly conduct, breach of the peace, and petty assaults is most intimate, 86 per cent. of the persons guilty of these other petty offences having been drunk when apprehended. There are over 10,000 commitments of women to Glasgow Prison in the year. These convictions represent 3,800 women, of whom 9 per cent. were imprisoned six, ten, twenty, and thirty times, and account for 40 per cent. of the whole. In Scotland a prison, or part of a prison, might be converted into a retreat for one section of inebriate offenders, and for another some of the now almost empty poorhouses under another name. For the refractory class, numbering about 700, cellular confinement might still be needed, and their work could be made fairly remunerative. The more docile, about 500 in number, might be treated in the poorhouses, and employed in outdoor farming or gardening work. A certain number of workhouses in Scotland might be transformed into homes for inebriates, each with from 20 to 50 inmates. The present judicial procedure with inebriate offenders is a fiasco daily enacted in our police-courts at great cost, the offending "repeaters" themselves receiving their brief and useless sentences with the utmost *nonchalance*. Of the present treatment of the habitual drunkard there can be written only "failure."

THE VIVISECTION GNAT AND THE COMMERCIAL CAMEL.

It has before been the subject of caustic remark how readily many of those who strain at the gnat of physiological experimental investigation swallow the camel of wholesale mutilation where either commerce, the pleasures of the table, sport, or agricultural finance require or suggest mutilation, destruction, or wholesale infliction of agonising pains upon even the most highly-organised creatures; not to speak of the wholesale agonies of rabbit-trapping in the warren for the market or of the coursing of the hare, the hunting of the deer and the fox, and the mutilation of countless pigeons in matches, and grouse, pheasant, and partridge in battues and drives, of the wholesale poisoning of rats and other vermin by strychnine, phosphorus, and arsenic, or of the universal practice of mutilating without anæsthetics—horses for draft, boars and sows, bulls and rams for the butcher, the creation of liver disease on a great commercial scale to supply the *gourmet* with *foie gras*—we notice one of the most humanitarian of papers speaking with approval of an order just given by the Departmental Commission, appointed recently to inquire into the plague of field mice in Scotland, for experiments to be made on a considerable scale by an eminent biologist, who has undertaken to bring about the destruction of these marauding herds by spreading an epidemic amongst the mice. In this case, however, everything seems to be condoned because the object for which the services of the researcher are engaged is a commercial one and in the agricultural interest, whereas if it were only to prevent suffering amongst mankind by discovering with accuracy methods of preventing or curing disease or the effects of disease we might be sure that Miss Frances Power Cobbe, Bishop Barry, or the Bishop of Manchester would be heard bemoaning the wickedness and cruelty which could think it right to purchase whatever boons to mankind at the cost of pain to any member of the defenceless dumb creation. The inconsistency is sufficiently marked, but it would be hardly worth while emphasising if it were not that it indicates the underlying fallacy of their whole argument. Which is the greater cruelty, to infect a herd of mice, to imprison thousands of rabbits for long hours with broken limbs in steel-jawed gins, to geld a herd of horses or of sheep, or to perform a physiological experiment in the laboratory after giving proof that the object is one important to knowledge and likely to benefit mankind? Nay, the pain and suffering inflicted in any one county in this way is probably greater in a day than that inflicted in the whole of the physiological laboratories of Great Britain in a year. Moreover, in the one case anæsthetics are never administered, in the other they are so in most cases, and if they are not so administered a special declaration and a special licence is required. No declaration and no licence is required when the mutilation is inflicted or the agony imposed for any commercial or agricultural purpose or even to gratify a fastidious palate or to satisfy a peculiar aversion. As Sir William Jenner aptly put it on the occasion of the famous deputation of medical men to Mr. Cross, introduced by Mr. Ernest Hart at the Home Office in 1876, any man may catch a rat in the most cruelly devised trap, or hunt it to death with dogs, or poison it with strychnine, or destroy it as he pleases for the mere reason of dislike or fear, but if he wishes to inflict any kind of pain, however slight, with a view of deriving knowledge for the benefit of medical science and the relief of suffering, he is either forbidden altogether or permitted only to do so under a special licence, and even then is held up as a malefactor by certain of the fanatical anti-party.

UNWHOLESOME OCCUPATIONS.

We have recently had occasion many times to report the sufferings of industrial workers from the inevitably unwholesome conditions involved in the industry in which they are engaged. Such is the case of lead workers, grinders, alkali makers, men employed in some weaving sheds, and many other occupations, of which Dr. Arlidge's valuable lectures at the Royal College of Physicians—republished with additions in a volume recently issued—gave the most recent and temperate summary. The evidence produced by the unionist on behalf of working men and the testimony of various "hands" before the Labour Commission make up a very startling indictment of various classes and individuals among the employers, from which may be inferred a distressing, and in some cases highly culpable, negligence of the general sanitary measures and special precautions by which these evils can be alleviated. There is, however, another side to the question which it is unfair to leave out of view, and which, after some special investigations undertaken from time to time, has compelled us, and ought to compel all fair-minded persons, to practise a certain reticence in judgment until all the facts are fully disclosed. It is for that reason that, after a tolerably thorough investigation of the case of the alkaline workers at St. Helens, brought forward by the trades-union journals with many shocking details and much fervent denunciation, we felt it advisable to await the full investigation, of which the appointment of the Labour Commission afforded an opportunity, before publicly committing ourselves to any statement. The newly-published volume of the reports of the Home Office Inspectors of Factories sets out some of the details, which indicate that the benevolent intentions embodied in the Factory Act or promoted by the inspectors are sometimes strangely thwarted by the persons for whose advantage they are designed. Thus, Mr. Brewer, of the Stafford district, mentions a new process introduced for the purpose of putting a finer surface on earthenware. Extra precautions are necessary to protect the workers against the dust generated in this process and the evils resulting therefrom. But

"In the scouring process the hands strongly resist all efforts to induce them to wear respirators. They maintain that respirators stifle them, and that these smell after awhile; but I believe the real objection is that they cannot talk, and think the respirators disfigure them."

Mr. Cameron, of the East Metropolitan district, states that two large white lead factories in the district have medical men of their own to supervise the arrangements, and much has been done to protect the health of the employed.

"Yet there are many difficulties, among which not the least is the callousness of the workers themselves. I give an instance of this. Recently at one of these factories a man was taken ill suddenly, and so seriously that, as the doctor informed me, he was pulled through 'more by good luck

than management. Convalescent, he was sent to a home at Bognor; he returned strong, able and keen to resume work; this was, of course, refused. The doctor pointed out the extreme danger, and made him promise to undertake no such work in future but to resume his original calling as a seaman. The man departed, instantly applied for work under another name at the other lead factory, described himself as entirely new to the work, was accepted, and died in a fortnight!"

SCOTLAND.

SCARLET FEVER EPIDEMIC IN GLASGOW.

IN the end of last week a few cases of scarlet fever were reported to Dr. Russell, medical officer of the city, as having occurred in the Kingston district, on the south side of the city, principally in Crooksten Street and Paisley Road. Inquiries were at once instituted by Dr. Russell and the officials of the sanitary department, as a result of which the epidemic was, it is alleged, traced to the milk supply, which had been derived from a farm in Renfrewshire. Altogether upwards of 200 cases of scarlet fever have now been reported from the district. A large number of the sufferers have been removed to Belvidere Hospital, and the authorities have taken the usual measures to obviate further contagion. Mr. Crawford, the convener of the Public Health Committee, in referring to this subject, said that the epidemic was substantially at an end, that at all events primary cases had ceased, and that all they were now likely to have was a few secondary cases arising out of the first. He might say that everyone connected with this epidemic had shown the greatest possible zeal and intelligence in putting an end to it. The proprietor of the dairy and the proprietor of the farm had each done everything that could possibly be done to put an end to the epidemic the moment it was known. The epidemic did not arise from any case of scarlet fever in a dairy or on a farm, but it arose apparently from a disease on the teats of cows very much resembling cow-pox, and hardly distinguishable from it. The Health Committee had decided to make the most severe and rigid inquiry into the whole circumstances of the case, and in this they would be aided and assisted by the Renfrewshire authorities, and particularly by their medical officer, Dr. Munro. They had decided to ask the assistance of the Local Government Board, who had experts to deal with matters of this kind.

IRELAND.

DR. ALBERT CROLY, of Rathfarnham, has been appointed a Justice of the Peace for the county of Dublin.

THE population of Ireland has decreased during the past ten years by 470,086, or 9.08 per cent. There has been a diminution of the number of medical men from 2,470 to 2,293.

SEVERAL cases of typhoid fever have occurred at Doneraile, co. Cork, due, it is considered, to an impure water supply. At the instance of Dr. Reardon, medical officer of the district, it has been determined to have the water analysed.

SIR FRANCIS X. MACCABE.

BEFORE leaving Ireland Lord Zetland conferred the honour of knighthood on Dr. F. X. Maccabe, the Medical Commissioner of the Local Government Board, in recognition of the services which he has rendered as a public officer.

BRITISH INSTITUTE OF PUBLIC HEALTH.

THE annual conference of this body began in Dublin on August 17th, under the Presidency of Sir Charles Cameron. The attendance was not large, but it included the Registrar-General of Ireland; Dr. Littlejohn, Edinburgh; Dr. Ronaldson, Salton; Dr. Robertson, St. Helens; Dr. W. R. Smith, King's College; and others. Sir Charles Cameron, M.D., delivered an address, in which he introduced the two bodies to each other, and gave a sketch of the British Institute of Public Health. He referred to the sanitary work which had been done by the Corporation of London, which in the last twelve years had expended a quarter of a million of money on sanitary improvements, which had largely reduced the death-rate. It was expected that by the efforts they were making they would reduce the abnormal fever rate of the city. A discussion, initiated by Dr. Graves, of Dublin, then took place on the causes of typhoid fever. The Rev. Dr. Haughton gave an address on Cholera Prevention, and a discussion followed. Professor E. J. M'Weeney, M.D., read a paper entitled Notes on the Etiology of Typhoid Fever.

DONATIONS TO CORK CITY HOSPITALS.

THE sum of £1,000 given by Sir John Arnott will be thus allocated:—South Infirmary, £225; North Infirmary, £200; Fever Hospital, £150; Mercy Hospital, £100; Women and Children's Hospital (South), £100; Blind Asylum, £75; Women and Children's Hospital (North), £25; Lying-in Hospital, £50; while the Ophthalmic and Incurable will each receive £25.

IRISH DISPENSARY DOCTORS AND PARLIAMENT.

WE have received from Dr. Mussen a copy of a circular which has been sent to most of the Ulster Members of Parliament, on the subject of the grievances of the Irish dispensary medical officers. It is worded as follows: "On behalf of the dispensary medical officers of County Antrim and throughout the country, we respectfully solicit your support of a measure which is to be introduced into Parliament for the removal of the grievances under which as public servants we have long suffered. We would briefly set before you the matters of which we complain. While discharging duties second to none in their importance, in attending to the sick poor of the country, and safeguarding, as far as in our power lies, the public health, we are debarred from all the advantages enjoyed by other civil servants as far as pensions and holidays are concerned. It is—not incorrectly—stated that we do not give our whole time to the discharge of our duties as such officers. We do, however, give more time and energy to the discharge of our duties as dispensary officers than Civil servants give to the discharge of duties which occupy their whole time. There is no limit to the demand which the public service may make on our time and energies. Our services can be demanded, and are demanded and given, without regard to hour or weather. We have not the ordinary rest of the Sabbath day. Public holidays bring no relaxation to us. The smallness of our salaries compel us to make efforts to supplement them. Men in our service have to continue to discharge most wearying duties to the end of life, some being at present in office who are about 80 years old. All this is so, while the discipline under which we serve is, we believe, more strict than that of any other department of the public service. We beg that you will support a Bill to give us pensions, and also a reasonable time for holidays annually. A reply to Dr. E. Coey Bigger, 10, Carlisle Terrace, Belfast, would be much esteemed." The letter is signed by A. Mussen, M.D., J.P., Glenavy, co. Antrim; Robert H. Newett, L.R.C.P. & S.Ed., Ligoniel; J. C. Martin, M.D., Portrush; Stanley Beresford Coates, L.R.C.P. & S.Ed., D.P.H., Belfast. This is a very judicious and advisable move, and we hope that similar steps will be extensively taken by the Branches of the United Counties Medical Association of Ireland, and we shall be glad to hear the results, and to receive copies of the replies for the information of the Parliamentary Bills Committee, in their further and later proceedings in this matter.

ASSOCIATION INTELLIGENCE.

NOTICE OF EXTRAORDINARY GENERAL MEETING.

Notice is hereby given that an Extraordinary General Meeting of members will be held at the offices of the Association, 429, Strand, London, W.C., on Wednesday the 24th day of August next at 2 o'clock in the afternoon, to consider, and if thought fit, to confirm the special resolution passed by the statutory majority this day at an Extraordinary General Meeting of members held at the Albert Hall, Nottingham, namely, "That Article 4 of the Articles of Association be altered by expunging the words

'No female shall be eligible for election as a Member of the Association.'"

July 28th, 1892. Francis Fowke, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS FOR 1892. ELECTION OF MEMBERS.

A meeting of the Council will be held on October 26th, 1892. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than October 5th, 1892.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BORDER COUNTIES BRANCH.

The twenty-fifth annual meeting of this Branch was held at the County Hotel, Carlisle, on July 15th, 1892, Dr. Crerar, of Maryport, in the chair.

Election of Members.—The following gentlemen were elected members of the Branch: A. Bradshaw, Gilsland; P. M. Kerr, Dumfries; G. Wade, Melrose; T. G. Mathews, Carlisle; E. M. Tyrrell, Galashiels; D. Huskie, Moffat; W. L. Mackenzie, Newton Stewart.

Report of Council.—The report of the Council was read and adopted.

Election of Officers.—Dr. Mitchell, of Cockermouth, was appointed President-elect, and the following gentlemen were elected to serve upon the Council of the Branch: Drs. D. G. P. Thomson, Penrith; J. M. Ross, Dumfries; D. Maclaren, Carlisle; W. H. Murray, Galashiels; J. A. Campbell, Carlisle; J. S. Muir, Selkirk; A. A. H. Knight, Keswick; A. Macdonald, Kirkoswald; J. Connel, Peebles. Dr. H. Barnes, Carlisle, was reappointed Representative on the Council of the Association and Parliamentary Bills Committee, and Dr. J. Altham, Penrith, was reappointed Secretary and Treasurer.

Autumn and Spring Meetings.—It was decided to hold meetings at Galashiels in October, 1892, and at Keswick in May, 1893.

Retiring President.—Dr. Crerar then vacated the chair, and introduced Dr. Somerville, of Galashiels, as President. A hearty vote of thanks was accorded to Dr. Crerar for his conduct in the chair during his year of office, and he was appointed a Vice-President for life.

Presidential Address.—Dr. Somerville then delivered his Presidential Address upon the "History and Practice of Bloodletting," for which he received the hearty thanks of the meeting.

Annual Dinner.—The members dined together in the hotel after the meeting.[1]

NORTH WALES BRANCH.

The 43rd annual meeting of this Branch was held at the Masonic Hall, Barmouth, on Wednesday, August 4th, J. Llewellyn Williams, M.B., Wrexham, President, in the chair.

Election of Members.—The following gentlemen were elected members of the Branch:—James Barr, M.D., Liverpool; A. Bernard, M.B., Liverpool, and R. T. Jones, L.R.C.P.Ed., Harlech; and the following were elected members of the Association and Branch: C. Grey Edwards, M.B., Beaumaris; W. Griffith, M.B., Denbigh Infirmary, and Cecil Morgan, M.B., Truro.

The President-elect.—The Honorary Secretary announced that he had received a letter from a relative of the President-elect, Robert Hughes, M.D., Penmaenmawr, stating that owing to ill health he would be unable to attend; whereupon it was proposed by Mr. William Jones, and seconded by Mr. Arthur Hughes, and carried unanimously:—"That this meeting begs to record its sympathy and condolence with the President-elect in his severe and prolonged illness, and wishing him a speedy recovery to discharge the medical and civil functions he has so ably and creditably performed in the past."

On the motion of Mr. Hugh Jones, M.B., seconded by Mr. H. J. Roberts, John Roberts, M.D., J.P., Menai Bridge, was unanimously elected President for the year 1893.

Report of District Council.—This report contained a summary of the work done during the year, referred with satisfaction to the eulogiums passed upon its action in the British Medical Journal, and congratulated the Branch on the increase of its members and the healthy condition of its finances. It referred in feeling and adequate terms to the loss sustained by the Branch by the death of its late Treasurer, Mr. John Richards, J.P., of Bangor, one of the oldest members and most enthusiastic supporters.

Pwllheli was selected as the place for the intermediate meeting, and St. Asaph for the annual meeting of 1893.

Election of Officers.—Mr. Jones Morris was re-appointed Honorary Secretary, and Dr. Samuel Griffith Honorary Treasurer. *District Council*—Messrs. Hunter, Hughes, Rees, Pwllheli; W. Thomas Rhyl, H. Lloyd, St. Asaph; J. R. Jenkins, M.D., Ruthin, and J. Lloyd Roberts, M.B., Denbigh, were appointed the District Council. *Representatives on Council and Parliamentary Bills Committee*—The Honorary Secretary was appointed the former, and Messrs. Emrys-Jones, M.D., Manchester, and Robert Jones, M.D., F.R.C.S., Earlswood Asylum, the latter.

Papers.—The following papers were read. Dr. John Williams, Bethesda: Malignant Growth in the Groin—the patient had his testicle removed some time previously, and a recurrence, having the appearance of fungus hæmatodes, appeared shortly afterwards, which speedily ended fatally.—Mr. H. Jones Roberts, brought before the meeting a modification of Croft's plaster-of-paris bandage for compound fractures, which he had found most useful in some cases under his care.—Dr. H. Drinkwater, Wrexham: On the Symptoms and Diseases Produced Reflexly by Morbid Conditions of the Nose, in which he dwelt on the various affections, such as asthma, etc., produced by such conditions, and illustrated his remarks by quoting several cases in his practice where recovery had occurred after the local affection was satisfactorily healed.—Mr. Jones Morris exhibited a patient suffering from Aphasia, in which no other symptom but loss of speech existed, and made some remarks on the pathology and treatment.

Annual Dinner.—The members, with the Chairman of the Local Board as their guest, dined together at the Corsygedol Hotel.

[1] The Secretary wishes to express his regret that some members did not receive notices for the annual meeting; all were duly sent out, but, owing probably to the press of work during the election, some were not delivered. He also begs to apologise for the delay in the appearance of this notice: he is and has been suffering from the effects of an accident which prevented all work.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE 107th general meeting of this Branch was held at the Royal Society's Room, Sydney, on June 3rd, 1892. Present, Dr. FIASCHI, in the chair, Drs. Jamieson, G. A. Marshall, Pockley, Newmarch, Crago, Megginson, Norrie, Paton, Lyden, West, Scot Skirving, Bloyd, Huxtable, McMurray, Twynam, A. Parker, Barkas, Hankins, Martin, Jenkins, Shand, Foreman, Quaife, Rutledge, Bowker, Purser, Graham, Kenna, Kirkland, Hall, Shewen, McCormick, Lennhoff. The minutes of the previous meeting were read and confirmed.

New Members.—The CHAIRMAN announced the election of the following new members: Drs. James McLeod, Bury, Kirkland, Davis, Lennhoff, Sheldon, Thom, and Soule.

Admission of Women.—The CHAIRMAN announced that an expression of opinion by the members had been asked as to the advisableness or otherwise of admitting women as members of the Branch; 85 members had responded, namely, 58 in favour of the admission and 27 against. The adjourned discussion on Mr. Hankins's motion, "That the Branch represent to the parent Association that this Branch is desirous of admitting women, being duly qualified medical practitioners, to membership, and asking the Council of the Association to reconsider Rule No. 4, with the view of effecting such alteration in it as will enable the New South Wales Branch to admit women," was resumed by Dr. QUAIFE. The Chairman then put the resolution to the meeting and it was carried.

Papers and Cases.—Dr. MCMURRAY read notes on some peculiar conditions of the hair, namely; Leptothrix, Trichorrexis Nodosa, and an atrophic condition of the extremities of the hair shaft. Several specimens were exhibited under the microscope.—Dr. NEWMARCH exhibited a patient suffering from Lupus Erythematosus, and explained the case. Dr. Newmarch also exhibited an Apparatus for Fractured Spine. —Dr. JAMIESON exhibited a pathological specimen of Rupture of the Aorta close to origin of coronary artery due to disease of the walls of the vessel.—Dr. JENKINS made some remarks on a case of Hæmorrhage into the Pericardium, the result of rupture of the left coronary artery due to atheroma of the walls of the vessel.—Dr. MORGAN MARTIN read a paper on Pennyroyal as an Ecbolic. Drs. CRAGO, TWYNAM, G. A. MARSHALL, and FOREMAN discussed the paper.—Dr. JENKINS stated that Mr. Hodginson was present, and would exhibit and explain his improved Electro-medical Apparatus.

HONG KONG AND CHINA BRANCH.

THE following is a brief summary of the meetings of this Branch during the session 1891-92:

The opening meeting has already been reported. The second meeting was held on November 14th. At this meeting a peculiar point arose as to whether members of the old Hong Kong Medical Society who did not possess British qualifications could be admitted as members of the Branch. The question is still under discussion. Mr. LOWSON read for Mr. THOMSON the first part of a paper on Chinese Surgery, in which the writer claimed the first laparotomy for China, as also a knowledge of antiseptics before the Christian era. Deputy-Inspector TURNBULL showed specimens of Dysenteric and Specific Ulcerating Bowels. Dr. ATKINSON showed microscopical sections of the Spinal Cord in Beri-beri, and also a peculiar Varicose Condition of the whole of the large intestine in a European who died of cholera; the condition was probably due to hepatic obstruction. Mr. LOWSON showed a case of Excision of Hip for Bullet Wound, in which the entire upper third of the femur was smashed and had to be removed.

The third meeting was held on December 12th. Mr. T. C. THOMSON read notes and showed specimens of a case of Typho-malarial Fever, but the general opinion of the meeting seemed to be that the ulcers had not the appearance of typhoid ulcers. Mr. LOWSON read notes of a case of Typhoid Fever, in which the temperature came down to normal almost every day; the patient died from exhaustion after hyperpyrexia; typical typhoid lesions were found after death. Surgeon-Colonel PATERSON read some notes on the Disposal of the Dead in Hong Kong; it is felt that this is becoming a serious matter; the Government, on the advice of a sanitary board which is scarcely capable of discussing such a pure question of public health, still allow too many Chinese to be buried on the island.

The fourth meeting was held on January 9th, 1892. Mr. ATKINSON read a paper on the Severe Remittent Fever of Hong Kong, which was of great interest. Dr. WENYON, Mr. CANTLIE, Staff-Surgeon GIPPS, Staff-Surgeon O'GRADY, Surgeon-Lieutenant-Colonel BARROW, and Mr. LOWSON also spoke on the subject of the pathology and treatment especially, and the discussion was adjourned.

The fifth meeting was held on February 27th. Mr. LOWSON mentioned a case he had seen that day of Complete Absence of Uterus and Ovaries, as far as could be found by examination. There was no dimple in the vagina into which a cervix could open. Dr. TURNBULL gave notes of a case which turned out to be Primary Sarcoma of Lung. Mr. THOMSON then read the second half of his paper on Chinese Surgery. Several members spoke on the subject, especially criticising the views of the writer on the fortitude of Chinamen when undergoing operation. The discussion on Severe Remittent Fever was resumed and finished. Dr. JORDAN expressed the hope that Mr. Atkinson would be able to give the Branch a further paper on the subject.

The sixth meeting was held on March 12th. Mr. CANTLIE made some remarks on Beri-beri, and its probable causation by the Anchylostoma Duodenalis. He showed numerous specimens which he had collected, especially ova from the stools of beri-beri patients. Surgeon GUNN then read an instructive paper on Influenza, which produced an interesting and prolonged discussion. Opinions as to causation especially were rather conflicting.

The seventh meeting was held on April 9th. Dr. TURNBULL showed specimens from the case of New Growth in the Lungs mentioned above. Mr. LOWSON then read a Criticism of the Recent Quarantine Commission in Hong Kong, in which the witnesses who were examined were severely criticised for the manner in which they gave their evidence. This was the last meeting of the session.

The Branch now numbers about forty-five members, including naval and military members.

SPECIAL CORRESPONDENCE.

LEEDS.

Leeds Workpeoples' Hospital Fund.—Enlargement of Menstone Asylum.—The Sanitary State of the Town Hall.—Leeds Medical Staff Corps.

AT the recent quarterly meeting, the Honorary Secretary submitted his report. The amount of the contributions paid into the credit of the fund are £2,136 12s. 3d., as against £1,956 16s. 9d. at the corresponding period of last year. The Honorary Secretary stated that he had had some conversation with Mr. Benson Jowitt, the Treasurer, on the subject of allocating part of the fund to the District Nursing Association, and Mr. Jowitt had written a letter in favour of the proposal. It was decided that the question should be considered at the next quarterly meeting.

At a recent meeting of the West Riding County Council it was decided that a sum of £85,673 should be spent on the erection of wards for chronic patients at Menstone Asylum. It was pointed out that before long another site would have to be found for an asylum, as lunacy was increasing at the rate of 120 patients a year in the West Riding.

Considerable progress has been made with the overhauling of the drainage arrangements of the Town Hall since the last assizes. The whole of the leaky and otherwise faulty drains, soil pipes, etc., underneath the edifice have been reconstructed in the most approved style, air-tight concrete having taken the place of leaking brickwork. The intentions of the Corporate Property Committee are evidently excellent, if the improvements already effected may be regarded as a sample.

At the annual prize competition a number of interesting events were decided, including bringing in the wounded on stretchers, dressing wounds, wagon drill, first aid, etc. The competition was under the supervision of Captain-Surgeon de Burgh Birch and Quartermaster W. Gardner.

DR. JOSEF MASCHKA, Emeritus Professor of Forensic Medicine in the University of Prague, celebrated the fiftieth anniversary of his taking his doctor's degree on July 20th.

CORRESPONDENCE.

THE STUDY OF PATHOLOGY.

Sir,—Your report of my remarks on the above subject is absolutely correct. Dr. Hadden's courteous criticism of what I stated trespasses, as he himself confesses, beyond the points I dealt with, and I therefore repeat that in my mind there should be no relaxation whatever of original research and study in morbid anatomy. It is absurd to say that any branch of science is even "worked out." Dr. Hadden suggests that I am responsible for a fractional part of the reason why pathological subjects are not dealt with by the Pathological Society. He says that I have not myself communicated for many years any investigation of the kind to the *Transactions* of the Society. This is a fact, and the reason is simple. The last paper I communicated, and which discussed a point in pathology, was one on an interesting form of venous pulse. To further the discussion of the changes in the circulation, I showed tracings and diagrams of curves. I was asked by the then Secretary, "Why on earth did I bring such things to the Society? No one would discuss them, understand them, or take any interest in them."

This melancholy but official prognosis was thoroughly confirmed by the action of the Society. I am sure that Dr. Hadden will be the first to acknowledge that I have the best reasons for not again reading a paper on a pathological question. It is, moreover, well known to all working pathologists that it is hopeless to expect that such communications will be criticised or even discussed at an ordinary meeting.

I would like to add that I do not perfectly understand what Dr. Hadden means by the "educational" mission of the Pathological Society. Dr. Hadden's words would seem to suggest that the educational training of some of the members in morbid anatomy not having been what it ought to be, the Society advantageously fills a gap somewhat in the manner of a night school. Of course I may have wholly misunderstood the sentence, but I cannot otherwise interpret Dr. Hadden's account of "communications" which are not of "original value," but which "influence practice" beneficially.

To conclude, I would urge again, as I did at Nottingham, that a Society which has for its object "the cultivation and promotion of pathology," ought to provide that in its work pathology should have at least as prominent a position as morbid anatomy, and that I do not for one moment depreciate the study of the last-named science.—I am, etc.,

Cavendish Square, W. Victor Horsley.

MEDICAL MEN AND LAY PRESS INTERVIEWERS.

Sir,—We must all have seen, and seen, I apprehend, with a great deal of surprise, not unmingled with pain and regret, the report in all the daily papers of colloquies held with the press reporters of a well-known news agency, and published, therefore, *urbi et orbe*, concerning the alleged approaching cholera epidemic and precautions against it, by persons of no less well-known position than Sir Richard Quain and Sir William Mac Cormac. Sir Richard Quain is, of course, a physician of high official position both in the General Medical Council and the Royal College of Physicians. He is, moreover, a man so generally esteemed and liked, and with such high social position in the profession, that he has not only no temptation to depart from the highest and strictest traditions of professional propriety and reticence, but from his seniority in the College of Physicians, of which he has more than once been put forward as President *in futuro*, and of which he is a past Censor, one might expect to look to him as a pattern in such matters. Now, Sir, are we to understand that it is according to the best traditions of the profession that a physician should receive representatives of a press agency for the purpose of telegraphing all over the world his opinions on medical subjects of this kind? Cholera is, indeed, a subject on which Sir Richard Quain, together with most other well-educated physicians, may be supposed to have knowledge and opinions; but if a practising physician of his standing may with propriety thus trumpet forth his name and his views on a medical subject of this kind, why should you object, as you have recently done, to a New Zealand practitioner edifying a local correspondent of the press by describing his opinion of suspension and locomotor ataxy, or an Irish practitioner admitting of references in the local papers to the superiority of Porro's operation over the Cæsarean section—a question in which the catholic theologists and laity are particularly interested—or any local practitioner obtaining like prominence for his opinions in local papers? *Noblesse oblige*. If the small man is condemned, why should the great escape? What is the opinion of the College of Physicians on the subject, and what is the opinion of the profession generally and of the public on the true interpretation of this point of medical etiquette? I do not speak of the ludicrous feebleness and inaccuracy of the announcement, for this may probably be explained by its being transmitted through a technically uninformed press reporter, who is not likely to select the most valuable parts of the information which Sir Richard Quain has to give, and has no doubt strained off anything of real value, and only supplied to the public the jokes and the rubbish. But that is one of the incidental evils inherent in making such communications through so unsuitable a source, and to the lay papers instead of to the professional journals. It is anything but apparent why Sir William Mac Cormac, a consulting hospital surgeon, who is announced almost simultaneously in the papers in another connection as being "best known as an authority on gunshot wounds," considers himself privileged or called upon by his duty to retail to a telegraphic press-man incomplete gossip from hearsay on the cholera epidemic in Paris, for publication under his name in the daily papers. Sir William Mac Cormac is a Vice-President of the Royal College of Surgeons of England and Senior Surgeon at St. Thomas's Hospital. It would be interesting to know whether his colleagues on the Council of the one body, and on the staff of the other, approve of the proceedings, or if it is calculated to raise the dignity or conduce to the honour of the profession, either as an individual act or by way of example in these officially honoured persons. It is an unpleasant task to have to refer to such a matter, and in the case of men so highly placed and so well known, but it appears to me that this is evidently a case of *dum nocens, absolvitur damnatur judex*. Moreover the circumstance is a matter of much and widespread unfavourable comment in the profession, and it is only kindness to afford Sir Richard Quain and Sir William Mac Cormac an opportunity of publicly explaining the principles on which they acted, and which they considered to justify the course which they have no doubt deliberately pursued in this matter. —I am, etc.,

Antiqua Via.

The Report of the Medical Charities Committee.

John Haddon, M.D. (Canonbie, N.B.) writes: Having had some experience of practice amongst the poor, being acquainted with the class of patients which frequent our hospitals, having learned something of the working of provident dispensaries in Manchester and Salford, and being interested in the great question of hospital reform, I should like to direct the attention of the members of our Association to a few facts, and the conclusion to which they point.

1. When our original medical charities or hospitals were instituted, there was no proper provision for medical relief by the State; and there can be no doubt that they were called into existence by the necessity of such relief being provided for the poor.

2. For many years now the State has provided, in theory, most efficient medical relief for the poor in every parish, which ought to have removed entirely the *raison d'être* of our great hospitals. If the State has not yet done so in fact, very little is required to do so, and that little ought to be done.

3. In spite of such State provision, our hospitals are ever being enlarged, and the cry for more money is annually becoming more importunate.

4. The reason for this increase in our hospitals is not far to seek. It is to be found in the abuse of medical charity.

5. This abuse is fostered (1) by the necessity for clinical material in connection with medical schools; and (2) by the facility with which medical charity can be obtained.

6. We cannot expect the hospitals to remedy the abuse of medical charity. Such would be a suicidal policy, and so we must look for help from the great body of general practitioners, and the enlightenment of those who by their liberality assist in keeping up such hospitals as continue to act as great pauperising centres.

From a perusal of the report of the Medical Charities Committee and of what is reported in the British Medical Journal as having been said when that report was considered at Nottingham, I cannot believe that any good will result from the work of that Committee as at present constituted. One of its recommendations is that a placard should be posted in each hospital, setting forth that "This institution is established to relieve only those who are too poor to pay for suitable medical and surgical aid." Now, if that is the creed the Committee holds and acts upon, no good will come from its labours. The class which cannot provide itself with medical aid through the club or provident dispensary or ordinary general practitioner, who regulates his fee according to the means of his patient, ought to be provided for by the State.

The Committee, then, it seems to me, must change its creed with advancing times, and believe and preach that our hospitals exist for those only who, owing to the nature of the ailment or insufficient accommodation or nursing, cannot be properly treated at their own homes. Then I think it would recommend that at every hospital a placard should be put up over its entrance, setting forth that "This institution is for the treatment of those who are recommended by their doctor and who bring a note from him."

I agree with Dr. Rentoul that the wage limit of 25s. for single and 45s. per week for married persons is absurdly high, and I cannot but think that the great bulk of our members must regret that Dr. Felce's amendment to strike out such limits from the report was not carried. The number voting —namely, 15 against and 14 for his amendment—must be regarded as a measure of the value of such a vote.

MEDICAL PROTECTION SOCIETIES.

Sir,—Some time ago I received a pamphlet from the Medical Defence Union, Limited, enclosing a form of application for membership. I did not destroy these, as it seemed to me a probable duty, as well as a matter of possible self-interest, to strengthen the hands of such a society by joining it. Ere, however, I had taken any definite steps in that direction, I received a somewhat similar communication from the London and Counties Medical Protection Society, Limited. As these two societies appear to have similar objects in view, and even some officials in common, I am now uncertain which to consider the more worthy of support. It does not seem to me that it can answer any useful purpose to needlessly multiply such societies, and it might be useful to others, as well as myself, if you would insert (or answer), this letter in the Journal.—I am, etc.,

Newbury. R. J. Kerby.

*** We have no adequate ground for giving an opinion as to the relative merits and values of these two societies. The one is under the presidency of Mr. Lawson Tait, and has its headquarters at Birmingham, with Dr. Leslie Phillips as its Birmingham Honorary Secretary, and Dr. Campbell Pope as its Metropolitan Secretary; the other has Mr. Jonathan Hutchinson as President, and Drs. Mead (Newmarket) and Hugh Woods (London) as Honorary Secretaries. It has, we believe, various branches formed and in course of formation. They are both, we think, societies having an excellent and useful main purpose—insurance against vexatious prosecutions and illegal competition, the names of the officers are an assurance of *bona-fides*, and they are conducted in a public-spirited way by unpaid officers, who voluntarily devote to them a great deal of time and trouble for the good of the profession. We know nothing certain of their finance and paid machinery, but possibly a statement by the respective secretaries of the moneys they have received and expended for the respective purposes, and of the classified details of such expenditure, might help others, as well as our correspondent, as to which society he wishes to join, since two societies there are.

THE CASE OF THE IRISH DISPENSARY DOCTOR.

Sir,—When a deputation waited upon Mr. Jackson, then Chief Secretary for Ireland, with regard to the grievances of Irish Poor-law officers, that gentleman, in the few and not favourable words he spoke, observed that the Poor-law officers had accepted office knowing what was before them, and had undertaken a contract which he did not see why Parliament should help them to get out of—or words to that effect. I do not know that this plausible but unsound argument met with any reply from any of the able gentlemen, representing various interests, who formed the deputation. As it is the only thing savouring of reason which can be advanced against our claims, I think it is worth while pointing out how it can be met in a manner that appears to me unanswerable in the present posture of public affairs. The argument has been used by others besides Mr. Jackson. I wrote recently to a Liberal member of Parliament, in my capacity as Secretary to the co. Cavan Poor-law Medical Officers' Association, and he replied, indeed, very kindly on the whole question, but he scrupled over the matter of pensions, considering that pensions are an indirect increase of salary, and saying that he could not see why the ratepayers should pay any larger sum than the fair competitive price. In acknowledging his letter I said: "You speak of the fair competitive price. In this matter I must respectfully beg to join issue with you. It does not appear to me, nor will it to anyone who is familiar with the conditions of professional work and professional competition in this country, that a fair competitive price is at all a just description of the pittance to which we are ground down. The argument from political economy is untenable, at least, in Ireland. Our position is essentially the same, though in the reverse aspect, as that of the Irish tenants. They were driven by what some people were pleased to call fair competition into accepting holdings at starvation rents; we, by a very similar competition, into accepting appointments at starvation salaries. All parties have found it necessary to suspend, in favour of the Irish tenants, what used to be considered the laws of political economy. Therefore, with all respect, I say it is not competent for any party to appeal to those laws against the Irish dispensary doctors." —I am, etc.,

Killeshandra, co. Cavan. J. B. Kenny.

CYSTS OF THE TONSILS.

Sir,—The case so fully and accurately described by Dr. Batho I at once recognise as belonging to that form of tonsillar cyst which I described as of rare occurrence—a view to which I still adhere. This brings me to the point raised by Mr. Stewart, namely, as to the rarity or otherwise of such cysts. If Mr. Stewart will do me the honour to reperuse my paper, he will see that there are described in it two forms, one of common occurrence, and the other, of which I have encountered two instances only, seldom met with. In the former case the cyst is superficial and the wall delicate, in the other it is deep and the outer wall of some thickness, exactly as in the detailed description so admirably given by Dr. Batho. If Mr. Stewart has met with a number of cases of the second variety, he will, I am sure, after a perusal of the sections on tonsillar disease in our standard works, arrive at the conclusion that, though common to him, such instances are few and far between in the practice of most authorities. I will only add that I question whether in these large and deep cysts the destruction of the deeper portions can be safely accomplished by means of the electric cautery without first removing the outer wall with the knife. With regard to Mr. Lake's cases it seems to me from their clinical features as briefly described, that they were instances rather of the small and superficial variety than of the large and deep form.—I am, etc.,

Edinburgh. P. McBride.

LONDON DIPLOMATES AND THE PROPOSED TEACHING UNIVERSITY FOR LONDON.

Sir,—Allow me space to say, that if "Scotus" will again look at my letter he will find I am not objecting to the prospect of London diplomates having to pass an examination in order to graduate at the proposed London University, but to the probability that they may be unable to present themselves for examination without a repetition of the whole curriculum.

In both the present scheme and the last draft charter the wording on this point is not explicit, and there is great probability that whilst the London student of the future will obtain the advantages of a university degree, those who have

had the misfortune to precede them by a few years, although they have passed an almost identical course and examination, will be prohibited, not from any fault of their own, but because the University, for which they have been so long praying, did not yet exist.

Herein is the injustice. "Scotus" complains that Scotch graduates have to pass an examination and attend certain extra courses before they can take a London diploma; but the two cases are hardly parallel. To allow a man to dispense with certain courses of lectures when presenting himself for examination at the London colleges because he is a university graduate would be unfair towards others who have followed the prescribed curriculum. Neither is it unreasonable that candidates for a diploma should satisfy the examiners of the body granting it.

"Scotus" objects to my phrase, "the smaller clinical opportunities of the north," and raises the comparison between Westminster or King's and Edinburgh or Glasgow. It is manifestly unfair to compare the smallest London hospitals with the two large Scotch ones, though, if the number of students per bed were calculated, I doubt if Westminster would stand badly in comparison to Edinburgh. To say that Aberdeen (perhaps the most usual goal of those to whom I referred), with a population of little over 100,000, possesses the clinical wealth of London is absurd.

To instance only two specialities: where in a provincial town have we anything to equal the National Hospital, Queen Square, and the Moorfields Ophthalmic Hospital? I am quite ready to admit that the available material in London might be better used than it is. This is one great argument for the foundation of a teaching university, and as the latest scheme is based upon the Scotch model, there is a dim prospect that the clinical teaching here may rise to a level of which "Scotus" will approve.—I am, etc.,

London. A. Greenwood.

INFECTIOUS DISEASES IN SEASIDE LODGINGS.

Sir,—May I draw the attention of Dr. T. F. Raven to the following facts?

Mr. A., wife, infant, and nurse, arrived in this place from H., 200 miles away, in the evening of July 23rd, 1892, to spend a holiday with his father and mother and sister. The latter had not seen him or his family for six months. On July 26th I saw Mr. A.; he was suffering from scarlatina, with marked rash, sore throat, etc. He was immediately isolated. On July 27th his sister wished to leave on a visit to her sister in Manchester. I advised her not to go. The same evening she did not feel well. On the morning of July 28th she had a marked rash, temperature, and sore throat. The infant of Mr. A., with the mother and nurse, were sent to fresh lodgings on July 28th, to avoid infection. On August 2nd the baby had a rash, temperature, swelled glands, and sore throat.

The history of infection is as follows: Mr. A. visited a relative on July 22nd, at H———. One of the relative's children commenced scarlatina, with rash, on July 23rd, the day Mr. A. left for this place. There has not been a case of scarlatina in this village for over six months prior to July 26th, 1892.

I prefer to act on these facts, rather than on Dr. Raven's twenty years' experience.—I am, etc.,

Askam-in-Furness. S. M. Challinor.

THE CAUSE OF THE EXHAUSTION OF EPIDEMICS.

Sir,—The very graphic and instructive paper on the recent epidemic of cholera at Srinagar, which was read by Surgeon-Colonel Harvey in the Section of Medicine at the annual meeting at Nottingham, raises in a very suggestive way a question which, so far as I am aware, has been but little discussed, and that is, Why does such an epidemic die out?

In the case of epidemics of ordinary forms of infectious disease occurring in this country, the extinction of an epidemic of a disease, such as small-pox or enteric fever, is brought about simply by sanitary interference, and the adoption of measures which literally stamp out the infection. In the case of outbreaks of measles, whooping-cough, and to some (though, happily, to a diminishing extent) of scarlatina, the cessation of the epidemic is due apparently to the exhaustion of the infectible material, all the children who are susceptible having been attacked. But neither of these explanations appear to be applicable to the epidemic at Srinagar. It is impossible to suppose that such perfunctory measures as Dr. Harvey describes can have had any material effect in stemming the tide of infection in a town so saturated with the nidus of infection as Srinagar must be. It is equally difficult to suppose that only about 7 per cent. of the population of such a city are susceptible to the attacks of the cholera infection. And yet the mortality, after rising to its maximum in the third week of the outbreak, declined steadily and was nearly extinguished in the eighth week. If we put side by side with this fact the cognate one, which is only incidentally alluded to by Dr. Harvey, that the maximum mortality appears also to have been coincident with the maximum number of attacks, we can scarcely fail to recognise the existence of a condition which is by no means unfamiliar to those of us who are brought much into contact with epidemics in this country, that many, if not all of them, have a distinct life of their own, irrespective, in some cases, of the abundance or otherwise of the pabulum on which they feed.—I am, etc.,

Gloucester. Francis T. Bond, M.D.

NAVAL AND MILITARY MEDICAL SERVICES.

THE MEDICAL SERVICES OF THE AUXILIARY FORCES.

Coincident with the granting of the new titles various modifications have been made respecting the regulations which govern the promotion of medical officers.

Appointment as Surgeon-Lieutenant.—In the yeomanry and volunteers first appointments are in all cases made to the rank of surgeon-lieutenant, and are recommended by commanding officers to the Military Secretary.

Promotion in the Yeomanry.—Yeomanry medical officers are promoted to surgeon-captain after three years' service, provided, however, there is a vacancy in the establishment. The rank of surgeon-major and of surgeon-lieutenant-colonel is given after fifteen and twenty years' service respectively. At present there is no official examination, and yeomanry medical officers are unable to get the letters "P." or "P.S." placed before their name in the *Army List*. As the recent Commission, which sat to inquire into various matters concerning the yeomanry, have recommended a brigade organisation for that force, it seems probable that the rank of brigade-surgeon will be created.

Pay.—Although a medical officer may be a surgeon-lieutenant-colonel or surgeon-major the rate of pay is the same for all—namely, 11s. 4d. per diem when assembled for "permanent duty." This is not as it should be, for the rates of pay are much higher in the combatant ranks—namely, captain, 14s. 7d.; major, 19s. 3d.; lieutenant-colonel, £1 3s. per diem. Supernumerary medical officers only draw pay when assembled for duty in the place of officers borne on the establishment.

Promotion in V.M.S.—Promotion in the Volunteer Medical Service is only given to surgeon-lieutenants after three years' service, and after having passed the proficiency examination, and provided there is a vacancy on the establishment for a surgeon-captain; honorary assistant-surgeons who become proficient, if duly recommended, are promoted to the rank of surgeon-lieutenant; their previous service, which is usually considerable, appears to count for promotion, as quite recently an honorary assistant-surgeon who had passed the proficiency examination was in due course promoted to surgeon-lieutenant-colonel.

The Volunteer Decoration.—The Royal Warrant for the establishment of the promised decoration for officers of Volunteers of twenty years' service has been published, considerable alterations having been made since the matter was first mentioned by the Secretary of State for War. The new decoration has been created for the purpose of rewarding the long and meritorious services of officers of approved capacity, and consists of an oak wreath in silver tied with gold, having in the centre the Royal cipher and crown in gold; it is to be suspended from the left breast by a green ribbon of 1½-inch in width from a silver oak bar-brooch.

No person is eligible for the decoration unless he is or was a commissioned officer and has served twenty years in the volunteer force; he must also be recommended by his commanding officer, and must be duly certified by the district military authorities "as having been an efficient and thoroughly capable officer, in every way deserving such a decoration." Those officers who obtain the decoration will have the letters "V.D." placed before their names in the *Army List*. Officers who have served in the ranks of a volunteer corps will be allowed to count such service, two years in the ranks counting as one year of commissioned service. Retired officers are also eligible for the decoration, but they must have obtained a step of honorary rank on retirement. It seems clear that no officer will obtain the decoration who has not been thoroughly efficient and proficient and reported upon as such by the proper military authorities.

ARMY MEDICAL STAFF: EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 8s. 6d., which should be forwarded in stamps or post-office orders with the notice. The first post on Thursday mornings is the latest by which advertisements can be received.

A SURGEON-MAJOR, expecting to be ordered abroad at the beginning of next year, desires to exchange with a Surgeon-Major lately arrived home. Address, stating terms, "Omega," care of Sir Charles McGrigor, Bart., and Co., 25, Charles Street, St. James's Square, London, S.W.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:

		From		To
Surg.-Colonel	T. Rudd, M.D. ...	Meerut ...	...	Landour, India.
,,	T. Walsh	Lucknow...	...	Nynee Tal.
,,	A. Allan, M.D. ...	—	...	Murree.
,,	A. C. Gaye	Umballa ...	...	Kussowlie.
Brig.-Surg.-Lt.-Col.	F. Ferguson, M.D.	Gibraltar...	...	Portsmouth.
,,	P. L. Kilroy	Limerick...	...	Dublin.
Surg.-Lieut.-Col.	J. M. Beamish, M.D.	Weedon ...	...	Woolwich Arsnl.
,,	C. E. Dwyer	—		Dublin.
,,	W. P. Bridges	Hilsea ...	...	Weedon.
Surg.-Major	J. A. Gormley, M.D. ...	Curragh ...	...	Limerick.
,,	J. J. Lamprey	West Africa	...	Home District.
,,	P. J. O'Sullivan, M.D....	Dublin ...	...	Curragh.
,,	A. S. W. Young	Portsmouth	...	Parkhurst.
,,	A. Harding	Aldershot	...	Dover.
Surg.-Captain	C. W. S. Magrath, M.B.	Parkhurst	...	Portsmouth.
,,	J. M'Laughlin, M.D. ...	Bathurst...	...	Sierra Leone.
,,	R. Crofts	Lagos ...	...	,,
,,	H. N. Thompson, M.B.	Dublin ...	...	Bengal.
,,	H. J. Fletcher, M.B. ...	Stoneleigh	...	Morecambe.
,,	R. I. Power	Wexford ...	...	Cork.
,,	M. J. Sexton, M.D. ...	Sligo ...	...	Curragh.
,,	H. T. Baylor	Cork ...	...	Kilkenny.
,,	J. Will, M.B.	Hong Kong	...	Home District.
,,	T. H. F. Clarkson ...	Bermuda...	...	Dover.
,,	J. E. Burrows, M.D. ...	—		Dublin.
,,	T. Browning	Ennis ...	...	Cork.
,,	G. T. Rawnsley	Barbadoes	...	St. Lucia.
,,	T. W. Gibbard, M.B. ...	Winchester	...	Portsmouth.
,,	H. N. Dunn, M.B. ...	Isle of Wight	...	,,
,,	S. H. Withers, M.B. ...	—		Dublin.
,,	N. Tyacke	Hurst Castle	...	Chatham.
,,	L. A. Mitchell, M.B. ...	Pembroke Dock		,,
,,	C. C. Fleming, M.B. ...	Thames District		Devonport.
,,	G. E. Hughes	Carnarvon	...	Preston.

Quartermaster W. T. Vidler, recently appointed, is stationed at Bermuda.

THE NAVY.

THE following appointments have been made at the Admiralty: WILLIAM H. NORMAN, Surgeon, to the *Blonde*, August 13th; JOHN S. FOGERTY, M.D., Surgeon, to the *Banterer*, August 13th; FREDERICK W. PARKER, Surgeon, to Plymouth Hospital, August 13th.

ARMY MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL J. S. MACADAM is placed on retired pay, August 3rd. He entered the service as Assistant-Surgeon, March 31st, 1862; became Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; received the rank of Lieutenant-Colonel, March 31st, 1882, and was made Brigade-Surgeon-Lieutenant-Colonel from July 26th, 1887. The Army Lists do not assign him any war service.

Surgeon-Lieutenant-Colonels W. F. STEVENSON and R. N. MACPHERSON are promoted to be Brigade-Surgeon-Lieutenant-Colonels from August 3rd; the former *vice* J. S. MacAdam, retired; the latter *vice* W. Johnston, M.D. retired. Their previous commissions, which are contemporaneous, are thus dated: Assistant-Surgeon, March 31st, 1866; Surgeon, March 1st, 1873; Surgeon-Major, March 31st, 1878; and Surgeon-Lieutenant-Colonel, from March 31st, 1886.

Surgeon-Lieutenant-Colonel C. B. JENNINGS is placed on temporary half-pay on account of ill health, August 10th. His commissions bear date as follows: Assistant-Surgeon, March 31st, 1868; Surgeon, March 1st, 1873; Surgeon-Major, March 31st, 1880; and Surgeon-Lieutenant-Colonel, from March 31st, 1888.

The undermentioned Surgeon-Captains, who entered the service July 31st, 1880, are gazetted Surgeon-Majors from July 31st: GEORGE H. SYLVESTER, F.R.C.S.Eng., WILLIAM J. MACNAMARA, M.D., DANIEL O'SULLIVAN, F.R.C.S.I., EDWIN O. MILWARD, CHARLES R. WOODS, M.D., F.R.C.S.I., MICHAEL F. MACNAMARA, F.R.C.S.I., JOHN O. G. SANDIFORD, M.D., ROBERT M. LOVE, M.D., HENRY W. MURRAY, M.B., MICHAEL W. KERIN, ALFRED PETERKIN, M.B., JAMES HARRAN, EDWARD L. MAUNSELL, WILLIAM HEFFERNAN, RANALD W. E. H. NICHOLSON, JAMES G. W. CROFTS, WILLIAM DUGDALE, DELAWARE L. IRVINE, EDWARD R. CREE, MAURICE O'C. DRURY, JAMES H. NICHOLAS, DENHAM F. FRANKLIN, F.R.C.S.Edin., and HERBERT SAUNDERS.

The undermentioned Surgeons on probation are appointed Surgeon-Lieutenants: HARRY ALEXANDER HINGE, JAMES GIBSON MCNAUGHT, M.B., HUBERT ALARIC BRAY, THOMAS MCDERMOTT, M.B., EDWARD WHEELER SLAYTER, M.B., HUGH STANLEY THURSTON, LANCELOT PAXTON MORE, M.B., CHARLES O'CONNOR HODGENS, ARTHUR FREDERICK TYRRELL, WILLIAM PHAYER RYALL, THEOPHILUS PERCY JONES, M.B., GEORGE STANLEY WALKER, M.B., WILLIAM JOHNSON SMYTH, M.D., WILLIAM DOUGLAS ERSKINE, M.B., ALBERT GEORGE THOMPSON, M.B., ALEXANDER JASPER CHAMBERS, GEORGE ABRAHAM MOORE, M.B., RICHARD CRUMP LEWIS, REGINALD FRANCIS EDMUND AUSTIN, HENRY WILLIAM HUTCHINSON O'REILLY, M.B., NICHOLAS MARDER, EDGAR HUNT CONDON, M.B., GERALD STEWART MANSFIELD, M.B., FREDERICK GEORGE FAICHNIE, and HAROLD WILLIAM KINGCOMBE READ.

Surgeon-Major J. F. BRODIE, who is serving in the Madras command, is granted an extension of leave from June 28th to October 27th, on medical certificate.

Surgeon-Captains C. W. H. WHITESTONE and G. A. T. BRAY, who are serving in the Madras command, and Surgeon-Captain A. A. SUTTON, serving in the Bombay command, have passed the examination in Hindustani by the lower standard.

INDIAN MEDICAL SERVICE.

THE services of Surgeon-Captain G. J. H. BELL, Bengal Establishment, are placed at the disposal of the Chief Commissioner of Burmah.

Surgeon-Major A. E. R. STEPHENS, Bengal Establishment, is appointed to act as Civil Surgeon of Pooree, *vice* Surgeon-Captain G. J. H. Bell.

Surgeon-Major E. MAIR, Bengal Establishment, Officiating Inspector-General of Prisons, North-West Provinces and Oude, on being relieved of the duties of that office, will revert to his substantive appointment as Superintendent of the Central Prison at Bareilly.

Surgeon-Captain C. MACTAGGART, Bengal Establishment, Honorary Surgeon Ghazeepore Light Horse, is appointed Honorary Surgeon to the Agra Volunteer Rifle Corps.

Surgeon-Captain W. MOLESWORTH, Madras Establishment, has returned from furlough out of India.

Surgeon-Captain J. PENNY and Surgeon-Lieutenant W. E. A. ARMSTRONG, both of the Madras Establishment, have passed the examination in Hindustani by the lower standard.

Surgeon-Captains C. DONOVAN, M.D., and S. A. C. DALLAS, both of the Madras Establishment, are directed to do duty in the Madras District.

Surgeon-Lieutenant R. H. ELLIOT, Madras Establishment, on arrival from England, is directed to do duty in the Secunderabad District.

Surgeon-Lieutenant-Colonel S. M. SALAMAN, M.D., Bombay Establishment, received charge of the office of Inspector-General of Prisons on July 8th.

Surgeon-Captain F. E. MURRAY, M.D., Bombay Establishment, on general duty in the Sind District, is appointed to act as Civil Surgeon of Jacobabad, in addition to his own duties, from June 18th.

Surgeon-Major J. S. WILKINS, Bombay Establishment, received charge of Kaira District Gaol on July 14th.

The undermentioned officers have leave of absence as specified:—Surgeon-Captain W. H. B. ROBINSON, 35th Punjab Pioneers, for six months on medical certificate; Surgeon-Captain J. SCOTT, M.B., Madras Establishment, 6th Infantry Hyderabad Contingent, for ten days in extension, on private affairs; Surgeon-Captain F. WYVILLE-THOMSON, M.B., Bengal Establishment, 22nd Punjab Infantry, for four months in extension, on medical certificate, without pay; Surgeon-Captain C. H. BEDFORD, Bengal Establishment, for six months, in extension, on medical certificate; Surgeon-Lieutenant-Colonel J. F. P. MCCONNELL, Bengal Establishment, Professor of Materia Medica and Clinical Medicine, Calcutta Medical College, for three months from August 10th; Surgeon-Captain D. G. CRAWFORD, Bengal Establishment, civil surgeon of Saran, for one year and three months; Surgeon-Major W. H. CADGE, Bengal Establishment, privilege leave for two months and twenty-five days from July 28th; Surgeon-Captain W. G. THOROLD, Bengal Establishment, civil surgeon of Kheri, privilege leave for two months and nineteen days from June 1st; Surgeon-Captain T. E. DYSON, M.B., Bombay Establishment, Deputy Sanitary Commissioner, Goojerat Registration District, privilege leave for three months.

Surgeon-Captain ARTHUR CECIL DEARE, Bengal Establishment, died at Dumoh, Central Provinces, India, on May 27th last, aged 31. His commission was dated April 1st, 1886. He served with the Hazara Expedition in 1888 (medal with clasp).

Deputy-Inspector-General MATHEW KANE, M.D., late of the Madras Establishment, died at Cardiff on May 27th.

Surgeon-General EDWARD COURTENAY THORP, M.D., Bengal Establishment, died at Folkestone April 9th. He was appointed Assistant-Surgeon January 20th, 1847; attained the rank of Deputy-Surgeon-General April 20th, 1874; and retired with the honorary rank of Surgeon-General October 20th, 1879.

Surgeon WARWICK WALTER WELLS, Bengal Establishment, died at Cheltenham, April 9th. He had retired from the service. His commission was dated March 1st, 1854.

THE VOLUNTEERS.

SURGEON-CAPTAIN D. B. BALDING (Honorary Surgeon-Major), 1st Volunteer Battalion Bedfordshire Regiment (late the 1st Hertfordshire) is promoted to be Surgeon-Major, August 13th.

Mr. George Maitland Edmond, M.D., is appointed Surgeon-Lieutenant to the 1st Volunteer Battalion Gordon Highlanders (formerly the 1st Aberdeenshire), August 13th.

EXAMINATION FOR PROMOTION.

Fairplay writes: Your correspondent "R.S." does not surely represent the views of the service generally in regard to these examinations. I have heard objections to the questions, but not that they were too severe or of high standard. A high standard where no opportunity for study is afforded would be absurd. The authorities have probably found this paper examination is not a very safe test of the abilities of the officers concerned. Until officers are placed under similar circumstances in regard to it it cannot be considered a comparative test.

Black Line wishes to know the best books to read for this examination. We would simply say the best and most recent works on medicine and surgery, and on all other matters to consult Surgeon-Major Riordan's very admirable *Manual for Army Medical Services*, published by Eyre and Spottiswoode, East Harding Street, Fetter Lane, E.C., 1890.

THE PHYSICAL EXAMINATION FOR SANDHURST.

Surgeon-Colonel J. B. Hamilton, M.D., Principal Medical Officer of the Home District, in a recent letter to the *Morning Post*, did well to clear up some misleading remarks which had appeared in that paper with regard to this examination. The remarks in question afforded a good illustration of the curiously incorrect inferences on military medical matters which often appear in the daily press, not, of course, with the intention of misleading, but from sheer want of knowledge of the regulations governing the questions commented on. In this case a few candidates for commissions in the Royal Marines who had failed to come up to the comparatively high physical standard for that corps, were, nevertheless, passed for the army, which has a lower standard in height, chest, vision, etc. These standards may be right or wrong, but it is obvious the examining medical officers had to comply with them. Ignorance of such plain facts led the correspondent of the paper into indulging in some absurdly deprecatory remarks on the judgment of the "army doctors," as he termed the members of the medical board. It would really pay some of our contemporaries to retain a well-informed person on such service matters on their editorial staff.

POSITION OF PRINCIPAL MEDICAL OFFICERS.

Fair Play protests against the ignominious position given to principal medical officers on the staff of general officers as recorded in the official Army List. They are always last—under the most junior officers of other departments—and as such are judged by civilians and even by the clerks of the district offices.

*** The position of the names of principal medical officers in the staff lists should at least be that accorded to the Medical Staff in the army departments. We trust a representation to a new War Minister will remove this anomaly.

INDIAN MATTERS.

J. C. H. P. writes: I hope you do not consider that officers of the medical staff have no real grievance in connection with the depreciated rupee. The correspondence in the Indian papers shows there is a very howl from every quarter and every branch of the service over the terrible losses which its depreciation inflicts; it has become almost a calamity, and complaints are everywhere heard in no measured language.

*** We would by no means seek to minimise the exceedingly serious outlook which the depreciation of silver imparts to the political, economic, and administrative horizons in India.

POSITION AT MESS IN INDIA.

Truth writes: The question addressed to Mr. Curzon in the House quite missed the mark aimed at. The vital point is this; the recent Royal Warrant lays down in a very distinct and lucid manner, "with all the advantage and precedence attaching to the military portion of the title;" yet, as Mr. Curzon replied, there is a Queen's Regulation relegating all medical officers to be junior to all combatant officers at mess, whatever their rank. We are compelled to dine at mess, and to pay our subscription and share of guests according to our rank, but have no rank, yet, in any house—say 500 yards off—our social position is fully recognised. Treat us according to army rank, or, if you like, according to date of commission, but do not let a junior subaltern take precedence of a Surgeon-Colonel, and make the latter pay for everything as a Colonel. Surely, no one can defend compulsory attendance and payments at mess in order that we may be deliberately humiliated.

*** The ruling of the Queen's Regulation is certainly not in harmony with the spirit, if not the letter, of the warrant in this matter of precedence. Of course we shall be told the command theory governs the matter.

THE EMPLOYMENT OF RETIRED OFFICERS.

Brigade-Surgeon (Retired) writes: You did well to point out to the younger officers on the active list that in attacking the retired pay appointments they may seriously injure their own future prospects. They may some day want them. Abolish these appointments and men will simply not retire. Where would promotion be then? "Verax" would find himself more blocked than ever. Without some inducement to retire, how many would ever reach brigade rank? As to colonial retired pay appointments, if given, it would be of advantage to the active list; they carry no extra allowances, and are not popular; even India, with all its unfair financial drawbacks, is preferred by the bulk of medical officers to the colonial stations. "Verax" asks, will retired officers serve in unhealthy climates? Personally, I would not object to Bermuda or the West Indies.

*** We do not think many retired officers would accept appointments in our tropical colonies.

NEW TITLES TO RETIRED OFFICERS.

Surgeon-Major (Retired) writes: Your correspondent, "Deo Data," must surely be mistaken in stating that opinion is divided among medical officers on the active list over giving the new titles to retired officers. The justice of the concession is plain. Can it be right to wish a retired officer with the rank of Lieutenant-Colonel to continue misrepresented by the title of Surgeon-Major? According to the now accepted principle that title should express rank, the new ones cannot, therefore, in equity be withheld from retired officers.

On the same subject another correspondent points out that the new Volunteer Decoration Regulations are allowed retrospective effect towards retired officers; why not, on the same principle, the new titles to retired officers? The authorities are constrained to be generous to Volunteers for fear of the service becoming unpopular; how different their attitude towards the regulars! Give us, at all events, the optional use of the titles.

*** We trust a new Secretary of State for War will favourably consider this matter.

THE MEMORANDUM.

Surgeon-Captain, writing from India, says: It is the general opinion throughout the service that the new titles are marred by the unwieldy and mongrel brigade-surgeon-lieutenant-colonel. The financial non-application of the Warrant to India is bound in time to come to a head, but should be forced to one at once. Officers of the Medical Staff are only lent to India, and, therefore, if the Indian Secretary of State remains obdurate, the Secretary of State for War should intimate he will have no force but to withdraw them. The continued depreciation of the rupee is certain to bring matters to a crisis. It has been proposed that medical officers in India should receive English pay in gold and Indian allowances in rupees. The institution of station hospitals resulted in an enormous saving to the Government of India, but they have pocketed every anna of it, and given no share in the shape of charge pay to medical officers, which was their fair due.

*** In former days in India every appointment of responsibility carried charge pay. The refusal of it to medical officers in the important charge of great station hospitals is not only a departure from universal precedent and custom, but another evidence of the now shabby treatment of the medical service in that once princely country.

MEDICO-LEGAL AND MEDICO-ETHICAL.

LANDLORDS AND BAD DRAINAGE.

At Marylebone Police Court on Friday, August 12th, John Charles, of 43, Highgate Road, appeared before Mr. Hannay to answer the complaint of a summons taken out by the St. Pancras Vestry, for allowing a defective drain at the house, 41, Dartmouth Park Road, so as to be a nuisance dangerous or injurious to health. Mr. Ricketts, solicitor, prosecuted for the Vestry. The defendant used to occupy the house with his family. He vacated it about the end of June, and Mr. William M. Booth became the tenant at Midsummer Day. Directly afterwards he and his wife noticed bad smells, and within a week one of his daughters had scarlet fever. Another daughter was suffering from blood poisoning. Witness and his wife had suffered from sore throats and headaches, and so had their housekeeper. He communicated with the Vestry, and on June 30th the sanitary inspector visited the house. On that and subsequent occasions the house was inspected, and the owner was called upon to put the drains into repair, for they had been found to be very defective. On July 25th it was discovered that defendant had some work done in the front area and at the rear of the house, but nothing had been done to the drains in the house, and sewer gas was escaping. Dr. Sykes, the medical officer of health, subsequently visited the premises, and proved that the drain was defective, and that sewer gas could find its way into the house. Beyond the outside work the defendant had done nothing. Mr. Booth told the magistrate that before he took the house he asked if the drains were all right, and the defendant assured him that they were. The house, he found, was overrun with rats. He had just discovered that the water in which his fevered child bathed had, owing to a defect in the waste-pipe of the bath, fallen on to the lid of the drinking water cistern, and as there was a crack in that the water must have run through into the cistern. The defence was that on receipt of the notice from the Vestry a builder named Scales, of the Highgate Road, was engaged to do what was necessary. Scales was called as a witness, and he said he should have done more to the drain, but he waited for the instructions from the defendant's surveyor. Mr. Hannay fined the defendant £5, with costs, and told him he must proceed with the work at once.

DEATH CERTIFICATES.

We learn from reports in the public press that Stephen Francis Smith, L.S.A., of 151, Seven Sisters Road, Holloway, was summoned before Mr. Haden Corser for giving a false certificate of death in the case of one Caroline Coxford, inasmuch as he had certified that he had attended her in her last illness, which was not the case. The prosecution was conducted by Mr. Charles Townley, Superintendent Registrar of Islington, on behalf of the Registrar-General. Dr. Bateman, Secretary of the Medical Defence Association, watched the case on behalf of the Association; and Mr. W. E. Windsor defended. Mr. Townley was about to open his case when Mr. Windsor said he could not advise his client to plead guilty, but he would like to say that he had been instructed to assist Mr. Townley as far as he could and to conceal nothing.—Mr. Townley said this was a singular statement, seeing that the defendant had written to the Registrar-General admitting the offence and submitting to the penalty.—Mr. Windsor objected to the reading of this letter unless it was strictly proved.—Mr. Townley then called evidence to prove that a Mrs. Caroline Coxford, of Hornsey Road, was taken ill in July and sent for Mr. Smith (the defendant). Instead of the defendant attending, a gentleman (admittedly not a qualified man) put in an appearance. The patient lapsed into a comatose condition, and a qualified gentleman in

the person of Dr. Hening attended. The patient died, and the defendant appeared on the scene twenty minutes afterwards, and gave a certificate to the effect that he attended the deceased in her last illness.—Mr. Townley submitted that this was a most important case, because such covering of unqualified men was not only a fraud upon, but a danger to, the poor.—Mr. Windsor fully admitted the offence, and expressed regret, but said it was an inadvertent and not a wilfully misleading act. The defendant came upon the scene not knowing the patient was dead. There need not have been any difficulty about the certificate, because Dr. Hening might have given one.—Mr. Townley: We do not accept certificates from doctors who do not see persons until they are in a comatose condition.—Mr. Corser agreed that it was an important case, and one about which there should be no mistake. He wished to point out, too, that it was punishable to the extent of penal servitude. The defendant would pay the full penalty of £10, and £3 3s. costs, or twenty-one days' imprisonment.

CLAIM FOR MEDICAL FEES.

At the Brentford County Court on August 12th, before Judge Stonor, Dr. James Tily, of Chiswick, sued Mr. A. J. Forman, of Richmond, formerly of Chiswick, to recover the sum of £39 14s. 6d. The claim was for medical attendance upon the defendant, his wife, and child between January, 1888, and February, 1891. An important element in the case was that the defendant, a member of the bar, was during a portion of the time an inmate of Peckham House Lunatic Asylum, and during that period was on several occasions attended by Dr. Tily, at the request of Mrs. Forman, the plaintiff charging three guineas a visit, and one occasion six guineas. The defendant had paid £5 6s. into court, and contended that in accordance with the terms of an agreement he had with the plaintiff, the latter was only entitled to a guinea for each of the visits to Peckham, that being the fee agreed upon for special attendance. He also objected to charges made by the plaintiff for letters.

Mr. Keith Frith, for the plaintiff, said his client must, of course, forego the claim for writing the letters.

His Honour, having examined the particulars of the claim, reduced the charges for visits to the defendant at the asylum in accordance with the terms of the agreement, and made an order for £30, less the amount paid into Court, with the usual costs.

ATTENDANCE AS SUBSTITUTE.

K. P. writes: A gentleman, for years one of my *clientèle*, who had personally arranged with a surgeon to remove a nævus (which was expected to be a slight operation) from his child, a patient of mine, asked me on the eve of my departure for a week's holiday, to be present on the occasion. He was informed by letter that I was unable to attend, but that my substitute would act for me. The latter thereupon received a note requesting his attendance, but owing to a previous engagement he also was unable to be present. In the emergency the father of the child asked Dr. X., one of my neighbours, to assist. This professional brother not only gave his services at the time of the operation, but continues to give them in the way of dressing the wound till this day, now over seven weeks, without having communicated with my substitute or myself. In these circumstances kindly state what is the etiquette of the case. I may add that I was unaware till lately who had been called in, and that the attendance had been so long continued. I entirely exonerate my patient's father from any want of courtesy, but not being native-born, as well as a layman, he is not expected to know what medical etiquette demands.

*** If, in the emergency alluded to in the above somewhat exceptional case, the father of the child in question, on soliciting the attendance of Dr. X., communicated to him the facts relative to the unavoidable absence of Dr. P. and his substitute, or that he otherwise became cognisant thereof, the ethical duty which would devolve upon him (Dr. X.), as soon as the emergency had been provided for, would be to retire from the case (unless his further attendance in consultation were desired) and to notify, in person or by letter, and with as little delay as may be, to Dr. P., or his *locum tenens*, the fact of such attendance and retirement, for which, however, he would be entitled to charge the family.

ADMISSION OF LUNATICS TO WORKHOUSES.

J. writes: Notice was given by me to a relieving officer that a lad living in a neighbouring parish was a "lunatic not under proper control." No steps were taken to give information to a justice of the peace to have the lad brought up for examination, but instead the relieving officer obtained an order for the lad's admission to the workhouse, and himself called and took him there. His excuse when remonstrated with on the course he had taken was that, previous to receiving my notice, he had received a request from the lad's parents for his admission to the house. Has the relieving officer acted in conformity with Art. 5, Sect. 13, etc., of the Lunacy Act, 1891, or has he laid himself open to an information being laid against him for infringing its provisions?

*** Under the peculiar circumstances of the case other provisions of the Act appear to justify the proceedings of the relieving officer, taken so far as the point stated in "J.'s" letter. Further proceedings would subsequently be necessary.

ADVERTISING AND TESTIMONIALS.

WELL-WISHER (Cape Town).—The long announcement of Dr. Saunders's intention to practise in Grahamstown, published in *Grocott's Penny Mail*, together with extracts from testimonials, is undoubtedly much to be regretted, and if accepted as a precedent would have a disastrous influence on the tone of professional conduct in the locality. Since receiving "Well Wisher's" letter, and the copy of the Cape Town newspaper enclosed, we have, however, received later copies in which Dr. Saunders publicly repudiates having had any knowledge of the publication of the testimonials in question, and another gentleman takes upon himself the responsibility. Dr. Saunders, moreover, writes to us for advice as to his relations with those medical brethren who have, in consequence of the appearance of this article, not returned his call. We can only say that after the public repudiation by Dr. Saunders of any connection with the article referred to, and after the avowal in the same place of the author of the paragraph, it is only reasonable to expect that his medical brethren will accept this repudiation in good faith, and that mutual friendly relations will be established. Even if some little soreness remains for a time, the continuance of a course of courtesy and high professional conduct will surely efface what will be no doubt for some time a disagreeable recollection. Dr. Saunders's friend could hardly have done him a worse turn, and we only regret to see that while publicly acknowledging his indiscretion, he alleges that a similar custom prevails elsewhere. There is no such similar custom, and if such advertisements do appear anywhere from time to time, with or without the connivance of any practitioner, they do so in breach of the rules of an honourable profession, which abhors such self-seeking advertisement, which is, in our opinion, always mischievous to the individual himself. We should have been glad to have seen that Dr. Saunders, in repudiating all knowledge of the matter, should have expressed quite emphatically his disapproval of the conduct both of the correspondent and of the editor in making such a communication without consulting him, and his sense of the injury done him.

FEES TO MEDICAL WITNESSES.

WITNESS.—A girl, whom her father was alleged to have indecently assaulted, was brought by the police authorities to a hospital (being referred there by another surgeon, who was engaged when requested to examine the girl). On examination the hymen was found to be ruptured, etc. The man was therefore charged at the police-court, and then referred to the assizes. Is the house surgeon of the hospital entitled to a fee for the examination of the girl (the result of which was the prosecution of the father) in addition to the ordinary fees for the attendance at the police-court and the assizes?

*** The house surgeon is clearly entitled to a fee for the examination of the girl, whatever the result of his examination may be; and in the Metropolitan Police district such fee is invariably granted, whether a prosecution follows or not.

OLD PATIENTS.

M.D. writes: A. sells his practice to B., with an understanding not to practise within ten miles. Some of A.'s old patients, while living within the ten miles, wish for his advice, and write to where he lives far away. Is A. at liberty to advise by post, and to charge for it?

*** Such a line of procedure as that referred to by "M.D." would contravene, at any rate, his moral obligations.

CORONER'S INQUESTS.

MR. E. L. HUSSEY (Oxford) writes: In the BRITISH MEDICAL JOURNAL of August 13th are some remarks upon two inquests, one of which was held before me.

You do not approve of a letter which has been before the committee at a hospital appearing afterwards in a newspaper. You have never shown displeasure at the appearance in a newspaper of letters from aggrieved practitioners, when they wish to exercise themselves without first bringing their grievance to the knowledge of the coroner.

The other inquest I know only from your notice of it. If the verdict was against the evidence it is a case which happens sometimes, notwithstanding the care given by the coroner. If another verdict might have been found upon other evidence, you will do a public service by calling attention to the neglect of duty in those who knew of such evidence and failed to bring it to the notice of the coroner.

It cannot be too plainly brought to the knowledge of practitioners that the purpose for which an inquest by the coroner is required by the law is to find out whether the death was from natural causes, by visitation of God, or from unnatural causes at the hand of man; and that where an inquest is required by the law it is an offence against the law to give a certificate for registration of the death.

*** Of course we entirely agree with Mr. Hussey that where an inquest is required by the law it is an offence against the law to give a certificate for registration of the death, and we thought we had made that point clear in our annotation. But we are surprised that a medical coroner, and particularly one with the medical training and experience that Mr. Hussey has had, should talk about verdicts against the evidence, notwithstanding the care of the coroner; that, of course, must occasionally happen, in spite of every endeavour of the coroner to prevent it, but what we complain of, and shall continue to complain of until it is rendered impossible, is the holding of inquests in which no *evidence* whatever of the cause of death is taken, and the rubbishy opinion of a neighbour or the nearest policeman, that the person died in a fit or from natural causes, is accepted by the coroner as evidence, and adopted by the jury as their verdict.

NOTIFICATION LAW.

DR. RAYNER D. BATTEN (Finsbury Circus, E.C.) writes: Kindly allow me to call your attention to a case which may be of some interest to the medical profession. The facts are these:—

On July 29th a lad, John Weston, aged 16, was brought to me at the Queen's Jubilee Hospital by the mother suffering from diphtheria, for which I duly filled up the notification form and at once handed it to the secretary of the hospital, requesting him to attend to it immediately. The secretary at once telephoned to the Metropolitan Asylums Board, Norfolk Street, Strand, giving them the full particulars of the

case, and inquired whether "he should forward the notification as usual," being told in reply, "No, hand it to the nurse when she calls for the case." This was done shortly after.

On August 4th a letter was received from Mr. J. E. Cooney, the medical officer of health for Fulham, stating that no certificate had been received. In reply to this I requested the secretary to say I should be happy to send a duplicate if desired, notwithstanding the fact that the notification had been sent direct to the Metropolitan Asylums Board, as directed by them. Mr. Cooney's reply to my letter was a police court summons taken out before Mr. Curtis Bennett.

The summons was heard to-day, when Mr. Curtis Bennett held that by handing the notification to the secretary of the hospital I was disobeying the Act, and imposed a fine upon me of 10s. and costs.

It is thus held that a medical man is compelled to either post or deliver the notification himself in person, and, failing to do so, is responsible. I contended that, having handed the notification to the secretary—a responsible hospital official (who, acting rightly or wrongly, but, at all events, according to the direction of the Metropolitan Asylums Board, hands the notification to a Metropolitan Asylums Board nurse)—my duty of "sending" was properly carried out.

As a matter of fact, at the time of certifying I left my clinic to hand the secretary the notification at once, so that no time might be lost, and I cannot help regarding the action taken as being discourteous, especially after my offering to send a duplicate notification if desired.

VOLUNTEER MEDICAL OFFICERS.

CORRESPONDENT.—Volunteer medical officers should undoubtedly take a pride in thoroughly fitting themselves for their duties, and in obtaining certificates of proficiency as acting medical officers; but it is clearly contrary to the principles of professional conduct that the passing of such examinations should be made either by themselves or their friends the means of public advertisement. The fulsome notices relating to Surgeon-Lieutenant-Colonel Rickett having obtained his certificate of proficiency is highly objectionable on these grounds, and will, we hope, be allowed to form a precedent by other volunteer medical officers, who happily as a rule show no tendency in this direction.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

INTERMEDIATE EXAMINATIONS IN SCIENCE AND PRELIMINARY SCIENTIFIC (M.B.) EXAMINATION, 1892.—Examinations for Honours.

Inorganic Chemistry.—First Class: J. W. Shepherd, Int. Sc. (disqualified by age for the Exhibition), Anderson's and Veterinary Colleges, Glasgow, and private tuition; B. B. Turner, Int. Sc. (Exhibition) C. Guilds Central and Birkbeck Institutions; E. C. Thompson, Int. Sc., Royal College of Science and University Tutorial College. Second Class: H. M. Atkinson, Int. Sc., Craigmore College and University College, Aberystwith; T. F. Rutter, Int. Sc., University College; H. R. Le Sueur, Int. Sc., University College; D. Owen, Int. Sc., University College, Bangor. Third Class: H. Hills, B.A., Int. Sc., Bromley School of Science, King's College, and private study; G. W. Jones, Int. Sc., private study, and St. Thomas's Charterhouse School of Science, and J. H. Wolfenden, Int. Sc., St. John's School, Failsworth, Royal College of Science, and University Tutorial College, equal; A. O. Allen, B.A., Int. Sc., private study, and University Tutorial College; W. H. Barker, Int. Sc., University College, Aberystwith, and J. P. G. Templeman, Int. Sc., King Edward's High School, and Mason College, Birmingham, equal.

Experimental Physics.—First Class: B. B. Turner, Int. Sc. (Neil Arnott Medal), C. Guilds Central and Birkbeck Institutions. Third Class: W. T. Quin, Int. Sc., Caius Cambridge, and High School, Newcastle-under-Lyne; J. W. Shepherd, Int. Sc., Anderson's and Veterinary Colleges, Glasgow, and private tuition; H. Hills, Int. Sc., Bromley School of Science, King's College, and private study; A. E. Thomas, Int. Sc., Merchant Ventnors' School, and University College, Bristol.

Botany.—First Class: Edith Chick, Int. Sc., University College. Second Class: F. G. Peck, Prel. Sc., University College; A. G. Wilson, Prel. Sci., University College; S. Hunt, Prel. Sci., University College; *A. W. Sikes, Prel. Sci., St. Thomas's Hospital, and Birkbeck Institution: T. E. Lones, Int. Sc., private study. Third Class: Katharine R. Jay, Int. Sc., Bedford College, London; Alice M. Hughes, Int. Sc., University Colleges, Bangor and Aberystwith; H. J. Starling, Prel. Sci., Guy's Hospital; Emily J. Suffield, Int. Sc., King Edward's High School, Birmingham; C. G. Seligmann, Prel. Sci., St. Thomas's Hospital; F. A. St. John, Int. Sc., St. Mary's Hospital; C. Elizabeth Oldaker, Int. Sc., Newnham, Technical School, Leicester, and private tuition; Lilian A. Silcox, Int. Sc., University College, Liverpool.

Zoology.—First Class: *C. Bolton, Prel. Sci. (Exhibition), University College; †J. H. Tallent, Int. Sc., University College, Birkbeck Institute, and private study; *E. H. Schwarz, Prel. Sci., Royal College of Science and private study; J. E. Gray, Int. Sc., University College. Second Class: M. I. Newbigin, Int. Sc., University College, Aberystwith; B. B. Turner, Int. Sc., C. Guilds Central and Birkbeck Institutions. Third Class: C. J. Coleman, Int. Sc., Mason College and private study; *W. J. Harding, Prel. Sci., St. Bartholomew's Hospital; R. P. Williams, Prel. Sci., King's College; R. Evans, Int. Sc., University College, Bangor; T. E. Lones, Int. Sc., private study.

* These candidates have also passed in the Mathematics of the Intermediate Examination in Science, and have thus become admissible to the B.Sc. Examination.

† Obtained the number of marks qualifying for the Exhibition or Prize.

PRELIMINARY SCIENTIFIC (M.B.) EXAMINATION, 1892.—Pass List. Entire Examination:

First Division.—L. G. Anderson, Bedford College, London; J. H. Armitage, B.A., Yorkshire College; *E. D. Aubin, Middlesex Hospital; E. Baldwin, Owens College; J. Beatty, Trinity College, Dublin; F. J. A. Beringer, University Tutorial College, and private study; *A. Burn, United Westminster Schools; F. J. Cammidge, private study; J. H. Churchill, St. Bartholomew's Hospital; *F. C. Colls, King's College; J. M. S. Coutts, University College; *Martha Jane Dalton, Westfield College; A. H. Evans, Westminster Hospital and University Tutorial College; F. R. Greenwood, King Edward's High School, Birmingham, and Mason College; *H. Hartley, Owens College; A. Howell, St. Mary's Hospital; H. W. Jackson, University College; *E. E. Laslett, University College, Liverpool; Urania Latham, University College; *T. M. Lowry, Kingswood School; W. Martin, Glasgow and West of Scotland Technical College, and private study; *E. C. Morland, Owens College; *C. S. Myers, Cambridge University; R. H. S. Preston, Middlesex Hospital; *Rhoda Jane Russell, University College, Aberystwith, and private study; J. P. Scatchard, Epsom College; Mary Nona Sharman, University College, Bangor; *E. Ivens Spriggs, Firth College; F. B. Thornton, St. Thomas's Hospital; L. Trillo, B.A., St. Mark's Chelsea, and University Tutorial College; W. C. Varley, Owens College; *Edith Sarah White, University College, Aberystwith; L. Whitfield, Mason College; E. W. Woodbridge, St. Bartholomew's Hospital.

Second Division.—F. V. O. Beit, St. Paul's School; C. H. Benham, University College; *G. P. Bletchly, Middlesex Hospital and University Tutorial College; *M. Blyth, University College and private study; R. P. Brown, St. Bartholomew's Hospital; E. F. Chennels, Berkhamsted School; M. A. Cholmeley, St. Paul's School; E. H. Collens, Mason College; H. M. Cooper, St. George's Hospital; R. M. Cowie, King's College; E. Cox, University College, Bristol; D. L. F. Davies, Epsom College; J. A. Dredge, St. Bartholomew's Hospital; C. Dykes, University of Edinburgh and private study; G. R. Elwin, St. Mary's Hospital; J. E. Francis, University College; G. M. Harston, Epsom College; J. V. Hartley, Yorkshire College; *C. T. Hilton, Skipton Grammar School; J. F. Hodgson, Owens College; J. L. Holt, Yorkshire College; G. D. Howlett, St. Thomas's Hospital; G. Hutcheson, Epsom College; W. A. John, University College, Bristol; H. C. Jonas, St. Thomas's Hospital and Birkbeck Institution; H. C. Jones, University College and St. Mary's Hospital; W. R. Kelsey, University Tutorial College; C. V. Knight, St. Bartholomew's Hospital; W. Liversidge, Yorkshire College; J. J. S. Lucas, B.A., University College, Bristol; S. F. Lynch, King's College; A. J. Malcolm, private tuition; H. C. Meacock, St. Thomas's Hospital and Birkbeck Institution; *P. W. Moore, Aske's School, Hatcham; W. T. Mullings, Epsom College; *A. C. Pearson, St. Paul's School; H. D. Peile, Guy's Hospital; H. V. Pryce, University College; F. Riley, private study and Westminster Hospital; J. T. Roberts, University College, Aberystwith; J. S. Ross, Owens College and private tuition: R. N. Salaman, St. Paul's School; E. M. Saunders, King's College; C. R. Schofield, Owens College; W. H. M. Smith, Guy's Hospital; W. S. V. Stock, University College, Bristol; *F. H. Thiele, City of London School; W. Towse, Yorkshire College; *C. J. Utley, Owens College; J. G. Wallis, London Hospital; G. H. Warren, London Hospital and University Tutorial College; Bertha Margaret Webb, University College and Birkbeck Institution; J. West, B.A., private study, and Yorkshire College; R. L. Wilcox, King Edward VI. School, East Retford; P. G. S. Williams, University College, Cardiff; W. M. Willoughby, University College, Bristol.

Honours Candidates recommended for a Pass.—D. Dewar, University Tutorial College, and private study; *L. Gilbert, private study, and Merchant Taylors' School; *H. R. Mayo, Epsom College.

Chemistry and Experimental Physics.—W. Anderson, London Hospital; J. H. Arthur, London Hospital; A. E. Baker, Epsom College; R. W. Collum, Epsom College; E. J. Crawshaw, Craigmore College, Bristol; †Alice Debenham, Bedford College, London, and private study; †G. E. Dodson, St. Bartholomew's Hospital and private study; H. L. Eason, University College; †J. Eddy, private tuition and Middlesex Hospital; E. Evans, University College, Aberystwith; J. Hyland, St. Bartholomew's Hospital; W. A. L. Jaekson, private study, Mason College, and King Edward High School, Birmingham; J. Jones, private study and tuition; †Sarah Kaye, University College and private tuition; †H. Leader, Guy's Hospital; F. S. Lloyd, Bedford Grammar School; †K. F. Lund, Sidney College, Cambridge; T. Marles-Thomas, University College, Aberystwith; H. J. Marriage, St. Thomas's Hospital; †G. B. Mason, London Hospital and private study; †H. Mundy, St. Bartholomew's Hospital; F. M. Newton, Epsom College; A. C. Parsons, Epsom College and private tuition; J. A. Perdrau, University College; †C. Riviere, University Tutorial College; †W. H. Roache, St. Bartholomew's Hospital and private study; †C. Roberts, Middlesex Hospital and University Tutorial College; H. L. Robinson, University Tutorial College and Guy's Hospital; J. V. Watson, Owens College; †C. B. Whitehead, Wyggeston School, Leicester; †R. H. Wilshaw, Owens College and private tuition.

Biology.—B. Amsden, LL.B., B.A., private study; *A. J. Andrew, St. Bartholomew's Hospital; F. J. Ayre, St. Mary's Hospital; J. S. Barnes, St. Thomas's Hospital and Birkbeck Institution; D. L. Beath, St. Bartholomew's Hospitel; H. C. P. Bennett, St. Bartholomew's Hospital; H. Bond, St. Bartholomew's Hospital; Susila Anita Bonnerjee, Newnham College, Cambridge; F. Brickwell, St. Bartholomew's Hospital; J. D. Bridger, Guy's Hospital; R. R. Burch, Epsom College; W. L. Burn, private study; A. H. Carter, Yorkshire College; E. Chatterton, University College; †J. B. Christian, St. Paul's School; E. C. Clements, University College; A. J. Cleveland, Guy's Hospital; †G. B. Crisp, St. Mary's Hospital; †T. B. Dakin, London Hospital; W. J. E. Davies, St. Thomas's Hospital and Birkbeck Institution; †A. W. Dickson, private study; F. R. Eddison, St. Bartholomew's Hospital; A. L. Edwards, St. Mary's Hospital; F. K. Etlinger, University College; †R. T. Fitz-Hugh, Guy's Hospital; Mabel Foley, University College and University Tutorial College;

†F. E. Fremantle, Balliol College, Oxford; J. M. Garman, private study; J. A. Glover, Guy's Hospital; A. R. Greenwood, Middlesex Hospital, University Tutorial College, and private study; Lucy Elizabeth Harris, University College; F. J. Hasslacher, King's College; G. S. Haynes, St. Bartholomew's Hospital; †E. E. Hewitt, St. Thomas's Hospital; T. R. Hodgson, Guy's Hospital; J. G. F. Hosken, St. Bartholomew's Hospital; †F. S. Hunter, Mason College; G. W. G. Jones, St. Mary's Hospital; J. L. Jones, University College, Aberystwith; W. M. Jones, private study; Elizabeth Knight, University College; Beatrice Knowles, Newnham College, Cambridge; B. E. Laurence, St. Bartholomew's Hospital; N. Lavers, Guy's Hospital; F. H. Lawson, Middlesex Hospital; Frances Annie Leete, private study; Marion S. Linton, B.A., University College, Bristol; S. A. Mahmood, private study and University Tutorial College; G. C. Marrack, St. Bartholomew's Hospital; J. Matthews, Firth College; R. W. Mayston, Guy's Hospital; †J. L. Maxwell, St. Bartholomew's Hospital; B. N. Molineux, Emmanuel College, Cambridge; E. B. L. Moore, Epsom College; A. F. Newton, Mason College; A. W. Penrose, St. Bartholomew's Hospital; B. E. Potter, University lege; †C. H. D. Robbs, Dulwich College; J. E. Robinson, St. Bartholomew's Hospital; †T. O'N. Roe, Epsom College and private study; A. M. Ross, King's College; †A. G. Sargent, private study; H. A. Scholberg, St. Bartholomew's Hospital; F. W. Sheppard, private study; A. B. Smallman, Owens College; J. E. Smith, University College, Liverpool; Rachel Sophia H. Steel, Royal College Science and Alexandra College, Dublin; †J. F. Swift, St. Bartholomew's Hospital; F. E. Taylor, Yorkshire College; I. Taylor, Yorkshire College; J. W. Turner, Mason College and King Edward High School, Birmingham; W. F. Tyndale, St. George's Hospital; W. P. Walker, Owens College; J. A. W. Ward, private study; G. B. Webb, Guy's Hospital; Charlotte L. Weetman, University College, private study, and University Tutorial College; H. C. Whiteside, King William's College, Isle of Man; C. F. Winkfield, private study; H. B. Woodcock, Owens College; W. Wright, Owens College.

One Subject of the Examination (under former Regulations).—† H. F. Forty, Middlesex Hospital.

* These candidates have also passed in the Mathematics of the Intermediate Examination in Science, and have thus become admissible to the B.Sc. Examination.

† These candidates have now completed the examination.

SOCIETY OF APOTHECARIES OF LONDON.

AT the recent examinations for the prizes given annually by the Society of Apothecaries, the successful candidates were:

In Botany.—1. E. G. D. Drury, student of St. Bartholomew's Hospital, a gold medal. 2. S. B. Atkinson, student of St. Bartholomew's Hospital, a silver medal and a book.

In Materia Medica and Pharmacy.—1. R. H. Norman, student of the Westminster Hospital, a gold medal. 2. W. D. Knocker, student of St. Thomas's Hospital, a silver medal.

ROYAL UNIVERSITY OF IRELAND.

FIRST EXAMINATION IN MEDICINE.—Pass List: Dora E. Allman, Queen's College, Cork; Emma F. A. Bailey, Royal College of Science, Dublin; S. T. Beggs, Queen's College, Belfast; H. J. Bell, B.A., Trinity College, Dublin; E. O. B. Carbery, Queen's College, Galway; S. Conner, Queen's College, Cork; P. Convery, University College, Dublin; J. Crean, University College, Dublin; H. Currell, Queen's College, Belfast; T. F. Dillon, Queen's College, Cork; R. V. Donnellan, Queen's College, Galway; R. P. Farnan, University College, Dublin; G. K. Finlay, University College, Dublin; T. Finucane, Queen's College, Cork; S. F. Floyd, Queen's College, Belfast; H. J. Fryer, Queen's College, Belfast; F. Fulton, Queen's College, Belfast; T. K. Greenfield, Queen's College, Belfast; P. J. Hamilton, University College, Dublin; J. Harvey, Queen's College, Belfast; J. C. B. Hayes, Queen's College, Cork; J. Johnston, Queen's College, Belfast; W. G. Jordan, Queen's College, Belfast; John Keogh, University College, Dublin; John Lennon, Queen's College, Belfast; John F. Little, Queen's College, Belfast; A. A. F. M'Ardle, Queen's College, Cork; J. M'Ardle, University College, Dublin; W. A. M'Broom, Queen's College, Belfast; C. C. M'Carthy, University College, Dublin; A. L. M'Cully, Queen's College, Belfast; J. M'Elroy, Queen's College, Belfast; R. R. M'Lean, Queen's College, Belfast; J. J. A. G. M'Murtry, Queen's College, Belfast; H. J. M'Nabb, University College, Dublin; A. Magner, University College, Dublin; L. T. Moore, Queen's College, Cork; W. W. Moore, B.A., Queen's College, Belfast; M. R. Morrissey, University College, Dublin; R. Morrow, Queen's College, Belfast; J. J. Murphy, Queen's College, Cork; T. Murphy, Queen's College, Cork; R. J. Murray, University College, Dublin; J. C. Nixon, Queen's College, Galway; M. J. O'Kane, University College, Dublin; J. O'Neill, University College, Dublin; W. A. Osborne, Queen's College, Belfast; H. Paterson, Queen's College, Cork; R. S. Ryce, Queen's College, Cork; B. H. Shaw, Queen's College, Cork; W. S. Smyth, Queen's College, Belfast; W. M. H. Spiller, Queen's College, Belfast; R. C. Stuart, Queen's College, Belfast; A. G. Sutton, Queen's College, Cork; J. V. G. Tighe, University College, Dublin; and J. F. Whelan, University College, Dublin.

HONOURS LISTS.

Botany.—First Class: R. J. Murray, University College, Dublin; M. J. O'Kane, University College, Dublin; G. K. Finlay, University College, Dublin; W. A. Osborne, Queen's College, Belfast; and T. Finucane, Queen's College, Cork. Second Class: R. P. Farnan, University College, Dublin; J. M'Ardle, University College, Dublin; H. J. M'Nabb, University College, Dublin; and J. Crean, University College, Dublin.

Zoology.—First Class: W. A. Osborne, Queen's College, Belfast; and S. T. Beggs, Queen's College, Belfast. Second Class: R. J. Murray, University College, Dublin; T. Finucane, Queen's College, Cork; and A. A. F. M'Ardle, Queen's College, Cork.

Experimental Physics.—First Class: W. A. Osborne, Queen's College, Belfast. Second Class: J. M'Ardle, University College, Dublin; R. J. Murray, University College, Dublin; and R. S. Ryce, Queen's College, Cork.

Chemistry.—First Class: R. S. Ryce, Queen's College, Cork; and R. J. Murray, University College, Dublin. Second Class: J. M'Ardle, University College, Dublin; W. A. Osborne, Queen's College, Belfast; R. F. Farnan, University College, Dublin; S. T. Beggs, Queen's College, Belfast; J. Crean, University College, Dublin; and G. K. Finlay, University College, Dublin.

Exhibitions.—First Class, £20: W. A. Osborne, Queen's College, Belfast. Second Class, £10: R. J. Murray, University College, Dublin.

APOTHECARIES' HALL OF IRELAND.

AT the annual meeting of the Governor and Council of the Apothecaries' Hall of Ireland, convened by the Statute of Incorporation on August 1st, the following members were duly balloted for and elected:—

Governor: Patrick Charles Baxter, B.A., M.D., T.C.D., F.R.C.S.I. *Deputy-Governor*: Thomas Collins, M.R.C.S.E. *Court of Directors.*—H. A. Auchinleck, L.R.C.P.&S.E., F.R.C.S.I.; John Evans, L.R.C.S.I.; William V. Furlong, L.R.C.S.I., L.R.C.S.E.; Sir Robert Jackson, C.B., L.R.C.P.I., F.R.C.S.I.; Robert Montgomery, M.R.C.S.E.; Robert John Montgomery, M.A., M.B., T.C.D., F.R.C.S.I.; Charles F. Moore, M.D., F.R.C.S.I.; Michael J. Moore, M.D.; Sir George Owens, M.D., J.P.; Richard G. O'Flaherty, M.B., T.C.D., L.R.C.S.I.; John Ryan, M.D.; James Shaw, L.R.C.S.I.; Charles R. C. Tichborne, LL.D., F.I.C., L.R.C.S.I. *Representative on the General Medical Council*: Thomas Collins, M.R.C.S.E.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, August 11th.

The Proposed Fever Hospital at Tottenham.—In answer to questions from MR. STUART, Mr. HOWARD, and Mr. TALBOT, Mr. BALFOUR said: The President of the Local Government Board had had under his careful consideration the proposal of the managers of the Metropolitan Asylums District with reference to the erection of a new fever hospital. In the first place he directed that a local inquiry should be held by Dr. Bridges and Mr. Hedley, the two inspectors of the metropolitan district, so that those who objected to the proposal might have an opportunity of stating their objections, and the objections might be fully placed before him. Since the inquiry the site has been visited by Major Tulloch and Mr. Gordon Smith, the chief engineering inspector and the architect of the Board, in order that he might also have the opinion of these officers as to the suitability of the site. The land proposed to be purchased is about fifteen acres in extent, and, therefore, admits of a considerable distance, in addition to the width of the railway embankment, being interposed between the hospital buildings and any dwellings on the other side of the embankment. It is also to be observed that the Royal Commission on Small-pox and Fever Hospitals, in their report in 1892, state that "all evidence goes to show that well-conducted fever hospitals involve no appreciable risk to the neighbourhood," and this view is supported by the results of inquiries instituted by officers of the Board. With regard to the statement that the site is on low-lying ground in a neighbourhood frequently flooded by the discharge of surface water, the average level of the site is about 50 feet above ordnance datum, and about 25 feet above the level of the River Lee, into which flood water is conducted. The central portion of the land, which is the part on which buildings would be placed, has an elevation of not less than 5 feet above the ground at the extremities both north and south. There appear, therefore, to be no circumstances as regards flooding of the land by surface water which would render it unsuitable for the erection of buildings. It is, of course, essential that hospital buildings for the metropolitan district should be within such a distance as to enable patients suffering from acute infectious disease to be conveyed there with safety. Careful search has been made for a suitable site for a hospital for the north-eastern parts of the metropolis within a similar distance to that of the site in question, but without success. Assuming that a site could be obtained at a distance of two miles from the proposed site, the distance would be too great. The President of the Local Government Board, having regard to the urgent necessity for provision being immediately made in consequence of the present epidemic of fever in the metropolis, and to the fact that the managers have been unable to find any more suitable site for patients in the north-eastern part of London, considers that he has no alternative but to assent to the purchase by the managers of the land in question, for the provision of accommodation for fever patients; but he will limit his assent to the erection of buildings to be used temporarily, and in which fever patients will be received.

Outrage on Dr. Greig.—Mr. J. W. LOWTHER, in reply to Mr. T. W. RUSSELL, said that Her Majesty's Minister at Pekin had demanded compensation from the Chinese Government for the outrage committed on Dr. Greig, but no definite result had yet been obtained. Her Majesty's Government were, however, in telegraphic communication on the subject with Sir John Walsham, who was pressing the claim upon the Chinese Government.

Unsound Meat.—Mr. W. FIELD asked upon what authority the medical officers of health in various towns throughout the country frequently exercised the power of seizing and destroying the bodies of animals that had been previously passed by a Government inspector as sound in open market, without any compensation to the recent purchaser.—Mr. CHAPLIN said that the hon. gentleman was in error in supposing that animals were passed as sound in open market by any Government inspector, and the condition precedent to which he referred did not therefore exist. The power of a medical officer of health to seize meat, etc., which appeared to him to be unfit for the food of man was contained in Section 116 of the Public Health Act, 1875, and meat, etc., so seized might be destroyed by order of a justice.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

LEAD POISONING.

At an inquest held at Sheffield as to the death of a girl, Mary Ann Toller, the jury's verdict was to the effect that death was due to "epilepsy probably brought on by lead poisoning." Commander Hamilton Smith, one of Her Majesty's inspectors of factories, attended to point out the necessity that existed for some enlargement of the inspector's powers. It was, he stated, under consideration that special rules should be formed for the protection of workers in lead works, and to give the medical officer a right once a week to make an inspection of the works, and to certify that certain precautions were observed. This suggestion certainly found support in the evidence given on the occasion. The unfortunate girl, who was only 18 years of age, was engaged in lead works near Sheffield, and had never been subject to fits till she came into this employment, but, after that, she complained from time to time of being ill, showed symptoms of lead poisoning, and was finally visited with epileptic attacks. Respirators were, it appeared, provided for the use of the girls, but they complained that they could not breathe through them, and though they wore them when anyone in authority was by, they would, as soon as they were not watched, let the respirator hang over their chests. Commander Smith admitted that there were objections to the ordinary form of respirator, which was liable to get clogged. The manager of the works confessed that when the girls refused to wear respirators he had, for four or five months, allowed them to work without them, although he knew this was illegal.

LIABILITY OF PAUPER INEBRIATES FOR THEIR MEDICAL CARE.

The Islington guardians have raised a novel and curious question in law. Mr. Haden Corser, the magistrate of the North London Police-court, has had before him a pauper who was prosecuted by the guardians for making himself chargeable to the parish from having drunk himself into an attack of delirium tremens, for which he had to be treated at the infirmary, and during which he was unable to maintain himself. Mr. Haden Corser held that there could be no conviction, because the man was ill and unable to maintain himself at the time he became unable to maintain himself. The man was destitute and the law took no cognisance of the way by which he became a pauper. The guardians, it appears, are inclined to carry the matter further and to appeal to the Court of Queen's Bench.

Whatever the ultimate issue of this prosecution, in the existing defective provision for the care of habitual drunkards we fear that little practical good can follow. If there were power to send such a man to a home for inebriates for a lengthened period for therapeutic treatment, or to a prison specially set apart for such a purpose, on conviction for having made himself chargeable to the rates, penal procedure might be useful. But there is no such power, neither is there such a home or a prison; and the same curative procedure would be much more cheaply and effectively secured by the compulsory legislation for habitual drunkards advocated by the Inebriates Legislation Committee of the British Medical Association and the Society for the Study of Inebriety.

Apart from such a practical view of the possible issue of this test case lies the consideration of the most judicious course to pursue with inebriates. Delirium tremens has been held by more than one recognised decision to absolve from criminal responsibility, and with such a precedent in trials for a capital offence a conviction followed by punishment for cost of maintenance and care would be exceedingly interesting. The prosecution now under review involves various intricate and perplexing considerations, and we shall look forward to further legal proceedings with interest.

In response to three different circulars from the Inebriates Legislation Committee, boards of guardians, in rapidly increasing numbers, have expressed their desire to be empowered either to detain inebriates in the workhouse for curative purposes or to pay for their care and maintenance at a special institution. In some countries which enjoy compulsory power to seclude drunkards, the patient's estate, if he have any, can be attached for the cost of his board.

THE INSPECTION OF MEAT.

The position of those who have to decide regarding the wholesome or unwholesome character of meat from evidence heard in police courts is often not an enviable one. We recently called attention to a case in which the evidence for the defence was more than usually at variance with that for the prosecution, some witnesses declaring that the meat was stinking from decomposition, while others maintained that it was sweet and wholesome. Another case, in which the evidence was only a little less discrepant, was tried at the Derby Police Court recently. In this instance a butcher named Newton was summoned for having in his possession two sides of unsound beef intended for human food. The magistrates, after consultation, found the case for the prosecution proved, and fined the defendant £2 for each piece of meat, or £5 8s. in all.

From a perusal of the report in the Nottingham *Evening Post* it is scarcely possible to avoid the conclusion that the inspection of meat at Derby is left to persons having little or no knowledge of animal diseases, and hence unfitted to discharge that function. It would appear that in this case there was suppurating disease of the stifle-joint. The discovery of such a lesion ought to have immediately prompted those who inspected the carcass to examine the lungs, spleen, and kidneys for evidence of generalisation of the disease, for such evidence must almost certainly have been present in the viscera if the flesh in general was "affected by the disease of the stifle-joint." The case affords another illustration of the slipshod methods of meat inspection almost general in this country. The interests alike of the meat consumer and of the butcher would be better served if inspection of meat were made compulsory in the case of every animal slaughtered for human food, and if this duty were confided to men specially trained for the purpose.

MEDICAL INSPECTION OF SHIPS.

At a meeting of the Health Committee of the Cardiff Corporation on August 9th, the subject of boarding in the Cardiff Roads vessels arriving from ports where infectious diseases had broken out was discussed. The medical officer said the cholera order recently issued gave power to inspect a ship from a foreign port, whether she had been inspected by the customs officers or not, if the medical officer had reason to believe she was infected with cholera. That power, however, did not apply to ships infected with scarlet fever, typhus, diphtheria, or other infectious diseases, as those might come from home ports. It was decided to communicate with Sir E. J. Reed, M.P., and to request him to move in Parliament in that matter, and to communicate with the customs authorities and the pilotage board.

INFECTED LODGERS.

C. N. L. writes: A young child is brought down by its parents from London to a crowded lodging-house at the seaside. Three days after their arrival the child develops diphtheria, and there is a distinct history of the child having been exposed to infection before leaving London, although the parents were quite innocent of the fact. After a few days the child of another family lodging in the same house is seized with the same complaint. (1) Are the parents of the child who brought infection to the house liable for the medical charges for attendance on the second child, and can they be compelled to reimburse the owner of the house for all the expenses connected with disinfecting, repapering, etc., and for loss of lodgers? (2) If they are liable and are too poor to pay, are the sanitary authorities responsible?

*** (1) There are no statutory provisions applicable to this case. As the parents were ignorant of the fact of their child being in an infectious condition, they could not be made liable under Section 126 of the Public Health Act, 1875, for having wilfully exposed the child without proper precautions against the spread of infection. No other section of the Act comes near the case. It is possible that the owner of the lodging-house and the parents of the second child may be able to maintain an action for damages consequent on the loss they have sustained by reason of the infection being brought to them. The legal rights of the various persons interested are, however, not very clearly defined, and it would be impossible to advise with certainty without knowing all the circumstances. (2) The sanitary authority do not seem to be liable to pay anything to anyone.

FEES FOR WORKHOUSE LUNATICS.

Insanity writes: I have been workhouse medical officer for ten years, and have hitherto been paid fees for certifying those cases which have been transferred to lunatic asylums; lately the guardians have decided to withhold such fees. Is it usual for these fees to be allowed?

*** It is no part of the duty of a medical officer of a workhouse to give the statutory certificate required to transfer a lunatic to an asylum, but if he does this, it must be either at the request or with the consent of the magistrate who orders the transfer, and who has power to direct the guardians to pay a proper fee for this very responsible medical certification. The fee, we have always held, should not be less than one guinea.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,605 births and 3,517 deaths were registered during the week ending Saturday, August 13th. The annual rate of mortality in these towns, which had been 17.3 and 17.4 per 1,000 in the preceding two weeks, rose to 18.0 per 1,000 during the week under notice. The rates in the several towns ranged from 12.5 in Wolverhampton, 13.7 in Sunderland, 14.0 in Huddersfield, and 14.2 in Cardiff to 21.5 in Salford, 22.4 in Bolton, 22.8 in Manchester, 23.3 in Liverpool, and 24.2 in Burnley. In the thirty-two provincial towns the mean death-rate was 18.4 per 1,000, and 1.0 per 1,000 above the rate recorded in London, which was 17.4 per 1,000. The 3,517 deaths registered during the week under notice in the thirty-three owns included 681 which were referred to the principal zymotic diseases, against 585 and 623 in the preceding two weeks; of these, 364 resulted from diarrhœa, 121 from measles, 62 from whooping-cough, 52 from scarlet fever, 45 from diphtheria, 35 from "fever" (principally enteric), and 2 from small-pox. These 681 deaths were equal to an annual rate of 3.5 per 1,000; in London the zymotic death-rate was equal to 3.2, while it averaged 3.7 per 1,000 in the thirty-two provincial towns, among which the lowest rates were recorded in Huddersfield, Newcastle-upon-Tyne, Swansea, and Gateshead, and the highest rates in Liverpool, Plymouth, Bristol, West Ham, Bolton, and Portsmouth. Measles caused the highest proportional fatality in West Ham, Croydon, Sunderland, Oldham, and Bristol; scarlet fever in Cardiff and Plymouth; whooping-cough in Birkenhead, Preston, Burnley, and Portsmouth; and diarrhœa in Plymouth, West Ham, Portsmouth, Leicester, Burnley, Liverpool, and Bolton.

The death-rate from fever did not reach 1 per 1,000 in any of the thirty-three towns. The 45 deaths from diphtheria included 35 in London, and 3 in Manchester. One death from small-pox was registered in Halifax and one in Sheffield, but not one in any other of the thirty-three towns. Five small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 3 in the Highgate Small-pox Hospital, on Saturday last, August 13th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and the London Fever Hospital on the same date was 3,088, against numbers increasing from 1,226 to 2,995 on the preceding twenty Saturdays; 376 new cases were admitted during the week, against 382 and 346 in the preceding two weeks. The 174 deaths from diseases of the respiratory organs in London were equal to an annual rate of 2.1 per 1,000, and were 15 below the average.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, August 13th, 770 births and 474 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.5 and 18.5 per 1,000 in the preceding two weeks, declined to 17.0 per 1,000 during the week under notice, and was 1.0 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 14.1 in Leith and 14.9 in Edinburgh, and the highest rates were 19.8 in Greenock and 20.6 in Perth. The 474 deaths in these towns included 93 which were referred to the principal zymotic diseases, equal to an annual rate of 3.3 per 1,000, which was 0.2 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Greenock and Glasgow. The 240 deaths registered in Glasgow included 20 from diarrhœa, 13 from measles, 11 from scarlet fever, 9 from whooping-cough, 4 from "fever," and 3 from diphtheria. Five fatal cases of measles and 3 of whooping-cough were recorded in Edinburgh. The death-rate from diseases of the respiratory organs in these towns was equal to 2.6 per 1,000, against 2.1 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, August 6th, were equal to an annual rate of 18.9 per 1,000. The lowest rates were recorded in Armagh and Londonderry, and the highest rates in Belfast and Lurgan. The death-rate from the principal zymotic diseases averaged 2.0 per 1,000. The 144 deaths registered in Dublin were equal to an annual rate of 21.5 per 1,000 (against 19.8 and 28.3 in the preceding two weeks), the rate during the same period being 17.2 in London and 16.3 in Edinburgh. The 144 deaths registered in Dublin included 13 which were referred to the principal zymotic diseases (equal to an annual rate of 1.9 per 1,000), of which 6 resulted from measles, 5 from diarrhœa, and 2 from whooping-cough.

MEDICAL NEWS.

THE third Congress of French and French-speaking Alienist Physicians was held at Blois recently under the presidency of Dr. Roussel.

ONE of the features of the forthcoming World's Fair at Chicago will be a "collective exhibition" of German health resorts and watering places.

PRESENTATION.—On Saturday, July 6th, Dr. T. J. Burroughs, of Crondall, Hampshire, was presented with a testimonial from friends and patients, consisting of an illuminated card with the sum of £126.

THE town of Wiesbaden has conferred its honorary citizenship on Professor Fresenius, the eminent chemist, on the occasion of the fiftieth anniversary of his taking his doctor's degree.

MEDICAL MAGISTRATES.—Dr. William Wright Hardwicke, M.D., M.R.C.P., and Mr. Samuel Evans, L.R.C.P., M.R.C.S., have been placed on the Commission of the Peace for the borough of Harwich.

THE number of students in the University of Greifswald during the past summer semester was 825, of whom 394 belonged to the medical faculty. At Tübingen 236 out of a total of 1,334 *in statu pupillari* were students of medicine.

THE Professorial College of the Medical Faculty of the University of Vienna has unanimously recommended Professor von Krafft-Ebing for the Chair of Psychiatry, in succession to the late Professor Meynert.

PROFESSOR H. KRAUSE, of Berlin, whose name is well known in this country owing to his professional connection with the late Emperor Frederick, has been elected a corresponding member of the American Laryngological Society.

H.R.H. PRINCESS BEATRICE, who has recently obtained the first aid certificate of the St. John Ambulance Association, has graciously consented to become the President of a new "Deeside" Centre, to include Balmoral, Craithie, and neighbouring places.

PROFESSOR HENOCH, of Berlin, has had the order of the Red Eagle, Second Class, conferred on him by the German Emperor, and the Commandership of the Norwegian order of St. Olaf, First Class, by the King of Sweden and Norway on the occasion of his jubilee as a Doctor of Medicine.

A NEW hospital was recently opened in the Rue Bagnolet, Paris (20th arrondissement), to be called the "Debrousse Hospital," in memory of the foundress, the Baroness Alquier-Debrousse, who some time ago bequeathed 6,000,000 francs (£240,000) to the Assistance Publique for the purpose.

DR. MORITZ SCHMIDT, the well-known laryngologist of Frankfort-on-the-Main, who was one of the consultants summoned to the bedside of the late Emperor Frederick at San Remo in November, 1887, has had the honorary title of "Professor" conferred upon him.

DRUNKENNESS IN ENGLAND AND WALES IN 1891.—The convictions for drunkenness in England and Wales for the year ended December, 1891, have been published in the form of a Parliamentary Return. This is with regard to a population of 29,001,018. The Sunday drunkenness shows 15,448 convictions; the other days of the week 153,551 convictions.

A WINDFALL FOR UNIVERSITY COLLEGE HOSPITAL.—At a recent meeting of the St. Pancras Vestry, it was reported that the authorities of University College had accepted £15,000 for the land between that College and the College Hospital; £10,000 will be contributed by the London County Council and £5,000 by the Vestry. The land will be laid out as a part of Gower Street, and the gates removed.

PROFESSOR LASSAR'S Clinic for Diseases of the Skin in Berlin has recently been considerably enlarged and improved. It now contains a lecture room, seating 100 students, besides the fullest provision for clinical and laboratory work. There is also a fine installation of baths and a collection of wax models of typical skin diseases, to which there is *nil simile aut secundum* in Germany.

TYPEWRITING.—Mrs. Marshall, who formerly had a typewriting office in the Strand, but now carries on a similar business at 33, Trinity Street, Cambridge, attended with an assistant in the Reception Room at the annual meeting at Nottingham. Many members availed themselves of her services, and were able to judge of the accuracy of her work, especially when dealing with documents or speeches containing medical terms.

TEA AND TANNIN.—M. Burker, the Vice-President of the Paris Society of Pharmacy, has given the members of that body a digest of some recent observations in the analysis and character of tea. He stated that the commercial value of black tea was in direct proportion to the amount of theine it contained. In the case of green tea this was not so, and it was a mistake to estimate the value of a sample upon the results of a theine analysis. Here the question to be studied was rather the amount of tannin contained in the sample.

MEMORIAL TO THE LATE PROFESSOR VON NUSSBAUM.—A bust of the late Professor von Nussbaum, which has been placed in the precincts of the University of Munich, was unveiled on July 19th. Addresses were delivered on the occasion by Dr. von Kerchenmeister, President of the Memorial Committee, by the Chief Burgomaster, Dr. von Widenmayer, in the name of the City of Munich, and by General von Bühler, in the name of the army. The bust, which is double life-size, is of marble and stands on a granite pedestal.

THEFT FROM A MEDICAL MAN.—At the County of London Sessions Edwin Goodwin, aged 27, was prosecuted for larceny. On July 8th the prisoner called at the house of Dr. Carruthers, Central Hill, Norwood, and asked to see him. As Dr. Carruthers was out, the prisoner was shown into the consulting room and left alone. After a time he left, saying he would call later. After his departure a cash box, containing over £3, and a cheque for 15s. were missed. He was arrested a few days afterwards and identified. He was found guilty; and a detective stated that he was suspected of other robberies of a like kind, and had been previously convicted. Sir P. H. Edlin sentenced the prisoner to fifteen months' imprisonment with hard labour.

The Rhondda Shooting Case.—At the trial of Edwin Pugh, collier, for shooting at and injuring Dr. John Lloyd Edwards, under circumstances which we mentioned at the time (British Medical Journal, May 28th, p. 1172) it was proved by Dr. Pringle, medical superintendent of the Bridgend Asylum, that he was suffering from delusions and hallucinations of sight and hearing, and on the evidence he was accordingly ordered to be detained during Her Majesty's pleasure.

The Fourth International Congress for the Prevention of the Abuse of Alcohol-containing Drinks will, as already announced, meet at the Hague on September 8th. A subscription of five gulden (eight shillings) entitles to the privileges of membership, including a copy of the *Transactions* and other literature published under the auspices of the Congress. A provisional programme of the proceedings may be obtained free on application to Herr Ministerialrath, Dr. W. P. Ruysch, The Hague. Persons wishing to take part in the Congress should communicate with the Rev. E. J. W. Koch, Scheveningen.

Royal Botanic Society.—Few societies whose end is not strictly medical render so much kindly service to medical men as the Royal Botanic Society. The botanical lectures given by eminent scientific men to all visitors to the gardens during the summer months are of very high interest, and most generous facilities are offered to students and others engaged in the study of botany or medicine, to whom have been granted free nearly 700 orders of admission during the year, of from one to three months each, as well as many thousands of illustrative plant-specimens which are quite invaluable to medical students for botanical study. We are glad to see that the revenue of the society this year shows a decided improvement over last year, although it is still ridiculously small, considering the charm of the gardens, the beauty and interest of their shows and *fêtes*, for the very moderate annual subscription of one guinea.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. O. Völker, Director of the Ducal Hospital at Brunswick, aged 49; Dr. L. Souligoux, a well-known practitioner of Vichy, and an indefatigable contributor to medical literature, aged 51; Dr. Carl Max Nendtwich von Czerkut, Emeritus Professor, and formerly Rector of the Buda-Pesth Josephs Polytechnicum, for many years President of the Council of the Hungarian Medical and Scientific Association, aged 81; and Dr. Philip Markbreiter, founder and for many years editor of the *Wiener medicinische Presse*, and one of the most popular physicians of the Austrian capital, aged 83.

The London and Counties Medical Protection Society, Limited.—A meeting of the medical profession in South London was held on Tuesday, the 9th inst., at the house of J. W. J. Oswald, 245, Kennington Road, S.E., for the purpose of establishing a branch of this society. There was a good attendance. The chair was occupied by Dr. G. B. Mead, who explained the objects of the society, pointing out the great necessity for medical men to join together for the purpose of protecting their honour and interests against attack. He dwelt on the advantages of having the Central Council, consisting of men of the highest position in the profession, situated in London, where it would be in closer touch with the mass of consultants and general practitioners. He also pointed out the large powers of autonomy given to the District Councils, by which the humblest member would be sure of having his interests safeguarded. After a discussion, in which several of those present took part, the following resolutions were put before the meeting and adopted unanimously. It was proposed by Dr. E. W. Collins, and seconded by Dr. Campbell Boyd:—"That another division of the London and Counties Medical Protection Society be hereby formed in South London." Dr. Hugh Woods proposed, and Dr. W. A. Atkinson seconded:—"That Dr. J. W. J. Oswald be requested to act as President." Dr. G. B. Mead proposed, and Dr. J. F. Henry seconded:—"That the following gentlemen be requested to act as Vice-Presidents—Drs. W. A. Atkinson, Camberwell; J. A. Austin, Norwood; C. Boyd, Denmark Hill; J. Brockwell, Gipsy Hill; E. W. Collins, Sydenham; H. N. Hardy, Dulwich; J. B. James, Bermondsey; R. Leftwich, Kennington; Lewis Lewis, Brixton." Proposed by Dr. Oswald, and seconded by Dr. Boyd:—"That Dr. J. P. Henry, Lewisham, be requested to act as Honorary Treasurer." After a vote of thanks to the Chairman, the meeting adjourned.

Literary Intelligence.—A work by M. Paul Triaire (*Bretonneau et ses Correspondants*, F. Alcan, Paris, 1892) which has recently appeared contains a number of interesting letters written by Bretonneau to his distinguished pupils, Trousseau and Velpean, when the latter were fighting their way in Paris. In this correspondence Trousseau and Velpean appear as scientific apostles preaching the doctrines of their master on the specific nature of typhoid fever (or, as he preferred to call it, *dothienenthérie*) the identity of "diphtheria angina" and croup, etc., to the medical gentiles of the French capital. In these letters we find the famous physician of Tours raising his voice against indiscriminate bleeding, laying down the indications for tracheotomy in croup (an operation which Bretonneau was the first to perform in France), pointing out the efficacy of the local application of hot water in hæmorrhage, showing how vaccine virus can be kept in sealed tubes, etc. Perhaps the most striking thing in the book, however, is Bretonneau's constant recognition of the superiority of character to mere intellect—a feeling which often found expression in the following gnomic sentence, "La meilleure pièce d'un homme n'est ni son savoir ni son avoir, c'est son caractère," words which contain the marrow of all past and future "Introductory Addresses."—Mr. F. Tebbitt, teacher of English in the University of Heidelberg has published (Karl Groos, Heidelberg) a series of "German-English Conversations" intended to facilitate communication between medical attendant and patient.—The *Internationales Monatschrift zur Bekampfung der Trinksitten*, a periodical devoted to the propagation of temperance, is now in the second year of its existence. It is published by Chr. G. Tienken, of Bremerhaven and Leipzig, under the editorship of Provost Sörensen, of Skanderborg, Professor Forel, of Zürich, Dr. Granfelt, of Helsingfors, and Mr. Fielden-Thorp, of New York, with the co-operation of a number of medical men, clergymen, and others.—The members of the Municipal Sanitary Service of Havana have established a journal with the title of *Gaceta Medica Municipal*, which is to be devoted to the furtherance of sanitary reform in Cuba, and to the promotion of the interests of the health officers of the island.—The *Gazette Médicale de Strasbourg*, which numbers such men as Sédillot and Schützenberger among its founders, recently completed its 50th year of existence.

MEDICAL VACANCIES.

The following vacancies are announced:

ABERCARN LOCAL BOARD.—Medical Officer for the District. Salary, £40 per annum. Applications marked "Medical Officer" to T. S. Edwards, Clerk, 29, High Street, Newport, Mon., by August 31st.

BEDFORD GENERAL INFIRMARY.—Matron. Salary £70 per annum, with apartments, board, and washing. Applications, with testimonials, to the Secretary by September 1st.

BOROUGH AND PORT OF SUNDERLAND.—Medical Officer of Health and Public Analyst; doubly qualified. Salary in all £525 per annum. Applications endorsed "Application for appointment of Medical Officer of Health and Public Analyst" to F. M. Bowey, Town Clerk, Town Hall, Sunderland, by August 29th.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—House-Surgeon. Applications to the Secretary by September 3rd.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician for six months commencing October 1st. Applications with testimonials to be sent to the Secretary at the Office, 24, Finsbury Circus, E.C., by September 8th.

DEVONSHIRE HOSPITAL, Buxton.—House-Surgeon. Salary, £100 per annum, with furnished apartments, board, and washing. Applications with recent testimonials to Mr. Joseph Taylor, Secretary, not later than August 20th.

EDAY, Orkney.—Resident Medical Officer. Salary, £70 per annum, with practice. Applications to the Inspector of the Poor.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon. Appointment for six months. Residence, board, and washing provided. Applications to the House-Governor by August 27th.

HINTON DISTRICT, Sturminster Union.—Medical Officer and Public Vaccinator. Salary, £40 per annum, with fees. Applications, with testimonials, stating age, to be sent to Mr. B. Cheesman, Clerk, by August 20th.

JAFFRAY SUBURBAN BRANCH OF THE BIRMINGHAM GENERAL HOSPITAL, Gravelly Hill.—Resident Medical and Surgical Officer. Applications to Haward J. Collins, House-Governor.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Must be registered medical practitioner and unmarried. Salary, £90 first year, with board, rising to £100 second year. Applications, accompanied by testimonials, to be sent to the Secretary, by August 27th.

KENT COUNTY LUNATIC ASYLUM, Barming Heath.—Senior Assistant Medical Officer. Salary, £250 per annum, increasing two annual instalments of £25 each to £300. Fully qualified. Applications to Mr. Francis R. Howlett, 9, King Street, Maidstone, by August 24th.

KENT COUNTY LUNATIC ASYLUM, Barming Heath.—Second Assistant Medical Officer. Salary, £180. Applications to Mr. Francis R. Howlett, 9, King Street, Maidstone, by August 24th.

LEITH HOSPITAL.—House-Physician. Salary, £50 a year. Applications and testimonials to the Secretary by August 11th.

LEITH HOSPITAL.—House-Surgeon. Salary, £50 a year. Applications and testimonials to the Secretary by August 11th.

LONDON COUNTY COUNCIL.—Assistant Medical Officer of Health, not less than 26 or more than 40 years of age. Salary, £300 per annum, rising by annual increments of £50 until it reaches £600 a year. Applications on forms to be had at the office of the Council to H. De La Hooke, Clerk to the Council, Spring Gardens, S.W., by September 10th.

LONDON FEVER HOSPITAL.—Assistant Resident Medical Officer. Applications, with testimonials, to the Secretary by September 1st.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—House-Surgeon for six months. Salary, at rate of 50 guineas per annum. Applications and testimonials to Mr. E. Wilson Taylor, Secretary, not later than August 25th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Junior House-Surgeon for six months. No salary, but an honorarium of 5 guineas will be given on satisfactory completion of term. Applications and testimonials to Mr. E. Wilson Taylor, Secretary, not later than August 25th.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT.—Honorary Assistant Medical Officer; doubly qualified. Applications, with testimonials, to Secretary, C. W. Hunt, by August 20th.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer, doubly qualified, unmarried, and not less than 25 years of age. Salary, £150 per annum, with board and residence. Applications to the Chairman of the Board by August 20th.

METROPOLITAN HOSPITAL.—Dispenser. Applications, with testimonials, to Charles H. Byers, by August 29th.

MOVILLE DISPENSARY, District Inishowen, Ireland.—Medical Officer. Salary, £120 per annum, exclusive of registration and vaccination fees. Applications to Mr. John Bradley, Honorary Secretary, Moville Dispensary Committee, by 11 A.M. on August 30th.

NOTTINGHAM BOROUGH ASYLUM.—Second Assistant Medical Officer; unmarried. Salary, £100 per annum, with apartments, board, and washing. Applications with testimonials to Medical Superintendent by August 30th.

ROYAL SURREY COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £80 per annum. Applications, with testimonials, to the Honorary Secretary by September 3rd.

ST. MARY'S HOSPITAL, Paddington, W.—Physician, Accoucheur. Applications, with testimonials, to Thomas Ryan, Secretary, by September 8th.

STURMINSTER UNION.—Medical Officer and Public Vaccinator for the Hinton District. Salary, £40 per annum, and vaccination fees. Applications endorsed "Hinton District" to B. Cheesman, Clerk, Poor-law Offices, Sturminster Newton, Dorset, by August 20th.

SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds.—House-Surgeon. Salary, £100 per annum. Applications, stating age and qualifications, with testimonials, to Secretary, by August 22nd.

THORNBURY UNION.—Medical Officer for the Almondsbury District; doubly qualified, and must reside in the district. Salary, £70 per annum, with extra fees. Applications to Thos. Harvey, Clerk to the Guardians, Thornbury, by August 25th.

UNIVERSITY OF GLASGOW.—Assistant Examiner in Medicine. Annual fee for Examinership is £30. Applications with testimonials to Mr. Alan E. Clapperton, 91, West Regent, Glasgow, by September 3rd.

MEDICAL APPOINTMENTS.

AULD, Archibald, M.B., C.M.Glasg., reappointed Medical Officer for the No. 3 District of the Pontefract Union.

AUSTEN, Harold, M.B., B.S.Lond., M.R.C.S., appointed Assistant Medical Officer to the Western Hospital, Fulham, S.W.

BAXTER, W. Whittington, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Third and Fourth Districts of the Tendring Union, *vice* Herbert Faulkner, resigned.

BRADBURY, J. A., M.R.C.S., appointed Medical Officer for the Wigan Sanitary District and the Workhouse of the Wigan Union, *vice* — Martland, resigned.

BRADSHAW, Robert, L.A.H.Dub., L.M., appointed Medical Officer for the Ninth District of the Hexham Union.

BRIGGS, William, L.R.C.P.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Aspatria District of the Wigton Union.

BRUCE, L. C., M.B.Edin., appointed Assistant Medical Officer to the Derby Borough Asylum, *vice* J. C. M. Given, M.B.Lond., resigned.

BURBRIDGE, John Walter, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Upper District of the Lewes Union.

CLOTHIER, Henry, M.D., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health for Hornsey.

CONNON, Charles J., M.B., C.M.Aberd., appointed Medical Officer for the Derwent District of the Weardale Union.

DOVE, Miss Emily L., M.B.Lond., appointed Resident Clinical Assistant to the Holloway Sanatorium Hospital for the Insane, Virginia Water.

EWART, C. Theodore, M.D., M.Ch., appointed Senior Assistant Medical Officer to the Female Department of the London County Asylum, Colney Hatch, *vice* W. H. George, deceased.

FAWSSETT, Frank, M.B., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the outlying part of St. John's Parish of the Lewes Union.

GIBSON, E. Valentine, M.D.Edin., appointed Superintendent and Resident Medical Officer, Victoria Infirmary, Glasgow, *vice* Dr. Mackintosh, resigned.

GOW, William J., M.D.Lond., M.R.C.P., appointed Obstetric Physician to the Royal Hospital for Children and Women, Waterloo Bridge Road, *vice* William Duncan, M.D., M.R.C.P., resigned.

HOPKINS, G. Herbert, M.R.C.S.Eng., L.R.C.P.Lond., appointed Honorary Medical Officer and Ophthalmic Surgeon to the Swansea and South Wales Institution for the Blind.

HOWLEY, Frederick H., M.R.C.S.Eng., appointed Medical Officer for the Blankney District of the Sleaford Union.

KAUFFMANN, O. J., M.D.Univ.Lond., M.R.C.P.Lond., M.R.C.S., appointed Physician to the Out-patient Department of the Queen's Hospital, Birmingham.

KIRK, W., M.D., M.Ch.Irel., appointed Fleet-Surgeon to the Pei Yang Squadron of the Imperial Chinese Navy.

LEYS, John, M.B.Aberd., appointed Medical Officer for the Norton District of the Leek Union.

MACALISTER, Charles J., M.B.Edin., M.R.C.P.Lond., appointed Honorary Physician to the Liverpool Stanley Hospital, *vice* T. R. Bradshaw, M.D.Dubl., M.R.C.P., resigned.

MONK, H. G., M.R.C.S., D.P.H., appointed Medical Officer of Health for the Borough of Shrewsbury, *vice* — Taylor.

NEWBOLT, G. Palmerston, M.B.Durh., F.R.C.S.Eng., appointed Honorary Surgeon to the Stanley Hospital, Liverpool.

PARTINGTON, William, M.B., C.M.Glasg., appointed Medical Officer of Health to the Tunstall Local Board, *vice* Dr. J. Cumine, resigned.

PEARSE, Frederick E., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Horsley District of the Guildford Union.

POGSON, W., F.R.C.S.Eng., reappointed Medical Officer of Health to the Leeds Rural Sanitary Authority.

POWELL, Henry, L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer for the Silvermines Dispensary District of the Nenagh Union.

PRICE, William E., M.B.Durh., M.R.C.S.Eng., appointed Medical Officer for the Sollershoper District of the Ross Union.

REES, J. L., L.R.C.P.Lond., M.R.C.S., appointed Senior Resident Surgeon to the Royal Sea Bathing Infirmary for Scrofula, Margate, *vice* W. T. Rees, resigned.

ROBERTSON, James S., M.R.C.S., appointed Medical Officer and Public Vaccinator for the Bloxham District of the Banbury Union, *vice* J. Colegrave, M.R.C.S.Eng., deceased.

ROBINSON, H. Shapter, M.R.C.S.Eng., L.R.C.P.Edin., appointed Medical Officer to the Camberwell Postal District, *vice* T. J. Griffith, M.D., resigned.

SANDFORD, Arthur William, M.D., R.U.I., appointed Ophthalmic Surgeon to the South Infirmary, Cork.

SIMMONS, Harold, L.R.C.P.Lond., M.R.C.S.Eng., appointed Assistant Medical Officer to the Workhouse and Infirmary of the Fulham Union.

SOMMERVILLE, John, M.B., C.M.Edin., appointed House-Surgeon to the Hospital, Auckland, New Zealand.

TAYLOR, Mr. Herbert E., appointed Medical Officer for the Aylesford District of the Malling Union.

THOMSON, Ritchie G., M.B., C.M.Edin., appointed Assistant Surgeon to the Royal Infirmary, Glasgow.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

SANDWITH.—On August 15th, at 7, Queen's Gate, S.W., the wife of Dr. Fleming Sandwith, of Cairo, of twin daughters.

MARRIAGES.

LUCY—CROSS.—On August 9th, at the Parish Church, Petersfield, Hants, Reginald Horace, M.B., C.M.Edin., F.R.C.S.Eng., of 9, Princess Square, Plymouth, second son of the late Edward John Lucy, of Worcester, to Emily Susan, second daughter of the late Robert Shackleford Cross, of Petersfield, Hants. Indian papers please copy.

SHEEHY—SWIFT.—On July 28th, at St. Bartholomew's Church, Sydenham, by the Rev. C. H. Payne Crawford, M.A., W. H. Patmore Sheehy, L.R.C.P.Lond., etc., to Frances M. S. Lannes, of Castledine, Upper Norwood, daughter of the late T. C. Swift, Esq., and adopted daughter of the late Vicomtesse de Montebello. No cards.

DEATHS.

CALLENDER.—Between August 1st and 4th, at Kimberley, South Africa, the result of an accident, Gerald Callender, Esq., M.R.C.S.Eng., L.R.C.P.Edin., Resident Medical Officer to the Kimberley Hospital, in the 32nd year of his age. By cable.

HALL.—Edward Hall, surgeon, died August 8th at Dalton House, Dalton-in-Furness, aged 84 years. Interred at the Dalton Cemetery on August 10th.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not later than Midday Post on Wednesday. Telegrams can be received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted, will be found under their respective headings.*

QUERIES.

Night Bell asks where he can get a luminous night bell plate, and what price.

C. writes: Will any reader of the British Medical Journal kindly state earliest date to his knowledge when sanitary pads were first used before the year 1880.

Mr. J. B. Lendrum (County Hospital, York) asks: What is the exact composition of the solution of iodoform ether used by von Bergmann in his tuberculous cases?

Dr. Biddle (Merthyr Tydfil), who has a patient who is nearly blind, and incurable, wishes to know of an institution where the case would be taken in upon small payment. He is a man, aged about 40, who has been in business, but is now entirely dependent upon his friends.

Skiffard asks what are the best books to read for the L.R.C.P. and L.M. Ireland.

*** Any of the ordinary textbooks will be found sufficient. A candidate is expected to have a sufficient knowledge of all the subjects specified in the College prospectus.

Nemo writes: I have recently had presented to me by a patient a battery containing a 30-cell constant current and a faradic current in the same case. I should feel obliged if you would inform me which is the best work on medical electricity for reading up the subject from a general practitioner's point of view, and the one which is most free from descriptions of various batteries one does not happen to possess.

*** Dr. De Watteville's *Medical Electricity*, or *Medical Electricity*, by Steavenson and Lewis Jones.

Wanted Records of Winter Sunshine.

V. G. writes: Can any of your readers inform me of any books or pamphlets giving sunshine records in the Riviera and Algiers?

Treatment of Hypertuchosis.

M.B. has a lady patient suffering from superfluous growth of hair on upper lip. She is very anxious to have them removed. M.B. would like to know if there is any treatment which is permanently satisfactory?

Out-door Assistance to the Blind.

Bartimæus asks whether there is an institution which gives relief or assistance (out-door) to the totally blind. He makes the inquiry in the interest of a man about 50, totally blind and consequently unable to maintain himself.

Sprays and a Theory.

H.L.D. desires to know whether an alkaline or other spray has been used for inhalation in rheumatic fever, with a view to prevent or cure endocarditis, on the theory that the irritant in the blood in this disease is intensified while it is circulating through the lungs?

Unqualified Assistants and the General Medical Council.

L.R.C.P. writes: Is it contrary to the ruling of the General Medical Council for a duly qualified medical practitioner to keep an unqualified assistant to dispense and do midwifery, the assistant to reside in the house of the principal? I am anxious to have a former assistant back again, he being a much better man all round than the three or four qualified whom I have had.

*** We are not aware that the General Medical Council have taken objection to the employment, under the continuous personal supervision of the principal, of a competent resident assistant to help in dispensing and midwifery work. But the numerous *contretemps* that have occurred when the principal's supervision is even temporarily relaxed make it a very questionable policy to employ unqualified men for such work.

ANSWERS.

R.O.B.—If the facts are as stated they should certainly be reported to the police authorities.

T. F. R.—It is hardly worth noticing; it is probably the act of some foolish illiterate patient.

Anxious.—Boaler's action, like his previous actions, which were alleged to have cost something like £30,000, is against the Briton Medical and General Life Assurance Association, and not against the British Medical Association, so that "Anxious" may set his fears at rest.

A Member should notify his change of residence to his patients by issuing to them, but not to other people's patients, an ordinary address card, with the words, "Change of address," printed on the top, with the old address, with a line struck through it, on the left hand bottom corner, and the new address engraved in the right hand bottom corner.

The Climate of New Zealand.

T. E. A. would probably find the information he requires in Dr. Coupland Taylor's *Wanderings in Search of Health* (Lewis, Gower Street), and in Lindsay's *Climatic Treatment of Consumption* (Macmillan).

A Father's Bitter Cry.

M.R.C.S., L.S.A. would suggest that "Country Doctor" should endeavour to make his son act as dispenser to some surgeon, for which work he would get a salary only sufficient for the bare necessities of life; of course, "Country Doctor" would not augment the salary earned. He knows a case in which a most incorrigible and lazy student had such a treatment applied to him, and, after two years of such work, he buckled to and qualified, and is now holding an important appointment and doing well.

F.R.C.S.Eng. writes: I would advise "Country Doctor" to send his son for examination for the L.R.C.P. Edinburgh; and, if he should fail, it will be best for him to give up all idea of becoming a doctor, and take up farming in Canada or orange growing in Florida, where there is every prospect of success for any young man who is steady and willing to work.

J.M.C. writes in answer to "Country Doctor": Let him apply to Messrs. Scott and Jackson, Limited, 15, Cockspur Street, Charing Cross, where he will obtain all the information he desires in regard to the colonies and America, and who will also take a responsibility in the matter for one or two years.

NOTES, LETTERS, Etc.

Errata.—In the list of members present at the annual meeting, published in the British Medical Journal of August 13th, for "Lawson Tait, L.R.C.P.Ed.," read Lawson Tait, F.R.C.S.Eng.; for "J. B. Hargreaves, F.R.C.S.," read J. B. Hargreaves, F.R.C.S.Edin.

Ringworm.

Mr. Crawford Warren, F.R.C.S.I. (Dublin) writes: Having recently read several articles in the medical papers as to the treatment of ringworm, and as I have had much experience in the treatment of this affection in India, where it is very prevalent, I would suggest the following—namely, the affected region should first be washed with soap and warm water containing a little carbonate of soda, and then well dried. Acetic acid should then be thoroughly applied with a small brush, and after the lapse of about five minutes, when the acid will have soaked into the part, an ointment composed of chrysophanic acid—60 grains to an ounce of lanolin—should be rubbed in. This treatment should be carried out daily for such a period as may be necessary.

Unread Papers at Nottingham.

Knots writes: *Apropos* the criticism in the columns of the British Medical Journal and elsewhere regarding papers read and not read at the last annual meeting of the British Medical Association, will you kindly permit me, as a humble member—almost a complete outsider; unknown, or at least unnoticed, by any clique; without touting friends, and one of the unfortunates who was quietly pushed to one side at Nottingham—to ask the favour of space in your next issue for the following facts?

Long before any paper was publicly announced I wrote to a Sectional Vice-President that I would like to read a short practical paper on a very important as well as a very debatable subject. In due course the paper was announced, and I heard nothing more about it until after my arrival at Nottingham. My sole aim was to expose a bad, very bad, present day teaching in a particular practice and strive to have it amended. If wrong myself I was open to conviction and, if necessary, correction by a tribunal of special judges sitting in the special Section, and I was full of hope that good results would follow the discussion. I was, however, doomed to disappointment.

The Section in which I wished to read it had undoubtedly the advantage of a very able and exceedingly courteous honorary secretary—one of the rising men in his department; but his hands seemed to be tied in some mysterious way when he informed me that my paper could not possibly be read till the last day of the meeting—and only then if time permitted! This unexpected intimation, I need hardly say, both astonished and annoyed me. Thinking as a matter of course that "first in would be first served," I expected an early call, and had made arrangements to be at home on Friday; consequently my paper was not read and the subject of it still remains unravelled.

Might I venture to suggest the advisability of appointing a Committee of Selection in London, to regulate the papers to be read and the order in which they should be read at our future annual gatherings, and so try to prevent confusion and also avoid regrettable disappointments and annoyances, which are often as unintentional as they are certainly deplorable.

Unregistered Friendly Societies.

Rus writes that he also has had a difficulty in getting paid and getting a list of members from clubs. The only remedy I have found useful, he adds, is free personal abuse of the secretary in the presence of the members. It is not particularly dignified or pleasant, but very efficacious. Coupled with this I inform the members that a man who cheats the doctor is hardly safe to be trusted by anyone else. I think the question of unregistered friendly societies should be considered by the Association. I believe many of them are as honest and benevolent as an advertising usurer.

Orchid Tea.

Perfumed tea, says the *Daily Chronicle*, that leaves a lasting fragrance in the mouth, and is as good cold as hot—moreover, tea that can be used to flavour custards and ices and the aroma of which is further developed by "a drop of the cratur"—must indeed be a delectable beverage for picnic parties. This article, named "Faham Tea," is a product obtained from the flat dried leaves of a small species of orchid (*Angrecum fragrans*) with white flowers, which grows as a parasite hanging from trees in the forests of Mauritius and Réunion. Although the plant in question has been long known to botanists and the beverage used locally, its introduction to Paris as an article of commerce is quite recent. Samples of this "orchid tea," and of cigars made of the leaves, which emit a vanilla-like aroma, according to the *Bulletin*, are now deposited in the Kew Museum, and the plant can be seen growing in the orchid house. The above is especially interesting, as there are so few of the orchid tribe of economic importance; the plant may therefore be worthy of culture by our orchid amateurs.

The Closing of the Public Cattle Drinking Troughs.

Brigade-Surgeon R. Pringle, M.D. (Blackheath, S.E.) writes: The confession of helplessness conveyed in the circular letter of August 8th from the secretary of the Metropolitan Drinking Fountains and Cattle Troughs Association, stating that "the committee have reluctantly decided to close all their troughs in the metropolitan districts for a period of two months," really publishes to civilisation the most scathing reproach on the public health sanitary arrangements of the present day. When we think that this relates to the capital city of the nation, which justly stands at the head of all nations for its sanitary appliances and regulations for the protection of the public health, I feel that all sanitarians should consider themselves placed on their mettle to remove this reproach without delay.

Horses and cattle will now be taken to the troughs attached to many publichouses, which, as far as I can see, are not constructed so as to afford any protection from the spread of the infectious diseases traceable to these troughs; the action, therefore, of the Metropolitan Drinking Fountains and Cattle Troughs Association will, it is to be feared, only tend to the spread of glanders instead of its decrease. Having had, as sanitary officer of a large sanitary circle in India, occasion to take special steps for the prevention of the spread of foot-and-mouth disease and glanders among the Government horses and cattle, under circumstances which enabled me to exercise a constant supervision over these measures, I can state, as the result of this practical experience, that, with a water supply such as is available in the metropolitan district, nothing is more simple than the construction and maintenance of a cattle drinking trough at a very moderate cost which will effectually remove the risk complained of as regards the spread, not only of glanders, but of foot-and-mouth and other infectious diseases.

The present pattern of public cattle drinking trough, though in some respects ill-suited to meet the present emergency as regards the prevention of the spread of glanders, can yet, I feel certain, by some slight alteration in the mode of admitting the water, so far remove these risks as to admit of their being soon again opened. My pamphlet on the subject, describing the cattle drinking trough, on which I experimented in India, and which, when exhibited in London, secured the highest award—a silver medal in the Health Exhibition of 1884, and a special certificate at the Congress of the Sanitary Institute of Great Britain in the following year—fully explains the principles I recommend. These, to a certain extent, are capable of adaptation to the present public cattle drinking troughs, and would certainly reduce to a minimum the risk now so generally felt, and remove the necessity, which has culminated in an action the full consequences of which it is difficult to over-estimate.

Eucalyptus in Scarlet Fever.

Dr. J. B. Curgenven (Teddington Hall) writes: Below is a short report sent to me by Mr. Monro, the sanitary inspector of the Enfield Local Board, on the results he obtained from supplying the eucalyptus disinfectant for inunction in cases of scarlet fever. He gave it to the mothers and told them how to use it, but beyond that he did not see that it was efficiently used, and some of the mothers told him that they did not use much of it as their children objected. The inunction was not carried out under medical directions or supervision, and therefore it was imperfectly done. The results, however, I consider highly satisfactory. In 43 cases out of 54 there was no spread of the infection; in the remaining 11 cases, 3 occurred on the sixth and seventh days after the first, the usual period of incubation; they were clearly infected before the use of inunction in the first child; the other 8 occurred from two to eight weeks after the first, and may have become infected from imperfect disinfection of the first child or from some other source. When we consider how the poor neglect the plainest advice and directions without medical supervision, we cannot be surprised that in a few cases there may have been infection.

It is most important that this system of disinfection by inunction should receive a fair and unprejudiced trial, which I fear it is not likely to get from the advocates of carbolic acid, for if it is found on more extensive use so successful in arresting infection as it has been found to be in the hands of those medical men who have used it the disease may be arrested in the homes of the patients without the necessity of removing them to the hospitals.

Copy of report by Mr. Monro, sanitary inspector of the Enfield Local Board:—

Particulars showing results of supplying eucalyptus disinfectants at houses in which there were more than one child when a case of scarlet fever occurred and in some of which this disease spread.

From November 1st, 1891, to the end of January, 1892, there were 54 houses in all, and in 11 of these a second case occurred.

In the table below these are divided so as to show the time which elapsed between the occurrence of the first and second cases.

	Days.....	6	7	Weeks.....	2	3	5	8
Houses ...	2	1			3	2	1	2—11

LETTERS, COMMUNICATIONS, Etc., have been received from:

(A) Mr. G. Watt Anderson, Arbroath; Messrs. Astley and Roberts, Eastbourne; Mr. F. Adams, Upper Clapton; R. Ackerley, M.B., Ashburton. (B) Sir G. Birdwood, Acton; Mr. A. Bronner, Bradford; Mr. T. J. Bokenham, London; Mr. A. Bedborough, London; Mr. G. F. Blake, Dublin; Mr. R. Bevan, Lydd; Mr. A. W. Wynter Blyth, London; Dr. Bond, Gloucester; Mr. C. Biddle, Merthyr Tydfil; Mr. F. Burton, Colchester; Dr. J. H. E. Broch, London; Dr. J. E. Bowser, Penrith; Dr. Berdoe, London. (C) Dr. J. Cagney, London; Mr. A. S. Croly, London; Mr. E. M. Callender, London; Dr. H. Martyn Clark, Edinburgh; Messrs. Crawford and Warren, Dublin; Dr. Cagney, London; Mr. F. E. Cockell, Dalston; Mr. C. H. Collins, Bristol; Mr. W. R. Cornish, Dénard; Dr. J. M. Chadwick, St. Neots; Mr. H. Cartmel, Manchester; Dr. A. K. Chalmers, Glasgow; Mr. J. Court, Chesterfield. (D) Mr. W. H. Dickinson, Mayfair; Dr. M. Dick, London; Mr. C. Dukes, London. (E) *Electrical Review*, The Editor of the, London; Mr. C. T. Ewart, Colney Hatch. (F) T. W. Fletcher, M.B., London; Mr. J. V. Fitzgerald, London; F. P. French, M.B., London; Dr. Fortescue Fox, Strathpeffer; Surgeon-Captain R. H. Frith, Dover; Mr. G. M. Fergusson, Burnley. (G) Mr. G. M. Gould, Philadelphia; Dr. William Gow, London; Mr. R. H. Gliddon, London; Mr. A. Greenwood, London. (H) Mr. C. Hawkins, London; Dr. J. P. Henry, Lewisham; Dr. W. M. Harman, Winchester; J. H. Henry, M.B., London; Victor Horsley, M.B., London; Mr. A. Hope, London; Mr. C. W. Hunt, Manchester; Mr. E. L. Hussey, Oxford; Mr. G. H. Hopkins, Swansea. (J) J. R.; Justitia; Mr. H. M. Johnston, London; A Junior Member. (K) Mr. E. Keeley, Nottingham; Mr. W. Kimpton, London; Mr. J. B. Kenny, Killeshandra; Mr. James King, London; Kappa. (L) J. B. Lendrum, M.B., York; Mr. A. W. Loveridge, Newport; Lucum M.B. (M) S. J. MacCormick, London; C. J. Macalister, M.B., Liverpool; Dr. S. R. Macphail, Derby; G. R. Murray, M.B., Newcastle-on-Tyne; Messrs. Meyer and Meltzer, London; Mr. J. Dysart McCaw, London; Mr. H. G. Myles, Colehill; Mr. G. F. E. Morgan, Hartlepool; J. C. M. Macantyre, M.B., Dysart; Dr. G. H. Makins, London; Dr. G. Mackay, Edinburgh. (O) One of those in the Dark. (P) Dr. G. W. Potter, London; Mr. J. Penberthy, London; Dr. S. Reis Phillips, Virginia; Mr. Chas. E. Potter, Bradford. (R) Dr. R. R. Rentoul, Liverpool; Mr. A. Rajasingham, Aberdeen; Mr. H. H. Robinson, London; Mr. T. F. Raven, Broadstairs; Mr. G. Robertson, Edinburgh; Mr. J. Robertson, Banbury; G. Reid, Stafford; Rusticus Expectat. (S) Dr. T. H. Spencer, Exeter; Society of Apothecaries of London, The Secretary of the, London; Mr. W. M. Stanley, Edinburgh; Dr. Springthorpe, Melbourne; St. John Ambulance Association, The Secretary of the, London; Scientific Press, Limited, The Manager of the, London; Mr. A. W. Stokes, London; Mr. D. Stewart, Southampton; Mr. Priestley Smith, Faylingdales; Mr. R. B. Smith, Edinburgh; Mr. R. R. Sleman, London; J. A. Stewart, M.B., Glasgow; Dr. C. E. Shelly, Hertford. (T) Mr. A. Thomson, Oxford; Dr. Trevelyan, Leeds; Armstrong Todd, M.B., Market Drayton; Dr. Thorne Thorne, London. (W) Dr. A. Whitelegge, Henderwell; Dr. H. Woods, London; Mr. G. F. Webb, Dawlish; Mr. F. Woodhouse, Fulham; Mr. M. E. H. Walé, London; Mr. A. Wheeler, Edinburgh; Dr. Outterson Wood, London. (Y) Dr. Burney Yeo, London, etc.

BOOKS, Etc., RECEIVED.

Day Visions and Clairvoyant Night Dreams. By Joseph Darby. London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. 1892. Price, 1s.

Transactions of the American Pediatric Society. Vol. iii. Edited by Wm. Perry Watson, A.M., M.D. Fairchild and Co. 1892.

Modern Materia Medica. By H. Helbing, F.C.S. London: *The British and Colonial Druggist*. 1892.

Traité de Gynécologie. By S. Pozzi. Paris: G. Masson.

A Treatise on Diseases of the Nose and Throat. By Francke Huntington Bosworth, A.M., M.D. New York: W. Wood and Co.

Essentials of Diagnosis. By Solis-Cohen, M.D., and A. Eshner, M.D. Philadelphia: W. B. Saunders.

*** In forwarding books the publishers are requested to state the selling prices.

SIXTIETH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

PATHOLOGY.

Professor Victor Horsley, M.B., F.R.C.S., F.R.S., President.

THE PATHOLOGY AND TREATMENT OF MYXŒDEMA.

Remarks on the Treatment of Myxœdema with Thyroid Juice, with Notes of Four Cases.

By G. R. MURRAY, B.A., M.B.Cantab., M.R.C.P.Lond.,
Lecturer on Bacteriology and Comparative Pathology in the University of Durham College of Medicine: Pathologist to the Hospital for Sick Children, Newcastle-on-Tyne.

Professor Victor Horsley has so conclusively shown by his own original work[1] and by the experimental and clinical evidence brought forward in a recent paper[2] that myxœdema is due to the loss of function of the thyroid gland that further evidence in support of this view may seem scarcely to be necessary. The evidence which I



M. H. A., October, 1891. Before treatment.

wish to bring before you has however a double interest, for it both supports this view of the causation of myxœdema and shows how, by a practical application of this knowledge, the condition of patients suffering from this disease can be considerably improved.

In health the thyroid gland plays an important part in keeping the blood in a normal condition and in maintaining the natural metabolism of the tissues. This is shown by the changes which take place when it is lost and myxœdema comes on. This function of the thyroid gland is probably carried on to a considerable extent by means of its secretion, which is carried into the blood.

If this really be so, we ought to be able in a case of myxœdema to remove those symptoms which are due to the loss of this secretion only, by introducing the secretion from a healthy thyroid gland into the body of the patient in such a way that it can be slowly absorbed by the lymphatics and carried into the circulation as in health.

In the case of animals, G. Vassale[3] and E. Gley[4] have both shown that injections of thyroid extract remove the acute symptoms which follow thyroidectomy in dogs. Brown-Séquard and d'Arsonval,[5] reasoning from these results, suggested last year that injections of thyroid extract would do good in myxœdema. Previously to this, however, I had tried the effect of injections of an extract of the thyroid gland of a sheep in a well-marked case of myxœdema[6] with such satisfactory results that other cases have been treated in the same way. For the injections an extract of the thyroid gland of a sheep has been prepared freshly for me each week by Messrs. Brady and Martin, of Newcastle, in the following manner: The thyroid glands are removed from several sheep just after they have been killed. Each lobe is minced and then bruised in a mortar. For each lobe employed 1 c.c. of glycerine and 1 c.c. of a 0.5 per cent. solution of carbolic acid in boiled distilled water is added. The mixture is allowed to stand for twelve hours, and then squeezed through a cloth in a press so as to obtain as much liquid as possible from the mixture. All the apparatus used in the preparation is previously cleansed by boiling water and 1 in 20 carbolic acid solution.

In future the manufacturers are going to sterilise the extract by pressure at ordinary temperatures by means of the liquefied carbonic acid apparatus used by M. d'Arsonval.[7] This will minimise the danger of causing local inflammation and suppuration.

As a rule, ɱxxv of the extract have been injected with antiseptic precautions beneath the skin of the interscapular region once a week. In some cases it may be better to give a smaller injection of ɱx to ɱxv more frequently. The injection is

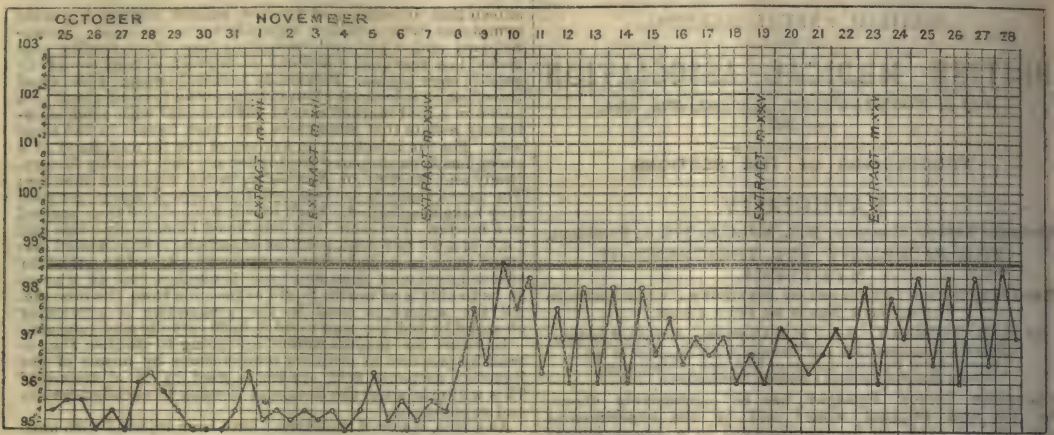


M. H. A., June, 1892. After treatment for seven months.

given slowly, so that five minutes are occupied in injecting ɱxxv. This is advisable, as occasionally some peculiar symptoms have immediately followed a rapid injection. These were flushing, nausea, and stabbing pain in the lumbar region. Once there was also loss of consciousness and general tonic muscular spasm for a few seconds. When given slowly, the injection can be stopped if the patient begins to flush. No pressure should be made on the seat of injection, as it seems probable that these symptoms are due to a too rapid entrance of the extract into the circulation.

Case I.—This case, related more fully in my last paper, was a woman of 46, who had suffered from myxœdema for four or five years. There was well marked swelling of the face and hands, dry skin without perspiration, subnormal temperature, languor, and slow speech. After treatment for three months the swelling had greatly diminished, the natural expression of the face returned, the skin became moist, perspiration returned, the temperature rose, and there was marked improvement in the mental and bodily activity. After four months a considerable quantity of new hair had appeared on the head and had grown an inch in length. In this case this improvement, with the exception of the temperature, has been maintained for ten months by means of injections of ɱxxv of the

[1] *Brown Lectures*, 1884.
[2] British Medical Journal, January 30th, 1892.
[3] *Rivista sperim. di Freniatria*, vol. xiv, fasc. iv, 1890, p. 439
[4] *Comptes Rendus de la Soc. de Biol.*, April 24th, 1891, p. 250.
[5] *Archives de Physiologie*, No. 3, July, 1891.
[6] British Medical Journal, October 10th, 1891, p. 795.
[7] *Archives de Physiologie*, No. 3, July, 1891.



extract, given on the average once a fortnight. The temperature remained subnormal unless the injections were given once a week. At one time this patient had no injection for five weeks; at the end of that time the symptoms began to return. She soon regained her former improved condition when the treatment was resumed. During the first thirteen months no local disturbance of any moment followed the injection. After the last injection, on June 4th, a large brawny swelling slowly developed, which suppurated. After incision it discharged freely and healed, but the myxœdema symptoms have in the meantime returned as the injections were discontinued.

CASE II.—In this case I was able to carry out the treatment by the kind permission of Dr. James Angus. The patient was an inmate of the Newcastle Hospital for Incurables—M. H. A., single woman, aged 52. The symptoms came on gradually twelve years ago, when the physician under whose care she was told her that she was suffering from myxœdema. Five years ago she was admitted into the hospital; since then she had lost nearly all her hair, but in other respects had not altered very much. When first seen (October, 1891) her aspect was typical. The features were thickened and swollen, the upper eyelids were swollen, and there was swelling beneath the right eye and round the neck; lips pale, but not much thickened. All the hair had disappeared from the head with the exception of two scanty tufts in each temporal region and a few scattered hairs in the parietal region. The scalp was covered with a brown layer of dried epidermis, which was very adherent. The hands were not notably swollen; the palms were dry and cracked. She walked slowly and with difficulty, and found it required considerable effort to do anything. The memory was not good, and she was very sensitive to cold. The skin was dry. The temperature varied between 95° and 96° in the left axilla. Pulse 72, regular. Urine normal. No thyroid gland could be felt. The patient was at her best when the treatment was commenced, and as cases of myxœdema get worse as winter comes on the improvement which took place may justly be attributed to the injections alone. The first was given on November 1st, and for three months mxxv of the thyroid extract were injected once a week. The first sign of improvement was in the temperature, which, after the end of the first week, remained above 96°, and after the end of the first month nearly always above 97°; so that during December and January the temperature ranged between 97° and 99° instead of between 95° and 96°, as before the injections were given.

On November 15th the patient said she felt warmer, the swelling of the face had diminished, and the dried epidermis was beginning to peel off the scalp. On December 8th the hair was beginning to grow again on the scalp, and nearly all the dried epidermis had disappeared: the swelling of the face had further diminished. On January 19th the general condition had improved steadily, the dried epidermis had all disappeared from the scalp, which was covered with new hair half an inch in length, the swelling of the face and neck was much less, and the hands were smaller. The skin was softer, and the patient was more active in mind and body.

During March and April the injections were given once a fortnight; the temperature remained one degree lower than with the weekly injections, and the patient did not feel so well. In other respects the improvement was maintained.

In May the injections were again given once a week.

A photograph taken in June showed very well the improvement which had taken place since the treatment was started. The expression of the face was brighter, and the swelling had practically disappeared. The hair had grown more than 2 inches in length. The skin had become softer, especially in the palms of the hands. By weekly injections, the temperature could be kept nearly normal. The mental and bodily activity had both improved very considerably. The patient had occasionally felt some *malaise* on the day of the injection, but this had been very slight when she remained in bed after it. Once the injection was followed by flushing, loss of consciousness, and tonic muscular spasm, lasting a few seconds; and once by flushing, nausea, and lumbar pain, lasting a few minutes. One injection caused an indurated swelling, which disappeared without suppuration, otherwise no inconvenience had been caused by the injections.

The next two cases also improved after the injections of the thyroid extract, but they show that patients with weak or degenerated hearts may die suddenly after the improvement has taken place, from cardiac failure after exertion to which they have for long been unaccustomed.

CASE III.—MRS. M., aged 62, was sent to me by Dr. H. Baumgartner. Symptoms of myxœdema had been present for six or seven years. There was swelling of the face and hands, dry skin, slow speech, and subnormal temperature. She was hardly able to get about the house. She suffered from great cardiac dyspnœa on exertion. Weekly injections of mxxv of thyroid extract caused very marked improvement. The swelling diminished considerably, perspiration increased. The bodily activity improved, so that she was able to walk out. Then she was confined to the house by an attack of bronchitis, and did not have an injection for three weeks. As soon as she had recovered, she went out, but, in trying to walk up a hill more quickly than usual, she died suddenly from cardiac failure.

CASE IV.—A lady, aged 64, seen with Dr. Hadfield Walker. The symptoms of myxœdema first began about five years ago. There was swelling of the face and hands, dry rough skin, absence of perspiration, loss of hair, slow speech, subnormal temperature, disinclination to make bodily efforts. For about a year she had suffered from considerable dyspnœa on exertion, and had had several attacks of syncope. The heart sounds were weak and intermittent, but no *bruit* could be detected. We concluded that she had some degeneration of the cardiac muscle.

In this case weekly injections, varying from mxii to mxxv of the thyroid extract were given for three months. Considerable improvement took place, so that scarcely any signs of myxœdema were left. She then went away to the country; but one morning, about a week after, while stooping to put on her shoes, she "fainted," and died in about half an hour from cardiac failure.

These cases show that thyroid extract can to a very considerable extent supply the place of the natural secretion which has been lost in myxœdema. A patient's condition can be much improved and the improvement can be maintained as long as the treatment is continued. This observation has been confirmed by Mr. Hurry Fenwick,[8] though I have not been able to trace any definite diuretic action to the injections such as he observed. Dr. Wallace Beatty,[9] Dr. Ernest Carter,[10] and Dr. Arthur Davies,[11] have also published cases in which similar results were obtained.

The disadvantages of this means of treatment may, I think, with care be overcome. The unpleasant symptoms which occasionally follow an injection may be obviated by injecting slowly, at the rate of 2 or 3 minims a minute. The danger of causing an abscess may be reduced to a minimum by strict aseptic precautions and by having the extract sterilised.

The cases with signs of cardiac degeneration should either not be selected for treatment, or they must be specially warned not to take any unusual exercise when the improvement takes place.

Dr. ARTHUR T. DAVIES communicated a case of myxœdema treated by the subcutaneous injections of the sheep's thyroid juice extract. G. W., aged 43, when he first came under Dr. Davies's notice, in 1887, presented the most typical features of

[8] BRITISH MEDICAL JOURNAL, October 10th, 1891.
[9] *Ibid*, March 12th, 1892, p. 544.
[10] *Ibid*, April 16th, 1892, p. 805.
[11] *Ibid*, April 30th, 1892, p. 911.

myxœdema. He had been a baker by trade, and was married and had three children. He had had scarlet fever and chorea in childhood. The symptoms of the disease began about 1879, and had varied, but latterly they increased to such an extent that he became almost helpless, and was admitted in October, 1891, to the Hackney Union Infirmary. The injection of sheep's thyroid juice was begun in December, 1891, and had been continued in accordance with the directions of Dr. G. Murray, with the exception of an intermission of about five weeks, until the time of the meeting.

The effect of the injections had been very remarkable. The patient had lost to a very great extent the œdema which disguised his real features and aspect; the hands had resumed the natural size; he had regained both mental and bodily activity, and had lost the feeling of chilliness. With the disappearance of the œdema there had been a concomitant loss of weight to the extent of 12 lbs; there had also been a rise of temperature to slightly above normal, and with this diuresis to a certain extent; there had been no bad symptoms whatever. It was noteworthy that when the injections were ceased for a few weeks, he began to regain his former aspect and to recover weight; at the same time he experienced the old symptoms of his myxœdematous state which were subsiding again under renewed injections.

Dr. Davies also showed photographs and temperature charts of Alice A. She was being injected twice a week, with the same results gradually appearing as in the case of G. W., namely, loss of œdema, loss of weight, rise of temperature, and diuresis.

CASE OF MYXŒDEMA WITH RESTLESS MELANCHOLIA TREATED BY INJECTIONS OF THYROID JUICE: RECOVERY.

The following case, reported by Dr. Claye Shaw (Medical Superintendent of Banstead Asylum), was read in his absence by Dr. Stansfield (Assistant Medical Officer): Mrs. H., aged 33 years, was admitted on April 20th, 1891, suffering from well-marked myxœdema accompanied by stupor and great muscular resistance, with exaggerated knee-jerk; the heart's action was feeble. She was married when 20 years old, and had had four children. After the birth of the second child, in 1882, she had an attack of melancholia, and then inflicted a wound on her throat. (Did she then injure the thyroid or its nervous or blood supply in any way?) Following this suicidal attempt she was aphonic for three months, but recovered after treatment with electricity and massage. Her voice, however, never quite recovered its original tone, and from having before been able to sing to G, she could never afterwards get higher than D on the register.

In February, 1888, four months after the birth of the third child, she became languid and disinterested in her occupation and her children, and gradually developed the myxœdematous condition. For this affection she was treated by some of the best known physicians in London and Edinburgh; but the mental condition became worse, and she was sent to the Banstead Asylum in April, 1891, about three years after the commencement of the symptoms.

During her stay in the asylum the mental symptoms were those of acute stupor or of restless melancholia. At times she could not be got to speak, but would lie on the floor with the limbs rigid; at other times she would weep and undress herself. Occasionally she was very dangerous to other patients, and, if not prevented, would put her arms so tightly round their necks as almost to strangle them; indeed, she was most homicidal. All sorts of remedies were tried without avail: hot baths, massage, injections of pilocarpine—until, indeed, profuse salivation resulted—tonics, and electricity; but not phosphorus, as it was known that it had already been tried unsuccessfully. Finally, Dr. Claye Shaw determined to try injections of thyroid juice. Dr. Stansfield undertook to prepare the juice and to keep the record of the treatment, besides examining the blood from time to time. Extracts from the glands of either sheep, calves, or cows were used, and the appended tabular statement, drawn up by Dr. Stansfield, shows the number of injections, the kind of juice used, and the condition of the blood from time to time as to proportion of hæmoglobin and corpuscles. At no time was there any albuminuria.

April 8th, 1892. Examination of blood: Hæmoglobin 70 per cent., corpuscles 4,533,333.
April 9th. Injected with thyroid juice prepared from sheep.
April 11th. Ditto.
April 13th. Ditto.
April 15th. Ditto. Menstruation appeared for the first time since admission.
April 17th. Injected as before.
April 19th. Ditto. Small abscess in site of the fourth injection; incised; menstruation profuse.
April 21st. Injected as before.
April 23rd. Injected with preparations from cow's thyroid.
April 26th. Two fainting attacks (to attacks of a similar character she had been subject ever since an attack of scarlatina when 17 years old).
April 27th. Injected (cow's thyroid). Blood examined: Hæmoglobin 75 per cent., corpuscles 4,533,333.
April 29th. Injected (cow's thyroid).
April 30th. Two small abscesses formed, which were incised on May 3rd.
May 6th. She wrote a coherent letter to her husband, the first letter written since admission.
May 7th. Did some needlework for the first time.
May 9th. Injected with calf's thyroid juice.
May 11th. Ditto.
May 13th. Ditto.
May 19th. Ditto.
May 22nd. Ditto (juice obtained from Brady and Martin, of Newcastle).
May 23rd. Pain and swelling in site of last injection.
May 24th. Injected with same preparation.
May 26th. Ditto.
May 28th. Ditto. Calf's thyroid (prepared at the asylum).
May 30th. Ditto. Blood examined: Hæmoglobin 80 per cent., corpuscles, 4,900,000.
June 1st. Last injection with preparation from calf.
June 10th. Sent out on trial for four weeks.
July 8th. Discharged; quite well in all respects. Weight on discharge 10st. 11¼ lbs.—about 2 stones less than on admission.

This, it was stated, was the third case of insanity with myxœdema treated in this asylum during the last fifteen years. The others exhibited, the one epileptic and melancholic mental state, the other dementia. Both of them died from intercurrent disease, and no special line of treatment was adopted.

In the case of Mrs. H., the mental change seemed to have manifested itself before the myxœdema developed, but there appeared to be little doubt of the dependence of the former on the constitutional habit, just as in phthisical insanity the signs of insanity showed themselves before the phthisical bodily symptoms. The improvement of the mental condition and the disappearance of the myxœdematous state followed so immediately on the injections, that there appeared to be no possible doubt of the connection between the two. The presence of hysteria was carefully eliminated. No effect upon the urine, either in quantity or quality was noticed, but the composition of the blood was materially improved, as was shown in the increase of hæmoglobin and corpuscles noted in the tabular statement. The patient had not been discharged long enough to permit any statement as to permanence of cure to be made.

Dr. Michell Clarke mentioned one or two cases in which the results were not successful. The first, a man, aged 48, in the Bristol General Hospital, was treated according to the rules laid down by Dr. Murray for over two months. He showed well-marked symptoms of myxœdema, puffy face, drawl in speech, slowness of mental operations, dryness of skin, etc. No change resulted from the injections in appearance or symptoms. The next case was that of a woman of middle age, who was treated for about six weeks. No change at all resulted from the injections. Dr. Michell Clarke considered that to be successful injections of thyroid juice should be administered very early, because, after the disease had lasted for some time the anatomical changes in the skin, sweat glands, etc., were so marked as to render it impossible to alleviate them. It was, however, very difficult to diagnose myxœdema in the early stage, as the symptoms, unless well-marked, might easily be mistaken. Transplantation was likely to be more successful than injections, the effects of which would seem more apt to be only temporary.

Dr. W. B. Ransom thought that, in the face of the results which had just been described by these independent observers, Dr. Michell Clarke took a too pessimistic view of the effects to be hoped for from injections of thyroid juice. The question as to how long the improvement produced would last was probably an open one at present. Dr. Ransom had tried the injections in two cases of exophthalmic goitre, in which the symptoms were very marked. The result was absolutely *nil*. In one case, after injections for a period of six weeks, the

patient was put on bromide and belladonna, and at once mended rapidly. Thus there was apparently little to be expected from this remedy in cases of exophthalmic goitre.

Dr. HEARN remarked that three of his patients had improved very much under treatment by injection of thyroid juice; but, at the same, he wished to give a warning against allowing the juice to be too rapidly absorbed, as one of his patients showed very extraordinary symptoms after the injection. First, the skin became so livid as to be almost blue-black; then followed tremors, quivering of the limbs, and complete unconsciousness, which lasted about a quarter of an hour. The patient then recovered, and within one week became as well as ever. That had been two months earlier, and she now showed a marked beneficial result of the injection in spite of the untoward symptoms, which, no doubt, were due to too rapid absorption of the juice of the thyroid.

Dr. RANSOM remarked that in his cases the total number of injections were very large. No precautions whatever were taken, and no unpleasant effects were observed.

Dr. STANSFIELD said that in his case no precautions were taken, though the patient's heart was weak, and she had been subject to fainting fits.

Dr. SIMS WOODHEAD remarked that in a series of experiments in which he had injected various extracts of different glands into rabbits, he was particularly struck by the effect on the heart, as very frequently degeneration of the muscle tissue ensued. This was a subject which he thought required special investigation.

Dr. MURRAY, in reply, remarked that in one case in which treatment had been carried on for thirteen months there were no cardiac symptoms before, and none since. In two cases in which death occurred suddenly after improvement, signs of cardiac degeneration were observed before the treatment was commenced. He believed that the unpleasant symptoms which occasionally appeared after injection might be due to the point of the syringe getting into a vein. In one case in which he observed flushing, pain, and loss of consciousness, these symptoms appeared within a few seconds of the injection. Since then he had injected always very slowly, and, if he saw flushing, stopped at once.

Professor HORSLEY observed that so far as he knew the only instance in which the method had been employed in cretinism was a case published by Bettencourt and Serraud, in which grafting was adopted; and in that case they claimed to have obtained a beneficial result. Professor Horsley agreed with Dr. Murray that the unpleasant results which sometimes followed injection were due to the injection being suddenly poured into a vein. This was a subject on which special experimental research was needed. He considered this treatment better than grafting, on account of the ease with which it could be carried out. Since, however, it was evident that the improvement was not permanent unless the injections were kept up, grafting would be the only thing that would offer a permanent cure. The disadvantage of grafting was that it was extremely difficult of performance, and for this the work of Von Eisselsberg should be consulted. As to the way in which this treatment might be supposed to operate, the view first put forward by Sir John Simon in this country was that the thyroid gland secreted some substance necessary for the nutrition of the nervous system. This view had been substantiated. It was impossible to come to any final conclusion, but it was reasonable to suppose that the thyroid gland very slowly altered certain products which were brought to it by the blood, that having thus altered them, it discharged them again by the lymphatics into the circulation. Such substances need only be very small in quantity to produce a very widespread effect. It was conceivable, therefore, that in these extracts of the gland such altered albuminoids were present, and that these when injected served for a time the needs of the economy. It was generally recognised that exophthalmic goitre was primarily a disease of the central nervous system, and that the condition of the thyroid was only one of the phenomena in this condition. Dr. Ransom's very interesting remarks further confirmed this position. Finally, Professor Horsley expressed the hope that Dr. Michell Clarke and any other observers would carefully record the instances in which no improvement has been observed, and that these might be as fully published as the successful cases.

THE PATHOGENESIS OF PANCREATIC DIABETES MELLITUS.[12]

Dr. VAUGHAN HARLEY (Grocer Research Scholar) said: There is no disease richer in clinical and experimental literature than diabetes mellitus, and certainly none that has had a greater variety of diverse opinions expressed regarding its pathology. During the last few years a more important stride has been made towards solving the difficult problem of its nature than ever was made before. The last three years having been particularly fruitful in this respect, we may expect that in the near future much of the obscurity which still hangs around it will be brushed away. I now propose giving a brief outline of what I regard as the probable pathogenesis of the form of diabetes mellitus connected with pancreatic disease. It is all the more necessary to confine myself to one special form, seeing that diabetes mellitus is not a pathological entity, but a complex clinical condition. Its seat of origin is not limited to one particular organ or set of organs; it may originate in a morbid condition of brain, nervous system, liver, pancreas, or salivary glands. Consequently what I am now about to say regarding the pathogenesis of pancreatic diabetes is to be regarded as being strictly limited to the pathology of that one particular form of the disease. For it would be as absurd to imagine that the pathogenesis of albuminuria as a whole could be explained by a reference to the albumen of scarlet fever alone as to think that the pathogenesis of pancreatic diabetes would explain the pathology of diabetes as a whole.

Before giving my ideas of the pathogenesis of pancreatic diabetes, it will be necessary to give the evidence we at present have that disease of the pancreas can cause a most severe form of true diabetes mellitus. This I will do from two sides: 1. The results of necropsies in cases of diabetes mellitus in which the pancreas has been found diseased. 2. The results of the recent almost conclusive evidence of experimental pathology, which has shown that the complete removal or destruction of the pancreas in dogs, cats, rabbits, and pigs is immediately followed by the same chain of symptoms as is met with in man.

Post-mortem Evidence from the Human Being.—Of the twenty-four cases I have been able to collect, in which the symptoms of pancreatic diabetes were more or less typical, and the pancreas was found markedly diseased, while all the other organs that are believed to be capable of causing diabetes were comparatively healthy, nineteen occurred in men, and only five in women.

The ages varied from 17 to 64. It will be seen in the table that, contrary to what happens in the other forms of diabetes, which are most common from 40 to 60, the pancreatic variety most often occurs in much younger subjects, being most frequent between the ages of 17 and 30.

Table of Ages at which Diabetes was accompanied with Pancreatic Disease:—

No. of Cases.	Age in Years.	Percentage.
9	17 to 30	37.5
3	30 to 40	12.5
6	40 to 50	25.0
6	50 to 64	25.0

The pancreatic variety presents yet another even more striking contrast, inasmuch as it usually runs a very short course, lasting only from eleven to thirty-two days. In the five most acute cases, three occurred in persons under 24 years of age, and they were all males.

The following pathological changes were noticed in the pancreas of the twenty-four cases I collected:—

In 2 acute abscess of the gland was met with.
" 3 carcinoma of the gland was met with.
" 2 hypertrophy of the connective tissue, due to calculi.
" 2 " " " without calculi.
" 4 cysts were met with in the gland.
" 2 complete fatty degeneration of the gland cells.
" 3 the entire gland was converted into a mass of fat lobules.
" 6 atrophy of the gland occurred.

In 12 of the above cases all the other organs of the body were found normal.

5 of the cases were complicated with phthisis.
1 " was " " congestion of the lungs.
1 " " " " primary cancer of the pylorus.
In 2 " the bile ducts were obstructed by the disease of the pancreas.
In 2 " there was atrophy of the liver.
" 1 " " enlargement of the liver.

[12] From the Physiological Institutes of Christiania and Leipzig.

Thus it is seen than in only three[13] out of the twenty-four cases was any other organ (which might have produced diabetes mellitus) affected. We have, therefore, a percentage of no less than 87.3 in which the pancreas alone can, with our present knowledge, account for the diabetes.

Pathological Evidence obtained by Experiment.—Here we obtain the most overwhelming proof of the connection of pancreatic disturbance and diabetes. In 1890, von Mering and Minkowski[14] pointed out that complete removal of the pancreas in dogs is followed by diabetes of a severe form; this statement, which cannot be doubted, has been confirmed by Heyden,[15] Lépine and Barral,[16] Dominicis,[17] Renzi and Reale,[18] and Lancereaux,[19] as well as by myself[20] by a series of experiments I made at Christmas, 1890.

For the sake of brevity, I will give collectively the results of the various experimenters:—

1. Only complete removal or destruction of the pancreas is followed by all the symptoms. This I, together with others, have found to be the case in dogs and cats, while others have found it in pigs; I have found it also occur in rabbits; Minkowski states that it does not occur in birds or frogs.

2. As soon as the animals recover from the immediate effects of the operation, they suffer from polyphagia, polydipsia, polyuria, and glycosuria, as well as an increased excretion of nitrogen by the urine. In the case of a dog I lately experimented on in Leipzig, 3.9 per cent. of sugar was excreted in the urine within twelve hours after the operation.

3. In spite of being well fed, all the animals rapidly lose flesh, and suffer from great muscular feebleness. They may lose as much as half of their bodily weight before death.

4. They often pass into a state of collapse or coma shortly before death. The urine at this time frequently contains acetone, diacetic acid, and β-oxybutyric acid.

5. In some cases there are remissions in the severity of the glycosuria, and when the emaciation is very advanced, or complications (such as peritonitis) arise, the sugar may be entirely absent, as was pointed out by Heyden and myself, and lately likewise by Minkowski. In other cases, shortly before death the sugar entirely disappears from the urine, as has often been noticed to occur in the human subject.

6. If the pancreatic juice be prevented from reaching the intestine by ligature of the pancreatic ducts, or by any other means, glycosuria does not follow; at least not until atrophy of the gland has occurred.

7. Neither is partial removal of the pancreas followed by glycosuria. Even when less than one-eighth of the entire gland is left I have found that there is no glycosuria.

8. After complete ligature of all the blood and lymph vessels connected with the gland, diabetes occurs.

From these facts, it has been argued by some that the diabetes produced by operating on the pancreatic gland may be caused by the lesions incidental to the operation. A decided negative to this is, however, given by the fact that partial extirpation of the organ is never followed by glycosuria, notwithstanding that in many of the cases there is identically the same amount of disturbance to the neighbouring parts and nervous system as when the whole pancreas is removed.

Furthermore, the latest experiments on the removal of the cœliac plexus and other abdominal nerves by Lustig, Oddi, and Viola, have shown that their extirpation was never followed by more than a temporary glycosuria and acetonuria, although there was caused considerable disturbance in the nutrition of the body, though not sufficient to prove fatal.

To give the pathogenesis of any disease is always more or less difficult, but to give that of pancreatic diabetes is exceptionally so, from the disease mainly arising from a defective nutrition. Consequently the first thing for me to do is to endeavour to show how far chemistry can explain why, when the pancreas is diseased, the presence of sugar in the urine is invariably accompanied by such grave symptoms.

As the human body uses up no less than from 3 lb. to 4 lb. of sugar every 24 hours the mere daily loss of a few hundred grammes or so would produce but a trifling disturbance to nutrition were it not for the severe bodily changes accompanying the sugar loss. We ought, therefore, to regard the appearance of the sugar in diabetes as merely a help to diagnosis and not in itself as the disease, just in the same way as a cardiac murmur is regarded merely as a help to the diagnosis of valvular disease of the heart.

The excretion of sugar with the urine must be due to one of two causes—either excessive formation or defective sugar assimilation. As there is in health an equilibrium between the amount found in the body and the quantity assimilated by the tissues, it follows that anything which upsets this equilibrium, either by causing an excessive formation or a diminished assimilation, increases the quantity of sugar in the blood, and, as a consequence, leads to its appearance in the urine. It was long ago pointed out by Cl. Bernard, that as soon as the quantity of sugar in the blood rose above 0.3 per cent. it was excreted in the urine. This statement has been confirmed by Brasol, Weyert, and myself. I have found, indeed, by experiments on the effects of sugar introduced into the circulation that it will appear in the urine when only 0.25 per cent., and even sometimes less, has been injected into the venous system.

In cases of pancreatic diabetes, instead of the normal 0.05 to 0.21 per cent. of sugar in the blood, there is from 0.3 to 0.46 per cent. This increase of sugar in the blood has been by some considered to be due to an increased formation; but to my thinking, this view is not supported by sufficient evidence.

Heyden suggests that the increased formation of the sugar may be due to an increased wasting of the tissue proteids, as there is always an increased nitrogen excretion, and a loss of weight. But as the proteids split up into a nitrogenous part, which is excreted as urea, and a carbohydrate part, which is excreted as CO_2, it would be necessary to assume that the sugar was formed from the carbohydrate portion, a point which still remains to be proved; at the same time, it must be explained why in this case the sugar is not itself, as in normal conditions, split up into CO_2. I have found that a dog 15 kilos in weight can assimilate 150 grammes of grape sugar injected into the jugular vein in less than five hours. That is to say, it can get rid of an excess of 10 grammes per kilo. of grape sugar over and above what is being normally formed in its body, when both ureters are ligatured so as to prevent any excretion by the kidneys.

Lépine and Barral[21] take quite another view of the matter, and consider that pancreatic diabetes is due to a want of a glycolytic ferment, which, in the normal state, is continually being formed by the pancreas, and poured along with the lymph stream into the general circulation, there to destroy the sugar.

Since it is known that not only the blood,[22] but all the tissues of the body, have a sugar-destroying function, in a more or less marked degree, it might be the want of the glycolytic ferment of the pancreas that upsets the equilibrium between sugar destruction and formation. The above-named two observers found that the blood of a dog, rendered diabetic by the removal of the pancreas, did not destroy so much sugar as that of a healthy dog.

That a diminution in the destruction of sugar in the blood, in cases of pancreatic diabetes, is not due to the presence in the blood of a substance possessing the power of preventing its destruction, but to the absence from the blood of some substance capable of splitting it up, was, I think, clearly shown by von Mering and Minkowski, who found that the transference of blood from the crural artery of a dog, after its pancreas had been removed for twenty-six days, and while it was passing 7.5 per cent. of sugar in its urine, into the crural vein of a healthy dog, did not lead to the elimination by the second dog of any sugar whatever in its urine. Another strong point in favour of the theory of a glycolytic ferment is the fact, lately stated by Minkowski,[23] that by grafting pieces

[13] As I have shown in another paper, ligature of the bile ducts is never followed by the appearance of sugar.

[14] Von Mering and Minkowski, *Arch. f. exp. Path. u. Pharm.*, vol. 26, 1890, p. 371, and other papers.

[15] Heyden, *Soc. de Biol.*, Paris, October 25th, 1890, etc.

[16] Lépine and Barral, *Compt. Rendus*, Paris, June 25th, 1890, etc.

[17] Dominicis *Otti della R. Academica medico chirugica de Naples*, 1891.

[18] Renzi and Reale, *Wiener med. Wochen.*, 1891, No. 33.

[19] Lancereaux, *Bulletin de l'Acad. de Méd.*, Paris, 1891, No. 38.

[20] Vaughan Harley, *Journ. of Anat. and Physiol.*, vol. 26.

[21] Lépine and Barral, *Lyon Méd.*, 1889, p. 619; 1890, p. 83 and 86; *Compt. Rendus*, Ap., 1890, Feb. and June, etc., 1891.

[22] Vaughan Harley, *Journal of Physiol.*, vol. xii., 1891, p. 391.

[23] Minkowski *Berlin klin. Wochen.*, Feb., 1892. He says he will later publish these results in full, as he merely gives the statement without the experiments to prove the point also how long hindered.

of the extirpated pancreas under the abdominal walls, after the removal of the whole pancreas, the development of diabetes is hindered.

These facts seem to support the view that the sugar is increased in the blood and passes into the urine, owing to its not being split up in the blood by an enzyme, whose normal function it is to split up the sugar, and render it thereby fitted for the purposes of assimilation by the organism.

Until we can find a better explanation than this, I think the glycolytic ferment view of Lépine and Barral ought to be accepted.

I will now endeavour to explain the probable cause of the chief feature of pancreatic diabetes, namely, the wasting that immediately sets in and accompanies it. It is generally considered that the wasting is due to the non-digestion and preparation for assimilation of the food.

1. *Fat absorption.*—Cl. Bernard said that the pancreatic juice splits up neutral fats into fatty acids and glycerine, and caused their emulsion; this view has been generally accepted, notwithstanding that Collin,[24] in 1856, showed that fat could be digested and absorbed without the aid of the pancreatic juice. This opinion was supported by Cash,[25] who further stated that neutral fats could be split up into fatty acids, even in the stomach, and that, contrary to the ordinary opinion, the contents of the intestine from the pylorus to the cæcum were acid, even in animals kept eighteen hours fasting, and then given only a diet containing fat and starchy substances; which is the more surprising as they do not cause so great an excretion of acid by the stomach as proteids do. As pancreatic juice cannot emulsify fats in an acid medium, he found that the fat was only in a state of small drops; the lymphatics were, however, filled with emulsionised fat. He considered that though the fat was taken up by the lymphatics from the intestine in a free state, it was converted into an emulsion on its way through the intestinal walls. This would be much the same as happens to the proteids, which appear to be taken up as peptones and converted into albumens in their transit through the intestinal coat. Cash found that on ligaturing the pancreatic ducts in dogs fat was still absorbed. A recent paper by Abelman,[26] shows that after complete removal of the pancreas, in five cases, from 28 to 90 per cent., that is, an average of 49.8 per cent. of fat was absorbed from milk; while after only partial extirpation as much as from 65 to 80 per cent., giving an average of 72 per cent. was absorbed.

2. *The tryptic ferment* is also unnecessary for the absorption of proteids.

3. The saccharine foods, again, if they were absolutely required in such cases, would, if given in excess, be absorbed and thus make up for a deficiency of diastatic ferment.

The cause of the wasting and muscular feebleness cannot, therefore, be explained by the non-digestion of the food, but must depend upon some other cause. This cause appears to me to be non-assimilation consequent upon a form of auto-intoxication arising from the substances normally excreted[27] by the pancreas being retained in the organism and there forming leucomaines, whose toxic effects lead to tissue waste and muscular feebleness. This view is supported by the fact that tissue wasting occurs both in cases of ligature of the pancreatic duct and of partial extirpation of the gland; and, seeing that in these cases no sugar whatever is lost to the system, the mere loss of sugar cannot be regarded as explaining the tissue wasting. The same line of argument is equally applicable to cases of pancreatic diabetes following upon complete extirpation of the gland, where, in spite of the cessation of the excretion of sugar in the urine, the tissue wasting still continues uninterrupted.

That the tissue wasting is in some way or another connected with proteid waste is clearly shown by the fact already alluded to, namely, that there is a great increase in the nitrogen excreted.

Neither do I consider that the nerve prostration and coma—so frequently met with as a termination both in experimental and in clinical pancreatic diabetes—are due to the mere loss of sugar. Consequently, the conclusions I draw from the above-mentioned facts are:

1. The sugar met with in the urine of patients suffering from pancreatic diabetes is probably due to the absence from the circulation of a sufficiency of normal pancreatic glycolytic ferments.

2. That the tissue waste and muscular weakness mainly spring from the retention in the organism of certain excrementitious substances, which, by forming toxic leucomaines, act as poisons and interfere with the normal nutrition of the tissues of the body, and in so doing give rise, as other toxic substances do, to functional disturbances and even death.

Dr. Ransom mentioned that he was showing in the Museum the section of a pancreas from a case of pancreatic wasting disease. The patient was a man, aged about 50, who had glycosuria of about a year's duration. It was tolerably severe; he passed some six pints of urine, the specific gravity of which was about 1040. Three months before he died the sugar entirely disappeared, but he continued to pass nearly as much water of a lower specific gravity, and, finally, some old tuberculous focus breaking down caused his death. Dr. Ransom attended the necropsy; he found the old tuberculous focus in the lung which had broken down, but nothing else save that the pancreas was rather red to the naked eye. On making sections, however, it was found that practically the whole of the pancreas was diseased; both necrotic and catarrhal degenerative changes destroying the glandular epithelium were present.

Dr. Ramsden suggested that the pancreas should be inserted and pancreatic juice injected in cases of pancreatic disease, in the same way as the thyroid and thyroid juice in cases of myxœdema.

Dr. Vaughan Harley pointed out that injection of the pancreatic extract had already been made during the last two years both in England and abroad, but with no result.

Dr. Ransom, referring to the experiments of Minkowski, said that in inserting the pancreas a sinus must be left to the exterior. Dr. Ransom had also injected pancreatic extract in diabetes without result.

Dr. Vaughan Harley, in reply to a question from Dr. Boyce, as to whether there was compensating hypertrophy of other glands in the cases of pancreatic disease in the dog, said that he himself had not specially investigated this point; the observations of others had tended to show that the other glands were not increased in size.

THE PATHOLOGY OF DIPHTHERIA.

Dr. Sidney Martin, F.R.C.P., gave an account of his researches on the diphtherial virus, illustrating his remarks by numerous beautiful lantern photographs showing the paralytic phenomena produced by injections of the toxalbumose, and the degenerative changes caused in the nerves.

ON THE FACTORS WHICH PRODUCE SEPTIC PERITONITIS.

Being a Report to the Scientific Grants Committee.

By Max Wälthard, M.D., M.R.C.S.Eng., of Bern.

(From the Pathological Department, University College, London.)

The question as to how far the peritoneum in a normal state is able to resist infection, and the further question what are the factors which go far to inhibit its powers of resistance, still await answer. It was principally with the object of answering the latter inquiry that the following investigation was undertaken. I may here say that a paper by myself on the subject, dealing with the history of previous experimental research, will shortly be published in the *Archiv für klinische Chirurgie*. Since in all laparotomies the perito-

[24] Collin, *Bulletin de l'Académie de Méd.* Paris, 1856.

[25] Cash, *Du Bois-Reymond's Archiv*, 1880, p. 323.

[26] Abelman, Ueber die Ausnutzung der Nahrungstoffe nach Pancreas-Exstirpation, Inaug. Dissert. Dorpat, 1890.

[27] The juice collected from a temporary pancreatic fistula, which is considered by most physiologists to be the normal secretion, is small in amount, seldom more than 10 to 20 c.c. daily—that is, 2.5 to 5 grammes per kilo of animal weight—containing from 8 to 10 per cent. of organic substances; while that obtained from a permanent fistula varies from 200 to 400 c.c. in quantity daily—that is, 45 to 100 grammes per kilo of animal weight—and contains only from 2 to 5 per cent. of organic matter. As the secretion from a temporary pancreatic fistula is collected immediately after an operation which causes considerable disturbance to the nervous system, while that obtained from a permanent fistula is yielded after the immediate disturbance of the operation has had time to pass off, I consider it is far more likely to be the true representation of the pancreatic secretion.

neal cavity is opened and the peritoneum exposed to the air, the first point to investigate was that to which Delbœuf has already devoted much attention—namely, the influence of simple exposure. Exposure involves of necessity the following conditions, all or each of which may be an injurious factor—drying, cooling, "irritation." The latter term is used to denote any theoretical effect which the atmospheric gases may be supposed to exert on the peritoneum. To answer the general question first, the following arrangement was adopted:

In almost all cases rabbits were the animals employed, and were narcotised with ether. All instruments were, of course, sterilised by boiling, the field of operation suitably guarded by an apron, and the abdomen closed by the continuous suture.

Experiment A.—The abdominal cavity was opened, and a moderate area of peritoneum kept exposed for fifteen minutes. The cavity was then injected with a pure culture of pyogenic micro-organisms, and the wound closed.

Experiment B.—The opening in the abdominal cavity was covered by a glass-domed cylinder, the top of which was perforated to allow of a chemical thermometer being inserted, and the sides of which were provided with tubulures and glass taps to permit the cavity of the cylinder to be filled with any required gas or vapour. An identical area of serous membrane being exposed, and the cylinder placed over it, steam was admitted into the latter, and the preparation thus kept moist and at a temperature of 40° C. for fifteen minutes. Finally it was, as in the first case, infected.

The result of such parallel experiments was that in A peritonitis occurred; in B it was absent. The next step was to differentiate between the factors before enumerated. By means of the simple apparatus just referred to, the peritoneum was exposed under the previously-mentioned plan to steam at 40° C. with the respective admixture of oxygen, carbonic acid, and nitrogen, and, finally, infection. In no case did peritonitis occur.

It is clear, therefore, that desiccation is the most important adjuvant factor in peritonitis. The practical conclusion to be drawn is that in all laparotomies the parts exposed should be freely irrigated with sterilised warm normal saline solution. Concerning the formation of adhesions several points are well worthy of investigation, since an ideal condition of the peritoneum after an operation should of necessity exclude the presence of adhesions.

The conclusions I am able to draw from my experiments are as follows:—

1. In an aseptic and "protected" (that is, by warmth and moisture) operation, with or without infection, no adhesions form between an injured surface if that is opposed to a normal one. Thus the abdominal cicatrix is not adherent to omentum nor bowel, and the serous covering of the bladder or uterus may be freely destroyed by the cautery without any adhesion forming between it and the neighbouring structures covered with normal membrane.

2. If two injured surfaces are free to move in the cavity, that is, by peristalsis, etc., no adhesion forms. The reason of this is that each injured surface moves opposite an uninjured area. That this is actually the case I have shown by immobilising the bowel by (*a*) giving opium after the operation, (*b*) fixing the parts by a ligature, and finding that under these circumstances adhesions invariably presented themselves. The empirical objections to opium after laparotomy thus find a basis in fact from the point of view of preventing adhesions.

As regards the freedom of movement, I should add that the force of peristalsis is sometimes sufficient to detach a silk suture uniting the sides of two coils of intestine.

Summary.

a. During laparotomy the peritoneum must be kept wet and warm.

b. In cases in which adhesion of serous surfaces is to be avoided opium should not be given.

PATHOLOGY OF TABES DORSALIS.

Dr. William B. Ransom gave a demonstration of the pathology of tabes dorsalis. Sections of spinal cord, spinal ganglia, and peripheral nerves from a case of tabes dorsalis were shown by the electric projection microscope. The following points were demonstrated:

1. Complete degeneration of posterior columns in the lumbar and dorsal regions, with degeneration of postero-internal columns in the cervical region of the cord.

2. Extensive degeneration of fibres of the posterior roots in the lumbar and dorsal regions, and a lesser change in the cervical region.

3. Integrity of the peripheral nerves in the arms and legs.

4. Longitudinal sections of the spinal ganglia showed degeneration of fibres on the proximal side, with healthy fibres issuing from the distal side, and increase of connective tissue and some diminution in the number of ganglion-cells in the ganglion.

5. A series of transverse sections of posterior root and ganglion showed degeneration of those bundles of fibres which entered the ganglion, while in the distal half of the ganglion healthy fibres began to appear, so that the efferent bundles were normal. They also showed a distinct fair-sized bundle of undegenerated fibres in the posterior root which runs past the ganglion without entering into it.

6. Serial sections of a healthy posterior root and ganglion showed the same bundle, which could be traced as distinct from the root to the efferent nerve riding on the top of the ganglion, without entering into relation with the cells.

Dr. Ransom, while reserving further consideration of the facts detailed, drew attention to the three following points: (*a*) the existence of a considerable bundle of fibres in the posterior roots which had no connection with the cells of the spinal ganglion; (*b*) the possibility of the supposed double trophic function of the ganglion being associated with two physiologically separate halves; (*c*) the fact that in a case where tactile sense was apparently unimpaired, only those fibres which did not enter the ganglia were normal.

A CASE OF GLIOMA OF THE CORONA RADIATA,

INVADING THE GYRUS MARGINATUS AND GYRUS FORNICATUS WITHOUT MARKED SENSORY DEFECT.

By LAURENCE HUMPHRY, M.D.,
Assistant Physician to Addenbrooke's Hospital.

Since the experiments of Professors Horsley and Schäfer upon the cerebral cortex, published in the *Philosophical Transactions*, vol. 179, 1888, in which are recorded the results of their investigations into the functions of the convolutions on the mesial aspects of the hemisphere, all lesions or tumours implicating this area have a special interest.

The case here recorded is that of a married woman, aged 41, who had continued her employment as a dressmaker until about three weeks before her admission, and stated that she had been in fair health, though suffering from severe headache and a feeling of sickness and dizziness. She had complained also for some weeks previously of increasing weakness of the right arm and leg. Three weeks before admission she fell downstairs, and was found there insensible and paralysed on the right side. She gradually recovered consciousness and was admitted to the hospital on July 8th.

She had never been pregnant nor was there any evidence of syphilis. Her father died of consumption. On admission she was noted to be a thin, spare woman, of sallow complexion, fairly intelligent; she complained of severe headache, affecting especially the left side of the head. The temperature was normal and the pulse weak. She was completely paralysed in the right arm and leg, and was very helpless when being raised in the bed. There was no paralysis of the face or sign of weakness of the facial muscles, and there was no evidence of paralysis of any of the other cranial nerves. There was no aphasia or speech defect. The pupils reacted well to light, but the left pupil was slightly larger than the right. Sensation was nearly perfect on the paralysed side as regards touch, pain, heat, and cold, but the localisation about the right wrist and forearm was quite perfect. The superficial and deep reflexes were well marked on both sides, and the knee-jerk on the right side was slightly exaggerated. There was much general prostration and muscular weakness, but as far as could be ascertained the movements and sensation of the left side were not impaired.

During her residence in the hospital she became steadily worse. Attacks of cerebral vomiting set in causing great exhaustion; her mental condition became dull and the understanding weaker; and towards the end she suffered from incontinence of urine; previously to this the bladder had always to be relieved by the catheter. An ophthalmoscopic examination was made rather late in the course of her illness, and was rendered difficult by her constant restlessness, but she was thought to have double optic neuritis.

Sensation was again examined about a week after admission, and she could indicate the part of the right arm or leg touched with a pencil, and also about the chest, but she was less accurate when touched about the wrist and ankle; she also clearly felt pain when pricked with a pin. With the exception of a short systolic murmur at the heart's apex there was no evidence of disease in other organs, and the urine contained no albumen. There were no vasomotor or trophic changes. She died on August 2nd, rather more than three weeks after admission, and about six weeks after the sudden attack of paralysis.

The *post-mortem* examination was made by Dr. Griffiths, pathologist to Addenbrooke's Hospital. In the left hemisphere of the cerebrum, on the inner side and extending to the mesial aspect, was found a soft vascular mass, the size of a small orange, measuring 1½ to 2 inches transversely,

2 inches vertically, and 2½ to 3 inches antero-posteriorly. It occupied and replaced the convolutions of the hinder and inner part of the frontal, and fore and inner part of the parietal, lobes, and extended downwards through the subjacent corpus callosum into the left lateral ventricle, so that the anterior and middle part of the gyrus fornicatus, the hinder half of the superior frontal, and the intervening part of the marginal convolutions, were replaced and destroyed together with the adjacent substance of the corona radiata where the growth had probably begun. The growth did not extend to the convolutions on the outer surface of the hemisphere, there being from ½ to 1½ inch of white matter intervening between it and the cortex. The lower and outer part of the growth came into very close relation with the most anterior and internal fibres of the internal capsule, but these did not appear in the main to have suffered much; there was, however, complete destruction of the left half of the corpus callosum in the area already mentioned, and the growth had even entered the lateral ventricle. The growth was very soft and vascular, contained scattered hæmorrhages of different ages, and was of the nature of a glioma. The other organs were healthy except the lungs, in the apices of which were the remains of a small amount of quiescent tubercle of old date.

The loss of power in the arm and leg was probably largely due to the lesion of the gyrus marginalis and the subjacent white matter, although it is possible that the motor fibres passing from the Rolandic areas to the internal capsule may have been interfered with or pressed upon in their course. It is often difficult in a case of hemiplegia, where there is great weakness of the bodily powers, to determine whether there is definite paralysis of the trunk muscles on one side of the body; and there was no positive evidence of this in this case; it was only remarked that there was unusual difficulty in supporting the patient upright in the bed. According to Professors Horsley and Schäfer, ablation of the marginal gyrus in the monkey on both sides is followed by complete paralysis of the trunk muscles, some paralysis of the arms, and very extensive paralysis of the muscles of the legs. Those which follow unilateral removal are perfectly well marked, but far less striking.

In so far as sensation was concerned, the case did not confirm the results of the experiments on the gyrus fornicatus. On the other hand, there was no trustworthy record of the woman's powers of sensation previous to admission; and it might be contended that sensation may have been impaired and recovered before she was examined in the hospital. The history showed that there had been for some time before the attack increasing paresis of the right side, and sensation also may have been impaired, and the fact passed over unnoticed. No definite evidence was forthcoming on inquiry from the relations, and it was only ascertained that she had been able to do her work as a dressmaker until three weeks before admission to the hospital.

From their experiments Professors Horsley and Schäfer find that an extensive lesion of the gyrus fornicatus is followed by hemianæsthesia more or less marked and persistent. In all cases in which the diminution of sensibility was well marked during the first three days, it has persisted, although with lessened activity, for many weeks in those instances in which the animals have been preserved for so long. In other cases in which apparently the lesion was slight, the diminution of sensibility, although at first well marked, subsequently disappeared entirely. In the detailed account of experiments even after periods varying from six to eleven weeks from the operation, there was still marked diminution of sensibility on the opposite side.

In a case recorded by Dr. Savill, in *Brain* (Parts liv, lv), of anæsthesia following a lesion of the gyrus fornicatus, there was rapid recovery of sensation (in the course of fourteen days).

The suggestion in these cases of recovery is that the other hemisphere assumed the functions of the centres involved in the lesion, and that as regards sensation this substitution may take place very rapidly.

It is noteworthy that in the case just recorded the lesion involved the corpus callosum on the left side, and thus blocked the most obvious path by which such crossing of the sensory fibres to the opposite side could have been effected.

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.—A division of this Society has been formed for the north of London. The President is Dr. Hooper May, and the Honorary Secretary is Dr. Lloyd G. Smith, both of Tottenham. The Council contains representatives from Edmonton, Southgate, Hornsey, Finsbury Park, Holloway, and Enfield, as well as Tottenham.

PUBLIC MEDICINE.

Sir B. WALTER FOSTER, M.D., M.P., President;
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SMALL-POX MORTALITY IN PUDSEY A CENTURY AGO.

BY W. LOVELL HUNTER, M.D.,
Medical Officer of Health of Pudsey, Yorks.

As records of small-pox epidemics before the introduction of vaccination are rare and always of interest, I venture to publish some figures from a register relating to the years 1775 to 1814, for the loan of which I am indebted to Mr. Joseph Newell, Registrar, Pudsey.

The curate in charge of the chapel of Pudsey, Yorkshire, the Rev. William Howarth, during the years above mentioned kept a register of the burials in the parochial chapelyard. This record gives the names, ages, and sex of most of the people buried, and, in addition, in the majority of the cases the curate has added the supposed cause of death. It is this voluntary addition to the register that makes the copy valuable as a record of small-pox. He also mentions at times the occupation of the person buried and the place of residence, but not often enough to make them of any value for statistical purposes. A register of baptisms was also kept by the curate for the same years. When the primitive state of medical knowledge a hundred years ago is taken into account, and also the fact that in giving the cause of death a popular nomenclature is often adopted, it would not be right to place too much reliance on the causes of death assigned—and certainly figures could not be safely founded upon them. Some exceptions may, however, I think, be made, and especially in the case of small-pox, which, on account of its prevalence and of its manifestations being so characteristic and apparent to the eye, was likely to be diagnosed with some approach to accuracy. One thing may be relied on, that the curate who kept the record had no object in falsifying the entries, and so that every entry was made in good faith.

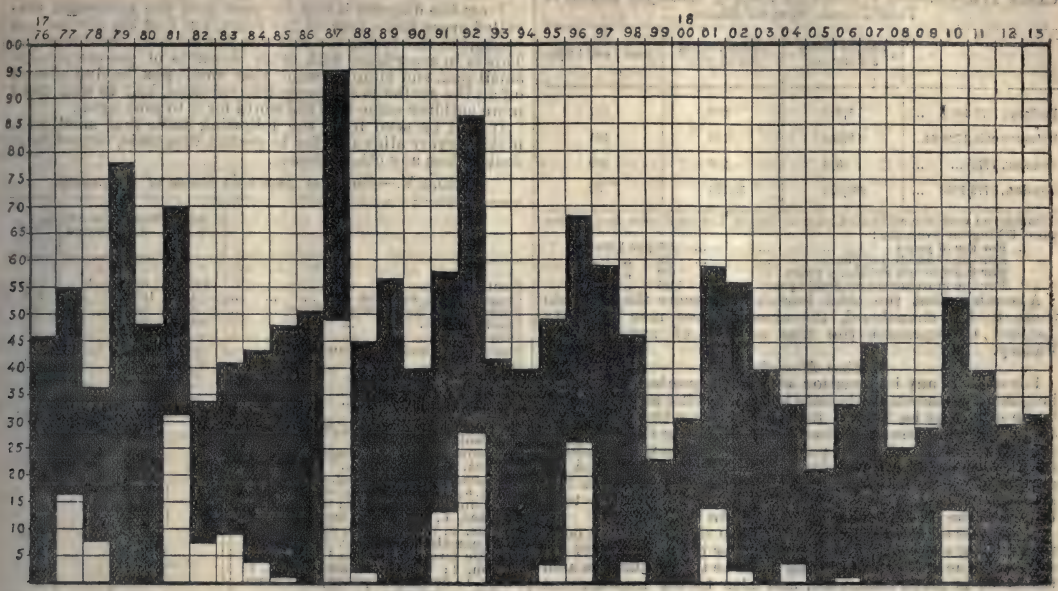
It is important to keep in mind that the manuscript refers only to burials in the chapelyard, and that there were at least three other burial places in the town, and also that some of the people were buried at the parish church at Calverly. I am not able to find out the total burials outside the chapelyard, but during the thirty-seven years we are considering 750 were buried in the Moravian graveyard, and during the years 1793 to 1813, 549 persons were buried in the Independent graveyard; so that it will be seen that those two together had about the same number of burials as the chapelyard. It also should be remembered that the curate in a number of the cases made no attempt to give a definite name to the disease that caused the death, and that in the case of children under 5 years of age he made this omission in 47 per cent. Obviously other cases of small-pox were buried in the other graveyards, and many cases of the same disease may have been buried in the chapelyard without being mentioned as such. These imperfections in the record, as has for the same reasons been remarked of the London bills of mortality, make the period referred to appear less unhealthy than it was.[1] I cannot find any information as to whether inoculation was practised or not.

No information of the population of Pudsey is obtainable before 1801. In that year the population was 4,422 and in 1811 was 4,697. For the purposes of calculation, the average population for the thirty-seven years 1777-1813 may be roughly estimated at 4,200. Pudsey is situated in a healthy position on a hill, the highest point being about 600 feet above sea level.

The manuscript begins on March 1st, 1775, and ends on June 2nd, 1814, on which day there is an entry of the burial of the curate who wrote it. From March to the end of 1775,

[1] In 1882 Dr. John McVail read a paper before the Philosophical Society of Glasgow "On the Prevalence of Small-pox in Kilmarnock in the Last Century." In 1884 Dr. Charles Paget read a paper before the Epidemiological Society "On Small-pox in Chester in 1774." In his Annual Report to the Local Government Board for 1884 Sir George Buchanan reprinted tables from the London bills of mortality in regard to small-pox. Although these papers deal with much larger and more complete figures relating to pre-vaccination times than the record I have come across, they may be used for comparison.

Diagram Showing Total Deaths and Small-pox Deaths for Each Year.



there were 27 burials, but no ages nor diseases mentioned. In 1776 there were 46 burials, and no ages nor diseases mentioned. In 1777 the curate began giving the ages and causes of death, and continued to do so pretty regularly until within a few months of his death. Table I gives the total baptisms, burials, and small-pox deaths for each year.

Table I.—*Total Baptisms, Burials, and Small-pox Deaths for each Year.*

Year.	Baptisms.	Burials.	Small-pox Deaths.
1777	58	55	17
1778	58	37	8
1779	56	78	—
1780	38	48	—
1781	80	70	32
1782	78	34	7
1783	78	41	9
1784	115	43	4
1785	62	48	1
1786	103	51	—
1787	88	95	49
1788	79	45	2
1789	88	57	—
1790	92	40	—
1791	97	58	13
1792	110	87	28
1793	95	42	—
1794	58	40	—
1795	72	49	3
1796	57	68	27
1797	54	59	—
1798	51	46	4
1799	63	23	—
1800	42	31	—
1801	56	59	13
1802	47	56	3
1803	62	40	—
1804	57	33	4
1805	56	22	—
1806	55	33	1
1807	59	45	—
1808	53	26	—
1809	38	29	—
1810	50	53	14
1811	33	40	—
1812	46	30	—
1813	47	32	—
Totals	2,121	1,743	239

Ages at Death.

Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	Over 60.	No Age stated.	Total.
375	381	113	117	294	325	138	1,743

The number of children baptised during the thirty-seven years was 2,421: males 1,126, females 1,195.

The total burials for the same years were 1,743: males 854, females 879.

The deaths assigned to small-pox were 239: males 113, females 126.

For the thirty-seven years (1777 to 1813) the average number of burials was 47.

For the nineteen years in which small-pox was recorded the average number was 53.

For the eighteen non-small-pox years the average number was 40.

For the thirty-seven years, 137 per 1,000 of the deaths of those buried in the chapelyard were caused by small-pox. During the nineteen small-pox years, 236 per 1,000 of the deaths were caused by it. During the eight years in which the greatest number of small-pox deaths was recorded, the ratio of small-pox to burials was 34.0 per 1,000.

Table IIa.—*Showing the Rate per 1,000 for the Eight Years.*

Years.	Total Burials.	Deaths from Small-pox.	Small-pox per 1,000 deaths from all causes.	Small-pox deaths per 1,000 living.
1777	55	17	309	4
1781	70	32	457	8
1787	95	49	515	12
1791	58	13	224	3
1792	87	28	321	7
1796	68	27	397	6
1801	59	13	220	3
1810	53	15	283	3
Average for eight years			340	6

Seven severe epidemic years, in round numbers.

TABLE II B.—*Showing Comparative Ratio of Small-pox Deaths to Total Deaths from all Causes.*

	Deaths from all causes.	Deaths from Small-pox.	Ratio per 1,000.
Pudsey, 1777-1813 ...	1,743	239	137
Kilmarnock, 1723-64...	3,860	622	161
Chester, 1774	546	202	369
London, 1779-1813 ...	668,888	55,178	82

Compared with the estimated number living, the small-pox death-rates were, taking the averages :

For the 37 years ... ... 1.5 per 1,000
For the 19 small-pox years ... ... 2.9 ,,
For the 8 severe epidemic years ... ... 6.0 ,,
For the most severe epidemic year ... ... 11.5 ,,

Assuming that the total burials were more than double those in the chapelyard, the above figures may be safely doubled to represent the true amount of small-pox in Pudsey.

Case Mortality.

For want of any information about the number of cases it is difficult to ascertain the case mortality with any certainty. Some clue may be had to it by considering the number of children born during the time and comparing this with the number that died of small-pox; 2,121 children were baptised in the thirty-seven years, so that, if all were attacked by small-pox, 1 in every 8.8 died. In Chester 1 in 14 never had small-pox, and if we deduct this proportion from the total baptisms the case mortality would be 1 in every 8.2.

A number of the children must have died of other complaints; for example, taking those under 1 year of age, 97 are entered as newborn, and adding to these the deaths in which the cause is given (about 60), and also taking into account that 101 burials have no disease mentioned, we get very close to the case mortality recorded for Chester, whose exact figures were available—namely 1 in 6⅔, or 145 per 1,000.

TABLE III.—*Sex Mortality.*

Small-pox Deaths.	Total.	Males.	Females.
Pudsey	239	113	126
Kilmarnock	659	318	341

Of the total burials 854 were males and 879 females, so that of each 1,000 males 132 died of small-pox, and 143 of each 1,000 females.

TABLE IV A.—*Age Incidence: Number of Small-pox Deaths at Different Ages.*

Age at Death ...	Under 1	1	2	3	4	5—10	10 and Over.	No Age Stated.
Number of Deaths...	38	68	44	25	17	27	4	16

The ages of those who died over 10 years of age were 10, 15, 16, 38, the latter during childbed.

Of the 239 small-pox deaths 38 were under 1 year of age, or 170 per 1,000; 193 were under 5 years, or 861 per 1,000; 219 under 10 years, or 982 per 1,000; 4 over 10 years, or 17 per 1,000. In 16 cases no age is stated.

TABLE IV B.—*Comparative Table showing Contributions of Various Ages to 1,000 Small-pox Deaths at all Ages.*

		Under 1.	Under 5.	Under 10	Over 10.	No Age Stated.	Totals.
Pudsey, 1777—1813	Deaths	38	192	219	4	16	239
	per 1,000	170	861	982	17	—	—
Kilmarnock, 1728—1764.	Deaths	118	563	606	7	9	622
	per 1,000	192	918	988	11	—	—
Chester, 1774.	Deaths	51	180	202	—	—	202
	per 1,000	252	891	1,000	—	—	—

Frequency of Epidemics.

From the diagram it will be seen that the epidemics prevailed every three, four, or five years, but that the disease was present in the towns for half the years under consideration. This is in accordance with other accounts of pre-vaccination small-pox, and simply meant that small-pox, having cleared off all the available or susceptible children, had to wait until more children came into the world for it to prey upon.

It will be seen from the following table that small-pox, making every allowance for imperfect diagnosis, caused more deaths than any other disease.

TABLE V.—*Causes of Death in Order of Frequency.*

	Under 5.	Over 5.	No Age Stated.	Total.
Small-pox	192	31	16	239
Consumption, scrofula, evil	1	165	7	173
Fever, putrid fever, nervous fever	8	82	2	92
Decline	44	22	5	71
Dropsy	—	68	—	68
Scarlet fever and sore throat	37	16	3	56
Convulsions	33	2	4	39
Measles	24	1	—	25
Inflammation of bowels...	3	15	—	18
Worm fever	14	2	1	17
Childbed	—	—	—	16
Palsy, paralysis, apoplexy, epilepsy ...	1	15	—	16
Accident	—	—	—	15
Chin-cough, whooping-cough	12	—	1	13
Asthma, 9; cancer, 8	—	—	—	17
Inflammation, 7; teething, 6; mortification, 5; white swelling, 4; croup, 3; bleeding, 3; jaundice, 3; ulcer, 3; gall stones, 1; bilious, 1; suppression of urine, 1; inflammation of bladder, 1; inflammation of liver, 1; ague, 1; hectic fever, 1; cholera, 1; quinsy, 1; felon, 1; thrush, 1; nettle rash, 1; flux, 1; hernia, 1; spasms, 1; rheumatism, 1; lethargy, 1	—	—	—	53
Ill-defined causes :				
Sudden	—	—	—	16
Newborn	—	—	—	97
Aged	—	—	—	109
No disease stated, or, on account of the age of the manuscript, not legible	—	—	—	597
Total...	—	—	—	—

TABLE VI.—*Mean Annual Death-rates per 1,000 estimated population for Pudsey, 1777 to 1813, and England, 1861 to 1885.*

Diseases.	Pudsey.	Whole of England.
Small-Pox	1.5	.17
Consumption	1.1	2.21
Fever—Putrid Fever—Nervous Fever	.6	.6
Scarlet Fever—Sore Throat... ...	.3	.75
Measles	.16	.41
Chin Cough—Whooping Cough ...	.07	.51

The figures of Pudsey may be more than doubled to give the total death-rate of the disease, as it is pretty certain that less than half the burials were in the parochial chapelyard.

TABLE VII.—*Scarlet Fever. Showing the Ages and Sex of the Cases.*

Age	Under 1	1	2	3	4	5	6	7	8	9	Over 10
Sex	M. F. 1 2	M. F. 6 5	M. F. 5 6	M. F. 3 2	M. F. 5 3	M. F. 3 3	M. F. 0 3	M. F. 1 1	M. F. 1 1	M. F. 1 1	M. F. 2 1
Total	3	11	11	5	8	6	3	2	2	2	3

During the 37 years 56 deaths are ascribed to scarlet fever or sore throat—28 males 28 females.

Consumption.

The number of cases of consumption was 168, only 7 of which were returned as under 5 years of age. This is another argument, if one be necessary, against the displacement of mortality theory, namely, that within the present century, deaths which used to occur in early infancy have come to occur between the ages 15 and 30. Consumption was one of the diseases pointed out as illustrating the theory. This theory was and is used as an argument against vaccination, as vaccination was said to be the cause of this supposed derangement.

This paper is merely a record of the behaviour of natural small-pox at a time when there was no isolation, disinfection, nor prevention by vaccination. The points of difference between it and small-pox modified by the above measures in regard to prevalence, mortality, and age incidence are obvious, and detailed comparison is not necessary. I may, however, note that since 1872 there have been only 2 deaths registered from small-pox in Pudsey. Vaccination in the town is efficiently carried out. Supposing, as Dr. Paget did in the case of Chester, that the protective influence of vaccination were not in force now in Pudsey, the following would be somewhat like the vital statistics we would expect for the town for the present year, 1892, varying as we base our figures on the recorded severe prevaccination epidemics in Kilmarnock, Chester, or Pudsey. (In Chester, 1 died in every 6¾ attacked; and Sir J. Simon says that at least 1 must have died in every six attacked during epidemics of prevaccination small-pox.)

TABLE VIII.—*Estimated Small-pox Statistics for Pudsey, 1892.*

Based on Epidemics in	Kilmarnock, 1754. Population, 4,200. Small-pox Deaths, 95.	Chester, 1774. Population, 14,713. Small-pox Deaths, 902.	Pudsey, 1783. Population, 4,200. Small-pox Deaths, 49.	Pudsey, 1783. Estimated total Small-pox Deaths, 125.
Pudsey.				
Population, 1892...	13,500	13,500	13,500	13,500
Deaths from small-pox	305	185	157	401
Probable amount of small-pox sickness...	1,830	1,110	942	2,406

Brigade-Surgeon PRINGLE said that the paper—at a great crisis in vaccination like the present—was very valuable. What was wanted was a knowledge of what small-pox was 100 years ago. In parts of India in which vaccination and inoculation were unknown, or at least unpractised, 95 per cent. of the population were marked with small-pox, but where vaccination as a substitute for scientific inoculation was fully accepted, the disease practically disappeared. The condition described by Dr. Hunter as occurring in Pudsey a century ago was one which this country would suffer from again if the present Vaccination Acts regarding compulsion were in the least relaxed. He protested against the suggested abolition of cumulative penalties. The long absence of small-pox in severe epidemic form in this country had led many to suppose that our sanitation would protect us from its recurrence, even if the stringency of our Vaccination Acts were quickly relaxed. It would be too late to prevent the horrors of a small-pox epidemic, such as was often seen in India thirty years ago, when the unprotected population increased to any marked extent. Dr. Hunter's paper, therefore, in its valuable details was most opportune, and sounded a note of warning which the country would do well to lay to heart.

Surgeon-Colonel HARVEY said he could confirm Brigade-Surgeon-Lieutenant-Colonel Pringle's statement as to the prevalence of small-pox in India. Some twenty years ago he found that every prisoner in the Arrah Gaol was marked with small-pox, either naturally or by inoculation, and 98.50 per cent. of the prisoners in the Alwer Gaol were similarly marked. The progress of vaccination in India had diminished this percentage, but if the efforts of the vaccine establishments were to relax it would soon go up again, and if the penalties for the neglect of vaccination were relaxed in this country he was quite sure that an unprotected population liable to small-pox would be gradually accumulated, and on the introduction of the disease an outbreak such as had been unknown in England for many years would occur.

PSYCHOLOGY.

WILLIAM BEVAN LEWIS, L.R.C.P.Lond., Medical Director of the West Riding Asylum, Wakefield, President.

DISCUSSION ON HYPNOTISM.

THE VALUE OF HYPNOTISM IN CHRONIC ALCOHOLISM.

Dr. C. LLOYD TUCKEY said that the field covered by hypnotic therapeutics was so extensive that there was some danger of confusion arising in the mind of the investigator and of his dismissing the subject with the remark that the value of suggestion in any given disease was discounted by the claims made by some of its practitioners to cover the whole domain of therapeutics. Individualisation and analysis were necessary preliminaries to the study of modern medical methods. Hypnotism had been the means whereby a considerable number of apparently hopeless drunkards had been won back to sobriety and usefulness, though it had proved very far from being the infallible panacea which the reports of some enthusiasts would lead one to expect. Even in cases in which no lasting good results had followed, no harmful effects, either physical or mental, had ever been observed. A short abstract of all the cases which had been under treatment since November, 1888, when he first began to use hypnotism seriously and systematically, up to January, 1892, was given. During that period he had treated thirty-two cases of chronic alcoholism by hypnotic suggestion, of whom twenty-one were males and eleven were females. Of the men he ventured to consider three as cured, for there had been no relapse for over two years. Six others were apparently cured, because, though they had been going on well, the time was as yet too short to judge of the permanence of the cure. In one of these cases death from typhoid fever cut off a very promising patient after six months. In five cases permanent good had resulted from the treatment, for, though outbreaks occurred, they were less frequent and of shorter duration; the treatment was being continued in these cases. In three cases temporary improvement was followed by relapse within three months, and further treatment proved ineffectual. In three cases no apparent effect was produced, but in these the conditions were most unfavourable, and the patient was only slightly hypnotisable. The result was not known in one case. Of the eleven women treated two had had no relapse, and were apparently cured. Two had had slight relapses, but they continued under treatment, and would probably be ultimately cured. In six cases relapses occurred within three months and one case was absolutely unaffected. She was, however, but slightly hypnotisable. As regards the type of disease, it was real dipsomania in the case of one man who had remained cured for three years, with only one slight relapse, and in two cases of men who had been permanently benefited. In all these there was proof of strong hereditary influence. It was dipsomania in the case of at least three of the women, and in two of these the disease was hereditary. In one of these cure would probably be effected, in the other two the effect of the treatment was only temporary. All positions of life were represented, and the stages of hypnosis attained varied from a slight degree of drowsiness to deep trance. Some of the cases had been cured when only a slight degree of hypnosis was present, while in others the treatment was ineffectual, though the deepest stages were reached. Two of the women, for instance, who relapsed in less than three months, were so susceptible to suggestion that a glass of beer which they were compelled to drink was immediately rejected by vomiting, in fulfilment of a suggestion. Most of the cases were bad, and many had been confined in retreats for various periods. The following conclusions were stated: 1. Hypnotism is an agent of great value in the treatment of chronic alcoholism, and it should be tried when ordinary treatment had failed. 2. It acted by augmenting the natural suggesti-

bility of the subject, and replacing morbid suggestion by moral ones, and by developing controlling or inhibitory impulses which were either undeveloped or had been allowed to fall into abeyance. 3. Though, as a general rule, the deeper the hypnosis the greater the effect of suggestion, some of the best cures could be effected when the patient was but slightly hypnotisable, and *vice versâ*, extreme susceptibility did not necessarily imply certain cure. 4. The patient should be under strict supervision during the first part of the treatment, to guard against the deception so commonly practised by these subjects. 5. Though relapse was serious, it should by no means always lead to the abandonment of the treatment, as perseverance was the first element of success in these cases. 6. In capable and conscientious hands the use of hypnotism in these cases was never attended with risk, but with the cure of the drink habit there invariably occurred an improved and higher moral tone generally.

THE USE OF HYPNOTISM AMONG THE INSANE.

Dr. GEORGE M. ROBERTSON, M.B., M.R.C.P.E. (Senior Assistant Physician Royal Asylum, Morningside, Edinburgh), said that apart from its use in physical disorders, hypnotism might be used among the insane as a direct therapeutic agent for the following purposes:

1. *In Insomnia.*—It might succeed in intractable cases, where drugs had not succeeded well. Hypnotic sleep, being more closely allied to healthy sleep than drugged sleep, must be of great service where the brain nutrition was already bad, without the additional depression of sedative drugs. In a case of recurrent mania, with insomnia lasting a fortnight, sleep lasting from four to six hours was produced by hypnotic means; whereas a combined dose of chloral 40 grs. and bromide of potassium 60 grs. only produced four hours' sleep, and lesser doses gave no benefit. On the very first trial hypnotic sleep was induced within two minutes.

2. *As a Sedative in Excitement.*—It might here be of direct therapeutic value in preventing an outbreak of excitement from passing into mania in a brain in a highly unstable condition. An impulsive outbreak in an epileptic, an hysterical emotional attack, or a fit of excitement in a recurrent or adolescent case, might all pass into mania, but if the patient was quieted and sent to sleep for a few hours this danger might be averted.

3. *To Dispel Fleeting Delusional States and the Minor Psychoses.*—By means of verbal suggestion in the hypnotic state these lesser degrees of mental derangement had been removed. A case of hypochondriacal melancholia, and the temporary confusion and dulness produced by a series of epileptic fits, were instances of this use.

In addition to its direct therapeutic uses, hypnotism might be used for purposes of management:

1. *To Overcome the Morbid Resistance of Patients for their own Benefit.*—Patients often refused to do what was necessary for their welfare, but by hypnotising them they could be made to do what was desired. Sulphonal was given very frequently in one case by this means, and recently a patient was induced to take food when hypnotised, after having been artificially fed for a week.

2. *As a Substitute for Restraint.*—In cases of excitement and violence, instead of mechanical, physical, or chemical restraint, hypnotism might be used as a form of mental restraint, either alone or in combination with the last. It was, however, uncertain, and not always possible. The insane were much more difficult to hypnotise than the sane, and the effect of verbal suggestion during hypnosis was much feebler and less permanent. Melancholics became hypnotised with difficulty, but cases of simple mania with great facility, and very fair success could be obtained among the more sensible and reasonable patients if their consent and confidence were gained. Results were, however, always uncertain. The introduction of hypnotism would not overturn the established modes of treatment or work miracles, but it would be found a useful minor therapeutic agent. Every physician should have a scientific understanding of the effects of mental suggestion, which throughout all ages had been used and was used, empirically and unconsciously.

Mr. DRAPER advocated the use of hypnotism in cases of alcoholism. He would try it in suitable cases of any disease. He had used it successfully in a great variety of cases, including epilepsy, hystero-epilepsy, and post-epileptic mania. He had never seen any ill-effect following its use during two years' experience of its employment in a large number of cases.

Dr. HACK TUKE said that it was eminently a subject which ought to be approached with an open mind. The results obtained by Dr. Robertson, taken with cases he had seen in foreign asylums, made him think that a good deal depended upon the tact of the operator, and he thought that the comparative want of success in some experiments made upon the insane, which had been published in England, might be due to lack of skill. As to starting ideas of "influence" in asylums by using hypnotism, if on this ground it was thought that it should not be introduced, then the battery must be excluded also. If the possible evils of hypnotism were urged, morphine must not be employed by reason of its fearful abuse.

Dr. BEDFORD PIERCE asked Dr. Tuckey if he considered that the results obtained in chronic alcoholism by post-hypnotic suggestion were greater than those obtained after a series of Salvation Army meetings. He did not doubt that striking results had been so obtained. Had not the care and attention and advice given by Dr. Tuckey more to do with the cure than the hypnotic suggestion?

Dr. STEWART (Clifton) said that several cases of inebriety had come lately under his care after hypnotism had been tried and failed. Inebriety was a disease of the brain which had gone so far as to affect the will-power. Till the injured brain tissue, which was the centre of will-power, had been rebuilt, that power could not be exercised. Unless the protective influence were kept up continuously for a long period it was useless. The inebriate who had been once restrained by hypnotic influence fancied he could go for another dose of the potent spell when he felt a relapse imminent. He discovered his mistake often when it was too late, and, valuable time having been lost, he had to resort to more effective treatment in order to be permanently cured of his disease. No case could be considered one of permanent cure till three years of absolute total abstinence had been completed after the conclusion of the treatment.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

OPIUM POISONING.

CASES of opium poisoning are not of infrequent occurrence, and the following case, which has come under my observation, may perhaps be of some interest as illustrative of the general rule in such cases, that a satisfactory prognosis cannot be made till some time after the severe effects of the poison have passed off.

G. N., aged 40, when alone in his own house, took, about 4 P.M., a draught of laudanum, supposed to have been 1½ oz. in quantity. I saw him first at 6.30 P.M., when his face was very livid, pupils pin-pointed, skin moist, cold, and clammy, gasping respirations at long intervals, muscles relaxed, pulse flickering, heart weak and slow, and quite unconscious. Apomorphine was injected without producing emesis, so the stomach was washed out well by the siphon tube, and the smell of the opium noticed. Mustard leaves were applied over the precordia, back and calves of the legs, hot bottles packed round him, energetic friction over the chest and extremities, and the skin whipped with a wet towel to rouse him. Artificial respiration was regularly kept up, and the continuous electrical current of 40 cells employed over various points. The friction, etc., was continued steadily until respiration became regularly established, which it did after five hours' work. Hot strong coffee was given per rectum. Urine was drawn off by a catheter, and found quite healthy. By 11.30 P.M. he was given coffee and digitalis by the mouth, and at 12.30 A.M. beef juice and capsicum. He slept comfortably for short intervals, and by 8 A.M. was a good deal better, and able to talk and take nourishment; and although his pulse continued very weak, the other symptoms had passed off. He

was a poorly developed man, and had recently had his foot amputated on account of a railway accident. Although apparently having recovered from the direct effects of the poison, later on in the day his heart became depressed, and, in spite of all stimulants, he died from exhaustion owing to the shock the system had received.

Bedford. ARTHUR CONNING HARTLEY, M.D., C.M.

INGUINAL COLOTOMY: A SUGGESTION.

THAT there are advantages as well as dangers in dividing the bowel in inguinal colotomy, and invaginating and sewing up the lower end after washing the fæces out, is, I believe, admitted even by those who never do it. Their objection to completing the operation in this way is based upon a case having occurred in which, the gut being twisted, the wrong end was sewn up and dropped back, with of course a fatal result; and Mr. Christopher Heath admits this to be a formidable argument against the practice in question.

But a method has occurred to me of obviating such a danger, though yet I have had no opportunity of practising it upon the living body.

In lumbar colotomy, when the gut is not much distended and cannot easily be found, it is usual to distend it with air or water pumped in *per anum*. Why should not the same proceeding be adopted in inguinal colotomy to enable the operator to decide which is the lower end of the bowel? With the gut held between his finger and thumb the distension on one or the other side would soon prove it. A bougie might even be passed up in cases in which ulceration, etc., did not bar its use. The fæces would usually of course have to be washed out from the divided end, though as the danger of doing this with an open peritoneum is not inconsiderable, it should be done *per anum* if possible. The objection that mucus may accumulate of course remains, but will it not accumulate nearly as much if a really good spur is provided? And considering that short mesenteries, and therefore deficient spurs, are of not infrequent occurrence, I think the suggestion deserves a trial, as tending to remove a great danger in the more radical operation.

Burdwan, Bengal. F. P. MAYNARD, M.B.

A CASE OF SO-CALLED "CEREBRAL PNEUMONIA."

DR. STURGES, in his work on *Pneumonia*, speaks of "cerebral pneumonia" as a term "of doubtful propriety." And it is only because brain symptoms were so extraordinarily prominent in the following case that I have ventured to apply the term, even with the qualifying "so-called" before it.

J. L., male, aged 7½ years, was seized with rigors, and pain in the right leg and the head on the evening of March 10th. The following day he was noticed to be feverish, and he twice vomited some bilious fluid. He remained in the same state until I saw him on March 13th, about midday. He was delirious and restless. He said he had pain in the right axilla. There was a short cough, and the breathing was quick and "catchy." The pulse was 140, and the temperature 105° F. There were no definite physical signs. On the next day—the fifth from the occurrence of rigors—I detected a bronchophonic whiff at the right apex. It was apparently a sharp attack of pneumonia without any unusual symptoms. Twelve hours later he was convulsed. He became insensible, with widely dilated pupils. The convulsions were frequently repeated, and each lasted from two to three minutes. Twelve occurred during the day. Squinting of the left eye now appeared, and the sphincter of the bladder, I feared, was paralysed, as the bed was saturated with urine.

Excepting that the involuntary micturition was not repeated—a fact which gave me much encouragement—the same state of things went on until the evening of the eighth day of the disease. He was then greatly exhausted. He had been insensible for sixty hours, during which time convulsions had been frequently recurring. He was alternately flushed and pale. He lay in a stupor, screaming at intervals. Yet there was no retraction of the abdominal wall, nor could I produce a *tâche cérébrale*. The pupils were equal, and there was no paralysis. The temperature had come down to 101.4°, but the pulse had run up to 156, and was very poor and thready.

When I saw him on the following morning the crisis of pneumonia had evidently occurred. The pulse had dropped to 116, and the temperature was subnormal. He was, however, greatly exhausted, and was bathed in sweat. I did not venture to make an examination of the lung until the next day, when I found satisfactory redux crepitation at the right apex. The lung resolved rapidly, and he made a good recovery in the end, but it was slow and very unlike the rapid convalescence from pneumonia in children, which is generally carried out *cito, tuto, et jucunde*. He was unable to stand by himself in a fortnight.

Broadstairs. THOS. F. RAVEN, L.R.C.P., etc.

PNEUMONIA, PARALYSIS AGITANS, TACHYCADDIA.

DURING the past winter a large number of cases of pneumonia came under observation. The two following presented interesting features:

J. R., aged 62, had suffered from paralysis agitans for two years. He had experienced much trouble for years. "Accumulation of depressing influences" (Sutton), aggravated by shock from exposure to a cold north-east wind, brought on a right lobular pneumonia. With the onset of the illness the movements in the hand and arm ceased, and did not return. The disease ran a very asthenic course, and the patient died on the eighth day.

F. R., son of the above, eleven days after his father's death, was attacked in a similar manner. A small patch of pneumonia was found just below the inferior angle of the right scapula.

	Morning.		Evening.	
	Temp.	Pulse.	Temp.	Pulse.
March 29th ...	100.2° ...	20, 22	100.8° ...	24, 32, 36
,, 30th ...	98.6° ...	32	100° ...	32
,, 31st ...	100° ...	28, 32	100.8° ...	32, 40
April 1st ...	99.5° ...	56	100° ...	68
,, 2nd ...	98.4° ...	76	—	—
,, 3rd ...	99.4° ...	68	—	—
,, 4th ...	98.6° ...	56	—	—

The pulse till April 2nd was very irregular and intermittent. On April 2nd it became quite regular.

The patient refused to take stimulants till the morning of March 31st. After this he took a teaspoonful of brandy every four hours, 20 minims of liquor ferri perchloridi, and made a good recovery. His normal pulse is about 76. Inhalations of oxygen in the first case were followed by only temporary relief to respiratory and cardiac distress.

P. RHYS GRIFFITHS, M.B., B.S.Lond.,
Medical Officer to Out-patients, Infirmary, Cardiff.

A CASE OF POISONING BY CARBOLIC ACID, WITH RECOVERY.

C. W., a rickety child, aged 4 years, swallowed at the Birmingham Workhouse Infirmary a quantity of carbolic lotion containing 180 grs. of carbolic acid. The child, when discovered, was lying unconscious on the floor. It was at once given some salt and water; this was swallowed, and shortly afterwards some of the contents of the stomach were vomited, and the child showed signs of returning consciousness. It soon relapsed, however, and a quarter of an hour later was completely comatose, with dilated pupils, insensitive cornea, and a barely perceptible pulse at the wrist. The circulation was kept up with hypodermic and rectal injections of brandy, while the stomach was washed out with three pints of tepid water, ℥j of olive oil being subsequently injected. The pulse, which was 166 when the child had recovered sufficiently for it to be counted, gradually increased in force and diminished in frequency, so that, at the end of two hours, it was 124 and regular. The pupils were now contracted, the face flushed, the skin perspiring very freely, and the limbs were occasionally moved. Next morning the temperature was 102°, and the child had vomited several times. It was kept on milk and beef-tea for several days, and made an uninterrupted recovery. The first portions of the urine were passed into the bed. A specimen obtained eighteen hours later was light yellow, free from albumen, did not darken when allowed to stand, and did not yield more than the normal quantity of indigo.

The interest of this case lies in the completeness of the coma and collapse, and the speedy response to treatment.

Birmingham. J. O. WAKELIN BARRATT, M.D., F.R.C.S.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

HULL ROYAL INFIRMARY.

A CASE OF JAUNDICE AND ASCITES DEPENDENT ON EARLY SYPHILIS.

(By EDWARD O. DALY, M.D.Oxon., Physician to the Infirmary.)

G. P., a labourer, aged 18, was admitted under my care on July 9th, 1891. He had enjoyed excellent health until the middle of June, when his body began to get large and his skin yellow. There was no history of any hereditary disease in the family.

There was well-marked jaundice, much ascites, hydrothorax, slight œdema of legs, some enlargement of the inguinal glands, absence of bile from the motions, much bile in the urine, scars indicating the existence of previous suppuration of cervical glands.

Regarding the symptoms in the first instance as most likely due to the pressure of enlarged (probably tuberculous) glands on the trunk of the portal vein and bile duct, vinum ferri and ol. morrhuæ were ordered, and eleven pints of fluid drawn off from the abdomen; after this the edge of the liver could be felt about 1½ inch below the ribs, and several of my colleagues thought they could make out irregularities on its surface. The ascites, however, quickly returned, and at the end of a fortnight he seemed in very much the same condition as on admission.

Though he denied having ever suffered from any venereal complaint, his penis was examined, and a chancre discovered on the glans. He seemed in perfect ignorance of its presence, though he admitted having had coitus during the first week in April, 1891, but never before that date. After four days' antisyphilitic treatment, the circumference at the umbilicus had lessened by 4½ inches, and after a month no fluid could be detected in the abdomen, and the jaundice had practically disappeared. He was discharged on September 5th.

REMARKS.—When marked jaundice coexists, as in the present case, with ascites and no bile is discovered in the motions, in the large majority of cases the obstruction causing the jaundice and the obstruction producing the ascites is due to the same cause, namely, pressure from without on the vein and duct as they lie together in the portal fissure, either by enlarged glands, tumours of the head of the pancreas, or cancerous, syphilitic, or hydatid nodules from the surface of the liver itself. Cirrhosis and cancer of the liver, which also produce jaundice and ascites, could be excluded by the history of the case, the age of the patient, and the complete absence of bile from the motions.

That syphilis was at the bottom of this case admits of no doubt owing to the rapid and complete disappearance of the symptoms under antisyphilitic treatment. Whether, however, gummata of the liver or enlarged syphilitic glands in the portal fissure were the cause of the jaundice and ascites was not definitely cleared up, though the absence of any marked enlargement of other glands, whilst those in the portal fissure were of such a size as to cause both ascites and jaundice, the hepatic enlargement, and the nodules on its surface point strongly to gummata. No doubt in the vast majority of cases hepatic gummata are found in a late stage of syphilis. This is not, however, invariably so, Mr. Hutchinson having recorded a case in which definite gummata were found *post mortem* in the testicles and spleen of a patient who died whilst a secondary rash was still out on the skin.

The chief interest of the case lies (apart from its obscurity in the first instance and the remarkably rapid disappearance of the symptoms under proper treatment) in the rarity of the association of ascites and jaundice dependent on so early a syphilitic lesion.

DR. PAUL BISCH has been commissioned by the French Government to study the methods of teaching pursued in the gynæcological clinics of Germany and Austria-Hungary.

REVIEWS.

ATLAS OF CLINICAL MEDICINE. By BYROM BRAMWELL, M.D. Vol. I., Parts 2, 3, 4. Edinburgh. 1892.

THESE parts complete the issue of the first volume of Dr. BRAMWELL'S splendid work, and quite maintain the high standard of the first part which we noticed on its appearance.[1]

The second part contains a full and admirable account of Addison's disease, with good coloured plates of an interesting case; and some woodcuts of microscopical appearances, copied from MM. Alezais and Arnaud. Dr. Bramwell allows that the disease is originally a tuberculosis of the suprarenal bodies; but thinks the general symptoms are due to the implication of nerve structures surrounding the capsules, and suggests that the tubercle bacillus may, perhaps, secrete some chemical substance which exerts an irritative effect upon the nerves. There is also a very good description of Hodgkin's disease, with excellent illustrations of typical cases, and an account without figures of melanotic sarcoma, with pigmentation of the skin.

The third part opens with an account of progressive unilateral atrophy of the face, or hemiatrophia facialis, a very rare affection, which is illustrated by portraits of two well-marked cases, one of which, that of a young girl, is particularly successful. The other case is clinically important in that the disease began in middle life and therefore supplies evidence of positive atrophy, not merely of imperfect development (aplasia) in consequence of a lesion occurring before growth was completed; which has been suggested as a sufficient explanation of this remarkable disease. Dr. Bramwell adopts the explanation that the wasting can only be due to a lesion of the fifth nerve, or of the ganglionic structures connected with it.

Cases of progressive bulbar paralysis, and of ophthalmoplegia, are illustrated by good portraits and full clinical discussions. The case of the latter disease in a child two years old, and accompanied by dactylitis of one finger, is very interesting clinically, on account of a history pointing to inheritance of syphilis, and complete recovery under antisyphilitic treatment. The illustrations, showing the condition before and after treatment, amply confirm this diagnosis, which was first made by Mr. Hutchinson from inspection of the photographs of the skin and hand.

Some remarkable cases of molluscum fibrosum, accompanied by enormous masses of pendulous skin (dermatolysis) are well illustrated and accompanied by brief comments. In these, as well as in the hints for the clinical examination of cases (an excellent feature in Dr. Bramwell's descriptions of diseases) we may point out the only serious omission we have noticed in Dr. Bramwell's clinical commentaries. No notice is taken of the remarkable connection of molluscum tumours of the skin with fibrous tumours of nerves so ably worked out by von Recklinghausen, in his classical memoir *Die Multiplen Fibrome der Haut und ihre Beziehung zu den multiplen Neuromen*, 1882; and confirmed in several cases by observers both in this country and abroad. It is not clear that all the skin tumours are nerve tumours in the sense in which the German pathologist supposes them to be, but this point should certainly be inquired into in all cases of molluscum fibrosum. The beautifully coloured plates of that extraordinary disease xeroderma pigmentosum, discovered by Kaposi, will be of interest to dermatologists, and not to them alone.

In the fourth part we have what may be called a treatise on small-pox, chiefly in its clinical aspects, extending over 28 folio pages, which would make a little volume. It enters very fully into the diagnosis and treatment, and is illustrated by three plates, from photographs, of different phases of the disease. As the coloured plate showing the eruptions of small-pox and cow-pox is taken from Rayer, we may be permitted to express the opinion that the representations are not, on the whole, very true to nature. Modern art ought to be able to give us something better.

The most original contribution in the whole volume is undoubtedly the interesting account of a case of globulinuria, being that of a patient whose urine deposited a large quantity of a crystallised globulin. The occurrence of a proteid sub-

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[1] BRITISH MEDICAL JOURNAL, August 22nd, 1891.

stance in a crystalline form permits of an unusually exact analysis, and the chemical investigation of this remarkable compound by Dr. Noel Paton adds much to the value of the report.

Four striking portraits of maniacs are given and briefly described in this part, a full discussion being reserved for the second volume.

Looked at as a whole the first volume of Dr. Bramwell's work consists of a large number of very valuable memoirs on important or rare diseases. It is beautifully illustrated, and we earnestly hope that his spirited enterprise will receive from the profession an amount of support proportionate to the labour and expense which have been lavished upon it.

Clinique des Maladies du Système Nerveux. M. le Professeur Charcot. Leçons du Professeur, Mémoires, Notes et Observations parus pendant les années 1889-1891, et publiés sous la direction de Georges Guinon, chef de clinique. Tome I. Paris: Aux bureaux du *Progrès Médical*. 1892.

The publication of a new series of Professor Charcot's lectures is always a matter of interest to the medical world, and there can be no doubt that readers of this volume will cordially endorse the view expressed in the author's preface as to the utility of thus bringing together "the most interesting lectures that have been delivered by him during the period from November, 1889, to November, 1891, and the most important papers that have been published in his *service de clinique*, under his direction, within that time."

A large portion of the book is taken up by descriptions of unusual or previously unrecognised manifestations of hysteria. "Blue œdema of hysterics" is the term given by M. Charcot to a condition which he first observed in 1889. The œdematous part is cyanotic, dry, cold; scarcely pits on pressure; may be anæsthetic or hyperæsthetic, or affected with motor palsy and contractures. The condition is often transitory; in one case it disappeared suddenly on the outbreak of convulsions. It can be produced in some hysterics by suggestion during the somnambulic state of hypnosis. M. Charcot regards it simply as a vasomotor trouble, probably spasmodic in nature. In making the diagnosis, syringomyelia, phlegmon, and Raynaud's disease have to be excluded. A photogravure of blue œdema of one hand, induced by suggestion, the other hand being unaffected, is given, and displays very clearly the swollen condition of the digits, hand, and wrist. Usually the phenomenon only occurs in patients who exhibit pronounced stigmata of their neurosis.

Under the title "Ophthalmoplegic Migraine," M. Charcot describes a rare form of megrim, in which the characteristic sequence of symptoms is hemicrania, emesis, and unilateral total ophthalmoplegia, excepting the fourth and sixth nerves. He has not met with records of more than twenty cases. One of the earliest was reported in 1882, by Dr. R. Saundby. In Germany the syndrome was first brought into notice by Möbius, in 1884; more recently German writers have applied to it the term "recurrent oculomotor paralysis." The palsy is almost invariably limited to the third nerve of one side—always the same side in the same individual; the hemicrania suddenly ceases when the paralysis appears. Potassium bromide, 4 or 5 grammes daily, has been found by M. Charcot to have a notable effect in diminishing the intensity and frequency of the attacks, also in averting the paretic phenomena.

Until comparatively recently it was generally held that in hysterical hemiplegia the lower half of the face escaped implication, contrary to what is often found in ordinary hemiplegia. M. Charcot shared that view, and pointed out that in the few cases reported as "facial hemiplegia in hysteria" the actual condition appeared to be spastic deformity. Later observations, however, have proved that hysterical facial paralysis may accompany hysterical hemiplegia in such a form as to make the diagnosis from capsular hemiplegia exceedingly difficult. In Lecture XIV, M. Charcot discusses this matter; he relates in full the symptoms in one of his patients which sufficed to convince him that his former position was no longer tenable.

Hysteric simulation of various forms of alternate paralysis; traumatic radicular paralysis of the first dorsal pair, with unilateral cord lesion, simulating syringomyelia; diabetic paralysis and cerebral syphilis are some of the affections considered in the remaining lectures.

The Essentials of Histology. By E. A. Schäfer, F.R.S. Third Edition, revised and enlarged. London: Longmans, Green and Co. 1892.

Teachers and students alike will welcome the third edition of this most excellent textbook. It may be recommended as the best descriptive and practical guide in a short compass that we have on the subject. Professor Schäfer is to be congratulated on the reception that the book has had, and also on the improvements he has made in the present edition. The general plan of the book remains the same. Some of the lessons have been subdivided, and some slightly enlarged. Many new figures are added. The chapter on muscle has been rewritten in accordance with the author's recent work on this subject. Among the new methods described we may especially call attention to Golgi's, Marchi's, and the author's modification of the Weigert-Pal process. These new methods of investigating the structure of the nervous system have been fraught with the most valuable results, as will be seen by consulting the text and new figures relating to this subject, and we may expect to see this even more fully in the new part of Quain's *Anatomy* which Professor Schäfer is editing, and which we understand is shortly to appear.

The Physiology of the Invertebrata. By A. B. Griffiths, Ph.D., F.R.S.(Edin), F.C.S. London: L. Reeve and Co., 1892.

This useful volume is the first comprehensive textbook on a subject which is daily growing in importance, and which, although it has hitherto attracted but a small body of workers, is a branch of biology of the utmost importance. The reason alleged by the author, in his preface, to account for its somewhat prolonged neglect, is, that it is rare to find men, who, being at the same time chemists and biologists, possess the necessary dexterity to master micro-chemical manipulations. Hence, when such an excellent chemist and biologist as Dr. Griffiths takes the compilation of such a work in hand, we expect great results, and it is not too much to say that our expectations have been realised.

The book deals consecutively with the more general physiology of the successive orders of the invertebrata; and gives a more or less complete, and certainly concise account of this department of biology. Although in many places the information seems scant, it is due rather to the want of scientific data, and not to errors of omission on the part of the author. Great things are expected from the application of modern physiological methods to lowly organised animals, and especially in the domain of physiological chemistry; the present volume, by consolidating the conclusions of workers in the field, ought to furnish a great stimulus to future study and experiment. There is much detail that might conveniently be added to the book which at present is rather a summary of conclusions than even an epitome of experimental work. Almost its sole drawback to general use is the antiquity of the classification adopted, it being one founded on that originally proposed by Huxley.

Comparative methods have in many cases failed to explain the functions of many invertebrate organs, and the application of chemical and physical methods is likely to be attended with great results. The plan of the book is to take the principle physiological functions, such as digestion, absorption, circulation, etc., in order, and to treat of them as exemplified in the ascending animal scale. The introduction dealing with the chemistry of protoplasm, although profuse in conclusions, is rather lacking in detail. The nervous system and organs of special sense follow the more general portions of the book, and the volume concludes with an account of reproduction and development. The usefulness of the work is enhanced by the addition of an index of authorities. Dr. Griffiths's work is certainly the best account of invertebrate physiology which it is on the whole possible to produce in the present state of our knowledge, and its use may be recommended to all classes of comparative anatomy students.

NOTES ON BOOKS.

Outlines of Medical Jurisprudence in India. By J. D. GRIBBLE and P. HEHIR, M.D. (Bombay: Thacker and Co. 1892.)—This is the third edition of a work which has already won for itself a recognised place in medical literature. It is of course more especially addressed to the practitioner in India, and most of the cases are drawn from Indian sources, but it is none the less a work of considerable interest for the student in this country. The book has been adopted by the Government of Madras as the textbook for that province, and it appears to be fully deserving of the honour.

The School Teacher's Ophthalmic Guide. By GEORGE S. P. FERDINANDS, M.D.Aber. (Aberdeen: D. Wyllie and Son. 1892.)—This little book has been "compiled for the use of school teachers," and the author in his preface states that "its sole object is to check the increase of defective vision among school children." The writer describes in simple language the mechanism of the healthy eye, making use of the time-honoured comparison between it and the photographic camera, and explains the conditions of emmetropia, hypermetropia, and myopia. He does this in a way which no intelligent school teacher can fail to understand, but he errs, perhaps, in assuming the correctness of theories regarding the production of these forms of ametropia. The second section instructs the teacher "how to test the eyesight;" and here again the author is plain and explicit in his directions. Following this we find notice of precautions recommended to "prevent the increase of defective sight," and these are classed as: (1) Those to be taken by the School Boards relative to the lighting, etc., of the rooms and the construction and arrangement of the children's desks; (2) those to be taken by the teacher and scholar, which consist chiefly in regulations as to posture. The author, perhaps, lays himself open to the criticism of school teachers for his use of the word "inhygienic" and for speaking of the school-child as "it." At the end of the book there is a sheet of test types, corresponding to the Snellen types for examination of distant vision. If read and acted upon by school teachers the author's work will undoubtedly be of value.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW FORM OF EVACUATOR FOR THE OPERATION OF LITHOLAPAXY.

MOST surgeons in practice in India must have felt the inconvenience of all rubber apparatus which are required to have the character of permanency. Under the usual conditions of climate in that country, and especially of that prevailing in the drier and hotter parts, it is difficult, if not impossible, to preserve rubber apparatus in a usable condition for any considerable time, as it dries and becomes so brittle as to be utterly useless for any purpose for which the property of elasticity is necessary. I have, therefore, as far as possible, eliminated the rubber element from all my surgical apparatus, substituting for it some metallic arrangement, and find it much more convenient under the circumstances. Frequently in Indian practice, also, the want of skilled assistance in carrying out details of surgical operation makes the use of certain apparatus either uncertain or impracticable.

In endeavouring to substitute a metallic arrangement for the ordinary rubber evacuators in the litholapaxy instruments of Bigelow and Thompson, as well as in the endeavour to find an instrument which would leave the operator's hands as free as possible for all necessary manipulations, the following instrument, retaining the principles of evacuators in common use, has been devised.

The main point to be secured was some compressing force, easily applied, to take the place of the elastic compressor in the ordinary instrument. This, as will be observed from the accompanying figure, has been met by the adaptation of a syringe and piston arrangement, and which consists of a barrel of similar capacity to that of the original evacuator, but divided into two parts, and a compound piston composed of a central rod and three outer rods, all connected at the distal end by a wooden cap, upon which the hand or finger rests in compression. At the proximal end, or that working inside the barrel, the central rod only is inserted into a vulcanite disc, while the ends of the other and outer rods are free. Fixed at either end and situated round the central rod is a soft metallic spiral coil, which is the essential part of this portion of the instrument and supplies the necessary elastic element in it. The lower end of the upper part of the barrel is covered with a perforated metallic diaphragm to prevent the admission of fragments of stone into this part, and screws into the lower and wider part of the barrel, into which is also screwed below the glass receiver by its metallic rim, while in front it carries the cannula.



From the figure it will be observed that the cannula is connected with the syringe by a tube furnished with two stop-cocks, between which is a division at the seat of a ball-and-socket joint, and placed there to supply the necessary amount of freedom of motion, as well as to secure cleanliness at this part of the instrument. The cannula itself is connected with the instrument by simple insertion a little lower down, and is secured in position by turning it into a slot in the side.

This essentially completes the changes on the instrument which I proposed to myself, and there only remains the detail of proper mounting. To meet this, I had constructed a heavy metallic stand, into which were inserted two upright rods of sufficient height to admit, by a sliding motion of a cross bar upon them, of the evacuator being fixed at any suitable elevation. From this movable cross bar extends upwards two upright pieces upon which rests the syringe, and which supports the whole instrument, these upright pieces being also divided by a hinge joint, so that a backward and forward motion is secured and is available, along with perfect fixity of the stand.

The most obvious advantages of the instrument as thus described are perfect fixity of the apparatus as a whole; its adaptation by means of the various joints to any necessary height or angle; its perfect action as an evacuator, and the substitution of metal for rubber in the main construction.

I have been much indebted to Mr. James Gardner, surgical instrument maker, Edinburgh, for carrying out my instructions for making the instrument with so much painstaking ability and care.

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THE ANNUAL MUSEUM: NOTTINGHAM MEETING.

DRUGS, FOOD PRODUCTS, APPLIANCES, DRESSINGS, Etc.

John Richardson and Co. Limited (Leicester) had an extensive exhibit, occupying one end of the main room. In addition to their well known Pearl-Coated Pills, which were shown in great variety, Compressed Tablets, Gelatine Discs, Medicated Lozenges, Pessaries, Suppositories, and Bougies were displayed, together with specimens of high-class Pharmaceutical Preparations in the form of Tinctures, Extracts, Liquors, Concentrated Mixtures, and many Medical Specialities. Amongst the latter were Liq. Papain Co., Liq. Nitritum, Extract Aletris Co., Liq. Kava Kava Co., Tinct. Cacti Grandiflor., Ung. Oleo-Resinæ Capsici, "Wytchylyne," "Anaspaline" (the new ointment basis recently introduced by this firm), etc. Flexible Capsules, Glycerine and Nutrient Suppositories, Antiseptic and Hæmorrhoidal Jellies, Granular Effervescent Preparations, Thymolodyne and other Soaps, Medicine Chests in wood and leather, and various novelties, filled the stall. In Section D, at Stand I, in addition to their Prize Dispensing Cabinet, which has been fully described at previous meetings, Messrs. Richardson and Co. had an extensive assortment of Surgical Instruments, containing, amongst others, the following novelties; Binaural Stethoscopes (Philpots's), Suppository Introducer (Paulson), Patent Spring Pessary (Hodge's), Vagina Speculum (aseptic), Douche with Water Gauge and Thermometer, Celluloid Caustic Cases, Hypodermic Syringe Case for the waistcoat pocket, Uterine Tubes, Aseptic, etc., together with a variety of Aluminum Instruments. The *Provincial Medical Journal*, and various publications, including *Diseases of Women* (Tait), *Oysters and All About Them* (Philpots), *Contemporary Medical Men*, also formed a portion of the exhibit. The "Sybarite" Dressing Gown, specially designed by a medical man for the use of members of the profession, is an ingenious garment, comprising a whole suit in one garment; it can be readily assumed, and would, it is suggested, be of great service for the purposes of interviewing night patients or visitors. The gowns are made in various materials, such as home-spun tweeds and flannel.

The Liquor Carnis Company (50, Holborn Viaduct, E.C.) showed their Malto-Carnis (Caffyn). It is claimed for this preparation that it is a combination of beef juice and malt extract. In virtue of the uncooked juice of beef and consequently meat-albumen which is present, it turns semi-solid on heating, and the cold filtered extract rapidly digests starch, while cocoa is evident to the taste. Analysis shows—mineral matter, 2.50 per cent. (rich in soluble phosphates); total solid matter, dried at 100° C., 66.28 per cent. Thus nutritious and stimulating elements are satisfactorily combined in this new preparation of the Liquor Carnis Company. The mixture is so carefully made that no suggestion of the raw meat element is to be perceived; in fact, Malto-Carnis makes a pleasant, refreshing, and very nutritious drink. Jelly Carnis (Caffyn).—Independent chemical examination has justified the claims made with regard to this preparation. It contains hæmoglobin unaltered, as shown by dissolving some jelly in cold water, and placing the solution before the spectroscope, when two well-defined absorption bands characteristic of fresh blood are very distinct. On boiling the solution a coagulum is obtained, and the filtered liquor no longer exhibits the absorption spectrum. One fluid ounce so treated yields 10.19 grains of solid albuminous principles. Further examination gives the following results—Moisture, 46.50 per cent.; organic matter, 5.59 per cent., chiefly consisting of soluble phosphate. The jelly is sweet and pleasant to the taste. Carnis Suppositories (Caffyn).—These form an elegant pharmaceutical preparation. A solution of the basis in cold water is clear, has the odour of raw beef juice, and coagulates on heating. A suppository melts in water heated to 33-34° C. (91.4-93.2°F.), liquefaction taking place in a few seconds, but a dry heat of the same degree has not this influence. Thus while the suppositories are permanent in the air, they are produced in a condition favourable for the absorption *per rectum* of the nutrient principles of which they are composed. Liquor Carnis (Caffyn).—This is a meat extract prepared in the cold. It is rich in nitrogen, and the ash contains phosphates in considerable quantity. The soluble albuminoids of the meat being well preserved, the fluid when heated turns into a semi-solid jelly. It is a valuable nutrient.

The Sanitas Company, Limited (Letchford Buildings, Three Colt Lane, Bethnal Green, E.C.) exhibited a full series of their numerous and intelligently-devised antiseptic and disinfecting preparations, including Sanitas Disinfectant Fluid, for disinfection of dwelling-houses, sick rooms, and hospitals, and for use in antiseptic surgery; Spray Producers, for the distribution of said fluid; Sea-Water Sanitas—a similar preparation—recommended for use in the bath, and as a deliquescent disinfecting agent for sheets; Sanitas Oil, for purifying the air, for fumigating purposes, and for the antiseptic treatment of lung, throat, and nose complaints by inhalation: it has been successfully used for ringworm; Crude Sanitas Fluid, for the disinfection of sewers, closets, ashbins, drains, and stables, kennels, etc., and for street watering purposes; Sanitas Disinfecting Powder and Sawdust, for general use in kennels, poultry-house, stables, cattle sheds, etc.; Disinfectant Jelly, an antiseptic dressing for wounds and burns; Urinal Tablets and Holders for same; Antiseptic Gauze and Absorbent Wool, for surgical use; Antiseptic Lozenges, for use in typhoid fever, cholera, etc.; Automatic Disinfectors, for purifying the air of rooms, waterclosets, etc.; Inhalers, for the antiseptic treatment of lung and throat affections; Disinfecting Fumigators, for disinfecting sick rooms and hospital wards; also a variety of toilet soaps and powders; Kingzett's Mercuric Bactericide, a patented combination of peroxide of hydrogen and corrosive sublimate; Kingzett's Patent Preserved Peroxide of Hydrogen, for use in antiseptic surgery and as a general oxidising and bleaching agent.

The Maltine Manufacturing Company, Limited, showed, in conjunction with Carnrick and Company, Limited (24 and 25, Hart Street, Bloomsbury, W.C.), Maltine, their well-known semi-liquid diastasic extract of malt, an excellent product; Maltine with Cod-Liver Oil, and various combinations of Maltine with drugs, such as Malto-Carrageen, Maltine with Lime, Maltine with Cascara Sagrada, Maltine with Pepsine and Pancreatine, etc.; Carnrick's Beef Peptonoids, Carnrick's Liquid Peptonoids, Peptonoids, Iron and Wine, and Soluble Food for Infants.

Mr. R. J. Downes (Lower Baggot Street, Dublin) showed "Sol. Iodi." When rubbed into the skin it is alleged to be freely absorbed, so that symptoms of iodism have followed its use. It is claimed not to blister or harden the surface, but can be rubbed in over the same part time after time. It is very easily applied—all that is necessary being to pour a few drops on the palm of the hand, or even one finger, and to rub the solution in persistently over the surface intended to be affected.

The Sanitary Wood Wool Company Limited (26, Thavies Inn, Holborn, E.C.). The exhibit consisted of the well-known Wood Wool Wadding, and Wood Wool Tissue, which have established themselves amongst the surgeons of this country, as dressings of recognised value for the absorption of discharges of suppurating and cancerous wounds. The annual turn out of the above dressings is stated to be 125,000 lbs.; and that they are adopted in more than 150 English, Scottish, and Irish hospitals. Another product shown was Hartmann's Wood Wool Towelettes, which are manufactured in four sizes and have been much employed by ladies on the European Continent; they are frequently employed in conjunction with Hartmann's Accouchement Sheets by those engaged in midwifery practice; by using them the risk of puerperal fever is considered to be diminished; they are undoubtedly comfortable and healthful appliances. To meet the convenience of obstetric practitioners these exhibitors have lately put up a Complete Outfit for Accouchement, containing the necessary requisites, such as Accouchement Sheets, Towelettes, and other articles necessary for the health and comfort of the lying-in woman. The price of the outfit is a guinea, and it has already proved popular and useful. By the advice of a surgeon of a Lock Hospital the Wood Wool Wadding has been utilised for the manufacture of Hartmann's Gonorrhœa Bags, and these bags seem likely to conduce to comfort and cleanliness. The Company showed,

for the first time at this exhibition, dressings useful for aseptic and antiseptic surgery. These included, first, Iodoform Gauze and Cotton Wool, which has, it is stated, been prepared up to the present in this country by simply dusting the gauze or cotton wool as evenly as possible with iodoform powder, then sent out as iodoform dressings. The exhibitors have departed from this method, and prepared a boiling solution of iodoform and pure alcohol, in which they steep the gauze or cotton wool, and in this way it is made possible for every particle of the materials to receive an equal impregnation of iodoform. They showed also good surgical dressings of Sterilised Gauze and Cotton Wool.

Messrs. Burroughs, Wellcome and Co. (Snow Hill Buildings) showed among other interesting and newly introduced pharmaceutical products: Blaud's Ferruginous Tabloids, 4 grains each; the great trouble with the old-fashioned pills of Blaud's formula is the probability of the ferrous carbonate being reduced through atmospheric influences and the presence of water of crystallisation, thus rendering ingestion of a comparatively insoluble salt of iron most probable; the tabloids contain the equivalent to 4 grains of Blaud's formula freed from water of crystallisation; they are greyish in appearance, and when moistened speedily develop the green colour characteristic of the formation of ferrous carbonate. Ergotin Tabloids, each containing 3 grains of standardised Bonjeau's ergotin; the necessity for an assayed and uniform preparation of ergot is readily recognised as important; the tabloids are sugar-coated, quickly and perfectly soluble, and reliable. Soloids of Corrosive Sublimate; these are blunt cones of a quickly soluble mixture of hydrarg. perchlor. and tartaric acid, coloured with methylene blue; the soloid will dissolve in a pint of cold water within two minutes, and makes a solution strength 1 in 1.500 for external use; the peculiarity in the shape and the colour render a mistake well-nigh impossible. Paroleine Naso-pharyngeal Atomiser and Paroleine Postnasal and Laryngeal Atomiser; these instruments are made with carefully-selected material throughout; the tubing is made entirely of thickly silver-plated metal, and the rubber bulbs, being specially prepared, do not become hard and crack as ordinary black rubber is apt to do; the atomisers may be employed for spraying any kind of solution, either oily, watery, or spirituous in character. The Simple Aseptic Hypodermic Syringe; this is easily cleansed and sterilised; the metal bars, being made of aluminum, are incorrodible; the graduated tube can be taken out to be washed, and fresh piston packings be put on the rod by the medical man himself as required; a supply of these packings are given with each syringe. Nose and Throat Tabloids; three formulæ of these are now made, namely, alkaline, alkaline and antiseptic, and alkaline and antiseptic (cocainised); these are intended for the quick preparation of solutions for gargling the throat or irrigating the nostrils; the labels in each case bear the formula in detail. Hypodermic Emergency Cases; a varied assortment of these, intended to suit the requirements of any member of the medical profession, was exhibited. The General Practitioner's Bag; this measures 14×8×6 inches, is made of morocco, and contains eighteen bottles of medicines, a pocket for bandages, lint, plaster, etc., loops for syringes, specula, forceps, etc., and space for all the instruments likely to be required by the doctor upon his round of visits; the bag is remarkably inexpensive. Suppositories (B. W. and Co.); those containing glycerine or those with hazeline consist of hollow cones of cocoa butter filled with glycerine or hazeline and hermetically sealed; the cocoa butter melts readily and the medicament is brought directly in contact with the mucous membrane. Glycerinum-Pepticum (Fairchild); this is the fresh secretion of the glands of the pig's stomach dissolved and preserved in pure glycerine; it is free from disagreeable odour and flavour, and 12 minims will digest 2,500 grains of coagulated egg albumen, according to the prescribed test. Kepler Essence of Malt is a very active diastasic solution; it is palatable, and makes an excellent drink mixed with aërated water. Ichthyol Tabloids (2½ grains), sugar-coated; this extremely nauseous drug is thoroughly disguised; the tabloids are easily swallowed and are quickly assimilated.

The Universal Tea Company, Limited (100, Market Street, Manchester) exhibited the Universal Digestive Tea, which consists of the selected leaves of the tea plant from India, China, and Ceylon, blended together, dried and prepared, it is alleged—but of this we know nothing—"upon a new principle, by which the tannin is entirely neutralised or rendered inactive." If this claim be correct and well founded—which we by no means guarantee—such a palatable and attractive tea, retaining its alkaloid and aroma, should be valuable as a dietetic.

Messrs. John Wyeth and Brother (Philadelphia, Pa., U.S.A., and 30, Snow Hill, London, E.C.) showed Wyeth's Beef Juice, a liquid preparation of beef containing the nutritious albuminous principles in an unaltered and soluble form. This is a dark reddish-brown liquid of pleasant beef-like flavour, and is free from objectionable preservatives. The albuminoids are found in the condition in which they occur in freshly expressed juice of beef. No less than 14 grains of solid albuminous principles are contained in each fluid ounce. The characters of beef juice are preserved unchanged, although the preparation has been carried to a high degree of concentration. The hæmoglobin has been preserved in Wyeth's beef juice, and altogether it is a preparation of great merit. Other exhibits of this firm were Digestive Ferments, Pepsin, Pancreatin, and Amylopsin; pepsin exhibited in the form of a pure soluble powder for use in manufacture of wines, elixirs, etc.; pure powder insoluble for use in preparation of pills, powders, lozenges, etc., and pure granular soluble, very speedily soluble in water or other liquids. Each of these forms of pepsin are of such standard of strength and purity, that the requirement is fulfilled of 1 grain being capable of digesting 2,500 grains of coagulated egg albumen. Messrs. Wyeth also exhibit a sample of so-called *B. P.* Pepsin which they have prepared especially for this market, answering all the requirements of the *British Pharmacopœia*, and "without the addition of starch, sugar, or other extraneous substances." Pancreatin is also exhibited containing the properties of trypsin, amylopsin, and steapsin in a concentrated and active form, and in such proportion as to answer demands for the conversion of starch, the assimilation of oil or fat, and to digest the casein in milk. Amylopsin was also exhibited. This is the starch-converting ferment of the pancreas in a very pure and active form. One grain of this amylopsin is stated to convert 250 grains of starch into sugar and dextrine in three hours when subjected to a temperature of 105° F. Wyeth's Compressed Ophthalmic Discs, for the convenient and extemporaneous and efficient treatment of all the affections of the eyes. These are apparently very neat and elegant reproductions of the ophthalmic medicated gelatine discs successfully introduced by Mr. Ernest Hart into practice some twenty-five years ago, when ophthalmic surgeon and lecturer at St. Mary's Hospital, Paddington, and first manufactured for him by Messrs. Savory and Moore. This system of carefully-dosed medication by medicated discs has meantime been most extensively adopted in practice both for external and internal use, and spread throughout the world. The discs showed by Messrs. Wyeth are extremely well manufactured, and their practical utility excited considerable interest, and will, in their opinion (in which we concur) prove a valuable adjunct to the armamentarium of the medical profession. Eighty different formulæ and combinations were exhibited. Compressed Hypodermic Tablets, which have attained to an enormous use by this firm's American *clientèle*, and Elixir Digestive Ferments completed the list of articles in this intelligent exhibit.

Messrs. Hopkinson and Co. (Lenton Road, Nottingham) showed a very well-selected variety of Coated Pills and other Pharmaceutical Preparations, Concentrated Hospital Mixtures, Nutrient Suppositories, Antiseptic Dressings, etc. One preparation special to themselves, and which is said to be very successful in the treatment of chronic rheumatism, gout, and lumbago is that which they prepare under the name of Liq. Colchichi Salicyl Co.; 60 minims diluted contain $\frac{1}{30}$ of a grain of salicylate of colchicin.

Messrs. Salamon (Ferry Road, Rainham, Essex) exhibited specimens of their purest Chloroform, of which we have already had occasion to speak favourably.

Messrs. Tucker and Co. (51, Paddington Street, London, W.) showed Eucalyptus Oils and Preparations: Oils of Eucalyptus Globulus, Amygdalena, Citriodora, Oleosa, and others. "Oleusaban" Eucalyptus Disinfectant Fluid, A., B., and Powder. Eucalyptus Emulsion, Spray, Liniment, Fluid

Extract, Lozenges, Pastilles, Nasal Salts, Ointment, Vaseline, Soap, etc. Elixirs: Aperient, Cathartic, Caffeine, Cinchona, Iron and Quinine, Orange, etc. Emulsions: Benzoin, Castor Oil, Cod-liver Oil, Terebene, etc. Mixtures (concentrated): Catarrhal, Cinchona, Copaiba Co., Donovan's Rhubarb, etc. Lacsacchars of Aloin, Caffeine, Capsicum, Cascarin, Croton Oil, Hydrarg Iodine, Jalapin, Strychnine, Opium, Morphine, Pepsin, Podophyllin, Strophanthus. Arseniate of Soda, etc.; Oleosacchars of Carraway, Cloves, Dill, Eucalyptus, Lemon, Orange; Oleusahs of Cayenne, Celery, etc.

Messrs. Christy and Co. (25, Lime Street, E.C.) showed their Christia, which is a thin, soft, and flexible tissue, of which we have already spoken favourably. It is a substitute for oil silk and other impervious dressings, and in price, weight, and resistance it has many advantages, and is coming much into use. Fibrine Christia, a very fine silk, stronger and lighter than ordinary Christia, which it otherwise resembles. Also specimens of Cactus Grandiflorus, in fluid extract and tincture, a cardiac tonic, the use of which is favoured by some practitioners and is alleged to be free from the so-called cumulative action of digitalis, and relatively unobjectionable to the palate. Their Antophors, or Spring Bougies are so pliant that they can be knotted like a Jacques catheter, and at the same time are sufficiently stiff to permit of their introduction into the urethra with ease and without discomfort. They can be medicated with any desired remedy to suit the individual requirements of the surgeon, and are announced to be very effective in all forms and stages of gonorrhœa. Anderson's Vaginal Capsules are intended for facilitating the method of treatment adopted at the New York Women's Hospital, and by some leading gynæcologists. These capsules are very soluble, are made with carbolised gelatine and filled with absorbent cotton, to which is attached a thread for removing it from the vagina when no longer needed. The capsule dissolves in about ten minutes after its introduction, and the cotton may be retained as long as from twelve to twenty-four hours. Any remedy can be introduced by means of this capsule in a simple and cleanly manner, and by the patient herself. The Morstadt Cachets are made of pure rice paper, and are notable for their elasticity and improved and tasteless form. The Morstadt Cachet Filling and Closing Apparatus.—The largest apparatus will close twelve cachets of any of the six sizes of cachets in one operation, no adjustment being necessary to suit the different sizes of cachets. The apparatus is specially constructed so that in filling none of the powder gets upon the edges of the cachets, and the arrangement for damping the cachets when closing them is peculiarly cleanly and speedy. Jambul Seed, pulverised, in perles, and fluid extract. Palma Christi (Dr. Standke) is a purified and agreeably-flavoured castor oil, devoid of nauseating and emetic properties, but alleged to be as effective as ordinary castor oil. The nauseating factors are removed and a minute proportion of flavouring material is added. Flexible Gelatine Capsules facilitate the administration of nauseous and distasteful drugs, especially when in a fluid form. The Dried Milk of Papain contains a large proportion of papain, and has been highly spoken of in diphtheria, croup, chronic eczema, ulcers, indigestion, etc., and many other diseases where a powerful solvent is indicated. Kola Nuts contain a powerful nerve stimulant, usefully employed in cases of fatigue, indigestion, dipsomania, etc. From this are made Kola Chocolate, Kola Cocoa, Kolatina, Kola Cordial, Kola Elixir, Kola Malt, Kola Tablets, and Kola Wine; all of these palatable and intelligently-devised preparations were exhibited and are worth intelligent trial on a large scale and further report. The Kola chocolate is palatable and should be a good *aliment d'épargne* for students, travellers, cyclists, and athletes.

G. Mellin (Marlborough Works, Peckham, S.E.) showed their well-known and widely favoured foods for infants and invalids. Mellin's food for Infants and Invalids is a brownish granular powder, prepared from cereal grains in which the starch has been converted into its soluble products by the action of vegetable diastase. Their Lacto-Glycose is a preparation of the above food which has been incorporated with fresh cow's milk, which aims at combining all the properties of the former with the additional advantages resulting from the use of a milk diet. Their Food Biscuits are prepared from the food, of which they contain 50 per cent. combined with wheaten flour, thus securing a solid food in a pleasant and palatable form. Their Emulsion of Cod-Liver Oil and Hypophosites, cream-like in appearance and slightly flavoured, is obtained by a mechanical process of trituration of oil with solution of gum arabic and sugar. It is guaranteed to contain 50 per cent. of fine Norwegian oil, which is permanently maintained in a finely divided state without the use of any alkali, so that saponification is avoided, and the condition of the fat globules unaltered. The object is to secure the maximum amount of nutritive matter, while the digestive organs are saved the labour of emulsification and the disagreeable effects incidental to the use of oil taken alone. This emulsion is prepared either with or without the addition of hypophosphites, and is readily miscible with milk, water, or other fluids. Vin de Coca ("Mellin") or Coca Wine (unsweetened) is an agreeable tonic, prepared from the fresh leaves of Erythroxylon coca, and having its well-known qualities.

Sacklins and Co. (20, Royal Exchange, London, E.C.) showed their ingenious ready-made Linseed Poultices recentlk invented and made with crushed linseed containing all the oil. The ingredient is sewn between a muslin face and a waterproof calico back, the latter preserving the heat and moisture. They are exceedingly convenient, requiring only to be dipped into boiling water to be ready for use, and it is said they can be used many times over, and already show some practical improvements since they first came under our notice. Sacklin's poultices are made of crushed linseed, which is prevented from decomposition by being passed on to the makers direct from the mill, and immediately enclosed in an air-tight package; while the poultice, directly it is made, is immediately packed in this package, and thus preserves it from oxidation. The packet is made waterproof, and the front is treated with boric starch to prevent the entrance of microbes. The backs are treated by Christy's patent process. Their ready-made Mustard Poultices are of similar construction, and are made of strong mustard flour and mustard husk, which is alleged to be the only satisfactory diluent of mustard flour. Its bland oil prevents the unpleasant biting sensation, and the fibrous portion preserves the generated heat, and contributes largely to the excellence of the result. In favour of these it is claimed that the strength is so adjusted that a mild rubefacient effect is produced upon an adult in an hour, while in two or three hours it proves an energetic sinapism, never blistering the skin under any circumstances; it is obvious that the benefit derived from the prolonged application of these poultices is likely to be more lasting than that of painful mustard poultices or blisters as ordinarily made. Children can, it is claimed, bear a Sacklin's mustard poultice long enough to derive every desirable benefit. These mustard poultices may be applied continuously for twenty hours or more without requiring additional moisture or heat, and may with advantage be removed from one part of the patient to another; for example, a poultice that has been worn upon the chest may be transferred to the back, etc.

Messrs. Chevalier and Co. (17, Bartholomew Close, E.C.) exhibited their Flexible Gelatine Capsules containing 5 to 8 minims of pure drugs, including castor oil, cod-liver oil, chaulmoogra oil, chloroform, ichthyol, male fern, turpentine, copaiba, cubebs, sandal wood oil, and many other drugs which from their nauseous taste, insolubility, or other causes are difficult to administer in a liquid medium.

Messrs. Armour and Co. (Chicago, and 59 and 60, Tooley Street, London, S.E.) showed a fine series of excellently made and valuable preparations The extent and resources of this great firm; the facilities which their packing and killing factories supply for obtaining the material in a perfectly fresh state and in a considerable quantity, and the scientific organisation which they are able to bring to bear on the production of their long line of preparations, have enabled them to produce a series of sound preparations which are likely to find considerable favour in this country, their price being moderate and the quality good. Among the preparations shown were: Powdered Pepsin (non-hygroscopic) for powders, pills, and other dry forms; it is permanent and free from foreign odour and taste; its digestive power is claimed as 2,500 times its weight. Scale Pepsin, for liquid forms; soluble in water, and free from

objectionable odour or taste; it retains its activity for a protracted period; digestive power claimed, 2,500 times its weight. Scale Pepsin Powdered. Glycerole of Pepsin, a clear, permanent, and concentrated solution, 10 minims of which equal 1 grain of their pepsin in strength. Essence of Pepsin, an elegant preparation either for the administration of pepsin or for preparing junkets, curds and whey, etc. Pure Pepsin Tablets; each tablet contains 3 grains of their pure non-hygroscopic pepsin. Pure Pancreatin in Powder; the peptonising power of the pancreatic ferments is preserved unimpaired in this powder. Peptonising Tablets; each tablet contains 2½ grains of pure pancreatin and 8 grains of sodium bicarbonate; recipes for predigesting foods are furnished with these tablets. Extract of Beef (solid) is for the preparation of nutritive soups and for strengthening and flavouring any food requiring meat juice in its preparation; it also makes excellent beef tea; this preparation retains the character and flavour of pure beef; each pound is guaranteed to contain all (8) the nutritive value of 45 lbs. of prime beef; it contains on the average a little over 16 per cent. of moisture and 24 per cent. of ash, chiefly phosphates; the remaining 59 to 60 per cent., including 9 of nitrogen, is the stimulating nitrogenous animal material, termed creatinoids and extractives, characteristic of good beef extract. Their Beef Essence is a clear concentrated bouillon, suitably flavoured, which may be diluted with 4 volumes of water. The Fountain Bouillon is a nutritive flavouring for soda or other effervescing waters. Beef Peptone (powder). Beef Peptone (paste), a highly soluble preparation of great nutrient value. Nutrient Wine of Beef Peptone, a preparation of peptonised beef and wine, which combines nutritive value and ease of assimilation with good flavour. Ox Gall (inspissated); Ox Gall (desiccated); and Desiccated Blood.

Messrs. Johnson and Johnson, Limited (1 and 2, Australian Avenue, London, E.C.), exhibited their Absorbent Cotton Wool, rolled in even sheets or plain, with tissue paper between to prevent felting, and many antiseptic varieties and preparations. Lintine, a new absorbent wool or lint; more absorbent than either, and a substitute for both for all purposes. Every fibre is claimed to be thoroughly cleansed and sterilised. There is no waste, it tears readily, and has 50 per cent. more surface than cotton or lint—altogether an interesting product if experience confirms all that a first inspection and the claims confidently made for it indicate in its favour. It is also antisepticised with Boracic, Corrosive Sublimate, Carbolic, etc. Absorbent Gauzes were shown, always moist, in tin containers and glass jars, perfectly air-tight; and Wool Tampons, lamb's wool covered with a layer of absorbent wool. Tamponite is a mixture of absorbent and lamb's wool; it is much more bulky than absorbent wool, and is said to remain always elastic, and not to collapse and become hard. This firm showed, also, a great variety of Rubber and Isinglass Surgical Plasters, and Medical Plasters in rubber combination; these are effective, clean, and do not change. Special attention was called to the Belladonna Plaster; the extract used is from the wild belladonna root, of which, it is stated, that it not only yields a greater percentage of solid extract, but that the extract is much richer in atropia. In addition to this, there is combined with the base a percentage of boracic acid, which aims at increasing the therapeutic action of the drug. Canthos is an improved Cantharidal Plaster, rapid in action, without, it is said, producing the unnecessarily painful and irritating symptoms which often render blistering impossible, and not becoming inert with keeping. Their Sulphur Fumigators are issued in specially prepared fire-proof box, which will not burn or become hot like tin or metal packages. One will fumigate an ordinary-sized room. Elastic Knee-caps, etc., ventilated, strong. Their Ligatures (Silk and Gut) are supplied on reels of assorted sizes in each bottle. Special care is taken in selecting material, and in thoroughly cleansing and sterilising. The ligatures are sterilised in the bottle handed to surgeon, so are not handled. The bottles are sealed with antiseptic gelatole. Gelatole Emulsion is a non-irritating, emollient emulsion base, combined with such drugs as may be necessary to apply to raw, inflamed, or mucous surfaces, and for injection into the urethra, vagina, uterus, etc., and is put up in collapsible tubes furnished with variously shaped nozzles which are interchangeable; the Gelatole Ointments, in collapsible tubes, are intended to furnish a "perfect dressing for the skin" that will not smear or run, and forms a protective film over the skin.

Corbyn, Stacey, and Co. (300, High Holborn, London, W.C.) showed a considerable set of Synthetical Remedies, including numerous Pharmaceutical Preparations, illustrative of their practical application as internal or external remedies, and indicative of first class pharmaceutical skill. Specimens of a series of Collodion Preparations containing medicaments for various external uses, particularly antiseptics. Preparations prepared without alcohol to represent in strength and active properties the tinctures of the *British Pharmacopœia*. The specimens are representatives of a few of those prepared for use and found satisfactory in the London Temperance Hospital. They are of established repute. The word "tincture" is retained, but merely to imply what the preparations are intended to represent. Their elixirs are most agreeable and palatable form of administering drugs, more especially those of a nauseating character. Among them are several Liquid Extracts, miscible with water, prepared with the object of giving better facilities for dispensing in a diluted form, of great use in the surgery of the general practitioner, whilst especial attention is given to the retention of their active constituents. Among these were miscible preparations such as Ext. Cocæ Liq., Ext. Cascaræ Liq., Ext. Euonymi Liq., and Ext. Podophylli Liq. Among their specialities were Soluble Pearl and Gelatine-coated Pills, Compressed Drugs, Perles; Medicated Pessaries, Suppositories, and Bougies; Antiseptic Jellies for Surgical and Antiseptic Use, Medicated Nasal Cylinders, Medicated Ear Pellets, Granulated Medicinal Preparations, Corbyn's Aromatic Saccharated Castor Oil, Antiseptic Toilet and Nursery Powder, Liq. Cinchonæ Rubræ (Corbyn), Mist. Cascara Comp., Tinct. Chlorof. Comp. Rub., Liq. Bismuthi Rub. c. Pepsin, Corbyn's Eustachian Inflator.

Henri Nestlé (9, Snow Hill, E.C., and Vevey, Switzerland) showed Nestlé's admirable and famous Milk Food, prepared at Vevey, Switzerland, from the pure milk of Alpine fed cows, fine wheaten flour and sugar, combined in proportions to imitate closely the natural food for infants. It is thoroughly cooked and reduced to a fine powder, perfectly soluble in water, requires only the simple addition of water to prepare it for use. In this respect it has an advantage over other foods not so prepared.

T. Howard Lloyd and Co., Manufacturing Chemists (Leicester), showed Soluble Pearl Coated Pills. The coating of these pills is perfectly soluble, even in cold water, and preserves the mass in a fresh and active condition. Lanadeps, or Purified Wool Fat, capable of absorbing 50 per cent. of water, and invaluable as a basis for ointments. Unguent Lanadipis: A cheap ointment base, said to be composed principally of lanadeps, but of a softer consistence. Peppifer: A ferruginous digestive condiment for the administration of iron with food. Ophthalmic Gelatine Discs. Portable Dressings: Including various Antiseptic and other Ointments and Liniments, put up in collapsible tubes; very convenient and cleanly. "Bromo-Chloral": A combination of potassii bromid and chloral hydrate; of value as a hypnotic—not to be confounded with Bromo-Chor. Ext. Aletris cum Hydrastis: according to a formula suggested by Dr. Macnaughton Jones. Liquor Secalis Ammon.: prepared from the original formula. Codeia and Glycerine Jelly: Dr. Mahomed's formula. Essence Sennæ Legum: A fluid extract prepared from the seed pods of the senna. Liquor Opii (De-narcotised): Entirely free from narcotine, and producing, it is claimed, no headache or other unpleasant symptoms; and a number of other well made pharmaceutical combinations.

(To be continued.)

Professor Sämisch has been elected Rector of the University of Bonn, and Professor Binz Dean of its Medical Faculty for the academic year 1892-93.

Medical Magistrate.—Chas. Warden, M.D., F.R.C.S.Edin., senior honorary surgeon to the Royal Orthopædic and Spinal Hospital and the Ear and Throat Hospital, and consulting surgeon to the Royal Deaf and Dumb Institute, Birmingham, has been placed by the Lord Chancellor on the Commission of the Peace for the city of Birmingham.

THE CONSTITUTION AND ANNUAL MEETINGS OF THE BRITISH MEDICAL ASSOCIATION.

The Association House and the Surplus.—A Reply to Pleas for the Status Quo.—Where does the Source of Power lie in the Association, and where should it Reside?—Our Surplus Fund and what to do with it.—Papers in the Sections.

The Association House and the Surplus.

Dr. W. Withers Moore (President of the Council) writes: If your several correspondents who wrote under the above heading in the British Medical Journal of August 20th had read my remarks at the annual dinner, they would have noticed:

1. That they did not "commit the Council to any scheme," but were merely a personal expression of "hope and belief" on my part, and therefore no "new official programme."

2. That the time mentioned for the carrying out of this "idea" was at the expiration of our lease—some twelve years hence—when we shall be compelled to find a new home.

3. That the said proposed new home was to be a permanent one, and one "suitable for the purposes of the Association, and worthy of the great profession which it represents."

I may supplement the foregoing quotations by adding my further "belief" that a suitable permanent home would add greatly to our stability, and render the Association well able to withstand any storm that may assail it.

"One of Those in the Dark" asks, "What sort of a home is this to be?" I would reply by "venturing to hope" it would be one which would provide ample and suitable "accommodation for country and service members"; in fact, in every sense a medical home. The debt incurred by the purchase of the lease is being year by year gradually paid off, so that by the expiration of the lease it will be wiped out. It must be obvious to everyone that a great Association like ours must look ahead, and thus provide for a contingency which is inevitable. I shall, therefore, still go on "hoping, etc.," though very probably I shall, ere the "Home" can be an accomplished fact, have joined the majority.

In conclusion, let me thank your correspondents for the kindly way in which they allude to me, and assure them of my earnest desire—in common with the rest of the Council—to discharge faithfully and fearlessly the important trust committed to us by the members of the Association.

Dr. Hunt (Lincoln's Inn) writes: I am much interested in the letters of your correspondents regarding a permanent home for the British Medical Association in London, and if I had my way I should make the expenditure £120,000 in place of the proposed £60,000. We are a large public body, and as such why should we not have a suitable place? Lawyers have theirs in the Temple and Lincoln's Inn, and so should the medical profession have some building worthy of their position; so long as we think little of ourselves and do not assert our position, so long shall we occupy an inferior position. We subscribe a miserable guinea a year; why not make it 3 guineas a year and with that subscription give an equivalent advantage? The extra subscription would meet the cost by way of interest on a loan which in time rich and generous members would help to pay off by endowments.

J. G. Cooke, M.B. (County Infirmary, Londonderry), writes: As a member of the British Medical Association to whom, as to the vast majority of members of the Association, palatial buildings in London could be of no possible benefit, I venture to make a suggestion with reference to the disposal of the vast surplus in the hands of our Association. Why should not an attempt be made to make the British Medical Journal—great educating medium as it is—a publication in every respect on a higher level? Illustrations, coloured and otherwise, should replace the cuts usually adorning the pages of the Journal. Illustrations are every day more and more recognised as a most important educational medium; why should not our Journal take the lead?

A Reply to "Pleas for the Status Quo."

A Correspondent writes: The "pleas for the *status quo*" of Mr. Brown and Dr. Woods studiously avoid even any attempt to meet the main arguments and deductions to which they are apparently intended to reply.

The gist of that argument, set out in separate propositions, is:

1. That the Association agreed, and by special and general meetings resolved some years since, that the annual meeting was not a body fit, by virtue of its scanty numbers and imperfect composition, to be entrusted with the electoral franchise of the Association even in part or to nominate any portion of its governing body.

2. That a constitution was therefore framed by a special committee appointed for that purpose, in which the whole electoral power and the nomination of the governing body was vested in the Branches, each Branch having the duty and the privilege of electing one representative for the government of the Association for every 100 members. This decision was acquiesced in with practical unanimity after discussion, and adopted and confirmed in general meeting and extraordinary general meeting, and the constitution was so declared in the Articles of Association registered according to Act of Parliament. Even the power of nominating special committees was resigned by and withdrawn from the general meeting.

3. That an elected governing body should report to those who elect it. The representative members are logically and properly responsible to the voters who elect them and the Branches which they represent, and not to a meeting of chance composition which does not elect them, and takes no part in electing them, and of which a quorum may be as few as 25 out of 14,000, and often is little more than that, while its proceedings are from time to time described in the local papers in very disrespectful terms. To this argument and to these propositions neither they nor any other writer has ever attempted a reply. Until they are dealt with and demolished they hold the field.

Mr. Brown thinks that while the morning meeting for business on the first day is apt to be very small, that of the evening was and is full and well attended as a rule. He is mistaken so far as the later or business part of that meeting is concerned. Some hundred or two—sometimes many more—attend to hear the opening address of the President at 8, but as soon as it is over and the "business" begins, at about 9.15 P.M., there is a general rush to the doors, a few idlers or country spectators remain, while the same small coterie air their ideas year after year with persistent frequency, and at length there is a rapid emptying of the house. Vainly the President raps, and implores members to keep their seats; if he succeeds in detaining a few who respectfully obey his entreaty, the meeting nevertheless very quickly melts away into insignificance, as certain well-known voices make themselves heard in succession, alternation, iteration, and reiteration.

Mr. Brown thinks the descriptive adjective "sempiternal" applied to his oft-repeated speeches opprobrious. I am a little surprised; I do not think it so, and it was not so intended. But it is perhaps inaccurate as being expressive of the idea of consisting of a continuous current rather than of rapid intermittence. But I willingly withdraw it, and apologise for it and for any other critical and descriptive phrases which may be thought severe on the various public performances of the chronic speakers who so largely monopolise the time of these meetings, and will only say that, like a few others who are very much in evidence on these occasions, he *loses many valuable opportunities of silence* in the brief hours allotted to go through what are now the necessary but extremely empty forms of passing a number of reports from the representative Council to a scanty audience, which does not elect them and which they do not represent. I think it will be generally conceded that it is time that the abolition of so empty and perilous a ceremonial be seriously considered.

Another correspondent asks: "What about the unattached members?" The answer is that their case was ably pleaded and seriously debated at the time of the revision of the constitution, and it was decided that those who wished to enjoy the franchise and take part in the government should join their respective Branches; otherwise they receive adequate advantages for their guinea subscription in receiving their weekly Journal free by post in whatever distant part of the Empire they were resident, in the privilege of attending the general meetings, use of the library,

representation of their interests to the standing committees, Parliamentary, etc., and share the other general benefits of the Association.

The main argument rests upon two bases: (1) The absurdity of a large and fully representative governing council presenting its reports, not to the numerous and highly-organised body who elect it annually on a fully representative basis, but to "a scanty and fortuitous concourse" of gentlemen who are either not voters, or who have already had the opportunity of voting a few weeks previously in their respective Branches.

On the other hand, if it be true, as J. S. writes, that the Branch representatives on the governing council are elected, not on a uniform and fully adequate elective method, but by very various methods, some of which are so restrictive and imperfect as to be practically and largely disfranchising, that can easily be, and obviously should be, altered; for it is in the power of the Council to prescribe the mode of election. On that head further and full information is obviously and urgently needed, and there will be, it may be assumed, a general concurrence of opinion that it should be supplied by the Journal, which will render a useful service in furnishing it with as little delay as possible.

Where does the Source of Power lie in the Association, and where should it Reside?

Lex writes: The statement and argument put forward by "A Correspondent" in the British Medical Journal of August 13th refers to a subject which is one of obvious importance, both as to (1) the statement of facts, (2) the deductions therefrom, and (3) the suggestions arising out of such statement of facts and conclusions. It may be as well, therefore, that these should be examined from another point of view.

A leading proposition of the argument is that the Council is the elected representative governing body of the Association; that the general meeting was years since recognised as a fluctuating quantity and to some extent of accidental composition; that it has shown itself, so far as the enormous majority of the members attending the annual meetings are concerned, quite unconcerned or averse to attend to the administrative and financial business and the reports of the Journal and Committees of Council. But is it not an essential part of the present organisation of the Association as a limited liability company that a general meeting of some sort shall be the sovereign body?

It is not easy for the members of the Association not conversant with the law of limited liability to know how far the proposition is practicable, however logically desirable, to vest that sovereign power in the members assembled not in general but in Branches. No doubt the fact that the Branches and not the general meeting are recognised by the existing constitution as the electoral bodies, and therefore the sovereign source of power, indicates that the law is elastic, for it may be doubted whether any other limited liability company has a similar constitution.

Perhaps, however, the British Medical Journal—on whose stores of information and technical knowledge so many and heavy drafts are being made just now—may be able to state whether there is any legal method of rounding off the constitution in a more complete form, so that the Council shall be authorised to report to those from whom it springs and derives its authority and by whom it is elected and not as at present. This is a fundamental point on which the correspondence thus far throws little light, although it pretty clearly establishes the need for a change.

Our Surplus Fund and what to do with it.

Mr. John B Fairmann (Dewsbury) writes: I rejoiced to read in the British Medical Journal of August 20th the several communications on the above. They show that our Association is a living, working organism, one fully alive to all that is going on around and within it, when a practicable way is open to its members to show this. I pass by for the present that notion thrown out by Dr. Withers Moore, whether those members of the Association connected with cheap dispensaries shall be allowed to continue in membership; with this one remark that when the question comes up for discussion defenders of the practice will have something to urge on their side. My present object is to heartily support Dr. G. C. Kingsbury's proposal (among others) that our surplus fund should be put to: "(1) Providing pensions for aged medical men who had been members; or (2) assisting the widows and orphans of deceased members." As to the wisdom of doing the one or the other, if not both, there are unfortunately too many facts unpleasantly unimpeachable to allow it to be gainsaid. It is a melancholy truth that, as Dr. Kingsbury puts it, "some men never are in a position to save money, some lose what they have saved"—all this, too, without any censure being deserved by either their prudence or their conduct in life.

Among all the good reasons that could be urged in support of this purpose this one immediately suggests itself—that it would tend to augment still more the present income of the Association by inducing other members of the profession to join, from the thought that the constantly resulting surplus would be to the provision for a want which old age might bring with it; the future outlook in their case would thus be brightened and cheered.

I earnestly hope that Dr. Kingsbury and those others who think with him will not allow the matter to lapse, but keep it well *en évidence* before the Association, and that it will have, Sir, your own powerful advocacy.

I notice also another matter brought up by some of your correspondents—the status of "unattached" members of the Association, and their claim to a voice in its not strictly professional work. But not to trespass now further on your space, I shall at some other time ask you to favour me with an opportunity of remarking on a point well deserving our continued consideration.

Papers in the Sections.

James McNaught, M.D., M.R.C.S. (Boothfold, New Church, near Manchester) writes: Your correspondent "Knots" has raised a point which is well worth the consideration of those who have the power of selection as to which papers shall be read or left unread at the annual meetings. It is a great injustice to a man who has carefully prepared a paper embodying work over which much time and pains may have been spent, and who has attended the meeting almost purposely to offer his results for criticism, to find that, without any definite reason, he is altogether excluded. The same thing happened to me at the meeting at Leeds two years ago, and I then made some inquiry about the mode of procedure followed in selecting papers, but could get no information as to what method, if any, was followed. It so happened that the paper in question was, after the lapse of some months, published in the British Medical Journal, and from it abstracted for other English and foreign papers, but it would have been much more satisfactory to have had further light thrown upon the subject by those more versed in bacteriological work than I. It was mainly with that object that I prepared the paper for the annual meeting.

It seems to me some definite procedure should be followed which would give to all authors, known or unknown, a reasonable chance of having their papers read. They might be balloted for, or taken in the order they were sent in, the former, perhaps, being the fairest method. As it is, perhaps, "Knots," like myself, will spare himself the trouble of attending the meeting or preparing papers until some such improvement is carried out.

The Influenza Epidemic and the Remuneration of Irish Dispensary Doctors. — Mr. O'Connel proposed the following resolution at a recent meeting of the Cork Union Board of Guardians: "That we beg to call the attention of the Local Government Board to the resolution passed by this board at its recent meeting on July 17th last, granting a bonus of £15 each to the rural medical officers on account of extra duties during the recent influenza epidemic, and request them to give their sanction to the proposed payment." Mr. M'Carthy seconded the proposition. After some discussion the resolution was passed. There have been many precedents for this in England, and we are glad to see it adopted in Ireland.

FALSE HELMINTHIASIS.

Dr. B. de Nabias calls attention to certain errors in diagnosis which may arise from the simulation by certain bodies in the fæces and urine of the true parasites and their ova or embryos. He points out that the ribbon-like masses of mucous, symptomatic of membranous colitis, have frequently been mistaken for tapeworms. Error of this sort, however, is easily avoided if the characteristic mass is floated out on water. If this is done it is at once apparent that there is no regular segmentation, no genital pores (either central or lateral), and no ova can be found with the microscope. It sometimes happens that single joints of tapeworm are submitted for diagnosis. They are usually found on the clothing, and brought in a semi-dried and shrivelled condition on a piece of paper or cloth. It is impossible to tell with certainly from a naked-eye inspection what they are, but if a fragment is picked out from the centre of a mass and placed under the microscope, the ova peculiar to the particular species of tapeworm are readily recognised. A very common mistake is to regard fragments of orange passed in the stools as hydatids. But the absence of lamellated structure, so characteristic of hydatid membrane, and of hooklets, is sufficient to show that the substance is not of hydatid origin. Large elongated cells, for the most part attached by a fine filament to the remains of the membranous and fibrous framework of the fruit and similar features, very readily discovered, suffice to establish a correct diagnosis. The spores of the truffle have been mistaken for the ova of ascaris lumbricoides, which they resemble somewhat closely. The ova of the parasite are considerably larger, measuring 96μ by 70μ, as against (in the case of the truffle spore) 60μ by 42μ. Moreover, the spores of the truffle are generally arranged in groups of two to five, enclosed in a thick-walled, somewhat pliant, shining theca or ascus, which consists of a form of cellulose, unstainable by iodine and sulphuric acid or chloro-iodide of zinc. Dr. Nabias points out that there are three kinds of parasitic hæmaturia: (1) that produced by the giant strongyle; (2) the hæmatochyluria of the filaria sanguinis nocturna; and (3) the African hæmaturia from bilharzia. Strongylosis is so rare that it may be practically disregarded, but false strongylosis has often been recorded. It has happened that wandering ascarides have found their way into the urinary organs, and been voided by the urethra. This is a rare accident; but it not infrequently happens that blood casts of the ureters are passed, and these have been set down as fragments of the giant strongyle. Spores of lycopodium have also been taken for the ova of this parasite. To be aware of the possibility of such an error is enough to make its committal impossible. In discussing the parasitology of hæmatochyluria, Dr. Nabias makes the mistake—not an uncommon one—of crediting Salisbury with being the first to find the filaria sanguinis nocturna in the urine. The parasite Salisbury found, and which he named "trichina cystica," was certainly not the filaria nocturna; it was very much smaller and proportionately broader, and was associated with cystinuria and with ova in the urine. The filaria nocturna is viviparous, and is found in urine only in association with hæmatochyluria. He points out the usual cause of failure to find the filaria in chylous urine and the fluid of chylocele, namely, that it is sought for in the fluid instead of being sought for in the sediment and clots. There is no danger of confounding the embryos of filaria nocturna with the young of the giant strongyle. The latter is oviparous; the ova are peculiarly perforated, and living embryos are not developed in them till long after their escape from the body. The ova of bilharzia are at once recognised by the spine they carry and by the ciliated embryo they contain, which is sometimes liberated while the ova are still in the body. Dr. Nabias's paper is illustrated by a very useful plate, and he points out that the best way to avoid mistakes in the diagnosis of false helminthiasis is to obtain a knowledge of the real parasites.

BRITISH INSTITUTE OF PUBLIC HEALTH.

The British Institute of Public Health began its annual meeting at the Royal College of Surgeons, Dublin, on Wednesday, August 17th, under the presidency of Sir Charles Cameron.

At a meeting of the Council the following were elected:—Honorary Fellows: Rev. Dr. Haughton, F.R.S., S.F.T.C.D.; Sir John Banks, K.C.B.; the Registrar-General of Ireland; the Earl of Meath; Sir F. X. M'Cabe; Sir Hugh Owen; and Sir J. Bridges. Honorary Members: Professor A. Roche, member; Dr. O'Meara, Medical Officer of Health, Carlow; T. W. Berry, C.E., Kingstown; Dr. W. R. Graves, Dublin.

Sir Charles Cameron, in his opening address, referred to the work which the Institute had accomplished, and proceeded to speak of the health of Dublin. The average death-rate in the Dublin metropolitan area, in the period of 1876 to 1880, was 31.76 per 1,000—an enormous rate. In the city the rate was 34.11 per 1,000 and in the suburbs 23.39. It took a long time to undo the influence of overcrowded dwellings, of improper drainage, and other insanitary conditions in the health of towns. In the period of 1876 to 1880 the death-rate from the principal zymotic diseases in the whole registrable area was 5.29 per 1,000, the rate in the city being 5.83, and in the suburbs 3.27. In the next period, 1881 to 1886, the rate in the whole area was 3.06: in the city 3.42, and in the suburbs 2.16. In the period 1886 to 1890 the rate in the whole area was 2.86: in the city 3.2, and in the suburbs 2.02. Last year the death-rate for zymotic diseases in the city was only 1.7, and when they considered that in 1879, 1880, and 1881 it was 7 or 8 per 1,000 he thought it might fairly be claimed that Dublin had made progress with regard to preventable diseases. The subject of typhoid fever was of great interest to Dublin, on account of the fact that while all other zymotic diseases had been steadily decreasing, typhoid fever had not only not decreased, but had actually increased. He found, however, that this was the case with regard to more of the towns of the United Kingdom. Why did typhoid fever exist so much in Dublin, and increase instead of decrease? Was it because their water system was bad or their drainage and sanitary accommodation was worse than in other towns? The history of typhoid fever in Dublin showed that there must be other causes at work. There must be some other cause, and his theory was that it depended on the sewage-saturated condition of the soil itself. He had come to the conclusion that, at all events, in investigating the phenomena of typhoid fever in Dublin they must agree that it was of a miasmatic character, and that the germs rose out of the soil. The President exhibited a map showing the distribution of 2,000 cases of typhoid fever in Dublin, and, proceeding, he said that one person in 144 within the last ten years had caught typhoid fever on the clay soils, and one in 92 on the gravel soil. The soil of Dublin had been polluted by a system of storing up human excreta for centuries, the result of which was that in the low-lying soil, badly drained as it was, enormous accumulations of animal matter of an organic character had occurred. By improving the drainage, keeping the soil free from filth, which was being done by the expeditious removal of the filth and the keeping of the atmosphere underground as pure as the atmosphere above ground, and the great system of main drainage, which was now on the eve of being carried out, he thought they would be providing powerful factors in reducing the hitherto enormous and abnormal fever death-rate in Dublin.

Dr. Graves (Dublin) said the three principal factors in keeping up the death-rate from typhoid fever in Dublin were defective and leaking drains and sewers, stagnant and unused polluted wells, and high-level polluted subsoil water, the result of the two first-named. Admittedly a large part of Dublin was water-logged. Pumping had been carried out in Berlin, and typhoid fever had greatly diminished.

Dr. Littlejohn (Medical Officer of Health, Edinburgh) said he wondered that the President had not mentioned the street gullies as a source of danger, because they were a constant source of typhoid germs. Edinburgh could not be said to be lying on a mud basis. It rested on hills, and yet last year they had 450 cases of typhoid with 42 deaths.

Rev. Dr. Haughton mentioned that after an outbreak of typhoid in Trinity College, they drained the subsoil and

erected a pumping station, which was still kept going, with the best results.

Dr. J. G. NASMYTH (Medical Officer of Health, Fife and Clackmannanshire), Professor SMITH (King's College, London), Dr. F. J. ALLAN (Medical Officer of Health, Shoreditch), Dr. M'GENNIS (Lurgan), Dr. MORRISON (St. Albans), Dr. MAJOR GREENWOOD, Dr. ROSS, and Dr. WILSON LANTYRE, continued the discussion.

Typhus Fever.

Dr. F. J. ALLAN read a paper on some cases of typhus fever. Two undoubted cases of this disease occurred in insanitary and dilapidated property in the area which was to be cleared by the London County Council under the "Bethnal Green" scheme. Discussing the way in which the disease arose, he said he believed there existed some ordinarily harmless microscopic body which under conditions of destitution, filth, intemperance, etc., developed infectious and dangerous properties.

Dr. LITTLEJOHN said they found in Edinburgh that typhus fever was as virulent as ever, and if they did not have compulsory power to remove the first case to a hospital, Edinburgh, from its tenement houses, would soon become a hotbed of disease, and the city would lose its character as a residential place. Whenever they heard of a case they pounced upon it at once, removed the patient to a hospital, and destroyed the furniture.

Dr. ALLAN replied.

The Cholera Epidemic.

Dr. J. W. MOORE read a paper dealing with the cholera epidemic in the East. For the third time within the last quarter of a century they had been brought within view of the extension to Ireland of the cholera. He briefly sketched the progress of outbreaks in former times, and, in concluding, said that in the event of cholera coming to our shores, our first line of defence should be the removal of all unwholesome conditions and the protection of their water supplies.

Dr. HAUGHTON said in cholera the mortality was always much greater at first than when the cases were removed to hospital.

Dr. LITTLEJOHN dwelt on the importance of a pure supply of water in coping with cholera cases. When cholera some time ago knocked at their doors there was no case in Glasgow, where the water was of the best kind, while in Edinburgh, where the supply was not of such a good description, there were 120 cases.

The discussion was continued by Dr. POTTER, Indian Army, Dr. C. MOORE, Dr. MAJOR GREENWOOD, Professor SMITH, and Sir CHARLES CAMERON.

Dr. MOORE read a paper on the influence of surroundings in the production of enteric fever and cholera.

Bacillus Typhosus.

Dr. M'WEENY read a paper, tracing at some length the views of various bacteriologists on the subject.

Registration of Plumbers.

Dr. LITTLEJOHN moved a resolution approving of the national registration of plumbers.

Dr. ALLEN seconded the motion, which was supported by Dr. E. FLINN and Sir C. CAMERON, and carried.

Influence of Sewage on Milch Cows.

Dr. POWER read a paper, in which he contended that cows, like human beings, might become diseased by drinking impure water, and, being diseased, might be capable of disseminating it by their milk.

Sanitary Legislation.

MAJOR GREENWOOD, M.D., read a paper on sanitary legislation, in which he traced its progress from the time of James I. One great mistake of sanitary legislation was that in many cases action could only be taken by the local sanitary authority, and that authority was not infrequently largely made up of those who were the guilty parties.

Dr. H. MANSFIELD ROBINSON read a paper on some legal matters in connection with the carrying on of sanitary work.

The English Public Health Service.

Dr. RICHARD SISLEY read a paper on this subject.

Dr. LITTLEJOHN (Edinburgh) proposed the following resolution:

That, as the outcome of these admirable papers, this Institute desired to express their unanimous opinion that the time has now arrived when a responsible Minister of Public Health should be appointed, and that the General Health Acts of the country should be consolidated and administered by a responsible central authority; and finally, that a thorough sanitary survey of the kingdom should be instituted.

Professor SMITH seconded the resolution, which was adopted.

The Notification of Infectious Diseases.

Professor SMITH (London), opened a discussion on this subject. He was of opinion that the Act would require amendment, inasmuch as in some cases the parents did not consider it necessary to call in a doctor in case of measles, and in those cases it should be made compulsory to notify the occurrence of the disease. As to the verification of the disease, he did not think it was part of the duty of any medical officer of health to set to work to verify the certificate given by the medical attendant. Out of 29 millions of the people of the United Kingdom only public authorities representing 4 millions, had failed to adopt the Notification of Diseases Act, and he thought the time had come when it should be made compulsory on local authorities to adopt the Act.

Dr. ALLAN (Shoreditch) said that, judging by the increase of scarlet fever in London, very little good was done by the exclusion of children from schools.

Dr. A. J. JACOB regarded the notification of disease as being bad in principle, legislatively corrupt, and an absolute failure in respect of the reduction of the death-rate. Experience, on the contrary, showed that compulsory notification, instead of reducing the death-rate, had increased it, and many hundreds were to be laid at the door of that system.

Dr. LITTLEJOHN said it was refreshing to find a man at the present day trying to drive back the Atlantic which was sweeping about his feet.

Dr. J. W. MOORE attributed the failure of the Act to its permissive character and its not being widely known that it was compulsory.

Dr. MORRISON (St. Albans) and Dr. J. B. POWER (Kingstown) spoke in favour of the system of compulsory notification.

Dr. WHITAKER (Medical Officer of Health, Belfast) said that the Act was not adopted in Belfast out of deference to the views of local medical men.

Dr. EDGAR FLINN said he could not understand why notification was so thoroughly opposed by the very officers of health who should get the local authorities to uphold it.

Dr. ROSS, Professor SMITH, and the PRESIDENT also spoke.

A resolution in favour of including measles in the list of diseases to be compulsorily notified was adopted.

Miscellaneous Papers.

Dr. R. C. TICHBORNE read a paper on the Sulphite of Zinc as a General Antiseptic in Typhoid.

Sir CHARLES CAMERON read a paper, which was illustrated by experiments, On the Use of Carbonic Acid Snow as an Antiseptic.

Mr. R. HAMMOND addressed the Congress on The Sanitary Advantages of the Electric Light.

Social Festivities.

In the evening the President, Sir Charles Cameron, entertained the members and a number of other guests at dinner at the Royal Marine Hotel, Kingstown.

On Friday the members visited the Vartry Waterworks, and were entertained at luncheon by Sir R. Cochrane, the chairman of the Waterworks Committee.

THE INTERNATIONAL CONGRESS IN ROME.—It had been arranged by the Organising Committee of the Eleventh International Medical Congress, to be held in Rome in 1893, that laryngology and otology should be combined in one section. In deference, however, to the representations of the Berlin Laryngological Society conveyed to Professor Baccelli by its President, Professor B. Fraenkel, it has now been decided that each of the subjects referred to shall have a section to itself.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, AUGUST 27th, 1892.

THE WORK OF THE LATE ADMINISTRATION AND OF THE NEXT.

II.—Lunacy Legislation.

Although chiefly the work of the late Conservative Government, the recent great Lunacy Acts of 1889 and 1890 were based upon the Bill introduced by their predecessors in office in the year 1885; and for five successive sessions a series of Bills on the subject was brought before the Houses of Parliament. The earliest Bill of that annual series neglected the due protection of medical men who act in lunacy cases; the final Bill of the series, the one which passed into enactment, represented an attempt to meet and satisfy two agitations. One of these agitations was that by an active and clamorous section of the public (both sane and insane) for restrictions upon the previously existing powers of friends and others to place those alleged to be insane under care and control; and, by urgent uncompromising assertions, a feeling of distrust of the then existing arrangements had been instilled to a large extent into the mind of the general public. The other agitation was that led by the chairman of the Parliamentary Bills Committee of the British Medical Association in favour of the medical profession, and, as we stated at the time, was "for some measure of adequate protection to medical men who, in the performance of grave and difficult duty placed upon them by the Legislature, constantly found themselves the victims of harassing, unreasonable, vexatious, malevolent, or speculative actions at law." The Acts passed by the late Conservative Government embodied an attempt to meet and harmonise the requirements of both sides; in other words, to combine protection to the public, to the lunatic, and to the liberty of the subject, with due and adequate protection to medical practitioners whose duty it becomes to discharge various delicate, onerous, and difficult duties in relation to the insane. For the former objects, provisions were introduced, of which the cardinal one was the outcome of the principle of magisterial intervention, a principle which, oddly enough, was strongly but happily ineffectually opposed by the Royal College of Physicians; in non-pauper cases as a new principle, in pauper cases as an exclusive provision, although not a new one. For the latter object, protective clauses were introduced which it was supposed would afford adequate protection to medical men who acted in lunacy cases in good faith and with reasonable care. The two objects were linked and associated; without provisions for the former of the two, the latter of them would never have been provided for in the Act. We were bound, therefore, to accept the provisions relating to the former, and to endeavour to minimise some possible disadvantages, and to magnify the advantages afforded by them.

Lord Halsbury, the Lord Chancellor who introduced it in the House of Lords, admitted a number of changes into the Bill; and notably, and largely upon our representations,[1] he introduced amendments which did away with some very irksome and mischievous provisions as to the application of mechanical restraint in the few cases in which it becomes a medical or surgical necessity, and is in the best interests of the patient himself.

Every point of importance as to changes proposed or introduced into the Bills was duly set forth and discussed in our pages and in the published proceedings of the Parliamentary Bills Committee, and it would be both tedious and unnecessary to recapitulate them here. Suffice it to say that the Bill was greatly improved by the time it received the sanction of the legislature; and that a large meed of praise is due to the late Government for their action in the matter.

When brought into actual working, however, the Acts were found to be defective or faulty on several points. One of these concerned the justices specially appointed under the Act to sign "reception orders" in non-pauper cases. Some of these justices did not understand either their duties or their area of jurisdiction; and, of those who did, some were absent, some refused to act; while in certain districts their number was by far too small. Hence arose grave inconveniences, in many instances, to the friends of insane persons, or to others who had to act in the interest of such insane persons. To obviate these evils, suggestions were made[2] by a Subcommittee of the Parliamentary Bills Committee; and not without effect, for some modifications as to the number of such justices, and as to extension of their jurisdiction, were subsequently made by Lord Halsbury, which lessened the inconveniences referred to.

Another point, in which the Acts have proved to be defective in actual working, is that the protection afforded by them to medical practitioners has been found to be inadequate, and to be far less than had been expected, and than seemed to follow from the wording of the Act, and therefore once more to render many medical men of position unwilling to accept the responsibility of signing certificates. This disappointing result of the Acts in actual operation culminated in the case of an action-at-law brought against Drs. Alfred Carpenter and Dukes.[3] In consequence of the result of this action (so onerous and unjust to the medical men concerned, although they won the case), the matter was referred to Dr. Mickle and a Subcommittee of the Parliamentary Bills Committee, who have made an excellent report on the subject.[4]

The suggestions appended to that report have still to be considered by the new Chancellor, Lord Herschell, whose acquaintance with the subject and interest in it are great, and from whose high judicial capacity great hopes may be entertained. These suggestions refer to needful amendments to the Act, or alteration in the method of interpreting it, and are:

[1] British Medical Journal, March 30th, 1889, page 722.
[2] British Medical Journal, February 21st, 1891, page 425.
[3] British Medical Journal, August 15th, 1891, page 388.
[4] British Medical Journal, April 23rd, 1892, page 877.

1. That the time limit during which actions of the kind in lunacy shall be commenced be strictly enforced.

2. That proceedings be stayed on application, unless the plaintiff can establish, not only by his evidence and affidavits, but also by those of others, a strong presumption in favour of his contention.

3. That before such action in lunacy is brought, the plaintiff be compelled to deposit in court a sum of money sufficient to cover the defendants' costs (to an amount that may reasonably be expected) if the case is decided against the plaintiff.

4. That, failing adequate protection by the above amendments, it would become necessary to advocate the appointment of certifying medical officers in lunacy, whose functions would be privileged, judicial, and non-actionable.

The whole subject of the method of appointing justices to sign reception orders, and of the number and areas of jurisdiction of these, deserves some further attention; and there are a number of minor points in which some modifications are desirable when the Acts actually come under amendment in the Houses of Parliament. Thus, for example, some simple provision is required under which "single patients" (so-called), whose mental condition may have rapidly become worse, and whose removal to an institution for lunatics may be necessary for their own welfare or for the public convenience or safety, may be expeditiously so removed. Thus, then, while a great forward progress has been achieved by the late Government, not without the critical assistance of the present Lord Chancellor, there is still room and need for some important further amendments.

THE FATE OF THE RECOMMENDATIONS OF THE LORDS' COMMITTEE.

LORD SANDHURST is an energetic and able man. He has not allowed the grass to grow under his feet. At the meeting which he convened at Spencer House, on the 21st ult., he proposed a resolution which was intended, no doubt, to further the recommendations made in the Lords' Report. Whether a step in advance has been really taken will be proved by the event.

Lord Sandhurst's motion, as originally framed, suggested the formation of a Committee "to report as to the composition and duties of the proposed voluntary Central Board, or such other scheme as may be arrived at after full deliberation." The resolution actually carried limited the objects of the new Committee to the consideration of the conclusions of the Lords' Committee, leaving it open to them to reject the suggestions of the latter altogether. We can understand the significance of the amendment when we reflect that it was introduced by Sir Douglas Galton, an honest opponent of centralisation in all forms. Sir Douglas himself was elected on to the Committee. The list of his colleagues includes Mr. Diggle, it includes a physician of high standing who has no enemies, and it includes Mr. Burdett.

What conclusions these gentlemen are likely to reach might form a subject for interesting speculation. But this is not a psychological journal. We incline to think that the question of reform will be settled, not by any body of free lances, but by the governors and the professional staffs of the hospitals. That the latter will accept the opinions expressed by such a Committee as came into existence last month at Spencer House is, to say the least, highly improbable. The firstborn of the parturient mountain cannot, we fear, grow to be anything but a "ridiculous mouse; but the mountain, unless it is really only a mole-hill, may yet give birth to some more satisfactory offspring. We do not anticipate the introduction of any successful change in our hospital system in the face of opposition from the leaders of the profession, and it is their opinion on the Lords' recommendations that we are desirous to ask.

That some change is necessary is now generally admitted. Either the income and expenditure of the hospitals, it is widely said, must be brought into some sort of relation with each other, or they must soon, in some form or another, become a charge upon the State. While the latter alternative meets with little favour in any quarter, public opinion has not yet seriously considered the former in any light except that which makes it equivalent to the regular increase of subscriptions. "If," says the *Times*, "everybody who subscribes to a London hospital would double his subscription, and if those who do not subscribe would do so, and would select, on some intelligible ground, the institution to which their money should be devoted, the whole problem would be solved in a simpler manner than by the operations of any number of Committees." This advice has the advantage of simplicity; but two objections may be raised to the efficacy of the suggested remedy.

In the first place, as far as the indications at our command go at present, the remedy is not practicable. The benevolent public will not subscribe steadily and substantially to some one useful object. There is no limitation to the number of schemes which crop up to solicit the support of the impatient philanthropist. In these days of panaceas any "new thing" has an unfair advantage over the old agencies which have not abolished distress off the face of the earth; and the average bourgeois, after subscribing for a year or two to a hospital, will always be inclined to go off at a tangent and "give a turn" to General Booth's social "elevators." It is not from any want of confidence in the general hospitals on the part of the public that they are not more consistently supported; they hold a position in the popular esteem which no central Board can appreciably increase. But even if we could anticipate any substantial addition to the subscription lists of the hospitals, there would still be reason to fear difficulties in the future. The supply of free medical treatment really creates a demand for it. We do not mean to say that patients make themselves ill in the interests of science, but we have a very strong impression that many persons are dissuaded from making any provision against illness, by the invitation to free treatment which is held out by the existing system. The attraction exercised by the out-patient department is under present circumstances weakened by the delay and discomfort of the waiting-room; but imagine such an increase of accommodation that this inconvenience is banished, and we shall find patients whose time is of some value making use of the advantages freely offered to them.

The *Times* thinks that the relief supplied by the hospitals is as necessary as our daily bread. We are willing to accept the analogy. But bread is not offered gratuitously to the poor except upon the conditions imposed by the Poor-law—

conditions which, from an economic point of view, are equally applicable to the administration of medical relief. The real stronghold of the advocates of free and unconditional treatment at the hospitals is the argument based upon the necessity of securing, in the interests of science, the largest possible number of cases. This last position would, we venture to think, be untenable if some practical means were found—as it assuredly could be found if prejudice were cast aside—of utilising the Poor-law asylums, infirmaries, and dispensaries for expert observation and clinical study in the manner originally indicated by Mr. Ernest Hart in his papers, speeches, and reports on the "Hospitals of the State," and as Honorary Secretary of the Workhouse Infirmaries' Association, jointly with the late Drs. Anstie and Rogers. In these papers were initiated the creation and broad outlines of the present system of metropolitan and provident asylums, infirmaries, and dispensaries, on lines forthwith adopted by the President of the Poor-law Board—Mr. Gathorne Hardy—in deference to an agitation which powerfully stirred public opinion, and had just culminated in a deputation of 110 members of the Legislature, led by Mr. Hart, who, in his address to the President, recapitulated the evils to be removed, and defined the plan of creating a series of hospitals of the State, supported by a common fund from the rates (which did not then exist). They came into existence under Gathorne Hardy's Act, but the organisation of the medical staff on the model of hospital departments was not accepted, in deference to official objections to officers who might prove to be imperfectly controllable, and what were believed to be parochial prejudices. Even the connection of such wards and dispensaries with clinical teaching, and the acceptance of the aid of students as dressers and clerks, while at first admitted within the provisions of the Act, were subsequently cut out, and have been only lately imperfectly restored with maimed proportions. The original plan, however, had the assent not only of the leaders of the medical profession at the time, but of such men as the present Duke of Westminster, Mr. W. H. Smith, Lord Sandon (now Lord Harrowby), Mr. T. Hughes, Mr. Shaw Stewart, the Rev. F. D. Maurice, Mr. John Storr, and others of that day deeply interested in such questions, who met from week to week at Wimpole Street to consider the details, and lay down the basis of the legislation which so quickly followed the inception of that vigorous and successful movement.

Public opinion, and the enlightenment of local authorities—and it may be hoped, also, of the Central Board and its inspectors—have sensibly advanced in the five-and-twenty years which have elapsed. The fears of the breath of outside air upon official organisations have diminished, and the perception of the mutual advantages to be derived from the introduction of a clinical and teaching system in these institutions has been developed. The verdict of the Lords' Committee is in favour of it. In developing this side of the question, and promoting the utilisation of this vast clinical material, lies, we think, one of the surest ways of diminishing the opposition to bloated hospital departments, and the reforms of any abuse connected with them. The subject is one which we propose to follow up, and to endeavour to bring to some practical conclusion. This is no doubt a work of some difficulty, but not necessarily beyond possible achievement.

Influenza is reported to be raging in Peru. In some parts almost half the inhabitants are attacked by the disease.

Seven deaths were last week medically certified in London as from "cholera and choleraic diarrhœa."

At a meeting of the Court of Examiners of the Society of Apothecaries, held at the Hall on August 18th, Dr. Thorowgood in the chair, a presentation of plate was made to Dr. J. Sherwood Stocker, on his resignation of the Chairmanship of the Court.

At the autumn meeting of the East Anglian Branch, which is to be held at Sheringham, a picturesque little watering place in Norfolk, on Thursday, September 8th, Mr. Victor Horsley will read a paper on "The Dangers and Consequences of Prolonged Otitis Media with especial reference to Cerebral Abscess." The paper will be illustrated by photographs, macroscopic and microscopic, with lime light.

BRITISH PHARMACEUTICAL CONFERENCE.

The British Pharmaceutical Conference is now holding its annual sittings in Edinburgh, Mr. E. C. Cortis Stanford in the chair. The attendance is large, and we hope to be able to give some account of the more interesting communications read, especially those which directly concern pharmacology and medical practice. This week the pressure on our space compels us to exclude this as well as a great number of interesting communications on other subjects. It has been resolved to hold the next conference in Nottingham, thus breaking the precedent hitherto followed of always meeting in the same town and at about the same date as the British Association.

INTERCOLONIAL MEDICAL CONGRESS OF AUSTRALIA.

The third session of the Intercolonial Medical Congress which is to be held at Sydney, New South Wales, from September 26th to 30th, under the presidency of Dr. P. Sydney Jones, will be divided into five sections, as follows: (1) Medicine (including Pathology and Diseases of the Skin), President, Dr. James Robertson, of Melbourne. (2) Surgery (including Diseases of the Eye, Ear, and Throat). (3) Midwifery and Diseases of Women, President, Dr. W. Balls-Headley, of Melbourne. (4) Public Health (including State Medicine, Forensic Medicine, Psychological Medicine, and Demography), President, Dr. H. U. Whitwell, of Adelaide. (5) Anatomy and Physiology, President, Dr. H. Brookes Allen, Professor of Anatomy, University of Melbourne. The Honorary Secretaries are Professor T. P. Anderson Stuart, of Sydney University, and Dr. Samuel T. Knaggs, of Sydney. Members of the profession who may wish to attend the congress can obtain information as to concessions in regard to fares, etc., from the Peninsular and Oriental, and Orient Companies. Sir Dyce Duckworth has consented to act as the representative of the congress in England.

RUSSIAN CONGRESS OF HYGIENE.

The Congress of Hygiene, which, as already announced, is to be held in St. Petersburg in the spring of 1893, under the protectorship of the Grand Duke Paul Alexandrovitch, is being organised by the Russian Public Health Society. The work of the Congress will be divided into five sections, namely: 1. Biology, under the direction of Dr. W. W. Paschutin and Professor Th. J. Pasternazki. 2. Sanitary and Medical Statistics, Epidemiology, and Medical Geography, under the direction of Professor J. E. Janson, and *Privat Docent* A. A. Lipski. 3. Hygiene of Inhabited Districts, Public and Private Buildings and Work Places, Food Supply, Clothing, Cleanliness and Disinfection, Hospital Administration, and other Prophylactic Measures, under the direction of Dr. M. N. Schmelew and Count Suzor. 4. Hygiene of Rearing and

Education, under the direction of Dr. Wirenius and M. M. Stassjulevitch. 5. Geology, Climatology, and Balneology, under the direction of Professor E. W. Pauloff, and *Privat-Docent* S. L. Popoff.

THE BRITISH MEDICAL ASSOCIATION MEETING IN NEWCASTLE, 1893.

THE first meeting to make arrangements for the Association visit next year was held, by kind permission of the Council of the College of Medicine, in the council room of the College on August 18th. There was a large and enthusiastic gathering, representative of the profession of Northumberland and Durham. Letters of apology were received from several distant practitioners, who proferred their services in assisting excursions, etc. It is expected that there will be a "record" attendance, and already the Honorary Secretary has made arrangements for the comfort and pleasure of visitors in the shape of excursions, entertainments, etc. Mr. Williamson was appointed Honorary Local Secretary, with Dr. Baigent as assistant. Dr. Beatley was elected Honorary Local Treasurer. A large Committee, consisting of the honorary staffs of the medical charities of Northumberland and Durham, with other additions, was formed, and a subscription list to defray expenses was opened and a handsome sum subscribed in the room. Judging from the remarks made at the meeting, it is evident no effort will be spared to make the meeting a success in every way.

RETREATS FOR INEBRIATES.

FROM the twelfth annual report of the Inspector of Retreats, licensed under the Inebriates' Acts, we learn that the number of these institutions remains as in the preceding year. A new home for females had been licensed in 1891, which was counterbalanced by the discontinuance of a formerly licensed retreat also for females. There was a slight increase in the number of admissions in 1891 as compared with 1890, there having been 115 in the former year and 6 fewer in the latter. The report speaks favourably of the health of the patients. Opinions of licensees in favour of compulsory legislation are quoted in full. The licensee of the Chiswick retreat for females believes that nothing but compulsion can cope with the great and growing evil, but hopes that in the meantime attestation by one justice will be made sufficient. The licensee of the Dalrymple Home at Rickmansworth draws special attention to the close relationship of inebriety to insanity, and speaks strongly of the imperative need for homes for destitute cases. The Committee of the Fallowfield retreat for women have been agreeably surprised at the success which they have achieved, having shared in the popular belief that female inebriates are very much more difficult of cure than men. In common with the other English retreats, the practice followed has been to cut off all intoxicants on entrance, the sudden discontinuance having had no bad effect, but, on the contrary, having rapidly improved the appetite, digestive powers, and general health.

NOTIFICATION IN SOUTH DEVON.

THE notification question has been fought out in the Newton rural sanitary district upon rather odd lines. It was pressed upon the authority by representatives from neighbouring localities, including Torquay, already under notification. A year or two ago it was not uncommon for such propositions to meet with opposition from members of the profession who had misgivings as to the working of the system, and who were usually roundly abused for their want of enlightenment. Now the tables are turned. Some of the leading practitioners in the locality in question have advocated the adoption of notification in the rural district, and are rewarded by the rather impertinent suggestion made by one of the guardians that their support is due more to the prospect of fees than to regard for the public safety. Far more remarkable is the fact that the opposition was led to victory by the medical officer of health, Dr. Harvey, whose claim to speak with authority upon the local and general questions involved cannot be disputed. We have searched in vain through Dr. Harvey's report for any satisfactory explanation of views which are so diametrically opposed to those held by health officers almost without exception, including many whose experience Dr. Harvey would admit to be greater than his own. The reasons stated are quite inadequate, and it must not be forgotten that the point at issue is not merely whether Dr. Harvey is right, but whether the vast majority of the sanitary world are wrong, and being wrong are squandering public funds broadcast. All that he says as to the importance of thorough cleanliness and systematic inspection is beyond question. These are essentials. If we are to understand that the rural authority have neglected their duty in such clementary matters, they have, of course, increased the difficulty of preventing filth diseases, with or without the assistance of notification. But notification is essential, too, and the one neglect can scarcely be played off against the other. Dr. Harvey admits that notification might be useful as regards diphtheria, but doubts its practical utility under existing conditions for other diseases. Notification of scarlet fever, he says, would cause serious expense, although immediately afterwards we are told that three-quarters of the cases of this disease are not attended by any medical practitioner, so that fees would be payable for only a quarter of the cases. Erysipelas and puerperal fever are rare it seems, and small-pox and milk scarlatina do not occur in this part of the country. Here Dr. Harvey has surely lost sight of the cardinal point of prevention. Defensive measures must be ready beforehand, and if there is no outbreak there will be no expense. He must indeed be an optimist who, in view of what has happened in this country in the last two years, would promise permanent exemption of any district from invasion by small-pox, or from localised epidemics of other diseases. The motion was lost by a small majority, and for the present the Newton rural district must wait to see which will come first—the impending Act making notification general, or an epidemic of sufficient severity to convince the board of the necessity for locking the stable door before another horse is stolen. Meanwhile, the authority will have an opportunity of atoning for the other defaults to which Dr. Harvey directs their attention as being grave enough to render notification inexpedient.

FALSE MEDICAL CERTIFICATES.

THE recent prosecution and conviction of a medical practitioner at the North London Police Court, for issuing a false medical certificate, once more calls attention to an evil which is alike of the first importance to the profession and the public. The offence was of the ordinary type, and consisted in issuing a certificate which stated that the registered practitioner had attended the deceased person in her last illness, whereas this person had only been attended by an unqualified assistant, and was not seen by the registered practitioner until half an hour after death. Mr. Corser, the magistrate, imposed a fine of £10, with three guineas costs, and remarked "that it could not be too widely known that a person who gave a false certificate of death was liable to be indicted and sent to penal servitude." As the precise state of the law on this subject may not be very generally known, it may be well to point out that it is provided by the 2nd subsection of the 40th section of the Births and Deaths Registration Act of 1874 that "any person who wilfully makes any false certificate for the purposes of this Act, or, knowing such certificate to be false, uses the same as true, or gives or sends the same as true to any person, shall for such offence be liable on summary conviction to a penalty not exceeding ten pounds, and on conviction on indictment to fine or to imprisonment with or without hard labour for a term not exceeding two years, or to penal servitude for a term not exceeding seven years." We believe that no one has yet been indicted for this offence, but if, as is believed, the large

increase in the number of so-called dispensaries is causing also a large increase of this pernicious "covering" system, we cannot but think that Mr. Corser was wise in calling attention to the serious punishment which the Registration Act gives power to inflict should it be found necessary or desirable. Certain it is that in recent years the Registrar-General has authorised an increasing number of prosecutions for this class of offence against the Registration Act, and we can but regard these prosecutions as serving the best interests of the medical profession as well as of the public. It is a question of no little interest whether any further measures could be taken with advantage by registration officers, with a view to check the acceptation of false medical certificates, which, in view of the recent notorious cases of poisoning in South London, is obviously fraught with grave public danger. Registrars are by their instructions required, before registering a death in respect of which no inquest has been held and no medical certificate is produced, to inquire whether the deceased was attended by a registered medical practitioner. He is not, however, at present instructed to inquire, on the production of a medical certificate, whether the medical practitioner who signed the certificate was actually in attendance during the last illness of the deceased. Such an instruction might not be free from all objection, but in view of the grave importance of this subject of false certificates in its various aspects, it is surely worth consideration whether the assistance of the registrar should not be invoked, even at the risk of causing delay and possible friction in a small proportion of cases in which the informant of the death might not know whether the medical practitioner signing the certificate was actually in attendance during the last illness of the deceased.

CHEAP ICE CREAMS AND FATAL ENTERIC FEVER.

The result of an inquest held by Dr. Danford Thomas on a boy who died after free eating of cheap ice creams bought of a vendor in the street is particularly noteworthy at the present moment. It should be remembered that towards the end of last year a serious outbreak of enteric fever occurred in the south-east of London, and that it was found by Mr. George Turner, Lecturer on Public Health at Guy's Hospital, who made the inquiry, to be due to the distribution of infected ice creams by Italians living in Mill Lane, Deptford. The prevalence of enteric fever is the measure of the liability to cholera. The suggestion of the jury this week to the sanitary authorities was that some systematic inspection should be made of the places where ices are manufactured, especially of the manufactories of the ices sold in the streets. If the general provisions of the Public Health (London) Act were more efficiently enforced in regard to places in which food is prepared for sale, the dangers might be considerably alleviated. In his report Mr. Turner mentioned one singular anomaly. He found that "a woman living in clean premises had been debarred from selling milk, the daily sales averaging a quart, whilst on the opposite side of the road a man living in shocking dirt and filth was distributing the same article diluted with water from his water-closet cistern at the rate of many gallons every day, a person reputed to be suffering from enteric fever being in his house at the time." Mr. Turner's report, which was made to the County Council, was to be sent to every sanitary authority in London. It may be hoped it will lead them to direct special attention to places in which food is prepared for sale.

FILTERS FOR COTTAGERS.

It has been suggested that cottagers might be induced to make filters for themselves out of flower-pots, "polarite," and sand, in order to guard against poisoning by impure water. The immediate cause of this suggestion, in its present form, seems to have been an inquest upon a child whose death was shown to have been due to the impurity of the water supply at the cottage where it lived. According to a contemporary the county analyst for Cheshire, Mr. Bell, in commenting on the case, stated that he could not see why every cottager should not have a flower-pot filter at his door, since the total cost would be but a few pence, magnetic oxide of iron or "polarite" being purchaseable at about one penny per pound; he is reported to have added that he had made some experiments which went to show that the purifying power of a mixture of sand and "polarite" was very satisfactory. Whatever may be the virtues of this substance, and however useful the suggestion, the great difficulty is to get the ordinary cottager to purchase the former, and to carry out the latter. Anyone having even a superficial acquaintance with cottagers will probably admit that, as a rule, they can hardly be depended upon to take the trouble to make an apparatus even so simple as the one suggested for any such purpose as the one in view, nor to take the trouble to use it if it were made for them. The flower-pot filter is no new thing. A description of it is to be found in the *Family Friend* for the year 1850, the materials used being sand and charcoal, and the objections which could be brought against these apply equally to the mixture now recommended. The great difficulty in the way of domestic filtration of water is the uncertainty which attaches to the time during which the filtering materials will act efficiently; this depends, of course, on a variety of circumstances, such as the nature and condition of the materials, the closeness of the packing, the degree of pollution of the water, the rate of filtration, and so forth. Some good may doubtless be done by endeavouring to get such a suggestion carried out, but to try to counteract the evil of polluted water in villages by a flower-pot filter scheme is to begin at the wrong end, and may amount to a misapplication of energy. Nevertheless, we freely admit that, as a temporary expedient, it may be recommended.

SOLDIERS ON THE MARCH.

The philosophy of military machinery is worthy of more study than it receives from combatant officers. Dr. Alexander Colin, a French medical officer, has recently published the results of investigations into the effects of regular marching in disciplined bodies, and has arrived at the conclusion that the regularity of the marching step is far more deleterious than walking equal distances irregularly would be, owing to the continued repetition of shock to the bones and brain in one and the same direction. He attributes the peculiar aches and pains of soldiers, and some of their illnesses, to the regular repetition of the shock to the same parts of the body, which in a day's march, he asserts, amounts to no fewer than 40,000 times. To prevent this shock, Dr. Colin suggests the addition of an india-rubber heel to all military boots. He states that in several infantry regiments a heel of this description has been tested, and has been found to be a source of much relief to the soldiers who who have used them. We are inclined to believe that the amount of fatigue and aching in marching depends not so much upon the uniformity of the movement, as it does upon the manner in which the marching is conducted. In all military movements, whether on parade, at drills, or in marching, the attitudes of the soldiers must be to a certain extent constrained, but the amount of restraint to which the men are subjected not only differs in different armies, but very often in different corps and regiments of the same army, according to the views of the officers respectively in command. Sometimes soldiers are taught in marching to bring the foot nearly flat to the ground; sometimes to take a high step, with a considerable bend and elevation upward of the knee. The action in the first case is contrary to the natural mode of walking, in which the heel first touches the ground, and acts the part of the india-rubber pad suggested by Dr. Colin as an addition to the boot, the progression of the foot concluding with the spring from the great toe; in the second case, that of the high step, all elevation beyond what is necessary to clear the impediments that may be on the ground

is not merely a useless exertion, but is mischievous, because it entails unnecessary fatigue on the soldier. Obviously, the nearer a soldier's style of marching can be brought into accord with the gait and movements of a practised pedestrian, the easier it will be for the soldier himself, and the more fit he will be for such work as he may be required to do when the march is over. The length of the step, the number of steps per minute, the shape of the boots worn, the weights carried, are all subjects of serious import when estimating the amount of exertion and consequent fatigue due to the marching of troops, and we have good reason for believing that there is no want of attention among the medical and other officers of our army to these and other considerations bearing on this important subject.

LORD PLAYFAIR OF ST. ANDREWS.

The elevation to the peerage of Sir Lyon Playfair as Lord Playfair of St. Andrews will be welcomed by the medical profession as a very well-merited recognition of the national services of a scientist of high order, as well as a statesman of proved ability. In both capacities Sir Lyon Playfair has rendered many and eminent services to his country in directions which medical men can peculiarly well appreciate. His services have been so considerable and so numerous in this direction, that it would take some time to enumerate them. We can only here and to-day refer to his long-continued and able assistance in the cause of sanitary reform; his sympathy with the progress and elevation of medical education in its relations to the State; his services on Royal Commissions connected with university subjects, continued to this day, and now on the Gresham Commission; his brilliant speeches on the value of experimental physiology; his services during the passing of the law regulating the practice of vivisection; and his able exposition of the importance of vaccination as a protection against small-pox. Although not himself a graduate in medicine, Sir Lyon Playfair has a wide acquaintance with the scientific sides of medicine, enlightened appreciation of its objects, and sympathy with its professors and practitioners.

THE RIGHT HONOURABLE T. H. HUXLEY.

It is with peculiar satisfaction that we hail the new departure that has recently been made in honouring men who have deserved well of their country and of mankind by their contributions to our stock of gained knowledge, and we congratulate Lord Salisbury on the enlightened feeling which has led him to make Professor Huxley a Privy Councillor even more than we congratulate the latter on his well-deserved distinction. Though the compliment is no doubt intended as a recognition of Professor Huxley's achievements as a scientific worker and of his excellence as a writer, we of the medical profession cannot forget that he was originally one of us, and that, in fact, it was through the gateway of medicine that he entered the Temple of Science, where he has so long figured as one of the principal hierophants. We cannot help adding that it would be well for the best interests of the nation if the Privy Council were from time to time strengthened by the addition of representative members of the medical profession, whose counsel, at such a time of public peril as the present, for instance, when cholera is knocking at our gates, would be simply invaluable. A seat in the Privy Council is, as we have often pointed out, a distinction peculiarly appropriate in the case of medical men; and there is no doubt that the honour, like mercy, would bless him that gives as well as him that takes.

ANCIENT MEDICAL MANUSCRIPTS.

About two years ago Lieutenant Bower discovered near Kuchar, in Chinese Turkestan, the remains of a subterranean city, and near it a curious birch-bark manuscript. Air-tight chambers are apparently common in these subterranean cities, and it is surmised that the manuscript owes its preservation to its detention in such a chamber. Dr. Hoernlé has lately communicated to the Asiatic Society of Bengal the result of his examination of the manuscript. It is written in an archaic type of Sanscrit by different scribes and at different dates, and not later than about 475 A.D., and the earlier portion about fifty years before that. It is one of the oldest manuscripts existing in the world. It is composed of five distinct sections, the first and fifth of which are medical works; the second and fourth, collections of proverbial sayings; and the third, the story of a charm against snake-bite given by Bhudda to Ananda. The intention of the writer of the first part of the manuscript was, to say the least, ambitious. The translation runs: "Whatever is useful to men and women afflicted with various diseases, whatever is also useful to children, that will all be declared in this book." He writes, too, for all classes of readers, for he goes on to say, "It (the book) will commend itself to those physicians whose minds delight in conciseness, but, on account of the multiplicity of its prescriptions, it will also be welcome to those whose minds love many details." This very interesting manuscript consists of fifty-five leaves, most of which Dr. Hoernlé has translated. The transcript and translation, together with photographic *facsimiles* of every page of the manuscript, will be published by the Asiatic Society of Bengal at the joint expense of the Governments of India and of Bengal. Dr. Bühler, of Vienna, also an eminent Oriental scholar, quite corroborates Dr. Hoernlé's views as to the great age of the manuscript.

A CASE OF TETANUS.

A case of some interest was the subject of a coroner's inquest at the village of Blackmore, near Ongar, Essex, on Monday last. From the evidence it appears that a boy, aged 9, was working on a farm with his father, when the horse trod upon his right foot. The shoe had a large hole in it; as a result of the accident the nail was torn from the big toe. This happened on July 4th. The boy returned to school the following Monday, July 11th. On Wednesday evening the boy felt unwell, and next morning, July 14th, he complained to his mother of stiffness of the neck, and soreness of the back, and he looked strange. This general soreness he attributed to a thrashing he received from the schoolmaster the day before. The same evening, July 14th, he was taken to Dr. White, who clearly saw that the boy was suffering from tetanus, and he died on Sunday afternoon, July 31st. An inquest was held, and in consequence of allegations made against the schoolmaster, it was adjourned in order that a *post-mortem* examination might be made. Dr. White, who made the examination, said he found "a severe bruise running across under the chin"; a new nail was forming on the big toe, which appeared "pretty well healed." No other lesion was found. The doctor was of opinion that the injury to the toe had nothing whatever to do with the tetanus, but believed the blow which caused the bruise to the chin might have caused the tetanus. Evidence was then taken as to the alleged flogging, and the coroner, in view of the important questions arising out of the case, and especially in regard to the medical evidence, adjourned the inquest until August 22nd. On that day the woman who attended the boy in his illness up to the time of his death, and laid him out, stated that there was no bruise visible on the boy's chin when he died, and Dr. White also testified that there was no evident bruising on the chin during life, but he found the bruise when he made the *post-mortem* examination. Mr. Walter Rivington then gave evidence to the effect that in his opinion the cause of the tetanus was the injury to the toe. The reasons were that it was precisely the kind of injury which would favour tetanus, and that the onset of the symptoms on the evening of the ninth, or early morning of the tenth, day, after the infliction of the injury by the horse, coincided with the period at which signs of tetanus usually manifest themselves after the primary injury. He also pointed out that, assuming the chas-

tisement to have been administered by the schoolmaster on July 13th, it was improbable that tetanus would have supervened the same evening or early next morning. Mr. Rivington explained to the coroner and the jury the relationship recently discovered between the tetanus bacillus and garden mould in relation to this disease. He was then questioned by the coroner as to the cases of so-called idiopathic tetanus. Mr. Rivington explained that in many of the cases of idiopathic tetanus it was exceedingly probable that some slight wound had been overlooked, and nearly all such cases had been reported before the specific nature of the tetanus bacillus had been even suspected. The supposed bruise upon the chin was regarded as *post-mortem* staining. Mr. Bland Sutton was then called, and he corroborated Mr. Rivington's evidence, but he stated that, in his opinion, assuming the thrashing to have been administered on July 13th, it was impossible that the signs of tetanus could be present the same evening or early next morning. Dr. White, recalled, said he was of opinion that such early supervention of the signs of tetanus, though not impossible, was improbable, as he believed that tetanus might ensue as early as the third, though it usually became manifest about the tenth, day. The coroner summed up the medical evidence very carefully, and the jury returned a verdict to the effect that the boy died from tetanus resulting from the injury to the big toe, caused by the horse treading upon it. The coroner remarked that this was, in the face of the evidence, quite a proper verdict.

CURIOSITIES OF LITERATURE.

Horace gently hints that *aliquando bonus dormitat Homerus*. An interesting museum of all kinds of "curiosities of literature" might be formed with very little trouble by anyone who would take the pains to look for them in the newspapers and periodicals of the day. We give a few specimens which we happen to have noticed, simply because they related to medical men or things. On July 28th our esteemed contemporary *Nature*, which should be a bright exemplar of accuracy to less severely scientific publications, surprised some of its readers by the following announcement: "The British Medical Association annual meeting was opened at Nottingham on Tuesday, the chair being occupied by Dr. W. Withers Moore. In his presidential address Dr. Moore dealt with the progress which has been made in surgery," etc. The *Union Médicale de Canada* for April, 1892, informed all whom it might concern that the "English surgeon, Sir William Thompson," had been raised to the peerage. The *Cronica Medico-Quirurgica de la Habana* of the same month announced the death of "the distinguished German laryngologist, Señor Morell Mackenzie." An account of a case of partial excision of the lung by M. Tuffier, an abstract of which from the original French source was published in the Epitome of June 6th, 1891, p. 178, has since made the round of the medical press throughout the world. This has no doubt been gratifying to M. Tuffier as a philanthropic man of science, though personally he might not unreasonably complain that in the migrations of the paragraph recording his operation his name, and even his nationality, have been "translated" as unkindly as poor Bottom was. The report having found its way to Spain, appeared in the *Gaceta Medica de Granada*, the surgeon's name being given as "Tuffieri," which seems to suggest that the paragraph had first passed through Italy. From the Spanish journal it was copied, with all its imperfections on its head, into several of our American contemporaries, and now it has recrossed the Atlantic, its last Avatar (as far as we are aware) being in the *Dublin Journal of Medical Science* for May, 1892. Such is fame; and so is even scientific history written.

Dr. Albrecht Burckhardt has been appointed to the newly-founded Chair of Hygiene in the University of Basle.

SCOTLAND.

BRITISH PHARMACEUTICAL CONFERENCE.

The twenty-seventh annual meeting of the British Pharmaceutical Conference was begun in Edinburgh on August 22nd by a reception. On the 23rd there was an official welcome by the Lord Provost of the city. This was followed by a business meeting.

ABERDEEN PRISON.

In the report on the Scottish prisons just issued, mention is made of the new Aberdeen Prison. This new prison was occupied on June 11th, 1891. It is situated on the south bank of the Dee at Torry. It is a mile from the centre of the city, and three-quarters of a mile from the general railway station. The site is surrounded on three sides by roads, which define the boundary. On the south side the space has been left as a margin of safety outside the boundary wall. The whole of the masonry is in Aberdeen granite, with concrete dressings. The male prison, three tiers in height, contains 61 cells, hospitals, padded cell, association cell, and the necessary sanitary apparatus, while the female prison has twenty-one cells in three tiers, a hospital, padded cell, etc. The heating of the prison is effected by hot water. Fresh air is introduced in the basements and led to each cell, and the foul air is extracted into shafts on the roof. The heating and ventilation have been found satisfactory and economical. The medical officer reports that the general health of the prisoners has been exceedingly good. The average daily number of prisoners was fifty-eight males and twenty females. It thus does not seem as if the criminal element in Aberdeen was expected to develop to any extent, there being only three spare male cells and one female.

IRELAND.

QUEEN'S COLLEGE, CORK.

During the past session the number of students attending the various classes amounted to 255, of whom 251 were matriculated. The new students numbered 87, 59 being medical. Dr. Maxwell Simpson, F.R.S., resigned last autumn the chair of chemistry, the duties of which he had discharged for nineteen years with efficiency and zeal, and his chair has been filled up by the appointment of Dr. Augustus Dixon, formerly professor of chemistry in Queen's College, Galway. A new chemical laboratory is urgently needed, the accommodation at present for students being altogether inadequate.

CHOLERA.

ITS MARCH AND PREVENTION.

The rapidity with which the cholera has reached the Belgian and German ports, and its steady onward march, coincide with what we have from the first pointed out. From the route maps which we published some time ago, it was evident that while cholera in the present epidemic is, in accordance with its past history, following the routes of human intercourse and public travel, its rapid onward march has been greatly accelerated by the largely increased facilities of travel in recent years. Showing itself violently in Srinagar, Cashmir, on May 8th, it reached Askabad on June 4th, after traversing Afghanistan. Thence the epidemic passed westward, travelling rapidly along the Trans-Caspian railway, which is a great highway of commerce. Entering on the western shore of the Caspian, it found two starting points. Travelling from the port of Baku, where it broke out on June 6th, along the line of the Trans-Caucasian railway, it arrived on June 26th at Tiflis. From Astrakhan, at the mouth of the Volga, where it broke out on June 30th, it was carried by the steamboat traffic up that great river as far as Kasan. Moscow became infected on August 5th, and thence

the disease spread to St. Petersburg, where cases were announced on August 17th. It has now been carried by the stream of Russian immigrants to Hamburg and to Antwerp, where it has been prevalent some days, and the official announcement of the commencement there of what seems likely to be a severe outbreak of cholera has now been made.

Thus, although it has had to traverse wide deserts and almost uninhabited steppes, being carried across the vast Russian Empire by rail and steam, favoured, too, by the emigration of the Russian citizens expelled from motives of religious persecution, it has not only reached Europe in a severe and alarming form, but, having located itself as on former occasions in Hamburg, it now threatens to make its appearance in this country, seeing that the northern ports are in constant commercial communication with Hamburg.

Cases are reported also to have occurred at Havre, the commercial maritime port of France which is in daily communication by a great volume of transport and travel with Southampton and other English ports. As we have mentioned elsewhere, the Local Government Board, although sadly destitute, owing to the improvident and niggardly economy with which its medical department is left without any intelligence department, so that it was even unable to afford us any information or assistance in constructing our route maps of cholera, has nevertheless been extremely solicitous to prevent all outbreaks and take precautions against the importation of cholera. As soon as the epidemic was seen to be approaching the north seaports of Germany special precautions were taken against the importation of linen and rags, and medical inspectors of the Poor-law Board have now been despatched to all the boards and ports of London, Grimsby, Southampton, Hull, etc., to confer with the local authorities and to urge them to take such precautions and to appoint special medical officers for the inspection of the ships arriving from foreign ports.

As for Great Britain and its danger from cholera, let us repeat that while there is great need for the most vigilant caution and for special precautions such as are being taken by public authorities, there is no ground for anything like panic. It is the sanitary neglect and unpreparedness of continental ports and towns which constitute their danger. Our risk, such as it is in England, may be measured by the quality of our drinking water supply and by individual neglects of municipalities in respect to local cleanliness as a safeguard. The history of the last cholera epidemic of 1866 is very instructive and reassuring; it has been told in detail in our columns. When cholera first broke out in the east of London where it made 16,000 victims, Mr. Ernest Hart, fully believing in the logical deductions from the great researches of Snow and the confirmatory investigations of Farre and Simon, felt assured that it could only be due to pollution of the water supply. Acting on behalf of a great medical journal, he despatched Mr. J. Netten Radcliffe, subsequently appointed an inspector to the Local Government Board but not then connected with sanitary work, to the headquarters of the East London Waterworks, which then supplied nearly the whole of that district. At first, of course, he was met with a blank denial that anything had occurred in connection with their water supply which could explain the distribution of cholera through that water supply. A refusal to accept any such pointblank denial and a patient investigation, in which the officials gave all necessary aid, though under protest, at last made it plain that, owing to changes having been made in their filtering apparatus, the company had sent out for a few days unfiltered water or water in a very partially filtered state, direct from the river Lee. Subsequent inquiry proved that just at that moment the waters of the Lee had been infected with choleraic discharges from a cottage whose sewers were connected with the Lee, and in which a family had come to reside who had reached Southampton infected with cholera and were allowed to pass on, after they were supposed to have recovered.

The cases which occurred in this cottage are supposed posed to have poisoned the water supply of the East London Company, distributed, as it was, without due filtration, and it was sufficient to strike down 16,000 individuals. The details of the investigation which were completed by Farre and Simon were of the most elaborate and convincing character. We ventured to prophecy then that so long as the water supply of London generally was carefully watched and maintained in a state of purity a general epidemic need not be feared, and the result verified the prediction. We may repeat that prediction now. But the report of Mr. Cassal, the public analyst, shows that the water supply of some parts of South London, and of especially the Battersea district, is quite unfit for drinking purposes, and bears the character of unfiltered water. So long as it is so this is a source of danger. The local sanitary authorities of London and our great towns may be trusted to show extra vigilance at this crisis, and they are preparing to do so.

So far as individual precautions are concerned, the recommendations of the published memorandum of the Local Government Board in 1888, which may be purchased anywhere, will be found to furnish excellent advice. We may sum it up in a few words: Boil all the drinking water; filtering is inadequate, and the addition of wine or spirits utterly valueless. Boil all milk; whitewash uncleanly premises; prevent overcrowding; enforce ample ventilation; enjoin and adopt the cleanliest domestic habits; and the destruction or removal of all refuse. Isolate persons suffering from infective disease, and thoroughly disinfect everything that is used in, or comes from, the sick room. In cases of diarrhœa, medical treatment should be immediately adopted.

The appearance of Asiatic cholera at Hamburg is officially confirmed. Up to Tuesday afternoon there had been 219 cases of various choleraic diseases, and 75 deaths have occurred since last Thursday. Three cases of Asiatic cholera appeared on Monday at Altona. Asiatic cholera is also now declared to be prevalent at Antwerp. Much alarm is felt at Berlin and at Vienna, and precautionary measures are being adopted throughout the Continent. We learn by telegraph also that some cases of what is believed to be Asiatic cholera have occurred in a prison at Rouen. These, however, are much more probably choleraic diarrhœa, due to the distribution of impure waters. The daily official return at St. Petersburg shows that there were 5,500 cases and 2,659 deaths in Russia on August 21st. There have been nearly 20,000 deaths from cholera in the Russian territory during the week.

Our Edinburgh Correspondent writes: A steamboat from Hamburg arrived at Grangemouth, on the Firth of Forth, on August 21st, and reported that there was on board a seaman suffering from symptoms which were thought to be indicative of cholera. The medical officer of health for the port and another medical man saw the patient, and strongly suspecting cholera, had the seaman isolated in hospital (where he died on Friday afternoon at 3 o'clock), and the steamer placed in quarantine. A *post-mortem* examination was made by Dr. Proudfoot, of Edinburgh, who has had considerable experience in cholera, and he expressed the opinion that the man had died of choleraic diarrhœa. Thus far no further case of a similar kind has occurred.

Our Paris Correspondent writes: Notwithstanding the intense heat which has prevailed in Paris and its environs during the last few weeks, the cases of choleriform diarrhœa decrease. Four cases have occurred in Paris and two in the neighbourhood—one at Levallois Perret and the other at Aubervilliers. The epidemic which broke out in the asylum for the insane at Bonneval has died out. Forty-one cases occurred, resulting in twenty deaths. At present there are eight patients under treatment; seven are convalescent and one seriously ill. The female patients were principally attacked; one-tenth of their number (280) have died in the epidemic; four of the men were attacked and died. During several weeks an epidemic of dysentery or severe *cholérine* has broken out in the Dieuze barracks in Lorraine; one regiment has suffered severely, 120 men having been sent to hospital. Several medical men have gone from Strassburg to Lorraine to study the epidemic and ascertain its cause; on the frontier travellers are submitted to a strict medical inspection. The general public have hitherto escaped. At Dijon choleriform diarrhœa has also broken out in the barracks; the reservists were convened for August 22nd; their military service will be deferred until next year. M. Lucien Humbert, French Consul at Baku, has died from cholera.

BRITISH MEDICAL ASSOCIATION.

ADMISSION OF WOMEN.

An extraordinary general meeting was held at the offices of the Association, 429, Strand, on Wednesday, at 2 P.M., to consider, and if thought fit, to confirm the special resolution passed by the statutory majority at an extraordinary general meeting of members held at the Albert Hall, Nottingham, namely, "That Article 4 of the Articles of Association be altered by expunging the words 'no female shall be eligible for election as a member of the Association.'" The chair was taken by Mr. Joseph White, President of the Association.

Some questions respecting the validity of the resolution having been asked by several members and answered by the solicitor of the Association, who said that the sole question for consideration was the confirmation of the resolution,

Mr. Nelson Hardy said no doubt a good many of those present had made up their minds Yes or No with regard to the main question on which they had to vote. As one who voted in the minority on the question at Bath fourteen years ago against a resolution to exclude women from the Association, he was very glad to find that the minority had been turned into a large majority. He was also glad that the matter was brought for a final decision to the *locus* of the Metropolitan Branch, where, if anywhere, they had the best opportunity of knowing whether any evil was likely to arise from the admission of ladies into the Association. They had in that Branch one lady who was an honour not only to her sex but to the profession. She had conferred as much honour upon the Association by joining it as she had herself received benefit from it. He could not see how any sensible man who knew what ladies had done in India, where no male doctors could be received, could entertain any doubt upon the subject or do anything to upset the decision almost unanimously arrived at at the annual meeting.

Dr. Norman Kerr said he had also voted at the Bath meeting against the exclusion of women from the Association, and when he returned to London he found that he had been wrong in regard to the general feeling of the profession on the subject. Every colleague whom he met was adverse to the admission of women; but a revolution had taken place, and almost without an exception his colleagues were in favour of their admission.

Mr. F. J. Gant could not give a silent vote upon the question. He stood in a peculiar position in the matter. He had been from the first mixed up with the medical teaching of women. Thirteen or fourteen of the ladies who were coming forward had received instruction from him as students of the Royal Free Hospital, and he therefore knew something not only of their intellectual qualifications, but of their social and moral character. He entered upon the subject with no prepossession in favour of the ladies—rather the reverse. He thought that they might, owing to the pressure of the times, seek to enter the profession upon easier terms; but so far from that being the case, they had taken the hardest road in nearly every instance. They had gone to the University of London, and had not only taken a degree, but had distinguished themselves in honours. They had also gone to Scotland and Ireland, where they had acquitted themselves equally well. The College of Surgeons, it was true, had not admitted them, but that was rather a slow-going machine, something like the Lord Mayor's coach, old and rickety. The Council were gentlemen, but they were rather too conservative. The question really resolved itself into this: How could they in justice exclude any body of legally-qualified practitioners from entrance into the Association? What they might do when admitted, and whether they went on the Council of this or that Branch, were matters to determined by the members themselves. It was, he thought, almost a waste of time to discuss the question. It simply turned upon the professional, social, and moral character of the ladies in question, as to which there could be no doubt. He was strongly in their favour, not because he had been their teacher and had received a testimonial from them, but because it was a matter of right and justice.

Dr. Heywood Smith said the members had ample notice of the resolution before it was brought forward at Nottingham. They were there in sufficient numbers, and the resolution was passed by an overwhelming majority. The argument put forward then was very much the same in point as was now put forward, and the result certainly showed that a great change had taken place in the feeling of the profession since the adverse resolution passed at Bath. It would be a discredit to this nineteenth century were they to exclude women from an association in which they might do good work, and especially when there was an almost universal feeling in the profession in favour of their admission. He would not waste time by referring to the work done abroad, but he knew something of the work being done by women in London. It would be small-mindedness if they were to go back from the vote so well given at Nottingham and were to come to an opposite decision.

Surgeon-Major Pringle said it was his privilege to speak in favour of the resolution at Nottingham and to refer to some cases as showing the good work done by lady doctors amongst the Zenanas in India. Looking at the position they held there and the admirable way in which they were working, he thought it should be a joy and happiness to welcome these women into the Association.

Dr. Walter Smith asked what would be the position supposing the resolution was rejected, or if it was illegal, could they have another meeting to make the resolution legal? He thought there was no necessity to rush the question forward for the sake of a few weeks. Surely if what was done at Nottingham was illegal they could have another meeting.

The President said they had the best authority for saying the resolution at Nottingham was legal, and their sole business now was either to affirm or disallow that resolution.

Dr. Forsyth supported the resolution, and considered it perfectly absurd at this time of day to endeavour to exclude women from the Association.

Dr. Haughton said all the argument had at present been on one side. He had received a circular requesting him to vote in a particular way. That looked very much as if there was an endeavour to use a little electioneering in the matter. He did not like electioneering in connection with science, and therefore, just to break the ice, he would say it was right that they should consider what they were doing. He was not present at Nottingham; but after reading the report of the meeting he did not think the statements then made were very convincing. From what his friend Surgeon-Major Pringle said, he seemed to think there was some hindrance to women labouring in India with medical degrees because they were not members of the Association. He (Dr. Haughton) did not see any connection between the two. Mr. Brown, who supported the resolution, had voted against it on a former occasion, and he gave as the reason of his conversion that, as women had now been admitted to take medical degrees, therefore they ought to be admitted as members of medical associations. He could not quite see that. Mr. Brown added that women ought not to have been introduced into the profession, and he was very sorry they were, but now that they were, he thought they ought to be admitted to every other thing in connection with the profession. He (Dr. Haughton) was not at all of an exclusive disposition or even of a conservative disposition; at the same time, he thought this was a revolution, and there was some difference between reform and revolution. It was part of a greater revolution, that is, society was asked to make women not only doctors, but parsons, lawyers, members of Parliament, and members of Government. They must draw the line somewhere. He did not agree with Mr. Brown in stating that two blacks make a white; and if it was right to admit women to the profession, it did not follow that it was wise or desirable that they should be members of the British Medical Association. Dr. Galton, in his speech at Nottingham, said it was ridiculous to raise the question of indelicacy, and why? Because on the stage certain revolting things had been brought forward in connection with chronic disease. He did not know what Dr. Galton referred to unless it was to Madame Modjeska dying of consumption. He said also these subjects were brought forward in novels. They had no control over writers of novels, but he thought it would diminish their opportunities of discussing questions in that thorough and complete manner that science required, particularly when they referred to such delicate questions as diseases affecting the organs of generation of females in the presence of women.

As a Christian and a gentleman, he objected to it. He did not object to what Mr. Brown objected, on their being admitted to the medical profession. They had a right to practise as much as they pleased, but that was no reason at all why these questions should be discussed in the presence of women, and even of ladies. There was no woman who ought not to be protected from such a discussion. Anything like a snatch vote on such a question as was now before them was objectionable; wire pulling of every kind was objectionable. He appealed to members to consider the question well before doing what it might afterwards be impossible to undo.

Dr. PARSONS (Dover) asked the members to consider the position in which they stood. They constituted but a very small meeting, and yet they were supposed to express the opinion of the fourteen thousand members belonging to the Association. He was quite sure that Dr. Galton, who introduced the matter at Nottingham, had the interests of the Association at heart in doing so; and the same could be said of the gentlemen who opposed the resolution. But he would seriously put it to those present whether they were sufficiently in possession of the views of the fourteen thousand members to be able to vote upon the question, and decide what the practice of the Association should be in the future. He ventured to suggest whether it would not be possible to adjourn the meeting for a few weeks in order that a *plébiscite* of the members might be taken.

The PRESIDENT said that the members could only vote Yes or No upon the question.

Dr. STEWART said he did not desire to prolong the meeting, but unfortunately the country to which he was proud to belong had been misrepresented by Dr. Haughton; and he therefore desired to say a word or two on the subject. Irishmen had had a very large experience of women doctors, and what they could do, and of what their real character was; and he could state without hesitation that throughout Ireland they were respected and admired, and were regarded as most helpful in the profession. He thought that the question had in reality passed beyond the point as to whether it was right for women to enter the profession at all; and it would be very unworthy of them if, while trying to embrace within the fold the cream of the profession, they were to exclude the *crême de la crême*.

Dr. REED said it was not a case of revolution, as a previous speaker had stated, but a case of evolution. It had been said that because ladies had been admitted to the profession there was no reason why they should be admitted to the British Medical Association. He asked, Why should they not be admitted? The *onus probandi* lay upon those who opposed their admission. The only point that had any relation to the matter was one arising out of what he should call a prudish delicacy. He held that knowledge was neutral, that the motive that lay behind the knowledge—the end in view—was the thing which made the knowledge right or wrong. He could conceive of no circumstance under which he might not fully consider any medical question with a medical woman if it was good for the patient. If it was contended that there was an indelicacy in discussing questions even of a sexual character he would retort that the indelicacy was in the mind of the person who raised that idea. To the pure all things were pure.

Dr. USHER (Melbourne) hoped that the meeting would bear with him while he said a few words for the women in Australia. The present *casus belli* had arisen from the action of the Branches in that part of the world. In Victoria, New South Wales, and he believed in Queensland, unanimous votes had been given in favour of the admission of lady doctors; and the same might be said with regard to India, the Cape, and Canada. The question was now not so much as to the admission of ladies into the profession as to the prejudices against their admission to the Association. There were some two hundred ladies qualified by the British Colleges applying for admission into the most powerful combination of medical men in the whole world, and it was only a gracious act to admit them to membership. It was not their business to inquire what had led the ladies to enter the profession; it was enough for them to know that those ladies were women of talent, courage, and breeding. There was nothing in the Articles of Association which excluded anyone on the ground of colour, caste, religion, or sex. The opposition to their admission did not say much for the gallantry or the *esprit de corps* of the members, and it could only arise from prejudice; there was no explaining it away. It was their duty to extend the right hand of fellowship to the ladies, and to perform the act as graciously as possible.

Dr. CLEVELAND said that the discussion which had taken place showed that there was a great difference of opinion on the subject. It would be a great pity that such a question should be decided by a mere handful of the Association. There was a certain moral aspect in the matter that some people felt rather deeply, and he thought that each member of the Association should vote upon it.

Dr. BEVERLEY (Norwich) asked what they had to lose as members of the Association by passing this resolution. He thought they had everything to gain by the admission of women doctors. Much might be gained by their counsel and intercourse. The experience in America was that women were among the most useful members of the various medical societies.

There being now general cries of "Vote," the PRESIDENT put the resolution from the chair. A show of hands was taken, and the resolution was declared carried by a large majority.

DISPENSARY HOLIDAYS.

HOLIDAYS FOR IRISH DISPENSARY MEDICAL OFFICERS.

WE regret to see that an attempt has been made to rescind the resolution granting a holiday to the Belfast dispensary doctors. The motion to recall the former resolution equally divided the board of guardians, so that no decision was come to, and notice has been given that the subject will again be brought forward next week. We have carefully read the report of the discussion. The opposition was based upon the single ground that the guardians were led to believe that the Treasury would pay half the cost of the substitutes, as it now pays half the expenses under the Medical Charities Act, and that this is not so. We are not at the moment prepared to say how this really would be; but even if the assertion be true, the total amount payable for the year would, on the showing of the opponents of the concession, be only £130. It will hardly be credited that this is regarded as an unbearable burden upon the ratepayers of Belfast. If this reason had been alleged in some squalid district of Connaught it might demand consideration; but in the newly-created City of the North, which boasts of its wealth and intelligence, and even liberality, the excuse can only be regarded as a very mean and unworthy one. We do not know who the gentlemen are who have proposed or supported the new motion; but if they are amenable to reason, they must see that a public servant who is never off duty requires at least a couple of weeks' rest in the year. A man constantly at work loses the energy and intellectual quickness which are so important in a doctor. As a result, the poor must suffer. The Belfast guardians are all, probably, in such a position that they do not avail themselves of the red ticket. But if they are rich they should have some regard for the poor. Why should the pauper be deprived of the full benefits of the medical aid which the State intended he should have simply to save the ratepayers of the city £130 a year, spread over a community which is one of the wealthiest in the three kingdoms? If these gentlemen are not already ashamed of their action, we hope they will be influenced by a consideration for the wellbeing of the poor. These have a right to the services of capable and healthy medical men. The public pay for this, and the guardians must be held accountable if they fail in what is their plain duty.

DR. THOMAS D. BROWNE (Medical Officer Benburb Dispensary) writes: I have to report that on Thursday, August 11th, the Board of Guardians of the Dungannon Union, at their meeting unanimously passed a resolution giving their medical officers a fortnight's holiday, their substitutes to be paid by the Board.

EDINBURGH DISPENSARIES ON HOLIDAY.

VERY strong adverse criticism has been directed against the autumn arrangements of the Edinburgh public dispensaries. From information that has reached us, it appears that four

out of these six institutions have been closed during the month of August. The two that have remained open are the Marshall Street Provident Dispensary and the Victoria Dispensary for Consumption and Diseases of the Chest; and we believe the physicians in charge of these have been overwhelmed with work—indeed, have been quite unable satisfactorily to cope with the amount of work to be done. This is not the first season that such an anomalous and scarcely creditable state of affairs has occurred. There are in Edinburgh many younger practitioners who would only be too glad to avail themselves of the experience which such institutions would give them during the slack season, when so many of the better class of patients are able to be out of town. It is to be hoped, for the credit of the Edinburgh medical charities and its great medical school, that the recurrence of this deadlock will be made impossible. The matter demands the immediate and serious consideration of the responsible managers of the institutions concerned.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1892. ELECTION OF MEMBERS.

A meeting of the Council will be held on October 26th, 1892. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than October 5th, 1892.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

East Anglian Branch.—The autumn meeting will be held at Sheringham, on Thursday, September 8th. General meeting at Sheringham Mansions Hotel, at 2 P.M. Papers: The President: Short Address on Some Sanitary Defects. Sir Frederick Bateman, M.D.: Criminal Anthropology in its Medical Aspects. Professor Victor Horsley, F.R.S.: The Dangers and Consequences of Prolonged Otitis Media, with especial reference to Cerebral Abscess; illustrated by Macroscopic and Microscopic Photographs with Lime-light. Excursion: It is proposed to take a drive (under the guidance of Dr. Sumpter) through Sheringham, the Woods and Park to the Hall, where Mrs. Upcher has kindly invited members and their ladies to afternoon tea.—Edgar G. Barnes, Michael Beverley, C. E. Abbott, Honorary Secretaries.

SOUTH-WESTERN BRANCH.

The fifty-third annual meeting of this Branch was held at Exeter on June 15th.

Luncheon.—Before the meeting, the President-elect, Mr. L. H. Tosswill, entertained the members at luncheon.

General Meeting.—The general meeting was held in the Board-room of the Devon and Exeter Hospital, at 1.45 P.M., and was attended by upwards of sixty members and some visitors. The chair was taken by the President, Dr. John Rolston, of Devonport. The minutes of the last annual meeting at Devonport, and of the intermediate meetings at Exeter and Teignmouth were taken as read.

Vote of Thanks to the Retiring President.—Dr. Rolston resigned the chair to the President-elect, and thanked the members for their support during his term of office.—Dr. Deas moved that a cordial vote of thanks be awarded to Dr. Rolston for the able and courteous manner in which he had filled the office of President during the past year.—This was seconded by Mr. Baker (Dawlish), and carried by acclamation.

President's Address.—Mr. Tosswill then delivered his inaugural address, on the Duties and Responsibilities of the Medical Profession in Relation to the Public Eyesight. On the motion of Dr. Ackerley (Ashburton), and Mr. Roper (Exeter), who both emphasised the great importance of the subject, a cordial vote of thanks was awarded to the President for his valuable and instructive address, and, on the suggestion of Dr. Woodman (Exeter) it was resolved that copies of the address should be sent to the various railway companies.

Annual Report.—The annual report of the Council stated that the number of members of the Branch was now 234, an increase of 3 since last year; 19 new members had joined, 11 had resigned or left the district, and 6 had died, special mention being made of William Joseph Square, of Plymouth, a former President, and who for many years had been one of the most valued and respected members of the Branch, and of Dr. Dickinson, of Ufculme, and Dr. Gervis, of Ashburton, men widely known and respected, who both fell victims to the effects of the epidemic of influenza. Besides the annual meeting at Devonport, two well-attended intermediate meetings had been held at Exeter and at Teignmouth. The financial position of the Branch was satisfactory, there being a balance in hand of £63 7s. 3d. Out of this balance the Council suggested that donations of ten guineas be made to the British Medical Benevolent Fund and to the Devon and Exeter Medical Benevolent Society. On the motion of Mr. Domville (Exeter), seconded by Dr. Brushfield (Budleigh Salterton), it was resolved that the report of the Council be approved and adopted, and that donations be made as proposed by the Council.

Next Annual Meeting.—On the motion of Mr. D. Thompson (Launceston), seconded by Dr. Rolston, it was resolved that the annual meeting in 1893 be held at Camborne, and that Mr. Charles H. Butlin be the President-elect.

Officers and Council.—The following were elected office-bearers for the ensuing year: *Representatives on the Council of the Association:* The President and Dr. Deas. *Council—New Members:* C. H. Butlin, Camborne; F. Hichens, M.D., Redruth; J. Mudge, Hayle; R. C. M. Pooley, Falmouth; A. L. Salmon, Truro; J. Telfer Thomas, Camborne. *Honorary Secretary* and *Representative on the Parliamentary Bills Committee:* Dr. Deas was re-elected.

Cases and Specimens.—Mr. J. D. Harris (Exeter): (*a*) Specimen of Chronic Ovaritis with Peritonitis; (*b*) Further Note on a Fæcal Calculus.—Mr. R. H. Lucy, F.R.C.S. (Plymouth): Notes of a Case of Coccygodynia completely relieved by Excision of Coccyx; and exhibition of Coccyx and Dermoid Cyst in relation to the same.—Dr. Raglan Thomas (Exeter): Specimen of Pyloric Disease of the Stomach in an Infant.

Garden Party.—After the meeting the members attended a garden party given by the President and Honorary Secretary in the grounds of Wonford House, at which about 300 were present.

Annual Dinner.—The annual dinner was held in the evening at the New London Hotel. Among the guests who supported the President were the Mayor and Sheriff of Exeter, Rev. Canon Edmonds, Admiral White, C.B., and Colonel Milne-Home, C.B.

Professor Flückiger, who, as already announced, recently resigned the Chair of Pharmacognosis at Strassburg, was on July 9th presented by his pupils and admirers with a commemorative medal, an album containing 307 photographs, and an illuminated address bearing the signatures of all who had subscribed to the fund. Among the contributors were twenty-seven learned bodies and 702 persons. The fund amounted to 12,722 francs, of which 3,669 were subscribed in Germany, 3,578 in England, 660 in France, and 444 in Austria. The medal, which was designed and executed in gold, silver, and bronze by Herr Scharff, of Vienna, bears a likeness of Professor Flückiger, with the inscription "*Scientia non unius Populi sed Orbis Terrarum,*" with the date 1892. Professor Eduard Schär, of Zürich, has been invited to succeed Professor Flückiger at Strassburg.

SPECIAL CORRESPONDENCE.

LEEDS.

Small-pox in Leeds.—Hospital Concert in Holbeck.—Hospital Gala in Roundhay Park.—Pollution of the River Aire.—Leeds Public Dispensary.

CONSIDERABLE alarm has been caused in the Burmantofts portion of Leeds by the reports of cases of small-pox which have occurred there, but inquiry among the medical men in that part of the town, and from the medical officer of health for the borough (Dr. Cameron), shows that at present there is no cause for alarm. So far the disease is confined to those poor and densely crowded districts lying to the east of the borough. The officials of the Sanitary Department are exerting all their energies towards preventing a spread of the disease. All persons suffering from it have been isolated and their houses disinfected. Other inmates of the houses have also, as far as practicable, been isolated for a short time. The disease seems to have been developed in one of the East End lodging houses, and there can be no doubt that the oppressive atmosphere has increased the chances of the disease travelling from place to place. The following official statement has been supplied to the press by Dr. Cameron: "During the week ending 10 A.M. Saturday, August 20th, seven cases of small-pox have been reported to the department. They have all been isolated, and their houses disinfected. As far as practicable other inmates of the homes have also been isolated for a short time. The medical officer has reason to think that he has a clue to the infection of most of these cases. By his direction the inspectors have visited during the week upwards of 2,000 houses in the neighbourhood of the known cases, but in only one of the 2,000 houses was a suspicious case found. This doubtful case was isolated, and the house disinfected. It remains at present under observation. Dr. Cameron does not consider that there is any need for alarm or panic; at the same time he thinks it would be well if persons who have not been recently vaccinated would avail themselves of an early opportunity of that being done."

The annual Sunday Festival for Holbeck and district took place on Sunday, August 21st, in the Holbeck Recreation Ground; the proceeds, as usual, being devoted to the medical charities. The weather was delightfully fine and an immense concourse of people came together. The amount realised by the concert was £47.

There will, it is anticipated, be a profit of about £300 on the Hospital Gala held in Roundhay Park on Bank Holiday. The weather was much against such a splendid financial result as that of last year.

With a view to bringing about some practical result from the conference on the condition of the Aire held in Leeds two months ago, representatives of the local authorities from Skipton to Shipley met last week at Keighley, by invitation of the Mayor and Corporation. The various bodies were well represented, and there were also present Dr. Kendal (Chairman of the Sanitary Committee of the County Council) and Mr. H. Sugden (Vice-chairman). After considerable discussion, in which it was urged that the Government ought to inquire into the treatment of the different trade effluents, and show how they could be dealt with, leaving the different local bodies to deal with the traders, Mr. Rhodes (Shipley) moved and Mr. J. Sugden (Oakworth) seconded: "That the Sanitary Committee of the West Riding County Council should be asked to employ a chemical expert, who should advise local authorities as to the best way of treating trade effluents." This was carried; after which Mr. B. S. Brigg stated that shortly the local manufacturers would hold a meeting to discuss the treatment of trade effluents.

The annual meeting of the trustees and subscribers to the Leeds Public Dispensary was held last week, when Mr. Swale read the 68th annual report, which showed that the institution still maintained an important position among the charities of the town. During the year, 34,468 patients had been treated, an increase of 1,500 over the previous year, notwithstanding that there had been no such widespread epidemic of influenza as there was in 1891, nor prevalence of any infectious disease. The number of patients visited at their own homes was 3,023, entailing 15,997 visits by the ordinary staff. The number of deaths were 323, the lowest number recorded since the opening of the present building. The number of accidents treated had been 1,923, being an increase of 280 over last year. The number of operations performed was almost double that of last year. The committee regretted that the balance against the treasurer had this year increased from £192 to £380. The congregational collections showed a falling off as compared with the previous year, but the workpeople's contributions had again increased from £511 to £542. The Chairman proposed the adoption of the report, and Mr. Sydney Lupton having seconded the motion, it was adopted. The Chairman said the committee would be glad if the public would pay a visit to the Dispensary any morning between 8.30 and 9 o'clock, and see not two or three, but 200 or 300 patients waiting to be attended to. Votes of thanks to the Chairman, the staff, and the committee were passed.

NEWCASTLE-ON-TYNE.

Newcastle Infirmary.—Dr. Heath's Legacy.

THE quarterly meeting of the infirmary governors was held last week. The Chairman, in the course of an address, gave the particulars of the receipts for this year, from January 1st to July 27th. There was an increase of £171 in subscriptions, which amounted to £2,398, an increase of £102 in donations, but a decrease of £372 in working men's contributions, which amounted to £1,530—this being no doubt due to the disastrous strikes which have recently occurred. With regard to the proposed new infirmary, the chairman said a very important meeting had been held of the committee appointed to consider the matter, and that there was a difference of opinion as to the site of the new building, some being in favour of the present position, and others against. A town's meeting would again be called to decide this question; the chairman hoped they would all pull together, and that the minority would be loyal to the decision arrived at. Some correspondence is taking place in the *Newcastle Daily Journal*, upon the new infirmary scheme. The first letter, written under the signature "Scrutator," suggests that the opposition to the scheme is due to the feeling that the present institution is managed solely in the interests of the College of Medicine, and that the two institutions are worked by too small a staff. An unwarrantable attack is made upon Dr. Arnison, which is, however, amply atoned for by "M.D." in the second one.

With regard to the bequest to the infirmary by the late Dr. Heath of £8,000, it appears that there was a flaw in the will, which has been disputed, and the institution now receives only £5,000.

SHEFFIELD.

Precautions against Small-pox.—Notification of Infectious Diseases.—A Centenarian.—The Public Hospital.

WITH small-pox in the districts around, the health authorities are right in bestirring themselves in the matter of doing what can be done to detect and immediately deal with any case that may be introduced into the town. A lesson was learnt from the late epidemic which is not likely to be thrown away. A discussion lately took place at the meeting of the Sheffield guardians as to proceeding against those parents who were neglecting to have their children vaccinated. The Chairman remarked that in the late epidemic many who until then stood out as antivaccinators had, when the danger was brought close home to them, been glad to avail themselves of the protection afforded by vaccination. At the Chesterfield meeting of guardians a different view of matters was taken, for it was determined to await the report of the Royal Commission before taking any steps. There seems to be a prospect of the visitation of small-pox to this latter town being somewhat severe, and it will be curious to watch the future action of the guardians.

The Bakewell sanitary authority, by a majority of votes, has decided against a motion that was introduced for the adoption of the Notification of Diseases Act. It is curious that whilst this was refused opportunity was taken to scold medical men for not notifying cases.

Mention was made in a former letter of a centenarian

woman who was living at Mapperley. She has recently died, leaving six children, whose united ages amount to 351 years. There remain also 64 grandchildren, 149 great-grandchildren, as well as 34 great-great-grandchildren.

At the annual meeting, held recently, of the Public Hospital a satisfactory account was given of the work done there, and it is expected that before long steps will be taken towards the new buildings which are in contemplation.

CORRESPONDENCE.

ARE THE LICENTIATES OF A COLLEGE OF PHYSICIANS NOT PHYSICIANS?

I.

Sir,—The question—Are Licentiates in Physic physicians?—thus raised by the circular of the London College, which is discussed and criticised by the Editor in the last number of the British Medical Journal, is a very momentous one. By law, by diploma, and by established custom they have been so designated up to this date. "Physician and Surgeon" is the common style of the door-plate of great numbers of the Licentiates of the College under the Conjoint Examining Board. If surgeons by reason of their connection with the College of Surgeons, why not physicians in virtue of their connection with the College of Physicians?

The vast majority of the Licentiates have never acquiesced in the by-law of the College which it is stated has been passed, prohibiting its Licentiates from calling themselves Doctors. All the more so because such by-law has never been enforced by the College, and is notoriously and openly violated every day. But for this by-law there was a pedantic semblance of reason because "Doctor" is a sort of translation of M.D., and may be held to imply a claim to the possession of an university degree, although in fact and custom it does not, for a person who doctors the sick has always and will always be a doctor, and addressed as such to the end of the chapter.

But is a diplomate of the College of Physicians licensed to practise physic no longer to be a physician? This is what the circular means as worded: "a Physician is now under penalty of incurring the displeasure and censure of the College, with all its attendant consequences, if he takes part in the sale of a practice, or the transfer of patients in any other form for a pecuniary consideration." But a Licentiate may do so; thus a Licentiate is declared not to be a Physician.

The Licentiates unfortunately are a scattered body without organisation, and therefore without any voice or influence in their own affairs or in the College. But for the assistance which the British Medical Journal gives them from time to time, they would be helpless, as they are now in an organic sense dumb. To the dumb and helpless but little consideration is given. I would suggest that unless this edict be withdrawn, or its wording altered and otherwise interpreted, the Licentiates do meet and organise in order to assert their rights, and so watch over their own interests, and claim a voice and share in the management of the College (which is mainly supported out of funds which they have supplied), as is being done in the case of the Members of the College of Surgeons. Perhaps some public-spirited Licentiates will come forward and form a committee for the purpose. I am sure it would be a public benefit, and meet with marked success.—I am, etc., Logic.

THE HONOUR OF A PHYSICIAN.

II.

Sir,—It may be well to point out that, however the wording of the resolution and of the postscript of stated principles explaining and justifying that resolution may suggest severe criticism, such as that of the leading article of the British Medical Journal of August 20th, the object of the College in passing that resolution is not to infringe in any way upon the rights and privileges of Licentiates, but its object is to draw tighter the bonds of discipline among Fellows and Members, and authoritatively to forbid transactions in the transfer among Fellows and Members—and only among them—of successions or introductions to practice.

It is, of course, well known that a great many Fellows and Members—perhaps even most, if not all, of those engaged in what is commonly known as consulting practice—have a large number of family patients whom they treat in illness without the intervention of any general practitioner and for the ordinary run of everyday maladies. A considerable number are, in fact, in such cases the ordinary family attendants, except that they will not undertake surgical operations, and that the fee is a guinea for each consultation, or nominally so. This direct treatment of patients—what is known as family consulting practice—forms a very large and profitable part of many consulting practices, and enters largely into pretty nearly all.

It was to check the traffic—alleged to be an increasing traffic—in the *clientèles* of this character that the new ordinance has been passed. The College does not interfere, and does not intend to interfere, with the sale of practices by Licentiates, or with any form of transfer of patients for a pecuniary consideration among them, whether by way of direct purchase or of the purchase of the lease of the house, etc., which is the seat of practice at an entrance price, as a sort of consideration for the goodwill, or for the transference of public or private appointments. But it does intend to visit with its displeasure any such transactions among its Fellows and Members after the plain intimation which has now been given.

This resolution has been passed and this intimation was given in consequence of its being explained, in the case of one such transaction between a Fellow and a Member recently brought to the notice of the College, that it was done without any suspicion that it was one of which the College would not approve or that any impropriety attached to it. Hence the issue of the circular on which the Journal comments. But it should be well understood that its issue was limited to Fellows and Members only, and that it does not concern Licentiates in any way.

With the question raised as to the wording of the last paragraph of the circular as to the meaning of the word "physician" and the restrictions there imported into it, and the further question why one class is free to impose restraint upon the freedom of patients and the other is not, it is not the object of this letter to deal, but only to make plain that it is not the object of the College in any way to restrain the freedom of Licentiates; while it is its object to strengthen and maintain the professional dignity of its Fellows and Members. It will be observed that it has the fullest legal as well as moral right (and therefore duty) to do this in the one case and not in the other, as the Fellows are fully represented in the Council and are consulted in all such matters as this, while the Licentiates of course are not so represented in the governing body, and could not fairly be dealt with in the same way.

It is the honour and traditions, not the position of the physician, with which the College was mainly concerned in drawing up this restriction and circular, and this will excuse the verbal difference between the title of this letter and the leading article of August 20th, on which it comments.

No doubt the Journal, with its customary candour, will not object to publish this communication in its columns in defence of the recent action of the College of Physicians, although it may seem to run counter to some of the views editorially expressed.—I am, etc., Fiat Justitia.

THE POSITION OF THE LICENTIATE OF THE ROYAL COLLEGE OF PHYSICIANS.

III.

Sir,—Your leading article in the British Medical Journal of August 20th on the position of the physician and the freedom of the patient in relation to the resolution recently passed by the Royal College of Physicians of London, has suggested to me the query as to what is the position of the Licentiate of the College. Sir, I take it that the Licentiate has no desire to be debarred from selling his practice. If the Fellows and Members choose to be so debarred at the bidding of the Censors' Board, that is their affair. I am quite sure that the Licentiates as a body would not submit to it in these latter days. The point, however, in your article dealing with the right or otherwise of a Licentiate to call himself a physician, and other questions arising out of that, are the ones I desire to ventilate. Is not this ever recurring question of titles altogether a farce? It has been decided by eminent legal authorities that a Licentiate of that eminently respect-

able body, yclept the Royal College of Physicians, is a physician, and the wording of the diploma proclaims it aloud. If a man who is licensed to practise physic is not a physician, then equally one who is licensed by the Government to sell tobacco is not a tobacconist, and so on *ad infinitum*.

Having disposed of this question, I would venture to ask, "Is it not time that the Fellows and Members, as they apparently desire to be so exclusive, should restrict themselves entirely to consultations with the inferior order of beings called Licentiates, and see no patients whatever without such consultation, either personally or by letter? Their position then would correspond with the relations that exist between barrister and solicitor, and they would be at liberty to call themselves literally consulting physicians. If the Censors' Board were to pass a resolution to this effect after taking the vote of their higher constituency, it appears to me that it would be much more sensible than the resolution they have just passed concerning the sale of practices without, as I suspect, taking any vote whatever other than their own.

To return to the Licentiate. When a man has paid his fees and passed his examination, he is looked upon by the majority of the Fellows and Members as a kind of inferior person, an outsider, in fact, whom it is convenient to have to replenish the coffers of the venerable College, and to send him patients who will bring fees. What does the humble Licentiate get in return? A licence to practise physic, but, strangely enough, not to call himself a physician, and a card of invitation to attend certain lectures. He is not very often, I think, invited to the annual *conversazione* given by the College, although he contributes largely to the cost.

My experience of over twenty years teaches me that the Fellows, even those constituting the Censors' Board, are not always very high-minded in their relations with the general practitioner. I have known instances in which I have met a Fellow in consultation at a patient's house, and on that patient going to see him shortly afterwards (for the same illness, mark) he has given that patient a fresh prescription, without communicating, or requesting the patient to communicate, with me. I have known other instances in which a Censor has not scrupled to prescribe for a patient of mine who went to see him without my knowledge while still under my care, and who must have known from the nature of the case (and I strongly suspect from the information given by that patient) that he must have been under somebody's care. These are the things that are done by some of the higher orders of the College, Sir.

How different is this from the conduct of a late esteemed President still living, whose teaching and memory I revere, and whose conduct to the general practitioner I revere still more. Would that there were more like him. When a patient of mine went to him without my knowledge, he inquired for the name of his regular medical attendant, and sent me by the patient a very kind note giving his views of the case, and enclosing a prescription which he thought might be of service. That is my ideal of high-minded conduct that brings inevitably its own reward.

There are black sheep in every flock, and I should be disposed to say that there are quite as many among the Fellows and Members as among the Licentiates relatively to their numbers. I would even go further, and say that there are quite as many gentlemen in the highest signification of the term among the latter as the former. I began this letter by asking what the position of the Licentiate really was. From the point of view of the College he appears to be an individual who, on paying heavy fees and passing a stringent examination, is allowed the inestimable privilege of practising physic on Her Majesty's liege subjects, providing that he does not call himself a physician. After that, providing that he does nothing absolutely disgraceful professionally, he is quietly ignored. From the point of view of the Licentiate himself, he is a man who is a physician, and claims to call himself by that title if so minded, and who likewise claims equal rights with the Fellows and Members in the management of the College and the distribution of its funds.

The moral to be deduced is that if we wish to enforce our just claims, and sweep away some of the cobwebs that disfigure the venerable College, we must combine. Union is strength.—I am, etc.,

A Licentiate of Twenty Years' Standing.

OF CAPITAL IMPORTANCE AND NOT A JOKE. IV.

Sir,—Are Licentiates of the College of Physicians entitled to be called Physicians? That is the question.

The true answer appears to be: Yes, with the little p—physicians—but not with the big P—Physicians. The former is a description, and as such they are clearly entitled to it; the latter is a title, and as such they clearly are not. Every woman is entitled to be called she, but only one, as Mr. Rider Haggard has taught us, to be called "*She*."

It is the same with the word doctor; everyone who doctors the people is entitled to the description of "doctor" with the little d, but not Doctor with the big "D"—that is a title. The "big big D" is reserved in this case for university graduates —*Ridentem dicere verum quid vetat?*

There is a difference between giving a licence—being a Licentiate and taking licence; although a Licentiate of the London College is so far what Shakespeare calls "a chartered libertine," that he may, if I mistake not, sell his practice or "transfer his patients for a pecuniary consideration" at his own sweet will; keep open shop and sell tooth-brushes, perfume, hair-oil, and nips called "pick-me-ups" as he lists; keep a threepenny or sixpenny "dispensary" and call it what he pleases; dub himself with impunity "doctor" in the teeth of a prohibitory by-law of the College, which it allows to remain a dead letter; and probably even continue with like freedom to consider and describe himself as "physician" in spite of the late circular recognising only Fellows and Members as such. Nevertheless and notwithstanding, the Licentiate owes something to his College as well as to himself, and it is a pity that, like the witty Irishman, he should often be content to accept the O'(ing) as a sort of family badge of distinction. It is still more doubtful whether a great College so justly regardful of the dignity of its Fellows and Members should look after its Licentiates so little.

The form may seem jocose, but is there not more here in earnest (with a small e) than meets the eye? and should it not give us pause?—I am, etc.,

H.

THE SPREAD OF GLANDERS.

Sir,—Your very timely article on glanders in the British Medical Journal of August 20th should make owners of horses thankful that their interests receive notice in the pages of such an influential journal. You note that the disease is increasing, and that the existing law is insufficient to check it. You also point out directions in which amended regulations should be extended. There is one point on which I venture to differ with the opinions you express, and, if your space allows, I should be glad to state the other side. You say "compensation for all animals killed for glanders would doubtless prove an incentive to notification." Of this there can be no doubt, and as the discovery of the disease depends upon notification, it is most essential that any fresh regulations should be directed to facilitate detection. There are only two ways of detecting glanders (*a*) by an army of veterinary inspectors constantly visiting the stables of all horse owners; (*b*) by such a combination of penalties and inducements as shall make the immediate notification of disease a willing act of the owner. There will always be men who when they find a £40 horse slightly affected will decline to report it, and have it killed at their own expense. When we consider that if a farmer has a cow suffering from cattle plague, or pleuro-pneumonia, or foot-and-mouth disease, and the authorities slaughter it, they pay him its value, it certainly is harsh to treat the owner of horses on a different principle.

The State interference with contagious diseases of animals can only be based upon the good of the nation. It is good for us that plagues amongst cattle should be stamped out, and it is equally good for us all that plagues amongst horses should be stamped out. If compensation be given to the owner of a cow killed by order of the State, why not also compensate the owner of a horse killed by a similar order? It seems to me that when once it is admitted that compensation would prove an incentive to notification, it is difficult to continue treating the owner of a horse less fairly than the owner of a cow.

You go on to state an objection to compensation which has

been made before but which has never yet been explained. You say that it would place a premium on trickery and fraud. A peculiarly large experience of glanders and the laws relating to it has left me utterly puzzled as to the meaning of this objection. I see no chance of any successful trickery or fraud which would be assisted by compensation. On the contrary, if an owner were offered compensation by the authorities, it would absolutely prevent dealing in diseased horses, because the "coper" would not give as good a price as the authorities. No one who has any practical acquaintance with the disease and its surroundings can believe that fraud and trickery will be assisted by compensation.—I am, etc.,

London. WILLIAM HUNTING, F.R.C.V.S.

SIR,—In view of the great importance of your editorial remarks on glanders in the BRITISH MEDICAL JOURNAL of August 20th, I should like to lay before your readers a sketch of certain proposals for dealing with the disease, some of which I brought before the Central Veterinary Medical Society a few months ago. It should be premised: (1) That in London all dead horses pass through the hands of one firm of slaughterers; (2) that at present this firm voluntarily retains for the inspection of the London County Council inspectors the lungs, heads, and skins of all horses received at certain depôts; (3) that these are the structures in which the lesions of glanders are most commonly met with; (4) that sooner or later glanders (or farcy) brings its victim to the slaughterhouse.

With these facts for a basis, I propose: (1) that the voluntary retention of lungs, skins, etc., for twelve hours be made general and compulsory; (2) that inspectors visit each slaughterhouse at least twice daily (night and morning); (3) that immediately a diseased animal is detected, the whole stableful of horses with which it was standing be inspected; (4) that a new power be given, namely, to brand in the foot with a distinguishing mark such animals as on inspection are ranked as "suspicious," or which have been in contact with the diseased. This power would in no way prevent the use of the horse, provided it lacked plain evidence of disease, but it would render it easy of recognition, and would entirely prevent persons from dispersing infective cases over all parts of London by selling horses which they thought might "go wrong." The importance of this preventive measure is very great, as there is no doubt that a large proportion of outbreaks can be traced to the introduction of new infected horses into a stud. This would be stopped by the immediate slaughter of the diseased, and the branding of the "suspicious." On the other hand, such a measure would in no way injure the proprietor, as, if in three months his horse proved healthy, the progressive growth of horn would have obliterated the mark, and rendered it again saleable. The prevention of sale by some easy and certain method without stopping a whole stud from work, and so ruining the owner, has always been one of the greatest difficulties which reformers have had to meet; (5) for London, at least one "travelling inspector" should be appointed who should trace outbreaks of disease to their source so far as possible. In this way, in a very short time the great breeding centres of glanders would be localised and appropriate treatment adopted. It is very well known to veterinary surgeons that certain of the great transport companies' stables have not been free from glanders for many years past; (6) to secure the active co-operation of the general body of veterinary surgeons, inspectors should be appointed at a salary of £500 to £600 per year, and forbidden private practice. At present great friction exists between private practitioners and certain of the London County Council inspectors on this head.

I calculate that, with the powers before mentioned, twelve veterinary inspectors and one travelling inspector should be capable of doing the entire work of London, and in future years many less would suffice.

There are six slaughterhouses. Each receives on an average from twenty to twenty-five horses per day, and of glanders cases about six to eight per week. If each glandered horse came from a stud of sixty (an excessive estimate), that would require the inspection of 480 horses per week. It is not a difficult matter to examine thirty horses per hour; so that three hours per day would easily dispose of the out-of-door inspection. But as some cases would remain over from previous weeks as "suspicious," I have estimated for double the number of inspectors who could do the weekly work.

The foregoing scheme is wanting in detail; it is crude, and perhaps certain factors have been overlooked, but it is based on the results of a considerable personal experience of glanders, and I submit it to a critical audience with the hope that it may promote further discussion.—I am, etc.,

New Bond Street, W. JNO. A. W. DOLLAR, M.R.C.V.S.

MEDICAL DEFENCE UNION, LIMITED.

SIR,—We are glad, in response to your important invitation, to have the opportunity of laying before the general body of the profession information relating to the Medical Defence Union.

The Medical Defence Union has one Secretary resident in London and one in Birmingham, as you say; but the London Secretary is Dr. A. G. Bateman, not Dr. Campbell Pope. London, for the sake of facility of organising, obtaining information, and the advantage of local assistance, has been divided into twenty-one sections of a metropolitan division, acting under the Secretaryship of Dr. Campbell Pope.

We give for the information of your readers the following sketch of the history and financial position of the Medical Defence Union.

Originally incorporated in 1885, with its head office in London, and with a lay secretary, the mismanagement became so notorious that Mr. Lawson Tait, who had recently joined its ranks, called the profession together and from the ashes of the old company raised the present successful corporation. For four years all went well and harmoniously; then it became indispensable, in order to render more solid the basis of the Union, to fight a battle on the question of "Shall the funds of the Union be devoted to Parliamentary and other agitations, as demanded by two or three agitators, or shall such funds be reserved for what the council thought was the more proper *rôle* of the Union—the personal defence of the individual member and protection against unqualified practitioners?" The response made by members by proxy to this appeal was: for the council, 862; for the opposition, 2.

Since that time the Union has not lost its hold upon the confidence of the profession, as the following statistics, culled from successive annual reports, will demonstrate:

Year ending December 31st.	Number of Members.	Income.	Guarantee Fund.	Secretarial Work. Number of Letters Written by Secretaries.	Expenditure.					Credit Balance.
					Printing, Stationery, and Postages, etc.	Organising and Advertising.	Defence of Members, and Suppression of Unqualified Practice.	Salaries.	Rent.	
		£	£		£	£	£	£	£	£
1888	442	51	538	571	—	—	—	Nil.	Nil.	—
1889	834	364	1249	4186	120 15 0		486*	14 10 0	Nil.	198
1890	1416	658	2173	5936	102 10 0	50 13 6		26 10 0	Nil.	242
1891	1828	830	2826	7231	112 0 0	139 0 0	523	83 10 0	12 12 0	297
1892 to June	2366	—	3489	—	—	—	—	—	—	—

* Really £60 more, for the account includes a credit for penalties.

Convinced that however good the principles may be upon which medical defence is conducted, these principles would not be sufficient to build up a lasting and satisfactory corporation in the absence of sound finance and careful disbursement of the sinews of war—the Council of the Medical Defence Union have from the beginning addressed themselves to husbanding the strength of the Union in this direction.

It was originally believed that the business of the Union could be advantageously promoted by formation of branches with practically automatic powers, including power of expending money. In many cases this acted well, but it was very soon perceived that the success or otherwise of the Company

under such an arrangement depended upon the local officer or officers.

The lavish expenditure of one of the branches, in spite of protest, grew to such dimensions that not only did the Council, regarding their position towards the members as a fiduciary one, put an absolute stop to it, but determined to substitute for "branches" a system of "local committees," with defined and limited powers only, whose chief function should be that of advisory boards. This change in the constitution received the unanimous approval of a very large and representative annual meeting in London. Since that time many such local committees have been formed, the area of whose influence is mostly confined to towns. The recommendation of a local committee forwarded to the Council we need not say would carry preponderating weight, while the local secretaries are constantly appealed to for local information and assistance.

All business men will perceive that with an annual premium of ten shillings only to create numberless branches, each of which shall form an *imperium in imperio*, means numberless practically uncontrolled centres of expenditure, and that such an arrangement can end only in forced or voluntary liquidation. It is properly the boast of the Council of the Medical Defence Union that they have conducted the affairs of the company for five years without touching the guarantee fund.

We as secretaries personally believe that disunion does not conduce to the moral strength of the Union. We believe that numberless automatic branches will not do the great work of medical defence as well as one powerful organisation, but the views which actuate the Council of the Union are, we believe, that this division cannot possibly be conducted on a ten-shilling subscription.

For five years the business of the Medical Defence Union has been successfully and usefully carried on by the powerful men forming the directorate. If it is considered by the members that it would be better to make alterations in the management—to remove the registered office to London or elsewhere—no single member of the directorate, we are sure, will place the slightest obstacle in the way. Up to this time the success of the company has been a satisfactory assurance to its members that the place where the register of members is kept is not a material point, but that finance is everything. It is for the members to declare if they are not satisfied, and if they are agreed that the Union is well and faithfully carried on and satisfactorily serves the purpose for which it was founded, that is the best answer to outside criticism.

In conclusion, we cannot but ask the question: Will the profession *never* stand together and pull together, and will it, even in matters of self-defence, still cleave to the jealous doctrine that strength lies in disunion?

One word in conclusion: *The Medical Defence Union has never lost a case in which it has defended one of its members.*—We are, etc.,

LESLIE PHILLIPS, M.D.,
A. GEORGE BATEMAN, M.B., } Honorary Secretaries.

A DEADLOCK IN LUNACY PRACTICE.

SIR,—Owing to the existence of a few cases of small-pox in the county borough of Halifax, the West Riding asylums have refused to admit patients from the town, and, as a conquence, we have a very serious deadlock. The by-laws of the asylums override the Lunacy Act, and the clauses which press upon the relieving officer, compelling him to remove within three days to an asylum or licensed house, are nullified by the power invested in the asylum authorities. Martha Ann Hoosan, duly certified by a magistrate according to the new Act, was taken to Menstone and admission was refused. The relieving officer had to bring the patient back to St. Luke's Hospital, Halifax; but the last Lunacy Act, so far as I see, does not provide for the detention in a union hospital of a case of puerperal mania certified by a magistrate to be detained in a public asylum. Since Martha Hoosan's refusal we have been compelled to provide in St. Luke's Hospital for 14 cases of acute insanity—11 women and 3 men. We have been considerably exercised in our minds as to how to detain these unfortunate patients without violating the last Lunacy Act. In the first place, we secured four excellent nurses from the Bradford Training Institution, in order to provide for the safety of the patients, and then we had to give up a ward for their sole use, but, even with this provision, it was straining a point to certify that the accommodation was suitable. The medical officer has the power of detaining a patient against his will for fourteen days, but, at the end of that time, an independent practitioner has to give another certificate, so that the two certificates being laid before a magistrate, the magistrate has the power of detaining the patient for a further period. In certain cases the magistrate can detain the patient for fourteen days. I am not quite clear whether the magistrate has the power, acting on the certificate of the workhouse medical officer, and the certificate of the outside medical officer, to detain a patient for an indefinite period. Legal opinion is divided on this point. The spirit of the new Act was evidently against the detention of acute cases of insanity in union hospitals; at least, this is my reading of the Act.

The present position of affairs of Halifax is as follows: 1. The asylum authorities will not admit any cases from an infected centre. 2. It is impossible to determine when Halifax will be free from infection. At this date (August 17th) there are 21 cases of small-pox in the borough hospital. 3. The accommodation at St. Luke's Hospital is limited. At this date we have 287 patients in the hospital: actual accommodation, 286, so that we have had to provide an additional bed. 4. We have 12 acute cases of insanity in St. Luke's which ought to be in the county asylums. 5. If any more cases occur we have not accommodation for them. 6. If any more cases occur, under what clauses of the Act will the relieving officers have to take action, so as to protect themselves, or under what clauses are the guardians of the union responsible for providing accommodation? It is quite right that the asylum authorities should take every precaution against admitting infection into institutions holding 1,500 patients. It is at once obvious that we risk as much in admitting patients into a hospital containing 286 beds; but it is also obvious that the interests of the patients themselves are seriously jeopardised by refusing to them the benefits of asylum treatment. The present position of affairs must be met in some way. The proper solution of the difficulty appears to us simple. There should be isolation wards at all our large asylums, and Menstone, a new asylum, ought to have been provided for an emergency of this kind. Acute cases of insanity should be as speedily as possible transferred to a proper institution, for early treatment is admitted to be of the highest importance. This case will be of interest to all medical officers attached to union hospitals, and I should be very pleased to hear from any medical officers who have had a similar experience.—I am, etc.,

Halifax. THOMAS M. DOLAN.

THE DENTAL PROFESSION.

SIR,—Having read the reports of the British Dental Association, which has just held its annual meeting in this city, and the remarks of Mr. J. Smith Turner, the ex-President, who is reported to have said "they now had an Act of Parliament constituting them a legal profession, and they wished to take that position, not because that Act of Parliament was passed, but because they wished to educate themselves in such a manner as to entitle them to that legal position," I beg to submit the following conclusions:

1. To gain this desired position, one of the first steps to be taken by those in authority is to put a stop to the unprofessional practice of advertising in the lay papers, and to emphasise the fact that many of the advertisements being degrading and offensive to the more respectable portion of the profession, they are strongly condemned by them.

2. Now that the dental branch has been recognised and accepted as part and parcel of the medical profession, it must conform to the rules and usages of that profession if it would gain the end spoken of by Mr. Turner.

Neither physicians nor surgeons are allowed by their respective Colleges to advertise, or to do anything to lessen the dignity of the profession; and although it is humiliating to witness the expedients practised by some of our own members to make known their low charges, they are far exceeded by the trashy advertisements which outrage all professional

decency by setting forth the cheap and other advantages which this or that dentist offers to the public. Our public conveyances, even, are not free from these objectionable and glaring assertions; in fact, we meet with them on every hand. What would the public think of a physician or surgeon or lawyer who advertised that his advice, skill, or drugs were the very best that could possibly be had for the money, and if they did not give every satisfaction they would be taken back, exchanged, or money returned?

If an enterprising and pushing collector of debts happens to write a letter savouring too much of legal phraseology he is pounced upon and fined. And if a person ventures to style himself Doctor, Surgeon, or Apothecary, without holding the necessary licence, diploma, or degree, he courts the same fate, and is justly punished. But more than that, if either a qualified lawyer or medical man is suspected of an unworthy or unprofessional act he is interviewed by his College, and if found guilty forfeits his diploma or licence, which alone gives him the legal right of styling himself doctor or lawyer, as the case may be, along with all rights and privileges pertaining thereto.

If these laws, then, hold good in the legal and medical professions, surely—now the dentists have obtained an "Act constituting them a legal profession"—they cannot claim exemption from the pains and penalties which follow any wilful disobedience or infraction of the laws made for their guidance and personal conduct as members of that profession. If, therefore, any man without a diploma, or who has forfeited the one he had, styles himself dentist, or uses any name, abbreviation, or title leading the public to believe him to be a dentist, he ought to be subject to the same prosecution and consequences which affect the lawyer or doctor.

Good, honest, sound work needs no puffing, and the public, as a rule, do not altogether believe in cheapness. If, therefore, we as professional men hold ourselves and work "cheap," that is the value at which the public will accept us, and justly so, too.

In conclusion, I wish to assert that for a member of a "legal profession" to advertise his style, capabilities, or charges, is unprofessional; and to advertise himself what he is not is illegal. Such men must not be allowed to cast a reflection on the character of the whole body of the professions. And if they cannot intuitively understand its requirements, they must be taught; and if they refuse to be taught, they must be exorcised from the profession altogether. Advertising "quacks," with their filthy literature, have been all but stamped out from our particular branch by the strong arm of the law; for where is the man who dare style himself physician or surgeon without holding the necessary "documents"?—I am, etc.,

Manchester. HENRY CARTMEL.

DUTIES OF MEDICAL OFFICERS OF HEALTH UNDER THE NOTIFICATION ACT.

SIR,—Adverting to the discussion on the Notification of Infectious Diseases Act, published in the BRITISH MEDICAL JOURNAL of August 13th, I shall be greatly obliged if you will kindly allow me the opportunity through your columns of recording my opinion on one of the points raised during the debate, namely, the relation of the medical officer of health to the medical practitioner notifying the disease. In such a case the medical officer of health has a twofold duty devolving upon him. (1) That which obliges him by the conditions of his office to investigate the causes of infectious diseases which arise in his district. (2) That of deciding whether a person shall be removed to a hospital for infectious diseases or not. This depends on the home surroundings of the patient. The duty of the practitioner in attendance merely consists in sending to the medical officer of health a certificate stating the disease from which the patient, in his opinion, is suffering. Having done this, his responsibility legally ends. He has nothing to do with the removal of the patient; in fact, such a course often entails pecuniary loss to the practitioner. The order for removal is given by the medical officer of health. Is it asking too much that the man who takes the responsibility of sending a patient into the midst of contagious disease shall satisfy himself that the necessity for such a course exists? If the medical officer of health deny his moral responsibility in the case, do not the duties of his office compel him—if they are to be faithfully and thoroughly discharged—to visit cases of infectious disease, and investigate their causes and natural history? Should the science of etiology be handed over to a sanitary inspector, who has never been trained to the investigation of scientific facts, and is always totally ignorant of medicine, and whose knowledge is usually limited to a string of questions, which he has been instructed to put, and which, be it said to his credit, he faithfully goes through?

It is perfectly evident that the sole person on whom the responsibility of removal rests is the medical officer of health, and he would be held accountable should an action be brought for wrongful removal. Being himself a qualified medical practitioner, and the sole person in whom this authority is vested, it is difficult to see how he could be held excused. It appears to me, therefore, that when the practitioner in attendance is honest enough to admit that he is in doubt about a case, it is in every way advisable for the medical officer of health to accept his invitation to consultation, and decide the course of action that should be adopted. Moreover, if isolation is to be efficiently carried out, the earlier a case is seen and the right course decided on, the better for the other members of the household. Of course where the medical officer of health is in practice, there would probably be objections on the side of the practitioner in following this line of conduct.—I am, etc.,

South Hampstead, N.W. J. H. E. BROCK, M.D., D.P.H., F.R.C.S.

IRISH DISPENSARY DOCTORS AND PARLIAMENT.

SIR,—The time for the discussion of this question is, I think, nearly past, and the time for action is most opportune. The case has been fully proven.

I am glad to see that a Committee, of which Dr. Biggar, Belfast, is Secretary, is urging the matter with the Ulster members. I would suggest that the Nationalist members be also urged to use their all-powerful influence with the present Government, as with the Irish members will rest the decision of this and every other question which is to be brought before Parliament for some time to come.

The Bill should be very short—two or three clauses—and the issue should be very definite, namely, a pension on retirement after 65 years of age, and fourteen days' annual holiday, with payment of substitute. Such a Bill would be doubtless endorsed by every medical member, and would be supported largely on both sides of the House.

From my intimate knowledge of the hard life and inadequate remuneration of the Irish dispensary doctor, I would urge every member of the British Medical Association to use his influence with the member of Parliament for his district on behalf of an overworked and underpaid class of public servants, so that they may be freed from the killing dread of poverty in old age. As a member of the Parliamentary Bills Committee, I will do all in my power in favour of such a measure.—I am, etc.,

London. ROBERT ESLER, M.D.

THE DEEMING CASE.

SIR,—The execution of Deeming cannot have wholly destroyed the scientific interest of his case, though, coupled with the absence of a *post-mortem* examination, it has minimised its value. The following additional information has come to hand since the trial:

1. Affidavits from his brother Edward and from that brother's wife. Incomplete and hurriedly prepared as they are, they contain the following statements, made on oath: That the father attempted suicide four times, and died imbecile in 1889, after being of weak intellect for some years, hearing supernatural noises, etc.; that Deeming himself was peculiar and difficult to manage as a child, ran away from home when 13 or 14, and was not seen for more than five years; on his return he was childish and eccentric, and was spoken of as "mad Fred," on account of his extraordinary conduct; that some time after his mother's death, in 1877, he and his brother Albert declared that they had seen their mother come out of a certain window of a house where they had resided, beckoning to them and then fading away in a green light; that for a week or two the two brothers walked up and down the street

in front of the house to see if she would reappear; that the whole of the family were subject to similar delusions; that on his return from Calcutta (*vide* Dr. Crombie's extract) he was affected in his mind, representing himself as a person of distinction and as a member of the Board of Trade, walking about now in evening dress coat and waistcoat but light trousers and now in the deepest mourning, hatband included, rambling in his speech so much that at times he was unintelligible.

2. Certified true extract by A. Crombie, M.D., Surgeon-Superintendent of the Presidency General Hospital, Calcutta, signed May 18th, 1892, stating that on March 28th, 1878, Frederick Deeming, steward of the steamer *Malcolm*, was admitted for tonsillitis, with a history of ague; that he remained in the hospital for 83 days, suffering from epilepsy from April 17th until his discharge on June 18th, when he was sent home to England. During those two months he had over 50 epileptiform attacks, sometimes as many as 14 in a day; in some there were localised twitchings of the right arm and leg for about a week, there was paresis of the right arm and leg with partial anæsthesia; at another time he remained unconscious most of the day.

3. Official letters with portrait and form for identification from Dr. O'Connor, Visiting Surgeon to the Darlinghurst Gaol, Sydney, the Reception House for the Insane, etc., showing that Deeming had been in that gaol from April 5th to May 16th, 1882, and that during that period he was suffering from undoubted epilepsy and was in a very bad condition.

It is not, of course, claimed that these hurried addenda are proof that Deeming was insane when he murdered Emily Mather, but proving as they do his credibility in many important respects they are taken to justify the position taken up by Dr. Fishbourne and myself, namely, that no proper judgment as to his mental state could be given or was given at his trial, and they strengthen our suspicion that delusional mania and indisputable brain disease to the extent even of legal insanity were present and might have been proven had time been granted for full investigation.

The numerous important points which become prominent through this trial, such as the legal definition of insanity, the methods of expert evidence, the treatment of instinctive criminals and the criminal insane, and the refusal of the Crown to permit *post-mortem* examinations in cases of scientific value and legal uncertainty, will, I hope, receive suggestive if not full discussion in the Intercolonial Medical Congress which is to be held in Sydney in September next.—I am, etc.,

J. W. SPRINGTHORPE,
Melbourne. M.A., M.D.Melb., M.R.C.P.Lond.

PUBLIC MEDICINE AND INFECTIOUS DISEASES.

SIR,—It is impossible to over-estimate the importance and interest attending all the discussions published in the BRITISH MEDICAL JOURNAL of August 13th on the topic of infectious diseases.

In the JOURNAL of February 6th, 1892, I pleaded in continuation of a letter of Mr. W. H. Plaister's, which appeared on January 9th, that the time seemed to have arrived when some special inquiry might be beneficially instituted into the diagnosis of scarlatina and its departures from typicality, as the consequences to large communities were of surpassing importance to medical officers of health and to practitioners generally.

Now, Sir, a point which seems to me eminently necessary to be cleared up is the all-momentous one as to whether scarlatina is infectious or non-infectious in its *early stage?* I have heard that a military medical expert, who not long since presided over sanitation and health, as it affected our troops, in one of the largest military garrisons in England, asserts that the disease is infectious in its early stage. Whether this opinion, expressed so firmly and dogmatically, is the result of personal experience or reliance on recent medical literature I am unable to say, but in the JOURNAL of August 6th, 1892, I observe in a letter of Mr. Thomas F. Raven (Broadstairs) the following remarks: "If twenty years' experience has made me sure of anything, it is that scarlatina in its *early stage* is *not infectious*. I have over and over again seen a child with a brilliant scarlatinal rash, who has been sleeping in the same bed with a healthy child, fail to communicate the disease. Indeed, I have never seen it given in this way during the first two days from the appearance of symptoms. It is, I believe, *admitted* that *in this stage* scarlatina *is not infectious*."

The bearing of the point under discussion is well dwelt on by Mr. Raven; and to encourage correspondence or inquiry on so weighty a query seems to me to be indispensable. I trust, therefore, you will find space to insert this letter. For obvious reasons I do not append my name, although it will become known to you.—I am, etc.,

M.D.

INFECTIOUS DISEASE IN SEASIDE LODGINGS.

SIR,—I fail to perceive the cogency of Dr. Challinor's reply to my letter. He appears to confuse "facts" with inferences. I do not dispute the former, but I demur to the latter. I do not doubt that Mr. A., his sister, and his child had scarlatina, but that Mrs. A. caught it from a child who had not sickened is, I should imagine, impossible; and that his sister and child took it from him, if his isolation was early and complete, is most improbable.

A much simpler explanation of the sequence of events would seem to be that Mr. A., while staying in a house where there was a scarlatinal poison prevalent, as evidenced by the illness of the child he mentions, not only caught the disease, but also carried away the infection in his clothing, with result that his sister and child were victims as well as himself. Such experiences or "facts" are not uncommon, but they have nothing to do with proving that scarlatina in its early stages is in the least infectious.—I am, etc.,

Broadstairs. THOS. F. RAVEN.

SEA SICKNESS.

SIR,—Would you allow me to point out that the dose of antipyrin I suggested was 10 grains, and not 30 grains as quoted by Dr. Cory? Further, that I would not, in any case, give it where the heart's action was depressed either by vomiting or long abstinence from food. It was for the prevention of sea sickness, and not for its cure, that I advised the use of antipyrin.—I am, etc.,

Glasgow. GEORGE HALKETT, M.D.

SIR,—Four years' experience at sea has convinced me that there is no remedy like Worcester sauce, in teaspoonful doses given without water, for preventing and curing sea sickness, with in some cases application of a tightly-applied bandage, rest on the right side, and frequent small quantities of fluid food. The remedy is easily obtained on most steamers, pleasant to take, and has often succeeded when all other means have failed. It should be given every three hours until the stomach can tolerate and retain its contents. Avoid stimulants, but give small quantities of good beef-tea with cayenne pepper in it.—I am, etc.,

Largs, Ayrshire. JOHN M. MILLER, M.B., D.P.H.

SIR,—To me, reading the letters on sea sickness and its treatment in the BRITISH MEDICAL JOURNAL, it seems that even my small experience may be of help to others.

In the early and most distressful stage of sea sickness I have found nothing so useful as small hypodermic injections of morphine, which allay the vomiting, and at least cause the patient to sleep and forget his misery for a time; and often by the time he wakens he has become accustomed to the motion of the ship. This method is less useful in the navy, where one may be required for duty at any time, but I have found it of great advantage in a yacht.

As regards starvation from sea sickness, a teaspoonful of beef jelly iced is often retained, when all other food seems to cause vomiting.

In the atonic dyspepsia which generally follows violent and prolonged sea sickness (lasting, for example, ten days, in the case of an engine-room artificer, who did his duty most pluckily, though without food, for the first seven), I have found nothing so useful as stimulating condiments, such as Worcestershire sauce, taken in plenty either by itself, or in a "prairie oyster," or with meat.

Kola-cocaine and other specifics have in my hands failed completely, but then my experience is not very large.—I am, etc.,

W. E. HOME,
Surgeon, R.N.

SANITARY CONDITION OF MALOJA.

Sir,—As I understand that Maloja is stated to be in an unsatisfactory sanitary condition, I should like to state what is the real state. During the summer of 1891 and this summer there has been no case of enteric fever, diphtheria, or any infectious disease, except one case of rubeola, which arrived here during the period of incubation. There were during the summer of 1891 three cases of ulcerated sore throats. This class of disease is spoken of by some as an "Engadine throat." As the course of these throats is very like the throats arising from bad drains, I would like to point out the reasons against this view in these cases. Two of the cases had been at Maloja for some time, while the third arrived ill. Both the cases originating here had a slight shiver immediately after exposure to a sudden change of temperature, which was followed in a few hours by a rise of temperature and a sore throat. No sanitary defect could be discovered, and amongst 110 servants, naturally passing most of their time indoors, no case of sore throat occurred.—I am, etc.,

Maloja. M. G. Foster.

SALINE TRANSFUSION FOR HÆMORRHAGE.

Sir,—The late Dr. Wooldridge and myself had been working together for some years before his death—1889—at the subject of copious saline transfusion for hæmorrhage, and but for his untimely end we should have written a paper on the subject. Last August (1891) I communicated the result of our labours to my colleague, Mr. Lane, and in September he had an opportunity of putting it to the test, with very gratifying results. I hope shortly to give a more complete account of the matter; but for the present I wish to claim for the late Dr. Wooldridge the credit for physiological proof of the efficacy of copious intravenous injection of saline fluid.—I am, etc.,

St. Thomas's Street, S.E. Peter Horrocks.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF.

Surgeon-Major-General R. W. Meadows, M.D., is placed on retired pay, August 10th. Appointed Assistant-Surgeon, May 26th, 1854; he became Surgeon, August 22nd, 1865; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, November 27th, 1879; Deputy Surgeon-General, February 6th, 1883; and Surgeon-Major-General, October 16th, 1889. He served with the 9th Regiment in the Crimea from October, 1854, including the siege and fall of Sebastopol, and assault of the batteries on June 18th (medal with clasp, and Turkish medal). He also served in the Afghan war in 1879-80, and was present in the engagements at Ahmed Kheyl and Urzoo, near Ghuznee (medal with clasp).

Surgeon-Colonel Robert Lewer, M.D., is promoted to be Surgeon-Major-General, *vice* R. W. Meadows, August 10th. His previous commissions are dated as follows: Assistant-Surgeon, August 1st, 1857; Surgeon, September 9th, 1871; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, April 1st, 1882; and Surgeon-Colonel from October 16th, 1886. Surgeon-Major-General Lewer served in the Royal Navy during the operations in the Baltic, and was present at the bombardment of Sweaborg (medal). Served in the Afghan war of 1878-80, in medical charge of the 9th Lancers, and as Sanitary Officer to the Cabul Field Force, and was present in the operations around Cabul in December, 1879, including the investment of Sherpore; accompanied Sir Frederick Roberts in the march to Candahar, and was present at the battle of Candahar (mentioned in despatches, medal with two clasps, and bronze decoration).

Surgeon-Colonel C. H. Y. Godwin, from the Seconded List (having resigned his post of Professor of Clinical and Military Surgery at the Army Medical School, Netley), is appointed Surgeon-Colonel, *vice* R. Lewer, August 10th.

Surgeon-Captain J. R. Yourdi, M.B., who is serving in the Bombay command, has been appointed to act as Senior Medical Officer, Aden District, during the absence on leave of Surgeon-Lieutenant-Colonel W. F. Burnett.

Surgeon-Captain J. C. Connor, M.B., who is serving in the Madras command, has passed the examination in Hindustani by the lower standard.

The undermentioned are the successful candidates for commissions in the Medical Staff of Her Majesty's army at the recent competitive examination in London:—

	Marks.		Marks.
Pollock, C. E.	2,815	Farmer, J. H.	2,385
Mangan, F. M.	2,470	Buswell, F. R.	2,310
Rivers, J. H.	2,470	Berryman, H. A.	2,295
Taylor, W. J.	2,450	Symons, F. A.	2,285
Longhurst, B. W.	2,385	Samman, C. J.	2,235

INDIAN MEDICAL SERVICE.

Surgeon-Major-General W. R. Rice, M.D., C.S.I., Bengal Establishment, Surgeon-General and Sanitary Commissioner with the Government of India, is granted privilege leave for three months from August 8th.

Surgeon-Colonel J. Richardson, M.B., Bengal Establishment, Inspector-General of Civil Hospitals, N. W. Provinces and Oude, is appointed to officiate as Surgeon-General and Sanitary Commissioner with the Government of India.

The transfer of Surgeon-Captain F. J. Dewes, Madras Establishment, for employment under the Chief Commissioner of Burmah is cancelled.

Surgeon-Captain R. Shore, M.D., Bengal Establishment, took over the medical charge of the Deolee Irregular Force and Harowtee and Tonk Agency on June 30th.

Surgeon-Captain H. N. V. Harington, Madras Establishment, assumed medical charge of Ulwur Agency on July 5th.

Surgeon-Captain D. T. Lane, M.D., Bengal Establishment, has been granted an extension of leave for four months on medical certificate.

Surgeon-Captain J. T. Calvert, Bengal Establishment, received charge of Chittagong Gaol on June 18th.

Surgeon-Major E. S. Brander, Bengal Establishment, officiating Superintendent of the Central Prison at Bareilly, on being relieved of the duties of that appointment, will revert to his substantive appointment as Civil Surgeon of Etawah.

Surgeon-Major C. P. Lukis, M.B., Bengal Establishment, has resigned his commission as Honorary Surgeon to the Midland Railway Volunteer Rifles.

Surgeon-Captain I. P. Doyle, Madras Establishment, is appointed Civil Medical Officer Mandalay Shore, in addition to his military duties, *vice* Surgeon-Captain C. H. Leet Palk.

Surgeon-Lieutenant R. H. Elliot is brought on the strength of the Madras Establishment from June 29th.

Surgeon-Captain C. F. Fearnside, Madras Establishment, is granted an extension of leave for three months on medical certificate.

Brigade-Surgeon-Lieutenant-Colonel L. D. Spencer, M.D., Bengal Establishment, is appointed to the officiating administrative medical charge of the Presidency District, *vice* Surgeon-Colonel J. C. Morice, proceeded on leave to England on medical certificate.

Brigade-Surgeon-Lieutenant-Colonel S. B. Hunt, Madras Establishment, is appointed to officiate as Principal Medical officer of a District in the Madras Command, from July 15th.

The following is a list of the candidates for Her Majesty's Indian Medical Service who were successful at the competitive examination held at Burlington House on August 8th, 1892, and following days:—

	Marks.		Marks.
Drake-Brockman, V. G.	2,850	Ogilvie, W. H.	2,490
Milne, C.	2,745	Heard, R.	2,405
Prall, C. B.	2,720	Bourke, J. J.	2,385
Hunter, G. Y. C.	2,640	Bidie, G.	2,305
Young, W.	2,620	Orr, W. H.	2,230
Macleod, J. N.	2,615	More, P. St. C.	2,200
Chatterton, B. R.	2,600	Parry, E. R.	2,195
Williams, C. E.	2,580	Morton, J. P.	2,185
Langston, T. A. O.	2,490		

Twenty-nine candidates competed for seventeen appointments; twenty-one were reported qualified.

THE VOLUNTEERS.

Surgeon-Major W. Hunter, 1st Argyll and Bute Artillery, is promoted to be Surgeon-Lieutenant-Colonel August 20th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ABSENCE OF MEDICAL EVIDENCE AT INQUESTS.

House Surgeon (Birkenhead) informs us that a child, nine months old, was brought into a hospital dead, with no external signs indicating the cause of death, and that this fact was notified to the police, and that the coroner subsequently held an inquest at the hospital; and, further, that a verdict of death from convulsions was returned, no medical witness having been called, or *post-mortem* examination ordered.

*** We can only presume that the verdict was arrived at on the evidence of lay witnesses, who probably stated that in their opinion the child died of convulsions. Such evidence as to the cause of death is of little or no value, and we can only repeat that no verdict as to the cause of death should be given in the absence of the evidence of a duly qualified medical man. The absence of independent medical testimony at inquests is leaving the door open to neglect, and even crime.

ASSISTANTS AND FEES.

Principal writes: Will you kindly give me an opinion on the following case? My assistant, who has finished his curriculum, but is not yet qualified, attends, with my consent, his hospital to prepare for his final. In consequence of this arrangement his salary is about two-thirds of that ordinarily paid. At my request he attended an urgent confinement for a neighbouring practitioner, who paid me the usual half fee. My assistant now claims the half fee, "the work not having been done for me."

*** Although there is no ethical rule to our knowledge that relates to the exceptional and somewhat complex question submitted by "Principal," we think that, guided by the principle which governs the pecuniary arrangement entered into with his assistant, the apparent difficulty may be fairly solved. We would suggest, therefore, that if the accouchement were effected during the hours he was usually allowed to devote to hospital practice and study, his claim to the half fee may, we think, be rightly conceded; if, on the other hand, his attendance thereon took place during the time in which his professional services were due to the "Principal," the fee should be withheld; for the contention that the work not having been done for the principal, he (the assistant) was entitled to the half fee is unsound in principle, and should, in our opinion, be courteously but firmly resisted. In

cases where no important professional principle is involved, we need scarcely add that a liberal and even generous treatment of an assistant is not only desirable and expedient, but politic withal.

"PHYSICIAN AND SURGEON."

L.R.C.P.LOND., M.R.C.S.ENG.—Although our correspondent might perhaps claim the right to put "Physician and Surgeon" on his address card, we would advise him in his own interest simply to subscribe himself as "Mr. F. B——, Surgeon," in accordance with traditional usage. If he cares to refer thereto, he will find the question discussed in *The Young Practitioner*, published by Mr. H. K. Lewis.

ADVERTISING IN THE LAY PRESS.

A MEMBER.—In responding to our correspondent's request, we may note that probably the most effective mode (next to that suggested in the BRITISH MEDICAL JOURNAL of August 6th, under the heading of "Specialist Dispensaries," page 332) of checking the existing unprofessional tendency of a certain class of modern practitioners to seek practice by advertising in the local lay press, will be found in giving greater publicity, and consequent exposure of the illegitimate proceeding through the medium of the medical press; with which view we give insertion to an advertisement which appeared in the *Huddersfield Examiner* of August 13th, and thus let it speak for itself and its aspiring author: "Kirkheaton. Medical. Mr. Benjamin S. Lockwood, son of Dr. Lockwood, of Kirkburton, who passed the final examinations held at Edinburgh in April last, and was granted the diplomas of the Royal College of Physicians, the Royal College of Surgeons Edinburgh, and Licentiates of the Faculty of Physicians and Surgeons of Glasgow, has, we understand, commenced to practise near the Kirkheaton Railway Station, at the very spot where his grandfather, old Dr. Lockwood, commenced nearly eighty years ago."

MEDICAL PRACTITIONERS AND UNQUALIFIED DENTISTS.

IF Q. F. W. in any way professionally identifies himself with an unqualified practitioner, medical or dental, by administering "gas and chloroform" to his patients, he becomes, so to speak, a *particeps criminis* or accessory, and would, therefore, we need scarcely add, be acting unprofessionally. With regard to the most judicious mode of communicating the fact to the gentleman in question, it is more a matter for the especial consideration of our correspondent himself. Possibly it might be found convenient to refer him to our reply on the subject.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

COUNTY SANITARY REPORTS.

THE Gloucestershire County Council was the first to petition the Local Government Board for the extension of the Notification Act to all sanitary districts. Its latest claim to distinction is of a much less satisfactory kind, resting upon the issue of a phenomenally meagre commentary upon the annual reports of the health officers within the county. The abstract in question is a leaflet of four pages, two of which are devoted to titles and judicious "spacing out." The rest consists mainly of vague generalisations upon subjects chosen at random. Statistics are conspicuous by their absence. No exact figures of any kind are given, except the gross death-rates in three of the sanitary districts, and in the county as a whole. Under the circumstances, it is scarcely uncharitable to entertain doubts as to the validity of the statistical processes by which the county death-rate was arrived at. Phthisis, whooping-cough, respiratory diseases, typhoid, and diarrhœa are passed over in silence, but the omission ceases to be a matter for regret when all that we are told about two other important zymotic diseases is that "scarlatina has broken out in many places, but generally has been prevented from extending by the active measures taken by the medical officer of health;" and "diphtheria has occurred in many districts. It is a most fatal disease. The proportion of deaths to the cases recorded is large." Truisms of this kind may safely be written in advance for any county in any year, and are of no practical value whatever. Evidently the "Medical Officers of Health (Reports) Committee" have not had the assistance of anyone experienced in sanitary and statistical work, but although this may account for their timid handling of unfamiliar technicalities, it does not explain why it was thought worth while to issue such a report at all. Very different use of similar material has been made in another western county. The Sanitary Committee of the Cornwall County Council have printed a careful and elaborate analysis of the annual reports for 1891 submitted to them, and of the sanitary efforts of the Council. The abstract appears to be the work of the Chairman of the Committee, who, while profiting by the example of other counties, has introduced at least one new and important feature, namely, coloured disease maps of the county. Mr. Trevail would have added to the value of his maps by avoiding the grouping together of such unlike zymotics as typhoid and scarlet fever under the common heading of "fevers," but the oversight is a very pardonable one in a non-medical statistician. The Cornwall county abstract, unlike that of Gloucestershire, is a contribution of permanent interest and utility.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,190 births and 3,511 deaths were registered during the week ending Saturday, August 20th. The annual rate of mortality in these towns, which had increased from 17.3 to 18.0 per 1,000 in the preceding three weeks, was again 18.0 per 1,000 during the week. The rates in the several towns ranged from 11.6 in Nottingham, 12.0 in Hull, 12.3 in Croydon, 12.9 in Gateshead, and 13.0 in Huddersfield to 21.9 in West Ham, 22.1 in Sheffield, 23.2 in Liverpool, 26.2 in Salford, and 28.2 in Preston. In the thirty-two provincial towns the mean death-rate was 18.5 per 1,000, and 1.3 higher than the rate recorded in London, whih was 17.2 per 1,000. The 3,511 deaths registered during the week under notice in the thirty-three towns included 680 which were referred to the principal zymotic diseases, against 623 and 681 in the preceding two weeks; of these, 386 resulted from diarrhœa, 93 from measles, 62 from scarlet fever, 55 from whooping-cough, 49 from diphtheria, 34 from different kinds of "fever" (principally enteric), and one from small-pox. These 680 deaths were equal to an annual rate of 3.5 per 1,000; in London the zymotic death-rate was equal to 3.4, while it averaged 3.6 per 1,000 in the thirty-two provincial towns. No fatal case of any of these diseases was recorded last week in Newcastle-upon-Tyne; in the other towns they caused the lowest death-rates in Halifax, Swansea, Derby, and Huddersfield, and the highest rates in Preston, West Ham, Salford, and Sheffield. Measles caused the highest proportional fatality in Sheffield, Brighton, Salford, West Ham, and Oldham; scarlet fever in Preston; whooping-cough in Portsmouth, Bradford, Burnley, and Preston; "fever" in Preston; and diarrhœa in Brighton, Leicester, Bolton, Leeds, Portsmouth, and Cardiff. The 49 deaths from diphtheria included 37 in London, 3 in Manchester, and 2 in Salford. One death from small-pox occurred in Plymouth, but not one in any other of the thirty-three large towns. Nine small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 4 in the Highgate Small-pox Hospital, on Saturday last, August 20th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and the London Fever Hospital on the same date was 3,052, against numbers increasing from 1,226 to 3,088 on the preceding twenty-one Saturdays; 367 new cases were admitted during the week, against 346 and 376 in the preceding two weeks. The 139 deaths from diseases of the respiratory organs in London were equal to 1.7 per 1,000, and were 43 below the corrected average.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, August 20th, 803 births and 480 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.5 and 17.0 per 1,000 in the preceding two weeks, rose to 17.2 per 1,000 during the week under notice, and was 0.8 per 1,000 below the rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 10.4 in Leith and 13.2 in Greenock, and the highest rates were 22.3 in Perth and 23.0 in Paisley. The 480 deaths in these towns included 81 which were referred to the principal zymotic diseases, equal to an annual rate of 2.9 per 1,000, which was 0.6 per 1,000 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley and Glasgow. The 236 deaths registered in Glasgow included 16 from diarrhœa, 12 from scarlet fever, 11 from measles, 6 from whooping-cough, 4 from diphtheria, and 1 from fever. Four fatal cases of measles and 2 of scarlet fever occurred in Edinburgh, and 2 fatal cases of diphtheria and 2 of whooping-cough in Aberdeen. The death-rate from diseases of the respiratory organs in these towns was 2.7 per 1,000, against 1.7 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, August 13th, were equal to an annual rate of 23.0 per 1,000. The lowest rates were recorded in Lisburn and Armagh, and the highest rates in Kilkenny and Belfast. The death-rate from the principal zymotic diseases averaged 2.1 per 1,000. The 145 deaths registered in Dublin were equal to an annual rate of 21.6 per 1,000 (against 28.3 and 21.5 in the preceding two weeks), the rate during the same period being 17.4 in London and 15.0 in Edinburgh. The 145 deaths registered in Dublin included 13 which were referred to the principal zymotic diseases (equal to an annual rate of 1.9 per 1,000), of which 6 resulted from diarrhœa, 5 from measles, and 2 from whooping-cough.

LONDON STABLES.

IN the wake of reports regarding the increase of glanders in London naturally comes inquiry as to the conditions of life of the London horse. The condition of the London stables has materially improved in the last quarter of a century, but we have reason to believe that even now it is far from satisfactory. The appearance of three cases of glanders in man in a fortnight forcibly indicates the necessity for action as regards specific disease communicable from animals to man; but under the system of stabling horses in vogue in London, any considerations of sanitation affecting stables cannot be divorced from those affecting attendants and their families, who live so close to them—indeed, in them.

The condition of London stables is probably as varied as that of London dwelling houses, and the recognition of hygienic principles as great among horse owners as house owners. The quadruped is, however, placed at a disadvantage, owing to the fact that the comfort of his habitation does not concern any sanitary authority, and the tradition inherited by

the majority of stable attendants is a great dread of "fresh air." In order to provide the best conditions of health, it is essential that for each horse in large towns about 1,000 cubic feet should exist. The value of space will thus be a potent factor in producing the cramped condition of many of our London stables, and it may be safely calculated that few of our hardest-worked animals, the property of poor, and sometimes unscrupulous, owners get half this quantity.

Many of the large studs in London are supervised by veterinary surgeons exclusively employed for the purpose. There is reason to believe that the economy of providing the best hygienic conditions is recognised, and that these are to a great extent adopted. Even here there is sometimes much to be desired. The very large stables often have but little daylight, and the consumption of oxygen for artificial light and imperfect ventilation render some of them far from healthy. When horses occupy the first and second story, any defect of ventilation can but be extremely injurious. Some of our railway arches provide stabling for over 1,000 horses. These have usually a poor allowance of space. The majority of animals employed by large cab owners, carriers, and shopkeepers are provided with good healthy stables, though these are marked exceptions to the rule. It is the hardworked, often very old or very young, horse of the small tradesman, carrier, cab owner, greengrocer, coster, etc., whose habitation is most unsatisfactory, often disgraceful. To this rule, too, we are glad to note most remarkable exceptions. Down a "mews" crammed with human inhabitants whose surroundings have not tended to advance ideas of personal cleanliness, we find in dark, unsavoury stables poor overwrought animals with scarcely room to lie down, and with but impure air to breathe, ventilation being totally disregarded. In depressed conditions of atmosphere these places seem scarcely endurable to the ordinary individual, yet in these stables it is not uncommon to find the opening of a stairs of a human habitation above. We hear of stables in which horses are so closely packed that there is no possibility of one lot lying down until others are moved out to their work. It is from places of this character that suspicious cases are sheltered by day, and dragged out to work at night to disseminate such diseases as glanders. The darkness and consequent uncleanliness existing in the lower class stable afford the best opportunities for the development of disease, and suppression of the knowledge of its existence.

There can be no doubt that the hardest worked and most deserving horses are often most wretchedly stabled; that space, ventilation, and drainage are defective, and that these defects have a most unfavourable influence on human beings closely associated with the animals. Common humanity demands provision of healthy abodes for the attendants, and human feelings should provide comfort for our dumb servants. With regard to stables, ignorance and false economy in many cases deny both, and it appears to us that some department of State should actively interfere. The systematic inspection of stables by skilled officers would undoubtedly have the effect of preventing disease and adding to comfort of man and horse. An order similar to that which refers to milk shops, dairies, etc., could, we venture to think, be easily worked, and we hope soon to know that some effective measures will be adopted to improve the condition of our London stables, which in many cases reflect disgrace rather than credit on our sanitary administration. If our view of the necessity for inspection of stables by proper officers required support, nothing could be more forcible than that supplied in a letter to the *Times* of the 20th, by Mr. A. G. Church, late Managing Director of the London General Omnibus Company.

Referring to a recent prosecution of another London omnibus company, owning 3,000 horses, it is stated as transpiring in evidence that the defendant company had in one stable in Regency Street 50 horses declared (by their veterinary surgeon) "suspicious" and presumably unfit to be with the company's other horses; and yet these horses are being daily sent into our streets. This is scarcely credible. Our argument receives further support from the statement that the company's veterinary surgeon certified on July 20th that "the health and working condition of the stud is good."

In many of our studs the country has a special interest, for in preparation for the event of war our Government pays to some of our larger horse owners annually a sum of 10s. per horse, on the agreement that if required for army purposes they may be purchased at a given price. The damage likely to accrue to the introduction into our army service of suspicious animals is incalculable, and we hope the military authorities will lend their aid in forcing the hand of the responsible.

THE REFUSE OF MANCHESTER.

At a meeting of the Manchester City Council on August 20th, the Cleansing Committee presented a report in which they recommended the purchase of the Rampton Manor estate, covering 1,800 acres in Nottinghamshire, for the purpose of dealing with a large portion of the refuse of the city. The cost was stated at £49,000. Sir John Harwood, Mr. George Clay, and other members of the council opposed the purchase as an undesirable method of meeting existing difficulties. Eventually the Committee were authorised to proceed with the scheme.

LANDLORDS AND BAD DRAINAGE.

Mr. J. P. Wills (Bexhill) writes: May I crave space for a suggestion which, if approved and taken up by the Association, might have very far-reaching results? My suggestion is that the sanitary authority should be liable instead of the landlord for damages resulting from faulty sanitation. I think the effect of this alteration would be that, stirred up by the fear of the penalty, the authorities would put into action their very ample powers; and that compliance in the carrying out of necessary works would be enforced by the pressure of public opinion, which would be heavily against any individual who by neglect subjected his fellow ratepayers to the risk of having to pay damages.

The Russian Public Health Society is about to establish a few model bakehouses in St. Petersburg, where all kinds of bread will be procurable free from adulteration and at reasonable prices.

OBITUARY.

W. VINCENT BARRE, L.R.C.P., L.S.A.

We regret to announce the death, in his 37th year, of Dr. W. Vincent Barré, of Brentwood, Seacombe, Cheshire, a highly respected member of the medical profession. He was a skilful, trustworthy, and reliable practitioner, painstaking, attentive, and highly qualified in every branch of his profession. He was at all times found fully capable of meeting every emergency that arose in his practice. He was a courteous and upright gentleman, an excellent colleague and companion, and a sincere friend. Dr. Barré was a native of Dublin, and received his medical education at the Ledwich School and Rotunda Hospital and Cork Street Fever Hospital in that city.

MEDICAL NEWS.

The Senate of the city of Hamburg has decided to erect a refuse destructor on the model of those used in many English towns. A sum of 60,000 marks (£3,000) has been voted for the purpose. Systematic experiments on the combustion of town refuse are also being made in Berlin.

Cremation in Time of War.—The Paris Cremation Society recently addressed a petition to the French Minister of War, praying him to issue a decree making the cremation of the dead bodies of soldiers killed in battle compulsory as soon as possible after the action. The petitioners express the belief that such a measure would prevent, or at least largely mitigate, the epidemics which under present conditions are so apt to break out in countries which are the seat of war. The suggestion is excellent, but there might possibly be some difficulty in carrying it into effect. Is an army, already hampered with tinned meats, ice machines, patent cooking stoves, and the innumerable other *impedimenta* without which modern warriors seem to be unable to take the field, to be still further burdened with cremating ovens sufficient for the incineration of forty or fifty thousand corpses, at a pinch? From the standpoint of pure hygiene, no doubt *c'est magnifique—mais ce n'est pas la guerre.*

The statistical report of the Clinical Institute of the Berlin University for the year 1891-92 states that v. Bergmann's surgical clinic received 1,717 patients, of whom 156 died, and 1,532 were dismissed after treatment. In the out-patient department 20,818 persons were treated. Professor Senator's policlinic treated 12,379 persons, and Professor Schweiger's eye policlinic 11,688 persons, and 1,095 persons were received as in-patients. In Olshausen's Gynæcological Institute there were 1,083 births, and 876 further patients were received. In the policlinic attached to the institute 2,501 obstetrical cases and 1,078 other cases were treated; 381 gynæcological operations were undertaken, and there were 150 *post-mortem* examinations, of which 60 were newborn infants. The ear hospital received 248 in-patients; and 25,618 were treated in the policlinic attached to it; 2,953 cases were treated in the policlinic for throat and nose diseases, conducted by Professor B. Fraenkel.

Sanitary Administration in Paris.—Dr. Léon Colin has presented a report to the Council of Public Hygiene of the Seine Department urging the establishment of an information office in connection with the Paris Prefecture of Police. To this office all notifications of cases of infectious disease and of deaths therefrom would be sent, and from it orders relating to prophylactic measures would be issued. The law as it stands at present not making the notification of infectious diseases compulsory, the required information would have to be obtained from private medical practitioners and from those in charge of schools, *crèches*, dispensaries, etc., from hospitals, from the members of the sanitary committees of arrondissements, from the police, etc. The information office would be in telephonic communication with the ambulance and disinfecting stations, etc. Dr. L. Colin further suggests that the direction of all the services for the transport of infectious cases should be centralised in the Prefecture of Police, and that the disinfection service should be placed directly under the control of the Council of Hygiene.

The third International Congress of Criminal Anthropology was opened in Brussels on August 7th. Much surprise and disappointment was expressed at the marked abstention of the representatives of the Italian school, of which Professor Lombroso is the most prominent representative, from participation in the debates.

MEDICAL VACANCIES.

The following vacancies are announced:

ABERCARN LOCAL BOARD.—Medical Officer for the District. Salary, £40 per annum. Applications marked "Medical Officer" to T. S. Edwards, Clerk, 29, High Street, Newport, Mon., by August 31st.

BEDFORD GENERAL INFIRMARY.—Matron. Salary £70 per annum, with apartments, board, and washing. Applications, with testimonials, to the Secretary by September 1st.

BERKS ASYLUM, Moulsford, near Wallingford.—Assistant Medical Officer, doubly qualified, unmarried, and under 30 years of age. Salary, £100 per annum, rising £10 annually to £120, with furnished apartments, board, etc., and washing. Applications to the Medical Superintendent by September 9th.

BOROUGH AND PORT OF SUNDERLAND.—Medical Officer of Health and Public Analyst; doubly qualified. Salary in all £525 per annum. Applications endorsed "Application for appointment of Medical Officer of Health and Public Analyst" to F. M. Bowey, Town Clerk, Town Hall, Sunderland, by August 29th.

BUNTINGFORD UNION.—Medical Officer and Public Vaccinator. Salary, £80 per annum, exclusive of medical and vaccination fees. Must reside within the district. Applications endorsed "Medical Officer," to the Clerk to the Guardians, Board Room, Union House, Buntingford, Herts, by September 7th.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—House-Surgeon. Applications to the Secretary by September 3rd.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician for six months commencing October 1st. Applications with testimonials to be sent to the Secretary at the Office, 24, Finsbury Circus, E.C., by September 8th.

DERBY AMALGAMATED SOCIETIES' MEDICAL ASSOCIATION.—Assistant Surgeon. Salary, £160 per annum, with an allowance of £44 for cab hire and additional fees for midwifery cases. Salary to be advanced £10 in six months after appointment, and £10 per annum afterwards until it reaches £250 per annum. Applications to the Secretary, Mr. Thomas M. Cooper, 68, Abbey Street, Derby, by September 7th.

DUNSTABLE URBAN SANITARY AUTHORITY.—Medical Officer. Appointment for one year. Salary, 20 guineas. Applications to Mr. C. Crichton S. Benning, Town Clerk, by September 10th.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon. Appointment for six months. Residence, board, and washing provided. Applications to the House-Governor by August 27th.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Must be registered medical practitioner and unmarried. Salary, £90 first year, with board, rising to £100 second year. Applications, accompanied by testimonials, to be sent to the Secretary, by August 27th.

LONDON COUNTY COUNCIL.—Assistant Medical Officer of Health, not less than 26 or more than 40 years of age. Salary, £300 per annum, rising by annual increments of £50 until it reaches £600 a year. Applications on forms to be had at the office of the Council to H. De La Hooke, Clerk to the Council, Spring Gardens, S.W., by September 10th.

LONDON FEVER HOSPITAL.—Assistant Resident Medical Officer. Applications, with testimonials, to the Secretary by September 1st.

METROPOLITAN HOSPITAL.—Dispenser. Applications, with testimonials, to Charles H. Byers, by August 29th.

MOVILLE DISPENSARY, District Inishowen, Ireland.—Medical Officer. Salary, £120 per annum, exclusive of registration and vaccination fees. Applications to Mr. John Bradley, Honorary Secretary, Moville Dispensary Committee, by 11 A.M. on August 30th.

NOTTINGHAM BOROUGH ASYLUM.—Second Assistant Medical Officer; unmarried. Salary, £100 per annum, with apartments, board, and washing. Applications with testimonials to Medical Superintendent by August 30th.

ROYAL SURREY COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £80 per annum. Applications, with testimonials, to the Honorary Secretary by September 3rd.

ST. MARY'S HOSPITAL, Paddington, W.—Physician, Accoucheur. Applications, with testimonials, to Thomas Ryan, Secretary, by September 8th.

SUNDERLAND CORPORATION.—Medical Officer of Health for the District of the Borough and Port. Salary, £500 per annum as Medical Officer of the borough, £20 for the like office of the Port, and £5 as Public Analyst. Applications endorsed "Medical Officer of Health and Public Analyst," to Mr. Francis M. Bowey, Town Clerk, Town Hall, Sunderland, by October 29th.

SUSSEX COUNTY HOSPITAL, Brighton.—House-Surgeon, doubly qualified, unmarried and under 30 years of age. Salary, £120, rising to £140 per annum, with residence, board, and washing. Applications to the Secretary, by September 21st.

UNIVERSITY OF ABERDEEN.—Six Examiners for Graduation in Medicine. Grant of £30 per annum each. Applications to Robert Walker, Secretary of the University Court, by October 1st.

UNIVERSITY OF GLASGOW.—Assistant Examiner in Medicine. Annual fee for Examinership is £30. Applications with testimonials to Mr. Alan E. Clapperton, 91, West Regent, Glasgow, by September 3rd.

MEDICAL APPOINTMENTS.

BOWER, Augustus E., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Eastry District, and for the Workhouse of the Eastry Union.

BROMHALL, Ernest, M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant House-Surgeon to the General Hospital, Birmingham.

BYASS, Edgar Spry, M.B., C.M., L.R.C.S.Edin., reappointed Medical Officer for the No. 2 District of the Cuckfield Union.

CARPENTER, Percy Tranter, M.R.C.S.Eng., L.R.C.P.Lond., appointed District Medical Officer (under the Colonial Government) of Stanor Creek, British Honduras.

CHAMBERS, Henry F. T., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glas., appointed Medical Officer for the Wareham No. 2 District, and for the Workhouse of the Wareham and Purbeck Union.

COLEMAN, M. O., M.B.Aberd., M.R.C.S., reappointed Medical Officer of Health for the Surbiton Urban Sanitary District of the Kingston Union.

EDIE, Robert, M.B., C.M., appointed House-Surgeon to the Manchester Royal Eye Hospital, *vice* Charles Ramage, M.D.

HARCOURT, C. Harold, M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant House-Surgeon to the General Hospital, Birmingham.

HARING, Nathan C., M.B.Lond., M.R.C.S., appointed Honorary Assistant Physician to the Manchester Hospital for Consumption and Diseases of the Throat.

HARMAN, Albert B., M.R.C.S., L.S.A., appointed Assistant House-Surgeon to the Royal South Hants Infirmary, Southampton.

HILL, Frederick A., M.D.Brussels, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Thorncombe District of the Axminster Union.

JAMES, John, L.R.C.P.Lond., M.R.C.S., appointed Medical Officer of Health for the Rural Sanitary District of the Aberystwith Union, *vice* —Turner, resigned.

JONES, Hugh R., M.A., M.D., B.C.Cantab., B.Sc.Lond., appointed Honorary Assistant Surgeon to the Liverpool Infirmary for Children.

KIRBY, Samuel J. J., M.D.Brux., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the No. 4 District of the Stow Union.

LAING, G. Mackay, L.R.C.S.Irel., L.R.C.P., L.M., appointed Medical Officer and Medical Officer of Health to Ballina Dispensary District and Medical Attendant R.I.C.

PALING, Albert, M.R.C.S., L.R.C.P., L.S.A., appointed Assistant Resident Medical Officer to the Whitechapel Infirmary.

PHILPOTS, John Richard, L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health to the Poole Rural Sanitary Authority.

RENNET, David, M.B., C.M., D.P.H.Aberd., appointed Extra Assistant Medical Officer to the Aberdeen Town Council.

RENTON, George, M.D.Edin., reappointed Medical Officer of Health to the Leadgate Local Board.

SANDFORD, H. O., L.R.C.P.Lond., L.F.P.S.Glasg., reappointed Medical Officer of Health for the Rural Sanitary Districts of Bromyard, Hereford, Ledbury, Leominster, and Weobley Unions.

SCATTERTY, William, M.A., M.B., C.M.Aberd., appointed Medical Officer of Health for the Borough of Keighley, *vice* Arthur Roberts, M.D.St. And., resigned.

SMITH, Thomas Hanson, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Reddish Local Board.

THOMPSON, P. W., M.B.Toronto, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Assistant Medical Officer at the Infirmary of the Woolwich Union.

THORNE, Thorne Berthold B., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Royal Portsmouth Hospital.

WILLIAMS, Egerton H., M.R.C.S., L.R.C.P., appointed Clinical Assistant to the Whitechapel Infirmary.

WILLS, Chas., M.R.C.S., reappointed Medical Officer of Health for the Southwell and Worksop Rural Sanitary Districts.

WOOD, William, B.A.Camb., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Cartmel District of the Ulverstone Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

HOLMES.—On the 20th inst., at 14, Old Burlington Street, W., the wife of Dr. W. Reid Holmes, of a son.

SNELL.—On July 27th, at Fort Canje, Berbice, British Guiana, the wife of George Snell, M.B., of a son.

MARRIAGE.

FITCH—WILLIS.—On the 16th inst., at St. Cassyon's Church, Chaddesley Corbett, Worcestershire, by the Rev. E. Lewis, rector of Hampton Lovett, brother-in-law of the bridegroom, assisted by the Rev. D. H. Francis, vicar, Charles Dennis Fitch, M.R.C.S., third son of F. Fitch, Esq., M.D., of Chaddesley Corbett, to Beatrice Mary, elder daughter of H. R. Willis, Esq., of Brockencote Hall, Chaddesley Corbett, and of Kidderminster.

DEATH.

ALLBUTT.—August 19th, at Acorn Villas, Ilkley, in her 74th year, Anna Maria, relict of the late George Allbutt, M.R.C.S.Eng., L.S.A., of Grove House, Batley, and mother of Arthur Allbutt, M.R.C.P.E., of 24, Park Square, Leeds. No cards.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free).—*Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

Central London Ophthalmic.—*Operation Days.*—Daily, 2.

Charing Cross.—*Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operation Days.*—W. Th. F., 3.

Chelsea Hospital for Women.—*Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. Th., 2.30.

East London Hospital for Children.—*Operation Day.*—F., 2.

Great Northern Central.—*Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, Tu. Th., 2.30; Ear, M. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

Guy's.—*Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

Hospital for Women, Soho.—*Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

King's College.—*Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—Tu. F. S., 2.

London.—*Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

London Temperance Hospital.—*Hours of Attendance.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

Metropolitan.—*Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

Middlesex.—*Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

National Orthopædic.—*Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

North-West London.—*Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, Tu., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

Royal Free.—*Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic.—*Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

Royal Orthopædic.—*Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

Royal Westminster Ophthalmic.—*Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

St. Bartholomew's.—*Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

St. George's.—*Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

St. Mark's.—*Hours of Attendance.*—Fistula and Diseases of the Rectum, males, W., 8.45; females, Th., 8.45. *Operation Day.*—Tu., 2.

St. Mary's.—*Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

St. Peter's.—*Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 2.30 and 5, Th., 2, F. (Women and Children), 2, S., 3.30. *Operation Day.*—W., 2.

St. Thomas's.—*Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), Tu., 4, F., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children.—*Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

Throat, Golden Square.—*Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

University College.—*Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th., 1.30; S., 2.

West London.—*Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

Westminster.—*Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted, will be found under their respective headings.*

QUERIES.

M.R.C.S. asks to be referred to any work treating, as fully as possible, of paralysis of the palate or a discussion on the subject.

C. Pinkerton (Southport) writes: I shall esteem it a favour if you can inform me if there is any home near London where a male epileptic can be received on payment of a moderate sum.

Dr. F. W. Bennett (Leicester) asks gentlemen familiar with the climate of Shanghai whether it predisposes to anæmia or to rheumatism. He would be greatly obliged for any information on this subject.

M.D. writes: Will any of your readers kindly advise me as to the best carriage for use in a suburban practice with level country, no hills, and no great distances to travel? I also ask the favour of the experience of those who have used Botwood's "Queen" Brougham, Maythorn's "Desideratum" and "Convertible Victoria," and Fuge's "Jubilee" and "Doctor's Friend."

Professor McKendrick's Lectures at the Royal Institution.

Member, M.D., asks where he can find a report of the popular lectures on Physiology delivered a few years ago by Professor McKendrick at one of the London Institutions.

*** The lectures have, we believe, be published under the title of *The Animal Machine.*

ANSWERS.

Errors of Refraction.

Lex.—It is impossible to explain adequately the methods of estimating and correcting errors of refraction without reference to elementary optics. In the following books the subject is treated from a practical standpoint, only sufficient optics being introduced to elucidate the subject—*Refraction* (Morton), *Ophthalmic Surgery* (Carter and Frost). The latter also contains an account of the manner of using the ophthalmoscope. If a separate treatise on this subject is required, we would suggest *Use of the Ophthalmoscope* (Hartridge).

NOTES, LETTERS, Etc.

We regret that the paper on Insanity as a Plea for Divorce, which was published in the British Medical Journal of August 20th, was by an oversight attributed to Mr. F. Weatherly, M.R.C.S., instead of L. A. Weatherly, M.D. Aberd.

In the list of members present at the annual meeting, published in the British Medical Journal of August 13th, the name of Surgeon-Major John Raby was incorrectly printed as "Raley."—Dr. Frederick Taylor's paper on Malignant Endocarditis, an abstract of which appeared in the Epitome on August 13th, par. 126, was published in the *Guy's Hospital Reports* for 1891, not in the *Guy's Hospital Gazette*, as there stated.

Medical Aid Association.

J. W. writes: "Fair Play" misses the point when he writes in favour of medical aid associations, as no one objects to the various clubs amalgamating, and being attended by their own medical man. Indeed, there is much to be said in its favour, if they stopped there; but when they admit for medical advice and medicine shopkeepers who do not and would not belong to a club, with their wives and children, etc., or indeed any person who presents himself and pays the small pittance demanded, this I am sure "Fairplay" will see no medical man would tolerate in connection with a club attended by him, and not run by a form of syndicate.

AN APPEAL.

DR. CHARLES G. SKINNER (Harpurhay, Manchester), writes: The following amounts have been received in response to the appeal published in the BRITISH MEDICAL JOURNAL of July 23rd, p. 223: K., 11, Crescent, Taunton, 5s.; Amicus, £2 2s.

A WARNING.

MR OPENSHAW (16, Wimpole Street) writes to say that a theft was last week committed at his house, under the usual circumstances, by a man aged 25 to 38, height 5 feet 6 inches, of light complexion, thin, sallow, and of sickly appearance, clean shaven, and dressed in brown suit, with brown soft felt hat. He gave the name of Newtown, and said he was staying at the Langham, and had an appointment.

THE MEDICAL SICKNESS AND ANNUITY SOCIETY.

WHEN a clergyman breaks down his income, writes the *Hospital*, does not cease or even diminish; when the doctor cannot work his income must diminish very rapidly, and may come altogether to an end. It is a hard thing to be a poor gentleman—much harder than to be a poor workman. The sting of poverty is very keen in the flesh of the man of education. There is all the more reason, therefore, why he should, with unflinching resolution, make provision against it. At the present moment there is a society which can offer to all sorts and conditions of medical men exactly the provision they need against sickness and accident. The society, which is called the Medical Sickness, Annuity, and Life Assurance Society, is relatively rich—it has £60,000 invested. When founded a few years ago by Mr. Ernest Hart, the distinguished Editor of the BRITISH MEDICAL JOURNAL, it had no invested funds at all. The £60,000 are the result of honorary management, business capacity, and professional appreciation. Some of the cases given to illustrate the value of the Society are exceedingly striking. For example, A. B. had paid in altogether during several years the sum of £113 3s. 3d.; he has taken out, in consequence of illness, £368 2s., and he is still entitled to £2 2s. a week for twenty three years longer. Several more cases of this kind are given in the published Report for the present year. This is excellent business. Or, again, an ordinary life and annuity office pays, as a rule, 20 per cent., or much more, of its income in working expenses. The Medical Sickness and Annuity Office conducts its business at a cost of something less than 4 per cent. of its premium income. The truth is that the Society is in every way an admirable institution. It is, in fact, a "Gentleman's Self-help Society" on an adequate scale, and every medical man who has no private means should hasten to claim a share of its many and great benefits.

DANGERS OF THE SEASIDE.

A DISTRESSED PARENT writes: In the interests of other parents who have sent their children to the seaside for their autumn holidays, I beg to record my experience of the past fortnight. On my first visit to them, a few days after their arrival, my attention was called to sundry spots attributed to fleas; and as several of these latter had been caught, the explanation seemed sufficient. A supply of carbolic acid was procured, and employed as a lotion; but the nuisance became so distressing that a change of lodgings was decided on, a very difficult matter to arrange when every house was full. On my next visit to them, a week later, in their new quarters, I was led to investigate more closely the supposed flea bites, when, to my consternation, I found that three of the children were simply "smothered with itch." This was confirmed by the medical officer of health for the district. Steps were immediately taken to deal with the disorder, strict quarantine enjoined, and the landlady informed of the nature of the rash, as another set of lodgers occupied a portion of the house. From subsequent inquiries it seems more than probable that the disease originated from a grandchild of the first landlady having occupied one of the rooms a few weeks previously in which two of my children slept. Whether the woman was aware of the nature of the rash I cannot say. It only shows how careful one ought to be in selecting houses where other children reside. I may further mention that on Sunday last a boy of about 10 years old, evidently suffering from ringworm, occupied a pew in church close beside me, and that the responses were enlivened by an unquestionable paroxysm of whooping-cough in a young child. "This rising health resort" has no system of drainage whatever. There are but eight iron seats the whole length of the sea front, and not a solitary shelter in the event of sudden showers coming on. The prices for rooms are extortionate, a guinea a week being demanded for little rooms 9 feet square equally with those of larger proportions.

PLACE AUX—VACHES!

THE late Sir James Simpson once discomfited a cross-examining counsel by saying that, for the purpose of his argument, a cow was as good as a countess. The physiological equality of human and bovine females is also officially recognised in the department of the Rhône, as appears from a circular recently sent to the medical inspector of the district, in which reference is made of the necessity of increased facilities for the analysis of "samples of the milk of women, cows, or other [animals]" (*femmes, vaches, ou autres*). This reminds us of an advertisement which used to be—and, for all we know, still is—issued by a large shipping firm, in which the catalogue of the virtues and attractions of their vessels wound up with the announcement that they carried "an experienced surgeon and a cow."

THE PROTECTION CONFERRED BY ONE ATTACK OF INFLUENZA.

SURGEON-MAJOR J. MAITLAND, M.D. (Ootacamund, India), writes: During the epidemic of influenza which occurred in England last winter some discussion took place in the medical journals regarding the question of immunity from subsequent attacks. Very few medical men gave their testimony in favour of the immunity conferred by one attack of the disease, and the general impression appeared to be that second attacks were common. The experience I have met with in a recent epidemic in this station convinces me that one attack is, in the great majority of cases, a protection against subsequent attacks. Influenza broke out in the station two years ago (1890), and large numbers of the native population were attacked and a great number died. A large proportion of the European population was also attacked. During the recent epidemic (1892) very few natives were attacked, and it is doubtful if any died from the disease; certainly not more than two or three. Out of a total of 95 cases amongst Europeans that came under my care only 13, that is to say 13.6 per cent., had suffered previously.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) A.M.S.; Dr. Apostoli, Paris; Mr. Allbutt, Leeds. (**B**) Dr. Rayner D. Batten, London; Mr. E. Broomhall, Birmingham; Dr. H. Barron, Southport; Mr. H. Brown, York; Messrs. Burroughs, Wellcome, and Co., London; Mr. J. R. Bailey, Newquay; Dr. G. Berdoe, London; Mr. W. O. Barré, Dublin; J. H. Bailey, M.B., Birkenhead; Dr. P. Boddie, Edinburgh; Dr. T. Bennett, Leicester; R. Broadbent, M.B., Leicester; N. Burns, M.B., Glasgow. (**C**) Mr. W. Cutler, London; Mr. C. E. Cassal, London; Mr. G. W. Chapman, Huddersfield; Dr. J. Court, Chesterfield; Mr. H. W. Coleman, Armley; Mr. D. Campbell, Calne; Dr. H. Collier, London; Mr. J. J. Clark, West Brighton; Mr. T. Charlton, Handley; Mr. P. F. Carpenter, London; Dr. P. W. Perkins Case, Croydon; John G. Cooke, M.B., Londonderry. (**D**) J. W. Downie, M.B., Glasgow; Mr. W. T. Dyer, London; A Distressed Parent; Dr. P. M. Deas, Exeter. (**E**) Dr. R. Esler, London; Enquirer. (**F**) Dr. R. Farquharson, Aboyne, N.B.; Sir Walter Foster, London; Mr. Adams Frost, London; Mr. J. Vesey Fitzgerald, London; A Friend of the Medical Staff; Dr. H. Fayrer, London; F.R.C.S.; W. E. L. Finney, M.B., Kingston. (**G**) Mr. G. G. Glendinnen, Coseley; Dr. Gubb, London; Messrs. Grindlay, Groom, and Co., Bombay; Mr. S. Lawrence Gill, Sutton; Dr. W. Graham, Middleton; Mr. G. L. Green, Leeds. (**H**) Dr. P. Horrocks, London; Mr. C. H. Harcourt, Birmingham; Dr. Samuel Houghton, Dublin; Mr. W. R. Hunton, Southport; Messrs. Hockin, Wilson, and Co., London; Dr. A. Braxton Hicks, London; Mr. Habgood, London; Mr. N. C. Haring, Manchester; Dr. W. W. Hardwicke, East Molesey; Mr. J. E. Harting, Cranleigh. (**I**) I. V. R. C.; Dr. C. R. Illingworth, Accrington; Dr. John Ince, Kent. (**J**) Dr. H. R. Jones, Liverpool. (**K**) Mr. H. F. Knyvett, Northampton; Mr. S. Kato, London. (**L**) Dr. L. Leibouwitz, Vienna; Mr. J. B. Lawford, London; L. S.; A Licentiate of Twenty Years' Standing; Mr. E. Lloyd, Ammanford; London Skin Hospital, The Secretary of the, London. (**M**) Messrs. J. McKeever, Son, and Livesay, Carlisle; Member of the British Medical Association; Mrs. A. Marshall, London; Mr. W. P. Marshall, Aldershot; Member, M.D.; Mr. A. McLean, Renfrew; Mr. G. Mellin, London; Mr. W. J. Morris, Portmadoc; Dr. A. T. Myers, London; Messrs. Meyer and Meltzer, London; Dr. Mackenzie, Balham; Medical Witness; M.D.; Mr. W. Monckton, Portishead; J. W. Mason, M.B., Hull. (**N**) Mr. R. J. Neild, London. (**O**) Mr. A. O'Leary, Kinsale; Mr. G. T. Oldham, Carnforth; Mr. W. H. O'Meara, Carlow; Mr. E. B. Ormerod, Craven Arms. (**P**) Mr. C. H. Parkinson, Wimborne; Principal; Dr. H. Franklin Parsons, Croydon; Mr. H. S. Phillips, London; Perplexe; Dr. G. W. Potter, London; Dr. A. B. Prowse, Clifton; Dr. L. Phillips, London; Dr. C. Pinkerton, Southport. (**R**) Dr. J. Redmond, Dublin; Mr. W. Day Roberts, Surbiton; Mr. R. Rajasingham, Aberdeen; Mr. H. S. Reynolds, Hendon; Mr. W. Robinson, London; Dr. Roux, Paris; Mr. T. F. Raven, Broadstairs. (**S**) Southwark; Messrs. Harrold, Smith, and Gorringe, London; Dr. Sisley, London; Dr. Scatliff, Margate; Mr. A. W. Stokes, Dovercourt; Mr. C. G. Skinner, Glenlivet; Dr. W. J. Stott, Haslingden; J. Stevenson, M.B., Bombay; Mr. F. M. Sandworth, London; Mr. J. G. Scott, Dublin; Dr. J. F. W. Silk, London; Mr. W. Sewell, Shipley; Dr. G. C. Stephen, London. (**T**) Dr. D. Thomas, London; Mr. J. T. Thompson, Whitby; Mr. W. Thomson, Dublin; Dr. F. Taylor, London; Mr. W. Tiplady, Coupar Angus; Dr. Thorne Thorne, C.B., London. (**U**) University of Aberdeen, The Dean of the, Aberdeen; Dr. A. S. Underhill, Tipton. (**V**) Dr. Vacher, Birkenhead; Victim. (**W**) Messrs. Wilson, Williams, and Co., London; Dr. J. P. Wills, Hastings; Dr. Charles Warden, Birmingham; Mr. A. Wheeler, Darlington; Dr. A. Weatherley, Southsea; Dr. Outterson Wood, London. (**Y**) Dr. J. Burney Yeo, Ray Bridge; etc.

BOOKS, ETC., RECEIVED.

The Hydro-Electric Methods in Medicine. By Dr. W. S. Hedley. London: H. K. Lewis. 1892. Price 4s. 6d.

Transactions of the Eighth Annual Meeting of the American Climatological Association held at Washington, D.C., September 22nd, 23rd, 24th, and 25th, 1891. Philadelphia: W. B. Saunders. 1892. Price 1 dollar 50 cents., net.

Reports from the Laboratory of the Royal College of Physicians, Edinburgh. By J. Batty Tuke, M.D., and D. Noel Paton, M.D. Edinburgh and London: Young J. Pentland. 1892.

The Human Voice; its Cultivation and Preservation: A Manual for Singers and Speakers. By W. H. Griffiths. London: George Phillip and Son. Price 2s. 6d.

Aix-la-Chapelle as a Health Resort. By Drs. Alexander Beissel, Brandis, Goldstein, Mayer, Rademaker, Schumacher, and Thissen. The English edition translated with the sanction of the civic authorities. By James Donelan, M.B., M.Ch., B.A.O. London: J. and A. Churchill.

*** In forwarding books the publishers are requested to state the selling prices.

REGULATIONS
OF THE
GENERAL MEDICAL COUNCIL AND MEDICAL LICENSING BODIES.

SESSION 1892-93.

REGULATIONS OF THE GENERAL MEDICAL COUNCIL REGARDING REGISTRATION OF MEDICAL STUDENTS.

PRELIMINARY EXAMINATION.—1. No person is allowed to be registered as a medical student unless he shall have previously passed a preliminary examination in the subjects of general education as hereinafter provided.—2. The Education Committee issues from time to time a list of examining bodies whose examinations fulfil the conditions of the Medical Council as regards general education.—3. Testimonials of proficiency granted by educational bodies, according to the subjoined list, are accepted; the Council reserving the right to add to or take from the list.—4. (A Degree in Arts of any University of the United Kingdom, or of the Colonies, or of such other Universities as may be specially recognised from time to time by the Medical Council, is considered a sufficient testimonial of proficiency.)—5. The following is a list of examining bodies whose examinations fulfil the conditions of the Medical Council: I. *Universities in the United Kingdom. Oxford:* Junior Local Examinations, Certificate to include Latin and Mathematics, and also one of these optional subjects (Greek, French, German); Senior Local Examinations, Certificate to include Latin and Mathematics; Responsions; Moderations; Examination for a Degree in Arts. *Cambridge:* Junior Local Examinations, Certificate to include Latin and Mathematics, and also one of these optional subjects (Greek, French, German). Senior Local Examinations, Certificate to include Latin and Mathematics; Higher Local Examinations, Previous Examination, Examination for a Degree in Arts. *Durham:* Examinations for Certificate of Proficiency; Examination for Students at the end of their first year; Examination for a Degree in Arts.—*London:* Matriculation Examination; Preliminary Scientific (M.B.) Examination; Examination for a Degree in Arts or Science.—*Victoria:* Preliminary Examination, Latin to be one of the subjects; Entrance Examination in Arts to include all the subjects required.—*Edinburgh:* Local Examinations (Junior Certificate), Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects (Greek, French, German); Local Examinations (Senior Certificate, Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects (Greek, French, German); Preliminary Examination for Graduation in Science or Medicine and Surgery; Examination for a Degree in Arts.—*Aberdeen:* Local Examinations (Junior Certificate), Certificate to include all the subjects required; Local Examinations (Senior Certificate), Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects (Greek, French, German); Preliminary Examination for Graduation in Medicine and Surgery; Examination for a Degree in Arts.—*Glasgow:* Local Examinations (Junior Certificates). Certificate to include all the subjects required; Local Examinations (Senior Certificate), Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects (Greek, French, German); Preliminary Examination for Graduation in Medicine and Surgery; Examination for a Degree in Arts.—*St. Andrews:* Local Examinations (Senior Certificate), Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects (Greek, French, German); Local Examinations (Junior Certificate), to include all the subjects required; Preliminary Examination for Graduation in Medicine and Surgery; Examination for a Degree in Arts.—*Dublin:* Public Entrance Examination; General Examination at end of Senior Freshman Year; Examination for a Degree in Arts.—*Royal University of Ireland:* Matriculation Examination.—*Oxford and Cambridge Schools' Examination Board:* Certificate to include the following subjects, an adequate knowledge of English Grammar and Orthography, as shown in the course of the Examination, to the satisfaction of the Examiners, being held as conforming to the requirements of the Medical Council in regard to those subjects: (*a*) Arithmetic, including Vulgar and Decimal Fractions; (*b*) Algebra, including Simple Equations; (*c*) Geometry, including the subjects of the first three books of Euclid; (*d*) Latin, including Translation and Grammar; (*e*) Also one of these optional subjects: Greek, or any Modern Language, or Logic.—II. *Other Bodies named in Schedule (A) to the Medical Act.—Apothecaries' Society of London:* Examination in Arts.—[1] *Royal Colleges of Physicians and Surgeons of Edinburgh:* Preliminary (combined) Examination in General Education.—[2] *Faculty of Physicians and Surgeons of Glasgow:* Preliminary Examination in General Education.—*Royal Colleges of Physicians and Surgeons in Ireland:* Preliminary Examination; Certificate to include Mathematics.—III. *Examining Bodies, in the United Kingdom, not included in Schedule (A) to the Medical Act* (1858).—*College of Preceptors:* Examination for a First-Class Certificate, or Second-Class Certificate of First or Second Division, Algebra, Geometry, Latin, and either a Modern Language, or Greek, or Logic, having been taken; Preliminary Examination for Medical Students.—*Intermediate Education Board of Ireland:* Junior, Middle, and Senior Grades Examination; the Certificate in each case to include all the subjects required.—*Educational Institute of Scotland:* Preliminary Medical Examination.—*Scotch Education Department:* Leaving Certificates in each Grade and in Honours.—IV. *Indian, Colonial, and Foreign Universities and Colleges.*—The certificates from the following bodies must contain evidence that the Examination passed included all the subjects required by the General Medical Council. In the case of natives of India or other oriental countries, whose vernacular is other than English, an examination in a classic oriental language may be accepted instead of an examination in Latin.—*University of Calcutta:* Entrance Examination.—*University of Madras:* First Examination in Arts.—*University of Bombay:* Entrance Examination.—*Ceylon Medical College:* Preliminary Examination (Primary Class).—*Universities of McGill College, Montreal; Bishop's College, Montreal; Toronto; Trinity College, Toronto; Queen's College, Kingston:* Matriculation Examination.—*University of Victoria College, Upper Canada:* Certificate of Full Matriculation in Arts, or Second-class Provincial Certificate from Education Department.—*College of Physicians and Surgeons of Ontario:* Preliminary Examination.—*Western University of Ontario:* Entrance Examination in Medicine.—*University of Manitoba:* Previous Examination.—*University of Fredericton, New Brunswick:* Matriculation Examination.—*University of Mount Allison College, New Brunswick, Canada:* Examination for a Degree in Arts.—*University of King's College, Nova Scotia:* Matriculation Examination; Responsions.—*University of Halifax, Nova Scotia:* Matriculation Examination.—*Dalhousie College and University, Halifax, Nova Scotia:* Matriculation and Sessional Examinations.—*Provincial Medical Board of Nova Scotia:* Matriculation Examination.—*University of Melbourne:* Matriculation Examination. *University of Sydney:* Entrance Examination for Medical Students. *University of Adelaide:* Senior Public Examination; Junior Public Examination.—*University of Tasmania:* Senior Public Examination.—*University of the Cape of Good Hope:* Matriculation Examination; Examination for a Degree in Arts.—*University of Otago:* Preliminary Examination. *University of New Zealand:* Preliminary Medical Examination.—*Christ's College, Canterbury, New Zealand:* Voluntary Examinations, Certificate to include all subjects required.—*Codrington College, Barbadoes:* English Certificate for Students of two years' standing, and Latin Certificate or "Testamur."—*Germany and other Continental Countries:* Gymnasial Abiturienten-Examen, and other corresponding entrance examinations to the Universities.—*Egyptian Government:* Secondary Education Certificate, Arabic being accepted as a classic Language in place of Latin.—The Preliminary Examination in General Education required to be passed previous to registration as a medical student must comprise the following subjects:—*Compulsory Subjects:* (*a*) English Language, Grammar, and Composition, (*b*) Latin, including Grammar and Translation from specified authors and of easy passages from other authors, (*c*) Mathematics, comprising (1) Arithmetic; (2) Algebra to Simple Equations, inclusive; (3) Geometry, the subject matter of Euclid, Books I, II, III, with easy deductions. *Optional Subjects*, one of the following: Greek, French, German, Italian, any other Modern Language, Logic.

[1] This Examination is conducted by the Educational Institute of Scotland (No. 49).

[2] This Examination, after September, 1892, will be conducted by the Educational Institute of Scotland (No. 48.).

No certificate of pass in Preliminary Examination in General Education will in future be accepted unless the whole of the subjects required have been passed in at the same time; but this rule does not apply to those who previous to January 1st, 1892, have passed a part of any Preliminary Examination recognised by the Council; provided that a University Examination required for graduation in Arts, wherein the specified subjects of General Education are included, may be recognised for the purpose of registration.

[The list of examinations given above as fulfilling the requirements of the Council will be revised by the Education Committee of the Council.]

REGISTRATION OF MEDICAL STUDENTS.—7. Every medical student must be registered in the manner hereinafter prescribed by the General Medical Council.—8. No medical student shall be registered until he has passed a preliminary examination, as required by the General Medical Council and has produced evidence that he has commenced medical study.—9. The commencement of the course of professional study recognised by any of the qualifying bodies shall not be reckoned as dating earlier than fifteen days before the date of registration.—10. The registration of medical students shall be placed under the charge of the Branch Registrars.—11. Each of the Branch Registrars shall keep a register of medical students, according to a form indicating the name; the preliminary examination, with date thereof; the date of registration; and the place and date of commencement of medical study, as certified by a master, or a teacher, or an official in a medical school or hospital.—12. Every person desirous of being registered as a medical student shall apply to the Branch Registrar of the division of the United Kingdom in which he is residing, according to a form which may be had on application to the several qualifying bodies, medical schools, and hospitals; and shall produce or forward to the Branch Registrar a certificate of his having passed a preliminary examination, as required by the General Medical Council, and evidence that he has commenced medical study.[3]—13. The Branch Registrar shall enter the applicant's name and other particulars in the *Students' Register*, and shall give him a certificate of such registration.—14. Each of the Branch Registrars shall supply to the several qualifying bodies, medical schools, and hospitals, in that part of the United Kingdom of which he is Registrar, a sufficient number of blank forms of application for the registration of medical students.—15. All applications for special exceptions to the foregoing regulations as to registration shall be addressed to the Registrar of the General Council, and decided by the Students' Registration Committee, who shall report on all such cases to the Council.—16. A copy of the *Medical Students' Register*, prepared by each of the Branch Registrars, shall be transmitted, on or before the 31st of December in each year, to the Registrar of the General Council, who shall, as soon as possible thereafter, prepare and print, under the direction of the Executive Committee, an alphabetical list of all students registered in the preceding year, and supply a copy of such authorised list to each of the bodies enumerated in Schedule (A) to the Medical Acts, and through the Branch Registrars to each of the several medical schools and hospitals.—17. The Several Qualifying bodies are recommended not to admit to the final examination for a qualification under the Medical Acts any candidate (not exempted from registration) whose name has not been entered in the *Medical Students' Register* at least forty-five months previously. In the case of candidates from other than schools of the United Kingdom, exceptions may be made by the Students' Registration Committee.

[3] *Form of Application for Registration as a Medical Student.*—I hereby apply to be registered a Student in Medicine, in conformity with the Regulations of the General Council of Medical Education and Registration of the United Kingdom, for which purpose I submit the following particulars. [Name of applicant (to be written in words at length); Surname; Christian name; Preliminary examination, with date thereof; Place and date of commencement of medical study; Applicant's signature; Address; and Date of application.]

Certificate of Commencement of Medical Study.—I hereby certify that Mr. —— has commenced the study of medicine in (insert name of School, or Hospital, or place of apprenticeship, as the case may be); Signature of Master, Teacher, or Official in a Medical School or Hospital; Place and date. To the Registrar of the Branch Council for ——.

N.B.—The word "Master" or "Teacher" will be held to include any registered practitioner whose pupil the applicant may be at the time. The certificate of examination must testify that the student has been examined in the subjects required by the General Medical Council.

The above form of application, duly and legibly filled up, and accompanied by a certificate of the applicant's having passed a preliminary examination, as required by the General Medical Council, must be forwarded post paid to the Registrar of one of the Branch Councils.

RECOMMENDATIONS OF THE GENERAL MEDICAL COUNCIL ON PROFESSIONAL EDUCATION AND EXAMINATION.

AGE FOR LICENCE TO PRACTISE, ETC.—1. The age of twenty-one should be the earliest age at which a candidate should obtain a licence to practise, and the age should, in all instances, be certified.—2. The course of medical study after registration should occupy at least five years.[4] The fifth year should be devoted to clinical work at one or more of such public hospitals or dispensaries, British or foreign, as may be recognised by any of the medical authorities mentioned in Schedule (A) of the Medical Act (1858), provided that of this year six months may be passed as a pupil to a registered practitioner holding a public appointment, or possessing such opportunities of imparting practical knowledge as shall be satisfactory to the medical authorities.

PROFESSIONAL EDUCATION.—3. The first four of the five years should be passed at a school or schools recognised by any of the licensing bodies mentioned in Schedule (A) of the Medical Act, provided that the first year may be passed at a University or teaching institution recognised by any of the Licensing Bodies, where the subjects of Physics, Chemistry, and Biology are taught.[5] —4. In every course of Professional Study and Examinations the following subjects must be contained: (1) Physics, including the Elementary Mechanics of Solids and Fluids, and the rudiments of Heat, Light, and Electricity; (2) Chemistry, including the principles of the science, and the details which bear on the study of Medicine; (3) Elementary Biology; (4) Anatomy; (5) Physiology; (6) Materia Medica and Pharmacy; (7) Pathology; (8) Therapeutics; (9) Medicine, including Medical Anatomy and Clinical Medicine; (10) Surgery, including Surgical Anatomy and Clinical Surgery; (11) Midwifery, including Diseases peculiar to Women and to Newborn Children; (12) Theory and Practice of Vaccination; (13) Forensic Medicine; (14) Hygiene; (15) Mental Disease.[6]

PROFESSIONAL EXAMINATION.—5. The Professional Examinations should be so framed as to secure that the knowledge of every practitioner whose name appears in the *Medical Register* has been tested in all the subjects of professional education which the Council deems essential (see Recommendation No. 4).—6. There should be at least three Professional Examinations; the Examination in the Elements of Physics (including Mechanics), Chemistry, and Biology should be passed before the beginning of the second winter session.—7. The examinations, and the subjects included in each, should be such, and in such order, as may ensure, as far as possible, a due continuity and sequence of study; and all examinations except the Final Examination in Medicine, Surgery, and Midwifery, should be passed before the final year intended for clinical work.—8. The Final Examination must not be passed till the termination of the fifth year of medical study. —9. The Professional Examinations should be conducted both in writing and orally; and they should be practical in all branches in which they admit of being so.—10. Two Examiners at least should take part in every oral and clinical examination.—11. A candidate should not be rejected on any written examination unless his answers have been submitted to at least two Examiners. —12. Excellence in one or more subjects should not be allowed to compensate for failure in other subjects.—13. The Professional Examinations should be held by the several licensing bodies at stated periods, to be publicly notified.—14. In no case should the Examination of a candidate in any subject be conducted exclusively by his teachers in that subject in the school in which he has been educated.—15. Every candidate for the Final Professional Examination should be required to give evidence that he has had sufficient opportunities of practical study, with care of patients, medical, surgical, and obstetrical, in hospital, dispen-

[4] Graduates in Arts or Science of any University recognised by the Medical Council who shall have spent a year in the study of Physics, Chemistry, and Biology, and have passed an Examination in these subjects for the degrees in question, should be held to have completed the first of the five years of medical study.

[5] Exception may be allowed in the case of any graduate in medicine of an Indian, Colonial, or Foreign University, or of any student who, having completed the full time required by the Medical Council, and having given satisfactory evidence of general education, shall have spent the whole or three-fourths of that period at an Indian, Colonial, or Foreign University, the several licensing bodies being requested to communicate to the Council annually, in the month of January, a statement of the action taken by them respectively during the last preceding calendar year, in regard to such exceptional cases.

[6] It is to be understood, as regards the above mentioned subjects, that the Council offers no opinion as to the manner in which the subjects should be combined or distributed for purposes of teaching or of examination.

TABULAR VIEW OF THE REGULATIONS OF THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, AND OF THE SOCIETY OF APOTHECARIES OF LONDON: OLD ORDINANCES.

	ROYAL COLLEGES OF PHYSICIANS AND SURGEONS. DOUBLE QUALIFICATION.	ROYAL COLLEGE OF SURGEONS OF ENGLAND. FELLOWS.	SOCIETY OF APOTHECARIES OF LONDON. LICENTIATES.
AGE REQUIRED ...	Twenty-one	Twenty-five.	Twenty-one.
EVIDENCE OF GENERAL EDUCATION BEFORE COMMENCEMENT OF PROFESSIONAL STUDY.	Certificate of registration as a student by the General Medical Council.	Certificate of registration by the General Medical Council.	Certificate of registration as a medical student by the Medical Council.
DURATION OF PROFESSIONAL STUDY.	Forty-five months; at least three winters and two summers at a recognised school or schools.	Six years; or Members, two years in addition to the certificate for the diploma of Member.	Forty-five months; dating from registration as a medical student, not less than three winter and two summer sessions at a recognised hospital and school of medicine.
COURSES OF LECTURES, ETC., REQUIRED.			
Anatomy and Dissections	Lectures, six months; dissections, twelve months.	Lectures during two winters; dissections three winters.	Lectures six months; Dissections and Demonstrations, two winter sessions, or twelve months.
Physiology	Lectures, six months; Practical Physiology, three months.	Lectures one winter; and Practical Physiology, another session.	Lectures six months; Histology with Demonstrations, three months.
Chemistry	Instruction.	One course.	Six months.
Practical Chemistry		Three months.	Three months.
Materia Medica		One course.	Three months.
Practical Pharmacy		Three months.	Three months.
Botany	Not required.	Not required.	No certificate of attendance on lectures on Botany is required.
Morbid Anatomy ...	Three months; Demonstrations in *post-mortem* room during clinical study.	Lectures, three months; demonstrations, three winter and two summer sessions.	Three months; *post-mortem* examinations during hospital practice.
Medicine	Six months.	One course.	Six months.
Clinical Medicine ...	Nine months.	One winter and one summer session.	Nine months.
Surgery...	Six months.	One winter session.	Six months.
Clinical Surgery ...	Nine months.	Two winter and two summer sessions. Observation and examination of patients for three months.	Nine months.
Practical Surgery ...	Required.	Six months.	Three months; with operations on the dead body.
Midwifery and Diseases of Women.	Three months; attendance on twenty labours.	One course; not less than ten labours.	Three months; attendance on twenty labours.
Clinical Study of Diseases of Women.	Three months.	Not stated.	Three months; besides this a course of Practical Midwifery.
Pathology	—	—	Three months.
Forensic Medicine ...	Three months.	One course.	Three months.
Hospital Practice ...	Medical and Surgical Practice; three winter and two summer sessions.	Surgical Practice, four winter and four summer sessions; medical practice, one winter and one summer.	Medical and Surgical Practice, three winter and two summer sessions, with *post-mortem* examinations.
Hospital Appointments.	Medical clinical clerk; six months; surgical dresser, six months, three months of each at least must be in-patients.	House-Surgeon or dresser, six months.	Surgical dresser, three months; medical clinical clerk, three months.
Other Certificates ...	Systematic Practical Instruction in Medicine, Surgery, and Midwifery. Of having performed Operations on the Dead Body. Instruction in Vaccination.	Instruction and Proficiency in Vaccination. Comparative Anatomy, one course. Operations on Dead Body.	Birth; moral character; course of medical study, including performance of operations on the dead body, signed by the Dean of the Medical School; proficiency in vaccination, signed by a teacher authorised by the Local Government Board.
NUMBER OF EXAMINATIONS.	Three.	Two.	Four.
FIRST EXAMINATION; WHEN IT MAY BE PASSED; SUBJECTS.	After registration: (1) in Chemistry and Chemical Physics; (2) Materia Medica and Pharmacy; (3) Elementary Anatomy and Physiology; at end of first winter session six months at a recognised medical school. Each part may be taken separately.	After third winter session: (1) in Anatomy and Physiology; (2) after passing first and second examinations of Conjoint Board or equivalent examination at University in Great Britain recognised for this purpose.	After registration as medical student. Chemistry, Chemical Physics, Practical Chemistry, Materia Medica, Botany, Pharmacy, Prescriptions.
SECOND EXAMINATION; AT WHAT PERIOD IT MAY BE PASSED; SUBJECTS.	Six months after first examination. After eighteen months of study at a recognised medical school, subsequent to registration: Anatomy and Physiology, which must be taken up together until the required standard is reached in one or other subject. Materia Medica and Pharmacy may be taken at this examination.	After six years of professional study; in Surgery, including Surgical Anatomy and Pathology, Medicine and Midwifery (Medicine and Midwifery not required if passed for the Membership, nor from candidates holding approved diplomas, degrees, or licences, or from those intending to obtain a qualification in Medicine and Midwifery; the diploma of the College is not issued until proof of having passed the required examination is produced).	After twelve months' Practical Anatomy with Demonstrations—Anatomy (dissected subject), Physiology, Histology. The First and Second Examinations may be passed on the same day.
THIRD EXAMINATION; AT WHAT PERIOD IT MAY BE PASSED; SUBJECTS.	Two years after second examination; 45 months after registration. (1) Medicine; (2) Surgery; (3) Midwifery and Diseases of Women. (Forensic Medicine and Public Health are included.)	—	Forty-five months after registration. Principles and Practice of Surgery; Surgical Anatomy and Operative Manipulations; Use of Instruments and Appliances; Surgical Pathology; Surgical Cases.
FOURTH EXAMINATION: AT WHAT PERIOD IT MAY BE PASSED; SUBJECTS.	—	—	Forty-five months after registration. Medicine, Therapeutics, Clinical Medicine (cases) Pathology, Morbid Histology, Forensic Medicine, Hygiene, Obstetrics, Gynæcology, Use of Obstetric Instruments, Insanity.
FEES PAYABLE... ...	At first or second examination, £10 10s.; re-examination after rejection in either part of examination, £3 3s. At third examination, £15 15s.; re-examination after rejection in Medicine or Surgery, £5 5s.; in Midwifery, £3 3s.	At first examination, Members, £5 5s.; non-members, £10 10s.; £5 5s. returned if rejected. At second examination, Member, £10 10s.; if not a Member, £21. In latter case £10 10s. is returned in case of rejection.	For the four examinations, £10 10s., of which sum £4 4s. are to be paid at the first entry of the Primary; re-examination after every failure, £3 3s.
REJECTED CANDIDATES.	After first, second, and third examinations, re-admitted after not less than three months. Candidates are re-examined in subjects in which they have been rejected.	After rejection at first examination, candidates not again admitted for six months; after second examination, not till end of one year, unless Court of Examiners shall otherwise determine.	Are readmitted after three or six months, as may be directed; and are re-examined in subjects in which they failed; except Surgery, in which candidates are re-examined entirely.
CANDIDATES (1) EXEMPTED FROM CERTAIN PORTIONS OF THE EXAMINATIONS, OR (2) ADMITTED UNDER SPECIAL REGULATIONS.	(1) At first examination candidates who have passed a University examination for a degree in Medicine in any subject of the first and second parts. (2) Holders of Colonial, Indian, or Foreign Qualifications entitling to practise recognised for the purpose, admitted to second and third examinations on production of evidence of age and of proficiency in vaccination, and evidence of four years' study.	(2) Members are admitted to first examination at any time after receiving diploma; to second examination at any subsequent time, if engaged not less than six years in study (or practice) of profession; in case of Graduates in Arts of a recognised University, five years.	(1) Candidates are exempt from the subjects of the first and second examinations who have passed equivalent examinations before any examining body recognised by the Medical Council. There is no exemption from any part of the Final Examinations, except in the case of (2) Licentiates registered prior to July, 1887, who are excused re-examination in Pathology and examination in Forensic Medicine.

sary, or elsewhere.—16. In addition to the requirements at present in force with respect to hospital attendance and duties, all candidates for the Final Examination should be required to produce evidence that they have, under proper supervision, taken part as pupils for six months in the practice of a recognised public dispensary, including the visitation of patients at their own homes, or in the out-patient practice of a recognised hospital, or should have acted for six months as pupil to a registered practitioner, either holding such a public appointment, or having such opportunities of imparting practical knowledge as shall be satisfactory to the Examining Bodies.—17. Candidates for the Final Examination should be required to produce evidence that they have, so far as local circumstances will permit, studied fevers for not less than three months, under recognised Clinical Instructors.—18. Every student should be required to attend for three months the indoor practice of a lying-in hospital, or to have been present at not less than twelve labours, at least three of which he should have conducted personally under the direct supervision of a registered practitioner.—19. Greater attention should be given to instruction in Pathological Anatomy than is required in the curricula of some of the Examining Bodies, and, with this view, a course of not less than three months' lectures on Pathological Anatomy, with practical instruction, should be included in the curricula of all the Examining Bodies.—20. It is desirable that candidates for examination should be required to have availed themselves of the opportunities within their reach of studying insanity.—21. In order to afford due time for clinical work, it is desirable that the number of systematic lectures be restricted.—22. Extreme sub-division of examinations for admission to the *Medical Register*, by allowing candidates to present themselves for the various subjects of examination separately, is prejudicial to sound professional education, and should be discouraged.

ROYAL COLLEGE OF PHYSICIANS OF LONDON AND ROYAL COLLEGE OF SURGEONS OF ENGLAND.

REGULATIONS OF JANUARY 1ST, 1892 (5 YEARS' CURRICULUM).

THE regulations for the Conjoint Examination, entitling the candidate who passed it to obtain both the Licence of the Royal College of Physicians of London and the Diploma of Member of the Royal College of Surgeons of England, are applicable to candidates commencing professional study on or after January 1st, 1892.

Professional studies commenced before Registration, except in the cases of Chemistry and Physics, Practical Chemistry, Practical Pharmacy, and Elementary Biology, will not be recognised.

The instruction in Practical Pharmacy must be given by a registered medical practitioner, or by a Member of the Pharmaceutical Society of Great Britain, or in a public hospital, infirmary, or dispensary; but Chemistry and Physics, Practical Chemistry, and Elementary Biology must be studied at institutions recognised for the purpose by the Board.

The whole of the five years (or five winter and five summer sessions) required after Registration as a medical student must be spent at a recognised medical school and hospital or infirmary, whilst special attendance is also required at a recognised lunatic asylum, fever hospital, and ophthalmic hospital, or in the special ophthalmic department of a recognised general hospital.

The systematic practical instruction in Medicine, Surgery, and Midwifery, includes: 1, the application of anatomical knowledge to the investigation of disease; 2, the methods of examining various organs and other parts of the body, in order to detect the evidence of disease or the effects of accidents; 3, the employment of instruments and apparatus used in diagnosis or treatment; 4, the examination of diseased structures, whether recent or preserved; 5, the examination of the urine and other secretions and of morbid products; 6, *post-mortem* examinations.

Students must attend the examinations held in the several classes at his medical school.

Exemptions to the conditions of admission to the several Examinations can only be granted by the Committee of Management.

Professional Examination.—The examinations will be held in January, April, July, and October, unless otherwise appointed. The First and Second Examinations are partly written, partly oral, and partly practical. The Third Examination in each subject consists of written papers and an oral part, with specimens. The Final Examination in Parts I and II consists of written papers and *viva voce* on patients. Every candidate intending to present himself for examination must give notice in writing to the Secretary of the Examining Board in England, Examination Hall, Victoria Embankment, W.C., fourteen clear days before the day on which the examination commences, transmitting at the same time the required certificates. All fees must be paid three days prior to the day on which the examination commences.

Synopses indicating the range of subjects in the Examinations in Chemistry and Physics, Practical Pharmacy, Elementary Biology, Elementary Anatomy, and Physiology may be obtained, together with the regulations, on application to the Secretary of the Examining Board in England. The Synopsis indicating the range of subjects in Pharmacology, Forensic Medicine, and Public Health (for the Third Examination) will probably be issued some time next year.

SPECIAL REGULATIONS.

1. A candidate who shall have obtained a colonial, Indian, or foreign qualification which entitles him to practise medicine or surgery in the country where such qualification has been conferred, after a course of study and examination equivalent to those required by the regulations of the two Colleges, will, on production of satisfactory evidence as to age, and proficiency in vaccination, and on payment of the required fees, be admissible to the Second, Third, and Final Examinations without any intervals between them. 2. Any member of an English University, who shall have passed such an examination or examinations at his University as shall comprise the subjects of the First and Second Examinations of the Examining Board in England, and who shall have completed the curriculum of medical study required by the Regulations of the Board, will, two years after his having passed all the other required examinations, be eligible for admission to the Third and Final Examinations of the Board without any interval between them; any candidate so admitted to examination will be required to pay a fee of £5 5s. for each examination; and any such candidate who shall have passed the Final Examination shall, on the further payment of not less than £26 5s., and subject to the by-laws of each College, be entitled to receive the Licence of the Royal College of Physicians of London, and the diploma of Member of the Royal College of Surgeons of England. 3. Any member of a Scotch or Irish University, where it is required that not less than two of the five years' curriculum of professional education shall have been spent in residence at the University, who shall have passed such an examination or examinations at his University as shall comprise the subjects of the First and Second Examinations of the Examining Board in England, and who shall have completed the curriculum of medical study according to the regulations required by his University, will, two years after his having passed all the other required examinations, be eligible for admission to the Third and Final Examinations of the Board without any interval between them; any candidate so admitted to examination will be required to pay a fee of £5 5s. for each examination; and any such candidate who shall have passed the Final Examination shall, on the further payment of not less than £26 5s., and subject to the by-laws of each College, be entitled to receive the Licence of the Royal College of Physicians of London and the diploma of Member of the Royal College of Surgeons of England.

Forms of certificates required under the conditions of paragraphs 2 and 3 may be obtained of the Secretary of the Examining Board in England, Examination Hall, Victoria Embankment, London, W.C.

For a synopsis of the regulations affecting those who commenced their studies before January 1st, 1892, see p. 499.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

MEMBERS.

EVERY candidate for the Membership of the College must furnish proof that he has attained the age of twenty-five years, and must produce a testimonial from a Fellow or Member of the College, satisfactory to the Censors' Board, to the effect that, as regards moral character and conduct, he is a fit and proper person to be admitted a Member of the College.

No candidate shall be admitted to examination who is engaged in trade; or who dispenses medicine, or makes any engagement with a chemist or any other person for the supply of medicines; or who practises Medicine or Surgery in partnership, by deed or otherwise, so long as that partnership continues; or who refuses to make known, when so required by the President and Censors, the nature and composition of any remedy he uses.

All candidates for Membership under the age of forty shall be required to prove a knowledge of Latin, and of either Greek, French, or German, by examination before the Censors' Board, unless they have obtained a Degree in Arts in a British University.

Any candidate who has already obtained the degree of Doctor or Bachelor of Medicine at a University in the United Kingdom, in India, or a British Colony, or who shall have obtained a foreign qualification entitling him to practise Medicine or Surgery in the country where such qualification has been conferred, wherein the courses of study and the examinations to be undergone previously to graduation shall have been adjudged by the Censors' Board to be satisfactory, shall, if the Censors think fit, be admitted to the Pass Examination. The nature and extent of this examination shall, in the case of each candidate, be determined by the Censors' Board.

Pass Examination for Membership.—The Pass Examination shall be conducted as follows:—Thursday, from 2 till 6, by written questions on Medical Anatomy, and on the Principles of Medicine. Friday: from 2 to 6, by written questions on the Practice of Medicine, including the Principles of Public Health, and Psychological Medicine. Saturday or Monday: the candidate's practical knowledge will be tested, either at the College or in the medical wards of a hospital. Tuesday and Wednesday: by examination *vivâ voce*. This examination will commence on the last Thursday but one in January, April, July, and October.

Any candidate who has attained the age of forty years, and who can produce testimonials as to his moral character and conduct, his general and professional acquirements, and that he has improved the art or extended the science of Medicine, or has at least distinguished himself highly as a medical practitioner, shall submit such testimonials to the Censors' Board, who may, if they see fit, submit them to the Fellows at a general meeting, and it shall be determined by the votes of the Fellows present, or of the majority of them, taken by ballot, whether the candidate shall be admitted to examination.

The fee to be paid for examination for Membership shall be £6 6s., and such examination fee shall be reckoned as part of the fee for admission as a Member, in the event of the candidate satisfying the Censors' Board of his competency.

Every candidate (except those holding the qualifications above mentioned, or above forty years of age) shall produce proof of his having passed the examinations required for the Licence of the College.

Every candidate (except in cases specially exempted as above) shall give proof of his acquirements by written answers to questions, and shall also be examined *vivâ voce*.

Candidates not approved are not admitted to re-examination until after the lapse of one year.

Every candidate approved by the Censors' Board shall be proposed, at the next general meeting of Fellows, as qualified to become a Member of the College; and, if the majority of the Fellows present shall consent, he shall, on engaging to obey the by-laws and regulations, be admitted a Member of the College.

The fee to be paid for admission as a Member of the College shall be £31 10s., except when the candidate for Membership is a Licentiate of the College, in which case the fee for admission as a Member will be £15 15s.

Every candidate is required to give fourteen days' notice in writing to the Registrar of the College of his intention to present himself for examination.

LICENTIATES.

For the conditions of admission to the Licentiateship see Regulations of the Conjoint Board, under the head "Special Regulations," p. 500.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

DIPLOMA OF MEMBER.

For the conditions of admission to the Membership, see Regulations of Conjoint Board, under the head of "Special Regulations," p. 500. For the regulations affecting those who commenced their studies before January 1st, 1892, see synopsis on p. 499.

DIPLOMA OF FELLOW.

For synopsis of regulations, see page 499.

SOCIETY OF APOTHECARIES OF LONDON.

Regulations re Five Years' Curriculum required by the General Medical Council from Students Registered on and after January, 1892.

QUALIFYING EXAMINATION FOR THE DIPLOMA IN MEDICINE, SURGERY, AND MIDWIFERY.

Registrable under the provisions of the Medical Act, 1886, and entitling the holder to compete for appointments in the Naval, Military, and Indian Medical Services; also for appointments under the Local Government Board.

Every student before commencing the study of Medicine must pass an examination in Arts recognised by the Medical Council. Such Preliminary Examination is held quarterly in the Hall of the Society on the first Friday and following day in March, June, September, and December, and is conducted by means of printed papers. The subjects of examination are English, Latin, Mathematics, Elementary Mechanics, and one of the following subjects at the option of the candidate—Greek, French, German, Italian, Logic, Botany, Elementary Chemistry. In accordance with the regulations of the Medical Council the subjects may be passed at one or more examinations, and no subject passed before any recognised examining body need be taken up again for the purpose of registration. Medical study before registration as medical student does not count in the curriculum with the exception of Chemistry, Materia Medica, Pharmacy, and Dispensing. A form of notice accompanying the regulations has to be filled up by the candidate, and sent with the fee (one guinea) fourteen days before the examination. Those who desire can present themselves for examination in special subjects. The fee for each special subject is one guinea. A pass list is published and sent to every candidate.

The Professional Examinations, which are Written, Oral, and Practical, are Primary, Intermediate, and Final.

The Primary Examination is held quarterly on the first Wednesday and on the Monday and Thursday of the same week in the months of January, April, July, and October. The examination consists of two parts. Part I includes Elementary Biology, Chemistry, the Principles of the Science which bear on the study of Medicine; Chemical Physics, including the Elementary Mechanics of Solids, and Fluids; Heat, Light, and Electricity; Practical Chemistry, Materia Medica, including the Botany of the *Pharmacopœia*; Pharmacy and Prescriptions. A synopsis indicating the range of the subjects may be obtained on application. The examination may be passed any time after registration as a medical student, but no professional studies commenced before registration except in the above subjects will be recognised as part of the medical course. Evidence of instruction in these subjects must be produced prior to examination. Should the candidate not succeed in passing in all the subjects of the examination, he will be referred only in the subject or subjects in which he failed.

Part II includes[1] Anatomy, Physiology, and Histology. This examination cannot be passed before the completion of twelve months' Practical Anatomy with Demonstrations, at a recognised medical school. These subjects cannot be taken separately except in the event of the candidate having previously passed in one. Evidence must be produced of the candidate's course of study. A schedule for the Primary Examination to be obtained of the Secretary must be signed by the Dean of the medical school or other authority. Candidates will be excused in any or all the subjects of the Primary Examination on producing evidence that they have passed equivalent examinations before any examining body recognised by the Medical Council.

The Intermediate Examination is held monthly, and consists of (I) the examination in Surgery on the second Wednesday and following days; (II) the examination in Medicine and Forensic Medicine on the third Wednesday and on the Monday and Thursday of the same week. Part I includes the Principles and Practice of Surgery, Surgical Pathology, and Surgical Anatomy. Part II includes (*a*) the Principles and Practice of Medicine, including Therapeutics and Pharmacology, Pathology and Morbid Histology; (*b*) Forensic Medicine, Hygiene, Theory and Practice of Vaccination, and Mental Diseases. Candidates passing in either of the sections *a*, *b*, will not be re-examined therein. This examination cannot be passed

[1] Candidates referred in Anatomy will be required to produce evidence o work in the dissecting room before being readmitted to examination.

before the expiration of forty-five months after registration as medical student, during which time not less than three winter sessions and two summer sessions must have been passed at one or more of the medical schools connected with a general hospital recognised by the Court of Examiners.

The Final Examination is held monthly, and consists of (I) the examination in Surgery on the second Wednesday and following days; (II) the examination in Medicine on the third Wednesday and on the Monday and Thursday of the same week; (III) the examination in Midwifery on the third Wednesday and on the Monday and Thursday of the same week.

Part I includes an Examination of Surgical Cases, Operative Manipulation and Surgical Anatomy, Instruments and Appliances.

Part II includes an Examination of Medical Cases, Medical Anatomy.

Part III includes Midwifery, Gynæcology and Diseases of Newborn Children, Obstetric Instruments and Appliances. This examination cannot be passed before the end of the fifth year.

General Instructions.—No candidate is eligible for the Final Examination who has not completed the curriculum prescribed by the Court of Examiners, in evidence of which a schedule, to be obtained of the Secretary, must be produced, signed by the Dean of the Medical School or other authority.

The following certificates are required to be produced prior to the Intermediate Examination: (1) Certificate of birth (the candidate must be 21 years of age); (2) of moral character; (3) of the course of medical study; (4) of proficiency in vaccination, signed by a teacher authorised by the Local Government Board. There is no exemption from any part of the Intermediate and Final Examination. Candidates intending to present themselves for examination are required to give fourteen days' notice. A form for this purpose will be sent on application. All required certificates, including evidence of examinations, must be forwarded to the Secretary, with the notice for examination. Candidates qualified to practise can, in lieu of the schedule, present their diploma or certificate of its registration. The fee for the examinations is 15 guineas, 5 guineas of which must be paid on entering for each of the three examinations. A candidate who withdraws from an examination will be regarded as having failed, and will be referred accordingly. A candidate who is absent from an examination without valid cause will not be permitted to present himself until after the expiration of three months. In the event of failure a candidate will be referred for three or for six months, as may be directed. A fee is required for every re-examination. No fees are returned under any circumstances.

The following is a statement of the entire course of medical study:—

For the Primary Examination.—Part I: Elementary Biology, not less than three months; Chemistry and Chemical Physics, not less than six months; Practical Chemistry, not less than three months; Materia Medica, not less than three months; Pharmacy and Dispensing,[2] not less than three months. Evidence of having received instruction in the above subjects before registration as medical student will be received.—Part II: Anatomy, not less than six months; Practical Anatomy with Demonstrations, not less than twelve months; Physiology, not less than six months; Histology with Demonstrations, not less than three months; Class Examinations on the above subjects.

The study of these subjects must be pursued at a medical school or at a recognised place of instruction.

For the Intermediate Examination.—Hospital Practice, Surgical and Medical, with *Post-mortem* Examinations,[3] three winter and two summer sessions. Part I: Principles and Practice of Surgery, not less than six months; Practical Surgery, not less than three months; Clinical Surgical Lectures, not less than nine months; Dressership,[4] not less than six months; Performance of Surgical Operations on the Dead Body.—Part II: Principles and Practice of Medicine, not less than six months; Pathology, not less than three months; Clinical Medical Lectures, not less than nine months; Clinical Clerkship,[4] not less than six months; Forensic Medicine, Hygiene, and Insanity, not less than three months; Midwifery and Gynæcology, not less than three months; Clinical Instruction in the same, not less than three months; A Course of Practical Midwifery; Attendance on Twenty Midwifery Cases; Class Examinations on the above subjects.

The above course of medical study must extend over not less four years.

For the Final Examination.—Attendance on the Practice of Medicine and Surgery at a hospital or other institution recognised for the purpose for a period of twelve months; or six months as above and six months as a pupil of a registered practitioner holding a public appointment; or attendance at two special hospitals for six months (three months at each hospital) and six months at a general hospital recognised for the purpose. Evidence of the following shall also be given, namely, Practical Instruction in Infectious Diseases, and in Mental Diseases (at a lunatic asylum or in the wards of an institution containing a special ward set apart for the treatment of mental diseases), and in any two of the following subjects: Ophthalmic Surgery;[5] Laryngology, Rhinology, and Otology; Dermatology; and Diseases of Children.

These courses may be taken at any time after the student has held the post of Dresser and Clinical Clerk at a general hospital connected with a medical school.

For a synopsis of the regulations affecting those who commenced their studies before January 1st, 1892, see p. 499. Further information may be obtained on application to the Secretary.

[2] Instruction in these must be given by a registered medical practitioner, or by a member of the Pharmaceutical Society, or in a public hospital, infirmary, or dispensary.

[3] The hospital must be in connection with an established medical school.

[4] These offices may be discharged at a hospital, infirmary, or dispensary, where sufficient opportunities are afforded for the acquirement of practical knowledge.

UNIVERSITY OF OXFORD.

DEGREES IN MEDICINE AND SURGERY.

THERE are two degrees in Medicine, B.M. and D.M., and two degrees in Surgery, B.Ch. and M.Ch.,[1] which under the most favourable circumstances may be obtained in six or seven years from Matriculation.

B.A. DEGREE.

The degrees of B.M. and B.Ch. are conferred only on candidates who have taken the B.A. degree, for which residence for twelve terms within the University is necessary; the Examinations, however, for the degrees in Arts and Medicine may be passed in any order, provided the subjoined regulations are complied with.

The degree of B.A. may be obtained in three ways:

(*a*) By passing Responsions (or one of the Extra-University Examinations, which are held as equivalent to it), Moderations, a Divinity Examination, or, in the event of a candidate objecting, an examination in some specified Greek book; and the Final Pass School in three subjects, two of which may be the same as the Preliminary Examinations in Natural Science.

(*b*) By passing Responsions, Moderations, the Divinity Examination, and taking honours in Literæ Humaniores, Mathematics, Theology, Oriental Languages, Modern History, Jurisprudence, or any one of the subjects of the Natural Science School, namely, Chemistry, Physics, Animal Morphology, Animal Physiology, Botany.

(*c*) By passing Responsions, an additional subject in Responsions, the Divinity Examination, the Preliminary Examinations of either the Jurisprudence or in the Preliminary Examination in Mechanics and Physics and in Chemistry in the Natural Science School, and taking Honours in one of the Honour Schools mentioned in the preceding paragraph.

Responsions and the additional subject may be passed before a candidate is a member of the University;[2] Moderations can be passed in the fourth term; the Divinity Examination at any time after Responsions; the Final Pass School may be taken any time after Moderations; a Final Honour School may be taken at the end of the third or within the fourth Academical year, that is, twelve or sixteen terms respectively; the Preliminary Examinations of the Natural Science School may be taken as soon as Responsions have been passed.

B.M. AND B.CH. DEGREES.

The degrees of B.M. and B.Ch. may be obtained by passing the following Examinations.

1. *Preliminary.*

A candidate before being admitted to any Professional Examination must have passed the Preliminary Examination of the Natural Science School in (i) Mechanics and Physics, (ii) Chemistry, (iii) Animal Morphology, (iv) Botany. These examinations are held twice a year, Mechanics and Physics and Chemistry in November and June, Animal Morphology and Botany in December and March.

2. *Professional (held annually in Trinity Term).*

A. *First Examination.*—Subjects: Organic Chemistry, unless the candidate has obtained a first or second class in Chemistry in the Natural Science School; Human Physiology, unless he has obtained a first or second class in Animal Physiology in the Natural Science School; Human Anatomy, and Materia Medica including

[5] A certificate of having attended a course of instruction during not less than three months at an ophthalmic hospital or the ophthalmic department of a general hospital, which course shall include instruction in the errors of refraction, will be necessary for admission to the Army Medical Staff.

[1] Also a diploma in Public Health.

[2] Membership is constituted by Matriculation, and by becoming a member of a College or Hall, or a non-collegiate student.

Pharmacy. An examination in all the subjects of the first M.B. Examination is held in June. In Anatomy and Physiology alone in December.

B. *Second Examination.*—Subjects: Medicine, Surgery, Midwifery, Pathology, Forensic Medicine with Hygiene.

The First Examination for the degrees of B.M. and B.Ch., may be passed as soon as the Preliminary Examinations mentioned above have been completed. Candidates for the 1st M.B. are allowed to take the various subjects in any order they please provided that they take Anatomy and Physiology at one examination. For exemptions, see *ante*.

The Second Examination may be taken after completion of the first. For this examination the candidate must present all the subjects together. The Second M.B. Examination is usually held at the commencement of June.

D.M. DEGREE.

The degree of D.M. is granted to Bachelors of Medicine of the University—

(i) Who took the degree of B.M. previously to the end of Trinity Term, 1886, provided they have spent three years in the practice of Medicine after taking that degree, and have composed a dissertation on some medical subject approved by the Regius Professor of Medicine, before whom it must be read in public.

(ii) Who took the degree of B.M. subsequently to the end of Trinity Term, 1886, provided they have entered their thirty-ninth term, and have composed on some medical subject a dissertation which is approved by the Professors in the Faculty of Medicine and Examiners for the degree of B.M. whose subject is dealt with in it. A book published within two years of the candidate's application for the degree may be substituted for a dissertation.

The degree may be taken in any term.

M.CH. DEGREE.

The degree of M.Ch. is granted to Bachelors of Surgery of the University who have entered their twenty-seventh term, who are members of the Surgical Staff of a recognised hospital, or have acted as Dresser or House-Surgeon in such a hospital for six months, and who have passed an examination in Surgery, Surgical Anatomy, and Surgical Operations. The examination for the M.Ch. degree is held in June at the close of the Second B.M. Examination.

TEACHING.

I. SUBJECTS OF THE PRELIMINARY EXAMINATIONS.

Courses of lectures on Elementary Mechanics and Physics treated experimentally are given during three terms by the Professor of Experimental Philosophy at the Clarendon Laboratory, by Dr. Lee's Reader in Physics at Christ Church, by the Duke of Bedford's Lecturer in Physics at Balliol College, and by the Millard Lecturer in Experimental Mechanics at Trinity College.

Courses of lectures are given during three terms on Inorganic Chemistry by the Aldrichian Demonstrator in the Department of Chemistry, University Museum, and Practical Instruction on the same subject in the Laboratory daily.

Courses of lectures in Inorganic Chemistry with Practical Instruction are given during the three terms by Dr. Lee's Reader in Chemistry at the Christ Church Laboratory.

Instruction in Elementary Animal Morphology, by means of courses of lectures and Practical Laboratory work, is given in the Department of the Linacre Professor of Anatomy in Michaelmas and Hilary Terms, and on the Embryology of the Chick in Easter Term. The practical part of the course is conducted in the new working room lately erected for that purpose, on alternate days during Michaelmas and Hilary Terms.

Similar instruction in Elementary Botany is given in the Department of the Sherardian Professor at the Botanic Garden in Michaelmas and Hilary Terms. The practical instruction is given in the New Laboratory in the Botanic Garden on the days not appropriated to the course of Animal Morphology.

II. SUBJECTS OF THE FIRST EXAMINATION FOR THE DEGREE OF M.B. AND B.CH.

1. *Human Anatomy.*—The course of lectures and practical instruction on Human Anatomy is given in the Department of the University Lecturer on Human Anatomy. The Lecture Room and Dissecting Room adjoin the Museum. The course consists of lectures delivered three times a week, and is completed in two years. Those of the first year are devoted to the consideration of the osseous, muscular, and vascular systems. Those of the second year relate to the nervous system, the thoracic and abdominal viscera, and to the development of the human embryo.

The Dissecting Room is open daily during term from 9 A.M. to 4.30 P.M., between which hours practical instruction is given by the lecturer. Demonstrations on the dissected subject are given three times a week at 9 A.M. On alternate days, at the same hour special demonstrations are given. Students receiving practical instruction are examined orally from time to time by the Lecturer. The fee for practical instruction is £4 per term.

Facilities are given to graduates who may desire to pursue their anatomical studies during the vacation. The Museum, which contains a rich collection of specimens illustrative of Human Anatomy, is open to students.

2. *Human Physiology.*—A course of lectures on Physiology is given in the new Physiological Laboratory. It extends over six terms.

The course includes the whole subject of Physiology as defined in the Regulations of the Boards of the Faculty of Natural Science (see *Examination Statutes*, 1891, pp. 54, 59, and 148) and of Medicine.

A course of practical instruction in Histology is given by the Demonstrator during Michaelmas and Hilary Terms.

Practical instruction in the Physiology of Muscle and Nerve, for beginners, is given in Hilary Term. More advanced students have the opportunity of working at the same subject during Michaelmas and Easter Terms.

A practical course of Elementary Physiological Chemistry is given in Easter Term, and practical instruction in the Laboratory for more advanced students in Hilary Term.

3. *Organic Chemistry.*—A course of lectures with practical instruction in Organic Chemistry in its relation to Physiology and Medicine is given in the Department of the Waynflete Professor of Chemistry in Easter Term.

III. SUBJECTS OF THE SECOND EXAMINATION IN MEDICINE AND SURGERY.

Informal instruction on subjects connected with Medicine and Hygiene is given by the Regius Professor of Medicine.

Courses of tutorial instruction and demonstrations in Physical Diagnosis and Regional Anatomy are given at the Radcliffe Infirmary in each term.

Clinical lectures are delivered at the Infirmary during every term by the Lichfield Lecturers in Clinical Medicine and Surgery.

Lectures on Materia Medica and practical instruction are given during the summer term.

Fees.—University: B.A., £16 or £17. B.M. and B.Ch., £14. D.M., £25. M.Ch., £17. Also an annual fee to the University of £2 for the first four years, reduced to £1 when the B.A. is taken.—College: Fees (varying in amount) on taking degrees and for first four years of membership. Tuition fees, £21 to £30. The cost of living for the four University terms cannot be stated at less than £120.

Scholarships, etc.—The Colleges grant after competitive examination annually, or at longer intervals, Scholarships in Natural Science (Chemistry, Physics, Biology) of the annual value of £80, tenable for four years, and also Exhibitions of a less annual value.[3] In February there is competed for annually, by those who have obtained a first class in any school (Moderations or Final) or a Scholarship or Prize open to general competition in the University, one Radcliffe Travelling Fellowship. It is tenable for three years, and is of the annual value of £200. The examination is partly scientific, partly medical. The holder must travel abroad for the purpose of medical study, and take the degree of B.M.Oxon. A Rolleston Memorial Prize is awarded once in two years to members of the Universities of Oxford or Cambridge of not more than ten years' standing for an original research in some Biological subject, including Physiology or Pathology. Students who have passed the examinations necessary for the degree of B.A. are eligible to compete for a Burdett-Coutts Scholarship of the annual value of £115; it is tenable for two years, and is awarded for proficiency in Geology and allied subjects.

UNIVERSITY OF CAMBRIDGE.

BACHELOR OF MEDICINE (M.B.).

A STUDENT proceeding to this degree must (1) reside in the University during the required portion of each of nine terms; (2) pass (or obtain exemption from) the Previous Examination; (3) pursue medical study for five years.

[3] Dates, etc., published in *University Gazette*.

There are three examinations for the degree of Bachelor of Medicine. They are partly in writing, partly oral, and partly practical. The examinations take place twice in the year, in the Michaelmas and Easter Terms.

The First Examination is divided into two parts: 1. Chemistry and other branches of Physics; 2. Elementary Biology. These two parts may be taken together or separately. Before admission to this examination, the candidate must have passed (or obtained exemption from) the Previous Examination. He must also produce certificates of diligent attendance on a course of lectures in Chemistry, and on practical instruction in Chemical Manipulations.

The Second Examination is divided into two parts, which may be taken together or separately: 1. Human Anatomy and Physiology; 2. Pharmaceutical Chemistry. Before admission to this examination, the student must have passed both parts of the First Examination, must have attended hospital practice, and have practised dissection, during six months, and must produce certificates of diligent attendance on a course of lectures on each of the following subjects: 1. Human Anatomy; 2. Physiology.

The Third Examination is divided into two parts, called the First part and the Second part respectively. Before presenting himself for either part, the student must have passed both parts of the Second Examination. The first part includes Principles and Practice of Surgery and Midwifery and Diseases peculiar to Women. The second part includes Pathology, Principles and Practice of Physic, Elements of Hygiene, and Medical Jurisprudence. The student, before admission to the First part, must produce certificates of attendance on one course of lectures in each of the following subjects: Pathology, Principles and Practice of Surgery, Midwifery; he must have attended a course of Practical Surgery and acted as dresser or house-surgeon at a recognised hospital for six months; must have attended twenty cases of Midwifery; and must have obtained a certificate of proficiency in vaccination from an authorised vaccinator appointed by the Local Government Board. Before admission to the Second part, he must produce evidence that he has completed the course of medical study and certificates of diligent attendance on one course of lectures in each of the following subjects: Principles and Practice of Physic, Physiological Actions and Therapeutic Uses of Remedies, and Medical Jurisprudence; he must also have attended the Medical and Surgical Practice of a recognised hospital (with clinical lectures) during three years at least; must have been Clinical Clerk at a recognised hospital for six months at least, or have, subsequently to the completion of his attendance on Hospital Practice, attended to Practical Medicine or Surgery with special charge of patients in a hospital, dispensary, or parochial union, under superintendence of a qualified practitioner, unless the student himself be duly qualified. After October 1st, 1892, all candidates must also produce certificates of attendance during three months on (1) practical instruction in Pharmacy and Dispensing, (2) clinical instruction in Fevers at a general or special hospital.

After these examinations have been passed, an Act must be kept in the Schools in the following manner. The Regius Professor of Physic assigns a day and hour for keeping the Act, of which public notice has to be given eight days before. The candidate reads a thesis, composed by himself, on some subject approved by the professor; the professor brings forward arguments or objections for the candidate to answer, and examines him orally, as well as on questions connected with his thesis as on other subjects connected with Medicine of a more general nature.

DOCTOR OF MEDICINE (M.D.).

This degree may be taken by a Bachelor of Medicine in the ninth term (three years) after his inauguration (this occurs on the Commencement Day next following the admission to the degree). He is required to produce certificates of having been engaged five years in medical study, to keep an Act in the same manner as that for M.B., and to write a short extempore essay on some one (at his choice) of four topics relating severally to Physiology, Pathology, Practice of Medicine, and State Medicine.

A Master of Arts may proceed to the degree of M.D. in the twelfth term (four years) after his inauguration as M.A., without having taken the degree of M.B. He must pass all the examinations for M.B., and keep the Act and write the extempore essay for the M.D. degree. He must produce certificates of having been engaged five years in medical study, and the same certificates of attendance on lectures and hospital practice as are required of the candidate for the degree of M.B.

BACHELOR OF SURGERY (B.C.).

As the Third Examination for the degree of M.B. includes Operative and Clinical Surgery, the degree of Bachelor of Surgery is conferred upon candidates who pass the final examination for M.B., without further examination and without the Act.

MASTER IN SURGERY (M.C.).

The subjects of examination for this degree are: 1. Pathology; 2. Principles and Practice of Surgery; 3. Surgical Anatomy and Surgical Operations; 4. A Surgical Case and a topic relating to Surgery will be submitted in writing to the candidate, on one or both of which, at his option, he will be required to write a short extempore essay.

The candidate must have completed all that is required for the degree of Bachelor of Surgery two years at least before admission to the examination for the degree of Master in Surgery.

A notice is published early in the Michaelmas and Lent Terms stating when the examinations for Medical and Surgical degrees commence, and the dates when candidates are required to send their names and the necessary certificates to the Registrary of the University.

Each candidate pays £2 2s. to the Registrary of the University on giving notice of his intention to offer himself for either part of the First, Second, or Third Examination for M.B. He pays £3 3s. before that for M.C.

Schedules defining the range of subjects in the First M.B. Examination, and of the Pharmacy and Pharmaceutical Chemistry in the Second Examination, also schedules for the necessary certificates, and a list of the schools of medicine and hospitals recognised by the University, may be obtained on application to the Registrary of the University, The Registry, Cambridge.

UNIVERSITY OF LONDON.

THE following examinations will be held in the University of London in 1892 and 1893.

Matriculation: Monday, January 9th, 1893, and the second Monday in June, 1893.

Preliminary Scientific Examination: Monday, January 16th, 1893; and the third Monday in July, 1893.

Intermediate Examination in Medicine: Monday, January 16th, 1893; and the second Monday in July, 1893.

Bachelor of Medicine (M.B.): Monday, October 31st, 1892; and the first Monday in May, 1893.

Bachelor of Surgery (B.S.): Tuesday, December 6th, 1892.

Master in Surgery (M.S.) and Doctor of Medicine (M.D.): Monday, December 5th, 1892.

The certificates, except in the case of the B.S. Examination, must be transmitted to the Registrar at least four weeks before the examination. Application for a form of entry must be made at least five weeks before the commencement of each examination.

The fee for Matriculation is £2, and for each of the other examinations £5.[1] If a candidate withdraw, or fail to pass either of the examinations, the fee is not returned; but he is admitted to a subsequent Preliminary Scientific, Intermediate M.B., or B.S., M.S., or M.D. Examination, on payment of an additional fee of £2 10s., provided that he give notice to the Registrar at least fourteen days (or in the case of the Preliminary Scientific Examination, one month) before the commencement of the examination.

BACHELOR OF MEDICINE.

Every candidate for the degree of Bachelor of Medicine is required—1. To have passed the Matriculation Examination; 2. To have passed the Preliminary Scientific Examination; 3. To have been engaged in his professional studies during four years subsequently to matriculation or graduation in Arts, in one or more of the medical institutions or schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom;[2] 4. To pass two examinations in Medicine.

Preliminary Scientific Examination.—The examination in July is for Pass and Honours: that in January for Pass only. Candi-

[1] For the degree of Doctor of Medicine, the fee will continue to be £10 to all such as, having taken their M.B. degree under the former regulations, shall not have paid the £5 at the Preliminary Scientific Examination.

[2] Registered medical practitioners of not less than three years' standing, and not less than 25 years of age, who shall pass, or have already passed, the Matriculation and Preliminary Scientific Examinations, may proceed to the Intermediate and M.B. Examinations without the intervals prescribed by the Regulations, on producing certificates that they have gone through the required course of training at any time previously.

dates for the Pass Examination may take the two sections of the examination, namely, (*a*) Chemistry and Physics; (*b*) General Biology, at the same examination, or at two separate examinations. Candidates who enter for the whole examination in July are examined for a Pass or for Honours in Inorganic Chemistry and Experimental Physics, and for a Pass in General Biology. Candidates who have entered for the whole examination may also be examined for Honours in Botany and in Zoology. Every candidate, on sending in his name for the examination, must state whether he intends to compete for Honours in any subject or subjects; and, if he does so intend, must specify the subject or subjects. No candidate will be allowed to take both the Pass and the Honours Papers in the same subject;[3] but every candidate must take the Pass Papers in those subjects in which he does not offer himself for Honours. Candidates who present themselves for the two sections together shall be credited with either section in which they may have passed, although they may have failed to pass in the other, but no such candidate shall be placed in the Honours List. A candidate who enters for, but fails to obtain, Honours in Inorganic Chemistry or Experimental Physics, may be recommended by the examiners for a Pass in these subjects respectively, if they are satisfied that he has shown such a competent knowledge thereof as is required for the Pass Examination.[4]

Intermediate Examination in Medicine.—This examination will take place twice in each year; once for Pass and Honours, in July; and once for Pass candidates only, in January. The candidate must have passed the Preliminary Scientific Examination at least two years previously, and must produce certificates—1. Of having completed his nineteenth year; 2. Of having been a student during two years at one or more of the medical institutions or schools recognised by this University; and of having attended a course of lectures on each of three of the following subjects: Descriptive and Surgical Anatomy, Physiology, and Histology, Pathological Anatomy, Materia Medica, and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Obstetric Medicine and Diseases peculiar to Women and Infants, Surgery, Medicine; 3. Of having dissected during two sessions; 4. Of having attended a course of Practical Chemistry;[5] 5. Of having attended to Practical Pharmacy, and having acquired a practical knowledge of the preparation of Medicines. Candidates are examined in Anatomy, Physiology and Histology,[6] Organic Chemistry, Materia Medica and Pharmaceutical Chemistry. Candidates must show a competent knowledge in all the subjects. The examinations are conducted by printed papers and *viva voce* interrogations, by preparations and specimens, and by dissections.

Candidates at the July Examination will be examined for a Pass or for Honours in each of the following subjects:—1. Anatomy; 2. Physiology and Histology;[6] 3. Organic Chemistry. 4. Materia Medica and Pharmaceutical Chemistry. The Pass and Honours questions at the July examination will be given on one and the same paper, and will be divided into (*a*) Pass questions, (*b*) Honours questions. Candidates will be allowed to answer questions out of either or both groups, but no credit will be given for more than half of the total number of questions, of which half, in the case of candidates for honours, one third must be taken from the group (*b*). Immediately after the written examination candidates desiring to proceed in Honours in any subject or subjects must give notice to the Registrar, in order that, when necessary, special provision may be made for the practical examinations. A candidate who enters for, but fails to obtain, Honours in any subject, may be recommended by the examiners for a Pass in that subject, if they are satisfied that he has shown such a competent knowledge thereof as is required by the regulations. The examiners will make no report upon the Examination for Honours of a candidate who has failed in any part of the Pass Examination. On Tuesday, at 2 o'clock, in the week after that in which the examination ends, the examiners shall publish (*a*) a list of the candidates entered for the Pass Examination only who have passed, arranged in two divisions; also, after the July Examination, (*b*) a list of the candidates who have passed an Examination for Honours in any one or more subjects, arranged by the examiners in the several departments under their respective heads in three classes, according to their respective degrees of proficiency, candidates being bracketed together if the examiners are of opinion that there is no clear difference between them. As soon as the reports of the examiners shall have been approved by the Senate, a Pass Certificate signed by the Registrar shall be delivered to each candidate who is in the Pass List; an Honours Certificate shall be delivered to each candidate in the Honours List in respect of each subject in which he shall have obtained honours. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguished himself most in each of the first and second divisions receives an exhibition of £40 per annum, and in each of the others £30 per annum, for the next two years, payable in quarterly instalments; provided that, on receiving each instalment, he declare his intention of presenting himself at the M.B. Examination within three academical years from the time of passing the Intermediate Examination in Medicine. Under the same circumstances, the first and second candidates in divisions 1 and 2, and the first candidate in divisions 3 and 4 receive each a Gold Medal of the value of £5.

M.B. Examination.[7]—No candidate is admitted to this examination within twenty-one months of the time of his passing the Intermediate Examination, nor without certificates: 1. Of having passed the Intermediate Examination in Medicine; 2. Of having subsequently attended a course of lectures on each of two of the subjects for which he had not presented certificates at the Intermediate Examination; 3. Of having conducted at least twenty labours;[8] 4 and 5. Of having attended the Surgical and the Medical Practice of a recognised hospital or hospitals during two years, with Clinical Instruction and Lectures on Clinical Surgery and Clinical Medicine; 6. Of having, after having attended Surgical and Medical Hospital Practice[9] for at least twelve months subsequently to passing the Intermediate Examination in Medicine, attended to Practical Medicine, Surgery, or Obstetric Medicine, with special charge of patients in a hospital, infirmary, dispensary, or parochial union, during six months—such attendance not to be counted as part of the hospital practice prescribed in 4 and 5; 7. Of having acquired proficiency in Vaccination.[10] The candidate must also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. Candidates are examined in General Pathology, General Therapeutics, and Hygiene, Surgery, Medicine, Obstetric Medicine, and Forensic Medicine. The examinations include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry. The examinations are conducted by printed papers and *viva voce* interrogations; by practical examinations in obstetric preparations and apparatus; by examination, and report on cases, of medical patients in the wards of a hospital; demonstrations from specimens and preparations. Candidates are expected to write prescriptions in Latin, without abbreviations.

Examination for Honours.—Any candidate who has passed the M.B. examination in October may be examined at the Honours

[3] This rule does not apply to the Honours Examinations in Botany and Zoology, which do not stand in the same relation to the subjects of the Pass Examination, as is the case in the other Branches. Every candidate must take the Pass Examination in General Biology.

[4] Candidates must bear in mind that the standard of attainment for the Honours Examination is much higher than that for the Pass Examination; and they should therefore exercise due caution in making their choice—to which they will be required to adhere. A candidate who has entered for the Pass Examination will not be allowed to take the Honours Papers; and only under special circumstances will a candidate who has entered for Honours in any subject be transferred to the Pass Examination in that subject.

[5] The subjects numbered 2, 3, and 4, must be attended after passing the Preliminary Scientific Examination.

[6] Any candidate, on giving notice in his Form of Entry, may postpone his examination in Physiology and Histology from the Intermediate Examination in Medicine at which he presents himself for examination in the remaining subjects until the Intermediate Examination in Medicine in any subsequent year; but he cannot compete for honours on either occasion; and he cannot be admitted as a candidate at the M.B. Examination until at least twelve months after he has passed his examination in Physiology and Histology.

[7] Any candidate for the M.B. Examination who has passed the Intermediate Examination in Medicine under the former regulations is required to have also passed the examination in Physiology at some previous Intermediate Examination in Medicine carried on under the present regulations; at which examination he is not allowed to compete for honours.

[8] Certificates will be received from any legally qualified practitioner.

[9] The student's attendance on the Surgical and on the Medical Hospital Practice specified in Regulations 4 and 5, may commence at any date after his passing the Preliminary Scientific Examination, and may be comprised either within the same or within different years; provided that in every case his attendance on Hospital Practice be continued for at least eighteen months subsequently to his passing the Intermediate Examination in Medicine. Attendance during three months in the wards of a Lunatic Asylum recognised by the University, with clinical instruction, may be substituted for a like period of attendance on medical hospital practice.

[10] Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council.

Examination next ensuing for Honours in—1. Medicine; 2. Obstetric Medicine; and 3. Forensic Medicine. In determining the relative position of candidates for Honours in Medicine, the marks awarded to such candidates for the Clinical and Practical portion of the Pass Examination shall be taken into account, and shall be added to the marks assigned to them in respect of their written answers to the Honours papers. Similarly in the case of Obstetric Medicine the marks awarded at the Practical portion of the Pass Examination shall be taken into account. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most in Medicine receives £50 per annum for the next two years, with the style of University Scholar in Medicine; and the candidates who distinguish themselves the most in Obstetric Medicine and in Forensic Medicine receive each £30 per annum for the next two years, with the style of University Scholar in Obstetric Medicine and in Forensic Medicine respectively. The first and second candidates in each of the preceding subjects each receive a Gold Medal of the value of £5.

BACHELOR OF SURGERY.

The candidate must produce certificates—1. Of having passed the examination for the degree of Bachelor of Medicine of the University; 2. Of having attended a course of instruction in Operative Surgery, and of having operated on the dead subject. The examinations are conducted by printed papers on Surgical Anatomy and Surgical Operations; by examination, and report on cases of surgical patients, by performance of operations upon the dead subject; by application of surgical apparatus; and by *vivâ voce* interrogation.

Examination for Honours.—Any candidate who has passed the B.S. Examination may be examined for Honours in Surgery; marks awarded for the Clinical and Practical parts of the Pass Examinations will be added as in the case of the M.B. Honours Examination. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives £50 per annum for the next two years, with the title of University Scholar in Surgery; and the first and second candidates each receives a Gold Medal of the value of £5.

MASTER IN SURGERY.

The candidate must produce certificates—1. Of having taken the degree of Bachelor of Surgery in this University; 2. Of having attended subsequently—(*a*) to Clinical or Practical Surgery during two years in a hospital or medical institution recognised by this University; (*b*) or to Clinical or Practical Surgery during one year in a recognised hospital or medical institution, and of having been engaged during three years in the practice of his profession; (*c*) or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Surgery in this University.[11] (3) Of moral character, signed by two persons of respectability. The examination is conducted by means of printed papers and *vivâ voce* interrogation; and the candidates are examined in Mental Physiology, especially in its relations to Mental Disorder, and in Surgery. Any candidate for the Degree of M.S. may transmit to the Registrar, not later than October 1st, a printed Dissertation, Thesis, or Commentary,[12] written in view of candidature, or published within two academical years immediately preceding, treating scientifically some special department of Surgical Science, embodying the result of independent research, or showing evidence of his own work, whether based on the discovery of new facts observed by himself, or of new relations of facts observed by others, or generally tending to the advancement of Surgical Science. If the Dissertation, or Thesis, or Commentary be approved by the Examiners the candidate will be exempted from the Written and Clinical Examination in Surgery, subject to such Examination upon the Thesis as the Examiners at their discretion may think fit. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most in the whole examination receives a Gold Medal of the value of £20.

DOCTOR OF MEDICINE.

The candidate must produce certificates analogous to those required for candidates for the degree of Master in Surgery, but having special relation to medicine or State Medicine. (For details as to the latter see p. 549.) The examination is conducted by printed papers and *vivâ voce* interrogations; and candidates are examined in Mental Physiology, especially in its relation to Mental Disorders, and in Medicine, or State Medicine. The same regulations apply *mutatis mutandis* to the submission of a thesis in Medicine or in State Medicine, as in the case of the examination for Master in Surgery (see above). If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most in the whole examination receives a Gold Medal of the value of £20.

[11] One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. Examination have been placed in the first division.

[12] At least six copies must be transmitted, and the fee for the examination must be paid at the same time.

UNIVERSITY OF DURHAM.

THERE are three licences and six degrees conferred; namely, a licence in Medicine, a licence in Surgery, and a licence in Sanitary Science, and the degrees of Bachelor in Medicine, Doctor in Medicine, Bachelor in Surgery (B.S.), Master in Surgery (M.S.), Bachelor in Hygiene, and Doctor in Hygiene.

The regulations for the licence and degree of Bachelor, so far as regards the course of study, the subjects of each examination, and the certificates required, are similar; but the candidate for a degree must produce evidence of general education in addition to that implied in the certificate of registration as a medical student.

The examinations for the licences and degrees above named are conducted at the College of Medicine, and in the Royal Infirmary, at Newcastle-upon-Tyne. Candidates are examined—(1) by printed papers of questions, (2) practically, (3) *vivâ voce*. Every candidate who intends to present himself for any of the examinations must give at least twenty-eight days' notice to the Registrar of the College, and must at the same time send the fee and the necessary certificates. If, after payment of the fee, a candidate withdraw his name, or fail to present himself at the examination, or fail to pass it, he shall not receive back the fee, but shall be allowed to enter for one subsequent examination of the same kind without the payment of any additional fee.

DEGREE OF BACHELOR IN MEDICINE.

A candidate for the degree of Bachelor in Medicine must produce the following certificates: 1. Of being 21 years of age; 2. Of registration in the books of the General Medical Council as a medical student; 3. Of good moral conduct; 4. Of attendance on lectures and hospital practice. In addition to the certificate of registration, the candidate must produce a certificate—(*a*) Of having passed the Preliminary Examination in Arts for Degrees in Medicine of the University of Durham; or (*b*) of Graduation in Arts at one of the following Universities, namely, Durham, Oxford, Cambridge, London, Dublin, Queen's (Ireland), Edinburgh, Glasgow, St. Andrews, Aberdeen, Calcutta, Madras, Bombay, McGill College (Montreal), Queen's College (Kingston), Victoria (Manchester), and Royal (Ireland); or (*c*) of having passed the Preliminary or Extra-professional Examination for Graduation in Medicine at one of the following Universities—Cambridge, London, Edinburgh, Glasgow, St. Andrews, Aberdeen, Queen's (Ireland), Victoria (Manchester), and Royal (Ireland). The Preliminary Examination in Arts in the University of Durham is held twice yearly, in March and September. Application for admission must be made at least one month before the examination. The fee is £1. Candidates who, at the commencement of their professional education, passed the Arts Examination for Registration only, may pass in the extra subjects required, either *before or after* presenting themselves for the First or Second Examinations for the degree, but must do so before presenting themselves for the Third Examination.

For the degree of Bachelor of Medicine there are Professional Examinations, held in September and April. The first will commence on September 12th, 1892, and April 10th, 1893; the second on September 19th, 1892, and April 17th, 1893; and the third on September 26th, 1892, and April 24th, 1893.

The subjects of the First Examination are: Elementary Anatomy, Elementary Biology and Chemistry, Physics. The subjects of the Second Examination are: Anatomy, Physiology, and Materia Medica, with Therapeutics and Pharmacology. The subjects of the Third Examination are: Medicine, Surgery, Pathology, Medical Jurisprudence, Public Health, Practical Pharmacy. The subjects of the Fourth Examination are: Clinical Medicine, Clinical Surgery, Midwifery, and Diseases of Women and Children.

Candidates will be admitted to each of these examinations after duly certified attendance at a recognised medical school on courses of instruction in the various subjects of the examina-

tion, as set forth in the schedules of certificates issued by the University. These may be obtained on application to the Secretary of the University of Durham College of Medicine.

Each examination must be passed before the next can be proceded with, and each must be passed in its entirety, except the First Examination, which may be taken in two parts at different times, one part comprising Elementary Anatomy and Elementary Physiology, and the other part Chemistry with Chemical Physics, and Botany with Medical Botany. Failure in one of the subjects comprised in either part of this examination will retail rejection in that part. Before a candidate can enter for either part, his schedule of certificates must be fully signed for both parts.

A candidate who has passed the First Examination of the Conjoint Board of England of the Royal College of Physicians of London and the Royal College of Surgeons of England will be exempt from the First Examination of the University of Durham except in the subjects of Chemistry with Chemical Physics, and Botany with Medical Botany, on which he will be re-examined.

A candidate who has passed the First and Second Examinations of the University will be exempt from the First and Second Examinations of the Conjoint Board of England, and will be entitled to present himself for the Final Examination of the Board on the completion of the necessary curriculum.

Candidates who hold a qualification from a recognised Licensing Board in the United Kingdom at the date of entry for the First Examination are in every case required to pass in Chemistry with Chemical Physics, but are exempt from examination in Elementary Anatomy and Physiology, and are also exempt from Botany with Medical Botany, provided that they have passed in that subject at one or other of their examinations for qualification. In the event of failure at any examination (except those for the M.D. and M.S. Degrees, or for the L.S.Sc., and except in the case of first-year students who fail at the First Examination within their first year of study) the candidate failing will be required to attend a course of instruction at a recognised medical school in the subject or subjects in which he has failed.

One of the four years of professional education must be spent in attendance at the College of Medicine, Newcastle-upon-Tyne. During the year so spent the candidate must attend at least two courses of lectures throughout the whole winter session, and two throughout the whole summer session, together with the class and test examinations held in connection with those classes; and must also attend hospital practice and clinical lectures at the Royal Infirmary. Candidates may fulfil this portion of the curriculum at any period before they present themselves for the Final Examination for the degree. They are not required to reside at Durham. The other three years of the curriculum may be spent either at Newcastle-upon-Tyne, or at one or more of the schools recognised by the Licensing Bodies.

The successful candidates for the Second and Third Examinations for the Degree of Bachelor in Medicine will be arranged in three classes in the first and second (honours) according to merit, and in the third or pass, in alphabetical order.

Candidates who have completed part of their curriculum elsewhere may pass their First and Second Examinations previously to entering at Newcastle-upon-Tyne.

DEGREE OF DOCTOR IN MEDICINE.

Candidates must not be less than twenty-four years of age, and must satisfy the University as to their knowledge of Greek. In case they shall not have passed in this subject at the Preliminary Examination in Arts for the M.B. Degree, they must present themselves at Durham for examination in it, at one of the ordinary Examinations held for this purpose, before they can proceed to the higher Degree of M.D. They must also have obtained the degree of Bachelor in Medicine at least two years previously, and have been subsequently engaged in attendance on the practice of a recognised hospital, in the naval or military services, or in medical or surgical practice. Each candidate must write an essay on some medical subject selected by himself and approved by the Professor of Medicine, and pass an examination thereon; and must be prepared to answer questions on the other subjects of his curriculum, so far as they are related to the subject of the essay. A gold medal will be awarded every year to the candidate who presents the best essay (provided that the essay is judged to be of sufficient merit). The successful candidate will be permitted to publish his essay.

DEGREE OF BACHELOR IN SURGERY.

For the degree of Bachelor in Surgery (B.S.) every candidate must have passed the examination for the degree of Bachelor in Medicine of the University of Durham, and must have attended one course of lectures on Operative Surgery and one course on Regional Anatomy.

Candidates will be required to perform operations on the dead body, and to give proof of practical knowledge of the use of surgical instruments and appliances.

DEGREE OF MASTER IN SURGERY.

For the degree of Master in Surgery (M.S.) candidates must not be less than twenty-four years of age, and must satisfy the University as to their knowledge of Greek. In case they shall not have passed in this subject at the Preliminary Examination in Arts for the M.B. Degree, they must present themselves at Durham for examination in it, at one of the ordinary Examinations held for this purpose, before they can proceed to the higher Degree of M.S. They must also have obtained the Degree of Bachelor in Surgery of the University of Durham, and must have been engaged for at least two years subsequently to the date of acquirement of the degree of Bachelor in Surgery in attendance on the practice of a recognised hospital, or in the naval or military services, or in medical or surgical practice. The subjects of examination are: Principles and Practice of Surgery, Surgical Pathology, Surgical Anatomy, Surgical Operation, Clinical Surgery.

Every candidate who intends to present himself for any of the above-named examinations must give at least twenty-eight days' notice to the Registrar of the College, and must, at the same time, send the fee and the necessary certificates. If, after payment of the fee, the candidate withdraw his name or fail to present himself at the examination, or fail to pass it, he shall not receive back the fee, but shall be allowed to enter for one subsequent examination of the same kind without the payment of an additional fee.

All candidates who have not completed four calendar years of professional study, and attended a complete summer and a complete winter session at the University of Durham College of Medicine, will be ineligible for the Final Degree Examination.

THE DEGREE OF DOCTOR OF MEDICINE FOR MEDICAL PRACTITIONERS OF FIFTEEN YEARS' STANDING, WITHOUT RESIDENCE.

Practitioners of fifteen years' standing are admitted to examination for the degree of Doctor of Medicine under the following regulations. 1. The candidate must be registered by the General Council of Medical Education and Registration of the United Kingdom. 2. He must have been in the active practice of his profession for fifteen years as a qualified practitioner. 3. He must not be under 40 years of age. 4. He must produce a certificate of moral character from three registered members of the medical profession. 5. If the candidate shall not have passed, previously to his professional examination (in virtue of which he has been placed on the *Register*), an examination in Arts, he must pass an examination in Classics and Mathematics. 6. If the candidate shall have passed, previously to his professional examination (in virtue of which he has been placed on the *Register*), a preliminary examination, he must translate into English passages in any of the parts specified below of any one of the Latin authors mentioned:—Cæsar, *De Bello Gallico*, first three books; Virgil—first three books of the *Æneid:* Celsus—first three books. The candidate has an opportunity of showing proficiency in Greek, Moral Philosophy, or some modern language. 7. He must pass an examination in the following subjects; i. Principles and Practice of Medicine, including Psychological Medicine, Hygiene, and Therapeutics; ii. Principles and Practice of Surgery; iii. Midwifery and Diseases peculiar to Women and Children; iv. Pathology, Medical and Surgical; v. Anatomy, Medical and Surgical; vi. Medical Jurisprudence and Toxicology. The examination is conducted by means of printed papers, clinically, in the Royal Infirmary, Newcastle, and *viva voce*. 8. The fee is £52 10s. 9. If the candidate shall fail to satisfy the examiners, £21 is retained; but, if he again offer himself for the examination, £42 only is then required. Examinations will commence on September 26th, 1892, and April 24th, 1893.

BACHELOR AND DOCTOR IN HYGIENE.

For the regulations as to the examinations for the degrees of Bachelor and Doctor in Hygiene see page 552.

Examinations, in accordance with the above regulations, will commence on September 19th, 1892, and April 17th and September

18th, 1893, in the College of Medicine, Newcastle-upon-Tyne. Gentlemen intending to offer themselves as candidates are required to forward their names to the Registrar of the University of Durham College of Medicine, Newcastle-upon-Tyne, at least twenty-eight days before the commencement of the examination, together with the fee and the before-mentioned certificates.

Fees.—The fees for the examinations, licences, degrees, and certificates are:—Registration Examination, £1; Extraordinary Registration Examination, £2; Preliminary Arts' Examination for Degrees, £1; First or Second Examinations for Degrees in Medicine, each £5; Third Examination for Degrees in Medicine, £10; Licence in Medicine or in Surgery, £3; Degree of Bachelor in Surgery, Master in Surgery, Bachelor in Medicine, or Doctor in Medicine, each £6; Degree of Doctor in Medicine, for practitioners of fifteen years' standing, £52 10s. The fee of £10 for the Third Examination will be required from candidates who entered at the University of Durham College of Medicine, Newcastle-upon-Tyne, on and after May 1st, 1885, and from candidates from other schools of medicine who commenced their professional studies on or after October 1st, 1883.

THE VICTORIA UNIVERSITY.

The Colleges of the University are Owens College, Manchester; University College, Liverpool; and Yorkshire College, Leeds.

The degrees in the Faculty of Medicine are Bachelor of Medicine (M.B.), Bachelor of Surgery (Ch.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.). All candidates for degrees in Medicine and Surgery are required to have passed the Entrance Examination in Arts, or to have passed such other examination as may from time to time be recognised for this purpose by the University. This examination can be passed before matriculation, if desired, in which case the candidate is required to present a certificate from his last instructor to the effect that he is a proper person to be admitted to the examination, and to pay a fee of £1.

Matriculation must *precede* admission to any University Examination other than the Entrance Examination in Arts. Matriculation consists in signing the University Register, and paying a fee of £2. If, however, the candidate has passed the Entrance Examination in Arts before matriculating, a fee of £1 only is charged. Before matriculating, candidates must produce proof that they are at the time registered students of a College of the University, or of some medical school recognised by the University.

Entrance Examination in Arts.—The subjects of the Entrance Examination in Arts are: (1) Latin; (2) Elementary Mathematics; (3) Elementary Mechanics; (4) English Language, including Grammar and Composition. (5) *One* of the following: i. Greek, ii. French, iii. German, iv. Italian, v. Spanish. Candidates may, by special permission or the Board of Studies, substitute any other modern language for either of the subjects named under (5). Candidates who propose to present themselves in Italian or Spanish, or in a modern language not included in the list, must give notice to the Registrar on or before March 31st in the year in question.

BACHELOR OF MEDICINE AND OF SURGERY.

Before admission to the degree of Bachelor of Medicine a candidate is required to present certificates that he will have attained the age of twenty-one years on the day of graduation, and that he has pursued the courses of study required by the University regulations during not less than four years subsequently to the date of his registration as a medical student, two of such years having been passed in a College of the University, and one year at least having been passed in a College of the University subsequently to the date of passing the First M.B. Examination. All candidates for these degrees must pass three examinations, namely—the First Examination for the degrees of M.B. and Ch.B., the Second Examination, and the Final Examination.

The First Examination.—The subjects of the examination are:—1. *Chemistry:* (*a*) Laws of Chemical Combination; non-metallic elements and their compounds; metals; introduction to Organic Chemistry; (*b*) Elementary Qualitative Analysis. 2. *Elementary Biology:* (*a*) Animal Morphology; (*b*) Vegetable Morphology, Physiology, and Elements of Classification; (*c*) Laboratory Work. 3. *Physics:* (*a*) General Physics; the chief phenomena of Heat, Electricity, and Magnetism, treated in an elementary manner; Geometrical and Physical Optics; Acoustics; (*b*) Methods employed in the Physical Laboratory.

Candidates for the First Examination must have attended, during at least one year, courses, both of lectures and of laboratory work, in each of the above-named subjects.

Second Examination.—The subjects of examination are:—1, Anatomy; 2, Physiology (including Physiological Chemistry and Histology); 3, Materia Medica and Pharmacy. Candidates must have passed the First Examination, and have attended courses of instruction in Anatomy for *one* winter session, in Physiology for *one* winter session (but the course attended must be a *complete* course), in Materia Medica and Pharmacy for *one* summer session. The certificates must show (1) that the candidate has been engaged in dissecting during two winter sessions and one summer session at least; (2) that laboratory instruction has been received in Physiology; (3) that practical instruction has been received in Materia Medica and Pharmacy.

Final Examination.—The subjects of examinations are: 1. Pharmacology and Therapeutics. 2. General Pathology and Morbid Anatomy. 3. Forensic Medicine and Toxicology, and Public Health. 4. Obstetrics and Diseases of Women. 5. Surgery, Systematic, Clinical, and Practical. 6. Medicine, Systematic and Clinical, including Mental Diseases and Diseases of Children. Candidates may either present themselves in all the six subjects of examination on the same occasion, or may pass the examination in two parts, the First Part consisting of *two* or *three* of Subjects 1, 2, and 3, the Second Part of the remaining subjects. Candidates who fail to satisfy the Examiners in a First Part, must either present themselves again in the subjects as selected, or in all the six subjects of examination.

Candidates are required to furnish certificates of having attended courses of instruction, approved by the University, in a College of the University, or in a medical school recognised for this purpose by the University, in the subjects in which they offer themselves for Examination.

The following certificates will be required:—1. In Medicine and Surgery, of having attended the medical and surgical practice of a hospital or hospitals, approved by the University, during at least three years, of which years two at least must be subsequent to the date of passing the Intermediate Examination, except when exemption has been granted by the General Board of Studies, after report from the Departmental Board of Medical Studies. 2. In Pathology and Morbid Anatomy, of having attended during at least twelve months demonstrations in the *post-mortem* theatre of a hospital. 3. In Obstetrics, of having attended, under proper supervision, at least twenty cases of labour. 4. In Diseases of Women, of having, during at least three months, received, in either a general or a special hospital, approved by the University, such clinical instruction in the diseases peculiar to women as shall be approved by the University. 5. Of having acquired proficiency in vaccination. 6. Of having acted as a dresser for six months in the surgical wards, and as a clinical clerk for six months in the medical wards of a hospital recognised by the University. 7. Of having attended courses of instruction, approved by the University, in a College of the University, or in a medical school or hospital recognised for this purpose by the University, in the following subjects of Examination:—(1) Systematic Surgery, one winter session; Practical Surgery, one winter session; Clinical Surgery, two years of Clinical Lectures. (2) Systematic Medicine, two winter sessions; Clinical Medicine, two years of Clinical Lectures. (3) Forensic Medicine, one summer session; Public Health, one summer session. (4) Pharmacology and Therapeutics, one winter or one summer session. (5) Obstetrics and Diseases of Women, two summer sessions or one winter session. (6) General Pathology and Morbid Anatomy, one winter and one summer session.

DOCTOR OF MEDICINE.

Candidates are not eligible for the degree of Doctor of Medicine unless they have previously received the degree of Bachelor of Medicine, and at least one year has elapsed since they passed the examination for that degree. Candidates for the degree of Doctor of Medicine must present a printed dissertation embodying the results of personal observations or original research, either in some department of medicine or of some science directly relative to medicine. No candidate will be admitted to the degree unless his dissertation, after report from the Departmental Board of Medical Studies, shall have been recommended by the General Board of Studies to the Council for acceptance. Candidates may be examined on any subject connected with their dissertations.

MASTER OF SURGERY.

Candidates are not eligible for the degree of Master of Surgery unless they have previously received the degree of Bachelor of Medicine, and at least one year has elapsed since they passed the examination for that degree. The subjects of examination are—1. Surgical Anatomy; 2. Surgical Pathology; 3. Practical Surgery, including the performance of operations on the dead body; 4. Clinical Surgery; 5. Ophthalmology. Candidates must furnish certificates that they have been engaged, since taking the degree of Bachelor of Medicine, in the study of Practical Surgery; and that they have held, for not less than six months, a surgical appointment in a public hospital or other public institution affording full opportunity for the study of Practical Surgery. They must also furnish certificates—1. Of having attended a special course of instruction in Operative Surgery approved by the University, and of having personally practised the principal surgical operations on the dead body; 2. Of having attended a systematic course of instruction, including practical work, approved by the University, on Surgical Pathology, or a course of the same kind of which Surgical Pathology forms part; 3. Of having attended a course of Ophthalmology, and of having received instruction in Ophthalmic Surgery, approved by the University.

Fees.—No fee entitles to admittance to more than one examination. The fee for matriculation is £2, and includes the fee for the Entrance Examination in Arts. A fee of £1 is payable for any subsequent Entrance Examination. The fee for the First Examination, *or* for the Second Examination, *or* for the Final Examination, is £5; for any subsequent examination, £2. A fee of £10 is payable on the conferring of the degree of M.D., a fee of £5 on the conferring of the degree of Ch.M. The fee for the Ch.M. Examination is £5.

The Entrance Examination in Arts is held twice in each year, in June and about the end of September. The First Examination is held in June (Chemistry and Physics) and in July (Biology), also in September. The Second Examination, and the Final Examination are held in March and July. The examination for the degree of Master of Surgery is held in July.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

REGULATIONS FOR THE LICENCE.

The College will grant its single qualification in Medicine to Candidates who already possess a recognised British, Irish, Indian, or Colonial qualification in Surgery.

Candidates will be required to pass a written and oral examination before the Examining Board of the College, in Medicine, Clinical Medicine, Materia Medica, Midwifery, and Medical Jurisprudence. No one is admissible to examination who has within the previous three months been rejected by any Licensing Board, and every candidate must sign and send in along with his certificates a declaration stating that he has not been rejected within that period.

The fee for the Licence is £15 15s. In the event of a candidate being unsuccessful, the sum of £6 6s. will be retained.

The examinations are held on the first Wednesday, and succeeding days, of every month, except September and October.

Candidates may be admitted to special examination, on days other than those appointed above, on bringing forward reasons satisfactory to the Council, and on paying an extra fee of £5 5s. Should the candidate be unsuccessful, the sum of £9 9s. will be returned to him.

All candidates for Examination must communicate with the Secretary to the College, not less than eight days before the date of examination; and the fees must be lodged with the Secretary at least four days before the date of the examination.

FELLOWSHIP AND MEMBERSHIP.

No one can be elected a Fellow of the College until he has been at least one year a Member, and has attained the age of twenty-five years.

Any Licentiate of a College of Physicians, or Graduate of a British or Irish University, with whose knowledge of medical and general science the College may be satisfied, may be admitted a Member of the College, provided he shall have attained the age of twenty-four years.

Every candidate for the Membership (except such as are admissible under the provisions for candidates above forty years of age) must pass an examination:—(1) On the Principles and Practice of Medicine, including Therapeutics; (2) On one of the following subjects, to be selected by the candidate: (*a*) One or more departments of Medicine specially professed; (*b*) Psychological Medicine; (*c*) General Pathology and Morbid Anatomy; (*d*) Medical Jurisprudence; (*e*) Public Health; (*f*) Midwifery; (*g*) Diseases of Women.

Application for the Membership must be made through the Secretary, who will transmit to the candidate a copy of the regulations and plan of examination, together with a form of petition. The candidate must return the petition duly filled up to the Secretary, and at the same time transmit testimonials of recent date from well known members of the profession, certifying as to his professional and social standing. These documents shall be submitted to the Council, who shall also employ such other methods of scrutiny as they may deem necessary. If satisfied as to the eligibility of the candidate, the Council authorise his examination by the Board of Examiners. If the report of the examiners be satisfactory, the Council report the same to the College at the next quarterly meeting, when a motion may be made for the election of such candidate to the Membership of the College.

If any candidate who has attained the age of forty years, and has been a registered practitioner for not less than ten years, produce testimonials showing that he has been distinguished for his scientific attainments, or eminence as a medical practitioner, the Council may, if they see fit, exempt him from the whole or any part of the prescribed examination.

Examinations will be held on October 11th and 12th, 1892, January 10th and 11th, April 11th and 12th, and July 11th and 12th, 1893. Application must be made to the Secretary not less than one month previous to the date of the examination.

Fees.—The fee to be paid by a Member is £31 10s. A Licentiate who has obtained the Licence prior to August 1st, 1876, when raised to the rank of Member, pays £21; a Licentiate obtaining the Licence subsequently to that date, when raised to the rank of Member, pays £15 15s. When a Member is raised to the rank of Fellow, he pays £31 10s., exclusive of stamp-duty (£25). All candidates for Fellowship or Membership must lodge their fees and the amount of stamp-duty payable with the Treasurer previously to presenting their petitions.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

REGULATIONS FOR CANDIDATES FOR THE LICENCE.

The Regulations in the tables at pages 510 and 511, and below, are applicable to candidates who already hold diplomas in Medicine of any British, Indian, or Colonial University, or of any British or Colonial College of Physicians, whose preliminary examination and course of professional study is proved to be sufficient. Female practitioners are admitted to the Licence of the College but not to the Fellowship.

Professional Education.—The curriculum must have been attended at a recognised medical school or schools, and under recognised teachers. In addition to the subjects enumerated in the table, the candidate must have been instructed in Vaccination by a registered Practitioner. Two courses of Clinical Medicine, or of Clinical Surgery, of three months each, if not simultaneous, will be held equivalent to one course of six months. They must be attended during the attendance at the hospital where they are delivered. The six months' course delivered in Scotland must consist of not fewer than 100 lectures, with the exception of Clinical Medicine and Clinical Surgery. The three months' course must consist of not fewer than fifty lectures. The attendance at any school not situate in Scotland must be not less than three-fourths of the total number of lectures delivered.

Professional Examination.—Candidates must apply to Mr. James Robertson, Clerk to the Royal College of Surgeons, at 1, George Square, Edinburgh, not later than one week preceding the day of examination;[1] and must produce—1. Satisfactory evidence of having attained the age of twenty-one years; 2. Certificates of having attended the classes enumerated under Professional Education; 3. A tabular statement (for which a printed form will be furnished), exhibiting the whole of his professional education, and distinguishing the classes, hospitals, dispensaries, and schools attended during each session of his studies; and, 4. The diploma in Medicine, certificate of registration as a medical practitioner,

[1] Candidates at a distance are requested to send their certificates much earlier, so as to give sufficient time for the exchange of one or two explanatory letters, as much disappointment has been occasioned by the discovery of defects in their course of study when it was too late to rectify them by the production of documents. Candidates should attend punctually to the dates fixed by the Regulations for lodging their certificates and for paying money.

TABULAR VIEW OF THE REGULATIONS OF THE MEDICAL EXAMINING BODIES IN SCOTLAND (OLD ORDINANCES).

	ROYAL COLLEGE OF SURGEONS OF EDINBURGH.	COLLEGES OF PHYSICIANS & SURGEONS OF EDINBURGH, & FACULTY OF PHYSICIANS & SURGEONS OF GLASGOW.	FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.		UNIVERSITIES OF SCOTLAND
	DIPLOMA.	CONJOINT EXAMINATION.	LICENCE.	FELLOWSHIP.	BACHELOR OF MEDICINE AND MASTER IN SURGERY.
AGE REQUIRED	Twenty-one.	Twenty-one.	Twenty-one.	Twenty-four.	Twenty-one.
EVIDENCE OF GENERAL EDUCATION BEFORE COMMENCEMENT OF PROFESSIONAL STUDY.	Having passed a satisfactory preliminary examination.	Having passed a preliminary examination, and being registered as a student by the Medical Council.	Having passed a preliminary examination, and being registered as a student by the Medical Council.	Registration as a student by the General Medical Council.	Preliminary examinations by University; or Degree in Arts or equivalent examinations
DURATION OF PROFESSIONAL STUDY.	Forty-five months, including four winter sessions, or three winter and two summer sessions at a recognised school.	Forty-five months, subsequent to registration, including not less than four winter sessions at a recognised medical school.	Four years; including four winter sessions, or three winter and two summer sessions at a recognised school.	Six years; graduates in Arts or Science, five years.	Four years; one year being in the University, and another in the same or some other University (see page 514).
COURSES OF LECTURES, ETC., REQUIRED.					
Anatomy	Six months.	Six months.	Six months.	Two winter sessions.	One hundred lectures.
Practical Anatomy ...	Twelve months.	Two courses in separate sessions.	Twelve months.	Eighteen months.	Course of same duration.
Physiology	Six months.	Six months.	Fifty lectures.	One winter.	One hundred lectures.
Practical Physiology...	—	—	—	Three months.	Three months.
Chemistry	Six months.	Six months.	Six months.	One winter.	One hundred lectures.
Practical Chemistry...	Three months.	Three months.	Three months.	Three months.	Three months. (See footnote, page 515).
Materia Medica ...	Three months.	Three months.	Three months.	Three months.	One hundred lectures.
Practical Pharmacy ...	Three months.	Three months.	Three months.	Three months.	(See page 514).
Natural History (Zoology)	Recommended.	Strongly recommended.	—	—	Fifty lectures.
Botany...	Recommended.	—	—	—	Fifty lectures.
Pathology	Or attendance in *post-mortem* room, three months.	Three months lectures; or attendance in *post-mortem* room of General Hospital.	Three months; lectures or attendance in *post-mortem* room.	Three months; and Practical Pathology three months.	One hundred lectures; or Pathological Anatomy three months, with supplementary course of Medicine or Clinical Medicine.
Medicine	Six months.	Six months.	Six months.	Six months.	One hundred lectures.
Clinical Medicine ...	Nine months.	Nine months.	Six months.	Twelve months.	Six months (100 lectures, Edin.), or two courses of three months.
Surgery	Six months.	Six months.	Six months.	Six months.	One hundred lectures.
Clinical Surgery... ...	Nine months.	Nine months.	Nine months.	Twelve months.	Six months (100 lectures, Edin.), or two courses of three months.
Practical Surgery ...	Six months strongly recommended.	Recommended.	—	Three months.	—
Midwifery and Diseases of Women and Children.	Three months; and not less than six cases of labour.	Three months; and not less than six cases of labour.	Three months; at least six cases of labour.	Three months; twenty cases of labour.	One hundred lectures; three months' Midwifery Hospital, and six cases of labour [1]

Medical Jurisprudence	Three months.	Three months.	Three months.	Three months.	Fifty lectures.
Hospital Practice and Hospital Appointments.	General Hospital twenty-four months; Public Dispensary six months, or Visiting Assistant six months.	General Hospital twenty-four months; Public Dispensary, six months, or three months Dispensary with three months' hospital clerkship, or six months pupilage with a registered practitioner.	Public Hospital twenty-four months.	Twenty-four months.	General Hospital, two years; Out-practice of hospital, or of dispensary or registered practitioner, six months.
Vaccination	Six weeks.	Six weeks.	—	—	—
Fever	—	Recommended.	—	—	—
Ophthalmic, Aural, and Mental Diseases.	—	Strongly recommended.	—	—	—
NUMBER OF EXAMINATIONS.	One; final only. Candidate must have recognised qualification in Medicine.	Three.	One; final only. Candidates must have qualification in Medicine.	Two; each examination may be divided.	In Edinburgh and Glasgow, four; in Aberdeen and St. Andrews, three. For the subjects of these examinations, and the periods of study at which they may be passed in the respective Universities, see page 515.
FIRST EXAMINATION; WHEN IT MAY BE PASSED; SUBJECTS.	—	End of first complete year; Chemistry, Elementary Anatomy, and Histology.	—	Anatomy and Physiology (including Histology and Embryology); Chemistry (unless already passed).	
SECOND EXAMINATION; WHEN IT MAY BE PASSED; SUBJECTS.	—	End of second complete year; Anatomy, Physiology, Materia Medica and Pharmacy.	—	Candidates ten years qualified are exempted from this examination.	—
FINAL EXAMINATION; WHEN IT MAY BE PASSED; SUBJECTS.	After last winter session; Surgery (including Operative Surgery and Surgical Pathology), Clinical Surgery, and Surgical Anatomy.	End of full period of study; Medicine (including Therapeutics, Medical Anatomy, and Pathology), Clinical Medicine; Surgery (including Surgical Anatomy and Surgical Pathology); Clinical Surgery; Midwifery and Gynæcology; Medical Jurisprudence and Hygiene	Surgery and Clinical Surgery.	Pathology and Medicine (Systematic and Clinical), or Pathology and Surgery (Systematic, Operative, and Clinical).	—
FEES PAYABLE	£15 15s.; in case of rejection, £5 5s. retained.	First and Second Examinations, each £5 5s.; additional, after rejection in all subjects, £3 3s.; after partial failure, £2 2s. Third Examinatn., £15 15s.; after rejection, additional, £5 5s.	£15 15s.; in case of rejection, £4 4s. retained.	On entry for Examination, £10; on admission, £40 (in the case of non-resident Fellows, £15).	Edinburgh, £22; Aberdeen, £21; £5 5s. each of two examinations, £10 10s. at last examination of three; Glasgow, four fees of £5 5s.
DATES OF EXAMINATION.	October, 1892; January, April, July, 1893.	First: in Edinburgh, October 13th to 16th, 1892; January 11th to 14th, April 4th to 7th, July 4th to 7th, 1893; in Glasgow, April 18th to 21st, and July 11th to 14th, 1893. Second: Monday, Tuesday, and Wednesday following the dates of First Examination. Final: days next following Second Examination.	October 11th, 1892; January 10th, April 3rd, and July 6th, 1893.	Third weeks in April, July, and October.	Aberdeen and Edinburgh; end of winter and summer sessions. Glasgow, April, July, and October. Clinical Examination; Edinburgh, May; Glasgow, June. Final in Edinburgh, June. St. Andrews, middle of April.
REJECTED CANDIDATES.	Not readmitted under three months.	At either examination, not readmitted before three months; not re-examined in subjects in which an absolute pass has been obtained.	Not readmitted under six months.	—	Not readmitted until after another year of medical study, or such portion of a year as may be prescribed by the examiners (unless he have studied during another year two of the subjects—*Edinburgh*).
ADDITIONAL INFORMATION.	See page 509.	See page 512.	—	See page 512.	See page 514 *et seq.*

[1] Or at Edinburgh and Glasgow 12 cases of labour under a registered medical practitioner.

or satisfactory evidence of having passed a full examination for the diploma in Medicine. Graduates and Licentiates of Medicine of any recognised University or College will be admitted to examination on producing their diplomas or certificates of registration as medical practitioners, together with such certificates as the inspector may require to verify the particulars inserted in the schedule of course of study. The fee of £15 15s. must be lodged with Mr. Robertson not later than one week preceding the date of examination. The sum of £10 10s. will be returned to unsuccessful candidates.

Candidates desirous of special examinations on other days than those fixed must prepare a case to be submitted to the consideration of the authorities of the College, with evidence to show why it is impossible for them to avail themselves of the ordinary examination. They must, at the same time, fill up and lodge the requisite schedule and produce satisfactory evidence of the whole of the prescribed course of study, and of having passed the preliminary examination, and must state the earliest and the latest days within which they can present themselves. The fees, which must be lodged two days before the examination day, are £20 for examination, of which £10 will be returned to candidates remitted on examination. The professional examinations require one day for the written part of the examination. The clinical and oral will follow on a subsequent day.

Recent dissections and anatomical specimens are employed during examination. Candidates are also subjected to a practical clinical examination in the Surgical Hospital, including the application of surgical apparatus, bandages, surface markings, etc., and may, if it be considered necessary to test their knowledge, be required to perform operations on the dead body. No candidate is admissible to examination who has been rejected in the subjects of the examination by any other Licensing Board within the preceding three months.

LAWS RELATING TO THE FELLOWSHIP.

No person shall be received as a candidate for the Fellowship who does not possess the diploma of the Royal College of Surgeons of Edinburgh, or of the Royal College of Surgeons of England, or of the Royal College of Surgeons of Ireland, or of the Faculty of Physicians and Surgeons of Glasgow. Every candidate for the Fellowship, with the exception of those admissible under the old constitution, with right to the Widows' Fund, and those hereinafter mentioned, must show that he is twenty-five years of age, and that he has for at least two years subsequently to the date of his having obtained a qualification in Surgery, specially recognised by the College, been engaged in the study or practice of his profession; and, before having his petition laid before the College, must pass an examination as follows: A. Those who are already Licentiates of this College: on Principles and Practice of Surgery, Clinical and Operative Surgery, and one optional subject. B. Those who are not Licentiates of this College: on Principles and Practice of Surgery, Clinical and Operative Surgery, Surgical Anatomy, and one optional subject; and in such supplementary subjects as have not, in an adequate manner, been included in the examination for the registrable surgical qualification possessed by such candidate, and which are required in the examination for Licentiates of this College. The optional subjects embrace—*a*. Surgery in any one of its Ophthalmic, Aural, Laryngeal, Dental, Orthopædic, Syphilitic, or Genito-Urinary branches; *b*. Advanced Anatomy; *c*. Advanced Physiology; *d*. Surgical Pathology and Morbid Anatomy; *e*. Midwifery; *f*. Gynæcology; *g*. Medical Jurisprudence; *h*. Hygiene; *i*. Practice of Medicine and Therapeutics. The examinations on these subjects shall, when possible, be Clinical or Practical, as well as Written or Oral. In addition to the Written, Oral, and Clinical Examinations, the Candidate will be examined on the use of Surgical Apparatus, and may be required to perform operations on the dead body. He shall give notice of his intention to present himself at least three weeks before the examination, so that his petition may be laid before the President's Council. In the case of registered practitioners of not less than forty years of age, who have been in practice for not less than ten years, the President's Council may consider their claims; and if these and the registrable surgical qualification they possess, together with the fact that they may have highly distinguished themselves by original investigations, seem of a sufficiently high order, they may recommend such candidates to the College for ballot without examination. Every candidate for the Fellowship (with the exception of those entitled to enter under the old constitution of the College, and having right to its Widows' Fund) must lodge with Mr. James Robertson, 1, George Square, Edinburgh, a petition for examination with a view to admission, and must be recommended by two Fellows, of whom one at least shall be resident in Edinburgh. Candidates for the Fellowship (not embraced under the exception to Law 3) shall pay £30 to the College funds, including all fees. The money is payable to Mr. Robertson immediately upon the presentation of the petition. The fee paid by any candidates not admitted shall be returned to him; but in the case of candidates by examination not being successful, £5 shall be retained as examination expenses. No Fellow of the College shall keep an open shop for the sale of drugs or other merchandise, or allow his name to be connected with advertisements or publications of an indelicate or immoral nature. No Fellow of the College shall practise, or profess to practise, by the use of or according to any secret remedy or method of treatment; or allow his name to be connected with advertisements for the sale of any secret remedy, or for practise by the use of any secret remedy, or method of treatment: or connect himself in partnership or otherwise, or continue in connection with, any person practising by means of or advertising the sale of any secret remedy.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

DIPLOMA OF FELLOW.

Candidates are not admissible to the Fellowship till they have been two years qualified, and have attained the age of 24. Candidates are subjected, at their option, either to two examinations or a single examination: the first examination is in Anatomy and Physiology, the second in Pathology and Surgery, or Pathology and Medicine. Candidates subjected to one Examination, are examined on Surgery and an optional subject, or Medicine and an optional subject. The optional or alternative subjects are: (1) Human Anatomy, (2) Comparative Anatomy, (3) Physiology, (4) Pathology, (5) Midwifery and Diseases of Women, (6) Medical Jurisprudence, (7) Ophthalmic Surgery, (8) Aural Surgery, (9) State Medicine, (10) Psychological Medicine.

Election.—There may be admitted yearly to the Fellowship without examination, should the Faculty see fit, not more than four legally qualified medical practitioners, who are not less than 40 years of age, and have been at least ten years qualified, and who shall have highly distinguished themselves in medical science. Candidates must be proposed in writing by two Fellows of the Faculty, and the proposal must contain a statement of the grounds on which it is made. The proposal is in the first instance submitted to the President and Council, and only on their reporting favourably is it submitted to the Faculty. For the election two-thirds of those voting must be in favour of admission.

Fees.—The fee payable by a candidate qualified to hold office is £50; by a candidate not qualified to hold office, £25; in the case of a Licentiate, £40 and £20 respectively. Fellows residing within five miles of the Faculty Hall must qualify to hold office. Fellows residing beyond that distance may or may not qualify to hold office, according to their option.

There are three examinations yearly, in the third weeks of April, July, and October. Fourteen days' notice is required.

DIPLOMA OF LICENTIATE.

The examination for the Licence of the Faculty, as granted separately, is open only to Graduates in Medicine of the Universities of the United Kingdom, India, and the Colonies, and Licentiates in Medicine of the Colleges of Physicians of the United Kingdom. Candidates are examined in Surgery, including Surgical Anatomy and Operative and Clinical Surgery. Examinations are held quarterly: on October 11th, 1892; January 10th, April 3rd, and July 6th, 1893. The fee is £15 15s., of which £11 11s. is returned in the event of failure.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW: CONJOINT EXAMINATION.

THE Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow have made arrangements by which, after one series of examinations, the student may obtain the diplomas of the three Co-operating Bodies.

Students passing the qualifying examination are enabled to register three diplomas under the Medical Acts—namely, Licen-

tiate of the Royal College of Physicians of Edinburgh, Licentiate of the Royal College of Surgeons of Edinburgh, and Licentiate of the Faculty of Physicians and Surgeons of Glasgow.[1] Female Candidates are admitted to the Examinations for this qualification.

Every candidate must have followed his course of study in a University, or in an established School of Medicine, or in a provincial school specially recognised by the Colleges of Physicians and Surgeons of that division of the United Kingdom in which it is situate. Under the title established school of medicine are comprehended the medical schools of those cities of Great Britain and Ireland in which diplomas in Medicine or Surgery are granted, and such Colonial and Foreign schools as are similarly circumstanced in the countries in which they exist.

Preliminary Examinations.—All students who intend becoming candidates for the diplomas of the three Bodies must pass the complete examinations in General Education, and have their names registered by the General Medical Council at the commencement of their professional studies. The Preliminary Examination may be passed before any of certain recognised Boards, of which a list may be obtained on application. Preliminary examinations are conducted in Edinburgh and in Glasgow by the Educational Institute of Scotland on behalf of the Royal Colleges of Physicians and Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow. Copies of the regulations respecting the examination may be obtained on application to Thomas Morrison, LL.D., Free Church Training College, Glasgow, Secretary to the Examining Board of the Institute; or to Alex. Mackay, LL.D., 10A, South Street, Andrew Street, Edinburgh, Treasurer of the Institute.

Professional Education.—For regulations affecting students who have commenced medical study before January 1st, 1892, see pages 510 and 511. The course of professional study after registration must occupy not less than five years; but graduates in Arts or Science of any recognised university, who shall have spent a year in the study of Physics, Chemistry, and Biology, and have passed an examination in these subjects for the degrees in question, shall be held to have completed the first of the five years of medical study. Professional studies commenced before registration, except in the cases of Physics, Elementary Biology, Chemistry, Practical Chemistry, and Practical Pharmacy, will not be recognised.

The following is a statement of the entire course of study required:—

Physics, Elementary Biology, Chemistry, Practical Chemistry. The certificates in those subjects should show in what form the instruction has been given, whether by lectures, demonstrations, practical work, etc. Anatomy, one course, six months; Practical Anatomy (dissections, which should comprise the whole human body), one course, twelve months; Materia Medica, including Therapeutics, one course, three months; Physiology, one course, six months; Pathology, one course, three months; Principles and Practice of Medicine, one course, six months; Principles and Practice of Surgery, one course, six months; Midwifery and Diseases of Women and of Newborn Children, one course, three months; Medical Jurisprudence and Hygiene, one course, three months. The above courses must be attended at a recognised medical school. In the systematic courses lectures need not be delivered oftener than thrice weekly, but the certified attendance must be on not less than three-fourths of the total number of lectures delivered in a course. Clinical Medicine, not less than nine months; Clinical Surgery, not less than nine months; Fevers,[2] one course of not less than thirteen meetings; Insanity,[2] one course of not less than thirteen meetings; Diseases and Injuries of the Eye[2], one course of not less than thirteen meetings; Dispensary Practice, not less than six months. The above courses of Clinical Medicine and Clinical Surgery shall be attended at a recognised public general hospital, containing on an average not fewer than eighty patients available for clinical instruction, and possessing distinct staffs of physicians and of surgeons. The entire certified period of hospital attendance, with clinical instruction, must not be less than twenty-four months. Evidence must be produced that the candidate has acted as Surgical Dresser and as Medical Clinical Clerk. The dispensary practice may be attended either at the out-patient department of a general hospital, or at a recognised public dispensary.

The following practical courses are also required:

(*a*) Three months' instruction in Practical Pharmacy, which shall include not less than twenty-five meetings, and which may be attended at a medical school or public hospital, laboratory, or dispensary, or under a registered pharmaceutical chemist, or registered medical practitioner who dispenses medicines to his patients. (*b*) Practical Midwifery, attendance for three months on the indoor practice of a lying-in hospital, and personal attendance on Six Cases of Labour, or alternatively, attendance on Twelve Cases of Labour under the supervision of a registered medical practitioner. (*c*) That the candidate has been properly instructed in Vaccination by a public vaccinator, authorised by the proper Government authority to grant certificates of proficiency in vaccination.

Students are recommended to pay particular attention to practical work in connection with all the departments of study and to avail themselves of opportunities of acquiring practical acquaintance with special departments of clinical study, such as Diseases of the Ear, Throat, and Skin, Diseases of Women and Children, and Operative Surgery. The examinations will be conducted so as to test practical knowledge.

In addition to the hospital practice and clinical instruction specified previously, the fifth year should be devoted to clinical work at one or more recognised public hospitals or dispensaries, British or foreign. Six months of the fifth year may be passed by the student as a pupil to a registered practitioner possessing such opportunities of imparting practical knowledge as may be deemed satisfactory by the Committee of Management. The student's regularity of attendance in the wards and out-patient departments of the hospitals and at the *post-mortem* examinations should be duly ascertained and noted on the certificate.

The following order of study is recommended as conforming generally to the sequence of examinations, but is not imperative:—

First Summer: Physics, Elementary Biology. First Winter: Chemistry, Practical Chemistry, Junior Anatomy, Dissections. Second Summer: Histology, Dissections. Second Winter: Anatomy, Dissections, Physiology. Third Summer: Pathology, Materia Medica. Third Winter: Dissections, Surgery, Hospital Practice, with Clinical Surgery. Fourth Summer: Midwifery and Gynæcology, Medical Jurisprudence and Hygiene, Hospital Practice, with Clinical Surgery. Fourth Winter: Medicine, Hospital Practice, with Clinical Medicine. Fifth Summer: Clinical Medicine, Insanity, Practical Midwifery, Eye Diseases. Fifth Winter: Hospital Practice, Dispensary, Fevers, Vaccination.

Students are also recommended to study in the fifth year the following subjects:—Operative Surgery, Diseases of Children, Ear and Throat, Skin.

Professional Examinations: General Regulations.—Candidates shall be subjected to four professional examinations, herein called the First Examination, the Second Examination, the Third Examination, and the Final Examination, to be conducted at separate times, partly in writing and partly practically and orally. Opportunities of entering for each of these examinations will be presented six times in each year—four times in Edinburgh and twice in Glasgow. A candidate at any of these examinations may present himself either in Edinburgh or Glasgow, irrespective of the place at which he may have previously been examined.

Candidates qualified by having attended the necessary courses of study may enter for two or more examinations, to be passed successively at the same period, the condition being that failure to pass in all the subjects of the prior examination precludes the candidate from admission to the succeeding examination. The necessary schedule and certificates must be lodged, and the fees for these respective examinations paid, at the period of entering for the earliest of them. In the event of failure, the fee paid for any subsequent examination from which a candidate had been precluded will be returned to the candidate. Candidates may enter for all the subjects of an examination at one period, or may enter for and pass in any division of subjects thereof.

The pass mark in the written and oral, or in the written, clinical, and oral (as the case may be) parts of the complete examination in each subject shall be 50 per cent. A candidate who obtains 60 per cent. in the conjoined written and oral, or written, clinical, and oral examination, in any subject, will be exempted from re-examination in that subject, although he may fail to obtain a pass in the other subjects of examination, and the same rule shall apply to candidates entering for one or more divisions of an examination.

A candidate who obtains 75 per cent. of the marks on each subject throughout the whole examination shall be noted as passing "with honours." Candidates who are unsuccessful at any examination shall be remitted to their studies for a period to be determined by the judgment of the examiners, but not in any case less than three months. No candidate shall be admissible to examination who has been rejected in the subjects of the examination by any other licensing board within the three preceding months. Applicants for admission to any of the examinations are required, on entering, to lodge with the Inspector of Certificates a schedule (forms for which are supplied) showing the

[1] The three Co-operating Bodies grant their single qualifications only to candidates who already possess another and opposite qualification in Medicine and Surgery, as the case may be. Thus the Royal College of Physicians of Edinburgh may, notwithstanding this agreement, grant its Licence on examination to candidates already possessed of a recognised British, Irish, Indian, or Colonial qualification in Surgery; and the Royal College of Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow may each grant its Licence on examination to candidates already Licentiates in Medicine of any British, Irish, or Colonial College whose preliminary examination and course of professional study are proved to be sufficient, or Graduates in Medicine of any British, Irish, Indian, or Colonial University. Copies of the Regulations for the single qualification of any of the Bodies may be had on application to the respective Secretaries.—N.B. Under the provisions of the Medical Act, 1886, the single qualifications do not confer the right to registration, but may be registered as additional qualifications by those already on the *Register*.

[2] These courses may be wholly or partly clinical.

courses they have attended qualifying for admission. No candidate can be held to be entered for any examination till he has sent in the proper schedule, proved his course of study, and paid the appropriate fee. At the oral examinations candidates shall be examined as far as possible in the order of their entry.

A candidate may be exempted from examination in any subject of the First, Second, or Third Examinations on the production of a certificate proving that he has passed an equivalent examination before one of the recognised Boards, such certificate specifying the subjects of examination. A candidate admitted to any examination on the footing of having passed in the subjects of the preceding examination or examinations at another Board shall pay the fees exigible for such preceding examination or examinations, in addition to the fee of the examination for which he enters.

The following are the names and addresses of the Inspectors of Certificates:—In Edinburgh, Mr. James Robertson, solicitor, 1, George Square; in Glasgow, Mr. Alexander Duncan, B.A., Faculty Hall, 242, St. Vincent Street.

First Examination.—The First Examination shall embrace the following divisions of subjects: (1) Physics, (2) Chemistry, (3) Elementary Biology; and candidates may take this examination in these three divisions, or they may present themselves for the whole at one time at any period after registration as medical students. The schedule for the examination, containing evidence of instruction in each of these subjects, must be lodged with the inspector one week before the examination. The fee is payable at the same time. The fees payable for admission to the First Examination shall be, for the whole examination, £6; for re-entry in all the subjects after rejection, £4; for re-entry in one or two divisions after obtaining an absolute pass in the others, £3; on entering for one division of subjects separately, £3; for re-entry after rejection, £2.

Second Examination.—The Second Examination shall embrace the following subjects: Elementary Anatomy, and Physiology including Histology; and candidates may be admitted to this examination at the end of the second year.[3] The schedule for the examination, including one course of each of the subjects of Anatomy, Physiology, and Practical Anatomy (Dissections) six months, properly attested or proved by certificates, must be lodged with the inspector one week before the examination. The fee is payable at the same time. The fees payable for admission to the Second Examination shall be, for the whole examination, £6; for re-entry in both subjects after rejection, £4; for re-entry in one subject after obtaining an absolute pass in the other, £3.

Third Examination.—The Third Examination shall embrace the following divisions of subjects: (1) Advanced Anatomy, (2) Pathology, (3) Materia Medica and Pharmacy, and may be taken in three divisions, or the whole may be taken at one time, at any period after the end of the third year. The schedule for this examination, including one course each of Pathology and Materia Medica, and twelve months' Practical Anatomy, properly attested or proved by certificates, must be lodged with the inspector one week before the examination. The fee is payable at the same time. The fees payable for admission to the Third Examination shall be, for the whole examination, £6; for re-entry in all subjects after rejection, £4; for re-entry in one or two subjects, after obtaining an absolute pass in the others, £3; on entering for one division of subjects separately, £3, and for each re-entry after rejection, £2.

Final Examination.—The Final Examination shall not be passed earlier than the end of the fifth year of study, and shall embrace the following divisions of subjects:[4] (1) Medicine, including Therapeutics, Medical Anatomy, and Clinical Medicine; (2) Surgery, including Surgical Anatomy, Clinical Surgery, and Diseases and Injuries of the Eye; (3) Midwifery and Diseases of Women and of Newborn Children; and (4) Medical Jurisprudence and Hygiene. The schedule for the Final Examination will contain a summary of the entire course of study, and, properly attested or proved by certificates, must be lodged with the inspector not later than one week before the examination. At the same time there must be produced certificate to show that the candidate is not less than 21 years of age. The fee is payable at the same time. No candidate can claim exemption from any subject of the Final Examination. Candidates may take this examination in divisions or may take all the subjects at one time. All candidates shall be subjected, in addition to the written and oral examinations, to Practical Clinical Examinations in Medicine and Surgery, which shall include the examination of patients, physical diagnosis, the use of the microscope, pathology of the urine, surgical appliances, bandages, surface markings, etc. The fees payable for admission to the Final Examination shall be, for the whole examination, £12; for re-entry in all subjects after rejection, £6; on entering for each division of subjects separately, £4; on re-entry in each division after rejection, £2.

Copies of the Regulations containing the requisite Schedules will be supplied on application to either of the Inspectors, or at the Colleges.

[3] A candidate may obtain a pass in one subject while failing in the other.

[4] Candidates at the Final Examination may be examined on Diseases of Children, Diseases of the Ear and Throat, Insanity, Vaccination, etc.

UNIVERSITIES OF EDINBURGH, GLASGOW, ABERDEEN, AND ST. ANDREWS.

REGULATIONS RESPECTING DEGREES IN MEDICINE.

[THE regulations of these Universities are nearly similar. We therefore give but one statement, noticing points of difference when necessary.]

Three medical degrees are conferred by each University; namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The degree of C.M. is conferred only on those who at the same time obtain the degree of Bachelor of Medicine. All candidates are now required to qualify for and obtain the degrees of M.B. and C.M. conjointly.

Preliminary Education.—The preliminary branches of extra-professional education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and candidates must also pass an examination in at least two of the following subjects: Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy.[1] The examination in the first class of subjects takes place before the commencement of medical study, and in the second, before admission to the First Professional Examination.[2]

A degree in Arts (not honorary) in any one of the Universities of England Scotland, or Ireland, or in any Colonial or Foreign University specially recognised by the University Courts, exempts from preliminary examination. The Universities also recognise examination in Arts by any corporate body whose examination has been recognised by the General Medical Council, and also approved by the University Court, so far as regards all subjects comprised in the examination of the said corporate body.

DEGREE OF BACHELOR IN MEDICINE AND MASTER IN SURGERY.

The principal regulations to be observed by candidates for the degree of Bachelor in Medicine or Master in Surgery are given in the tables at pages 510 and 511. Each *Annus Medicus* is constituted by at least two courses of not less than 100 lectures each, or by one such course and two courses of not less than 50 lectures each; with the exception of the clinical course, in which lectures are to be given at least twice a week.

Two courses of Midwifery, of three months each, are reckoned equivalent to a six months' course, provided different departments of Obstetric Medicine be taught in each of the courses.

Practical Pharmacy may be attended in either of the following ways: A course of not less than fifty hours' instruction in the class of Practical Materia Medica and Pharmacy in the University from which the degree is sought, or a similar class conducted in a University or recognised school of medicine, or a similar class conducted by a teacher recognised by the University Court; *or, for at least three months, compounding and dispensing drugs at the laboratory of a hospital, dispensary, Member of a Surgical College or Faculty, Licentiate of the London or Dublin Society of Apothecaries, or a Member of the Pharmaceutical Society of Great Britain*.[3] Evidence of a practical knowledge of vaccination is required in Aberdeen, Edinburgh, and Glasgow.

[1] The Universities of Aberdeen and St. Andrews include Natural History Natural History is included in the First Professional Examination in all the four Universities.

[2] Particulars as to the scope of examinations in each of these subjects, together with lists of books upon which candidates are examined, may be obtained upon application to the University, namely: at Edinburgh to the Clerk of Senatus or the Dean of the Faculty of Medicine, at Glasgow to the Assistant Clerk to the Senatus, at Aberdeen to the Dean, and at St. Andrews to the Secretary of the University, from whom also information as to the dates of the examinations may be obtained. Candidates are recommended to obtain a copy of the Calendar of the University to which they intend to proceed. (*Publishers*—Edinburgh: James Thin. Glasgow: Maclehose and Sons; 3s post free. Aberdeen: A. King and Co.; 2s. 4d. post free. St. Andrews: Blackwood, George Street, Edinburgh.)

[3] Substitute in the case of Edinburgh University the following for the paragraph in italics: or, that he has been engaged by apprenticeship, for not less than two years, with a registered medical practitioner, or a Member of the

One of the four years of medical and surgical study must be in the University granting the degree sought. Another year must be either in the same University, or in some other University entitled to give the degree of Doctor of Medicine. [At St. Andrews no one can be received as a candidate for the degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of medical and surgical study shall have been in one or more of the following Universities and Colleges, namely: the Universities of St. Andrews, Glasgow, Aberdeen, Edinburgh, Oxford, or Cambridge; Trinity College, Dublin; and Queen's College, Belfast, Cork, or Galway.] Of the other two years, one may be constituted by attendance during at least six winter months on the medical or surgical practice of a general hospital which accommodates at least eighty patients, and, during the same period on a course of Practical Anatomy; and one year's attendance, to the extent of four of the departments of medical study required, on the lecturers or teachers of medicine in the hospital schools of London, or in the school of the College of Surgeons in Dublin, or of such teachers of medicine as shall be recognised by the University Court, may be reckoned as one of the four years.[4] All candidates not students of the University attending the lectures of extra-academical teachers, must at the commencement of each year of attendance enrol their names in a book to be kept by the University for that purpose, paying a fee of the same amount as the matriculation fee.

Every candidate must deliver, at such time of the year as may be fixed by the Senatus Academicus—1. A declaration, in his own handwriting, that he is twenty-one years of age, or that he will be so on or before the day of graduation; and that he will not be, on the day of graduation, under articles of apprenticeship. 2. A statement of his studies, general and professional, accompanied with proper certificates.

The examinations are conducted in writing and *vivâ voce*, and, as far as possible, by demonstrations of objects and other practical tests[5]. They are divided as follows:

Edinburgh: 1. Chemistry, Botany, Natural History, and Physics; 2. Anatomy, Institutes of Medicine, Materia Medica (including Practical Pharmacy), and Pathology; 3. Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; 4. Clinical Medicine and Surgery in a hospital. The first division of these subjects may be passed at any examination held after completion of attendance on the prescribed courses, and the subjects may be taken at two different examinations, provided that on the first occasion the student takes (1) Botany and Natural History; or (2) Chemistry; or (3) Botany and Chemistry; or (4) Natural History and Chemistry; Practical Chemistry being in each case included under Chemistry, and on the second division at the end of their third year. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *Annus Medicus*. Candidates may be admitted to examination on the first two divisions at the end of their third year, or to the four examinations at the end of the fourth year.

Glasgow: 1. Chemistry, Botany, and Natural History; 2. Anatomy, and Physiology; 3. Regional Anatomy, Materia Medica and Pharmacy; 4. Surgery, Clinical Surgery, Medicine, Clinical Medicine, Pathology, Midwifery, and Forensic Medicine. Students may be examined in the first division of subjects at the period of examination immediately preceding their second winter session; in the second division, after two winter and three summer sessions, or, for those who commenced in a winter session, two winter and two summer sessions, from the time of the commencement of studies; in the third division, after the conclusion of the third winter session of attendance upon medical classes; in the fourth division, at the first term for the final examination after the conclusion of their curriculum of study.

Aberdeen: 1. Botany, Natural History, Chemistry, and Anatomy, or in two divisions, (1) Botany and Natural History and (2) Chemistry and Anatomy; 2. Regional Anatomy, Institutes of Medicine, Materia Medica, and Surgery; 3. Practice of Medicine, Clinical Medicine, Clinical Surgery, Midwifery, Pathological Anatomy, and Medical Jurisprudence.

St. Andrews: 1. Chemistry, Botany, Elementary Anatomy, and Materia Medica; 2. Advanced Anatomy, Zoology with Comparative Anatomy, Physiology, and Surgery; 3. Practice of Medicine, Clinical Medicine, Clinical Surgery, Midwifery, General Pathology, and Medical Jurisprudence.

At the Universities of Aberdeen and St. Andrews, the examination in the first division of subjects may be passed at the end of the second year (except that at Aberdeen the examination in Botany and Natural History may be passed at the examination term preceding the second winter session); the examination in the second division at the end of the third year; and that in the third division at the end of the fourth year. Candidates may be admitted to examination on the first two divisions at the end of the third year, or to the three examinations at the end of the fourth year.

Degree of Doctor of Medicine.

The degree of Doctor of Medicine may be conferred on any candidate who has obtained the degree of Bachelor of Medicine, and is of the age of twenty-four years, and has been engaged, subsequently to having received the degree of Bachelor of Medicine, for at least two years in attendance on a hospital, or in the military or naval medical service, or in medical or surgical practice. The candidate must be a Graduate in Arts, or must before or at the time of obtaining his degree of Bachelor of Medicine,[6] or thereafter, have passed a satisfactory examination in Greek, and in Logic or Moral Philosophy, and in one at least of the following subjects, namely: French, German, Higher Mathematics, Natural Philosophy, and Natural History. At Aberdeen, Edinburgh, and Glasgow, he must submit to the Medical Faculty a thesis composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the Professional Examinations for the degrees of Bachelor of Medicine and Master in Surgery, which he may have made a subject of study after having received these degrees.[7]

At Edinburgh, candidates settled for a period of years in foreign parts, who have complied with all the regulations for the degree of M.D. (under the new statutes), but who cannot appear personally to receive the degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the degree conferred on them in absence. The degree of M.D. is also conferred *in absentiâ* at Glasgow and at Aberdeen where sufficient reason is shown.

The degree of Doctor of Medicine may be conferred by the University of St. Andrews on any registered medical practitioner above the age of forty years, whose professional position and experiences are such as, in the estimation of the University, to entitle him to that degree, and who shall, on examination, satisfy the Medical Examiners of the sufficiency of his professional knowledge, provided always that such degrees shall not be conferred on more than ten in any one year. The candidate must produce a certificate of age, and three certificates from medical men of

Pharmaceutical Society of Great Britain, or a Member of the Pharmaceutical Society of Ireland, or a pharmaceutical chemist, or chemist and druggist, registered under the provisions of the "Act for regulating the qualifications of Pharmaceutical Chemists, 1852," "The Pharmacy Act, 1868," or "The Pharmacy Act (Ireland), 1875," in the *bonâ fide* compounding and dispensing of drugs, and the preparation of their officinal and other preparations under his superintendence.

[4] Students of medicine in the London schools and in the school of the College of Surgeons in Dublin can obtain there two *Anni Medici* out of the four required for the medical degrees of Edinburgh, Glasgow, and Aberdeen. Courses of lectures in these schools, and the courses of the Medical lectures and of the Science teachers in King's College and in University College, London, in the subjects of graduation, are regarded as equivalent to lectures on the corresponding subjects in this University, except Materia Medica and Midwifery, which, being only three months' courses in them, are not equivalent. One *Annus Medicus* may be constituted by attendance on Practical Anatomy and hospital practice during the winter session. Another *Annus Medicus* by attending either (*a*) full winter courses on any two of the following subjects: Anatomy, Physiology, Chemistry, Pathology, Surgery, Medicine, Clinical Surgery, Clinical Medicine; or (*b*) on one such course and two three months' courses on any of the following subjects: Botany, Practical Chemistry, Natural History, Medical Jurisprudence. If the student select the arrangement prescribed in (*a*), attendance on a third course will be accepted. The other subjects, and the additional courses, not given in London or Dublin, required for the degrees of the University, will have to be attended at the University. In provincial schools where there are no lecturers recognised by the University Court, a candidate can have only one *Annus Medicus*, and this is constituted by attendance on a qualified hospital along with a course of Practical Anatomy; but in a provincial school, where there are two or more lecturers recognised by this University, a second *Annus Medicus* may be made by attendance on at least two six months', or one six months' and two three months' recognised courses.

[5] The University of St. Andrews requires an Inaugural Dissertation to be presented previous to the Final Examination for M.B. In the other Universities no thesis is required until the candidate seeks the degree of M.D.

[6] Or within three years thereafter.—*St. Andrews.*

[7] No Thesis will be approved by the Medical Faculty which does not contain either the results of original observations in Practical Medicine, Surgery, Midwifery, or some of the sciences embraced in the curriculum for the Bachelor's and Master's degrees; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise reference to the publications quoted, so that due verification may be facilitated.—*Edinburgh.* There is a similar regulation in the Universities of Glasgow and Aberdeen.

acknowledged reputation as to his professional position and experience. The examination is conducted in writing and *viva voce* on Materia Medica and General Therapeutics, Medical Jurisprudence, Practice of Medicine and Pathology, Surgery, and Midwifery and Diseases of Women and Children.

The Graduation Fees in the Universities of Edinburgh and Aberdeen are—for the Degree of M.B., three examinations, each £5 5s. = £15 15s.; for the degree of C.M., £5 5s. additional. Total fees for M.B. and C.M. Degrees in Edinburgh, £22. At Glasgow there are four examinations for the conjoined degrees of M.B. and C.M., the fee being £5 5s. for each; and at St. Andrews for the same degrees three examinations, the fee for each being £7. For the degree of M.D. the fees at each University are £5 5s. additional to that for M.B. and C.M., together with Government stamp-duty (£10).

The fee for graduating under the old regulations in Edinburgh is £25. At St. Andrews, the fee for the degree of M.D. under the section relative to registered medical practitioners is 50 guineas; if the candidate fail to pass, £10 10s. (which is to be paid before the examination) is retained. Stamp-duty is included in both cases.

NEW ORDINANCES.

New Ordinances have been prepared by the Commissioners under the Universities (Scotland Act) 1889. Students who commenced their medical studies before the date of the Ordinances coming into effect may graduate under the old or the new regulations.

UNIVERSITIES OF EDINBURGH AND GLASGOW.

FOUR degrees in Medicine and Surgery will be granted—Bachelor of Medicine (M.B.), Bachelor of Surgery (Ch.B.), Doctor of Medicine (M.D.), and Mastery of Surgery (Ch.M.). The degrees of M.B. and Ch.B. are only granted together.

PRELIMINARY EXAMINATION.

Before the commencement of medical studies students must pass a preliminary examination in (1) English, (2) Latin, (3) Elementary Mathematics, (4) Greek, or French, or German. A candidate whose native tongue is not English may substitute his own language for French or German, and any other classical language for Latin or Greek. The whole examination must be passed at the same time. A degree in Arts or Science obtained after examination in any recognised Home, Colonial, or Foreign University exempts from the preliminary examination.

Professional Education.—Candidates shall be admitted to the Degree of Bachelor of Medicine and Bachelor of Surgery only after they have fulfilled the following conditions:—1. The candidate must have been engaged in medical study for at least five years. 2. In each of the first four years the candidate must have attended at least two courses of instruction, in one or more of the subjects of study specified in subsection 4 hereof, each course extending over a session of not less than five months, either continuous or divided into two terms; or, alternatively, one such course, along with two courses, each extending over a session of not less than two and a half months. 3. During the fifth or final year the candidate shall be engaged in Clinical study for at least nine months at one or more of such public hospitals or dispensaries, British or foreign, as may be recognised for the purpose by the University Court. 4. The candidate must, during his curriculum, have attended a course or courses of instruction in each of the following subjects of study, including such examinations as may be prescribed in the various classes, namely:

Two courses of not less than five months each.—(1) Practical Anatomy. *One course, of not less than five months, in each subject:* (2) Anatomy, (3) Chemistry, (4) Materia Medica and Therapeutics, (5) Physiology (or Institutes of Medicine), (6) Practice of Medicine, (7) Surgery, (8) Midwifery and the Diseases Peculiar to Women and Infants[1], (9) Pathology. *One course of not less than two and a half months in each subject:* (10) Practical Chemistry, (11) Physics (including Dynamics of Solids, Liquids, and Gases, and the rudiments of Sound, Heat, Light, and Elementary Electricity), (12) Elementary Botany, (13) Elementary Zoology, (14) Practical Physiology, (15) Practical Pathology, (16) Medical Jurisprudence and Public Health.

5. Every candidate must have attended for three years the medical and surgical practice of a general hospital recognised by the University course, and must have attended a course of Clinical Surgery and of Clinical Medicine, each extending over not less than nine months. These courses may be conducted by Professors of the University, or by Lecturers appointed for the purpose by the University Court, or by the Ordinary Physicians of the Royal Infirmary, Edinburgh, or of a general hospital defined and recognised as hereinbefore provided, and shall consist of regular instruction at the bedside, along with Clinical Lectures.

6. Every candidate must attend a course of instruction in Mental Diseases, under conditions to be determined by the Senators.

7. The candidate must have attended a course of twenty-five meetings on Practical Pharmacy in a University or recognised School of Medicine, or have dispensed drugs for a period of three months in a hospital or dispensary, or in an establishment recognised by the Pharmaceutical Society.

8. The candidate must have attended, for at least six months, by apprenticeship or otherwise, the out-practice of a hospital, or the practice of a dispensary, or of a physician or surgeon, or of a Member of the London or Dublin Society of Apothecaries. He must have acted as clerk in the medical, and dresser in the surgical, wards of a public hospital; and must also have availed himself, to such an extent as may be required by the Senatus with the approval of the University Courts, of opportunities of studying, at a hospital or dispensary, *post-mortem* Examinations, Fevers, Diseases of Children, Ophthalmology, or such other special departments as may from time to time be determined.

9. The candidate must have attended (*a*) under the superintendence of a registered medical practitioner, twelve cases of labour,[2] or (*b*) attended for three months the practice of a lying-in hospital or a maternity department, and have conducted six labours.[2]

10. The candidate must have been instructed by a Public Vaccinator, at a Public Vaccination Station.

Place of Study.—(1). A candidate for the Edinburgh degree must have spent at least two of the five years of medical study in the University of Edinburgh, a candidate for the Glasgow Degree a like period in the University of Glasgow. (2). Of the sixteen subjects specified above, not less than eight must be attended in a recognised University or College, affiliated to a University entitled to confer the degree of M.D. The remainder may be attended in such medical school or under such teachers as may be recognised by the University of Edinburgh or Glasgow respectively. (3). Candidates attending the lectures of extra-Academical teachers in Edinburgh or Glasgow respectively must enroll their names in a special list kept by these Universities.

PROFESSIONAL EXAMINATION FOR M.B. AND CH.B.

Each candidate shall be examined both in writing and orally, and also clinically where the nature of the subject admits, in the following divisions, namely:—(1) In Botany, Zoology, Physics, and Chemistry. (2) In Anatomy, Physiology, and Materia Medica and Therapeutics. (3) In Pathology and Medical Jurisprudence and Public Health. (4) In Surgery and Clinical Surgery, Practice of Medicine, and Clinical Medicine and Midwifery.

In subjects which admit of practical instruction, the examination shall be such as to test the practical acquirements of the candidate. A candidate who has obtained in a recognised University a degree in Science or Arts after a course of study and examination in Botany, Zoology, Physics, and Chemistry, shall be held to have passed in these subjects.

First Division.—A candidate may present himself for examination in all, or any two, of the subjects of this division after he has attended a full course in each subject.

Second Division.—A candidate who has passed the first division may be admitted to examination in the second division at the end of the third winter session, and may postpone examination in Materia Medica and Therapeutics until the close of the summer session following.

Third Division.—A candidate who has passed the first and second divisions may be admitted to examination in the third division at the end of the fourth winter session, and may postpone Medical Jurisprudence and Public Health until the close of the summer session following.

Fourth or *Final Division.*—A candidate who has passed the three earlier divisions may be admitted to examination in the fourth when he has completed the fifth year of study.

Rejections.—A rejected candidate will not be readmitted to examination until after he has pursued his studies for a time and under conditions prescribed by the Faculty of Medicine. A rejected candidate who has passed sufficiently well in some of the sub-

[1] Two courses of Midwifery, of three months each, provided different departments of Obstetric Medicine be taught in each of the courses, shall be reckoned equivalent to a course of not less than Five Months.

[2] Minimum, which may be increased by the University authorities.

jects of a divisional examination may be excused re-examination in those subjects.

Age, etc.—A candidate must have attained the age of 21 years, and his term of apprenticeship (if any) must have expired.

PROFESSIONAL EXAMINATION FOR THE DEGREE OF M.D.

1. A candidate must be at least 24 years of age, and hold the degrees of M.B. and Ch.B. in the University in which he seeks the degree of M.D., and subsequently to having received the two above-mentioned degrees must have been engaged for one year (*a*) in the medical wards of a hospital, (*b*) in scientific work bearing directly on his profession in a research laboratory, (*c*) in the military or naval medical services, or (*d*) for two years in practice not restricted to surgery.

2. A candidate will be examined in Clinical Medicine, and must present a thesis.

3. An M.B., Ch.B. about to proceed to a colony or foreign country may be admitted to the examination in Clinical Medicine, mentioned in the last paragraph, at any period after obtaining the double degree, but will not be granted the degree of M.D. until he has fulfilled the conditions in paragraph 1, and presented a satisfactory thesis.

PROFESSIONAL EXAMINATION FOR THE DEGREE OF M.CH.

The regulations for the degree of M.Ch. are similar, *mutatis mutandis*, to those for the degree of M.D. The candidate is examined in Surgical Anatomy, Operations on the Dead Body, and Clinical Surgery.

FEES.

The fee to be paid for the Degrees of Bachelor of Medicine and Bachelor of Surgery shall be twenty-two guineas, and the proportion of this sum to be paid by a candidate at each division of the examination shall be regulated from time to time by the University Court. The fee to be paid for the Degree of Doctor of Medicine shall be ten guineas, exclusive of any stamp duty which for the time may be exigible. The fee to be paid for the Degree of Master of Surgery shall be ten guineas.

EXAMINERS.

The Examiners for graduation in Medicine in the University of Edinburgh or Glasgow respectively shall be the Professors in the University, together with such Lecturers in the University and such additional Examiners, to be appointed by the University Court, as the University Court shall deem necessary. Provided that the Court shall make such provisions as will ensure that every Candidate shall be examined in each subject by at least two Examiners, of whom one shall not be a Professor or Lecturer in the University. The examinations shall be conducted under regulations framed by the Senatus, subject to the approval of the University Court.

N.B.—The new ordinances will not apply to students presenting themselves for the Preliminary examination at the beginning of the Winter Session 1892.

UNIVERSITIES OF ABERDEEN AND ST. ANDREWS.

ABERDEEN.—The new ordinance is not available at the time we go to press, but among the more important changes that will be introduced by the new Ordinance, and that should be noted by those beginning their medical studies, are:

1. *Preliminary Examination.*—No extra subjects will be required for M.D. "Before commencing his medical studies, each student must pass a Preliminary Examination in (1) English, (2) Latin, (3) Elementary Mathematics, and (4) Greek or French or German." "The entire examination must be passed at one and the same time, except in the case of students who, prior to the date at which the Ordinance shall come into operation, have passed a portion of the Preliminary Examination of the University, or of a Preliminary Examination recognised by the University."

2. *Curriculum of Study.*—Candidates for the Degree of Bachelor of Medicine and Bachelor of Surgery must engage in Medical Study for at least five years.

Attendance on a Course of Lectures on Physics, of not less than two and a half months, and passing an Examination in the subjects in the Professional Examination will be compulsory.

The *First* Professional Examination will embrace Botany, Zoology, Physics, and Chemistry. Candidates who profess themselves ready to submit to an Examination in these subjects may be admitted to Examination in all or *any two* of these subjects at any Examination held after they have attended a full Course in each of the subjects professed.

The *Preliminary Examination* in October next will be conducted according to the new regulations, and will probably be held early in that month. An examination will also be held in April, 1893.

N.B.—Candidates should apply for the new regulations to the Dean of the Medical Faculty, Aberdeen.

ST. ANDREWS.—The new Ordinance is not available at the time we go to press. The five years' curriculum will take effect. Application for further information should be made to the Secretary at the University.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

STATED examinations for the Licences of the College in Medicine and Midwifery are held in the week following the first Friday in February, May, and November.

THE LICENCE IN MEDICINE.

Registered medical practitioners of the United Kingdom or colonial or foreign medical practitioners registered as such by the General Medical Council may be admitted to examination for the Licences of the College to practise Medicine and Midwifery, on producing satisfactory evidence of character from a Fellow of the College, or from two registered medical practitioners. A candidate qualified as above, but who is of less than five years' standing, must produce certificates of hospital practice, etc., particulars as to which may be obtained on application to the Registrar, J. W. Moore, M.D.

The subjects of examination for the Licence to practise Medicine are—Practice of Medicine, Clinical Medicine, Pathology, Medical Jurisprudence, Midwifery, Hygiene, and Therapeutics.

A candidate qualified as above, but who is of five years' standing, shall be admitted to examination for the Licence of the College, on producing his certificate of registration, with satisfactory references, and shall be exempted from the examination by printed questions.

THE LICENCE IN MIDWIFERY.

Candidates for the Licence in Midwifery, who are not Licentiates in Medicine, may be admitted to examination on producing evidence that they are registered medical practitioners of the United Kingdom; 2. Testimonials as to character; 3. Certificates of having attended (*a*) a course of lectures on Midwifery in a school recognised by the College; (*b*) Practical Midwifery and Diseases of Women, for six months, at a lying-in hospital or maternity recognised by the College; or, where such hospital attendance cannot have been obtained during any period of the candidate's course of study, of having been engaged in Practical Midwifery under the supervision of a registered practitioner, holding a public medical appointment—the certificate, in either case, to state that not less than twenty labour cases have been actually attended.

Any registered medical practitioner of five years' standing, shall be admitted to examination for such Licence in Midwifery on producing his certificate of registration, with satisfactory reference, and he shall have the privilege of being exempted from the examination by printed questions.

FEES FOR THE LICENCES TO PRACTISE MEDICINE AND MIDWIFERY.

Fee for the Licence to practise Medicine, £15 15s., except in the case of Graduates in Arts and Medicine of any University in the United Kingdom, when the fee shall be £5 5s. only. Fee for examination for the Licences in Medicine and Midwifery, if obtained within the interval of a month, £16 16s.—to be lodged in one sum.[1] Fee for special examination for the Licence to practise Medicine, £21. Fee for examination for the Licence to practise Midwifery, £3 3s. Fee for special examination for the Licence to practise Midwifery, £5 5s. The admission fee, less the sum paid to the examiners, will be returned to rejected candidates.

MEMBERSHIP.

Every candidate for the Membership of the College (not admitted before December 12th, 1878), is required to produce satisfactory evidence—1. Of having attained the age of twenty-five

[1] Any candidate who has been rejected at the examination for the Licence in Medicine loses this privilege, and shall be required to pay the full fee of £3 3s. for the Licence in Midwifery.

years. 2. Of being a Licentiate of the College for three years at least, computed from the day on which he shall have subscribed his name on admission as a Licentiate; or a Licentiate of one year's standing, who shall be a Graduate of Arts of a University in the United Kingdom at the time of his obtaining the licence; or a Licentiate of one year's standing who shall be a registered practitioner of seven years' standing at the time of his obtaining the licence. 3. Of moral character and professional conduct from a Fellow or Member of the College, or from a Fellow of one of the Colleges of Physicians of London or of Edinburgh. 4. That he is not engaged in trade; and that he does not dispense medicine, or make any engagement with a chemist or other person for the supply of medicines; and that he does not practise medicine or surgery in partnership. 5. Of having held during at least six months the office of resident physician or resident medical pupil, or of having acted during the same period as medical clinical clerk, in a recognised hospital; or of having been in medical charge for at least twelve months of a public institution for the treatment of the sick.

Every candidate must pass an examination in: 1. Principles of Medicine, including Pathology, Morbid Anatomy, and Medical Chemistry; 2. Practice of Medicine, including Principles of Public Health; 3. Clinical Medicine. The fee for the examination is, £21, which must be lodged in the Royal Bank, Dublin, before the applications and certificates are sent in. The examinations are held in January, April, July, and October.[2]

Candidates who were admitted Licentiates of the College before December 12th, 1878, may be admitted Members of the College, under the following conditions. They shall comply with Clauses 1, 2, 3, and 4, as above stated. They shall satisfy the College that they have, since their admission as Licentiates, obeyed the by-laws of the College. Should the College be satisfied that they have complied with the above regulations, they shall be admitted Members without fee or examination, on taking the declaration required of Members. Should the candidate wish to obtain the parchment diploma of Membership, he shall pay one guinea.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The Licence in Surgery for Registered Practitioners.—The following regulations are applicable only to registered practitioners. Candidates for the Licence in Surgery of the College, independently, are examined at Sessional examinations, which begin on the first Monday in the months of February, May, and November. Special examinations may also be granted by the Council at any time upon cause shown.

Candidates who hold registrable Surgical Diplomas (including the Licence of the Apothecaries' Company of London, granted since October, 1886) will be admitted to examination without further evidence of study. Candidates who hold medical qualifications only (including the Licence of the Apothecaries' Company of London, granted before October, 1886) will be required to produce, in addition to their diploma, certificates of two courses of lectures in Anatomy and of Dissections, one course of Practical Histology, one course of Lectures in Surgery, and one course of Operative Surgery.

Fees.—The fee is £26 5s., or in the case of Special Examination £31 10s., and must be paid at least fourteen days before the day specified for examination; £5 5s. is retained by the College in the case of unsuccessful candidates.

Subjects of Examination.—Candidates are examined in Surgery, Clinical Surgery, Operative Surgery on the Subject, and Surgical Appliances, Ophthalmic Surgery.[1] Each of these examinations is partly written, partly *viva voce*, and partly practical.

Exemptions from Examination.—Licentiates of a Royal College of Surgeons of five years' standing are exempted from the written portions of the examinations.

Licentiates of a College of Physicians, or Graduates in Medicine of a University recognised by the College, and candidates who have passed the examinations required for such qualifications, shall be entitled to be examined only in General and Descriptive Anatomy, Histology, Physiology, the Theory and Practice of Surgery, Operative Surgery, and Surgical Appliances. Licentiate Apothecaries must answer also in Medicine and Midwifery.

Special Examinations.—Candidates seeking a Special Examination must make application to the Council, and show special cause. The subjects and the mode of carrying out a Special Examination are the same as those above laid down. A rejected candidate will not be again admitted to examination until after a period of three months.

FELLOWSHIP REGULATIONS.

A candidate must make application to the President and Council to be admitted to examination, and, if the Council decide to entertain that application, it shall lie on the table for at least a fortnight, for consideration, before it is put to the Council for approval. All the required evidences of study or qualification, fees, and testimonials as to character must be submitted previous to its being so considered, and the candidate shall then, if approved by the Council, be admitted to the next Sessional Examination or to a Special Examination at such date as the President shall fix. Candidates for the Fellowship may either present themselves for the entire examination or may divide the examination under Grade I., as hereinafter set forth, into two parts—Primary and Final.

Primary Examination.—Graduates or Licentiates in Surgery of a University or College recognised by the College will be permitted to present themselves for the Primary part of the Examination at any period after having obtained such qualification, and can subsequently proceed with the Final Examination, as soon as they shall have complied with the requirements as to age, period of study, etc., as set forth in the Charters, By-laws and Ordinances. The subjects of the Primary Examination shall be Anatomy, Dissections, Physiology and Histology; and the Final Examination shall include all other subjects required for Grade I. A candidate for the Final Examination must produce: *a.* Fee as hereinafter stated. *b.* A certificate of general good conduct since the passing of his Primary Examination, signed by two or more Fellows of the College. *c.* Evidence that he is not less than 25 years of age. *d.* A Thesis on some Surgical subject, or Clinical Reports, with observations of six or more Surgical cases, taken by himself, which Thesis or cases shall be laid before the Examiners at his examination. *e.* Declaration by the Candidate that he has not, within three months, been rejected by any Licensing Body. *f.* Evidence that he has been engaged in the acquisition of professional knowledge for a period of not less than six years, during three of which he must have studied in one or more of the schools and hospitals of Great Britain, recognised by the Council.

GRADES OF EXAMINATION.

Candidates for the Fellowship are divided into two grades.

Grade I.—Licentiates or Graduates in Surgery of less than ten years' standing. The examination extends over four days, of which the first two are devoted to the Primary Subjects. Candidates who do not pass the Primary Examination are not allowed to proceed to the Final, and no credit is given on a subsequent occasion for passing a part only of either Primary or Final Examinations. Primary Examination: Anatomy with dissections of Physiology and Histology, Surgery, Surgical Pathology, Clinical Surgery, Operative Surgery.

Grade II.—Licentiates or Graduates in Surgery of more than ten years' standing. Surgical Anatomy, Morbid Anatomy, Surgery, Clinical Surgery, and Operative Surgery.

FEES.

Grade I.—For Licentiates of the College: For Primary Examination, £15 15s.; for Final Examination, £10 10s. For Licentiates in Surgery of other licensing bodies: for Primary Examination, £26 5s.; for Final Examination, £15 15s.

Grade II.—Licentiates of the College, 25 guineas; Licentiates in Surgery of other licensing bodies, 40 guineas. In either case £10 10s. is retained by the College in case of rejection, and is not allowed in the fees of re-examination. In the case of Fellowship Candidates who fail to present themselves for the examination at the time fixed, without having previously given at least a week's notice of their withdrawal, £5 5s. of the fees is retained by the College unless the Council, under special circumstances, order to the contrary.

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[2] The admission fee less the sum paid to the examiners, will be returned to the rejected candidates.

[1] Candidates who commenced study before July, 1879, are exempt from both the Certificate of Study and the Special Ophthalmic Examination, but are liable to be examined by the Surgical Examiners in Ophthalmic Surgery. Those who commenced before February, 1882, are exempt from the Special Examination on producing the certificate of three months' Clinical Ophthalmology required before that date. Those who commenced after February, 1882, must pass the Special Examination.

ROYAL COLLEGE OF SURGEONS, IRELAND, AND THE APOTHECARIES' HALL, IRELAND: CONJOINT EXAMINATION.[1]

The Royal College of Surgeons and the Apothecaries' Hall, Ireland, will continue to examine separately and to grant their diplomas only to candidates who have been registered medical practitioners before July, 1887. All other candidates for the Letters Testimonial of the Royal College of Surgeons, Ireland, or the Licence of Apothecaries' Hall, Ireland, must fulfil the requirements and pass the examinations instituted under the scheme, as follows:

Preliminary Examinations, etc.—Every candidate must produce evidence of having, before entering on medical studies, passed a preliminary examination in general education recognised by the General Medical Council (*q. v.*), and of having been registered by that Council as a student in medicine.

First Professional Examination.—Certificates must be produced—(1) Of having been registered by the Medical Council at least nine months; (2) of having attended winter courses on Practical Anatomy, demonstrations and dissections, and Chemistry; a summer course in Practical Chemistry; of having been engaged in Practical Pharmacy for three months in the compounding department of a clinical hospital, or a school of pharmacy, or in the compounding establishment of a licentiate apothecary. If the candidate has not been examined in physics at the preliminary examination, he must pass in that subject at this examination. Candidates will be examined by written papers and orally in [Physics] Chemistry and Anatomy (that is, Osteology), and in Practical Chemistry in a laboratory. Fee, 12 guineas.

Second Professional Examination.—Certificates must be produced of having, subsequently to the First Professional Examination, attended—(1) a medico-chirurgical hospital for nine months, and of having held a clinical clerkship, or of having taken notes of three medical and three surgical cases; (2) A winter course in Demonstrations and Dissections, Physiology, Surgery; and a summer course of Materia Medica and Practical Physiology, including Histology. Candidates will be examined by written papers in Anatomy, Physiology, Materia Medica, and Pharmacy, orally in these subjects and in hospital practice, and will be required to make a dissection, to prepare microscopical preparations, and to answer questions on naked-eye and microscopic preparations. Fee, 7 guineas.

Third Professsional Examination.—Certificates must be produced of having, subsequently to the Second Professional Examination, attended—(1) a medico-chirurgical hospital for six months as resident, or nine months as extern pupil, and of having taken notes or acted as clinical clerk; (2) a winter course in Demonstrations and Dissections, Medicine, Midwifery and Gynæcology (may be deferred to fourth year); and a summer course in Medical Jurisprudence, and Hygiene. Candidates will be examined by written papers and orally in Anatomy, Surgery, Medicine, and Pathology (Medical and Surgical); they will also be required to make a dissection of a region, and to answer questions on the anatomy of that or other parts. Fee, 7 guineas.

Each candidate before receiving his diplomas must produce evidence that he has attained the age of twenty-one years.

Fourth Professional Examination.—Evidence must be produced of having been registered as a medical student by the General Medical Council at least forty-five months previously, and of having, subsequently to the Third Professional Examination, attended—(1) a medico-chirurgical hospital for nine months as extern pupil, or for six months as resident pupil; (2) a winter course on Midwifery (unless taken in the third year), and the practice of a recognised midwifery hospital or maternity for six months in the third or fourth year, with evidence of having been present at thirty labours; (3) for three months in a clinical hospital containing fever wards; (4) Operative Surgery (in summer session of third or fourth year); (5) Clinical lectures on Ophthalmic and Aural Surgery at a recognised ophthalmic hospital, or the ophthalmic department of a general hospital. Candidates will be examined by written papers and orally in Medicine, Therapeutics, Surgery, Midwifery and Gynæcology, Ophthalmic and Aural Surgery, and Forensic Medicine and Hygiene; they will also be examined clinically in a hospital, and in operative surgery, each candidate being required to perform a major and a minor operation. Fee, seven guineas.

[1] Students who commenced their course on or after January 1st, 1892. will be required to pass through a curriculum extending over five years, and the necessary special regulations will be issued by the Board.

Exemptions.—(1) Fully qualified Licentiates of the College are, at their Final Examination, exempt from examination in Surgery, Forensic Medicine, and Hygiene; Licentiates of the Hall from examination in Medicine; and, in either case, if a registrable diploma in that subject is presented, from examination in Midwifery. (2). Candidates who have passed the First, Second, or Third Professional Examinations respectively, as hitherto conducted by the College, may present themselves for the Second, Third, or Fourth Professional Examination under the conjoint scheme respectively. (3.) Candidates who have passed the first half of the Professional Examination under the old scheme of the College, or the first and second part of the Examination of the Apothecaries' Hall, may present themselves for the Final Examination under the conjoint scheme if they have otherwise complied with its regulations. (4.) Candidates who have passed examinations by the licensing bodies which the Committee of Management may consider equivalent, are exempted from similar examinations under the scheme. (5.) The Committee of Inspection have power to make special exemption in favour of students engaged in study before July 1st, 1887.

Schedules of the subjects of examination, and all further information, may be obtained from the Registrar of the Royal College of Surgeons, or the Registrar of the Apothecaries' Hall, Dublin.

UNIVERSITY OF DUBLIN.

The degrees in Medicine and Surgery granted by the University of Dublin are: 1. Bachelor of Medicine; 2. Doctor of Medicine; 3. Bachelor in Surgery; 4. Master in Surgery; 5. Bachelor in Obstetric Science; 6. Master in Obstetric Science. It also grants diplomas in Medicine, Surgery, and Obstetric Science, and a qualification in State Medicine.

BACHELOR IN MEDICINE.

A candidate for the degree of Bachelor in Medicine must be a Graduate in Arts, have completed the prescribed curriculum of study, and have passed the previous Medical Examination. The medical education is of five (four years for students registered before January 1st, 1892) years' duration, and comprises attendance on a course of each of the following lectures: *Winter*—Anatomy; Practical Anatomy; Chemistry; Institutes of Medicine (Physiology); Practice of Medicine; Pathology. *Summer*—Practical Histology; Practical Chemistry; Materia Medica; Medical Jurisprudence; and Hygiene. *Term Courses*—Physics; Zoology; Botany. Three courses of nine months' attendance on the clinical lectures of Sir Patrick Dun's or other metropolitan hospital recognised by the Board.[1] A certificate of personal attendance on fever cases, with names and dates of cases. Practical instruction in Vaccination. Students who shall have diligently attended the practice of a recognised London or Edinburgh hospital for one year, or of a recognised county infirmary for two years previous to the commencement of their metropolitan medical studies, may be allowed to count those two years as equivalent to one year spent in a recognised metropolitan hospital.

Candidates for the degree of M.B. must pass the Previous Medical Examination and the Bachelor of Medicine Examination.

The *Previous Medical Examination* comprises Botany and Comparative Anatomy; Physics and Chemistry; Descriptive Anatomy and Institutes of Medicine (Practical Histology and Physiology). The examination in descriptive Anatomy includes examination on the dead subject. It is not necessary that the student should pass in all these subjects at the same examination.

A stated Half M.B. Examination is held at the close of the summer session in each year; in addition to which there is an examination in each term before the M.B.

Bachelor of Medicine Examination.—The candidate for the M.B. Examination must have previously passed the Previous Medical Examination in all the subjects, and have lodged with the Medical Registrar, on a certain day to be duly advertised, certificates of attendance upon all the courses of study above prescribed.

Candidates must pass an examination in the following subjects: Physiological Anatomy; Practice of Medicine; Medical Jurisprudence and Hygiene; Pathology; Clinical Medicine; Therapeutics; Mental Disease (if matriculated after December 31st, 1891). The fee for the *Liceat ad Examinandum* is £5; for the degree of M.D., £11.

[1] The following hospitals are recognised:—Sir Patrick Dun's Hospital, Meath Hospital, Dr. Steevens's Hospital, Jervis Street Infirmary, City of Dublin Hospital, Mercer's Hospital, St. Vincent's Hospital, Adelaide Hospital, House of Industry Hospitals, Mater Misericordiæ Hospital, St. Mark's Ophthalmic Hospital, and the National Eye and Ear Infirmary.

DOCTOR IN MEDICINE.

A Doctor in Medicine must be a Bachelor in Medicine of three years' standing, or have been qualified to take the degree of Bachelor in Medicine for three years. He must also read a Thesis publicly before the Regius Professor of Physic, or must undergo an examination before the Regius Professor of Physic. The total amount of fees for this degree is £13.

BACHELOR IN SURGERY.

A Bachelor in Surgery must be a Bachelor in Arts, and have spent four years in the study of Surgery and Anatomy. He must have passed the M.B. Examination before presenting himself at the B.Ch. Examination, having previously completed the prescribed curriculum of study. The curriculum of study comprises the following, in addition to the complete course for the degree of Bachelor in Medicine: Theory of Surgery, Operative Surgery, and Ophthalmic Surgery, each one course; Dissections, two courses. Candidates are required to perform surgical operations on the dead subject, and are examined in Bandaging and Minor Surgery, and in Surgical Pathology. Fee for the *Liceat ad Examinandum*, £5; for the degree of Bachelor in Surgery, £5.

MASTER IN SURGERY.

A Master in Surgery must be a Bachelor in Surgery of the University of Dublin of not less than three years' standing, and must produce satisfactory evidence of having been engaged for not less than two years from the date of his registration in the study or study and practice of his profession. He must then pass an examination in the following subjects:—1. Clinical Surgery; 2. Operative Surgery; 3. Surgical Pathology; 4. Surgery; 5. Surgical Anatomy (on the dead subject). And one of the following optional subjects, namely: 1. Surgery, in one of its recognised branches, namely: Ophthalmic and Aural, Gynæcological, Dental; 2. Mental Disease; 3. Medical Jurisprudence and Hygiene; 4. Advanced Anatomy and Physiology; 5. Comparative Anatomy. Graduates in Surgery of the University of Dublin, of not less than ten years' standing, may be recommended for the degree of M.Ch., by the vote of the Court of Examiners, on such examination as they shall determine. Fee for the degree of Master in Surgery, £11.

BACHELOR IN OBSTETRIC SCIENCE.

A Bachelor in Obstetric Science must be a Bachelor in Arts, and have passed the M.B. Examination. The curriculum comprises the following in addition to the M.B. course: A winter course of lectures in Midwifery; six months' practice at a lying-in hospital or maternity. The examination comprises Gynæcology, Midwifery, and Obstetrical Anatomy. Fee, £1.

MASTER IN OBSTETRIC SCIENCE.

A Master in Obstetric Science must have passed the M.B. and B.Ch. Examinations, and produce evidence of having attended a summer course of Obstetric Medicine and Surgery. Existing Graduates in Medicine, of the standing of M.D., are not required to attend this course. Fee for the degree of Master in Obstetric Science, £5.

UNIVERSITY DIPLOMAS.

The medical courses are the same as for the corresponding degrees, except that attendance on Botany and Comparative Anatomy lectures is not required. A diplomate wishing to become a graduate must complete his Arts course, attend Botany and Comparative Anatomy Lectures, and pass the Previous Medical Examination in these subjects, and pay the degree fees.

MEDICAL AND SURGICAL TRAVELLING PRIZES.

A Prize of £100 is awarded by the Board, in alternate years, to the best answerer at a special examination in Medicine and Surgery, provided that the merit be deemed sufficient. The successful candidate is required to spend three months in the study of Medicine or Surgery, as the case may be, in Berlin, Paris, or Vienna. Before he can obtain the first instalment of £50, he must satisfy the Senior Lecturer that he possesses sufficient knowledge of a Continental language to derive full benefit from the prize. The examination is held in June, and is open to students who have graduated in Medicine or in Surgery, as the case may be, within two years of the examination. The subjects of the Medical Travelling Prize Examination are Clinical Medicine, Practice of Medicine, Therapeutics, Pathology, Obstetric Medicine, and Toxicology. The subjects of the Surgical Travelling Prize Examination are Clinical Surgery, Operative Surgery, Pathology, Surgical Anatomy, and Ophthalmic Surgery. A Travelling Prize in Surgery will be competed for in June, 1892.

ROYAL UNIVERSITY OF IRELAND.

ALL degrees, honours, exhibitions, prizes, and scholarships are open to students of either sex. The following degrees. etc., are conferred in the Faculty of Medicine. In *Medicine*, M.B., M.D. In *Surgery*, B.Ch., M.Ch. In *Obstetrics*, B.A.O., M.A.O. In *Sanitary Science*, a special diploma. In *Mental Disease*, a special diploma.

The course of medical studies is divided into periods of one year each, during each of which the student is required to follow a prescribed curriculum in an institution recognised by the Senate; certificates of attendance on the courses prescribed for the different years must be furnished by candidates for the examinations, and no such certificate will be received unless it attests a *bond fide* attendance on three-fourths of the whole course.[1] The courses in Natural Philosophy, Chemistry, Biology, Anatomy, and Physiology must be attended in institutions having facilities for experimental courses and practical work.

The First Year's Course of medical studies includes (1) Natural Philosophy (six months' course of lectures on three days a week, or a three months' course of lectures on five days a week): (2) Systematic Chemistry (six months) and (at the option of the student) Practical Chemistry (three months); (3) Biology, comprising (*a*) Botany, and (*b*) Zoology, each course to consist of lectures and demonstrations on three days a week for three months (syllabus of these courses are fully given in the Calendar of the University).—*The First Examination* in Medicine includes these subjects, except Practical Chemistry, and in each case consists of (i) a written examination, and (ii) practical work and oral examination; particular importance is attached to the practical parts. A fee of £1 is payable before entering for this examination. Candidates must produce a certificate of registration as medical students. Candidates who, at the First University Examination in Arts, failed to obtain 30 per cent. of the marks assigned to French or German will be required to pass a qualifying examination in those languages. Students who have taken the B.A. in any of the subjects named for the first year's course of medical studies will, upon the production of certificates of attendance in recognised institutions at proper courses of instruction in such subject or subjects, be exempted from attending lectures on, or passing examinations in, such subject or subjects; and any such students who have passed in the three subjects [1, 2, and 3 (*a* and *b*)] shall be entitled at once to enter upon the second year's course of medical subjects, provided in every case that he shall have obtained at such B.A. examinations such marks in those subjects respectively as would have entitled him to have passed. Students may attend Anatomy in the first year of medical studies, and the certificate of such attendance will be accepted as one of the two certificates required in this subject.

The Second Year's Course of medical studies includes (1) Anatomy, systematic and practical; (2) Systematic Physiology; (3) Practical Chemistry, if not already followed in the first year; (4) Pharmacology (materia medica); (4) attendance during a winter session of six months at a medico-chirurgical hospital recognised by the University, and at the clinical lectures delivered therein. No certificate of attendance at any of the above courses will be accepted where such attendance appears to have been given before the completion of the full course prescribed for the first year.—*The Second Examination* in Medicine shall include the subjects (1), (2), (3), and (4) above mentioned. A fee of £1 is payable before entering for this examination.

The Third Year's Course comprises (1) Advanced Systematic Anatomy and Practical Anatomy; (2) Advanced Systematic Physiology and Practical Physiology and Histology;[2] (3) any *one* or *two* of the following: (*a*) Medicine, including Therapeutics and Pathology, (*b*) Surgery, including Therapeutics and Surgical Pathology, (*c*) Midwifery and Diseases of Women and Children, six months; (5) attendance during a winter session of six months, and a summer session of three months at a general hospital recognised by the University and at the clinical lectures therein. There will be at the end of the third year of medical studies *a Special Examination* in the complete course of Anatomy, Physiology, and

[1] Certificates of attendance at night lectures will not be accepted save in the case of medical students registered as such prior to October 1st, 1887, and will not be received from such students for lectures attended after July 31st, 1890.

[2] A three months' laboratory course of two hours, three times a week, is prescribed, and one third at least of this time should be devoted to Practical Physiology; but the two subjects may be attended in separate courses, and one or both may be taken in the second year at the option of the student.

Histology as prescribed above. A fee of £1 is payable before entering for this examination.

The Fourth Year's Course comprises the remaining subjects of the medical curriculum, namely:—(1) Midwifery and Diseases of Women and Children: (2) Mental Diseases (three months' course in a recognised institution where Clinical Instruction on Mental Disease is given); (3) Medical Jurisprudence with Hygiene; (4) Ophthalmology and Otology (a three months' course in a hospital having at least ten beds devoted to the Diseases of the Eye and Ear); (5) Operative Surgery; (6) Attendance during a winter session of six months, and a summer session of three months, at a general hospital recognised by the University, and at the Clinical Lectures therein; (7) Practical Midwifery at a midwifery hospital or dispensary.—*The Examination for the Primary Medical Degrees* is held at the conclusion of the fourth year of medical studies. Candidates are required to produce certain certificates of attendance at hospital practice. Certificates of attendance on lectures or hospital practice will only be received from institutions formally recognised by the Senate. (1) Certificate of attendance at a recognised hospital for three winter sessions, and two summer sessions, as more fully set out above. No hospital attendance will be recognised where such attendance has taken place prior to the completion of a first year of medical studies. (2) A certificate of having attended at a recognised midwifery hospital or dispensary where clinical instruction is given in Diseases of Women and Children, for six months; such attendance to take place not earlier than the fourth year of medical studies. The certificate must state that the candidate has attended 20 labours at least, at 10 at least of which he had personal charge. (3) A certificate of having attended, during a period of three consecutive months, a fever hospital of repute, or the fever wards of a general hospital receiving fever patients, and of having had personal charge of at least 10 fever cases. This attendance must not take place during the period of attendance on Practical Midwifery and Gynæcology. (4) A certificate of having compounded medicine under a licensed apothecary or pharmaceutical chemist directing a public establishment for the general compounding and sale of drugs in a town of about 10,000 inhabitants at least, or under the apothecary of a large general hospital recognised by the University. Certificates of instruction in connection with dispensaries will not be deemed satisfactory. (5) A certificate of having received practical instruction in vaccination stating that the candidate had attended on at least ten days at a place appointed for public vaccination, and had received practical instruction from a public vaccinator. (6) Certificates of attendance on subjects (2) and (4), enumerated above as part of the fourth year's course. (7) A certificate of attendance on a course of operative surgery by a duly appointed lecturer in a recognised school. (8) A certificate of having acted as dresser or clinical clerk in a recognised general hospital for at least two months; such certificates not to be simultaneous. (9) a certificate of having had personal charge of at least six cases of diseases or affections peculiar to women, medical or surgical, in a special hospital or special ward. 10. A certificate of attendance on at least six cases of diseases of childhood. The examination will consist of three parts, each of which must be taken as a whole, namely:—(*a*) Medicine, including therapeutics and pathology, mental diseases, medical jurisprudence, and hygiene; (*b*) Surgery—theoretical, clinical, operative; surgical anatomy, ophthalmology, otology; (*c*) Midwifery—gynæcology, diseases of children. Upon completing satisfactorily his examination in all these three parts the candidate will be granted the degrees of M.B., B.Ch., and B.A.O., together with a certificate setting out that he has passed a qualifying examination in Medicine, Surgery, and Midwifery. The fee for this certificate is £10; the fee for the examination is £2.

Honours.—An honours examination is held in connection with each of the four medical examinations, and in each case subsequently to the corresponding pass examination. In the case of the examination for the primary medical degree the honours examination will be held in each of the three divisions (*a*), (*b*), and (*c*) enumerated above. No one can be admitted to a degree in Medicine who is not fully twenty-one years of age.

Exhibitions.—The following exhibitions may be awarded annually by the Senate. At the First Examination in Medicine, two First Class at £20, and two Second Class at £10. At the Second Examination in Medicine, two First Class at £25, and two Second Class at £15. At the Third Examination in Medicine, two First Class at £30, and two second class at £20. At the Examination for the Primary Medical Degrees, two First Class of £40 each and two Second Class of £25 each. An exhibition will not be awarded to any candidate at the First Examination in Medicine, if a longer interval than three academical years shall have elapsed from the time of matriculation: nor at the Second Examination in Medicine, if a longer interval than two academical years shall have elapsed from the time of passing the First Examination in Medicine; or at the Third Examination, if a longer interval than three academical years shall have elapsed from the time of passing the First Examination in Medicine; or at the Examination for the Primary Medical degrees, if a longer interval than four academical years shall have elapsed from the time of passing the First Examination in Medicine. So long as each examination is held twice annually, not more than one First Class and one Second Class Exhibition shall be awarded in connection with each examination. —Hutchinson Stewart Scholarships,[3] each tenable for three years; one value £10 per annum, for competition in the subject for the Second Examination in Medicine; the other, annual value £50, to graduates of not more than two years' standing, for proficiency in Mental Diseases.

Travelling Medical Scholarship.—A Travelling Scholarship, value £100, will be open to competition at the October Examination in the Faculty of Medicine. In one year the examination for this scholarship will be in Anatomy and Histology, in the next year in Physiology and Pathology. Candidates must have passed the Medical Degrees Examination either in the year of the Scholarship Examination or in the year immediately preceding.

DEGREE OF DOCTOR OF MEDICINE.

Candidates may be admitted to this degree after three academical years from the time of obtaining the degree of M.B.

Candidates must give notice in writing of their intention to present themselves, and must pay the fee of £5 at least one month before the examination, and must produce a certificate of having been, for at least two years, engaged in hospital or private medical or surgical practice, or in the Military or Naval Medical Service.

Every candidate will be examined at the bedside, and required to diagnose at least three medical cases, and prescribe treatment; to write detailed reports on at least two cases to be selected by the examiners, and to discuss all the questions arising thereon. The examination will comprise Medical Diseases and the Theory and Practice of Medicine, including Pathology; and will include (*a*) a written examination, (*b*) an oral examination, (*c*) a clinical examination.

DEGREE OF MASTER OF SURGERY (M.CH.)

This degree is conferred only on graduates of Medicine of the University, and no candidate can be admitted to examination until three years have elapsed from the date of first graduating in Medicine. The fee is £5, and the examination will comprise: (1) Surgical diseases and Surgery, both theoretical and operative; (2) Surgical anatomy; (3) Ophthalmology; (4) Otology, and will include written and clinical examinations, an examination on surgical instruments and appliances, and in operative surgery. Every candidate will be examined at the bedside and required to diagnose at least three surgical cases and prescribe treatment; and to write detailed reports on at least two cases, to be selected by the examiners, and to discuss the questions arising thereupon.

THE MASTERSHIP IN OBSTETRICS.

The degree of "Master of the Art of Obstetrics" (M.A.O.) is conferred only on graduates in Medicine of the University, and no candidate can be admitted until the lapse of three years from the date of obtaining the Primary Medical Degrees. The fee is £5. Every candidate must produce a certificate showing that he has had personal charge of at least twenty cases of labour, and a certificate of having attended the practice of a clinical hospital for women, or a special ward of a general hospital for three months. The examination will comprise the theory and practice of Midwifery, and of Diseases of Women and Children, and will include a written and, as far as practicable, a clinical examination, an oral examination with practical illustrations, including use of instruments and appliances.

NOTES CONCERNING THE HOSPITALS AND MEDICAL SCHOOLS IN LONDON.

We subjoin the points of most interest in the Programmes issued by the several Medical Schools. At each hospital, clinical in-

[3] These scholarships have been suspended owing to failure of the special fund.

(*Continued on page 522.*)

TABLE OF FEES FOR HOSPITAL ATTENDANCE AND LECTURES.

(The letter "s" denotes single course; "p" perpetual or unlimited attendance.)

	ST. BARTHOLOMEW'S.	CHARING CROSS.	ST. GEORGE'S.	GUY'S.	KING'S COLLEGE.	LONDON.	ST. MARY'S.	MIDDLESEX.
COMPOSITION FEE FOR ALL LECTURES AND HOSPITAL PRACTICE REQUIRED BY EXAMINING BOARDS	£157 10s.; or 1st year £42 3nd year £42 3rd year £42 4th year £42 University students who have finishedanatomical studies £84.	£115 10s. in one payment, or£127 1s. in five instalments, namely, 1st win. £34 13s. 1st sum. £23 2s. 2nd win. £23 2s. 2nd sum.£23 2s. 3rd win. £23 2s.	1st year £45 2nd year £45 3rd year £40 4th year £30 Each subsequnt. year £20 (See note)	£150; or 1st win. and 1st sum. each £75 10s; or 1st and 2nd year each 50 gs.; 3rd yr. 30 gs.; 4th yr. 20 gs.	£135; or two years £70 each year; or three years £48 each year; or four years £37 each year.	180 guineas by instalments, or 120 guineas in one payment	£130; or 1st year £40 2nd year £40 3rd year £30 4th year, £25 (See note)	£126 1st win. £63 2nd win. £42 3rd win. £31 10s.
HOSPITAL PRACTICE	*Medical.* 3 mos. £13 2s. 6d. 6 mos. £19 10s. 2 yrs. £26 5s. Unlim. £33 1s. 6d. *Surgical.* 3 mos. £13 2s. 6d. 6 mos. £19 10s. 12 mos. £26 5s. Unlim. £33 1s. 6d	*Med. or Surg.* 3 mos. £5 5s. 6 mos. £7 7s. 12 mos. £10 10s. Full period £21 *Med. and Surg.* 3 mos. £8 8s. 6 mos. £10 10s. 12 mos. £15 15s. Full p. £36 15s.	*Med. or Surg.* 1 year £10 10s. 2 years £21 Perp. £42	*Med. or Surg.* 3 mos. £15 15s. 6 mos. £23 1s. 1 year £28 7s. Perp. £42 *Med. and Surg.* 3 mos. £21 6 mos. £28 7s. 1 year £42 Perp. £73 10s.	*Med. or Surg.* 1 sum. £5 5s. 1 win. £8 8s. 1 year £12 12s. Perp. £31 10s. *Med. and Surg.* 1 sum. £8 8s. 1 win. £11 11s. 1 year £18 18s. Perp. £42	*Med. and Surg.* 3 mos. £10 10s. 6 mos. £15 15s. 12 mos. £31 10s. Perp. £52 10s. *Med. or Surg.* 6 mos. £15 15s. 12 mos. £21 Perp. £26 5s.	*Med. or Surg.* 3 mos. £4 6 mos. £7 12 mos. £12 Perp. £24 *Med. and Surg.* 3 mos. £7 6 mos. £12 12 mos. £20 Perp. £45	*Med. or Surg.* Perp. £ 1 year £15 15s. 6 mos. £8 8s. 3 mos. £5 5s. *Med and Surg.* Perp. £42 1 year £21 6 mos. £12 12s. 3 mos. £8 8s.
FEES FOR STUDENTS OF DENTAL SURGERY	£63; or 1st win. &1st sum each £33 1s. 6d.	£56 14s.; or two instalments of 30 guineas each	£55; or 1st year £30, 2nd year £25	£52 10s.; or 1st year £42, 2nd year £	—	£40 Dent. pr. gen. £10	£50; or 1st year £30 2nd year £25	£56 14s.; or 1st win. £42 2nd win. £21
ANATOMY	*s.* £9 9s. —	£7 7s. —	*s.* £7 7s. *p.* £8 18s. 6d.	*s.* £10 10s. —	*s.* £6 6s. —	*s.* £7 7s. —	£8 —	*s.* £12 12s. Subs. c. £5 5s.
DEMONSTRATIONS AND DISSECTIONS	*s.* £10 10s. — —	£8 8s. — —	*s.* £3 3s. — —	*s.* £10 10s. — —	*s.* £7 7s. — —	*s.* £7 7s. — —	£6 — —	*s.* £6 6s. Subs. c. £3 3s. —
PHYSIOLOGY	*s.* £9 9s. —	£8 8s. —	*s.* £7 7s. *p.* £8 18s. 6d. —	*s.* £10 10s. —	*s.* £8 8s. —	*s.* £7 7s. —	£7 —	*s.* £10 10s. Subs. c. £5 5s.
PRACTICAL PHYSIOLOGY AND HISTOLOGY	(P.P.) *s.* £10 10s. —	*s.* £6 6s. —	(H.) *s.* £3 3s. —	*s.* £10 10s. —	*s.* £5 5s. ext. c. £2 2s. —	*s.* £4 4s. —	£5 —	*s.* £6 6s. Subs. c. £3 3s.
COMPARATIVE ANATOMY	*s.* £2 12s. 6d. *p.* £4 4s. —	— — —	*s.* £4 4s. — —	*s.* £5 5s. — *s.* £5 5s. —	*s.* £4 4s. — *s.* £4 4s. —	*s.* £3 3s. — *s.* £4 4s. —	£3 — £3 —	£3 3s. — — —
BOTANY	— —	— —	— —	— —	— —	— —	— —	— —
CHEMISTRY	*s.* £7 7s. —	*s.* £6 6s. —	*s.* £6 6s. *p.* £7 17s. 6d.	*s.* £5 5s. —	*s.* £8 8s. —	*s.* £7 7s. —	£6 —	*s.* £7 7s. Subs. c. £4 4s.
PRACTICAL CHEMISTRY	*s.* £5 5s. —	*s.* £5 5s. —	*s.* £4 4s. —	*s.* £5 5s. —	*s.* £6 6s. ext. c. £2 2s. —	*s.* £5 5s. —	£4 —	*s.* £5 5s. —
THERAPEUTICS	— —	*s.* £4 4s. —	— —	— —	— —	— —	— —	— —
MATERIA MEDICA	*s.* £7 7s. —	(See note) —	*s.* £4 14s. 6d. *p.* £5 15s. 6d.	*s.* £5 5s. —	*s.* £5 5s. —	*s.* £4 4s. —	£4 —	*s.* £5 5s. Subs. c. £3 3s.
PRACTICAL PHARMACY	— —	*s.* £2 2s. —	*s.* £3 3s. —	*s.* £3 3s. —	— —	*s.* £3 3s. —	3 mos. £3; 6 mos. £6	£3 3s. —
PATHOLOGY AND MORBID ANATOMY	*s.* £7 7s. —	*s.* £4 4s. (See note)	*s.* £3 3s. —	P. £3 3s. M. A. £7 7s.	*s.* £3 3s. —	*s.* £3 3s. —	*s.* £4 —	*s.* £5 5s. Subs. c. £3 3s.
MEDICINE	*s.* £7 7s. —	£7 7s. —	*s.* £7 7s. *p.* £8 18s. 6d. —	*s.* £10 10s. —	*s.* £8 8s. —	*s.* £7 7s. —	*s.* £8 —	*s.* £10 10s. Subs. c. £5 5s.
PRACTICAL MEDICINE	*s.* £5 5s.	*s.w.* £5 5s.	—	—	—	—	—	*s.* £8 8s. Subs. c.
SURGERY	*s.* £7 7s. —	*s.* £7 7s. —	*s.* £7 7s. *p.* £8 18s. 6d. —	*s.* £10 10s. —	*s.* £8 8s. —	*s.* £7 7s. —	*s.* £8 —	*s.* £10 10s. [£4 4s Subs. c. £5 5s.
PRACTICAL SURGERY	*s.* £7 7s. —	*s.* £5 5s. —	*s.* £4 4s. —	*s.* £4 4s. —	*s.* £3 3s. —	£5 5s. —	*s.* £5 —	*s.* £8 8s. Subs. c. £4 4s.
OPERATIVE SURGERY	*s.* £3 3s.	(See note)	*s.* £2 2s.	*s.* £5 5s.	£2 2s.	£5 5s.	£5	*s.* £5 5s.
OPHTHALMIC SURGERY	*s.* £3 3s. —	£3 3s. —	inc. in Surg. —	*s.* £3 3s. —	— —	*s.* £2 2s. —	*s.* £3 —	*s.* £2 2s. —
DENTAL SURGERY	*s.* £2 12s. 6d. *p.* £4 4s.	— —	— —	— —	— —	*s.* £2 2s. —	*s.* £3 —	— —
DENTAL MECHANICS	— —	— —	— —	— —	— —	— —	— —	— —
DENTAL ANATOMY AND PHYSIOLOGY	— —	— —	— —	— —	— —	— —	— —	— —
DENTAL METALLURGY	— —	— —	— —	— —	— —	— —	— —	— —
MIDWIFERY	*s.* £7 7s. —	*s.* £4 4s. —	*s.* £4 14s. 6d. *p.* £5 15s. 6d.	*s.* £5 5s. —	*s.* £5 5s. —	*s.* £5 5s. —	*s.* £5 —	*s.* £6 6s. Subs. c. £3 3s.
FORENSIC MEDICINE	*s.* £4 4s. —	*s.* £4 4s. —	*s.* £4 14s. 6d. *p.* £5 15s. 6d.	*s.* £5 5s. —	*s.* £5 5s. —	*s.* £4 4s. —	*s.* £4 —	*s.* £5 5s. Subs. c. £3 3s.
PSYCHOLOGY	*s.* £3 3s. —	£4 4s. —	— —	*s.* £3 3s. —	Free —	£3 3s. —	— —	*s.* £2 2s. —
PUBLIC HEALTH OR HYGIENE	*s.* £3 3s.	£3 3s.	—	*s.* £3 3s.	(See note)	(See note)	3 mos. £2	—
MENTAL PHYSIOLOGY	—	—	—	*s.* £3 3s.	Free	—	—	—
INSTRUCTION IN VACCINATION	—	—	by public Vac.	—	by public Vac.	£1 1s.	£1 1s.	£1 1s.
LIBRARY	Free	£1 1s.	Each yr. 10s. 6d. comp. £2 10s.	Free	Free	Free	£1 1s.	£1 1s.

ADDITIONAL NOTES.

ST. BARTHOLOMEW'S HOSPITAL.—The Composition Fee includes Biology, Ophthalmic and Dental Surgery, Mental Diseases, and Public Health, attendance at a lunatic asylum, and all hospital practice and appointments. University students who have passed their Anatomical and Physiological Examinations pay £84, or instalments of £36 15s., £26 5s., and £23 5s. Fee to Qualified Practitioner, for all courses of instruction, £15 15s.

CHARING CROSS HOSPITAL.—Anatomical and Operative Surgery parts, each 12s. 6d. Use of microscopes to students not possessing their own, £1 1s. Second course of practical classes, £2 2s. A proportionate reduction of the fees will be made to those students who have completed part of the curriculum elsewhere.

ST. GEORGE'S HOSPITAL.—Perpetual students pay £145 at entrance; or 1st and 2nd years, each £45; 3rd year £40; 4th year £20. Second year students pay £110, or instalments of £50, £45, and £20. Third year students pay £85, or instalments of £40, £30, and £20. The payments for courses required by the examining boards do not confer the privileges of perpetual students. Extra payment is required for Practical Pharmacy; Practical Chemistry; Subjects for Dissection (£3 3s.); Operative Surgery; Library; and Comparative Anatomy.

GUY'S HOSPITAL.—Perpetual fee, £150; students entering in second year, £130; in third year £80—Biology, £10 10s.; Experimental Physics and Morbid Histology, each £5 5s.; Practical Medicine, £4 4s.—Extra Fees: Practical Chemistry, £1 1s.; Biology, £1 1s. The library fee (£1 1s.) is returned when the student leaves the hospital. Medical Graduates of a University, and doubly qualified Practitioners, are admitted to Hospital Practice on following terms: three months, £7 7s.; six months, £10 10s.; unlimited, £15 15s.

KING'S COLLEGE.—If a course of Preliminary Science be included, the Composition Fee is one sum, £148; or two yearly instalments of £76; or three of £52; or four of £41 each. Without Preliminary Science, £135 in one sum; or

TABLE OF FEES FOR HOSPITAL ATTENDANCE AND LECTURES

(The letter "s" denotes single course: "p" perpetual or unlimited attendance.)

ST. THOMAS'S.	UNIVERSITY COLLEGE.	WESTMINSTER.	MASON COLL., BIRMINGHAM.	BRISTOL MEDICAL SCHOOL.	LEEDS.	UNIVERS. COLL. LIVERPOOL.	OWENS COLL., MANCHESTER.	UNIVERSITY OF DURHAM COLL. OF MED.	SHEFFIELD.
£150; or On entr. £85 2nd year, £72 10s. or, 1st year, £65 2nd year, £50 3rd year, £30 4th year, £12 10s.	£136 10s.; or 1st year £63 2nd yr. £52 10s. 3rd year £26 5s.	£115; or 1st win. £60 2nd win. £60 or 6 payments of £27 and £17 alternately	Lect. £63; or 1st year £31 10s. 2nd year £31 10s. *plus* entrance fees, £3 3s. Without preliminary subjects, £52 10s.	Lect. £57 15s. or including preliminary subjects, £68 5s.; or *plus* Hospital Practice, and exclusive of Biology 1st sess. £36 15s. or £42 2nd sess. £26 5s. or £21	Lect. £63; or 1st year £31 10s. 2nd year £31 10s. 18 mos. £15 15s. 3 years £21 F. course £26 5s.	Lect. £63, or in two equal instalments For Victoria Science Classes £24 15s., Medical Classes £63	Lect. £70 in two instalments 1st year £35 2nd year £35	£68 5s.; or 2 instalments, 1s' £42; 2nd £36 15s.; or 3 instalments; 1st £36 15s., 2nd £26 5s.; 3rd £21.	—
Med. and Surg. 3 mos. £21 6 mos. £26 5s. 12 mos. £36 15s. Perp. £73 10s. *Med. or Surg.* 3 mos. £15 15s. 6 mos. £21 12 mos. £26 5s.	*Med and Surg.* Perp. £36 15s. 1 year £21 For shorter periods at proportionate fees	*Med. or Surg.* 3 mos. £5 5s. 6 mos. £8 8s. Each subsequt. 6 mos. £6 6s. *Med. and Surg.* 3 mos. £8 8s. 6 mos. £14 14s. 12 mos. £21 3 years £42	*General and Queen's Hospitls.* 4 years £42, or in two equal sums 1 year £21 6 mos. £14 3 mos. £10	*Royal Infirm. Med or Surg.* 6 mos. £7 7s. 1 year £12 12s. Perp. £21 *Med. and Surg.* 1 year £21 Perp. £36 15s. *Gen. Hosp. Med or Surg.* 6 mos. £6 1 year £10 Perp. £20	*Infirmary. Med. or Surg.* 1 win. £7 7s. 1 sum. £6 6s. 12 mos. £12 12s. *plus* Hospital Practice, and exclusive of Biology	*Royal Infirm.* Perp. £42 or in two equal instalments *Medical.* 3 mos. £3 15s. 6 mos. £6 6s. 12 mos. £7 7s. *Surgical.* 3 mos £5 5s. 6 mos. £7 7s. 12 mos. £10	*Royal Infirm.* Full per. £42; or 2 instlmnts. £22 *Medical.* 3 mos. £4 4s. 6 mos. £6 6s. 12 mos. £10 10s. Full per. £18 18s. *Surgical.* 3 mos. £6 6s. 6 mos. £9 9s. 12 mos. £12 12s. Full per. £31 10s. £10 10s. for full period.	*Infirmary.* 3 mos. £7 7s. 6 mos. £10 10s. 12 mos. £14 14s. Perp. £32 11s.; or 1st year £14 14s.; 2nd year £12 12s.; 3rd year £8 8s.; or 1st year £16 16s.; 2nd year £16 16s. College £42, Infirmary £19 19s.	*Gen. Infirm. or Public Hospitl. Med. or Surg.* Win. £6 6s. Sum. £3 3s. Perpetual Medical and Surgical fee, £40; or in two payments of £26 and £22.
£65; or 1st year £55 2nd year £15 £10 10s. — — 12 mos. £10 10s. — £10 10s. — — £10 10s. — *s.* £22 2s. — — *s.* £3 3s. — — *s.* £7 7s. — — *s.* £6 6s. (extras) — — £5 5s. — — 3 mos. £3 3s. — — — £8 8s. — *s.* £7 7s. — *s.* £6 6s. (extras) — — *s.* £5 5s. — *s.* £3 3s. — — — — — — — — £6 6s. — — £5 5s. — —	£52 10s.; or £68 5s. according to requirements *s.* £10 10s. *p.* £12 12s. 3 mos. £4 4s. 1 year £8 8s. — £11 11s. Elem. £5 5s. £9 9s. — *s.* £6 6s. — — *s.* £3 3s. 6d. *v.* £5 5s. — *s.* £6 6s. Sec. c. £1 1s. *s.* £5 5s. Sec. c. £2 2s. — — *s.* £6 6s. *p.* £7 7s. 3 mos. £3 3s. — — *s.* £6 6s. *p.* £7 7s. *s.* £9 9s. *p.* £11 11s. — — *s.* £7 7s. — *s.* £8 8s. — *s.* £6 6s. Sec. c. £4 4s. *s.* £5 5s. *s.* £3 3s. — — — — — — — — *s.* £6 6s. *p.* £7 7s. *s.* £5 5s. *s.* £3 3s. — — — — — — — —

(Continued from page 521.)

struction in Medicine, Surgery, and Midwifery is given in the wards and in the out-patient departments; and also in various special departments. All hospital appointments, except where otherwise specified, are made without extra fee.

ST. BARTHOLOMEW'S HOSPITAL.—*The Hospital* comprises 750 beds; 227 for Medical cases, 353 for Surgical cases, 26 for Diseases of the Eye, 20 for Diseases of Women, and 50 for Syphilitic cases; while 75 are at the Convalescent Hospital at Swanley. Children are admitted into both the medical and the surgical wards.

Museums, etc.—The Anatomical Museum, and the Museums of Pathology and of Materia Medica and of Botany, are open to students daily from 10 A.M. to 4 P.M. The Library is open every day from 9 to 5, except one week of the Christmas vacation and one month in the long vacation.

Lecture Theatres, Laboratories, etc.—The Medical School contains, in addition to the Library and Museum, an anatomical, a medical, and a chemical lecture theatre, a large dissecting room, physiological, pathological, chemical, and bacteriological laboratories, as well as smaller classrooms. Two new laboratories for practical biology and three rooms for physical and bacteriological work in connection with public health have recently been constructed for carrying on the laboratory work required in biology and in public health under the new regulations of the examining boards.

College.—Students attending the hospital or medical school are admitted to residence on the recommendation of a medical officer of the hospital; and such recommendation may be obtained by commencing students on adducing satisfactory evidence of good moral character. The entrance fee is £2 2s.; and a deposit of £3 3s. is required, which will be returned to the student on leaving the College, subject to deduction of whole or part for wilful damage of furniture. Resident students are expected to dine in the hall every day.

Special Departments, etc.—Surgical consultations are held on Thursdays at 1.30. Medical casualty patients are attended by the Junior Assistant Physician, the Casualty Physicians (Dr. Bedford Pearce, Dr. Andrews, and Dr. Hamer), and the House-Physicians; the surgical casualty patients, by the two Junior Assistant-Surgeons and the House-Surgeons and Dressers. Dr. Champneys teaches Prac-

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To the sons of medical men a reduction of £15 15s. is made for the Perpetual Fee.

ST. MARY'S HOSPITAL.—*Table of Fees.*—Fee for unlimited attendance on the Hospital Practice and all Lectures and Demonstrations given in the School, £130, paid on entering the School; or £135 in instalments of £40 at the commencement of the first and second years, £30 at the commencement of the third year, and £25 at the commencement of the fourth; or, including board and residence in the Residential College—first year, £100; second year, £100; third year, £90; fourth year, £85. *Fees for Separate Classes.*—Separate courses of Lectures may be attended on the following terms: Anatomy, Medicine, Surgery, each £8; Physiology, £7; Chemistry, £6; Histology, Midwifery, Practical Surgery, each £5; Pathology, Forensic Medicine, Materia Medica, Practical Chemistry, each £4; Botany, Comparative Anatomy, each £3; Hygiene, £2. Practical Hygiene, six months, £12 12s.

Fees for Attendance on Hospital Practice.

	Medicine.	Surgery.	Medicine and Surgery.
	£ s. d.	£ s. d.	£ s. d.
For 3 Months' Attendance	4 0 0	4 0 0	7 0 0
,, 6 ,, ,, ...	7 0 0	7 0 0	12 0 0
,, 12 ,, ,, ...	12 0 0	12 0 0	20 0 0
,, Unlimited ,, ...	24 0 0	24 0 0	45 0 0

For attendance on the Medical, Obstetric, or Surgical Tutor's Class for a period of three months, each £3. Fee for use of Dissecting Room and attendance on Demonstrations, £6 for the session. Fee for Work in Laboratory of Practical Hygiene, £3 per month. For attendance for three months on each of the Special Departments in Hospital of Ophthalmic, Cutaneous, Obstetric, Aural, Dental, or Throat Diseases, £3. Students who have kept a portion of the course of Medical Study at Oxford or Cambridge are admitted as pupils on payment of £36 5s. for each year of attendance at the School; or £36 5s., including board and residence in the Residential College. Qualified Medical men are admitted to unlimited attendance on Hospital practice at a fee of £15 15s.

MIDDLESEX HOSPITAL.—The Composition Fee of £126 includes all the Lectures required by the London Licensing Boards, one course of Practical Chemistry, and two courses of Dissections, the use of the Library, and the instruction of the Tutors. When payment is made by instalments, additional fees must be paid after the fourth year. Members of Universities recognised by the General Medical Council who have completed their Anatomical and Physiological studies. The fee for admission as general students is 70 guineas in one sum, or by instalments of 40 guineas on entrance and 35 guineas at the beginning of the second year. Occasional pupils entering to the Hospital Practice pay a registration fee of £1 6s. Parts to dissection, each session, £2 2s. Practical Medicine, one course, £3 3s.; subsequent course, £4 4s. Practical Midwifery, one course, £5 5s.; subsequent course, £2 2s. Instruction in Anæsthetics, £1 1s.

ST. THOMAS'S HOSPITAL.—Perpetual Fee for students entering for Lectures and Hospital Practice of the second and subsequent years, £130 in one sum; or, 2nd year, £52 10s.; 3rd year, £42; 4th year, £42; for students entering for Lectures and Hospital Practice of the third and subsequent years, £80 on entrance; or £52 10s., and the next year £31 10s. Qualified medical practitioners are admitted to Hospital Practice and Lectures on payment of £15 15s. for unlimited attendance. Special courses, not included in the Composition Fee: Botany, £3 3s.; Comparative Anatomy, £2 2s.; Operative Surgery, for University and Fellowship Examinations, £5 5s.; Operative Surgery of the Eye, £2 2s.; Advanced Anatomy, Advanced Physiology, for University and Fellowship Examinations, £6 6s. each; Laboratory Instruction for the Diplomas in Public Health, £21 or £6 6s.; Laryngology £3 3s. (to non-students).

UNIVERSITY COLLEGE.—Composition Fees for the entire Medical Education required by the Examining Board in England and the Society of Apothecaries, 130 guineas; or first year, 60 guineas; second year, 50 guineas; third year, 25 guineas. For students who do not require to attend Chemistry, Pharmacy, and Elementary Biology at a Medical School (under the regulations of the Examining Board in England), 112 guineas; or first year, 50 guineas; second year, 40 guineas; third year, 27 guineas. For the whole course of instruction for the Intermediate Examination in Medicine of the University of London, 50 guineas, in one sum. For the course of instruction for the Final M.B. Examination of the University of London, 70 guineas, in one sum; or first year, 40 guineas; second year, 32 guineas. Composition Fee for Dental Students for the courses required for the L.D.S., £6 guineas; or, exclusive of Chemistry, Practical Chemistry, Physics, and Materia Medica, 50 guineas. For the whole course of instruction for the Preliminary Scientific (M.B.) Examination of the University of London, 35 guineas.

WESTMINSTER HOSPITAL.—Students who have completed a year of study elsewhere pay £30 on entrance, or two instalments of £42 each, or three payments of £30 each. Students who have completed their Anatomical and Physiological Studies can enter for hospital practice and lectures on practical subjects by paying £64 on entrance, or two instalments of £34 each. These payments do not include Lectures on Experimental Physics or Comparative Anatomy, nor the special course of Operative Surgery. Graduates of Medicine of Colonial and Foreign Universities may be admitted to Hospital Practice and Lectures on payment of £12 12s. Dental Students pay 50 guineas on entrance, or two instalments of £30 and £26. Elementary Anatomy in summer, £2 2s.; Histology (in summer) one course, £6 6s.; Minor Surgery and Bandaging, £1 11s. 6d., two courses, £2 2s.; Diseases of Skin, £1 1s. Aural Surgery, £1 1s. Obstetric, Ophthalmic, Aural, Skin, or Dental Clinical Departments, 3 months, £2 2s.; 6 months, £3 3s. General students may attend additional courses of lectures on all subjects except Normal Histology, Morbid Histology, and Practical Chemistry, for a second course for each of which a fee of £2 2s. is charged. Special Clinical Departments, and Lectures on Comparative Anatomy, Insanity, Ophthalmic, Aural, and Dental Surgery, Diseases of Skin, and Comparative Anatomy, are free to general students, unless a special certificate be required.

QUEEN'S COLLEGE, BIRMINGHAM.—Students who have paid the Composition Fee, and desire to repeat attendance in any class beyond the ordinary requirements of the examining bodies, can do so on payment of half the stated fee for each class. Dissection after second winter, 3 months, £2 2s.; 6 months £3 3s. (including parts for dissection). A fee of £1 1s. is charged for apparatus in the classes of Practical Physiology and Practical Pathology; and one of 10s. 6d. for that of Operative Surgery. Advanced Practical Physiology, £2 2s. Elementary Physiology, £1 1s. Every dissecting student pays a fee of £1 11s. 6d. at the beginning of each winter session for parts.

BRISTOL MEDICAL SCHOOL.—Students of Anatomy, Physiology, Chemistry, Practical Chemistry, or Materia Medica pay a Medical Tutor Fee of £3 3s. per annum; this (for 2 years) is included in the Composition Fee. Students not belonging to the Anatomical Class may dissect on paying £5 5s. each session, besides Tutor's fee. *Royal Infirmary:* Museum fee £3 3s. on entrance; and £1 1s. on entrance to Library; Clinical Clerk or Dresser, 6 months, £5 5s.; Obstetric Clerk, 3 months, £3 3s.—*General Hospital:* Extra fee for Clerk or Dresser, £5 5s. for 6 months; for Obstetric Clerk, £3 3s. for 3 months. Library, £1 1s. on entrance only.

YORKSHIRE COLLEGE: LEEDS SCHOOL OF MEDICINE.—An Entrance Fee of £1 1s. is paid by students who do not pay a Composition Fee. The Composition Fee admits for six years to the lectures required by the English medical corporations and to one course each of Mental Diseases, Ophthalmology, and Hygiene. Diseases of Women and Children, £2 2s.; with Midwifery, £5 5s. Morbid Histology, £3 3s. Dissecting-room for students not attending the course on Descriptive Anatomy, 3 months, £2 2s.; 6 months, £3 3s.

LIVERPOOL UNIVERSITY COLLEGE (ROYAL INFIRMARY) SCHOOL OF MEDICINE.—The Composition Fee includes Library and Ophthalmology. The aggregate fee of £105 for Lectures and Hospital Practice is exclusive of Biology (£6); Vaccination (£1 1s.); Dissecting-room expenses (about £3 3s.); Practical Anatomy in summer (£2 2s.); and Practical Pharmacy (£2 2s.); Practical Midwifery at the Ladies' Charity and Lying-in Hospital, £2 2s. Practical Pathological Histology, each course, £2 2s. Diseases of Children, £1 1s. Practical Toxicology, £3 3s. Composition Fee for the classes in Chemistry, Biology, and Physics required for the Universities, £24 15s. Summer Anatomy, Pathological Histology, and Practical Toxicology are now in the £63 complete fee.

OWENS COLLEGE, MEDICAL DEPARTMENT.—The Composition Fee admits to the full course of study required for the ordinary qualifications in Medicine and Surgery. *It does not include* Hospital Practice. Practical Anatomy, (after two sessions), 3 months, £2 2s.; 6 months, £3 3s.; Operative Surgery (special course), £4 4s.; Practical Pharmacy, £3 3s.; Practical Zoology fees according to length of course and number of days per week; Practical Toxicology, £3 3s. Comparative Embryology, £5 5s.; Comparative Anatomy of the Vertebrates, £2 2s.; Botany (Lectures and Practical Course), £3 13s. 6d.; Demonstration class in Anatomy, £2 2s., to members of Practical Anatomy Class, £1 1s.; Deposit Fee (Dissection), £2 2s.; Practical Organic Chemistry, £2 2s.; Sanitary Chemistry, £4 4s.; Pathological Laboratory (6 hours weekly), 3 months, £3 3s.; 6 months, £5 5s.—Practical Physiology and Histology, extended course (October to end of July), six days per week, £17 17s.; four days, £13 13s.; three days, £10 10s.; two days, £7 7s.; one day, £4 4s. Students entering at or after Christmas pay two-thirds of the fees, if they enter for not less than two days a week. For shorter periods the fees, entitling the student to work every day in the week, are, six months, £15 15s.; three months, £9 9s.; one month, £4 4s.—Chemistry: Laboratory classes according to length of course and number of days.—Zoological Laboratory special courses, fees as for extended course of Practical Physiology.—Obstetric Practice at St. Mary's Hospital, £2 2s.—Practical Pathology for Medical Men (summer), £2 2s.—Practical Anatomy in summer, £2 2s. Operative Dentistry, £3 3s. An extra charge of 5s. is made for use of microscopes in several of the practical classes.

tical Gynæcology in the Wards for Diseases of Women on Tuesdays, Thursdays, and Saturdays, at 2 P.M. The Lecturer on Morbid Anatomy gives a demonstration of morbid specimens (medical) at 11 on Fridays. The Demonstrator of Surgical Pathology gives a demonstration of Surgical Morbid Specimens every Tuesday at 11. Inspections are made in the Pathological theatre: medical cases by Dr. Norman Moore or Dr. J. A. Ormerod, at 1 P.M.; surgical cases by Mr. Lockwood, at 1.45. Microscopic specimens are demonstrated every Friday at 4.15 by the Lecturer on Morbid Anatomy and the Surgical Registrar. The Ophthalmic Wards are visited at 1.30 on Tuesdays and Thursdays by Mr. Power, and at 2 on Mondays, Thursdays, and Saturdays by Mr. Vernon; the ophthalmic out-patients are seen at 2 o'clock on Tuesdays and Thursdays by Mr. Power, and at 2.30 on Tuesdays and Saturdays by Mr. Vernon. Systematic courses of Clinical Demonstrations in Ophthalmic Surgery are given throughout the winter and summer sessions. Mr. Vernon gives Ophthalmoscopic Demonstrations at 2 P.M. on Mondays in the winter session. Mr. Walsham sees orthopædic cases at 2.30 on Mondays, and Mr. Butlin patients with diseases of the larynx at 2.30 on Fridays. Demonstrations of Operative Surgery are given by the Demonstrators of Anatomy and Operative Surgery throughout the year. Mr. Mills gives three months' courses of instruction on the administration of anæsthetics. Dr. Lewis Jones attends in the Electric Department at 1.30 P.M. on Mondays, Tuesdays, Thursdays, and Fridays, and gives systematic instruction. Arrangements have been made for students in their fifth year to attend Clinical Demonstrations at a large public asylum.

Appointments.—Eight House-Physicians and ten House-Surgeons (who must be qualified to practise), and a Senior and a Junior Assistant-Chloroformist, are appointed annually. A Resident Midwifery Assistant and an Ophthalmic House-Surgeon are appointed every six months. Each of these officers receives a salary of £25 a year, except the Senior Assistant-Chloroformist, who receives £50. All, except the eight Junior House-Physicians and House-Surgeons, are provided with rooms. The Clinical Clerks to the medical in-patients and the Clerks to the Physician-Accoucheur are chosen from the most diligent students. Clerks and dressers are also selected to attend in the out-patient rooms and in the special departments and in the *post-mortem* room. Dressers to the surgical in-patients and the surgical casualty department are selected from the most diligent students. No fee is required for any of the above appointments.

Exhibitions, Scholarships, and Prizes.—Two senior open Scholarships in Science, value of each £75, tenable for one year, to be competed for on September 25th; candidates must be under twenty-five years of age. The subjects are Physics and Chemistry for one, Physiology and Biology for the other. Two Junior open Scholarships, value £150 and £50, will be competed for at the same time in the subjects of the London University Preliminary Scientific Examination. Candidates must be under twenty years of age. The successful candidates must enter at St. Bartholomew's Hospital in the October succeeding the examination. Jeaffreson Exhibition: £20; examination on September 28th; subjects, Latin, Mathematics, and any one of the following languages—Greek, French, German. Candidates for the open Scholarships and the Jeaffreson Exhibition must not have entered to the hospital practice of any metropolitan medical school. *First Year:* Four Junior Scholarships, of the value of £30, £20, £25, and £15, after the general examination in first year's subjects at the end of the winter and summer sessions. Candidates, who must not have previously entered at a metropolitan medical school, must have been students at the Hospital for not more than one complete winter and summer session. Treasurer's Prize for Practical Anatomy, junior. *Second Year:* Foster Prize for Practical Anatomy, senior. Harvey Prize for Practical Physiology. *Second or Third Year:* Senior Scholarship, value £50, in Anatomy, Physiology, and Chemistry. Shuter Scholarship, value £50; subjects, Anatomy, Physiology, and Materia Medica. Candidates must be Graduates in Arts of the University of Cambridge, who have not graduated in Medicine or Surgery. Wix Prize: subject, The Life and Works of Trousseau. Hichens Prize: subject, Bishop Butler's *Analogy*. Skynner Prize, for students of not longer standing than one year from qualification: subjects, Regional and Morbid Anatomy, including reference to Scarlet Fever and Rheumatic Fever. Two Brackenbury Scholarships (interest of £2,000) in Medicine and Surgery. Sir George Burrows Prize, £15 for Pathology. Bentley Prize, for the best report of not less than twelve medical or twelve surgical cases occurring in the Hospital during the previous year. The Kirkes Scholarship of £30, with Gold Medal, for Clinical Medicine, open to students of not less than two or not more than five years' standing. *Third or Fourth Year:* Lawrence Scholarship and Gold Medal, value £42; subjects, Medicine, Surgery, and Midwifery. Candidates for the Lawrence and Brackenbury Scholarships may compete after the end of the third winter session, within a limited period after completing their examination in Anatomy and Physiology.

Examinations.—Students preparing for their examinations are arranged in classes, and examined by the lecturers, demonstrators, and tutors.

Preliminary Scientific Class.—A special Class in Animal and Vegetable Biology, Chemistry and Physics for students seeking degrees in the University of London is held daily in the chemical, biological, and physical laboratories, and in the lecture theatres, and consists of systematic instruction in these subjects extending over both winter and summer sessions. Special arrangements are made for students seeking honours.

The Abernethian Society, composed of the teachers and students of the Hospital, meets every Thursday at 8 P.M. during the winter. The Abernethian Reading-room is for the exclusive use of members of the Society.

Communications regarding the Hospital and Medical College must be addressed to Dr. T. W. Shore, Warden of the College, St. Bartholomew's Hospital.

Charing Cross Hospital.—*The Hospital* contains 180 beds. Students are also admitted to the practice of the Royal Westminster Ophthalmic Hospital, which contains 30 beds.

The Library is open daily from 10 A.M. to 5 P.M., except on Saturdays, when it is closed at 1 P.M. The *Museum* is open from 10 to 4.

Appointments.—A Medical and a Surgical Registrar, each with a salary of £40 a year, are appointed for twelve months. Two House-Physicians, two House-Surgeons, and a resident Obstetrical Officer are appointed by competitive examination for six months. They are entitled to rooms and commons in the hospital. An Electrical Assistant is appointed every six months, and receives an honorarium of £12 12s. at the end of his term of office. Assistant Demonstratorships of Anatomy, Chemistry, Pathology, Physiology, Medicine, and Surgery are also open to the students. Clinical Clerks and Dressers, Clinical Ward Clerks and Pathological Assistants are appointed for three months. Each student must hold an In-patient Clerkship and In- and Out-patient Dressership, after the second professional examination, in order to obtain certificates of hospital attendance. Students may serve as assistants to the Dental Surgeon for three months.

Scholarships, Medals, and Prizes.—Two Entrance Scholarships, of the value of 100 guineas and 50 guineas respectively, are awarded annually at the commencement of each Winter Session, after a competitive examination in the following groups of subjects: 1, English, including Language, Literature, History, and Geography; 2, Latin and Greek; 3, French and German; 4, Mathematics, including Arithmetic, Algebra, and Geometry; and Mechanics, including Statics and Dynamics; 5, Chemistry (Inorganic) and Physics, including Acoustics, Heat, and Electricity; and 6, Animal and Vegetable Biology. The value attached to each group of subjects is 1,000 marks. No candidate may offer himself for examination in more than three of the above groups of subjects, the selection of the groups being left entirely to the candidate. Intending candidates must give notice before September 17th. The Examination will commence at the School on Monday, September 19th. The successful candidates must enter forthwith for their complete medical education at the Hospital. A Scholarship of the value of 50 guineas is open to students from the University of Oxford who have passed the First M.B. Examination, and to students of the University of Cambridge who have passed the Second M.B. Examination, and who have not entered at any London Medical school. Subjects: Anatomy and Physiology, including Histology. The examination for this Scholarship, which will be largely practical, will be held on September 19th and 20th. Notice to compete must be sent in on or before Saturday, September 17th. The successful candidate will be required to complete his curriculum at Charing Cross Hospital. The Llewellyn Scholarship of £25, open to all general students who have completed their attendance on lectures; examination in Descriptive and Surgical Anatomy, Physiology, Materia Medica, Medicine,

Surgery, Therapeutics, and Midwifery. The Golding Scholarship, £15, open to all general and dental students who have just completed their first year; subjects of examination, Descriptive Anatomy, Physiology, and Chemistry (Theoretical and Practical). The Pereira Prize of £5, to general students who have completed the third year, for the best clinical reports of casesin the hospital (surgical in 1892). The Governors' Clinical Gold Medal; examination on subjects of clinical lectures during the session, and on medical and surgical cases in the hospital. Silver and Bronze Medals, or an equivalent in books, and Certificates of Honour in all the classes. Prizes of six guineas and four guineas are given by the Lecturer on Dental Surgery. The Lecturers on Physiology and on Pathology will give prizes for the best notebooks and set of specimens.

In consequence of the larger number of students year by year joining the School, it was found necessary, in 1889, to increase the accommodation for practical instruction. The adjoining premises were therefore acquired, and on the space thus gained there have now been erected new buildings, including Physiological and Pathological Laboratories, Materia Medica Museum, and Anatomical Theatre. The existing Dissecting Room and the Chemical Theatre have been enlarged. A larger and well-lighted room has been provided for the Pathological Museum, and the space thus set free has been devoted partly to enlargement of the Library, but chiefly to the providing of a reading room for the Students' Club.

Four new systematic courses of instruction have been established, and the following appointments have been made in connection with them: Biology, Mr. Chalmers Mitchell, of Christ Church, Oxford; Psychological Medicine, Dr. Hack Tuke; Practical Midwifery, Dr. Amand Routh; and Ophthalmology by arrangement with the staff of the Westminster Ophthalmic Hospital.

Mr. Sheild has succeeded Mr. Morgan as Lecturer on Surgical Pathology, and Dr. Arkle has been appointed Curator of the Museum and Pathologist. Mr. Dudley Johnston succeeds Mr. Harold as Senior Demonstrator of Physiology; Mr. Charles Gibbs has been appointed a Demonstrator of Anatomy, and Mr. Collum Surgical Registrar.

Information may be had of the Dean, Mr. Stanley Boyd.

St. George's Hospital.—*The Hospital* contains 351 beds, of which 205 are devoted to Surgical, and 146 to Medical cases. There are special wards for cases of Diseases of the Eye (19 beds) and Diseases of Women. Children are received into the women's wards.

The Library and Reading Room and the Museum are open daily.

Special Subjects.—Surgical consultations are held on Wednesdays at 1.30. Orthopædic out-patients are seen by Mr. Dent every Wednesday at 2.30. Dr. Whipham sees patients with Diseases of the Throat on Thursdays at 2, and gives instruction in the use of the laryngoscope, etc. Dr. Cavafy sees patients with Diseases of the Skin on Wednesdays at 2. Mr. Ross will give demonstrations on the Bones, and Mr. Kempson on the Joints and Muscles. A course of Practical Medicine will be given by Dr. Ewart to students of the second summer session, at 9 A.M. on Tuesdays, Thursdays, and Saturdays. Mr. Dent gives a course of Practical Surgery (including minor surgery, bandaging, case-taking, etc.) for second year's students, at 3 P.M. on Mondays, Wednesdays, and Fridays, and 3.30 P.M. on Tuesdays, in the summer, and Mr. Turner a course of Operative Surgery for third year's students, at 9.30 on Mondays, Wednesdays, and Fridays. Dr. Dakin holds a class of Practical Midwifery in the winter and summer sessions. Dr. Rolleston gives a course of Practical Pathology, at 4 on Mondays, and 3.30 on Wednesdays, Thursdays, and Fridays, in the summer; and also gives demonstrations in Morbid Anatomy at 12 noon on Wednesdays. The Hunterian Lecturer on Clinical Surgery (Mr. T. Holmes) will deliver a course fo lectures during the ensuing session.

Hospital Appointments.—House-Physicians, House-Surgeons, an Assistant House-Physician, and an Assistant House-Surgeon are appointed, half-yearly, from among the perpetual pupils.[1] The House-Physicians and House-Surgeons are appointed by the Weekly Board, on the nomination of the Medical School Committee; they hold office for twelve months, and reside and board in the hospital free of expense. They must each deposit £50 with the Treasurer, which will be returned on the expiration of their term of office, if they have satisfactorily performed their duties. An Obstetric Assistant is appointed annually he must be a legally qualified practitioner. He resides and boards in the hospital, and receives a yearly salary of £100. A Curator of the Pathological Museum and a Medical and a Surgical Registrar are appointed annually from among the senior pupils, each with a salary of £50. An Anæsthetist is appointed annually, with a salary of £20 a year. As the result of a competitive examination held every three months, those students who desire to proceed to the offices of House-Physician and House-Surgeon are appointed in turn as assistants for three months in each special department. Two Demonstrators of Anatomy and a Demonstrator of Physiology are appointed annually, each with a salary of £50. Each pupil of the Hospital must act as Clinical Clerk and Dresser before a certificate of attendance on hospital practice can be signed.

Exhibitions and Prizes.—The following Entrance Scholarships are offered for competition: 1. A Scholarship, value £145, for the sons of medical men who have entered the school during the current year.[2] 2. Two Scholarships, each of £50, open to all students commencing their studies. The subjects for these three Scholarships will be Latin, French or German, and Elementary Physics and Mathematics, and the examination will be held in October. 3. Two Scholarships, value £85, for students who have entered during the current year, and have been signed up for, or passed the Oxford First M.B. or the Cambridge Second M.B. Subjects: Anatomy and Physiology. The examination for these Scholarships will be held during October. The William Brown Exhibitions: 1. £100 per annum for two years, open to perpetual pupils of the Hospital under the age of twenty-five, who have become entitled to be registered under the Medical Act within two years previously; examinations in July; subjects, Clinical Examination of three Medical and three Surgical cases (including one case of Obstetric Medicine and one of Ophthalmic Surgery), with written and *vivâ voce* examinations in Medicine and Surgery. 2. The William Brown exhibition of £40 per annum for three years, to perpetual pupils of the third and fourth winter sessions. Subjects as above; the Treasurer's Prize (value £10 10s.), and the Thompson Silver Medal. Brackenbury Prizes in Medicine and in Surgery (value of each the interest on £1,103 5s. 9d.), open to all pupils who have been for eighteen months students of the hospital, and who have not completed the fifth year on April 1st; examinations in May. Sir Charles Clarke's Prize (value the interest on £209 14s. 5d.) for good conduct, and for clinical work rendered in the service of the hospital; awarded at end of summer session. Sir Benjamin Brodie's Clinical Prize in Surgery (value £6) (the gift of Dr. G. B. Brodie) for the best report with notes of not more than twelve Surgical cases on a set subject in the hospital during the preceding twelve months. Sir H. W. Acland's Clinical Prize in Medicine (value £5) for the best record of not more than twelve cases on a set subject in the hospital during the preceding twelve months. (The Clinical Prizes are open to fourth year's students. Reports must be sent in on or before March 31st.) The Henry Charles Johnson Memorial Prize (value £10 10s.) (the gift of Edmund Johnson, Esq.) for Practical Anatomy. The Pollock Prize in Physiology (value the interest on £372 10s.). These two prizes are for second year's students. General Proficiency Prizes, £10 10s., for students of each year: first year, Elementary Anatomy, Biology, and Chemistry; second year, Anatomy, Physiology, including Histology, and Physiological Chemistry; third year, Medicine, Surgery, Pathology, Midwifery, and Materia Medica.

The Hunterian Society meets once a week at the Hospital during the winter session.

Residence of Students.—The Dean has a list of medical gentlemen living in the neighbourhood, who receive pupils to reside in their families.

Further information may be obtained from Dr. Whipham, the Dean of the School; from any of the Lecturers; or from Mr. F. J. Marshall, the Resident Medical Officer at the Hospital.

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[1] All perpetual pupils are eligible for the office of House-Physician and House-Surgeon. In January, 1893, and in future four House-Physicians and four House Surgeons will be appointed. All pupils of the hospital may become candidates for the offices of Medical and Surgical Registrar, Obstetric Assistant, Curator of the Museum, and Demonstrator of Anatomy. They are also entitled to attendance on the Maternity Department, and the practice of Ophthalmic and Dental Surgery, without additional fee.

[2] Subjects: Latin, French, or German. Passages from authors usually read in schools with prose composition and grammatical questions. Mathematics: Euclid, Books i to vi; Algebra, including generative equations; Arithmetic. The examination in Elementary Physics will include Mechanics, Hydrostatics Light, Heat, and Electricity.

Guy's Hospital.—*The Hospital* contains 695 beds, of which 500 are in constant occupation. There are 36 beds for Ophthalmic and 24 for Obstetric cases. Children are received into the female wards. Detached wards, containing forty patients, are set apart for the purpose of instruction in Clinical Medicine.

Museums, etc.—The Museums of Human Anatomy, Comparative Anatomy (above 2,000 specimens), Pathological Anatomy (above 6,000 specimens), and Materia Medica, are open to the students. The Library is open to the students daily from 9.30 A.M. to 5.30 P.M., except on Saturdays, when it is closed at 3 P.M.

Special Courses.—The Dissecting-room is open from the beginning of September to the end of July. Students are allowed to visit Bethlem Hospital on fixed days in the summer; and gentlemen can enter as extern students for three months by arrangement with the Medical Superintendent. A course of Lectures on Experimental Physics is given by Mr. Reinold at 12 on Mondays and 2 on Fridays during the winter session. Dr. Pitt and Mr. Lane give a course of practical demonstrations in Morbid Histology two days in the week. Dr. J. H. Bryant gives instruction in Practical Medicine throughout the year. Mr. Symonds and Mr. Lane give a course of demonstrations of Practical Surgery (including Minor Surgery, Surgical Pathology, and Operative Surgery) during the winter session. Mr. Symonds also gives a further course of Operative Surgery during the summer session. Ophthalmic out-patients are seen at 1.30 by Mr. Higgens on Tuesdays, and on Fridays by Mr. Brailey at 1.30, and also on Tuesdays after his visit to the wards; in-patients at 1.30 on Fridays by Mr. Higgens, and on Tuesdays by Mr. Brailey at 1.30. Dr. Horrocks gives courses of practical instruction in Obstetrics. Mr. Symonds sees patients in the Throat Department at 2 P.M. on Fridays.

Appointments.—All appointments are given according to the respective merits of the candidates, and without extra payment. There are appointed annually House-Physicians, House-Surgeons, Assistant House-Physicians, Assistant House-Surgeons, Surgeons' Dressers, and Medical Clinical Clerks, Dressers in the Eye Wards, Dressers in the Throat Department, Clinical Assistants, Assistant-Physicians' Clerks, Assistant-Surgeons' Dressers, Dressers in the Surgery, Obstetric Ward Clerks, Surgical Clinical Clerks, Assistant-Surgeons' Clerks, for three months; Obstetric Residents, *Post-mortem* Clerks, Dental Surgeon's Dressers, Aural Surgeon's Dressers, Obstetric Out-Patient Clerks, Extern Obstetric Attendants, Clerks in the Electrical Department, also Clerks to the Anæsthetists. A special honorary certificate is given to every gentleman who has diligently performed the duties of not less than three of the various offices; and special certificates are given to those who have attended one hundred cases of midwifery.

Open Scholarships in Arts and Science.—Four open Scholarships, two in Arts and two in Science, will be offered for competition in September, 1891. Entrance Scholarships in Arts: 1. A Scholarship of 100 guineas, open to candidates under twenty years of age. 2. A Scholarship of 50 guineas, open to candidates under twenty-five years of age. Subjects: Latin: Virgil. *Æneid*, Books VI and VII. Greek: Xenophon, *Anabasis*, Book IV. The principal passages for translation into English will be selected from the above works. Short passages will be given from other works. Questions on grammar and short passages in English for translation into Latin and Greek respectively will also be set. French; German. Passages in the above languages will be set for translation into English; also passages in English for translation into French and German respectively; and questions in Grammar and Literature. Arithmetic. Euclid, Books I, II, III, IV, VI. Algebra, to the Binomial Theorem and Permutations and Combinations inclusive. Candidates may choose between Greek and German, but will not be allowed marks in more than one of these subjects. Entrance Scholarships in Science.—1. A Scholarship of 125 guineas, open to candidates under twenty-five years of age. 2. A Scholarship of 50 guineas, open to candidates under twenty-five years of age. Subjects: Inorganic Chemistry, General Biology (Zoology, Botany), Experimental Physics, including General Properties of Solid, Liquid, and Gaseous Bodies, Acoustics, Heat, Magnetism, Electricity, and Optics. There will be a practical examination in Chemistry, in addition to the paper. Specimens will be given with the papers in Botany and Zoology. The Examinations will be conducted as follows: Tuesday, September 27th, Morning, 10 to 1; French, Chemistry; Afternoon, 2 to 5: Latin, Botany. Wednesday, September 28th, Morning, 10 to 1: Euclid, Physics; Afternoon, 2 to 5: Greek and German, Zoology. Thursday, September 29th, Morning, 10 to 1: Arithmetic and Algebra, Practical Chemistry. The successful candidate will be required to enter at the Hospital, as a Perpetual Student, in the October immediately succeeding the Examination. Names of intending candidates should be forwarded on or before Saturday, September 24th, to the Dean, Guy's Hospital, London, S.E.

Scholarships and Prizes.—Four Entrance Scholarships, as above. *First Year:* At the end of the winter session, the Arthur Durham Prize for Dissection: £5 to students in their first year, £15 to students of later years. At the end of the summer session, two prizes of £50 and £25; subjects, Anatomy of Bones, Ligaments, and Muscles, Physiology, and Chemistry (including Practical Chemistry). *Second Year:* At end of the summer session, prizes of £25 and £10; subjects, Anatomy and Physiology (including Practical Physiology) and Materia Medica. At end of the winter session, the Michael Harris Prize of £10 for Human Anatomy (including Minute Anatomy); the Sands Cox Scholarship (every third year, next in 1895), value £15, tenable for three years; subjects, Physiology (including Physiological Physics), Histology, and Physiological Chemistry. *Third Year:* At end of the summer session, two prizes of £25 and £10; subjects, Medical Anatomy and Methods of Diagnosis, Surgical Anatomy and Diagnosis, Operative and Minor Surgery, Midwifery, and Therapeutics. *Fourth Year:* At end of the summer session, two prizes of £25 and £10, in Medicine, Surgery, Disease of Women, and Medical Jurisprudence. In March, examination for Golding Bird Prize; subject, The Methods of Diagnosis in Disease. *Fourth and Fifth Years:* Treasurers' Gold Medals in Clinical Medicine and Clinical Surgery; Gurney Hoare Prize of £25, for best reports of three Medical and three Surgical cases, with commentaries; Beaney Prize of 30 guineas in Pathology, and of 30 guineas in Materia Medica. Honorary certificates are given to those candidates who pass creditable examinations.

The Registrars and the Demonstrators of Anatomy and Chemistry assist the students in their studies. Classes are held for the preparation of candidates for the Examinations of the University of London, Oxford, and Cambridge.

The Physical Society meets on alternate Saturdays at 7.30 P.M. A prize of £5 is given for the best essay on a selected subject (this year, Parasites in Man other than Bacteria). A prize of £7 is awarded to the member who is judged to have read the best paper before the Society, and two prizes of £4 each to the members who have most distinguished themselves in the debates.

The Residential College is complete, and accommodates about 60 students. Several of the Lecturers have vacancies for Resident Private Pupils. A list of lodgings within easy access of the hospital is kept at the Medical School office. There is a Students' Club in the College, comprising dining-hall, reading room, library, and gymnasium. Members are supplied with luncheons, etc., at moderate charges.

Information may be obtained from the Dean, Dr. Perry, at the College or Hospital.

King's College and Hospital.—*The Hospital* contains 220 beds in daily use.

The Museums of Anatomy, Materia Medica, Natural History, etc., are open daily from 10 till 4. *The Medical Library* is open daily from 10 till 5.

Special Courses.—Clinical Instruction is given daily by the Physicians and Surgeons; and the Special Demonstrations in Minor Surgery and Bandaging and Surgical Pathology, and in Elementary Medicine, by the Assistant-Surgeons and Assistant-Physicians. Instruction is given in the Diseases of Women and Children; and in Throat Diseases (with Laryngoscopic Demonstrations), by Mr. Burghard, every Monday, at 1.30. Demonstrations and Practical Instruction in Morbid Anatomy are given in the *Post-mortem* Theatre. Courses of Operative Surgery are given by Mr. Barrow from time to time. Practice work in Biology, Anatomy, Chemistry, Bacteriology, Pathology, Neuro-pathology, and State Medicine is carried on daily in the various Laboratories under the superintendence of the Professors and Demonstrators. A course of Osteology is given at 2 P.M. on Mondays and Fridays in the summer. Lectures on Natural Philosophy are given in the summer at 2 P.M. on Tuesdays. A division of Public Health has lately been established, and courses of lectures on Hygiene and Public Health will be given in the summer session by Dr. Charles Kelly and by Professor Crookshank on Comparative Anatomy and Bacteriology. Special classes will be held in the winter and summer sessions by Professor W. R. Smith for the Diploma in Public Health of the Royal Colleges of Physicians and Surgeons, London, and

Laboratory instruction will be given by Professor W. R. Smith and Professor Crookshank. A course of Physiography will be given by Professor H. G. Seeley.

Appointments.—Resident Medical Officers, Clerks and Dressers are chosen from matriculated students, and the former have rooms and commons free.

Scholarships and Prizes.—Two Warneford Scholarships, for the encouragement of previous education,[1] each £25 per annum, for three years; one Additional Scholarship of £25 per annum for two years will be given in October, 1892; and one Warneford Scholarship of £25 per annum for two years, for third year resident matriculated students, at the close of the winter session. Medical Scholarships given yearly to matriculated students—one of £40 for two years, open to students of the third and fourth years; one of £30 for one year, to students of the second and third years; three of £20 for one year, to students of the first year. Daniell Scholarship, open to students who have worked in the laboratory six months, £20 per annum, for two years. Two Sambrooke Registrarships, of the annual value of £50 each, tenable for two years, open to matriculated students who have filled any of the higher appointments at the Hospital. Two Sambrooke Exhibitions, one £60 and one £40, open to all matriculated students at the commencement of their course of study; subjects of examination, Mathematics, Elementary Physics, Inorganic Chemistry, Botany, and Biology. Rabbeth Scholarship, value £20, in July, for best evidence of early scientific training. Two Science exhibitions, given annually, in October, by the Clothworkers' Company, one of £30 per annum and one of £20 per annum, each tenable for two years, for proficiency in any four of the following subjects: Mathematics, Mechanics, Physics, Chemistry, Botany, Geology, Mineralogy, and Zoology will be open to all candidates who are under the age of 19 years on October 1st, 1891, whether they are students of the College at that time or not. (See College Calendar.) The next Examination will begin on Saturday, September 26th, 1891. Inglis Scholarships; two annually, £50 each, for proficiency in Modern History and English Literature. Leathes' Prizes: Interest of £300 applied in purchase of a Bible and Prayer-Book, as annual prizes to two matriculated medical students. Warneford Prizes: £40 in medals and books, to two matriculated medical students. Class Prizes: Books of the value of £3, and certificates of honour, are awarded annually for proficiency in the several subjects taught in the classes. Two Surgical Clinical Prizes of £3 each for the winter session. Todd Medical Clinical Prize: Bronze Medal and Books, value £4 4s. Jelf Medal, at the Senior Scholarship Examination who is second in order of merit. Tanner Prize, value £10, for proficiency in Diseases of Women and Children, and in Obstetrics. Carter Prize: Gold Medal and Books, value £15, for proficiency in Botany. The Carter (English Original Verse), Stephen (English Essay), Trench (Greek Testament), and McCaul (Hebrew) Prizes are open to students of the medical department.

Medical Tutors are appointed to assist, by instruction and examination, all students in the subjects of all examinations, without any extra fees.

Associate of King's College.—At the end of each winter session the professors recommend to the Council the names of medical students to be elected associates.

Residence.—Rooms are provided within the College for a limited number of matriculated students under the supervision of the Censor. The cost of the academical year varies from £50 to £60 for rent of rooms and dinner.

The Medical Society meets on Thursday, at 8.30 P.M.

Information.—The Dean of the Medical Department, Professor Curnow, attends daily (Saturdays excepted), at King's College, from 11.30 A.M. to 1 P.M., for the purpose of seeing students and their friends. Any letter addressed to the Dean during the vacation will receive early attention.

[1] The examination will be in the following subjects: 1. Divinity, *Old Testament*, 1st and 2nd Samuel; *New Testament*, the Acts of the Apostles; the *Church Catechism*; Books recommended: Barry's *Notes on the Catechism*, or Maclear's *Class Book of the Catechism of the Church of England*. 2. English, Shakespeare, *King John*. 3. History, the *History of England*, from 1760 to 1798; Textbook, Bright's *History of England*. 4. Latin, Virgil, *Æneid*. Book VI. 5. Greek, Xenophon, *Anabasis*, Book IV. 6. French, Voltaire, *Le Siècle de Louis XIV*. 7. German, Charnipos's, *Peter Schlemihl* (Clarendon Press). 8. Mathematics, Arithmetic, Algebra, as far as and including Quadratic Equations, together with Proportion and Arithmetical and Geometrical Progression; *Euclid*, Books I—IV., or the subjects thereof.

LONDON HOSPITAL.—*The Hospital* is the largest general hospital in the kingdom; it contains 786 beds, approximately thus allotted: Accidents and Surgical cases, 343; Medical cases, 290; Diseases of Women, 26; Children under seven years of age, 70; Ophthalmic cases, 12; Erysipelas and Isolation cases, 45.

The College, which has been almost entirely rebuilt, affords ample accommodation for teaching in every branch of medical education.

Special Courses.—Sir Andrew Clark, Bart., F.R.S., as Emeritus Professor of Clinical Medicine, will give in the winter session a course of lectures on Clinical Medicine. Mr. Jonathan Hutchinson, F.R.S., as Emeritus Professor of Clinical Surgery, will give in the summer session a course of lectures on Clinical Surgery. Students desirous of obtaining a practical knowledge of Mental Diseases can attend, without additional fee, the practice at the Bethnal House Asylum daily from 10 to 12. Special lectures and demonstrations are also delivered by Dr. Herman and Dr. Lewers, on Clinical Obstetrics; Mr. McCarthy, on Operative Surgery; Mr. F. S. Eve, on Ophthalmic Surgery; Dr. Woakes on Aural Surgery; Mr. Eve, on Pathological Histology; Mr. Mark Hovell, on Diseases of the Throat; Mr. Barrett, on Dental Surgery; Mr. Page, on Experimental Physics; Dr. Hewitt, on Anæsthetics; Mr. J. Hutchinson, jun., on Practical Surgery. To enable students to present themselves for the first examination of the Examining Board at the earliest possible opportunity, it has been arranged to hold the course of demonstrations on Practical Chemistry throughout the winter as well as the summer session. Mr. Mansell-Moullin gives instruction to first year's students in Practical Histology, at 9.15 A.M. on Tuesdays and Thursdays in the summer.

Museums, etc.—The Anatomical and Pathological Museum, the Materia Medica Museum, and the Library are open daily. The whole of the specimens have been carefully rearranged, and to a large extent remounted. The preparations are classed for convenience of study, and a new catalogue of the entire collection has recently been printed.

Appointments.—Five House-Physicians, five House-Surgeons, and a Resident Accoucheur, are appointed every six months; Two Receiving-room Officers, and a Senior Dresser to Out-Patients every three months. Clinical Clerks, Surgical Dressers, and Clinical Obstetric Clerks are appointed every three months. Every student must act as a Clinical Clerk for three months in the medical out-patient department, after passing the first College of Surgeons examination. Maternity pupils reside in the hospital every week. Each student must attend at least twenty cases of Midwifery; those who have attended one hundred are entitled to a special certificate. Dressers reside and board in the hospital every week. Every student must act as Dresser in the Surgical out-patient department for at least three months after the end of the first winter session. Three Clinical Assistants are appointed every three months for the Medical out-patients, and are eligible for re-election. Each receives a salary at the rate of £80 per annum. Unpaid Clinical Assistants are appointed in the Ophthalmic department. A Medical Registrar and a Surgical Registrar are appointed annually; each receives £100. An Instructor in Anæsthetics is appointed annually, and receives £50. Every student must act as a *Post-mortem* Clerk for three months. A Dental Assistant, Prosectors of Anatomy, and Dressers in the Ophthalmic and Aural departments, are also appointed. The holders of resident appointments are provided with rooms and board.

Scholarships and Prizes.—Twenty-four scholarships and prizes are offered for competition. 1 and 2. Two Entrance Scholarships, value £75 and £50; examination on September 28th, 29th, and 30th; subjects: Physics, Botany, Zoology, and Inorganic Chemistry. Successful candidates must forthwith become pupils of the hospital and school. 3 and 4. Two Buxton scholarships, value £30 and £20, open to full students of less than six months' standing: examination on October 5th, 6th, and 7th.[1] 5. A Scholarship

[1] The subjects are:—1. The English Language and Literature, inclusive of writing from dictation, the English Grammar, and the Composition of a short Essay. 2. Arithmetic. Candidates must show a competent knowledge of the first four rules, simple and compound, of Vulgar Fractions, and of Decimals. 3. Algebra to Simple Equations inclusive. 4. The first four books of Euclid. 5. Latin: Cicero's *In Catilinam* and Virgil's *Æneid*, Book II. And one of the following subjects at the discretion of the candidate:—1. Greek: Xenophon's *Anabasis*, Book III. 1. French: *La Jeune Sibérienne*, by X. de Maistre, and *Zaïre*, by Voltaire. 3. German: Schiller's *Jungfrau von Orleans*. 4. Natural Philosophy, including Mechanics, Hydrostatics and Pneumatics. Besides these translations into English, the candidate will be required to answer questions on the grammar of each subject, whether compulsory or optional. The Buxton Scholarships are open to all full students of less than six months' standing, who have received their cards of admission to the lectures and practice.

at the end of the summer session, value £20, to a first year's student; subjects: Human Anatomy and Physiology. 6. A Scholarship, value £25, to a first or second year's student, at the end of the winter session; subjects: Anatomy, Physiology, and Chemistry. 7, 8, 9. Hospital Scholarships, value each £20, for proficiency and zeal in Clinical Medicine, Surgery, and Obstetrics. 10. The Letheby Prize, value £30, for Chemistry; open to all full students from the end of the second summer session to the end of the fourth year. 11. The Duckworth Nelson Prize, value £10, awarded biennially, at the end of the winter session; subjects: Practical Medicine and Surgery. For the Hospital Scholarships and the Duckworth Nelson Prize, full students of the Hospital are eligible up to the end of their fourth year, with or without a diploma; qualified officers of the Hospital are not eligible. 12. The Hutchinson Prize, value £35, awarded triennially to the author of the best essay on a subject in Clinical Surgery; open to full students of Hospital who have not been registered as medical students more than ten years. 13—18. Six prizes, of the aggregate value of £60, by competition among the Dressers in the out-patient rooms. 19, 20. Two prizes, value £6 and £4, for Dissections, for full students up to the end of the fourth year. Special certificates to those gentlemen who have faithfully performed their duties in the Hospital, and to those who have distinguished themselves at the examinations. The following Scholarships have this year been added: The Price Scholarships, being the interest on £5,000 bequeathed by Dr. H. E. Price, formerly a student of the hospital, which will be given in Entrance Scholarships. The will has lately been proved. The Sutton Scholarship, value £20, in Pathology, in memory of the late Dr. Sutton; and an Epsom Scholarship, being a free education for a student who has been educated at the Royal Medical Benevolent College, Epsom.

Special attention is paid to the preparation of students for the examinations of the Colleges of Physicians and Surgeons, the Apothecaries' Hall, and the University of London.

The Medical Society meets for the reading and discussion of papers at 7.30 P.M. on alternate Wednesdays during the winter session.

Residence.—Students wishing to reside with a member of the medical profession, within easy access to the Hospital, can obtain information by application to the Warden. A Register of approved lodgings is kept by the Warden. A Refreshment Room has been provided in the buildings, where luncheons or dinners can be obtained.

Information may be obtained from the Warden, Mr. Munro Scott, at the College.

ST. MARY'S HOSPITAL.—*The Hospital* contains 281 beds; 128 Medical, and 153 Surgical. Two wards are appropriated to Diseases of Children, and one to those of Women; there are also beds for Ophthalmic, Aural, Cutaneous, and Dental cases. The Clarence Memorial Wing will contain: (1) A new Out-patients' Department; (2) Lying-in Wards; (3) a Residential College for Medical Officers and Students; (4) Additional Special Wards; (5) a Nurses' Home. This will add 100 beds to the hospital, making 381 in all.

The Reading Rooms and Library are open daily. The *Museum* is open daily to students. It contains about 3,000 specimens of healthy and morbid anatomy, and many anatomical dissections. There are also a Materia Medica Department and a collection of specimens illustrative of Comparative Anatomy. The Physiological, Chemical, and Pathological Laboratories are in active working order. There is also a Bacteriological Laboratory and a Laboratory of Hygiene.

Appointments.—Three House-Physicians and three House-Surgeons are appointed for six months each, and two Obstetric Officers for six months each; all live free of expense in the Hospital. All students must act as Clinical Clerks and Dressers for eight months after passing the Primary Examinations, and after having acted as Dressers two months in the Casualty Department. Demonstrators of Anatomy are appointed at salaries of £70. Two Prosectors are appointed annually; each receives a certificate and £5.

Scholarships and Prizes.—One Scholarship in Natural Science, value £105, and three of the value of £52 10s. each; subjects, Inorganic Chemistry, Experimental Physics, and Elementary Biology. There will be a practical examination in each subject. The examination will take place on September 26th and 27th at 10 A.M. The candidates must not have completed a winter session of study at a medical school in London. The successful candidates must enter as perpetual pupils of the Hospital, and pursue the full course of study there. A scholarship of £120, for students of Epsom College, who are sons of medical men. Two scholarships, each of £52 10s., open to students from a University, who have not entered at any London medical school: subjects, Physiology, and either Anatomy or Chemistry at the option of the competitor. Three scholarships for general proficiency, value £20, £25, and £30, one at end of each year, after examination in class subjects. *First Year:* Winter Session: Prizes of £3 3s. each in Anatomy and Histology. Summer Session: Prizes, value £2 2s. each, in Comparative Anatomy, Materia Medica, Botany, Chemistry, and Inorganic Practical Chemistry. *Second Year:* Winter: Prizes of £3 3s, each for Anatomy and General Physiology. Summer: Prizes, value £2 2s. each, for Midwifery and Medical Jurisprudence. *Third Year:* Winter: Prizes of £3 3s. each for Medicine, Surgery, Pathology, and Operative Surgery. At end of each year, prizes of £5 5s. each for Clinical Medicine and Clinical Surgery. Two prizes of £10 10s. in Ophthalmology, and one of £5 5s. in Dermatology. At the end of the Summer Session a special prize in Obstetrics, named the Meadows Memorial Prize, value about £8.

Tutorial Classes are held by Dr. Phillips, Dr. Luff, Dr. M. Handfield-Jones, and Mr. Crowle to assist students in preparing for their final examinations.

Special Classes are held for the Preliminary Scientific Intermediate M.B., and Final M.B. Examinations of the University of London, and for the Examinations for the Fellowship of the Royal College of Surgeons.

The Medical Society meets on alternate Wednesday evenings, during the winter session, at 8 P.M.

Residence for Students.—Students may reside in the College, 33 and 35, Westbourne Terrace, under the supervision of the Warden, Mr. E. Roughton. Terms, inclusive of all school fees, and including the assistance of the demonstrators on three evenings in the week can be obtained on application to the Warden.

The Students' Club contains a reading-room, smoking and dining rooms. The annual subscription is 7s. 6d.

Further information may be obtained from the School Secretary, Mr. F. H. Madden, or from Mr. Field, Dean of the School.

MIDDLESEX HOSPITAL.—*The Hospital* contains upwards of 300 beds, of which 145 are devoted to Surgical and 126 to Medical cases. There are 33 beds for cases of Cancer; also wards for Children, for cases of Uterine Disease and of Syphilis, and beds for cases of Diseases of the Eye.

The Museum is open to students daily from 9 to 5. It contains above 5,000 specimens. *The Library and Reading Room* are open to all general students from 9 to 5; on Saturdays, from 9 to 2.

Special Subjects.—A course of Practical Medicine is given by Dr. Coupland and Dr. Pringle on Thursdays, at 4 P.M., Mr. Clark sees out-patient Cancer cases at 1.30 on Thursdays. Practical Instruction in Mental Diseases is given at the Grove Hall Asylum, Bow. A class of Practical Surgery is held in the winter session. Mr. Andrew Clark will also commence a class of Practical Instruction in Operative Surgery in April. Each student will personally perform all the operations. Dr. R. Boxall gives a course of Practical Midwifery in the winter. Instruction in the administration of Anæsthetics is given every Wednesday and Saturday by Mr. G. E. Norton and Mr. Burns. Dr. Wynter gives instruction in the practical application of Electricity. In connection with the class of Pathological Anatomy, a practical class of Pathological Histology and Bacteriology is formed in the winter and summer sessions, under the direction of Dr. A. F. Voelcker.

Appointments, etc.—Eighteen Resident Appointments are open annually to competition among pupils of the Hospital. The officers reside and board in the Residential College free of expense. There are two Casualty Medical and two Casualty Surgical Officers appointed annually. Six House-Surgeons are appointed every year at intervals of two months, after examination; they must have a legal qualification. Six House-Physicians also are appointed annually at similar intervals. They must have a legal qualification, or hold a Broderip Scholarship. An Obstetric House Physician (qualified to practise) is appointed every six months. Each of the above-mentioned resident officers pays (except the Casualty officers who receive a salary) £10 10s. on appointment. Non-Resident Physicians' Assistants are appointed in the

out-patient department. Clinical Clerks and Dressers are appointed for six months. An Obstetric Physician's Clerk is appointed. In the out-patient department the appointments are: Dresser to the Assistant Surgeon and to the Dental Surgeon; Clerk to the Assistant Physician; Dresser to the Ophthalmic Surgeon; Clerk to the Physician of the Skin Department, to the Assistant Obstetric Physician, and to the Surgeon to the Throat and Ear Department. There are also Extern Midwifery Clerks, and *Post-mortem* Clerks. The appointments are so arranged that every student may during his course take both a clerkship and a dressership. Each student must be an out-patient clerk or an out-patient dresser before being eligible to an in-patient clerkship or dressership. No student can be appointed to any office until he has passed the second examination of the Examining Board in England, or its equivalent. Clinical Assistants are appointed in the Ophthalmic, Skin, and Throat and Ear Departments.

Scholarships and Prizes.—Two Entrance Scholarships, value £50 and £30, tenable for two years,[1] are open to all gentlemen commencing their medical studies at the Hospital in October, 1891. The successful candidates must become general pupils of the school. Examination on September 28th and following days. Candidates must send in their names to the Dean, stating the subjects they select, on or before September 21st. John Murray Scholarship and Gold Medal open to competition, in May 1895, among students in actual attendance who have entered since April 30th, 1891. Subjects: Medicine, Surgery, and Obstetrics. Hetley Clinical Prize, value £25, at the end of summer session, to students who have completed the third and not commenced the fourth winter session: *viva voce* examination in Medicine, Surgery, and Obstetric Medicine. Lyell Medal, value £5 5s., at end of third winter, for proficiency in Surgical Anatomy and Practical Surgery. Exhibition, value £10 10s., at end of first winter session. Subjects: Elementary Anatomy and Physiology. Two Broderip Scholarships, value £30 and £20, tenable for two years, to students within five years of commencing their studies at a recognised medical school, for reports and comments on selected medical and surgical cases and *post-mortem* examinations. The Governor's Prize, value £21, to the student who, at the end of the third winter session, shall have been out-patient clerk and dresser, and shall pass the best examination in the subjects of the out-patient department. Prizes and certificates of honour are given in each class.

Tutors.—Dr. Wynter, Mr. Pearce Gould, and the demonstrators assist all general students of the Hospital, especially those who are preparing for primary examination before the Licensing Boards.

The Students' Club (*President:* Mr. Henry Morris; *Treasurer:* Mr. E. A. Fardon; *Secretary:* Mr. Leopold Hudson) has been formed for the purpose of amalgamating the following clubs and societies into one body: the Medical Society, the Common Room Society, the Football Club, and the Cricket Club. All general and dental students are members.

The Students' Medical Society meets in the Board Room of the Hospital on alternate Thursdays at 8 P.M. during the winter session. Prizes are given to the reader of the best paper, to the exhibitor of the best histological specimens, and to the exhibitor of the best pathological specimens.

Information may be obtained from Dr. Coupland, the Dean; from Dr. Pasteur, Secretary of the School; from any of the Lecturers, or from the Resident Medical Officer at the Hospital.

The Residential College is situated in Cleveland Street, W., and has its frontage in the Hospital garden; it accommodates about 30 students. The Warden is the Rev. F. Brindley, Chaplain of the Hospital.

ST. THOMAS'S HOSPITAL.—*The Hospital* contains 572 beds, of which about 180 are appropriated to ordinary Medical, and 230 to ordinary Surgical cases. There are also special wards for Diseases of Women, 21 beds, Diseases of the Eye, 25 beds, Venereal Affections, 8 beds, Children under six years of age, 30 beds, and (in a separate block) Infectious Diseases.

Museums, etc.—Students have access to the Library, and to the Museums of Human Anatomy, of Comparative Anatomy, of Materia Medica, of Botany, and of Chemistry and Mineralogy, and to the Laboratories of Practical Physiology and Practical Chemistry.

Special Subjects.—A Course of Lectures on Structural and Systematic Botany is given by Mr. Bennett in the summer. Practical Instruction in Elementary Biology is given during the summer session and the first half of the winter session, by Mr. Parsons. Classes in Advanced Anatomy and Physiology are held by the demonstrators on those subjects. Physiology: In the summer session instruction is given to a senior class in Cutting and Mounting Sections and in Volumetric Analysis by Dr. Charles on Thursdays at 2 P.M.; and in Advanced Practical Physiology (use of physiological apparatus, etc.) by Dr. Sherrington on Wednesdays at 4.30. Physiological Demonstrations are given at 10.30 on Fridays, and at 12 noon on Mondays and Thursdays in the winter session; and Demonstrations of Pathological Anatomy at 2 P.M. daily by Dr. Hadden and Dr. Hawkins; and Dr. Hawkins gives demonstrations in Morbid Histology. During the Winter, Lectures and Demonstrations on Surgical Pathology and Bacteriology are given by Mr. Shattock. Dr. Cory sees cases of Diseases of Women and Children at 1.30 on Wednesdays and Saturdays. Out-patients with Diseases of the Throat are seen by Dr. Semon at 1.30 on Tuesdays and Fridays. Dr. Semon gives a short course of Clinical Lectures on Throat Diseases. Mr. MacKellar, Mr. Pitts, and Mr. Ballance give instruction in Practical and Manipulative Surgery, and Tutorial Classes in Surgery are held for the Final Examinations of the Conjoint Board. Elementary Clinical Medicine: An elementary course of practical instruction in the means of Physical Diagnosis is held by Drs. Acland and Hawkins for about a month before each quarterly appointment of Out-patient Clinical Clerks, and all intending applicants are required to attend this course, or to have attended an equivalent course elsewhere. A class for learning the use of the Ophthalmoscope is held each session by Mr. Lawford. Lectures are given during the summer on Mental Diseases by Dr. Rayner, and on Public Health by Dr. Seaton. Practical instruction in the Administration of Anæsthetics is given by Mr. Tyrrell and Mr. White.

Appointments.—A Resident Assistant-Physician and a Resident Assistant-Surgeon, at a salary of £100 per annum each, with board, are appointed, and may hold office for a term not exceeding three years. Two Resident and two Non-resident House-Physicians, four House-Surgeons, two Assistant House-Surgeons, a Senior and Junior Obstetric House-Physician, are selected from gentlemen who have obtained their professional diplomas; they hold office for three or six months. Two Ophthalmic House-Surgeons, chosen from qualified students, are appointed for six months, the senior receiving a salary at the rate of £50 per annum, and the junior being provided with commons. The House-Physicians, the House-Surgeons, the Senior Obstetric House-Physician, and the Dresser on Accident Duty are provided with rooms and commons. Clinical Clerks and Dressers are selected each year, to the number of at least one hundred for in-patients, and eighty to one hundred for out-patients. Clinical Assistants in the departments for Diseases of the Throat, Skin, and Ear are appointed every three months. Obstetric Clerks are from time to time appointed; also Assistants in the Physiological Laboratory, Prosectors, and Assistants to the Lecturer on Materia Medica, to Teachers of Practical Surgery, and to the Demonstrators of Morbid Anatomy. All students have the opportunity of being engaged in the performance of the practical duties in connection with the Medical, Surgical, and Special depart-

[1] The following are the subjects for examination. (1) Latin: The examination will consist of passages for translation into English; short passages for translation from English into Latin; and questions in grammar. September, 1892, Virgil, *Æneid*, Books VI and VII; September, 1893, Cicero, *De Senectute* and *Proarchia*.—(2) Greek: The examination will consist of easy passages for translation into English and questions in grammar. September, 1892, Xenophon, *Anabasis*, Book IV. September, 1893, Xenophon, *Anabasis*, Book I. The books selected are those set for the Matriculation Examination of the University of London held in the preceding June.—(3) French or German: The examination will consist of passages (authors not set) for translation into English, short passages for translation from English into French or German, and questions in grammar.—(4) Mathematics: Comprising Arithmetic, Algebra up to and including Quadratic Equations; and Euclid, Books I, II, III.—(5) Mechanics and Experimental Physics: Comprising the composition and resolution of Statical Forces. Simple Machines, the ratio of the Power to the Weight in each. Centre of gravity. General Laws of Motion. Law of the Motion of Falling Bodies. Pressure of Liquids and Gases. Specific Gravity, and the subjects included in the Schedule of Experimental Physics for the Preliminary Scientific (M.B.) Examination of the University of London.—(6) Chemistry: The range of subjects is comprised in the course prescribed by the University of London for the Preliminary Scientific (M.B.) Examination under the head of "Chemistry." The fundamental principles of the Science aptly illustrated will claim more attention than a detailed account of the manufacture of the Salts of the Metals.—(7) Botany: The use of recognised Botanical Terms. Vegetable Morphology. The outlines of Vegetable Physiology. The Features and Life-history of the various classes of the Cryptogamia. The Classification of the principal British Natural Orders. Demonstration of the characters of recent Specimens, and the recognition of Vegetable Tissues and Organs in prepared Microscopic Slides.—(8) Zoology: The Schedule will be that of the Preliminary Scientific Examination of the University of London.—Candidates will be required to examine Microscopic and other Specimens.—Candidates will be examined in any three, and not more of the above subjects which they may select.

ments of the Hospital. Two Hospital Registrars are appointed, at an annual salary of £100, and an Obstetric Tutor and Registrar, at a salary of £50 per annum.

Scholarships and Prizes.—Two Open Scholarships in Natural Science, value £150 and £60, are open to students who have passed a preliminary examination in Arts; subjects, Physics, Chemistry, and either Physiology, Botany, or Zoology; examinations on September 28th, 29th, and 30th. Notice must be given not later than September 17th. Successful candidates must become students of the Hospital. The William Tite Scholarship, £27 10s., to the student highest on the first-class list at the examination at the end of the first winter session. The Peacock Scholarship, value £38 10s. per annum for two years, biennially, to the student highest on the first-class list at the end of the second winter session. The Musgrove Scholarship, of the same value as the Peacock Scholarship, and given alternately with it, on the same terms. College Prizes each winter for first and second year's students, of £20 and £10 each winter; and for third year's students, of £20, £15, and £10; and £15 and £10 each of three summers. The Cheselden Medal, annually, to a fourth year's student, for Surgery and Surgical Anatomy. The Mead Medal, annually, to a fourth year's student, after practical examination in Medicine, Pathology, and Hygiene. The Treasurer's Gold Medal, annually, at the end of fourth winter session, for general proficiency and good conduct. The Grainger Testimonial Prize, value £15, is awarded annually to students of more than two but less than six years' standing, for work in Anatomy and Physiology. The Solly Medal, with a prize in money, every two years, for Reports of Surgical Cases, to a third, fourth, fifth, or sixth year's student; papers to be sent in before April, 1894. The Beaney Scholarship, of the value of £52 10s., biennially after an examination in Surgery and Surgical Pathology.

Residence of Students.—A Register of Lodgings suitable for students is kept at the Medical Secretary's office. Information as to terms, accommodation, etc., can be obtained on application. This Register has been especially prepared with a view to the convenience of new students for whose accommodation no definite arrangements have been made. Medical practitioners, clergymen, and private families residing in the neighbourhood receive students for residence and supervision.

Students' Club.—There is a Club in the Medical School, where students who become members can obtain refreshments at moderate charges. A smoking and reading room, a cloak room and lavatory, and bath rooms are provided for the use of members. The athletic section of the Club comprises the Athletic, the Cricket, the Cross Country, the Football, the Rifle, the Rowing, the Swimming, and the Tennis Clubs.

University of London.—Classes in the subjects required for the Preliminary Scientific Examination are held from October to July, and for the Intermediate M.B. Examinations from January to July.

The Medical and Physical Society meets on alternate Thursdays, at 8.30 P.M.

Further Information may be obtained from Mr. G. Rendle, the Secretary to the Medical School, at the Hospital.

University College and Hospital.—*The Hospital* contains 207 beds available for clinical instruction and study. In addition to the Physicians' and Surgeons' wards, there are special wards for Diseases of Women, for Children's Diseases, for Ophthalmic affections, and for Skin disorders. In connection with the Skin department, there is a complete system of medical baths.

Libraries, Museums, etc.—There are special Medical and Science libraries, besides a General Library, and these, as well as the Museums of Anatomy and Pathology, of Comparative Anatomy, of Materia Medica, are free to all students of the College. There are also extensive Chemical, Physiological, Zootomical, Botanical, Pathological, and Hygienic Laboratories, where instruction is given under the superintendence of the Professors.

Practical Instruction.—Dr. Ringer, Holmes Professor of Clinical Medicine, delivers Clinical Lectures every Tuesday and Thursday, at 2. Lectures are also given by Dr. Bastian, Dr. Roberts, and Dr. Poore. Dr. Bradford, Assistant-Professor of Clinical Medicine, instructs in Physical Examination, in the Diagnosis of Diseases of the Heart and Blood-vessels, and of Abdominal Diseases. Dr. S. Martin instructs in the Examination of the Lungs and of the Urine. Lectures are given every Monday at 2 by Mr. Christopher Heath, the Holme Professor of Clinical Surgery; once a fortnight, or oftener, by Mr. Beck and Mr. Barker. The Holme Professor holds a Clinical Examination every Friday at 3. Mr. Godlee and Mr. Pollard, Assistant-Professors of Clinical Surgery, hold examinations, and instruct students in the observations and examination of patients. Mr. Pollard attends on Mondays and Thursdays at 9 A.M. to see patients with throat and ear diseases, and to give instruction in the use of Laryngeal instruments. A class for the study of Practical Gynæcology meets twice a week under the direction of Dr. John Williams and Dr. H. Spencer. A course of Practical Surgery is given during the winter. It consists of three divisions: 1. The use of Surgical Apparatus, etc., by Mr. Bilton Pollard and Mr. Raymond Johnson, on Mondays and Thursdays, at 4, in October, November, and December; 2. Operative Surgery, by Mr. Godlee, during the latter part of the winter session; 3. Demonstrations of Surgical Preparations, by Mr. Barker, on Wednesdays and Saturdays, at 10, from October to April, and on Tuesdays and Fridays at 9, from May to July. Mr. Godlee also gives, in April and May, a course of Operative Surgery intended for candidates for the public services, for the surgical degrees of the University of London, and the Fellowship of the Royal College of Surgeons. A practical course of instruction in Pathology is given in January, February, and March, and an advanced course of Bacteriology in June and July. A practical class for the detection of Poisons is held by Dr. Plimpton, at 11 A.M., on Mondays, Wednesdays, and Fridays, in October. Practical instruction in Hygiene and Public Health is given by Professor Corfield. Practical courses are given in Physiology during the winter session, and in Histology during the summer session, by Professor Schäfer and Mr. Parsons. Practical courses are also given in Comparative Anatomy by Professor Weldon, in Botany by Professor Oliver, and in Elementary Biology by Professors Weldon and Oliver conjointly.

Offices.—Eight House-Physicians, six House-Surgeons, Eight Obstetric Assistants, Out-patients' Physicians' and Surgeons' Assistants, Clinical Clerks, Surgeons' Dressers, and Ophthalmic Surgeons' Assistants, are selected from among the students without extra fee. The House-Physicians, the House-Surgeons, and the Obstetric Assistants, reside in the hospital, paying for their board.

Scholarships, etc.—Scholarships and prizes of the annual value of about £800 are given in the Faculty of Medicine as follows: Three Entrance Exhibitions, value £100, £60, and £40 per annum, to gentlemen who are about to commence their first winter's attendance. Subjects: Chemistry, Physics, and Biology. The examination will take place on September 26th and 27th. Notice of intention to compete must be given on or before September 24th. The Atkinson-Morley Surgical Scholarship, £45, tenable for three years, for proficiency in Surgery. Atchison Scholarship, about £60 per annum, tenable for two years, for general proficiency. The Sharpey Physiological Scholarship, annual value about £105. The Filliter Exhibition of £30, annually in July, for proficiency in Pathological Anatomy. Dr. Fellowes's Clinical Medals, one Gold and two Silver, at the end of each winter and each summer session. The Liston Gold Medal, at the end of the winter session, for reports and observations on Surgical Cases in the Hospital. The Alexander Bruce Gold Medal, for proficiency in Pathology and Surgery. The Tuke Medals, awarded annually at the discretion of the Professor of Pathological Anatomy. The Cluff Memorial Prize, value about £15, every second year, to the most proficient in Anatomy, Physiology, and Chemistry: next award in 1891. Erichsen Prize, a Surgeon's Operating Case, value £10 10s., awarded yearly in the class of Practical Surgery. Morris Bursary of £16 a year, tenable for two years. Gold and Silver Medals or other Prizes, as well as Certificates of Honour, after competitive examinations in the classes. Prizes to the value of £10 in the class of Hygiene. A prize of Instruments in the class of Dental Surgery.

Private Instruction.—Gentlemen may obtain assistance in their studies within the College, on application to the respective Professors.

The Medical Society meets fortnightly to discuss subjects connected with medicine, and for the exhibition of microscopical specimens.

Residence of Students.—Several professors and other gentlemen connected with the College receive students to reside with them; and, in the office of the College, there is kept a register of persons unconnected with the College who receive boarders into their families.

Information respecting the College may be obtained from the Dean, Professor E. A. Schäfer; the Vice-Dean, Professor Victor

Horsley; the Sub-Dean, Professor Thane; or the Secretary, Mr. J. M. Horsburgh.

The Session will be opened on Monday, October 3rd, at 4 P.M., when the Dean's Report will be read, an announcement of the Prizes and Honours gained during the past year will be made, and an Introductory Address will be delivered by Mr. S. J. Hutchinson.

WESTMINSTER HOSPITAL.—*The Hospital* contains upwards of 200 beds. There are separate departments for Diseases of the Eye, Ear, Skin, Teeth, and Throat, for Diseases of Women, and for Orthopædic Practice, and a special ward for children.

Museums, etc.—The Museum is constantly open to the students. Considerable additions have been made to it, and there is a printed catalogue of the Pathological Museum. The Library is open daily from 10 to 5.

Special Subjects.—In addition to the practice of the Hospital, general students may attend, without further fee, the practice at the Royal Westminster Ophthalmic Hospital. Special instruction is, however, given in the special departments of the Hospital by Mr. Cowell, Mr. Black, Dr. Fox, Dr. Walker, Dr. Hall, Dr. Potter, Dr. Grigg, and Mr. Davy. Mr. Davy and Mr. Spencer divide the course of Practical Surgery, which is given twice a year. Mr. Stonham will give special demonstrations in Anatomy for junior students, at least twice a week in the summer. Dr. P. S. Abraham will give in the summer a course of Histology, at 1.30 P.M. on Mondays, Wednesdays, and Thursdays; and Dr. Hebb a course of Morbid Histology, at 10 A.M. on Tuesdays and Thursdays.

Appointments.—A Curator of the Museum and a Pathologist are appointed annually, each with a salary of £50; and a Medical and a Surgical Registrar, each with a salary of £40. Two House-Physicians, two House-Surgeons, and a Resident Obstetric Assistant are appointed for six months, after examination, and are provided with rooms and commons. Senior Dressers are appointed to attend to the surgery patients, under the supervision of the House-Surgeons, and the Dresser of the day is provided with commons at the Hospital table. Clinical Assistants to the Assistant-Physicians and Assistant-Surgeons, and to the officers in charge of special departments, are appointed from among qualified students. Every student must perform the duties of Out-patient Dresser for four months; and afterwards hold the office of In-patient Dresser for four months, of Out-patient Clinical Clerk for four months, and of In-patient Clinical Clerk for four months. No student is eligible as In-patient Dresser or Clinical Clerk until he has passed the Second Examination of the Conjoint Board, or an equivalent examination.

Scholarships and Prizes.—A Natural Science Entrance Scholarship, value £60; an Entrance Scholarship of £40 a year for two years, and an Entrance Scholarship of £20 a year, tenable for two years;[1] also two Entrance Scholarships, value £20 each, tenable for two years, after examination in Chemistry and Experimental Physics; and two Senior Scholarships, value £40 each, for Oxford or Cambridge men, after examination in Anatomy and Physiology. An Entrance Scholarship, value £20, is offered annually to dental students. Treasurers' Exhibition in Anatomy, Physiology, and Chemistry, value £10 10s., tenable for one year for first year's men. A Free Presentation, open to pupils of the Epsom Medical College. The President's Scholarship in Anatomy, Histology, and Physiology, value £21, to students of second year (to be styled Assistant-Demonstrator). After end of fourth winter, Prizes of £5 each (books or instruments) in Clinical Medicine and Clinical Surgery. Frederic Bird Medal and Prize, value £14, to students who have completed their fourth winter; subjects of examination: Medicine, Midwifery, Diseases of Women and Children, and Pathology. Chadwick Prize for General Proficiency, £21 (books or instruments), to the most meritorious student or students of any year not exceeding the fifth; subjects of examination: Anatomy, Physiology, Histology, Medicine, Surgery, and Midwifery. In most of the Classes, Special Prizes are given; and Certificates of Honour are awarded in each Class. Tutorial assistance and guidance to the students in their work is given by the members of the Medical and Surgical Staff.

A luncheon room is provided for the students in the school building.

The Guthrie Society (Medical and Physical) meets once a month during the academical year.

Communications respecting the Medical School should be addressed to Dr. Allchin, the Dean of the School, from whom all particulars may be obtained. Information may also be obtained from any of the Lecturers, from the Secretary to the Hospital, or from the Secretary at the School.

Special Classes for Students preparing for the Preliminary Scientific and Intermediate (M.B.) Examinations of the University of London.—Arrangements have been made for holding Classes in the subjects of the Preliminary Scientific (M.B.) Examination. The total fees for these will be twelve guineas. Students will also be required to attend the Lectures on Chemistry and Practical Chemistry delivered in the School, the fees for which, six and four guineas respectively, will be a first instalment of the General Composition Fees. These classes will commence in October. Special Classes for the Intermediate M.B., and for the First F.R.C.S. Examinations will be held, also commencing in October. For these, an extra fee of ten guineas will be charged for the former, and seven guineas for the latter. Anatomy, Mr. Black and Mr. Stonham. Physiology, Dr. Abraham. Chemistry, Dr. Hake. Materia Medica, Dr. Murrell. Any of the above classes are open to other than Students of the School, on conditions to be learned on application to the Dean.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—The Winter Session will commence on October 1st.

There will be a reception of the students and their friends by the Council at 3.30 P.M.

The following courses of Lectures are delivered at this school: Anatomy and Practical Anatomy, by Mr. Stanley Boyd; Physiology and Histology, by Professor W. D. Halliburton, F.R.S.; Chemistry and Practical Chemistry, by Mr. Heaton; Organic Chemistry, by Miss Boole; Elementary Biology and Physics, by Miss M. F. Ewart, B.Sc.Lond.; Materia Medica and Therapeutics, by Dr. Sainsbury; Practice of Medicine, by Mrs. Garrett-Anderson, M.D., and Dr. H. Donkin; Midwifery and Diseases of Women, by Dr. Ford Anderson and Mrs. Scharlieb, M.D.Lond.; Forensic Medicine, by Dr. Dupré, F.R.S., and Mrs. Dowson, L.R.C.P. and S.I.; Surgery, by Mr. A. T. Norton; Ophthalmic Surgery, by Mr. J. Grosvenor Mackinlay; Pathology, by Mr. A. Q. Silcock; Mental Pathology, by Dr. Mercier; Operative Surgery, by Mr. Stanley Boyd.

The Dissecting-room, the Physiological Laboratory, the Chemical Laboratory, the Library, and the Museums of Anatomy, Pathology, and Materia Medica, are open daily.

Clinical Instruction is given at the Royal Free Hospital, which contains 160 beds; 74 for surgical, 64 for medical, 12 for gynæcological, and 6 for ophthalmic cases. *Physicians:* Dr. Samuel West and Dr. Sainsbury; *Physician for Diseases of Women:* Dr. T. C. Hayes; *Assistant-Physicians:* Dr. W. H. Mackenzie, Dr. Calvert and Dr. Andrewes; *Surgeons:* Mr. A. Boyce Barrow and Mr. Berry; *Ophthalmic Surgeon:* Mr. Grosvenor Mackinlay; *Assistant-Surgeons:* Mr. Battle, Mr. Dodd, Mr. E. W. Roughton, *Pathological Demonstrator:* Dr. H. W. G. Mackenzie; *Medical Tutor:* Dr. James Calvert; *Surgical Tutor:* Mr. Battle; *Demonstrator of Minor Surgery:* Mr. Dodd. *Demonstrator of Auscultation and Physical Signs:* Dr. Andrewes; *Anæsthetist:* Dr. Silk.

Clinical Lectures are given once a fortnight by each of the four senior members of the staff. Instruction is also given at the Hospital as follows. Pathological Demonstration twice a week, by Dr. H. W. G. Mackenzie; Minor Surgery, by Mr. Dodd; Surgical Tutorial Class, Mr. Battle; Auscultation and Physical Examination, by Dr. Andrewes; Medical Tutorial Class, Dr. Calvert. Students are appointed to the posts of Clinical Clerks, Surgical Dressers, Pathological Registrar without further fee.

Fees.—The fee for the ordinary curriculum of school and hospital instruction is £125 if paid in one sum, or, if paid in instalments, £40 for the first year, £40 for the second, £30 for the third, and £25 for the fourth, the fifth being free.

[1] The next Examination will be held at the Hospital on September 26th and 27th. The following are the subjects. Latin: 1892, Virgil, *Æneid*, Books VI and VII; 1893, Cicero, *De Senectute* and *Pro Archia*. The paper will contain passages for translation, questions in Grammar, and easy English sentences for translation into Latin. French or German—The papers will contain passages for translation into English, and questions in Grammar. Mathematics: Arithmetic—including Vulgar and Decimal Fractions, and extraction of Square Root. Algebra—Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Proportion, Arithmetical and Geometrical Progression, Simple Equations. Geometry—First Four Books of Euclid, or the subjects thereof. Experimental Physics and Chemistry—The questions in these will be elementary, and in the latter will be confined to the Non-Metallic Elements. The examination is by written papers. Notice of intention to compete, with a statement of the languages in which the candidate wishes to be examined, and a certificate of moral character, must be sent to the Dean not later than September 16th.

The courses of lectures included in this fee are as follows: Two courses each of Anatomy, Practical Anatomy, Physiology, Chemistry, Organic Chemistry, Histology, Materia Medica, Practice of Medicine, Surgery, Pathology, Midwifery, Diseases of Women, and Forensic Medicine, and one course each of Elementary Physics, Biology, Mental Diseases with Demonstrations, Ophthalmic Surgery, Operative Surgery, and attendance on a full course of instruction at the Royal Free Hospital, with pathological demonstration, medical and surgical tutorial classes, clinical clerkships, and surgical dresserships, etc.; Practical Physiology and Practical Chemistry. This course includes all the medical lectures required for the diplomas of the University of London, the Royal University of Ireland, the Conjoint Examination of the Irish and Scotch Colleges of Physicians and Surgeons, and for the Apothecaries' Society, London, and allows for the repetition of all the theoretical classes. A small extra fee will be charged for the repetition of practical classes. The fees for the courses are: Anatomy, Practical Anatomy, Physiology, Chemistry, Medicine, Elementary Biology, Physics, Surgery, and Midwifery, one course of each, £8 8s.; Practical Chemistry, Botany, Materia Medica, Forensic Medicine, and Pathology, each £5 5s.; Ophthalmic Surgery, Mental Pathology, each £2 2s.; Practical Midwifery, £4 4s. for one month; £12 12s. to £26 5s. for six months; and Vaccination £1 1s. The fee for four years' Clinical instruction at the Royal Free Hospital is £15 the first year, £15 the second, and £10 the third year; the fourth year is free. The fee for attendance at the London Fever Hospital for three months is £3 3s.

Scholarships and Prizes.—1. An Entrance Scholarship, value £30, is offered for competition at the end of September in each year. Candidates must have passed a Preliminary Examination in Arts, and the successful candidate must enter on a full course of medical study at the school.[1] 2. The Stuart Mill Scholarship, value £30 a year for four years, is offered to ladies willing to practise in India under the Dufferin Fund. 3. The John Byron Bursary, value £20 a year for four years, is offered to ladies requiring assistance for the prosecution of their medical studies. The next award will probably be in 1894. 4. The Fanny Butler Scholarship, value £20 a year for four years, for ladies guaranteeing to practise medicine under the Church of England Zenana Missionary Society. 5. The Gilchrist Scholarship of £50 a year for five years to the student of the London School of Medicine for Women who takes the highest position in the Preliminary Scientific M.B. Examination of the University of London. 6. The Society for the Promotion of Christian Knowledge offers valuable scholarships on certain conditions. 7. The Zenana Medical Mission Society assists ladies who wish to go to India as missionaries. 8. Income of the Helen Prideaux Memorial Fund as a prize every second year. 9. The Wood Prize for Operative Midwifery, value £5 5s. 10. Prizes and Certificates of Honour are awarded in each class at the end of the Session. 11. The National Association for Supplying Female Medical Aid to the Women of India provides funds for the Jubilee and the Dufferin Scholarships, out of funds collected in England.

Cooke's School of Anatomy, Physiology, Surgery, etc.—The School having been recognised by the London University and the Society of Apothecaries, a Department for Curriculum work has been formed, in which instruction is given meeting the requirements of the first two years of medical studies. Special advantages are offered in regard to practical work in Anatomy and Physiology, on the lines in respect of the former subject, of Mr. Cooke's "Dissection Guides." It is intended, however, in regard to the Curriculum, to take on only a small number of earnest workers, the object being to attract men who, on their becoming efficient in practical work, will be able to act as prosectors and physiological assistants to the School, and thus to take part in the "Supplementary Teaching," which is the main feature of the Institution. In encouragement of such, the Bland Sutton Scholarship is offered, conferring the privilege of free education for the first two years of the Medical Curriculum. By decision of the Royal Colleges of Physicians and Surgeons, gentlemen rejected at their Anatomical and Physiological Examinations (Primary R.C.S. or Second Conjoint) can get "signed up" from this school for the three or six months' supplementary work they are now required to put in before re-examination. The school also meets the requirements of qualified practitioners and advanced students, that is, gentlemen wishing either to obtain some of the higher qualifications, or to compete for appointments in Her Majesty's Army, Navy, and Indian Medical Services. For these special classes are provided. The instruction is given on the dissected and undissected body, with normal and pathological specimens, microscopical preparations, chemical, physiological, and surgical apparatus, splints, etc. The operations of Surgery are performed on the dead body. The school possesses a good collection of physiological apparatus, allowing of the demonstration to the class of the great bulk of the usual practical exercises in physiology; also chemical apparatus, allowing every student not only to see, but to repeat for himself the analysis of the principal foodstuffs and fluids and solids of the body, and also all the usual reactions, tests, etc. Gentlemen preparing for the higher examinations receive special instruction in the more difficult subjects, and have the advantage of personally repeating (with certain restrictions as to the careful use of the physiological apparatus) the practical exercises in Physiology by Professors Burdon Sanderson, Foster, and Langley, etc.

Besides the above, students and practitioners are admitted to attend the practice of several of the general and special hospitals and infirmaries. Information may be obtained on application to the secretaries of the respective institutions.

NOTES CONCERNING THE PROVINCIAL HOSPITALS AND MEDICAL SCHOOLS.

University of Cambridge.—The Lectures are given during the Michaelmas, Lent, and Easter Terms, and in the Long Vacation (July, August), usually on three days a week in the forenoon; Practical Work and Demonstrations usually in the afternoon. Practice at the hospital daily, from 10 to 1, during the terms and long vacation. The fees are one or two guineas a term for lectures, and two to three guineas for practical work in the laboratories. The perpetual fee for hospital practice is eight guineas. Many of the lectures in Medicine and Surgery are free to members of the University. The following is a list of the recognised teachers in the subjects of the Examination for Medical and Surgical degrees:

Chemistry: Professor Liveing; Professor Dewar; Dr. Ruhemann (University Lecturer); Mr. Sell, Mr. Fenton (University Demonstrators); Mr. Main (St. John's); Mr. Pattison Muir (Caius); Mr. Hutchinson (Caius); Mr. Neville (Sidney); Mr. Heycock (King's); Mr. Lewis (Downing). Physics: Professor Sir G. G. Stokes; Professor Thomson, Mr. Glazebrook, Mr. Shaw, Mr. Newall, Mr. Wilberforce, Mr. Fitzpatrick (University Demonstrators); Mr. Harker (St. John's); Mr. Atkinson (Trinity Hall); Mr. Griffiths (Sidney). Biology: Professor Newton (Zoology); Professor Babington (Botany); Mr. Sedgwick, Mr. Francis Darwin (University Readers); Mr. Hickson, Mr. Harmer, Mr. Gadow, Mr. Gardiner, Mr. Shipley, Mr. Seward (University Lecturers and Demonstrators). Pharmaceutical Chemistry: Mr. Robinson; Mr. Main (St. John's); Mr. Pattison Muir (Caius). Physiology: Professor Foster; Dr. Gaskell, Dr. Lea, Mr. Langley (University Lecturers); Dr. Shore, Mr. Hardy (University Demonstrators); Dr. Hill (Downing). Human Anatomy: Professor Macalister; Dr. Hill (University Lecturer); Mr. Douty, Mr. Melsome, Mr. Barclay-Smith (University Demonstrators). Pathology: Professor Roy; Dr. Adami; Dr. Lloyd Jones (University Demonstrator); Dr. Griffiths (Hospital Pathologist). Surgery: Professor Sir G. M. Humphry; Mr. Wherry (University Lecturer); Dr. Griffiths (Assistant to Professor). Vaccination: Dr. Cory. Medical Jurisprudence: Dr. Anningson (University Lecturer). Midwifery: Dr. Griffith (University Lecturer). Dental Surgery and Anatomy: Dr. Cunningham. Hygiene: Dr. Anningson and Mr. Robinson. Mental Diseases: Mr. Coulton Rogers (Fulbourn County Asylum). Therapeutics: Professor Latham. Medicine: Professor Clifford Allbutt; Dr. Donald MacAlister (University Lecturer); Dr. Bradbury (Linacre Lecturer). Hospital Physicians: Dr. Latham, Dr. Bradbury, Dr. Donald MacAlister; Dr. Laurence Humphry (Assistant Physician). Hospital Surgeons: Sir G. M. Humphry, Mr. Wherry, Mr. Carver, Mr. Deighton (Assistant Surgeon). Hospital Dentists: Mr. Jones, Mr. Rhodes.

Birmingham.—Mason College.—The Birmingham Medical School, which, under one title or another, has been in existence since 1825, enters this year upon a new and important era of its history. Connected hitherto—not to its advantage—with a Theo-

[1] The subjects of examination are: 1, English; 2, Latin—Cicero, *De Amicitiâ*; 3, Arithmetic; 4, Elements of Mathematics; 5, Elementary Physics.

logical Faculty—it has formed a part of Queen's College, but now divorced by the action of the Chancery Division of the High Court of Justice from that connection it has entered into partnership with the Faculties of Science and Arts in the magnificent institution founded by the generosity of the late Sir Josiah Mason. The School will be housed in new premises especially erected for the purpose, which will contain a dissecting room, 91 feet long by 27 feet wide, with which will be continuous a large lavatory and cloak room, with a room for the Chief Demonstrator. The Anatomical Department will also comprise a theatre capable of seating 223 students, with Professor's, Demonstrator's, and Prosector's rooms, museum, preparing rooms, and stores. There will also be Museums of Pathology, Materia Medica, Public Health, and Dentistry, with Bacteriological and Dental Laboratories. On the ground floor will be the Dean's office, janitor's rooms, general cloak and locker room, with lavatory, and a general medical theatre capable of seating 326 students, with Professor's retiring room and lavatory. A gymnasium and common room for the students in common with those of the other Faculties will also be provided. It should be explained that the College already contains complete Departments of Physiology, the accommodation in which has been recently considerably extended, and notably the provision of a laboratory for the study of Physiological Chemistry, Chemistry, Physics, Botany, and Zoology. Accommodation for the class of Pathological Histology will be found in the Physiological Department.

The staff will be the same as that connected with the Queen's College, save that Dr. Robert Saundby succeeds Sir Walter Foster in the Chair of Medicine, Mr. Priestley Smith occupying the Lectureship in Ophthalmology, formerly held by Mr. Vose Solomon; and Mr. F. C. Hunley that of Dental Surgery and Pathology, hitherto occupied by Mr. Charles Sims.

Clinical Lectures and Lectures in special departments are given in the General Hospital and the Queen's Hospital, which have a total of upwards of 400 beds. Practical instruction is given in the use of the Microscope, Laryngoscope, Ophthalmoscope, and Surgical Appliances; also in Case-taking and Bandaging, with Minor Surgery and Prescribing. Students must attend each hospital alternately for six months. No student may enter for hospital medical practice or lectures during the first year. Clinical instruction in Lunacy and Mental Disease is given at the Borough Asylum. Professor Whitcombe lectures during the winter at the College on these subjects. Students have free admission to the Eye and Orthopædic Hospitals. A course of Chemical Physics is given by Professor J. H. Poynting at 3 P.M. on Tuesdays and Fridays.

Appointments.—General Hospital: Resident Medical and Resident Surgical Assistant, two Resident Dressers, tenable for six months. *Queen's Hospital:* Resident Obstetric Assistant, tenable for six months; Resident Dresser, tenable for three months.

Prizes.—Two Ingleby Scholarships, after examination in Obstetric Medicine and Surgery and the Diseases of Women and Children, open to students who have completed two years' regular attendance at the College. One or more Sydenham Scholarships, £31 10s. each, awarded annually. One Queen's Scholarship, value £31 10s., awarded annually after examination in October. A Sands Cox Scholarship, value £31 10s., is awarded each October, after examination. The Sydenham Queen's and Sands Cox Scholarships are open to students entering at the College. The Russell Memorial Prize is awarded after an examination in Nervous Diseases. Medals and Certificates of Honour, annually, in each class after examination. A Senior Medical and a Senior Surgical Clinical Prize (third and fourth years), value in each department, £5 5s.; a Junior Medical and a Junior Surgical Prize (first and second years), value of each £3 3s.; Midwifery Prize (third and fourth years), £4 4s.

Tutorial Classes are held for the various Examinations.

Further particulars may be obtained by application or to Professor Windle, Dean of the Medical Faculty, at the College. Information regarding Hospital Practice may be obtained from Mr. Jordan Lloyd, 21, Broad Street, Birmingham; or Mr. Barling, Edmund Street.

Bristol Medical School, affiliated to University College, Bristol.—The Medical School provides all the courses of lectures required for the diplomas of the various Licensing Bodies and the degrees of the University of London. Practical instruction is further provided by the Lecturers, the Demonstrators, and the Medical Tutor in Anatomy, Physiology, and Pathology. A complete course of instruction is given in hygiene, with laboratory work, demonstrations, and practical outdoor sanitary work. Clinical instruction is given at the Royal Infirmary and General Hospital. The Royal Infirmary contains 264 beds, a large Library and Museum. The General Hospital contains 200 beds, a Library and Museum. Both institutions have special departments for Diseases of Women, the Eye, etc.

Appointments—Royal Infirmary: House-Physician, House-Surgeon and Junior Resident Medical Officer; Clinical Clerks and Dressers, also Ophthalmic, Obstetric, and Pathological Clerks are appointed. The Dressers reside in the Infirmary in weekly rotation. *General Hospital:* House-Surgeon, Assistant House-Surgeon, and Physicians' Assistant; Clinical Clerks, Dressers, Pathological Clerks, and Obstetric, Ophthalmic, and Pathological Clerks are appointed. The Dressers reside in the Hospital in rotation free of expense.

Prizes.—Prizes and Certificates of Honour are awarded at the Medical School after examination in the subjects of each year. *Royal Infirmary:* Two Entrance Scholarships (in subjects of general education), value £36 15s. and £10 10s. Suple Medical Prize and Suple Surgical Prize, each a Gold Medal, value £5 5s., and about £7 7s. in money, open to students in their fourth and third years of study respectively. Clark Prize (interest of £500) to the most successful student of the third year at the Medical School. Tibbitts Memorial Prize (interest of £315), for proficiency in Practical Surgery. Crosby Leonard Prize (interest of £300), to third year's surgical students. Six Pathological Prizes to the Pathological Clerks who perform their duties satisfactorily. Midwifery Prize (in books, value £3 3s.), after practical examination. *General Hospital:* Lady Haberfield Entrance Scholarship, value, the interest of £1,000, at the beginning of the winter session, after examination in subjects of general education. Second Entrance Scholarship, value £20. Clarke Surgical Scholarship, for third year students, £15 annually. Sanders Scholarship (interest of £500), for fourth year students, after examination in Medicine, Surgery, and Diseases of Women. Martyn Memorial Pathological Scholarships, two of £10 each, awarded half-yearly, after examination in Pathology. Committee Gold and Silver Medals awarded annually to the most distinguished students of the fourth year.

Medical School.—The regulations have been brought into conformity with all the requirements of the Conjoint Board of the Colleges, and the fees have undergone corresponding modifications.

Further particulars respecting the Infirmary may be known on application to Dr. Prowse; respecting the Hospital, on application to Dr. E. Markham Skerritt. Information regarding the Medical School will be afforded by the Dean, Dr. E. Markham Skerritt.

Leeds School of Medicine: Medical Department of Yorkshire College.—There are Anatomical, Pathological, Botanical, and Materia Medica Museums. The Library is open to students. The Museum of the Literary and Philosophical Society is open to students at a nominal charge.

The instruction in Chemistry and Physics, Practical Chemistry, Practical Toxicology, and Practical Pharmacy, Biology, and Botany is given in the Science and Art Department of the Yorkshire College.

Clinical Instruction, etc.—The General Infirmary has 443 beds; viz., medical cases, 105; surgical, 226; ophthalmic, 45; gynæcological, 17, and 56 cots are available for the treatment of children. There is also a semi-convalescent Home with 42 beds for the reception of Infirmary patients. Clinical lectures are delivered by the Physicians and Surgeons, and classes meet in the wards for practical instruction. Demonstrations of Eye and Ear Diseases, and instruction in the use of the Ophthalmoscope, and in the application of Electricity are given. There is also a Maternity Department in connection with the Infirmary. The West Riding Lunatic Asylum at Wakefield is open for the study of Mental Diseases, and a course of lectures is given by Mr. Bevan Lewis during the summer; the systematic lectures being given at the school, and the clinical at the asylum. Students can also attend the practice of the Leeds Public Dispensary, the Fever Hospital, and the Hospital for Women and Children.

Hospital Appointments. — House-Physicians, House-Surgeons, Physicians' Clerks, Surgeons' Dressers, Ophthalmic and Aural Surgeons' Dressers, Gynæcological Ward Clerks, Assistant-Physicians' Clerks, Assistant-Surgeons' Dressers, Dressers in the Casualty-

Room, and *Post-mortem* Room Clerks, are appointed during the year. The house-physicians and house-surgeons hold office for twelve months; the physicians' clerks and surgeons' dressers for six months; the others for three months. The house-physicians and house-surgeons must have at least one legal qualification. Appointments are also open to students at the Leeds Public Dispensary, at the Hospital for Women, and at the West Riding Lunatic Asylum.

Prizes.—The Hardwick Prize in Clinical Medicine and the McGill Prize in Clinical Surgery, value of each £10, are given annually. At the close of each session, Silver Medals, Books, and Certificates of Honour are awarded according to merit; and at the end of the summer sessions the Thorp Prizes of £20 are given in Forensic Medicine and Hygiene.

University College, Liverpool: Medical Faculty.—The Medical School contains two Museums, one in connection with the Anatomical Department, for specimens of human and comparative anatomy; the other for pathological specimens, drawings, wax models, materia medica specimens, etc. There is also a good Library and a Reading Room.

Instruction.—The Preliminary Scientific subjects are taught in the Science and Arts Department of the College; the rest in the Medical School. The Dissecting-room and Physiological Laboratory are kept open all the year, under the supervision of the demonstrators. In addition to the course of lectures on Medicine, Surgery, and Midwifery, practical instruction is given in each by the respective professors during the winter session. Clinical Lectures are delivered weekly at the Royal Infirmary, which contains 300 beds, and medical and surgical tutors attend in the wards daily from 10 to 12. Special instruction in Venereal, Children's, and Eye Diseases can be obtained at the neighbouring hospitals free.

Appointments.— Royal Infirmary: Three House-Physicians, three House-Surgeons, and one Extern House-Surgeon to the Thornton Wards are appointed for six months, after (if there be more applicants than vacancies) competitive examination. Candidates must have a legal qualification. Three Clinical Clerks for each Physician, three or more Dressers for each Surgeon, and two Clerks to the Thornton Wards for Diseases of Women are appointed for three months in October, January, and May. *Post-mortem* Clerks are appointed for six weeks. All students must perform this duty before the schedule for the final examination is signed.

Exhibitions and Prizes.—Holt Tutorial Scholarships: two are awarded annually by the Medical Faculty, each of the value of £100, for one year. Roger Lyon Jones Scholarships (each £21 for two years): one is offered annually as an entrance scholarship to students proceeding to the Victoria M.B. degree; the other is competed for by second year's students in Anatomy, Physiology, Chemistry, and Materia Medica. The Derby Exhibition of £15 is open to the competition of third and fourth year's students in Clinical Medicine and Surgery. In addition the Medical Faculty give two gold medals and numerous silver and bronze medals, and certificates of honour yearly.

The *Debating Society* meets eight or ten times during the winter session on Wednesday evenings for the reading and discussion of papers. Prizes are given for the best papers, and for the best collection of clinical reports.

Composition Fees.—For the convenience and advantage of students reading for the Victoria M.B., Ch.B. degrees, it has been arranged that they may pay a single fee of £24 15s. to the Science and Arts Department of the College, covering all the classes required for the Preliminary Scientific Examination and registration fee. And later on a second fee, payable in two equal instalments with an interval of twelve months, of £63 to the Medical Faculty, covering all the classes required for the Intermediate and Final Examinations. For students reading for Diplomas a composition fee of sixty guineas has been fixed, which includes all the classes required by most of the Examining Boards; except Biology. The composition fee for hospital practice at the Royal Infirmary is £42.

Communications should be addressed to the Dean, Professor Gotch, University College, Liverpool.

Owens College, Manchester: Medical Department.—The Department of Medicine comprises a very complete series of laboratories, museums, and lecture-rooms, and extensive additions are being provided. On the ground-floor of the Medical Buildings are situated the rooms in which are located the Library of the Medical Society of Manchester. These include (1) the Library, containing above 27,000 volumes; (2) a Students' Library; (3) a Reading-room, reserved for members of the Medical Society. The Medical Buildings also comprise a Students' Common Room, besides rooms for Professors and Lecturers, offices, etc.

Instruction.—In the College, the following courses (in addition to those mentioned in the table) are given:—in the winter; Organic Chemistry, by Professor Perkin; Gynæcology, by Professor Sinclair. Surgical Pathology, by Professor Young; Practical Pharmacy, by Professor Leech and Mr. Kirkby. In the summer: Diseases of Children, by Dr. H. Ashby; Mental Diseases, by Mr. G. W. Mould; Hygiene, by Dr. Tatham; Embryology (lectures and laboratory work), by Professor A. M. Marshall; Comparative Anatomy of the Vertebrates, by Dr. Hurst; Practical Morbid Histology, by Professor Delépine. Two courses of Materia Medica and Therapeutics; one being devoted to Materia Medica proper, and the other to the Action of Drugs; also courses of Practical Organic Chemistry and Sanitary Chemistry, suitable for candidates for diplomas in Public Health, by Professor Dixon; Practical Toxicology, by Professor Dixon Mann; Practical Pharmacy, by Professor Leech; Skin Diseases, by Dr. Brooke; Diseases of the Larynx, by Dr. Hodgkinson; Diseases of the Heart, by Dr. Graham Steell; and Diseases of the Respiratory Organs, by Dr. Harris. A special course of Anatomical Demonstrations will be given. A course on Operative Surgery suitable for the Final F.R.C.S., by Professor Hare. Classes meeting the requirements for Diplomas in Dental Surgery and of the Major and Minor Pharmaceutical Examinations are held during the Winter and Summer Sessions. Separate prospectuses of these departments are issued.

The Royal Infirmary contains 300 beds. Associated with it are the Monsall Fever Hospital (306 beds), and the Convalescent Hospital (136 beds), and the Royal Lunatic Asylum at Cheadle, which accommodates 260 patients.

Clinical Instruction is given by the Physicians and Surgeons of the Infirmary. Clinical Classes are formed in October, January, and May; also Advanced Clinical Classes for students of the last two years. Medical and Surgical Demonstrations are given, each at 9.15 A.M. one morning weekly in the summer. Clinical instruction is given at the Fever Hospital; also a series of Clinical Lectures on Fever, in the Infirmary. Mr. Thorburn gives instruction in Diseases of the Ear. Clinical Lectures on Diseases of Women and Obstetrics will be given at the Royal Infirmary, and at St. Mary's Hospital by Dr. Lloyd Roberts and at the Manchester Southern Hospital by Professor Sinclair. Clinical instruction in Diseases of the Eye, and Ophthalmoscopic Demonstrations will be given at the Royal Infirmary by Dr. Little, and at the Royal Eye Hospital by Dr. Glascott.

Appointments.—The following appointments are made: A Surgical Registrar, at £100 per annum; a Pathological Registrar, at £100 per annum; a Medical Registrar, at £50 per annum; two Assistant Medical Officers, each at £80 per annum; an Anæsthetist, at £50 per annum; an Assistant Anæsthetist, at £50 per annum. Resident Medical Officer, two years, £150 per annum; ditto, at Cheadle, one year, £150 per annum; ditto, at Monsall, one year, £250 per annum; Resident Surgical Officer, one year, £150 per annum; four House-Surgeons and two House-Physicians, a Resident Assistant at Monsall (salary £100 per annum); and one at Cheadle, each for six months. The House-Physicians, House-Surgeons, and the Resident Assistant at Monsall must possess a qualification which can be registered. Four or more Clinical Clerks are attached to each Physician and Assistant-Physician, and four or more Dressers to each Surgeon and Assistant-Surgeon. Additional Clinical Clerks are appointed to assist in the departments for Diseases of the Ear and Throat, and to assist the Surgical Registrar.

Scholarships, Exhibitions, and Prizes.—Two Dauntesey Medical Scholarships, value £50 each, tenable for one year. Candidates must not have attended lectures in a medical school. Subjects of Examination: Zoology, Botany, and Chemistry. The successful candidates must enter for the full course of medical studies at the College. A Gilchrist Scholarship of £50 per annum, tenable for three years in the College, awarded biennially, upon the results of the June Preliminary Examination of the Victoria University; also one, annually, upon the results of the June Preliminary Examination of the Victoria University. Grammar School Scholarship, value £18, tenable for three years, open to scholars of the Manchester Grammar School between the

ages of 16 and 21. Examination in June: subjects in 1893, Mathematics and Physical Science; in 1894, Classics and Mathematics. A subject for an English Essay will also be set each year. The successful candidate must enter to one of the departments of Owens College. Platt Physiological Scholarship, value £50, tenable for two years, open to all persons between the ages of 18 and 25, after a written and practical examination in Physiology and Histology, and Comparative Anatomy. The examiners will take into favourable consideration any original observation submitted to them. The successful candidate must attend for one year of his tenure the class of Practical Physiology in the Laboratory of the College, and in the other year in the same or some other approved physiological laboratory. Examinations on October 5th, 6th, and 7th, at 9.30 A.M. Notice of intention to compete must be given on or before September 20th. Two Platt Exhibitions, £15 each, for first and second year's students in Physiology. John Henry Agnew Scholarship in Diseases of Children, value £30. Examination in July. Notice of intention to compete must be given before the end of the preceding winter session. Turner Scholarship of £25, to students who have completed a course of medical study in the College, of not less than four nor more than five years after examination in the subjects of the third and fourth year's courses. Dumville Surgical Prize, value £20 (in books or surgical instruments), at the end of winter session, to students of two years who have attended four courses, including one at least in Surgery. Subjects of Examinations (early in June, 1893): Principles and Practice of Surgery, including Surgical Anatomy and Surgical Pathology, and, at option of Examiners, examination of patients and operations on dead subject, with reports of cases. Medals and certificates are awarded on the results of class examinations in each of the following subjects: Anatomy, first and second year's courses; Physiology, Histology, Pathology and Morbid Anatomy, Medicine, Surgery, Midwifery, Botany, Practical Chemistry, Materia Medica and Therapeutics, Medical Jurisprudence, Hygiene, Practical Surgery, Ophthalmology, Practical Physiology, Practical Anatomy (senior and junior), Diseases of Children, Mental Diseases, Materia Medica (first year's course), Gynæcology, Skin Diseases, Diseases of the Larynx, and also in the classes of the Dental and Pharmaceutical Courses. Bishop Berkeley Fellowships. The Council of Owens College propose—in June, 1893—to appoint at least two Bishop Berkeley Fellowships of £100 each, capable of renewal for a second year. Candidates are invited to apply, before May 15th, in any one of fifteen departments, including Chemistry, Botany, Zoology, Physiology, Pathology, and Pharmacology. The Bradley Memorial Scholarship, value £20, in Clinical Surgery, and two Clinical Prizes, value £6 6s. each, are awarded annually to students of the Royal Infirmary in the summer session. Candidates must be in their fourth year of study, have completed their dresserships, and have spent their whole period of studentship at the Manchester Royal Infirmary.

Prospectuses may be obtained from the Registrar, Mr. H. W. Holder, M.A.

FIRTH COLLEGE: SHEFFIELD SCHOOL OF MEDICINE.—The General Infirmary contains 200 beds, including two ophthalmic wards. The Public Hospital and Dispensary contains 105 beds. Students are also admitted to the practice of the Jessop Hospital for Diseases of Women, to the Borough Fever Hospitals, and South Yorkshire Asylum.

A course of Public Medicine is given by Dr. Sinclair White. The instruction in Chemistry, Physics, Toxicology, and in Biology and Botany is given at Firth College.

The Library of the Medical School is open to students under certain regulations.

Prizes and certificates of honour are given at the end of each session.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-UPON-TYNE.—The New College Building, which has been erected at a cost of about £31,000, is fitted with every convenience for study. The Medical Library of the Infirmary, the Libraries of the Durham College of Science and of the Literary and Philosophical Society; and the splendid Chemical and Physical Laboratories in the Durham College of Science may also be used by students.

Appointments.—Assistant Demonstrators of Anatomy, Prosectors for the Lecturer on Anatomy, Assistant Physiologists, Pathological Assistants, Assistants to the Dental Surgeon, and Assistants in the Eye Department, are elected annually. The Assistant Demonstrators of Anatomy receive £5 each; the others are unpaid. Four times in the year, Clinical Clerks and Dressers are appointed for three months.

The Royal Infirmary contains 280 beds. Pathological Demonstrations are given as opportunity offers. Practical Midwifery can be studied at the Newcastle Lying-in Hospital. Opportunities for practical study are also afforded by the Dispensary, Hospital for Infectious Diseases, Eye Infirmary, Children's Hospital, and Northumberland County Asylum, Morpeth, and Coxlodge, Dunston, Durham County Lunatic Asylums. Three months' Resident Clinical Clerkship at these Asylums may be substituted (in the University of Durham curriculum) for three months' Hospital Practice. Practical instruction in the duties of a Medical Officer of Health, and a summer course of clinical instruction at the City Hospital for Infectious Diseases are given.

Scholarships, etc.—A University of Durham Scholarship, value £100, for proficiency in Arts, open annually at beginning of winter session to intending students, and to those who have attended only one winter and one summer session. The Dickinson Memorial Scholarship, value £15, with a gold medal, for Medicine, Surgery, Midwifery, and Pathology; open to perpetual students who have passed the primary examination of a licensing body. The Tulloch Scholarship, interest of £400 annually, for Anatomy, Physiology, and Chemistry. The Charlton Memorial Scholarship, interest of £700 annually, open to full students entered for the class of Medicine, at end of winter session. The Gibb Scholarship, interest of £500 annually, for Pathology, at end of summer session. The Goyder Memorial Scholarship, proceeds of £325, subjects, Clinical Medicine and Clinical Surgery. Luke Armstrong Memorial Scholarship.—The friends of the late Dr. Luke Armstrong, who was connected with the College as Lecturer for a period of twenty-four years, desiring to testify their esteem and to perpetuate his memory, contributed £680, which has been invested to found a Scholarship. The Scholarship is open to all the Candidates for the Degree of Bachelor of Medicine, and will be awarded to the Candidate who obtains highest marks in the Honours Division in the Final Examinations in June and December in each year. The successful Candidate will be styled the Luke Armstrong Scholar. The Stephen Scott Scholarship, interest of £1,000 annually, to promote the study of Hernia and allied subjects. At the end of each session, prizes of books and certificates of honour are awarded in each of the regular classes. One year's attendance at the College is a necessary part of the curriculum for the medical degrees of the University of Durham, and is accepted by the University in lieu of one year's residence for the degree of B.A.

Further information may be obtained from the Secretary, Henry Fox, R.N.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE (CARDIFF).—Instruction is given in *Physics* by Professor Viriamu Jones, M.A.Oxon., B.Sc.Lond., Professor A. L. Selby, M.A., Fellow of Merton College, Oxford, and Mr. W. S. Hensley, B.A., Demonstrator. A junior course meets the requirements of the Matriculation Examination of the University of London. The Intermediate Course is adapted to the requirements of candidates for the Intermediate in Science and the Preliminary Scientific (1st M.B.) Examinations of the University of London. The Physical Laboratory is open every day except Saturday. Instruction in *Chemistry* is given by Professor C. M. Thompson, M.A., D.Sc., and Mr. E. P. Perman, D.Sc.Lond. The junior course covers the subjects prescribed for the London University Matriculation. The intermediate course, together with Laboratory practice, covers the subjects required for the Intermediate in Science and Preliminary Scientific (1st M.B.) Examinations of the University of London. The Laboratory is open daily. Instruction is given in *Biology* by Professor W. N. Parker, Ph.D.Freiburg, F.Z.S.; Zoology during Michaelmas and Lent Terms; Botany, during Summer Term. A more advanced course on the Zoology, Comparative Anatomy, and Embryology of the chief classes of the animal kingdom, which will include the work required for the Honours papers in the Intermediate Science and Preliminary Scientific Examinations of the University of London, is given during Michaelmas and Lent Terms. Practical Laboratory Courses in Botany (Easter Term), and in Elementary and Advanced Zoology (Michaelmas and Lent Terms), are also given.

Special Courses.—The classes and laboratories of the College afford preparation for the following examinations, among others, of the University of London: Matriculation (January and June); Intermediate in Science and Preliminary Scientific (July).

Aberdare Hall is a residential College for female students.

Fees.—Matriculation, £1 1s. Physics: junior, £2 2s.; intermediate, £3 3s.; senior, £3 3s. The Laboratory fee ranges from £3 3s. to £9 9s.—Chemistry: junior, £2 2s.; intermediate, £3 3s.; senior, £3 3s.; Laboratory (session), £3 3s., (term) £2 2s. to £4 4s. Biology, £3 3s. Zoology only, £2 2s. Botany only, £1 1s. Laboratory: junior, (session) £4 4s.; Zoology only, £3 3s.; Botany only, £1 1s. A composition fee of £10 covers the cost of all lectures.

Students preparing for the Science Examinations of the University of London or the medical courses at the Universities of Edinburgh, Glasgow, and Aberdeen, may, by making a payment of £13 13s. at the commencement of each session, compound for both Lecture and Laboratory Fees during the session.

Scholarships are given on the results of examinations at entrance.

The Library is open to students. There is a Students' Club.

The following hospitals are also recognised by the Royal College of Surgeons for the purpose of professional education: Bath United Hospital; Bedford General Infirmary; Berkshire Royal Hospital, Reading; Bradford Infirmary; Addenbrooke's Hospital, Cambridge; Derbyshire General Infirmary; Devon and Exeter Hospital; Gloucester General Infirmary; Hants County Hospital; Hull Infirmary; Kent and Canterbury Hospital; Leicester Infirmary; Liverpool Northern Hospital and Royal Southern Hospital; Norfolk and Norwich Hospital; Northampton General Infirmary; Nottingham General Hospital; Radcliffe Infirmary, Oxford; Salisbury General Infirmary; Salop Infirmary; Staffordshire General Infirmary; North Staffordshire Infirmary; Wolverhampton and Staffordshire General Hospital; Sussex County Hospital; Worcester Infirmary.

NOTES ON THE MEDICAL SCHOOLS AND HOSPITALS IN SCOTLAND.

University of Aberdeen.—Additional opportunities for practical instruction are afforded in the Chemical, Anatomical, Physiological, Pathological, and Hygienic Laboratories, and Anatomical and Pathological Museums, throughout the day, under the direction of the professors. Practical instruction is given also in the Toxicological, Pharmaceutical, Botanical, and Zoological Laboratories, and in the Surgical Museum and Laboratory. Courses of practical instruction are given, in summer, in Medical Jurisprudence and Hygiene by Dr. Hay; in Diseases of Children at the Sick Children's Hospital by the Medical and Surgical Staff; in Fevers, at the Fever Hospital, by Dr. Hay; in Insanity, by Dr. Reid, at the Royal Asylum; in Diseases of the Ear and Larynx, by Dr. Mackenzie Booth, at the Dispensary; in Diseases of the Eye, by Dr. McK. Davidson, at the Infirmary and Eye Institution; in Diseases of the Skin, by Dr. Garden, at the Royal Infirmary and Sick Children's Hospital. The General Dispensary and the Lying-in, Vaccine, and Eye Institutions, and the Sick Children's Hospital are open daily. Practical Pharmacy, Operative Surgery, Practical Medical Jurisprudence and Hygiene, fee to each class, £3 3s., except Anatomical Demonstrations, Practical Natural History, Practical Midwifery and Gynæcology, each £2 2s.; Practical Ophthalmology, Insanity, Public Health, Diseases of the Ear and Larynx, and Diseases of the Skin, each £1 1s.; Matriculation fee, both sessions, £1; summer session alone, 10s.; Royal Infirmary: Perpetual fee, £6; or first year, £3 10s.; second year, £3. Clinical Medicine and Clinical Surgery, each £3 3s. The winter session begins on October 13th. Bursaries, Scholarships, and Fellowships, to the number of forty-two and of the annual value of £1,000, may be held by students of medicine in this University. The Degrees of B.Sc. and D.Sc. are now granted, after examination, in one of the following specified departments of science to be selected by the candidate:—(*a*) The Mathematical Sciences, including Higher Mathematics and Natural Philosophy; (*b*) the Physical Experimental Sciences, including Experimental Physics and Chemistry; (*c*) the Natural Sciences, including any three of the following: Chemistry, Zoology, Botany, Geology, Anatomy, Physiology; (*d*) Mental Science, including the subjects of Logic, Psychology, Moral Philosophy, Political Economy, History of Philosophy. A course of Lectures on Physics, adapted for Medical Students, will be delivered during the ensuing Summer Session by Professor Niven. The Class will meet in King's College daily at 12.20 o'clock, beginning on Wednesday, April 20th. For regulations apply to Secretary of the Science Department.

University of Edinburgh.[1]—Sessional fee for Materia Medica, Chemistry, Surgery, Institutes of Medicine, Midwifery, Clinical Surgery (winter), Clinical Medicine (winter), Anatomy, Practice of Physic, Pathology, Botany (with garden fee of 5s.), Natural History (besides a charge of 10s. for laboratory expenses), Medical Jurisprudence, each £4 4s.; Practical Anatomy, Practical Physiology, Practical Chemistry, Practical Pathology, Clinical Medicine (summer), Clinical Surgery (summer), Operative Surgery, Mental Diseases, Diseases of the Eye, Practical Materia Medica and Pharmacy, Obstetric and Gynæcological Operations, each £3 3s.; Anatomical Demonstrations, Organic Chemistry (advanced), Practical Natural History, each £2 2s.; Clinical instruction in Diseases of Children (winter and summer), £1 1s.; Vaccination, £1 1s. The fee for a second course of any lectures is £3 3s.; any subsequent course is free. For a perpetual ticket at the beginning of the first course, the fee is £6 6s. Every student, before entering with any professor, must produce a matriculation ticket for the ensuing session, for which a fee of £1 is paid at the beginning of each winter session. Students first entering in the summer session pay a fee of 10s. The Library is open every lawful day during the winter session, from 10 A.M. till 4 P.M.; on Saturdays, till 1 P.M.

The following means are afforded for practical instruction: Practical Pathology and Morbid Anatomy, under the superintendence of Dr. Greenfield, assisted by Dr. Barrett and Dr. Muir; Tutorial Class of Clinical Medicine, in the Royal Infirmary, under the superintendence of the Clinical Professors; Tutorial Class of Clinical Surgery, by Dr. A. Logan Turner, under the superintendence of the Clinical Professor; Practical Surgery, under the superintendence of Professor Chiene and Dr. Wallace, Dr. Stiles, Dr. Young and Dr. Horne; Tutorial Class of Practical Physic, by Dr. R. A. Fleming, under the supervision of the Professor; Obstetric Operations, by Dr. Simpson and Dr. Webster; Organic Chemistry (advanced class), by Dr. Crum Brown; Practical Instruction in Mental Diseases, at Morningside Asylum, by Dr. Clouston, on Mondays, Wednesdays, and Fridays, at 3 (summer); Practical Botany and Vegetable Histology, by Dr. Balfour, assisted by Dr. Macfarlane. The Dissecting-rooms and the Anatomical Museum, under the superintendence of Sir William Turner; Chemical Laboratories, under Dr. Crum Brown, assisted by Dr. Gibson and others; Physiological Laboratory, under Dr. Rutherford, assisted by Dr. Haycraft, Dr. C. W. Carlier, and and Dr. Whiting; Physical Laboratory, under Mr. Tait; Natural History Laboratory, under the superintendence of Dr. Cossar Ewart, Dr. Beard, and others; Medical Jurisprudence Laboratory, under the superintendence of Sir Douglas Maclagan, assisted by Dr. C. H. Stewart; Royal Botanic Garden, Herbarium, and Museum, under the superintendence of Dr. Balfour, assisted by Dr. Macfarlane; Materia Medica Museum and Laboratory, under the superintendence of Dr. Fraser, assisted by Dr. Tillie and Dr. Sillar, are open to students.

Fellowships, etc.—Leckie-Mactier Fellowship, value £70 per annum, tenable for three years, open to Bachelors of Medicine of not more than three years' standing; next award in November, 1892. The examination will comprise written reports and commentaries on three Medical, three Surgical, and one Gynæcological case in the University wards in the Royal Infirmary; a written examination in Midwifery, Medical Jurisprudence, and Public Health; and an oral examination in Medicine, Surgery, Midwifery, Medical Jurisprudence, and Public Health. Freeland Barbour Fellowship, £100, tenable for one year, to the M.B. or M.Ch. who has gained the highest collective marks in Anatomy, Physiology, and Pathology in the professional examinations, and is prepared to devote not less than one year to original research in Midwifery or Gynæcology in any laboratory or practical department of the University; next award July, 1892. Sibbald Scholarship, £40, tenable for three years; subjects: Chemistry, Botany, and Natural History; next competition in October, 1892. Hope Prize Scholarship, about £35, to the most distinguished junior student in the Chemical Laboratory during the winter. Eight Vans Dunlop

[1] The minimum expenses have recently been altered, and are not now published in the Regulations of the University.

Scholarships, each £100, tenable for three years, one in March, 1893, for highest marks at preliminary examinations; one in July 1893, for highest marks (not less than 60 per cent.) in first year's subjects—Botany, Zoology, Chemistry, and Anatomy; one, in March, 1893, for highest marks (as above) in Physiology and Surgery; three (one each year) at end of third winter, for highest marks at a special examination on Anatomy, Physiology, Materia Medica, and Pathology; and one in Natural History, Botany, and Geology in April, 1892. Coldstream Memorial Medical Missionary Scholarship of £25, tenable for four years, to the students who intend to become medical missionaries; next award at Preliminary Examination in October, 1891. Buchanan Scholarship, annual proceeds of £1,000, yearly, for proficiency in Midwifery and Gynæcology. Murchison Memorial Scholarship, for proficiency in Clinical Medicine, annual proceeds of about £1,000; alternately in Edinburgh and London; open to candidates from London and from Edinburgh. Stark Scholarship in Clinical Medicine, value £112, tenable one year; awarded every alternate year; next competition in 1892. James Scott Scholarship, value £50, for proficiency in Midwifery. Ettles Medical Scholarship, value about £40, to the most distinguished Bachelor of Medicine and Master in Surgery for the year. The Gunning Victoria Jubilee Prizes: Dr. Gunning, of Edinburgh and Rio de Janeiro, has founded Eleven Post-Graduation Prizes of the value of £50 each, and each recurring triennially, namely: (1) The Monro Prize for Anatomy; (2) the Bell Prize for Physiology; (3) the Edward Forbes Prize for Zoology, etc.; (4) the Hutton Balfour Prize for Botany; (5) the Joseph Black Prize for Chemistry; (6) the Christison Prize for Materia Medica; (7) the Lister Prize for Surgery; (8) the Gregory Prize for Practice of Physic; (9) the John Thomson Prize for Pathology; (10) the Simpson Prize for Obstetrics; (11) the Alison Prize for Public Health and Medical Jurisprudence. Candidates must be either Bachelors of Medicine or Bachelors of Science of this University of not more than three years' standing. The Prizes will be awarded, with the approval of the Senatus, for (1) either (*a*) Competitive Essays written specially for the prizes, or (*b*) Theses submitted for Graduation; (or 2) original research conducted under supervision of the Professor in the department in which the prize is awarded. The prizes in Physiology, Botany, Surgery, Pathology, Zoology, Materia Medica, Obstetrics, Public Health, Medical Jurisprudence and Practice of Physic in 1892. Competitive Essays are required to be lodged with the Dean of the Faculty of Medicine on or before April 30th of the year in which each prize is to be awarded, and the successful competitors will be announced annually at the Medical Graduation Ceremonial. Abercrombie Bursary of £20, for four years, to students who have been brought up in Heriot's Hospital. Two Sibbald Bursaries, value £30 each. Two Heriot Bursaries, £30 a year each for three years, open to students matriculating for the first time in the University. Applications not later than October 1st to the Governors of George Heriot's Trust, from whom further particulars may be obtained. Two Thomson Bursaries, value £25 each, tenable for four years, in March and October, at Preliminary Examination in the subjects of General Education. Five Grierson Bursaries, each £20 per annum; in the absence of certain preferential candidates, open to competition; one to the student who shall pass the best examination in the subjects of Preliminary Education; two open to students commencing the second winter session, after examination in Chemistry, Botany, and Natural History; one to students commencing the third winter session, after examination in Anatomy and Physiology; one to students commencing the fourth winter session, after examination in Materia Medica and Pathology. Two Dr. John Aitken Carlyle's Medical Bursaries, £28 each, for one year, for proficiency in ordinary class-examinations; one to a first year's student, in Anatomy and Chemistry; one to a second year's student in Anatomy and Physiology. Two Mackenzie Bursaries, each of the value of £21 5s., to students in junior and senior classes of Practical Anatomy, for industry and skill. Two Mackie Bursaries of £30 each, for students of Medicine in the University who have completed their first or second *annus medicus*, and who, in the opinion of the Faculty of Medicine, require pecuniary assistance. Next award commencement of winter session, 1892-3; applications to the Dean of the Faculty of Medicine on or before October 31st. Competitors for the Bursaries must have studied the subjects of the examination at the University of Edinburgh. Gold medals are given on graduation to Doctors of Medicine whose theses are deemed worthy. Beaney Prize, value £37 10s., to the candidate for degrees of M.B. and C.M. who shall obtain most marks in Anatomy, Surgery, and Clinical Surgery. Hope Chemistry Prize, value £100, open to all students of the University not more than twenty-five years of age, who have worked for eight months, or for two summer sessions, in the chemical laboratory. Neil Arnott Prize, about £42, to the candidate who, having been a medical student of the University during either a summer or a winter session, shall pass with the greatest distinction the ordinary examination in Natural Philosophy for the degree of M.A. The successful candidate must continue a medical student of this University during the winter session. Ellis Prize, value about £25, every three years, for an Essay or Treatise in some subject of Animal or Vegetable Physiology; next award in April, 1893. Goodsir Memorial Prize, £60, awarded triennially. Wightman Prize, £10 10s., to student of class of Clinical Medicine for best report and commentary on cases treated in the wards. Cameron Prize of £98, to be awarded yearly to the practitioner or member of the medical profession who shall be adjudged to have made the most valuable addition to Practical Therapeutics during the year preceding. Dobbie-Smith Gold Medal in Botany, in alternate years, for an Essay on a Botanical subject. Anderson Henry Prize, awarded triennially for a Botanical Essay by a student of the class of Botany, during any of the three years. Competing essays to be received by the Dean of the Faculty of Medicine by July 1st, 1893.

EDINBURGH ROYAL INFIRMARY.—*Fees:* One month, £1 1s.; three months, £2 2s.; six months, £4 4s.; one year, £6 6s.; perpetual, £12. Separate payments, amounting to £12 12s., entitle to a perpetual ticket. Clinical Medicine and Clinical Surgery, each £4 4s. for course in winter, and £3 3s. in summer. Resident Physicians and Surgeons are appointed for six months; they live in the house free of charge. Candidates must be registered as legally qualified practitioners. Non-resident Clinical Clerks are also appointed for six months. Physicians and Surgeons appoint their own Clerks and Dressers. Assistants in the Pathological Department are appointed by the Pathologists. Instruction is given in special departments.

UNIVERSITY OF GLASGOW.—Dr. Gairdner will give a special course of lectures, chiefly on Diseases of the Nervous System, on Tuesdays and Thursdays at 1 P.M. in summer. Dr. Leishman lectures on Diseases of Women at 2 P.M. on Tuesdays, Thursdays, and Fridays in the summer; and Dr. Yellowlees on Insanity at 12 noon on Wednesdays in the University, and at 10 A.M. on Saturdays in the Gartnavel Asylum.

The Chemical Laboratory is open from 10 A.M. to 4 P.M. (fee £10 10s. in winter, and £5 5s. in summer); the Physiological Laboratory from 10 A.M. to 4 P.M. winter and summer; the Zoological Laboratory from 10 A.M. to 1 P.M. in winter and summer (fee £3 3s.); and the Botanical Laboratory at 10 A.M. during January, February, and March, and from 9 A.M. to 4 P.M. in summer (fee £2 2s.). Demonstrations in the Botanical Gardens are given in the summer.

Fees, each course, £3 3s., except summer courses of Anatomy, Insanity, Lectures on the Eye, Diseases of Women, and Operative Surgery, each £2 2s. In most of the courses for which £3 3s. is charged, the fee for a second session is £2 2s.; for a third session, £1 1s.

The Queen Margaret College is now incorporated with the University as its Department for Women. Further particulars will be published shortly.

GLASGOW; ANDERSON'S COLLEGE MEDICAL SCHOOL.—Lectures are delivered on the following subjects: Anatomy, Dr. A. M. Buchanan; Chemistry, J. Robertson Watson, M.A.; Physics, Dr. Freeland Fergus; Zoology, Dr. Geo. Bell Todd; Physiology, Dr. D. Campbell Black; Surgery, Dr. James Dunlop; Practice of Medicine, Dr. Samson Gemmell; Materia Medica, Dr. A. Napier; Midwifery (in summer) and Diseases of Women (in winter), Dr. Wm. L. Reid; Medical Jurisprudence (in summer), Dr. T. Kennedy Dalziel; Botany (in summer), Professor King; Ophthalmic Surgery, Dr. Meighan; Public Health, Dr. P. Caldwell Smith; Aural Surgery, Dr. Barr; Diseases of Throat and Nose, Dr. John Macintyre; Mental Diseases, Dr. John Carswell; Hospital Practice and Clinical Lectures in Royal or Western Infirmary; Pathology in Royal or Western Infirmary; Vaccination and Dispensary Practice in Royal or Western Infirmary Dispensary. The above lectures qualify for all the Licensing Boards in the United King-

dom. They are recognised by the Universities of Glasgow, Edinburgh, etc., under certain conditions which are set forth in the calendar.

Fees for each course of lectures (Anatomy and Chemistry excepted), first session, £2 2s.; second session, £1 1s.; afterwards free. Anatomy Class Fees: Winter, first session (including Practical Anatomy), £4 4s.; second session (including Practical Anatomy), £4 4s.; third session, £2 2s.; Practical Anatomy alone, £2 2s. To those who have attended the necessary courses of Practical Anatomy the fee will be £1 1s. Chemistry Class Fees: First Course, £2 2s.; Second Ditto. £2 2s. Students who have attended classes at other schools will be admitted to such classes as they may have attended elsewhere at the reduced fees.

The winter session will be opened on Tuesday, October 18th, at 2 o'clock, with an Address by Professor W. L. Reid, M.D.

The New Buildings are situated in Dumbarton Road, immediately to the west of the entrance to the Western Infirmary, within two minutes' walk of that institution and four minutes' walk of the University. They are constructed on the best modern principles, and extensive accommodation is provided for Practical Anatomy, Practical Chemistry, Practical Physiology, Practical Pharmacy, and Operative Surgery. There are also provided a large Library and Reading Room, and a Students' Recreation Room.

A calendar containing full particulars of the school may be obtained from Professor Samson Gemmell, M.D., Dean, Anderson's College Medical School, Dumbarton Road, Partick, Glasgow.

St. Mungo's College and Glasgow Royal Infirmary.—This College was incorporated in 1889. The Glasgow Royal Infirmary was founded in 1791. The Faculty of Medicine of the College occupies new buildings erected for the purposes of the Medical School, adjoining and communicating with the Hospital. The Laboratories, Museums, and Lecture-rooms are equipped and adapted to modern scientific requirements. The most recent additions consist of Public Health, Practical Zoology, and Bacteriological Laboratories.

The Royal Infirmary, which is at the service of the College for the purpose of clinical and practical instruction, is one of the largest general and special hospitals in the kingdom. It has nearly 600 beds available for clinical instruction, and it has special wards for diseases peculiar to women, for venereal diseases, erysipelas, burns, and diseases of the throat. At the dispensary special advice and treatment are given in diseases of the eye, ear, teeth, and skin, in addition to the large and varied number of ordinary medical and surgical cases—over 36,000 per annum—which in a great industrial centre daily require attention. Students of the college and hospital get the benefit of dispensary experience free of charge, and no better or wider field for seeing hospital practice and receiving clinical instruction can be found than in the Glasgow Royal Infirmary. All appointments are open. There are five physicians' and six surgeons' assistants who board in the hospital, and act in the capacity of house-physicians and house-surgeons. These appointments are made for six months, and are open to gentlemen who have a legal qualification in Medicine or Surgery, and preference is given to students of this College and Hospital. Clerks and dressers are appointed by the physicians and surgeons. From the large number of cases of acute diseases and accidents of varied character received into this hospital these appointments are valuable to students. In the Pathological Department assistants are also appointed.

Ophthalmic Department—The Ophthalmic Institution in West Regent Street having been taken over by the Royal Infirmary, the usefulness of this department is very much increased and greater opportunities afforded to students for the practical study of Diseases of the Eye. Dr. Wolfe, the Ophthalmic Surgeon, attends the Royal Infirmary every Tuesday and Friday, at 12 noon, and daily at the Institution in West Regent Street from 1 to 2 P.M. Students can attend both without payment of any additional fee. Lectures are delivered twice a week during the winter and summer sessions. Fee for the course. £2 2s.

The session will open with an address by Professor McVail, on Wednesday, October 19th, at the College buildings. The fee for each class is £2 2s., except for Anatomy, which is £4 4s., and for Physics, which is £2 4s. 6d, and certain extra classes, of which the fee is £1 1s. The governors have arranged a sessional fee, payment of which entitles the students to attendance not only on the curriculum classes, but all classes—nearly as many more as the curriculum classes—and this sessional fee is only slightly greater than the sum total of the fees required for curriculum classes. Students are strongly recommended to begin their course on the sessional-fee plan. This fee is £17 19s. 6d. for the First Year, £15s. 15s. for the Second, £10 10s. for the Third, and £5 5s. for the Fourth. The hospital fee (including Clinical Lectures) is £21 for a perpetual ticket. The Classes in St. Mungo's College and in the Glasgow Royal Infirmary are for male students exclusively. Further particulars can be obtained in the Calendar of the College, which will be sent free of charge on application to the Honorary Secretary, Mr. Henry Lamond, 93, West Regent Street, Glasgow.

Glasgow Western Medical School.—This school is situated in University Avenue, in close proximity to the Glasgow University and Western Infirmary, in which latter students obtain their hospital practice and clinical lectures. Lectures and Demonstrations are given on Chemistry, by Mr. A. B. Robertson; on Practice of Medicine, by Dr. R. Cowan Lees; on Surgery, by Mr. R. H. Parry; on Midwifery, by Dr. H. St. Clair Gray; on Gynæcology, by Dr. J. Stuart Nairne; and on Diseases of Throat and Nose, by Dr. A. Brown Kelly. The post of Lecturer on Hygiene is at present vacant.

Fees.—For each class, £2 2s., except for Diseases of Throat and Nose, the fee for which class is £1 1s. There is no entrance fee.

Glasgow Western Infirmary.—This Hospital adjoins the University of Glasgow. Number of beds 400. The Clinical Courses are given by the Physicians and Surgeons, each of whom conducts a separate class, and students may attend whichever they select at the beginning of the session. Special instruction is given to junior students by tutors or assistants, and clinical clerks and dressers are selected from the members of the class. Special wards are set apart for Diseases of Women and for Diseases of the Skin. In the Out-patients' department there are special *cliniques* for Diseases of Women and for Diseases of the Throat, Ear, and Teeth. All the courses of clinical instruction are recognised by the University of Glasgow and the other Boards in the kingdom. In the Pathological Department the course consists of lectures and practical demonstrations, extending over both the winter and the summer sessions, and is recognised by the University for graduation. Eight resident assistants are appointed annually without fee from those who have completed their course.

Fees.—For the hospital practice, including the various courses of clinical instruction, £21 in one payment, or in two equal instalments for the first and second years; for six months, £7 7s.; and for three months, £4 4s.

Glasgow Eye Infirmary.—*Senior Surgeon*, Thomas Reid, M.D. *Surgeons*, Thomas S. Meighan, M.D.; A. Freeland Fergus, M.D.; and A. Maitland Ramsay, M.D. *Assistant-Surgeons*, William Robertson, M.B.; Andrew Wilson, M.B.; and James Hinshelwood, M.D. *Pathologist*, Robert M. Buchanan, M.B. *House-Surgeon*, Leslie Buchanan, M.B. *Consulting Surgeon*, George Buchanan, M.D. 1. Gentlemen may attend as students on payment to the Treasurer of the following fees: for three months' attendance, £1 1s.; for six months' attendance, £2 2s.; for twelve months' attendance, £3 3s. 2. Students attending the Waltonian Lectures in the University of Glasgow may attend at the Infirmary for Clinical instruction during the University Session without fee. Former Waltonian students may attend on payment to the Treasurer of the following fees; for six months' attendance, £1 1s.; for twelve months' attendance, £2 2s. Further information may be obtained from the Secretary, Mr. W. G. Black, 88, West Regent Street, Glasgow.

MEDICAL SCHOOLS AND HOSPITALS IN IRELAND.

School of Physic in Ireland.—This school is formed by an amalgamation of the medical schools of Trinity College and of the King and Queen's College of Physicians; the King's Professors of Institutes of Medicine, Practice of Medicine, Materia Medica, and Midwifery, being appointed by the latter. The departments of Medicine and Surgery are presided over by the Regius Professor of Physic, Sir J. T. Banks, K.C.B., M.D.; and the Regius Professor of Surgery, Sir G. H. Porter, Bart., M.D. The teaching staff is as follows: University Professor of Anatomy and Chirurgery, Dr. D. J. Cunningham (Practical) and (Systematic); (Applied) Dr. Cunningham and Dr. H. St. J. Brooks, University Anatomist. University

Professor of Chemistry, Dr. J. E. Reynolds. Professor of Surgery in Trinity College, Dr. E. H. Bennett. King's Professor of Practice of Medicine, Dr. J. M. Finny. King's Professor of Midwifery, Mr. A. V. Macan. Erasmus Smith's Professor of Natural Philosophy (Heat, Electricity, and Magnetism), Dr. G. F. FitzGerald. Professor of Institutes of Medicine (Physiology), Dr. J. M. Purser.

The winter session commences on October 1st by the opening of the Dissecting-room. Lectures commence on November 1st. The winter courses consist of fifty-six lectures each. Attendance on at least forty-two lectures in each course is required. The summer session commences April 1st. The courses in the summer (except those of Materia Medica and Medical Jurisprudence) consist of Laboratory Instruction and Practical Demonstrations.

The Dissecting-room is open from 11 A.M. to 5.30 P.M. in the winter, and from 8 A.M. to 5 P.M. in the summer. Instruction is given daily by Professor Cunningham, Dr. Brooks, and five Demonstrators. A Course of Laboratory Instruction in Histology will be given in the Physiological Laboratory. On Mondays, at 3 o'clock, a Lecture will be given in the Theatre, after which, illustrative preparations will be shown. One division of the class will work from 3 to 5 o'clock, on Wednesdays and Fridays; the other from 3 to 5 o'clock, on Tuesdays and Thursdays. Each student will have his own place in the Laboratory, a Microscope, and a full set of Apparatus and Reagents. The Laboratory will be open to members of the class from 11 to 5 o'clock daily, except Mondays. The Chemical Laboratories are open daily, under the supervision of Professor Reynolds. Professor Bennett gives a complete course of Demonstrations in Operative Surgery during April and May, at 8 A.M. on Mondays, Wednesdays, and Fridays, and 11 A.M. on Tuesdays, Thursdays, and Saturdays. Professor Macan gives Demonstrations in Obstetric Medicine and Surgery on Tuesdays and Fridays at 12 P.M. Practical Botany is taught in the Botanic Garden and the Herbarium by Professor Wright.

The Museums of Anatomy and Zoology, of Pathology, of Materia Medica, and of Botany, are open to the students of the School of Physic.

Scholarships, Prizes, etc.—Two Medical Scholars are elected annually by the Board of Trinity College, at an examination held at the end of June, subject to conditions stated in the College Calendar. Each Scholarship is worth £20 per annum, and is tenable for two years. A Medical Travelling Prize and a Surgical Travelling Prize, value of each £100, are also awarded in alternate years. The Professors of Chemistry, Botany, Practice of Medicine, Materia Medica, and Midwifery, and the Lecturer on Medical Jurisprudence, each give Prizes amounting to £5.

Fees.—For Anatomy, Medicine, Materia Medica, Midwifery, Medical Jurisprudence, Institutes of Medicine (Physiology), Practical Chemistry, Obstetric Medicine and Surgery (at Sir Patrick Dun's Hospital), Ophthalmic Surgery (at St. Mark's Hospital), each £3 3s.; Demonstrations and Dissections, each year, £8 8s.; Histology, £5 5s.; Surgery and Chemistry, each £2 2s.; Botany, £1 11s. 6d. Students dissecting during the fourth year pay £2 2s.

Adelaide Medical and Surgical Hospitals.—*Consulting Physician*, Dr. J. F. Duncan. *Consulting Obstetric Surgeon*, Dr. Lombe Atthill. *Physicians*, Dr. Henry H. Head, Dr. James Little. *Assistant-Physicians*, Dr. Wallace Beatty and Dr. H. T. Bewley. *Surgeons*, Mr. John K. Barton, Mr. Kendal Franks, Mr. F. T. Heuston, and Mr. J. H. Scott. *Obstetric Surgeon*, Mr. R. D. Purefoy. *Ophthalmic and Aural Surgeon*, Mr. H. R. Swanzy. *Dental Surgeon*, Dr. R. T. Stack.

The Hospital contains 140 beds. There are wards for infants and children, and there is a large detached fever hospital. Special hours are devoted to Clinical Instruction for the Diseases peculiar to Women, and in the Diseases of the Eye, Ear, Throat, and Skin; and students are individually instructed in the uses of the Stethoscope, Ophthalmoscope, and Microscope, in their application to Clinical Medicine. Three resident pupils are selected half-yearly. At the termination of the session, prizes in Clinical Medicine and Surgery will be awarded. In addition, the Hudson Scholarship (£30 and a gold medal), and a prize of £10 with a silver medal, will be awarded for proficiency in the subjects of clinical instruction.

Fee for nine months' hospital attendance, £12 12s.; six months', £8 8s.; summer three months, £5 5s.

Further particulars may be obtained from Mr. F. T. Heuston, or any of the members of the medical staff.

Catholic University Medical School (Cecilia Street, Dublin).—The *Winter Session* commences on October 1st, when the Dissecting Room is open for work. Lectures commence on November 1st. The following is a list of the teaching staff: Anatomy, Dr. A. Birmingham; Practical Anatomy, Dr. Birmingham (daily), assisted by Drs. Bourke, Fagan, and Dempsey; Physiology, Dr. Coppinger, assisted by Dr. Coffey; Chemistry, Dr. Campbell; Surgery, Dr. Hayes; Medicine, Dr. C. J. Nixon; Midwifery and Diseases of Women, Dr. A. J. Smith; Pathology, Dr. McWeeney; Natural Philosophy, Professor Stewart; Biology, Dr. Sigerson; Practical Biology, Mr. Blaney; Ophthalmology, Dr. D. D. Redmond; Hygiene, Dr. A. Roche. *Summer Session:* Practical Anatomy, Dr. A. Birmingham; Practical Chemistry, Dr. Campbell; Practical Physiology and Histology, Dr. Coppinger and Dr. Coffey; Materia Medica, Dr. Quinlan; Practical Pharmacy, Dr. Quinlan; Medical Jurisprudence, Dr. A. Roche; Botany and Zoology, Dr. Sigerson; Practical Biology, Mr. Blaney; Operative Surgery, Dr. Hayes; Medical Registrar, Dr. Birmingham. During the past year the school has been rebuilt and much enlarged. A completely new Anatomical Department (consisting of Dissecting Room, Bone and Reading Room; Museum, Work, Tank, Macerating, and Preparation Rooms) has been provided. A new Physiological Department has been fitted up, including, Histology Laboratory, Physiology Laboratory, Theatre, Instrument and Store Rooms; also a new Chemical Laboratory and a Public Health Laboratory. The school contains a student's Reading Room, provided with all the books used by students reading medical courses. In connection with the school there is a Bacteriological Laboratory under the direction of the Lecturer on Pathology.

The Dissecting Room is open from 8 to 6 during the winter and summer; it is under the immediate care of the professor of Anatomy, assisted by three demonstrators and two assistants. Besides, a series of demonstrations on the subject is delivered in the Dissecting Room by Professor Birmingham. The Systematic Anatomy Class is divided into two parts—a junior and a senior—which are taught separately. The Physiology class is similarly divided, and taught in two divisions. In the summer course of Histology each student is provided with a laboratory bench, a microscope, and reagents for practical work, which is conducted by the Professor and his assistant; in addition there is a lecture on the same subject three times a week. In the Practical Chemistry course each student is provided with a laboratory bench and reagents for practical work, instruction in which is given by the Professor. The Professor of Surgery gives a complete course of Practical Surgery during the summer, in which the students perform the various operations on the cadaver. In the Practical Biology course students have an opportunity of dissecting typical specimens illustrating the subjects. A Public Health Laboratory has been lately fitted up, which is under the direction of the Professor of Medical Jurisprudence and Hygiene.

The *Fees* are Anatomy (theoretical), Physiology, Surgery, Medicine, Midwifery, Chemistry, Pathology, Materia Medica, Practical Pharmacy, Medical Jurisprudence, each £3 3s.; Dissections (certified), Practical Physiology and Histology, Operative Surgery, Practical Chemistry, Natural Philosophy, each £5 5s.; Biology, £8 8s.; Dissections (uncertified), £2 2s. All other courses free.

Exhibitions and Prizes.—Two first year's exhibitions, value £14 14s. each; two second year's exhibitions, value £10 each; two third year's exhibitions, value £12 10s. each, and two large gold medals, besides class prizes, are offered annually for competition amongst the students of the school.

Prospectuses and further information about all school matters to be obtained from the Medical Registrar, Cecilia Street, Dublin.

City of Dublin Hospital.—*Consulting Physician*, Dr. Banks. *Consulting Surgeon* (no surgeon has yet been appointed in Mr. Tufnell's place). *Physicians*, Dr. Hawtrey Benson, Dr. Duffey. *Surgeons*, Mr. H. G. Croly, F.R.C.S., Mr. W. I. Wheeler, Dr. H. Fitzgibbon, F.R.C.S. *Ophthalmic and Aural Surgeon*, Mr. A. H. Benson. *Gynæcologist*, Dr. J. L. Lane. *Assistant-Physician*, Dr. Humphrey J. Broomfield. *Pathologist*, Dr. Wm. R. Graves. The Hospital is visited at 9 A.M.; after the visit Clinical Lectures are delivered, and Pathological Specimens exhibited. There are special wards for Fever and other Contagious Diseases, Ophthal-

mic and Aural Diseases, and Diseases of Women and Children; also a Daily Dispensary, and Special Dispensaries for Diseases of the Skin, Throat, Eye and Ear, and for Diseases peculiar to Women.

Clinical Assistants to the Physicians and Dressers to the Surgeons are appointed from the most deserving of the class, and certificates awarded for the faithful performance of their duties. Medical and Surgical Resident Pupils are appointed, and Special Certificates awarded if merited. A House-Surgeon is appointed annually.

The winter session commences in October and terminates in April; the summer session commences in April and terminates in July.

Fees.—Nine months' hospital attendance, £12 12s.; six months', £8 8s.; three months, £5 5s. For further particulars, apply to Mr. Arthur Benson, F.R.C.S., 42, Fitzwilliam Square, or at the Hospital.

Jervis Street Hospital, Dublin.—*Physicians*, Dr. W. Martin, Dr. James B. Coleman. *Surgeons*, Mr. A. Meldon, Mr. W. Stoker, Dr. J. J. Cranny, Dr. C. Gunn, Dr. Conway Dwyer, Dr. J. Dallas Pratt, Mr. Louis A. Byrne; *Ophthalmic Surgeon*, Dr. P. W. Maxwell; *Hon. Sec. Medical Board*, Dr. J. B. Coleman, 15, Westland Row.

Clinical Instruction is given by the Physician and Surgeon on duty every morning, between 9 and 11. Clinical Lectures are delivered each week, and pathological specimens are exhibited. Surgical Instruments and appliances of all kinds are made the subject of Special Instruction.

Surgical Operations are performed on Tuesday and Saturday, at 10 A.M., except in cases of emergency.

Resident Pupils, Clinical Clerks, and Dressers, are appointed every six months, without additional fee, and are awarded special certificates if their duties have been satisfactorily performed. Four interns are appointed each half-year, and are provided with apartments, etc., free of expense.

Examinations in Surgery, Medicine, and Case-taking, will be held at the end of the session. A gold and two silver medals will be awarded if sufficient merit be shown.

Accidents and Urgent Cases are received and attended to at all hours of the day and night, irrespective of religious distinction Intern patients during past year, 826; accidents of various classes, 7,764; Relieved in dispensary, 21,623; total, 30,213.

Managing Committee for 1892.—His Grace Most Rev. Dr. Walsh, Archbishop of Dublin; John E. Barry, Rev. Robert F. Conlan, Adm.; Alderman V. B. Dillon, Very Rev. M. A. Canon Fricker, P.P.; William Findlater, William Kelly, J.P.; Charles Kennedy, J.P.; Alderman Kernan, Alderman Meagher, J.P.; John Mulligan, Michael Murphy, J.P.; James Talbot Power, D.L.; Edward T. Stapleton, William Williamson.

Mater Misericordiæ Hospital.—*Consulting Physician:* Dr. Francis R. Cruise. *Physicians*, Dr. Christopher J. Nixon, Dr. Joseph M. Redmond, Dr. Michael A. Boyd, Dr. John Murphy. *Surgeons*, Mr. Patrick J. Hayes, Mr. Charles Coppinger, Mr. Arthur Chance, Mr. John Lentaigne. *Obstetric Physician*, Dr. Thos. More Madden. *Ophthalmic Surgeon*, Mr. Louis Werner. *Dental Surgeon*, Mr. Daniel Corbett. *Pathologist*, Dr. E. J. McWeeney. *House Physician*, Dr. Frank Dunne. *House-Surgeons*, Messrs. Jeremiah Dowling and Michael O'Sullivan.

This Hospital, the largest in Dublin, at present containing over 311 beds, is open at all hours for the reception of accidents and urgent cases. Fifty beds are specially reserved for the reception of patients suffering from fever and other contagious diseases. Instruction at the bedside will be given by the Physicians and Surgeons daily from 9 to 11 o'clock. Clinical Instruction will commence on Monday, October 3rd, at 9 o'clock.

A course of Lectures and Instruction on Fever will be given during the winter and summer sessions. A certificate of attendance upon this course, to meet the requirements of the various Licensing Bodies, may be obtained. Opportunities are afforded for the study of Diseases of Women in the wards under the care of the Obstetric Physician, and at the Dispensary held on Tuesdays and Saturdays. Lectures on Clinical Gynæcology will be delivered on Saturdays, at 11 A.M., during the winter session. Opthalmic Surgery will be taught in the special wards and Dispensary during the winter session. Surgical Operations will be performed on Monday, Tuesday, Thursday, and Saturday mornings, at 10 o'clock. Instruction in Pathology and Bacteriology will be given.

Connected with the Hospital are extensive Dispensaries, which afford valuable opportunities for the study of general Medical and Surgical Diseases, Accidents, etc. A House-Physician and two House-Surgeons will be appointed annually. They will hold office for one year. Eight Resident Pupils will be elected to hold office for six months from the most attentive of the class. For the current session the elections will take place on Tuesday, November 1st, 1892, and Monday, May 1st, 1893, at 11 o'clock A.M. Dressers and Clinical Clerks will be appointed, and certificates will be given to students who exhibit proficiency and punctuality in performing their duties.

Private Wards: Private wards have been opened for the reception of patients suffering from medical or surgical affections. Further particulars can be obtained by applying at the hospital.

Training School and Home for Trained Nurses: In order to meet the increasing demand for thoroughly trained, intelligent, and reliable nurses, the Sisters of Mercy have established a Training School in connection with the Mater Misericordiæ Hospital. This being the largest institution of its kind in Dublin, offers unrivalled opportunities for the practical education of nurses in the management of all kinds of illness, whether medical, fever, or surgical. Application to be made to the Lady Superior at the hospital.

Leonard Prizes: One Gold and one Silver Medal will be offered for competition annually in the subject of Medicine, and one Gold and one Silver Medal in the subject of Surgery. Junior Leonard Prizes: One prize value £3, and one prize value £2, will be awarded in Medicine; one prize value £3, and one prize value £2, will be awarded in Surgery. They will be awarded on the aggregate of marks gained by reports of cases, and at a Clinical examination to be held at the close of the summer session. Further particulars can be obtained from the Registrar or Secretary.

Certificates of attendance upon this Hospital are recognised by all the Universities and the Licensing Bodies in the United Kingdom.

Fee for nine months, £12 12s.; six winter months, £8 8s.; three summer months, £5 5s.

A prospectus containing in detail the arrangements for clinical instruction, prizes, etc., may be obtained from the Secretary, Dr. Redmond, 8, Clare Street.

Queen's College, Belfast.—The following courses are delivered:—Anatomy and Physiology, Dr. Redfern; Practical Anatomy daily, except S.; Practical Physiology and Histology, Saturdays and alternate Fridays; Medicine, Dr. James Cuming; Surgery and Operative Surgery, Dr. Thomas Sinclair; Materia Medica and Therapeutics, Dr. Whitla; Midwifery, Dr. R. F. Dill; Chemistry, Dr. Letts; Medical Jurisprudence, Dr. J. F. Hodges (summer); Practical Chemistry, Dr. Letts; Natural Philosophy, Dr. J. D. Everett; Zoology, Dr. R. O. Cunningham; Botany, Dr. Cunningham (summer); Practical Pathology (summer).

Clinical instruction is given at the Belfast Royal Hospital. The Ulster Hospital for Diseases of Women and Children, the Belfast Lying-in Hospital, the Belfast Ophthalmic Hospital, the Ulster Eye, Ear and Throat Hospital, the Belfast District Lunatic Asylum, and the Belfast Hospital for Sick Children are open to students.

Fees.—Anatomy and Physiology, first course, £3; each subsequent course, £2. Demonstrations and Practical Anatomy, and Practical Chemistry, each course, £3. Practical Physiology and Histology, each course, £3 3s. Other Medical Lectures, first course, £2; each subsequent course, £1. Belfast Royal Hospital, Clinical Fees, winter session, £5 5s.; summer session, £2 2s.; Perpetual Fee, payable in two instalments, £10 10s.; Hospital Fee, half a guinea for each winter or summer session. Lying-in Hospital, six months, £2 2s. Ulster Hospital for Diseases of Women and Children, and Midwifery Dispensary, six months, £3 3s. Belfast Hospital for Sick Children, £1 1s. Belfast Ophthalmic Hospital, winter or summer session, £1 1s. Ulster Eye, Ear, and Throat Hospital, winter or summer session, £2 2s. Apply to Dr. McKeown, Ulster Eye, Ear, and Throat Hospital, Belfast, for information as to this fee. Belfast District Lunatic Asylum, summer session, £3 3s. Eight Junior Scholarships, of the value of £25 each, are awarded annually, after examination, to students of the Faculty of Medicine, two being awarded for each of the four years of study.

Queen's College, Cork.—The following courses of lectures are given:—Practical Anatomy, Anatomy and Physiology, Histology and Practical Physiology, Dr. J. J. Charles; Anatomical

Demonstrations, Dr. O. S. O'Sullivan; Medicine, Dr. E. R. Townsend; Surgery, Dr. S. O'Sullivan; Operative Surgery, Dr. S. O'Sullivan; Materia Medica, Dr. C. Y. Pearson; Midwifery, Dr. H. Corby; Medical Jurisprudence, Dr. Pearson; Natural Philosophy, Mr. J. England; Chemistry and Practical Chemistry, Dr. Augustin E. Dixon; Zoology and Botany, Dr. M. M. Hartog; Modern Languages, Dr. O. O'Ryan.

Arrangements have also been made for the delivery of the following courses of Lectures:—Psychological Medicine, Dr. Oscar Woods; Pathology, Dr. Cotter; Ophthalmology and Otology, Dr. Sandford; Hygiene, Dr. Donovan.

The building in which the Medical School is located is provided with a large, well-lighted, and ventilated dissecting-room, with physiological and toxicological laboratories, materia medica, anatomical and pathological museums, as well as a room for surgical and obstetrical instruments and appliances. There are well appointed physical and chemical laboratories, and a large natural history museum in the adjoining building; and there is also a botanic garden. The College library is open daily to students of the school.

Fees.—For Practical Anatomy and Practical Chemistry, £3 each course; for Anatomy and Physiology, £3 for first course, and £2 for subsequent courses. Other Medical classes, £2 for first course, and £1 for second course. Eight scholarships (value £25 each), as well as several exhibitions and class prizes, are awarded every year to the most deserving students.

Clinical Instruction is given at the North and South Infirmaries (each 100 beds). Students can also attend the Mercy Hospital (60 beds), the Cork Union Hospital, the County and City of Cork Lying-in Hospital, the Maternity, the Hospital for Diseases of Women and Children, the Fever Hospital, the Ophthalmic and Aural Hospital, and the Eglinton Lunatic Asylum. Fee for Clinical Lectures and attendance at either the North and South Infirmary, for twelve or nine months, £8 8s.; six months, £5 5s.; three months, £3 3s.; at the Lying-in Hospital and the Maternity, for six months, each £3 3s.

There will be no Introductory Address. Lectures will begin on October 24th.

QUEEN'S COLLEGE, GALWAY.—*Professors:* Anatomy and Physiology, Dr. J. P. Pye; Anatomy, Dr. Pye; Medicine, D. J. I. Lynham; Surgery, Dr. W. W. Brereton; Materia Medica, Dr. N. W. Colahan; Medical Jurisprudence, Dr. R. J. Kinkead and Dr. Senier; Midwifery, Dr. R. J. Kinkead; Chemistry, Dr. Senier; Practical Chemistry, Dr. Senier; Botany and Zoology, Dr. R. J. Anderson; Experimental Physics, Professor A. Anderson; Modern Languages, Professor Steinberger. The College Library is open daily to students; also the Museums of Human and Comparative Anatomy, of Physiological Instruments, of Pathology, of Materia Medica, of Natural History, of Chemistry, and of Natural Philosophy; and the Montgomery Obstetric Collection.

Prizes.—Attached are eight scholarships of the value of £25 each; four exhibitions of the value of £12 each; two exhibitions of the value of £16 each; and sessional prizes in each of the subjects of the curriculum are awarded annually. All scholarships and exhibitions of the second, third, and fourth years may be competed for by students who have attained the requisite standing in any medical school recognised by the College Council, and have passed the Matriculation Examination in the College or in the Royal University of Ireland.

Clinical Lectures are delivered on Tuesdays and Fridays, and practical teaching at the bedside on other days of the week, at the Galway County Infirmary and the Galway Town Hospital.

Fees.—College fee, first year, 10s.; each subsequent year, 10s.; Anatomy and Physiology, first course, £3; each subsequent course, £2; Practical Anatomy and Practical Chemistry, each course, £3; pass courses, one term, £1; each course, £2; honours courses, £3; reattendance, £1. Clinical Instruction, six months, £4 4s.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.—*Physicians.* Sir J. T. Banks, K.C.B., M.D., Dr. S. Gordon, Dr. G. P. L. Nugent, Dr. J. O'Carroll. *Assistant Physician and Pathologist*, Dr. Thomas Donnelly. *Consulting Obstetric Surgeon*, Dr. G. H. Kidd. *Surgeons*, Mr. William Thomson, Mr. W. Thornley Stoker, Mr. Thomas Myles. *Ophthalmic Surgeon*, Dr. A. H. Jacob. *Assistant Surgeon*, Mr. M. Bulger. *Resident Surgeon*, Mr. J. Welby Haughton. *Resident Physician*, Dr. J. Condon.

These hospitals contain 312 beds: 110 for surgical cases, 82 for medical cases, and 120 for fever and other epidemic diseases.

There will be a distinct Course of Lectures and Clinical instruction in Fevers. Operations are performed on Monday and Wednesday mornings, except in cases of emergency. A course of Practical Instruction in Ophthalmic Surgery will be given; fee, £3 3s. Practical Pharmacy is taught under the superintendence of the Apothecary of the hospitals. A Resident Surgeon and a Resident Physician are appointed every year, receive a salary, and hold office for one year. Eight Residential Clinical Clerks are appointed each half year, and provided with furnished apartments, fuel, etc. These appointments are open not only to advanced students, but also to those who are qualified in Medicine and Surgery. The dressers are selected from among the best qualified of the pupils, without the payment of any additional fee.

The Richmond Lunatic Asylum, containing over 1,200 patients, adjoins these hospitals, affording facility for the study of mental diseases. The hospitals are visited at nine o'clock each morning by the physicians and surgeons. Two Clinical Lectures are delivered in each week, in addition to the usual daily bedside instruction.

Fees.—For the winter and summer session, £12 12s.; for the six winter months, £8 8s.; for the three summer months, £5 5s. Resident Clinical Clerks, winter, nine months' certificate, £12 12s.; summer, three months' certificate, £5 5s.; winter or summer, six months' residence, £8 8s. Honorary Secretary, Dr. G. P. L. Nugent, 17, Lower Fitzwilliam Street; Hon. Treasurer, Mr. William Thomson, 54, Stephen's Green East, Dublin.

ROTUNDA HOSPITAL.—*Master*, Dr. W. J. Smyly. *Consulting Physician*, Dr. J. Little. *Consulting Surgeon*, vacant. *Assistant-Physicians*, Dr. J. Hastings Tweedy and Dr. J. H. Glenn.

This institution consists of two distinct hospitals, namely, the Lying-in Hospital, into which 1,200 labour cases are, on an average, admitted annually, and the Auxiliary Hospital, set apart for the reception and treatment of patients suffering from the various forms of uterine and ovarian disease; about 500 patients are received into this hospital during each year.

There is also in connection with the Hospital a large extern maternity (1,838 patients were in the past year attended at their own homes), and a Dispensary for Diseases Peculiar to Women, which is open daily.

Pupils are admitted to the practice of all these departments.

Clinical Instruction in Midwifery and the Diseases of Women is given daily, and lectures are delivered regularly during the session on these subjects.

The diploma from this Hospital is granted to pupils on their passing an examination before the Master and Assistants after a period of six months' attendance on the practice of the Hospita'.

Accommodation is provided for a limited number of intern pupils.

Pupils can enter at any time.

Fees.—Intern pupils: six months, £21; three months, £12 12s.; two months, £9 9s.; one month, £6 6s.; extern pupils: six months, £10 10s.; three months, £6 6s. Female pupils are trained as nurse-tenders and midwives, for six months (including board), fee, £25.

SIR PATRICK DUN'S HOSPITAL.—*Consulting Physician*, Dr. J. T. Banks. *Consulting Surgeon*, Sir George Porter, Bart. *Physicians*, Dr. J. M. Purser, Dr. J. M. Finny, Dr. W. G. Smith, Dr. Arthur V. Macan. *Surgeons*, Dr. E. H. Bennett, Dr. H. St. J. Brooks, Dr. C. B. Ball. *Assistant Physician*, Dr. Alfred Parsons. *Assistant Surgeon*, Dr. Edward Taylor. *Registrar*, Willis C. Williams.

The physician on duty visits the wards, with his class, at 9 A.M. on Mondays, Wednesdays, and Fridays; and the surgeon on duty, with his class, at 9 A.M., on Tuesdays, Thursdays, and Saturdays. There are separate wards for Infectious Diseases, and for Diseases of Women and Children. The Hospital Dispensary is open from 9 to 11 daily.

A house-surgeon is appointed annually, and four resident pupils half-yearly.

Silver Clinical medals in Medicine and in Surgery are awarded to the students who pass the best examinations on the Medical and Surgical cases treated in the hospital during the year.

Fees.—The payment of £12 12s. to the hospital entitles the student to hospital attendance and clinical teaching during the winter and summer sessions. For the winter session alone the fee is £8 8s.; for the summer alone, £5 5s. For twelve months' instruction in Practical Midwifery, students of Trinity College, £3 3s.; other students, £6 6s.

Dr. Steevens' Hospital.—*Consulting Physicians*, Dr. J. Little and Dr. T. W. Grimshaw. *Consulting Surgeon*, Sir G. H. Porter. *Physicians*, Dr. H. C. Tweedy, Dr. R. A. Hayes. *Surgeons*, Mr. E. Hamilton, Mr. R. B. McCausland, Mr. R. L. Swan. *Maternity Physician*, Dr. G. L. Lane. *Ophthalmic Surgeon*, Mr. R. K. Johnston. *Dental Surgeon*, Mr. G. P. M. Murray.

The Hospital contains 250 beds. There is a ward entirely devoted to Syphilitic Disease, and a detached building for Fever cases; also an extensive Out-patient Department, with separate Clinics for Diseases of the Skin, Throat, Eye and Ear, and Teeth.

The Hospital is visited by the physicians and surgeons at 9 A.M. Clinical Lectures are given by the physicians and surgeons. Surgical Operations are performed on Saturdays at 10 A.M., except in cases of emergency.

There is a Lending Library.

Fees.—Hospital Practice: Nine months, £12 12s.; six months, £8 8s.; three months, £5 5s. Dressership: £10 10s. each three months.

Further particulars may be obtained from the Honorary Secretary, Dr. R. A. Hayes, 82, Merrion Square South, Dublin.

Schools of Surgery: including the Carmichael and Ledwich Schools; Royal College of Surgeons in Ireland.—Lectures will be given as follows: *Winter Session*, commencing November 1st: Physiology, Dr. Scott; Systematic Anatomy, Mr. A. Fraser, Mr. Heuston, and Mr. Nixon; Practical Anatomy, Mr. Fraser, Mr. Heuston, and Mr. Nixon; Surgery, Sir W. Stokes, Mr. E. Hamilton, and Mr. W. Stoker; Medicine, Dr. A. W. Foot and Dr. J. W. Moore; Chemistry, Sir C. Cameron and Dr. Lapper; Midwifery and Gynæcology, Dr. Roe and Dr. S. R. Mason. *Summer Session*, commencing April 1st: Materia Medica, Dr. R. Macnamara and Dr. Duffey; Medical Jurisprudence, Dr. Auchinleck; Botany and Zoology, Mr. Minchin and Dr. Cosgrave; Practical Chemistry, Sir C. Cameron and Dr. Lapper; Ophthalmic and Aural Surgery, Dr. Jacob, Dr. Fitzgerald and Dr. Story; Practical Physiology and Histology, Dr. Scott; Operative Surgery, Sir W. Stokes, Mr. Hamilton and Mr. W. Stoker; Hygiene, Sir C. Cameron. There is a laboratory for the study of Practical Physiology. The dissecting-rooms open from October 1st, and are available from 8 A.M. to 10 P.M. during the session; also from 8 A.M. to 5 P.M. in the summer. The dissections are under the direction of the Professors of Anatomy, assisted by several Demonstrators.

Fees.—Each course of lectures, excluding the practical courses, is £3 3s.; Dissections with Demonstrations, Practical Physiology, Operative Surgery, and Practical Chemistry, £5 5s. each. Students requiring an extra course of Dissections without a certificate, and who have taken their previous anatomical courses in the School, are charged £2 2s.; other students, £3 3s. Additional Courses of Practical Histology, when a certificate is not required, £2 2s. each. The fees for all lectures and dissections for the diploma in Surgery amount to £63; hospital attendance, £37 16s. Midwifery Hospital, £8 8s.; Ophthalmic Hospital, £3 3s. At the termination of each session, medals are awarded in the various classes. The dissecting-rooms will open on October 1st, and the lectures will commence on November 1st. The schools are lighted throughout by electricity.

INSTRUCTION IN HOSPITALS, ETC.

Bethlem Royal Hospital.—*Resident Physician*, Dr. R. Percy Smith. Two Resident Clinical Assistants are appointed twice a year for six months from recently qualified medical students. Students who have completed the third year of study can attend the hospital practice for three months on application. Students of Guy's Hospital and St. Thomas's Hospital during the summer can attend special afternoon ward instruction. Qualified medical men are allowed to attend for three months on payment of a fee. Post-graduate courses are given from time to time.

Central London Throat and Ear Hospital.—*Consulting Surgeon*, Mr. Thomas Nunn. *Surgeons*, Mr. Lennox Browne, Dr. A. W. Orwin, Dr. Dundas Grant, Mr. Percy S. Jakins, and Mr. Carmalt Jones. *Assistant-Surgeons*, Dr. Walter Fowler and Mr. Wyatt Wingrave. *Registrar and Anæsthetist*, Dr. W. G. Holloway. *Dental Surgeon*, Mr. G. Wallis. *For Defects of Speech*, Mr. Van Praagh. The hospital contains accommodation for seventeen in-patients, and has an extensive Out-patient Department, which is open to all medical practitioners and students for the purpose of Clinical Demonstration and Instruction. Fee for three months' attendance, £3 3s.; for six months, £5 5s.

Chelsea Hospital for Women (60 beds).—*Consulting Physicians*, Dr. R. Barnes, Dr. J. H. Aveling. *Consulting-Surgeons*, Sir T. Spencer Wells, Bart., Mr. J. Hutchinson, F.R.S. *Physicians*, Dr. A. W. Edis, Dr. Fancourt Barnes, Dr. Travers. *Physicians to Out-Patients*, Dr. T. V. Dickinson, Dr. G. Harper, Dr. W. H. Fenton, Dr. J. I. Parsons, Dr. F. F. Schacht, Dr. Leith Napier. *Pathologist*, Dr. Shaw Mackenzie. Qualified medical men are admitted to the consultations and operations, which take place at 2.30 P.M. on Mondays and Thursdays. Clinical Assistants are appointed for a term of three months, upon a fee of £3 3s.

Great Northern Central Hospital, Holloway Road, N.—*Consulting Physician*, Sir Andrew Clark, Bart., M.D., F.R.S. *Consulting Surgeons*, Frederick Le Gros Clark, F.R.S., W. S. Savory, F.R.S., and W. Adams, F.R.C.S. *Physicians*, Drs. Cholmeley, Burnet, Beale, Beevor, Syers, and Galloway. *Obstetric Physicians*, Drs. W. S. A. Griffith and L. Remfry. *Surgeons*, Messrs. J. Macready, C. B. Lockwood, H. W. Allingham, P. J. B. Beale and Raymond Johnson. *Ophthalmic Surgeon*, Mr. A. Stanford Morton. *Aural Surgeon*, Mr. W. R. H. Stewart. *Surgeon for Diseases of the Throat*, Mr. W. Spencer Watson. *Physician for Diseases of the Skin*, Dr. Cook. *Dental Surgeon*, Mr. Traer H Harris. The first portion of the new building in the Holloway Road has recently been completed and the practice of the Hospital is open to practitioners and senior Students. Clinical Students are appointed in the Wards and Out-patients' Department. Further information can be obtained on application to the Honorary Secretary of the Medical Committee, Dr. H. W. Syers, 3, Devonshire Street, Portland Place, W.

Hospital for Consumption and Diseases of the Chest, Brompton.—*Consulting Physicians*, Dr. W. H. Walshe, Sir Richard Quain, Bart., F.R.S., Dr. James E. Pollock, Dr. E. Symes Thompson, Dr. R. Douglas Powell, Dr. Frederick Roberts. *Consulting Surgeon*, Sir Joseph Lister, Bart., F.R.S. *Physicians*, Dr. C. Theodore Williams, Dr. John Tatham, Dr. Reginald E. Thompson, Dr. T. Henry Green, Dr. J. Mitchell Bruce, Dr. J. Kingston Fowler. *Surgeon*, Rickman J. Godlee, F.R.C.S. *Assistant-Physicians*, Dr. Percy Kidd, Dr. Cecil Y. Biss, Dr. T. Dyke Acland, Dr. Robert Maguire, Dr. H. W. G. Mackenzie, Dr. Sidney Martin. *Dental Surgeon*, Mr. Charles J. Noble. Resident Medical Officer, Dr. Sidney Allden. There are 321 beds in the two buildings constituting the hospital and a special Throat Department. Lectures and Demonstrations are given by members of the medical staff on Wednesdays and Fridays at 4, to members of the London Post-Graduate Courses. Pupils are admitted to the in-patient and out-patient practice of the Hospital. *Fee*, one month, £1 1s.; six months, £5 5s.; perpetual, £10 10s. Pupils of the Hospital are admitted at half price to the London Post-Graduate Course Lectures. Certificates of attendance on the Medical Practice of this Hospital are recognised by the University of London, the Apothecaries' Society, and the Army and Navy and Indian Boards.

Hospital for Women, Soho Square.—*Physicians*, Dr. Carter Dr. R. T. Smith, Dr. Holland, Dr. Mansell-Moullin, Dr. Bedford Fenwick, Dr. James Oliver. *Surgeons*, Mr. Reeves, Mr. S. Osborn. *Surgeon-Dentist*, Mr. F. Canton. *Administrator of Anæsthetics*, Mr. C. J. Ogle. In connection with this institution there is now an organised School of Gynæcology open to qualified medical men and students after their third year. A limited number of Clinical Assistants to the Physicians and Surgeons in the In-patient and Out-patient Departments are appointed every three months. A course of lectures on the Anatomy and Physiology of the Female Pelvic Organs is given during each quarter. Clinical lectures are given on alternate Thursday afternoons throughout the winter and summer sessions. Prizes are given annually after examination, open to past and present Clinical Assistants. *Fee* for the three months' course, £8 8s. Further information can be obtained by letter, addressed to the Dean at the Hospital.

Hospital for Sick Children, Great Ormond Street.—*Physicians*, Dr. O. Sturges, Dr. T. Barlow, Dr. D. B. Lees. *Assistant-Physicians*, Dr. Montagu Lubbock, Dr. J. Abercrombie, Dr. W. B. Hadden, Dr. F. G. Penrose. *Surgeons*, Mr. Edward Owen, Mr. J. H. Morgan. *Assistant-Surgeons*, Mr. B. Pitts, Mr. W. A. Lane, Mr. C. A. Ballance. *Ophthalmic Surgeon*, Mr. R. Marcus Gunn. *Surgeon-Dentist*, Mr. A. Cartwright. There are 127 beds in the hospital at Great Ormond Street, and 52 at Highgate. The physicians and surgeons of the hospital will give Clinical Instruction in the wards. Particulars as to times of Medical and Surgical visits and

the practice of the Hospital can be had on application to the Secretary.

LONDON TEMPERANCE HOSPITAL, HAMPSTEAD ROAD, N.W. (Established 1873).—*Physicians*, Dr. B. W. Richardson, M.A., LL.D., F.R.C.P., F.R.S., Dr. J. J. Ridge, B.A., B.S., and Dr. J. Fletcher Little, M.R.C.P. *Surgeon*, Dr. W. J. Collins, F.R.C.S. *Dental Surgeon*, Mr. A. Alexander. The Hospital contains 110 beds. The in-patients average 750, and the out-patients 3,500, a year. The medical and surgical practice of the hospital is open to students and practitioners. Special departments for Ophthalmology and Gynæcology. Operations on Mondays and Thursdays at 3.30 P.M. Classes arranged during the winter and summer sessions for students preparing for the Final Examinations at the Colleges, and Universities. Appointments (vacancies for which are advertised in the medical journals: Registrar and Pathologist, Senior and Junior House-Surgeons. For particulars as to hospital practice and classes, apply at the Hospital to Dr. W. J. Collins.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL AND MIDWIFERY TRAINING SCHOOL.—*Consulting Physician*, Dr. Brodie. *Consulting Surgeons*, Mr. H. Lee, Sir William Mac Cormac. *Physicians to In-patients*, Dr. Hope and Dr. W. C. Grigg. *Physician to Out-Patients*, Dr. W. S. A. Griffith and Dr. W. Rivers Pollock. This Hospital receives nearly 1,000 patients annually, besides having a large out-patient department. Medical pupils are received at all times of the year. Pupils have unusual opportunities of seeing Obstetric complications and Operative Midwifery, on account of the very large number of primiparous cases—upwards of three-fourths of the total admissions. Clinical Instruction is given on the more important cases that present themselves. Certificates of attendance at this hospital are recognised by all Universities, Colleges, and Licensing Bodies. Pupil Midwives and Monthly Nurses are received and specially trained. *Fees.*—Medical pupils, £3 3s. for one week, £5 5s. for two weeks, and £6 16s. 6d. for four weeks, exclusive of board and lodging; Pupil Midwives, £26 5s. for three months; Pupil Nurses, £15 15s. for twelve weeks and £11 0s. 6d. for eight weeks, inclusive of board and lodging. For further particulars, application should be made to the Secretary, at the hospital.

ROYAL ORTHOPÆDIC HOSPITAL.—*Surgeons*, Mr. B. E. Brodhurst, Mr. H. A. Reeves, Mr. C. Read, Mr. W. H. Balkwill. *Assistant-Surgeon*, Mr. H. F. Baker. Operations are performed at 2 P.M. on Mondays. The hospital is open to all legally qualified practitioners, and students are admitted on payment of the following fees: six months, £3 3s.; twelve months, £5 5s.; perpetual, £10 10s.

ROYAL LONDON OPHTHALMIC HOSPITAL.—*Physician*, Dr. Stephen Mackenzie. *Consulting Surgeons*, Mr. J. Dixon, Mr. J. Hutchinson, Mr. Hulke, Mr. Lawson. *Surgeons*, Mr. Couper, Mr. Waren Tay, Mr. Tweedy, Mr. Nettleship, Mr. Gunn, Mr. Lang, Mr. Silcock. *Assistant-Surgeons*, Mr. Lawford, Mr. A. S. Morton. There are 100 beds for in-patients. Operations are performed daily, from 10 A.M. until 1 P.M. Gentlemen are admitted to the Practice, and to Lectures and Demonstrations. *Fees* for six months, £3 3s.; perpetual, £5 5s. A perpetual ticket admits to Lectures and Demonstrations free. Students of the Hospital are eligible for the office of House-Surgeon, and may be appointed Clinical Assistants for 12 months, Junior Assistants for 6 months.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—*Consulting Surgeons*, Mr. Henry Power, and Mr. James Rouse; *Surgeons*, Mr. Cowell, Mr. Macnamara, Mr. Hartridge, Mr. Frost, and Mr. H. Juler. *Assistant-Surgeons*, Mr. B. Wainewright, and Mr. H. Work Dodd. The hospital contains 50 beds. The practice is open to practitioners and students from 1 to 4 P.M. daily. Special instruction is given in the Diagnosis, Pathology, and Treatment of all Eye Affections, including the Operations on the Eye, the Treatment of Errors of Refraction, and the Use of the Ophthalmoscope. For details of classes see weekly journals. Operations daily at 2 P.M. *Fees:* six months, £3 3s.; perpetual, £5 5s. For particulars, apply to Mr. T. Beattie-Campbell, the Secretary, at the Hospital, or to Mr. Adams Frost, 17, Queen Anne Street, W.

SEAMEN'S HOSPITAL SOCIETY, GREENWICH.—*Secretary*, Mr. P. Michelli. *Consulting Physicians*, Dr. Robert Barnes, Sir Richard Quain, Bart. *Consulting Surgeon*, Mr. J. N. Davies-Colley. *Visiting Physicians*, Dr. John Curnow, Dr. J. Anderson, C.I.E. *Visiting Surgeon*, Mr. G. R. Turner. *Visiting Ophthalmic Surgeon*, Mr. Donald Gunn. *Principal Medical Officer*, Mr. W. Johnson Smith. *House-Physician*, Dr. M. Spencer. *House-Surgeon*, Dr. A. Jervis. Branch Hospital, Royal Victoria and Albert Docks, *Visiting Physician*, Dr. Patrick Manson, LL.D. *House-Surgeon*, Dr. Charles H. Preston. *Junior House-Surgeon*, Dr. Frank L. Wood, East India Dock Road. *Dispensary Medical Officer* (same as Branch Hospital). Gravesend Dispensary, Mr. R. Onslow Richmond. The Hospital contains 235 beds, and the Branch Hospital, 18 beds. Apartments are provided in the house of the Principal Medical Officer for students and others who may be desirous of studying diseases incidental to tropical climates before entering the services or going abroad.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES.—*Honorary Surgeons*, Mr. F. R. Heycock, Mr. F. Swinford Edwards, Mr. E. Hurry Fenwick, Mr. Reginald Harrison. Qualified medical men and students are admitted free to the practice of this hospital, which contains 24 beds, and has a large out-patient attendance (30,633 for 1891). New cases, 4,420. Operations are performed and consultations are held on Wednesdays and Fridays at 2. Clinical lectures and demonstrations are given regularly by members of the staff.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.—*Physicians*, Dr. P. W. Latham, Dr. J. B. Bradbury, and Dr. D. MacAlister. *Assistant-Physician*, Dr. Laurence Humphry. *Consulting Surgeon*, Mr. G. Wallis. *Surgeons*, Sir G. M. Humphry, Dr. E. Carver, and Mr. G. E. Wherry. *Assistant-Surgeon*, Mr. F. Deighton. *House-Physician*, Mr. A. F. Stabb. *House-Surgeon*, Mr. W. H. A. Tebbs. *Dental Surgeons*, Mr. W. A. Rhodes and Mr. A. Jones. The Hospital contains 153 beds. Clinical lectures are delivered twice weekly during the academical year; and practical instruction is given daily throughout the year. Clinical clerks and dressers are appointed without payment.

BRADFORD EYE AND EAR HOSPITAL.—The Hospital contains 45 beds. During 1891 the number of out-patients was 4,113, and 489 major operations were performed. The staff attend on Tuesdays and Saturdays for Diseases of the Eye, and on Thursdays for Diseases of the Ear, from 3 to 5. Operations on Tuesdays and Thursdays at 5 P.M. *Surgeons*, Dr. Bell and Dr. Adolf Bronner. *Assistant-Surgeons*, Dr. Johnstone, Dr. Dodd, and Dr. Little. The Clinic of the Hospital is open to medical practitioners and advanced students.

BRADFORD INFIRMARY AND DISPENSARY.—*Physicians*, Dr. H. C. Major, Dr. Grabham. *Surgeons*, Mr. J. Appleyard, Dr. T. C. Denby, Mr. W. Lake Roberts, and Mr. W. Horrocks. *Medical Officers*, Dr. J. H. Bell, Dr. D. Goyder. *Gynæcologist*, Mr. Rabagliati. *Laryngologist*, Dr. Adolf Bronner. *Dentist*, Mr. A. A. Matthews. *Assistant Medical Officers*, Dr. H. Bronner, Mr. T. Wilmot. *Assistant Surgeons*, Mr. C. F. M. Althorp, Mr. F. S. Barber. The Hospital contains 210 beds. Non-resident pupils are received, and have every opportunity of acquiring a practical knowledge of their profession under the superintendence of the House-Surgeon. One year's attendance is recognised by the Examining Boards. *Fee:* Perpetual, £10 10s.

DERBYSHIRE ROYAL INFIRMARY.—*Consulting Physician*, Dr. W. Ogle. *Physicians*, Dr. C. A. Greaves, Dr. W. Benthall, and Dr. Vaudrey. *Consulting Surgeon*, Mr. J. W. Baker. *Surgeons*, Dr. W. G. Curgenven, Mr. C. H. Hough, and Mr. J. A. Sharp. *Ophthalmic Surgeon*, Mr. E. C. Green. The Infirmary is about being rebuilt, and will provide for 200 beds. The accommodation now temporarily provided is for about 100 beds. Pupils are admitted to the practice of the Infirmary at £5 5s. a year.

DEVON AND EXETER HOSPITAL, EXETER.—*Consulting Physician*, Dr. Drake. *Physicians*, Dr. H. Davy, Dr. Arthur G. Blomfield, Dr. William Gordon. *Consulting Surgeons*, Mr. A. J. Cumming, Mr. T. W. Caird. *Surgeons*, Mr. Bankart, Mr. Harris, Mr. Domville, Mr. Bell. *House-Surgeon*, Mr. Henry Andrew. *Assistant*, Mr. G. Stewart Abram. The hospital contains 214 beds, including a special children's ward. There are a good Library, Museum, Dissecting and *Post-mortem* Rooms. Attendance on the practice at this hospital qualifies for all the Examining Boards. Two Resident Pupils are received. Arrangements may be made by which students can attend Midwifery. For further particulars as to fees etc., apply to the House-Surgeon.

GENERAL HOSPITAL, NOTTINGHAM.—*Consulting Physician*, Dr. W. H. Ransom. *Physicians*, Dr. J. O. Brookhouse, Dr. H. Handford.

Dr. W. B. Ransom. *Consulting-Surgeons*, Mr. T. Wright, Mr. J. White, and Mr. Jos. Littlewood. *Surgeons*, Mr. H. Owen Taylor, Mr. A. R. Anderson, Mr. Joseph Thompson, and Mr. R. C. Chicken. The hospital contains 160 beds. The Honorary Staff introduce pupils to witness the practice of the hospital, on payment of £10 10s. annually in advance. The pupils receive instruction from the Resident Medical Officers.

General Hospital for Sick Children, Pendlebury, Manchester.—*Physicians*, Dr. H. Ashby, Dr. Hutton. *Surgeon*, Mr. G. A. Wright. *Assistant-Surgeon*, Mr. Joseph Collier. The hospital at Pendlebury contains 140 beds, including 28 for fever. The medical staff see out-patients daily at the Dispensary, Gartside street, at 9 A.M., and visit the hospital at 10 A.M. The practice of the hospital and dispensary is free to students accompanying the medical staff. In-patients, 1891, 1,249; out-patients 10,571.

Glasgow Poliklinik, 100, Elderslie Street, a Dispensary for the Study and Treatment of Special Diseases.—There are in all six departments, namely: that for (1) Diseases peculiar to Women, under Dr. Lawrence Oliphant; (2) Diseases of Ear, Throat, and Nose, under Dr. Walker Downie; (3) Diseases of the Eye, under Dr. Pringle; (4) Diseases of Skin, under Dr. Thomas H. Bryce; (5) Diseases of the Chest, under Dr. William R. Jack; (6) Stricture, Stone, and Urinary Diseases, under Dr. Nicoll. The clinical instruction given here is open to medical students and practitioners on payment of the necessary fees.

The General Infirmary at Gloucester and the Gloucestershire Eye Institution.—*Consulting Surgeons*, Mr. J. P. Wilton, Mr. T. S. Ellis. *Physicians*, Dr. R. W. Batten, Dr. Oscar W. Clark. *Assistant-Physician*, Dr. W. Brown. *Surgeons*, Mr. H. E. Waddy, Mr. R. M. Cole, Mr. E. Dykes Bower. *Ophthalmic Surgeon*, Mr. E. Dykes Bower. *Assistant-Surgeon*, Dr. J. J. Salcomb Johnstone. *House-Surgeon*, Mr. H. Oswin Johnson. *Secretary*, Mr. H. P. Pike. The hospital contains 156 beds. Resident and non-resident pupils are admitted by the General Committee on the recommendation of a member of the Medical Board. Each pupil pays in advance £10 for the first half year, and £5 for every subsequent quarter, or portion of a quarter, of a year. Each resident pupil has board and lodging in the house, for which he pays in advance 26 guineas for the first half year, and 13 guineas for every subsequent quarter, or portion of a quarter, of a year. Each pupil pays in advance to the House-Surgeon a fee of £5 5s. for instruction, and a further fee of £3 3s. for every subsequent year or portion of a year. One year passed at this hospital, after passing a preliminary examination, is recognised by the Royal College of Surgeons.

Hospital for Sick Children, Newcastle-on-Tyne.—*Consulting Physician*, Dr. W. Murray. *Consulting Surgeons*, Mr. G. H. Hume, Dr. F. Page. *Physicians*, Dr. F. C. Coley, Dr. W. C. Beakey. *Surgeons*, Mr. W. G. Black, Mr. G. W. Ridley. *Pathologist*, Mr. G. R. Murray. *Ophthalmic Surgeon*, Mr. A. Percival. There are 60 beds in the Hospital which the Honorary Staff visit every day. Operations are performed on Wednesday and Thursday afternoons at 2.30. There is a large out-patient department superintended each day at 3 P.M. by one of the Honorary Medical or Surgical Staff. The practice of the Hospital is open free to all students or qualified practitioners.

Jessop Hospital for Diseases of Women, Sheffield.—*Honorary Consulting Medical Officers*, Dr. Aveling, Dr. Hime, and Mr. F. Woolhouse. *Honorary Acting Medical Officers*, Dr. Keeling, Mr. R. Favell, Mr. A. H. Laver, Dr. Martin. *House-Surgeon*, Mr. J. A. Pickels. *Secretary*, Mr. H. B. Warner. The number of beds is 45; in the Diseases of Women Department, 36; in the Maternity Department, 9. Students can attend the practice of the hospital, and be supplied with cases of midwifery.

Kent and Canterbury Hospital.—The hospital contains 102 beds. *Physician*, Dr. Gogarty, *Consulting Surgeon*, Mr. J. Reid. *Surgeons*, Mr. Holttum, Mr. Wacher, Mr. T. W. Reid, and Mr. Greasley. *Dental Surgeon*, Mr. M. L. Bell. *House-Surgeon*. Mr. Z. Prentice. *Assistant House-Surgeon*, Mr. A. C. Elliman. *Secretary*, Mr. A. J. Lancaster. Over 700 in-patients and 1,200 out-patients attend every year. Lectures are delivered weekly to the students of St. Augustine's Missionary College on Practical Medicine by Dr. Gogarty, and on Surgery by Mr. T. W. Reid. Courses of lectures are also delivered by the medical staff for the instruction and training of the nurses and probationers of the hospital, and of the probationers of the Kent and Canterbury Nursing Institute.

Lincoln County Hospital.—*Physicians*, Dr. G. Mitchinson, Dr. C. Harrison. *Surgeons*, Mr. C. Brook, Mr. W. J. Cant, Dr. W. A. Carline, and Dr. Mansel Sympson. *Consulting Surgeon*, Mr. S. Lowe. The hospital contains 91 beds. The House-Surgeon is allowed to take two pupils, on terms arranged by the Weekly Board, himself, and the pupils. A fee of not less than £10 10s. is paid by every pupil to the hospital. The House-Surgeon is responsible for the conduct of his pupils. The pupils remain in the hospital only when occupied in performing or observing the actual work of the hospital.

Liverpool Eye and Ear Infirmary.—*Consulting-Physician*, Dr. William Carter. *Consulting-Surgeons*, Dr. R. H. Taylor, Dr. Nevins. *Surgeons*, Mr. E. A. Browne, Mr. R. Williams, and Mr. C. G. Lee. *Assistant-Surgeons*, Mr. C. H. B. Shears, and Mr. H. E. Jones. The Infirmary contains 46 beds. Evening courses of lectures on Refraction and Medical Ophthalmoscopy are delivered at this infirmary during the winter months by Mr. Edgar Browne. Students of medicine of University College, Liverpool, have free access to the practice of the infirmary.

Liverpool Northern Hospital.—*Physicians*, Dr. Dickinson, Dr. Barr. *Consulting-Surgeons*, Mr. Manifold and Dr. W. M. Campbell. *Surgeons*, Mr. C. Puzey, Mr. D. Harrisson, and Mr. A. H. Wilson. *Dental-Surgeon*, Mr. Mathews. The hospital contains 160 beds. There is a special ward for the treatment of children. Clinical Lectures are delivered by the physicians and surgeons during the summer and winter sessions. Clinical clerkships and dresserships are open to all students without additional fee. *Fees:* Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. Students can enter to the medical or surgical practice separately on payment of half the above fees. Practical Pharmacy, three months' fee, £2 2s.

Liverpool Royal Southern Hospital.—*Physicians*, Dr. John Cameron, Dr. Carter, Dr. Williams. *Surgeons*, Dr. Henry Rawdon, Dr. Wm. Alexander, Mr. Robert Jones. *Medical Tutor*, Mr. Charles Macalister. *Surgical Tutor*, Mr. W. Carthew Davey. *Pathologist*, Dr. F. Barendt. *Dental Surgeon*, Mr. Royston. The clinical school of this hospital is situated within convenient distance of the School of Medicine, and affords every facility for clinical and pathological study. The Hospital contains 184 beds, and, in addition to the general medical and surgical cases, attention is devoted to the diseases of women and children. The medical and surgical staff visit the wards daily, and the ward instruction is supplemented by weekly clinical lectures. The medical and surgical tutors attend each day to instruct the junior students in the methods of diagnosis, and to prepare the senior men for their final examinations. There is an excellent pathological department, with laboratory attached, where demonstrations are arranged for, and instruction is given in practical pathology. In addition to the clinical clerkships which are allotted to the students, the resident post of Ambulance Office is given to the student whom the Board may think most suited to hold it every three months. A prize of £20 is annually competed for which affords special advantages for clinical and pathological research to the holder, and three prizes of £5 each are also awarded to the gentlemen who present the best taken series of medical and surgical cases. *Fees:* Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. There are rooms for a limited number of resident students. The practice of the hospital is recognised by all examining bodies. For further particulars apply to the Dean, Robert Jones, Esq., 11, Nelson Street, Liverpool.

Norfolk and Norwich Hospital.—*Consulting Physician*, Sir P. Eade, M.D. *Consulting Surgeons*, Mr. T. W. Crosse, F.R.C.S., Mr. W. Cadge, F.R.C.S. *Physicians*, Sir Frederick Bateman, M.D., Dr. Barton, Dr. Burton-Fanning. *Surgeons*, Mr. C. Williams, Dr. Beverley, Mr. H. S. Robinson. *Assistant-Surgeons*, Mr. S. H. Burton, Mr. D. D. Day. *Dental Surgeon*, Mr. R. Wentworth White. *House-Surgeon*, Mr. Reginald Crosse. *Secretary*, Mr. Poole Gabbett. The hospital contains 220 beds. *Fees:* £10 10s. for six months, £15 15s. for twelve months' Medical and Surgical Practice. Pupils, resident and non-resident, are admitted.

Northampton General Infirmary.—*Physicians*, Dr. Buzzard, Dr. Jones. *Surgeons*, Mr. G. H. Percival and Mr. R. A. Milligan.

There are 160 beds and a large out-patient department. Out-pupils are received, and have every opportunity of acquiring a practical knowledge of their profession. Instruction is also given by the House-Surgeon in Anatomy, Materia Medica, and Pharmacy. Non-resident pupils are taken at a fee of £10 10s. Arrangements for board and residence, etc., can be made.

North-Eastern Hospital for Children, Hackney Road, N.E. (City Offices, 27, Clements Lane, E.C.).—This Hospital contains 57 beds; last year 508 in-patients and 13,722 out-patients (representing 48,909 attendances) were relieved. *Consulting-Physicians*, Dr. A. E. Sansom, Dr. W. Cayley. *Consulting-Surgeons*, Mr. Jonathan Hutchinson, Mr. R. J. Godlee, Mr. Waren Tay. *Physicians*, Dr. F. C. Turner, Dr. C. E. Armand Semple, Dr. W. Pasteur. *Surgeons*, Mr. Bilton Pollard, Mr. H. Percy Dean. *House-Surgeons (Senior)*, Mr. G. H. Bates, *(Junior)* Mr. H. G. Adamson. *Lady Superintendent*, Miss E. W. Curno. *Secretary*, Mr. Alfred Nixon. The surgeons attend on Wednesday and Friday at 9 A.M., the physicians daily at 1.30 P.M.

North Staffordshire Infirmary and Eye Hospital.—*Physicians and Medical Officers*, Dr. A. M. McAldowie and Dr. J. Charlesworth. *Surgeons*, Mr. J. Alcock, Mr. W. D. Spanton. *Ophthalmic Surgeon*, Mr. J. G. U. West. *Assistant Ophthalmic Surgeon*, Mr. Herbert Folker. *Assistant Physicians*, Mr. S. K. Alcock and Mr. H. Nicholls. *Assistant Surgeons*, Dr. G. S. Hatton and Dr. W. Hind. *Dental Surgeon*, Mr. Arthur Baines. The infirmary has accommodation for 222 patients, including children's wards, eye department, and special ovarian wards. The attendance of pupils at this infirmary is recognised by all the Examining Boards. Particulars as to fees, etc., may be obtained from the Secretary, Mr. R. Hordley, Hartshill, Stoke-on-Trent.

Royal Albert Hospital, Devonport.—*Consulting Surgeons*, Mr. May, Mr. C. Bulteel. *Surgeons*, Mr. F. E. Row Mr. Leah, Mr. G. Thom. *Ophthalmic Surgeon*, Mr. J. R. Rolston. *Assistant-Surgeons and Provident Dispensary Surgeons*, Mr. W. J. Gard, Mr. M. H. Bulteel, Mr. J. Harrison. *Provident Dispensary Surgeons*, Mr. Thos. R. Rolston, Mr. A. C. Rendle, M.B. *Resident Medical Officer*, Mr. J. J. Nixon Morris. The hospital contains 218 beds. The pupils of the medical staff are allowed to attend the hospital practice and to learn pharmacy on the payment of £2 2s. to the dispenser.

Royal Ear Hospital, Frith Street, Soho Square, W.—Founded 1816 for the special treatment of Diseases of the Ear. During 1890, 153 in-patients and 2,742 out-patients were treated. The clinique of the hospital is open to medical practitioners and advanced students by previous arrangement with the Secretary. *Surgeons*, Urban Pritchard, M.D., F.R.C.S.; Farquhar Matheson, M.B., C.M.; G. L. Cheatle, F.R.C.S. *Honorary Secretary*, Donald Murray. *Secretary*, M. C. Puddy.

Royal Eye Hospital, Manchester.—*Medical Officers*, Dr. Little, Dr. Glascott, Dr. Emrys-Jones, Dr. Hill Griffith. *Honorary Assistant Surgeon*, Mr. E. Roberts, M.R.C.S. The hospital contains 100 beds. The medical staff attend daily from 9.30 to 1. Clinical instruction is given to students.

Royal Hants County Hospital, Winchester.—*Physicians*, Dr. B. N. Earle, Dr. W. H. Harman. *Surgeons*, Mr. T. C. Langdon, Dr. W. England. *House-Surgeon*, Mr. T. Clarke. The hospital contains 108 beds. Apprentices are received by the Committee on payment of £100 per annum, and are bound to the House-Surgeon for five years. During the first two years they are chiefly employed in dispensing; afterwards they may witness the practice, and attend clinical lectures and operations and *post-mortem* examinations. The Physicians and Surgeons are allowed to introduce a certain number of pupils; the House-Surgeon may also receive a pupil, on payment of £100 per annum. Pupils of qualified medical practitioners not belonging to the staff of the hospital may, with the consent of the Committee, become out-pupils, and see the practice of the hospital under the direction of the House-Surgeon, on the payment of £10 10s. for one year, or £21 for unlimited attendance. Out-pupils are permitted daily (Sundays excepted) to read in the Library on payment of £1 1s.

Royal Hospital for Sick Children, Glasgow.—This hospital, containing 70 beds for the non-infectious diseases of children, is open for Clinical instruction. A specially designed dispensary, or out-patient department, was opened in October, 1888. *Physicians*, Dr. James Finlayson, Dr. Samson Gemmell. *Extra Physicians*, Dr. G. S. Middleton, Dr. J. Lindsay Steven, Dr. R. S. Thomson, Dr. Charles Workman, Dr. R. M. Buchanan, Dr. John H. Carslaw. *Surgeons*, Dr. Hector C. Cameron, Dr. William Macewen. *Extra Surgeons*, Dr. W. J. Fleming, Dr. T. Kennedy Dalziel, Dr. Quintin McLennan, Dr. Henry Rutherfurd, Dr. J. Ritchie Thomson. *Oculist*, Dr. Thomas Reid. *Extra Oculist*, Dr. C. Fred. Pollock. *Aurist*, Dr. T. Barr. *Extra Aurist*, Dr. J. Walker Downie. *Pathologist*, Dr. Joseph Coats. *Dentist*, Mr. Rees Price. Students, by paying the fee of £1 1s., are entitled to the practice of the hospital and dispensary for twelve months from the term of entry, which may be at the beginning of February, May, or November. Further particulars may be had by applying to the Resident Medical Officer, 45, Scott Street, Garnethill.

Royal Portsmouth Hospital.—Opened 1849. 133 beds. In-patients last year, 896; out-patients, 6,803. One year's attendance recognised by the examining boards. *Consulting Surgeon*, Mr. E. K. Knight. *Physicians*, Dr. E. J. Wallace, Dr. J. Watson. *Surgeons*, Dr. J. Ward Cousins, F.R.C.S., Dr. Lloyd Owen, Mr. H. Rundle, F.R.C.S. *Dental Surgeon*, Mr. Kirton. *Surgeon for Out-Patients*, Mr. C. H. Newby, F.R.C.S. *House-Surgeon*, Mr. T. H. Bishop, M.B. *Assistant House-Surgeon*, Mr. B. B. Thorne Thorne. For particulars as to fees apply to the House-Surgeon.

Royal South Hants Infirmary, Southampton.—*Physicians*, Dr. J. L. Thomas, Dr. T. W. Trend. *Assistant Physician*, Dr. N. Aldridge. *Surgeons-Extraordinary*, Dr. J. K. Sampson, Dr. G. A. Lake. *Surgeons*, Dr. W. Sims, Dr. Wade, Dr. Shettle. *Assistant-Surgeon*, Dr. Keele. *Dentist*, Mr. W. T. Pellow. *House-Surgeon*, Dr. Ward. *Assistant House-Surgeon*, Mr. F. Bartlett. *Secretary*, Mr. T. A. Fisher Hall. *Matron*, Miss Mollett. A new wing for out-patients has been opened during the past year; it contains an eye department, fitted with modern instruments, lamps, lenses, etc.; also an electrical department, containing a new set of modern batteries. The hospital contains 104 beds. The system of nursing at the infirmary has recently undergone a change, and now two classes of Probationers are received—namely (*a*) one year probationers, paying an entrance fee of £1 1s., and a training fee of £31 10s., payable half-yearly, in advance; (*b*) Two year probationers, paying only an entrance fee of £1 1s., and giving their services gratuitously for that period.

Royal United Hospital, Bath.—120 beds. *Honorary Consulting Physician*, Dr. Coates. *Honorary Consulting Surgeon*, Mr. Fowler. *Honorary Physicians*, Drs. Cole, Fox, and Biddlecombe. *Honorary Surgeons*, Messrs. Stockwell, Freeman, and Scott. *Honorary Assistant Medical Officers for Out-patients*, Mr. Lane, Drs. Wilson-Smith and Bannatyne. *Honorary Assistant-Surgeons*, Messrs. Green, Ransford, and Terry. *Dental Surgeon*, Mr. Gaine. *Curator of Museum*, Dr. Bannatyne. *Anæsthetist*, Mr. Lace. *Registrar*, Mr. Hopkins. The hospital is recognised by the Royal Colleges of Physicians, Surgeons, etc., and licensed for dissections. It contains a library and an excellent museum, in which are a large number of interesting specimens, both in Pathology and Comparative Anatomy. Fees for attendance: twelve months, £10 10s.; six months, £5 5s. (temporary pupils can also, by permission of the honorary staff, attend the practice of the hospital by the payments of £1 1s. for each month). Instruction in Practical Pharmacy for three months, £3 3s. Number of patients admitted during 1891, 1,048. Out-patients, 8,448. Operations performed, 305. Anæsthetics recorded, 305. Out-patient casualties, 1,203. For further particulars apply to the Registrar.

St. Mary's Hospital for Diseases of Women and Children, Manchester.—*Physicians*, Dr. Lloyd Roberts, Dr. W. Walter. *Consulting Surgeons*, Mr. Henry Winterbottom, Dr. S. Nesfield, Mr. R. Heslop. *Surgeon*, Dr. A. Donald. The accommodation for in-patients comprises 50 beds, including three for the reception of lying-in cases attended with special difficulty or danger. Out-patients are attended every day at 9 A.M. by the honorary staff, assisted by the resident medical officers. In the out-patient department, students are taught the various methods of examination and diagnosis, and the use of gynæcological apparatus; while, in the wards, they have an opportunity of becoming familiar with the diagnosis and treatment of graver cases, and of witnessing the more important gynæcological operations, which take place on Wednesday at half-past ten. The large number of maternity cases attended annually (3,000) in connection with this hospital affords ample opportunity to students for receiving instruction in practical midwifery. Every student, on registering himself as a midwifery pupil, is supplied with a card, on which must be filled

in the particulars of every labour at which he is present, each entry being attested by the initials of the medical officer or certified midwife in charge of the case. The hospital possesses a library, presented by the late Dr. Radford, consisting of nearly 4,000 volumes, chiefly on subjects connected with obstetrics and gynæcology. There is also a museum, containing a large number of pathological specimens, and a valuable collection of deformed pelves, casts, obstetric instruments, and anatomical models. The gynæcological practice of the hospital is free to third and fourth years' students. The fee for the midwifery practice, which includes attendance upon twenty cases of labour, as required by the examining bodies, is £2 2s. Application must be made to the House-Surgeon at the hospital.

Staffordshire General Infirmary, Stafford.—*Physicians*, Dr. Greaves, Dr. C. Reid. *Surgeons*, Mr. Weston, Mr. Blumer. *House Surgeon*, Mr. Geo. Temple Tate. *Secretary*, Mr. E. E. Crisp. There are 120 beds. The pupils of medical practitioners resident in the county of Stafford are allowed to witness the Medical and Surgical Practice of the Infirmary, and to be present at operations. The pupils of the officers of the institution are admitted to these privileges gratuitously, those of other practitioners on the payment of £10 10s. with each pupil. The assistants of a medical practitioner, having gone through a complete curriculum, are admitted on the annual payment of £5 5s.

Sussex County Hospital, Brighton.—*Consulting Physicians.* Dr. Kebbell, Dr. Withers Moore. *Physicians*, Dr. J. Rutter, Dr. W. A. Hollis, Dr. H. S. Branfoot. *Assistant-Physicians*, Dr. E. Mackey, Dr. A. J. Richardson, Dr. J. F. Gordon Dill. *Consulting Surgeons*, Mr. E. J. Furner, Mr. F. W. Jowers, Mr. F. A. Humphry. *Surgeons*, Mr. N. P. Blaker, Mr. W. Furner, Mr. T. J. Verrall. *Assistant-Surgeons*, Mr. R. Black, Mr. R. F. Jowers, Mr. F. J. Paley. *House-Surgeon*, Mr. W. D. Calvert. *House-Physician*, Mr. E. F. Maynard. *Assistant House-Surgeon*, Mr. W. A. Mallam. The hospital contains at present 173 beds, with separate wards for children and for cases requiring isolation; and the Out-patient Department is attended by 700 to 800 patients weekly. It is recognised by the College of Surgeons and by the Conjoint Board as a hospital where part of a medical course may be spent. Out-pupils are admitted to the clinical teaching and the classes at a fee of £21 for two years. The Ormerod Exhibition, of the average value of £30, is awarded annually, after examination, to the best student of those leaving to pursue their studies at a medical school. Further information may be obtained from the House-Surgeon. A Nursing Institute has been established in connection with the Hospital under the direct superintendence of the Matron, to whom applications should be addressed; and there is also a Convalescent Home at Ditchling connected with the Hospital, for the benefit of patients who have been under treatment in the Hospital.

Swansea Hospital.—*Consulting Physicians*, Dr. G. Padley, Dr. J. Padden, and Dr. David Arthur Davies. *Physicians*, Dr. J. Rawlings, and Dr. F. Knight. *Consulting Surgeon*, Mr. J. G. Hall. *Surgeons*, Mr. J. Thomas, Mr. H. A. Latimer. *House-Surgeon*, Mr. T. Campbell Grey. *Ophthalmic Surgeons*, Mr. Jabez Thomas, Dr. Alex. D. Davidson. *Obstetric Physician*, Dr. R. Nelson Jones. *Medical Officers for Outdoor Patients*, Dr. Alex. D. Davidson, Dr. G. Herbert Hopkins, and Dr. J. S. H. Roberts. *Chloroformist and Pathologist*, Mr. J. Kynaston Couch. *Surgeon Dentist*, Mr. H. J. Thomas. The House-Surgeon is permitted to take two articled pupils, whom he binds himself to transfer to his successors in the event of his leaving the hospital during the term of their apprenticeship. The premium or fee on the introduction of pupils is such a sum as the Committee may consider reasonable. It is apportioned between the House-Surgeon and the institution, as the Committee for the time being may determine. The Hospital contains 130 beds. The number of in-patients in 1890-91 was 1,171, and of out-patients 3,148. Daily average, 83.

West of England Eye Infirmary, Exeter.—*Surgeons*, Mr. Bankart, Mr. Tosswill. *Registrar*, Mr. Roper. *Secretary*, Mr. R. C. Cole. The Infirmary contains 50 beds. Arrangements can be made for students of the Exeter Hospital to attend the practice of the Eye Infirmary.

Wolverhampton and Staffordshire General Hospital.—*Consulting-Physician*, Dr. Millington. *Consulting-Surgeon*, Mr. Newnham. *Physicians*, Dr. Totherick, Dr. Malet. *Surgeons*, Mr. Vincent Jackson, Mr. Kough, Mr. Winter. *Pathologist*, Dr. MacMunn. *Gynæcologist*, Dr. Wilson. The Hospital contains 230 beds, and is a preparatory School of Medicine and Surgery. The pupils see the whole of the practice of the physicians and surgeons, and are trained in clinical work by the medical and surgical staff. Attendance at this hospital is recognised by all the Examining Boards. *Fees:* six months, £6 6s.; twelve months, £12 12s.; perpetual, £21.

PUBLIC HEALTH OR STATE MEDICINE.

Certain regulations were adopted by the General Medical Council in 1889, and are binding on candidates registered as medical practitioners or entitled to be so registered after January 1st, 1890. The new regulations are designed to ensure "the possession of a distinctively high proficiency, scientific and practical, in all the branches of study which concern the Public Health." The Executive Committee of the General Medical Council has power in special cases to admit exceptions to the rules. The regulations are as follows:—"(*b*) A period of not less than twelve months shall elapse between the attainment of a first registrable qualification in Medicine, Surgery, and Midwifery, and the examination for a Diploma in Sanitary Science, Public Health, or State Medicine. (*c*) Every candidate shall have produced evidence of having attended, after obtaining a registrable qualification, during a period of six months' practical instruction in a laboratory approved of by the body granting the qualification. (*d*) Every candidate shall have produced evidence that, during a period of six months after obtaining a registrable qualification, he either has practically studied the duties of outdoor sanitary work under the medical officer of health of a county or large urban district, or else has himself held appointment as medical officer of health under conditions not requiring the possession of a special Sanitary Diploma.[1] (*e*) The Examination shall have been conducted by Examiners specially qualified, and shall comprise laboratory work as well as written and oral examination. (*f*) The rules as to study shall not apply to—(1) Medical practitioners registered, or entitled to be registered, on or before January 1st, 1890; (2) Registered medical practitioners who have for a period of three years held the position of medical officer of health to any county, or to any urban district of more than 20,000 inhabitants, or to any entire rural sanitary district." Further resolutions were passed on May 30th, 1891, recommending that the regulations of the medical authorities under which they grant diplomas of State Medicine should contain:—(1) In respect to giving effect to resolution (*c*): A full programme of the practical instruction in a laboratory or laboratories prescribed for candidates for the diploma, with rules for insuring that such instruction has been received. (2) In respect to giving effect to resolution (*e*): A programme of the examination held for granting the diploma, describing fully the nature and extent of the examination, as regards the subjects, or portions of subjects comprised in it, and the time assigned to each of its parts, and the methods (especially the practical methods) by which the candidate's knowledge is tested in each. (3) In respect to giving effect to resolution (*d*), as amended by the Council on November 25th, 1890: A statement of any rules the medical authority may have made in regard to the method of carrying out that resolution, and of ensuring that any such rules have been duly attended to. These rules should, in the opinion of the Council, include a requirement that candidates produce evidence of having received practical instruction in those diseases of animals that are transmissible to man.

University of Oxford.—There will be held every year, in Michaelmas Term, an examination in subjects bearing on Preventive Medicine and Public Health, for the purpose of granting certificates of proficiency therein. No person will be admitted thereto who has not have obtained the degree of Bachelor of Medicine in the University. There will be five examiners, namely, the Regius Professor of Medicine, who will preside over the examination, and four other professors nominated to serve for three years, subject to the approval of Convocation. These four, if members of the University, must be members of Convocation, or Bachelors of Civil Law or of Medicine, at the least, or they may be persons not members of the University. The subjects of examination are Hygiene, Sanitary Law, Sanitary Engineering, and Vital Statistics. At the close of the examination, a list of the candidates who have received certificates will be made in a book to be kept for that purpose, and will be certified by the signature of the examiners. Such book will remain in the custody of the Registrar of the University. The examination is

[1] This resolution in its present form was adopted on November 25th, 1890.

under the supervision of the Board of the Faculty of Medicine. The fee to be paid before examination is £5; for the Certificate of Proficiency, £10. This examination is suspended at present pending alterations in the Statute.

UNIVERSITY OF CAMBRIDGE.—An examination in so much of State Medicine as is comprised in the functions of Medical Officers of Health will be held yearly in Cambridge, beginning on the first Tuesday in October, and ending on the following Friday, or, at latest, on the following Saturday. Any person whose name is on the *Medical Register* of the United Kingdom may present himself for the examination, provided (*a*) he be in his twenty-fourth year at least when he presents himself for the first part of the examination, and have attained twenty-four years of age before he presents himself for the second part; (*b*) a period of not less than twelve months shall have elapsed between the time when he first obtained a registrable qualification and the time when he presents himself for the second part of the examination; (*c*) he produce evidence of having, after having obtained a registrable qualification, attended during a period of six months on a course, approved by the Syndicate, of Practical Laboratory Instruction in the subjects of the first part of the examination; (*d*) he produce evidence of having for six months practically studied the duties of outdoor Sanitary Work under the Medical Officer of Health of a County or large Urban District. The provisions *b*, *c*, *d* shall not apply to (*a*) candidates whose names have been placed on the *Medical Register* of the United Kingdom, or who have obtained a registrable qualification on or before January 1, 1890; (*β*) candidates who have for a period of three years held the position of Medical Officer of Health to any County, or to any Urban District of more than 20,000 inhabitants, or to any Rural Sanitary District.

The examination will be in two parts:

Part I will comprise: Physics and Chemistry; the Principles of Chemistry, and methods of analysis, with especial reference to analyses of air, water, and food; application of the microscope; the laws of heat and the principles of pneumatics, hydrostatics, and hydraulics, with especial reference to ventilation, water supply, drainage; construction of dwellings, disposal of sewage and refuse, and sanitary engineering in general; sources of water supply; statistical methods in relation to public health.

Part II will comprise: Laws of the realm relating to public health; origin, propagation, pathology, and prevention of epidemic and infectious diseases; effects of overcrowding, vitiated air, impure water, and bad or insufficient food; unhealthy occupations and the diseases to which they give rise; water supply and drainage in reference to health; nuisances injurious to health; distribution of diseases within the United Kingdom, and effects of soil, season, and climate.

The examination in both parts will be oral and practical as well as in writing. Candidates may present themselves for either part separately, or for both together. But the result of the examination in the case of any candidate will not be published until he has passed to the satisfaction of the examiners in both parts. Every candidate must pay a fee of £4 4s. before admission to *either part* of the examination. Every candidate who has passed both parts of the examination to the satisfaction of the examiners will receive a diploma testifying to his competent knowledge of what is required for the duties of a Medical Officer of Health.

The following suggestions have been drawn up by the Syndicate for Superintending the Examination in State Medicine as some guide to candidates preparing for that examination. Part I. The principles of chemistry are sufficiently set forth in the ordinary manuals. Candidates will be expected to understand the application of the general laws to such cases as occur in the practice of a Medical Officer of Health, but will not expected show an acquaintance with those details of Chemistry which have no direct bearing on sanitary questions. It is not expected that Medical Officers of Health will in general be able to act as public analysts, but that they will know the methods and be able to interpret correctly the results of professional analysis. The kinds of applications of the several sciences of which the candidates are expected to show a competent knowledge will be best understood by a perusal of Parkes's *Manual of Practical Hygiene* and Wynter Blyth's *Manual of Public Health*. In the actual analysis of air, water, and food candidates will not be expected to make complete quantitative analyses, but to know how to apply ordinary chemical and physical methods for the examination of the samples. Candidates will be expected to show a practical acquaintance with the use of the microscope, and with the methods of bacteriological examination. Part II. Candidates will be expected to show an acquaintance with the sanitary laws in force in England; but if any candidate has information respecting alternative laws in force in the metropolis or in Scotland or in Ireland, opportunity will be given him, alternatively, of showing his acquaintance with such laws. Besides the subjects expressly mentioned, Part II is understood as including Vaccination, Disinfectants, the management of outbreaks of Infectious Diseases, the construction of Hospitals, temporary or permanent; Endemic Diseases; Vital Statistics, including those of disease; and the inspection of factories, mines, workshops, schools, and common lodging-houses.

The following list of works, with the names of the publishers, will probably be found of use to some of the candidates, but the necessity of reading all or any one of them is not urged upon them. The books marked * may be used for reference.

Parts I and II.—Parkes's *Manual of Practical Hygiene* (Churchill); Wynter Blyth's *Manual of Public Health* (Macmillan); Grimshaw and others, *Manual of Public Health for Ireland* (Fannin, Dublin; and Longmans); Cameron's *Manual of Hygiene* (Hodges, Foster, and Co., Dublin; and Baillière, Tindall, and Cox); Seaton's *Handbook on Vaccination* (Macmillan); McVail's *Vaccination Vindicated* (Casseli); *Reports of the Royal Commission on Vaccination: *Army Medical Reports; *Reports on Hygiene* (Spottiswoode); *Reports to Privy Council and Local Government Board by their Medical Officer (Eyre and Spottiswoode); Simon's Works (Churchill). On Chemistry: General Principles: Watts's *Manual of Chemistry* (Churchill); Bloxam's *Chemistry* (Churchill); Roscoe's *Lessons in Elementary Chemistry* (Macmillan); *Miller's *Chemistry* (Longmans); *Thorpe's *Dictionary of Applied Chemistry* (Longmans). On Analysis: Sutton's *Systematic Handbook of Volumetric Analysis* (Churchill); Frankland's *Water Analysis for Sanitary Purposes* (Van Voorst); Wanklyn and Chapman's *Water Analysis* (Trübner); Hartley's *Air and its Relations to Life* (Longmans); Wanklyn's *Air Analysis* (Trübner); C. Fox, *Sanitary Examinations of Water, Air, and Food* (Churchill); Wynter Blyth's *Foods, Composition and Analysis* (Griffin). On Physics: Everett's *Textbook of Physics* (Blackie); Ganot's *Physics* (Longmans); Deschanel's *Physics* (Blackie); *Daniell's *Textbook of the Principles of Physics* (Macmillan). On Microscopy: Macdonald's *Guide to Microscopical Examination of Drinking Water* (Churchill); Davis's *Practical Microscopy* (Allen); *Cornil and Babes' *Les Bactéries* (Alcan); Crookshank's *Manual of Bacteriology* (Lewis); Klein's *Micro-organisms and Disease* (Macmillan); *Flügge's *Micro-organisms* (New Sydenham Society). On Sanitary Engineering, Water Supply, Sewage, etc.: Eassie's *Sanitary Arrangement for Dwellings* (Smith, Elder, and Co.); Galton's *Healthy Dwellings* (Clarendon Press); Corfield's *Dwelling Houses, their Sanitary Construction and Arrangement* (Lewis); *Bailey-Denton, *Sanitary Engineering* (Spon); *Latham's *Sanitary Engineering* (Spon); *Bayles's *House Drainage and Water Service* (Williams, New York); Tomlinson's *Warming and Ventilation* (Lockwood); Corfield's *Treatment and Utilisation of Sewage* (Third Edition, 1877, by Corfield and L. Parkes. Macmillan); *Report of Committee appointed by President of Local Government Board on Modes of treating Town Sewage (Eyre and Spottiswoode); *Reports of Royal Commission on Pollution of Rivers, especially the sixth, on Domestic Water Supply (Eyre and Spottiswoode); *Reports (two) of Royal Commission on Metropolitan Sewage Discharge; *Report from Select Committee on Public Health Act (1875) Amendment Bill, with the Evidence (Eyre and Spottiswoode); *R. Angus Smith's *Air and Rain* (Longmans). On the Laws of the Realm and By-laws relating to Public Health. For England: Public Health Act 1875, and the Acts of Parliament relating to the various subject-matters within the domain of Hygiene passed since that date; Housing of the Working Classes Act, 1890; Vaccination Acts. For the Metropolis, or for Scotland, or for Ireland: Laws dealing with the same subject-matters as the above, and having application to the particular part of the United Kingdom; Model By-laws of the Local Government Board (Eyre and Spottiswoode; or the same, annotated, Knight); Adulteration of Food and Drugs Act. On Statistics: Newsholme's *Vital Statistics* (Sonnenschein); Lewis's *Digest of the English Census* (Stanford); *The article on "Statistics" in the *Cyclopædia of Anatomy and Physiology* (Longmans); *Papers by Mr. Noel Humphreys in the *Journal of the Statistical Society*; *Dr. Farr's *Vital Statistics* (Stanford); *Dr. Farr's letters to the Registrar-General in the early Reports of the Registrar-General;

*Reports of the Registrar-General (Eyre and Spottiswoode); *Deaths in England. Average Annual Proportion of Deaths, etc, 1861-70. Parliamentary Paper C. 874, Session 1873 (Eyre and Spottiswoode). On Construction of Hospitals: Miss Nightingale's *Notes on Hospitals* (Longmans); Galton, *On the Construction of Hospitals* (Macmillan); Burdett, *Cottage Hospitals* (Churchill); **Hospital Construction and Organisation*, Johns Hopkins Essays (W. Wood and Co.); *Mouatt and Snell's *Hospital Construction and Management* (Churchill); *l'Etudé et le Progrès de l'Hygiène en France*, Article Hôpitaux et Hospices (Masson); *Dr. Thorne's Reports on Infectious Hospitals, Local Government Board (Eyre and Spottiswoode); *De Chaumont, Article "Hospitals," in the *Encyclopædia Britannica*, ninth edition.[1]

All applications for information respecting this examination should be addressed to Dr. Anningson, Walt-ham-sal, Cambridge. Secretary to the Syndicate.

Candidates who desire to present themselves for examination in October next, must send in their applications (with names written in *full*), and transmit the fees to Mr. J. W. Clark, Registrary, University of Cambridge, on or before September 27th. Cheques to be crossed "Mortlock and Co. Ltd." The fee for either part of the examination cannot be returned to any candidate who has actually presented himself for that part.

The applications of candidates whose names have not been on the *Medical Register* three years should be accompanied by a certificate of birth or other proof of age. Candidates must also produce evidence of having satisfied provisions *c* and *d* above mentioned.

University of London.—The special examination held once in every year in subjects relating to Public Health is now abolished. Sanitary Science is made a branch of the M.D. Examination.[2] Candidates presenting themselves for the M.D. Examination in State Medicine must send to the Registrar, with their entry forms, certificates to the following effect: 1. Of having attended, subsequently to having taken the degree of Bachelor of Medicine in this University, (*a*) to State Medicine during two years. (This attendance must include six months' practical instruction in a laboratory and six months' outdoor sanitary work. Certificates will be received from the holder of any Public Health office directly or indirectly subject to control by a Secretary of State or a Government Department); (*b*) or to State Medicine during one year, as above, and of having held for a period of two years the position of Medical Officer of Health in any sanitary district; (*c*) or of having held for a period of three years the position of Medical Officer of Health in any Sanitary District. (One year of attendance on State Medicine, or one year of holding the position of Medical Officer of Health will be dispensed with in the case of those candidates who at the M.B. Examination have been placed in the first division.) 2. Of moral character, signed by two persons of respectability. Candidates will be examined in Mental Physiology, especially in its relations to Mental Disorder, and in State Medicine by printed papers and *viva voce* interrogation. A commentary must be written on a case in State Medicine, and an inspection must be made and a report written on some place or institution in its relations to public health. The regulations as to fees, etc., are the same as in the other branches of the M.D. degree. (See p. 506.)

Victoria University.—An examination in Sanitary Science is held yearly, beginning about the middle of July, under the following regulations: 1. The examination is in two parts, and is written, oral, and practical. 2. Candidates, before entering for either part of the examination, must have held for not less than twelve months a registrable qualification in Medicine, Surgery, and Midwifery, and must present satisfactory certificates (1) of having attended courses of instruction in Public Health, and in Chemistry as applied to Public Health, in a college of the University, or in a college or medical school recognised for this purpose by the University;[1] (2) of having attended, after obtaining a registrable qualification, during at least six months practical instruction in a laboratory approved by the University;[1] (3) of having practically studied the duties of outdoor sanitary work for not less than six months under the medical officer of health of a county or of a large urban district. 3. Candidates may present themselves for Parts I and II separately or at the same time, provided that no candidate be admitted to Part II unless he has already presented himself for Part I. No candidate's name will be published until he has satisfied the examiners in both parts of the examination. 4. Notice in writing must be given by each candidate to the Registrar of the University on or before July 1st in each year. 5. The fee for each part is £4 4s., and must be paid on or before July 5th in each year. For any subsequent examination in the same part the fee will be £2 2s. Every candidate who has passed both parts of the examination to the satisfaction of the examiners, and who is legally registered, will receive a diploma in sanitary science.

Subjects of Examination: Part I.—The subjects of examination are as follows: 1. Chemistry, with especial reference to the examination of air and water. (Exact quantitative analysis will not be required, but it will be necessary that candidates should be familiar with the principles of the analytical processes employed, and should be able to interpret correctly the results of professional analyses.) 2. Warming and Ventilation, and the use of Meteorological Instruments. 3. Sanitary appliances in relation to the construction of dwellings, water supply, sewerage and drainage, and the disposal of refuse. 4. The use of the microscope as applied to the examination of air, food, and water. 5. Vital statistics, as regards the methods employed and the conclusions deducible therefrom, and the classification and tabulation of returns of sickness and mortality.

Part II.—The subjects of examination are as follows: 1. Medicine in relation to the origin, growth, and prevention of disease. (*a*) Distribution of Disease in England and Wales; (*b*) Influence of Climate, Season, and Soil; (*c*) Effects of Unwholesome Air, Water, and Diet; (*d*) Diseases of Animals in Relation to the Health of Man; (*e*) Influence of Occupation and Dwelling; (*f*) Preventable Diseases, as regards their pathology, causation, etc. (a knowledge of bacteriology in relation to the diseases of man and animals will also be required); (*g*) The Prevention and Control of Epidemic Disease by Isolation, Quarantine, Disinfection, Vaccination, etc. 2. Sanitary Administration: (*a*) Health Requirements of Houses, Villages, and Towns; (*b*) Domestic Hygiene and the Regulation of Common Lodging-Houses, Hospitals, and other Public Establishments; (*c*) Regulation of Offensive, Dangerous, or Unhealthy Trades, Occupations, etc. 3. Statutes and By-laws relating to Public Health. (Candidates will be expected to show an acquaintance with the sanitary laws in force in England.) 4. Sanitary Reporting. (The candidate will be expected to visit and report upon the sanitary condition of some actual locality assigned to him by the examiners.)

Order of Examination: Part I.—The examination will extend over a period of two days, and will include: 1. A three hours' written examination on Chemistry, Warming, Ventilation, and the Use of Meteorological Instruments. 2. A three hours' written examination on Sanitary Appliances in relation to Dwellings, etc., and on Vital Statistics. 3. A three hours' practical and oral examination on Chemistry, Warming, Ventilation, and the Use of Meteorological Instruments. 4. A three hours' practical and oral examination on the Use of the Microscope as applied to air, food, and water.

Part II.—The examination will extend over a period of two days, and will include: 1. A three hours' written examination on Medicine. 2. A three hours' written examination on Sanitary Administration, and on Statutes and By-laws relating to Public Health. 3. Sanitary Reporting and an oral examination.

Note.—The examinations will begin on the third Monday in July each year.

Royal College of Physicians of London and the Royal College of Surgeons of England.—The following are the regulations for obtaining the Diploma in Public Health: Section I. Examination. I. Candidates must be registered under the Medical Act. II. The examination, consisting of two parts, will be held in the months of January and July in each year. III. Candidates must pass Part I before being admitted to Part II. IV. Candidates may enter for Parts I and II separately or at the same time; but no candidate's name will be published until he has passed in both parts of the examination. V. The examination in each part will

[1] The Examination Papers set at former examinations can be obtained at the Cambridge University Press Warehouse, Ave Maria Lane, London. Price, 1s. each set, or by post 1s. 2d.

[2] Candidates desiring to be examined in State Medicine must give notice and pay their fee to the Registrar at least two calendar months before the commencement of the examination.

[1] May be modified in the case of Practitioners qualified before January 1st, 1890.

be written, oral, and practical.[1] VI. The fee for each part is £5 5s., and must be paid three days prior to the day on which the examination commences. VII. A candidate who fails to satisfy the examiners in either part may present himself again at the next examination on payment of a fee of £3 3s. VIII. The diploma awarded is entitled "Diploma in Public Health of the Royal College of Physicians of London and the Royal College of Surgeons of England." IX. A candidate intending to present himself for either part of the examination must give fourteen days' notice in writing to the Secretary at the Examination Hall, Victoria Embankment, W.C. Section 2. *Conditions of Admission to Examination:* A. For candidates registered under the Medical Act on or before January 1st, 1890. A candidate registered under the Medical Act on or before January 1st, 1890, will be admissible to Part I of the examination on producing evidence of being at least 23 years of age, and to Part II on producing evidence of being at least 24 years of age. B. For candidates registered under the Medical Act after January 1st, 1890. A candidate will be admissible to examination in Part I on producing evidence (1) of having been in possession of a registrable qualification in medicine, surgery, and midwifery for at least twelve months; (2) of having attended, after obtaining such registrable qualification, practical instruction in a laboratory recognised by the Examining Board in England, during a period of six months; (3) of being at least 23 years of age. A candidate will be admitted to Part II of the examination on producing evidence (1) of having, during a period of six months after obtaining a registrable qualification, either practically studied the duties of outdoor sanitary work under the medical officer of health of a county or large urban district, or else held appointment as medical officer of health under conditions not requiring the possession of a special sanitary diploma; (2) of being at least 24 years of age.

Syllabus for the Examination.—Part I. 1. Physics in their application to Health, with reference to—(*a*) Warming and Ventilation; (*b*) Water-Supply, Sewerage, and Drainage; (*c*) Sanitary Construction. 2. Meteorology in relation to Health. 3. Chemistry with special reference to Food, Air, Soil, and Water. 4. Microscopical Examinations, as applied to Air, Food, and Water. 5. Geology and Soil in their relation to Drainage and Water-Supply. Part II. 1. The origin, development, and prevention of Disease, with reference to: (*a*) Special Pathology of Epidemic and Endemic Diseases, including the Natural History of the Specific Organisms of Diseases; (*b*) Influence of Climate, Season, and Soil; (*c*) Effects of unwholesome Air, Water, and Diet; (*d*) Diseases of Animals in relation to the Health of Man; (*e*) Influence of Occupation and Lodgment; (*f*) Isolation, Quarantine, Disinfection, Vaccination. 2. Sanitary Work and Administration with reference to: (*a*) Health requirements of Houses, Villages, and Towns; (*b*) the Sanitary Regulations of Households, Establishments, and Occupations, including the Construction and Arrangement of Hospitals; (*c*) the Prevention and Control of Epidemic and Endemic Diseases. 3. Statistics in Relation to Health. 4. Statutes, Orders, and By-laws relating to Public Health. 5. Duties of Sanitary Authorities and their Officers.

Synopsis of the Course of Laboratory Instruction.—I. Physics. Gases; examination of their physical properties; their weight and bulk under varying alterations of pressure and temperature, and the movements thereby set up; diffusion, with especial reference to warming and ventilation. Anemometers, and their use. Liquids; their physical properties, their pressure, and flow through tubes and conduits; their action on gases. Meteorological instruments; their construction and use. Barometers; thermometers; hygrometers; rain-guages. II. Chemistry. The analysis of water for drinking purposes, including the qualitative and quantitative estimation of total solids (lime, magnesia, chlorides, sulphates, nitrates and nitrites, ammonia and lead), and loss on ignition of solids; determinations of hardness, of organic impurities, and of acidity and alkalinity. Chemical methods of treating sewage. The examination of air for the detection of polluting gases. Simple methods of eudiometry. Estimation of the quantity of carbon dioxide in air. III. Microscopy. The recognition of the constituents of food, such as starches and muscular fibre. The recognition of the chief fibres of clothing, such as wool, cotton, and silk. The recognition of constituents of ordinary dust, and deposits from water. IV. Bacteriology, including the cultivation and recognition of micro-organisms. V. Parasites and other organisms, infesting food-stuffs or the human body.

[1] The practical examination in Part II may include a visit to and report on some selected premises.

UNIVERSITY OF ABERDEEN.—*Regulations for the Diploma in Public Health (D.P.H.)*—Candidates for the diploma must have graduated in Medicine in the University or in a University in the United Kingdom for one year before they receive the diploma; and they must have given evidence (A) of having attended, after graduation in medicine, during a period of not less than six months, practical instruction in a laboratory or laboratories approved by the University, the attendance being certified to have attended over at least fifteen hours a week. This laboratory instruction must include (1) general instruction in methods employed in determining physical characters and in quantitative analysis; (2) examination of water, potable, mineral and sewage polluted; (3) examination of air; (4) examination of soil; (5) examination of foods, condiments, and beverages; (6) bacteriology; (7) disinfection and disinfectants; (8) ventilation; (9) water supply and sewerage; (10) framing of reports of analyses. [A detailed synopsis can be obtained from the Dean of the Medical Faculty.] (B) Of having practically and daily studied for six months after graduation the duties of outdoor sanitary work under the M.O.H. of a county or large urban district, or having himself held the appointment of M.O.H. (C) Of having attended a fever hospital, containing not fewer than fifty beds, for six months. (D) If not a graduate in medicine of Aberdeen University, of having attended a course in the University in one or more of the subjects embraced in the examination for the diploma. The diploma is conferred after an examination in Public Health, held in March and July of each year. Candidates desiring to appear for examination at either of these periods must send their names, with the necessary fee, to the Secretary of the Medical Faculty before the first day of the month in which the examination takes place. The fee for the examination is £5 5s. In the event of a candidate failing to pass the examination, a fee of £1 1s. will be charged for each subsequent examination for which he may enter. The examination is conducted by the examiners for the Medical Degrees. The examination, which is divided into two parts, is written, oral, and practical.

The subjects and scope of the examination are as follows:—

Part I. *a. Physics, Engineering, and Meteorology.*—The general principles of Physics in so far as they relate to Heat and Ventilation, Water Supply, and Drainage; the elements of Meteorology and Climatology; practical exercises in the use of Meteorological Instruments.

b. Chemistry, Microscopy, and Bacteriology.—The Composition and Analysis of Air, Water, and Sewage; the Composition and Adulteration of the more common Foods and Beverages; Diseased and Putrid Food; practical exercises in the chemical and microscopical examination of air, water, and foods.

Part II. *a. General Hygiene.*—Duties of Medical Officers of Health; Nature and Construction of Dietaries; Construction and Sanitary Arrangements of Houses, Hospitals, Workshops, Factories, Towns, etc., including interpretation of plans; Ventilation, Water-supply, Sewerage, Disposal of Dead; Etiology, Prophylaxis (including Vaccination), and Control of Infectious Diseases; Unhealthy Occupations; practical exercises in examining and reporting on the construction and sanitary arrangements of houses, etc.

b. Sanitary Law and Vital Statistics.—Laws relating to the Public Health of Scotland, England, or Ireland, at the option of the candidate. Laws relating to Vaccination, and Registration of Births, Marriages, and Deaths. Methods and Data of Vital Statistics, mainly in so far as they relate to the birth, marriage, and death-rate of communities.

UNIVERSITY OF EDINBURGH.—This University confers two degrees in Science in the department of Public Health, namely, Bachelor of Science (B.Sc.) and Doctor of Science (D.Sc.).

Bachelor of Science.—The candidate must be a Graduate in Medicine of a British University, or of a Colonial, Indian, or foreign University specially recognised by the University Court, and must be matriculated[1] in Edinburgh University for the year in which he appears for examination or graduation. Two examinations must be passed. *First Examination.*—Fee £5 5s. Certificates must be produced showing (*a*) that the candidate has taken a Degree in Medicine in the University of Edinburgh, or

[1] Matriculation consists in paying an entrance fee of £1, and inserting the name in the students' album.

in a University recognised as above; and (*b*) that he has worked for at least six months, or the usual winter session, in a laboratory where practical instruction is given in the methods of investigating subjects pertaining to Public Health. This course must be attended, after Graduation in Medicine, either in the Public Health Laboratory of the University of Edinburgh, or in a Laboratory in which instruction in Public Health is given, and which has, after due inquiry, been recognised by the University Court.[2] Laboratories are not recognised for the purpose referred to in Section 4 (*b*), in which provision is not made for the teaching of Public Health Laboratory work in accordance with the Schedule of Laboratory work issued by the Senatus, as provided in Section 10 hereof, nor will they be recognised if such work is not taught by a specially recognised teacher. Candidates shall not be admitted to the Second Examination for the said degree until one year after taking a Degree in Medicine, nor until an interval of at least three months has elapsed after passing the First Examination. Every Certificate of Laboratory attendance must bear that the Candidate worked during his period of attendance for at least fifteen hours per week. Every candidate who desires to proceed to the Second Examination for the said degree must produce evidence (*a*) that he has attended in this University at least two courses of instruction on subjects included in the Examinations set forth in Section 10 hereof; (*b*) that he has attended a course of lectures in which instruction is given in Public Health; and that (*c*) after having obtained a registrable qualification in Medicine, he has practically studied the duties of out-door sanitary work under the medical officer of health of a county or of a large urban district for a period of not less than six months.[3] The subjects of the examination are: (1) Laboratory work, practical, written, and oral; (2) Elements of Experimental Physics, written and oral. *Second Examination.*—Fee £5 5s. May be passed at any time after the First. The candidate must produce evidence (*a*) that he has taken a degree in Medicine; (*b*) that he has attended in the Edinburgh University two courses of instruction on subjects included in the First or Second Examination; (*c*) that he has attended a course of lectures in which instruction is given in Public Health. The subjects of the examination are: (1) Medicine in its application to Public Health; (2) Practical Sanitation; (3) Sanitary Law and Vital Statistics; (4) Mensuration and Drawing. The examination in each subject is written, oral, and, as far as possible, practical. Detailed schedules in each subject are issued from time to time. The First Examination will be held on March 21st and July 18th, 1892, and following days; certificates to be submitted and fee paid by March 14th and July 4th, 1892. The Second Examination will be next held on July 4th, 1892, and following days; certificates to be submitted and fee paid by June 24th. Further particulars may be obtained on application to the Convener of the Science Degrees Committee, at the office of the Faculty of Medicine, University New Buildings, where the schedules for examinations are issued and the certificates of candidates examined.

Doctor of Science.—Bachelors of Science in the Department of Public Health may, after the lapse of one year, proceed to the degree of Doctor in the same Department, on producing evidence that they have been engaged in Practical Sanitation since they took the said degree of Bachelor of Science, and on presenting a Thesis on some subject in the Department of Public Health. Every such Thesis must be certified by the candidate to have been composed by himself, and must be approved of by the examiners. The Thesis must be lodged with the Convener of the Science Degrees Committee on or before April 30th, in the year in which the candidate proposes to graduate. The fee is five guineas.

University of Glasgow.—The University provides instruction in Public Health by laboratory training and otherwise. The subjects of instruction are: Duties of Health Officers, Air and Ventilation, Food and its Adulterations, Water and Water Supply, Sewerage and Drainage; Construction of Hospitals, Public Buildings, and Dwellings, Overcrowding, Manufactories, Insalubrious Trades, Cemeteries, Nuisances, Quarantine, Disinfectants and Deodorisers, Outbreaks of Zymotic Diseases; Climate, Topographical and Seasonal: its Influences in Relation to Health and Disease; Geographical Distribution of Diseases; Knowledge of leading Sanitary Acts of Parliament; Vital Statistics.

The Laboratory training is provided in a special department of the Chemical Laboratory. Practical instruction is given in the following subjects:—(*a*) Water: qualitative examination—colour, odour and suspended matters; quantitative examination—ammonia, albuminoid ammonia, nitric and nitrous acids, sulphuric and phosphoric acids, chlorine, total solids, lime, magnesia, alkalies, silica in solution, the hardness before and after boiling; Clark's process for softening water; explanations and illustrations of methods employed to purify water by chemical processes and by filtration. (*b*) Air: qualitative and quantitative examination for gaseous impurities and suspended matters. (*c*) Water and Air: bacteriological methods of examination; micro-organisms, moulds, and fungi, and their identification; pure cultures. (*d*) Soils: nature and examination of soils; ground water, sewage. (*e*) Antiseptics and Disinfection: the relative value of various antiseptics and disinfectants and the methods of employing them. (*f*) Foods: quantitative examination of milk, butter, tea, coffee, sugar, alcoholic beverages, aërated waters for poisonous substances; qualitative examination of bread and flour, of cereal, farinaceous, and other food substances and condiments: chemical and microscopic examination for common adulterations, colouring matters, animal organisms, and poisonous substances; examination of food substances for fungoid growths, and poisonous substances resulting from the same.

The Diploma in Public Health may be obtained by any Bachelor of Medicine of this University on his passing the required examination twelve months after he has taken the degree of M.B. Every candidate for a Diploma in Public Health shall give sufficient evidence by certificates: (1) that after obtaining the degree of M.B. he has undergone the practical training provided under the regulations as to laboratory training (see above); (2) that he has for six months practically studied the duties of outdoor sanitary work under the medical officer of health of a county or large urban district.

The examination is written, practical, and oral. The subjects of examination are as follows: (*a*) Physics, Meteorology, and Climatology, with special reference to Heat and Ventilation, Water Supply, Drainage, and the Geographical Distribution of Disease. (*b*) Chemistry and Biology: the composition and analysis (qualitative and quantitative) of Air, Water, and Sewage; detection of poisons and recognition of injurious pigments; the composition and adulteration of foods and beverages; diseased and putrid food; Bacteriology: microscopic examination of Air, Water, Foods, and Beverages. (*c*) General Hygiene: Duties of Medical Officer of Health; Nature and Construction of Dietaries; Sanitary arrangements of Houses, Hospitals, Workshops, Factories, Towns, including Interpretation of Plans; Ventilation, Water Supply, Sewerage, Disposal of the Dead; Etiology, Prophylaxis, and Control of Infectious Diseases; Unhealthy Occupations; Practical examination and written report on some selected area or premises. (*d*) Sanitary Law and Vital Statistics: Laws relating to Public Health, Vaccination, and Registration of Births, Marriages, and Deaths; Methods and Results of Vital Statistics, chiefly in relation to the birth-, marriage-, and death-rate of communities.

The fee for the course of instruction is £10 10s., and for the examination £5 5s.

Royal College of Physicians of Edinburgh.—The Royal College of Physicians of Edinburgh now grants a certificate of Qualification in Public Health only in combination with the Royal College of Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow.

Royal College of Surgeons, Edinburgh.—*Diploma in Public Health.*[1]—1. Every candidate must have been a registered medical practitioner for one year or have possessed a registrable colonial, Indian, or foreign qualification for that period. 2. Subsequently to obtaining a registrable qualification practical instruction in a sanitary science laboratory approved by the College must be attended for six months. 3. Evidence must be produced of having for six months after obtaining a registrable qualification, either practically studied outdoor sanitary work under the medical officer of health of a county or large urban district, or else himself

[2] Public Health Laboratory and Teacher recognised under Section 5; University College, Dundee, Professor Percy F. Frankland, Ph.D., Teacher, February 16th, 1891.

[3] Regulation (*c*) does not in the meantime apply to candidates who obtained a registrable qualification on or before January 1st, 1890.

[1] On October 1st, 1892, this Diploma will be superseded by one to be granted by the Triple Qualification Board, unless in the case of candidates who have passed the First Examination prior to that date.

having held appointment as medical officer of health under conditions not requiring the possession of a special sanitary diploma. 4. Candidates are recommended to attend special courses of lectures and instruction on all subjects appertaining to the examination. The rules as to study shall not apply to medical practitioners registered on or before January 1st, 1890, nor to registered practitioners who have for a period of three years held the position of medical officer of health to any county or to any urban district of more than 20,000 inhabitants, or to any entire rural sanitary district. There are two examinations, both comprising laboratory work as well as written and oral tests. The first examination includes Chemistry, Physics, and Topographical, Atmospheric, and Climatic Influences in their Relations to Disease. The second examination embraces a knowledge of Epidemic and Endemic Diseases, Contagion, Drainage, Water Supply and Conservancy, Construction of Public Buildings, Barracks, Hospitals, Schools, Factories, and Dwelling-houses, Establishments connected with Food Supplies, Cemeteries, Sanitary Science in general, and Sanitary Laws as related to the duties of an officer of health in all its departments, including Vital Statistics. The next first examination takes place on September 20th, 1892; the second examination will take place on the following Thursday. Candidates rejected at either examination are remitted for a period of not less than six months; candidates rejected by any other qualifying board are not eligible until after an interval of three months. The fee for each examination is £5. Candidates may present themselves for both examinations at one period, the condition being that failure to pass in the subjects of the first examination precludes the candidates from admission to the second examination. In such a case the fee of £10 shall be lodged on entering for the first examination, and in case of failure in that examination the fee paid for the second examination shall be returned to the candidate. A fee of £3 3s. shall be payable by unsuccessful candidates on being readmitted to either examination. These fees, along with applications for admission to examination, shall be lodged with Mr. James Robertson, Solicitor, 1, George Square, Edinburgh, not later than one week before the examination day. Every candidate on passing the second examination shall receive a diploma for proficiency in Sanitary Science, Public Health, and State Medicine; and which is registrable on the *Medical Register* as an additional qualification.

SCOTTISH TRIPLE QUALIFICATION.—On and after October 1st, 1892, the Royal Colleges of Physicians and Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow will grant a Conjoint Diploma in Public Health, after examination by a Board on which these bodies are represented. Candidates qualified before 1890 will be admitted without evidence of special instruction (though even in their case such instruction is strongly recommended). Other candidates must produce evidence of attendance (subsequent to obtaining first qualification) for six months in a Public Health Laboratory, and for six months under a Medical Officer of Health of a county or large urban district. There are two examinations, and candidates may present themselves for both of them at one period, or for either examination separately. The First Examination embraces the following subjects in their relation to Public Health: Chemistry, Laboratory Work, Physics, and Meteorology. The Second Examination includes Epidemiology, Endemiology, Vital Statistics, Practical Sanitation, and Sanitary Law. The various subjects of both examinations are detached and limited by synopses given. The laboratory work embraces not only Chemical Analysis, but also Microscopical Examination, Bacteriology, Parasites, etc. At the Second Examination each candidate is required to submit a report on the sanitary condition of premises to which he may be sent for the purpose. The Acts of Parliament included under "Sanitary Law" are enumerated, with their duties. The fee is ten guineas or five guineas in respect of each examination; and candidates referred are readmitted on the fee of three guineas in respect of each examination. The examination is held in Edinburgh or in Glasgow, there being two periods of examination yearly. Application for examination in Edinburgh to be sent to Mr. James Robertson, 1, George Square, Edinburgh; and in Glasgow to Alexander Duncan, 242, St. Vincent Street, Glasgow.

UNIVERSITY OF DUBLIN.—The diploma in State Medicine is conferred after examination upon M.D.'s or graduates in Medicine and Surgery of Dublin, Oxford, or Cambridge. The name of the candidate must have been on the *Medical Register* at least twelve months before the examination, and, subsequent to registration, the candidate must have completed six months' practical instruction in a laboratory approved by the University, and have studied practical outdoor sanitary work for six months, under an approved officer of health. [This condition does not apply to candidates registered or entitled to be registered on or before January 1st, 1890.] The examination will begin on December 8th, and candidates are required to send in their names at least a week before the first day of the examination to the Registrar of the School of Physic, from whom a full syllabus of the examination can be obtained. The subjects of examination are: State Medicine and Hygiene (paper); Chemistry (paper and laboratory); Physics and Meteorology (oral); Engineering (paper); Morbid Anatomy (oral); Vital Statistics (paper); Medical Jurisprudence (oral); Law (paper).

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—The following scheme for the degrees of Bachelor in Hygiene (B.Hy.) and Doctor in Hygiene (D.Hy.) has been approved by the Senate of the University of Durham. *Bachelor in Hygiene (B.Hy.).*—I. Education. 1. The candidate shall be a registered medical practitioner. 2. He shall not be less than 22 years of age. 3. He shall have spent one year of professional study subsequent to the attainment of a first registrable qualification in medicine, surgery, and midwifery, in attendance at the University of Durham College of Medicine, Newcastle-upon-Tyne, in the following manner:—*Winter Session.* (*a*) Course of lectures on public health. (*b*) Three months' practical instruction in a chemical laboratory, and three months' practical instruction in a bacteriological laboratory. Attendance on the clinical practice, lectures, and instruction of the City Hospital for Infectious Diseases, Newcastle-upon-Tyne.—*Summer Session.* (*a*) Course of lectures on sanitary chemistry and physics. (*b*) Course of practical chemistry of not less than twelve hours per week. (*c*) Six months' practical study of outdoor sanitary work under the Medical Officer of Health, Newcastle-upon-Tyne. II. Examination. The candidate shall be required to pass an examination on the following subjects: (*a*) *Sanitary Chemistry.* The examination of air, detection of noxious gases and atmospheric impurities. Water for sanitary purposes; detection of metals in water; the action of water on metals. Milk and food. Detection of poisons in articles of dress and decoration. (*b*) *Physics.* Hydrodynamics, pneumatics, and hydraulics, as applied to sanitation and meteorology. Light; propagation of light; reflection and refraction; photometry. Heat; thermometers; laws of heat in relation to hygiene. Principles of hygrometry and hygrometers. (*c*) *Sanitary Legislation.* Knowledge of the following statutes and by-laws, namely: The Public Health Acts, Rivers Pollution Prevention Act, 1876; Statutes relating to Dwellings for Artisans and Labourers; the Infectious Diseases Notification Act, 1888; the Local Government Act, 1889; the Model By-laws of the Local Government Board, relating to Cleansing, the Prevention of Nuisances, New Streets and Buildings, Slaughter Houses, Common Lodging Houses, Houses Let in Lodgings, Offensive Trades. (*d*) *Bacteriology.* Description and physical characters of bacteria and other micro-organisms associated with disease, their life-history, classification and pathological relations. (*e*) *Vital Statistics.* Rates of birth, death and marriage; methods of calculation, classification, and tabulation of returns of sickness and mortality: data required and conclusions deducible therefrom. (*f*) *Nosology.* Definition, nomenclature, and classification of diseases. (*g*) *Meteorology*, Climatology and Geographical Distribution of Health and Disease over the Globe, and in different Urban and Rural Districts of the United Kingdom. (*h*) *Sanitary Medicine* in relation to the origin, propagation, pathology, and prevention of epidemic, endemic, epizootic, and other communicable diseases; diseases attributable to heat, cold, or dampness; insufficiency or impurity of air, food, or drink; parasitic and other diseases affecting the food and drink of man; diseases due to habitation in cities, towns, villages, and separate houses; occupation and trade operations in relation to the health of the workers; overwork, intemperance, heredity; preventive measures, vaccination, isolation, clothing, disinfection; the regulation of noxious and offensive manufactures and trades; the removal of nuisances. (*i*) *Practical Hygiene* in reference to meteorological apparatus, sanitary appliances, the site, materials, construction capacity, lighting, ventilation, warming, dryness, water supply, drainage and refuse disposal of dwellings, schools, hospitals, artizans' dwellings, workshops and work places, and other buildings of public or private resort; the construction of

dairies, abattoirs, and disinfecting stations; action with respect to nuisance and outbreaks of disease; the examination of butchers' meat and other food; the preparation of sanitary reports and other duties of a medical officer of health.

The examination will be conducted by written papers and practical and *viva voce* examination, and will be commenced on September 19th, 1892, and again on April 17th, 1893. The candidate shall also be required (1) to pass an examination on medical clinical cases at the City Hospital for Infectious Diseases or elsewhere; (2) to draw up outlines for annual or other reports of a medical officer of health; (3) to report upon the condition of some actual locality; (4) to analyse liquids, gases, and specimens of food; (5) to describe the construction and use of instruments employed in meteorology, hygienic apparatus, and sanitary appliances; (6) to examine with the microscope submitted specimens; (7) to describe submitted specimens of diseased organs and tissues (human and other).

Doctor in Hygiene (D.Hy.).—1. The candidate shall be a Bachelor in Hygiene. 2. The candidate shall have been engaged for two years subsequently to the date of his acquirement of the degree of Bachelor in Hygiene in practice as a medical officer of health. 3. The candidate shall write an essay upon some practical hygienic subject selected by himself and approved by the Lecturer on Public Health, and shall be examined thereon, and upon questions relative to the subject of the essay. The essays must be forwarded to the Lecturer on Public Health one month before the date of the examination, and will be retained by the Faculty of Medicine. If the essay of any candidate is not of sufficient merit notice of the fact will be sent to the candidate, who will not be required to attend for examination.

Royal University of Ireland.— This University grants a diploma in Sanitary Science. It is conferred only on Graduates of Medicine of the University. Candidates are not admitted to this examination until the lapse of twelve months from the time of obtaining the first registrable qualification; they must give notice in writing to the Secretaries of their intention to present themselves, and must pay the fee, £2, at least one month previous to the examination. Candidates are requested to produce a certificate of having attended a course of instruction in Geology in some recognised institution, as a guarantee that they have previously studied the subject; they must also produce a certificate of having, after obtaining a registrable qualification, attended during a period of six months practical instruction in a laboratory approved by the University.

The examination embraces the following subjects: *Climate*—A general knowledge of meteorological conditions; the reading and correction of instruments, and tabulating the results of meteorological observations. *Physics*—Laws of heat; mechanics, pneumatics, hydrostatics, and hydraulics. *Chemistry*—Constitution of the atmosphere; pure and impure waters; food. *Geology*—With reference to water-supply and drainage, embracing the subjects of soils, clays, rocks, springs, natural gases, brackish waters, ordinary constituents of fresh and sea water. *Sanitary Engineering*—The construction of dwellings, barracks, hospitals, schools, factories, etc. *Vital Statistics, Hygiene*, including the causation and prevention of disease, *Sanitary Law*. The examination in Chemistry includes a practical part on the chemical and microscopical examination of air, water, food, poisonous substances used in manufactures, etc. The examination in Engineering embraces the reading of plans, sections, scales, etc., in connection with buildings, sanitary constructions, etc. Candidates will be required to draw up reports on the sanitary condition of dwelling houses, or other buildings, selected for the purpose, and to show the possession of a sufficient special knowledge of hygiene, vital statistics, and sanitary law, including the Public Health (Ireland) Act, 1878, Sections 15 to 159, to discharge the duties of Medical Officer of Health. N.B.—Proficiency in practical work and an adequate acquaintance with the instruments and methods of research which may be employed in hygienic investigations are indispensable.

Conjoint Examinations in Ireland by the Royal College of Physicians and the Royal College of Surgeons.—*Regulations for Candidates for the Diploma in State Medicine.*—Stated examinations for the diploma in State Medicine are held on the Tuesday, Wednesday, and Thursday following the first Friday of the months of February, May, and November. A Special Examination for the Diploma can be obtained on payment of £5 5s., in addition to the ordinary fees mentioned below, and on giving notice at least one fortnight before the date of the proposed examination. Every candidate for the Diploma in State Medicine must be a registered medical practitioner. He must return his name to the Secretary of the Committee of Management under the Conjoint Scheme three weeks before the examination, and lodge with him a testimonial of character from a Fellow of either of the Colleges, or of the Royal Colleges of Physicians or Surgeons of London or Edinburgh. Candidates registered as medical practitioners, or entitled to be so registered after January 1st, 1890, must comply with the following resolutions passed by the General Medical Council on June 1st and November 30th, 1889, in regard to Diplomas in State Medicine (see p. 547). The fee for the examination is £10 10s., which must be lodged in the Ulster Bank, Dublin, to the credit of the Committee of Management, at least one week before the date fixed for the examination. Fees are not returned to any candidate who withdraws from, or is rejected at, any examination. The fee for re-examination is £5 5s. The examination is conducted by eight examiners; six of these are selected from the Fellows of the Colleges. The Examiner in Engineering and Architecture, and the Examiner in Law, are Extern Examiners. The examination for the Diploma in State Medicine comprises the following subjects: State Medicine and Hygiene, Chemistry, Meteorology and Climatology, Engineering, Morbid Anatomy, Vital Statistics, Medical Jurisprudence, Law. The candidates will be examined orally in the Law of Evidence, and practically in the reading of Plans, Sections, and Scales, as well as in Analytical Chemistry, with special reference to Air, Water, and Food, including the use of the Microscope. They will also be required to read meteorological instruments, and to explain their construction; and they may be called upon to make a practical Sanitary Report.

DENTAL SURGERY.

Regulations of the Medical Council.—The following are the regulations of the Medical Council regarding the registration and education of dental students. 1. The registration of dental students shall be carried on at the Medical Council Office, London, in the same manner as the registration of Medical Students, and subject to the same regulations as regards preliminary examinations. 2. Students who commenced their professional education by apprenticeship to dentists entitled to be registered, or by attendance upon professional lectures, before July 22nd, 1878 (when dental education became compulsory), shall not be required to produce evidence of having passed a preliminary examination. 3. Candidates for a diploma in Dental Surgery shall produce certificates of having been engaged during four years in professional studies, and of having received three years' instruction in Mechanical Dentistry from a registered practitioner. 4. One year's *bonâ fide* apprenticeship with a registered dental practitioner, after being registered as a dental student, may be counted as one of the four years of professional study. 5. The three years of instruction in Mechanical Dentistry, or any part of them, may be taken by the dental student, either before or after his registration as a student; but no year of such mechanical instruction shall be counted as one of the four years of professional study unless taken after registration.

The Royal College of Surgeons of England grants a diploma in Dental Surgery under the following regulations.

Candidates must produce certificates: 1. Of registration as a dental student by the General Medical Council, 299, Oxford Street, London, W. 2. Of having been engaged during four years, in the acquirement of professional knowledge, subsequently to the date of such registration. 3. Of having received instruction in Chemistry, including Chemical Physics, Practical Chemistry, and Materia Medica. 4. Of having attended a recognised Medical School: *a.* A course of lectures on Anatomy during not less than six months, or one winter session. *b.* A course of lectures on Physiology, during not less than six months, or one winter session. *c.* A separate practical course of Physiology during not less than three months. *d.* A course of lectures on Surgery, during not less than six months, or one winter session. *e.* A course of lectures on Medicine during not less than six months, or one winter session. Students are required to attend examinations which are held in the several classes. 5. Of having performed Dissections at a recognised school during not less than twelve months. 6. Of having attended, at a recognised hospital or hospitals in the United King-

dom, the practice of Surgery and clinical lectures on Surgery during two winter sessions. 7. Of having attended, at a recognised school, two courses of lectures upon each of the following subjects: Dental Anatomy and Physiology (human and comparative), Dental Surgery, Dental Mechanics, and one course of lectures on Metallurgy, by Lecturers recognised by this College. Students are required to attend examinations which are held in the several classes. 8. Of having been engaged, during a period of not less than three years, in acquiring a practical familiarity with the details of Mechanical Dentistry, under the instruction of a competent practitioner. In the cases of qualified surgeons evidence of a period of not less than two instead of three years of such instruction will be sufficient. This instruction may be taken prior to the date of registration as a dental student. 9. Of having attended at a recognised dental hospital, or in the dental department of a recognised general hospital, the practice of Dental Surgery during the period of two years. 10. Of being 21 years of age.

Note.—Professional study prior to the date of registration as a Dental Student is not recognised except in the case of Chemistry, Practical Chemistry, and Materia Medica, and of instruction in the details of Mechanical Dentistry; see Clauses 3 and 8.

All candidates who commence their professional education on or after July 22nd, 1878, must, in addition to the certificates enumerated above, produce a certificate of having, prior to such commencement, been registered as a dental student by the General Medical Council.

Candidates who were in practice as dentists, or who had commenced their education as dentists, prior to September, 1859, and who are unable to produce the certificates required by the foregoing regulations, must furnish the Board of Examiners with a certificate of moral and professional character, signed by two Members of the College, together with answers to certain inquiries. In the case of candidates practising in, or educated in, Scotland or Ireland, the certificate of moral or professional character may be signed by two Licentiates of the Royal College of Surgeons of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow, or of the Royal College of Surgeons in Ireland.

The examination is partly written, partly practical, and partly oral. The written examination comprises General Anatomy and Physiology, General Pathology and Surgery, Dental Anatomy and Physiology, and Dental Pathology and Surgery. At the Practical Examination candidates may be examined. *a.* On the treatment of Dental Caries, and may be required to prepare and fill cavities with gold or plastic filling or material, or to do any other operation in Dental Surgery (candidates must provide their own instruments.) *b.* On the mechanical and surgical treatment of the various irregularities of children's teeth. *c.* On Mechanical Dentistry. The oral examination comprises the several subjects included in the curriculum of professional education, and is conducted by the use of preparations, casts, drawings, etc. Candidates who have passed the Second Examination of the Examining Board in England, or who shall produce evidence of having passed the examination in Anatomy and Physiology required for the Licence in Surgery of the Royal College of Surgeons of Edinburgh, the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, or an Examination in Anatomy and Physiology required for a Degree in Medicine or Surgery at a University in the United Kingdom, will be exempt from re-examination in those subjects. Candidates, who are Members of the College, or who have passed the Examination in Surgery of the Examining Board in England, or who shall produce evidence of having passed the Examination in Surgery for the Licence in Surgery of the Royal College of Surgeons of Edinburgh, the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, or an Examination in Surgery for a Degree in Medicine or Surgery at a University in the United Kingdom, will be exempt from re-examination in General Surgery and Pathology. A candidate whose qualifications shall be found insufficient will be referred back to his studies, and will not be admitted to re-examination within the period of six months, unless the Board shall otherwise determine. Examinations will be held in May and November in each year. Candidates are required to give fourteen clear days' notice of their intention to present themselves for examination. A rejected candidate is not admitted to re-examination within six months, unless the Board otherwise determine. The fee for the diploma is £10 10s., over and above any stamp duty.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—*Licence in Dental Surgery.*—All candidates must pass a preliminary examination in general knowledge and have their names inscribed in the *Register of Dental Students* of the General Medical Council kept by the Registrar at 299, Oxford Street, London, W. A copy of Regulations, giving a list of preliminary examinations recognised for this, as well as of the subjects of the professional examinations, may be obtained from Mr. James Robertson, Clerk to the Royal College of Surgeons, at 1, George Square, Edinburgh. Students who commenced their professional education by apprenticeship or attendance on lectures before July 22nd, 1878, are exempt from the preliminary examinations.

Professional Education.—Candidates must produce certificates of having, subsequent to the date of registration, been engaged for four years in professional studies, and of three years' instruction in Mechanical Dentistry from a registered dental practitioner,[1] except in the case of previously registered medical practitioners, when two years will be considered sufficient. 1. Candidates who have commenced their studies prior to October 1st, 1890, must have attended the following curriculum: Anatomy, one winter course; Practical Anatomy and Demonstrations, nine months, or Practical Anatomy, nine months, and Anatomy of Head and Neck, one course of twenty lectures; Physiology, one course of not less than fifty lectures; Chemistry, one winter course; Surgery, one winter course; Medicine, one winter course; Materia Medica, one course of three months; Practical Chemistry and Metallurgy, one course of three months; Attendance on the Practice of Surgery, and Clinical Lectures on Surgery, at a recognised hospital, one course of six months, or two courses of three months. 2. Candidates commencing their studies after October 1st, 1890, must have attended the following curriculum: Anatomy, one course of six months; Practical Anatomy, twelve months; Chemistry, one course of six months; Practical Chemistry, one course of three months; Physiology, one course of six months; Materia Medica, one course of three months; Surgery, one course of six months; Medicine, one course of six months; Attendance on the Practice of Surgery, and Clinical Lectures on Surgery, at a recognised hospital, six months. These courses must have been attended at a University, or in an established School of Medicine, or in a Provincial School specially recognised by the College as qualifying for the Diploma in Surgery. In addition to these courses, candidates will require to have attended in a recognised Dental Hospital, or with teachers recognised by the College, the following special courses of Lectures and Instruction: Dental Anatomy and Physiology (Human and Comparative), Dental Surgery and Pathology, Dental Mechanics, one course each; two years' attendance at a Dental Hospital, or the Dental Department of a general Hospital, recognised by the College. Certificates of attendance on such of these courses of the new curriculum as may be respectively required, will entitle candidates to appear either for the first dental examination, or for the first and second examinations for the triple qualification as they may select, and subject to the existing regulations for each qualification. Candidates who have passed the first and second examinations for the triple qualification will be exempt from the first dental examination, and will have the advantage of being admissible either to the final dental examination or to the final examination for the triple qualification, or to both. But the first dental examination will not be held as equivalent to the first and second triple examination, and will admit to the final dental examination only. Candidates who are Licentiates of this College, or who may be registered Medical Practitioners, will require to produce certificates of attendance on the special subjects only, and will be examined in these only for the Dental Diploma. And candidates who shall produce satisfactory evidence of having passed in any of the subjects of the first dental examination before any Dental or Surgical Licensing Board recognised by the Royal College of Surgeons of Edinburgh, will be exempt from examination in such subject or subjects; but no examination will be recognised as giving exemption unless it is co-extensive in its scope with the examination of this College, and is the only or final examination on the subject or subjects required by the Board at which it was passed.

Professional Examinations.—First Examination. The candidate must have attended the courses on Anatomy, Chemistry, and Phy-

[1] One year's *bonâ fide* apprenticeship with a registered dental practitioner, *after* being registered as a dental student, may be counted as one of the four years of professional study. The three years of instruction in Mechanical Dentistry, or any part of them, may be taken by the student either before or after his registration as a student; but no year of such mechanical instruction shall be counted as one of the four years of professional study unless taken after registration.

siology. The examination embraces Anatomy, Chemistry, and Physiology. The fee is £4 4s. Second Examination: The candidate must have attended the remaining courses of the curriculum, must be 21 years of age, and must pay a fee of £6 6s. The examination embraces Surgery, Medicine, Therapeutics, and the special subjects of Dental Anatomy and Physiology, Dental Surgery and Pathology, and Dental Mechanics. Unsuccessful candidates will be repaid £2 2s. in the first and £3 3s. in the second examinations. Should a candidate obtain in the examinations not less than 60 per cent. in the conjoined written and oral, or written, clinical, and oral (as the case may be) parts of the examination in any subject, he may be exempted from further examination upon it, his name being recorded to this effect by the examiners. Candidates who claim exemption from the first dental examination on the ground of having passed the first and second triple qualification examinations shall, before being admitted to the second dental examination, be required to pay the total fee of £10 10s., payable for the dental diploma, of which £3 3s. will be returned in case of rejection.

Faculty of Physicians and Surgeons of Glasgow.—The regulations as to certificates, curriculum, number of examinations, fees, and examinations are in effect similar to those of the Royal College of Surgeons of Edinburgh. There is special provision for candidates who intend to qualify both under the Medical and the Dentists' Act, and there is an Examination in Practical Dentistry conducted in a Dental Hospital.

Royal College of Surgeons in Ireland.—All information concerning the Licence in Dentistry may be obtained from the Registrar of the College, who will receive the applications of candidates for permission to be examined. The bank receipt for fees, together with all certificates, etc., are to be lodged at least fourteen days prior to the day fixed for the commencement of the examination for the class to which each candidate belongs. The Examinations commence on the second Monday in the months of February, May, and November.

Candidates are required to pass three examinations, namely, Preliminary, Primary, and Final.

Preliminary Examination and Registration.—Every candidate for the Dental Licence of the College shall produce evidence: (*a*) Of having passed a Preliminary Examination in general education recognised by the General Medical Council; and (*b*) Of having been registered by that Council as a Student in Dentistry or Medicine, according to Regulations, which may be obtained on application at the office of the General Medical Council.

Primary Dental Examination.—Every candidate is required, before admission to the Primary Dental Examination, to produce evidence: (1) Of having passed in the subjects of the Preliminary Examination. (2) Of having been registered as a Medical or Dental Student by the General Medical Council; and (3) Of having attended, subsequently to Registration as a Dental or Medical Student, a course of: (*a*) Lectures on Practical Anatomy, (*b*) Demonstrations and Dissections, (*c*) Lectures on Theoretical Chemistry, (*d*) Physiology (winter courses), (*e*) Practical Chemistry (summer or winter course, (*f*) Histology (summer course). (4) Of having attended Medico-Chirurgical Hospital for nine months, together with evidence of having taken notes to the satisfaction of the Physicians or Surgeons in charge of the cases, and certified under their hands, of at least three medical cases, and three surgical cases, in the wards of a recognised Medico-Chirurgical Hospital. The fee for this Examination is £10 10s.

Final Examination.—Candidates must produce evidence—1. Of having passed the Primary Dental or second Professional Examinations under the Conjoint Board with the Royal College of Physicians in Ireland, or with the Apothecaries' Hall, or an equivalent examination recognised by the College. Candidates who are Licentiates of this College, or who may be registered Medical Practitioners, will require to produce Certificates of Attendance on the Special Subjects only, and will be examined in these only for the Dental Diploma. 2. Of having attended, subsequently to registration by the General Medical Council, the following courses of Lectures recognised by the College:—Special: Dental Surgery and Pathology, Dental Mechanics, Dental Anatomy, Dental Metallurgy. General: Surgery. 3. Of having attended for two years the practice of a Dental Hospital recognised by the College, or of the Dental Department of a General Hospital so recogoised. 4. Of having subsequent to passing the Primary Dental or an equivalent examination attended for a period of nine months as Extern, or six months as Intern Pupil, the practice of a recognised Medico-Chirurgical Hospital. 5. Of having, been engaged for at least forty-five months in acquiring a knowledge of Dentistry.

The candidate is recommended to devote at least three years to acquiring a practical knowledge of Dentistry under the instruction of a Registered Dentist. Candidates holding a Diploma in Surgery are only required to produce certificates of one year's attendance at a Dental Hospital, and are not required to produce certificate in Dental Anatomy and Physiology. As this remission has been made on the understanding that the Surgeon devote his whole time to Dental work, such attendance must be taken out after the date of his diploma in Surgery. Candidates educated in England or Scotland are admitted to examination under the conditions existing in those countries.

Fees.—Primary Examination, £10 10s.; re-examination, if rejected, £5 5s. Final Examination: Candidates holding L.R.C.S.I., £10 10s.; Dental students of this College who have passed Primary Dental, or First and Second Professional of the College, £10 10s.; re-examination, £5 5s. Fees for Final Examination of all other candidates, £26 5s.; re-examination £10 10s. Extra fee for Special Examination, £5 5s.

Fees are not returned to candidates who may fail to present themselves without having given two days' previous notice to the Registrar, or who have been rejected. A rejected candidate will not be again admitted to Examination until after a period of three months. All fees to be lodged to the credit of the Royal College of Surgeons at the Bank of Ireland.

Examinations for the Licence in Dentistry sine Curriculo.—The Council has power to admit to examination, *sine curriculo*, candidates who were in practice before July, 1878, whose names are on the *Dental Register*, and who are unable to furnish the certificates required by the foregoing regulations, on presentation of the schedule of application accompanied by any certificate they may have of general or professional education, and by the required fee. The application of the candidate for examination shall be made on a form, obtainable at the College, setting forth a certificate, signed by two Fellows, Members, or Licentiates of a College of Surgeons, and by two Licentiates in Dental Surgery in the Royal College of Surgeons in Ireland, or two members of the British Dental Association or of the Odontological Society, to the effect that applicant is of good moral character, was engaged in the practice of Dentistry before July, 1878, and has not, during the past two years, attracted business as a Dentist by advertising or other unbecoming practices. The application must also contain a declaration by the applicant subscribing to the terms of declaration for all candidates before receiving the diploma. The examination and fees for candidates *sine curriculo* are the same as for Final Dental Examinations of other candidates.

Special Examinations.—Candidates seeking a Special or Supplemental Examination must make application to the Council of the Royal College of Surgeons (and show special cause), and, if admitted thereto, must pay £5 5s. in addition to the fees of the examination which they seek. The subjects for, and the mode of carrying out a special examination, are the same as those above laid down. The licence in Dentistry is not conferred on any candidate under the age of 21 years, and unless he be of good moral character.

National Dental Hospital and College.—*Consulting Physicians*, Dr. B. W. Richardson and Dr. W. H. Broadbent. *Consulting Surgeons*, Sir Spencer Wells and Mr. Christopher Heath. *Consulting Dental Surgeon*, Sir Edwin Saunders. *Honorary Visiting Physician*, Dr. James Maughan. *Honorary Visiting Surgeon*, Mr. E. W. Roughton. *Dental Surgeons*, Mr. F. H. Weiss, Mr. A. Smith, Mr. M. Davis, Mr. A. F. Canton, Mr. H. G. Read, Mr. W. R. Humby. *Assistant Dental Surgeons*, Mr. W. Weiss, Mr. Percy White, Mr. T. G. Read, Mr. C. W. Glassington, Mr. Wm. Rushton. *Anæsthetists*, Mr. A. L. Bright, M.R.C.S., L.R.C.P., Dr. James Maughan, L.R.C.P., M.R.C.S., Mr. S. E. Pedley, M.R.C.S., L.R.C.P., L.D.S.Eng., Mr. Everett Norton, M.R.C.S., L.S.A., Mr. Percy Edgelow, M.R.C.S., L.R.C.P., Dr. A. E. Bridget. *Lecturers* (Winter), Dental Anatomy and Physiology: Mr. Sidney Spokes, Tuesdays and Thursdays, 6 P.M., in October, November, and December. Operative Dental Surgery and Therapeutics: Dr. George Cunningham, Mondays, 6.30 P.M., in October, November, and December. Dental Materia Medica and Therapeutics: Mr. C. W. Glassington, Tuesdays,

7.30 P.M., in October, November, and December. Dental Metallurgy, Mr. W. Lapraik, Tuesdays, 7.30 P.M., in January, February, and March. Dental Mechanics: Mr. H. Rose, Mondays, 7 P.M., in January, February, and March. Demonstrations in Dental Mechanics: Mr. Humby, Wednesdays, 7 P.M., in January, February, and March (in 1890 and alternate years). (Summer), Dental Surgery and Pathology; Mr. W. Weiss, Mondays and Thursdays, 6 P.M., in May, June, and July. Elements of Histology, Dr. J. Maughan, Mondays and Thursdays, 5 P.M., May, June, and July.

Clinical Lectures and Demonstrations are given from time to time.

The stopping rooms have accommodation for twenty chairs.

Dresserships in the Extraction Room are held for two months by six senior and twelve junior students of the Hospital.

Prizes.—Six Prizes in Medals are open for competition at the end of each course of lectures. Certificates of Honour are given in each class. The Rymer Medal for General Proficiency, value £5, is awarded annually to the most meritorious student, and the Ash Prize, value £3 3s., for a thesis on a subject in Dental Surgery.

Exhibition.—An entrance Exhibition of the value of £15 will be awarded at the commencement of each summer and winter session after an examination in Elementary Physics (Statics, Dynamics, and Electricity), Physiology (functions of Respiration, Circulation, and Digestion), Osteology (Bones of the Head), Chemistry, and Dental Mechanics (Theoretical and Practical).

Fees.—General Fee for Special Lectures required by the curriculum of the Royal College of Surgeons of England, £12 12s. For the Two Years' Hospital Practice required, £12 12s. Total Fee for the Special Lectures and Hospital Practice required, £25 4s. Perpetual Fee to all Lectures, and to Hospital Practice, £15 15s. each. Single Courses: Dental Anatomy and Physiology, Dental Surgery and Pathology, Operative Dental Surgery, and Dental Mechanics, each one course, £2 12s. 6d.; two courses, £4 4s.; Dental Metallurgy, one course, £3 3s.; two courses, £5 5s.; Dental Materia Medica, £2 2s.; Demonstration of Dental Mechanics, Elements of Histology, each £1 1s. Hospital Practice to registered practitioners, six months, £7 7s.; twelve months, £9 9s.

Information respecting the Hospital Practice and the College may be obtained from the Dean, Mr. Harry Rose, at the Hospital, Great Portland Street.

Dental Hospital of London and London School of Dental Surgery.—*Consulting Physician,* Sir Richard Quain, Bart., M.D., F.R.C.P., LL.D. *Consulting Surgeon,* Mr. Christopher Heath. *Consulting Dental Surgeons,* Sir John Tomes, Mr. T. Arnold Rogers. *Dental Surgeons,* Mr. C. E. Truman, Mr. R. H. Woodhouse, Mr. G. Gregson, Mr. Storer Bennett, Mr. W. Hern, and Mr. Leonard Matheson. *Assistant Dental Surgeons,* Mr. E. Lloyd Williams, Mr. W. B. Paterson, Mr. A. Clayton Woodhouse, Mr. J. F. Colyer, Mr. F. J. Bennett, Mr. W. H. Woodruff, Mr. C. F. Rilot, Mr. C. Robbins, Mr. H. Baldwin, Mr. H. Lloyd Williams, Mr. W. H. Dolamore. *Anæsthetists,* Mr. G. H. Bailey, Mr. Woodhouse Braine, Dr. Dudley W. Buxton, and Dr. Frederick W. Hewitt. *Assistant Anæsthetists,* Mr. C. Catter Braine, Mr. H. Davis, and Mr. G. Powell.

Lectures are given on Mechanical Dentistry by Mr. D. Hepburn, at 4 P.M., on Wednesdays, in October, November, and December; on Dental Surgery and Pathology, by Mr. Storer Bennett, at 8 A.M., on Wednesdays and Fridays, in May and June; on Dental Anatomy and Physiology (Human and Comparative), by Mr. A. Underwood, at 8 A.M., on Tuesdays and Thursdays, in May and June; on Metallurgy, in its application to Dental purposes, by Professor A. K. Huntington, at noon, on Tuesdays, in October, November, and December.

The Hospital is open from 9 A.M. to 4 P.M., with a separate staff for morning and afternoon. It is lighted throughout with electric light, each operating chair having an incandescent lamp. There is a Mechanical Laboratory, under the charge of Mr. A. Watts, and opportunity is afforded the students of perfecting their mechanical knowledge.

The four Demonstrators at the beginning of each session give a course of lectures on Operative Dental Surgery.

There are five House-Surgeons, and these appointments may be held by students as soon as they are qualified.

The Lecturers give, in addition to the lectures, special demonstrations on the Microscopy of Dental Anatomy and Dental Surgery. The Lecturer on Dental Mechanics also gives practical demonstrations in the Mechanical Laboratory.

Twelve senior dressers for extraction under anæsthetics, and eighteen junior dressers for ordinary extractions, are appointed every month.

The Saunders Scholarship of £20 is awarded to the student who has obtained the largest number of first-class prizes in the winter and summer session. A prize, value £5 5s., is given for the best essay on some Surgical subject connected with Dental Surgery. First and second prizes are given in each class.

Fee for two years' hospital practice required by the curriculum, including Lectures, £31 10s.

The Calendar containing further particulars may be obtained on application to the Dean, Mr. Morton Smale, at the Hospital.

Guy's Hospital: Dental School.—This school was instituted in 1889. Two extraction rooms are provided in the out-patient department. The accommodation originally provided for the Dental School having become insufficient, new buildings have been erected, which comprise a conservation room with 50 iron Morrison chairs, a large laboratory, and separate waiting rooms for male and female patients. *Fees.*—(*a*) For general and special lectures and demonstrations, and the hospital and dental practice requisite for the L.D.S.R.C.S.Eng., £90 on entrance, or 50 guineas on entrance and 40 guineas at beginning of second year. (*b*) Special lectures and demonstrations, and dental practice only, 30 guineas on entrance. (*c*) Inclusive fee for students entering for the M.R.C.S., L.R.C.P., and L.D.S.Eng., £170 in one sum, or 170 guineas in four annual instalments. The following appointments are allotted to dental students: two Dental House-Surgeoncies; two Assistant Dental House-Surgeoncies; two Demonstratorships in the conservation room; two Curatorships of the laboratory; Dresserships in the extraction room; Dresserships in the conservation room. Staff:—*Dental Surgeon:* F. Newland-Pedley, F.R.C.S., L.D.S.E. *Senior Assistant Dental Surgeon:* W. A. Maggs, L.R.C.P., M.R.C.S., L.D.S.E. *Assistant Dental Surgeons:* A. E. Baker, M.R.C.S., L.R.C.P., L.D.S.E.; J. H. Badcock, M.R.C.S., L.R.C.P., L.D.S.E.; J. O. Butcher, L.D.S.E.; P. Traer Harris, M.R.C.S., L.S.A., L.D.S.E.; J. Mansbridge, M.R.C.S., L.R.C.P., L.D.S.E.; H. Murray, L.D.S.E.; H. L. Pillin, L.D.S.E.; G. O. Richards, M.R.C.S., L.D.S.E.; R. W. Rouw, L.R.C.P., M.R.C.S., L.D.S.E. *Anæsthetists:* F. W. Cock, M.D., M.S.; A. D. Fripp, B.S.; H. F. Lancaster, M.D.; R. W. Lloyd, L.R.C.P., M.R.C.S.; J. F. W. Silk, M.D. *Lecturers: Dental Surgery:* Mr. Newland-Pedley. *Dental Anatomy and Physiology:* Mr. Maggs. *Operative Dental Surgery:* Mr. Murray. *Dental Mechanics:* Mr. J. Richards. *Metallurgy:* C. E. Groves, F.R.S. *Anæsthetist:* T. Bird, M.A.Oxon., M.R.C.S. *Demonstrator of Dental Microscopy:* Mr. Mansbridge. *Demonstrator of Dental Mechanics:* Mr. Pillin. *Tutor:* Mr. Rouw. Prospectuses may be obtained from the Dean (Dr. Perry) at Guy's Hospital.

Mason College, Birmingham.—The teaching of Dentistry is undertaken by the Mason College, acting in association with the Birmingham Dental Hospital and the Birmingham Clinical Board, so that students may fully qualify themselves for the dental diploma of the Royal Colleges. The new College Buildings contain a special Dental Museum and a Dental Laboratory. The Dental Hospital is situated near the College, and is open daily (Sundays excepted).

Lectures on the special subjects are delivered as follows: Winter session: Anatomy and Physiology, by Mr. John Humphreys, Thursday, 5 P.M.; Dental Surgery and Pathology, Mr. F. E. Huxley, Friday, 5 P.M.; Dental Metallurgy, Professor Tilden, at the Mason College. Summer session: Dental Mechanics, Mr. W. Elliott, Wednesday, 5 P.M.

Special courses are delivered on (1) Syphilis and Surgical Diseases of the Mouth in relation to Dentistry, by F. Marsh, F.R.C.S.; (2) Diseases of the Throat, Nose, and Stomach in relation to Dentistry, by Dr. Stacey Wilson.

A course of Practical Dental Microscopy, normal, developmental, and pathological, is conducted by Messrs. Humphreys and Marson.

An Entrance Scholarship of £15 is open to competition for students in October. Medals and certificates of honour are awarded in the various College courses after examination.

The Birmingham Dental Hospital is open daily at 9 A.M. The staff is constituted as follows: *Consulting Physician,* R. M. Simon, B.A., M.B.Cantab.; *Consulting Surgeon,* Mr. Wilders; *Consulting Dentists,* Mr. T. E. English, Mr. Adams Parker, and Mr. C. Sims;

Dental Surgeons, H. B. Neale, F. E. Huxley, J. Humphreys, and F. W. Richards. *Assistant Dental Surgeons*, Frank H. Goffe, W. R. Roberts, G. O. Richards, and W. Palethorpe.

Clinical Demonstrations are given from time to time by the staff upon cases of particular interest; also upon the preparing and filling of cavities, and other operations upon the teeth and contiguous structures.

Dresserships in the Extraction-room are held for three months by senior and junior students at the hospital.

The *fee* for each of the special courses in Queen's College is £4 4s.; for Dental Hospital Practice, two years, £14 14s.; one year, £8 8s.; six months, £5 5s. Composition Fee, covering all College and Hospital Classes, £63.

Bristol General Hospital.—Mr. T. T. Genge gives practical instruction in Dental Surgery, at 9.30 A.M., on Mondays and Thursdays. *House Surgeon*, Dr. R. V. Solly, M.B., B.S.Lond., F.R.C.S. Eng. *Assistant House-Surgeon*, Mr. P. Star, M.R.C.S., L.R.C.P. *Physician's Assistant*, Mr. T. M. Carter, M.R.C.S., L.R.C.P. *Chaplain*, Rev. C. Griffiths. *Registrar*, Mr. C. A. Morton. *Anæsthetist*, Mr. Lansdown.

Devon and Exeter Dental Hospital.—*Consulting Surgeons*, A. J. Cumming, F.R.C.S.Eng., James Bankart, M.B.Lond., F.R.C.S. Eng. *Consulting Dental Surgeon*, Mr. S. Bevan Fox, L.D.S. Eng. *Dental Surgeons*, Mr. J. T. Browne-Mason, Mr. Henry B. Mason, Mr. T. G. T. Garland, Mr. J. M. Ackland, Mr. S. Mundell, Mr. J. A. Mallet. *Surgeon Administrators of Anæsthetics*, John Mortimer, M.B.Lond., Russell Coombe, M.A.Cantab. Attendance at the practice of this hospital is recognised by the Royal College of Surgeons of England as qualifying for its Dental diploma. Pupils of any member of the staff, or other registered practitioner (being a Life or Annual Governor), are permitted to attend the practice of the hospital, subject to the approval of the Medical Sub-committee, on payment of five guineas annually to the funds of the institution. During the year ended December 31st, 1891, 3,128 patients were treated, and 4,282 operations were performed.

Owens College, Manchester.—Arrangements have been made for dental students to attend the hospital practice at the Manchester Royal Infirmary, and the practice at the Victoria Dental Hospital. Lectures on the special subjects will be given in the College as follows. Winter session: Dental Mechanics, Mr. Tanner. Summer session: Dental Anatomy and Physiology, Mr. Hooton. Dental Surgery, Mr. Campion. Dental Metallurgy, Dr. Burghardt. Operative Surgery, Mr. Whittaker.

Fees.—For course of Metallurgy, £3 3s.; other lectures, one course, £3 3s.; two courses, £4 4s. Dental practice for two years at the Manchester Royal Infirmary, £10 10s.; at the Victoria Dental Hospital at Manchester, £12 12s., paid in advance, or £8 8s. for the first year and £5 5s. for the second year.

At the Victoria Dental Hospital, patients attend at 8.30 in the morning daily, and at 7 P.M. on Monday, Wednesday, and Friday. The staff of the hospital is as follows: *Consulting Physicians*, Dr. H. Simpson, Dr. D. J. Leech. *Consulting Surgeons*, Mr. E. Lund, Mr. F. A. Heath, Mr. T. Jones, and Mr. J. Hardie. *Consulting Dental Surgeons*, Mr. H. Campion, Mr. G. W. Smith. *Dental Surgeons*, Mr. G. G. Campion, Mr. E. P. Collett, Mr. W. Dougan, Mr. L. Dreschfeld, Mr. J. W. Dunkerley, Mr. W. Dykes, Mr. W. Headridge, Mr. W. A. Hooton, Mr. I. Renshaw, Mr. W. Simms, Mr. W. Smithard, Mr. T. Tanner, Mr. G. O. Whittaker. *Assistant Dental Surgeons*, P. A. Linnell, F. W. Minshall, C. R. Morley, C. H. Smale. *Administrators of Anæsthetics*, Mr. Alexander Wilson, Dr. J. P. Stallard. *Dean*, Mr. G. G. Campion, to whom all communications are to be addressed at the hospital.

University College, Liverpool.—The lecturers in the School of Dental Surgery in connection with this institution are as follows: Dental Surgery, Mr. E. J. M. Phillips; Dental Mechanics, Mr. E. A. Councell; Dental Anatomy and Physiology, Mr. F. T. Paul, and Dental Metallurgy, Mr. J. Royston. Lectures are given once a week in each subject during the summer session.

The curriculum in Dental Surgery includes Lectures and Demonstrations on all the subjects required for the Licences in Dental Surgery of the Royal Colleges of Surgeons of London, Edinburgh, and Dublin, and of the Faculty of Physicians and Surgeons of Glasgow.

Practical instruction in Dentistry is given at the Dental Hospital in Mount Pleasant.

Fees.—A payment of £50 on entrance, or in two equal instalments (one-half on entrance and the remainder within twelve months), entitles the student to attendance on all lectures and demonstrations (medical and special) required for the Dental Licence of the College of Surgeons. The fee for two winters' surgical practice is £10 10s., and for two years' dental hospital practice £12 12s. The total expenditure for the whole curriculum is £73 2s.

The Incorporated Edinburgh Dental Hospital and School, 5, Lauriston Lane.—*Consulting Physician*, Dr. A. Peddie. *Consulting Surgeon*, Mr. Joseph Bell. *Consulting Surgeon Dentist*, Dr. John Smith. *Dental Surgeons*, Mr. W. B. Macleod, Mr. J. Mackintosh, Mr. A. Wilson, Mr. M. Macgregor, Mr. G. W. Watson, Mr. J. S. Durward, Mr. W. Forrester. *Assistant Dental Surgeons*, Mr. J. Turner, Mr. J. S. Amoore, Mr. J. G. Munro, Mr. F. Page, M. J. Gregory, Mr. D. Monroe. *Extra Assistants*, S. Simmons, Wm. N. Hannah. *Chloroformists*, J. M. Farquharson, M.B., C.M., D. Matheson Cullen, Wm. Lundie, M.B., C.M. *Tutorial Dental Surgeon*, Mr. F. Tornbull. The following lectures are given in the School: Dental Anatomy and Physiology, Mr. A. Wilson (winter); Dental Surgery and Pathology, Mr. G. W. Watson (summer); Mechanical Dentistry, Mr. W. B. Macleod, twelve lectures, on Wednesdays; Practical Demonstrations, Mr. J. S. Durward. The fee to Hospital Practice, including one course of Demonstrations in Gold-fitting, is £15 15s.; one course of Dental Anatomy, Dental Surgery, and Mechanical Dentistry, £9 15s.; one course of each subject separately, £3 5s.; second courses of the lectures, £2 4s. each. *Dean*, Mr. W. B. Macleod.

Glasgow Royal Infirmary—Dental Department.—Mr. Howard Gray, L.D.S., attends at the Royal Infirmary, at 3 P.M., on Mondays, Wednesdays, and Saturdays, and gives a course of Dental Surgery on these days in summer. The following course in the curriculum can be taken at St. Mungo's College: Anatomy, six months; Practical Anatomy, nine months; Physiology, six months; Chemistry, six months; Practical Chemistry, with Metallurgy, three months; Surgery, six months; Medicine, six months; Materia Medica, three months; Clinical Surgery, six months; Dental Surgery, six months; and attendance for two years on the Dental Department of the Hospital. The attendance on the dental clinic is free to students of the Hospital; to dental students, one year, £5 5s.; perpetual, £10 10s. Lectures on Dental Surgery, £2 2s. *Honorary Dental Surgeon*, Dr. J. C. Woodburn.

REGULATIONS TO BE OBSERVED BY CANDIDATES FOR ADMISSION INTO THE NAVAL, ARMY, AND INDIAN MEDICAL SERVICES.

MEDICAL DEPARTMENT OF THE ROYAL NAVY.

1. Every candidate for admission into the Medical Department of the Royal Navy must not be under 21 nor over 28 years of age on the day of the commencement of the competitive examination. He must produce an extract from the register of the date of his birth; or, in default, a declaration made before a magistrate, from one of his parents or other near relative, stating the date of birth. He must also produce a certificate of moral character, up to date, and a recommendation, signed by a clergyman or magistrate to whom he has been for some years personally known, or by the president or senior professor of the college at which he was educated. 2. He must be registered, under the Medical Act in force, as qualified to practise medicine and surgery in Great Britain and Ireland. 3. He must sign a declaration that he is a British subject, the son of parents of unmixed European blood, that he labours under no mental or constitutional disease or weakness, or any other imperfection or disability which may interfere with the most efficient discharge of the duties of a medical officer in any climate; and whether he holds, or has held, any commission or appointment in the public services. He must also declare his readiness to engage for general service at home or abroad as required. He must be free from organic or other disease, and his physical fitness will be determined by a Board of Medical Officers, who are to certify that his vision comes up to the required standard, which will be ascertained by the use of Snellen's Test Types. 4. Candidates will be examined by the

Examining Board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows: *a*, Medicine, including the Diseases of Women and Children; *b*, Surgery; *c*, Anatomy and Physiology; *d*, Chemistry and Materia Medica, with a practical knowledge of drugs, each 1,000 marks. The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside. The examination in Chemistry will be limited to the elements of the science, and to its application to medicine, pharmacy, and practical hygiene, and the examination in Materia Medica will include a knowledge of the physiological actions and therapeutical uses of drugs. No candidate will be considered eligible who shall not have obtained at least one-third of the maximum marks in each of the above compulsory subjects. 5. Candidates may be examined in the following voluntary subjects, for which the maximum number of marks obtainable will be: Biology, Physics, and Physical Geography (100 each), 300 marks; French and German (150 each), 300 marks. A number less than one-third of the marks obtainable in each of these voluntary subjects will not be allowed to count in favour of the candidate who has qualified in the compulsory subjects. The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German. The Natural Sciences will include Biology, Physics, and Physical Geography. The examination in Biology will include the general principles of the science; structure and life histories of the chief animal and vegetable parasites; bacteria and their relation to disease; distinctive characters of the important groups of animals, with a special knowledge of the vertebrata; the elements of embryology; the general morphology and physiology of flowering plants; diagnosis of the chief British natural orders; medicinal plants. The examination in Physics will be limited to the general principles of mechanics, acoustics, optics, heat, magnetism and electricity, such as the properties of solids, liquids, and gases; conservation of energy, specific gravity, propagation and reflection of sound and light, temperature, specific and latent heat, thermometers, conduction of heat, properties of mirrors and lenses, chromatic dispersion of light, chief forms of batteries, faradaic, galvanic, and frictional electricity, general properties of magnets. The examination in Physical Geography will be limited to general principles, such as the relations of the earth to the rest of the solar system, movements of the earth, nature of the earth's crust and the chief kinds of rocks, general configuration of land and water, mountain ranges, plains, lakes, rivers, islands, glaciers and icebergs, the ocean currents, tides, the earth's atmosphere, winds and storms, dew, clouds, rain, climate, general distribution and nature of volcanoes, earthquakes, general distribution of animal and vegetable life. 6. The appointments announced for competition will be filled up from the list of qualified candidates arranged in the order of merit, as finally determined by the total number of marks each has obtained in both the compulsory and voluntary subjects. 7. Successful candidates, immediately after passing the examination, will receive commissions as Surgeons in the Royal Navy, and will undergo a course of practical instruction in Naval Hygiene, etc., at Haslar Hospital. 8. A fee of £1 will have to be paid by each candidate to entitle him to take part in the competition.

ARMY MEDICAL STAFF.

1. EVERY candidate for a commission in the Army Medical Staff must be 21 years of age and not over 28 years,[1] at the date of commencement of the competitive examination. He most produce an extract from the register of his birth, or, in default, a declaration made before a magistrate by one of his parents or guardians, giving his exact age. He must produce a recommendation from some person of standing in society—not a member of his own family—to the effect that he is of regular and steady habits, and likely in every respect to prove creditable to the department if a commission be granted, and also a certificate of moral character from the parochial clergyman, if possible. 2. He must possess two diplomas or licences recognised by the General Medical Council—one to practise medicine, and the other surgery—and must be registered under the Medical Act in force in the United Kingdom at the time of his appointment. A candidate, however, who holds a single diploma from the Society of Apothecaries, obtained under the conditions of the Act of 1886, will be deemed to possess the double qualification required. 3. The candidate must sign a declaration on honour that both his parents are of unmixed European blood, and that he labours under no mental or constitutional disease, or any hereditary tendency thereto, nor any imperfection or disability that can interfere with the efficient discharge of the duties of a medical officer in any climate; also that he does not hold, and has never held, any commission or appointment in the public services. 4. His physical fitness will be determined by a Board of Medical Officers, who are required to certify that his vision is sufficiently good to enable him to pass the tests laid down by regulation. The board must also certify that he is free from organic or other disease, and from constitutional weakness, or other disability of any kind likely to unfit him for military service in any climate. Certificates of age, registration of diplomas, etc., and of character, must accompany the declaration when signed and returned. 5. A public and open competition will be held twice in the year for the admission of qualified candidates as probationers. The number of appointments so competed for will be not less than half of the number of vacancies which shall have arisen in the last completed half-year ending on June 30th or December 31st.[2] It will be competent for the Secretary of State to fill up the remaining number from such qualified candidates as may be proposed by the governing bodies of public schools of medicine in the United Kingdom, or in the Colonies, as he may think proper. Every candidate so proposed must be certified by the governing body so proposing him to be duly qualified according to a standard laid down by the Secretary of State, and shall be approved by the Director-General. The Secretary of State reserves the right of rejecting any candidate who may show a deficiency in his general education, as evinced by bad spelling or composition. An entrance fee of £1 is required from each candidate admitted to the competition, and is payable at the conclusion of his physical examination, if pronounced fit. Candidates are not allowed to compete on more than two occasions 6. The Secretary of State will from time to time fix the order of precedence and the proportion in which the several schools of medicine shall be offered the nomination of candidates. 7. A surgeon on probation, on being so nominated, will be sent to some large station for instruction in ambulance and medical staff corps duties, until the commencement of the next course of study at the Army Medical School. After passing through such course at the Army Medical School as the Secretary of State shall decide, the surgeon on probation, after passing a qualifying examination in the military medical subjects taught there, and satisfying the Director-General that he is a person of proper skill, knowledge, and character for permanent appointment in the Army Medical Staff, will be commissioned as surgeon-lieutenant. The surgeons on probation who pass out of the Army Medical School at one qualifying examination will take precedence among each other as surgeons-lieutenant as follows: (*a*) those appointed on nomination according to their date of joining on probation; (*b*) those appointed by competition according to the last day of the competitive examination, and in the order of merit, as determined by the combined results of the competitive and qualifying examination, with priority over any joining under subsection (*a*) on the last day of the competitive examination. Their commissions will bear the date of the day of their passing out of the Army Medical School.

Examination.—Candidates will be examined by the examining board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows: *a*. Anatomy and Physiology, 1,000 marks; *b*. Surgery, 1,000 marks; *c*. Medicine, including Therapeutics, the Diseases of Women and Children, 1,000 marks; *d*. Chemistry and Pharmacy, and a Practical Knowledge of Drugs, 1,000 marks. The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and examination of medical and surgical patients at the bedside. The examination in Chemistry will be limited to the elements of the science, and to its application to Medicine, Pharmacy, and Practical Hygiene. No candidate will be considered eligible for the Army Medical Staff who shall not have obtained at least one-third of the marks obtainable in each of the above compulsory subjects. Voluntary subjects: Candidates may be examined in the following voluntary subjects, for which the maximum

[1] Extended to 30 for officers who join expressly for service on West Coast of Africa. After three years' service on the Coast they become eligible for general service.

[2] This rule has never been acted on, as a sufficient number of candidates under the last warrant has always been forthcoming.

number of marks obtainable will be—French and German (150 each), 300 marks; Natural Sciences, 300 marks. A number less than one-third of the marks obtainable in each of these voluntary subjects will not be allowed to count in favour of the candidate who has qualified in the compulsory subjects. The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German. The Natural Sciences will include Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to Materia Medica. The appointments announced for competition will be filled up from the list of qualified candidates arranged in the order of merit, as finally determined by the total number of marks each has obtained in both the compulsory and the voluntary subjects. After passing this examination, every successful candidate will be required to attend one course of practical instruction at the Army Medical School as a surgeon on probation on (1) Hygiene; (2) Clinical and Military Medicine; (3) Clinical and Military Surgery; (4) Pathology of Diseases and Injuries incident to Military Service. All surgeons on probation will be required to conform to such rules of discipline as the Senate may from time to time enact, and provide themselves with uniform, namely, the regulation undress and mess-uniform of a surgeon-lieutenant, but without sword. They will be required to attend the medical staff mess at Netley, and to conform to the rules and regulations thereof.

INDIAN MEDICAL SERVICE.

1. All natural-born subjects of Her Majesty, between twenty-one and twenty-eight years of age at the date of the examination, and of sound bodily health, may be candidates. They may be married or unmarried. They must possess a diploma or diplomas entitling them under the Medical Acts to practise both medicine and surgery in Great Britain or Ireland. 2. The candidate must subscribe and send in to the Military Secretary, India Office, Westminster, so as to reach that address at least a fortnight before the date fixed for the examination, a declaration, stating his readiness to engage for the service and to proceed to duty immediately on being gazetted; also that he labours under no mental nor constitutional disease; nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a medical officer. A schedule of the degrees or licences possessed by the candidate, with the sources and dates thereof, must be appended. 3. This declaration must be accompanied by the following documents: (*a*) proof of age, either by Registrar-General's certificate, or, where such is unattainable, by his own statutory declaration, form of which can be obtained at the India Office, supported, if required, by the Secretary of State by such evidence as he may consider satisfactory; a certificate of baptism, which does not afford proof of age, will be useless; (*b*) a recommendation from some person of standing in society—not a member of his own family—to the effect that he is of regular and steady habits, and likely in every respect to prove creditable to the service if admitted; and a certificate of moral character from a magistrate, or a minister of the religious denomination to which the candidate belongs; (*c*) a certificate of registration, under the Medical Acts of the degrees, diplomas, and licences possessed by the candidate. 4. The physical fitness of candidates will be determined previous to examination by a Board of Medical Officers, who are required to certify that the candidate's vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia will not be considered a disqualification, provided it do not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes exists. Every candidate must also be free from all other organic disease, and from constitutional weakness, or other disability likely to unfit him for military service in India. 5. On producing the foregoing qualifications,[1] the candidate will be examined by the Examining Board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows: (*a*) Anatomy and Physiology, 1,000 marks; (*b*) Surgery, 1,000; (*c*) Medicine, including Therapeutics, the Diseases of Women and Children, 1,000; (*d*) Chemistry and Pharmacy, and a Practical Knowledge of Drugs, 1,000. The examination in medicine and surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside. The examination in chemistry will be limited to the elements of the science, and to its application to medicine, pharmacy, and practical hygiene. No candidate will be considered eligible who shall not have obtained at least one-third of the marks obtainable in each of the above compulsory subjects. 6. Candidates may be examined in the following voluntary subjects, for which the maximum number of marks obtainable will be: French, German, and Hindustani (150 each), 450 marks; Natural Sciences, 300 marks. The Natural Sciences will include comparative anatomy, zoology, natural philosophy, physical geography, and botany with special reference to materia medica. A number less than one third of the marks obtainable in any of these voluntary subjects will not be allowed to count in favour of a candidate who has qualified in the compulsory subjects. The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German. Candidates presenting themselves for examination in Hindustani are recommended to study some recognised text-book, such as the annotated edition of the *Taubat-un-Nasuk*, which is the text used by candidates for the Indian Civil Service. 7. The appointments announced for competition will be filled up from the list of qualified candidates arranged in order of merit, as finally determined by the total number of marks each has obtained in both the compulsory and voluntary subjects. The Examiners in London will prepare a list in order of merit, with the marks affixed in the different subjects, to be transmitted to the Director-General, and communicated to the Professors of the Army Medical School. If any candidate is found to be deficient in any particular subject, this shall be stated, in order that he may receive special instruction on the point at Netley. 8. After passing this examination, the successful candidates will be required to attend one entire course of Practical Instruction at the Army Medical School, as surgeons on probation, on 1. Hygiene; 2. Clinical and Military Medicine; 3. Clinical and Military Surgery; 4. Pathology of Diseases and Injuries incident to Military Service. These courses are to be of not less than four months' duration; but candidates who have already gone through a course at Netley as candidates for the Army Medical Service may, if thought desirable, be exempted from attending the School a second time. 9. During the period of his residence at the Army Medical School, each candidate will receive an allowance of eight shillings per day, with quarters, or, when quarters are not provided, with the usual lodging and fuel and light allowances of subalterns, to cover all costs of maintenance; and he will be required to provide himself with uniform (namely, the regulation undress uniform of a surgeon-lieutenant of the British service, but without the sword). 10. All candidates will be required to conform to such rules of discipline as the Senate may from time to time enact. 11. At the conclusion of the course, candidates will be required to pass an examination on the subjects taught in the School. The examination will be conducted by the Professors of the School. The Director-General, or any medical officer deputed by him, may be present and take part in the examination. If the candidate give satisfactory evidence of being qualified for the practical duties of an Army Medical Officer, he will be eligible for a commission as surgeon-secretary. 12. The position of the candidates on the list of surgeon-secretaries will be determined by the combined results of the preliminary and of the final examinations; and, so far as the requirements of the service will permit, they will have the choice of Presidency in India, according to their position in that list. No candidate will be allowed to enter for examination who has already competed two or more times.

[1] Candidates who pass the Medical Board Examination will be required to pay a fee of £1 before being permitted to compete.

The King of Sweden and Norway has conferred on Professor Leyden, of Berlin, the Commander's Cross, First Class, of the Order of the North Star.

Vaccination Grant.—Dr. J. E. Grinfield-Coxwell, Public Vaccinator for Worthing, has been awarded the sum of £34 for the excellent state of vaccination in his district. This is the tenth biennial award he has received.

Medical Magistrates.—Dr. Hill Drury has been placed on the Commission of the Peace for the Borough of Darlington; Mr. William Henry Digges, L.R.C.P. Edin., of Dublin and Acourt Lodge, Merrion, has been appointed to the Commission of the Peace for the City of Dublin.

The will of the Dr. William Colles, of Dublin, Surgeon in Ordinary to the Queen in Ireland, has been proved to be of the value of upwards of £30,000.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, SEPTEMBER 3rd, 1892.

THE FIVE YEARS' CURRICULUM.

On the 1st of January in this present year the five years' curriculum became an accomplished fact, and those who enter upon their studies on the 1st of October, if they do not know it already, will be eager to learn in what way it will affect their future career. In reality, the change is not so great as it at first sight appears to be. Many students, especially those who have been working for the higher examinations, have for some years past voluntarily submitted themselves to a period of study longer than the prescribed minimum, and the rejections of the licensing bodies have enforced a lengthened period of study on many others. Nor are future requirements very largely in excess of the past. A little extra preliminary biology to start with, and an increased knowledge of the specialities to end up with, sum up the principal additions to the educational bill of fare. In the case of the higher or University examinations, the change is practically one of time only. But with this lengthening of time comes an important concession to the student. His last year may be spent in one of two ways; either entirely at a medical school, or half of it may be spent at certain recognised places of study, amongst which are included special hospitals and workhouse infirmaries, and the remaining six months devoted to work at a medical school.

The question at issue thus narrows itself into a consideration of the extra work and increased examinations which are demanded by the licensing corporations, which, excepting in the case of the Conjoint Board for England, which has instituted an extra clinical examination, may, as we have already stated, be summed up in the words: a little extra preliminary biology to start with, and an increased knowledge of the specialities, and a higher general standard of clinical work at the final examination.

Of the four examinations which are now demanded of the student at the Conjoint Board for England, the first will consist of four subjects, each of which may be passed separately, viz., chemistry and physics, practical pharmacy, biology, and elementary anatomy. In other words, elementary physiology has given place to biology, and practical pharmacy, which previously might be taken as part of the *first or second* examination, may, under the new scheme, form part of the *third* as well. The first three of these subjects may be studied though not passed before registration. Little is to be gained by adopting such a course, as the five years which must elapse between registration and the final examination will not be thereby curtailed.

Six months after completing his first examination the student may present himself for his second, and the second winter session must be devoted exclusively to the study of anatomy and physiology if the second examination is to be passed at its termination.

Two years later, and not less than four years from the date of registration, the third examination can be passed. It does not differ from the present final, excepting that midwifery and diseases of women can be taken either as part of the third examination or of the fourth, which can be passed five years after registration; this is to consist of clinical medicine and clinical surgery, with midwifery and diseases of women optional, as before stated. What exactly may be demanded at this fourth examination it is impossible to conjecture. We cannot look into the future of the seeds and say which grain will grow and which will not. We are told it will be mainly clinical, and with that we must for the present be content. But it is highly probable that long before the first of these examinations is held—which cannot be less than five years from this date—a new University for London will have come into being, and that many of those who enter this October will be attracted to it, while a large portion of the remainder will present themselves at the Apothecaries' Hall. One thing alone is certain—namely, that diligence and hard work will in in the future command success as they ever have done in the past.

OPENING OF THE MEDICAL SCHOOLS.

The winter session opens this year in the English schools on October 3rd. Most of the Scotch and Irish schools, as usual, begin work a little later. That time-honoured institution, the introductory address, though probably doomed to ultimate extinction in the process of academic evolution, still survives here and there, and in most schools the formal opening of the session is marked by some kind of ceremony, such as an old students' dinner, or a distribution of prizes. Information on these heads will be found in the following list:—

Metropolitan.

Charing Cross Hospital—Monday, October 3rd.

Guy's Hospital—October 3rd.

King's College Hospital—October 3rd.

London Hospital Medical College—October 3rd; annual dinner of old students in College Library at 7 P.M.

London School of Medicine for Women—October 3rd; reception at 3.30 P.M.

St. Bartholomew's Hospital—October 3rd.

St. George's Hospital—October 1st; introductory address by Dr. R. L. Bowles at 4 P.M.

St. Mary's Hospital—October 3rd; introductory address by Dr. Luff. The annual dinner will be held about the middle of October, on the same day as the laying of the foundation stone of the "Clarence Memorial Wing" by their Royal Highnesses the Prince and Princess of Wales. The chair will be taken by Mr. H. W. Page. The exact date will be announced.

Middlesex Hospital—October 3rd; introductory address at 3 P.M. by Dr. J. J. Pringle, followed by the annual distribution of prizes. The annual dinner of the past and present students and their friends will take place the same evening at the

Holborn Restaurant at 7 o'clock, Dr. William Duncan, F.R.C.S., in the chair.

St. Thomas's Hospital—October 3rd. The prizes will be distributed by the Right Hon. Sir John Lubbock, Bart., M.P., D.C.L., etc., in the Governors' Hall at 3 P.M. The annual dinner of past and present students will take place the same evening at the Hôtel Metropole at 6 for 6.30 P.M., Mr. H. Laver, J.P., in the chair.

University College—October 3rd; introductory lecture at 4 P.M. by Mr. S. J. Hutchinson.

Westminster Hospital Medical School—October 3rd; introductory address by Dr. Mercier at 4 P.M.; afterwards the prizes for last year will be distributed by Sir Albert K. Rollit, M.P.

PROVINCIAL.

Birmingham, Mason College, Queen's Faculty of Medicine—September 30th; introductory address by Sir George M. Humphry, M.D., F.R.S., who will afterwards distribute the prizes.

Bristol University College—October 3rd.

Leeds, Yorkshire College—October 3rd; introductory address by Mr. Mitchell Banks, who will afterwards distribute the prizes.

Liverpool, University College—October 1st; the chair will be taken and the prizes distributed by the Right Hon. Earl of Derby, K.G., President of the College, and an introductory address will be given.

Manchester, Owens College, Victoria University—October 3rd.

Newcastle-upon-Tyne College of Medicine, University of Durham—October 4th; distribution of prizes and scholarships at 2 P.M. by the Right Rev. the Lord Bishop of Durham, D.D.

Sheffield, Firth College—October 3rd; introductory address by Dr. Burgess.

SCOTLAND.

Aberdeen University—October 11th.

Dundee University College—October 18th.

Edinburgh School of Medicine; practical anatomy rooms and chemical laboratories open on October 3rd; lectures commence on October 11th.

Edinburgh University—October 11th.

Glasgow University—October 18th.

Glasgow University, Queen Margaret College School of Medicine for Women—October 11th.

Glasgow, Anderson's College Medical School—October 18th; introductory address by Wm. L. Reid, M.D.

Glasgow, St. Mungo's College and Royal Infirmary—October 19th.

Glasgow Western Medical School—October 18th.

Edinburgh School of Medicine, Medical College for Women—October 11th.

IRELAND.

Belfast, Queen's College—November 1st.

Cork, Queen's College—October 24th.

St. Vincent's Hospital and Dispensary and School of Medicine and Surgery—October 1st.

University of Dublin School of Physic—October 1st.

In consequence of the extreme pressure on our space this week, a large number of letters, papers, queries, and other communications are unavoidably held over.

Dr. More Madden, Dublin, has been nominated an Hon. President of the forthcoming International Congress of Gynæcology and Obstetrics at Brussels.

DEATH OF SIR GEORGE MACLEOD.

Our Glasgow Correspondent writes: Sir George H. B. Macleod, Regius Professor of Surgery in the University of Glasgow, and Surgeon in Ordinary to the Queen in Scotland, who was up to Tuesday apparently in his usual health, died suddenly on Wednesday morning of an attack of angina pectoris.

CORONERSHIP OF WEST LONDON.

We understand that Mr. Luxmore Drew, M.B., M.C., and Barrister at Law, has been selected by the Public Control Committee of the London County Council for the vacant Coronership of the South-Western District of London. The salary is about £780 a year.

SIR WALTER FOSTER, M.P.

It is proposed to arrange a congratulatory dinner to Sir Walter Foster, Vice-President of the British Medical Association, upon his selection as Parliamentary Secretary of the Local Government Board, this being the first occasion upon which any member of the medical profession has been appointed by the Sovereign as a member of the Government. Dr. Withers Moore, the President of the Council, has accordingly communicated on the subject with the members of the Council, and has received very cordial replies in assent from nearly all those who are at present in England. It is proposed that the dinner shall not be confined to members of Council, but that, as far as possible, other members of the Association shall have the opportunity of taking part in it. We shall give further particulars next week.

STUDENTS' RESIDENCES IN LONDON.

The Reverend S. A. Barnett (Warden of Toynbee Hall) writes to say: "Where shall I live?" is a question which many students are now considering. Colleges are not attached to every London medical school, "social homes" have not been established, lodgings are often depressing both to mind and body. The conditions of residence are as important as the conditions of study. The home in which a man lives, the social atmosphere he breathes may have even a more direct effect on his career than the lectures he hears or the books he reads. Medical students, whose studies I am told are the most engrossing, have, therefore, special need to live where, without interfering with their studies, they may take in from their surroundings and from the common talk some of the thoughts, the hopes, and the manners which are the marks of the age. The ideal arrangement would be for colleges to be opened in connection with centres of general study, for example, university extension centres. In such colleges students of art, literature, and science could have their own rooms and yet share a common life. They would be able to live as cheaply as they chose, keep their own hours, follow their own studies, and, as members of a society, grow by giving and taking. An experiment in this direction has been made in connection with Toynbee Hall, Whitechapel. Wadham and Balliol Houses have been open for some time. The rooms are occupied by students, who themselves take part in the management of the houses. There are large common rooms where meeting is easy, and the expenses are such that a man earning £60 a year is able to do well. Toynbee Hall is itself a large centre for study, with a students' library of over 6,000 volumes, and with a tennis court for recreation. What is done here may be done elsewhere, and any information would be gladly given by the secretary or by myself.

THE CHOLERA:

CHOLERA AND OUR PROTECTION FROM IT.

ABSTRACT.

[On Thursday in the lecture rooms of the National Health Society, 53, Berners Street, W., Mr. Ernest Hart, Chairman of the National Health Society and Editor of the British Medical Journal, delivered an address to an audience largely composed of medical officers of health, members of sanitary boards and local sanitary authorities, matrons and nursing sisters, clergymen, and district visitors.]

Referring to a similar occasion in 1885, when a cholera epidemic seemed closely impending but was averted by due precautions, the lecturer expressed a hope that the omen might be good. In any case, we had learnt much more in the interval about cholera and how to protect ourselves from it, and might be of good heart. Asiatic cholera was, however, now being imported into many of our seaports simultaneously, and was passing, and threatening to pass, by various avenues into inland places.

Importation of Cholera Inevitable: Period of Incubation.

This was inevitable under the existing circumstances. The incubation period of cholera was stated by medical authorities at from one to fifteen days; its average was put at from two to five days. So that it was quite possible—indeed, unavoidable—that many should pass through our ports in apparent health who, after a few days, developed serious or fatal cholera.

Quarantine had been defined as an elaborate system of leakiness; impossible if it were complete, because implying isolation and arrest of intercourse; useless and dangerous if incomplete, because inviting a false reliance and offering a false security. Medical inspection, with the powers of detention, was a more real precaution and more easily made effective; but under the circumstances it was only a sieve, which would strain off the coarser majority of cases, but through whose many apertures the more subtle were already passing, and would pass.

Armed with old and new knowledge, we might grasp the nettle with a good heart, and would find it robbed now of much of its former sting.

Cholera no Mystery.

We might lay aside all pedantry and mystery-talk of "epidemic constitution," "pandemic waves," "telluric influences," "cholera blasts," "cholera clouds," "blue mists," and the like terms of art with which an amiable class of meteorologists had delighted to cloak ignorance. Asiatic cholera was "a filth disease, which was carried by dirty people to dirty places." "Filth disease" was the plain English for zymotic, and it was sometimes the victims of the "dirty people" who were the carriers of the poison; it only developed where it found dirty places in the sanitary sense, and dirty habits of drinking polluted water and living on a polluted soil.

We Eat Cholera and Drink Cholera, but do not "Catch" it.

Cholera did not travel by air waves or blasts. We could drink cholera and eat cholera, but we could not "catch" cholera in the sense in which we catch measles, scarlatina, or whooping-cough, so that we had ascertained that with proper appliances and due precautions (of which he would speak later on), the sick could be nursed without fear of the nurse catching the disease. Cholera was carried by men in their clothing and their secretions along the lines of human intercourse. Earlier epidemics of Asiatic cholera took three years to reach us, by caravan and fitful travel, from its Asian home. It came now not as a pedestrian or a horseman, but by locomotive and fast steamboat. The present epidemic raged in Kashmir in May, and had travelled to us in three months by the Trans-Caspian and Trans-Caucasian railways, and, mounting the Volga by steamer, it had found in the filth of Russian villages and towns ample material for devastating conflagration by the way, destroying 5,000 to 6,000 lives daily in the Russian Empire as it passed along.

India, the Home of Cholera: it is Preventable there also.

The home of cholera was India, and that implied an Imperial responsibility which weighed heavily on our consciences, and which it was and would be hard indeed wholly to fulfil. But it could be fulfilled, if not altogether, yet much more nearly than at present. Cholera was a preventable disease in India as in Europe. Wherever, as in Calcutta and Madras, the water supply had been purified and the soil scavenged cholera had been kept out. We had to stop the filthy habits of the native who, contrary to his religion and his sacred books, drank from the tank in which he bathed and washed his clothes. We had to appoint, as Lord Derby's Commission in 1862 recommended, not merely, as now, isolated commissioners—who issued annually formidable numbers of admirable but bulky reports which were not nearly so much read as they deserved to be, and still more imperfectly and rarely acted upon—but local government health boards, of which these commissioners and other instructed persons should be members, clothed with due powers.

The Meccan Pilgrims.

From India cholera had always been brought to us and to Europe either by its present route, or by the Meccan pilgrims to the shores of the Red Sea, and thence to the Mediterranean. At Mecca the pilgrims stood in crowds by the holy well; a bucket of the sacred water was poured over each in turn; he drank as much as he could of it, and the rest fell back into the well. The water had been analysed by an English chemist, and was filthily polluted with nameless abominations. On the last occasion, after this ceremony, the twelve miles of road to Ararat were in a few days thickly strewn with corpses, and 30,000 pilgrims died.

The Epidemic at Hamburg: Its Explanation.

Hamburg, which had been poisoned by immigrants and sailors from Russian ports, had unhappily presented filth conditions not inferior to those which had invited the devastations recently of Russia, and of late years of Naples, Sicily, Spain, Marseilles, Toulon, and the mild outbreaks of Paris, all epidemics spread by filth in water and soil, of which Mr. Ernest Hart stated he could give, if time allowed, exact authentic and fully admitted details. Most of those cities had learned the lesson and taken it to heart more or less completely; to the extent to which they had done so they would have relative immunity in the future. Hamburg had not; the Elbe was filthily polluted, and it furnished the drinking water of the city, very ill-filtered or unfiltered. The drinking of the water, except after boiling, had now been strictly forbidden, and the river baths were closed. According to the extent to which these edicts were rigidly enforced and carried out, the present epidemic would be limited and rapidly decline. This would do more than the "sprinklings" with tons of disinfecting powder and "vague libations" of thousands of gallons of antiseptic fluid, of which much had been heard during the last few days. Hamburg had sinned against natural laws, and was unhappily paying the penalty in suffering: "the soul that sinneth it shall die."

The Cholera in England: Our Three Lines of Defence.

And now the cholera was at our gates and within our borders. In so far as we had made clean our water, our habitations, our soil, and our habits, had attended to the warnings of our British leaders of preventive medicine (who had spread this knowledge throughout the world), we should be safe, and we might be fearless; but we were not wholly clean, and, therefore, not wholly without just fear and reproach. We had to fall back on "our three lines of defence." The first was the outer line of defence at the ports; this was most valuable, intelligently conceived, and, for the most part, well constructed and vigilantly guarded; but it had its open loopholes, through which Asiatic cholera, now swarming so close to our sea wall, was bound to penetrate, and had penetrated, grimly deriding our sanitary locksmiths. Our second line of defence in the metropolis was the Metropolitan Asylums Board, but that admirable body, to which London had owed for many years a great debt of gratitude, had its hands full and its hospitals were crowded with the usual and disgraceful autumnal

epidemic of scarlet fever. It was negotiating with the parishes and voluntary hospitals to take up and pay for vacant beds, and to rapidly improvise hospital accommodation, but it had no power to provide for isolation houses of refuge or for local sanitation or other precautions. We had, therefore, to fall back on our "third line of defence"—on the thirty-nine vestries and local sanitary authorities of London therefore, each with its own separate discretion, experience or inexperience, poverty or wealth, good-will or ill-will, public spirit and intelligence, or unwisdom and obstructiveness, and subject to little control.

Our Administrative Disorder.

The Local Government Board was labouring to evolve order out of this confusion, and to infuse uniform activity into these scattered and unconnected elements. The London County Council, which had its own medical officers and sanitary committees, was left out of this ill-constructed hierarchy of contiguous but inco-ordinate administration. Its hands were tied; it had shown its good will by lending its medical officer, Mr. Shirley Murphy, temporarily to the Metropolitan Asylums Board. Here was a feebleness and disorder which called for an early reform, and admitted of an easy remedy by concentration of the present authorities. But we could not stop to swap horses while crossing the stream. Very imperfect machinery might give very good results if it were worked, as it evidently was being worked, with intelligence and good will.

The Duties of the Citizen.

There remained what was perhaps most important of all—the duties of the citizen. They might be summed up in a few emphatic sentences. The National Health Society would supply in quantity cheap handbills and directions in simple words for the use of district nurses and visitors, and those who worked among the people. He need not repeat the now well-known directions. In the words of Miss Nightingale, "Scavenge! Scavenge! Scavenge!" Keep your houses, your cisterns, your stables, your cowsheds, pigsties and slaughter-houses, your drains, your yards, your dustbins, yourselves, and your clothing clean; and help your poor neighbours to do so. Boil your water, or drink a pure natural table water. Boil your milk (and here the lecturer gave an example of a well defined cholera outbreak spread by contaminated milk). Inspect your fruit, fish, and meat markets. Avoid unsound food and excesses of diet. Feed wholesomely the needy and destitute; help the poor to be as careful in their homes and habits as you will be in yours. As to contagion in the ordinary sense, have no fear. Cholera is communicable in the ways mentioned, but not "catching" like infectious fevers or measles or scarlatina. If you take cholera, it will be because yourself or those about you have made you liable to it by neglect.

Preventive and Curative Drinks and Medicines.

Put not your trust in nostrums; cholera does not "come by Providence and go by medicine," although that is a common and ignorant belief in respect to it and many other diseases. A tried and safe preventive of the tendency to diarrhœa (which should always be checked) is sulphuric acid lemonade (made by acidulating boiled and sweetened water to taste with dilute sulphuric acid (or, as at the Post Office, Dr. Waller Lewis's very palatable sulphuric orangeade). The citric acid lemonade lately vaunted was rather inferior in value to this. The cholera bacillus, as we now knew, was favoured by an alkaline fluid, and did not live in acid media. An excellent and well-tried preventive of the prevalent slight diarrhœa was the Vienna mixture (used in barrels formerly in hospital practice). It consisted essentially of 15 drops of dilute sulphuric acid to 6 ounces of boiled and sweetened water, to which might be added, under medical advice, 10 drops of sulphuric ether and 5 drops of laudanum for an adult. On ice-bags, camphor solutions, and other expedients of the kind no reliance could be placed, except in skilled hands and for selected cases. Many people poisoned themselves with camphor during a late epidemic, as a precaution against cholera. Once established, and in well-marked cases of Asiatic cholera, drugs would do little to cure. The mortality of cholera all over the world and in all epidemics had defied drugs—just as severe arsenical poisoning would do—and varied according to intensity and the age and condition of the patient from 45 to 64 per cent. It was eminently a case in which prevention was far more efficacious than cure.

Measures of Precaution Adopted in Nursing Cholera Patients.

As on a former occasion, nursing superintendents and ladies had written to him offering their services to nurse those stricken with cholera; among them Miss Manson, then Superintendent of St. Bartholomew's; so now he had in his hand letters from the same lady (now Mrs. Bedford Fenwick), Miss Catherine Wood (Percy Street), and others, some of whom were to-day present, offering their services, and that of a volunteer staff for the duty. As to precautions in cholera nursing, they were essentially the same as for nursing typhoid fever, only more rigid and severe, as the disease was more virulent. The following were the rules enforced at the London Hospital when Mrs. Gladstone nobly gave her services, and the sisters of All Saints, Margaret Street, aided the hospital so successfully.

The following disinfectants were employed: The first two or three days Condy's fluid diluted and chloride of lime; subsequently carbolic disinfecting powder and carbolic acid largely diluted—1 to 40—mixed with sawdust in quantities sufficient to wet the sawdust and sprinkle about the passages, wards, closets, etc.

None of the excreta from patients was allowed to be emptied into the sewers; instead of this a portion of dilute carbolic acid fluid—about half a pint—was put into each chamber pail, and buried in the garden. The pails had water-tight lids. Burnett's fluid was sprinkled in the cabs that brought the patients.

The straw from the beds was burnt in each case of death, or where much soiled by excreta. The linen from the cholera wards was washed separately in the laundry of the hospital with McDougall's disinfecting soap. Hot coffee, beef-tea, etc., were recommended to be taken by the nurses at early dawn, and every one was advised to avoid going on duty with an empty stomach, or in a depressed condition. An extra allowance of wine and pay was made to the nurses.

Another Code of Effective Precautions for Doctors and Nurses observed in 1885.

Again, although cholera raged so severely in Chili in 1886-7, the doctors and nurses in a number of small hospitals in different localities of the town were enabled entirely to protect themselves. Each of the hospitals (Russell) contained from 50 to 60 beds, and had a staff of 6 doctors, 6 students, and 30 attendants. All wore long aprons, reaching from the chin to the feet, and caps. For washing the hands and face a solution of corrosive sublimate (mercuric chloride, 1 per 1,000) was exclusively used. In the dining room all dishes before used were strongly heated by the flame of burning alcohol. The bread was sterilised by toasting. It is stated that no one of the staff sickened who adhered rigidly to these precautions. The convalescents before their discharge were bathed in the corrosive sublimate solution and their clothing was washed in a similar disinfecting solution. The floors of the hospitals were made of a kind of pine parquet soaked in tar, and were washed daily with a solution either of copper sulphate or potassic permanganate, 1 per 1,000. On emptying a ward it was fumigated according to rule by sulphurous acid gas for twenty-four hours.

Nursing Cholera Cases: Question of Communicability.

Dr. J. Jackson (London) Resident Medical Officer of the London Hospital during the cholera epidemic of 1866, notes as facts bearing on the question of contagion and of nursing that at the height of the epidemic upwards of 100 persons were employed in the cholera wards—seven medical officers, five volunteer nurses, five sisters, eighty nurses, and five porters. None of the medical officers, volunteer nurses, or sisters were attacked, and the porters enjoyed a like immunity. Of the nurses, five contracted the disease, and of these four died. Three of those who died, slept outside the hospital, and presumably in the cholera district. In the laundry eleven women were employed in washing the linen, etc., from the cholera wards, and of these one was attacked and died. She was also a non-resident. As the mortality among laundresses had usually been very large in a

cholera epidemic, or believed to be so, it would seem that the preventive measures adopted were not ineffectual.

Dr. Fraser, one of the physicians of the London Hospital, remarks in the appendix to the volume of Clinical Lectures and Reports, London Hospital:—"I am satisfied that even the illness of the assistant nurse, and the apparent evidence of one or two other cases, may be shown, when duly examined, to have had no origin from contagion. Nevertheless, as a matter of precaution, means were adopted as if contagion was a reality."

THE MEASURES ADOPTED BY THE LOCAL GOVERNMENT BOARD.

THE new Order issued by the Local Government Board as to "filthy and unwholesome aliens," aims at stopping one of the most direct channels by which cholera is likely to be imported into this country, and narrows the possible points of entrance of the disease to an extent that has never previously been attained. Under this Order, which applies to all ships not infected with cholera, no alien of the class indicated arriving in any English port will be allowed to land until he has furnished the proper authorities with his full name, destination, and precise address, so that he can be traced and kept under observation for such time as may be judged sufficient. After this he must satisfy the medical officer of health of his freedom from any suspicion of choleraic disease before he is allowed to leave the ship; the penalty for non-compliance with this regulation being a fine of £50. As it is only in a few instances that these poor outcasts have any precise destination, the practical effect of the Order will be that the great majority of them will be refused permission to land. Under these circumstances the shipping agencies, whose profit out of such passengers is very small, will soon cease to import them. The Order appears well devised to meet the necessities of the situation without interfering more than is necessary with the traditional hospitality which (whether wisely or not it is not within our province to discuss) makes this free country a harbour of refuge for those flying from political oppression or religious persecution.

The persons affected by the Order are precisely those whose conditions of life and surroundings make them the most likely victims of cholera, and their unrestricted admission into this country is fraught with the further danger that, on their arrival, they inevitably drift into the very places where cholera finds the most favourable soil for its development. This double source of danger is held in view by the Order. The Local Government Board has established an efficient system of sanitary outposts in the persons of skilled inspectors, whose duty it is to watch the coasts where cholera is most likely to find an entry, and who are in touch with the local medical officer of health on the one hand, and with the central authority at Whitehall on the other. At present there is an inspector at every port on the Eastern and Southern coasts; but unfortunately the ordinary staff is hardly sufficient for the pressure of work thrown on it by the present emergency, and it is difficult to find the right kind of material for its enlargement ready made. Such a careful watch has been set, however, that, as we have reason to know, the authorities at Whitehall are very hopeful of greatly limiting the chance the enemy had of running the blockade in many places. Though the strain on the resources of the department is great, all the officials, in their respective departments, are showing great devotion to duty. It may be permissible to surmise that for some part of the specially skilled measures that are being taken with so much activity the country is indebted to the fact that medical science has at last a representative with a voice in the counsels of the Government in the person of the Parliamentary Secretary of the Local Government Board.

METROPOLITAN ASYLUMS BOARD.

Immediately after the extraordinary meeting of the managers of the Metropolitan Asylums Board, on Saturday, the committee sat, and a further meeting was held on Wednesday at which important steps were taken towards providing a first line of defence against any possible visitation of the cholera.

A large number of wheel-litters, which were purchased in 1885 are at the disposal of the committee, and orders have been given for the construction of more.

Answers to the inquiries which were sent out on Saturday last have been so prompt that the managers can already count upon over 1,000 beds.

The committee have accepted the services of Mr. Shirley Murphy, Medical Officer of the County of London, to assist them in their efforts, and active steps are being taken for the organisation of a transport service.

THE PROVISION OF BEDS FOR CHOLERA PATIENTS, IF NEEDED, BY THE LONDON HOSPITALS.

ST. BARTHOLOMEW'S.—Arrangements for cholera cases are being made, but details are not yet settled. Two patients (G. R., aged 35, and his child, C. R., aged 3) were admitted on August 30th. The father, his wife and child, left Hamburg, August 27th, landed at Harwich August 29th, came to London same morning. The father continued at work all Monday, and was taken suddenly ill at 9 o'clock on Monday evening with diarrhœa, pain across the back, and cramps in the calves. The child was taken ill the following morning with diarrhœa and vomiting. Both patients removed to hospital in the afternoon of the same day. Both patients much collapsed on admission. The father died at 3.30 A.M., August 31st. The child is still alive.

CHARING CROSS HOSPITAL is closed. No beds are available for any purpose till Monday week.

At ST. GEORGE'S, "beds are available if patients apply."

GUY'S.—Cases of cholera will be received if brought to the hospital, and if an epidemic appears in South London the governors are prepared to set apart beds for special use. No cases showing symptoms of cholera have yet been admitted, and the autumnal diarrhœa is not more prevalent than usual at this season.

LONDON HOSPITAL.—No cases of cholera have yet been brought in. A *post-mortem* examination on a suspicious case, which died on Tuesday, showed no choleraic symptoms. Two wards, containing 20 beds, with entrance apart from the general building, are fully prepared for the reception of any cholera cases. Further accommodation will be provided at once if necessary. The members of the medical staff have met the Committee of Management, and complete arrangements have been made to avoid any chance of contagion or infection. Clothes and all infected linen, etc., will be burnt. Tow, hay, or straw will be used for the reception of stools, and, being placed in suitable receptacles with dry disinfectants, will be burnt in the furnaces. The reorganisation of the sanitary arrangements of this hospital have just been completed and brought thoroughly up to date, at a cost of over £10,000. Efficient accommodation can be provided for 150 cases if necessary.

ST. MARY'S has agreed to provide accommodation for 50 cases.

MIDDLESEX HOSPITAL has undertaken to put 30 beds at the disposal of the Metropolitan Asylums Board in the event of an outbreak of cholera in London.

At the ROYAL FREE HOSPITAL, two wards, containing together 32 beds, are specially reserved. All arrangements made for isolation of nurses, etc.

ST. THOMAS'S HOSPITAL, 30 beds are offered "in case of real need." This number could be increased according to requirements.

UNIVERSITY COLLEGE HOSPITAL is closed at present. No arrangements yet made.

WEST LONDON HOSPITAL.—The beds are already full of ordinary cases. Unable to appropriate any for cholera cases. The committee has offered land for the erection of temporary wards, and to provide nurses and staff.

At WESTMINSTER HOSPITAL the house committee have, in reply to an application from the Metropolitan Asylums Board and the medical officer of health of the parish, made arrangements to place 20 beds apart for the reception of cholera patients at twenty-four hours' notice. Meanwhile a small ward is held in readiness to receive any case that may present itself. Steps are being taken to thoroughly disinfect on the premises all the evacuations, clothes, and

bedding of any patient admitted who may be suffering from cholera, so as to reduce to a minimum the spread of the contagion. The carrying out of all necessary steps to give effect to these requirements has been confided by the board to Dr. Allchin, one of the physicians to the hospital. No case has yet been admitted.

Nurses for Cholera Patients.

We have received the following communication from H.R.H. the Princess Helena:—

Sir,—The invasion of our country by one of the greatest of human scourges calls for the concentration of all the resources which science, forethought, and energy can enlist. I am happy to know that the public departments, forewarned and forearmed, have already taken such steps as must remove all ground for unreasonable panic, and secure, not only the confidence, but the welfare of the public. To their hands the execution of hygienic precautions and the organisation of medical relief may well be trusted, but there remains a sphere of activity which it is the special office of women to fill. The trained nurse should be found by the side of every stricken victim, whether rich or poor. This end cannot be attained without careful and intelligent organisation. The administrative staff of the Royal British Nurses' Association has, therefore, lent itself to the pursuit of this object, and, with the approval of the medical officer of the Local Government Board and of the executive officers of the Metropolitan Asylums Board, is now enrolling nurses who are willing to devote themselves to the care of patients who may be seized with cholera, and to obey the call of duty at a moment's notice.

I shall, therefore, feel indebted to you if, in this crisis, you will allow me to appeal through your columns to such of the trained nurses of England as may be free to throw themselves into this good work, and ask them to place themselves, with as little delay as possible, in communication with the responsible officials of the Association at 8, Oxford Circus Avenue, London, W. In the interval between enrolment and active service, they will have the opportunity of receiving instruction in the details of such special duties as they may be called upon to perform from Dr. Heron, who has kindly volunteered to render this service.

Helena,
President of the Royal British Nurses' Association.

Mrs. Margaret R. Nichol, Secretary to the Trained Nurses' Club (12, Buckingham Street, Strand, W.C.), writes: In consequence of recent suggestions, we are arranging a series of classes for the instruction of trained nurses with regard to the nursing of cholera cases. I shall be glad to hear from nurses and others desiring to avail themselves of the above.

CHOLERA IN GREAT BRITAIN.

Since our last report of August 27th cholera has invaded Great Britain. On Thursday, August 25th, the steamer *Gerona* arrived at Gravesend from Hamburg with sixty alien emigrants, of whom three were found to be suffering from illness, the symptoms pointing to cholera. They were conveyed to the Port of London Sanitary Hospital, and have since all died.

On August 26th the medical officer at King's Lynn reported two cases of suspected cholera on board the steamship *Laura* from Hamburg. The vessel was ordered back to sea under quarantine regulations.

A death has occurred at Bolton. The victim was a woolsorter, who is supposed to have contracted the disease from some Russian goods.

One death has also occurred at Great Grimsby, and another case—although not supposed to be of the Asiatic type—has been removed to the floating hospital of that port.

At Glasgow, two emigrants who had landed at Leith from Hamburg on August 27th, and travelled by rail to Glasgow, were attacked on the following evening with Asiatic cholera, and, by direction of Dr. Hardie, removed to hospital. Both patients are reported to be progressing favourably.

Three German passengers who arrived from Hamburg on August 29th have imported Asiatic cholera into London. On landing they went to a house in the City Road, and the local sanitary inspector, in accordance with the new order from the Local Government Board, kept them under observation, and at once communicated with Dr. Harris. The patients were removed to St. Bartholomew's Hospital, and placed in an isolated ward.

The barquentine *Hélène* from Hamburg arrived at Gravesend late on August 29th, and was boarded by Drs. Collingridge and Whitcombe, who found two of the crew to be suffering from choleraic symptoms, and had them removed to the Port Sanitary Hospital.

Four Russian emigrants, two men and two women, of the poorest class, who arrived at Liverpool on August 27th, were found to be ill. The symptoms were of choleraic character, and they were taken to South Hill Road Hospital, where they are completely isolated, and are under treatment of the assistant medical officer of health, who is carefully watching the development of the illness.

Precautions in London.

Dr. Reece, of St. Bartholomew's Hospital, has been specially appointed by the sanitary authority of the Port of London to assist Dr. Collingridge in carrying out the cholera regulations.

The Alien Question.

An important Order affecting the immigration of pauper aliens has been issued by the Local Government Board. Under existing regulations, when a ship with cholera on board arrives at a British port, the passengers have to satisfy the medical officer as to their names, places of destination, and addresses at these places before they can land, and the officer has to notify the sanitary authorities of the towns to which the emigrants are proceeding. Failing proper information on these points, the landing of any person is prohibited under a penalty of £50. The new Order extends these provisions, in the discretion of the medical officers of the various ports, to all ships whether cholera-infected or not.

Mr. M. Stephany, the Secretary of the Jewish Board of Guardians, informs the correspondent of the *Daily Chronicle* that the Board has appointed a voluntary sanitary authority, under the care of Mr. Quaintrell as sanitary inspector, who during his last year of office paid no fewer than 4,170 visits to 1,831 houses in Whitechapel, St. George's-in-the-East, Mile End Old Town, Bethnal Green, and the City. His testimony and that of Mr. Stephany is that there is a great improvement in the sanitary condition of East London during the past ten years, and that as compared with what it was in 1866 the position is one of what might be almost called security against any endemic disease. Then, again, there is a great decrease in the number of aliens who are coming over to this country. Last year's number was smaller than that of the year before, and it in its turn was less than its predecessor. This, coupled with improved sanitary conditions, has made the cholera a very different thing to cope with to what it was twenty-six years ago. In order, however, to call the attention of the people to the necessity for ordinary precautions against disease, Mr. Stephany has issued a notice in English, Yiddish, and German. Then follows a list of medical officers for the East of London, and a notification of the clause in the Public Health Act, which requires a written notice of the existence of certain diseases to be sent to the medical officer of health of the district. With these precautions taken, and the already high standard of sanitation obtained, Mr. Stephany is of opinion that there is no cause for fear amongst the Jews in the East End.

Reports from Out Ports.

Dr. H. E. Armstrong, medical officer of health Newcastle-upon-Tyne informs us that up to the present moment no case suspected to be cholera has come under his observation in the River Tyne Port. All vessels from infected ports are boarded on arrival, and the crews and passengers are medically examined. An additional assistant medical officer is stationed at the mouth of the river for this special purpose, on duty night and day.

The Medical Officer of Health at the Port of Hull informs us that any vessels arriving from the Continent are medically inspected immediately upon arrival in the Roads, special attention being directed to those vessels from Hamburg and other ports where cholera is prevalent. No cases of cholera have been recorded up to the present time. Dr. Mason relies not only on inspection in the river as the first line of defence, but considers that in the short passage between Hamburg and adjacent ports—namely, between thirty and thirty-six hours—there is probable danger of cases of cholera developing on board vessels after arrival, and whilst they are remaining in dock. As showing the necessity of preparedness, a hospital fully equipped has been set apart, and all cases of illness occurring on board ship whilst in dock are immediately investigated, and any cases of a suspicious character removed to the hospital for isolation and observation. The vessels arriving from cholera-infected ports are visited twice daily whilst remaining in this port. Two firemen on board the steamship *Hamburgh* which left Hamburg on August 24th, and arrived in Hull on August 26th, were removed on Saturday last to the hospital on their developing diarrhœa. They did not, however, develop cholera, and have since been discharged from the hospital. The vessel left for Southampton on August 27th, the Local Government Board and the authorities of Southampton being notified of the facts and the vessel's departure. We learn by telegram that special instructions have to-day been given to masters of ships not to take in any drinking water at a cholera-infected port, and that the crews should confine themselves as much as possible to the vessel. When such water is found to have been taken in, it is ordered to be thrown overboard before the admission of the vessel into dock. Precautions are also directed to the removal of all bilge water and the cleansing of water closets. Dr. Mason is of opinion that this should be made compulsory on all masters, together with the power of detention for medical inspection.

Scotland.

Our Glasgow Correspondent writes: Two cases of Asiatic cholera have appeared in Glasgow, in the persons of two members of a party of emigrants from Hamburg, who travelled per steamer *Weimar* to Leith, arriving there on Thursday, 25th ult., and thence per rail to Glasgow on the same day. The party were *en route* to the United States, and numbered twenty adults and thirteen children. They intended to sail on the Thursday evening, but no accommodation being available by the intended steamer, *City of Rome*, they were sent to a lodging-house to await the next steamer. The party were, in accordance with the custom of the shipping company, examined by a medical man daily during their sojourn in the city. On the Friday night the first case arose, and the man was immediately removed to Belvidere. Within a few hours a woman became ill, and was also sent to Belvidere. The remaining members of the party are under the supervision of the local authority in one of the reception houses. No further cases of cholera have been reported.

Precautions against Cholera in Ireland.

Since the first cases were reported from the Continent, the various medical officers under the Irish Local Government Board have been kept on the alert by circulars, so that no state of unpreparedness might exist. This week a further circular has been sent out by Sir Francis Maccabe, the Medical Commissioner, containing directions as to water supply, sewers and drain pipes, privies, dungheaps, houses let in tenements, and common lodging houses, and as to persons affected with cholera. There are also formulæ for disinfecting purposes, and it is directed that such medicines as may be required are to be forthwith procured, if they are not already in stock. The rules to be observed are short and clear, and will be of great use in the event of any outbreak. It may be mentioned also that all the ports are closely watched, and that in Dublin all vessels from suspected quarters will be boarded, and the persons in them examined.

In Dublin itself about 400 beds are now available for cholera cases. Sir Charles Cameron is not apprehensive of a visit of cholera, but it is not likely that a city so near to infected places will escape. Would not this be a good time to remember that in Dublin there are numerous slaughterhouses which ought to be abolished, and that there are some 700 cows at this moment housed within the city itself and in very populous quarters? It is absurd to talk of any thorough system of sanitation when the Corporation of Dublin tolerates such nuisances. With such centres of disease existing, the only surprise is that the death-rate, bad as it is, is not a great deal worse.

The Public Health Committee of the Dublin Corporation has had several meetings in reference to the threatened appearance of cholera in the city. On Tuesday last there was a very full meeting, and the suggestions of Sir Charles Cameron were unanimously adopted.

Cholera on the Continent.

A new and serious increase in the spread of cholera is reported from Hamburg. The total number of fresh cases officially reported on August 30th amounted to 810, of which 319 cases were fatal.

The first authentic case of cholera morbus originating in Berlin was announced on August 30th. The patient, a wharf labourer, was taken to the Moabit Hospital, where the chief physician detected the bacillus of Asiatic cholera. The case is reported to be almost hopeless. The woman who brought the cholera from Hamburg to Berlin is recovering. The newspapers point out the danger arising from the use of napkins in public restaurants a second time without being disinfected. A letter sorter at Pilsen in Bohemia died from cholera nostras after one day's illness. On the preceding day he had received and sorted a number of letters from Germany. At Altona a slight decrease in the cholera outbreak is noted; the cases and deaths from August 28th to August 30th numbering respectively 20 and 8. At Antwerp the severity of the disease seems to be on the decrease. On August 30th there were 22 cases of cholera and four deaths. At Havre the epidemic remains stationary; there were on August 30th 71 new cases and 17 deaths. At Rouen since July 12th, when the disease made its appearance, there have been 57 cases, of which 19 proved fatal. On August 30th there were 20 cases of cholera or choleraic diarrhœa. The Hague has had a warning in the attack by cholera of a person from Hamburg on August 30th.

A decided improvement has taken place in the choleraic epidemic in Paris. On August 30th only 20 cases came into hospital, 4 only of which died.

The reports from St. Petersburg on August 30th show 156 fresh cases of cholera and 41 deaths; 53 patients recovered.

Our Berlin Correspondent writes: Cholera is the topic of the day. The epidemic has broken out in Hamburg, in and near the harbour, and there are cases in Altona and Eimsbüttel, one of the suburbs. By direct order of the Emperor, Professor Robert Koch and Dr. Rahts, attached to the Imperial Board of Health, have spent several days in Hamburg to inspect the arrangements for preventing the spread of the disease, and to advise further measures. Koch is of opinion that the infection has come from Russia, not from France. The official list of cases in Hamburg up to August 24th is as follows:

August 18th	13 cases	2 deaths	August 22nd	86 cases	20 deaths
,, 19th	16 ,,	6 ,,	,, 23rd	125 ,,	64 ,,
,, 20th	24 ,,	14 ,,	,, 24th	188 ,,	32 ,,
,, 21st	31 ,,	15 ,,			

but these figures do not include the suburbs.

In Berlin a considerable number of cases of cholera nostras have been reported. A meeting was held by the municipal authorities for public health, at which the chief physicians of all the municipal hospitals were present. Questions regarding hospital accommodation, the building of cholera pavilions, etc., in case the epidemic should reach Berlin, were discussed, and a course of action laid down. Four cases of Asiatic cholera are announced from Bremen on August 27th, and one case from Wittenberg. During the terribly hot days in Berlin three men were attacked by sunstroke, and five horses, engaged in drawing the tramcars, fell down dead.

The Hamburg Drinking Water, etc.

On this important subject we are favoured with the following telegraphic information from an authority in Berlin of special competence: The Hamburg Waterworks are

about forty years old; water is taken from the Elbe above Hamburg at Rothenburgsort, and flows into reservoirs at flood tide; it is filtered through sand and pumped to a water tower. The filters, however, are so imperfect that algæ, shells, and even eels have been found in the pipes. Two years ago 5,000,000 marks were voted for a new system and pipes, etc., but no radical improvements have yet been made. In the better quarters of the town carbon filters are being generally used, and for drinking purposes the water is now being boiled. The harbour and dock population occasionally takes its drinking water *direct from the Elbe*. The drainage system of Hamburg is carried through the whole town—waterclosets are everywhere in use—the pipes are flushed, not only by the water pipes, but by water taken from the river Alster. The main pipe opens into the Elbe below Hamburg, near St. Pauli. During flood tide the end of the pipe is closed, and opened at ebb tide. Koch thinks that the Elbe water is responsible for the present epidemic. Five hundred thousand marks have been voted for preventive measures.

Our Paris Correspondent writes: On July 30th an epidemic of choleriform enteritis broke out at Havre; from that date to August 24th there have occurred 365 cases and 104 deaths, on the average of 4 deaths a day. A medical day and night service is organised at every police station; there are two medical men always on service at the Hôtel de Ville. Every contaminated article is destroyed. The Municipal Council has voted £800 for sanitary measures and poor relief. Professor Brouardel, MM. Proust and Toinol have gone to Havre to superintend the sanitary arrangements. Vessels leaving Havre will be medically inspected. The latest news from Havre states that on August 24th, from 4 o'clock up to midnight, 18 cases; 9 deaths on the 25th during the same space of time, 48 cases, 21 deaths. Energetic measures are taken. Not only are dirty houses washed clean, but bedding, furniture, and clothes which appear to be foci of infection are burnt. The owners are compensated by the town of Havre. Two fresh cases of choleriform diarrhœa have occurred at the Bonne Nouvelle Prison at Rouen. One of the prisoners, aged 18, has died, the other is in a dangerous condition. The water supply has been wrongly incriminated; the true cause is the weak condition of the patients resulting from their past conduct. At a meeting of the Seine Sanitary Council, M. Dujardin-Beaumetz stated that from July 20th to August 3rd 72 deaths of choleriform diarrhœa occurred, and from August 4th to August 17th 33 deaths. In Paris, from July 20th to August 3rd, 34 deaths; from August 4th to August 16th, 16. This proportion of 6 deaths among a population of 2,500,000 is the same as that of other years from choleriform diarrhœa. At this season, in fact, although the heat has been exceptionally intense, the average has not increased. The liberality of the Municipal Council has enabled the council to distribute 20,000 copies of the instructions drawn up at a previous meeting concerning the prophylaxis of contagious diseases. The proportion of typhoid fever is on the increase, perhaps owing to the fact that the St. Martin Canal is being cleansed; consequently all the filth accumulated in it is left exposed to the sun during this tropical heat, and the population dwelling in its neighbourhood complain greatly of the bad smell, and the fact that the present moment should be chosen.

The Jeyes Sanitary Compound Company (Limited) has received an order for the immediate shipment to Hamburg of 38,000 gallons of their disinfecting fluid and 35 tons of their sanitary powder. A further order for 44,000 gallons of the fluid for the cholera-infected districts has since been received by the same firm.

Charcoal Filters at Sewer Gratings.

The use of charcoal filters at sewer gratings is, of course, once more much pressed as a suggestion suitable for the present time. Charcoal filters as applied to sewer ventilators have, however, always been a failure. In the first place they stop or impede the circulation of air, and in the second charcoal soon becomes useless by being saturated with gases and clogged up with dirt.

Russian Emigrants.—The correspondent of the *Standard* notifies that 300 Jewish emigrants, mostly coming from infected districts, left Odessa for England on July 30th.

THE MEDICAL SCHOOLS AND THE FIVE YEARS' CURRICULUM.

COMMUNICATIONS FROM BRITISH MEDICAL SCHOOLS.

Guy's Hospital.—Mason College, Birmingham.—Steevens's Hospital, Dublin.—Catholic University, Dublin.—St. Mary's Hospital.—University College.—King's College.—London Hospital.—Charing Cross Hospital.—Westminster Hospital.—Durham University College.—Sheffield School of Medicine.—University of Glasgow.—Bristol Medical School.

On June 5th and 6th, 1890, resolutions were adopted by the General Medical Council with regard to professional education and examination, the general tenour of which was that the licensing bodies were recommended to lengthen the curriculum of study necessary to obtain a registrable diploma to five years, and to insist on a greater predominance of the practical element, as distinguished from systematic lectures, in the educational course than has hitherto been the rule. These recommendations have been generally adopted by the licensing bodies, and all students commencing their curriculum in October come under the new regulations. The changes in the examinations of the various bodies are indicated in their proper place. The intention of the Council in recommending the extension of the curriculum to five years obviously was that the last year should be devoted almost entirely to "hospital practice with clinical instruction"; in other words, that the student, being free from compulsory attendance on systematic lectures, should be able to devote his whole time and his whole mind to the acquisition of a first-hand knowledge of disease and its treatment, including practical familiarity with all the methods and instruments of diagnosis in use not only in ordinary medical, surgical, and obstetric practice, but in the various specialities. In view of the modifications in the curriculum which are entailed by the change in the educational programme, we have thought it well to make inquiries of the various teaching bodies as to the arrangements which they have already made, or may contemplate making, to meet the demands of the licensing bodies under the new order of things.

So far, however, comparatively few of them seem to have thought it worth while to take action in the matter. From Dr. E. C. Perry, Dean of the College, Guy's Hospital, we get the intimation that "even at Guy's we are not quite so 'previous' as to have settled the matter at this date." At Mason College, Birmingham, no scheme has yet been definitely drawn up, "though the matter has been discussed in a general manner." At Dr. Steevens's Hospital, Dublin, "no special arrangements with reference to the fifth year of curriculum has been made as yet." The Catholic University, Dublin, has "made no arrangement regarding the course of studies in the fifth year."

On the other hand, at St. Mary's Hospital it has been arranged that during the fifth year diseases of children, fevers, public health, and mental diseases shall be studied. At University College the only new courses that have been arranged are one on mental diseases by Dr. W. J. Mickle, and one on elementary biology by Professors Waldar, F.R.S., and F. W. Oliver. King's College has also added a new course of elementary biology. At the London Hospital the arrangements for the fifth year are not completely settled yet. Generally speaking, students will be required to devote the fifth year to hospital practice, ophthalmic practice, attendance at a fever hospital, and lunacy. At Charing Cross the fifth winter session is to be given to ophthalmology and psychological medicine. Westminster Hospital has made somewhat similar arrangements. At the Durham University College of Medicine, Newcastle-on-Tyne, "the fifth year will be devoted to clinical work, and a course of instruction on infectious diseases, comprising the observation of not less than twenty cases." At the Sheffield School of Medicine the student is recommended "to attend hospital practice for twelve months (medical and surgical), and also mental disease at Wadsley. If he should have been previously unable to attend the course of clinical demonstra-

tions on infectious diseases, he must also take out this course at the Borough Fever Hospitals. Ophthalmic surgery must also be attended during the year if not previously." The University of Glasgow enjoins that "during the fifth or final year the candidate shall be engaged in clinical study for at least nine months at one or more of such public hospitals or dispensaries, British or foreign, as may be recognised for the purpose by the University Court." It has not yet been considered necessary by the Court, however, to determine what hospitals and dispensaries shall be recognised for the purpose of this regulation.

The Bristol Medical School has found it necessary to rearrange its curriculum. Amongst other changes the following appointments have been made: Professors Leipner and Lloyd Morgan have been jointly elected to the new Chair of Biology; Dr. Michell Clarke has been appointed Lecturer on Practical Physiology and Histology in the place of Dr. Atchley, who has resigned the chair; and Dr. Prowse has been transferred to the Chairs of Practical Pharmacy and Pharmacology and Therapeutics, which have replaced the old Chair of Materia Medica and Therapeutics. A complete course of instruction has been provided to meet the regulations of the Conjoint Board for the new diploma in public health, in connection with which Dr. D. S. Davies delivers a course of systematic lectures on Public Health, Mr. W. W. Stoddart has been appointed Lecturer on Hygienic Chemistry and Bacteriology, and Mr. J. C. Heaven has been made Demonstrator of Public Health; while Dr. D. S. Davies, as Medical Officer of Health for the city, has organised a most valuable course of practical outdoor sanitary work.

With regard to the period of six months which may be spent under the direction of a qualified practitioner, we have not, on inquiry, been able to discover that any steps have yet been taken by the General Medical Council to ensure the production of evidence as to the personal fitness of those who may wish to act in this tutorial capacity or as to the adequacy of the opportunities of practice which they can offer their pupils.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

EAST ANGLIAN BRANCH.—The autumn meeting will be held at Sheringham, on Thursday, September 8th. General meeting at Sheringham Mansions Hotel, at 2 P.M. Papers: The President: Short Address on Some Sanitary Defects. Sir Frederick Bateman, M.D.: Criminal Anthropology in its Medical Aspects. Professor Victor Horsley, F.R.S.: The Dangers and Consequences of Prolonged Otitis Media, with especial reference to Cerebral Abscess; illustrated by Macroscopic and Microscopic Photographs with Lime-light. Excursion: It is proposed to take a drive (under the guidance of Dr. Sumpter) through Sheringham, the Woods and Park to the Hall, where Mrs. Upcher has kindly invited members and their ladies to afternoon tea.—EDGAR G. BARNES, MICHAEL BEVERLEY, C. E. ABBOTT, Honorary Secretaries.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting of this Branch will be held at Merthyr on Thursday, October 6th. Members wishing to read papers, etc., are requested to communicate titles before September 21st, to Dr. Sheen, Cardiff.—A. SHEEN, M.D., and ARTHUR DAVIES, M.B., Hon. Secs.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of this Branch will be held at the Palace Hotel, Hastings, on Thursday, September 29th. Mr. E. R. Mansell in the chair. Notice of papers or cases to be read at the meeting should be sent to T. JENNER VERRALL, Hon. Sec., 97, Montpellier Road, Brighton.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this Branch will be held at the Town Hall, Sandwich, on Thursday, September 15th, at 2.45 P.M., J. W. Harrisson, M.B., in the chair. Professor Victor Horsley, M.B., F.R.S., will read a paper on Trephining in the Stone Age (illustrated). At the conclusion of Professor Horsley's paper, a visit will be paid to the ancient Roman Castle of Richborough (one mile distant from Sandwich), where an address on Richborough and its Relation to other places in Gaul and Britain during the Roman occupation, will be given by the Rev. J. J. Raven, D.D., F.S.A. (Should the weather be unpropitious this address also will be delivered in the Town Hall.) The Chairman invites members to luncheon from 1 to 2 o'clock, at his residence, The White Friars, and will be glad to receive acceptances by September 13th. Tea and coffee will be served after the meeting at the chairman's residence. All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends.—THOS. F. RAVEN, Hon. District Secretary, Barfield House, Broadstairs.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Messrs. Armour and Co., London; Mr. W. Anderson, London; Mr. C. Adams, Croydon. (B) Sir G. Buchanan, London; Dr. D. Buxton, London; J. Brunton, M.B., Galashiels; Mr. R. J. Blackham, Glamorgan; Messrs. Burroughs, Wellcome, and Co., London; Dr. A. G. Bateman, London; Mr. J. Baird, Dover; Mr. F. J. Batt, Derby; Mr. T. Lucas Benham, London; Mr. F. Browning, London; Mr. G. Biddie, Row; Mr. J. C. Bourne, Dumfries; Mr. A. H. Beal, Roseneath; Dr. E. Berdoe, London; Mr. T. M. Beckett, Ely; Mr. A. W. Blyth, London. (C) Surgeon-General W. R. Cornish, London; Mr. P. M. Campbell, London; Dr. F. Churchill, London; Dr. M. Charteris, Glasgow; Mr. P. Case, Croydon; Mr. T. Cocking, Sheffield; Mr. T. W. Clark, North Shields; C. M. A.; Mr. J. E. Cooney, Fulham. (D) Mr. A. C. Dixey, Caldicot; Mr. W. A. Davidson, Leyton; Mr. W. Downing, Birmingham. (E) S. G. Edge, M.B., Norwich; Mr. T. S. Ellis, Gloucester; Mr. R. C. Elsworth, Swansea. (F) Mr. M. Fergusson, Sunderland; Mr. F. Fowler, Epping; Mr. A. Fullerton, Maidstone; Mr. E. H. Fenwick, London; Mr. J. V. Fitzgerald, Seaton; Dr. T. Fisher, London; A. Hanbury Frere, M.B., Leeds. (G) Messrs. J. Gardner and Co., Edinburgh; Mr. H. R. Green, Southsea; Dr. Major Greenwood, London; J. Gill, M.B., Langholm; Dr. E. Goodall, Wakefield; Mr. G. B. Griffiths, Copenhagen; Mrs. Garrett-Anderson, London. (H) Mr. H. F. Hurst, Walker-on-Tyne; Mr. W. Harvey, Newton Abbot; Mr. W. Hunting, London; Mr. T. F. Hale, Chesterfield; Dr. W. L. Hunter, Pudsey; Dr. T. W. Hime, Bradford; Mr. W. M. Hutton, Southport. (I) Dr. Ireland, Prestonpans. (J) Mr. C. A. James, London; Mr. A. W. Jollye, London; Dr. Jennings, London; Mr. R. Jones, Liverpool. (K) Dr. J. Keay, Edinburgh; Mr. S. Kennedy, London. (L) Dr. Landolt, Paris; Dr. Livesay, Derby; Dr. J. Lyon, Devonport; Mr. E. Lloyd, Ammanford; Mr. F. Lankester, London. (M) M.D.; Mr. W. C. Miller, Malton; Mr. Johnson Martin, Bolton; Mr. P. W. MacDonald, Dorchester; Messrs. S. Marshall and Co., Denton; Sir F. MacCabe, Dublin; Mr. E. J. McWeeney, Dublin; Dr. Withers Moore, Burgess Hill; Dr. T. More Madden, Dublin; Mr. D. E. Morris, Stradbroke; M.D., F.R.C.S.; M.R.C.P.; M.R.C.S.; Dr. A. Mitchell, London; Mr. A. C. Munro, Paisley. (N) National Hospital for the Paralysed and Epileptic, The Secretary of the, London. (O) Mr. H. L. Ormerod, Bristol; Mr. H. Owens, London. (P) Dr. W. Potter, York; Mr. A. M. Parham, Maidstone; Dr. Perez, London; Dr. G. W. Potter, London; Dr. L. C. Parkes, London; L. E. Parkhurst, M.B., Brackley; Mr. W. Campbell Pope, Suffolk; Dr. A. Paterson, Bridge of Allan. (R) Dr. Rowland, New Amsterdam; A. Rajasingham, Aberdeen; Mr. R. P. Ryan, Thorpe; Mr. H. M. Ramsford, Kilburn; Mr. A. T. Rake, London; Mr. W. Reith, London; Mr. J. S. Reynolds, Wolverhampton; Dr. Rorie, Dundee. (S) Society of Apothecaries of London, Secretary of the, London; Sir J. Simon, Folkestone; Mr. C. Spurway, Poschiaro; Mr. H. H. Sturge, New Eltham; Dr. E. Seaton, Clapham Common; Mr. E. Stephens, Ilminster; Sedox Manufacturing Company, London; Mr. W. H. P. Sheehy, London; Surgeon-Captain A.M.S.; Mr. J. Struthers, St. Andrews; Mr. Morton Smale, London; Dr. L. Scott, Inverness. (T) J. O. Thorowgood, London; Dr. D. Thomas, London; Dr. Thin, London; W. H. Turnbull, M.B., South Shields; Mr. M. E. Thomson, Northampton; J. H. Targett, M.B., London. (U) Mr. J. R. Upton, London. (V) Mr. P. R. Valladares, London; Mr. T. J. Verrall, Brighton. (W) Mr. R. F. Walker, Leeds; G. G. Whitwell, M.B., Shrewsbury; Mr. D. F. Williams, Liverpool; W. T.; Dr. H. Woods, London; Dr. A. Whitelegge, Wakefield; Mr. C. J. Wood, London; Dr. T. D. Weatherly, Bath; Dr. B. C. Windle, Birmingham; etc.

BOOKS, ETC., RECEIVED.

Jahresbericht über die Leistungen und Fortschritte in der gesammten Medicin. By Rud. Virchow und Aug. Hirsch. Berlin: Verlag von August Hirschwald. 1892.

Materia Medica. Edinburgh: E. and S. Livingstone. 1892. Price 1s.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

BEALE.—On the 28th inst., at 71, Addison Road, Kensington, the wife of E. Clifford Beale, M.B., F.R.C.P., of a son.

BLUMER.—On August 16th, at the Utica State Hospital, Utica, N.Y., the wife of G. Alder Blumer, M.D., Medical Superintendent, of a daughter.

MARRIAGE.

SIBLEY—BUTLIN.—On the 25th of August, at St. Mary's, Liscard, Cheshire, Walter Knowsley Sibley, M.A., M.B., B.C.Camb., M.R.C.P.Lond., of 7, Harley Street, Cavendish Street, W., eldest son of S. W. Sibley, F.R.C.S., of Whitehill, Bletchingley, Surrey, to Georgie Marie Butlin, late of the Levick Institute, Paris, only daughter of Captain G. Butlin, late of the Royal Navy, and of Mrs. M. Butlin, of Belfast.

REMARKS
ON
HAFFKINE'S METHOD OF PROTECTIVE INOCULATION AGAINST CHOLERA.

By E. H. HANKIN,

Fellow of St. John's College, Cambridge; Chemical Examiner, Analyst, and Bacteriologist to the North-West Provinces, India.

As I have recently been subjected by M. Haffkine to his anti-cholera inoculations,[1] I propose to give an account of my experiences and a description of the method employed in the production of the vaccine.

In the course of his researches on the cholera vibrio which have been carried on during the last two years, M. Haffkine has met with many facts which tend to remove the difficulties that have hitherto stood in the way of accepting this microbe as the cause of cholera. Among these difficulties may be mentioned the impossibility of reproducing a disease in any way resembling human cholera by injections of Koch's vibrio into animals. M. Haffkine has recently succeeded in doing this in rabbits by a very simple and ingenious method. It is well known that the blood serum of the rabbit has the power of killing the cholera microbe. By cultivating the vibrio, first in diluted and then in undiluted rabbit's serum, M. Haffkine has succeeded in "acclimatising" it, so that at length it is completely unharmed by the bactericidal action in question. If a small quantity of a culture in rabbit's serum of these acclimatised vibrios be injected into the veins of a rabbit, the animal will succumb, showing symptoms which M. Haffkine assures me are extremely similar to those of typical cholera. During the collapsed condition that precedes death, cramps are frequently observed, and on *post-mortem* examination the intestine is found to be filled with the typical "rice-water" secretion. The latter, and also the mucous membrane of the intestine, contain the vibrios in large numbers. In some cases they have been found in the bile duct and ureter, but never in any other part of the body. Generally these symptoms appeared within a few days of inoculation, but more rarely the animal remained in apparently good health for periods extending to a couple of months before the symptoms developed. These latter experiments suggest an explanation of those anomalous cases in which a patient has been observed to succumb to a second attack of cholera during the same epidemic. Perhaps he had never been really free from the virus after his first attack. The cholera may have existed in a latent condition, as was the case with these rabbits. I owe my best thanks to M. Haffkine for his permission to mention these results. It is to be hoped that he will soon publish an account of them in detail.

In this, as in many other cases, the first step towards obtaining a protective vaccine was the preparation of an abnormally virulent form of the microbe, the so-called *virus fixe* or *virus exalté*. M. Haffkine succeeded in this by passing the microbe through a series of guinea-pigs. If a guinea-pig is inoculated into the peritoneum with a suspension of an agar culture of the microbe, it will succumb, and in the peritoneum is found an exudation containing a larger or smaller number of the vibrios. If this exudation is injected into the peritoneum of a second guinea-pig, the latter will also succumb, and so on with a third; but, unless certain precautions are taken, the series cannot be kept up. Each successive exudation will be found to contain fewer and fewer microbes, and at last the total number of microbes present will not be sufficient to kill the next guinea-pig in the series. To avoid this result a procedure has been adopted based on the following facts: The quantity of exudation formed varies in different cases. Usually, if a large guinea-pig is employed, a copious exudation, containing relatively few microbes, is produced. A small guinea-pig, on the other hand, yields a small quantity of exudation rich in microbes. Apparently the quantity of the exudation is a measure of the power of resistance possessed by the individual. M. Haffkine has based, on these facts, his method of passing the microbe through a series of animals. A guinea-pig is inoculated into the peritoneal cavity with cholera vibrios from an agar culture. On its death the peritoneal exudation is removed with a pipette, placed in a test tube, and left for several hours at the temperature of the room. If it is abundant (several cubic centimetres), it is then injected into the peritoneum of a small guinea-pig. If, on the other hand, it is small in quantity (1 cubic centimetre or less), it is injected into a fully-grown animal. On the death of the animals in the former case, the liquid injected will be found to have become concentrated; in the latter case, an increase in quantity will be observed. By attending to these precautions, the cholera virus can be passed through an indefinitely long series of animals. From each exudation in a series, an agar culture is made for the purpose of controlling the purity. Each successive culture will be found to be more virulent than its predecessors; also the guinea-pigs in the series die in shorter and shorter times after injection of the exudation. Between the twentieth and thirtieth passage the maximum degree of virulence appears to be reached. At this stage the peritoneal exudation is fatal to guinea-pigs in six to eight hours after its injection into the peritoneum. Agar cultures made from such an exudation also possess and retain this increased degree of virulence. Microbes from these cultures can kill rabbits and pigeons in doses which would be perfectly harmless if given in cultures of the ordinary degree of virulence. In fact, this *virus exalté* appears to be about twenty times as virulent as the ordinary form of the microbe.

As above stated, this *virus exalté* is rapidly fatal to guinea-pigs when injected into the peritoneum. It also kills them with certainty when introduced into the intestine or when given *per os* after neutralisation of the gastric juice with soda and quieting the intestines with opium according to Koch's method. It also differs from the ordinary form of the microbe in that it kills guinea-pigs when injected in small doses into the depth of the muscular tissue of the thigh.

If, however, it is injected under the skin, this *virus exalté* does not kill the animal; it produces a purely local malady. After a few hours an extensive œdema develops. This leads to necrosis of the tissues involved. In a few days the necrosed mass of tissue drops off, leaving a granulating wound. This at length heals completely. The animal is now found to be immune against inoculation with cholera in any way whatever, whether it is tested with ordinary or with strengthened virus, and whether it is introduced into the peritoneum, the intestine, or the muscular tissue. Obviously, however, such a method of inoculation could not be practically employed. It is necessary to devise some method of first protecting the guinea-pig against the necrosis produced by the *virus exalté*. This can be accomplished readily by a previous treatment with attenuated virus.

The attenuated virus is prepared by growing the microbe in a slow current of air. About 10 cubic centimetres of bouillon is placed in a flask having two lateral tubulures, and inoculated with the strengthened virus. The flask is placed in an incubator at a temperature of 39° C., and by means of a tube connected with one of the tubulures at one end, and, passing outside the incubator to a water-pump at the other, a slow current of air continually passes over the surface of the bouillon. The other tubulure of the flask is connected with a wash-bottle containing water and placed in the incubator, in order to saturate the entering air with aqueous vapour. This precaution is necessary to prevent undue evaporation, as the bouillon only forms a shallow layer at the bottom of the flask. Under these conditions the microbes produce a culture, but then rapidly die. It is therefore necessary to reinoculate them every third day into a fresh flask of bouillon. After each passage the microbes are found to be more and more attenuated. At last, after a series of passages under these conditions, the microbes are found to be so altered that they have completely lost the power of producing necrosis in guinea-pigs even when injected under the skin in exaggerated doses. They still, however, retain the power of

[1] Le Choléra Asiatique chez le Cobaye, *Comptes Rendus des Séances de la Société de Biologie*, July 9th, 1892. Le Choléra Asiatique chez le Lapin, et chez le Pigeon, *Ibid.*, July 16th, 1892. Inoculation de Vaccins Anti-cholériques à l'Homme, *Ibid.*, July 30th, 1892.

killing these animals when injected into the peritoneum in quantities only slightly larger than is necessary to attain this result with the ordinary virus.

If a dose of this attenuated virus (say one-eighth of a 24-hour old agar culture) is injected under the skin of a guinea-pig an extensive œdema develops within twenty-four hours. During the next few days this diminishes in size, leaving, however, a hard nodule, which persists for a considerable time. If a week later the animal is inoculated with a similar quantity of the strengthened virus an œdema develops, which is less than in the first case and does not lead to necrosis. When tested a few days later the animal is found to have acquired an immunity against the cholera microbe in whatever way it may be inoculated. This immunity has been found to be undiminished a couple of months after treatment.

Rabbits have also been made immune by the same method. They then show themselves refractory to every form of inoculation, including the method above described, which in the control animals leads to a disease resembling the cholera of human beings. M. Haffkine has also produced this immunity in pigeons. These facts led M. Haffkine to try the effect of these inoculations on himself, and afterwards on seven other gentlemen. The following is the account of my own case:

August 16th, midday. Dr. Roux inoculated me with one-eighth of a 24-hour old agar culture of the attenuated virus suspended in 1 cubic centimetre of bouillon in my left side, about 2 inches above the crest of the ilium. 1 P.M. Slight pain locally. 4 P.M. Swelling noticeable, and pain on movement. 8 P.M. Owing to pain on moving found walking about difficult. 10 P.M. Temperature began to rise; noticed a feeling of *malaise*. 12 midnight. Noticed temperature of 100°. This was the highest point reached.

August 17th. 7 A.M. Woke up; felt better; temperature normal. The swelling formed an area about 8 inches long and 2 or 3 wide, extending towards the inguinal lymphatic glands; painful on pressure, and reddened. 12 midday. During the day I worked as usual in the Institut Pasteur, but had a bad appetite and a feeling of fatigue, which once or twice impelled me to lie down for a short time. 3 P.M. The swelling extended during the day to the crest of the pubes and to within an inch of the umbilicus. This secondary extension of the swollen area was not painful on pressure, or reddened. 7 P.M. Felt bilious. 9 P.M. Took four capsules of castor oil.

August 18th. Woke up, feeling all right after a sound sleep; pain notably diminished; could walk about with ease, and went to a swimming bath.

August 19th. Swelling and redness of skin greatly decreased; pain on pressure trivial.

August 21st. 6 P.M. Inoculation with one-eighth of an agar culture of *virus exalté* suspended in bouillon. The injection was made on the centre of the inner side of the left arm. 11 P.M. Painful area extended to axilla; slight and occasional headache.

August 22nd. 4 A.M. Woke up; found it difficult to get out of bed owing to pain, but in a few minutes became accustomed to change of position and walked about with ease; slight *malaise* and fever. 6 A.M. Felt better. 9 A.M. Breakfast, good appetite. During the day, August 22nd, slept most of the time, but was awakened every hour to take my temperature; in the evening felt bilious and constipated; took about ½ ounce of liquorice powder; the swelling now extended from the axilla nearly to the elbow; this area was very sharply defined by the redness of the skin. Slept well all night.

August 23rd. Woke up feeling quite well. Pain had decreased, but the swollen area had extended, reaching about 3 inches below elbow. This secondary extension of the swollen area was not painful on pressure, and the skin had a normal colour.

August 24th. Pain and swelling notably decreased. Skin beginning to assume a yellow hue.

August 25th. Further decrease of swelling, for an area measuring about 5 inches by 3, the skin was coloured yellow.

No enlarged glands were noticed all through the experiment. At present the only trace of the inoculation is a small hard nodule, less than half an inch in diameter, at each seat of injection.

With regard to these inoculations I should like to point out that although the œdematous swelling develops with startling rapidity, there is no reason for considering it as likely to lead to any dangerous inflammation. The cholera microbe is not one that is capable of producing pus. Knowing this fact, neither M. Haffkine or I made any attempt to keep quiet or rest ourselves after our inoculations. M. Haffkine happened to be busy after his first inoculation, and in spite of his fever worked for twenty-four hours continuously in the laboratory without tasting food. I worked as usual after my first inoculation. Two hours after my second inoculation I experienced the first part of my fever. It is noteworthy that both M. Haffkine and I had more fever after the second inoculation than after the first. All the other gentlemen who have been inoculated experienced only a trivial elevation of temperature and of discomfort after their second inoculation. Probably this is due to the fact that M. Haffkine and I had our second doses at comparatively short intervals after the first (five and six days respectively), and, as experiments on guinea-pigs indicate, these intervals were too short for the immunifying effect of the first dose to have completely developed.

The seven other cases presented symptoms essentially similar to my own, only, as above mentioned, the second inoculation (which was made after seven or eight days) produced far less general and local disturbance than the first. In two or three cases a transient constipation has been observed to follow the inoculation. In one case diarrhœa had been present for some days before the first inoculation, and vanished the day after it was performed.

M. Haffkine finds that it is also possible to vaccinate guinea-pigs by means of cultures previously sterilised by heat. In these cases the local reaction appears to be less than occurs after inoculation with living cultures. The immunity produced, however, does not seem to be of such a permanent character as that produced by the living microbe. It is possible, nevertheless, that for inoculations on human beings it may be well to commence with sterilised cultures, in order to diminish, as far as possible, the discomfort produced by later inoculations with the living virus.

I may mention here that in all his experiments M. Haffkine employs cultures on agar in preference to those in bouillon. The latter contain far more soluble poisons than the former, and there is reason for thinking that, as with the allied microbe the vibrio Metschnikovi, it is the less readily soluble substances contained in the bodies of the microbes that are concerned in the production of immunity.

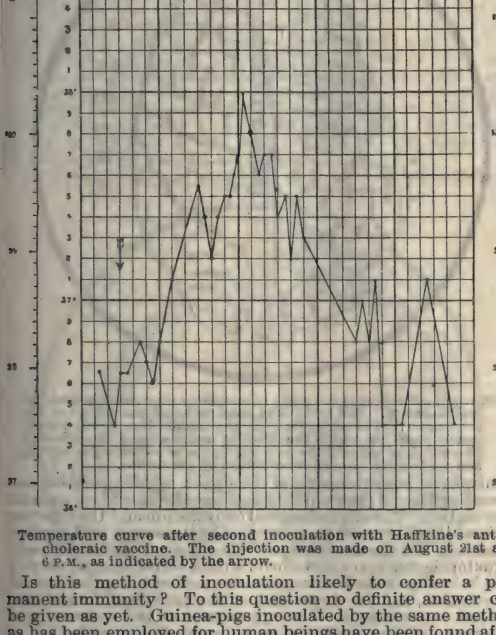
What proof have we that these inoculations are of any value whatever in protecting human beings against cholera? If the cholera vibrio is really the cause of this disease, the conditions of infection that obtain in Nature and in the laboratory must be widely different. How, then, can success in producing immunity against "laboratory infection" of a guinea-pig justify us in concluding that we have obtained immunity against "natural infection" of a human being. Obviously we have no direct and absolute demonstration of the value of these inoculations, and no doubt those people who need such proof before they are convinced will feel themselves justified in being "dead certain" of the futility of M. Haffkine's method for a considerable time to come.

In the first place it may be noted that the fact that there is a difference—it may be a great difference—between artificial and natural infection, though suggesting a source of error, is not of itself a reason for thinking that immunity against the one is not immunity against the other. In discussing the probability of an animal or a human being being immune against a particular microbe, we are concerned not so much with how the microbe can get into the system, but with what it does or does not do when it gets there. If any animal has been made immune against the cholera microbe, it has always been found to be capable of resisting it, in whatever way it may have been introduced into the body. Consequently, if a human being has been made immune against the effects of the cholera microbe when injected under the skin, analogy suggests that he is immune against the same microbe when it seeks to enter the system by the natural way, whatever that may be. But are those gentlemen who have been inoculated by M. Haffkine immune to the effects of the cholera microbe when inoculated under the skin? This is a matter which can be put to the test with great facility. The effects of a subcutaneous inoculation of the attenuated cholera microbe on a human being may be said now to be well known and easily recognised. There is a widespread and rapidly developing œdematous swelling and redness, which only vanish gradually after the lapse of several days. A small hard nodule also appears at the seat of inoculation. These changes may be regarded as a distinct character of the cholera inoculation. The fever and *malaise*, on the other hand, can not be so regarded; probably a similar injection of almost any microbe would produce a similar elevation of temperature.

Consequently, the presence or absence of a "local immunity" in a human being who has been subjected to M. Haffkine's treatment can be readily tested by a repetition of his first injection, namely, that of the attenuated virus. M. Haffkine has conceived the good idea of performing this experiment five weeks after his inoculation with the strengthened virus. After the injection a swelling rapidly developed, and as rapidly disappeared. It had almost gone in twenty-four hours, leaving no hard nodule, as had been the case with the previous

inoculations. This result is sufficiently striking when it is remembered that the œdema produced by the first inoculation in M. Haffkine's case took nine days to disappear. As might have been expected, a passing rise of temperature was produced, but this also took place in a guinea-pig that had received the same repeated inoculation, and that had previously been proved to be perfectly immune against cholera on several occasions.

Another objection suggests itself. Dr. Cunningham has isolated several distinct and permanent varieties (or, as he prefers to call them, species) of the cholera microbe. Will immunity against one of them confer immunity against another? M. Haffkine's vaccines have been prepared from a cholera microbe of Indian origin, and his inoculated guinea-pigs have shown themselves to be immune against this race. Considering the number of different varieties—a dozen or more—that Dr. Cunningham has described, it is, to say the least, improbable that a cholera microbe isolated two months ago from a case in the Necker Hospital in Paris should be of identically the same race as the one of Indian origin that has been so long in use in the Pasteur Institute. M. Haffkine finds that a guinea-pig that has been prepared by his method is just as refractory to one microbe as to the other.



Temperature curve after second inoculation with Haffkine's anti-choleraic vaccine. The injection was made on August 21st at 6 P.M., as indicated by the arrow.

Is this method of inoculation likely to confer a permanent immunity? To this question no definite answer can be given as yet. Guinea-pigs inoculated by the same method as has been employed for human beings have been found after two months to have lost none of their immunity. *A priori*, it is far more probable that an inoculation with *virus exalté* should confer a lasting immunity than a slight attack of cholera. In human beings the immunity can always be tested from time to time by a subcutaneous inoculation. In the event of a lasting œdema being produced by this test inoculation, it can form the starting point for a repeated treatment. It may be noted that there is no reason for thinking that this method of inoculation could be any source of danger to other individuals. There is, on the other hand, every reason for believing that the microbes injected are rapidly destroyed in the body, most probably *in situ*.

Lastly, it is important to remember that very probably after the first inoculation, less probably after the second, there may be a temporary diminution in the power of resisting the entry of the cholera microbes. Most probably within three or four days of the injection the power of resisting the attack of the cholera microbes has returned to normal, and after that time will continue to increase. If this is so, these inoculations should not be practised in a given place at the time that an epidemic is raging, without great caution. Before forming a definite conclusion with regard to this, further experiments on animals are needed.

The evidence at present existing shows that M. Haffkine's method of inoculation is not attended by any grave disturbance of health, and that it can be practised on human beings with perfect safety. The fact that it produces immunity against cholera in any form, in animals of such widely different organisation as guinea-pigs and pigeons, gives reason for hoping that it may produce an equally good effect in human beings, but it must necessarily be a long time before we can possess any direct evidence of any value on this point.

SIXTIETH ANNUAL MEETING
OF THE
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Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

PATHOLOGY.

A CASE OF APHASIA AND RIGHT HEMIPLEGIA,
With Temporary Spasmodic Conjugate Deviation of the Eyes, Excited by Attempts to Converge the Eyes Strongly towards the Middle Line.

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I.—*Preliminary Remarks.*

I am indebted to Dr. W. Ewart, of St. George's Hospital, London, for permission to publish this case, and to use his clinical notes, and to Dr. Richard Sisley, who was at that time Registrar, and has also furnished me with additional notes of great interest. The clinical details, with the exception of those I observed myself, have been abstracted from the notes which these two gentlemen have so kindly placed at my disposal.

Early in May, 1889, Dr. Sisley was showing me some interesting cases in the wards, and we came to the paralysed patient whose case I am about to relate. The extent of the paralysis made me wonder how far forward the softening had extended in the frontal lobe. In a previous case of actinomycotic abscess of the brain,[1] I had noticed a connection between dilatation of the right pupil and affection limited to the hindmost part of the head area.

II.—*Special Observations.*

In this case the head area was certainly much implicated. There was no dilatation of the right pupil. There being no evidence of dilatation or contraction, I tried to see whether there would be any irregularity in the mode of contraction and dilatation of the pupil during accommodation. In order to stimulate the two eyes to the same extent, I moved my finger in the mesial plane from a distance of about three or four feet towards the root of the nose of the patient. The patient followed my finger with both eyes, nothing remarkable being observed till the finger got to about ten to six inches from the eyes, when suddenly the right eye, which till then had converged in the same way as the left, turned to the right, and its axis became parallel to that of the left. The movement was strikingly sudden. I was so taken by surprise that I forgot to observe the pupil. I repeated the observation two or three times, and the phenomenon recurred each time.

In addition to this, I noticed a remarkable degree of œdema of the right hand. This was so marked when the two hands

[1] *Trans. Path. Soc.*, 1889.

were side by side, that I suggested that a photograph should be taken of them as a good example of Laycock's nervous œdema. The patient, however, got worse soon after; I never had an opportunity of seeing her again. Dr. Sisley repeated my experiments, and tells me that the conjugate deviation I had observed could not always be produced, but, as will be seen by the notes, fits occurred soon after this, during which there was conjugate deviation of the eyes towards the right.

III.—*Clinical History of the Case.*

The patient was a married woman, aged 23; she had had two children. Seven years before death she had, it appears, an attack of rheumatic fever. Six months before the fatal event she seems to have had another attack. Her left and then her right side became helpless from pain, but she was not paralysed. Four months and a-half before death, after dressing herself without help, she was being driven to the hospital in a cab, when she suddenly exclaimed to her husband who was with her, "Oh, dear, how the cab shakes!" She did not speak afterwards, but nodded her head in answer to questions.

On admission on January 16th, 1889, she was found to have right hemiplegia, face, arm, and leg being quite paralysed; the tongue protruded towards the right; she was aphasic but sensible; the right knee-jerk was increased; there was a loud systolic mitral murmur; the temperature was 101.5° F. She continued for several days in the same state, there being, however, marked improvement in her mental condition, the patient understanding quite well and trying to speak. She seemed to have great pain in the right shoulder and elbow; she had no control over the bladder, but the sphincter was otherwise acting normally for there was no dribbling.

On January 28th she complained of pain in the thorax, and on the following day she had severe rigors with universal shivering and great pallor; the temperature rose to 102.5°; the tendon reflexes were greatly increased on the right side. On February 12th the temperature rose again to 102.5°, and on February 13th hyperæthesia and persistent ankle-clonus of both legs were noticed. On February 17th it was noticed that the patient could say a few words and understood everything quite well; she complained of pain on the top of the head.

On March 1st—about three months before death—the temperature reached 103.5°, the highest point attained whilst the patient was in the hospital; the fingers of the hand began to be permanently flexed (beginning of late rigidity). Between March 12th and 20th great improvement was observed. The patient was quite intelligent; she understood spoken and written language; she could speak better, though her vocabulary was limited and one word was often used for another; she could write after a fashion with her left hand; the sensations appeared to be normal; there was no evidence of pain or tenderness anywhere; the patient could stand with a little assistance.

On March 25th there was a little stiffness on the left side of the neck, and on March 30th it was noted that the right arm and leg, powerless and wasted, were sweating profusely; rigidity was well marked in them. On April 5th—about two months before death—the patient began to vomit, and from that time had at intervals repeated and severe attacks of bilious vomiting.

On May 3rd—about one month before death—I saw the patient with Dr. Sisley. The general symptoms of hemiplegia with aphasia were very clearly marked, and in addition I noticed the symptoms already described, namely, conjugate deviation of the eyes towards the paralysed side and œdema of the right hand. I found the patient quite intelligent; she understood questions clearly, but could only answer "Yes" or "No." She tried to say things and pointed at objects. She could sit up, and even tried to extend her flexed fingers, but without any result.

On May 14th—three weeks before death—she had two convulsive fits, during which the mouth twitched and the eyes were turned and fixed towards the right (conjugate deviation towards the paralysed side); the lips were pale and the heart very quick. Another similar fit occurred on May 15th, with convulsive motions of the left hand and of both sides of the face. The patient was unconscious for three minutes.

On May 29th it was noted that there had been enuresis for several days. The patient vomited on May 31st; though worse, she could say "Miss Wilson." On June 1st she had two fits, and on June 2nd three fits. She was comatose during the greater part of June 3rd, but was still able to put her arm round her mother's neck. The habitual position of the eye was towards the right. She died on June 4th.

The temperature was nearly always slightly above the normal, being usually 99° to 100° in the morning and 100° to 102° in the evening, and on several evenings rose a little higher, as mentioned above.

IV.—*Necropsy.*

Thirty hours after death the following lesions were noticed in the heart, lungs, brain, spleen, and kidneys. There was extensive disease of the mitral valve, with the usual consequences. The lungs were œdematous, and in a state of brown induration. The spleen and kidneys contained infarcts, some of which were old and cicatrised.

Brain and Spinal Cord.—On opening the cranial cavity an extensive area of softening was observed, affecting the following parts on the upper and outer aspect of the left cerebral



Fig. 1.—Upper aspect of the brain immediately after removal from the cranial cavity. The transverse lines indicate the planes of sections described in the paper. In the middle line is the ½-centimetre scale by which the level of each section is indicated. The asterisks indicate the extreme limits of softening anteriorly and posteriorly. Drawn from Nature by the author.

hemisphere, posterior parts of the upper, middle, inferior, and ascending frontal convolutions, and also the ascending parietal convolution: The supramarginal convolution and the superior parietal lobule were at most touched by the area of well-marked softening. On the mesial aspect the marginal convolution and gyrus fornicatus were affected over an area corresponding exactly from before backward to the posterior part of the upper frontal convolution, and the upper end of the ascending frontal and parietal convolutions. The appearance of the softened area was very striking, and contrasted very clearly with that of the surrounding brain, so that its limits were not difficult to ascertain. The whole area was much depressed, and very soft to the feel. The convolutions were much shrunken and tortuous; their original shape and arrangement could not be well recognised, but they formed ridges the nature of which could not be mistaken, and which were distinctly continuous with the neighbouring unaltered convolutions. Several vessels crossed the softened area, and their walls were of a rusty colour, as if stained with broken-up blood pigment. They differed from other vessels, and had evidently contained altered blood. The most posterior of these vessels extended along the anterior and inferior part of the interparietal fissure, but higher up turned forward across the fissure of Rolando towards the inner part of the ascending frontal convolution

(this vessel would therefore seem to be the third long branch of the middle cerebral, counting these branches from before backwards), the end of which would have had an unusual direction in this case. These points having been ascertained, the brain being extremely soft had to be slightly hardened before further attempts could be made at further investigation. The distribution of the lesions suggested some irregularity in the blood supply of the part. To dissect the vessels would, however, have made it impossible to get transverse sections which, owing to the state of the brain, were extremely difficult to obtain and still more to preserve. This anatomical point was, therefore, sacrificed to other more important ones.

In the transverse sections the nature of the lesion was, if anything, more marked than they appeared in the more superficial examination.

The sections were cut at the levels indicated by the transverse lines on the drawing, showing the upper aspect of the cerebral hemispheres.[2]

Only four of the transverse sections made have been photographed, because they were the most perfect and typical. But the whole brain was cut from before backwards in slices seldom more than 1 cm. thick, and often less.

There was no evidence of any degeneration process in front of the line of section 6, or behind section 19. But the area of complete degeneration extended between the lines 8 to 17 only, that is, did not measure more than 4½ cm. or 5 cm. from before backwards. This is absolutely true of the extent of grey matter affected, but at the posterior limit of the area of degeneration, that is, at the level of the section 16.5, although the grey matter did not seem altered, the white matter was softened at some distance from the surface, nearly as far back as the line 19, that is, the upper end of the ascending parietal convolution.

Photograph 2 (Fig. 2) shows the section 9.5, passing through



Fig. 2.—Section 9.5, passing between the posterior and middle third of the superior, posterior fourth of the middle, and posterior part of the inferior frontal convolutions, anterior level of the internal capsule, etc. The left hemisphere completely softened at that level; degeneration of cortex not so far advanced as in following sections. The softening extends as far as the middle of the corpus callosum (a faint line indicates the limit). Drawn by the author.

the posterior third of the superior frontal, posterior quarter of the middle frontal, and the posterior end of the inferior frontal in the region of the inferior part of the pre-central sulcus. The corresponding parts of the marginal convolution and gyrus fornicatus are also cut through. This section passes also through the anterior part of the anterior limb of the internal capsule. All the convolutions named and the white matter under them, as far as the lenticular and caudate nuclei, are destroyed by degeneration, and are considerably atrophied. The softening clearly extends as far as the middle of the corpus callosum; further than that, it is difficult to say whether there was any degeneration or not, owing to the state of the brain at the time of the necropsy. It is, however, to be noted that in one of the sections (14) a small spot of degeneration, not measuring more than one-sixteenth of an inch in diameter, was found in the very centre of the white matter on the apparently sound side.

*The third photograph** is that of section 11. It passes through the posterior part of the two upper frontal convolutions, the inferior part of the ascending frontal and the corresponding parts of the marginal convolution and gyrus fornicatus. It passes also through the anterior commissure. The extent of the degeneration is the same as in the previous case.



Fig 3.—Section 12.5, passing through the posterior part of the superior frontal, middle of ascending frontal, and lower end of ascending parietal, also through the knee of the internal capsule and the foramen of Monro. The anterior commissure is seen between the anterior pillars of the fornix. The degeneration is as extensive as, but more advanced than, in Section 9.5. Drawn by the author.

The fourth photograph (Fig. 3) is that of section 12.5. It passes through the posterior end of the superior frontal, the middle of the ascending frontal, and the lower end of the ascending parietal and the corresponding parts of the median convolutions. It passes also through the knee of the internal capsule and the foramen of Monro. The extent of the degeneration is the same as in the two last sections.

The fifth photograph (Fig. 4) is that of section 14. It passes through the upper half of the ascending frontal and the lower half of the ascending parietal and corresponding parts in the median aspect of the hemisphere.

The section also passes through the anterior part of the optic thalamus, in the region of the middle commissure through the tail of the caudate nucleus and the middle part of the lenticular nucleus it passes through the anterior part of the posterior limb of the internal capsule. The degeneration is as extensive as in the previous sections, a small hæmorrhagic cyst with walls covered with hæmatoidin is visible in the midst of the softened white matter. The section not being stained as the following ones the secondary degeneration of the fibres of the internal capsule cannot be demonstrated.

Other photographs (Figs. 5, 6, 7) have been taken from sections, stained by Weigert's original hæmatoxylin method, and show the secondary degeneration of the fibres of the pyramidal

[2] The half-centimetre scale placed in the middle line allows the level of the sections to be indicated by numbers. These numbers indicate the distance at which the section was, from the anterior end of the frontal lobes, 6 means, 6 half-centimetres, namely, a frontal section 3 centimetres behind the anterior end of the brain. A half-centimetre scale has been selected, because even a fresh brain can be divided in sections of that thickness.

tract in the crusta of the left crus, the pons, the medulla oblongata, and the spinal cord at various levels.

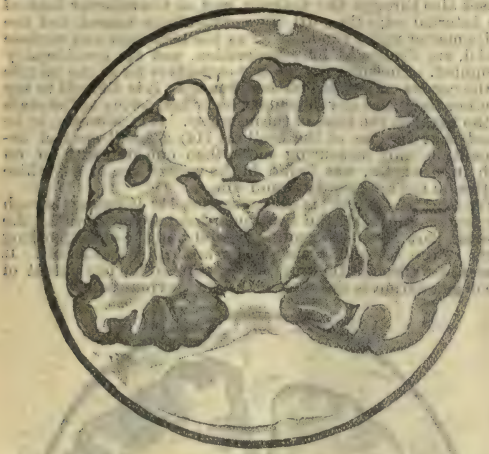


Fig. 4.—Section 14, passing through the upper half of the ascending frontal and the lower part of the ascending parietal, also through the middle commissure and anterior third of the posterior limb of the internal capsule. The degeneration is as advanced and extensive as in Prep. 12.5. A small blood cyst, with walls covered with crystals of hæmatoidin, is in the midst of the softened white matter. Drawn by the author.

Photograph 6 (Fig. 5) shows transverse sections through the crura cerebri as they penetrate under the superficial transverse fibres of the pons, that is, a little behind the superficial origin of the third. The section passes through the posterior pair of the corpora quadrigemina. The degeneration seems more extensive at this level than at a higher level. This is partly due to imperfect differentiation by the staining. The atrophy of the crus is very evident.

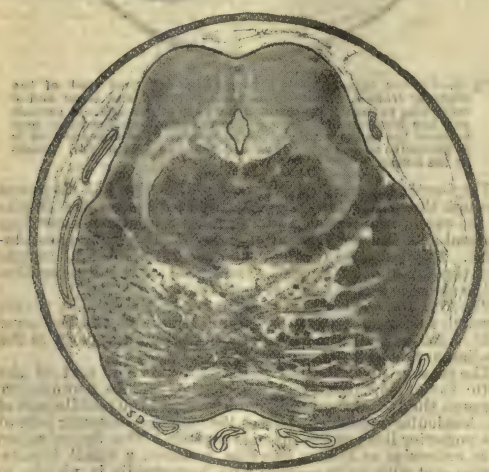


Fig. 5.—Transverse section through the crura cerebri as they pass into the pons; also through the posterior corpora quadrigemina. The greater part of the pyramidal tract (chiefly the middle two thirds) completely degenerated on the left side. Drawn by the author from a section stained by Weigert's method.

Photograph 7. Transverse section through the pons above its middle. The degeneration of the pyramidal tract on the left side is very clearly shown.



Fig. 6.—Transverse section through the upper half of the pons Varolii, superior and middle cerebellar peduncles, the fillet, etc. Complete degeneration of the left pyramidal tract. Other things can be seen, but are not discussed in the paper. Drawn by the author from a section stained by Weigert's method.

Photograph 8 (Fig. 6). Section through the medulla a little above the apex of the calamus scriptorius. The complete degeneration of the left anterior pyramid is well shown.

*Photograph 9.** Section through the middle of the decussation of the pyramids. One-half at least of the fibres composing the anterior pyramid has passed backwards and towards the posterior part of the right anterior lateral column, and in doing so the diseased fibres become intimately mixed with those of the healthy side. I had thought that in cases where degenera-



Fig. 7.—Transverse section through the cervical enlargement of the spinal cord at a level between the third and fourth cervical nerves. Secondary degeneration of the right crossed and of the left direct pyramidal tracts; slight extension by secondary inflammation. Drawn by the author from a section stained according to Weigert's method.

tion of the crossed pyramidal tracts on both sides follows a unilateral cortical lesion there might be extension of the

sclerotic process by contiguity, so that the fibres of the healthy side might become involved at the decussation. This would account for the occasional occurrence of degeneration of the crossed pyramidal tract on the same side as the lesion without there being recrossing of the fibres. There is no distinct evidence in this case of such an extension, which would, even if proved, not explain all the appearances described by Sherrington, especially regarding the number of fibres degenerated at various levels.

Photograph 10 (*Fig. 7*). Section through the spinal cord in the cervical region between the third and fourth cervical nerves. The degeneration of the right crossed pyramidal tract and of the left direct pyramidal tract is very clear. At this level the crossed pyramidal tract reaches the surface of the cord behind the direct cerebellar tract.

*Photograph 11.** Section through the cord in the dorsal region (sixth and seventh dorsal nerve). The degeneration of the crossed pyramidal tract is very well marked.

*Photograph 12.**—Sections through the cord in the lumbar region between the third and fourth lumbar nerves. The appearance is very much the same as in the last section.

V.—*Conclusions.*

Putting aside a number of issues which are of great interest, and confining my remarks to the eye symptoms to which I have alluded, I wish to attract attention to the following facts:

1. The patient had extensive degeneration of the motor areas of the brain on the left side.

2. From the distribution of these lesions and from certain convulsive phenomena observed during life, it is safe to conclude that the area of destruction was surrounded by a zone of irritation and inflammation, leading to gradual extension of the area involved.

3. In the crura, pons, medulla, and cord the secondary degenerations were typical, and there seems no evidence of there having been in any of these regions any concurrent process complicating or obscuring the effects of the cortical lesion.

4. About the period when symptoms of inflammatory extension became manifest, that is, one month at least before death, I observed that when the patient tried to converge her eyes towards the middle line so as to see an object placed near the root of her nose, the axis of the right eye was suddenly deviated from the middle line, and became parallel with that of the left, this producing conjugate deviation towards the paralysed side, that is, the same effect which would have been produced by stimulating some parts of the head area on the diseased side of the brain (Ferrier, Horsley, and Schäfer, Horsley and Beevor, Mott and Schäfer).

5. It seems safe to conclude from these premisses that the deviation of the eyes towards the paralysed side was the result of the stimulations of the centre already implicated, though not destroyed by the disease, and that the inflammatory irritation of that centre, added to the stimulation resulting from impulses sent by some higher centre, upset the balance, which would have resulted from the volitional stimulations of both centres. (The experiences of Mott and Schäfer on unilateral and bilateral stimulations of the head and eye areas in the monkey are extremely important in connection with this).

6. The phenomenon being produced at the time when I observed it first, only under the influence of a voluntary effort, the effect of volitional impulses can be compared with those of a physical stimulus such as that of an electrical current. Whether this be due to direct nervous impulses or vasomotor changes in the area cannot be established in this case.

7. Later on, when the irritative process had become more intense, the deviation was produced without the additional stimulus of a voluntary effort.

8. However important the bearings of phenomena observed in a single case may be, it is difficult to speak of their practical value; it seems, however, probable that in a certain number of cases the same phenomena will be observed, and that they may give additional help in the diagnosis of the localisation of some lesions.

(*Note.*—To secure clearness, the photographs have not been reproduced directly, but have been carefully outlined by the author. The photographs themselves were demonstrated at the meeting. Those marked with an asterisk have not been reproduced.)

MADURA FOOT OF INDIA.

By N. F. Surveyor, M.D.

[From the Pathological Laboratory of University College, London.]

The fungus-foot disease of India is always a very chronic affection, and it has never been found to become generalised. It is purely a local disease of the extremities, chiefly the foot. It generally occurs in people who go barefooted and are working in fields. In most cases it has been traced to some injury. The big toe is often affected first. The disease stops at the ankle for a short time, then it spreads up to the knee, and may go up to the thigh too.

Clinical Appearances.—In the full developed state the whole foot swells up to about twice its original size; the skin becomes thickened and pigmented; the toes appear retracted, and the patient limps about on the heel for some time till he cannot bear the pain, but finally drags himself in the sitting posture. The foot looks like a foot in scrofulous disease of the tarsal bones. It is covered over with sinuses, which go deep down in the tissues, and the openings are surrounded by raised margins. From these openings a purulent and sanious discharge can be pressed out, and in it are small particles which are about the size of millet seeds, and are tuberculated. These may be red, black, or yellowish-white in colour, but never like the sulphur-coloured bodies found in actinomycosis. If the disease is of recent date, nodular bodies are found which vary in size from a pea to a small marble. On cutting these open in the centre small particles like those already described are found. The disease is very chronic; it may last for twenty-five years.

Course of the Disease.—One peculiarity about this disease is the absence of any active constitutional symptoms. Slight hectic and emaciation occur only when the disease has lasted for some years. It begins as a nodule on the foot, which becomes slightly painful and ultimately bursts, leaving a sinus, which does not heal, and from which the particles can be pressed out. Other nodules are found there, and the resulting sinuses are found to communicate with one another. The tissues around the sinuses get thickened, the muscles atrophy and show fatty degeneration, while the bone gets softened and porous.

Microscopical Appearances.—I have examined sections showing the white variety only, and these show fibrous capsules in which peculiar homogeneous reniform bodies can be detected. The periphery of these bodies shows small bodies, which may be clavate or not. Radiating from the periphery are long gelatinous filaments, and the free ends of these are covered over with granular cells. Dr. Carter, in his classical work on this subject, gives the diagram of a round body covered over with similar filaments. These he looks upon as fatty crystals. Drs. Lewis and Cunningham, in their paper on the subject, described similar filaments, and agree with Dr. Carter in calling them fatty crystals. All my specimens, having been soaked for about three days on an average in ether and then in ethereal solution of paraffin, would not have shown these filaments if they had been simple fatty crystals. Besides that, the paraffin was always dissolved out of the sections before staining them by means of ether. The sections were fixed on cover-glasses with Mayer's albumen.

Various stains were used to get the best staining reaction. Of these, the following have been chiefly used: Boström (not very successful), S-fuchsine, Hoffmann's blue-gentian violet after Gram's method, picrolithium, carmine, borax, methylene-blue (Sahli), safranin, hæmatoxylin, and Biondi's stain. The great difficulty in staining was to stain in such a way as to make the filaments take up enough colour without over-staining, and thus obscuring the appearance of the reniform bodies. The homogeneous reniform bodies, for instance, took up the Sahli blue very easily, while the filaments remained colourless. To stain the latter I used alcoholic solution of eosin, which decolorised the whole specimen except the homogeneous reniform bodies, and at the same time stained the filaments red. The great objection to Sahli's method is that the stain is often not permanent. An experiment with Sahli, counterstained with picric acid, and clarified in a mixture of equal parts of xylol and oil of cloves, was tried. The great difficulty in this was to get rid of fine acicular blue crystals, which are precipitated on the specimen, especially near the reniform bodies. Here the filaments become greenish-yellow, and the central part blue. The reniform bodies take up hæmatoxylin very easily, and make them almost opaque if left too long in the stain. Counterstaining with eosin stained the filaments and clubs. Safranin is a very pale and delicate stain, which does not bring out the details of

the filaments very clearly, but shows the reniform bodies very well. Picrolith carmine stains the reniform bodies of a pale pink colour, while the clubs take up the carmine deeply. The filaments take up the picric acid. The best stain was gentian violet, used after Gram's method. The sections must be left in the gentian violet (Weigert's formula) solution for about ten minutes; then they are to be washed with water, and put in Gram's iodine solution. In Gram they are to be left for about three to five minutes; rinse again in water, and finally transfer to spirit. They are not to be allowed to lose the gentian violet to any great extent in the spirit, as a good deal is sure to come off in the oil of cloves. This method stains the filaments of a pale blue; the reniform bodies are violet, and the clubs are deep blue. Biondi's stain makes the filaments and the clubs red, while the reniform bodies are blue. Here the dehydrating must be rapidly done, as the blue is extracted in the process.

In some cases I found small round bodies which took up a violet colour when either gentian violet or Biondi was used. These were either single or sometimes in small clusters, and sometimes two such bodies were seen encapsuled together. Again, in one place I saw a very small fan-like body with short finger-like processes. The whole body was surrounded by a homogeneous gelatinous substance. A short time before leaving India, Dr. Carter recorded two cases in which the fungus resembled the actinomyces fungus. However, he was careful to state that that was the case in those two specimens only.

Differences between Madura Foot and Actinomycosis.—To sum up some of the chief points in which the disease differs from actinomycosis hominis. (*a*) Madura foot is invariably a chronic disease. (*b*) The internal organs are never affected as far as our present knowledge goes. (*c*) The constitutional symptoms are always very slight. (*d*) Actinomycosis hominis is almost unknown or very rare in India. (*e*) The sulphur-coloured bodies of actinomycosis hominis have never been detected. (*f*) The peculiar homogeneous reniform bodies with the clubs and filaments look at least like some ray-fungus.

ACTINOMYCES.

Dr. W. B. RANSOM described the appearances of the fungus found in a case of actinomycosis of the cheek recently in the General Hospital, Nottingham, under the care of Dr. Herbert Owen Taylor, who successfully removed the disease by scraping.

In this case the clubs were very prominent and stained deep blue with gentian violet in Gram's method, thus resembling what is found in the bovine form, and pointing to the identity of that with the fungus in man. He also disputed the view of Boström that the "hollow-sphere" is the typical form of the actinomyces spherule, exhibiting series of sections through young and undegenerated specimens, which showed them to consist of a solid mass of ray groups, like a morula. Only in older specimens surrounded by firmer granulation tissue did the cells invade the mycelium as well as encapsule it, and thus produce the form of a hollow sphere.

NOTE ON PHAGOCYTOSIS IN RELATION TO ERYSIPELAS.

BY T. J. BOKENHAM, L.R.C.P., M.R.C.S.,
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IT has been denied by some that phagocytosis plays any important part in the arrest of the inflammatory process in erysipelas. Those who make this statement find that in sections phagocytes, though present, come into action too late to be of any material service.

It seemed that a good way of attacking the question was to make inoculations of animals with cultures of the S. erysipelatis, and withdraw after varying times a droplet of lymph from the seat of the inoculation.

The experiments were performed by taking minute fragments of sterile, decalcified sponge (as suggested by Dr. Ruffer), soaking them in a broth culture of the S. erysipelatis, and then inserting them under the skin of rabbits. After a time the sponges were withdrawn, and the contained exudation examined. In this way the following fact was ascertained: phagocytosis was observable in direct relation to the virulence of the original culture.

With a culture capable only of causing very slight inflammation in a rabbit's ear, phagocytosis was almost complete after twenty-four hours, and nearly all cocci were already enclosed in cells.

With a more virulent culture phagocytosis was still observable, but many cocci were not enclosed in cells, and those cells which contained cocci showed signs of having suffered greatly in the fight.

With a very virulent culture—one which would kill a rabbit in from two to three days—the exudation showed very few cellular elements, but extremely numerous free streptococci (more often diplococci or single cocci). It appeared, therefore, that phagocytosis succeeded only when the virulence of cultures was not great, and that some other influence must probably come into play before this process could be finally effective. It seemed, however, wrong to assume that phagocytosis played no part in bringing the inflammation to an end; for with cultures of slight virulence the process could be observed within a very short time of the inoculation, and in guinea-pigs, which were very resistant to erysipelas, all the cocci appeared to become engulfed in a very short time, and practically no local mischief was developed.

THE VARIETIES OF MAMMARY NEOPLASMS AND THEIR RELATIVE FREQUENCY.

BY W. ROGER WILLIAMS, F.R.C.S.ENG.,
Preston;
Late Surgeon Western General Dispensary, and Surgical Registrar Middlesex Hospital.

IN no part of the body, except the uterus, do neoplasms arise so frequently as in the mammæ. On making an analysis of 13,824 primary neoplasms of all parts, consecutively under treatment at Middlesex, University College, St. Thomas's, and St. Bartholomew's hospitals during the 16 to 21 years preceding 1889, I have found that 2,422 (17.5 per cent.) originated in the breast (males 25, females 2,395). The following tables, based on these 13,824 cases, show the relative frequency of the neoplastic process in its chief seats:—

TABLE I.

A. *Showing the Relative Frequency of the Neoplastic Process in its Chief Seats in Both Sexes (based on 13,824 cases).*

	Per Cent.
Uterus	19.2
Mammæ	17.5
Skin	9.4
Connective tissue (general)	7.7
Tongue and mouth	6.3
Ovary	5.8
External genitalia	5.1
Bones (ex. maxillæ)	4.0
Rectum	3.3
Maxillæ	2.9
Stomach	2.6
Lower lip	2.6
All other localities	13.6
	100.0

B. *Showing the Relative Frequency of the Neoplastic Process in its Chief Seats in Males (based on 4,597 cases).*

	Per Cent.
Skin	16.4
Tongue and mouth	15.9
Connective tissue (general)	9.4
Lips	7.3
External genitalia	6.1
Bones (ex. maxillæ)	6.1
Rectum	5.0
Stomach	4.8
Maxillæ	3.9
Brain	3.4
Œsophagus	3.1
Testes	2.0
Mammæ	0.5
Prostate	0.2
All other localities	15.9
	100.0

C. *Showing the Relative Frequency of the Neoplastic Process in its Chief Seats in Females (based on 9,227 cases).*

	Per Cent.
Uterus	28.7
Mammæ	26.0
Ovaries	8.7
Connective tissue (general)	6.9
Skin	5.9
External genitalia	4.6
Bones (ex. maxillæ)	2.9
Rectum	2.5
Maxillæ	2.4
Tongue and mouth	1.6
Brain	1.4
Stomach	1.4
Liver	1.2
All other localities	5.8
	100.0

A noteworthy feature in connection with these tables is the great frequency with which, in females, the reproductive organs—uterus, mammæ, ovaries, etc.—are attacked; in fact, nearly 70 per cent. of all neoplasms in women arise from these organs.

The very great frequency with which the uterus and mammæ are affected is particularly striking. From the fact that both of these parts are subject to remarkable post-embryonic developmental changes, it may be inferred that they are normally rich in cells, which still retain much of their embryonic capabilities for growth and development. It is probably owing to this peculiarity that they are so much more prone to originate neoplasms than other parts of the body.

The following considerations tell in favour of this view: It may be said of neoplasms in general that they arise from archiblastic (epithelial) structures much more frequently than they do from parablastic (connective tissue) ones. Thus, of these 13,824 primary neoplasms, 72 per cent. originated from the archiblast, and only 28 per cent. from the parablast. In the breast archiblastic neoplasms predominate to a still greater degree, for I have found that no less than 95.74 per cent. of all such neoplasms have this origin, whereas only 4.26 per cent. arise from the parablast.

Now, of all the tissues of the body, the archiblastic ones have on the whole departed less from the primordial type than any others, hence their cells still retain their primitive powers of growth and reproduction in a higher degree than others. It is to this that I attribute the greater proneness of archiblastic tissues to originate neoplasms under pathological conditions.

Again, the liability of the tissue systems of the various organs to originate neoplasms is not diffused equally throughout their whole extent, but it is much greater in certain parts than in others. In the breast, for instance, most neoplasms originate in the immediate vicinity of the acini and small ducts, whereas it is very rare for such growths to arise from the skin of the mammary region, the areola, the nipple, the large ducts, or the para-mammary fibro-fatty tissue. That is to say, the majority of mammary neoplasms arise in the seats of greatest post-embryonic activity, where it may be inferred that cells still capable of growth and development most abound.

The relative frequency of the occurrence of the different varieties of mammary neoplasms is shown in the subjoined table, which I have compiled from the 2,422 consecutive cases of primary breast neoplasms previously mentioned.

TABLE II.—*Analysis of 2,432 Consecutive Cases of Primary Mammary Neoplasms.*

	Males.	Females.	Total.
Cancer	16	1,863	1,879
Sarcoma	3	92	95
Myxoma	2	2	4
Fibro-adenoma	1	372	373
Papilloma	—	3	3
Chondroma	—	1	1
Angioma	1	—	1
Cystoma	1	63	64
Total	25	2,397	2,422

Throughout the body malignant neoplasms occur with greater relative frequency than non-malignant ones; I have found the ratio to be 64 per cent. of the former to 36 per cent. of the latter. In the breast the relative preponderance of malignant neoplasms is still greater, for, as the above table shows, 81.7 per cent. of all its neoplasms are of this nature, and only 18.3 per cent. are non-malignant.

While 54.5 per cent. of malignant neoplasms in general spring from the archiblast, and 9.5 per cent. from the parablast, in the breast 77.6 per cent. of its neoplasms are of archiblastic, and only 4.1 per cent. of parablastic, origin. Of non-malignant neoplasms in general, 17.5 per cent. (including cysts) are derived from the archiblast, and 18.5 per cent. from the parablast, whereas, in the breast, 18.14 per cent. of its non-malignant neoplasms are of archiblastic, and only 0.16 per cent. of parablastic, origin. Or the facts may be stated thus:—

TABLE III.

	Neoplasms in General. Per cent.	Breast Neoplasms. Per cent.
Cancers	54.5	77.6
Sarcomas	9.4	4.1
Non-malignant neoplasms	24.7	15.7
Cysts	11.4	2.6
	100.0	100.0

This shows that the relative liability of the female breast to cancers is very much above the average, while its liability to simple cysts, non-malignant neoplasms, and sarcomas is below the average.

The influence of sex in the development of neoplasms is very great. In general, females are about twice as liable as males, the percentage proportion, according to my estimate, being 67 females to 33 males. In the breast, however, nearly 99 per cent. of all its neoplasms occur in females, and only about 1 per cent. in males. This is a good illustration of the law—of which many other instances might be cited—that functionless, obsolete structures have but little tendency to take on the neoplastic process. Herein is further evidence in favour of the view I have advanced, that neoplasms are most prone to arise in the sites of greatest post-embryonic developmental activity.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

AN IMPROVEMENT IN THE OPERATION FOR HYDATID CYST.

By the operation for hydatid cyst is meant that procedure which I take it for granted is now the generally accepted surgical treatment of such a cyst, namely, to cut down on the cyst or the organ which contains the cyst; and, if it be in the abdominal cavity, establish complete adhesion, preferably by sutures, between the parietal peritoneum and that covering the cyst or cyst-containing organ; then, either immediately or after an interval of a few days, to cut boldly into the tumour and establish free drainage.

There are no particular dangers or difficulties in this operation beyond those that are contingent upon any procedure which may involve laying open the peritoneal sac; but in the after-treatment considerable danger is not unlikely to arise, for asepsis is not easy to maintain. It is to avoid this danger in the after-treatment that my improvement is directed, and the method of carrying it out is as follows:

After exposing the cyst, and allowing sufficient time to elapse both for firm adhesions to form—to obtain these I use multiple sutures of fine sterilised silk—and for the flesh wound to cover itself with protective granulations, open the cyst as freely as the flesh wound will allow; then with the forefinger slightly push the ectocyst from the surrounding tissue, and along the finger slide a metal tube connected with an irrigator, held about 8 feet from the ground, and filled with twice-boiled water, of a temperature of not less than 105° to 110° F. The force of the water falling from this height completely detaches the ectocyst and forces it, whole and untorn, out of the wound. When the ectocyst is evacuated, continue to irrigate, gently smoothing the tube over the whole surface of the false cyst until all the shreds of lowly-organised fibrous tissue which united the true and false cysts have been driven out of the wound and the stream of water returns perfectly clean and clear. Dress with dry mercury cotton-wool. The metal tube which I use is simply a full-sized silver catheter with the end filed off at an angle.

I have not yet had a sufficient number of cases to make a fair comparison between the results from this method and those of simple incision and more or less incomplete removal of the very easily torn cyst; but it is evident that a method which secures the complete removal of the whole cyst, of every drop of hydatid fluid, and of all shreds of the false cyst which are likely to die, and leaves nothing but a perfectly clean cavity, must necessarily greatly lessen the chances of subsequent septic inflammation.

In conclusion, I am sufficiently grateful to note that,

though the above method is original in its object and application to hydatid cyst, the idea was given to me by part of the procedure detailed by Mr. A. E. Barker for the cure of psoas abscess without drainage.

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RELAPSE OR AUTO-INFECTION IN MEASLES.

THE following case was probably one of auto-infection, because the interval between the first and second attacks was just what would be observed in such a contingency.

The patient was a strong girl of about 16. The rash, which was copious and characteristic of measles, first appeared on June 4th. There was no catarrh, and but a slight rise of temperature. The eruption faded in due course, but on June 16th it reappeared, just as before, except that it was not quite so copious. On this occasion there was a temperature of 102°, and a slight cough, but the attack was again very mild.

The disease may possibly have been rötheln, but the first and second attacks were undoubtedly similar.

Windsor. EDWARD CASEY, M.D.

GUNSHOT FRACTURE OF UPPER THIRD OF THIGH BONE.

As the regiment was at musketry on November 28th, 1891, a sepoy, 33 years of age and 11 of service, while checking a target, was shot in the left thigh by one of a party shooting on the next range (at 800 yards) with the Martini-Henry. The man was first seen by a native subordinate, who very wisely merely applied a pad of dry lint over both apertures. He was next seen by Surgeon-Major Ranking, who kindly took charge of the case till my arrival, made arrangements for all the necessary appliances, and gave me his able assistance until they were adjusted. Chloroform was administered, and the limb well washed with sublimate lotion. We then removed the temporary dressing, and made a careful examination of its condition, constantly irrigating the whole with the sublimate lotion. There was a small circular inverted wound about four inches from the tip of the great trochanter, and a similar everted wound on the inner and posterior aspect of the limb. The bullet must have passed just behind the other thigh, which, luckily, at the time was in a very advanced position. We found that the bullet had gone straight through the bone, fracturing it and more or less comminuting it. The question of cutting down and exploring was entertained, but we decided to leave it alone and trust to antiseptic treatment, as it was very unlikely that any of the loose cotton cloth the man was wearing at the time had been carried into the wound.

Both apertures were syringed with sublimate lotion, and a pad of lint wrung out of the same and saturated with tincture of benzoin was applied to both. An interrupted long splint was then carefully adjusted, and a counter-extending weight of 7 pounds applied. There were no symptoms of shock, and the chloroform was well borne.

The temperature on the first two evenings was 99°, and afterwards never rose above 98.4°. On the third day the knee-joint was painful and swollen, evidently from a fissure extending into it. This was relieved by painting belladonna and glycerine over it. The dressing was removed on the ninth day, when there was a little sanious discharge on the external aperture, but none on the internal. The latter was quite healed on December 18th, but the former did not heal till January 9th.

The splint was removed at the end of the sixth week, when firm union was found to have taken place in the bone. There was shortening to the extent of about 2 inches, and some inversion, which has since largely disappeared. He gained power over the limb very, very slowly, but by May 1st, when he went on pension, he could get about pretty actively on crutches, and could bear nearly the whole weight of his body on the toes of the injured side. He will go on gaining power for months to come, and in the end will have a thoroughly useful limb.

This case is one the importance of which cannot be overestimated for military surgeons, as indicating what may be hoped for from antiseptic surgery. In the pre-antiseptic days a comminuted gunshot fracture of the upper third of the femur was synonymous with death, and who would doubt but that this would have been the result here too if the native assistant who first saw the case had inserted his uncleansed finger into the wounds to find out the condition of the bone?

H. HAMILTON, B.A., M.D.,
Lucknow. Surgeon-Major, 10th Bengal Infantry.

CHIMNEY-SWEEPS' CANCER.

MR. BUTLIN, in his recent papers, speaks of the rarity of chimney-sweeps' cancer, originating primarily in glands. I have at the present time a case of undoubted cancer of the glands of the groin. The patient, whose age is now 53, was brought up from boyhood as a sweep, and he attributes his disease to: (1) the peculiar attitude in climbing; (2) to the fact that he had as a boy but an annual wash; (3) that he was never allowed to wear braces, only a girdle; (4) to the fact that he had but one suit of clothes, which he was always forced to wear, even if stiff with grease and soot. His father died "from something which caused a sore on his mouth through chewing tobacco"—to use the patient's own words. This may have been epithelioma. He has had small-pox and rheumatic fever, the latter leaving him with a presystolic and systolic mitral murmur, and also a systolic aortic murmur. About fifteen months ago, when lifting some sacks, he felt a "click" in his groin, and a few months after a hard lump appeared, which in a few days became more prominent as a dark-red swelling. It first burst and began to discharge in March last. There is now repeated hæmorrhage, and the external iliac artery may be seen pulsating at the bottom of the outer side of the open cavity. The penis and scrotum are quite unaffected.

Norwich. JOHN H. STACY.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

LONDON HOSPITAL.

A CASE OF PARAPLEGIA CAUSED BY ANGULAR CURVATURE.

(By C. MANSELL MOULLIN, Surgeon and Lecturer on Physiology at the London Hospital.)

C. K., a slightly-built fair-haired girl, 10 years of age, with blue eyes and long dark eyelashes, was admitted on November 19th, 1891, suffering from paraplegia consequent upon angular curvature. Three months before she had been struck by another girl upon the back in the lower cervical region; up to that time her health had been perfect and her spine straight. Seven weeks before admission difficulty in walking was noticed for the first time; her foot dragged along the ground, and this grew worse with such rapidity that for a month she had been unable to stand. There was a well-marked angular curvature involving several vertebræ in the cervico-dorsal region; there was no tenderness, pain, or hyperæsthesia. The lower limbs were flexed and rigid, but not much wasted; sensation was lost over the feet and legs; the knee-jerks were exaggerated, but control over the sphincters was still retained. In the course of the next month, in spite of absolute recumbency being maintained, the condition grew worse and worse; the curvature became more marked, the bowels became inactive, the sphincters entirely lost their power, all control over the lower limbs below the hips disappeared, and the muscular wasting became very apparent. The knee-jerks were exaggerated, and there was extreme ankle clonus. There was no difficulty in swallowing, nor any sign of any tumour or abscess in the front of the neck; but she complained of a feeling of pain in the neck on taking a deep breath. Respiration became diaphragmatic, and fine crepitation and *râles* made their appearance all over the upper part of the left lung. About this time (the beginning of January) the question of laminectomy began to be seriously considered, as it was evident the pressure upon the cord was rapidly growing worse, and there was imminent danger of respiratory trouble setting in; but on January 15th distinct improvement in sensibility was no-

ticed, the breathing became clear a few days later, and by January 29th sensibility was practically normal all over the body, and power began to return in the sphincters. The legs remained rigid for another month. By the end of February the toes could be moved, and by the end of April all movements of the lower limbs were perfectly free while the patient was lying in bed.

She was discharged on June 20th wearing a poroplastic felt splint with a jury mast, able to stand alone, but not to walk without some support. The only local treatment employed was absolute recumbency from the first, between sand bags; and, later, slight extension from the head (the bed being inclined) by means of a leather collar under the chin and occiput, but this was not commenced until January 27th, after a certain degree of improvement had begun to manifest itself.

Remarks.—This case seems worth recording from the extreme rapidity with which very severe spinal symptoms made their appearance and vanished again, a greater amount of change being effected within a few months than is usual in the course of as many years. The paraplegia appears to have been caused by the difficulty the cord experienced in accommodating itself within such a short space of time to such a change in its relations. Watson Cheyne, in his lectures on the Surgical Treatment of Tuberculous Disease,[1] has suggested that possibly in some cases, if the curve in caries of the spine is very acute, the cord may become kinked and its circulation and function interfered with; and this upon the whole seems the most reasonable explanation here. The curvature, even when full allowance was made for the natural projection of the vertebra prominens was a very marked one; it had developed with great rapidity, and it was accentuated by the way in which nearly the whole of the secondary compensatory curve was produced above, very little below. It is possible of course that there may have been a growth of tuberculous granulations or a small caseous abscess springing from the posterior aspect of the body of one of the vertebræ; or that there may have been some meningitis and pressure around the cord; but there was never the least rise of temperature or pain along any of the spinal nerves, and the symptoms were so severe, and came and went so quickly, that it is difficult to believe that there could have been time for such a thing. The inflammation appears to have confined itself to causing the rapid absorption of the greater part of one or more of the bodies of the vertebræ; and then under the influence of perfect rest to have quietly subsided, leaving the deformity permanent; and the simplest explanation for the temporary loss of function in the cord is that it was unable to adjust itself sufficiently quickly to its altered relations.

COUNTY HOSPITAL, DURHAM.

Case of Meningitis following Influenza: Recovery.

[Reported by Selby W. Plummer, M.B.]

R. C., aged 52, a railway signalman, was admitted on January 7th, 1892. Exactly one month previous to admission the patient was treated by his medical man for a severe attack of influenza. In about a week he was so far recovered as to be allowed to sit up. Next day he complained of "swelling" in his ears and intense headache. This was followed in a short time by profuse serous discharge from both ears, amounting to several ounces in the twenty-four hours; after lasting "a few days," it ceased suddenly on January 4th. Delirium ensued immediately. He did not recognise his wife or family, and, though never violent, resisted any attempt to restrain him in bed.

For the first three weeks after admission his condition remained practically without variation as follows: He did not recognise anyone, was very restless and irritable, and lay more or less curled up. It was quite impossible to get any intelligible answers from him. The pupils were dilated, but reacted both to light and accommodation. The fundus was not examined. The knee jerks were much exaggerated on both sides. There was no discharge of any kind from the ears. Urine was at first voided unconsciously; the bowels were exceedingly constipated, requiring croton oil to produce an evacuation. He refused food, and had to be fed during part of the time by enemata, etc. He used to get up and wander about the ward, jumping up to windows and signalling to passing trains. At times it was necessary to restrain him with a straight jacket. Between January 30th and February 5th the patient was quieter, but lachrymose; and, though fancying he was being poisoned, slept at nights without hypnotics, which previously had been regularly employed. On February 6th he woke quite sensible, recognising his wife for the first time. From this date his progress, though slow, was regular and uninterrupted, and on February 17th he was discharged cured.

The temperature was on the average slightly subnormal, and never rose above 99.6°. There was no paralysis, though slight rigidity of legs.

On March 16th the patient reported himself. The knee jerks were still slightly exaggerated. There was no headache or pain of any kind. The membrana tympani showed slight scars, apparently healed perforations. He could not hear a watch unless touching the ears, but otherwise hearing was normal.

Patient is now (May, 1892) perfectly well, and applying to the company to return to duty.

[1] British Medical Journal, June 25th, 1892.

REVIEWS.

Asiatic Cholera; History up to July 15th, 1892; Causes and Treatment. By N. C. Macnamara, Author of *A History of Asiatic Cholera*. London and New York: Macmillan and Co. 1892.

Mr. Macnamara, who is best known as a practitioner of ophthalmic and general surgery, spent some twenty years in the earlier period of his professional life in the medical service of the Indian Government, during which period he was known to his brother Indians as an indefatigable worker and as the compiler of one of the best histories of Asiatic cholera. He laboured in what is called the "endemic area" for the greater part of his Indian career. As editor of the *Indian Medical Gazette* his opportunities for study of the disease were widened, while the official records of the medical department were freely open to him in his historical researches.

The reappearance of his cholera *History* in a condensed form and brought down to the latest date (July 15th, 1892) is opportune in connection with the great epidemic now occupying Asiatic and European Russia and threatening other parts of the world.

Many historians of cholera are content to take their starting-point from the great epidemic of 1817-1818, but the late Dr. John Macpherson and others have shown that the earliest records relating to India recognise the existence of cholera from times of remote antiquity, and that the 1817-1818 outbreak in Jeypore and Bengal was only "new" in the sense that the generation of living observers had not hitherto met with it.

In the years from 1781 to 1786 cholera prevailed with great severity in India. In this period there are notices of it at Calcutta, Gangam, Madras, Ceylon, Burmah, Hurdwar, Arcot, and, if the records are not very precise in some instances, it must be remembered that the medical boards in the three presidencies of India were only established in 1786 and that the records of the Madras Board contain a clear account of the outbreak of cholera amongst the European troops at Arcot in the year 1787. Mr. Macnamara divides his account into prehistoric—that is, from 1438 to 1817—and historic, from the period from 1817 to 1823; the Indo-European cholera of 1826-34; the cholera of 1841-46; the Indo-European epidemic of 1848-53; the Indian cholera of from 1859 to 1861, including the great Punjab epidemic; the cholera of 1863-64; the cholera epidemic of 1867 in India, and of Persia and Europe in 1868-70; the Indo-European cholera of 1879-83, and the epidemic cholera of 1891 down to the present date.

This historical sketch does not contain notices of every outbreak, but it gives in a condensed form the main facts as to the geographical distribution of cholera from 1817 to the present time, and as a record is of great value to students of epidemiology. In some of the great outbreaks

noted by Mr. Macnamara, cholera did not overflow into European countries, while in others it only partially prevailed in Europe, and did not cross the Atlantic. The present epidemic, in its progress through Russia and at Hamburg, more nearly resembles the great invading epidemic of sixty years ago than any other visitation. It has features of marked virulence, and in countries where filthy conditions prevail it is fraught with the greatest danger.

Mr. Macnamara accepts without close criticism Koch's view that the comma bacillus is the cause of cholera, for which, however, there was insufficient evidence in the data of which Mr. Macnamara appears cognisant, although a good deal of subsequently confirmatory research is being accumulated. It seems to be certain in any case that the contagium or infective matter behaves as microbes are wont to do, and the disease spreads among mankind in consequence of, and along the lines of, human intercourse. It is only necessary to observe how the march of cholera has been quickened in the course of the present epidemic by the greater facilities of communication in the eastern possessions of Russia. Railways and steamer traffic have brought the Trans-Caspian provinces into very close approximation with Eastern Europe, and as a fact cholera appeared at Saratov on the Volga at least one month earlier in 1892 than it did in 1831. The same thing has been observed in epidemics within India; but however fast cholera may travel, it does not move faster than man, aided by modern facilities of locomotion. Some years ago, the late Dr. Bryden in India revived the theory that the contagium or miasm of cholera, while bred in the swamps and deltas of great rivers of the lower provinces of Bengal, was airborne, and distributed over Upper India by air currents of the south-west monsoon. Dr. Bryden was a most earnest student of cholera phenomena, and the expression of his views, which were published in official Blue Books, no doubt had an influence on the official mind in India, and caused the Indian Government to regard with suspicion or incredulity the accumulating evidence that cholera was carried from place to place by human beings, clothing, and merchandise. For many years the Government of India maintained this scepticism as to the cause of cholera diffusion. The medical profession in India came to be divided into two camps, the one adopting the theory that the disease is spread in the lines of human communication, and that it is due to something breeding in or multiplying in the human body, the other that the causes are more occult in their nature, and that human intercourse plays but an insignificant, if any, part in the spread of the disease. The followers of the first theory have for the most part gained their experience of the disease in tracts of country beyond the endemic area, while those who have lived and practised within the endemic area have been to a very large extent non-believers in the doctrine that the contagium of cholera depends for its movement on human beings.

It is to the credit of Mr. Macnamara that, although spending most of his Indian career in Calcutta, the very centre of the endemic area of cholera, he has been able to lift his eyes above his surroundings; and in tracing out the history of the disease beyond the narrow confines of Bengal, to show that cholera is a disease in which the *materies morbi* of one person, by contamination of food, or drink, or air becomes the means of communication to others.

Mr. Macnamara alludes to the experiments of Dr. Ferran, in Spain, as described by Dr. Shakespeare, the American Commissioner, to which we have already referred. Indian experience however inclines to the belief that one cholera attack gives no immunity from another. Cases have been observed of two attacks within a fortnight, and we are aware of one case in which a lady had four attacks during her residence in India. But the same thing may be said exceptionally even of small-pox.

In the page and a half which Mr. Macnamara has devoted to Treatment, he would seem to have angered Sir George Johnson, by omitting to dwell on the virtues of castor oil and other evacuants, recommended by that eminent physician. Mr. Macnamara alleges, and Indian medical officers generally concur in the opinion, that thousands of cholera attacks have been arrested at the onset by full doses of opium, chlorodyne, acetate of lead, and other astringents; while, according to the pathological view referred to, evacuants of the castor-oil nature would better have helped to dislodge the swarming bacilli and the deadly virus generated by them in the body. In the administration of medicines in cholera there is this difficulty: When the disease is fully established there is a suspension of all the natural functions of absorption and secretion, and all the fluid of the body is poured out into the stomach and intestines. Nothing taken into the stomach is absorbed or passes into the circulation. The evacuant treatment ought, it has been urged, to be useful, but as a matter of fact no treatment seems to be of the least use when the disease is established. It has been alleged that cases in which vomiting is free and attended by violent expulsive efforts have a better chance of recovery than those in which the expulsory efforts are feeble; but this may be due to greater vitality on the part of the individual. When collapse has set in, the ability to bear the strain will depend upon the healthy condition of heart, lungs, and kidneys.

If cholera cannot be arrested or aborted in its earlier stages, the probabilities are that 50 per cent. of the cases passing into collapse will die under any known treatment. This proportion has hardly varied in any country or climate during the last sixty years. It must not be thought that Indian practitioners have been unwilling to avail themselves of any suggested remedy. In their despair they have caught at any suggestion, however absurd. Some years ago the King of Oude employed as his body surgeon a German quack who, with great flourish of trumpets, announced a cure for cholera, and claimed a Government reward. Honigberger's theory was that cholera was caused by "animaculæ" in the blood. His observations had shown him that an infusion of quassia was bad for flies, and he argued that the cholera animaculæ possibly belonged to the fly tribe, and that quassia would be "death" on them too; so he prepared a rather strong tincture of quassia, which he employed in the inoculation of his cholera patients, and the treatment was said to be so successful that he claimed a reward from Government. A very fair trial was given to this treatment in 1856-1857, but the results did not help Honigberger in claiming the Government reward. He roughly anticipated Koch in theory and Ferran in practice.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

ANTI-TANNIC TEAPOT.

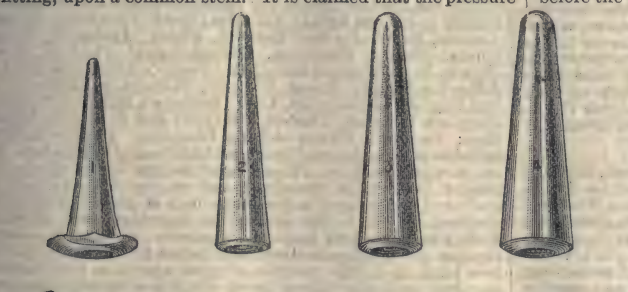
The object in view by the inventor of this teapot is excellent, and is one which we have commended to notice on many occasions recently, since the wide publication of our opinion on the mischiefs of the European method of infusing tea and the superiority of the methods in vogue in the far East, the original tea-drinking nations. Of all the various contrivances which have been produced during the last few months to enable the people to obtain an infusion of tea containing as much of the aroma and the theine of the tea leaf and as little of the tannin as possible, this is the most complete, but it is also the most complicated and the least sightly. This teapot has two containers, the outer holding boiling water which heats the inner cylinder containing the dry leaves lying in the cage, so as to make the tea hot before infusion; boiling water is then thrown on the tea, which mixes freely with the water. Three minutes are allowed for infusion, when, according to the inventor, all the aromatic properties are extracted and the leaves are drawn away from the infusion before, he considers, they can throw off the tannic acid they contain. In all this, however, he is, in our opinion, much mistaken. He will not find that the tea is free from tannic acid, and the invention appears to be based upon fanciful belief rather than really scientific principles. There is no object in heating the tea leaves before the hot water is poured on them, nor is it necessary that the water should be boiling. This is a purely British superstition; boiling water diffuses and destroys the aroma of the tea, and three minutes is far too much for the infusion. No Eastern

nation uses water which is near the boiling point, and the only way to avoid drinking the unnecessary infusion of tannin is to make the infusion very rapidly, pouring the water, so to speak, on and off, so as to extract the highly soluble theine and the volatile aromatic flavour of the tea leaf with as little tannin as possible. Such a liquor should be of a very pale golden yellow, like that of the palest sherry, and must be drunk without milk or sugar, both of which are merely barbarous devices for hiding the bitter flavour of the unwholesome tannin, which is supposed to give strength to the liquor, but which is really a thoroughly objectionable product. No tea drinker who respects his stomach or understands what the flavour of tea should be would ever drink tea mixed with milk and sugar, which is merely a sort of tannin broth of which the disagreeable flavour and deleterious effects are softened and modified by saccharine and albuminous additions.

Much as we approve of the objects held in view by the inventor, we cannot agree that he has effectively carried them out. For all purpose of rational tea drinking there is nothing better than the little Japanese teapot, which is to be had at the grocers' for a few pence, in which a porcelain strainer is contained at the top of the teapot, into which the leaves are placed, and through which the hot water passes, extracting as it passes through the rapidly soluble theine, and only a very slight portion of tannin. The customary European method of throwing the tea at the bottom of the pot, and pouring boiling water on it, and letting it "stand" for three or four minutes, is an effectual way of extracting the semi-poisonous fluid from tea leaves, of which the deleterious effects are no doubt lessened by the addition of an albuminous fluid, such as milk, and the disagreeable bitter flavour mitigated by hiding it with abundance of sugar. It is utterly irrational and thoroughly to be condemned from the dietetic and digestive point of view. The habit is so ingrained, that to protest against it would probably affect only the minds of a few reasonable and scientifically well-informed persons. It is hoped that the absolutely large, although relatively small, number of persons who have been led by experience and thought to adopt the method of tea making which we lately have more than once recommended, may in time bring about a much-needed improvement by eliminating the deleterious element from the widespread practice of tea drinking after the European method. To do so requires us to form a new conception of what tea should be, and to popularise new conceptions is a difficult and almost hopeless task. When first tea was introduced into Europe, it was treated as a vegetable and boiled, and the "dish of tea" still remains among the old-fashioned phrases in literature, and is used by a few old-fashioned people. [These teapots can be obtained of the Manufacturers, Paul Street Works, Finsbury, E.C.]

IMPROVED UTERINE DILATORS.

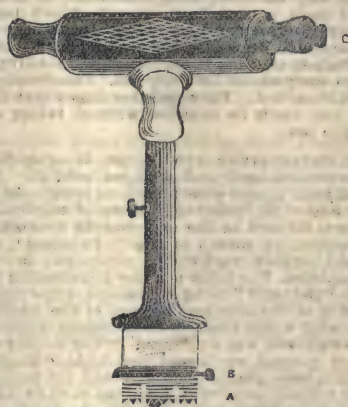
Mr. Lawson Tait's dilators, as made by Messrs. Lynch and Co., of Aldersgate Street, consist of a set of four graduated conical plugs of aluminium with an interchangeable screw fitting, upon a common stem. It is claimed that the pressure



of dilatation is gentle and continuous, being secured by the tension of two threads of elastic india-rubber secured between the perforated end of the stem and a cotton belt fastened round the patient's waist. As a rule, for purposes of exploration and the application of the curette, No. 2 plug, if driven up to the hilt, will be found sufficient, as this readily admits of the passage of the forefinger up to the fundus.

AN IMPROVED TREPHINE.

This trephine comprises certain modifications, which I regard as improvements. The advantages are: 1. The trephine has a nut, and can be made to cut to any depth required. 2. The nut would tend to keep the trephine upright, so that the instrument would cut to an equal depth all round. 3. The position of the nut would give an exact indication of the depth to which the instrument has reached at any moment. 4. There would be no possibility of the trephine penetrating the brain or its membranes by any unlooked-for accident during the operation. 5. There is no centre screw in the handle for fixing it to the trephine, and thus there is no chance of the handle causing any uncomfortable pressure in the middle of the palm, and thus fatiguing the hand of the operator. The grasping and rotating power of the hand is thus much increased. 6. Even if the trephine did not possess the above advantages, it cannot do any harm even in the least degree.



A. These holes indicate graduated scale in the trephine. B. The engraving does not show all the "nut."

The nut of the trephine should be always turned a little higher (one or two rounds according to the circumstances) before the trephine is worked.

It was made to my order by Messrs. J. Gardner and Son, surgical instrument makers to the Edinburgh Royal Infirmary.

Aberdeen University. A. Rajasingham.

Winter in Egypt.—Visitors to Egypt in the coming season will be glad to learn that the P. and O. Company are resuming their passenger services between Italy and Alexandria from Brindisi and from Genoa and Naples. By the Brindisi route the total transit from London to Alexandria is only five days, a sleeping car and restaurant train being provided from London. Alexandria is by far the most convenient port for Cairo and the Nile, involving as it does the shortest, fastest, and most comfortable railway journey to Cairo, besides giving a daylight arrival in Egypt. The service by sea from London will be resumed by the despatch of the s.s. *Hydaspes* on September 9th, calling at Gibraltar, Genoa and Naples *en route* to Alexandria, thus combining a pleasant cruise with a visit to two of the most interesting towns in Italy.

THE ANNUAL MUSEUM: NOTTINGHAM MEETING.

DRUGS, FOOD PRODUCTS, APPLIANCES, DRESSINGS, ETC.

II.

THE SEDOX MANUFACTURING COMPANY (12, Oat Lane, London, E.C.) showed Sedox, a material prepared from a vegetable fibre, which, being a rapid absorbent, will take up fifteen times its own weight of pus or other matter. The fibre is first cleansed of all gummy matter and other impurities, which leaves it absorbent, soft, and silky, whereas cotton wool and other known materials require a special preparation to render them absorbent. The varieties shown were the Plain Absorbent, Corrosive Sublimate, Sal-alembroth, Carbolic Acid, Salicylic Acid, Boric Acid, Sedox Sponges, Sanitary Sheets, Diapers, Gonorrhœa Bags, Chest Protectors, and the Sedox Antiseptic Respirator. The plain absorbent, which is recommended for general use in hospitals, does not in price and quantity exceed that of ordinary cotton wool, to which, in many respects, it is far superior. The varieties of impregnated sedox are remarkable for the evenness with which every part of the material is charged with solution, which is but rarely the case with any form of cotton wool. The sanitary sheets are very effective, being comfortable in use, antiseptic, soft, and have a non-absorbent side which renders them practically waterproof. The sanitary diapers have like recommendations, and are soft and convenient for travelling purposes. Packets of sedox in tin boxes are specially prepared for doctors to carry about for daily use. The dressings are thus kept free from dust. They are so arranged that the quantity required can easily be detached without taking out the contents of the box.

Messrs. OPPENHEIMER AND Co. (14, Worship Street, E.C.) had a prominent and well-arranged exhibit. Among the leading objects shown were numerous samples of the "Palatinoid" and "Bi-Palatinoid" form of medication. Much interest was evinced in the experiments conducted to show the formation, by means of the Bi-Palatinoid, of the pure unoxidised ferrous carbonate, phosphate, arseniate, and hypophosphites. The latter is a new introduction by the firm, each "Bi-Palatinoid" being equivalent, when dissolved, to a teaspoonful of the compound syrup of the hypophosphites. The ease with which these cleverly devised duplicate pilules can be swallowed was evidenced by the facility with which the ladies present swallowed the little "Palatinoids" of sugar which were placed upon the stall for trial. This firm have also introduced several additions to their Concentrated Liquors, among which was noticeable the Liquor Helaline et Culverine Co., which is claimed to be a most valuable hepatic stimulant, and useful in the treatment of hæmorrhoids; Liquor Helaline et Pepsinæ Co., suggested for prescription in cases of certain digestive and liver affections; and Liquor Glatrucenæ Co., a powerful astringent for the treatment of gonorrhœa, leucorrhœa, etc. Prominence was also given to the Cream of Malt, Oil, and Hypophosphites, a preparation which has found much professional favour in the treatment of consumption and rickets. Other pharmaceutical preparations of this firm, which have been for some years before the medical profession, were present, such as their Liquor Euonymin et Pepsinæ Co. and their Liquor Caulophyllin et Pulsatillæ Co., which have before been favourably reported upon in these columns.

Messrs. BRAND AND Co. (Little Stanhope Street, Mayfair) showed specimens of their highly reputed specialities for invalids: Essences and Concentrations of Beef, Mutton, Veal, and Chicken consisting of the juice of meats without the addition of water or any other substance; Savoury Meat Lozenges, Myolac, Malto Beef, and Mulligatawny, supplying to invalids and travellers substantial support in a simple and convenient form; Beef-Tea Jelly, consisting of beef-tea of three times the ordinary strength; Invalid Turtle Soup and Jelly, prepared for invalids from fresh West Indian turtle; Albuminous Extract of Beef consists of the juice of the beef, with a portion of albuminous, fatty, and fibrous element; Mutton Jelly and Chicken Jelly, of recent introduction; Digestive Meat Biscuits, prepared from whole wheat meal and the extractive and fibrous constituents of meat; Peptones of Beef, Mutton, Veal, and Chicken, containing not only the stimulating and soluble constituents, but also the nutritious fibrine and albumen in a dissolved state; and other useful and ingenious food preparations of a palatable character.

C. J. HEWLETT AND SON (35 to 42, Charlotte Street, London) had a considerable display of New Drugs and Fine Chemicals. Among others Cactus Grandiflorus, for which is claimed by many physicians the advantage over digitalis of being most useful in asthenic conditions of the heart; Dr. Engstad records its successful employment as a cardiac tonic in typhoid fever after the failure of strychnine and digitalis; Dr. O. Jones[1] and Dr. Hale reported favourably as to its value in strengthening the heart and improving the circulation. Also their Europhen, Dermatol, Ichthyol, Pental, Phenocoll Hydrochlorate. Among other special pharmaceutical preparations is their Mist. Pepsinæ Co. cum Bismutho, much used for the last fifteen years in pyrosis, dyspepsia, constipation, and diarrhœa connected with atony of the visceral muscular coat; their Liquor Santal Flav. cum Buchu et Cubebâ; their Sol. Opii Purif., which is little likely to give rise to headache, furred tongue, and other disagreeable after-effects; Liq. Ergotæ Purif., a trustworthy and reliable preparation adapted for obstetric practice; their Liquor Podophyllin, perfectly miscible with water, infusions, tinctures, etc.; in a portion of the inert acrid resinous matter there is obtained a soluble podophyllin containing all the active principle, podophyllotoxin. Their Extract Cascara Liquid Miscible, a miscible and tasteless fluid extract of cascara: Antiseptic Cream, Antiseptic Jelly (Otto), introduced as a lubricant and ointment for the use of surgeons and gynæcologists, and containing 1 part in 1,000 of perchloride of mercury; Antiseptic Pellets, containing perchloride of mercury, for the rapid preparation of powerful antiseptic solutions; with these pellets a solution can be made in ordinary tap water, containing lime salts, without any precipitation occurring. Their Clinical Tests for Urine Analysis are stated to combine accuracy with simplicity of detail to the medical analyst. They are arranged as follows:—Alkaline Bismuth Test for Sugar, put forward as an improvement on Fehling's solution. It is stable and colourless, and when boiled in the proportion of 1 part of urine and 9 parts of reagent darkens to deep black, according to the proportion of sugar present. Trichloracetic Acid Test for Albumen does not precipitate peptones, like ferrocyanide of potassium, or coagulating mucin as is the case with nitric acid and heat, or of precipitating alkaloids like picric acid; it is delicate, and no heat is required. Sulphanilic Acid Test for Typhoid Fever—on mixing this test with a typhoid patient's urine, previously rendered alkaline with ammonia, a red colour is produced, constituting, it is said, an early and pretty constant sign of the disease.

SEABURY AND JOHNSON (46, Jewin Street, London, E.C.) showed a large series of their admirable well-known Surgical and Medicinal Plasters (in rubber combination).—Adhesive (Seabury's) in various forms; Adhesive (Mead's) in various forms; Aconite, Ammoniac and Mercury, Arnica, Asafœtida, Belladonna, Blister, Capsicum, Dermatological Plasters, Iron, Opium, Soap, Strengthening, Dr. Penny's Adjustible Elastic Adhesive Strips; Breast Plasters: Belladonna, Belladonna and Phytolacca Decandra, Lead; Seabury's Mustard Plasters, Surgeons Isinglass Plasters; Surgical and Antiseptic Dressings; Seabury's Plaster-of-Paris Bandages. Plaster-of-Paris is liable to lose the quality of rapid hardening unless kept in an air-tight package. These bandages are made of dental plaster in suitable containers, and set rapidly and firmly, a matter of importance in the many uses of plaster-of-Paris in surgical practice. The Antiseptic Dressings were of great variety and excellent quality. Ligatures and Sutures—every ligature previously sterilised and tested for strength. Their new Ligature Bottle consists of glass spools on hard rubber standard, with the strings drawn through a rubber cork, protected with a metallic screw cap. Sterilised Gauze, in screw-capped hermetically sealed glass jars, sterilised by heat after packing and sealing. Each jar contains five yards of gauze which unwinds from the centre, so that the required length

[1] BRITISH MEDICAL JOURNAL, January, 1890.

can be cut off without removing the entire piece. Sulphur Candles: One candle will burn for two hours, and thoroughly disinfect a room of ordinary size. Toilet Soaps, medicated with boric acid 5 per cent., salicylic acid 5 per cent., hydronaphthol 1 per cent., sulphur 7½ per cent. Sanitary Cuspidores, or Spitting Cups, for use in phthisis, etc., which consist of a waterproof paper cup, inserted and retained in a metal frame. After using, these cups are easily removed (should be destroyed by burning, if possible, so as to obviate all risk), and replaced by new ones.

The chief exhibit by the Aylesbury Dairy Company (St. Petersburgh Place, Bayswater, London), in addition to a varied series of Koumiss preparations, was their Humanised Milk. This admirable preparation is finding increasing favour with medical men. It is scientifically devised and prepared with extreme care. It is a food for children from birth, complete in itself, without any addition. It is free from added cane sugar and from any preservative chemical. The sale of this food has, it is stated, more than doubled during the last few months, and that it will exceed 100,000 bottles this year.

Willows, Francis, and Butler (100, High Holborn, W.C.) showed specimens of their new Oxy-Iodine Compounds: Liquor Calcis Iodinatæ, a recently discovered compound of lime and iodine, alleged to be "very superior in efficacy to the iodides of potassium, sodium, etc.," and put forward as a powerful antiseptic, deodorant, and parasiticide. Liquor Potassæ Iodinatæ, similar in properties and uses to the preceding; Bismuth Oxyiodide, red and yellow, new antiseptics, for which superiority is claimed over iodoform. They also exhibited a collection of improved pharmaceutical liquors, syrups, and other products. Liquor Hypnoticus, an agent for inducing sleep, free from unpleasant after-effects. Some New Antiseptics:—The Augean Soap Sheets, being thin sheets of medicated soap, put up in a small tin box, which can be carried in the waistcoat pocket. Solutio Picis Carbonis makes a powerful antiseptic lotion for dressing wounds, etc. Thymol Cream, in collapsible tubes for obstetric use.

The Apollinaris Company, Limited, showed their natural mineral water, for which the claims made were based upon: its absolute purity, its alkalinity, its effervescence and agreeable flavour. Apollinaris is now used in all parts of the world, and in these choleraic, and, indeed, at all times, renders, as Dr. Herman Weber—the leading medical authority on Continental travels—has pointed out, a great service in supplying an absolutely pure and agreeable table water available in every part of the world, and freeing residents and travellers from the dangers inherent in the suspicious and even dangerous potable water which is the cause of so much disease and so many lamentable deaths. It has for many years served a valuable end by becoming a welcome guest at banquets, clubs, and in homes, while its sparkling and refreshing quality has largely substituted it for the use of strong drinks formerly so freely imbibed on festive occasions. It mixes agreeably with the lighter wines, and is a favourite diluent of cognac and whisky. They also exhibited their well-known Hungarian aperient water distinguished by its red diamond mark, and Friedrichshall Water of old-standing repute, and now so bottled as to show nearly 25 per cent. greater strength than in former years before this company undertook its sale.

The Woodhall Spa (Lincoln) showed their powerful Bromo Iodine Mineral Water used in the treatment of rheumatism, gout, uterine complaints, scrofula, etc. A Mutter Lauge for external use only; prepared from the bromo iodine water; efficaciously used as a compress in enlarged joints, sore throats, chronic eczema, and other skin diseases. The Natural Bromo Iodine Salt is recommended as an adjunct to the water to be taken with meals. A Granular Effervescing Salt is also prepared.

The Johannis Company, Limited (25, Regent Street, S.W.). —The Company's springs are situated at Zollhaus, Nassau, Germany. It ranks amongst carbonated and alkaline waters, also contains traces of lithia. The following is put forward as its analysis: Carbonate of lime, 0.460 g.; carbonate of magnesia, 0.186 g.; carbonate of soda, 0.882.; carbonate of lithium, traces; chloride of sodium, 0.034; sulphate of sodium, trace; oxide of iron, 0.012; silica, 0.009. Total solid contents per litre, 1.083. Carbonic acid (CO_2) 99.65.

The Frame Food Company (Lombard Road, Battersea, S.W.) showed the Frame Food Extract, obtained by exhausting wheat bran of its soluble nutriment; the extract, when added to white flour, restores to the latter the main ingredients of which it has been deprived by being separated from the bran; the extract may also be mixed with all kinds of farinaceous foods, or as a substitute for extract of meat into gravies, soups, etc. The extract contains over 10 per cent. of soluble phosphates. The Frame Food Diet is a cooked food, fortified by the addition to it of "Frame Food" Extract; the starch being converted into dextrine it is also easy to digest. The "F. F. jelly is made by boiling "F. F." Extract with sugar down to a jelly; it is therefore extremely nourishing. It possesses the properties of malt extract, and is very palatable, so that it is eaten readily by children in place of jam. The extremely low price, 7d. per pound in one-pound, and 6d. per pound in three-pound jars, brings it within the reach of all classes.

The Bouillon Fleet Company, Limited (Warner Road, Camberwell, S.E.) exhibited their Bouillon Fleet or Fluid Beef Tea, containing a large percentage of peptone; nourishing and of easy digestion; Kemmerich's Extract of Beef, which is described as being produced at Santa Elena, by Professor Dr. Kemmerich, from prime lean beef only; Peptone of Beef, specially suitable for invalids; Bouillon Fleet Lozenges, specially suitable for travellers, rich in peptone.

Robinson and Sons (Wheat Bridge Mills, Chesterfield, and 55, Fann Street, Aldersgate Street, E.C.) showed their Specialities in Surgical Dressings, Absorbent Cotton Lints, Flax Lints, Roll Bandages, Cotton Wools, "Gamgee Tissue" (Patent Absorbent Gauze and Cotton Wool), and a good Series of Antiseptic Dressings.

George Mason and Company, Limited (King's Road, Chelsea, S.W.), showed their Essence of Beef, Concentrated Beef Tea, Concentrated Meat Lozenges, "O.K." Bouillon, and Malted Food for Infants, containing the nitrogenous elements of farinaceous food in a palatable and concentrated form; in a semi-digested condition readily assimilated.

Cadbury Brothers showed a very attractive exhibition of their pure Cocoas and Chocolates, and pastilles, and bonbons in a great variety of forms. Their products have a world-wide and well-earned reputation, and seemed to be much appreciated.

Leamington Town Improvement Association (150, Parade, Leamington) sent specimens of Leamington Waters, both saline and chalybeate, bottled in the natural state, and also in concentrated form, and specimens of the natural salts, obtained from the waters.

Messrs. Ingram and Royle (52, Farringdon Street) showed the far-famed Carlsbad Waters and the Natural Carlsbad Sprudel-Salt containing all the essential ingredients of the Carlsbad "Sprudel" Mineral Water, from which it is obtained by evaporation. It is alkaline, and readily soluble either in warm or cold water. To obtain an aperient action from Carlsbad Mineral Waters it is recommended that a teaspoonful of the salt, previously dissolved in a little hot water, should be added. The fact is that Carlsbad Natural Mineral Water is in itself but very slightly aperient, and the duly prepared properly evaporated Sprudel Salt is hardly at all so. But for a long series of years the product issued from the springs as Carlsbad Salt was evaporated under such ill-devised conditions as to drive off nearly everything but the sulphate of soda, and hence the Carlsbad Salt, which was in fact little more than a Glauber salt in powder, obtained a great reputation, which no doubt it clinically well deserved as a good aperient. It is one of the most curious examples of medical superstition that nevertheless a mysterious power was ascribed to it which Glauber salt did not possess, although in fact it was nothing else. This curious blunder, which was quite unintentional on the

part of the municipal authorities and proprietors of the spring, having been discovered by a Vienna chemist, has now been rectified by a slower and more correct method of evaporation at a lower temperature. The result is that it is now recommended to take as much as two teaspoonfuls of this salt in warm water to get a mild aperient action. On the whole, however, we confess this seems to us rather a clumsy and scientifically unsatisfactory mode of administering an aperient. Vichy water from the Grande-Grille, the Celestins, and the Hôpital, alkaline waters of which the reputation is of long and old standing, and which are bottled under the supervision of Government officials. The Vichy Salts are put up in a convenient form of pastilles, and are used, among other things, in certain forms of indigestion.

FLITWICK CHALYBEATE CO., 63, High Street, Borough, S.E.—Flitwick is a remarkable English medicinal spring discovered in Bedfordshire, which as bottled shows in each gallon more than 170 grains of iron as persalt in a nearly neutral solution. A powerful iron water of this kind is obviously of considerable value in the therapeutic treatment of a wide range of affections. The water is pleasantly acid to taste, and does not blacken the teeth.

MESSRS. HERTZ AND COLLINGWOOD (4, Sussex Place, Leadenhall Street, E.C.) showed the "Levico" Water (powerfully Arsenio-ferric), for which are claimed the following advantages: (1) Perfect assimilation of the iron; (2) does not blacken the fæces; (3) does not blacken the teeth; (4) does not impair digestion; (5) does not constipate. It is used in anæmic conditions where iron and arsenic are indicated. Also the Franz Josef Saline Aperient Water and the Rosbach Table Water.

B. KUHN (36, St. Mary-at-Hill, Eastcheap, E.C.) had an interesting exhibit of Papain, etc. There were photographs showing the growth of the remarkable vegetable digestive Carica Papaya or Melon Tree, its Preserved Fruit, Seeds, Succus, and crude Papain. Papain (Dr. Finckler and Co.) in various original packages. Amongst the series of preparations were noticeable: Lozenges (containing each 2 grains papain), a very nice form of administering papain. Amongst the Liquors the more important ones were: Liquor Papaïn et Acid Glycerine, Liquor Papaïn et Bismuth, Liquor Papaïn et Iridin. To show the action of papain on meat, a bottle was exhibited containing the digested part of 4 ounces of fresh lean beef. The process of digesting it was the following: Quantity of meat, 4 ounces; quantity of liquid, 6 ounces; quantity of papain, 19 grains. Temperature, 90° F. This mixture remained acid (0.3 per cent. H.Ch.) for three hours, then was rendered alkaline, and left for seventeen hours. Result: 97.4 per cent. digested; 2.6 per cent. residue, consisting of fibre, etc. This exhibit was interesting as showing the action of papain as nearly as possible as taking place in the human body. Papoid Pepton, the predigested albumen of fresh beef, was shown in powder form, granular form, and mixed with cocoa to the extent of 34 per cent. papoid. Pepton not only adds to the nutrient value of cocoa, but also, it is claimed, renders the latter more digestible. Exalgine, a recent analgesic in crystal and powder form. The latest literature gives particulars as to making an aqueous solution of exalgine, which has been found useful for hypodermic injection. Syzygium Jambulanum; Specimen of Seeds and Bark, also of a dry Extract, which has been found by Continental authorities the best form for administering the drug in cases of diabetes mellitus, for which it has been recommended.

JEYES' SANITARY COMPOUNDS CO., LIMITED, (43, Cannon Street, E.C.) showed Creolin, "a preparation, it is claimed, of the highest homologues of phenols, free from carbolic acid, and non-poisonous. More refined than Jeyes' Fluid, being used for antiseptic purposes, while Jeyes' Fluid (recently ordered by the German authorities in enormous quantities for Hamburg) is employed for general disinfection—an efficient substitute for carbolic acid, corrosive sublimate, and iodoform." Lano-Creolin, an ointment made with unguentum lanolini, containing 5 per cent. of creolin, prepared for use for wounds and skin affections. Creolin Gauze contains 10 per cent. of creolin. Creolin Surgical Dusting Powder in boric acid, containing 10 per cent. of creolin; used in surgery like iodoform. Creolin Surgical Soap (10 per cent.), for use before and after operations. Creolin Plaster (St. Dalmas) contains 5 per cent. creolin, and a non-irritating antiseptic dressing. Creolin Capsules contain 5 minims of creolin in each; successfully given in zymotic diseases. Jeyes' Fluid, a less refined preparation than creolin, non-poisonous, disinfectant. "Universal Perfect Purifier," a more refined preparation of Jeyes' Fluid, for medical use. Sanitary Powder, for stables, kennels. etc.; a non-poisonous substitute for carbolic, etc., and other preparations for toilet use. Jeyes' Automatic Disinfectant Distributor is an ingenious machine made for placing inside water waste preventers, for automatically disinfecting each discharge of water, thus making the discharge itself a purifying and disinfectant agent.

MESSRS. A. P. BUSH AND CO. (1, Gresham Buildings, E.C.) showed Root's Cuca Cocoa and Chocolate, the merits of which are well known and need no comment. Bush's Liquid Beef, a concentrated raw food condensed, it is stated, by an entirely new process, which preserves all the nutritive principles of carefully selected beef.

MESSRS. BATTLEY AND WATTS (Cripplegate) exhibited their well-established Liquors. The firm were the original makers of both fluid and solid extracts, and Battley's Solution of Opium still holds its own in the first rank of hypnotic preparations. This firm, perhaps the oldest in the trade, showed also two new preparations, and not merely new but useful—Liq. Iodi Alb. (Battley's), a preparation of free iodine in oil rendered colourless, but not with strong alkalies, thus keeping the iodine as iodine, and not as an iodide; Syrup Quatuor Hydrobrom., a preparation of the four hydrobromates, combining the tonic effects of the hypophosphites without keeping the nervous system at high tension.

MESSRS. MACKESSON AND ROBBINS, New York (MAW, SON, AND THOMPSON, London).—This firm, as the manufacturers of the Ovoid Capsuled Pills, showed specimens of the various pills contained in their extensive formula list; also an interesting novelty in the shape of a new vehicle, in which many drugs may be administered locally, and which appears to be a very desirable adjuvant in insufflation. This is the compound stearate of zinc, which has properties specially recommending it as a vehicle in naso-pharyngology and dermatology. It has a very low specific gravity, and hence a small quantity covers large areas; it is very adhesive both to the skin and mucous membrane; and is impenetrable to aqueous liquids. If a small quantity of the Compound Stearate be lightly rubbed on the palm of the hand, water may be dropped upon the hollowed surface and shaken off again without wetting the skin. Analysis indicates it is a neutral preparation, in which the fatty acid and zinc are in a state of chemical combination, and that there is no oleic acid present to decompose or become rancid. It is free from any adulteration or admixtures which might cause irritation to the skin or mucous membrane. The Compound Stearate of Zinc is thus well adapted for use in combination with acid, boric, salicylic, tannic, aristol, balsam peru, bismuth, subgallate, chrysarobin, cocaine, europhen, exalgine, gallacetophenone, ichthyol, iodoform, menthol, resorcin, rhubarb, salol, sulphur, and tar, either for insufflation or for application to morbid conditions of the skin, which it will cover and protect without soiling the clothing. For applying this light mollescent precipitate to the naso-pharynx, Messrs. Mackesson and Robbins have designed a new apparatus—the Pulverflator—which is provided with an ingenious device to sift through bolting cloth all the powder used, and so render this method of medication safe and effectual. The preparations appear to be an advance upon the oleates.

MESSRS. DUVAL AND CO. (68, Great Tower Street, E.C.) showed Paoa Champagne, 1884 vintage, containing papain and kola nut, a scientific digestive stimulant in a seductive form.

MESSRS. FORBES AND CO. (8, Coleman Street, E.C.) showed a variety of preparations, among the most interesting of which

is their registered compound, Cocaine Jelly, for obstetrical purposes. It is a yellow translucent jelly, having a melting point of about 95° F., and is introduced by means of a common glass female syringe, passing it as high up in and around the uterine cervix as possible. The pains due to pressure, dilatation of the cervix, and expansion of the perineum, are stated to be markedly relieved by its use. In acute earache a small quantity applied on a camel hair pencil is said very rapidly to relieve pain. The Compound Cocaine Jelly is made of two strengths, No. 1 for ordinary cases, and No. 2 for protracted labour. Such a preparation seems likely to serve many useful purposes in practice, and some medical reports before us give a favourable account of it.

Mr. M. Hoff (24, New Bridge Street, E.C.) exhibited his well-known Hamburg Hoff's Malt Extract, which seemed to be as popular as at many former exhibitions.

The Anglo-Swiss Condensed Milk Company (Mark Lane) showed their famous Swiss Milkmaid Brand of Condensed Milk, which has been more than once shown to contain all the original cream of milk with nothing added but fine cane sugar. This was the original milk introduced into Europe by this company in 1866, and analysis by Mr. Bernard Dyer of the milk of this brand with that of many other brands, indicates the great superiority over many well-known brands, especially with reference to the fat contained in them. This aspect of the subject is one of a good deal of importance, as there is little doubt that a good deal of the condensed milk of certain brands is made from condensed skimmed milk, and this is obviously a matter of serious injury, especially to the children of the poorer classes, many of whom are brought up on such condensed skim milk. This question deserves attention from public analysts. We shall investigate the matter further, and report on it at a later date.

Messrs. Feltoe and Co. (25, Augustus Street, Regent's Park, N.W.) showed their much-praised Specialité Lime Juice Cordial.

The exhibit of Messrs. Parke Davis and Co.'s. (43 and 44, Holborn Viaduct) products at Nottingham meeting were of a varied nature, among others a large assortment of Fluid Extracts, Gelatine and Sugar Coated Pills in many colours, oval and round; Tablet Triturates; and a Pepsin which they label and market as one grain capable of dissolving 4,000 grs. of albumen, according to the standard test for showing comparative strength of pepsin. For this purpose a very ingenious Pepsin Tester was in working order on their exhibit table. This tester is made to work automatically by the use of a small stream of water; it is intended to show the different strengths of pepsin under similar circumstances. Mosquera's Beef Products: A short time ago it was discovered that pine-apple contained a ferment capable of digesting proteid matter, a singular property that has been made use of in the preparation of the food product named. The process consists essentially in digesting fresh beef with the juice of the pine-apple, until the proteid tissue is partially peptonised, and then desiccating the product. A dietetic beef preparation should contain all the constituents of the meat, and they must be present in a state of fine subdivision. The albuminates should be largely in the form of peptones. The fat should be finely emulsified, that it may be rendered readily absorbable. The product should prove permanent, and palatability must not suffer. These requirements are well kept in view and fulfilled in Mosquera's Beef Meal, which is likely to take a prominent position amongst dietetic nutrients and in medicinal treatment, while it may also serve as a substitute for fresh meat where the latter is not procurable. The Beef Cacao is a mixture of equal parts of Beef Meal, powdered Dutch chocolate and sugar, which being added to hot milk makes a palatable and nourishing beverage, having no "meaty" flavour. Mosquera's Beef Jelly somewhat resembles in appearance ordinary beef extracts, but differs materially in composition and effect. It is soluble either in hot or in cold water, forming a nourishing and refreshing tea. For rectal alimentation, the Beef Jelly would be preferable in some cases to Beef Meal, on account of its solubility, thus favouring rapid absorption; but either may be used as occasion demands. The Soluble Tablets of Parke Davis and Co. are of special convenience to the physician at the bedside of the patient. The practitioners at the patient's bedside, has often neither time nor apparatus to accurately measure or weigh the alkaloids and powders he may desire to use, and he is therefore in a position to appreciate the availability of every device calculated to simplify the accurate exhibition, and application of ex remely active therapeutic agents. The great advantage of Tablet Triturates is their adaptability to this purpose. The list of these preparations includes over 600 formulæ, of which full details are given. Fluid Golden Seal, Colourless (P. D. and Co.) has been much recommended for catarrhal inflammations, but the intense bitterness of its preparations restricts its use in internal medication, while the hitherto persistent yellow stains it produced when applied topically are a source of complaint. This solution is designed to be in every respect the equivalent of the fluid extracts, in doses already familiar. It is largely free from the disadvantages mentioned. The label states the exact formula.

Messrs. Kutnow and Co. (66, Holborn Viaduct, E.C.) showed an improved effervescent Carlsbad Powder, decidedly more palatable than the ordinary Carlsbad powder evaporated at the springs, of which it reproduces the therapeutic effects, while effectually covering the nauseous taste and objectionable bitter flavour of sulphate of soda. It is gentle, effervescent, and is a very efficient and agreeable aperient. They exhibited also an Anti-asthmatic Powder with nitrate of potash as a basis and some herb mixture, of which the composition, however, is not stated, but it is declared to be free from lobelia or datura tatula, which have a lowering effect, and are sometimes liable to cause heart complications. Good clinical evidence is produced of its value in many cases, and it seems to have found favour with leading medical journals and members of the profession.

Messrs. R. Warner and Co. exhibited through their agents (Messrs. Newbery, King Edward Street, E.C.) a striking selection, attractively arranged, of well-known Sugar-coated Pills and Granules. Among them were Antalgic Saline, an effervescent salt, containing in each dessertspoonful antipyrin 4 grs., salicylate of soda 4 grs. Prescribed in cases where antipyrin is used, and it is claimed with better and more certain results. Bromo-soda, an effervescent bromide of sodium with caffeine. Valuable in some nervous affections. Antiseptic Pastilles: Intended to be dissolved in water, and so to form an antiseptic solution to be used as a nasal application or as a spray. Ingluvin (from the *Ventriculus Callosus Gallinaceus*): Often a highly efficacious agent in vomiting of pregnancy; prescribed in the same manner, doses, and combinations as pepsine. Sugar-coated Pills and Granules: The enclosed drugs being protected from oxidation, as exemplified specially in the case of Blaud's Pill, Phosphorus, and its combinations. Parvules: Minute pills for frequent administration, for children and adults. It is considered by some practitioners that small doses frequently repeated exert a more beneficial effect than that resulting from the same drugs exhibited at longer intervals in the ordinary dose.

The Liverpool Lint Co. (Netherfield Road North, Liverpool) exhibited some excellent specimens of Surgical Dressings, comprising Cotton and Flax Lints, Bandages, and Cotton Wools, a *specialité* of the latter being the rolls interleaved with tissue paper to prevent felting between the layers. A novelty named "Lustral" was shown for the first time; this material is intended to take the place of cotton wool, in comparison with which much superior properties are claimed. It is found to be more highly absorbent, taking up sixteen times its own weight of liquid, is silky in appearance and feel, possesses the natural coolness of flax, and will not, it is promised, clot and become hard round the immediate area of a discharging wound. Other specialities shown were Protective Lint and Splint Padding, dressings that have obtained much favour, and have come largely into use. An excellent display was made of Chest Protectors, Body Belts, and Undervests made from a fine all-wool stockinette material at once light and elastic, the necessary warmth-retaining properties being obtained by raising on one side of the material a close, thick, and soft fleece, or pile not unlike the surface of a fine lint.

These articles will not retain the perspiration and become cold and clammy, but allow free evaporation, and are sold under the titles of "Health" Chest Protectors and "Transpirable" Belts and Vests.

Robertson and Co. (Operative Chemists, 35, George Street, Edinburgh) showed an excellent series of preparations; among them their valuable Acidified Perchloride of Mercury Pellets for immediate formation of an Antiseptic Solution, as originally introduced; Berozine Cream, Antiseptic Dusting Powder, original preparations for the skin. Borozine is designed to combine the emollient properties of oxide of zinc, with the antiseptic and detergent effects of boric acid being a chemical combination of these substances; it is especially recommended in cases of skin irritation. Flexible Gelatine Capsules; Bland's Ferruginous Pill Mass in Capsules, by patent process for forming nascent carbonate of iron after administration. These are capsules containing the genuine Bland's Pill Mass, and they form an admirable preparation of iron, which has a well-established reputation. Sulphonal in Capsules by special patented process, getting over a frequent difficulty in administering this valuable hypnotic, and an extensive variety of other drug combinations in capsules. Granulated Effervescent Preparations of excellent character, and a number of Glyco-Gelatine Pastilles for the exhibition of various potent drugs in a palatable form. Their Vaseline Combinations for use as an antiseptic dressing in midwifery and in surgery contain the various medicaments in a soluble and homogeneous form; they are put up in collapsible tubes of 1, 2, and 4 oz. each, a most convenient form of carriage for the busy practitioner.

Messrs. Allen and Hanburys exhibited, in addition to the usual features, some noteworthy New Foods for Infants. We believe that this is the first time that it has been attempted to introduce a series of foods with the view of meeting the requirements of an infant during the successive various stages of development of its assimilative powers. It is desired to gain experience of their keeping properties, which is very important from a commercial point of view. Several leading physicians, however, have made important experiments with them, and are greatly pleased with the result, and before long they are likely to be brought prominently to the notice of the profession. These preparations are of more than ordinary interest. No. 1 Food, designated "First Food for Infants," is believed to be specially adapted to infants from birth to 3 months of age. It is prepared from fresh and carefully selected cow's milk (the proximate composition of which has been first ascertained), by removing the excess of casein, and adding sufficient cream (fat), albumen, and milk-sugar to bring up the quantities of these constituents to the required standard. The resulting food is then sterilised, concentrated *in vacuo*, and preserved in hermetically closed vessels. No. 2 Food, designated "Mother's Milk Food," is specially adapted to infants under 7 months of age. It is designed for infants of 3 months of age and upwards. At this age it is thought desirable to supply, in addition to the required nutriments in due proportions, some slight stimulus to the exercise of the digestive functions. This food consists of the No. 1 Food, with the addition of some maltose and a small proportion of dextrine, with some soluble phosphates resulting from the mashing of crushed whole wheat with barley malt. The presence of a certain proportion of dextrine supplies the desired stimulus to the digestive functions, and the whole having been filtered in the liquid condition, no unconverted starch exists in the food. It is therefore entirely free from any tendency to produce the injurious effects sometimes resulting from the use of farinaceous foods, even if it is given at a very early age. The food is finished by concentration in vacuo, and packed in close vessels. It is very palatable, and, like the "First Food," is a complete food, containing the milk required and only needing the addition of hot water. This is a point to be borne in mind in reference to cost. A yet more important point is that the milk is sterilised, and therefore cannot convey the germs of disease often present in cow's milk. It is also uniform, an advantage difficult to secure when fresh cow's milk is used. No. 3 Food, designated "Malted Food," is specially adapted to infants of 6 months of age and upwards. It is the food which Messrs. Allen and Hanburys have made for many years. The large experience gained during this period has abundantly indicated the value and practical efficacy of this food. The basis of this food is fine wheaten flour specially selected for its richness in nitrogenous constituents. This is carefully subjected to heat, and then to the action of a proportion of malt extract, sufficient to ensure the conversion of a large proportion of the starch; it is then carefully dried at a gentle heat. Another special object in the exhibition of this firm were some new forms of ozonisers for the production of ozone in the sick room or wards of a hospital. Hitherto apparatus for produciug ozone has either been expensive or not adapted to generate the gas in large quantity. These difficulties have been overcome, and now, by means of an apparatus recently designed and patented by Mr. Emile Andreoli, this valuable disinfectant and stimulant is rendered available for use in private houses and hospitals at a very moderate cost. The older forms of apparatus were generally tubular, air or rather oxygen being sent through a passage of minute dimensions between two concentric glass tubes; such tubes, fitted with electrodes, were necessarily costly, and required to be employed in considerable numbers, in order to produce any sufficient supply of ozone. Further, some apparatus was always needed in order to drive the oxygen or air through the ozonizer, even when only quite small quantities were desired, as for diffusion in an ordinary room. The invention of Mr. Andreoli is based on the well-known tendency of electricity to flow off from a point, and the characteristic feature of his apparatus is that the electrodes (one or both) bear numerous points. The advantage thus gained is that the apparatus will work in the air of any apartment, the ozone, as formed, diffusing through the room without any tube or other enclosure, or any mechanical means for producing a draught. For other purposes, the apparatus, which is relatively inexpensive, can be placed in a case through which oxygen or air is driven, whether by machinery or by an apparatus similar to that used for producing sprays; and the ozoniser can be repeated any number of times, or be of any form or dimension to suit the enclosing case, according to the quantity of ozone to be produced. The supply of Mr. Andreoli's apparatus has been undertaken by Allen and Hanburys, of Plough Court, Lombard Street, E.C., and of 7, Vere Street, Cavendish Sqaure, W.

Meaby's Triticumina Co. (7, St. Paul's Churchyard, E.C.) showed Malted Wheat Food for Infants, Children, and Invalids, and Entire Wheatmeal Digestive Bread, the starch of which has been largely converted to dextrine by the special mode of malting the wheat prior to grinding into meal.

The Bovinine Co. (32, Snow Hill, E.C.) showed their Bovinine, which is now thoroughly well known in the profession as an excellent preparation of the juice of lean uncooked beef in which the nutritious albuminoid elements are preserved, in addition to the meat salts and extracted matter. It contains 20 per cent. of coagulable albumen, and has deservedly found general favour in respect to its excellence, efficiency, and economy. It has from the first (1878) been introduced strictly to the profession, and is being largely used in cases of mal-nutrition or mal-assimilation, convalescence, in diarrhœic and dysenteric conditions, and for other cognate purposes.

THE GRESHAM UNIVERSITY.

The Royal Commissioners, to whom the question of an efficient teaching university for London has been referred, have already held twenty-three sittings, and the Commission now stands adjourned until October 13th.

The terms of the Commission, it will be remembered, are made so wide that they will cover all projects which may be thought worthy of consideration for including the existing London University in any scheme.

The new Commission does not contain the names of any of the members of the old Commission, but Mr. James Anstie, Q.C., B.A., who gave evidence before the Commission in 1888, is a member of the new Commission.

The witnesses who have been examined, and who also gave evidence before the old Commission, include the following gentlemen: Mr. William Henry Allchin, M.B., F.R.C.P., M.R.C.S., Physician and Lecturer to Westminster Hospital and Examiner to the Royal College of Physicians; Sir Andrew

Clark, Bart., LL.D., M.D., President of the Royal College of Physicians, Physician and Lecturer on Clinical Medicine at the London Hospital, and ex-President of the Clinical Society; Mr. William Job Collins, M.D., M.S., B.Sc., F.R.C.S.; Mr. John Eric Erichsen, LL.D., F.R.S., member of the Council of the Royal College of Surgeons and of the Council of University College, and Consulting Surgeon to the Hospital; Sir Joseph Lister, Bart., D.C.L., F.R.S., member of the Council of the Royal College of Surgeons, Surgeon to King's College Hospital, and Fellow of University College; Mr. Norman Moore, M.A., M.D., F.R.C.P., Warden of the College, Assistant Physician and Lecturer on Comparative Anatomy at St. Bartholomew's Hospital; Sir James Paget, Bart., F.R.S.; Mr. William Overend Priestley, M.D., LL.D.; and Mr. Frederick Taylor, M.D.Lond., F.R.C.P., Senior Assistant Physician and Lecturer at Guy's Hospital.

Other witnesses include Mr. Stanley Boyd, M.B., B.S., F.R.C.S.; Thomas W. Shore, M.D., B.Sc.; W. Howship Dickinson, M.D., F.R.C.S.; Herbert William Page, M.A., M.B., M.C., F.R.C.S., Surgeon and Lecturer at St. Mary's Hospital; J. Frank Payne, M.D., B.A., F.R.C.P., Physician and Lecturer at St. Thomas's Hospital; G. Spence, M.B., M.S., F.R.C.S.; E. A. Schäfer, F.R.S., Jodrell Professor of Physiology at University College and Lecturer on Chemistry to the London School of Medicine for Women; J. Whitaker Hulke, F.R.S., member of the Council of the Royal College of Surgeons, and of Middlesex Hospital, President of the Pathological Society, and Fellow of King's College; H. G. Howse, M.S., M.B., F.R.C.S., Surgeon and Lecturer on Anatomy to Guy's Hospital; C. Macnamara, Surgeon and Lecturer to Westminster Hospital and Fellow of King's College; Mr. Liveing, and Mr. Boor Crosbie, who was called on behalf of the Gresham Committee.

Mr. James Anstie, Q.C., B.A., who is a member of the Commission, gave evidence before the Commission of 1888, and upon that occasion he said that he considered a teaching university would injure the University of London more than any other teaching university in the kingdom, as it would withdraw from the University of London the whole of the teaching apparatus and teaching power and resources of the metropolis. The question of obtaining the University of London degree in addition to other degrees principally applied to the medical degree; but if a new medical university were established in London—and he did not see how it could be possibly avoided if any teaching university were established in London—it would have itself possession of all those resources and means and appliances necessary to medical education; and, on the ordinary principles of human nature, it would undoubtedly give a degree of the very highest kind, and one that could not be outstripped by any university, so that there would no longer be any motive for taking the University of London degree. And such a university would, no doubt, give ordinary degrees, too. A teaching university in which examinations were conducted by the teachers, with additional examiners, would, for the reasons he had stated, necessarily annihilate the University of London, and would reduce it to an institution for provincial or extra-metropolitan students of a certain amount of value; but a university which was entirely cut off from association with the influences of teaching and teachers would not, he considered, be a university of a very high degree of value, and he would, therefore far rather see the University of London abolished at once, than left with this meagre remnant of a supposed function which it never could adequately discharge. With the greatest submission, he could not accept the position that the examination for the degree of the University of London must be greater than that in teaching universities. With regard to the ordinary degrees, they were probably, rather higher; but with respect to the highest degrees, excepting the Faculty of Medicine, he did not know that anyone had ever claimed for the London degrees that they were superior to those of Oxford and Cambridge. With respect to medical degrees, it was perfectly true that they were of a higher standard. Everybody had told him so, therefore he was bound to believe it; and it was true also with respect to the Master of Arts degree. A good deal of evidence was given before the old Commission, and to a great extent the same opinion still prevails, that the examinations for medical degrees in the University of London were of too high a standard in reply to which Sir James Paget, Vice-Chancellor of the University, prepared the following statement:

In many portions of the evidence given before the Royal Commission there are indications of error or misunderstanding in regard to the examinations for medical degrees of the University of London. Especially, the examinations are spoken of as being too severe and too scientific to be passed by many students on whom a M.D. degree might justly be conferred.

1. Beginning with the Matriculation Examination, it is said that it requires more knowledge than can fairly be expected in a student of 17 or 18 unless he has been educated in one of the best schools, or be of unusual ability; that the subjects are too numerous; and that the requisite knowledge is commonly attained by "cramming."

In answer to these statements it may be said—

1*a*. There are no indications of students being deterred. The number of candidates for matriculation has constantly increased. It has been doubled every twelve years without any increase in the proportion rejected; and in the last half-yearly examination there were 1,779 candidates, of whom 1,041 passed.

1*b*. In the last year's registration by the Medical Council of students qualified to begin the study of medicine by having passed a preliminary examination either in a University or in the Cambridge or Oxford local centres, or in the one of many other places sanctioned by the Council, only one of the examinations had been passed by more than that for the matriculation of the University. This one was the examination held by the College of Preceptors under the sanction of the Medical Council, and the most convenient for the majority of English students intending to proceed in medicine. It was passed by 325 of the students, and 281 passed the matriculation.

1*c*. The subjects are not more numerous than in the majority of the corresponding examinations recognised by the Medical Council. They are the same as in the College of Preceptors.

1*d*. It is not possible to estimate exactly the degrees of severity in different examinations on the same subjects; but the proportion of candidates rejected at the matriculation is not more than the evidence at the other examinations, and is considerably less than at the examination by the College of Preceptors, though this is generally regarded as setting a lower standard, and the classes are generally drawn from similar classes of students.

1*e*. As to "cramming," there is no evidence that it is more resorted to for the matriculation than for any other examination of the kind.

2. The examinations after matriculation, which must be passed for the M.B. and the M.D. degrees are also said to be too many, too difficult, and too scientific, rather than practical. To this it may be answered:

2 *a*. The subjects of study are exactly the same as for nearly all other medical degrees and diplomas, with the exception of an examination in elementary biology at the very beginning of study.

2 *b*. The number and order of the examinations are also the same, except in that two years instead of one must elapse between the first and second.

2 *c*. The time required for passing them all is the same as for other degrees or diplomas qualifying for practice. All those required for the M.B. may be passed in four years, and although many students take five years, this is no more than many do who pass the conjoint examination of the Colleges of Physicians and Surgeons, and is not more than, I believe, would be made compulsory on all students if it were not for the additional expense of a fifth year's study.

2 *d*. As for the examination being what is called too scientific and not practical, there is not in the University any examination whatever in any of the special scientific subjects after the examination at the end of the second year's study is passed, and the examinations in medicine, surgery, and midwifery are wholly practical. They are, for the M.B., in range and methods, similar to those of the Colleges of Physicians and Surgeons. The examiners are always selected from among physicians of high repute who are in practice, and are, or recently have been, teachers; they are chosen from all

schools indifferently, and the examination differs in nothing from others of which the passing confers the right to practise except in being more complete and more difficult than some are. I think it certain, both from my own observation and from the opinions of others, that the examinations for the M.B. degree of the University could be passed by any of those who pass creditably the conjoint examination of the two Royal Colleges. Especially in the final examinations there is nothing more scientific, nothing less practical, in the one than in the other.

3. I would say the same of the examination for the M.D. degree. It is in the same sense practical, whether it is written, or oral, or clinical part as is the Final Examination for the M.B.; there is nothing in it more theoretical, or what is called scientific, than there is in the busy part of a physician's daily practice. Only it requires, as does the M.D. in most other universities, two years' longer study and more and higher knowledge than does the examination for the M.B.

In maintaining this standard much higher than that requisite for the mere right to practice the University is not alone even in London, as the College of Surgeons admits Members to its Fellowship after longer study and a severe examination; the College of Physicians by careful selection.

I mentioned in my evidence some facts in proof of the high positions occupied by doctors of medicine of the London University. One was that from among them have been selected nearly half of the physicians and of the assistant and obstetric physicians to the principal hospitals in London. This may, at least, show that the studies and examinations necessary for the degree did not tend to make them unpractical. The same may be said of a large number of the leading provincial physicians and of the many surgeons of repute who hold the M.B. of the University.

And a yet stronger evidence of the eminence in practice of the physicians who hold the University degree is in the list of Fellows of the Royal College of Physicians. They are carefully selected from members of most repute wherever they may be in practice. The number elected in the last twenty years, among whom are graduates of twenty universities, is 205, and of these 64 have degrees of the University of London. Again, it is observed that comparatively few of those who take the M.B. in London proceed to the M.D., and this is regarded as a fault of the examination. The proportion of those who do take the higher degree is greater in London than in Cambridge, and in both cases the diminution may be explained without discredit to the examinations. Some of the graduates after taking the M.B. become surgeons and would rather not be deemed physicians; some go at once into practice, and have no opportunity or inclination for continuing the studious clinical work requisite for the higher degree, and some are content with the M.B., which by courtesy is regarded as giving the title of doctor.

(Signed) James Paget.

CHARING CROSS HOSPITAL.

Post-Graduate Class and Lectures.

Special series of clinical lectures and practical demonstrations, exclusively arranged for the convenience of practitioners and post-graduate students, are given at the hospital by members of the staff throughout the year. The lectures for the year are arranged in three courses, each course consisting of ten meetings, and lasting ten weeks. Two of these courses are held during the winter, and one during the summer. The class meets on each Thursday afternoon, at 4 P.M., in the board room of the hospital, and proceeds thence to the wards or other department in which the demonstration may be held. The fee at present charged for each course of ten lectures is one guinea. The first of the two winter courses of the ensuing academical year will commence on October 13th next, and will be conducted by the following members of the medical and surgical staff: Drs. Green, Bruce, Willcocks, Murray, Mott, Routh, Arkle, and Messrs. Bloxam, Boyd, and Waterhouse.

Practitioners wishing to join the class can receive any further information as to the dates and subjects by communicating with the Honorary Secretary (Dr. Willcocks) or the Honorary Treasurer (Mr. Boyd) at the hospital.

HOSPITALS AND MEDICAL SCHOOLS.

The following were received too late for insertion in their proper place in the Students' Number of the British Medical Journal published on September 3rd:

City of London Hospital for Diseases of the Chest, Victoria Park.—*Consulting Physicians:* Drs. J. Andrew and E. L. Birkett. *Consulting Surgeon:* J. Eric Erichsen, F.R.S. *Physicians:* Drs. J. C. Thorowgood, Eustace Smith, G. A. Heron, Vincent D. Harris, J. A. Ormerod, and E. Clifford Beale. *Surgeon:* J. F. C. H. Macready, F.R.C.S. *Assistant Physicians:* Drs. Harrington, Sainsbury, T. Glover Lyon, Sir Hugh R. Beevor, Bart.; W. J. Hadley, and E. H. Colbeck.

During the past year 1,236 in-patients have been admitted, and the large number of 25,500 cases have been treated since the opening of the wards in 1855. The number of out-patients treated during 1891 was 15,529, and 489,890 since the commencement of the institution in 1848.

Works are in progress in connection with the drainage and sanitary arrangements. The scheme provides for two detached towers to contain all the sanitary appliances. One of these towers has been completed and is in use.

Information as to medical instruction can be obtained on application to the Secretary of the Clinical Subcommittee at the hospital.

Liverpool Royal Southern Hospital: Clinical School.—*Physicians:* Dr. Cameron, Dr. Carter, and Dr. Williams. *Surgeons:* Mr. Rawdon, Mr. Alexander, and Mr. Robert Jones. *Medical Tutor:* Dr. Macalister. *Surgical Tutor:* Mr. Davey. *Pathologist:* Dr. Barendt. The hospital is situated within convenient distance of the School of Medicine, and contains 164 beds. There is a children's ward, and beds are appropriated to the diseases of women. Clinical teaching is given in the hospital, and arrangements have been made to render it both thorough and systematic. The members of the staff visit the wards daily, and clinical lectures are given each week. Tutorial classes are also held each day, at which the junior students are instructed in the methods of diagnosis, and the seniors are prepared for their final examinations. The pathological department has a good laboratory attached in which the students receive practical instruction. In addition to the usual clinical and *post-mortem* clerkships, the resident post of ambulance officer is awarded every three months to the student whom the board may consider most suited to hold it. A scholarship of £20 is competed for annually, which has attached to it some clinical and pathological duties, and three prizes of £5 each are yearly offered for the best series of clinical reports.

Fees.—Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. A limited number of resident pupils can be received; terms (exclusive of fees for hospital practice), £15 15s. per quarter. The practice of the hospital is recognised by all examining bodies. Further particulars may be obtained from the Dean, Mr. Robert Jones, 11, Nelson Street, Liverpool.

St. Vincent's Hospital, Dublin.—*Consultant:* Dr. Quinlan. *Physician and Lecturer on Medicine:* Dr. Cox. *Physician and Lecturer:* Dr. McHugh. *Physician to Extern Department and Assistant Lecturer:* Dr. Savage. *Surgeon and Lecturer on Surgery:* Mr. McArdle. *Surgeon and Lecturer:* Mr. Tobin. *Surgeon to Extern Department and Assistant Lecturer:* Dr. Patteson. *Gynæcologist and Lecturer on Gynæcology:* Dr. Smith. *Pathologist and Lecturer on Pathology:* Dr. Patteson. *Dentist and Lecturer on Dentistry:* Mr. Bloom. *Pharmaceutist and Lecturer on Pharmacy:* Mr. Flood. *Resident Surgeon:* Mr. Lynch. *Resident Physician:* Dr. Marnell.

This hospital contains 160 beds, constantly occupied by the most instructive cases, and has attached to it a crowded dispensary and three special dispensaries. During the nine months ending June 30th, 1891, 581 medical and 455 surgical cases, together with 110 cases of diseases of the eye and ear, were treated within the wards. The attendance at the dispensaries during the same period has considerably exceeded 14,000 cases. The whole practice of the hospital is available for clinical instruction, which is carried on during the session in a systematic manner from 9 to 12 o'clock in the fore-

noon. Systematic courses of lectures are delivered on Medicine and Surgery. *Post-mortem* examinations are made in the pathological theatre, and frequent opportunities are given for the examination of morbid specimens. There is a museum in connection with this department. Instruction is also given daily in the dispensaries.

The hospital is in proximity to the principal colleges and medical schools. Its certificates are recognised by all the universities and licensing bodies in the United Kingdom. Two resident medical officers and sixteen resident pupils are appointed annually from amongst the most deserving members of the class. The fees for clinical attendance are the same as at the other Dublin hospitals.

Special arrangements have been made with the Fever Hospital, Cork Street, and with other hospitals, for providing senior students with clinical instruction in infective fevers, as required by the licensing bodies, without extra charge.

Further particulars can be obtained on application to the Honorary Secretary, Mr. Tobin, 59, St. Stephen's Green, Dublin.

University College, Dundee.—This College now forms an integral part of St. Andrews University. The medical classes qualify, therefore, for the degrees of this and the other Scottish Universities, for the University of London, the Royal University of Ireland, as well as the licences of the medical corporations in England and Scotland. All classes in the College are open to women on equal terms with men. Equipment is at present provided for the first three years of the curriculum. Recently a considerable addition has been made to the temporary anatomical buildings, comprising an enlarged dissecting room, library, bone room, private room, and work room. New buildings are also being provided for the departments of zoology and botany, by means of which the physiological department will also obtain increased accommodation. The zoological museum has been very largely increased by recent donations of many thousands of specimens from the British Museum and other sources; and there have been great additions made in the equipment of the physiological department by the acquisition of new instruments and apparatus. The course of the third year has recently been completed by the addition of Chairs of Systematic Surgery and Materia Medica.

Royal Infirmary.—The Infirmary contains 250 beds, including a special ward for children. In addition, there were during last year 6,623 out-patients and a large number of house patients. Appointments: Two qualified resident medical assistants are appointed annually. Clinical clerks and dressers are attached to the physicians and surgeons, and students are appointed as assistants in the *post-mortem* room. There is in connection with the hospital course a class of Minor Surgery and Bandaging conducted by the assistant surgeon, and a class of Practical Pharmacy and Materia Medica held at the dispensary.

Royal Asylum.—Clinical Instruction is given at the Royal Asylum. Appointments: One qualified resident assistant and one resident clinical clerk.

Fees.—Chemistry, Professor Frankland, F.R.S., £3 3s.; Practical Chemistry (winter), £3 3s., (summer), £2 2s.; Physics, Professor Steggall, M.A., £2 2s.; Zoology, Professor D. W. Thompson, B.A., £3 3s.; Botany, Professor Geddes, £3 3s.; Anatomy, Professor Paterson, M.D., £3 3s.; Practical Anatomy, £3 3s., summer, £2 2s.; Physiology, Professor Reid, B.A., M.B., M.R.C.S., Elementary Lectures, £3 3s.; Advanced Lectures, £2 2s.; Demonstrations, £1 1s.; Practical Experimental Physiology, £3 3s.; Elementary Histology and Physiological Chemistry, £2 2s.; Advanced Histology and Physiological Chemistry, £3 3s.; Surgery, Dr. MacEwan, £2 2s.; Operative Surgery, £2 2s.; Clinical, Drs. McLeod and Stalker; Clinical Surgery, Drs. MacEwan and Templeman; Hospital Fee, £2 2s.; Dispensary, £2 2s.

The lectures and classes for the winter session will commence on Tuesday, October 18th.

School of Pharmacy of the Pharmaceutical Society.—The School opens on Wednesday, October 5th. Lectures on Chemistry and Physics by Professor W. R. Dunstan; Botany by Professor Green; Materia Medica by Mr. Greenish; Pharmacy by Mr. Ince. The laboratories for Practical Chemistry are open from 10 A.M. to 5 P.M.; on Saturday from 10 to 2. They are fitted up with every convenience for the study of Chemistry by personal experiment. *Director*, Professor Attfield. Application for admission to the school, for advice or for further information, may be made to the Dean, Professor Dunstan, or to Mr. F. W. Short, Secretary to the School, 17, Bloomsbury Square, London, W.C. Medical students, or pupils intending to enter the medical profession, are admitted to the lectures, etc., and to a course of practical chemistry of any length in the laboratories. Certificates of attendance at the lectures on Chemistry, the Chemical Laboratories, and the courses of Pharmacy, are accepted by the English Conjoint Board and other examining bodies.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1892. ELECTION OF MEMBERS.

A meeting of the Council will be held on October 26th, 1892. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than October 5th, 1892.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

South Wales and Monmouthshire Branch.—The next meeting of this Branch will be held at Merthyr on Thursday, October 6th. Members wishing to read papers, etc., are requested to communicate titles before September 21st, to Dr. Sheen, Cardiff.—A. Sheen, M.D., and Arthur Davies, M.B., Hon. Secs.

South-Eastern Branch: East Sussex District.—The next meeting of this Branch will be held at the Palace Hotel, Hastings, on Thursday, September 29th, Mr. E. R. Mansell in the chair. Meeting at 3.30 P.M. Dinner at 5.30 P.M.; charge, 6s., exclusive of wine. The Chairman will show a patient with Enchondroma of Pelvis. Dr. Bagshawe will open a discussion on the question of Sanitation of Lodging Houses in Seaside Resorts. Dr. Spencer will read a paper on Two Cases of Chorea Complicating Pregnancy.—T. Jenner Verrall, Hon. Sec., 97, Montpellier Road, Brighton.

South-Eastern Branch: East Kent District.—The next meeting of this Branch will be held at the Town Hall, Sandwich, on Thursday, September 15th, at 2.45 P.M., J. W. Harrisson, M.B., in the chair. Professor Victor Horsley, M.B., F.R.S., will read a paper on Trephining in the Stone Age (illustrated). At the conclusion of Professor Horsley's paper, a visit will be paid to the ancient Roman Castle of Richborough (one mile distant from Sandwich), where an address on Richborough and its Relation to other places in Gaul and Britain during the Roman occupation, will be given by the Rev. J. J. Raven, D.D., F.S.A. (Should the weather be unpropitious this address also will be delivered in the Town Hall.) The Chairman invites members to luncheon from 1 to 2 o'clock, at his residence, The White Friars, and will be glad to receive acceptances by September 13th. Tea and coffee will be served after the meeting at the chairman's residence. All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends.—Thos. F. Raven, Hon. District Secretary, Barfield House, Broadstairs.

West Somerset Branch.—The autumnal meeting of this Branch will be held at the Municipal Buildings, Taunton (by permission of the Mayor), on Friday, September 30th, at 5 P.M. An address by Professor Gairdner of Glasgow University on the Future of Therapeutics will be

given at 5.30. Dinner (5s. a head, exclusive of wine) at the Castle Hotel at 7.30. The West Somerset Branch will be glad to see members of neighbouring Branches who may like to join the meeting on this occasion; and the Honorary Secretary will be much obliged if any such, proposing to attend, will be so good as to send him timely notice, stating also if they intend to remain to the dinner, in order that he may make the necessary arrangements. Gentlemen wishing to read papers are requested to send in notice of their titles.—W. M. KELLY, M.D., Honorary Secretary, Taunton.

MEDICO-LEGAL AND MEDICO-ETHICAL.

DEATH CERTIFICATES AND INQUESTS.

House Surgeon (Oldham) reports details of an inquest recently held, in which the jury, without calling medical evidence, returned a verdict of "Accidental Death" in the case of a youth who died, according to the medical certificate given, from "ruptured bladder—septicæmia."

It appears that about three years previous to the death the deceased met with injuries from a railway accident, which caused ruptured bladder and fracture of the pelvis, and after six months in hospital he recovered; but, notwithstanding he was lame in one leg and had been advised not to take violent exercise, yet he was in the habit of playing football, and it was on April 26th last, after playing, that he complained of a pain in his side. He was admitted to the hospital on the following day and died on May 16th. The *post-mortem* examination revealed partial dislocation of the hip bone, old fracture of the pelvis, a large collection of pus mixed with urine around the joint, and burrowing into the surrounding muscles, and on pressure the contents of the bladder emptied itself into an abscess through a chink in the fracture.

On receipt by the registrar of "the certificate of the cause of death," as given above, it was forwarded by him to the coroner, who elected to hold an inquest, when the jury returned a verdict that the deceased died from rupture of the bladder and septicæmia following injuries received probably from playing football, and from an accidental cause. "House-Surgeon" asks: (1) was he justified in giving a certificate of the cause of death? (2) was the registrar doing his duty in referring it to the coroner? (3) was the coroner justified in holding an inquest without calling medical evidence? (4) was the verdict a correct one?

*** In cases of death arising directly or indirectly from injury it is advisable for the medical man to withhold the certificate until the coroner has been communicated with; for if, on the face of the certificate, death appears to have arisen from violence of any kind, it is the duty of the registrar to refer the same to the coroner before issuing the "burial order;" and it is further the duty of the coroner to hold an inquest in all cases where death is either caused or accelerated by injury. The verdict recorded of "accidental death" appears to be a correct one, although the "probable" source of injury, as stated by the jury, was more likely to have been the accelerating rather than the primary cause of the death. We certainly think that in all cases of inquiry into the causes of death medical testimony should always be taken; but in the present case doubtless the "certificate of the cause of death" was received as legal evidence of the same by a legal coroner.

INQUESTS AND FEES.

MR. TREVOR FOWLER (Epping) writes to ask whether the fee of one guinea, which he receives for giving evidence at an inquest, covers previous medical attendance on the deceased person to whom he was called by the police.

*** Certainly not. Our correspondent should apply for payment to the police authorities, and if refused, recover in the usual way.

LIABILITY FOR FEES.

KAPPA.—Ethically there is no reason why Kappa should not claim a fee, but by the law of England an employer is responsible only for those acts of his servants that can reasonably be considered done by them in the course of his employment; and all other acts *employees* are personally liable for. In the case quoted the railway company might deny that the porter's action was done in the course of their employment, and repudiate the liability; then, it would be hardly worth while to sue the railway porter.

PRACTITIONERS AND PATIENTS.

JUSTICE asks for an opinion on the following case: B. is the family doctor of C. and D. C. is taking care of D.'s child, who, by an accident, gets a severe cut, and A. is called in, being the nearest medical man, and also because C. is favourably disposed toward A., having met on previous occasions over other cases. After A. has stitched and bandaged the wound, C. requests A. to attend the case to the finish. At the outset A. inquires who is C.'s usual medical attendant, but gets no direct answer. B. is not referred to or mentioned in any way. As C. was very much upset, and in a half-fainting condition, perhaps this is not to be surprised at. A. continues to attend to the entire satisfaction of C., and the case goes on well. But when A. calls on the fifth day, he finds that B. has called the same morning for the first time, and unasked; and B. was, according to C., "very anxious" to undress the wound and see it. C. permits this, and B bandages the wound again, only in a little more complicated manner, which was quite unnecessary, and which would suggest to C. that it might be a better way. A. calls the same morning, hears what has happened, learns for the first time that B. is C.'s doctor; then A., being junior to B., leaves the case in B's hands pending your decision. 1. Did A. do wrong in not making further inquiries as to C.'s usual medical attendant? 2. If A. had learnt that B. was such, was it obligatory for A. to withdraw from the case, when C. expressed the wish for A to continue to attend, and was perfectly satisfied 3. Was it right for B. to call on the case unasked? 4. And, learning the circumstances, was it right of him to show so much anxiety to see the wound, to interfere with it, and subsequently attend as if it were his own case?

*** Assuming that the above statement fairly represents the facts of the case, we may note in reply to our correspondent's four several questions. 1. That, although A. did not wittingly "do wrong" in omitting to make further inquiries as to C.'s ordinary medical attendant, persistence therein would, in our opinion, have been prudent. 2. Though it would not, under the circumstances specified, have been obligatory upon A. to withdraw from the case, it would nevertheless have been ethically judicious to explain to C. the customary medical etiquette in such cases, and to have retired therefrom unless specially requested to continue his attendance; and, in the latter event to have suggested, as an act of courtesy, a consultation with B. 3 and 4. It would be in direct contravention of medical etiquette for B. to make (unsolicited) a professional call on the patient; and more especially to undress and examine the wound, and to suggest, moreover, to C. that his (B.'s) mode of reband-aging it might be more effective. Further, that unless he (B.) were especially desired by C. to assume charge of the case, he would not, under the circumstances related, be justified in so doing.

NEWTON writes: In the case of a fatal accident A. was sent for, but, not being at home, a special messenger was sent to seek him. As soon as possible A., at great inconvenience, proceeded to the place where the accident occurred, and found that B. was there. B. had been visiting at a house near, and some of the servants had called him in. How should A. have acted in the case?

*** In the relation of the above case our correspondent has omitted an essential point, namely, whether the subject of the fatal accident was an old patient of A.'s; in the absence of which we are unable to express a definite opinion as to "how he should have acted in the case," and must therefore simply refer him to the general principle laid down in the following rule extracted from the *Code of Medical Ethics*, chap. ii, sect. 5, rule 16: "In cases of sudden illness, or of accidents and injuries, it frequently happens, owing to the alarm and anxiety of friends, that several practitioners are simultaneously sent for. Under these circumstances courtesy should assign the patient to the first who arrives, and he should select from those in attendance any additional assistance that may be necessary. In all such cases, however, the officiating practitioner should request that the family doctor (if there be one) be summoned; and, unless his further attendance be desired, he should at once resign the case to the latter on his arrival, but would be entitled to charge the patient for his services."

M.B. (Glas.) writes: I was attending a Mrs. T., the housekeeper in a family about two miles from here. On one occasion she asked me if I thought a residence at Matlock for a little while would benefit her condition, as her mistress had offered to obtain her a ticket of admission to some institution there. I replied in the affirmative. Her mistress, knowing that I was attending her, asked her own medical attendant, a L.R.C.P. & S.Ed., to examine Mrs. T., and inform her whether Matlock or Buxton would be the more beneficial. He did so, without asking my permission to visit Mrs. T. or, in fact, saying anything whatever to me about it.

*** The principle by which "L.R.C.P. & S.Ed." should, under the circumstances related, have been guided in his professional relations with Mrs. T., the housekeeper, and her mistress, is clearly defined in the following rule from the *Code of Medical Ethics*, Chap. II, Sect. 5, and the latter portion of Rule 15: "When, moreover (an oft-recurring incident), an employer or other person becomes anxious and apprehensive in regard to the illness of an *employé*, or in the case of an impending action for damages and the like, and for his personal satisfaction requests his own family or other doctor to visit the patient and report to him thereon, it is the duty of the deputed practitioner to point out to the employer, or other interested party, their respective ethical obligations in the matter; and, prior to making such visit, to solicit and obtain the sanction of the medical attendant in the case; otherwise, he will commit a grave breach of professional etiquette, and justly subject himself to severe criticism and reproof."

SUPPLANTING IN PRACTICE.

M.—The question submitted by our correspondent is one more especially for the consideration of his solicitor; prior to consulting whom it will be judicious for him to obtain direct and written information from his patients and others, to whom the alleged words were spoken by the supplanting practitioner and the nurse. Hearsay evidence would simply tend to mislead his adviser and court defeat.

AN UNSATISFACTORY VERDICT.

AN inquest was lately held at Burnley by Mr. Coroner Robinson on the body of a man, aged 29, who had been found dead in bed. He had returned that day from his holidays at 2.20, and, after having had his tea, went to bed at 5 o'clock complaining of headache. His wife then went out, and on returning 8 found him dead. This was all the evidence, as

two of his friends who were also examined only repeated what they had learnt from the wife. The jury returned a verdict of "Death from natural causes - either apoplexy or heart disease." We have no hesitation in saying that the coroner has been guilty of a very gross dereliction of duty in accepting such a verdict without proper medical evidence. We are well aware, and quite accept, that the exact pathological changes which have caused death do not much concern the coroner so long as he is satisfied that there were no suspicious circumstances connected with the death. But can he be said to have satisfied himself on this point in the case in question? We assert, without fear of contradiction, that the medical history of this case, such as it is, does give rise most certainly to suspicion that death was not due to natural causes, a suspicion which has not in any degree been removed by the utterly perfunctory inquest held.

IMPORTANT DECISION AS TO THE TRUCK ACTS.

Deductions from Wages for Subscriptions to Benefit Societies or Insurance Funds Illegal.

The exhaustive analysis of the meaning of the Truck Acts, to be found in the judgment recently given by the Court of Appeal in the case of Hewlett *v.* Allen and Sons, is not only instructive but also extremely important. The question before the court was whether an operative who had submitted to weekly deductions from her wages, which were paid over to a benefit society maintained in connection with her employer's firm, could afterwards recover from her employers the amount of such deductions as arrears of wages which had not been paid in current coin. The deductions were devoted partly to providing medicine and medical attendance for the members of the society when they became ill, and partly to form a fund for their insurance against sickness, accident, or death. Section 23 of the Truck Act, 1831, expressly empowers employers to supply or contract to supply medicine or medical attendance to their artificers, and to make deductions from their wages in respect of such medicine or medical attendance. Both in the county court, where the case was originally tried, and afterwards in the High Court, and in the Court of Appeal, it was agreed that the employers were justified by this section in making the deductions for medicine and medical attendance, and therefore that so much of the plaintiff's claim as related to them—6s. 9d. out of a total of £1 13s. 7d.—failed. The great dispute was as to the balance, £1 6s. 10d. The county court judge gave judgment for the plaintiff for this amount. The Divisional Court, Justices Day and Charles, decided in favour of the defendants, considering that the deductions were not divisible; and that, as one of the objects for which they were made was authorised by the Act, the plaintiff failed in her action. This judgment was affirmed by the Court of Appeal, but for perfectly different reasons. They showed that deductions for the purpose of insurance, though for a laudable object, are nowhere authorised by the Truck Acts; and consequently that employers who make such deductions, even with the written authority of those to whom the wages are payable, may thereby render themselves subject to the penalties imposed by those Acts on persons who do not pay their wages in coin. But though such deductions are contrary to law, it does not follow that every servant from whose wages they have been kept kept back can maintain an action to recover the amount deducted. In the present case the plaintiff Hewett had not only acquiesced for a long time in them, but had on three different occasions signed a paper authorising her employers to keep the amounts back from her wages. There could be no doubt that she had agreed to become a member of the benefit society, and to her employers paying her subscriptions to it, and it would consequently have been contrary to good faith to allow her to recover over again from them the amounts which they had already paid away at her request. In this particular case therefore the claim failed. But the law was clearly declared by the Court of Appeal to be that employers are not entitled to deduct subscriptions to insurance funds from the wages of their servants. The result of this decision may probably be to seriously cripple, if not entirely to break up, many deserving friendly societies, for it must be much more difficult and expensive to collect the weekly subscriptions from the individual members than to deduct them *en bloc* at the time their wages are paid. Employers however are not likely to subject themselves to numerous prosecutions and actions under the Truck Acts, merely for the sake of enforcing providence among their workpeople; and benefit societies will have to collect their own subscriptions as best they can. It will be noticed that deductions, simply for the purpose of paying for medicine or medical attendance to workpeople, were not only not declared to be illegal but were expressly declared to be legal. Many of the benefit societies connected with large works came into existence as sick clubs or something of that sort. Wherever it is thought desirable to secure the services of a doctor by subscriptions from a body of workpeople, the regular payment of those subscriptions may still be secured by making deductions from the wages payable to the subscribers. Where hitherto the doctor has been nominally appointed to attend the members of a club, and the subscriptions of the members of the club have been devoted to other purposes besides his remuneration, some different arrangement may have to be made. But medicine and medical attendance may still properly be paid for by means of deductions from wages, wherever that arrangement seems desirable.

LEGAL ASPECTS OF *POST-MORTEM* EXAMINATIONS.

Assistant Medical Officer writes: Could you inform me whether there is any legal restriction as to the time in which a *post-mortem* examination may be made after death? I have heard that one is compelled to wait until twelve hours have elapsed.

*** The legal aspect of the *post-mortem* examination question appears, from a case recently argued, to be: That the bodies of persons dying in public institutions are, in the case of hospitals, in the legal possession of the resident medical officer who had charge of the case during life, or, in default, in possession of the resident secretary; in the case of workhouses and prisons, such bodies are in the custody of the master of the workhouse or governor of the gaol respectively; that such persons are responsible in the case of a *post-mortem* examination having been made, and their direct or implied authority for such an examination is supposed to have been obtained; that such a person can allow an anatomical examination (that is, he can allow the body to be dissected), provided no objection has been raised by the person before death, or by his nearest relatives, within forty-eight hours of the death, provided also that such an anatomical examination be performed in a place licensed under the Anatomy Act, and notice has been previously given to the inspector of anatomy. With regard to ordinary *post-mortem* examinations, which we will call "pathological examinations," in contradistinction to anatomical examinations as understood by the Anatomy Act, there appears to be no law directly bearing upon the subject. There is no law which obliges medical officers of public institutions to ask for permission from the friends of the deceased, and in the recent decision it was established: That a *post-mortem* examination, duly performed, could not be considered as an improper interference with, or an offering of an indignity to, a dead body; that such an examination might be made by the medical officer in charge, or by a duly qualified medical man authorised by him, without permission having been sought or obtained from the relatives, provided a reasonable time had elapsed since the death, and, after the relatives had become aware of the fact, to allow them to object to such an examination. In the metropolitan district twenty-four hours is considered a reasonable time to allow to the friends of a patient for raising an objection. In the case of patients who have been admitted from the country, probably a longer time would be considered as a reasonable time during which it would be necessary to wait; but no question has at present been raised on this point, and, therefore, no decision given. It is always, however, best to obtain the sanction of the relatives or an order from the coroner. In inquest cases, if a *post-mortem* examination is made without the previous sanction of the coroner, no fee is payable.

PAYMENT OF MEDICAL WITNESSES.

Victim.—The sum allowed seems to be less than should have been given according to the scale. As the police officer apparently made a distinct promise of payment for the report, an action might be brought against him for the guinea in the county court. It would be well to avoid giving evidence for the future, in cases where proper remuneration has not been guaranteed beforehand.

Medical Witness.—It is difficult to advise an action against anyone for fees in a criminal case. The person liable to pay is the county treasurer, but he can only pay on the certificate of the taxing officer. If proper fees are disallowed, the best course is to apply at once to the judge. If it is known that the taxing officer will refuse to allow them, the witness might ask for his expenses when he goes into the witness box, before he is sworn.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

The following appointments have been made at the Admiralty: John Tyndall, Fleet-Surgeon, to the *Crocodile*, August 22nd; John A. Mcadam, Staff-Surgeon, to the *Camperdown*, August 22nd: Harold F. D. Stephens, M.B., Surgeon, to the *Camperdown*, August 22nd; Frederick W. Stericker, M.B., Surgeon, to the *Mistletoe*, August 22nd; William J. Colborne, Surgeon, to Haslar Hospital, August 22nd; David J. Lawson, M.D, to be Surgeon and Agent at Portland, August 24th; Edward P. Mourilyan, Surgeon, to the *Victory*, additional, August 26th; Anthony Gorham, M.D., Fleet-Surgeon, to the *Wildfire*, additional, September 1st; George Kell, Fleet-Surgeon, to the *Rodney*, September 1st.

ARMY MEDICAL STAFF.

Surgeon-Major-General J. By Cole Reade, C.B., has been granted a distinguished service pension of £100 per annum. He entered the service as Assistant-Surgeon March 24th, 1854, and, passing through the intermediate grades, he became Surgeon-Major General from February 15th, 1888. He served with the 2nd Battalion Rifle Brigade throughout the Eastern campaign of 1854-55, including the battles of Alma and Inkerman and siege of Sebastopol, being wounded on November 14th, 1855, at the explosion of the French siege train, and receiving the medal with three clasps and the Turkish medal. He served with the battalion during the whole of its service in suppression of the Indian Mutiny, including the actions at Cawnpore, capture of Lucknow, and numerous affairs during the Oude campaign, receiving the medal with clasp. He was also in the Afghan war of 1878-80, and was present at the entry into Candahar; he was mentioned in despatches and received the Afghan medal.

Surgeon-Captain S. C. Philson, serving in the Madras command, will, on the expiration of his sick leave, do duty at Wellington Station Hospital.

Surgeon-Captain H. M. Adamson, M.B., serving in the Madras command, on return from sick leave, will do duty at Bangalore Station Hospital.

Surgeon-Major T. F. MacNeece, who is serving in the Bombay command, has been appointed to perform the medical duties of Lawrence School and Civil Establishment, Mount Aboo, from June 2nd.

Surgeon-Captain George Douglas Hunter, who is serving with the Egyptian army, has received the Queen's permission to accept and wear the insignia of the Order of the Medjidieh of the Third Class, conferred upon him by the Khedive of Egypt in recognition of his services while

employed beyond Her Majesty's dominions in the service of His Highness.

Surgeon-Captain A. R. ALDRIDGE, M.B., who is serving in the Bengal command, has leave to England in extension to October 20th; and Surgeon-Captain M. L. HEARN, serving in the Madras command, has leave to Europe for six months on medical certificate.

Surgeon-Captain G. M. DOBSON, who is serving in the Madras command, has passed the examination in Hindustani by the lower standard.

INDIAN MEDICAL SERVICE.

BRIGADE-SURGEON-LIEUTENANT-COLONEL W. R. HOOPER, Bengal Establishment, Civil Surgeon, Lucknow, is appointed to the visiting medical charge of Bara Banki District, in addition to his other duties.

Surgeon-Lieutenant Colonel C. CAMERON, Bengal Establishment, Civil Surgeon of Gonda, is appointed to the visiting medical charge of the Bahraich District, in addition to his other duties.

Surgeon-Captain J. J. PRATT, Bengal Establishment, Civil Surgeon of Gonda, is transferred to the civil medical charge of Fyzabad.

Surgeon-Major C. H. BENNETT, Madras Establishment, is appointed Civil Surgeon of Toungoo, in addition to his military duties.

Surgeon-Captain T. W. STEWART, Madras Establishment, is directed to officiate, as a temporary measure, as Superintendent of Insein Gaol.

The order to Surgeon-Major D. C. DAVIDSON, Bombay Establishment, to relieve Surgeon-Captain H. W. Stevenson of his duties as Superintendent of Mahableshwur, is cancelled.

Surgeon-Lieutenant-Colonel EDWARD MULVANY, Bengal Establishment, has retired from the service from July 11th. Appointed Assistant-Surgeon March 30th, 1872, he became Surgeon-Major twelve years thereafter, and Surgeon-Lieutenant-Colonel after twenty years' service.

Surgeon-Major F. D. PANK, Bengal Establishment, Civil Surgeon of Bikanir, is appointed Civil Surgeon of Ajmere and Medical Officer of the Merwara Battalion.

Brigade-Surgeon-Lieutenant-Colonel T. FFRENCH-MULLEN, M.D., Bengal Establishment, officiating Civil Surgeon of Bikanir, is appointed Civil Surgeon of Bikanir.

Surgeon-Captain H. W. ELPHICK, Bengal Establishment, officiating Civil Surgeon of Etawah, is appointed officiating Civil Surgeon of Ghazeepore.

Surgeon-Captain F. C. PEREIRA, Madras Establishment, is appointed Civil Surgeon of Cocanada.

Surgeon-Captain T. L. PATCH, Madras Establishment, is appointed District Surgeon and Superintendent of the Gaol, Kurnool, in succession to Brigade-surgeon-Lieutenant-Colonel Nanney, but to continue to act as Civil Surgeon of Cannanore.

Surgeon-Lieutenant R. K. MITTER, Madras Establishment, has passed the examination in Hindustani by the higher standard; and Surgeon-Captain C. H. L. PALK, Madras Establishment, the same examination by the lower standard.

The undermentioned gentlemen have been granted leave of absence as specified: Surgeon-Major H. W. HILL, M.B., Bengal Establishment, Civil Surgeon of Maunbhoom, on private leave till January 2nd next; Surgeon-Captain H. E. BANAJWALA, Bengal Establishment, 33rd Punjab Infantry, to Japan for three months on medical certificate; Surgeon-Captain L. J. PISANI, Bengal Establishment, officiating Superintendent of Allahabad Central Prison, privilege leave for two months; Surgeon-Captain W. G. P. ALPIN, M.D., Bengal Establishment, Civil Surgeon of Ghazeepore, privilege leave for three months from August 1st.

The undermentioned Surgeon-Captains of the Bengal Establishment have leave of absence as specified: J. T. DALY, for three months, in extension, on medical certificate; J. SHEARER, M.B., 27th Punjab Infantry, to Dalhousie for three months on private affairs; J. R. ADIE, Civil Surgeon of Backergunge, for twelve months in extension.

THE VOLUNTEERS.

SURGEON-LIEUTENANT A. K. CROSSFIELD, 2nd Devonshire Artillery (Western Division Royal Artillery), and Surgeon-Lieutenant J. W. BEATTIE, M.B., 1st Durham Artillery (Western Division Royal Artillery), are promoted to be Surgeon-Captains in their respective corps, August 27th.

Mr. JAMES NICOL, M.B., is appointed Surgeon-Lieutenant to the 4th Volunteer Battalion Gordon Highlanders (formerly the 4th Aberdeenshire), September 3rd.

Mr. THOMAS LOUIS KENDRICK DAVIES, M.B., is appointed Surgeon-Lieutenant to the 2nd Volunteer Battalion Royal Welsh Fusiliers (formerly the 1st Flint and Carnarvon), August 27th.

Surgeon-Lieutenant A. A. KANTHACK, 3rd Volunteer Battalion Royal West Kent Regiment (late the 4th Kent), has resigned his commission, which dated from October 4th, 1890.

ARMY MEDICAL SCHOOL.

BRIGADE-SURGEON-LIEUTENANT-COLONEL W. F. STEVENSON, M.B., Army Medical Staff, is appointed Professor of Clinical and Military Surgery, *vice* Surgeon-Colonel C. H. Y. Godwin, who has resigned that appointment, August 10th. Brigade-Surgeon-Lieutenant-Colonel Stevenson was appointed Assistant-Surgeon March 21st, 1866; became Surgeon March 1st, 1873; Surgeon-Major March 31st, 1878; Surgeon-Lieutenant-Colonel from March 31st, 1886; and Brigade-Surgeon-Lieutenant-Colonel August 3rd, 1892. He has no war record in the Army Lists.

ALMROTH EDWARD WRIGHT, M.D., is appointed Professor of Pathology, September 1st, *vice* Sir W. Aitken, M.D., F.R.S. ("who resigned the appointment," says the *London Gazette*, but it will be remembered that Sir W. Aitken died at Southampton on June 25th last).

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT H. D. BROOK, 20th Middlesex (Artists) Rifles, is appointed Surgeon-Lieutenant, August 31st.

THE LATE SURGEON A. C. DEARE.

THE following account of the death of Surgeon Arthur Cecil Deare, of the Indian Medical Service—announced in the BRITISH MEDICAL JOURNAL of August 20th—has been communicated to the *Guy's Hospital Gazette* by his brother, who is also a member of the Indian Medical Service:

"He had shot the male tiger the previous week, and tried after this one from a platform in a tree, hit it hard and then got down and hit it again as it ran; but when it turned and gave chase, his men with other rifles bolted, so he ran and loaded at the same time; but it caught him up, and he thought it better to wait and fire the one barrel that he had loaded, and as the brute sprang he hit it full in the chest. It caught him by the arm and, as he said, 'shook him like a rat;' then he caught its throat, and as the animal was nearly dead he was able to force it down and kill it. After this he had thirty miles to ride in the sun, and within two days septicæmia set in and soon all was over."

PROFESSORS AT NETLEY SCHOOL.

NOT A PROFESSOR protests against the military professors at Netley suppressing their rank, and figuring in their writings and works as "Professors." Officers who dwell by "sweet Southampton water," however civilian in aspiration, should not ignore their definite army titles. A professor in the Staff College never does that.

**** The time may not be far off, to all appearances, when there will be no military medical officers of seniority occupying Netley chairs.

THE MEMORANDUM.

A FRIEND OF THE MEDICAL STAFF writes: I have it on good authority that there is anything but satisfaction with the new titles in India; medical officers cannot be and are not addressed socially by anything but the old Mr. or Dr. Imagine other branches of the service putting up with such a thing! The other great grievances in that country are the financial, the lengthened tours, and the increasing difficulty in getting leave of any kind. I have heard of a senior medical officer who, in spite of many applications, could get no privileged leave for five years. Another failed in getting station leave, although he made twelve applications within two years. Such might well be added to the memorandum.

**** It is evident that the under establishment of medical officers is at the root of the last serious grievance.

ANOTHER CORRESPONDENT IN INDIA says he fully agrees with the scope of the memorandum. Not only are medical officers in India underpaid, but they are overworked. This makes the shortening of the tour in the opinion of some the most important of the medical questions. The Indian Government do what they like with young medical officers, and are apparently not over scrupulous whether they break down or die so long as new candidates can be found to fill their places. The Indian Medical Service in their furlough rules have the distinct pull of the Medical Staff; they can get one year for every five of Indian service, but the Medical Staff officer may serve six years without becoming entitled to a day over two months, and so go on for three successive tours, or eighteen years in all, with no furlough.

ANOTHER INDIAN CORRESPONDENT says the absence of all charge pay for station hospitals, contrary to the universal custom in every other branch in India, where charge pay is given, might be added to the memorandum as a crying grievance and injustice. English pay should be in gold, and remitted at par if so desired. The numbers of the Medical Staff should be increased in the country; it is simply next to impossible to get the most moderate private leave, which drives men to sick leave, which cannot pay the Government. The authorities know perfectly well that medical officers cannot perform their duties without a horse, yet no allowance for one is given.

**** Junior medical officers are in fact underpaid from every point of view in India.

BRITISH MEDICAL SERVICE.

THE following is a list of the successful candidates for Commissions in the Medical Staff of Her Majesty's Army at a recent examination in London:—

	Marks.		Marks.
C. E. Pollock	2,815	J. H. Farmer	2,365
F. M. Mangan	2,470	F. R. Buswell	2,310
J. H. Rivers	2,470	H. A. Berryman	2,295
W. J. Taylor	2,450	F. A. Symons	2,285
B. W. Longhurst	2,385	C. J. Samman	2,235

RANK AND PAY R.N. SERVICE.

STAFF-SURGEON R.N.—We are much obliged to our correspondent calling our attention to the paragraph in question, and we agree with him in the view which he takes of the case. It has not been the practice for some years past to give acting appointments in the case of surgeons doing the duty of staff-surgeons who have been invalided or sent to hospital; but extra pay has been granted in such cases (under Art. 1367 of the Queen's Regulations) as the Admiralty consider right. The statement that the pay of the higher rank has until recently been given is, therefore, incorrect. Extra pay would not, we presume, be given now in view of the alterations as to complement. The complements of ships have been revised in consequence of so many different types of vessels now on the *Navy List*, and several of these carry surgeons where formerly staff surgeons were borne. There is, however, no hardship in this, as the duties are light, and the surgeon finds his accommodation better than in gunboats.

The question is a taxpayers' one. The same rules apply to the Paymaster Branch of the navy.

WARNING TO CANDIDATES.

CAVE writes: I do hope that candidates for the Medical Staff will well consider the nature of the Indian service that is before them. During their first six years they will receive pay of less value than at home. In Ceylon they will have to serve only four years, against six in the equally trying Madras or Burmah. In the official intimation to candidates there is nothing of such matters.

MOTTO FOR MEDICAL STAFF.

Hopeful thinks it would conduce to *esprit de corps* of the Medical Staff if it had a good motto. He suggests "Ubique," the same as borne by the Artillery and Engineers and some line regiments; or "In pace bellôque paratus" or "fidelis" as appropriate.

Bombay writes: By far the majority of Indian medical officers strongly deprecate the attacks on the popular regimental system in India. Those who dislike regimental work have the option of civil employ. I can only hope, for the good of the Indian army, we shall never cease to be regimental; the popularity of the service would at once go down if it was interfered with. My experience of regimental messes has been most pleasant.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE VENTILATION OF THE METROPOLITAN SEWERS.

If by some unfortunate accident a few of the old Westminster-type sewers were to get charged with coal gas, and the gas ignited, the consequences would be of course terrible, as the explosion of a similar character in Howland Street some fifteen years ago amply testifies; but the sudden unroofing of the sewers would have this good effect—it would demonstrate to the eye of the public and to our local administrators enormous fæcal accumulation in them. We are quite within the mark in asserting that thousands of tons of metropolitan excreta that should pass on to Barking Creek or Crossness remain accumulated in the miles and miles of sewers of the old type which still exist; it is mainly these sewers which give off offensive gases, and which from time to time are accused of producing illness. Letters have recently appeared in the daily press calling attention to the danger of the almost universal method of ventilation of the London sewers by simple gratings on a level with the road. This method of ventilation (always provided the sewer be of modern construction and self-cleansing), is, we maintain, a harmless and proper method; but directly one has to deal with sewers of deposit, long dark subterranean galleries, knee deep in fermenting filth, and which to perform even the function of receiving and storing house drainage have to be cleaned out periodically by manual labour; then we freely acknowledge open grate street ventilators become a danger to the community. During most of the year the emanations are only to be detected by the sense of smell, but on cold winter mornings all the street ventilators can be seen steaming; and these miniature fumeroles are not uninstructive.

What is the remedy? The remedy is first of all to condemn every sewer which is not self cleansing, and to replace it with a tube that keeps itself by the natural flush of rain and slop water free from deposit. This alone would take many years, and cost thousands of pounds, so that stinking sewers will have to be ventilated before being abolished, and there is really no practical method of ventilating stinking sewers but by means of shafts. The metropolitan local authorities are quite willing to run shafts up the sides of houses with the consent of the owners and occupiers of the houses; but they have no statutory power to run a shaft up a house without consent. This power, with proper restrictions, we think they should possess. A man will often bitterly complain of a street ventilator opposite his house, but directly it is proposed to remedy the complaint by running a shaft up the side of his house, opposition is at once encountered. It has, indeed, been found by experience that local bodies, to do any good, must have large powers; in default of such, public conveniences, isolation hospitals, shelters, and all the like sanitary appliances cannot be obtained.

THE PUBLIC HEALTH 1866-90.

The accompanying table will be of special interest at the present time as showing the marked improvement in the public health since the last cholera epidemic in 1866, by the continued reduction in the general death-rate, and especially in the mortality from typhoid fever and from diarrhœa. In addition to the rates of mortality in each of the twenty-five years 1866-90 the rates for the five quinquenniads comprising that period are also given, so that the decline in the mortality can be more readily seen. It will be noticed that the death-rate from diarrhœa at all ages above 1 year is given, as well as the rate at all ages. Roughly speaking, two-thirds of the total deaths referred to that disease occur among infants during their first year of life. It appears that the reduction in the mortality from diarrhœa has been much more marked among those aged upwards of 1 year than among the infantile population. During the five years 1866-70 the rate of mortality from this disease among those aged upwards of twelve months was equal to 427 per million persons living; during 1871-75 it was 379; during 1876-80 it was 316; during 1881-85 it was 240; and during the last quinquennial period it further fell to 227. The death-rates from diarrhœa at all ages also showed a decline throughout the same quinquennial periods, with the exception of the five years ending 1890, when there was a slight increase, owing to the fact that there were several warm summers during that period.

England and Wales.—*Mortality from All Causes, from Typhoid Fever, and from Diarrhœa, 1866-90.*

	All Causes.	Typhoid Fever.	Diarrhœa.	
	Death-rate per 1,000 Living.	Death-rate per Million Living.	All Ages. Death-rate per Million Living.	Above 1 year. Death-rate per Million Living.
1866-70	22.4	389 (2 years 1869-70)	1,063	427
1871-75	22.0	374	1,000	379
1876-80	20.8	277	832	316
1881-85	19.4	216	656	240
1886-90	18.9	179	667	227
1866	23.4	(?)	853	415
1867	21.7	(?)	960	390
1868	21.8	(?)	1,405	544
1869	22.3	390	935	363
1870	22.9	388	1,161	425
1871	22.6	371	1,094	414
1872	21.3	377	965	381
1873	21.0	376	962	370
1874	22.2	374	923	338
1875	22.7	371	1,028	391
1876	20.9	309	917	304
1877	20.3	279	619	244
1878	21.6	306	1,003	365
1879	20.7	231	452	202
1880	20.5	261	1,171	466
1881	18.9	212	558	204
1882	19.6	229	653	256
1883	19.6	228	598	232
1884	19.7	236	978	332
1885	19.2	175	492	174
1886	19.5	184	899	309
1887	19.1	185	727	228
1888	18.1	172	455	169
1889	18.2	176	648	223
1890	19.5	179	606	208

Note.—Previous to 1869 deaths from typhus and from typhoid fever were not separately classed in the Registrar General's reports.

With regard to the mortality from typhoid fever, the above figures point to a very marked improvement in the public health during the past twenty-five years, although it is to be regretted that during the last few years the mortality from enteric fever has shown a slight tendency to increase. With but few exceptions, there has been a steady and continuous decline in the mortality from typhoid fever since 1866. Taking the quinquennial periods constituting the twenty-five years under review, there has been an uninterrupted decline in the mortality from this disease. During the two years 1869-70 the rate was 389 per million persons living; during 1871-75 it was 374; during 1876-80 it was 277; during 1881-85 it was 216; and during the last five years 1886-90 it further declined to 179 per million persons living.

As is well known, the general death-rate of the country has shown a steady decline for many years, and the quinquennial rates given above show that the national death-rate has shown a very marked and continued improvement for many years past.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,241 births and 3,618 deaths were registered during the week ending Saturday, August 27th. The annual rate of mortality in these towns, which had been 18.0 per 1,000 in each of the preceding two weeks, rose to 18.5 during the week under notice. The rates in the several towns ranged from 14.7 in Croydon, 15.1 in Huddersfield, 15.2 in Brighton, and 16.0 in Newcastle-upon-Tyne to 22.0 in Salford, 24.7 in Bolton, 25.5 in Sheffield, and 32.5 in Preston. In the thirty-two provincial towns the mean death-rate was 19.5 per 1,000, and exceeded by 2.3 the rate recorded in London, which was 17.2 per 1,000. The 3,618 deaths registered during the week under notice in the thirty-three towns included 543 which were referred to the principal zymotic diseases, against 682 and 678 in the preceding two weeks; of these, 524 resulted from diarrhœa, 100 from measles, 60 from diphtheria, 59 from whooping-cough, 52 from scarlet fever, 35 from "fever" (principally enteric), and 1 from small-pox. These 543 deaths were equal to an annual rate of 4.2 per 1,000; in London the zymotic death-rate was equal to 3.5 per 1,000, while it averaged 4.8 in the thirty-two provincial towns, among which these diseases caused the lowest death-rates in Plymouth, Halifax, Newcastle-upon-Tyne, and Swansea, and the highest rates in Norwich, Salford, Sheffield, Preston, and Bolton. Measles caused the highest proportional fatality in Huddersfield, Sunderland, West Ham, Salford, and Oldham; scarlet fever in Nottingham; whooping-cough in Sunderland, Preston and Norwich; "fever" in Portsmouth and Bradford; and diarrhœa in Leicester, Norwich, Manchester, Leeds, Preston, Sheffield, and Bolton. The 60 deaths from diphtheria included 38 in London, 4 in Salford, 3 in Bristol, and 3 in Birmingham. One fatal case of small-pox was recorded in Bradford, but not one in London or in any other of the thirty-three large towns. Seven small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 2 in the Highgate Small-pox Hospital, on Saturday last, August 27th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,103, against 3,088 and 3,052 on the preceding two Saturdays; 367 new cases were admitted during the week, against 376 and 367 in the preceding two weeks. The 148 deaths from diseases of the respiratory organs in London were 29 below the average, and were equal to an annual rate of 1.8 per 1,000.

In thirty-three of the largest English towns, including London, 6,100 births and 3,878 deaths were registered during the week ending Saturday, September 3rd. The annual rate of mortality in these towns, which had been 18.0 and 18.5 per 1,000 in the preceding two weeks, further rose to 19.8 during the week under notice. The rates in the several towns ranged from 11.8 in Halifax, 13.6 in Nottingham, 14.5 in Bradford, and 15.0 in Burnley, to 26.1 in Leeds, 28.6 in Sheffield, 31.8 in Bolton, 33.7 in Salford, and 37.8 in Preston. The high rates in the last-mentioned towns were due to the epidemic prevalence of summer diarrhœa. In the thirty-two provincial towns the mean death-rate was 22.2 per 1,000, and exceeded by as much as 5.6 the rate recorded in London, which was only 16.6 per 1,000. The 3,878 deaths registered during the week under notice in the thirty-three towns included 984 which were referred to the principal zymotic diseases, against 678 and 830 in the preceding two weeks; of these, 728 resulted from diarrhœa, 72 from measles, 62 from scarlet fever, 54 from diphtheria, 44 from whooping-cough, 23 from "fever" (principally enteric), and 1 from small-pox. These 984 deaths were equal to an annual rate of 5.0 per 1,000; in London the zymotic death-rate was only 3.3 per 1,000, while it averaged 6.3 in the thirty-two provincial towns, among which the lowest zymotic rates were recorded in Halifax, Derby, Bristol, and Swansea, and the highest rates in Sheffield, Leeds, Salford, Bolton, and Preston. Measles caused the highest proportional fatality in Salford, Huddersfield, Brighton, and Oldham; scarlet fever in Preston and Swansea; whooping-cough in Nottingham and Preston; "fever" in Portsmouth and Birkenhead; and diarrhœa in Gateshead, Hull, Leicester, Cardiff, Sheffield, Salford, Leeds, Bolton, and Preston. The 54 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 34 in London, 4 in Salford, 3 in Manchester, and 3 in Oldham. One fatal case of small-pox was recorded in Halifax, but not one in London or in any other of the large towns; 5 small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 3 in the Highgate Small-pox Hospital, on Saturday last, September 3rd. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital was 3,280, against 3,052 and 3,103 on the preceding two Saturdays; 461 new cases were admitted during the week, against 367 in each of the preceding two weeks. The 114 deaths referred to diseases of the respiratory organs in London were equal to an annual rate of 1.4 per 1,000, and were as many as 55 below the average.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, August 27th, 817 births and 452 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.0 and 17.2 per 1,000 in the preceding two weeks, declined again to 16.2 during the week under notice, and was 2.3 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 10.3 in Perth and 13.1 in Aberdeen, and the highest rates 17.6 in Paisley and 20.6 in Greenock. The 452 deaths in these towns included 75 which were referred to the principal zymotic diseases, equal to an annual rate of 2.7 per 1,000, which was 1.5 per 1,000 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley and Greenock. The 212 deaths registered in Glasgow included 9 from diarrhœa, 6 from measles, 4 from scarlet fever, and 3 from diphtheria. Eight fatal cases of diarrhœa were recorded in Greenock. The death-rate from diseases of the respiratory organs in these towns was equal to 2.1 per 1,000, against 1.8 in London.

During the week ending Saturday, September 3rd, 788 births and 438 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.2 and 16.2 per 1,000 in the preceding two weeks, further declined to 15.7 during the week under notice, and was 4.1 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 12.7 in Dundee and 14.3 in Edinburgh, and the highest rates were 17.0 in Glasgow and 20.6 in Perth. The 438 deaths in these towns included 67 which were referred to the principal zymotic diseases, equal to an annual rate of 2.4 per 1,000, which was 2.6 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley, Glasgow, and Leith. The 291 deaths in Glasgow included 16 from diarrhœa, 9 from scarlet fever, 9 from whooping-cough, and 7 from measles. Two fatal cases of scarlet fever occurred in Leith. The death-rate from diseases of the respiratory organs in these towns was equal to 2.1 per 1,000, against 1.4 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, August 20th, were equal to an annual rate of 17.7 per 1,000. The lowest rates were recorded in Lisburn and Wexford, and the highest in Londonderry and Galway. The death-rate from the principal zymotic diseases averaged 3.0 per 1,000. The 131 deaths registered in Dublin were equal to an annual rate of 19.5 per 1,000 (against 21.5 and 21.6 in the preceding two weeks), the rate during the same period being 17.2 in London and 16.7 in Edinburgh. The 131 deaths registered in Dublin included 20 which were referred to the principal zymotic diseases (equal to an annual rate of 3.0 per 1,000), of which 12 resulted from diarrhœa, 3 from scarlet fever, and 2 from enteric fever.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, August 27th, were equal to an annual rate of 21.3 per 1,000. The lowest rates were recorded in Londonderry and Lurgan, and the highest rates in Sligo and Galway. The death-rate from the principal zymotic diseases averaged 2.5 per 1,000. The 161 deaths registered in Dublin were equal to an annual rate of 24.0 per 1,000 (against 21.6 and 19.5 in the preceding two weeks), the rate during the same period being 17.2 in London and 17.5 in Edinburgh. The 161 deaths registered in Dublin included 13 which were referred to the principal zymotic diseases (equal to an annual rate of 1.9 per 1,000), of which 9 resulted from diarrhœa, 2 from measles, and 2 from "fever."

A MEDICAL ATTENDANCE "RELIEF"?

S. B. M. writes: "An old woman obtained a medical order from the relieving officer for my attendance, which I gave. After her death a sum of money was found under her bed; this was seized by the clerk to the guardians and letters of administration taken out. I applied to him for payment for attendance. This he will not allow, and says: "All I have power to deduct is the amount the guardians have expended in relief and nurses' wages." I wish to know if my attendance is not relief, and whether I can claim to be paid?

*** We do not undertake to decide the difficult points of law, but we consider the clerk to the guardians would in this case have been quite justified in paying our correspondent for his services out of the money he seized, and this either with or without the direction of the guardians; but as he has declined to do so, we fear it would be difficult to compel him, and without their assistance it would probably be impossible; with their co-operation it could in all probability be easily done, as the seizure of the money was made on their behalf.

REMUNERATION OF MEDICAL OFFICERS OF HEALTH.

AT the meeting of the Nantwich Board of Guardians held on August 13th a letter was read from the Local Government Board approving the increase in the salaries of the following medical officer, as decided at the last Board meeting, namely, Dr. Bird, Bunbury, from £40 to £46; Crewe Northern District, from £20 to £30; Haslington, from £25 to £30.

DISPOSAL OF REFUSE IN HAVANA.

THE Havana Society of Hygiene has commissioned one of its most active members—Dr. Wilson—to study and report on the kind of "destructor" best adapted to the conditions of life and the climate of Havana, with a view to the adoption of that method of disposing of town refuse.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE DERBY AND DERBYSHIRE NURSING AND SANITARY ASSOCIATION.

THE twenty-seventh annual report stated that the year commenced with £418 8s. in hand, and ended with £521 4s. 10d. in hand. During the year 220 families had been visited, to whom 3,062 visits had been paid for the direct purpose of nursing. Sick-room appliances had been lent frequently, and £51 9s. 3d. had been lent in aiding convalescents.

THE FEVER IN LONDON: HOSPITAL ACCOMMODATION EXHAUSTED.

THE accommodation at the disposal of the managers of the Metropolitan Asylums District for the reception of scarlet fever cases is now exhausted, and the reception of further cases has been suspended. On September 5th there were 3,645 patients under treatment, of which 3,250 were cases of scarlet fever, 296 diphtheria, 92 enteric fever, and 7 other diseases. A good many cases have since been notified, but it has been impossible to admit them. Mr. T. Duncombe Mann, the Clerk to the Metropolitan Asylums Board, has stated that on Friday, September 9th, some fresh huts will be opened in the grounds of the Northern Convalescent Hospital. This would provide accommodation for some fifty patients, but the cases were coming in so rapidly that the admissions were bound to exceed the discharges and deaths.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, SEPTEMBER 10th, 1892.

THE VIBRIO OF ASIATIC CHOLERA.

Is Koch's celebrated "comma bacillus" to be regarded as the cause of cholera or not? The answer to this question has not only great scientific interest, but an important practical bearing on the measures that are being taken in this country and throughout Europe to prevent the spread of the disease. When Koch first published an account of his discovery, the microbe was greeted with lively opposition. Years before, Lewis and Cunningham, in India, the home of cholera, had observed vibrio-like organisms in the dejecta of cholera patients, without, however, finding any definite grounds for regarding them as the cause of the disease. By means of improved methods, especially by cultivation on gelatine plates, Koch was able to obtain and cultivate this microbe in a state of purity, to describe its characters and to show that it was nearly constantly present in the bodies of cholera patients. He was not, however, able to reproduce the disease by its means in the lower animals. By injection of large quantities of the culture of the microbe into the peritoneum of a guinea-pig the animal could be killed; but it was urged that this might rather be regarded as due to poisoning by microbic products than as the result of a disease process produced by infection with a specific microbe. It is true that he produced a fatal illness in these animals characterised by an inflammatory condition of the small intestine by feeding them with cultures of the vibrio after the acid contents of the stomach had been neutralised with sodium carbonate, and the intestines quieted with opium.

But these experiments left many doubters and made few converts. The lack of more satisfactory evidence of the pathogenic properties of the vibrio in question, coupled with certain admitted difficulties in explaining by its means the origin and propagation of cholera, led a great number of medical men, especially among our Indian colleagues, to regard it with a high degree of scepticism.

The recent progress of bacteriological research has, however, gone a long way towards justifying Koch's original estimate of the importance of the cholera vibrio.

More than one observer has since succeeded in producing in animals a disease closely resembling human cholera by means of the cholera vibrio. Gamaleïa artificially increased the virulence of the microbe by passing it through a series of guinea-pigs. With the microbe thus prepared, he was able to produce in dogs a disorder stated to be absolutely identical in its symptoms with human cholera. Further, and produced in rabbits by means cultures such choleriform symptoms as diarrhœa, thirst, loss of appetite, suppression of urine, and the changes in the intestine.

Haffkine and Hueppe have obtained closely similar resu. Doyen has found that guinea-pigs can be killed by the cholera microbe when introduced by the mouth, if a dose of alcohol has previously been administered. These experiments illustrate the importance of a healthy tone of the digestive tract as a defence against cholera. Another testimony to the causal relation of the cholera microbe to the disease is to be found in the well-known case of a bacteriologist who, while working with the cholera microbe in Koch's laboratory, was suddenly seized with the disease. This happened at a time when there was no case, and had been no recent case, of cholera in the whole of Germany. The symptoms were perfectly typical of Asiatic cholera, and the cholera vibrio was found in the patient's dejecta. Happily the case ended in recovery.

Though these results may enforce the conclusion that the cholera vibrio is the immediate cause of the disease, the difficulties of that theory are by no means ended. Several experimenters have swallowed cultures of the cholera microbe without its producing any more effect on them than it would on a normal guinea-pig. How does the cholera microbe usually get into the system? How does it escape the action of the gastric juice, the acid of which is known to be capable of destroying it? It is no doubt peculiarly dangerous to those suffering from a derangement of the digestive function, such as we may reasonably suppose existed in Doyen's alcoholised guinea-pigs.

The possible destroying action of the gastric juice is by no means such a difficulty as at first sight appears. At the commencement of gastric digestion the contents of the stomach usually have an alkaline reaction. It is only very gradually that the acid reaction develops. Probably a part of the chyme passes the pyloric valve even before the reaction has become distinctly acid, and there is no great difficulty in supposing that the microbes might thus pass through the stomach unharmed, especially as the clinical evidence is strong that the cholera poison usually enters the system through the fluid or solid food—especially the former—and therefore at a time when the stomach contents are in the first instance alkaline or neutral. Several other solutions of the problem are, however, already indicated. In the first place, Hueppe has on two occasions seen the formation of bodies resembling spores in drop cultures of the cholera vibrio. This observation is as yet isolated, and we cannot yet say that we know of a spore stage in the life history of this microbe. There is a certain amount of evidence that cholera dejecta are less capable of transmitting the infection when fresh than they are some time after leaving the patient. It is possible that in the interval that elapses before such dejecta become dangerous spores are formed, which without doubt would be able to pass through the stomach unharmed. A similar suggestion has been made in other cases.

Hueppe and Wood have published some interesting experiments that point to another way out of the difficulty. The cholera vibrio is normally aërobic, that it flourishes in the presence of oxygen and is thus early propagated in water and in the earth. In the absence of oxygen

it is almost incapable of vegetating. The above-mentioned authors found that it could gradually be acclimatised to an anaërobic mode of living. They showed that under such conditions, which, so far as the lack of oxygen is concerned, resemble those existing in the human intestine, it secretes poisonous substances of a high degree of activity. In the presence of oxygen, on the other hand, it vegetates more freely but secretes less of its poisonous products. It is noteworthy that in this condition it is far less capable of being killed by an acid reaction. Hueppe and Wood have suggested that with this microbe we have a sort of physiological alternation of generations. First, in the intestine of a cholera patient we find it existing anaërobically and secreting much poison; then in the dejecta we find it ready to exist aërobically—in the town water supply, for example—till it has sufficiently recuperated its energies to be able to face the difficulties of an anaërobic mode of existence in a fresh patient. This theory is noticeable as suggesting lines of research that might lead to interesting results.

A discovery to which some are disposed to attribute a very important bearing on the cholera question is to be found in Gamaleïa's work on the vibrio Metschnikovi. This is a microbe closely allied to the vibrio of Asiatic cholera. It resembles it in form, mode of growth, and in many biological characters, such as its high degree of variability and its pathogenic properties. It was discovered by Gamaleïa in Odessa causing a cholera-like disease of fowls. The microbe occurred abundantly in the dejecta, and the disease was extremely infectious. Nevertheless, Gamaleïa found considerable difficulty in reproducing the disease by its means in fowls. To kill the animal, quite large doses had to be injected either into the pectoral muscle or into the peritoneum. When the birds were fed with cultures of this microbe, only a small percentage succumbed. Guinea-pigs could be infected far more easily than rabbits, as is the case with the allied vibrio of Asiatic cholera. With impure cultures, however, it was impossible to produce a disease in these animals by subcutaneous injections. How, then, does infection take place in Nature, where the fowls only swallow small quantities of the microbe, and which are certainly not present in pure cultures? The idea suggested itself to Gamaleïa that possibly infection takes place through the respiratory passages. Experiment gave all the support to this question that could be expected. Not only fowls but even rabbits could be readily infected by a small dose of a culture, whether pure or impure, being injected into the trachea. On *post-mortem* examination no trace of injury could be found in the lungs. The animal had succumbed to the typical choleriform disease, and under certain conditions of virulence, etc., the microbe was only to be found in the walls and contents of the intestine. Gamaleïa states that he also found the vibrio Metschnikovi in the intestine of a patient in Odessa, who died from cholera nostras. But considering the great variability of members of this group of microbes, which has been so admirably shown by Cunningham and others, we may well ask whether this might not have been some variety of the Finkler-Prior vibrio, simulating the vibrio Metschnikovi.

These experiments of Gamaleïa acquire an additional interest from the analogous deductions which some are disposed to draw from them in respect to the relation of Koch's vibrio to cholera. In the vibrio Metschnikovi we have a microbe extremely similar to the cholera vibrio, and associated with a choleriform disease of fowls. We have the clearest proof that the former causes this disease of fowls. Analogy, as well as the direct evidence above stated, suggests that Koch's vibrio causes the cholera of human beings. There is evidence that the former enters the system by the lungs to produce natural infection. Analogy, therefore, might further suggest that the vibrio of Asiatic cholera enters the system in the same way, thus avoiding the deleterious action of the acid of the gastric juice. Direct evidence on this point will be difficult to obtain, and we must look for an answer rather to the clinical observers and epidemiologists than to the votaries of bacteriology. The whole burden of clinical and epidemiological evidence is, however, as in the case of the enormous and tragic experiments made by the water companies on London, as observed successively in the epidemics of 1849, 1854, and 1866 by Snow, Simon, and Ernest Hart, and in India by De Renzy, Furnell, Macnamara, and Payne, and recently by Koch in Hamburg, is to show that drinking water is the main agent of conveyance, and the alimentary canal the chief channel. Although aërial infection is not excluded, there is an overwhelming mass of evidence in European observation that it plays a very small part, if any. The formula which has this week become famous, and bids fair to be accepted as the popular as well as the clinical creed, is that "you can eat cholera and drink cholera, but you cannot catch cholera as you catch measles or influenza and whooping-cough." Further to quote the same widely-reported lecture, of which an abstract was published in the BRITISH MEDICAL JOURNAL of September 3rd, and which has been reproduced in a multitude of channels throughout the country and throughout Europe: "Cholera is a filth disease, carried along the lines of human intercourse by dirty people, and only flourishing in dirty places; travelling, not as the air travels, and blowing where it listeth, but slowly with pedestrians and horsemen, rapidly by steamer and railway travelling, but no faster in either case than those who carry it."

To recapitulate what we have said as to research on the vibrio: In the first place it must be admitted that there is now sufficient evidence to justify us in concluding that Koch's cholera microbe is the cause of cholera. The difficulties incurred by a denial of this proposition are far greater than the difficulties involved in its acceptance. With regard to the latter, we have seen that they have been gradually lessened in force by the progress of research since the first discovery of the vibrio by Koch. With regard to the question of the manner in which infection is brought about, we found that at least three theories are suggested by recent researches, namely, that of the resistance of the spore, that of the alternation of aërobic and anaërobic forms, and of the analogy derived from the fact of the power of the vibrio Metschnikovi of infecting the respiratory passages. It may further be noticed that these three theories are by no means mutually exclusive, and it may well turn out that more than one of them contains a germ of truth.

More than one attempt has been made to produce artificial immunity against cholera. The work of Brieger, Kitasato, and Wassermann in this direction is especially interesting to British researchers, because it must be regarded as a direct continuation of the work of the lamented Dr. Wooldridge

on immunity against anthrax. In each case the immunising liquid was obtained from a culture of the microbe in a solution of tissue fibrinogen. Haffkine, working in Paris, has also produced immunity against cholera. He has employed methods similar to those that have already led to valuable practical results in the hands of workers in the Pasteur Institute. It must be admitted that the method employed by Haffkine is the simpler of the two, and apparently more likely to lead to practical results.

Dr. W. H. Broadbent will deliver an Introductory Address at the opening of the winter session of the Medical Faculty in Owens College, Manchester, on Monday, October 3rd, at 4 P.M.

The Empress of Germany has decided that the surplus proceeds of the lottery which was got up for the purpose of raising money to make more open spaces round the Royal Palace, amounting to £5,000, shall be devoted to patients in lying-in hospitals.

The meeting of the German Society of Scientists and Medical Men, which was to have been held at Nuremberg from September 12th to 16th, has been postponed till next year in consequence of the outbreak of cholera in various parts of Germany. The proposed meetings of the German Public Health Association at Würzburg and of the Prussian Medical Officers' Association at Berlin have also been put off for the same reason.

The Queen has given very close attention to, and shown deep interest in, all questions relating to the arrival of cholera cases at the ports and to the precautions taken to avoid importation and to avert the extension of Asiatic cholera in Great Britain; frequent communications have been received from General Ponsonby at the Local Government Board desiring information, and Her Majesty has been kept thoroughly informed. The Queen has been especially interested in the relative value of quarantine as against medical inspection.

We understand that the name of Dr. ohn Struthers has been mentioned in Scotland as a fitting successor to the late Sir George Macleod in the General Medical Council. Dr. Struthers resigned his seat for the University of Aberdeen, much to the regret of most of his colleagues in the Council, who appreciated the good work he had done on the Education Committee; and although he had not, and as we are informed has not, any intention of becoming a candidate, yet we have reason to believe that he would accept the Crown nomination if offered to him.

INCREASED CONSUMPTION OF ALCOHOL.

The recent report of the Commissioners of Customs has one new feature in an actual decrease in the amount of revenue from wine, there having been a lessened yield of £27,000. Unhappily, however, there has been an increase of over £750,000 on the revenue from all spirits, though foreign spirits have diminished by £164,000. There has been a small gain in rum, but a very large increase in brandy, which, in the language of the report, "appears to have taken a fresh hold on popular favour." In the interests of the public health it is to be regretted that the increase has been in the stronger beverages.

SIR RICHARD OWEN.

We are pleased to be able to report that Sir Richard Owen is making very favourable progress. His medical attendant, Mr. F. S. Palmer, saw him on September 8th, and does not intend going to Sheen Lodge again for a few days unless telegraphed for. Sir Richard had a severe form of stomatitis, which extended down the fauces, and prevented him taking nourishment. This has almost entirely cleared up now, and he is taking enough liquid food to keep him going. He has been in bed nearly a month. He suffers no pain or other inconvenience, but has become perfectly deaf in the last six or eight months.

SOME BY-WAYS OF PHILANTHROPY.

It is sometimes urged in extenuation of the hard drinkers that with their aid the nation is slowly drinking itself out of debt, and that besides affording one of the tests of national freedom, individual insobriety helps to avert national bankruptcy. A curious antithesis is thus ingeniously suggested between sobriety and solvency. Better to be free, intemperate, and solvent, urge these casuists (who quote by distortion archiepiscopal sanction) than to be the slave of local option, involuntary abstainers, and nationally insolvent. The argument is rather strained but humorously paradoxical. In France the paradox is altered, and mutual gambling offers with complacency and public applause its homage to virtue by the tribute which it pays to common charity. The committee for the disposal of the funds derived from the tax on the *Pari Mutuel* met this week and voted 150,000 francs from the taxing of public betting on horse races to the Assistance Publique to aid the distress in Havre consequent on the outbreak of cholera there. Decidedly it is a strange if not always a merry world. We are afraid, however, that, with however good grace it be paid, the tribute is not a very willing one. When the late Mr. Bord, the celebrated and successful bookmaker, proposed that a percentage be voluntarily paid out of the gambling transactions at Tattersall's to the London hospitals he found no supporters either among amateurs or professionals, although he offered a thousand pounds to start the movement and liberal donations to follow. He was persistent in urging his proposal and much disappointed at its blank failure. Betting men did not see their way to seek salvation by the virtue of the very excess of their frailties. And, on the whole, many people will think they were right. Not this "the way to the stars!"

THE COLLEGE OF PHYSICIANS AND THE LOCAL GOVERNMENT BOARD.

We understand that at the meeting of the College of Physicians on Saturday, September 3rd, to receive and reply to the communication from the Local Government Board on cholera, fifty-four Fellows were present, a large number of whom attended at considerable inconvenience, many of them coming from great distances. Among these was Sir Henry Acland, who, notwithstanding his advanced age, came all the way from Wales especially for the meeting. Sir Andrew Clark also was at his country house at some distance from London, and spent no little time and trouble in convening the meeting and personally attending it. A memorandum in reply to the communication was submitted by the President to the meeting, and was, after consideration by the President, Sir George Johnson, Sir Joseph Fayrer, Sir George Buchanan, Dr. Russell Reynolds, and the vicarious Registrar, sent to the Secretary of the Local Government Board. We understand, however, that it has not yet been decided to publish the memorandum.

GLANDERS AND FARCY IN GREAT BRITAIN.

The President of the College presided over a largely-attended meeting of members of the Royal College of Veterinary Surgeons, held on September 5th, to consider the increase of glanders in Great Britain. After strong expressions of feeling as to inefficiency of the laws relating to glanders, the following resolutions were adopted: 1. That amendment and consolidation of the law relating to glanders and farcy is necessary. 2. That in any alteration of the law, immediate and compulsory slaughter must be applied to all cases of farcy as well as to glanders. 3. That a more systematic inspection of infected

or suspected places be enforced. 4. That a staff of veterinary inspectors, directed by the Board of Agriculture, be specially applied to effect the extirpation of glanders and farcy. 5. That compensation be paid for all horses slaughtered as farcied, or suspected of being farcied or glandered. 6. That this meeting views with disapproval the action of the Metropolitan Drinking Fountain and Cattle Trough Association in again opening their troughs for the watering of horses. Copies of these resolutions were directed to be sent to the Minister of Agriculture and the London County Council, and to the Metropolitan Drinking Fountain and Cattle Trough Association.

LONDON CORONERS AND THEIR DISTRICTS.

THE *Gazette* of September 6th contains an Order in Council dividing the County of London into eight districts for coroners' purposes. The districts are named respectively the Eastern, North-Eastern, Central, Western, Penge, Southern, South-Western, and South-Eastern. The only vacant office of coroner for the South-Western District will be shortly filled by the election of Mr. Luxmore Drew, M.B. and barrister-at-law, who has been selected for the post by the London County Council. All present vacancies will then be filled.

A PASTEUR INSTITUTE FOR INDIA.

THE idea of establishing a Pasteur Institute in India has been mooted, and in some quarters meets with warm approval, although the Government or, at least, its medical advisers, fear lest such a measure should lead the public to believe that they had committed themselves finally to M. Pasteur's theory. It is not at all unlikely, however, that some practical steps will be taken in the coming autumn in the Punjab, as the present ruler of the Punjab is favourable to the idea and an experienced civil medical officer of the Punjab establishment has, during his furlough, been studying the Pasteur system on the spot. It is intended, therefore, if possible, to take full advantage of this officer's knowledge. There is no doubt that such an institution would be of great value in India.

THE CONGRESS OF THE SANITARY INSTITUTE.

THE thirteenth Congress of the Sanitary Institute will be held at Portsmouth from September 12th to the 17th, under the presidency of Sir Charles Cameron, who will deliver an inaugural address in the Town Hall on the first day. For medical men the most interesting part of the work is fixed for Wednesday, September 14th, when the President of the Section of Sanitary Science and Preventive Medicine, Professor J. Lane Notter, M.D., will deliver an address, which will be followed by the reading of papers and discussions on various subjects of hygienic and scientific importance, a prominent place being, it is needless to state, occupied by cholera. The London, Brighton, and South Coast, and the London and South-Western Railways have made special arrangements for the conveyance of visitors to Portsmouth. A Health Exhibition, including sanitary apparatus and appliances, will be held in connection with the Congress in the New Drill Hall from September 8th to October 8th.

CONFERENCE OF MEDICAL OFFICERS OF HEALTH.

THE annual conference of medical officers of health held in connection with the meeting of the Sanitary Institute will take place at Portsmouth on Tuesday, September 13th, at 10.30 A.M., under the presidency of Professor Charles Kelly, M.D. Several of the subjects proposed for discussion are of especial interest in view of the threatened invasion of Asiatic cholera. Drs. Seaton, Groves, and Blackman will take part in a discussion on Isolation Hospitals; and among the papers to be read are the following: Dr. Swete on the Purification of River Water by Metallic Iron; Mr. D'Eath on Village Sanitation and its Importance to the Public Health; Dr. J. C. Thresh on the Interpretation of Results in Water Analysis. The Compulsory Notification of Phthisis will be advocated by Mr. A. E. Harris, and Dr. Newsholme will introduce the subject of Tuberculous Meat. After the meeting the members will visit the pumping station and sewage tanks at Eastney and the Borough Asylum at Melton. The Honorary Secretaries, Drs. J. C. Thresh and J. G. Blackman, may be congratulated on the exceptionally interesting programme which they have been able to arrange, and there is every prospect of the meeting being highly successful.

ZYMOTIC MILK EPIDEMICS.

EPIDEMICS of typhoid fever, traced to the distribution of milk polluted with contaminated water, still continue to be reported from time to time in different parts of the country, notwithstanding the many warnings which have been given and the precautions taken in a certain number of places—and by some purveyors on a large scale—against such contamination. Whenever such epidemics, small or great, are brought under our notice, we place them on record; but no doubt many of them pass unnoticed even by those affected or concerned, and many more fail to be brought under notice in such a manner as to be put on record in our pages or by any available central authority or recognised source of information. It will be remembered that at the date of the International Medical Congress which met in London in 1881, Mr. Ernest Hart recorded and laboriously analysed the details of some 75 epidemics which had been locally observed up to that date within his knowledge. It is, of course, however, not likely that any one unofficial person should be able to collect notices of all the cases which have been recorded, not to say of all which have occurred. It will be time presently for the author of that paper, or some younger and more leisurely person, to complete the records and to bring the analysis up to date, for which much material will be found in our columns in the years which have intervened. We have to-day to note briefly from a paragraph which falls under our attention in the *Dundee Advertiser* the occurrence of an epidemic of typhoid fever traceable to the contaminated milk, which had, it is stated, been supplied from a Lochee dairy before it was closed, and now it seems twenty-four cases have arisen from the same source. Of course, if Asiatic cholera had been prevalent at this moment in Dundee, this is just the case in which that fatal disease would as easily have been diffused by the same channel as typhoid fever has been.

EMPLOYMENT OF MARRIED WOMEN IN FACTORIES.

THAT the employment of married women in factories is likely to conduce to a high infant death-rate will readily be admitted, but perhaps we were hardly prepared to find that the injurious influence of such employment should be so great as it would appear to be from the statistics for Staffordshire, which formed the basis of a paper read by Dr. Reid at the Public Medicine Section at Nottingham, and which was published *in extenso* in our issue of July 30th. In the compilation of the figures, which had reference to a population of upwards of 500,000, and extended over a period of ten years, every care seems to have been taken to exclude fallacy; and, therefore, so far as Staffordshire is concerned, the case appears to have been proved. It would seem that the conditions of trade in Staffordshire enable a line to be drawn between towns corresponding in every respect as regards general influences that affect injuriously the lives of children, but differing essentially in one feature, namely, the relative proportion of married women engaged in work, and to this cause alone an increase of 28 per cent. in an already high infant mortality is to be attributed. If the figures for the country generally bear any resemblance to those for Staffordshire, a very serious case is made out, and it clearly becomes a question whether legislative interference is not called for. Dr. Reid gives similar figures for towns throughout England, so far as the Registrar-General's returns permit of their being

worked out, and the result corresponds broadly with that arrived at by the more detailed inquiry he conducted in Staffordshire. The whole question has been referred to the Parliamentary Bills Committee, and it is desirable that the first step taken in view of such action as may be deemed expedient should be in the direction of acquiring similar specific and reliable information from medical officers of health throughout the country as that upon which Dr. Reid's figures for Staffordshire were to be based.

THE ADVANTAGES OF EPIDEMICS.

Out of evil comes good. A sharp epidemic, especially if fatal in type, may save many lives in the long run by educating those individuals and corporations whose obtuseness prevents them from learning in a less expensive school than that of direct experience. The dread of cholera is spurring to action many authorities who would otherwise have remained content with polluted water supplies and reeking nuisances which custom had made familiar. Small-pox, too, has been teaching many bitter lessons as to the need for means of isolation being in readiness beforehand. Now scarlet fever is enforcing the same moral, and if the lay press may be taken as an index of public opinion, there is a growing disposition to use plain language concerning sanitary authorities who fail in their duty in this matter. It is in the power of the public as ratepayers to insist upon proper means being adopted for their safety, and the sooner the public realise the danger of delay the better. Brighouse, for example, has learned the lesson at a cost of several lives and probably several thousands of pounds. A few of the adjoining districts have had the wisdom to profit by their neighbour's fate, and are bestirring themselves, but most are perversely content to wait as Brighouse and Batley did until it is too late. At Golcar a case of small-pox has occurred among a colony of navvies, and has had to be left there, the sanitary authority having made no provision whatever. An outbreak of scarlet fever among Irish harvestmen at Kirkby, near Liverpool, found the rural authority equally unprepared; and although provision is now being hurriedly made, the *Liverpool Post* comments with just severity upon the previous inaction of the Board. The condemnation should have been extended to the scores of other defaulters whose inaction is no less culpable.

THE COLLEGE OF PHYSICIANS OF LONDON AND ITS LICENTIATES.

The recent circular of the London College of Physicians, on which we venture to comment as requiring further explanation and authoritative interpretation from the College, and the correspondence thereon which has appeared in our columns as to the question raised by the wording of the circular, have been a subject of very widespread comment in the daily press, and outside the ordinary circle in which internal questions of professional interest are usually discussed. As, however, the issues raised by the circular concern directly the public relations of the profession, and express views on matters of public policy as well as of professional title and collegiate tradition, it is perhaps not surprising that more than usual attention is devoted by the public press to the circular, to our comments thereon, and to the correspondence which has ensued in our columns. The article in the daily press which has excited most comment is that to which a correspondent refers in another column as having appeared in the *Daily Telegraph*, and professing to give a semi-official and authoritative interpretation of that clause of the circular, and of that only, which, by comparison with the rest of the text, would appear to imply either that the Licentiate of the College is not a physician, or that, if a physician, he alone among physicians is entitled to do with impunity or without notice from the College that which is declared in the circular to be derogatory to the position of a physician, and in restraint of the freedom of patients, and thus contrary to public welfare. Among other papers the *Manchester Guardian* of September 2nd, of which many marked copies have been forwarded to us, has the following paragraph: "It is not for us to lay down what may be the most dignified and suitable course for the College of Physicians to pursue in the matter, but it is certainly apparent that some authoritative and formal declaration by the College in interpretation of the various propositions contained or implied in its text should be forthcoming to the profession in such manner as the College may think best; meantime it is unnecessary to attach too much importance to the wording of the circular which, however unfortunate and ambiguous it may seem, is so probably rather by thoughtlessness than intent to do anything which can either deprive the Licentiates of an authoritative and recognised right to describe themselves as physicians, or to derogate from their reputation and position by the implications involuntarily conveyed in the text, supposing that we are right in our surmises as to the real intention of the College with reference to the question of title." The gist of the article to which our attention has been so much invited in the *Manchester Guardian* is as follows:

> The inference has been drawn that the College implies that only the Fellows and Members of the College can be thus described, and that what is held authoritatively to be derogatory to the holders of the two senior diplomas of the College—called Physicians—is not regarded as a violation of etiquette in the case of the less distinguished body of licentiates. Hence the question is asked, Is a diplomate of the College of Physicians licensed to practise physic no longer to be a physician? and strong resentment has naturally been expressed in certain medical circles that, inferentially, the College should have laid down the law repudiating the right of their Licentiates to this title. Hitherto a general practitioner, by virtue of holding the double qualification of L.R.C.P. and M.R.C.S., has considered himself justified in inscribing upon his door-plate the titles of "Physician and Surgeon." Now, however, it would appear that the College of Physicians, whose licentiateship he holds, considers that only the Fellows and Members of the College have a right to this distinction.

The interpretation put upon the circular by the *Manchester Guardian* differs directly from that more authoritatively put forward by the *Daily Telegraph*, but we are inclined to think that the *Daily Telegraph* is right in its view, and that it is in that respect correctly inspired by whomever it may be among the official or non-official Fellows of the College. With the general object expressed in the letter of Dr. Bott we are in full sympathy, excepting in the principle, on the one hand, which we have before expressed, that it would not derogate from the dignity of the College—a consideration to which we agree with the most Conservative of its Fellows, and one of the highest importance—to grant to the Licentiates some more formal and organised relation to the governing body, and also on the ground that corporate bodies, like the higher powers to whom a well known proverb refers, that corporate bodies are in general inclined to help those who help themselves.

THE "MEDICAL REGISTER."

The report of a judgment given in July last, by the Chief Justice of British Columbia, which has recently reached this country, is of interest to members of the medical profession, as showing the value of English registration. The English Medical Acts, passed by the Imperial Parliament, declare that all practitioners registered in the United Kingdom may, without further examination, practise in any of Her Majesty's dependencies. Colonial Legislatures may require such practitioners to be further registered in the colony where they propose to practise, and may impose fees for such registration, but are bound to accept the fact of British registration as conclusive proof that the person so registered is duly qualified. The Legislature of British Columbia had passed certain Acts recognising those of the Imperial Parliament, and providing the machinery by which persons registered in Great Britain could obtain registration in the Province, and imposing fees for such registration. In the year 1890, how-

ever, they repealed these provisions, and passed no others to take their place, except that the Provincial Medical Council were empowered to make rules as to the methods and subjects of examination for persons desirous of obtaining a qualification in British Columbia, and also for the "regulation of the *Register* and the fees to be paid for registration." No rules dealing with the case of persons qualified by being on the *Register* of Great Britain have yet been passed. Under this state of the law a gentleman named Metherell, who was on the *Register* of Great Britain, applied for registration in British Columbia, but the Provincial Medical Council objected that they had no power to admit him, as their statute under which such registrations had been previously effected was no longer in force. The matter thereupon came before the Provincial Court, and the Chief Justice held, apparently quite correctly, that the repeal of the Provincial Act could not affect the plaintiff's rights, which were conferred by the unrepealed Acts of the Imperial Parliament. Mr. Metherell was entitled to registration in British Columbia on proof of being duly registered in Great Britain, and, as there was neither Act nor rule at the time in force in the Province imposing any fee for such registration, he was entitled to be registered gratis. This decision follows one given some years ago in Ontario; and nowadays, when emigration from one part of the British Empire to another is so frequent, their importance is great. Medical students from the colonies, sometimes before and sometimes after obtaining their first medical degree, now often visit some one or other of the great medical schools of this country for the purpose of obtaining a fuller knowledge of their profession than they can hope for from the smaller sphere where they were originally educated. Whether their Colonial Degrees are such as to entitle them to practise in this country is a question for our Medical Council. But if they are admitted to the British *Register* as the result of passing a satisfactory examination, either in a colony or in this country, they thereby become entitled to be registered, and to practise anywhere in the British Empire, on complying with reasonable regulations and payment of reasonable fees, if any, which may be required by the province or colony to which they go.

FILTERS AND FILTRATION.

THE purification of water by filtration is a matter which obviously calls for special attention at the present time, and in reference to which it is well to sound a note of warning and to give some few words of explanation. Much misconception and ignorance exist about this, as indeed about almost every hygienic subject; even "experts"—so-called—do not seem to be agreed as to what is to be understood by filtration, and still less does there appear to be concordance of opinion as to what may be regarded as an "efficient" filtering medium and as to how it should be employed when obtained. By some the term "efficient filtration" is evidently intended to mean the mere removal of solid matters in suspension in water, such as sand or clay; by others it is held to mean not only this, but in addition the adequate removal of organic matter in solution, that is, the destruction by oxidation of a sufficient amount of such matter to purify the water for drinking purposes. That the latter is the meaning that ought to be attached to the filtration of water by companies taking their supplies from sewage-polluted rivers is plain enough, and to use the term "efficient filtration" in the other sense, as is done in the reports of the Metropolitan Water Examiner, is simply dangerously misleading. The companies supplying London derive their water mainly from the Thames and Lee—both sewage-polluted rivers—and after "subsidence," which means the depositing of what perhaps may be called the grosser matters, filtration through beds of washed sand is carried out. So long as this process is conducted properly, through well-prepared and sufficiently extensive sand beds, and so long as these are not overtaxed, it is fairly effectual in producing a satisfactory drinking water, but such a water is of course not sterile, and it is a most serious mistake to suppose that the method in question affords adequate protection to the consumer in times of epidemic, or, for that matter, that he is absolutely protected at other times. The sand filter, which acts both mechanically and chemically in that it removes solid matters and admits of oxidation in its pores, is practically powerless to remove micro-organisms to an extent that would be deemed in any way sufficient; but it must at the same time be admitted that so long as communities permit the pollution of rivers, and these are used as sources of supply, there is no other method of purification capable of practical application. It cannot be too widely known that the use of the domestic filter does not confer safety on the consumer, except perhaps in the case of such a filter as that of Pasteur, which, when properly used, by the closeness of the texture of the material, prevents the passage of micro-organisms. Charcoal, either loose or in block, or compressed with sand, while its purifying power is certainly greater than that of sand alone, cannot be relied on as capable of doing so much more that the setting up of a filter of this material in a house is to be regarded as an irrefragable "line of defence." Moreover, the fact must not be lost sight of that a filtering medium will only retain its power of effecting a certain amount of purification for a length of time which depends on a variety of circumstances, such as the degree of pollution of the water and the rate of filtration. On the other hand, the reduction of the amount of organic matter in water is a matter of great importance, since its effectiveness as a breeding ground is *pro tanto* lessened, and especially is this the case where the water is subsequently stored for any length of time in a cistern or other receptacle. Such reduction can undoubtedly be effected by proper filtrations and proper filters. Proper filtration requires the exercise of a little intelligence, and proper filters must be so constructed as to admit of complete and ready cleaning, and the frequent and not too expensive renewal of the filtering medium.

BACTERIOLOGY IN SOUTH AFRICA.

IT has been said of cholera that it has saved more lives than it has sacrificed, because the dread of it has led to the adoption of many sanitary precautions, and it is to be hoped that the epidemic of that disease, which now threatens our eastern coast, may not only still further expedite hygienic reform, but impart an impulse to bacteriological research in this country by bringing home to the public the urgent need that exists for "increased facilities for the study of those life-destroying organisms, of which the cholera bacillus is by no means the most malignant." But other incentives in the same direction are not wanting, and it ought surely to awaken the mother country to a sense of her responsibilities to know that one of the younger of her colonies has established and liberally equiped a bacteriological institute. In October last the buildings at Grahamstown, formerly used as an agricultural school, were handed over by the Government of Cape Colony to Dr. Alexander Edington, bacteriologist to the colony; and under his energetic and careful superintendence these have been already converted into a laboratory, which, although not so large as the Pasteur Institute in Paris, or the Hygienic Institute in Berlin, will compare favourably, as regards the completeness of its arrangements, with any similar laboratory in Europe. In this laboratory, assisted by a lady trained in England, and with the necessary staff of servants and grooms, Dr. Edington commenced in January last the investigation of horse sickness, that scourge of South Africa. It will be remembered that Mr. Joshua Nunn, the able veterinary surgeon, who, at the request of the authorities of Natal, was sent out to investigate this malady, and whose inquiries extended over two years, reported—(1) that it is not contagious; (2) that it is not inoculable from one animal to another; (3) that it is probably malarial or atmospheric in origin. Dr. Edington's researches have led to exactly opposite conclusions, and he is now able to affirm with confidence that horse sickness is contagious,

and is always easily inoculable from one animal to another. The better to prove this, he has preserved the virus of the disease from January, when it is always at its height, until July, when it is unknown in South Africa, and has, by the inoculation of the virus in the latter months, produced unmistakable cases of the disease. But Dr. Edington has done more than this, for he has actually discovered the germ which is the true cause of horse sickness, and has selected this out of upwards of 100 germs which he has isolated in a more or less pure state. The special germ is now under observation, and sanguine expectations may be entertained as to the results of Dr. Edington's further studies. Innumerable empirics have been curing horse sickness in innumerable different ways—some of them sufficiently preposterous—during the last few years, and the disease is of course just as prevalent and fatal as ever. It may be hoped, however, that bacteriological science will, before long, supply some efficient protection against it, or at least show how it may be best avoided and alleviated. Dr. Edington is at present purely a colonial official, employed and paid by the Government of Cape Colony. It seems very desirable that the Imperial Government should recognise his position, and secure his services for our Crown Colonies, protectorates which, not less than Cape Colony, are in need of bacteriological aid.

ARTISTIC ANATOMY.

An amusing description in the *Graphic* by an artist of the models who presented themselves to him for employment has called forth a suggestion from a leading London surgeon, which might at least do something towards lessening the excessive competition for occupation of the kind. This gentleman, who is also a well-known lecturer on anatomy, is of opinion that no one should be allowed to pose professionally who does not hold a licence granted by an examining body of artists and medical men; and he bases the arguments in favour of his proposal upon the life-studies exhibited at South Kensington in the National Competition of Schools of Art. We have referred to Mr. William Anderson, of St. Thomas's Hospital, whose long experience as a teacher of anatomy and great artistic accomplishment, and present position as Professor of Anatomy at the Royal Academy, indicate his knowledge and authority on the subject. His opinion is thus expressed:—"The question raised in the *Graphic* is interesting, but I think it is purely one for artists. I am strongly of opinion that a medical man, as such, would not be of the least assistance in the selection of an artist's model, for his dissecting room training, valuable enough in its way, gives no useful idea of the kind of anatomy required by the painter or sculptor—in fact, an artist who has made a careful study of the antique and of the nude knows far more of normal surface anatomy than even the professed anatomist, unless, of course, the anatomist has had some artistic training, and has worked at his subject from the artistic as well as from the scientific aspect. We are mere infants in the knowledge of the human form when compared with the creator of the Elgin marbles, who probably never saw a dissection."

THE HORSE AND THE GIG.

A correspondent of the *Standard*, writing under the name of "Newmarket," discusses a question which must have occasionally suggested itself to the country practitioner on his rounds. When a horse is yoked to a two-wheeled vehicle, such as a gig or a hansom, should the weights be so distributed as to bear on the girth or on the straddle? Should the horse support the vehicle or the vehicle the horse? The writer gives some mechanical arguments, apparently derived from an article by Mr. Baron, the distinguished veterinary authority, published in the *Bulletin* of the French Ministry of Agriculture, the drift of which is to suggest that, by placing the centre of gravity behind the axle, the body weight of the horse should be artificially diminished by the upward lift of the belly band. The general reasoning is quite sound, but the inference at the end is erroneous, as it involves an error in animal mechanics. A horse drawing a two-wheeled vehicle is a heat engine that can adapt itself to various conditions of work by altering its speed, by changing the length of stride, but this increase of speed will be attained by a loss in the total day's work of which the horse is capable. Let w be the weight of the car and passengers, and let h be the weight of the horse applied at the belly band. If the centre of gravity of w and h be at the axletree, there is no strain on either the belly band (girth) or back band (straddle). Everyone who has travelled on an Irish car knows that in going up a hill the passengers instinctively move a little forward to help the horse, and *vice versâ* on going down a hill. In the first case a strain, x, is placed upon the back band, and the weight of the horse becomes $h + x$, pressing the ground through the horse's feet; while the weight of the car and passengers pressing the ground through the wheels becomes $w - x$. The power of the horse to draw the load is proportional to $h + x$, instead of h as before; and the resistance to be overcome is proportional to $w - x$, instead of w as before, so the draught power is increased, and the resistance is diminished. In the opposite case, where the load is moved back, the strain comes on the belly band, and the weight of the horse is $h - x$, instead of h, and the pressure of the load $w + x$, instead of w; so that the draught power is diminished, and the resistance is increased; and in the case of a heavy load the horse with diminished weight might be unable to draw the increased load. So far the lift of the belly band has done us no good; but, on the other hand, the horse feeling lighter, and with a down hill before him, begins to go faster, and we gain in speed what we have lost in power. The laws of animal mechanics now step in, and show that we have gained the increase of speed at a heavy cost to the horse. No principle in animal mechanics is better established than this: the total work done multiplied by the rate of doing it is always a constant. As we have increased the rate of work, we have also diminished the total work done by the time the horse becomes exhausted. Indeed, the state of maximum efficiency for a horse and gig would be too slow for a country doctor, who might find his patient dead, though on the journey to him he had economised his horse.

THE SALE OF PROPRIETARY MEDICINES CONTAINING POISON.

Although some progress has been made towards legitimate regulation of the trade in proprietary medicines containing poison, in accordance with the construction of the statute laid down by Mr. Lushington, it appears that since our last reference to this subject some show of opposition has been offered, ostensibly on behalf of the owners of proprietary medicines. As a reply to a notice issued by the Council of the Pharmaceutical Society that in future proprietary preparations, containing poison within the meaning of the Pharmacy Act, will be held subject to the provisions of the statute, a circular has been issued by the Secretary of an Association of Owners of Proprietary Medicines, in which it is stated: 1. That in the opinion of the Association the late prosecution of Reg. *v.* Davenport settled nothing beyond the fact that a preparation of morphine and chloroform comes within the clauses of the Pharmacy Act, 1868. 2. That the Association entirely disputes the assumption that because a patent medicine contains a minute quantity of poison, it is thereby a poison within the meaning of the Act, and is prepared to carry each suitable case, as it arises, to the highest court. 3. That until a proprietor labels his medicine "Poison" it is unjustifiable to assume that it requires a "poison" label, and such medicines may, in the opinion of the Association, be sold without any reference to the Pharmacy Act. This circular has at first sight a defiant appearance, and it may furnish some explanation of the statement lately made in the *Chemist and Druggist*, that there were defendants ready

to meet the Council of the Pharmaceutical Society, and contest the exercise of the statutory powers which it has been called upon to make, in accordance with the present construction of the law. But on examination it will be found that the suggested resistance is more apparent than real. In the first place, the purport of the circular is inconsistent with the fact that in several recent cases of prosecution unqualified sellers, acting under legal advice, have promptly admitted their offence, and paid the penalties incurred. In no case has there been any attempt of defence. The statement in the first paragraph of the circular is, in a limited sense, correct, but it fails to take cognisance of the effect which the decision in the chlorodyne case must necessarily have, now that the Council of the Pharmaceutical Society has been called upon to take action in this matter. The position taken by the Association in the second paragraph of its circular is merely of academic value, and, being without any active support, is not likely to influence the administration of the law. Moreover, the limitation of any contemplated support of that position suggested by the term "suitable case" considerably reduces the probability of real opposition. The third paragraph of the circular is especially remarkable, since it virtually lays down the startling proposition that concealment of the fact that preparations contain poison, places their proprietors above the law, and justifies retailers in selling such preparations without complying with statutory requirements. It may be that this extraordinary notion arises from some confusion of the obligations respectively of wholesale and retail dealers; but in any case we do not apprehend that it is likely to be of much effect in opposing the more thorough enforcement of the law relating to the retail sale of poisons, which we are glad to see is now in course of being carried out.

THE SECOND INTERNATIONAL CONGRESS OF PHYSIOLOGISTS.

THE second triennial International Congress of Physiologists this year held its sittings at Liége, with Professor Holmgren (Upsala) as President, in the Physiological Institute of the University under Professor Leon Frédéricq. The Congress terminated on Thursday, September 1st, after a banquet, at which the Burgomaster of the city was present. More than 100 physiologists attended the Congress; of these, 24 represented Great Britain and Ireland, the number of British members being larger than at the Congress at Basle four years ago. Professor Michael Foster and Professor Burdon Sanderson were present. The following British members made communications, illustrated, for the most part, by experimental demonstrations: On the first day: Professor Halliburton (London), on Nucleo-albumins; Dr. Starling (London), on the Fate of Peptone in Blood and Lymph; Professor Sherrington (London), Action of Antagonistic Muscles under Reflex and Cortical Excitation (demonstration). On the second day: Professor Schäfer (London), Further Experiments on the Frontal Lobes; Dr. Noel Paton (Edinburgh), on Crystalline Globulin from Urine (demonstration); Professor Sherrington (London), on Varieties of Leucocytes (with demonstration); Professor Schäfer (London), on the Structure of Striated Muscle (with demonstration); Professor Sherrington (London), Cortical Centres for Movements of the Anus and Vagina (demonstration). On the third day: Professor Gotch (Liverpool), on Temperature and Excitability (with demonstration); Dr. Bayliss (London), on the Depressor Nerve; Professor Sanderson and Mr. Burch (Oxford), the Capillary Electrometer and Observations on Muscular Contraction; Dr. Waller (London), Myothermal Observations upon Man (with demonstration). It was agreed to hold the next Congress, in 1895, at Berne, in the Physiological Institute of the University under Professor Hugo Kronecker. The general secretaries chosen for the next Congress are, for the French language, Professor Arloing; for the German language, Professor Exner; for the English anguage, Professor Sherrington.

HYDROPHOBIA.

Two or three weeks ago we had to report the occurrence of two fatal cases of hydrophobia in Cornwall. The fear we then expressed that an epidemic of rabies was within measurable distance has, unfortunately, proved only too well grounded. During the past ten days inquests have been held upon two individuals in widely distant localities, who, having been bitten by rabid dogs, have succumbed to hydrophobia. The first case occurred at Twickenham, the victim being Thomas Ryley, aged 69, a gardener, who had been bitten on the forefinger of the left hand by a stray dog about two months previously. The wound was at once cauterised and poulticed, and no ill result was apprehended; but after eight to nine weeks acute symptoms of hydrophobia manifested themselves, and the patient was removed to St. John's Hospital, where he succumbed, after intense suffering. The second death took place in the Royal Infirmary, Liverpool. The patient, John James Campbell, aged 40, a foreman brakesman in the employment of the London and North-Western Railway Company, was bitten on June 25th at Preston by a collie which had wandered on to the line. The dog flew at his face and inflicted a wound about an inch and a half in length near the mouth. The wound was dressed, and Campbell appeared to have completely recovered. On August 20th, however, symptoms of hydrophobia developed, and the poor fellow died in great agony on the evening of the 22nd. To demonstrate further the wide extent of country which must now be regarded as infected, we learn from an Edinburgh correspondent that a retriever suffering from rabies has died in the Dick Veterinary College. Unfortunately it had previously bitten its owner and one of the attendants, both of whom at once proceeded to Paris to be treated by M. Pasteur. The Edinburgh magistrates, with commendable promptitude, have issued a muzzling order to be enforced for six weeks; but it is surely superfluous to point out that temporary muzzling, over a limited area, is powerless to exterminate the disease. The responsibility for this recurrent outbreaks rests now wholly with the Minister of Agriculture, and when we reflect upon the sacrifice of human life, and upon the agonising suffering endured before death occurs, to say nothing of the loss inflicted upon dog owners by the fatal infection communicated to valuable animals, it is incredible that political considerations should be allowed to check the application of a remedy which, as experience has indisputably shown, is as certain as it is simple.

SECRET MEDICINES CONTAINING POISON.

THE Italian law on this subject seems to be in a much more satisfactory state than our English law, which, until lately, winked at, although it did not nominally permit, the sale of secret medicines containing poison without being labelled "Poison." It has, however, always permitted, and does permit, the sale of any nostrum, however dangerous, without disclosing its formula, provided it be labelled "Poison," and it has never been held to be the duty of the law officers, or indeed of anyone but the unfortunate "buyer," to whom the English law constantly preaches that he must beware and "look out for himself" to ascertain whether the drug contain poison or not. Nor was it until Mr. Ernest Hart recently, as Editor of the BRITISH MEDICAL JOURNAL, undertook to investigate all the poisonous contents of a long list of nostrums which had for years been sold without the caution "Poison," that the Public Prosecutor and the Pharmaceutical Society, respectively and in sequence, awoke to a full sense of their responsibility and determined, after much correspondence and a continuous appeal to their duty under Acts of Parliament, to prosecute this matter seriously, persistently, and offer an adequate safeguard to the public, after prosecutions had indeed been, as we have already stated, undertaken by the Treasury, at the instance, we learnt after, of Mr. Braxton Hicks, one of the London coroners, arising out of cases to which his attention had been called by inquest;

and great credit is due to Mr. Hicks for more than once calling the attention of the Treasury to the subject, but the prosecutions were isolated and remained unnoticed until the present year, when Mr. Hart laid before the Treasury, subsequently with the approval of the Parliamentary Bills Committee, the series of analyses which he had had prepared and had published in the British Medical Journal, and put such pressure on the Council of the Pharmaceutical Society as induced them to undertake seriously on their part the duty in this matter which they had for many years wholly neglected to fulfil, in the fear, we believe, that the trade, their constituents, might disapprove from selfish reasons. The matter, it may be added, was one of no small difficulty and complexity, as the analysis of such nostrums in complicated solutions and in relatively small, though toxic, quantities, was such that two successive experts applied to to carry out the quantitative chemical analysis respectively reported themselves unable to fulfil the required conditions of accuracy. Moreover, the first results attained with a check analysis, which the Treasury thought it right to undertake on their own part, for the substances first taken in hand did not give satisfactory results, and had to be repeated. We are not without hope that this matter, which we shall certainly not allow to fall away from notice, will be carried out now to a successful and widespread conclusion. In a daily paper we read that Succi, who is fasting at Naples, sent samples of his secret sustaining draught to the Central Hygienic Office in Rome, requesting that it might be analysed, and asking to be allowed to sell it. The Hygienic Department has, however, declared that, according to Italian law, the mixture can only be sold by apothecaries upon medical prescription, as chemical analysis has proved it to come in so-called "galenic" substances—namely, poisons. Of course the department is not allowed to reveal the nature of the draught, but it is said that morphine enters into the composition.

SCOTLAND.

UNIVERSITY EDUCATION OF WOMEN, QUEEN MARGARET COLLEGE, GLASGOW.

Queen Margaret College, hitherto the only college in Scotland for the university education of women, was founded in 1883, and now, after nine years, has attained to a position of greater honour than the promoters could have anticipated in the earlier days of its history. Within the last two months an important change has taken place in the relation of the college to the University of Glasgow. The Universities Commissioners have empowered the courts of the several universities of Scotland to admit women to graduation in such faculty or faculties as each court may think fit, and to provide for the education of candidates either in mixed classes of men and women or in separate classes. Glasgow University Court has preferred the second of these alternatives, and, at the instance of the Council of Queen Margaret College, has accepted an offer made by the Council to hand over to the University the government, the endowments, present and prospective, and, with the consent of the donor, Mrs. Elder, the buildings of Queen Margaret College, the endowments and buildings to be reserved for the exclusive education of women, and the College to become incorporated with the University as its department for women. By this step has been secured the amplest fulfilment of the object continually kept in view by the founders, viz., the provision of a university education for women, for now a full curriculum in arts and medicine is given in Queen Margaret College to women by university professors and lecturers, and attendance on the classes qualifies for admission to the degrees examinations of the university. Queen Margaret College therefore, as being a department of the University of Glasgow, has now a standing which it could have acquired by no other means, while the university obtains a building in which women shall have their own class rooms, laboratories, and reading rooms, as well as access to the University library and museum.

IRELAND.

Dr. A. W. Flood, R.N., F.R.C.S.I., of Bundoran Lodge, Bundoran, has been appointed a Justice of the Peace for the county of Donegal.

SIR J. ARNOTT AND THE CORK CITY HOSPITALS.

At a recent meeting of the Corporation, the following resolution was adopted: "That the best thanks of this Corporation, representing the citizens of every denomination, be tended to Sir John Arnott for his generous gift of £1,000 to the several hospitals in the city. That this resolution be inserted on the minutes."

DEATH FROM CHLOROFORM.

A young lady residing in Foxrock, co. Dublin, died last week from the incautious inhalation of chloroform self-administered for a toothache. She was quite dead when found, the stopper of the bottle out, the sheet saturated with chloroform, and a portion of the bedclothes partly drawn over the head. A verdict of death from misadventure was returned by the coroner's jury.

DEATH OF DR. GREGORY SALE, OF KILDARE.

Dr. Sale died on August 21st at Newpark House, near Naas, co. Kildare, from influenza, after a tedious illness, at the comparatively early age of 47. For many years he held the post of medical officer to the Robertstown and Kilmeague Dispensary. Of kind and unassuming disposition, a man of quiet and simple tastes, he lived a life of usefulness, beloved by many and respected by all. His remains were interred in Carburg Churchyard, the funeral *cortège* being a large and representative one.

QUEEN'S COLLEGE, BELFAST, STUDENTS' UNION.

In spite of the holiday season, the movement for the establishment of a Students' Union at the Queen's College is making steady progress. The most recent subscriptions include the sum of £200 from Sir Robert Harte, of China, an old Queen's College man, and the total is now about £3,300. The work of the committee will be greatly facilitated if graduates who sympathise with the proposed scheme will intimate as soon as possible the amount of support which they are prepared to give to it. The secretaries are Professor MacMullan, Professor Letts, Dr. J. A. Lindsay, and Mr. R. T. Martin, B.A., to whom communications may be addressed; or to the President, at the College.

American Medical Editors' Banquet.—An interesting feature of the recent meeting of the American Medical Association at Detroit was a banquet given by Mr. George S. Davis, the publisher, of that city, to the editors of the leading medical journals of the United States. No fewer than sixty editors accepted the invitation, a fact which suggests the reflection that "leading medical journals" must be almost as plentiful as "prominent citizens" in the great Western Republic. The list of toasts, which was of a somewhat unusual character, included "The Editorial Profession," given by Dr. Culbertson; "The Editorial Article," by Dr. H. A. Hare; "The Waste-Paper Basket," by Dr. Bayard Holmes; "The Book Review," by Dr. Charles McIntire; "The Proof Sheet," by Dr. William Porter; and "The Scissors," by Dr. I. N. Love. The "Paste-pot" should certainly have shared in the honour accorded to the scissors, and the omission of the "Printer's Devil"—that convenient scapegoat for the sins of authors and occasionally even of "able editors"—savours of ingratitude. The contributor who writes a legible hand, and is willing to wait his turn for publication, is also worthy of a toast.

THE CHOLERA:

THE LOCAL GOVERNMENT BOARD.

Up to the present the total number of cases of cholera of which the authorities at Whitehall have official cognisance as having occurred in England and Wales from August 25th is 24, of which 9 have proved fatal. These have been distributed as follows:—Gravesend, 5 cases, with 3 deaths; Grimsby, 5 cases with no deaths; London, 3 cases, with 1 death; Falmouth, 3 cases, with no deaths; Liverpool, 4 cases, with 2 deaths; Middlesbrough, 1 case, which proved fatal; North Shields, 1 case; Bolton, 1 case, which proved fatal; Tynemouth, 1 case, which proved fatal. This list does not include the cases reported at Glasgow and Grangemouth. In addition to these 24 cases, there have been some cases of suspected cholera, that is to say, cases of acute diarrhœa, in which no relation with Hamburg, Havre, or any other infected place could be traced; the number of these may be put down at about 25. The 24 cases of undoubted cholera were all imported from abroad, and in no single instance has the disease spread to any individual in this country. This is certainly an achievement on which the Local Government Board may be heartily congratulated, evidencing as it does a state of preparedness which is probably unique in the history of epidemics. Our sanitary authorities have never had to meet such an emergency before, as the disease travelled with unprecedented swiftness, and reached our shores almost simultaneously at a number of different ports along the coast from Falmouth to the Tyne. From the first appearance of the cloud no bigger than a man's hand in the East, the march of the disease was carefully watched from Whitehall, and as soon as it was seen to be approaching the provinces in Russia within the pale of settlement from which the emigration of Jews is constantly taking place into and across this country, inspectors were sent by the Local Government Board to all the ports on the east coast to warn the local authorities of the probable advent of cholera, and to urge them to complete their sanitary defences in time to repel the threatened invasion. Ever since July 25th the inspectors have been steadily at work, and the Local Government Board has reason to be satisfied with the manner in which the local authorities have carried out their suggestions. The danger was in the present instance greatly aggravated by the character of the people conveying the infection, and, in particular, by their having as a rule no address in this country whereby they could be kept under observation. There is reason to believe that the enemy has been successfully repulsed for the time, but it is important to realise that the danger is not yet over. The seeds of the fell disease have been widely scattered about in Russia and Germany, and also, though to a smaller extent, in France; and it is by no means unlikely that next spring or summer the advent of warm weather may again stir them up to mischievous activity. In such an event the danger would be immensely greater than it is at present, inasmuch as the disease would break out close at hand, or, in other words, would be nearer to us by some months than it was at the beginning of the present epidemic. In such a case we might expect the unwelcome guest to arrive here in June, and, with the whole summer before it, there would be full time for the disease to develop to the highest pitch of intensity. It is well, therefore, while congratulating ourselves on having probably escaped present peril, that we should not lose sight of the possibility that we may even now be on the eve of a general epidemic that would devastate the whole of Europe. There is some comfort, however, in the thought that Russia and Germany have probably learnt wisdom by bitter experience, and so may be induced to set their houses in sanitary order before it is too late. In any case, the authorities in this country must not be content with the temporary success they have achieved, but must bear steadfastly in mind that they may have before them a far harder task than they have yet had to undertake. *Si vis pacem para bellum* is not less true in sanitary than in international policy, and it is to be hoped that the crisis which we are now passing through may lead to a great advance in sanitary administration. We trust the Local Government Board will not relax its present system of inspection, but will make it as constant and systematic as the inspection of schools. The present system of painstaking inquiry into the causes of outbreaks, excellent as it is, is too much in the nature of the *ex post facto* vigilance illustrated by the proverb about locking the stable door when the horse has been stolen. To be thoroughly efficient, the inspection must be steadily maintained, so that possible outbreaks may be foreseen and prevented.

In the present instance, as we have already said, the Local Government Board has done all that could be done. They have extended and consolidated the three lines of defence indicated by the lecture we last week published. Already 500 beds are ready for cholera cases, and the number could be increased to 2,000 in a few days if necessary. In short, all preparations have been made in view of a possible invasion, but the Board has done its work quietly and without fuss in order not to cause any needless alarm in the public mind.

In the position which it has taken up against quarantine, the Board will have the support of all intelligent sanitarians in this country. Quarantine has been well described by Simon as "an elaborate system of leakage;" it is impossible to make the exclusion of potential sources of infection absolute, and the false security engendered by quarantine makes authorities as well as private persons neglectful of sanitary precautions.

Sir Vincent Kennet Barrington has been elected Chairman of the Cholera Committee of the Metropolitan Asylums Board. Mr. Shirley Murphy, whose report of the last cholera epidemic has been circulated among the local authorities by the Asylums Board, having offered his advice as medical health officer for the Asylums Board for this occasion, his offer has been gratefully accepted. An effective ambulance system for the various districts of the metropolis has been provisionally organised, and a quantity of new wheel litters have been ordered to be made for the Board at once.

ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary comitia of the College was summoned by the President, and held on Saturday, September 3rd, at 2 P.M., when there was a large attendance of the Fellows.

The President announced that he had summoned the meeting in consequence of a communication from the Local Government Board asking for the advice of the College in the event of cholera becoming epidemic in this country. The President went on to say that, having conferred with some of the senior Fellows, and having ascertained what had been the practice of the College on similar occasions, he had drawn up a statement as a basis for discussion that afternoon, having reference, first to the general hygienic measures that should be recommended during the prevalence of cholera, and secondly to the immediate treatment of diarrhœa at such a time until a medical man could be obtained. In preparing this document he had followed as closely as possible the regulations issued by the College on previous similar occasions.

[The Report has been sent to the Local Government Board, and will be issued in due course for the public information.]

Sir Henry Acland spoke with a warm approval of the course adopted by the President in summoning the meeting, and entirely endorsed the proposals he had made. He referred with great satisfaction to the very great change for the better that had occurred in the mode of preparation on the part of the Government and the officials generally compared with what had obtained in bygone years.

A general discussion then ensued, turning mainly on the advisability or inexpediency of checking the premonitory diarrhœa, and on the adoption of some measures of disinfection with regard to the discharges, in which Sir George Johnson, Sir Joseph Fayrer, Sir R. Quain, Dr. Russell Reynolds, Dr. Squire, Dr. Payne, and Dr. Buzzard took part.

Dr. Thorne Thorne pointed out that in the event of cholera becoming epidemic the country would be immediately parcelled out into districts placed in charge of medical men, who would be required to treat and supply medicines gratis to the sufferers, and that what was asked for was a code of directions to be supplied to such medical men.

Sir George Buchanan explained that this was not to be taken to mean more than that the College was to suggest treatment to be carried out under actual medical supervision, and moved that the statement prepared by the President be accepted *en bloc*, and that he be requested to transmit it to the Local Government Board as his reply on behalf of the College.

This was seconded by Sir Joseph Fayrer, who spoke in terms of the highest praise of the hygienic regulations already issued by the medical officer to the Local Government Board; and he also pointed out the utter futility of quarantine regulations, urging in support of this the fact that in all recent epidemics this country, without enforcing any quarantine, had suffered far less than those countries which had trusted to it.

The President having expressed his readiness to comply with the resolution, provided that he were allowed to take the advice of some of the Fellows, and the mover and seconder of the resolution having accepted this proposal, the resolution was unanimously carried, and the President having nominated Sir George Johnson, Sir Joseph Fayrer, Sir George Buchanan, and Dr. Allchin (acting as vicarious Registrar) to assist him in revising the statement, the comitia was dissolved.

Great Britain.

There is fortunately but little to report respecting the spread of cholera in England this week. A man named Rosenbaum has died in the London Hospital. Several cases which have been sent to hospital as cases of cholera have turned out to be cases of acute diarrhœa and English cholera.

A case of Asiatic cholera is reported from the Tyne, where the steamer *Elbe* arrived on the night of September 4th. The chief mate was reported seriously ill and removed to the floating hospital and attended to by Dr. H. E. Armstrong and Dr. Clark, who found him to be suffering from Asiatic cholera. He died on Monday morning early. His illness commenced on Friday, the 3rd, when he was sent to bed and had cholera drops administered to him. The water on board the ship was obtained at Hamburg; it has been emptied into the Tyne and a fresh supply obtained.

At Grimsby, on the arrival of the steamship *Oldham* from Hamburg, a saloon passenger was found to be suffering from cholera, and was removed to the hospital ship.

Our Liverpool Correspondent writes: The port has happily remained free from cholera, but a few cases—four in all—have occurred in patients arriving overland. On August 27th a woman—a Russian emigrant named Lidsky—was found at one of the emigrant houses suffering from the early symptoms of cholera, and was accordingly removed to the Parkhill Hospital. On the same day a second emigrant, an aged woman named Spivak Ganovsue, was found ill at the same place, and was also removed to hospital at once. On the same day another emigrant, named Joseph Katzkuney, was found to be suffering from premonitory diarrhœa at another house, and was removed. On August 29th a fourth case was removed from the same house as the last. Of the four cases, Lidsky and Katzkuney are recovering, but the other two have ended fatally. Two of the sufferers arrived on August 26th and the others on August 27th. They had nothing to do with each other, and it appears that they contracted the disease before their arrival here. No further cases have arisen.

The Continent.

St. Petersburg.—At St. Petersburg the official cholera return for September 6th states that there were 138 fresh cases, 34 deaths, and 62 recoveries. On September 4th the cases of cholera throughout Russia numbered 4,779, and the deaths 2,348.

Hamburg.—Our Correspondent writes: There is a slight decrease in the number of deaths from cholera in Hamburg. The official figures since August 24th are:

August	25th	.....	421 cases	.....	165 deaths.
,,	26th	.....	590 ,,	.....	251 ,,
,,	27th	.....	616 ,,	.....	386 ,,
,,	28th	.....	562 ,,	.....	277 ,,
,,	29th	.....	514 ,,	.....	207 ,,
,,	30th	.....	357 ,,	.....	161 ,,
,,	31st	.....	496 ,,	.....	181 ,,
Sept.	1st	.....	626 ,,	.....	126 ,,
,,	2nd	.....	281 ,,	.....	191 ,,

On September 6th 702 cases and 333 deaths were reported. The high figures of August 31st and September 1st find their explanation in the fact that many doctors only then found time to notify their cases. The War Ministry has given orders to place at the disposal of the Hamburg municipality six transportable pavilions and thirty-five ambulance tents, to hold 500 patients in all. Army-Surgeon De Kosta has been appointed physician-in-chief, and fourteen army-surgeons as his assistants, with, of course, a proper staff of nurses, etc. At the request of the Hamburg senate, Professor Hueppe, of Prague, a former assistant of Robert Koch, has arrived in Hamburg to superintend the measures taken against the further spread of the epidemic. A cholera committee, composed of members of the Senate, meets daily in the Town-hall, and to its initiative many of the energetic measures that have at last been taken are due. At the request of various towns, foremost Hanover, doctors are now in attendance at the Hamburg railway stations to prevent the departure of persons with suspicious symptoms. It is thought to be not improbable that the action of the Senate of Hamburg in concealing for so many days the existence of Asiatic cholera in that port will form the subject of diplomatic representations. Although the first cases are now admitted to have occurred on August 16th, it was not until August 22nd that any official intimation was conveyed to the Foreign Consulates. Clean bills of health, therefore, continued to be delivered to ships clearing from the port of Hamburg for six days after the local authorities knew it to be infected. The numerous cases of cholera imported directly into other countries by vessels which left Hamburg between those two dates gravely illustrate the responsibility incurred by the Senate of that city. The total number of cases that occurred at Hamburg up to September 3rd is set down at 6,124, with 2,676 deaths.

Berlin.—Our Berlin Correspondent writes: In Berlin there have been five deaths from Asiatic cholera since August 24th, and Dr. Guttmann, director of the Moabit Hospital, into which all cholera cases are brought, was justified in saying at a meeting of the Public Health Committee, called on September 5th by the Burgomeister of Berlin (Herr Zelle), that three were no indications that a cholera epidemic existed or was to be feared in Berlin. Professor Virchow, just returned from Russia, was present at the meeting, and repeatedly warned against exaggerated fear of cholera. Nevertheless, preventive measures were discussed and decided on, and it was resolved to set apart pavilions for cholera cases in the different municipal hospitals and in the casual ward, and also to request the large private hospitals to do the same. The Central Committee of the Red Cross has decided to spend a considerable sum of money in engaging doctors and nurses to be sent to places where there is a cholera epidemic. The municipal swimming baths in the Spree have been closed until further notice. Hospital physicians from various German towns have been, and are still, in Berlin to study the arrangements for the treatment and isolation of cholera patients in the Moabit Hospital. The Society of Berlin Hotelkeepers has decided to take in no visitors from cholera districts.

Bremen.—Professor Koch has proceeded to Bremen, where cholera has made its appearance, in order to inspect the sanitary arrangements and advise further measures.

Lubeck.—Two cases of cholera and one death were reported here on September 4th.

Mendorf.—Two deaths and a suspicious case were reported at this sea-bathing resort on September 5th.

Christiansund (Norway).—One case, a sailor, who was attacked by Asiatic cholera in this port, died on September 4th.

Paris.—In the French capital the condition of things has rather improved; the deaths on September 6th numbered 19, including 5 in the suburbs, bringing the total number of deaths since the outbreak to 305.

Havre.—Cholera at Havre is abating. On September 3rd there were 43 cases with 12 deaths, and on the 6th 27 cases and 7 deaths. The service between Havre and Honfleur for passengers and goods is stopped by order of the Mayor of Honfleur. The Mayor of Trouville has stopped the boat service between Trouville and Havre; this caused passengers to reach Honfleur and Trouville driving or walking. The Mayor on learning this, directed that a trench should be dug in such a way that only one carriage could pass at a time, and that the passengers should be medically inspected before continuing their journey. The excursion train from Paris to Havre on Sunday, September 11th, will not run on account of the epidemic at Havre. The boat excursions from Paris to Rouen and Trouville will also be stopped. The streets of Havre are washed with a plentiful supply of water. A pump worked by steam, placed near the quay, pumps sea water into the old parts of the town of Havre.

Saint Vaast.—Two cases of cholera have occurred followed

by a death; the epidemic has been conveyed by a vessel which carries butter from Havre to Saint Vaast.

[All figures as to cholera abroad must be received with great caution, on account of the inherent tendency of the foreign official mind to deny the existence of an epidemic. It is probably not till a year or two have elapsed that the reports of the day will crystallise into dry and accurate statistics.]

UNITED STATES.

New York.—The steamer *Rugia* from Havre arrived at New York on September 3rd, and reported 4 deaths from cholerine on the voyage, with 6 steerage passengers ill. The steamer *Normannia*, which arrived on the same date from Hamburg, reported 5 cholera deaths. Two more deaths have occurred on the *Moravia*. The passengers were removed to the quarantine stations. Several more deaths have occurred amongst the steerage passengers and the sailors, making 36 in all. Ten fresh cases and one death occurred in the quarantine station on September 6th.

Presidential Circular.—President Harrison has issued the following circular, addressed to the collectors of customs, the medical officers of the Marine Hospital Service, the foreign steamship companies, and the State and local boards of health:—"It having been officially declared that cholera is prevailing in various portions of Russia, Germany, France, and certain parts of Great Britain, as well as in Asia, and it having been made to appear that emigrants in large numbers are coming to the United States from the infected districts aforesaid, and that they and their personal effects are liable to introduce cholera into the United States, and the vessels conveying them thereby constituting a direct menace to public health, and it having been further shown that under the laws of the several States quarantine detentions may be imposed upon these vessels for a sufficient length of time to ensure us against the introduction of contagious diseases, it is hereby ordered that no vessel from any foreign port carrying emigrants shall be permitted to enter any port of the United States until the said vessel has undergone quarantine detention for a period of twenty days unless such detention be forbidden by the laws of the State or regulations made thereunder, and such a greater number of days as may be fixed in each special case by the State authorities: This circular is to take immediate effect, except in the case of vessels afloat on this date (September 1st), which will be the subject of special consideration on due application to the Treasury Department."

PERSIA.

The cholera has materially decreased at Astara and in the environs of the town, where there are now only a few isolated cases of a mild character. The epidemic is also abating at Tabriz. On the other hand, the disease is increasing at Ardebil.

CHOLERA HINTS FROM FINLAND.

IT is interesting to learn how Finland has warded off the cholera. This country is next door to the districts in Russia where the cholera is raging. There are several trains a day from St. Petersburg, and soldiers come thence by the thousand; and yet, without any quarantine arrangements, the enemy has hitherto been subdued. Along the frontier in every town, and along the line, hospitals have been built of red-wood boards two layers deep, with asphalte between, with asphalted flooring arranged with complete drains, through which all substances washed from the floors, etc., are taken to huge boilers from whence the refuse flows to the mains. In the towns there are central cholera bureaux, where there are a doctor, nurses, ambulances, etc., in constant attendance. Every house is connected with the telephone, and as soon as a case occurs the patient is taken by ambulance and isolated in the hospital, while everything he or she has been in contact with is disinfected. Frequent visits are made by the police to every house, where every dustbin and sanitary disorder is immediately seen to, cleaned, and disinfected with lime or lysol. All cabstands, where uncleanliness often prevails, are constantly seen to and disinfected, and even the streets are cleaned with lime. Everybody has had gratuitous medical advice. Though quarantine is not enforced, no boat is allowed to enter a Finnish port until the cholera doctor has passed it as being healthy. Should there be cases of cholera on board, the patients are directly conveyed to the hospital and the boat stopped. Of course the importation of such goods as rags, bedding, and clothing from Russia is strictly prohibited.

VIRCHOW ON THE CHOLERA IN RUSSIA.

Professor Virchow, in conversation with the representative of a Berlin journal, is said to have expressed himself as follows: The measures that have been and are still being taken in Russia for resisting cholera and for preventing its dissemination are really admirably imposing. The very best remedies are at hand in abundance. It may, indeed, be said that the Russians in certain respects are more advanced than we here in Germany and Berlin. Of course, there are certain districts—for instance, the Volga—where there is much to be desired; but it must, above all, be acknowledged that the Russians kept back and concealed nothing. Official reports about the course of the disease were given regularly, and in my opinion they were reliable. The whole of the west of Russia is at this moment untouched by the plague. All the hospitals are in an excellent condition and exceptionally prepared for all eventualities. When I was at Moscow I found 600 free beds and only about ten patients. The hospital arrangements in St. Petersburg are equally excellent. The view that the cholera epidemic will disappear as soon as the cold weather sets in is erroneous, for we know of a winter epidemic in St. Petersburg. Even if an intense cold did destroy the germs of the disease, it is not possible to introduce cold everywhere into our dwellings, constructed as they are. There is always a high temperature in the rooms, the kitchens, and the offices, in which the bacillus can thrive. In conclusion, the learned pathologist told his interlocutor that he had no high opinion of deluging one's clothes with carbolic acid, and expressed his conviction that there was no reason whatever for the inhabitants of Berlin to be specially anxious. The precautions taken by the authorities were all that mortal man could do to ward off the fearful enemy.

CHOLERA AND FANATICISM.

SOME extraordinary examples of the savage ignorance of the Russian peasants are given in the interesting letters which are now appearing in the *Times*, showing the ferocity with which the doctors were attacked owing to the conviction of the peasants that the doctors were poisoning the patients, and that the patients were buried alive. Some picturesque local reminiscences of former cholera epidemics in Birmingham, published in the *Birmingham Daily Gazette* of September 2nd, remind us very much, however, that not so very long ago similar beliefs prevailed in the Midlands, and so late as 1832 they led to similar scenes on a minor scale.

Instances occurred near Worcester, where the endeavours of the medical men to stop the pestilence were thwarted by the ignorance and obstinacy of the lower classes, who rejected their advice and discarded their prescriptions, under the stupid impression that a conspiracy existed to poison them.

At the funeral of a victim of cholera at Birmingham in 1832, an extraordinary scene occurred. A report was circulated that the man was buried alive, and the rumour was generally believed. Towards ten at night a crowd assembled at St. Mary's Chapel Yard, and the body was disinterred. After exposure for some time to the public gaze, the corpse was raised out of the coffin, and being placed upon the lid was carried to the workhouse. Admission being refused, the crowd became exceedingly violent, and at length forcing an entrance, the body was deposited in the dead room, where it was allowed to remain during the night. An inquest was held in order to quiet public feeling, and it was established beyond doubt that the deceased had not been interred alive, but that he had died of spasmodic cholera.

PRECAUTIONS AGAINST CHOLERA.

Circular from the Local Government Board. — Reports from Medical Officers of Health: Whitechapel, St. Mary Newington, Chelsea, Charlton, Shoreditch, St. Olave's, Poplar South, Poplar North, Dover.—Precautions in Ireland.

A CIRCULAR has been sent to all inland sanitary authorities by Sir Hugh Owen, Secretary of the Local Government Board, drawing attention to the duty of the medical officer of health of a port sanitary authority as regards ascertaining the names of places, destination, and addresses at such places of any persons who, not being certified to be suffering from cholera, or from illness which the medical officer of health suspects may prove to be cholera, are allowed to land from a ship which is certified to be infected with cholera, and also in the case of persons allowed to land from a ship which has on board passengers in a filthy or unwholesome condition. When

the medical officer of health has ascertained the particulars referred to, he is to give notice to the clerk of the sanitary authority of the port of the name and address of each such person, and the clerk is thereupon to transmit the same to the local authority of the district in which the place of destination of the person is situate.

Whitechapel District.—Mr. Joseph Loane, D.P.H.Camb., etc. (Medical Officer of Health), writes: Although inhabited by many foreigners of the alien class, this district has been altogether free from cholera. The doubtful cases which were landed from Hamburg, and attended to in the London Hospital, proved to be severe enteritis. One adult death from diarrhœa occurred in the south part of the district. This case was inquired into by the coroner, who dispensed with the "viewing" of the body, as the medical officer had soon after death caused the body to be covered with disinfectants, and the coffin to be screwed down and removed to the infectious room of the mortuary. The total number of deaths from diarrhœa and allied diseases in the district has been much below the general average at this period of the year. The Board of Works, at a special meeting held during the recess, unanimously supported the efforts of their staff in the arrangements which had been made to meet any emergencies which might arise. Thus without any panic, and with only a small outlay for extra labour, all needful preparations were at hand to cope with a disease which proved so disastrous in this district in 1866.

St. Mary Newington.—Mr. George Millson (Medical Officer of Health) writes: At a special meeting of the Public Health and Sanitary Committee held on August 31st, a report from the medical officer of health was received and considered. It was resolved: "That twelve assistant sanitary inspectors be temporarily appointed to make a house-to-house inspection of the parish; that the action of the medical officer of health in drawing up a circular setting forth 'precautions against cholera' and the distribution of a copy of the same to every house in the parish be approved; also that disinfectants be ordered and distributed at the discretion of the medical officer of health." It was further resolved: "That the medical officer write to a certain number of medical men in each portion of the parish asking them if they would be willing, in the event of cholera invading the parish, to treat the cases under the direction of the medical officer, and also to inquire as to the fees to be charged." The medical officer was further requested to receive and enter in a list the names of empty houses the owners of which are willing to have them used as houses of refuge for the reception of healthy persons from infected houses. The consideration of the suggestion of the medical officer in respect of the notification of diarrhœa was ordered to stand over until the next meeting of the Committee.

Chelsea.—Dr. Louis Parkes, D.P.H. (Medical Officer of Health) writes: In this parish no printed handbills of cholera precautions have been issued. It appears to me to be inadvisable to do so at present, as cholera is a disease exciting much apprehension, about which a panic may soon be raised, and there is no immediate likelihood of cholera becoming epidemic in London this autumn. The mortality from diarrhœa at the present time is much below the average, and the general health of the parish is good. Arrangements have been made by the guardians for the isolation and treatment of a small number of cholera cases, and the nature of the provision that would have to be made by the Vestry as local authority, in case of an outbreak, has been the subject of special consideration by myself and the Public Health Committee. The possibility of cholera occurring in an epidemic form next summer, as the result of pollution of the metropolitan water supply at its sources, is a matter which ought to receive the most serious attention of the water companies, the Thames and Lee Conservancies, and the London County Council.

Charlton.—Dr. Herbert L. Bernays (Medical Officer of Health) writes: A printed bill enforcing certain precautions has been circulated in this parish. The amount of diarrhœa has been singularly little, even of the most ordinary kind, and I have heard of no fatal results. Great care has been taken in watching the shops selling fish, meat, fruit, and vegetables. The dust collection has been thoroughly attended to—plenty of disinfectants placed in the bins—drains flushed with disinfectants, and general care taken, particularly with the dirtier people, of whom we have a fair proportion (beyond our share). Before arrangements had been made with the Woolwich and Greenwich Infirmaries for the reception of cholera patients, a place was arranged on our parish wharf to be fitted for the reception of three or four people. Arrangements had been made with a furnishing firm to supply beds, etc., on receipt of telegram. Nurses were arranged for from an institute; estimates procured for a temporary hospital if required. Even should some cases occur it is probable that none of these latter arrangements would be required, as there will be ample accommodation in the two infirmaries.

Shoreditch.—Dr. F. J. Allan, D.P.H. (Medical Officer of Health) writes: Vigilance is being exercised in every department towards ensuring cleanliness. The guardians have arranged to keep in readiness an isolated building capable of receiving 16 patients, and, if required, to devote a new block holding 200 beds to the reception of cholera patients. Negotiations are also in progress for the use of suitable buildings for purposes of refuge.

St. Olave's.—Dr. F. P. Wightwick (Medical Officer of Health) writes: The district is very free from illness generally, and summer diarrhœa is below the average. I think it would be highly beneficial if some provision could be made for convalescent cholera cases. As these patients generally either rapidly die or get well in a few days, they no longer require active hospital treatment; but before it is safe to discharge them they cause congestion of the wards in the hospital. Would it not be possible to arrange tents in all the London parks for convalescent cases, under the direction of the Health Department of the London County Council? [A large circular printed in bold type, and containing excellent advice as to the precautions to be taken against cholera has been drawn up by Dr. Wightwick, and is being distributed in the district.]

Poplar South District.—Mr. F. M. Corner (Medical Officer of Health) reports one death from diarrhœa during the past week in a woman, aged 71. He has presented a report to his Board in which he points out in detail the sanitary precautions requisite to be taken in case of an outbreak, adding that, "with reasonable care on the part of the public, and special assistance should any case arise," he sees little danger of an outbreak.

Poplar North District.—Mr. R. M. Talbot (Medical Officer of Health), in his report, says that, "Considering the unwearying vigilance which has been exercised in the district in the past," he does not anticipate anything of a calamitous nature. The analyst to the Board, Mr. Young, had been making periodical analyses of the water supply, and he assured the medical officer that it was good. In addition to the continuance of these works, he should advise the distribution of handbills such as had been previously used, embodying the Local Government Board suggestions, the gift of disinfectants to all comers at the offices, etc.

Dover.—Dr. Charles Porter, D.P.H. (Assistant and Deputy Medical Officer), has drawn up two excellent circulars, containing a summary of the sanitary and personal precautions to be observed against the cholera, and of the symptoms of the disease. The former will be supplied to any member of the public who applies for it, and the latter has been distributed to the captains of all cross-Channel steamers, and every ship entering the harbour. The Folkestone authorities have, we are informed, copied the warning to ship captains *verbatim*.

Precautions in Ireland.

At a meeting of the Improvement Department of the Cork Corporation on September 3rd last, a resolution was adopted calling on the Prime Minister to take immediate action to prevent the spread of cholera in Great Britain and Ireland, and directing his attention to the prompt action taken by the American Government, who have taken precautions for the safety of her citizens. The mayor, town clerk, superintendent officer of health, and executive sanitary officer were appointed to represent the corporation, and confer with the special committee of the board of guardians to ascertain the powers of the corporation and the board of guardians with reference to the detention of vessels arriving from infected ports; and, should the powers exist, to detain any such vessels for any time necessary under observation in the harbour before permitting them to come up the river, whether any cases of sickness are on board or not; and if no such

powers exist, to make every possible effort to obtain such powers. A special meeting of the Health Committee was held on the same day to consider further precautions against the cholera epidemic arising in Cork by vessels arriving from infected ports. The following resolutions were adopted: "That Dr. Hodges's attention be called to the fact that a vessel is expected on Sunday evening from Hamburg, and that he be requested to enforce as strictly as possible the provisions of 1891 and 1892, and detain the vessel in quarantine as long as the law allows and he may consider necessary; that he see that all water in the vessel be discharged, and fresh water supplied, and that the cargo and coal of the vessel be disinfected while in quarantine." "That having heard from Dr. Hodges that the water supply to the Intercepting Hospital is contaminated in many ways, and also that the cesspit and sewer pipes of the hospital are not properly ventilated, we empower Mr. French to take immediate steps to remedy same." The Municipal Council of Cork has made a determined effort to abate the nuisance and danger caused by the sewage of the town of Macroom passing into the River Lee, from which the water supply of Cork is drawn. At a meeting of the Macroom Board of Guardians on September 3rd a letter was read from the Local Government Board directing attention to the present state of things, and pointing out that in the event of an outbreak of cholera one of the most fertile sources of disease would be a polluted water supply. The Macroom Board express their readiness to do what is required of them, and have decided compulsorily to acquire land needed for the purpose. The sanitary authorities have already made complete arrangements for the reception and treatment of 300 cholera patients at the Intercepting Hospital and at Queenstown and Cork Workhouse Hospitals, but they are endeavouring to establish a floating hospital so as to obviate the necessity for landing seaborne cases.

Cholera, Profuse Hæmaturia, and Oxaluria.

Mr. E. HURRY FENWICK writes: As probably there will be ample opportunity of guaging the accuracy of Prout's opinion upon the prevalence of profuse urinary hæmorrhage and oxaluria as a sequence of cholera, I should like through your columns to draw attention to the subject. Dr. Prout[1] records his experience thus: "I saw, about the time the cholera prevailed and a little afterwards, more cases of oxalate of lime calculi and of formidable hæmorrhage from the kidneys than I have ever previously seen during the whole of the long period that urinary disease had occupied my attention.'

The Spread of Cholera.

SURGEON-CAPTAIN H. HENDLEY, Civil Surgeon, Peshawar, writes:—The article published in the BRITISH MEDICAL JOURNAL for the week commencing July 9th is, I venture to think, likely to mislead, conveying the impression as it does that the epidemic of cholera, now prevailing in Europe, spread from India this year, and thus is an offshoot from that which is generally believed to have had its origin or point of departure from the Hurdwâr Fair held on April 11th. This is without doubt an error; the epidemic now making its way through Russia is really the onward flow of that which ravaged the Punjab last year, and is believed to have been connected with the Hurdwâr Fair of 1891. The epidemic gradually spread towards the north-west, and descended into the Peshawar Valley from Bajour and Swat—independent hill countries on its northern boundary. The villages which obtain for the most part their drinking water from open channels suffered very severely. The city, with its new pipe water service just completed, fared much better; the mortality of the whole district from first to last amounted to 4.82 per 1,000. The last case in this valley occurred on December 19th, but all through the cold weather rumours of its presence at Galálábád and up the Kunar Valley arrived in Peshawar, and a resident of the former place has informed me that deaths occurred steadily from this disease for a period of about six months, or well into the present hot weather.

The Hurdwâr Fair this year was held on April 11th, but the first cases reported in this valley were admitted to the Gamrud Dispensary, at the mouth of the Khyber Pass, from the Cahul Caravan—in which were travelling a large number of pilgrims on their way to Mecca from Russian Turkestan and Khohând—on April 22nd, 1892. We learnt from these and other people in the caravan that cholera first appeared in their midst at Galálábád on seven marches (80 miles) from Gâmrud, and that ten persons had died; this would fix the date of their special outbreak on or before April 15th, or four days after the Hurdwâr Fair. There is thus no doubt that the cholera at Galálábád could not have occurred in consequence of anything that happened at Hurdwâr; it is possible, though, that Hindu pilgrims from Cabul may have carried the disease to Hurdwâr. Apart from these, the first cases that occurred in the Peshawar Valley were amongst some Kochies, hereditary carriers of merchandise between India and the countries of Central Asia, who had encamped on one of the water channels so common in this district. The villages on the watercourse below the encampment reported cases of cholera amongst their own people on April 27th, and then it was discovered that the Kochies had already had four if not more deaths from the disease. Had we the means of obtaining the information, there is probably little doubt but that we should discover that cholera had really been present in most of the towns of Afghanistan during the cold weather in a sporadic form, and that on the return of spring it blazed out and spread from all directions. Had there been, as is usual, a large fall of snow in the passes and in Cabul, in all probability the epidemic would have been nipped in the bud; unfortunately last winter was an exceedingly mild one, and either no snow fell at all in the usual places, or only to a very slight extent, and thus Cabul and the other Afghan towns, which I am told are unutterably filthy, failed to obtain their yearly cleansing.

Though cholera appeared so early this year, only 130 cases with 72 deaths have occurred in Peshawar, so that it cannot be any way compared to what has happened in Kashmir. To-day I hear the pilgrims are now arriving in Peshawar on their way back to their native countries, and they may, for all we can tell, relight the flame that has apparently died down in Afghanistan almost as suddenly as it seemed to appear.

Royal British Nurses Association: The Nursing of Cholera Patients.

ON September 1st an address was given by Dr. Heron to the nurses connected with the Royal British Nurses' Association on cholera. There was a very large attendance. After describing the chief features of cholera in its successive stages, and the treatment to be followed at the outset before medical assistance could be obtained, Dr. Heron explained how cholera is generally spread, and impressed upon the nurses the necessity of remembering that it is to be attributed to the presence of living organism never found in the healthy body, or, indeed, anywhere except in cholera. He then gave his hearers some practical counsels as to their special duties in connection with nursing. If, he said, it be true that the disease is caused by a living organism, whatever it may be, it is certain that that organism goes out in the bowel discharges of the patient; and unless these discharges are properly attended to, and what is living in them is killed, disease may be spread. It may be spread by evacuations emptied into the water supply, or by the linen used in connection with the illness being carelessly washed in a river, so that the people below drinking the water get cholera. It should always be remembered that the source of the poison of cholera must be a choleraic patient. If the nurse has a firm grasp of this fact, she will clearly apprehend the extent of the responsibility that rests upon her. What, then, are the measures to be used in dealing with cholera in the sick room or hospital ward? First, the nurse should wear no garment which, as she walks about, touches the floor. Over her clothes she should throw a suitable gown of oiled cloth, or some other waterproof material, which can be easily and quickly disinfected without injury to the material. This gown should cover the nurse's whole dress, so as to protect her from the splashes or other possible sources of infection. She ought to have at least two of these gowns—one in use and the other disinfected and ready for use. The sleeves of the gown should not reach below the middle of the upper arm, so that the hands and arms may be easily kept clean. The room or ward should have no carpet, so that the floor may be thoroughly disinfected as often as may be necessary. All the soiled linen should be kept in one place, so that no article of this kind may by any chance be mislaid,

[1] *Stomach and Urinary Diseases*, 1840, p. 23.

and so escape disinfection. To make sure of this, there should be beside the sick bed a large wooden or metal vessel containing a 5 per cent. solution of carbolic acid in water. Into this should be placed, without splashing, every article of linen which has been in use in the room, and this should be carried out the instant the linen has served its purpose with the patient. At convenient times all the used linen should be taken from the vessel containing the 5 per cent. solution of carbolic acid, and put into a waterproof bag and sent away, either to be further disinfected by the public or hospital authorities and returned fit for use, or to be burnt. Of course, the solution must be renewed as often as is necessary. Over the sick bed, below the sheet, should be placed a large waterproof cloth hanging down all round the bed, and reaching close to the floor. In this way the dangerous evacuations of the patient, which certainly carry with them the infection of cholera, would be effectually disinfected by means of the 5 per cent. solution. The bed below the waterproof would to some extent be protected, and, with reliable waterproof, it could be perfectly protected from soiling. The dripping of fluid from the bed to the floor would, running over the waterproof, be more easily disinfected than it could be without the waterproof. So long as the patient is able to discharge his evacuations into a vessel, they would be at once covered with the 5 per cent. solution of carbolic acid, and after they had well soaked in an abundance of the solution, they would be emptied according to the accommodation provided for that purpose. Some of the carbolic acid solution should also be placed in the vessels while they stand ready for the patient's use. For the nurse's hands a disinfectant of carbolic acid of the strength of 2 per cent. of the solution in water should be used as often as is found necessary. The 5 per cent. solution would smart and be very disagreeable after a time. The nurse while on duty should neither eat nor drink in the sick room, and never put her fingers near her lips. Off duty she should let her hands lie a minute or two in a solution of perchloride of mercury in water of the strength of 1 part of the perchloride to 2,000 parts of water. She should also sponge her arms and face with this solution, taking care to keep it out of the eyes, and then at once, without previously drying them, wash the hands, arms, and face with soap and very hot water. Before leaving the sick room she should take off and thoroughly sponge with a 5 per cent. solution the waterproof gown which is worn as an overall. The nurse should also wear, instead of shoes of any kind, mocassins made of this waterproof cloth, and coming up above the ankles. These, also, must be disinfected with a strong carbolic acid solution, and left in the sick room when the nurse goes off duty. No water should be drunk which has not been boiled within an hour or two of the time of drinking. Let those in authority over the nurses absolutely refuse to allow any nurse to attempt, in treating cholera patients, to do what two nurses should do. When a patient is surrounded with all the precautions that have been explained, it is nonsense to ask one woman to do more than is well within her power, because in that case the whole system breaks down, and the precautions become useless.

Sir,—Acting on the suggestion of its President, the Princess Christian, already published in the daily papers, the Executive Committee of the Royal British Nurses' Association desires to make known, through the medium of the British Medical Journal, that a roll of trained nurses prepared to work in any part of the United Kingdom in which cholera may appear is now kept at the Offices of the Association, 8, Oxford Circus Avenue, W., where applications should be made in case of need. The roll is not restricted to members of this Association, but is open to all duly qualified nurses.—I am, etc.,

Nancy Paul, Secretary,
On behalf of the Executive Committee.

We learn that Miss Annesley Kenealy—a daughter of the late well-known barrister and M.P.—and her sister, Henrietta Kenealy, have offered their services to the Eppendorfer Hospital, Hamburg, during the cholera epidemic. They have been accepted, and they left England on Saturday morning, September 3rd, for the scene of action. They are also on the "roll" for England, and hope to use the experience gained in Hamburg for their own country, in the untoward event of an outbreak there.

Memorandum for Army Medical Officers in the Home District regarding Cholera.

We have received a manuscript copy of the following memorandum which is in course of being issued:—

1. The instructions laid down in Appendix IV, Medica Regulations, will be strictly adhered to.

2. In each barrack a marquee with boarded floor will b kept in store, under the charge of the officer commanding the troops, and if cholera appears likely to break out it will be pitched in a convenient position to be selected beforehand in consultation with the military authorities, and to which any suspicious case will be immediately removed for treatment.

3. In each barrack a small quantity of extract of beef, arrowroot, and brandy will be kept ready for emergencies, and also sufficient condemned bedding and clothing for the treatment of two to four cases, according to the size of the barracks and the strength of the troops.

4. Till instructions to the contrary are given, in all cases of cholera (or suspicious diarrhœa) will be treated in the barracks in which they occur, and will not be sent to hospital without further orders.

5. Should a case of cholera occur in any barrack or hospital in London, a telegram or special messenger is to be sent at once to the Principal Medical Officer during the day (10 to 4) to his office, after 4 P.M. to his residence, 18, York Mansions, Barkston Gardens, S.W.

6. If a case of cholera occurs in barracks the room should at once be evacuated.

7. Each medical officer in charge of hospitals or barracks should requisition for a supply of sulphate of iron (crude) in powder, to be kept for the purpose of disinfecting dejecta.

8. The men and their families should be specially warned against the use of saline purgatives in any form, that is, Epsom salts, Eno, or other effervescing laxatives.

9. In the event of cholera appearing in the neighbourhood of a barrack among the civil population, it will be advisable to issue to the senior noncommissioned officer of each barrack room a small quantity of a simple astringent (for example, sulphuric acid dil. and opium), with instructions for its use, and all cases of diarrhœa so treated should be at once reported to the medical officer.

10. These instructions are to be considered merely tentative, and to be followed in the case of any sudden emergency; no doubt, if cholera should unfortunately break out in London fuller rules will be published for our guidance.—By order, (Signed) J. B. Hamilton, P.M.O. Home District, Horse Guards, Whitehall.

The Gain from a Cholera Alarm.

The influence of an impending cholera epidemic in quickening the attention of the authorities to necessary prominent improvements in sanitary legislation is making itself felt in Germany as well as in this country, and it is announced that "as soon as the principles which should govern the isolation of patients and the restriction of freedom of intercourse during the prevalence of such disorders have been finally established, a Bill will be prepared and, subject to the Imperial sanction, will be forthwith laid before the legislative bodies of the Empire and of Prussia. In these circumstances it may be hoped that, notwithstanding the manifold and great difficulties inherent to this question, its solution, which recent events have rendered specially urgent, will be satisfactory."

Treatment of Cholera.

Dr. William M'Donald (Maryhill, N.B.) writes: Having been actively engaged in all the cholera epidemics in our country, and seen every method tried to restore vitality in collapse by heat and hot applications, a failure in most cases, it struck me in 1854 that the cold of cholera resembled the condition of frostbite, and have used cold water since with marked success. We all know that when cramped in feet or legs placing them on cold stone or waxcloth relieves, and in the first stage I have abandoned all treatment internally for the simple use of cold water with cream of tartar and lac sulphur, as in advice. I had a severe attack personally, and I am sure I owe my recovery to cream of tartar. Shortly after I had taken it I felt heat at stomach, the first sign of reaction, and rapidly recovered. I have used it ever since when cases occurred (once in my own household), always with success when patient was seen in time. I may note here that in all typical cases of Asiatic cholera the pulse, when it could be noted, beat 108. I, with the confidence of experience, recommend a trial of my method.

SPECIAL CORRESPONDENCE.

EDINBURGH.

New Hospitals for Infectious Diseases.

THE County Council of Mid-Lothian have determined to build two hospitals for infectious diseases, and plans have been prepared and accepted for this purpose. The first is to be built at the village of Slateford, just outside the boundaries of the City of Edinburgh, and is in the first instance to provide accommodation for the reception of 28 patients, with contingent provision for extension to admit twenty-four more, should that at any time be required. The wards are to be small, with six beds, as a rule, in each. It is proposed that Key's combined system of warming and ventilating, as well as purifying the air, should be used. It is also proposed that a separate building be erected to allow the use of Washington Lyon's patent superheated steam disinfector. The style of architecture is to be old Scottish seventeenth century, and the estimated cost £5,000. The second, to be known as the Lasswade District Hospital, is to be built on the site of two acres at Loanhead, and is to provide room for 19 patients. The wards are to be heated partly by low-pressure hot-water pipes and partly by open fires. The estimated cost is £4,000. A new hospital is about to be built on a site of two and a half acres at Milesmark. Space is to be provided for 36 beds, with possibilities of extension to give 12 more beds. There are to be quarantine wards, with 2 beds in each. The fever wards are to have 4 or 6 beds in each. The walls are to be built hollow, with an air space of 3 inches, and the internal corners are all to be rounded. Key's patent system of warming, etc., is to be adopted; and a superheated steam disinfector is to be provided. The estimated cost is to be between £5,000 and £6,000.

CORRESPONDENCE.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND ITS LICENTIATES.

SIR,—Referring to your article criticising the resolution of the College of Physicians *re* "the transfer of patients for a pecuniary consideration," I quite think with you that the College Censors have placed themselves in an awkward position by the wholesale condemnation of transfers by "physicians."

"Goodwill" is always recognised in all business transactions. A man who has spent a lifetime developing a practice cannot surrender his claim to compensation through sudden incapacity, and hand over his patients to some rival practitioner, leaving his family unprovided for.

We shall never work our practices successfully until physicians and surgeons holding hospital appointments are reckoned as "experts," and, like barristers, decline to interview clients at their own houses except in consultation with the accustomed medical attendant.

Take the case of acute phthisis, stone in the bladder, cystitis, etc., how often it happens that wealthy patients prefer to be under the continuous care of a hospital physician or surgeon while the graver symptoms last, and object to being daily "fussed" by the consultations of two doctors. They may have perfect confidence in the accustomed physician or surgeon, but for a time they elect to be under the sole charge of an expert selected by the family physician. In such cases great caution is needful to see that the family physician is not ultimately passed by and reckoned as incompetent.

If the experts would agree to visit only in consultation, then the question of "transfer of patients for a pecuniary consideration" would be limited to those physicians and surgeons who do family practice, and who will certainly prefer to negotiate their practices rather than allow them to melt away. When a practitioner has arranged a consultation at any house, the consultant should consider himself excluded from that house, except in consultation with the physician or surgeon who has introduced him there.

My experience leads me to think that this salutary rule is frequently transgressed.—I am, etc.,

Cranley Gardens, Queen's Gate, S.W. F. CHURCHILL.

SIR,—Your correspondent "Fiat Justitia" does not attempt to rebut the crushing criticism of the late resolution of the College of Physicians contained in the BRITISH MEDICAL JOURNAL leader of August 20th, either with regard to the inference that L.R.C.P.'s are not physicians, or that the sale of practices is dishonourable to a physician because it interferes with the liberty of patients.

May we hope to receive some answer from the authorities of the College?

If I may be permitted I should like also to draw attention to one sentence contained in this letter, namely, "it will be observed that the College has the fullest legal as well as moral right (and therefore duty) to do this in the one case and not in the other, as the Fellows are fully represented in the Council, and are consulted in all such matters as this, while the Licentiates of course are not so represented in the governing body, and could not fairly be dealt with in the same way," and to ask what right therefore, according to this reasoning, has the Council to impose this restriction upon the Members?—one not amongst the by-laws when the present Members took their diploma. We were aware that we could not dispense, or go into partnership, and such regulations we were, and are, always loyally prepared to obey; but when it is remembered that the Members have no privileges, and no voice in the affairs of the College, I should like to know whether all the Members, many of whom are dependent upon general practice for the bulk of their incomes, are prepared to submit without protest to a new regulation, which may deprive them of a few thousand pounds, should they at any time wish to change the location of their practices.—I am, etc.,

M.R.C.P.

SIR,—It may possibly escape the notice of the profession, if attention is not otherwise drawn to it, that a *quasi*-authoritative interpretation has appeared in the *Daily Telegraph* of the recent resolution of the College of Physicians, to the peculiar wording of which the recent analysis in the BRITISH MEDICAL JOURNAL and the correspondence herein alluded to have called the attention of the profession. The statement runs as follows:—

> The Royal College of Physicians has recently passed a resolution declaring that it "regards the sale and purchase of practices, or the transfer of patients from one physician to another for a pecuniary consideration, among Fellows or Members of its body as contrary to the traditions of the College, interfering with the freedom of patients, and derogatory to the position of a physician." Nothing was said with respect to the large body of medical men who hold the licentiateship of the Corporation. A discussion has accordingly arisen as to what constitutes, in a strictly professional sense, a physician. The inference has been drawn that the College implies that only the Fellows and the Members can be thus described. We have reason to know that this assumption is altogether erroneous. If any substantial doubt existed on the subject, it was long since removed by the opinion of the standing counsel to the College—that "all Licentiates of the College are physicians."

This interpretation, although appearing under such singular circumstances, in so unexpected a quarter, will no doubt give some satisfaction. It leaves untouched, however, the singular implication, which this authoritative statement does but confirm, that, in the opinion of the College, Licentiates, although physicians may do that which interferes with the freedom of patients, and may also do that which is derogatory to the position of physicians of the superior class, Members and Fellows may not. It is a singular estimate of the dignity and worth of "physicianship" in its third grade, and of the duties of Licentiates towards the public, both in reference to their special right of interference with the freedom of patients, and with the special privilege accorded to them, somewhat contemptuously of "derogating from the position of a physician." If it were suitable to the dignity of the College to give any sort of explanation of its strangely-worded decree, it might perhaps have been better advised to do so in the journal of the profession and to the profession rather than in a daily paper, which, however wide its circulation, is not perhaps as much read in the profession, especially outside London, as the BRITISH MEDICAL JOURNAL. But, whatever be the reasons for entrusting this manifesto to a popular daily paper, and however perfect or imperfect, satisfactory or unsatisfactory, this explanation is considered, it leaves untouched the full and true interpretation of the clause referred to. The statement of your daily

contemporary bears internal signs of authenticity, apart from the fact that it has on other occasions conveyed information appearing to intimate that it is the peculiar organ of some highly-placed Member of the College. On this occasion, however, more explicit and direct information through the recognised professional medium might not be unbecoming or less dignified than the method, by whoever it be, who has given these alleged "reasons to believe."—I am, etc.,

Not a Licentiate, but a Looker-on.

*** We are not aware that the *Daily Telegraph* is really to be considered an organ, official or semi-official, either of the College of Physicians or of any of its distinguished Fellows, authorised to speak on its behalf; but the statement in question is certainly made with an emphasis which appears intended to convey semi-official authority, and which would hardly be used by a paper without "good reason." We agree that it is, under the circumstances, to be regretted that the explanation, such as it is, and incomplete as it is, was not made by preference in the first instance through a professional paper. Such a course would obviously be better in accordance with the dignity of the College of Physicians. We are not without hope, however, that some fuller interpretation and more adequate explanation of this singularly-worded circular may yet be forthcoming in a more formal manner, and addressed more directly to the profession whom it concerns. We abstain from making any direct appeal to the College officials in the matter, being satisfied that no pressure is necessary to induce them to offer at a proper time, and in a suitable form, such explanations as they may think in accordance with the importance of the subject, the reputation and interests of their Licentiates, and the dignity of the College.

Sir,—The correspondence which has already appeared in the British Medical Journal on the subject of the circular recently issued by the College of Physicians of London, and that which you will no doubt still continue to receive, is likely to end in little practical result unless some steps are taken by the Licentiates collectively to represent their unfortunate and very disagreeable position to the College, and to endeavour to improve that position. Collegiate authorities are very apt, when they find themselves in a difficulty, to get over that difficulty by observing an attitude of indifference, and a *rôle* of strict silence, however their own intelligence and individual sympathy may tell them that there is a grievance which ought to be removed. Corporate ease and convenience combine to induce them to pass over in a collective capacity grievances and appeals which, individually or privately, they by no means regard as unreal or unworthy of redress. It is not to be supposed that the individual Fellows of the College regard the Licentiates in general as being of such very different flesh and blood, to use Mr. Gladstone's famous phrase, as to justify them in treating Licentiates publicly as persons who are either not physicians at all, or if they are physicians, as will, I imagine, in the end not be officially denied, yet are physicians admitted to the College with such singularly maimed rights, and in such a very inferior position, that the College is quite indifferent whether, to refer to the words of the circular, they do or do not do acts "derogatory to the position of a physician" or whether they do or do not commit the forbidden act of "restraining the freedom of the patient" in a manner contrary to the welfare of the public.

That, however, is the plain meaning of the circular, and it is all the more emphasised by reason of the publication of a semi-official *communiqué* in the *Daily Telegraph*, which has good reason to state that the College does not intend to refuse to its Licentiates the title of physician, but it is quite indifferent to their action in respect either to the dignity of the position of a physician or to their restraint of the freedom of the patient. This is evidently based upon, and is intended as an answer given with all the solemn wording of authority to, your leader of August 20th, and the correspondence thereon, in the pages of the British Medical Journal. I believe, however, it will be generally thought, as I can but think myself, that some more full and formal statement from the College is due to itself and to its Licentiates. I believe, also, that the best way to obtain such an answer is that a representative body of the Licentiates should directly request a statement of these points from the College; and that they should respectfully, but seriously, approach them on this, and subsequently on other subjects.

Being actively engaged in public work of a very onerous character as chairman of the Public Control of the committee of the London County Council, as well as being occupied with the work of private practice, I fear that I shall not be able to give much time to the matter myself. Nevertheless, I shall be glad to give such aid as I can in the formation of an association or committee of the Licentiates of the London College of Physicians, for the purpose of dealing with this matter. I think that, once constituted, such a committee or association would have a great deal of other very useful and important work to do.

The general attitude of the College towards its Licentiates is far from satisfactory, the Licentiates being at present wholly unrepresented in the government of the College, of which they supply by far the greater part of the funds; their interests are, in many respects, very much neglected, and even treated with an indifference, of which the wording of the present circular affords only too striking an example. For I am more than half inclined to think that this unfortunate wording is due to the habit of the high authorities of the College of forgetting that they have Licentiates, or that those Licentiates have any claim upon their consideration, rather than to any intention in this instance to put upon them. What however, under any consideration, has now occurred, is a very marked, public, and injurious slight.

I shall be glad, Sir, to hear from those of your readers and correspondents who think with me in the matter, and if I receive a sufficient number of names of gentlemen desiring to assist in forming such a committee or association I will communicate with you further, and will with them take steps by summoning an early meeting of Licentiates for the purposes stated and to consider what course it will be best to adopt.—I am, etc.,

61, Kennington Park Road, London, S.E. W. Gibson Bott.

Sir,—One cannot help feeling amused at the quibble now going on in respect of the signification L.R.C.P.Lond. There is not the shadow of a doubt but that they are Physicians (with a big P), and what is more they are surgeons and accoucheurs. The diploma of the Royal College of Physicians distinctly licenses its holders to practise medicine, surgery, and midwifery. With regard to the prefix Dr., every physician is a doctor, but every doctor is not a physician; and if a physician likes to use the title no power, medical or legal, can prevent him doing so, but holders of the degrees M.B., M.Ch., and M.S., etc., are neither doctors, physicians, or surgeons.—I am, etc., Senex.

Sir,—After carefully reading "The Honour of a Physician" by "Fiat Justitia," I fail to see how it in any way detracts from the force and justice of the severe criticism alluded to, nor do I think anyone is likely to credit the communication with seeming to run counter to any of the views editorially expressed. I maintain that a Licentiate of the College of Physicians has a perfect right to assume the title of Physician. If debarred from assuming this title as well as that of Doctor, pray what is he to be called? That the word physician was used most inadvisedly in the circular issued by the College in my opinion admits of no question.

Surely the moral qualifications of a L.R.C.P. ought to be, and I firmly believe are, quite as high as those of a M.R.C.P. or F.R.C.P. Why, then, a different "moral code?" If the practices alluded to are derogatory to the honour of the medical profession, they are equally so whether indulged in by the so-called consultant or the less fortunate but equally honourable Licentiate.—I am, etc., M.D.

Medical Magistrate.—Thomas Michael Dolan, M.D., F.R.C.S.Ed., of Halifax, has been placed by the Lord Chancellor on the Commission of the Peace for the County Borough of Halifax.

THE CONSTITUTION AND ANNUAL MEETINGS OF THE BRITISH MEDICAL ASSOCIATION.

I.—PLEAS FOR THE STATUS QUO.

DR. HUGH WOODS (Highgate) writes: "A Correspondent" complains that his main arguments were not met by previous replies; and he asserts that, until they are dealt with and demolished, they hold the field. I have great pleasure, therefore, in proceeding to deal with and demolish them now that they are categorically stated.

As to statement (1), I must ask "A Correspondent" to give me a reference in the back numbers of the BRITISH MEDICAL JOURNAL to prove that the Association ever passed any such resolution as he attributed to it.

As to statement (2), about the Articles of Association being altered so as to vest in the Branches the power of electing the members of Council, it is simply a delusion. The mode of election of the Council is determined by the by-laws, which can be altered by a simple majority at any annual meeting without any confirmation being required. Hence, as a matter of fact, next annual meeting can, if it chooses, legally elect the Council for next year.

The statement that "even the power of nominating special committees was resigned by and withdrawn from the general meeting" is contrary to fact. The annual meeting can elect any committee it chooses.

The premisses of "A Correspondent" being fallacious, the conclusion comprised in statement (3) falls to the ground.

That the Council is in the fullest manner responsible to the annual meeting, whether elected by it directly or through the convenient intervention of the Branches, is shown clearly by Article 25, which is as follows:

"The business of the Association shall be managed by the Council; and the constitution, duties, powers, and mode of procedure of the Council shall be determined from time to time by the Association in general meeting."

To alter this, a three-fourths majority at an extraordinary meeting, and a simple majority at a second, is requisite; and I can assure "A Correspondent" that the "small permanent knot" will resent any tampering with this article as high treason to the Association.

II.—THE PERILS OF THE POWERS OF ORDINARY AND EXTRAORDINARY GENERAL MEETINGS.

DR. G. C. WILKIN (Harley Street, W.) writes: The meeting held on August 24th, at the offices of the Association, terminated as I think everyone present at it must have known from its commencement that it would.

Despite the clear definition, given through the chairman by the solicitor, of the limits of the question before the meeting, members were allowed to ramble on in defence of medical women as if their conduct or position had been attacked and were the subjects under discussion. The vote was eventually taken and the resolution confirmed, but not without a good many hands being held up against it. As one who voted against the resolution without being able to speak at the meeting, may I ask for the insertion of this letter in the BRITISH MEDICAL JOURNAL?

My reason for so voting was that I considered the method of altering the articles of Association an extremely dangerous one, and likely to be fraught with much mischief to the Association in future. I do not in the least oppose the admission of medical women to the membership of the Association, and I for one heartily welcome all female doctors to our midst, merely regretting that they were not, and could not under the circumstances, be elected unanimously.

Now, Sir, comes the grave side of the question, which must be faced by every earnest thinking member. One of the rules of the Association has been expunged by a very small number of the members. Certainly the necessary legal forms were all duly complied with, but unfortunately this only makes the matter more serious. At present any rule may in like manner be expunged, altered, or added to. Litigation is too costly to be considered for a moment, and could only do harm to the Association; but, if I understand rightly, although we were assembled on August 24th to confirm or reject a resolution to expunge part of one of the articles of Association, we were seriously told that the vote taken then could only be altered by this means, even if it had been made irregularly. Are the articles of Association like the laws of the Medes and Persians; and if so why was this meeting held?

Let those who have the welfare of our Association at heart ponder earnestly and deeply upon the present condition of affairs and discuss the matter freely in the BRITISH MEDICAL JOURNAL.

REPORT OF THE SELECT COMMITTEE ON THE PROPOSED REGISTRATION OF MIDWIVES.

SIR,—I wish to call the attention of those interested to the report of the Select Committee of the House of Commons on Midwives' Registration. It contains the evidence of the different witnesses, and also the report of the Committee. It can be obtained from Messrs. Eyre and Spottiswoode, East Harding Street, London, E.C. It would be well if each medical library obtained a copy of this important document.—I am, etc.

Liverpool. ROBERT R. RENTOUL.

INTRAVENOUS INJECTION OF FLUID.

SIR,—My attention has been directed to a letter from Dr. Horrocks in the BRITISH MEDICAL JOURNAL of August 27th, on the value of "saline transfusion" for hæmorrhage: and he proposes to publish shortly an account of some observations upon the subject which he made in conjunction with the late Dr. Wooldridge in 1889—doubtless full of interest.

As Dr. Horrocks now claims for Dr. Wooldridge the credit of physiological proof of the efficacy of copious intravenous injection of saline fluid, he is apparently ignorant that the value of this method had been proved in many ways and by many persons considerably prior to 1889.

Perhaps I may be allowed to inform Dr. Horrocks that I myself made several contributions to the literature of this matter during 1881 and the following years; and in my work on *Transfusion of Blood and Saline Fluid* several cases and experiments were published, which amply suffice to demonstrate the practicability of saline intravenous injection of fluid and of transfusion.

That copious intravenous injection of fluid will restore animation which has become suspended by severe hæmorrhage has now long been conclusively proved, nor is acute hæmorrhage the only critical condition where intravenous injection is advisable.

In this connection your readers will probably not be surprised at my mentioning the importance of saline intravenous injection in cases of cholera, as this disease may possibly visit our shores before very long. The most striking instance with which I am acquainted of the service of the operation for producing reanimation after apparent death is quoted in my book as performed by Sir Spencer Wells upon a patient some few minutes after the heart had ceased to beat, and was followed by a return of pulsation, warmth, and consciousness, the patient living a few hours.

Here, then, is proof of the efficacy of copious intravenous injection of saline fluid; and as Dr. Horrocks claims the credit of this physiological discovery for Dr. Wooldridge by virtue of more recent observations, he will no doubt pardon me for informing him that Sir Spencer Wells's operation was performed at the St. Giles's Workhouse, A.D. 1848.—I am, etc.,

Seymour Street, W. CHARLES E. JENNINGS.

SIR,—As I was physiological assistant to Dr. Wooldridge from October, 1888, until his untimely death in June, 1889, I may perhaps be able to throw some light upon his claim to having been the first to place the operation of saline intravenous injection upon a thoroughly reliable basis.

During that time I assisted him with the experiments on animals which he performed at Guy's Hospital, and saw demonstrated the certainty with which an animal could be restored at once to activity and health, by means of abundant intravenous saline injection, after all the blood that would escape had been allowed to flow from a large vessel.

Though before this some such method had been used at intervals, and on rare occasions with success, it had never

before been established that if only enough fluid were injected into the circulation of an animal dying from loss of blood, success must of necessity follow its introduction.

On July 29th, 1891, I saw Mr. Lane remove a ruptured spleen from a young man who had been run over. I suggested to Mr. Lane that he should inject salt solution, telling him of the success of Dr. Wooldridge's experiments. He however did not avail himself of my information on this occasion, the patient dying soon after the operation from the result of hæmorrhage which preceded it, though he did shortly afterwards successfully, when he published an account of the case.[1]

Since that time we have used the method very frequently at Guy's with the greatest success, both for severe hæmorrhage and for collapse, as well as in some cases of exhaustion. The amount usually introduced is about three pints, but as much as six pints or more have been used with advantage, and on no occasion has any evil result whatever followed the operation. Although we have tried various means of introducing the salt solution, we have found an ordinary large glass syringe and cannula the most useful and manageable. The quantity of fluid requisite is readily gauged by the condition of the pulse.—I am, etc.,

Guy's Hospital, S.E. Alfred Theodore Rake.

THE UNIVERSITY OF ABERDEEN.

Sir,—Marischal College and University at Aberdeen was founded in 1593, and King's College and University in 1494. The tercentenary of one and the quatercentenary of the other are therefore neither of them far off. Is anything being done to celebrate these anniversaries in any way? It seems to me that many old *alumni* of both colleges would be pleased to join in some plan whereby their dear old *Alma Mater* would be benefited, and where they could have an opportunity of meeting together for auld lang syne.—I am, etc.

Westbury-on-Trym, Glos. Wm. Duncan.

THE SUBCUTANEOUS INJECTION OF THYROID JUICE IN MYXŒDEMA.

Sir,—As Dr. Murray and I initiated and have worked at the above subject quite independently of each other, I may perhaps be allowed, on the experience of three cases, to corroborate his conclusions on the value of the injection of thyroid juice in some cases of myxœdema. I was unfortunately prevented attending the Section at which the paper, published in the British Medical Journal of August 27th, was read, and therefore take this opportunity of adding my testimony to the very marked improvement which almost immediately appears after the employment of the method. I stumbled upon the subject in October, 1890, a year before Dr. Murray's first paper was published, and my first intimation that work had been done in this direction was the concurrent appearance in the Journal (October 10th, 1891) of both our communications. Dr. Murray, however, had read his paper at the meeting of the Association in Bournemouth in July, and he therefore was justly accorded the priority of publication.

With the fresh unsterilised juice which I have always employed no abscesses have as yet resulted, though fourteen patients have been injected. The sheep are very carefully selected, and all thyroids which are dry, tough, very small, or those which present the slightest appearance of suppuration are rejected. Some of the foreign sheep are overdriven, in others I have found localised thyroid abscess.—I am, etc.,

Old Burlington Street, W. E. Hurry Fenwick.

DISPENSARY DOCTORS' GRIEVANCES.

Sir,—As your voice and pen have so often and so ably been raised in defence of the wrongs and wants of the dispensary doctors of Ireland, I venture to ask you once more to lend us your powerful advocacy towards the completion of our efforts to redress our many grievances.

In the month of April last I was requested to act as treasurer for all Ireland, and, notwithstanding three appeals—two made by Drs. Patterson and Phillips and one by me—to the different county secretaries of the Poor-law Medical Officers' Association throughout Ireland, I have so far only received the sum of £29 2s. 6d. This represents 233 subscriptions of 2s. 6d. each out of upwards of 1,000 Poor-law medical officers in Ireland; being less than one-fourth of those who may be benefited by the result of the agitation. Surely it would not be too much to ask those who have not already subscribed to send me without further delay their contributions of so trifling a sum, to enable me pay outstanding debts.—I am, etc.,

William H. O'Meara,
Medical Officer of Health for Carlow, Honorary Treasurer for All Ireland Poor-law Medical Officers' Association.
Carlow.

LONDON DIPLOMATES AND THE PROPOSED TEACHING UNIVERSITY FOR LONDON.

Sir,—Mr. Greenwood asks "Where in a provincial town have we anything to equal the National Hospital, Queen Square, and the Moorfields Ophthalmic Hospital?" In reply, please allow me to say that though there may be no hospital in the provinces to compare with the one in Queen Square, yet, as far as the other speciality is concerned, I think the Royal Eye Hospital in Manchester, with its 100 beds, 1,396 in-patients, and 16,695 out-patients, is worthy of comparison with the Moorfields Ophthalmic Hospital, with its 100 beds, 2,185 in-patients and 24,547 out-patients, while the Hospital for Sick Children in Manchester, with its 140 beds, 1,352 in-patients and 10,260 out-patients, is, to say the least of it, worthy of mention in the same connection as the Great Ormond Street Hospital with its 125 beds, 1,094 in-patients and 15,066 out-patients. I quite agree with Mr. Greenwood that there is no injustice whatever in compelling the graduates of Scottish or any other universities to pass their examinations or even supplement their curriculum, if that is required when they seek the diplomas of the London colleges. These examining bodies have their own standard (presumably they know nothing of ours), and they owe it to themselves and to the medical profession in England to keep that standard a high one, but I do not think that the medical graduates of Scottish universities need fear it when they aspire to supplement their degrees with English diplomas. May I be permitted to point out to "Scotus" that a man holding the London diplomas and having studied at a London hospital school would be required, not only to pass all the examinations, from botany to clinical medicine, but he would be required to attend courses of study during two *anni medici* in the university before he could graduate as M.B. and C.M., and then wait two years and send in a thesis before he attained the M.D. degree. Under these circumstances I think we cannot complain of the exclusiveness of the London colleges.

In justice to my own university, which Mr. Greenwood says is the most usual goal of Englishmen seeking degrees, allow me to say that the pass lists of Aberdeen University do not bear this statement out. At the last graduation the degrees of M.B. and C.M. were conferred upon thirty candidates, who, with three exceptions, all hailed from North of the Tweed. The clinical opportunities at the Aberdeen School are certainly fewer than in the larger London hospitals, but they are very fair considering the number of students, and there is a fallacy involved in quoting the 100,000 population of Aberdeen as the only source from whence the clinical material is drawn, the fact being that good cases come from all the counties north of Aberdeen, and from those to the south of it until the influence of Dundee and Edinburgh is felt. I wish the proposed teaching university for London every success, and hope that it will grant an ordinary medical degree for London medical students, for it is manifestly unfair that, with the high standard of teaching and examination which prevails in London, they should not have the advantages (such as they are) accruing to the possession of the degree of M.D. Apologising for the length of my communication.—I am, etc.,

M.D., C.M.Aberd.

P.S.—My hospital figures are from Churchill's *Directory*, 1889.

ALCOHOL AS A MEDICINE.

Sir,—There is one point in the administration of alcohol as a medicine to which I have seen no reference, and yet one which is of great importance to the right use of the drug.

Taking it for granted that the main action of alcohol is a stimulant one, and that this effect is followed by a period of

[1] A Surgical Tribute to the late Dr. Wooldridge, *Lancet*, September 12th, 1891.

depression, it is essential that we should know how long the first effect lasts with any given dose.

I take it that the proper method of using the drug is to give just sufficient to produce the required degree of stimulation continuously. It seems to me that if we administer such quantities and at such intervals of time as to produce alternations of great stimulation and depression, we shall do much more harm than good. Hence the importance of the knowledge I am seeking. Has it ever been scientifically ascertained how long, for instance, the stimulating effect of one ounce of brandy lasts in a healthy man? And how this period may be altered in various diseased conditions of the body? In these days, when alcohol is used as a medicine so much more sparingly than aforetime, and when the rational use of drugs, including alcohol, is founded on a more scientific and accurate basis, it is very desirable that this question should be scientifically ascertained; or, if it have been worked out, that the knowledge should be widely disseminated.—I am, etc.,

M.D.

THE SPREAD OF GLANDERS.

SIR,—If I understand Mr. Dollar rightly, he offers in his scheme published in the BRITISH MEDICAL JOURNAL of August 27th measures for the stamping out of glanders in London. Some of his suggestions are very valuable, and, in conjunction with some inducement for voluntary notification by the owner, might be adopted. If the scheme were merely for the detection of disease in its last stages, it would be almost perfect. Unfortunately, we shall never get rid of glanders except by detecting all cases in their earliest stage, which is not provided for by Mr. Dollar.

His proposals are based upon four statements, which he erroneously terms "facts." The first and fourth are—"(1) That in London all dead horses pass through the hands of one firm of slaughterers. (4) That, sooner or later, glanders or farcy bring its victim to the slaughterhouse."

On this basis Mr. Dollar assumes that we have only to detect every diseased horse at the slaughterhouse, and then trace back to the stable from whence it came to find the centres of infection. Feeling thus secure in his method of detecting every case, he provides a series of coercive measures and detective—veterinary inspectors to force owners of horses to disclose every infected animal. Now the effect of this would be to raise opposition on the part of owners, and to destroy that willing co-operation which alone can make preventive measures a success. There are more ways than one of getting dead horses out of London, and there are more ways of disposing of them in the town than by sending them to the licensed slaughterers. But why wait for death before disposing of deceased horses? Glanders or farcy may remain in a horse's system for months, and during that time he may be sold or exchanged into three or four stables and spread infection. It is necessary to catch the case in the early stage, before it is sold, and before it finally arrives at the slaughterer's yard. If it is proposed to compulsorily slaughter even the slightest case of farcy and pay no compensation for the horse, we may make up our minds for systematic evasion of the law, and many years of expensive work.

Mr. Dollar calculates that his scheme could be worked by twelve veterinary inspectors and one "travelling" inspector. This last official is to "trace outbreaks of disease to their source." He might be very useful, but a little more detail as to his methods would be useful. The veterinary inspectors are apparently to be attached to the six slaughterhouses—one on night duty and one on day. They are to examine the lungs, heads, and hides of every horse, and when they discover disease proceed to the stable from which the horse came and examine all the animals in it. These stables probably lie about three miles apart, and some at even a greater distance. The large stables contain perhaps two or three hundred horses, and the small stables are generally closed all day, except at meal times, so that an inspector might have to call two or three times to find the horses. In cab and omnibus stables the horses are practically never all in at one time, and therefore two, if not three, visits would be requisite. In addition to all this, every case of glanders, before it goes to the slaughterers, must be seen by an inspector, and another visit must be made by that ubiquitous individual to inspect the cleaning and disinfection. Again, when a large stable had been found infected and an inspection made, when would it be repeated? Glanders is a chronic disease, with a long period of latency, so that one visit a week for, say, ten weeks at least would be necessary if inspection is relied on. When Mr. Dollar has multiplied his twelve inspectors by ten, he will not have any too many for a systematic inspection of the 200,000 horses in London.

Is it rational to suppose that, without compensation, a poor man will report his horse for slaughter if he can sell him or "patch him up" for more work? Is it just to attempt the eradication of a disease for the natural good at the expense of the unfortunate individual?

I agree with Mr. Dollar that his "scheme is wanting in detail; it is crude, and perhaps certain factors have been overlooked."—I am, etc.,

WILLIAM HUNTING,
London. Veterinary Inspector.

SCARLET FEVER IN SEASIDE LODGINGS.

SIR,—If forty years' experience has made me sure of anything, it is that nothing is so dangerous as being sure of anything, except saying so. No sooner does one lift up one's testimony as to having made an exhaustive induction of facts relating to anything, and as resting safely and surely in the possession of a new "natural law," than some other man unfeelingly puts on record some fact which knocks the bottom out of one's nice little discovery.

Might I suggest to Dr. Raven that possibly, though his facts may be all right, his method of reasoning may be all wrong. A mere catalogue of exactly similar facts, each failing to support a positive proposition, do not necessarily, when taken together, establish the converse of that proposition. As thus: A. was in the first day of scarlet fever; B. was in bed with A. on that day; B. did not catch scarlet fever from A.; therefore it is not proved that scarlet fever is contagious on the first day. And so on with C. and D., E. and F., and any number more of identical cases. They only strengthen the conclusion that it is not proved that scarlet fever is contagious on the first day.

Here is the essential weakness of the induction *per enumerationem simplicem*. A million such cases do not prove that scarlet fever is not contagious on the first day. If a million such cases could be collected, they might logically be held to have raised the probability that scarlet fever is not contagious on the first day to a pretty high degree of probability, but they would not prove Dr. Raven's contention.

It would be interesting to know how many cases (under a million) had occurred in Dr. Raven's practice, in which persons susceptible of the infection had been in contact with a patient going through his first day of scarlet fever, and had escaped. It would also be interesting to know what the percentage of unproductive exposures is in the case of presumably susceptible persons exposed to the infection at other stages of the disease. It would be still further interesting to know how susceptible persons are to distinguished from insusceptible. The rough division into those who have had the disease and those who have not will not do, because some take the disease twice, and some quite decline to have it at all. I have repeatedly see one or more members of a family of children escape, when the rest have had the disease, and that not because the subject had had the disease before, but for some apparently inscrutable reason.

My own lot has been to see several cases in which, as far as collectable evidence went, the disease was taken upon exposure to contact with a patient in the first day of the disease. I have seen two cases in which the only known exposure was to a patient suffering only from the prodromata of the disease. It is of course possible that the infective agent might have been fomites present in the clothes of the patient in the preliminary stage, derived from an anterior case, and not generated by the sick person himself. But how is this point to be settled?

As for its being "admitted" that scarlet fever is non-infectious in the first stages, that I must demur to. Squire, in his article in Quain's *Dictionary of Medicine*, says "infection attaches to the whole period of illness." Thomas, in his elaborate article in Ziemssen's *Cyclopædia*, gives no counte-

nance to such a proposition as Dr. Raven's. Drs. Guy and John Harley, in a *Vade Mecum* they edited, admit the statement that "it is thought to be infectious before the rash." Dr. F. T. Roberts, in his *Theory and Practice of Medicine*, says, in speaking of the infective period of scarlet fever, "it is safer to consider it as beginning with the incubation period." Dr. George Wilson, the medical officer of health for Mid-Warwickshire, says, in the sixth edition of his *Handbook of Hygiene*, "there is no doubt the disease is infectious so soon as throat symptoms set in, and before the eruption appears. In vol. II, p. 531, of Buck's exhaustive treatise on *Public Health* (which is supplementary to Ziemssen's *Cyclopædia*), it is laid down that "it is safe to say that the infective period begins with incubation."

It would be easy to multiply authorities on the point, but it is quite unnecessary to labour it. I think the weight of authority is against Dr. Raven, while his facts, however true, are not sufficient to support his conclusion.

As a matter of policy, I venture to express an opinion, after forty years' experience in practice and twenty years as a medical officer of health, that the modification of law Dr. Raven desires would be most dangerous and pernicious. As a matter of theory, I contend that no medical practitioner is in a position to "certify" that any case of scarlet fever is non-infectious at any stage between incubation and the final cessation of desquamation from skin or kidney, as well as of any other discharges occurring as sequelæ of the disease.

That scarlet fever may be less infectious at certain given stages than at certain others is only probable, seeing that at certain stages of the "zymosis" the infective material is probably generated in less quantities; but to say that it is not generated at all at any particular stage of the disease is, as far as I can ascertain, neither warranted by the facts of bacteriology nor the facts of practice.—I am, etc.,

M.D. and F.R.S.E.

THE DENTAL PROFESSION.

Sir,—Referring to the letter in the British Medical Journal of August 27th under the above title, I beg to assure your correspondent that the dentists are fully alive to all that disgraces their profession, and also painfully aware of the many difficulties which stand in the way of securing true professional conduct amongst the variety of persons admitted to the *Dental Register* when it was first instituted. With regard to the comparisons made between us and the medical profession, I would beg to submit a few facts for the consideration of Mr. Cartmel, which may be of service to him before he submits any more conclusions on the subject to your readers. It is now thirty-four years since the first Medical Act was passed, and yet it is but yesterday that any legal decision was pronounced on the assumption of the title doctor, and that decision does not go nearly so far as Mr. Cartmel seems to imagine. Equally recent is the authoritative declaration of the Medical Council on the question of covering; counter prescribing is as rampant as ever; herbalists and bone setters still flourish; patent medicines are advertised by professors and even doctors to such an extent that the revenue derived from them is about equal to the calculated combined income of all the medical practitioners in the country, and further, it is to be noted that some of these patent drugs are most injurious to the health of a larger section of the community, a fact with which Mr. Cartmel is no doubt familiar, seeing that he has practised so long in a manufacturing district. But, Sir, there is yet a lower depth of advertisement to which I must draw his attention, for it seems to have escaped his notice that the much-prized title doctor may be seen in numberless places of public resort and out-of-the-way corners, associated with much more disgraceful announcements than anything he has ever yet seen concerning the lowest class of dentists. Surely the parable of the beam and the mote has been forgotten. Mr. Cartmel so mixes up the functions of the licensing bodies or Colleges, the General Medical Council, and the Law Courts, that it is absolutely impossible to discover the drift of his letter; but I can assure him that if he knows of anyone using the title dentist without a legal right to it, and will communicate the same to the Secretary of the British Dental Association, he will help us much more effectually than by writing to the British Medical Journal, and will besides have the satisfaction of seeing the offender promptly punished.—I am, etc.,

George Street, W. J. S. Turner, M.R.C.S. and L.D.S.

Sir,—Mr. Cartmel raises an important question in his letter, and I shall be obliged if I may be allowed to say a few words with regard to it.

The dental licence is granted by the same Colleges that grant to the majority of medical men the qualification under which they practise, and therefore the qualified portion of the dental profession is governed by the same rules as the medical profession; moreover, its *Register* is kept by the same Medical Council, and when that Council has granted to the dental profession a rule about "covering," the two professions will run on all fours. The advertising fraternity are parasites or camp followers, some of whom have gained a position upon the *Dental Register* in virtue of having been in practice before the passing of the Act. Others avoid the penal clauses of the Dentists Act by calling their establishments company's institutes, dentoriums, etc., carefully abstaining from the use of the term dentist, just as the bone-setters, herbalists, and other quacks avoid the term doctor or surgeon in their advertisements.

A similar condition, I believe, to that found in my profession was found in the medical one during the years that supervened upon the passing of the Medical Act in 1815. Considering that the Dental Act has been passed only fifteen years surely the dental profession is to be congratulated upon the position it has been able to attain in that period. I would ask with all earnestness every medical practitioner to help us to continue the upward movement so well commenced.

In my intercourse with dental practitioners throughout the country rather severe complaints are made that doctors send their patients to these dentists who conduct their practices on unprofessional lines, and will administer anæsthetics for them. If medical practitioners would be so good as to look in the dental portion of the *Medical Directory* before sending their patients to any dentist, they would confer a very great favour upon the British Dental Association. It is to our *confrères* of the healing art, now that all feeling of jealousy is at an end, that we look for the support they owe to us, and will, I am confident, in the future extend to us.

Quacks in any profession could not live did they not receive support, and the public will always believe the charlatan who makes the largest claims to miracle working. On the other hand, there is no class that have so much influence upon the public as the medical profession, and a large portion of the public could be put right would doctors only enlighten it. It is next to impossible for us to do this for ourselves, lest we be charged with professional jealousy.

In conclusion, let me say how earnest are the executive of the British Dental Association in their endeavours to prevent any unprofessional act by members of the Association, and, as far as possible, to check any quackery that comes within the meaning of the Act.—I am, etc.,

Cavendish Square, W. Morton Smale.

UNIVERSITIES AND COLLEGES.

SOCIETY OF APOTHECARIES OF LONDON.

Pass List, August, 1892.—The following candidates passed in:

Surgery.—W. D. Akers, St. Mary's Hospital; D. Berne, Royal Free Hospital; F. G. Dorey, Yorkshire College, Leeds; E. G. Firth, Yorkshire College, Leeds; W. Fowler, Durham; E. E. Francis, St. Bartholomew's Hospital; W. Handcock, Yorkshire College, Leeds; B. H. F. Leumann, St. Batholomew's Hospital; W. S. Mercer, Charing Cross Hospital; W. H. F. Noble, London Hospital; A. V. Peatling, St. Thomas's Hospital; B. Saul, Charing Cross Hospital; D. L. Thomas, London Hospital; W. Thomas, Yorkshire College, Leeds; A. E. Wilson, St. Mary's Hospital.

Medicine, Forensic Medicine, and Midwifery.—R. S. Bernard, King's College; F. Dove, London Hospital; E. G. Firth, Yorkshire College, Leeds; V. P. Foote, Charing Cross Hospital; E. E. Francis, St. Bartholomew's Hospital; R. T. Gilmour, St. Mary's Hospital; J. L. Iredale, Yorkshire College, Leeds; J. Joule, London Hospital; H. L. A. Keller, St. Thomas's Hospital; M. C. Langford, London Hospital; B. H. F. Leumann, St. Bartholomew's Hospital; E. E. Nichols, St. Mary's Hospital; F. J. P. Smith, St. Thomas's Hospital; S. Smith, Middlesex Hospital.

Medicine and Forensic Medicine.—J. E. Bailey, University College; W. Handcock, Yorkshire College, Leeds; J. J. Powell, St. Thomas's Hospital, and Cambridge; D. F. Roberts, Guy's Hospital; J. D. Willis, Manchester.

Forensic Medicine and Midwifery.—E. Howgate, Yorkshire College, Leeds; W. S. Newton, London Hospital; J. W. Roberts, Liverpool; W. H. Waddington, Owens College, Manchester.
Forensic Medicine.—J. B. Bate, Bristol; A. A. Macfarlane, St. Bartholomew's Hospital; A. W. Taylor, London Hospital; J. Wood, St. Thomas's Hospital.
Messrs. Akers, Bernard, Dove, Firth, Francis, Gilmour, Keller, Langford, Leumann, Macfarlane, Nichols, Noble, F. J. P. Smith, L. L. Thomas, and Waddington, were granted the diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery.

OBITUARY.

WILLIAM WOOD, M.D., F.R.C.P.,

Consulting Physician St. Luke's Hospital.

IT is with much regret that we have to record the death of Dr. William Wood, of Harley Street, the well-known alienist, which occurred on August 27th.

Dr. Wood was born in 1816, his father being then surgeon in the 79th Light Infantry, and his mother a daughter of Sir John Ramsden, Bart. In 1834 he entered the medical faculty of University College, where his career as a student was a distinguished one. Besides other honours, he gained the much coveted gold medal in the anatomy class. At University College Wood formed friendships, which lasted throughout his life, with Sir William Jenner, Mr. Erichsen, Sir Richard Quain, and many others. In 1848 he took the degree of M.D. at the University of St. Andrews, and in 1864 he was elected a Fellow of the London College of Physicians.

After finishing his course at University College he proceeded, as was then the custom, to Paris, where he spent some time in clinical work under the teaching celebrities of the day. The post of principal resident medical officer at Bethlem Royal Hospital becoming vacant in 1845, Wood was elected to it. During his term of office he adopted the more humane method of treatment of lunatics which had then recently been initiated in this country by Conolly. In 1852, owing to changes in the management of the hospital, Dr. Wood resigned his appointment, and became part proprietor of a private asylum which had been carried on for some years at Kensington House. After a time he became sole proprietor of this establishment, and went to reside in Harley Street in the house which he occupied till his death. In 1861 he was elected visiting physician to St. Luke's Hospital, an office which he held with much advantage to the institution and its inmates and great credit to himself for thirty years. On his resignation he was elected consulting physician to the institution.

In 1870 Dr. Wood bought The Priory, Roehampton, from the representatives of the late Lord Justice Knight Bruce, and, after considerably enlarging the buildings, he, towards the end of 1872, transferred his patients from Kensington House to this new home. After that Dr. Wood spent most of his time either at Roehampton or at Mendip, where he had built a house on the top of the hill as an adjunct of The Priory.

Dr. Wood had always been a man of great activity, both of body and mind, but for the twelve months preceding his death he had been in failing health. At the beginning of the present year he had an attack of pleurisy and pneumonia, from which he never completely recovered. About a fortnight ago he was again attacked with congestion of the lungs, and passed away somewhat suddenly, without suffering, in the midst of his sorrowing family.

Dr. Wood was a man of the kindest and most generous nature, and won the esteem and good will of all who came in contact with him. He devoted his whole energies to the promotion of the comfort and welfare of those entrusted to his care. He was associated with a large number of charities and was always ready with sound advice and substantial help for those who came to him in trouble.

As a Fellow of the Royal College of Physicians, Dr. Wood served on several of its committees, and took a great interest in its work. In 1879 he was Vice-President of the Royal Medical and Chirurgical Society, and he was at one time President of the Medico-Psychological Association of Great Britain and Ireland. He was engaged in many important legal cases in which the question of insanity was involved. He rendered important assistance in the reform of the lunacy laws, and made several valuable suggestions in a pamphlet entitled "Insanity and the Lunacy Laws," which were the outcome of his long experience, and which were duly taken into consideration by the framers of the Lunacy Act of 1890.

He was also the author of a small work, "The Plea of Insanity," with statistics of the probable duration of life in the insane, and contributed to the *British and Foreign Medico-Chirurgical Review*, the *Psychological Journal*, the *Asylum Journal*, etc.

Dr. Wood was buried at Putney, the funeral being attended by a very large number of friends and professional brethren. Of him it may truly be said *Multis ille bonis flebilis occidit*, and he leaves to his family the legacy of a stainless name as a man and as a physician.

ANTONIO MARIA BARBOSA, M.D.,

Emeritus Professor of Surgery Medico-Chirurgical School, Lisbon.

DR. ANTONIO MARIA BARBOSA, the best known of contemporary Portuguese surgeons, and the foremost man in the medical profession in Portugal, died in Lisbon at the age of 77. He was born at Horta, a town of Fayal, one of the Azores, in 1825. He seems to have been first intended for the profession of pharmacy, and spent some years behind the counter in a druggist's shop in his native town. Proceeding to Lisbon with the view of perfecting his pharmaceutical knowledge he changed his mind, and matriculated in the Escola Medico-Cirurgica as a student of medicine. His career there was a very distinguished one, and, after taking his degree with the highest honours, he was appointed surgeon to the Hospital de S. José. In 1859 he competed successfully for the post of deputy lecturer in surgery. In 1863, on the creation of a chair of pathological anatomy in the Lisbon School, Barbosa was invited to fill it; and in 1876, when the professorship of operative surgery became vacant through the superannuation of Ribeiro Vianna, he was appointed to it. He continued to discharge the duties of this post till 1889, when he retired with the title of Emeritus Professor.

Barbosa was a painstaking teacher, both in the operating theatre and in the wards. For many years he occupied a position of undisputed supremacy in surgical practice in Portugal. He was surgeon to the Court, and had almost a monopoly of operative surgery among the well-to-do classes in Lisbon and throughout Portugal. His practice was not confined to surgery, for in Portugal surgeons are by traditional usage allowed to treat medical cases as well as those which fall more strictly within their province. In the academic world Barbosa's influence was equally paramount, and no candidate for any public post could afford to dispense with his support. As the *Correio Medico de Lisboa* puts it, "Alas for any candidate who competed with a friend of his!"

"Portuguese surgery is not inventive," to use the words of a Portuguese writer, and Barbosa's name is not identified with any great scientific discovery or notable advance in surgical art. He did good service, however, by making known to his countrymen the work and methods of foreign practitioners. He was the first who performed ovariotomy in Portugal. Amidst the pressure of a very extensive practice he found time to contribute largely to medical literature, besides taking a prominent part in the social life of the Portuguese capital.

In 1886 Dr. Barbosa had a stroke of apoplexy; this was followed by similar seizures, and he finally died with symptoms of softening of the brain. He was followed to the grave by representatives of the most exclusive society of Lisbon, and an eloquent funeral oration was pronounced over him by Dr. J. A. de Arantes Pedroso, Director of the Escola Medico-Chirurgica of Lisbon.

Barbosa was an active member of the Lisbon Society of Medical Science, and of the Royal Academy of Sciences of Portugal, and a corresponding member of the French Institute and of various learned bodies in other countries. Among the distinctions conferred on him during his long and brilliant professional career, were the Grand Cross of the Order of Christ, and the Knighthood of the Order of the Torre e Espada.

MEDICAL NEWS.

Donation.—The Committee of the Cheyne Hospital for Sick and Incurable Children, Chelsea, have received a donation of 100 guineas from Mr. William White, of Chelsea.

Mr. R. Marcus Gunn has been appointed Honorary Ophthalmic Surgeon to the Cheyne Hospitable for Sick and Incurable Children, Chelsea.

Vaccination Grant.—Dr. Hugh Miller, Public Vaccinator for Birkenhead, has been awarded the Government grant for efficient vaccination in his district.

Proposed Crematorium for Leeds.—At the last meeting of the Leeds Sub-burial-grounds Committee the question of providing Leeds with a crematorium was the principal matter for consideration. It was ultimately decided to send a deputation to visit Manchester, and, if necessary, Woking, to inspect the arrangements existing in those places, and to report to the Committee the result of their inspection.

Anatomy at Oxford.—During the past year considerable additions have been made to the laboratory accommodation in the department of comparative anatomy, and senior students are now provided with all the facilities necessary for advanced work. Considerable progress has been made with the new building for human anatomy, and it is hoped that it may be ready for occupation next summer.

Medical Magistrates.—Henry Pentland, M.D., of St. Patrick's, Mohill, has been placed on the Commission of the Peace for the county Leitrim.—Mr. Henry William Coleman, L.R.C.P., M.R.C.S.Eng., has been appointed by the Lord Chancellor to the Commission of the Peace for the Borough of Leeds.

American Dermatological Association.—The American Dermatological Association will hold its sixteenth annual meeting at New London, Conn., on September 13th, 14th, and 15th. A discussion will take place on Alopecia Areata, and among the papers promised are Some Observations on the growth of Achorion Schoenleinii in America, by Dr. L. Heitzmann; Psorospermosis, by Dr. M. B. Hartzell; and a Recent Visit to the Leper Hospital at Havana; Leprosy in Charleston, South Carolina, etc., by Dr. W. T. Corlett.

Insanitary Moscow.—The ancient capital of Russia is invested with a special sanctity in the eyes of the Czar's subjects, and is, therefore, known among them by the name of "Holy Moscow." We are not concerned to dispute its claim to this title, but we think it would be well if the Ediles, whoever they may be, who are responsible for the sanitary administration of the holy city, were to do something to temper the odour of sanctity which pervades it to the weakness of the average human nose. Although we believe there is no Scripture warrant for the text "Cleanliness is next to Godliness," it is a wholesome and surely not an unholy thought, especially when cholera is knocking at the gates. The chief magistrate of Moscow recently stated that for the thorough cleansing of the city the removal of 30,000 barrels of refuse daily for a month would be necessary. As a matter of fact, only 900 barrels are taken away. With a residuum of filth constantly increasing at this rate, Moscow must be a veritable mine of communicable disease, which the slightest spark would fire. Yet in the face of this most pressing danger the *Duma* (Local Council) appears to think it has shown itself equal to the situation by voting a sum of 20,000 roubles (£2,000) for sanitary purposes. One is almost tempted to think that the most effectual remedy for so disgraceful a state of things would be that "Holy Moscow" should undergo another purification by fire as in 1812.

A Freak of Nature.—Thorough-going Platonists—if there be any such in these degenerate days—might, perhaps, claim the following case (which we give on the authority of the *Californian Medical Journal*) as in some measure confirming their master's fancy that the perfect human creature was originally a bisexual whole, of which the male and female in their present separate condition are the disjoined halves. At Forsyth, in Missouri, there is said to be living a perfect double child of both sexes, the offspring of a farmer named James Howard. The two children, who are now 7 years of age, are perfectly formed, with the exception that they have about 8 inches of spinal column in common. They are placed back to back, and 10 inches above the end of the spinal columns the bones merge into one column. Below this point the two bodies are again entirely distinct. The children play about as others do, but with a good deal of difficulty in locomotion. They have, however, established a *modus vivendi* on this point from which political Jehus with a "heterogeneous" team to drive might possibly derive a useful hint. When one wants to go forward he informs the other, who thereupon obligingly walks backward. They have done this, it appears, so much that they can walk either way very readily. What would happen if any difference of opinion were to arise on the subject of direction can only be conjectured. The children have no thoughts in common, and are apparently absolutely distinct individuals with the exception of the connection of their spines. The father has hitherto refused to allow the children to be exhibited.

MEDICAL VACANCIES.

The following vacancies are announced:

CHELTENHAM GENERAL HOSPITAL.—Resident Surgeon for the Branch Dispensary. Salary, £180 per annum, with partly furnished house, coal, and gas. Applications to the Hon. Secretary and Treasurer, General Hospital, Cheltenham, by September 15th.

COUNTY ASYLUM, Prestwich, Manchester.—Assistant Medical Officer. Salary, £100 per annum, with a propsect of an increase of £25 at the end of first year, and of £25 at the end of second year. Applications to be sent to the Superintendent.

DUNSTABLE URBAN SANITARY AUTHORITY.—Medical Officer. Appointment for one year. Salary, 20 guineas. Applications to Mr. C. Crichton S. Benning, Town Clerk, by September 10th.

GENERAL HOSPITAL, Birmingham.—House-Physician. Salary, £70 per annum. Applications to be sent to Mr. Howard J. Collins, House-Governor, by October 7th.

GENERAL HOSPITAL, Birmingham.—Pathologist (non-resident). Salary, £120 per annum. Applications to be sent to Mr. Howard J. Collins, House-Governor, by October 1st.

GENERAL HOSPITAL, Birmingham.—Surgical Casualty Officer (non-resident). Salary, £70 per annum. Applications to Mr. Howard J. Colins, House-Governor, by October 1st.

GENERAL HOSPITAL, Nottingham.—Senior Resident Medical Officer; doubly qualified. Salary, £120 for the first year, rising £10 yearly up to £150, with board, residence, and washing. Applications to E. M. Keely, Secretary, by September 14th.

LANCASHIRE COUNTY ASYLUM.—Assistant Medical Officer. Salary, £200 per annum. Applications, with testimonials, to be sent to the Medical Superintendent.

LIVERPOOL HOSPITAL FOR CANCER AND SKIN DISEASES.—Honorary Assistant Surgeon. Applications and testimonials to A. N. Talbot, 3, Rumford Street, Liverpool, by September 21st.

LONDON COUNTY COUNCIL.—Assistant Medical Officer of Health, not less than 26 or more than 40 years of age. Salary, £300 per annum, rising by annual increments of £50 until it reaches £600 a year. Applications on forms to be had at the office of the Council to H. De La Hooke, Clerk to the Council, Spring Gardens, S.W., by September 10th.

NAAS UNION (Robertstown and Kilmeague Dispensary).—Medical Officer. Salary, £140 per annum, and fees. Applications to Mr. J. M. Neale, Honorary Secretary, Newington House, Newbridge. Election on September 12th.

PARISH OF ROUSAY AND EGILSHAY.—Resident Medical Officer. Salary, £51 per annum. Applications to Inspector of Poor, Rousay, Orkney.

PARISH OF ST. LEONARD, Shoreditch.—Clinical Assistant for the Infirmary, Hoxton Street, N. Salary, £40 per annum, with rations, furnished apartments, and washing. Applications to the Medical Officer, 204, Hoxton Street, N.

SCARBOROUGH HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £80 per annum. Applications and testimonials to be sent to the Honorary Secretary, Elders Street, Scarborough, by September 20th.

SOUTH LONDON MEDICAL AID INSTITUTE, 300, Waterloo Road.—Attending Medical Officer. Applications to the Secretary.

SUNDERLAND CORPORATION.—Medical Officer of Health for the District of the Borough and Port. Salary, £500 per annum as Medical Officer of the borough, £20 for the like office of the Port, and £5 as Public Analyst. Applications endorsed "Medical Officer of Health and Public Analyst," to Mr. Francis M. Bowey, Town Clerk, Town Hall, Sunderland, by October 29th.

SUSSEX COUNTY HOSPITAL, Brighton.—House-Surgeon, doubly qualified, unmarried and under 30 years of age. Salary, £120, rising to £140 per annum, with residence, board, and washing. Applications to the Secretary, by September 21st.

UNIVERSITY OF ABERDEEN.—Six Examiners for Graduation in Medicine. Grant of £30 per annum each. Applications to Robert Walker, Secretary of the University Court, by October 1st.

WORCESTER COUNTY AND CITY LUNATIC ASYLUM.—Third Assistant Medical Officer. Salary, £100 per annum. Applications and testimonials to be sent to Dr. Cooke, The Asylum, Powick, near Worcester, by September 20th.

MEDICAL APPOINTMENTS.

Adams, Campbell R., L.S.A., appointed Government Medical Officer to the Toledo District of British Honduras.

Ashworth, J. Henry, M.D., M.R.C.P.Edin., reappointed Honorary Medical Officer to the Halstead Cottage Hospital.

Atkey, P. J., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital.

Banks, A., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital.

Bell, W. K., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Shaldon Sanitary District of the Newton Abbott Union, *vice* Dr. Corbould, deceased.

Bevan, W. L. P., M.D., M.B., C.M.Edin., appointed Medical Officer of Health for the Alton Urban Sanitary District of the Alton Union.

Billing, J. P., L.R.C.P.I., L.F.P.&S.Glas., reappointed Medical Officer for the No. 5 District of the Hailsham Union.

Blackham, Robert James, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glas., L.M. Dublin (Rotunda), appointed Assistant Medical Officer to the Ton and Bwlfa Collieries, Rhondda Valley, South Wales.

Bowring, W. A., L.R.C.P., M.R.C.S. (extension), appointed Resident House-Physician to St. Thomas's Hospital.

Brannigan, H. C., M.D., M.Ch.Irel., L.R.C.P., L.R.C.S Edin., appointed Resident Surgeon to the Mount Morgan Hospital, Queensland, *vice* R. Hunter, resigned.

Bromley, John B., M.R.C.S., L.S.A., reappointed Honorary Medical Officer to the Halstead Cottage Hospital.

Bulman, F., M.B., B.S.Durh., appointed Medical Officer for the Workhouse of the Newport (Mon.) Union, *vice* Dr. Jennings.

Burden, H., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital.

Caley, Henry Albert, M.B.Lond., L.R.C.P., M.R.C.S., appointed Medical Registrar to St. Mary's Hospital, W.

Cayley, C. H., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., appointed an additional Public Vaccinator for the District of Temuka, New Zealand.

Dalgetty, Arthur B., M.B., C.M.Aberd., appointed Medical Assistant to the Dundee Royal Lunatic Asylum.

Dalzell, A., L.R.C.P., M.R.C.S. (extension), appointed Clinical Assistant to the Department for Diseases of the Throat at St. Thomas's Hospital.

Dods, James, L.R.C.P., L.R.C.S.Edin., appointed Acting Government Medical Officer at Montalbion, Queensland.

Dorman, U. R. P., M.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S. (extension), appointed Clinical Assistant to the Department for Diseases of the Throat at St. Thomas's Hospital.

Duncan, William, L.R.C.P., etc., appointed Medical Examiner for the Prudential Insurance Company, Westbury-on-Trym District.

Fisher, J. H., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital.

Fooks, W. P., M.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S. (extension), appointed Non-Resident House-Physician to St. Thomas's Hospital.

Frederick, H. J., L.S.A., appointed Clinical Assistant in the Department for Diseases of the Ear at St. Thomas's Hospital.

Fullston, Andrew, M.B., B.Ch., appointed House-Surgeon to the West Kent General Hospital, Maidstone.

Gibson, C. G., M.B., C.M.Edin., appointed Medical Officer of Health for the Launceston Urban Sanitary District of the Launceston Union.

Gunn, Robert Marcus, M.A., F.R.C.S., appointed Honorary Ophthalmic Surgeon to the Cheyne Hospital for Sick and Incurable Children, Chelsea.

Haydon, T. H., B.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., appointed Senior Obstetric House-Physician to St. Thomas's Hospital.

Holman, H. C., M.R.C.S., L.S.A., reappointed Medical Officer for the No. 2 District of the Hailsham Union.

Jackson, J. J., L.R.C.P.Edin., L.R.C.S.Irel., appointed Medical Officer of Health for the Wakefield Rural Sanitary District.

Johnson, F., L.R.C.P.Irel., M.R.C.S., appointed Medical Officer and Public Vaccinator for the Hedgerley Sanitary District of the Eton Union.

Law, R. R., B.A., M.B., B.C.Cantab., appointed Assistant House-Surgeon to St. Thomas's Hospital.

Lovell, C. P., M.A., M.B., B.Ch.Oxon., L.R.C.P., M.R.C.S., L.S.A. (extension), appointed Clinical Assistant in the Department for Diseases of the Skin in St. Thomas's Hospital.

Mason, D., appointed Medical Officer of Health for the St. Austell District of the St. Austell Union.

Miller, J. T. Roger, L.S.A.Lond., appointed Medical Officer and Public Vaccinator for the Leavening Sanitary District of the Malton Union.

Monaghan, T. J., L.R.C.P., L.R.C.S., D.P.H.Edin., D.Sc.Vict. Univ., appointed Medical Officer of Health for the Borough of Accrington.

Montgomery, W. P., B.A.Oxon., M.R.C.S., L.R.C.P., appointed Senior House-Surgeon to the Ancoats Hospital.

Morris, Colne Dwight, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond., appointed Medical Officer of Health to the Staines Rural Sanitary District.

Morrison, R. H., M.B., C.M.Edin., appointed Health Officer for Oakleigh Borough, Victoria, Australia.

Naylor, A. G. E., L.R.C.P., L.R.C.S.Edin., appointed Public Vaccinator at Romsey, Victoria, Australia.

Neech, Jas. T., L.R.C.P.Edin., L.F.P.S.Glas., appointed Medical Officer of Health to the Atherton Local Board.

Norgate, R. H., M.R.C.S.Eng., L.R.C.P.Lond., appointed Second Assistant Medical Officer to the Kent County Asylum, Barming Heath.

Paton, R. J., M.B., C.M., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the St. Woolos Sanitary District of the Newport (Mon.) Union.

Pitt, C. W., M.R.C.S., appointed Medical Officer of Health for the Rural Sanitary District of the Malmesbury Union, *vice* Dr. Tolerton.

Price, A. E., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Department for Diseases of the Ear at St. Thomas's Hospital.

Purvis, W. P., B.Sc.Lond., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Department for Diseases of the Skin at St. Thomas's Hospital.

Rowe, Montague W., appointed Medical Officer for the Constantine District, *vice* Dr. Rodgers.

Ryall, Charles, L.R.C.S.Edin., L.R.C.P.Edin., L.F.P.&S.Glas., appointed Resident Medical Officer to the Victoria Hospital, Lewes.

Sanders, Thomas, F.R.C.S., appointed Medical Officer for the No. 1 District and Workhouse of the South Molton Union.

Sawyer, R. H., M.R.C.S., appointed Medical Officer of Health for the Shaftesbury Urban Sanitary District of the Shaftesbury Union.

Simpson, H., B.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

Sinclair, R. D., L.R.C.P.Edin., L.F.P.&S.Glas., appointed Health Officer for Flinders and Kangerong Shires, Victoria, Australia.

Skottowe, A. J. F., M.D., C.M.Glas., appointed Hospital Surgeon, Medical Officer for the Burgh, and Police Surgeon, Helensburgh, *vice* Dr. Messer, resigned.

Souter, J. C., M.D., C.M.Aberd., appointed Public Vaccinator at Maitland, South Australia.

Wallace, C. S., L.R.C.P., M.R.C.S., appointed Junior Obstetric House-Physician to St. Thomas's Hospital.

Wallace, F. G., M.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S. (extension), appointed Non-Resident House-Physician to St. Thomas's Hospital.

Wallis, F. M., M.R.C.S., L.S.A., reappointed Medical Officer for the No. 4A District of the Hailsham Union.

Watkins-Pitchford, W., L.R.C.P., M.R.C.S., appointed Resident House-Physician to St. Thomas's Hospital.

Woods, John Cundell, L.R.C.P., D.P.H.Edin., Deputy Medical Officer of Health, appointed Medical Officer of Health *pro tem.* for Sunderland, *vice* A. E. Harris, resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

Caldwell.—On August 27th, at 23, Priory Road, Bedford Park, W., the wife of Surgeon-Captain R. Caldwell, F.R.C.S., Army Medical Staff, of a son.

Hughes.—On Monday, July 25th, at Ventersburg, Orange Free State, South Africa, the wife of Hugh G. Hughes, of a son.

MARRIAGES.

Brown—Coward.—On August 24th, at the Parish Church, Bowdon, by the Ven. Archdeacon Gore, D.D., vicar, and the Rev. C. H. Lomax, rector of Heaton Mersey, Alfred Brown, M.A., M.D., of Claremont, Higher Broughton, Manchester, son of the late William Brown, of Leighton, to Ethel, third daughter of Edward Coward, J.P., of Heaton House, Heaton Mersey, and Heatherlea, Bowdon. No cards.

Cowell—Roe.—On September 1st, 1892, at S. Barnabas, Pimlico, by the Rev. C. O. Becker, curate in charge, George Cowell, of Cavendish Place, Cavendish Square, to Mary Margaret Elizabeth, widow of Dr. Hamilton Roe, of Harrington Gardens, and daughter of the late John Laurie, Esq., M.P.

Failes—Ward.—On August 31st, at Terrington St. Clements, by the Rev. Watson Failes, Assistant Master in Westminster School, assisted by the Rev. M. Crosse, vicar, Frederick George Failes, M.R.C.S.Eng., L.S.A., of Coonabarabran, New South Wales, son of the late Christopher Failes, of Fitton Hall, St. German's, Norfolk, to Frances Mary (Beda), elder daughter of David Ward, of Hamond Lodge, Terrington St. Clements, Norfolk.

Lockwood—Parker.—On September 3rd, at St. Andrew's, Sharrow, by the Rev. Canon F. W. Goodwyn, vicar of Rotherfield, Harry Lockwood, M.R.C.S., youngest son of the late Charles Lockwood, Greno House, to Alice Jane, only daughter of the late Kenyon Parker.

Vinter—Toms.—On September 6th, at the Parish Church, Shepperton-on-Thames, by the Rev. A. E. Vinter, principal of the Derby Training College, brother of the bridegroom, assisted by the Rev. F. W. Vinter, uncle of the bridegroom, and by the Rev. C. Littledale, vicar, Sydney Garratt Vinter, of Torpoint, Devonport, formerly of the Perak Goo Service, to Frances, youngest daughter of the late William Tucker Toms, of Chard, Somerse

DEATHS.

Barnes.—On August 25th, at Ewell, Surrey, George Robinson Barnes, M.D., aged 60.

Salaman.—At Poona, on August 14th, Caroline Emily, wife of Surgeon-Lieutenant-Colonel S. M. Salaman, I.M.S., and daughter of the late Colonel C. A. Moyle, formerly Commandant 28th Regiment Bombay Infantry.

Salzmann.—On August 31st, at Downford, Montpelier Road, Brighton, Frederick William Salzmann, M.R.C.S., in the 48th year of his age.

Pye.—On September 2nd, Walter Pye, F.R.C.S., late of 4, Sackville Street, Piccadilly, aged 39.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not Later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted, will be found under their respective headings.*

QUERIES.

A Member writes: Must a registered practitioner pass any other examination before being allowed to practise on English patients only in Monte Carlo?

Questor writes: Will any of your readers kindly say where rules, etc., for admission (and training) of nurses to hospitals and nurses' institutions can be obtained?

Junior Member writes: A patient of mine who suffers from chronic bronchitis wishes, if possible, to reside permanently in Blackpool, the summer climate of which suits him admirably. Could any of your readers who are acquainted with its winter capabilities kindly give me, through your columns, some information as to whether it would be likely to be prejudicial or otherwise in such a case?

Incontinence of Urine.

M.B. writes: I have a case of incontinence of urine of several years' standing in a boy, aged 11, amenable to none of the usual forms of treatment. Can anyone advise?

Surgery at the M.R.C.S. Examination.

Mr. H. M. Holt (M. O. H. Malton) writes: Can you inform me where I may obtain the questions on surgery for January, April, and July examinations of the Royal College of Surgeons of England, 1892. The printers and Secretary are unable to furnish the same.

*** Our correspondent should consult the current numbers of the *Hospital Gazette and Students' Journal*, in which examination papers are regularly published. Application should also be made to Mr. F. G. Hallett, the Secretary of the Conjoint Board, at the Examination Hall, Victoria Embankment.

Cement for Specimen Jars.

L. S. writes: Could you kindly inform me what is the best material for cementing glass-jar preparations (pathological), and where it can be purchased; also the name of a glass jar manufacturer?

*** The preparation used for cementing the glass jars is a compound of asphalte and rubber (the exact proportions can easily be ascertained), which is not in the market so far as we know, but can be readily prepared. The leading manufacturers of glass jars in London are Messrs. Powell and Sons, of Whitefriars, E.C. Mr. J. H. Targett, Curator of the Pathological Museum of the Royal College of Surgeons, would, no doubt, be able to supply fuller particulars.

Growth of Hair after Death.

A Correspondent asks whether it is a fact that the hair grows profusely on the bodies of persons after death; "if so, can you give me any notable instances?"

*** A question like this really hardly deserves a serious answer, although it comes to us from time to time from serious people. The unshaven beard of a dying man probably looks a little more prominent after death on account of the shrinking of the skin. The only recorded instance of which we are aware is that described by Guy de Maupassant in his *Belami*, page 221. The French realistic novelist is supposed to hunt up "documents" for his facts, but we fear in this case the eminent novelist must have relied wholly upon his imagination in order to impress that of others.

ANSWERS.

Surgery for the M.R.C.S. Examination.

D. F. Williams.—Our correspondent would find either Erichsen's or Holmes's *Surgery* quite sufficient for his purpose, and to contain all the pathology and minor surgery he requires for his examination.

The Entrance Examination for the Bar.

A Junior Member.—The entrance examination for the Bar is not difficult to anyone who has been educated at a public school. Men who have passed a public examination at a university are excused it, but we believe no one else. Full particulars as to the subjects required can be obtained by writing to the subtreasurer of any of the Inns of Court.

Medical Practice in California.

Dr. Thomas Davidson (Los Angeles, California) writes, in reply to M.D.'s query in the British Medical Journal of July 23rd: An American diploma is not required in California, but registration (5 dollars) is necessary. Population of Los Angeles 50,395. Proportion of population to each person practising medicine 196. Will be pleased to write particulars to M.D.

Tomatoes and Cancer.

D. A. J.—Our correspondent will find a clear statement of our views on the absurd superstition to which he refers in the British Medical Journal of August 20th, p. 428. It is inconceivable that any notice of the nature indicated should have been posted up in any reputable hospital in London or elsewhere.

Paralysis of the Soft Palate.

M.B. begs to refer M.R.C.S. to a discussion on Paralysis of the Soft Palate at the Clinical Society in 1871, reported in the British Medical Journal, 1871, vol i, p. 255, and in the *Lancet*, 1871, vol. i, p. 308. It was introduced by Dr. Broadbent, and continued by Drs. Weber, Silver, Fagge, Anstie, Gull, and Wiltshire. Also to an article by Dr. Gowers in Quain's *Dictionary*, p. 1083.

The Literature of Cottage Hospitals.

X.—There is not much very recent literature available which is devoted exclusively to cottage hospitals. Messrs. J. and A. Churchill published *Cottage Hospitals*, by Henry C. Burdett; the second edition in 1880. There is now in the press also, by the same author, *Hospitals and Asylums of the World*, a large work which includes cottage hospitals. Sir Douglas Galton's article on Hospital Construction and Administration, in *Quain's Dictionary of Medicine*, new edition, 1890 (Longman's) might be consulted with advantage, as also the article Hospitals in the *Encyclopædia Britannica*, or in the new edition of Chambers's *Encyclopædia*, now being published. But probably the guidance which would be most really useful would be that which might be obtained by correspondence with the presidents, secretaries, or matrons of newly erected cottage hospitals. Within the last half-dozen years cottage hospitals have been erected at the following among other places: Axminster (1886), President, Miss Conybeare; Barnet, Herts (1888), Honorary Secretary, Rev. George Twentyman, B.D.; Bingley, Yorks (1890), President, W. Dunlop, J.P.; Blandford, Dorset (1888), Honorary Secretary, Miss M. Daniell; Cheshunt, Herts (1889), Honorary Secretary, H. S. Herd; Epsom and Ewell (1889), Honorary Treasurer, Rev. E. W. Northey, Epsom; Farringdon, Berks., now in course of completion: Goole, Yorkshire (1891), Matron, Miss Sleight. A list of all the cottage hospitals in England will be found in Burdett's *Hospital Annual*, 1891-92, published by the Scientific Press, Limited, 140, Strand, W.C.

NOTES, LETTERS, Etc.

The Medical Sickness, Annuity, and Life Assurance Society.

Mr. Lucy writes, in his famous provincial syndicated newspaper letter: The Institute of Journalists have under consideration a proposal to establish a provident association in connection with their Guild. If the project be carried out it will be upon the lines of an institution founded by Mr. Ernest Hart, and carried on in conjunction with the British Medical Journal, which he edits. This medical provident association is of comparatively recent origin, but is, in its way, one of the most remarkable institutions of the day. With a large and growing income its business is carried out at a ratio of expense that does not exceed 4 per cent. Compared with the average established on the most economically conducted institutions of a similar character, this will seem incredible. It is certainly brought about by abnormal circumstances. Neither Mr. Ernest Hart nor any of the committee accept a penny for their services. They do not advertise or employ canvassers or pay commission on the introduction of business. The whole thing is got up for the benefit of the medical profession. It is worked strictly on co-operative principles, with the result that with the trifling deduction for expenses mentioned every penny subscribed goes to the benefit of members. A similar institution, managed with equal skill and business aptitude, would be of inestimable benefit in connection with the journalistic profession.

The Cholera in Kashmir.

Brigade-Surgeon Robert Pringle (Blackheath), late Sanitary Department, Her Majesty's Bengal Army, writes: With reference to the notice at page 420 in the British Medical Journal for August 20th, bearing on the resolution passed with regard to the outbreak of cholera at Srinagar in Kashmir, a report of which, by Surgeon-Colonel Harvey, M.D., appeared in the British Medical

JOURNAL of August 13th, will you allow me to remark, that it seems me it will be quite time enough for the profession in this country to pass resolutions on the insanitary state of the capital of Kashmir when the Indian Government ceases to allow the scandalous breaches of all sanitation to occur almost annually at the Hurdwär Fair on the Ganges—the Nijni Novgorod of India. For twenty years from 1864 I know what has happened at Hurdwär, as the sanitary officer of the district, and in that time have seen two "Khoomb" or twelfth year festivals, 1867 and 1879, and anything more awful than what occurred at Hurdwär after the fair of 1879, and among the cholera panic-stricken pilgrims rushing to their homes, I have never seen, and I have been present at the two previous greatest cholera outbreaks in India for the last thirty-five years, namely, Juggernauth in 1856 and Hurdwär in 1867. Of all places in India, at any time of the year, and under any conditions of spreading the disease, none could by any possibility have equalled Hurdwär in April, 1879, for absolute unsuitability for such a gathering, and utter inability to carry out any local sanitation whatever, while the facilities for spreading the disease by railway and other means of communication were simply perfect. After the civil arrangements of a whole district like Saharanpur had been practically set aside, that the "Khoomb Mela" or fair might be a complete success, after the warning voice of cholera cases at the end of March exactly to the day as in 1867 were present, after some officers had urged the necessity of putting off the fair—after all this, it was decided to still hold the fair, with results, however they may be glossed over in official documents, which were such, that will never be obliterated from the native memory. That fair, in the figurative language of that country, will ever be known as the fair in which the low-caste sweeper with his broom of office triumphed over the exalted Brahmin with his sacred thread of adoration; and yet, notwithstanding all the precautions taken, in the face of such insuperable insanitary obstacles as were present at Hurdwär, never was such a miserable failure of all sanitation known, while the scenes witnessed at the railway station at Saharanpur baffle description.

In your allusion to the resolution, you describe Srinagar as one of the birthplaces of cholera. We do not quite know where *the* birthplace of cholera is, but I know of no better nursery for cholera than Hurdwär in April, and no better system of despatching the nurselings on their mission of death than the arrangements, or rather absence of all arrangements, at Saharanpur on April 12th and 13th, 1879, as I can vouch for.

The native authorities of Kashmir can turn round on the Indian Government, as I fancy more than one European Government does now, and ask, Why blame us for our helplessness to resist what you have nursed up into a devouring flame?

SURGEON-LIEUTENANT-COLONEL JOHN INCE, M.D. (Swanley), writes: The reference to my book on Kashmir by Dr. R. Harvey, in his interesting paper on the Epidemic of Cholera in Kashmir, published in the BRITISH MEDICAL JOURNAL of August 13th, has suggested to me the sending of a copy of my work for our excellent library. I should add that this edition was published in 1876, on the eve of my leaving India, and was rather hurriedly prepared to meet the then intended visit of His Royal Highness the Prince of Wales to the beautiful valley; also that I then transferred all rights, etc., to my publishers. I understand, however, that my *Guide* is still the leading one, and that a well-known medical missionary in Kashmir has been requested by them to revise it and bring it up to date with a view to a new and a larger edition being issued.

ALKALINE SPRAY IN RHEUMATIC FEVER.

DR. G. C. STEPHEN writes: In answer to "H.L.D's" inquiries *re* alkaline spray in rheumatic fever, I beg to draw his attention to the article on Endocarditis, by Professor von Bamberger, in *Die Therapie an der Wiener Kliniken*, in which he recommends the following to be inhaled for a quarter of an hour three or four times a day: R. Sodii bicarb., 1.5 g.; aq. destil., 100.0 g. The *rationale* of this inhalation is that it is supposed to render the blood as alkaline as possible, and therefore renders the fibrin more readily soluble.

LONDON DIPLOMATES AND THE PROPOSED TEACHING UNIVERSITY FOR LONDON.

M.R.C.S., L.R.C.P., writes: I greatly fear that your correspondent Mr. A. Greenwood is correct in his surmise that London diplomates will be excluded from the new university; and our belief in this is sufficiently great to induce a friend of mine and myself to work up for the M.D. (BRUX.), for which we hope to present ourselves next year. In this way we two will convey a matter of £45 at least out of this country into foreigners' pockets, because we are excluded from a degree at home. I would advise all London students who are anxious for a degree to go in for Brussels; in this way they would numerically strengthen the Brussels Graduates' Association, and perhaps succeed once more in placing this degree (which is undoubtedly a good all round test of knowledge) on the *Register* again. As for what "Scotus" says with regard to clinical teaching in London, I can tell him that when I was clinical clerk I had often twenty beds from which to take notes; an Edinburgh student, I believe, sometimes has a whole bed to himself, never much more, so I am told by an Edinburgh graduate.

THE CAUSATION OF SEA SICKNESS AND ITS SYMPTOMS.

DR. W. DOWNING (Birmingham) writes: The causation of sea sickness has long been understood to be connected with disturbance of the nervous system, bromides being given on that account. There is no doubt that the mere mechanical vomiting is produced in this way, the central nervous centre in the medulla being in a state of irritation. The accompanying symptoms, however, of severe headache, coldness of surface, and faintness are probably not the immediate result of nervous derangement. It is probable that, owing to the various oscillatory movements (which produce the temporary disorganisation of the nervous system and the consequent disturbance of the vagi and hepatic plexus) the bile is not restrained from directly entering the duodenum in large amount, and as a consequence becomes absorbed by the blood, as shown by the varying colour of the face. Bile circulating in the blood in great excess acts in a poisonous manner, and produces the symptoms alluded to. Hence relief may be anticipated by the free use of cholagogue remedies for a day or two before commencing a voyage. If bile be scarce, vomiting of food in the stomach may occur, but the headache, faintness, and general prostration will be absent.

MR. ROBINSON'S BABIES AND THE ARBOREAL APES.

PICKED up at the British Association by a correspondent of the *St. James's Gazette*:

"Swing away, baby, in the tree-top;
Though the wind blows, I've no fear that you'll drop.
Should the bough break, it won't matter at all;
Others below you can catch in your fall.

"Swing away, baby, your little fist
Shows that your forefathers used to exist;
In your wee fingers a Robinson sees
Proof that your ancestors lived up in trees.

"Swing away, baby, if your hand grows
Tired, you can rest it by using your toes,
Ere boots and shoes have distorted the shape,
Due to the ancient quadrumanous ape.

"Swing away, baby; monkey and man,
Both have been made upon one common plan.
One missing feature you'll live to bewail—
Only a rudiment's left of your tail.

"Swing, away, baby; swing, you have not
Need of a cradle, a crib, or a cot,
Mansion or cottage, or lodgings, or flat,
Trees, only trees, are your true habitat."

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Dr. H. E. Armstrong, Newcastle-on-Tyne; Dr. C. C. Askin, Woodbridge; Dr. Abercrombie, London; Dr. Apostoli, Paris; R. Ackerley, M.B., Ashburton. (B) Mr. A. Wynter Blyth, London; Messrs. Burroughs, Wellcome, and Co., London; Berkefield Filter Co., The Secretary of the, London; Mr. W. B. Beatty, Devonport; Dr. A. T. Brett, Watford; Mr. W. Brandon, Glasgow; Dr. F. N. Brown, Pirbright; Dr. G. S. Buttery, Oldbury. (C) Mr. J. Couldrey, Doncaster; Mr. B. F. C. Costelloe, London; Country Practitioner; J. R. R. N. Crindle, M.B., Middlesbrough-on-Tees; Mr. R. Caldwell, Chiswick; Mr. C. Cooper, Chester; Mr. A. Clark, London; Mr. H. Collingwood, London. (D) Mr. C. Dawson, Headingley; R. Dean, M.B., Ealing; Dr. Dolan, Halifax. (E) Mr. T. S. Ellis, Gloucester; Mr. W. P. M. Endownery, Portsmouth. (G) Mr. W. Gibbons, Isleworth; Mr. R. Gray, Armagh; Mr. H. W. G. Green, Haslar; Mr. J. Goodfellow, London; Mr. L. Griffiths, Bristol. (H) Mr. M. Hacon, Christchurch, N.Z.; Dr. P. Horrocks, London; Mr. E. H. Hankin, Cambridge; Mr. N. Hicks, Ramsgate; Mr. J. C. Hoey, Dublin; Dr. S. Haughton, Dublin. (J) Mr. A. W. L. Jones, London; Mr. H. Johnson, Hastings; Dr. H. R. Jones, Liverpool. (K) Dr. W. M. Kelly, Taunton. (L) J. Lloyd, M.B., Birmingham. (M) Mr. T. D. Mann, London; Dr. J. W. Mason, Hull; Dr. A. Mitchell, London; M.B. London; Dr. H. Miller, Birkenhead; Mr. H. W. G. Mackenzie, London; Mr. A. C. Munroe, Paisley. (O) Mr. E. Olier, Strassburg. (P) F. Pope, M.B., Leicester; Messrs. Napoleon Price, and Co., London; Mr. J. D. Phillips, Hoxne; Mr. T. Paul, Liverpool; Dr. T. H. S. Pullen, Sidmouth; Dr. C. Porte., Dover; Mr. H. D. Palmer, Nayland; Mr. R. D. Pedley, London; Dr. L. C. Parkes, London; Mr. J. Penberthy, London; Practitioner. (R) Rational; Dr. G. Reid, Stafford; Royal College of Surgeons in Ireland, The Secretary of the, Dublin; Mr. T. F. Raven, Broadstairs. (S) Messrs. Street and Co., London; Mr. J. Savage, London; Mr. N. Scott, London; Dr. A. Schofield, London; Dr. A. W. Sandford, Cork; Mr. G. R. Stilwell, Nottingham; Dr. Sherrington, London; Mr. R. R. Sleman, London; Mr. T. H. Smith, Dartford. (T) Mr. H. N. Taylor, Mexborough; Mr. Lawson Tait, Birmingham; Mr. J. Taylor, Chester; J. C. Thresh, M.B., Chelmsford. (U) University College, The Secretary of the, Dundee; Veritas; Mr. T. J. Verrall, Brighton. (W) Mr. J. Wright, Ampthill; Mr. J. C. Wilkin, London; Mr. E. White Wallis, London; Dr. A. A. Wright, Swanage; W. J. H.; W. R. B.; Mr. C. J. Wood, London; etc.

BOOKS, ETC., RECEIVED.

Transactions of the Thirteenth Annual Meeting of the American Laryngological Association, 1892.

Puberty and the Change of Life. By J. C. Webster, M.D., M.R.C.P.E. Edinburgh: E. and S. Livingstone. 1892. Price 1s.

Vorlesungen über die Krankheiten des Herzens. Von Dr. Oscar Fraentzel. Berlin: Verlag von August Hirschwald. 1892.

Die Nebenwirkungen de Arzneimittel. Von Dr. L. Lewin. Berlin: Verlag von August Hirschwald. 1893.

Roaring in Horses: its Pathology and Treatment. By P. J. Cardiot. London: Swan Sonnenschein and Co. 1892.

The Best Thing to do First Aid in Simple Ailments and Accidents. By C. T. S. Thompson. London: The Record Press.

Manual of Personal and Domestic Hygiene. By A. T. Schofield, M.D London: Allman and Sons.

*** In forwarding books the publishers are requested to state the selling prices.

REMARKS
ON
THE ROUTE OF ASIATIC CHOLERA IN 1892.

Read before the Annual Congress of the Sanitary Institute, September, 1892.

By DAWSON WILLIAMS, M.D.,
Assistant-Physician to the East London Hospital for Children, Shadwell.

The Need for Earlier and more Authoritative Information as to the Progress of Epidemics in the British Empire and Abroad; Epidemic Intelligence Department.—Routes previously followed by Epidemic Asiatic Cholera.—Cholera in Afghanistan and Persia in 1892.—Cholera and the Trans-Caspian Railway.—Fresh Centres in Baku and Astrakhan.—The Origin of the Epidemics in Afghanistan.—The Hurdwâr Fair not Responsible.—Conclusions.

In the short paper which I have ventured to undertake to read on the subject of cholera, I shall confine my remarks to certain points as to the mode of spread of the present epidemic. The literature of cholera is enormous in amount, and most heterogeneous in character; it ranges from the portly folios issued by the Indian Government to the telegrams in yesterday's newspaper—the one elaborate and authoritative, but published a year or longer after the event; the other prompt indeed, but either founded on popular rumour, or on official statistics which are not always entirely trustworthy. Municipal, sometimes it is possible even State, authorities appear to consider that they are serving their own interests by concealing facts as to the existence and progress of epidemic disease. Such concealment is seldom successful for more than a very limited period, and in its ultimate effects on the commerce of the country, and the public health of other nations, is as disastrous as it is disingenuous.

Even so much information as is made public abroad is only to be obtained in England through non-official channels. The Government of this country, though from several points of view more interested than any other, and possessing unrivalled opportunities, has no machinery by which it can gather and compare facts as to the progress of epidemics abroad. British ships may sail for infected ports, and, as was recently the case at Santos during the epidemic of yellow fever there, the mortality among the crews on arrival may be so great that the vessels are unable to return, yet it is only after the facts have become matters of public notoriety and scandal that a Government department issues tardy notice warning ship-owners of this danger.

The Comité Consultatif d'Hygiène of France has earlier and better information as to the movements of Asiatic cholera than can be gathered in this country, and the United States has from time to time obtained special reports from its consuls on the existence and progress of epidemic diseases. There is not in this country any public office or department whose duty it is to deal with questions of public health as they affect the relations of the United Kingdom with its colonies and dependencies and with foreign countries. The Local Government Board is concerned only with internal administration in England, and neither the Foreign Office nor the Board of Trade have been provided with the necessary medical advisers. It appears to be highly desirable that our consuls abroad should be instructed to report promptly the presence of such epidemic diseases as cholera, yellow fever, small-pox, and plague. Such reports, after being epitomised by an officer appointed for the purpose, should be placed at the disposal of the public, either by means of notifications in the *Gazette*, or by being communicated directly to the public press, in the same way as the daily notices of the Meteorological Office are now issued.

In tracing the progress of the present epidemic of cholera, it does not appear to me to be necessary to include a consideration of the occurrence of the disease last year in Syria, or its recrudescence this summer. There is no evidence of any spread from Syria either northward or westward; on the contrary, all the evidence goes to prove that Asiatic cholera reached European Russia this year by a track differing altogether from those followed during the last half century, though nearly approaching the route taken by the earliest epidemics which reached this country.

Speaking broadly, Asiatic cholera has followed three main routes from India to Western Europe: (1) It has passed through the North-West Provinces of India into Afghanistan, and thence along the caravan routes by way of Balkh, Bokhara, and Khiva, to Orenberg in Russia (1829, 1843-44); (2) it has spread from Southern India up the Gulf to Persia, and radiated south-westward to Syria and Egypt, and north-westward across Persia to the Caspian Sea, thence to Astrakhan on its western shore, and from that port up the Volga to Saratov and Kasan (1830); (3) it has been transported, mainly in relation with the pilgrim traffic, to Red Sea ports, has gained Egypt, and spread thence to the Mediterranean basin. Since 1865, the epidemic has always, until this year, taken the last-mentioned route, and the attention of International Conferences has been, in the main, confined to devising precautions for protecting Europe from invasion by way of the Red Sea and Egypt.

This year the epidemic has once more followed a northern course, and has afforded one more striking illustration of the readiness with which Asiatic cholera can be conveyed along a trade route.

Cholera appeared in Afghanistan late last year, and caused a considerable mortality in Cabul. During the winter months (January and February) the epidemic died down, but in March there was a severe outburst, and the disease continued to be epidemic for several months. In March also the disease had reached Herat, in north-western Afghanistan, and was causing several hundred deaths a day. Two months later it had become established in Meshed, in north-eastern Persia, and spread slowly thence to Nishapur, Gabzawar, Abbasabad, and Shahrud, only becoming epidemic in Teheran some two or three months after its appearance in Meshed.

Very different from this slow march of the epidemic westward through Persia was its swift progress once it touched Russian territory. The disease was recognised at Askabad during the first days of June, having in all probability spread there from Meshed a little earlier. At Askabad the epidemic touched the Trans-Caspian Railway, which runs from the eastern shore of the Caspian Sea, through Askabad and Merv, to Bokhara and Samarkand. Cholera spread eastward and westward along the course of the railway with great rapidity, nor was its progress arrested or even checked by the Caspian Sea, for its presence in Baku on the western shore was admitted officially within a fortnight of its recognition in Askabad, and private telegrams show that it had undoubtedly been present for a week or ten days before this. Baku is an important trade centre. It is the terminus of the Trans-Caucasian Railway, which brings it into direct communication with Black Sea ports, while steamboats on the Caspian connect it with the terminus of the Trans-Caspian Railway, and with Astrakhan, the southern outlet of the trade of the Volga. The spread of the epidemic in Baku itself, favoured by the existence of gross sanitary defects, and by the want of competent municipal government, was rapid; and even the brief telegraphic despatches have given a picture of social disorganisation which can hardly be equalled in the whole terrible gallery which Asiatic cholera has provided for the warning and instruction of mankind.

With cholera raging in Baku, and with an inept administration relying entirely upon quarantine regulations illogically planned and imperfectly carried out, it was no matter of surprise that the epidemic found its way eastward along the Trans-Caucasian railway as far as Tiflis, and northward by the Caspian boats to Astrakhan. How early the last-named city was infected is not, and probably never will be, known; when the presence of the epidemic in Astrakhan was recognised officially, it was already prevailing in Saratov, some 500 miles higher up the river, and a week later was reported from Kostroma to the north-east of Moscow.

Within a month, therefore, of the recognition of cholera at a town on the Trans-Caspian Railway, it had penetrated to the heart of Russia in Europe, the transit from Central Asia having taken as many days as, before the creation of railways and steamboat lines, it took months. The recognition of the significance of this fact is one of the most important lessons which the present epidemic has as yet afforded.

Having traced the progress of the epidemic from Afghanistan to Persia with great probability, and from Persia to Russia in Asia, and from Russia in Asia to Russia in Europe with precision, it remains to inquire how the infection reached Afghanistan. As to this, there is room for some differences of opinion. It is natural, in the first instance, to turn our thoughts to the Hurdwâr fair, the continuance of which the Government of India found it advisable this year to prohibit, on account of the danger of the dissemination of cholera. This great assembly of people, brought together primarily by a religious object, is frequented by pilgrims and traders from the North-West Provinces, by Kashmirees and border men. The prohibition was not completely effective, and many of those who reached Hurdwâr at an early date, or eluded the vigilance of the officials at a later, undoubtedly carried cholera for considerable distances. There is strong reason to believe, though the fact cannot be affirmed positively, that the disease was thus conveyed to Srinagar, the capital of Kashmir, where a severe outbreak began in May. While it will be admitted that the accumulation of a huge multitude of people at Hurdwâr in the early spring, and their dispersal in every direction throughout north-western India and the frontier countries, is a fact, the significance of which for Europe is greatly increased by the proof now afforded that cholera may be carried in a few weeks from the confines of Afghanistan to European Russia, yet it appears that the Hurdwâr fair is not in any way responsible for the movement of cholera this year.

As has already been said, cholera was epidemic in Afghanistan at the end of 1891. A month or two earlier—in September—an outbreak had occurred among labourers in the Hoti Mardan district of the Peshawar division. There appears to be little doubt that this outbreak was originated by men coming from Swat and other independent territories to the north-east of Peshawar. The labourers immediately dispersed, many fleeing to Peshawar, where an epidemic of a peculiarly fatal character subsequently occurred, both in the town and in the Pathan villages in the immediate neighbourhood. The mortality in some of the villages in the valleys towards the eastern mouth of the Khyber pass was particularly severe. At a later date many villages in the Shinwarri country lying to the north of the western end of the pass were ravaged, and towards the end of the year Cabul itself was attacked, as already said.

It does not seem to be necessary to refer at any length to the spread of the epidemic at Hamburg; its dependence upon the line of emigration from Russia appears to be obvious, and the probability of the occurrence of cases among emigrants arriving at that port from infected districts *en route* for England and America ought to have been foreseen and provided for by the authorities in Hamburg. This does not seem to have been the case, and insanitary conditions appear to have been allowed to prevail, of which we now see the inevitable consequences. Neither does it come within the scope of the present paper to discuss the nature of the choleraic disease which began to prevail in Paris in the early summer. Its epidemiological characters were not those of Asiatic cholera.

In conclusion I would venture to make the following observations:—

1. The greater rapidity of transit has increased the probability of the importation of cholera and other epidemic diseases from Central Asian countries to European Russia, and thence to Europe in general.

2. Asiatic cholera, in travelling by land routes, depends for its power of continued progress mainly upon the existence of insanitary conditions in towns in which traffic is temporarily arrested for trans-shipment or otherwise. The necessary delay affords time for persons from infected districts to be attacked by the disease, and so to infect the place at which the halt is made. Such places become fresh centres from which the disease spreads along lines of traffic. This fact is well illustrated by the history of the present epidemic in Baku and in Hamburg.

3. Quarantine has once more shown itself to be a most ineffectual method of checking the spread of cholera. Quarantine, for instance, between Baku and Astrakhan utterly failed to prevent the spread of the infection to the latter town.

4. On the other hand, medical inspection of travellers, especially of those of the poorer emigrant class, combined with isolation of doubtful cases, appears to be once more showing itself to be an effectual method. At the same time, it must be recognised that no method can be effectual in the absence of good sanitary conditions in ports or other centres of trans-shipment or temporary arrest of traffic. In fact, it may almost be said that the only effectual method of excluding cholera from a country is to exclude the infectious principles from its water supplies.

5. The need for more precise, earlier, and more authoritative information as to the existence of epidemic diseases in all civilised countries is urgent, and, pending the organisation of an international understanding upon the subject, it appears to be desirable to urge upon the Government of this country the creation of an Epidemic Intelligence Department in connection with the Local Government Board, which should collect and collate the information in the possession of that Board, of the Board of Trade, and of the Foreign Office.

6. The presence of Asiatic cholera this summer and autumn on the Trans-Caucasian Railway should not be lost sight of, as a recrudescence may occur next spring and lead to infection of Batoum and Poti, and thence of other Black Sea ports.

ON THE SPECIFIC GRAVITY OF THE URINE IN DIABETES MELLITUS.

By Sir EDWARD H. SIEVEKING, M.D., F.R.C.P.,
Physician-in-Ordinary to the Queen; Consulting Physician to St. Mary's Hospital.

All our authorities and our individual experience adopt a high specific gravity as an important indication of the presence of sugar in the urine. The following case appears to me to show that our urinometers may exhibit a much lower specific gravity than that ordinarily regarded as causing a suspicion of sugar, and that still sugar may be present. Not being a professed chemist, I naturally began to suspect, in the case about to be related, that my tools were not in proper order, and I therefore sent the urine to my friend Dr. Luff, the Government analyst, with a request for information on this point. His reply was that my tests were quite correct, the specific gravity of the urine 1010, and containing "a small quantity of sugar, the lowest specific gravity of any urine in which I have detected sugar." He also confirmed the fact of its containing a faint trace of albumen. The case is briefly as follows:—

A lady, aged 61, was sent to me on July 5th of this year with severe symptoms of stomach derangement. Her history was to the effect that she had suffered six years previously from diabetes, but that considering herself cured, she had returned to her ordinary mode of living. The day after her first visit, I obtained a specimen of the urine when the specific gravity was 1022; there was some albumen, and Fehling's test gave decided evidence of sugar. On July 7th, in consequence of the treatment, the urine had become alkaline, the specific gravity was reduced to 1012, there was less albumen, and sugar was still shown to be present. On July 9th the urine was faintly acid, specific gravity 1010; there was a faint trace of albumen and a well-marked trace of sugar. Her symptoms of dyspepsia had disappeared, so the patient was able again to take substantial food. It was the urine of this day that Dr. Luff was kind enough to examine, and to send me the report I have given above. I saw the lady once more on July 14th, when the specific gravity had risen to 1014, and the tests still yielded evidence of the presence of both albumen and sugar. I recommended a watering place to my patient, and presume that she has left London, as I have not seen her again.

Although this is undoubtedly an exceptional case, it appears to me to afford a decided warning to us all not to be too much guided by the urinometer alone. The examination of urine is universally regarded as a material help in the diagnosis of disease, but it may be fairly suspected that in many cases we have been too liable to assume that if our urinometers indicated a specific gravity below 1030, we might save ourselves the trouble of applying the tests for sugar.

THE HÆMATEMESIS OF ANÆMIC YOUNG WOMEN.

Presented to the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association, held in Nottingham, July, 1892.

By HENRY HANDFORD, M.D., M.R.C.P.Lond.,
Physician to the Nottingham General Hospital.

While the statistics of gastric ulcer obtained from *post-mortem* records show the disease to be not very unequally divided between the two sexes, and while duodenal ulcer, which for practical purposes it is useless to divide from gastric ulcer, is more common in the male, hæmatemesis is far more frequent in young females, especially if we exclude those cases which are due to organic heart disease, to malignant disease, or to cirrhosis of the liver.

While far from denying the common occurrence of gastric ulcer in young women, and the favouring influences of anæmia, I am convinced that in numerous instances the hæmorrhage arises from ruptured capillaries or small venules, and that no ulcer worthy of the name exists. The rupture of these small vessels is favoured by anæmia in several ways. Partly by malnutrition leading to fatty degeneration of the vessel walls, partly by general rise of the vascular tension, which has now been shown beyond dispute to be common in some forms of anæmia, and last, but not least, by some backward pressure in the gastric venous circulation from the dilatation of the right side of the heart, inevitable in all severe cases of anæmia. In my experience it is the anæmia, the constipation, and the feeble heart which urgently require attention; and the successful treatment of these removes the malnutrition of the vessels, the high vascular tension, and the venous remora, which we have laid down as the three most important causes of the hæmatemesis of young women.

It is, I think, easily possible to restrict the dietary too much in cases of hæmatemesis. But how are we to distinguish the cases where the blood is poured out from the surface of an ulcer from those where no visible ulcer exists, though of course there must be a breach of continuity for hæmorrhage to arise? This is not in all cases possible. But the best guide to the dietetic treatment is the state of irritability of the stomach as indicated by pain and vomiting. Neither of these symptoms is a necessary consequence of gastric ulcer. They indicate either an inflamed ulcer or surrounding catarrh. If these two conditions are absent, a case of gastric ulcer may be treated safely and wisely on the same lines as one of hæmatemesis arising apart from ulcer. Hyperacidity, which so greatly favours the production or continuance of ulceration in the stomach, is generally indicated by pain coming on from half an hour to an hour or longer after food. It can be readily determined by testing the contents of the stomach removed by the stomach tube.

If hyperacidity is properly met by the administration of alkalies, a moderate amount of light food in a fine state of division may safely be given, even in gastric ulcer. Rapid healing cannot be looked for in the absence of abundant nutrition.

Ulcers of the stomach artificially produced in dogs cannot be prevented from healing so long as the dogs remain in good health. Where hæmatemesis is due to anæmia, and the anæmic dilatation of the right side of the heart leading to over-filling and congestion of the veins of the stomach, it is not necessary to give digitalis so long as the patient is kept strictly in bed; but so soon as the patient is allowed to get up, unless the tricuspid murmur and the dilatation of the right ventricle have disappeared during the prolonged period of rest and the treatment by iron and aperients, digitalis should certainly be added, and will prove of great service.

University of Berlin.—The total number of students in the University of Berlin during the last semester was 4,356, of whom 1,185 belonged to the Faculty of Medicine. To these should be added 260 students in the military medical institutions. The teaching staff of the Medical Faculty numbers at present 15 ordinary, 30 extraordinary, and 4 honorary professors, besides 67 *Privat-docenten* and 3 teachers of dentistry.

SIXTIETH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

OPHTHALMOLOGY.

Priestley Smith, M.R.C.S., President.

ON THE ASSOCIATION OF SHIPPING DISASTERS WITH COLOUR-BLIND AND DEFECTIVE FAR-SIGHTED SAILORS.

By T. H. BICKERTON,
Ophthalmic Surgeon Royal Infirmary, Liverpool.

Of the valuable recommendations—twelve in number—made by the Committee on Colour Vision appointed by the Royal Society, none gave me greater pleasure to see than the last, which reads thus: "That in case of judicial inquiries as to collisions or accidents, witnesses giving evidence as to the nature or positions of coloured signals or lights should be themselves tested for colour and form vision." Personally I should have preferred to see this recommendation head rather than end the series, and for many reasons. In the first place, it could be acted upon at once, and without necessitating any addition to the rules regulating the working of the courts of inquiry; and, in the second place, if acted upon even now, this recommendation would be the means of furnishing conclusive evidence of the paramount necessity there exists for the preceding eleven recommendations. I greatly fear that many a shipping disaster will occur before the Royal Society's suggestions become part of the law of the land, and when the preceding eleven recommendations have become law defective-sighted and colour-blind individuals will be unable to enter the marine service, and thus this twelfth recommendation will be of little value compared with what it would be were it to come into operation at once. Throughout the long controversy which has existed between the specialists and those in authority, the one question invariably put has been: Point out cases which have been proved to be due to colour blindness or defective sight. For a long time this question could not be answered, because sailors on colliding vessels are not required to have their eyesight tested; but we fortunately can now point to three cases where colour blindness or defective sight was the sole cause of disaster—the sinking of the steamship *Isaac Bell*, involving the loss of 10 lives was due solely to colour blindness of the pilot of the steam tug *Lumberman*; the wreck of the *City of Austin*, causing money loss of £40,000, was due to the defective sight and colour blindness of the pilot (in this case tobacco was at the bottom of the deficiency); and the loss of the *Carbet Castle* was, so the owner told me, due to "the colour blindness or short-sightedness of the chief officer." The difficulty in persuading ship owners to admit colour blindness and defective far-sight as a possible cause of disaster has been great. According to them the look-out men and officers on colliding vessels always have perfect colour and form sight, and the bad-sighted and colour-blind men never come to grief. Then is it not a wonder that they do not always man their vessels with the defective-sighted ones?

One great reason for believing that bad sight is a potent cause of disaster is the fact that the Board of Trade, in tabulating the causes of marine disasters, make "Causes unknown" account for so large a proportion. Thus, in the Wreck Register for the year 1887, of 1,263 disasters, no fewer than 209 are placed under this heading. May not bad sight have accounted for some of these? The American Board of Trade mentions that between the years 1859 and 1886 there were 2,408 collisions; "Accidents which it was impossible to avoid" accounted for 1,562; "Error of pilot or captain" for 215; "Want of observation or proper interpretation of the rules of the road" for 537; "Undetermined causes" for 94.

Therefore, of 2,408 cases at least 846 might have been due—I do not say they were—but might have been due to colour-blindness or defective sight. With regard to these accidents from unknown causes, we not infrequently read remarks like the following, and I now quote from the *Times* of February 5th, 1889: "A terrible calamity occurred in the English Channel on Sunday night. During fine clear weather two vessels which had had each other in sight for at least a couple of miles came into collision and sank within fifteen minutes, leaving their crews struggling amid the wreckage in the sea. Of 42 men, 23 went down, and all would inevitably have perished but for the presence of a tug on the scene. This is the third collision within a few weeks, and seamen had almost begun to look upon them as periodical and ordinary occurrences, but the appalling loss of life has moved the seafaring population very deeply, and now there are some very strong comments upon their frequency. *All inquiries respecting the cause of this disaster lead to the same conclusion, that it was due to one of those astounding errors of judgment on the part of one or other of the navigators, which seem to defy all attempt at reasonable excuse. Each blames the other.*"[1] But, read in the light of our knowledge, and we have a simple and natural explanation of a so-called mysterious and unaccountable collision, and so long as colour-blind and defective-sighted men are tolerated in the mercantile marine, just so long may we expect to read of similar "mysterious and unaccountable" disasters. Take again the following, appearing in the *Times* of August 20th, 1888: "It is admitted that the vessels knew of one another's proximity for several minutes before the one dashed into the other. The weather was not at fault; the sea was not unusually high; there was no fog at the crisis; each saw the other approaching in time to put a mile betweeu them, and yet five minutes saw the whole tragedy played out and 105 men and women have actually been sacrificed."

Commenting upon this terrible disaster, we read, "But there ought to be some means of abolishing disasters like this of Sable Island from the list altogether. Here was neither recklessness nor calculated audacity nor lethargy. All due vigilance seems to have been exerted, and on both sides. But somebody, whether on board the *Geiser* or on the *Thingvalla*, must be responsible, though probably no penalty can ever be exacted. But the rule of the road at sea itself needs to be brought to trial, if two well-found ocean steamers in ordinary Atlantic weather, with crews and officers reasonably on the look-out, can, either by its observance or its non-observance, find themselves suddenly locked in a murderous embrace. The rule ought to be so simple and unmistakeable as to render a collision in the circumstances of last Tuesday impossible. Controversies, of which our columns have frequently been the scene, prove that sailors, lawyers, and merchants have not as yet been perfectly successful in devising one adequately free from ambiguities. The awful end of the *Geiser* is additional testimony to their failure. The world has a right to demand of maritime experts rules on the subject of collisions, which only blind men or madmen shall be able to misunderstand or disobey." The *Times*, in this last sentence, most unconsciously hit on the real cause of these terrible collisions, due to so-called "unknown causes." Let me read the sentence again—"which only blind men shall be able to misunderstand or disobey." Here at last we have the truth, the whole truth, and nothing but the truth. Sailors, lawyers, and merchants have failed, while we, the ophthalmic section of the medical profession, have been crying in the wilderness for the last one hundred years. Ninety-eight years ago Professor Wilson, of Edinburgh, wrote these prophetic words: "The appalling yearly list of lost vessels which appears in our wreck returns awakens the suspicion that more than one of these fatal disasters may have resulted from the mistaken colour of a light-house beacon or harbour lamp which, on a strange coast and with the accompaniment of a snow storm or a thick fog, has been wrongly deciphered by a colour-blind pilot." Since then the energies of many medical men have been directed to this subject, and have done their best to impress upon the authorities the absolute necessity there exists for allowing only those men to be sailors who have perfect far-sight and perfect colour-sight, and yet in this year of grace 1892 we have to acknowledge that our efforts so far have been practically futile. True, we have the recommendation of the Royal Society and those of our own Association to point to, but I sincerely hope no member who takes an interest in this subject will abate one tittle of his endeavours. There are none so difficult to convince as those who will not believe, and the men who have had the framing of the "rules of the road at sea" are the very men who hitherto have turned from all suggestions on the eyesight question with contempt. True it is that their language, judged from examples to be found in the *Nautical Magazine*, is becoming moderate and even polite, but they lack knowledge of this subject, and they will still require our best attention.

[1] The italics are mine.

The present rules of the road at sea are only rules for men who have perfect colour and perfect far-sight. Let the authorities make, as the *Times* asked, "a rule so simple and unmistakable" that it can be understood by blind and colour-blind sailors. When this has been accomplished we shall be content, but until then we must continue to press upon the public the following facts—that 4 per cent. of the whole male population are colour blind, that about 8 per cent. more have marked impairment of sight from refractive errors, that there is no official test whatever as to a sailor's eyesight, that a man may be the subject of any of the forms of eye disease, may have any degree of blindness, or may be so short sighted as to be unable to see distinctly more than a few inches in front of his nose, and yet be at perfect liberty to be a sailor, and to become an officer; and that, although there is a compulsory colour examination (in many cases a most inefficient one) to be passed before a sailor can become an officer, there is no check to a colour-blind man being a sailor, or to his remaining one to his life's end. One of the conclusions come to by the Royal Commission on Loss of Life at Sea was that "it was the duty of the shipowner to select competent officers and crew." What more incompetent men could be shipped than colour-blind and short-sighted sailors? Again, I contend, with all respect to the Commission, that the duty does not lie so much with the shipowner, but with the Legislature, whose first prerogative it is to provide for the safety of its subjects. What is the use of compelling shipowners to provide costly life-saving apparatus, while at the same time they are allowed to take on board collision-making machines in the shape of more or less blind men?

It is a fact that, in spite of all the provisions made by Parliament in 1876, and the great increase of the staff of the Board of Trade, entailing a very large charge on the country, there was not only no diminution in the loss of life at sea on merchant vessels in the years following on this legislation, and up to the year 1883, but a considerable increase. It is not so difficult to suggest a cause, and very likely the correct explanation is to be found in the fact that whereas formerly ships jogged along at a moderate speed—say six to ten knots—and ample time was given to those in charge to reflect on the possible consequences of porting and starboarding, of late years speed has greatly increased, and with vessels going at sixteen to twenty knots, and in command of defective sighted men, a very large increase in the death roll is only natural. One would have thought that in the face of so many unaccountable disasters a genuine endeavour would be made to discover the real cause, but that is the last thing our authorities aim at. I am glad to find that there is a gallant and distinguished admiral also of our way of thinking. This gentleman, writing to the *Times* in the course of a long controversy following a very fatal shipping disaster, said, "I am alone in my glory here, for no one of those who had the framing of the law, no one of those who have given advice to seamen, has ever made the least attempt of a serious character to ascertain what are the real causes of collision; they all guess at them, and then propose a remedy for the evil they have guessed into being." This statement, coming from one whose opinion is very highly thought of in high places, is one of great interest to us. He evidently thinks he knows of one special cause of accident which has been overlooked. We think we know of another. If the gallant admiral were to unite his forces with ours, might we not reasonably expect that such a heading in the Wreck Returns as "Causes unknown" would be a thing of the past; at any rate, I throw out the suggestion for what it is worth.

The *Times* has stated, and I think truly, that "the primary cause of casualties at sea, like those on road by shore, is either the reckless selfishness of persons in command, or the

absence of a proper look-out" (February 9th, 1889). The first of these said causes I am not prepared to discuss, but that the second accounts for a very large number of disasters no one who carefully reads the Board of Trade inquiries can deny, and I do not think I am presumptuous in believing that so long as the possibility exists of colour-blind and defective far-sighted men being chosen to act on look-out duty, no diminution in the number of shipping disasters can be expected. I wonder how many passengers would go to sea knowing that the look-out man was colour blind and the captain short sighted? And yet there are gentlemen, leaders in their profession, who pooh-pooh our contention. One of them is Admiral Colomb, and he has, in my opinion, done much harm, and has been a great power in preventing this subject of colour blindness of sailors receiving the attention it deserves. I believe that the means recommended by the Select Committee for the Prevention of Loss of Life at Sea are and must remain futile so long as the very essential of safety, namely, perfect eyesight on the part of the officers and men, is ignored. Admiral Colomb thinks differently, but as I believe wrongly, and I would have no hesitation in taking a popular vote on the point between us.

In the course of an able paper delivered by him on the subject of the Washington Maritime Conference at the Society of Arts, and reported in the *Times* of March 28th, 1890, he made the following remark: "As to the qualification for officers and seamen, the Conference (Washington) dealt wholly with the question of colour blindness on account of its danger with reference to the red and green side lights. He never knew himself a case of collision where colour blindness was in question. The statements were generally perfectly clear that wrong helm was given deliberately in the face of the colour seen, and as no authoritative teaching had existed to show that it mattered what colour was seen as long as danger was denoted, he had never been able to lay stress on the colour-blind question."

Mr. Baden Powell, R.N.R., who followed in debate, declared "that in all cases of collision at sea there was no default of the rule of the road at sea, but they generally arose from negligence. The rule of the road at sea was perfectly well understood by intelligent men, and it was the 'lubbers' and the careless who did not act according to it," while Admiral de Horsey considered "collisions at sea were caused principally by three faults—a bad look-out, ignorance of the rules, and neglect of the rules." In his reply Admiral Colomb expressed his opinion that collisions at night occurred through the helm being ported to the green light and starboarded to red, and he could not agree that the collisions occurred wholly through negligence, for he thought that they largely occurred because our seamen were not taught what they should do, and collisions occurred through ignorance."

Now we know that there are a number of well authenticated cases where disaster due to colour blindness and to defective sight actually occurred, or was narrowly averted, and it is surprising Admiral Colomb does not know of them. I would also ask whether Admiral Colomb knows of a single case out of the thousands that have occurred where, after collision, the colour sight of the officers and men were tested by an expert? Would it not be well if Admiral Colomb were to eliminate this cause before denouncing it? One might have thought that, as in most shipping inquiries, the evidence as to the colour of the lights, and as to the distance at which they were first seen, is bewildering in its contrariness, the first step towards a solution would be to examine on the spot the far sight and colour sight of the witness; but those who adjudicate at these inquiries think differently, and take it for granted that the witnesses coming before them have perfect far sight and perfect colour sight. I believe that if the eyesight of sailors on colliding vessels was tested in court, the cause in many cases would be found neither in ignorance nor in negligence, nor in "lubbers," but in the colour blindness and defective sight of the officers and men "on watch." And in opposition to the opinions of the above eminent naval authorities, and in strong confirmation of my belief, I will quote the opinion of an officer who at the time of the loss of H.M.S. *Vanguard* (which loss I have in a previous paper[2] traced to the defective sight of a look-out man) was on board H.M.S. *Warrior*. This gentleman, writing to the *Liverpool Daily Post* of February 23rd, 1889, expressed himself in the following terms:—

"Is it reasonable to believe that steady married seamen with families depending on them, and who have had years of experience, suddenly lose all judgment and common sense, and steer their vessels on clear nights, sometimes in broad daylight, so as to deliberately ram each other, thereby losing their lives and ships, and the lives of the passengers? Surely not. In none of the other professions or callings can we find anything approaching a parallel case; therefore, in some cases their eyesight must be defective."

If Admiral Colomb would only take the trouble to examine personally a colour-blind officer, I feel sure that this subject would have in him a distinguished convert and an able and powerful advocate.

That our judges and those who adjudicate in shipping cases do think, though erroneously, that the sailors and officers doing look-out duty are specially picked men receives negative proof by the fact that they never have ordered an examination, even in a case where there has been direct contradiction as to the colour of and distance at which a light was seen, and receives positive confirmation by a judgment delivered by Sir James (now Lord) Hannen in 1888. Lord Hannen said; "A good look-out was not kept on board the *Essiquibo*, but it is to guard against the defects, not merely of men's sights but of their minds and attention, that the rule was framed."

I venture to think Lord Hannen gave credit where it was not due. The framers of the rule, scarcely believing in the existence of colour-blind sailors, and not at all in short-sighted and blind sailors, cannot have appreciated the dangers of employing either; nor, I venture to think, would their successors be in any more enlightened condition were it not that Dr. Farquharson's action in the House of Commons has been the means of directing public attention strongly to them. For the first time in the history of Board of Trade inquiries the representatives of the Board of Trade did take, in February last, official notice of a condition of affairs to which I have frequently called attention, and which amounts to little less than a public scandal. In concluding their report upon the stranding of the steamship *Violet* they said:

> There is one circumstance which the Court wishes particularly to call attention to. After the close of the inquiry, and the respective certificates had been given up in the usual way, it was subsequently found that the mate's certificate bore the memorandum in red ink: "This officer has failed to pass the examination in colours.—(Signed) J. Clark Hall, Registrar-General." On the face of it, and without some explanation, it seems a most undesirable and reprehensible thing that a master's certificate should be granted to a man who is apparently unable properly to distinguish colours. The danger of entrusting the command of a vessel to such a man is too obvious to need further comment. And, assuming that a correct register of certificates granted be kept, then the Board of Trade's solicitor conducting the inquiry should have been instructed on the point, in order that he might bring to the notice of the Court the fact, as under certain circumstances it might have had an important bearing upon the subject of the investigation.—(Signed) Wm. M. Angus, James E. Woods (Justices), A. Anderson, E. Brooks (Assessors).

Such condemnation of the Board of Trade is well warranted and well deserved, and I hope all interested in the subject will make every use of this quotation, for it deals a death blow to the existing regulations, and to the masterly inactivity of the Board of Trade on this subject. Though the time has not yet arrived when we may relax our vigilance, there is occasion for much congratulation. The recent popular movement towards a reform was due to a member of our profession, Dr. Farquharson, M.P. The Royal Society Committee on Colour Vision, due more or less directly to Mr. Brudenell Carter, and before whom our President, Mr. Priestley Smith, gave valuable evidence, has published a series of conclusions, bearing out in every particular those contentions which we have urged for years past, while the indefatigable and praiseworthy exertions of Dr. George Mackay, of Edinburgh, the honorary secretary to the Committee on the Efficient Control of Railway Servants' Eyesight, has added a whole chapter of facts to our knowledge of that subject, and has indicated the necessary reforms. But the official mind is only just awakening to a sense of its duty, rules and regulations have yet to be made, and it behoves us to watch carefully that these rules and regulations are carried out in accordance with our views. Only when this has been done may we rest; but we shall then be able to point with intense gratification

[2] British Medical Journal, November 10th, 1888.

to a bright page in the history of the medical profession. The long roll of victims, due to a preventable cause, will be diminished, there will be increased confidence in those who go down to the sea in ships, and we shall have earned the lasting gratitude of the entire population of the world.

ON THE QUANTITATIVE ESTIMATION OF THE COLOUR SENSE.

By George Mackay, M.D., F.R.C.S.E.,
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It seems to be scarcely appreciated as it ought that there exist persons whose perception of colour appears to be correct in quality, but is congenitally defective in quantity or intensity. The subjects of this affection can pass successfully such a test as Holmgren's applied in the orthodox way, since they handle the skeins and inspect them at close quarters. They appear to see colours much or quite as the normal-eyed, provided the stimulus of colour rays applied to their retinæ is sufficiently strong, but if it be weakened by dilution with white light or removal of the source of colour to a distance, their defect is made manifest. The degree of the defect may be numerically expressed as a fraction of the normal. But what is the normal? An answer is not easily supplied. It has been sought in so many ways and by so many observers that it is impossible to do justice to the whole subject in the short time allotted me.

Confining attention to that method which depends on the measurement of the distance at which coloured spots can be recognised, it appears to me that Donders[1] was the first to give practical application to the quantitative estimation of the colour sense. His earliest observations were published in Holland in 1875, but it was not until two years later that he contributed to Graefe's *Archiv* a paper in which, with characteristic clearness and mastery of detail, he laid down the conditions under which the examination should be conducted, and enunciated the formulæ for expressing the acuteness of vision for colour, according as the test is applied by reflected or transmitted light.

I.—*Examination by Light Reflected from Coloured Spots.*

He employed small discs of coloured paper stuck on velvet. Starting from the observation and taking as his standard that spots of bright saturated colour, 1 mm. in diameter, placed on black velvet in good daylight can be seen at a distance of 5 metres by an eye with normal visual acuteness (ametropia corrected), he gave us the following equation:

$$K = \frac{1}{m^2} \cdot \frac{d^2}{D^2}$$

Where K = the sense for colour.
,, M = the size of the spot in millimetres.
,, D = the normal distance of recognition of the coloured spot of 1 mm. in diameter.
,, d = the distance at which the person examined can see it.

He was careful to point out that differences in illumination and in the saturation of the colours must be discounted by the examiner standing beside the candidate and testing his own power of vision at the same moment.

Weber[2] (1878) employed much the same method of spots of coloured paper (Heidelberg flower paper), and required that the illumination should be diffuse, and at least two-thirds higher than the minimum required to recognise Snellen's type.

Dor[3] (1878) prepared six tables of coloured discs on a black ground to be exhibited at 5, 10, and 20 metres, one for daylight and one for weak candlelight. The spots which he exhibited at 5 metres had the following dimensions:

Green	...	2 mm.	Red	3 mm.	Blue ... ... 8 mm.
Yellow	...	2.5 mm.	Violet ...	6 mm.	

These spots have been found too large by other observers (Schön, Nikitin), perhaps on account of a brighter illumination having been unwittingly employed by them. And in that connection I must refer to the only paper which, so far as I am aware, has ever been read at the meetings of this Section of the Association touching upon my present subject, namely, that presented by Professor Cohn,[4] of Breslau, at the Cork meeting in 1879.

He stated as a result of several careful observations, that under the stimulating influence of brilliant illumination a normal eye can see:

		In Sunlight.	In Electric Light.
A 1 mm. spot of	red	at 14 metres.	at 13 metres.
,, ,,	green	,, 7 ,,	,, 11 ,,
,, ,,	blue	,, 7 ,,	,, 6 ,,
,, ,,	yellow	,, 6 ,,	,, 3 ,,
,, ,,	orange	,, 5 ,,	,, 5 ,,
,, ,,	violet	,, 2 ,,	,, 2 ,,

Later observations by Kramer,[5] on the dependence of colour sensations on the character and degree of illumination are also most instructive. He experimented with various illuminants, for example, candle, petroleum, gas, sunlight, limelight, etc.

Another series of observations made by Mr. Nettleship[6] with 1 mm. squares of coloured paper on black velvet, exposed in open air daylight have given results differing from those previously mentioned. But besides the differences arising from the illumination employed, the variations due to individual sensitiveness in persons with eyes apparently normal and similar in other respects make it essential that a very large number of observations should precede the fixing of a standard. For instance, von Reuss,[7] examining 44 railway men with normal visual acuteness and good qualitative colour perception, found that while a majority recognised 1 mm. spots of all colours in good daylight at 5 metres, several saw them at a greater distance.

Thus, 11 out of 44 saw red at 7 metres.
11 ,, ,, green ,, ,,
2 ,, ,, blue ,, ,,

Among the remaining candidates several only saw the colours at less than 5 metres distance, and a few required to approach as near as 1 metre, or even 0.5 metre, to recognise the colour of some of the spots.

I pass over Wolffberg's[8] paper, published in 1886, with the remark that his conclusions, which have been condemned by Hoor,[9] Adams Frost, and Stephenson,[10] are quite untenable, but that the series of spots which he has constructed further exemplify the discrepancies which exist between all previous observers as to what is to be regarded as the normal standard for the quantitative measurement of the colour sense as estimated by the light reflected from coloured spots.[11] But before leaving this method of examination let me point out one fallacy which attaches to it. I refer to the fact that its application (given as sanctioned by Donders) involves a change in the size of the visual angle, or in other words the area of the retina stimulated, since the person examined is invited to approach nearer to the test spot than the examiner if his vision appears less keen. It appears to me that a true quantitative test should be one in which the visual angle remains (in the first place at least) unchanged throughout the experiment, and that the variable factor should, so far as possible, be the illumination not the distance. For that reason I consider the following method permits of more exact observations.

II.—*Examination by Light Transmitted through Small Areas of Coloured Glass.*

I show here the lantern apparatus devised by Donders and modified by Snellen. It consists of a blackened wooden screen in which is an opening 25 mm. in diameter. In front of this hole there slides a metal plate, perforated at intervals with holes 1, 2, 5, 10, and 20 mm. in diameter. Just behind the screen is a rotating disc with six holes, each 25 mm. in diameter. Three of these contain ground glass, and they

[1] *Arch. f. Ophth.*, 23, iv, 282. A translation of the greater part of this paper is to be found in Jay Jeffries's *Colour Blindness*, p. 246.
[2] Weber, A.—Ueber Prüfung des Farbensinnes. *Sitzungsbericht d. ophth. Gesellschaft zu Heidelberg*, S. 130, 1878.
[3] Dor.—Skala zur quantitativen Bestimmung des Farbensinnes. *Ber. d. oph. Gesell. zu Heidelberg*, S. 183, 1878. *Echelle pour mesurer l'acuité de la vision chromatique.* Basel, 8 S. mit 6 Farbentafeln.
[4] British Medical Journal, 1879, ii, 531.
[5] Kramer, Untersuchungen über die Abhangigkeit der Farben-Empfindung von der Art und dem Grade der Beleuchtung. Inaug. Dissert., Marburg. 1882.
[6] Nettleship, *Trans. Oph. Soc. U. K.*, vol. i., pp. 202 *et seq.*
[7] Von Reuss, *Arch. f. Ophth.*, xxix, 2 S., 229.
[8] Wolffberg, *Klin. Monatsh. f. Augenh.*, S. 359, 1886.
[9] Hoor, *Militärarzt*, xxi, S. 49
[10] Stephenson, British Medical Journal, 1888, i, 1111.
[11] See also De Wecker and Landolt, *Traité Complet d'Ophtalmologie*, i, p. 510.

alternate in arrangement with the other three, which contain respectively a red, a green, and a blue glass.

A standard candle is enclosed in a lantern having a circular aperture 25 mm. in diameter on the side nearest the screen, and this is filled with ground glass. The lantern can be moved to and fro along a horizontal scale graduated in centimetres from the screen backwards, and its position is indicated by a little pointer which projects from the base of the lantern. A small aperture in the side of the lantern just above this indicator allows the candlelight to illuminate the scale just where it is necessary to read it. During the examination daylight is to be so far excluded from the room "as to render recognition only possible at close quarters."

Donders gave the following formula:

$$K = \frac{1}{m^2} \cdot \frac{d^2}{D^2} \cdot \frac{a^2}{A^2}.$$

It is only necessary to add to the explanation previously given that A=the distance of the candle behind the screen registered by the normal eye—that is, in practice the eye of the examining surgeon—in order to recognise the colour of the light coming through a 1 millimetre aperture at 5 metres distance; a=the distance of the candle behind the screen registered by the person who is being examined. This factor A is of great importance. It varies with different colours. Donders estimated that with the standard candle and ground glass employed by him:

A=1.75 metres in the case of the plain ground glass.
A=0.65 ,, ,, red glass.
A=0.25 ,, ,, green glass.

Any lantern in which this factor cannot be calculated with precision is not satisfactory. It is equally important to measure carefully the subduing power of every piece of ground glass used in a lantern of this sort, while inequality in the combustion of the candle and the enormous influence of adaptation on the sensitiveness of the retina are disturbing elements in our calculations by this method.

From these considerations I pass to some practical remarks. I need scarcely point out that persons with quantitative defect for colours may have as great difficulty in recognising coloured signals at a distance as those who are truly colour blind. Holland is the only country whose railway regulations contain a definite proviso that a candidate must possess a certain quantitative standard of colour perception. A candidate for the post of engine driver or fireman must have, with both eyes open, a power of distinguishing colours of at least $\frac{2}{3}$; in each eye separately it must be not less than $\frac{1}{3}$; guards, porters, etc., must have $\frac{2}{3}$ with both eyes open, and at least $\frac{1}{3}$ with each separately. The examination is usually conducted with spots of coloured paper on a black background, arranged on a disc so that only one spot is exhibited at one time (apparatus shown). The degree of acuteness is measured by comparing the distance at which the candidate can see the colour of the spots with that at which the examiner sees them, each testing himself at the same moment. A grave responsibility evidently rests upon each examiner. It is essential that he should gauge as accurately as possible the relation between his own colour acuteness and the normal in order to apply this test with fairness. The data for this comparison can scarcely be said to be established. Professor Snellen, who is at the head of the controlling department, admits that a good test is still wanting.

The Committee appointed by the Council of the British Medical Association "to promote the efficient control of railway servants' eyesight" have made no specific recommendation on this subject in the report which they have issued this year; and as the mission has been commented upon in the British Medical Journal of July 23rd by Dr. McGillivray, of Dundee, I may state that the Committee are quite aware of it.

My chief purpose this day has been to lay before you some of the considerations which have induced its members to delay making any definite recommendation on this point to the railway authorities until the whole subject has been more fully investigated. In Holland the eyesight of railway servants is under the complete surveillance of ophthalmic surgeons. I fear that in this country some time will elapse before the examination of the eyesight of mariners and railway men is entrusted to persons properly qualified, and willing to apply a quantitative test with the accuracy which is essential if it is to be of any real value.

REVOLVER WOUND OF THE BRAIN; LODGMENT OF THE BULLET; RECOVERY.

By P. BLAIKIE SMITH, M.D.,
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It does not often fall to the lot of the civil practitioner to treat bullet wounds of the brain. Injuries of this description, if not immediately fatal, generally soon destroy life, but their prognosis is not invariably hopeless. Recovery occasionally takes place—oftener, indeed, than is usually imagined—and whenever such a favourable result ensues the attendant circumstances are always worthy of being placed on record.

I shall therefore now proceed to the narrative of a case where a considerable part of the brain was traversed by a bullet, and the patient made a complete recovery, notwithstanding the grave injury which he had received.

Early in the forenoon of May 29th, 1891, a young gentleman, previously in the best of health and spirits, accidentally shot himself with his revolver. Subsequent investigation showed that he had entered his bedroom, where the accident took place, with the intention either of cleaning the weapon or of extracting some cartridges that remained in it, and that in the course of his manipulations he had touched the trigger and fired the shot, which wounded him in the manner afterwards to be described. The revolver was a small one, shooting with so little noise that the accident was not discovered for some time after its occurrence. When I saw him, about an hour later, he was lying on the floor immediately in front of a table on which lay the revolver along with one or two cartridges. Blood and cerebral matter issued slowly from a wound in his forehead, a pool of blood, also mixed with brain tissue, stained the carpet behind his head, and cerebral fragments were visible on the furniture adjacent. Evidence of vomiting was also apparent, and the contents of the bladder and rectum had been evacuated.

Upon examination after he had been put to bed, the following was discovered to be his condition. A small round aperture, slowly discharging blood and brain matter, existed over the right eyebrow immediately to the outside of the supra-orbital foramen and slightly above its level. The opening scarcely admitted the tip of the little finger, its edges were infiltrated with blood, and led down to a corresponding, though smaller, aperture in the bone beneath. On inserting a director into the wound, it at once entered the cavity of the cranium through what appeared to be a small clean-punched opening in the frontal bone. After ascertaining the condition of this orifice, the instrument was next slowly and carefully passed onwards for its whole length into the brain. During its introduction it gradually assumed an upward direction, and when completely within the cranium the distal end apparently occupied a situation not far from the upper extremity of the fissure of Rolando. No resistance to the progress of the director was experienced, and no trace of the bullet could be discovered upon careful searching, but it was clear, from the ease with which the instrument passed along, that it marked out the track of the missile backwards and upwards towards the vault of the cranium. No other serious wound existed; a few grains of gunpowder were embedded under the skin of the face; one or two were scattered on the sclerotics and corneæ of both eyes, and the right upper eyelid was considerably ecchymosed. The pupils were equal and reacted normally. There was no paralysis of the ocular muscles.

In spite of the formidable nature of the injury, the patient was not unconscious. He looked like one half asleep, and was really in a drowsy condition. When addressed he either paid no attention or else he answered after an interval slowly and in monosyllables without opening his eyes or manifesting any interest in his surroundings. Occasionally, however, he complained of headache. There was very slight paralysis of the left side of the face, chiefly in the vicinity of the mouth. The condition of the tongue could not be ascertained, as he declined to protrude it. He swallowed with difficulty. The left arm and leg were completely paralysed, and at times presented jerking movements. The arm and leg on the right side were unaffected by paralysis, but they were frequently moved about in a restless manner. Sensation was nowhere

involved. The superficial reflexes on the left side were all diminished; the left knee-jerk was excessive, but there was neither rectus nor ankle-clonus. The pulse was slow, the respirations sighing, and the temperature subnormal.

For four days subsequent to the accident (May 30th to June 2nd) there was on the whole a slight improvement. The paralysis of the left side of the face disappeared, and its subsidence was followed by a copious eruption of herpes, which affected that part of the face previously most paralysed. The arm and leg remained in the same state as before, and the reflexes were still abnormal. Consciousness was, however, distinctly less interfered with. Though he always lay as if he were asleep—and, indeed, did sleep a great deal—yet he could easily be roused, and, when he spoke, his articulation was faster and his replies more prompt than before. He recognised those who were around him by their voices, not caring to open his eyes, though he could do so when he chose, and on several occasions he inquired about the pursuits of his brothers, and showed an interest in lawn tennis. He had frequent sighing, but no hiccough or vomiting. The temperature was slightly raised. Next day (June 3rd), though pulse and temperature were still febrile, and the cerebral state was unaltered, it was plain that the arm was not so paralysed as before, for he could now slightly move his fingers.

From June 4th to June 8th the symptoms showed a still further improvement. During this period the arm regained power so rapidly that on the latter date he was able to raise his hand as far as his face. The temperature, too, had fallen to some extent, the previous sleepy state was less pronounced, the condition of the wound was satisfactory, and he made no complaint except of headache, and then only when his head was moved for the purpose of dressing the wound. He could now swallow with much greater ease, he protruded his tongue readily, and without lateral deviation; he frequently opened his eyes, and recognised those who were in his room.

Between June 8th and 12th the paralysis of the arm again diminished, and now the leg gave evidence of returning power. He could flex the thigh and move the toes slightly. Speech was more natural, and he was disposed to converse; cerebration became more active, he was inclined to be dictatorial and to resent being kept in bed. By this time the pulse and temperature had resumed their normal conditions.

During the next week (June 12th to 19th) his progress continued to be most satisfactory. Headache was no longer complained of, the mental powers were steadily recovering, the paralysed limbs were regaining strength, and the bladder and rectum once more came under voluntary control. The wound, however, exhibited slight signs of hernia cerebri for a few days, and the patient suffered considerable annoyance from what appeared to be a grain of powder deeply embedded in the substance of the right cornea. With the view of relieving his discomfort, he was anæsthetised, and the foreign body removed. Subsequent examination proved it to be a small fragment of lead, which had doubtless been torn from the bullet as it passed through the barrel of the revolver. With the removal of the lead, the eye symptoms completely disappeared.

At this date it seemed that all immediate danger was at an end; but on June 20th the temperature rose suddenly to 104° F., headache came on, vomiting made its appearance, and the pulse became somewhat irregular. Next day the pyrexia decreased to a slight extent, and the vomiting and irregularity of the pulse subsided, but the headache persisted, and was the source of considerable suffering. The pain was chiefly occipital, and over the right vertex, and both these situations were distinctly tender on percussion. Fortunately these alarming signs were of short duration. For a few days pyrexia was present; then the temperature began to fall, becoming normal on July 5th, while the headache and skull tenderness gradually abated, and finally took their departure about the end of the month. During this slight attack of meningitis—for such I regarded it—the case in other respects continued to make favourable progress. The mind was quite clear, conversation natural and free; the demeanour, previously somewhat peremptory and impatient, returned to its normal condition, and the paralysed limbs, notably the arm, steadily regained power. The alteration in the state of the reflexes remained as before.

Throughout August the paralysis rapidly decreased, and the walking powers correspondingly improved. The early days of the month found him just able to be removed upon a couch to the verandah: towards the middle of the month he was strong enough to walk indoors, supported on either side, and before it was ended he could step about in the open, practically without assistance. His progression was slow and typically hemiplegic; the paralysed limbs were somewhat rigid, and they, as well as the body generally, were much wasted. By this time the wound had healed.

In the month of September he continued to regain power; he was in the open air all day, and he rapidly put on flesh. The dynamometer in the right hand registered 70 K.; in the left 35 K.

In the middle of October the following was his condition: Paralysis was greatly diminished and rigidity less evident; grasp of right hand 80 K.; of left 50 K. Reflexes: Superficial on the left side still impaired, and knee-jerk as exaggerated as ever. He could walk for an hour continuously, and was quite free from headache and skull tenderness. Towards the end of the month I cross-examined him as to his recollection of what took place on the day of the accident, and I found that his mind was in this respect a perfect blank. He remembered distinctly events that had occurred previous to May 29th, but the circumstances of that morning, even before the accident happened, were completely lost. When it was suggested to him that he had been shot with his revolver he was at first rather incredulous, but, after realising the fact, he said that he supposed that he must have been firing at a tree, and that the bullet had rebounded and struck him on the head. So far as I could discover, his memory had remained in abeyance up to about the middle of June; after that date it was slowly and steadily restored, and now presented nothing abnormal. His other faculties seemed unaffected. His perception was good, his reasoning powers and imagination were unimpaired, his conversation was easy and natural; in a word, there was nothing in his demeanour (using the expression in its widest significance) to indicate that he had been the subject of a serious cerebral injury.

Soon after this date he left Aberdeen, and I did not see him for six months. When he again appeared before me he was perfectly well. He had been absolutely free from headache, he could read with comfort and with profit, he never suffered from vertigo, his eyesight was unaffected, the ophthalmoscopic appearances were normal, the two arms were of equal power, and he walked with freedom and naturally. In fact, the only indications of his recent injury that now existed were the scar on his forehead and the exaggerated condition of his left knee-jerk. Nothing approaching to an epileptiform seizure had ever been observed, and everything pointed to youthful health and vigour.

The treatment of the case consisted chiefly of rest, quiet, good nursing, and suitable diet. On the day of the accident the wound on the forehead was enlarged by Professor Ogston (Dr. Edmond, of Aberdeen, assisting), with the view of facilitating free drainage, and to this precaution I ascribe in part the happy termination of the case. Subsequently I had the privilege of consulting with Professor Macewen, of Glasgow, with reference to the advisability of undertaking operative proceedings for the removal of the bullet, and at a later stage Dr. Mackenzie Davidson, of Aberdeen, extracted from the cornea the small piece of lead to which I have already referred. During the attack of meningitis, much benefit was derived from the administration of mercury, along with the application of ice to the head, while the pain was materially controlled by repeated doses of antipyrin. Throughout the progress of the case considerable trouble was frequently experienced from constipation, and on several occasions the bowels were so obstinately confined as to require the administration of croton oil. The incontinence of urine was of the reflex variety, and called for no special treatment. The secretion when tested was always normal.

The foregoing case suggests many points of interest. One of the first that presents itself has reference to the course and situation of the bullet and the symptoms arising therefrom. It seems clear from the position of the opening in the skull that the missile penetrated the brain about the lower part of the right first frontal convolution. Continuing its course obliquely upward through this convolution, it apparently next entered the motor area of the brain, producing as

direct results paralysis of the arm and leg on the opposite side of the body.

On the assumption that this was the course actually taken by the bullet—an assumption sustained by the direction and extent of the sinus discovered by the probe—the explanation of the symptoms is not a very difficult matter. To the laceration and loss of brain substance, with the attendant hæmorrhage and subsequent inflammatory conditions, is to be ascribed the hemiplegia which was such a marked feature in the case. The very slight facial paralysis and its brief duration was a manifest indication that the centre for the face had not been injured, and it must, therefore, be regarded as a distant or indirect result of the lesion to the adjacent cerebral substance. The complete paralysis of the arm and its gradual and absolute recovery, commencing before the leg showed any signs of improvement, indicated that the arm centre itself had not been involved, and that probably the loss of power resulted from injury to the arm fibres on their way down to the internal capsule, while the equally complete and more prolonged paralysis of the leg with the still present excessive knee-jerk would seem to point to the existence of a lesion, either more cortical in its situation or more destructive in its results than that which had brought about the affection of the arm. In all probability the bullet has become arrested either in the leg centre or in its immediate vicinity. The exact situation is open to doubt; possibly the future may determine its position with greater accuracy than can be done at present. The occurrence of the herpetic eruption affecting the paralysed side of the face is an interesting symptom for which I can offer no very satisfactory explanation.

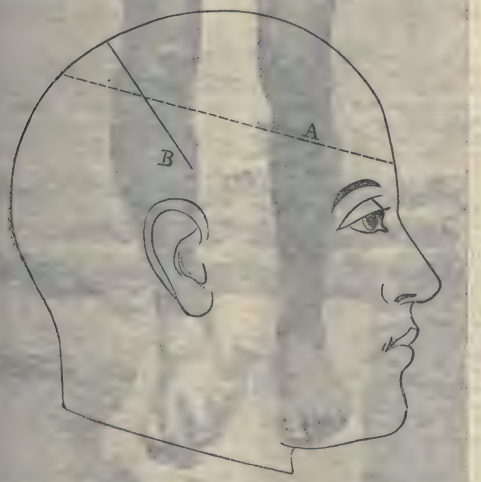


Diagram of supposed track of bullet. A, bullet track; B, fissure of Rolando. Weight of bullet, 80 grains.

Another point of interest in connection with this case is the fact that the accident was not fatal. Not only did the patient survive the injury, but he recovered with retention of the bullet in his brain, and without presenting any of those signs which are so apt to supervene when foreign bodies become lodged within the cranium. In the *Medical and Surgical History of the War of the Rebellion*, 1861-65, edited by Surgeon-General Barnes, United States Army, there are recorded nineteen cases of recovery from gunshot wounds of the cranium, with lodgment of the bullet in the brain. In four of these cases, just as in the present instance, the bullet penetrated immediately above the right eyebrow, travelling backwards and producing various symptoms. Of these four cases, one developed epilepsy two years after the wound in the head had healed, the second had to be discharged the service, owing to persistent headache, and "hallucinations," the third was pensioned four years after the reception of the wound, on account of vertigo upon exertion, while the fourth (the report of this case is very meagre) returned to his regiment after a stay in hospital of almost two months. Out of the whole nineteen cases, I observe that vertigo is mentioned as a sequela in seven instances, and that epilepsy is noted only twice, while headache, impaired vision, and various paralytic symptoms, such as paresis of limbs, deafness, etc., complete the remaining causes of disability. The whole of the patients, however, did not develop sequelæ, for some were apparently in the enjoyment of perfect health at the date of the publication of the *History* from which I have quoted (1870).

Another case of bullet wound of the brain, wonderfully like that of my patient, has recently been reported in an American lay paper. The patient, a boy of 15 years, accidentally shot himself with a small rifle when he was on a hunting expedition early in June, 1891. The bullet entered the skull immediately above the right supra-orbital foramen, and a little to its outer side. Subsequent examination indicated that it had split in two against the hard bone, one fragment passing horizontally backward, and the other taking an upward and backward course for about six inches. The two fragments could be detected by a probe, but it was not deemed advisable to attempt their removal, as the case was considered hopeless. Towards the end of the month he came under the care of Dr. Fr. Heuel, jun., of New York. He was then rapidly losing strength. He ate little or nothing, and there were severe pains in his head. The wound had almost healed. Recognising the serious condition of the patient, Dr. Heuel trephined on both sides of the bullet opening, removed a number of bony spicula and pieces of lead, and also opened a circumscribed abscess beneath the dura mater, containing about a thimbleful of pus. Under appropriate treatment, all alarming symptoms gradually disappeared, and the patient steadily progressed towards recovery. In a letter to me, dated May 4th, 1892, Dr. Heuel gives the following additional particulars of his interesting case:—

"Since then (recovery from operation) he has been in the best of mental and physical conditions, with the exception of a partial paralysis—which promises to be permanent—of the extensors of the toes of the left foot. This does not interfere with locomotion, and cannot be noticed except by an expert eye. Sensation is perfect. He uses neither crutch nor cane, and is very fond and expert in riding his bicycle. He is brighter and more cheerful than before the accident, has gained in weight, and is growing rapidly." I am glad to learn from Dr. Heuel that he is to publish the case in the near future, and it will be both interesting and instructive to follow the career of the two patients whose cases are so much akin.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A CASE OF MILKY ASCITIC FLUID.

In the British Medical Journal of July 16th, an interesting case of the above is reported by Drs. Nieuwondt and Rozenzweig, of Cape Town, and having had a similar case quite recently, I think the following notes may be of some interest.

N. G., aged 10 years, a pale, strumous looking child, was first seen by me in consultation on May 24th, 1892. She was suffering from increasing abdominal fluid distension, with rapid wasting and persistently high temperature, 103° to 104° each night. She had been gradually getting worse for two months past. I had no difficulty in confirming the diagnosis of her medical attendant, that it was a case of tuberculous peritonitis, and it was decided to treat it by abdominal section, which was accordingly done. Fully a gallon of fluid of the colour and consistency of rich creamy milk came away. This fluid coagulated spontaneously, was rendered almost transparent by the addition of ether, and otherwise agreed physically with chyle. The mesenteric glands were found enlarged to the size of a cricket ball, and firmly fixed to the lumbar spine; the iliac and lumbar glands were also greatly enlarged, and resembled a number of walnuts strung on a

string. Miliary tubercles were sparsely scattered over the intestinal surface, which was greatly congested. The abdominal cavity was irrigated with hot water, dried, and a drainage tube inserted.

The patient made an uninterrupted recovery, was placed on iodide of iron and cod-liver oil, and was sent to the seaside. On returning a month later it was found that she had got quite fat and was otherwise in excellent health; the iliac and mesenteric glands could still be felt on deep pressure, but were greatly diminished in size. Microscopically the fluid contained numerous nucleated corpuscles and a molecular basis, and in other respects was identical with chyle. The cause of the chylous fluid in this case seemed to have been simple obstruction to the onward flow of the chyle either in the mesenteric glands, or owing to pressure by those glands on the receptaculum chyli.

Derby. T. HENDERSON POUNDS, F.R.C.S.ENG.

A CASE OF POLYDACTYLOUS HAND.

THE following case may be interesting to the medical profession, as it is one of the greatest curiosity. I attended M. S. during her confinement. She was a strong and healthy woman, and had a perfectly normal labour. She was delivered of a large and healthy male child. On examination, however, it was found that there were six digits on the left hand, there being two little fingers. The adventitious finger was well formed, and similar with its fellow, with the exception of its attachment, which consisted of fibrous tissue and skin. The finger could be moved in any direction; it was attached to the ulnar side of the little finger. The other hand was perfectly normal, and showed no vestige of any abnormality. The great interest of the case, however, is this—that of the six children she has had, four had more than the usual number of fingers; all the adventitious fingers being to the ulnar side of the little finger. The first two of her children had perfectly normal hands, but the third had four little fingers, two on each hand. The fourth child had two little fingers on the left hand; the fifth had four little fingers; and the sixth was as I have described above. Another curious fact is this, that her brother's wife had a child with the condition of webbed fingers. Now, what are we to believe is the cause of this peculiar condition? I can hardly think it could be caused by "maternal impression." My own opinion is that it occurs in embryo by a process of dichotomy, there being a tendency in the cells of the ova of this particular woman to subdivide and form two, instead of one, fingers. Now, it will be observed that the first two children had perfectly normal hands, and that it was only on the birth of the third child that anything was found wrong with the hands, and that afterwards all her other children had more than the usual number of fingers.

Arbroath. G. SYMERS MILL, M.B. and C.M.Edin.

A CASE OF PULMONARY FISTULA.

M. A., aged 32, came to me in November, 1891, with a small abscess over the junction of the first rib with the sternum on the left side. I opened the abscess and a small amount of pus escaped. The patient came up for no further treatment till August 15th, 1892. She then complained of phthisical symptoms, and said that when she coughed she heard a peculiar noise where the abscess had been and which had not properly healed, there always being a slight discharge.

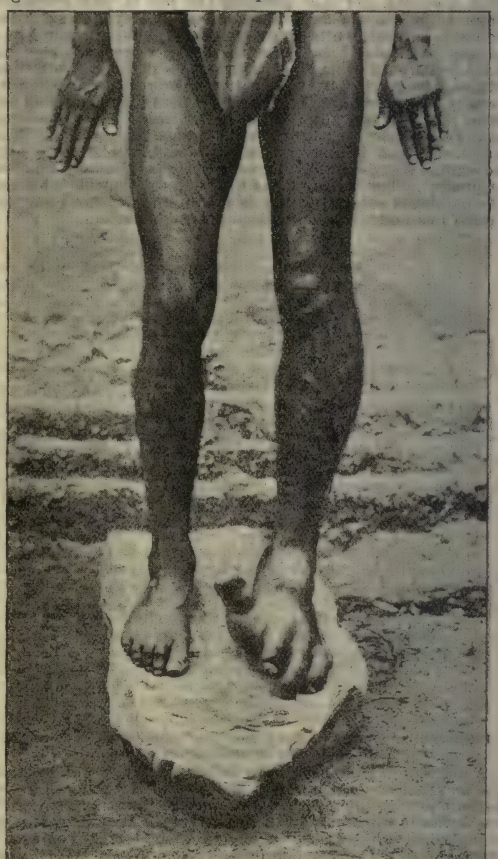
On examination, I found distinct signs of consolidation, etc., at both apices of the lungs. On asking her to cough, a small amount of pus escaped from a minute orifice at the seat of the former abscess. On her holding her nose and mouth and trying to inspire, air could be heard to whistle through this minute orifice. I therefore concluded that there must be a communication through the chest wall between the lung and the external atmosphere caused by a tuberculous focus at the end of the rib, extending outwards and inwards. The treatment I have adopted is simply for the relief of symptoms. If any gentleman reading this has met with a similar case in which any distinct line of treatment has met with success, I should be very glad to know it.

FREDERICK CHARLTON, M.R.C.S.Eng., L.R.C.P.Lond.

Salisbury.

HYPERTROPHY OF THE LEFT LOWER EXTREMITY: PES GIGAS.

BHAWANI, aged about 35, Hindu by caste, a convict in the Allahabad Central Prison, has an enlargement of the left lower extremity, but chiefly involving the foot and leg. The foot is considerably enlarged, especially at its anterior part; the outer side, including the little toe, is involved to a much lesser extent than the four inner toes and corresponding part of the foot. The four inner toes are bent down and stiff, so that the increase in length of the foot cannot be accurately determined: the third toe is the longest, and the great toe projects upwards and inwards at an obtuse angle with the dorsum of the foot. The leg is enlarged both in length and circumference, the thigh slightly in circumference, and there is probably a very slight increase in length also. The left crest of the ilium is slightly raised, and there is also a very slight deviation of the lumbar spine.



The enlargement affects all structures; the bones are increased in length and thickness, the latter being well marked in all the bony prominences. There is a considerable increase of all the subcutaneous tissues, this being well marked in the calf and in the anterior part of the foot. Small diffused masses of fatty tissue exist here and there in the subcutaneous tissues of the leg. The right foot is normal.

The following measurements show the difference between the two lower extremities:—

—	Right.	Left.
	Ft. In.	Ft. In.
From anterior superior spine to heel ...	3 0½	3 1½
„ styloid process of fibula to tip of external malleolus	1 2½	1 4
Circumference of thigh at upper part ...	1 7½	1 8½
„ knee over mid patella ...	1 1	1 2
Greatest circumference of calf ...	0 11½	1 2½
„ length of foot to end of third toe	0 9	1 0½
Great toe: Length	0 1½	0 2½
„ Circumference	0 3½	0 6½
Second toe: Length	0 1½	0 2½
„ Circumference	0 2½	0 5
Third toe: Length	0 1½	0 3½
„ Circumference	0 2½	0 4½
Fourth toe: Length	0 1	0 2½
„ Circumference	0 1½	0 4½
Fifth toe: Length	0 0½	0 1
„ Circumference	0 2	0 2½
From heel to head of fifth metatarsus ...	0 6½	0 7½
Greatest width of foot	0 3½	0 6½
„ Circumference over heads of metacarpus	0 9	1 4½

The history of this case is unreliable, but it is probably of congenital origin. Bearing in mind a case of acromegaly reported by Mr. Kanthack in the British Medical Journal of July 25th, 1891, in which a somewhat similar condition of the left foot existed, I have carefully examined both hands. They appear to be quite normal, and on careful measurements being taken, no difference could be detected between them. The man has a small face with a rather prominent lower jaw, especially at its angles, but the relation of the teeth to those of the upper jaw are not in any way altered.

L. J. Pisani,
Surgeon-Captain I.M.S.

Allahabad, N.W.P.

POISONING BY TINNED BEEF.

At 12.45 on Monday, August 15th, a grocer opened a tin of tinned beef in the presence of Mrs. W. The tin was not "blown" (that is, convex on its upper and lower surfaces—if meat in tins decomposes, the gas blows out the tins and causes them to bulge at the ends). He did not notice anything peculiar about the meat when opened. He had opened a very large number of tins in his time, and had sold many tins beforehand of this particular brand.

Mrs. W. bought one half-pound from off the upper surface of the tin, and divided it into eight portions: her husband and herself had a very small portion, mixed with some cold mutton; one younger child, who was not taken ill, had her dinner without any of the beef. Two hours and a half after partaking of the food a little boy, 3 years of age, was taken ill; ten minutes later the mother; half an hour after two children were sent home ill from school. About an hour later her husband came home ill from work. Three other children at home were by this time also attacked. The symptoms were, first, most profuse vomiting, intense abdominal pain, profuse diarrhœa, coldness of extremities, and collapse, the children lying on the kitchen floor vomiting and being purged, and unable to stir at all. The urgent symptoms lasted about six hours, leaving them all in a state of prostration, with some diarrhœa, otherwise none the worse. The mother had remarked to the father that the meat tasted stale. She, in addition to the other symptoms, complained of great pain in her head.

On Thursday, August 18th, the remains in the tin were brought to me by the sanitary inspector. I found that down one side the meat was discoloured on the surface, and there seemed to be a deficiency in the tinning. The meat did not smell, and was perfectly red and good except just at the surface. The soldered parts seemed to be right, and there was no hole in the tin. A small portion was partaken of by Mrs. C. and her husband; they had diarrhœa and crampy pains, but not to anything like the extent that the W. family suffered.

The symptoms were similar to those that I have occasionally seen after eating tinned salmon that has been exposed to the air, due probably to some ptomaine poison. The discoloration was entirely on the surface of the meat, and in the jelly part of the meat, and was not lustrous. I am inclined to think that the symptoms were not due to inorganic absorption, but to the results of some products of microbial excretion, which affected the jelly material outside the meat. The worst cases were those who had partaken of the first slice. The last two cases were mild; they would only have eaten the jelly on the outside of a thin slice, and not the top piece; the taste was "stale," not "metallic." The collapse was most marked. Although the mother is now quite well, she is weak and done up after exertion.

A. S. Underhill, M.D., D.P.H.Camb.,
M.O.H. Tipton Urban District.

CHLOROBROM IN SEA SICKNESS.

In crossing the North Sea last month I tried chlorobrom in two cases, both with most satisfactory results. The first was a gentleman, a great traveller, who had never suffered from sea sickness before, but fell a victim at last. After we had left land about three hours he commenced retching, which continued for three hours, when my attention was attracted to him. I then gave him two tablespoonfuls of chlorobrom, which gave immediate relief, and was followed by a refreshing sleep of several hours, awaking only once before morning, and then not from any inward disturbance. He partook of breakfast sparingly, but otherwise felt that life was again worth living. The other case was a lady who had suffered in the usual way for hours. She received one tablespoonful, to which she at once succumbed, sleeping for an hour, though afterwards passing a restless night, but she was not troubled again with sea sickness. I attribute the restlessness to not giving her a sufficiently large dose. Knowing how welcome any cure is in sea sickness—especially useful at this time of year, when most people are on the move—I feel anxious to bring under the notice of my fellow practitioners this simple remedy.

Montague Gunning.

Bervie, N.B.

AN UNUSUAL NUMBER OF LUMBRICI IN A CHILD.

In August, 1891, I was sent for to see a little boy, aged 6, whom I found in bed, very poorly, with temperature 104°. History given: The patient has been ailing and out of sorts for some time; losing flesh, with constant hacking cough and, latterly, night perspiration. Physical examination revealed no disease of lungs, although breathing was rough.

On inquiry, pain in abdomen existed, also mucus in the motions, but no blood; appetite capricious, with picking of nose and grinding of teeth; in short, all the usual symptoms of worms. Three powders of pulv. santonin—3 grs. in each—were ordered alternate mornings, to be followed by castor oil at night, with the result that ninety-seven pink ordinary round worms (lumbricoides) were evacuated. The child made a speedy recovery and was well in about ten days.

The case is of interest from the astonishingly large number of these ascarides which can exist in the bowel of a child of 6 years with no graver symptom than those enumerated.

F. C. W. Hounsell, B.A.Cantab., M.R.C.S.Eng., etc.
Chudleigh, South Devon.

MORPHINE HYDROBROMATE.

Having repeatedly noticed that some people are debarred from the use of morphine in any of its usual forms owing to its unpleasant consequences, I was induced by analogy of the preparation of quinine hydrobromate to prepare a similar salt of morphine, and to use it with such satisfactory results that I venture to record the details of the process. I proceeded as follows: To the solution of liquor morph. hydrochlor. I added, little by little, a solution of ammonia sufficient to neutralise the morphine solution and to render it distinctly alkaline, and set it aside to allow complete precipitation, which took place slowly. Having caught the precipitate on a filter paper, I redissolved it in hydrobromic acid dil., and added sufficient water to make it up to the same quantity as the liq. morph. hydrochlor. I had used. With this solution I have often, though not invariably, induced quiet sleep and relief from pain, without the unpleasant after-effects of headache and nausea sometimes experienced when other morphine preparations are used. These results were especially noticeable in two cases of phthisis with tuberculous joints.

I have been unable to obtain from the textbooks any account of this preparation, though doubtless it has been previously prepared. My object in obtaining the salt by this method rather than by directly dissolving morphine in hydro-

bromic acid is that I was unable to obtain satisfactory results except when I employed the method I have described.

Kingston Hill. W. E. St. Lawrence Finny, M.B.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

GERMAN HOSPITAL, DALSTON.

A FATAL CASE OF GLANDERS.

(Under the joint care of Mr. R. W. Parker and Dr. Ernst Michels.)

W. S., aged 45, was admitted into the hospital on June 17th, 1892. He was a driver in the employ of one of the London tramway companies, but, according to his own statement, was not otherwise concerned with the horses.

His illness commenced about three weeks before his admission with some indefinite symptoms which were thought to be due to a "cold." After a few days' rest the man resumed work, which he continued until one week before his admission.

On admission he complained of great lassitude and depression; he could scarcely stand, and was quite unable to walk. At this time there was a large fluctuating swelling on the forearm, which had come spontaneously, and was said to be rapidly increasing in size. He was feeling very prostrated, was feverish, and suffered from headache; the temperature was nearly 103° F.; the pulse 140 and very feeble. No internal disease was detected. Finding that he was unable to stand, we examined him and found a number of other abscesses scattered about the body, of which the man appeared ignorant. They were mostly much smaller than that on the front of the forearm, varying in size from a pigeon's egg upwards. There were several in the calves of the legs, one in the right pectoral region, and one in the left triceps. These abscesses were all situated in the muscles.

June 18th. Dr. Michels opened the abscess in the forearm. It was more extensive than we had at first imagined; it contained pus, decomposed blood, and shreds of necrotic muscle; the abscess cavity was carefully scraped out and then irrigated; hæmorrhage was somewhat free; the cavity was subsequently packed with iodoform gauze. This operation had no influence whatever on the general state of the patient. The prostration continued to increase; the temperature remained high. The other abscesses increased in size; in all eight were opened and washed out.

On June 22nd a large fluctuating swelling appeared quite suddenly in the right sterno-mastoid. On the next day it was smaller, and, two days later again it was hardly visible. Query: An extravasation of blood.

On June 23rd fresh abscesses appeared in the left forearm, then œdematous swelling of the left eyelid, which rapidly spread towards the face and over the scalp. Subsequently pustules broke out in this œdematous area.

On June 25th, for the first time, there was a purulent discharge from the nose. Meanwhile, the general condition had been steadily getting worse. The temperature reached 105° F., the pulse 160 per minute. Delirium, interrupted by deep coma, supervened. Death on June 26th.

At the necropsy the heart was found very flabby, lungs were normal, the liver and spleen swollen, cloudy, and friable, the kidneys congested and swollen. There were no internal abscesses or hæmorrhages. In the muscles generally localised sanguinolent infiltration was present.

Remarks.—Just at a time when so much glanders is occurring among the London horses, a case of the disease in man is not without interest—the more so, as at the date of this patient's admission to hospital, and even subsequently, the existence of the disease in London was denied. Probably the notification of this particular case was the means of directing official attention to the malady. The course of the disease in this man was somewhat unusual. Until the multiplicity of the muscular abscesses was discovered, acute necrosis of the bones of the forearm was suspected. Even after the man's occupation led to a suspicion of the true nature of the disease, the diagnosis at first seemed uncertain on account of the absence of pustules and of nasal discharge, though he had evidently been suffering for about three weeks. The pus was carefully examined by the house surgeon, Dr. Zum Busch, for the characteristic bacilli, but none were found. Nevertheless, the diagnosis was fully confirmed by the fact that on inspection horses were found to be suffering from glanders in the company's stables, where this man had been working.

LINCOLN COUNTY HOSPITAL.

A CASE OF HYDATIDS AFFECTING THE WHOLE OF THE FEMUR AND THE HEADS OF THE TIBIA AND FIBULA.

(By W. A. Carline, M.D.)

J. M., a hawker, aged 52, was admitted on November 28th, 1891. He was a large-framed, obese man, giving the following history of himself: Thirteen years ago, when building, he and four others fell a distance of 135 feet—three men were killed on the spot. He was stunned, and his left femur was fractured. He was in the Middlesborough Hospital for three weeks, and was then transferred to the Leeds Hospital, where he remained ten months; but no union of the fracture was obtained. The limb had been swollen ever since the accident, and had constantly given him pain. In July, 1891, he went into the Peterborough Workhouse Infirmary, and a large abscess which had formed in front and to the outer side of his leg, about four inches below the knee-joint, was opened, a quantity of pus escaping.

On admission to the Lincoln Hospital the right leg was found to be shortened to the extent of at least six inches, and the abscess below the knee was discharging a quantity of evil-smelling pus; the thigh, reduced in length, was very bulky, and was soft and flabby. There appeared to have been a fracture between the middle and lower thirds of the femur, the lower fragment riding in front. Nothing distinct could be made out of the upper fragment, which, moreover, appeared to be fractured in more than one place.

The limb being a useless encumbrance, the discharge from the abscess exhausting, it was decided to amputate at the site of the supposed fracture, and this was accordingly done on December 15th. Esmarch's bandage was applied, but the elastic ligature could not be kept in place. It was therefore replaced by a tourniquet. Skin flaps were made, and in dividing the muscles several small cysts, of a capacity of one or two drachms, were cut into; the fragments of bone not easily separating the saw was brought into requisition, and the sound given out when it was being used was somewhat like that caused by opening a sardine tin.

As soon as the limb was removed, quanties of matter like ground-rice pudding, alternating with numberless hydatid cysts, kept pouring from the femur with every movement of the limb, or when any pressure was put upon it; the bone, reduced to a mere shell, acting as a spout to convey this from the upper part of the thigh. It was suggested by Dr. Carline to at once amputate at the hip-joint, but his colleagues thought that the man's condition would not justify this at present, and therefore as much bone was removed as possible. The finger being passed up the centre of the bone and through an opening in one side, a large piece was removed by means of a few touches of the knife, and two hydatid cysts were exposed on the inner side of the thigh, each of about the capacity of four ounces. One was entirely separate from the bone, and the other only adherent to it at one part. Another piece of bone was then removed in the same way, and throughout at intervals rushes of hydatids and degenerated cysts came down the hollow cavity of the femur. The limb now presented a singular appearance, a huge cavity being left where the bone had been, the tissues around being matted together and the muscles in a state of fatty degeneration. At the top this cavity was traversed by the profunda femoris, which was successfully ligatured; the flaps being now brought together and an opening made in the posterior one, a glass ovariotomy drainage tube was passed through and up the thigh.

On examining the amputated limb it was found that the expanded lower end of the femur was a mere shell with a loose central core of dead bone; the patella was a hollow cavity, and

was continuous with the shaft of the femur; a small cyst was observed near the head of the fibula, and the upper part of that bone and the head of the tibia were a mass of hydatids.

The wound healed quickly, but hydatids still continued to come down the drainage tube at intervals, some shrivelled and discoloured, but others full and clear. On January 14th, 1892, the head of the femur was removed by the usual incision for excision of the joint. The head of the bone was found split into three parts; it was the only part of the femur containing cancellous tissue, and this was full of hydatids, the size of swan shot. It was easily detached and removed; not so, however, the rest of the bone, which was split up in small fragments firmly embedded in a tough fibrous tissue. The acetabulum was apparently unaffected. There was one escape of a quantity of cysts during the operation. The wound was subsequently syringed daily with a nitric acid lotion, in the hope of removing any small particles of bone left behind, the fluid passing out by the sinus remaining at the end of the stump. A few cysts escaped during the first week or two. The upper sinus closed, but the lower was still present when he was discharged on April 11th. The patient, who had quite recovered his health and strength, was seen a few times as an out-patient and then left the town.

Dr. Jessop has kindly had the reports of the Leeds Hospital looked through, but can find no record of the case. Dr. Cane informs me that the man was admitted into the Peterborough Workhouse Infirmary last summer during his absence, and a large abscess by the side of the knee-joint was opened. The history there given by J. M. was that some years before, when working in a coal mine, the thigh had been broken in two places by a fall of coal, and had never united. Dr. Cane, on his return, tried to persuade the patient to have the limb amputated, but this he refused to submit to. J. M. had used the limb for begging purposes. As a professional beggar he had an intimate acquaintance with most of the prisons in this country, as I afterwards found from conversations he had held with the other patients in the ward, and I now believe all his statements regarding accidents to have been pure fabrication.

It is much to be regretted that a reliable history could not be obtained of so interesting a case, and still more is it to be regretted that the temperature charts and any notes that were taken of the case were unaccountably lost.

The specimen was exhibited in the Museum at the annual meeting of the British Medical Association at Nottingham.

BRISTOL GENERAL HOSPITAL.

ANEURYSM OF FEMORAL ARTERY CURED BY DIGITAL PRESSURE.

(Under the care of Mr. F. Poole Lansdown, Senior Surgeon.)

A. B., aged 39, a sailor, was admitted on September 30th, 1891, with aneurysm of the right common femoral artery. His previous history was good, excepting a suspicion of syphilis. Five months before admission, while lifting a heavy weight, he felt a crick in his right groin, which gave rise to a good deal of pain, but no swelling was noticed for some time. At the end of a month he first noticed a swelling just below Poupart's ligament, and he experienced a sense of coldness and weakness in the leg. He then found some pulsation and an increase in the size of the swelling; the pain also became worse. He went into an infirmary, where he was treated by mechanical pressure, which gave him so much pain that it was only applied for three hours daily. This, he says, was continued for a month without any benefit.

On admission to the Bristol General Hospital there was a good deal of œdema and redness of the leg. The tumour, about the size of an egg, occupied the upper part of Scarpa's triangle, having an expansile pulsation, entirely stopped by pressure above. The sac, which was fusiform, was easily emptied. There was some thickening of the tissues outside the sac, which apparently contained no clot. The leg was enveloped in cotton wool, bandaged from the toes to the groin, and elevated on a pillow. He was put on a restricted diet, consisting of 2 ounces of meat, 6 ounces of bread, and ½ a pint of milk.

On October 12th, a relay of twelve students having volunteered, digital pressure was commenced on the external iliac artery. Three men took two hours, one compressing the vessel for twenty minutes, another with finger on the tumour to give warning of pulsation. To relieve the operator, a 7 lb. conical weight was suspended on his finger. It was found necessary to administer morphine subcutaneously to procure rest and quiet. At the end of twenty-four hours the sac was found to be harder. The pressure was continued for forty-eight hours, when the pulsation was found to be materially diminished, and to have lost its expansile character; the tumour was smaller and more solid. A pad of cotton wool was applied over it with a splice bandage, the leg being elevated and enveloped in wool.

On October 15th there was a superficial wave through the aneurysm, which the slightest pressure on the surface of the tumour entirely stopped. The foot, which had felt numbed on the previous day, was more comfortable. In the course of a few days the pulsation entirely ceased. The tumour being smaller and harder on November 2nd, he was allowed to get up for a short time, and being quite well, was sent home on November 4th.

Not having heard from him since, it is presumed that the cure was permanent.

REVIEWS.

Pathogénie des Diverses Ostéites. By Dr. René Condamin. Paris: J. B. Baillière et Fils. 1892.

This work is an exposition of what is at present known of the pathology of the various forms of periostitis and osteitis as distinguished from their grosser pathological anatomy and pathological histology. Before dealing with inflammation of bone arising in connection with altered innervation, or the inflammations arising from such diathetic conditions as rheumatism, gout, and those due to infective processes, the author deals with such as are brought about by inorganic poisons, by phosphorus, mercury, arsenic, and chromic acid. The different views advanced in regard to phosphorus necrosis and the foundations on which they are based are admirably set forth, but the writer does not venture to express any opinion of his own as to whether the disease of the jaws should be regarded as due directly to the phosphoric acid dissolved in the saliva acting through the medium of carious teeth, or to an indirect action resulting from the ingestion of the poison, of a kind such as arises after the administration of mercury. In arsenical poisoning, howsoever the poison is administered, it is to be found in the cancellous tissue, especially that of the cranium and vertebræ, some time after all traces have disappeared from the liver and other viscera.

The transport to and accumulation of this particulate poison in the bone is an interesting fact and corresponds with others which show that particulate materials, whether inorganic or microbial, become especially located in the bone marrow in addition to such organs as the spleen and liver—facts for which a mechanical explanation is the only one at present adducible, namely, the vascular arrangement and diminished velocity of circulation in such parts.

Arsenical osteitis, the author says, was not found by Poncet, who first observed the fact above mentioned, though it is difficult, he remarks, not to believe that this may arise. There are excellent examples of such osteitis in the museum of St. Bartholomew's Hospital, and others from the same collection in the museum of the Royal College of Surgeons (1186 A, 1186 B). These are different bones from a cow showing inflammatory changes due to chronic arsenical poisoning. Of an allied nature is the osteitis observed about the epiphysial lines of persons below adult age engaged in mother-of-pearl turning, next mentioned by the author. Here, again, the transport of the inhaled material to these situations leads to an inflammation which, like other simple inflammations, may, under circumstances, terminate in suppuration from the supervention of a secondary infective process. In Paris the affection has not been observed, and in this country it is not generally known.

Under osteitis arising from neurotrophic causes are noticed the articular lesions occurring in locomotor ataxy, and the rarefaction of the long bones in the same disease which predisposes to fracture. The author classes these latter changes along with those met with in the aged under the head of

osteitis. In this country these lesions are commonly regarded as forms of atrophy, though our ideas of atrophy may need amending; the disappearance of tissues would seem in most cases to be the result not of a mere passive failure in molecular or interstitial substitution, but a more active process in which the useless tissues are removed by phagocytosis. By reason of the frequent association of gastric crises with the arthropathies of locomotor ataxy, Seeligmüller has suggested the existence of a nervous centre presiding over the nutrition of the bones and joints, and situated in the medulla in the neighbourhood of the vagal nucleus; but there is as yet no proof of the hypothesis. In some cases a peripheral neuritis has been observed in connection with the articular lesions, which Vallin compares with those of perforating ulcer of the sole. And certainly there is a likeness between the remarkable progressive destruction of tissue witnessed in such joints and perforating ulcer of the sole, as there is between the latter and perforating ulcer of the stomach for which latter Dr. Ord has also put forward the theory of a neurotrophic causation.

Under rheumatic inflammations of bone the author places the common forms of osteo-arthritis, in this following Adams in his classical work. As to whether the shafts of the long bones are ever involved, he cites the authority of Gosselin, who describes forms of rheumatic inflammation making their appearance on the shaft, and advancing to the epiphyses without implicating the joint, and also cases of rheumatic osteitis consecutive to rheumatic arthritis. The implication of the shaft is, however, so rare in connection with osteo-arthritis, that hardly more than two or three examples of it could be adduced from our London museums.

The propriety of adopting the term "rheumatic" for the common cases of osteo-arthritis is not critically dealt with by the writer, who notices, however, that the neurotrophic theory has been extended by some observers to account for the genesis of all the clinical forms of chronic osteo-arthritis. Of gouty osteitis as a lesion distinguishable from rheumatic arthritis nothing is said. It is a subject of which scarcely anything is known. Berkhart has instituted an investigation into it, the results of which we look forward to with interest. To the condition named by Ollier "albuminous osteo-periostitis" the author devotes a critical notice. It is certainly not recognised in this country as a distinct disease, and the general opinion of the writers cited is to the same effect. Under the term is signified a periosteal inflammation accompanied with marked serous effusion, a "serous inflammation," the effusion being either beneath or in or beyond the periosteum. Some such cases, the author remarks, would appear to be tuberculous in nature. They might be compared, we would add, to the effusions accompanying certain forms of synovial tuberculosis. Others are attributed to rheumatic inflammations accompanied with œdema. Further investigation is required into the conditions—doubtless many—which would come under the heading.

The fourth and concluding part deals with the various kinds of infective osteitis. Under acute infective osteomyelitis, in addition to the forms arising from the infection of staphylococcus pyogenes aureus, citreus, albus, and streptococcus pyogenes, suppurative inflammations of bone of acute course are mentioned as due to pneumococcus—whether Fraenkel's or Friedlander's is not definitely stated—and to the typhoid bacillus.

The evidence on which the typhoid bacillus is alleged to be in itself a cause of suppurative osteo-periostitis is limited to one observation in which a pure culture of the bacillus was obtained from a small subperiosteal abscess on the inner surface of the tibia. In the other cases cited of bone suppuration after typhoid the suppuration was found due to pyogenic cocci. This is the view usually adopted, not only of post-typhoidal suppuration of bone, but of that which arises during or after such eruptive fevers as variola, scarlatina—the suppuration is usually held to be an epiphenomenon only. The observation cited will need confirmation; it is not quite certain that no pyogenic cocci were or had been present with the typhoid bacillus.

The remarks made upon "abscess of bone" fail to discuss critically its pathological causes. The chapters dealing with tuberculous, syphilitic, gonorrhœal, and actinomycotic inflammations call for no observations, except that under syphilitic lesions the primary periosteal location of some such is ignored; and the same is true of acute infective purulent inflammations. In both diseases the lesions are assumed to start in all cases in the marrow or at the epiphysial lines—an assumption betraying a defective knowledge of their pathological anatomy. It may be observed, too, that the author does not speak of osteomalacia, which may claim a consideration in a dissertation on the different forms of osteitis; nor rickets in which disease the periosteal formations, in the human subject or the lower animals, claim at least a notice, whether the view of their inflammatory nature be held or not.

A MANUAL OF CHEMISTRY, INORGANIC AND ORGANIC, WITH AN INTRODUCTION TO THE STUDY OF CHEMISTRY. For the Use of Students of Medicine. By ARTHUR P. LUFF, M.D., B.Sc.(Lond.), M.R.C.P., F.I.C., F.C.S., ; Physician to Outpatients in St. Mary's Hospital, and Lecturer on Medical Jurisprudence and Toxicological Chemistry. London: Cassell and Co. 1892.

THE application of chemistry to medicine is as yet mostly so empirical that its introduction into the prescribed medical curriculum is with the intent rather of giving those benefits that accrue from a scientific education, than as laying a foundation for the subsequent study of the chemistry of drugs and other therapeutic agents. Hence what one would expect in a textbook of this sort would be, first, an introduction to the general principles of chemistry, for which purposes those portions of the science which find application in medicine should have special prominence; and, secondly, a full explanation of those processes which constitute the special branch of pharmaceutical chemistry. At present, our knowledge is insufficient to enable us to treat of pharmacy wholly in the same manner as the rest of chemistry, but at no far distant period we may expect this to be possible. As regards the present volume, the first of these expectations is realised as far as is possible, but the whole work greatly resembles an ordinary textbook, with a few medical references interpolated, and with the scientific names of a few compounds supplemented by the designation used in the *Pharmacopœia*.

The second expectation is totally unrealised; the portion of the book in which we should expect to find references to pharmaceutical processes is wholly inadequate. A few pages are considered sufficient to explain the detection of arsenic, and no mention is made of its identification in cases of suspected poisoning. Only one method is given for the estimation of urea. The book is also advertised as being up to date, but the author does not mention the now by no means recent work of Moisson on the *Isolation of Fluorine*: the methods described being those employed by Gore some years ago in his attempts to obtain it.

A TEXTBOOK OF MORBID HISTOLOGY. By RUBERT BOYCE, M.B. London: H. K. Lewis.

THIS work may be taken as an excellent standard of the kind of course in morbid histology which teachers of this subject commonly aim at giving. It is practically a series of demonstrations profusely illustrated by means of coloured plates. The arrangement, which is that usually followed, calls for no comment. The demonstrations range over all the chief subjects with which morbid histology is concerned, but bacteriology is purposely not dealt with, except in so far as it is related to histological changes. Some subjects are treated with disproportionate brevity, but shortcomings of this kind are readily supplemented by the teacher or lecturer, for whom no textbook, be it ever so good, can be substituted.

Modifications in existing classifications, needless to say, there are, especially under Tumours; they are of the kind that all teachers introduce, and which are never universally adopted. Here and there the text is marred by such loose writing as the use of "serous surfaces" for serous membranes, whilst the words "cancer," "epithelioma," and "carcinoma" are used without any fixed principle, and in ways that tend to confusion. The term "cancer" is at present used rather as a clinical expression to include all malignant new formations, and epithelioma is a term hardly worth preserving if that of carcinoma is adopted at all, for the latter

comprises the whole group of malignant epithelial formations of epi- and hypoblastic descent, as distinguished from those of the connective tissue series. The bibliography appended to the work is very full, and its insertion, together with the references to authorities in the text, is highly to be commended.

It is perhaps the numerous plates and their brilliant colours that first arrest attention, and as these form a marked feature in the work, a few remarks upon them may not be out of place. One method of reproduction—and one only—has been adopted throughout; the preparation has been photographed and reproduced in monochrome by the Meissenbach process. By no other method could so large a number of illustrations have been introduced, except at a cost which would have been prohibitive in a textbook for students. The colours are various, and convey a good general impression of the look which such preparations themselves have. It is to be regretted, however, that only one method of reproduction has been employed. The method is admirably adapted for sections or objects as seen under a low magnification; when extended beyond this, the sharpness of the picture is lost and in many instances with a fatal result. Some of the figures, in short, are almost, and a few quite, useless. Unsatisfactory, too, are the few figures which have been inserted of micro-organisms; the sharpness which is so especially essential in this case is sacrificed to the method adopted. Nor are the parasites at the end of the book, on the whole, satisfactory. They are, it is true, original figures, but it is difficult to see the propriety of introducing original figures unless they equal or excel those already extant. Setting aside these failings, the general effect of the illustrations is very striking, and there are scarcely any which are not artistically pleasing. The work is intended to be a class book, and the figures cannot fail to convey—it is all they are intended to do—a general impression of what must be seen to be really known and understood. And in regard to microphotography generally, it is true to say that although it reproduces exactly what is seen beneath the microscope, it represents the visual picture to the detriment of the mental, and herein lies its weakness. In studying a section, in short, the mind exercises a selection upon what is presented to the eye, and it is in reproducing the mental picture that the well-made drawing excels. If the illustrations in the work under notice be compared, for instance, with many of the woodcuts in Cornil and Ranvier's *Manual of Histology*, or with those in Ziegler's *Pathological Anatomy*, this difference will be at once obvious. To assert that the microphotograph is unapproachable as a representation is thus only partially true; as reproducing the visual picture it is absolutely accurate, but it shows as a rule too much, and fails to reproduce the mental picture.

Alcohol and Public Health. By J. J. Ridge, M.D. London: H. K. Lewis. 1892.

This is a popular exposition of the relation of alcohol to public health, with a collection of facts telling in favour of abstinence as a rule of life. The statistics of various insurance companies and friendly societies are adduced to show the superior healthfulness of water-drinking over a restricted indulgence in intoxicants. Even readers who do not prefer abstinence to moderate drinking will welcome familiar figures when thus presented in a form convenient for reference. Among the topics to which special attention is given are the influence of alcohol on the endurance of heat and cold, and on the performance of work. The operation of alcohol as a factor in the production of mental alienation is dwelt on at considerable length, appeal being made to the testimonies of Dr. Clouston, Dr. Fletcher Beach, and other alienists. In the chapter on alcohol in relation to life and health, the author refers to the figures published by the Collective Investigation Committee, and has no difficulty in exposing the fallacy of the critics, who concluded from the returns that abstainers were shorter-lived than drunkards. The argument on the physiological action of alcohol is pushed too far. To contend that alcohol in minute quantities is injurious to man because geraniums are stunted in growth and look more sickly if watered with 1 per cent. of alcohol as compared with water only, is to enter on very debatable territory. In doses within the amount necessary to the characteristic [appearances produced by alcohol, there can be no proof, either way, as to the effect on the system.

Diseases of the Nervous System. By Jerome K. Bauduy, M.D., LL.D., Professor of Diseases of the Mind and Nervous System and of Medical Jurisprudence, Missouri Medical College, St. Louis. Second Edition. Philadelphia: J. B. Lippincott Company. 1892.

Fifteen years having elapsed since the first edition of these lectures was published, it may be well to state at once that those in the present volume treat only of the cerebral circulation, cerebral meningeal diseases, and insanity. The author proposes to discuss other diseases of the brain and diseases of the cord and peripheral nerves in a second volume. He announces that he has entirely rewritten the lectures, and has spared no effort to bring them into line with contemporary neurology.

The author borrows very largely from numerous writers, in the form of frequent and long quotations, so that it is not always easy to sift out his own views. Upon some points, however, he is quite clear; he has no doubt that "the human brain is certainly incompressible," and "while the quantity of *blood* circulating in the cranial cavity may undoubtedly vary, the sum total of all *liquids present* is constantly and uniformly the same." Further on, he concedes that a partial pressure on the brain is possible, but unless the pressure be great, the falx and tentorium will, he thinks, prevent its transmission beyond one cerebral hemisphere or the cerebellum.

Perhaps few would question the author's statement that in diagnosing cerebral hyperæmia the etiology is a more important guide than the symptomatology, inasmuch as the latter may in some particulars resemble that of cerebral anæmia; probably still fewer would accept either his doctrine that general or partial atrophy of the brain is a cause of undue determination of blood to that organ, or his explanatory hypothesis that the brain being wasted a vacuum would form, were it not that, in consequence of a compensatory vascular dilatation, the atrophied brain is replaced by blood.

The author's directions how to diagnose anæmia resulting from collateral œdema in the brain are too lengthy for transcription; in fact, on a subsequent page he declares that the diagnosis of all brain diseases is quite obscure; but respecting the treatment, he remarks that when a patient exhibits symptoms of intense hyperæmia with violent collateral œdema of the brain, the œdema should on no account be attacked with diuretics, absorbents, or derivatives; the hyperæmia must be relieved, and softening prevented. "If by an unpardonable oversight the secondary anæmia were treated, hopeless softening would ensue."

The lectures dealing with diseases, the pathology of which is not mainly speculative, and those on insanity, contain much admirable instruction, and can be read with profit.

Professor Bauduy prefers to adopt Dr. Maudsley's classification of insanity. Although the great excellence of that nosology is undoubted, some injustice to the labours of alienists, particularly Continental, would be involved by supposing that no advance has been made since it was constructed. In that respect, therefore, Professor Bauduy can hardly claim to be abreast of current mental pathology. He believes that insanity most often is a secondary affection, originating at a greater or less distance from the brain. He lays considerable stress on the view that insanity is not, metaphysically speaking, a disorder of the mind, but is an affection of the brain, and invariably seated in the brain. The solicitude displayed by the author in this matter is not entirely singular, nor is it wholly necessary.

NOTES ON BOOKS.

The Prescribers' Guide to the Harrogate Mineral Waters. By H. J. Johnston-Lavis, M.D., etc. (London: Henry Renshaw. 1892. Pp. 48.)—This pamphlet, small as it is, contains but a very brief account of the Harrogate springs, as the first twenty-five pages are filled with generalities which might precede the account of any other spa. A very complete analytical table is included in the few pages which deal with

Harrogate exclusively. We are struck with the extremely limited group of counter-indications—indeed, acute and incurable states are alone excluded. In a work addressed to the general practitioner, we are somewhat surprised to find the following statements: "Old serous deposits about the pericardium, pleuræ," etc.; "Exudative crusts (!) on the cerebro-spinal meninges" are greatly ameliorated by the sulphur waters at Harrogate. On what authority or observation can these statements be founded? We would suggest that a little more caution should be observed in preparing a practitioner's guide to an eminent spa.

House Drainage. By. G. A. T. MIDDLETON, A.R.I.B.A. (London: B. T. Batsford. 1892.)—This is a little book of 63 pages, intended for the use of architects and building inspectors, as the title page informs us. The principles of house drainage are placed before the reader concisely, but in a lucid and practical way, free from vagueness and unnecessary verbiage. The diagrams, which are freely introduced, are bold and clear.

Some Thoughts about Nursing. By OSWALD BROWNE, M.A., M.B.Cantab., M.R.C.P. (London: Griffiths and Farran. 1892.)—This pamphlet is a lecture delivered to the nurses of the Metropolitan Hospital. The author puts the careful education of the faculty of observation before all else in the art of nursing. He says: "It is half the battle won; for to know the natural progress of disease is to know more than the half of medicine, and will in itself go very far towards making you most useful nurses." But the nurse must know what and how to observe, and both may be learned from this admirable sixpenny treatise.

Arrested Pulmonary Tuberculosis. By JAMES KINGSTON FOWLER, M.D., etc. (London: J. and A. Churchill.)—This is a reprint, with additions and alterations, of a paper read by the author at the Bournemouth meeting of the British Medical Association, and published in the BRITISH MEDICAL JOURNAL. It contains an elaborate summary of the existing pathological evidences of the frequency of arrested pulmonary tuberculosis, brought together with much industry and research. There can be little doubt that tuberculous infection of a limited portion of lung does frequently occur without setting up the general symptoms of phthisical disease; and the anatomical evidences of this are often found *post mortem* in persons who have never been known to be affected with any disease.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE CERES LETTER FILE.

THE Ceres automatic letter and card files (49, Parliament Street, S.W.) exemplify a new system of letter filing for private or office use, which certainly is, as the inventors claim for it and as we have tested in use, exceedingly simple and most effective. It is suitable for either large or small correspondence, and allows of the easy and instantaneous filing of letters and documents not only in the usual alphabetical arrangement or under the two ordinary headings "unanswered," and "requiring attention," but also under any further subdivisions for particular letters or documents which the correspondents or the habit of investigation may happen to prefer. By the use of blanks filled up at pleasure, papers may be kept under any special sub-divisions desired. There are some twenty different patterns of letter and card files made in wood and japanned tin, which can be increased to meet any particular requirement. The card system is already largely used for professional purposes in the United States, and here also to some extent; but the customary contrivances which have come under our notice hitherto are somewhat cumbrous and invonvenient when it is necessary to answer and take out different cards as quickly as possible. The arrangement here provided of a sliding support, which is made in several ways, gives all the advantages of the files in use for library card catalogues in the way of keeping the cards at the convenient angle for reference, but dispenses with the troublesome necessity for threading and unthreading the cards.

PANCREATIN.

WE have examined a specimen of the Pancreatin manufactured by Messrs. Armour and Co., of Chicago and 59, Tooley Street, London. It acts satisfactorily, under the proper conditions, upon starch and upon fibrin. Its effects are also well shown by acting with it upon milk. The pancreatin has evidently been well and carefully prepared, and may be depended upon as being of excellent quality.

ESSENCE OF RENNET AND GLYCEROLE RENNET.

WE have examined samples of Essence of Rennet and of Glycerole Rennet, prepared by Messrs. Armour and Co., of Chicago and of 59, Tooley Street, London. They enable the active principles of rennet to be used in a clean and ready manner. The idea of supplying these in so convenient a form is a good one, and there can be no doubt that the preparations will be very valuable to those who have to make use of rennet. The results of our examination show them to be of excellent quality and thoroughly reliable, and that they can be kept for an apparently indefinite period without deterioration or appreciable impairment of their active qualities.

HOLLANDS OR GENEVA.

WE have examined a sample of the Hollands or Geneva spirit made by Messrs. John De Kuyper and Son, of Rotterdam. It is claimed by the manufacturers that the spirit is a particularly dry and pure one, and the results of our analysis enable us to state that this is unquestionably the case. The alcoholic strength of 13.6 under proof is a proper one, and we find that the spirit is free from adulterants and impurities, and practically devoid of extractives. A pure unsweetened spirit of this kind is sometimes a desideratum in medical practice.

SUGAR-COATED PELLETS.

MESSRS. WYLEYS, LIMITED, Coventry, have sent samples of sugar-coated compressed pellets of extract of cascara sagrada and of pepsina porci. They are well made, have an elegant pearly appearance, and can be easily swallowed. The coating readily dissolves when the pellets are placed in warm water, and the contents quickly disintegrate. We have tested the pepsine and extract of cascara contained in them, and find that they are both active.

PEPPIFER.

THIS substance is a mixture of ordinary pepper with reduced iron and pepsine. It is impossible to detect by taste or smell the presence of the drugs in this mixture. We find that it has a solvent action upon albumen, and that reduced iron is present as stated. There can be little doubt that the iron in Peppifer, being so much subdivided and distributed when taken with food, would be the more readily assimilated. It appears to be a good method of administering pepsine and iron. The manufacturers are Messrs. T. Howard, Lloyd, and Co., Leicester.

TUBULAR BONE DRILL.

MESSRS. J. GARDNER AND SON (Edinburgh) write: Kindly allow us, as the makers of Dr. Aitken's tubular bone drill noticed in the BRITISH MEDICAL JOURNAL of July 23rd, to make the following remarks on this instrument, which would seem to have been simultaneously introduced with others for the same purpose. Most drills have an eye placed near the point of the instrument through which the thread is passed; but the objection to this is that it is necessary to increase the breadth of the edge in order to make a hole big enough to allow the thread to pass alongside the drill. To obviate this a groove might be added along the shaft and extending to the edge in which the thread could lie; but this would impair the cutting edge and fray the thread, besides lessening the strength of the drill. Another method by which the thread might be passed is to drill first a hole through the bone large enough to allow the thread to pass, but that would necessitate a very much larger hole than is necessary, and, therefore, is an objection. All these difficulties are overcome by Dr. Aitken's drill, which, as its name implies, is tubular. The bone can be drilled, and, without withdrawing the drill, the thread can be passed along the tube, thus saving any fraying, keeping the strength of instrument perfect, and not having a hole larger than is absolutely necessary.

OBITUARY.

GEORGE HUSBAND BAIRD MACLEOD, Knt., M.D.Glas., LL.D.St.And., F.R.S.&F.R.C.S.Ed., F.F.P.S.G., and F.R.C.S.I.,

Regius Professor of Surgery, Glasgow University; Senior Surgeon to the Glasgow Royal Infirmary, and Surgeon-in-Ordinary to Her Majesty the Queen in Scotland.

Sir George H. B. Macleod was a distinguished Scotchman, not only because of his own career and the professional eminence to which he had attained, but, one might also say, almost by hereditary descent. His was a name widely known and universally revered, while he was yet only beginning to carve out his own destiny. His grandfather was Mr. Macleod, ordained in 1774 minister of Morven, on the coast of Argyleshire, by the shore of the Sound of Mull. His father was the Rev. Dr. Norman Macleod, minister first of the parish of Campbeltown in Argyleshire, then of Campsie, near Glasgow, and finally of St. Columba, Glasgow, and Dean of the Chapel Royal. He was one of the most conspicuous churchmen of his day, and a profound Gaelic scholar. Of his family, the eldest son was the famous preacher, Dr. Norman Macleod, of the Barony Parish, Glasgow, and the youngest is the present editor of *Good Words*, Dr. Donald Macleod, of the Park Church, Glasgow. It was while his father was still minister of Campsie that George was born, in 1828. Like his father and grandfather, Sir George was a man of magnificent presence. He stood 6 feet 4 inches; handsome in his youth, he was, if possible, more handsome when years and work had whitened his hair, and added the dignity of age. He studied in Glasgow, and a year before graduation, his health threatening to give way, he took a tour to Spain, Africa, Italy, and Germany. He began on this tour to keep a journal, and that habit he kept up more or less during his life. He was fond of travel, and as each year, with comparatively few exceptions, he took a holiday abroad, his knowledge of European countries and of the East was wide and intimate. The earlier portions of his journal, dealing with the period just previous to and during the Crimean war, are of exceptional interest. On his return from his first tour, in 1853, he graduated at the University, and then proceeded to Paris, where he became personally familiar with the work of Velpeau, Nélaton, Verneuil, Bouchardat, Ricord, etc. On his return, he settled down to practice, not yet quite sure, however, what special direction his work might take. The Crimean war was then in its incipient stage, and he was longing to see something of it. A mere accident put in his way the opportunity, as it seemed, of getting near to it, and he jumped at an invitation to accompany a gentleman on a yachting tour to the East. In an 80-ton cutter named *The Chance*, he visited Spain, Algiers, Constantinople, and Greece. But finding, to his disappointment, that he could get no nearer to the seat of war, he returned home by Vienna. Yet this voyage was the means of securing for him the opportunity he sought, and determining his whole career. Soon after his return he was waited on by Mrs. Campbell, of Garscube, whose son, an officer of the heavy dragoons (Captain George, afterwards Sir George, Campbell) had been wounded in an early battle. This lady, afraid for her son's life, wished to send someone out for him; and young Macleod's experience of travel, with his other qualifications, pointed him out as a most suitable one to undertake the task. This he gladly did, and, starting on the shortest notice, travelled night and day till he reached "the front." There he found his man in sore straits, tended him and nursed him, took him to Scutari and Constantinople, and finally had the satisfaction of bringing him safely home.

At the time there was a loud outcry at home about the state of the hospitals at the seat of war, and the condition of the wounded. In London Dr. Macleod met Lord Blantyre, who asked him to meet the Minister of War, Mr. Sidney Herbert. The Minister was eager to learn all about the condition of affairs from one who could speak from personal knowledge, and the young doctor was as willing to tell all he knew. Among other suggestions offered by Macleod was one that wooden huts should be sent out to replace as far as possible the filthy barracks in which the wounded were housed—huts similar to those which had been in use in Glasgow for the treatment of cases of fever in a recent epidemic. The suggestion was made use of. Dr. Macleod obtained plans from Glasgow, and these, with subsequent modifications, were found very valuable. Shortly after this the Government determined to supplement the regular army medical staff by a specially arranged staff of civil surgeons. In this work the late Sir William (then Mr.) Bowman was consulted by the Government, and he offered Macleod an appointment. The appointment was offered on a Tuesday, and Dr. Macleod was off on the following Friday. Dr. Macleod's characteristic promptitude of decision and of action led to the appointment being a senior one, instead of, as it would otherwise have been, only an assistantship. So, on February 25th, 1854, Dr. Macleod found himself senior surgeon and superintendent of the Civil Hospital at Smyrna. This hospital he proceeded to organise and direct, being associated in one way or another with men whose names afterwards became distinguished—Spencer Wells, Ranke, of Munich, McDonnell, afterwards professor of surgery at Dublin, Rolleston, of Oxford, and others. Here he remained till the end of May, 1855, when, the work at Smyrna becoming much lighter, the longing to get to the front again became mastering. So he set off, on leave, for the Crimea, armed with a letter to the principal medical officer, Dr. John Hall, subsequently Sir John Hall. He reached the Crimea, found Dr. Hall at the front, and in his usual energetic way proceeded to make himself useful. So well did he succeed, that when, soon after, one of the surgeons in the general hospital in camp before Sebastopol died of cholera, Dr. Hall appointed him to the vacancy. He was for the time granted regular army rank, and put in orders as first-class staff-surgeon with the relative rank of major. There he remained working hard, several times under fire, till camp fever laid him low. A brief respite, a sea voyage, varied by a visit to Therapia, Scutari, Smyrna (to settle up his affairs there), and Constantinople, where he met the late Sir William Aitken, restored him to health again. At the close of the war he found himself back in camp, where he remained during the winter 1855-56. When the camp was broken up, on the signing of peace in April, 1856, he started for a tour in Palestine and Egypt, and returned home by Paris, where he again spent some time in the hospitals, making there the acquaintance of Brown-Séquard. At the end of 1856 he was again in Glasgow, again settling down to practice, aged only 28 years, practically only at the beginning of his career, but with an experience, compressed into three brief stirring years, that might have served a lifetime. He was the only civil surgeon to whom the medal with clasp for Sebastopol was awarded, and he also received from the Government special recognition for his services during the war. After his first trip to the East he wrote a series of articles, published in an Edinburgh magazine, and after the war he published his Notes on the Surgery of the Crimean War, with Remarks on Gunshot Wounds. With such a record, his subsequent promotion was rapid. While waiting for practice, he took rooms and began a class to teach the use of surgical apparatus.

At that time there was no provision for the systematic teaching of the nature and uses of surgical appliances; in the hospital even they were never shown. His first class numbered thirty-two, and, encouraged by it, he soon equipped on a more extended scale class rooms for the purpose, and began to flutter the dovecots of the older teachers. Then he became out-surgeon to the Royal Infirmary, and his next step was promotion to the Chair of Surgery in Anderson's College in 1859. In this post he made a reputation as a teacher, which he maintained to the day of his death. After ten years' work there, his promotion to the Chair of Surgery in the University, in succession to Lister, appeared only as the legitimate reward of his untiring energy and his proved ability. This had been his ambition, and, if he had obtained it with remarkable speed and apparent ease, it was not the result of mere good fortune, or a mixture of luck and influence. The secret of his success is found in the record of the first few years of his life after graduation. He was swift to seize the opportunity, as he himself put it, "to hit the nail on the head." Indecision never marred his work. Hard work he was never afraid of; he died in harness. Moral courage of a high order was a characteristic of his race. These were the qualities, combined with his dignity and courtesy of manner, other features of the Macleods, his knowledge of men, his exceptional experience, and his professional skill, which ensured

his success and made him for a quarter of a century one of the most eminent surgeons of Scotland.

Besides what has been noted, he contributed much to surgical literature. His articles to Cooper's *Surgical Dictionary* were written in his earlier days, and he was also a contributor to the *American International Encyclopædia*, to the *Lancet*, and the BRITISH MEDICAL JOURNAL. These all bear evidence of his marked capacity for teaching. But probably his best memorials are the thousands of medical men, scattered all over the globe, who owe to him mainly the groundwork of all their surgical knowledge. His class in the University numbered annually between two and three hundred students. But while other classes were occasionally, at least a good many years ago, somewhat disorderly and disturbed, no sound of disorder ever passed his door. In his room order never tottered, and was maintained with no evident effort on his part. His lectures were always lucid, practical, and pointed, never disturbed by abstract disquisitions, and attractive without the aid of elaborately prepared periods. This was not because he was incapable of the one or the other. For the Macleods all have to a rare degree the gift of speech, and in occasional addresses to other than professional audiences Sir George allowed his talent in that direction full play, while much of his leisure he devoted to a wider than professional culture. But before his class he was a teacher, and all things else were subordinated to that function. Perhaps it was in his clinic at the Western Infirmary, where, in virtue of his University position, he was senior surgeon, that these qualities shone out most brilliantly. The writer has a very vivid recollection of how step by step Macleod could lead a class through the mazes of a surgical problem, presented before them in a concrete specimen of suffering humanity, and with what care and patience, and gentleness too, he would then demonstrate the appropriate method of treatment. Sir George was popular with his students, not only on this account, but also because of the abundant evidence he gave of personal interest in their career, and because of the kindness he often privately exhibited.

He was an honorary graduate of St. Andrews, an honorary Fellow of the Royal College of Surgeons, Ireland, and of the College of Physicians, Philadelphia, corresponding member of the Paris Academy of Medicine and Surgical Society, and member of the German Surgical Society. In Dumbartonshire, where he had the country residence of Fiunary, so called after the Manse of Morven, he was a justice of the peace and deputy lieutenant. The cause of medical education was always near his heart, and he did his utmost as Crown Member of the General Medical Council for its promotion. The distinction of knighthood, conferred upon him by Her Majesty during her Jubilee year, was prized by himself, and by his fellow-citizens deemed well bestowed.

He is survived by Lady Macleod, a daughter of an old Glasgow family, Houldsworth, of Belvidere, and a family of four sons and two daughters.

JOHN EDWARD MORGAN, M.D.,

Professor of Medicine, Victoria University, Manchester.

IT is but a short time since that we were called on to lament the loss of Professor James Ross, and to-day we have to announce the death of his colleague, Dr. J. E. Morgan, in the Chair of Medicine in Owens College. Just about a year ago Dr. Morgan, owing to ill-health, rather unexpectedly resigned his Chair in Owens College; since then he has been more or less confined to bed, suffering from a thoracic aneurysm. He died at Nether Tabley, Knutsford, Cheshire. Dr. Morgan was the second son of the Rev. Morgan Morgan, vicar of Conway, and brother of Sir G. Osborne Morgan, and of the Master of Jesus College, Cambridge. He was educated at Conway, Shrewsbury, and at University College, Oxford. In 1852 he took classical honours and his B.A., and thereafter he went to the Highlands of Scotland with the intention of reading for ordination; but he soon relinquished his intention of entering the Church in order to become a physician. He took his M.A. in 1860; he studied at St. Mary's Hospital, London. After visiting some of the Continental schools in France and Germany, he took his M.R.C.P. and M.B. of Oxford in 1861; he became F.R.C.P. London in 1868, and he obtained the degree of M.D. of his *Alma Mater* in 1865. Soon after obtaining his qualification he settled in Manchester, and became physician to the Salford Hospital, and Lecturer on Pathology at the Manchester Royal School of Medicine. For some years he was honorary secretary of the Sanitary Association, and he took a very active part in promoting the scheme of public health and science lectures which were delivered in Manchester. He was also an active promoter in securing the establishment of the Manchester Nurse Training Institution.

Dr. Morgan, in his earlier years of practice, went out and in much amongst the lower classes of Salford, and thus he gained that insight into the mode of life and the diseases prevalent amongst the badly-housed working classes. The outcome of his labours in that direction was the publication of two pamphlets, one at least of which attracted very considerable attention, and was translated into several languages. His paper, The Danger of Deterioration of Race from the too rapid increase of great cities, was read at the Social Science Congress at Sheffield in 1865, and was afterwards published in pamphlet form. The want of stamina in the poor as a class was strongly insisted upon, and he gave a critical analysis of the causes leading to the physical degeneracy which he found to be such a marked characteristic of the poor in our large towns.

Amongst the most prominent causes of the enervation in the poor of large cities he regarded vitiated air, constitutional syphilis, and abuse of alcohol. His pamphlet, Town Life amongst the Poorest, the Air they Breathe, and the Houses they Inhabit, read at the British Medical Association meeting at Oxford in 1868, was a powerful appeal for remedial measures to aid a large proportion of the poorest inhabitants in great cities who are dragging out their days in such unwholesome dwellings that fairly robust health is well nigh unattainable. In his own words, "bad air, and too little of it, kills the people."

In 1867 Dr. Morgan became Honorary Physician to the Infirmary and to the Cheadle Lunatic Asylum, a post which he resigned only two or three years ago. In 1873 he was elected Professor of Medicine in Owens College. In 1875 he published a paper advocating the establishment of another university in the north of England with the power to grant medical degrees. When Victoria University was first founded it did not possess the right to grant medical degrees. In 1881 he urged that the University should have this power, but it was not until a supplemental charter was obtained in March, 1883, that the University had conferred on it the right to grant degrees in Medicine and Surgery.

In 1868 he was elected a Fellow of the Royal College of Physicians, and in 1887 he became a member of its Council. The College of Physicians offered him a censorship, but this he was forced to decline on the ground of failing health.

He was an active member of the Victoria University, in which he took a warm interest, and for some years he acted as chairman of the Departmental Board of Medicine.

Dr. Morgan was a brilliant and effective speaker, and his speeches were always characterised by humour, elegance of expression, and often gave evidence of his wide classical and literary culture. As a professor he was most attentive to his duties, and was one of the most popular members of the staff of the College and Infirmary. From his undergraduate days onwards Dr. Morgan took a lively interest in athletics and athleticism, and few great cricket matches were played at Old Trafford without his being present.

Besides many contributions to current medical literature, Dr. Morgan will be best remembered by his work published in 1873 and entitled *University Oars*, being a critical inquiry into the after-health of the men who rowed in the Oxford and Cambridge Boat-race from 1829 to 1869, based on the personal experience of the rowers themselves. Himself an ardent athlete, for he was captain of his college boat (University College) Oxford for three years, this subject proved a congenial study. He undertook the investigation with no preconceived views, but at that time many persons entertained a profound dread of the University Boat-race as a cause of disease and early death amongst the stalwart champions of the oar. He tells us that his statistics are calculated to dispel all such gloomy forebodings, and show that the hardy disciples of the Isis and Cam may fairly dispute the palm of health and longevity with those who decry athletic efforts. As showing with what assiduity Professor Morgan pursued his congenial theme, out of 255 oarsmen who were alive at the end of 1869, he succeeded in obtaining letters from 251.

Dr. Morgan married the daughter of Major Darroch, of Gourock, by whom he is survived.

EDWARD COCK, J.P., F.R.C.S.

The senior consulting surgeon to Guy's Hospital died at his residence, Kingston-on-Thames, on August 1st, at the advanced age of 87. Born early in the century, and being the nephew of Sir Astley Cooper, whose first wife was Miss Cock, Mr. Cock entered upon his professional career so long since that he had an established reputation nearly sixty years ago. In a paper by Sir A. Cooper on the Thyroid Gland, published in 1836, there is an extract from a letter which runs thus: "St. Thomas's Street, July 29th, 1836. My dear Uncle,—To the best of my knowledge, you mentioned to me the existence of the cells of the thyroid gland, and the fluid which it contains, in the year 1825.....Believe me, yours affectionately, Edward Cock."

Mr. Cock's grandfather was a Hamburg merchant, who lived at Tottenham, and died on the very day, November 21st, 1791, when young Astley Cooper was to have married his daughter. The marriage was consequently deferred for a time. Mr. Cock received his medical education at the Borough Hospital, and early in life became a member of the surgical staff. At first demonstrator of anatomy, he became assistant surgeon to the hospital in 1838, and surgeon in 1849, which latter post he retained for twenty-two years; whilst for another twenty-one years he remained consulting surgeon. He lived for years in St. Thomas's Street or Dean Street, Southwark, but in 1860 went to reside at Kingston, coming to town, however, daily to hospital and private work. In 1875 he was made a Justice of the Peace for the borough. He was also for many years surgeon to the Kingston Battalion of Rifle Volunteers. He married somewhat late in life Miss Nunn of Colchester, who died several years ago. They had no children.

Mr. Cock obtained the diploma of M.R.C.S. in March, 1828; and was one of the first twenty-seven members on whom the diploma of F.R.C.S. was conferred on December 11th, 1843. He was elected a member of the Council of the College in 1856, a member of the Court of Examiners in 1867, and President of the College in 1869.

He was a clear and incisive writer; his contributions to the *Guy's Hospital Reports* were numerous, especially in the earlier numbers. He did some good work in dissections (for Sir Astley Cooper) of the anastomosing vessels in cases in which the external iliac artery and the subclavian respectively had been tied years before for aneurysm; and his accounts of these dissections, and the excellent coloured plates with which they were illustrated, were published as far back as 1836, when Mr. Cock was lecturing on anatomy and physiology in conjunction with Mr. Bransby Cooper and Mr. Hilton. Other papers were a contribution to the pathology of congenital deafness; some remarks on a peculiar follicular disease; a paper on paracentesis thoracis, with cases; observations on the ganglionic enlargement of the pneumogastric nerve in man and lower animals; and two cases of injury of the head with after-symptoms of cerebral compression produced by blood and pus respectively, and both cured by operation. One of these patients died subsequently of apoplexy in 1856, fifteen years after the trephining. In the *Reports* also he published four separate memoirs on obscure and difficult forms of hernia, with cases; and a paper on stricture of the urethra, catheterism, and false passage (founded on *post-mortem* inspections), which showed that the author was at that early date (1841) giving his attention to a subject in which he was afterwards to win much and lasting renown. From 1843 to 1849 he was one of the editors of the *Reports*, but his name disappeared from the title page in the latter year upon his becoming full surgeon.

In the third series of the *Reports* Mr. Cock's contributions included some cases of fractures and dislocations, in which it appeared expedient to divide the tendo Achillis for the purpose of replacing the separated bones and retaining them in position; rare cases of fracture and dislocation; a case of myeloid disease of the scapula, the tumour, which weighed nearly a pound, being removed by Mr. Cock in 1856, and the operation ending in the speedy recovery of the patient; two cases of successful pharyngotomy for impacted tooth-plates; select cases of aneurysm; and a few words on the means to be adopted for establishing a communication between the bladder and the exterior of the body when the urethra has become impermeable. Mr. Cock was here indicating urethrotomy (at the apex of the prostate), and called it the last resource available in certain cases. In the performance of this operation, without staff or other mechanical guide of any kind, Mr. Cock was especially skilful.

In 1877 he gave his experience (extending over nearly fifty years) on primary syphilitic sores, with the view of explaining their condition and appearance as altered and modified in accordance with the difference of the textures on which they are situated. His last paper, published as late as 1884, was an interesting one on surgical reminiscences. Mr. Cock was also the author of a small work, the *Practical Anatomy of the Head, Neck, and Chest*, and contributed to the Royal Medical and Chirurgical Society a notable paper on Forty Cases of Retention of Urine in which the Bladder was Punctured *per Rectum*. The mere enumeration of these papers testifies to their author's versatility and widespread professional experience.

Mr. Cock cannot, perhaps, be classed amongst surgeons of the first rank in this century, yet his professional judgment was sound, his powers of diagnosis were keen; as an operator he was cool and capable and prompt in the emergencies of the theatre. Moreover, in one particular branch of work, namely, the surgery of the male generative organs, he was justly held in very high repute, both as a consultant and an operator. In the performance of perineal section, as above mentioned, he was most successful; whilst puncture of the bladder *per rectum* for the treatment of retention of urine owes its position chiefly to his strenuous and constant advocacy.

His popularity with the students was proverbial, not probably on account of his academic or professional attainments, but because of his acute remarks and somewhat racy stories. He was, indeed, an anecdotist of no mean order; and for years the knowledge that he was likely to speak at any meeting of Guy's men always ensured a large audience. His speeches, full of wit and wisdom, were applauded to the echo; and this, notwithstanding the fact that he had a slight impediment in his speech, though when he was earnestly engaged in converse or lecturing it was scarcely perceptible; as he then spoke fluently enough. His powers as a lecturer were not much tested, for he ceased to lecture on anatomy in 1845, and afterwards only delivered lectures on clinical surgery.

In his last illness he was attended by his friend Mr. W. H. Roots, of Kingston. His funeral at that place was attended by his colleagues Mr. Arthur Durham and Dr. Pye-Smith, by Mr. Edward Trimmer, and by a large number of relatives, riends, and neighbours.

ALEXANDER W. MACFARLANE, M.D., F.R.C.P.Ed.

Many friends of Dr. Macfarlane, of Manchester Square, will be shocked and grieved to find on their return from their holidays that he will no longer be amongst them with his genial presence and his hearty manner.

After a somewhat protracted but apparently comparatively slight illness he succumbed to an attack of kidney disease, which we now learn has been of some standing. Earlier in the year he had been suffering from an attack of influenza; but, although convalescence appeared to be slow, there seemed to be no cause for anxiety until albuminuria developed, and ultimately, a few days before his death, very grave symptoms set in, and he died on August 3rd.

The son of the Rev. J. Macfarlane, a Scottish minister, Alexander W. Macfarlane was born in Cumberland. At an early age he was apprenticed to a doctor, and afterwards he studied in Glasgow and Edinburgh under Lister, Gairdner, Christison, Simpson, Syme, Spence, and other distinguished teachers. In 1867 he obtained the degree of M.B., C.M.Glas., graduating with distinction, and in 1872 he took his M.D. degree, the thesis which he presented being specially commended. In 1882 he became Member and in 1884 a Fellow of the Royal College of Physicians, Edinburgh.

After practising in Polmont for seven years, in 1874 he removed to Kilmarnock, where he succeeded in making a name for himself which obtained for him a very large but

very harassing and responsible practice. During this time he became surgeon to the Glasgow and South-Western Railway Company, physician to the Kilmarnock Hospital and Infirmary, a Justice of the Peace for the County of Ayr, Examiner in Medicine and Clinical Medicine and in Public Health and Medical Jurisprudence in the University of Glasgow, and Examiner in Medical Legal Cases in North Ayrshire.

Under the strain and anxiety of all this work his health appeared to be in danger of giving way, and in order to be able to make a fresh start, as it were, and to obtain facilities for doing literary and scientific work, and for the sake of his children he determined to remove to London, where he started practice in Manchester Square. Here many of his old Ayrshire and Edinburgh patients still continued to consult him; but for some time he obtained some of that rest so necessary for his health and work, the results of which we have in his contributions on the "Therapeutic Action of Senna Pods" (1887); in his book on *Insomnia and its Therapeutics*, a most valuable treatise, published in 1889; on "Dreaming," which appeared in the *Edinburgh Medical Journal* in 1891; and an article on "Habit in Reference to Sleep and Sleeplessness," which appeared in the *International Clinic* in 1891. Dr. Macfarlane also took a great interest in the work and discussions of the Royal Medical and Chirurgical and Clinical Societies, whilst we learn that shortly before his death he was engaged in carrying on experimental work on the action of various drugs on the cerebral circulation.

Dr. Macfarlane, one of the most genial of men, had great determination of will and force of character; nothing seemed to impress his patients more than his anxiety to get to the bottom of their illness and to arrive at the meaning of the very smallest symptoms. So convinced were they of his ability to do them good that they came to look upon him not only as a medical adviser but also as a personal friend; and this feeling could only be intensified by the admiration for his character and the affection for his personal qualities which were aroused in most of his patients. This became very evident when he left Kilmarnock, when friends, teachers, colleagues, and patients vied with one another in doing honour to and speaking well of him when at a banquet they presented him with a very handsome testimonial.

During the last few years Dr. Macfarlane's practice has been growing very rapidly, and the drafts on his energy necessitated by frequent long journeys and by too constant devotion to experimental and literary work have unfortunately done their worst. He was a good physician, a firm friend, and an honest man, and many will join with his widow and children in mourning his loss.

JOHN EASTON, M.D., M.R.C.S.

WITH much regret we have to record the death—in his 56th year—of Dr. Easton, which occurred somewhat suddenly at Sark, on August 26th. The deceased gentleman had been in failing health for some few years past, so that to his medical friends his decease was not entirely unexpected. He received his medical education at King's College, London, and subsequently studied at Paris and Vienna. He obtained the diplomas of M.R.C.S., and L.M. in 1858, and took the M.B. degree of the University of London in 1860. His academical career was a distinguished one, and in addition to other honours he obtained the exhibition and gold medal for physiology and comparative anatomy, and was first in with another gold medal in midwifery at the M.B. examination. He obtained the M.D. degree in 1861. After serving as House-Surgeon to the Preston Dispensary, he married, and settled, about 1867, in Connaught Square, Paddington, where he joined Mr. Webber in partnership before the latter's retirement. He enjoyed for years a lucrative practice, and about 1886 took into partnership Dr. W. T. Law. Dr. Easton was lately a Vice-President of the Harveian Society, and for several years took an active interest in the British Medical Benevolent Fund. He was a true and trusty friend, a cheery companion, and in all respects an upright, honourable gentleman. He had thus endeared himself to a large circle of friends, by whom his untimely death is deeply deplored. He leaves a widow, three sons, and two daughters; and his second son, Mr. Frank E. Easton, now holds a senior student's post at St. Mary's Hospital.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently gone over to the majority are Dr. Gustav von Düben, some time Professor of Anatomy in the Carolina Institute of Stockholm, and for many years editor of the well-known Scandinavian medical journal, *Hygiea*, aged 70; Dr. Josef Scharff, director of the Brünn Lunatic Asylum, aged 50; Dr. J. S. Evans, formerly a conspicuous figure in the Senate and House of Legislature of Alabama, and a much respected physician, aged 64; Dr. Perron, of Besançon, author of a treatise on Professional Integrity; Dr. Julius von Beregszaszy, of Vienna, a well-known laryngologist, and the German translator of Mr. Butlin's book *The Tongue and Its Diseases*, aged 46; Dr. Carl von Cessner, Emeritus Professor of Surgical Apparatus in the University of Vienna, and first vice-president of the Austrian Red Cross Society, aged 75; Dr. Antoine Ruppauer, of New York, and formerly of Boston, one of the pioneers of laryngology in America, aged 67; Dr. A. Obermüller, of St. Petersburg, body physician to the Czar, aged 45; Dr. Nathan Woodhull Condict, son of Dr. Lewis Condict, who was one of the originators of the United States *Pharmacopœia*, and himself for many years a prominent figure in the medical profession of New York, aged 83; Dr. Josef Standhartner, for many years physician to the Vienna Allgemeine Krankenhaus, and one of the most justly popular physicians of the Imperial city, aged 75; Dr. Filippe do Quental, Emeritus Professor of Clinical Medicine in the University of Coimbra, aged 78; Dr. Edouard Béchet, Professor of Surgery and Operative Surgery in the Medical Faculty of Nancy, aged 82; Dr. Walter Coles, president of the St. Louis Medical Society, who shot himself owing, it is said, to the dread of being attacked by an incurable nerve disease, aged 54; Dr. Theod. Leisering, director of the Veterinary School at Dresden; Dr. Thomas F. Wood, editor of the *Wilmington Medical Journal*, and secretary to the North Carolina State Board of Health; Dr. Ludwig Bandl, Professor of Gynæcology in the University of Prague, aged 49; Dr. E. W. Werbizki, a member of the medical administration of the Caucasus, who had been commissioned by the Russian Government to inspect the sanitary conditions of the Persian shore of the Caspian Sea, of cholera, aged 45; Dr. F. L. Thuran, formerly medical inspector and municipal councillor of the city of Odessa, aged 86; Dr. B. W. McCready, some time Professor of Materia Medica and Therapeutics in the Bellevue Hospital Medical College of New York; Dr. Anders Georg Drachmann, of Copenhagen, a well-known orthopædic surgeon, and author of works on scoliosis, physical development, etc., aged 82; Dr. Dahnhardt, *Privat-docent* of neurology in the University of Kiel; Dr. Artigalas, Lecturer on Skin Diseases and Syphilis in the Medical Faculty of Toulouse; Dr. C. F. Naumann, some time Professor of Anatomy in the University of Lund (Sweden), of which he was rector in 1860-61, aged 78; Dr. Josef Fischl, *Privat-docent* of Internal Medicine in the German Medical Faculty of Prague; Dr. W. Nick Pindell, of Newark, New Jersey, aged 64. Dr. Pindell had served under Lee, and attended John Brown, the hero of the famous ballad, when wounded at Harper's Ferry. Brown told Pindell who he was, adding, "You'll not get any pay from me, but if you bring my body, dead or alive, into Missouri, you can get 3,500 dollars for it." Pindell informed his commander, who doubted the identity of the captive till the latter confessed. Dr. Pindell was the possessor of several relics of John Brown, including his revolver.—Another man whose career deserves more than a passing mention is Dr. Ludwig Winckel, who died at Mülheim on the Rhine on August 15th, aged 83. He was the father of Dr. Franz von Winckel, Professor of Gynæcology and Obstetrics in the University of Munich, and was himself, though a general practitioner all his life, a distinguished obstetrician. When in practice at Gummersbach, where rickets and osteomalacia were then very common, he gave great attention to the causes of these diseases, and succeeded in notably diminishing their prevalence. He performed a larger number of Cæsarean sections than any general practitioner in Germany, one of his operations having been done so recently as in 1889. He was a frequent contributor to the *Monatschrift für Geburtshilfe*.

PROFESSOR VIRCHOW has had the Russian Order of Stanislas First Class and the Grand Cross of the Swedish Order of the North Star conferred on him.

POISONING IN INDIA.

One of the most memorable acts of Lord William Bentinck's administration in India was the abolition of Thuggee. In carrying out the suppression of this remarkable organisation of fanatical and hereditary assassins, he was mainly assisted by the late Sir William—then Captain—Sleeman, who, by his extraordinary energy and intelligence, constructed and maintained a department which succeeded in ultimately tracing out and hunting down the gangs of murderers so completely, that the practice of Thuggee is now virtually extinct, the last conviction for this crime in the North-West Provinces having taken place about the year 1852.

This remarkable brotherhood of murderers and robbers is reported to have sprung into existence under the first Mahomedan dynasties, and has prevailed throughout India ever since, up to about 1860. In Akbar's reign as many as five hundred were caught and executed; but it is said to have been really of much more ancient origin, and that the evil doings of Thugs are represented in the bas-reliefs of the Temples of Ellora.

It seems to have become prominently known to the British, after the fall of Seringapatam in 1799, and until hunted down and extirminated by Sir W. Sleeman and the able officers who assisted and succeeded him, it was practised throughout India. By about the year 1860 it had become practically exterminated. The Thugs had been tracked, caught, convicted, and hanged or imprisoned. Some were kept as approvers, their lives being spared on condition of their giving information which enabled the authorities to detect and convict others. They were kept in confinement in depôts (Goinda-Khanas) in Jubbulpore, Lucknow, Lahore, and other places; and contributed largely to the identification of their ancient comrades and fellow miscreants.

Thugs were of all castes of Hindus as well as Mahomedans, united, despite the difference in their creeds, in the worship of Kali; whilst after each murder a solemn sacrifice was made to the destructive deity by Hindus and Mahomedans alike. Their mode of destroying life was by strangulation; the victim was inveigled into their company, and when they sat down to eat, at a given signal one of the band, specially trained for the duty, passed a handkerchief (roomal) rapidly round the neck from behind, and by a firm and rapid twist strangled the unsuspecting victim, who was then buried on or near the spot. His companions, if he had any, were also destroyed and their property taken and distributed, something being set apart for religious purposes and votive offerings. "They travelled in bands, disguised as merchants or pilgrims, and were bound to the association by an oath based on the rites of the bloody goddess Kali." A fanatical association of murderers, they practised their fearful occupation in accordance with a religion founded on robbery and murder, and worshipped the pickaxe with which they dug the graves of their victims. They had signs and a vocabulary by which they recognised each other, and by which also they gave the signal of death.

In nine years, Dr. Balfour tells us, more than 2,000 were arrested; 1,467 were convicted of the murder of 947 persons; of these, 382 were hanged, 919 transported, 77 imprisoned for life, 92 for varying periods, 20 acquitted or escaped, 31 died whilst under trial, 250 were admitted as king's evidence. Some of them confessed with pride to over two hundred murders. Of those captured, the Bhutote or actual strangler was always hanged.

These strangling Thugs, called Phansigars (noose men) were distributed over India from the Himalayas to Cape Cormorin, and scarcely any part of the peninsula was exempt from their operations. They abstained, as a rule, from the murder of women, carriers of Ganges water, low caste persons, musicians, dancers, fakeers, and Sikhs, but these too would be sacrificed if they witnessed the crime, and thus became a source of danger.

This widespread system of murder and theft has, through the determined and persistent action of the British Government, aided by a band of well-qualified officers—among whom may be specially named as most conspicuous the Sleemans, Hervey Meadows Taylor, and Gould Weston—been now suppressed as far as the strangling Thugs are concerned; but the destructive instinct is still active where unrestrained by fear of penalties, and numbers of lives still fall victims to poisoning, not only ordinary individuals who are murdered for revenge or robbery or other reasons, or those who commit suicide, but others, destroyed by another variety or sect of Thugs, who, from using the datura plant as a lethal agent, have received the name of Daturiahs, and who pursue their nefarious trade of robbing and often murder of travellers or others on the roads or in towns and villages.

It would appear that since the suppression of Thuggee by strangulation, poisoning has become more frequent, though this also, under the active and vigorous administration of the British Government, is diminishing.

Chevers, writing in 1856 and again in 1870, says the crime, which appears to have become more prevalent since the check given to Thuggee by strangulation, is common throughout the three Presidencies of India. It is pursued systematically as a trade, and in great probability those who practise it are Thugs in the commonly received acceptance of the term; but he adds there is no positive evidence identifying the Meetawalla of Bengal and the up-country Daturiahs with the true Thugs or Phansigars. The term Meetawalla (sweetmeat man) was given to a class of robbers and poisoners who administered the poison concealed in sweetmeats, of which natives are so fond. The poison was not, however, always given for the purpose of destroying life, but with the intention of stupefying, and thus facilitating robbery or other crime against the person.

In 1844 Colonel Sleeman wrote that the impunity with which this crime was everywhere perpretated was among the greatest evils with which the country at that time was afflicted. These poisoners were then as numerous over the Madras and Bombay Presidencies as in Bengal. No road was free from them, and he believed that throughout India there must be many hundreds who gained their subsistence by that trade alone.

There is good reason for believing that poisoning is not by any means confined to these professional murderers or Thugs, but that it is a common form of crime arising out of the mental constitution of a timid race who, except when roused into a state of frantic excitement, are apt to prefer treachery to violence in the commission of crime; and that the profusion of lethal agents furnished by the variety of deadly plants, and the unrestricted freedom with which the most potent kinds of poison, whether mineral or organic, can be obtained in the bazaars, together with their familiarity with the use of hemp or opium, sufficiently accounts for the prevalence of the crime of secret poisoning.

No one who has lived long in India can have failed to observe the vigilance and perseverance with which the police authorities, aided by the scientific knowledge of the medical officers, are battling with this important element in its criminal records; and there is good reason for believing that their labours are not without success, and that not only the crime, but the demoralisation which prompts it, is on the wane.

The valuable works of Waring, O'Shaughnessy, Chevers, Lyon, K. L. Dey, Dymock, and many others have made us acquainted with the various mineral and vegetable substances which have made the crime so easy; and have taught the methods of detection so well that the ever vigilant police are enabled to trace out and procure conviction in a large number of cases, and thus to render the risk to the malefactors so great as to deter from much crime which otherwise would be but too certainly committed.

In a brief notice of this kind it is not possible to do more than glance at even the most important of these poisons—even to name them all would exceed available space.

Among vegetable poisons one much in use for criminal purposes is the datura (Datura fastuosa). This plant is common in India, and the natives are very familiar with its effects as an intoxicant and death-dealing drug; so common has been its use for criminal purposes that it has given its name to the class who use it—the Daturiahs are regarded as the successors of the Phansigars or stranglers; and, indeed, though no direct connection has been traced in their relations to each other, it is very probable that as the strangling was suppressed, murder for the purposes of robbery and fanaticism was relegated to the datura, and the infamous occupation carried on with this less easily detectable agent

But this drug also, no doubt, has long been in use for the more vulgar and commonplace robbery where the intention was not that of destroying life, but of hocussing, so as to enable theft to be more easily committed, the victim being left in a state of stupor or unconsciousness to recover or die as the case might be, death no doubt being frequently accelerated, if not caused, by exposure to the sun's rays and vicissitudes of weather.

The datura has three species: D. fastuosa, a purple flower; D. alba, a white flower; D. stramonium. The first is the one in most common use, and is perhaps the most active; it is given in various ways, the seed being the usual form in which it is administered for poisoning purposes. A box containing some preparations taken from a professional poisoner contained: 1, datura seeds; 2, powdered seeds fit to mix with food; 3, distilled essence of datura used with sugar, tobacco, flour; 4, flour mixed with datura flour. This poison, no doubt, is used frequently for the purpose of drugging only, and not with the intention of destroying life. Dr. Burton Brown, of Lahore, records 20 deaths in 92 cases, Harvey 20 deaths in 123 cases, Bombay Analyser 24 in 138 cases of datura poisoning.

But though datura has attained such an evil reputation as being the drug used by a class of road poisoners, it is not by any means so frequent a cause of death as some other drugs. The two poisons most commonly used being opium and arsenic; next to these probably may be placed datura; but, as before stated, it is more used for the purposes of drugging and theft than for murder, though it frequently proves fatal. Lyon tells us that in the year 1884 over 90 per cent. of the deaths from poison reported to the chemical examiner were due to either opium or arsenic; and during the ten years ending in 1884, these poisons caused over 72 per cent. of the cases, and more than 87 per cent. of the deaths from poison reported to the Bombay chemical examiner. Arsenious oxide is used both for homicidal and suicidal purposes, and largely also as a cattle poison. Here it may be remarked that the jequirity or abrus precatorius is not infrequently used as cattle poison. Except for infanticide and suicide, opium is not so much used homicidally.

Other vegetable poisons are aconite, oleander, nux vomica, and various euphorbias. The seeds of cerbera thetiva are sometimes used as a cattle poison, whilst the euphorbias and the plumbago rosea are used, sometimes with fatal consequences, as local irritants to produce abortion, but there are several others known to and used by the natives for the purpose of poisoning for revenge, for causing abortion, or even for suicide, but those previously mentioned are the most commonly resorted to. Again, among mineral poisons well known to and procurable in the bazaars, are compounds of copper, cases of poisoning frequently occurring accidentally from contamination of food by the copper cooking vessels.

The cyanides and other poisons known to science cause occasional deaths, but they are not those in common use, and are not specially characteristic of poisoning in India. The chemical examiners' reports for 1884 give the following statement for ten years ending 1884, in Bombay.

Arsenic	507
Opium	151
Datura	74
Copper	50
Mercury	29
Lead	19
Other metals	5
Pounded glass	31
Strychnine	17
Oleander	8
Aconite	6
Alcohol	6
Plumbago	6
Cucurbitaceous tubers	5
Oxalic acid	4
Acid and alkaline corrosives	3
Cyanides	3
Other poisons	23
	947

Lead poisoning is comparatively rare in India; preparations of mercury are not infrequently the cause of poisoning in the forms of calomel and corrosive sublimate; but as before stated arsenious acid is the mineral poison best known and most used.

Deaths from Poison, shown in the Chemical Examiners' Reports for the Year 1884.

	Arsenic.	Opium.	Datura.	Other.	Total.
Bengal	22	53	—	8	83
Madras	19	4	—	8	31
Bombay	22	9	1	3	35
Punjab	45	18	1	1	65
N. W. Provinces	29	17	1	1	48

In the Bombay Presidency in ten years ending 1884, the chemical analyser reports:

	Poisoned.	Deaths.
Arsenic	652	305
Opium	142	131
Datura	146	22
Other poisons	155	42*
	1,095	500

* Eight of these from strychnine and 4 from oxalic acid.

Cattle Poisoning in India in 1884, reported by Chemical Examiners.

Bengal	41
Madras	38
Bombay	51
Punjab	147
N. W. Provinces	11
	288

Cattle Poisoning in Bombay Presidency detected in Ten Years ending in 1884.

Arsenious oxide	696
Arsenious oxide with sulphides	9
Arsenious oxides with oxides of lead	9
Sulphides of arsenic only	11
Oxides of lead only	6
Sulphate of copper	6
Nux vomica	1
Cocculus indicus	3
Mercury	1
Sulphate of iron	1
	743

Altogether, 677 animals died from poison in ten years.

The statistics are not at present accessible by which could be shown the mortality from poisoning, intentional for homicide, drugging and robbery, suicidal, accidental; but sufficient has been said to show that it is considerable; and if to this be added the deaths from snake bite, which at the lowest estimate are over 20,000 a year for all India, it is plain that the mortality from various forms of poisoning is very considerable.

The subject in all its aspects is well known to the authorities, and it may be confidently asserted that whatever is possible by the vigilance of police and the science of medicine is being done to abate the evil, and there is good reason to believe that it is being gradually mitigated.

Medical Subjects at the Church Congress.—The programme of the congress to be held at Folkestone from Tuesday, October 4th, to Friday, October 7th, is now published. At an evening meeting on Wednesday, the temperance movement will be under discussion as to (1) legislation, (2) prevention and rescue work. The readers of papers on this subject will be Sir W. Herschel, Bart., Sir Dyce Duckworth, and E. S. Howard, Esq., and the Rev. J. W. Horsley will speak. At the meeting of women on the same day, temperance as it affects women of the upper and middle classes will also be discussed by the Duchess of Bedford, Miss E. J. Fisher, and Lady Frederick Cavendish. At another meeting on the same day Colonel Onslow will open a discussion on physical recreation, its use and abuse; and Sir R. E. Webster, Q.C., M.P., and the Rev. E. Hoskyns will be amongst the speakers thereto. On Thursday afternoon the question under discussion will be: "Do the interests of mankind require experiments on living animals, and, if so, up to what point are they justifiable?" Papers on the subject, for and against, will be read by Bishop Barry, Mr. F. S. Arnold, Sir Andrew Clark, Bart., Mr. Victor Horsley, Dr. Armand Ruffer, and Dr. John Clarke.

CHOLERA AND TYPHOID MATERIAL IN THE THAMES.

The following extracts from recent evidence by experts before the Royal Commission on Metropolitan Water Supply is of peculiar interest at the present moment, as indicating sources of pollution of the river Thames above the intake of the water companies, who supply what is at present the drinking water of London. It is obvious that contaminations of this wholesale and disgusting character are standing sources of danger to the population.

Dr. George Haynes Fosbroke, D.P.H.Camb., before the Royal Commission, gave numerous instances of pollution of the Thames. It was a common practice, he said, in many localities to pour domestic and trade refuse into the fissures as an easy means of getting rid of it, the old adage, "Out of sight out of mind," being particularly applicable to the sewage disposal of many of the towns he had visited where efforts are made so that filth may be dealt with without recourse to drains or sewers, and where in many instances the sewage was poured into subterranean passages. He instanced pollutions caused by privies being placed at the water's edge, and the practice in vogue of emptying closets into the streams. Chemical analysis should not be absolutely relied upon as a test of the purity of water. A water, for instance may be capable of spreading cholera or typhoid fever, but yet chemical examination may fail to say so.

Dr. Alfred Ashby (Medical Officer of Health of the Borough of Reading) also recently gave the results of his investigations of rivers and streams. He gives an instance where he counted about forty privies discharging directly into the river. Questioned by a member of the Commission as to how it was that such a state of things existed with a sanitary authority with its medical officer of health, and with its inspectors of nuisances, Dr. Ashby stated from experience that a good many rural sanitary authorities, if their places are healthy are very inert as to doing anything in the way of sewering. They looked chiefly to the health of their district, and if they have got to undertake a very large outlay in comparison to the size of the place, they think the lesser evil is to go on as they are. All through the country the Rivers Pollution Prevention Act has been more or less a dead letter. Very many instances of pollution are given by Dr. Ashby, but it is only right to say that at many of the places referred to steps are being taken to abate the nuisances at the instance of the Local Government Board. Many cases of cattle pollutions are also enumerated, and there is evidence that certain cattle diseases can be communicated to human subjects. Scarlet fever sometimes, or diphtheria, might be communicated. No doubt it was a matter of every-day observation to medical officers of health that there are whole villages drinking water that is largely contaminated by cattle pollution, and apparently suffer no ill effects whatever by it. A highly-polluted water might be drunk for years by people without any harm arising from it, but there might come a time when harm would arise, when the water would contain some dangerous micro-organisms. If it were to be found that the deaths from typhoid fever were less in the metropolis than in other urban communities of similar population, he would not regard that fact alone as a testimony in favour of the drinking water. Other considerations have to be taken into account. The whole sanitary condition of a place should be carefully gone into to see where the incidence of disease falls, whether it is in water supply or whether it is in house drainage. As to the possibility (if the drinking water of any community were a serious source of danger) for that community to go on possibly over a long series of years without an outbreak of typhoid fever, he thought that had been proved in the case of the Tees Valley. There they went on for many years without any typhoid fever at all, and recently there have been one or two outbreaks which he believed had been conclusively traced to pollution of the river and spreading through drinking water. He considered that every place ought to treat its sewage in such a way that it should not spoil the river for its natural use as a watercourse and as a pleasure resort, but nothing more.

Dr. George Turner, M.B., D.P.H.Camb., also gave evidence of the various sources of pollution. In regard to the question of filtration, it is not known, he said, how far filtration protects from typhoid fever. The Caterham epidemic showed that a very small pollution, so small that it could not be detected chemically, was sufficient to poison an enormous quantity of water. As to whether filtration was efficient against the bacilli of typhoid fever, and the probability of its being equally effective against the spirillum of cholera, he did not think it possible to argue from one sort of bacillus to another. That, he said, which kills one does not affect another; that which favours the propagation of one does not favour the propagation of another; one lives under one condition and another under another, so that he should not like to affirm, because any process prevented the spread of typhoid fever that, therefore, necessarily it would prevent the spread of cholera. He agreed that the cholera spirillum is very much thicker than the typhoid bacillus, but asserted that both of them are of such a size that no one can see them with the eye, and yet sometimes the water comes through and it is turbid. It was fair to assume that if the filter mechanically held back the smaller germs of typhoid fever, it will equally hold back the larger microbes of cholera, but he distinctly thought that the argument could not be carried from one bacillus to another till it was actually tried.

Dr. Ogle cited from the English translation of Frankau: "That we can only declare in a general way that the cholera bacilli are exceedingly delicate structures, and quickly succumb, as a rule, to external influences." And, again, Dr. Woodhead, another authority, said: "They cannot brook the presence of other and more vulgar bacteria, and are soon overpowered by them." And a paper presented to the Commission by Messrs. Frankland and Ward stated that "the cholera spirillum has very much less power of resistance than the bacillus of typhoid fever;" and alluded to the probabilities therefore that the cholera bacillus would be destroyed much more rapidly than the typhoid bacillus. [This evidence is, however, a good deal behind the time, as will be seen on reference to our leaders of this week and last summarising the latest researches on the cholera vibrio.] Dr. Turner said that, although typhoid fever was prevalent in London, we had, comparatively speaking, not a large outbreak. Of course there were a very large number of deaths, but it was not a large outbreak in the year 1866, and yet, when we introduced a little cholera stool into a ditch in the neighbourhood of the East London Waterworks we had cholera spread all over the place.

Dr. Edward Frankland said there ought to be at least two or three lines of defence against the propagation of zymotic disease in the case of water supplied to a large community. We have already suffered in London very severely by being too lenient in that respect. When we took the water from between the bridges, there was a fearful epidemic of cholera in consequence. As regards filtration, there was no evidence that the filtered water was unwholesome, but the lives of a large community he considered ought not to be dependent on the efficient filtering plant of commercial companies. Under present circumstances, a serious epidemic of typhoid or cholera in the Thames basin above the intakes would be attended with great risk to the water drinkers of London. Such experiments should not be tried on large communities. Before the cholera outbreak of 1849, it was believed that Thames water abstracted between the bridges in London was perfectly safe, as testified by the evidence of many experts, but that belief cost London 25,000 lives in 1849 and 1854. Although the purification of water polluted by human excrements, by storage and filtration may be reasonably considered on theoretical grounds to be some considerable safeguard against the propagation of epidemic diseases, there is not in the form of actual experience a tittle of trustworthy evidence to support such a view. On the contrary, the investigation of the epidemic of typhoid fever at Lausen, in Switzerland, where 17 per cent. of the population were attacked, showed that the water infected by typhoid germs was potent to produce the disease even after a filtration certainly not less perfect than that obtainable in waterworks. Just as the storage of petroleum or gunpowder in the midst of a dense population is considered dangerous, although normally quite safe, so the use of normally safe water liable to exceptional zymotic pollu-

tion ought to be avoided where the lives of millions may be placed in jeopardy. Even if it should hereafter be proved that efficient filtration intercepts all zymotic germs, such a single line of defence ought not to be trusted in such an important matter. Dr. Frankland has also made numerous chemical analyses and bacteriological examinations of the water of the Thames above the intakes, and also the water actually delivered by the companies drawing from the river, and in reference to these he observes that these bacteriological observations should not be invested with a meaning which they are not intended to convey. The vast majority of microbes found in potable waters are, as far as is known, perfectly harmless, and, although pathogenic bacteria have been found amongst them, it has only been on rare occasions. They have never been found in any water supplied to London, but it must not on this account be concluded that they are never present. In the first place, only a very small volume of water can be submitted to examination, and, secondly, several kinds of pathogenic organisms can be cultivated only in the bodies of animals; they are therefore undiscoverable by Koch's gelatine-plate process. A glass of water might contain two or three typhoid germs, and yet it would be only by the merest chance that one of them would be included in the five-hundredth of a glassful taken for bacteriological examination. In the present state of our knowledge these examinations are simply a quantitative and exceedingly delicate test of the filtration, natural or artificial, to which the water has been subjected; and they prove how very efficient, as a rule, is the said filtration carried out by the water companies for the removal of microbes and their germs. The reduction of upwards of 98 per cent. of the number is obviously a considerable, though by no means an absolute, guarantee that pathogenic organisms, if present, would disappear with the crowd. Nevertheless, it is only by the rejection for dietetic purposes of water polluted by excrementitious matters that, in the present state of our knowledge, immunity from water-borne zymotic poisons can be secured.

CONGRATULATORY DINNER TO SIR WALTER FOSTER, M.P., M.D., F.R.C.P.

THE selection by the Sovereign of Sir Walter Foster, M.P., as a member of the Government in the post of Parliamentary Secretary to the Local Government Board affords the first instance in which a practical member of the medical profession has been invited to take part in the Ministry and a share in the Government of this country. The circumstance is one therefore of considerable professional interest, and the precedent one of no small value and importance. Sir Walter Foster has, we need hardly say here, taken an active part for many years in the British Medical Association, of which he was President of Council from 1884 to 1887; taking no small part also in the revision of its constitution and the incorporation of the Association. As a permanent Vice-President he has continued his interest in, and his work for, the Association and the profession. At the recent annual congress of the Association at Nottingham Sir Walter Foster presided over the Public Health Section. He has always taken great interest in the relations of the profession to the public and in questions of State Medicine since his election to Parliament, Sir Walter has freely placed his services at the disposal of the Parliamentary Bills Committee of the Association, and on many suitable occasions has given valuable assistance in putting forward facts and principles which it was of importance to the profession and the State should be justly stated and correctly argued. The position assigned to him as a representative in Parliament of the Local Government Board, which has among other functions that of a Ministry of Public Health, is therefore very appropriate. The approach of cholera and the temporary preponderance thus given to the Public Health Department of the Local Government Board have served to accentuate the importance of the medical element in Public Health administration, and has thus emphasised the value of the precedent created in favour of an official representative of the profession of medicine in the highest council of the nation.

It has been thought well publicly to recognise the interest of the situation thus created, and the satisfaction which the members of the British Medical Association feel in this official recognition of the advancing influence of the medical profession in the Public Health administration and those affairs of State of which they have special knowledge and a particular interest. It is desired also thus to express their gratification that the first Minister who has been called to the councils of the State is one whose close connection with the Association and the work of its Parliamentary Bills Committee, as well as its general scientific and professional affairs, is of long standing. It is, therefore, intended to invite Sir Walter Foster to a congratulatory dinner, which will take place on October 26th. The President of the Council, Dr. Withers Moore, Dr. Holman, Dr. Bridgwater, Mr. Ernest Hart, and Mr. Eastes are acting as the Dinner Committee. The following members of the Council have already intimated their intention of being present:—

Mr. Alfred Baker (Birmingham), Dr. Henry Barnes (Carlisle), Dr. G. B. Barron (Southport), Dr. Francis Bateman (Whitchurch), Dr. R. W. Batten (Gloucester), Dr. Bridgwater (Harrow-on-the-Hill), Mr. Butlin, Treasurer (London), Dr. Byers (Belfast), Dr. S. Cameron (Leeds), Mr. Andrew Clark (London), Dr. Ward Cousins (Southsea), Dr. Crosse (Norwich), Dr. Crowe (Worcester), Dr. Dempsey (Belfast), Dr. Deas (Exeter), Mr. E. Donaldson (Londonderry), Dr. Langdon Down (London), Mr. G. Eastes (London), Dr. Edwards (Cardiff), Dr. W. A. Elliston (Ipswich), Dr. Galton (London), Professor Gairdner (Glasgow), Dr. Glascott (Manchester), Dr. Bruce Goff (Bothwell), Dr. O. Grant (Inverness), Dr. J. D. Harries (Shrewsbury), Dr. H. Handford (Nottingham), Mr. J. Hughes Hemming (Kimbolton), Mr. G. F. Hodgson (Brighton), Dr. Holman (London), Sir George Humphry (Cambridge), Mr. Vincent Jackson (Wolverhampton), Mr. Jessop (Leeds), Mr. Evan Jones (Aberdare), Dr. Keeley (Taunton), Professor Leach (Manchester), Mr. Jordan Lloyd (Birmingham), Mr. Macnamara (London), Dr. Mapother (Dublin), Dr. Withers Moore, President of Council (Burgess Hill), Dr. Jones Morris (Portmadoc), Deputy Surgeon-General C. B. Mosse (London), Dr. Needham (Gloucester), Mr. Parkinson (Wimborne Minster), Dr. C. Parsons (Dover), Dr. Philipson (Newcastle), Dr. Pope (Leicester), Dr. J. Rolston (Stoke), Dr. Saundby (Birmingham), Dr. Sheen (Cardiff), Dr. Markham Skerritt (Clifton), Mr. Noble Smith (London), Mr. Henry Stear (Saffron Walden), Mr. Lawson Tait (Birmingham), Dr. J. Taylor (Chester), Dr. Trend (Southampton), Mr. C. G. Wheelhouse (Filey), Mr. White, President (Nottingham), Dr. Williamson (Newcastle), Mr. Alfred Winkfield (Oxford).

Presidents, officers, and members of Council of Branches, and members of the Association generally who would wish to join in the dinner are requested to address "The Honorary Secretary of the Committee of the Dinner to Sir W. Foster," at the Office of the BRITISH MEDICAL JOURNAL, 429, Strand, with the least delay, as it is proposed to allot tickets (price 23s.) in order of application.

THE SANITARY INSTITUTE.

THE thirteenth Congress of this Institute was opened on Monday at Portsmouth. The Mayor welcomed the members at the Town Hall, and subsequently a luncheon was held, and was attended by some well-known sanitarians, including Sir Thomas Crawford, the President of the Council, Sir Charles A. Cameron, President of the Congress, Dr. Newsholme, and others. In the afternoon the inaugural meeting was held in the great hall of the Town Hall. Sir Charles Cameron, in his presidential address, referred to the progress in sanitation during the Victorian era, to the fall in the death-rate in London and other towns since the passing of the Public Health Acts of 1872 and 1875. He pointed out that during the thirty years ended in 1870 the London death-rate was about 24 per 1,000 persons living; in the decade 1871-80 it fell to 22.5; and in the succeeding ten years to 20.5, or 4.3 below the rate for the period 1841-50. In 1851-60 the death rate in the large towns of England and Wales was 24.7, and in the country 19.6; in the period 1881-90 the rate in the towns was 20.4, and in the country 17.5. In Scotland and Ireland great reductions had also taken place in the death-rate of those

countries. Whilst the death-rate of London had been declining, the population of the great city had been increasing and concentrating. In 1841 the density of its population was moderate—namely, 25 persons per acre, but in 1891 there were 56.5 persons per acre. In London the unfavourable influence of the closer approximation of its inhabitants was much more than compensated for by the great improvements effected in the general hygienic conditions of the City. After summarising the history of British epidemics of cholera, Sir Charles Cameron went on to speak of typhoid fever in Dublin. While typhus fever, once so prevalent in the towns, had almost ceased to exist, the hygienic measures which had eliminated small-pox and typhus fever from so many towns had had little or no effect upon typhoid fever. He had made especial study of the disease as it appeared in Dublin, and had come to the conclusion that there, and perhaps elsewhere, it was miasmatic, or earth-born. In Dublin during the last ten years one person in 144 persons living on clay soils had had typhoid fever, whilst one in every 92 persons located on gravels had contracted the disease. The disengagement of the micro-organisms of this disease took place when the soils became dry, and this occurred more frequently in the case of loose gravels than of stiff impertransible clays. When all the organic *débris* produced in towns was quickly removed from them to a safe distance, and when the dangerous subterranean atmosphere was prevented from entering our dwellings, or even our streets, when sewage flowed steadily day and night through well-constructed main sewers, and when our soils were thoroughly drained, and kept free from filth, then we might expect to see a substantial reduction in the mortality caused by typhoid fever, and indeed by other diseases. It was to the improvement of the homes of the artisans and labourers that they must chiefly look for a further reduction in the death-rate of towns. A study of the laws of health should form part of the system of primary education.

At the resumption of the Congress on Tuesday, Dr. Nevins read a paper, the object of which was to show that the abolition of the Contagious Diseases Act had had no injurious effect on the public health. The President and other medical officers disputed his statistics, and said, if the figures were correct, they contradicted experience.

In the Section of Medical Officers of Health, Professor Kelly, the President, said the excess of births over deaths showed a greater diminution in 1890 than at any time during the century, and this could only be accounted for by a decrease in the marriage rate. The public looked upon low death-rates as indicative of healthy districts; but this faith would be shaken unless the returns were more accurate. He advocated a quinquennial census.

Dr. Blackman and Dr. Groves, in papers on Isolation Hospitals, advocated various improvements in the present method of isolation.

Dr. Harris, in a paper on Phthisis, argued that it should be compulsorily treated; but those who took part in that discussion adopted a negative view, contending that more good would be done by medical officers becoming popular educators in matters affecting the public health.

Dr. Newsholme, in a paper on the Condemnation of Meat of Tuberculous Animals, said though the probability of the disease being spread by the eating of the meat was remote, the animal should be destroyed as a precautionary measure.

Several papers were read by sanitary inspectors in a Section devoted to themselves, under the presidency of Mr. Blyth.

In the Domestic Hygiene (Ladies) Section Mrs. Ernest Day, of Worcester, presided.

In the evening a public meeting was held in the Town Hall, when the President of Council, Sir T. Crawford, delivered an address on English Homes.

On the resumption of the Sanitary Congress at Portsmouth on Wednesday, Dr. Notter, Professor of Hygiene at Netley, took the chair, and, dwelling on the danger of cholera in England, warned sanitary authorities to look to crowded areas, or surely there would be a deadly reckoning. After a discussion on Consumption—of which milk, tuberculous meat, and impure air were all said to be causes—a resolution recommending the abolition of ordinary slaughterhouses in towns of more than 20,000 inhabitants and the substitution of public abbatoirs was agreed to. It was also resolved that vaccination ought to be transferred from the control of the guardians to that of the sanitary authorities, with medical officers of health as the agent.

GLANDERS IN LONDON.

A correspondent informs us that arrangements are in progress, and are nearly completed, in virtue of which the London County Council will be enabled by new orders about to be issued by the Board of Agriculture effectually to deal with the prevalence of glanders, and to aim at the arrest of its spread, and, if possible, its total extinction. With this view, it is proposed that, under the authority of the Board of Agriculture, orders shall be issued providing (1) for the compulsory notification of all cases of glanders and farcy, both by the owners and by veterinary surgeons in attendance. (2) That a staff of inspectors shall be appointed adequate for the inspection of all public stables belonging to companies, jobmasters, or others keeping horses for hire; of all places where horses are sold, of knackers' yards, etc.; such inspectors and persons employed under their direction to carry out measures of disinfection, and not being in private practice. (3) It is desired and probable that powers will be given to afford compensation to owners, as in other similar cases. This matter is, however, under the consideration of the law officers of the Crown, with a view to determining whether such powers can at present legally be given. This measure is one of great public importance, and we have reason to believe that as soon as the requisite orders can be issued by the Board of Agriculture, the County Council will be in a position to give early and practical effect to them.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MOBILISATION: THE VOLUNTEER MEDICAL STAFF CORPS.

The regulations for mobilisation for home defence have recently been issued by the War Office, and have excited much interest in military circles. The scheme includes the prospective arrangements for the mobilisation of no fewer than three army corps in case of invasion of this country. In a scheme of this kind, many of the details must of course remain "confidential;" but, on the other hand, it is a distinct advance on anything of the kind which has hitherto been formulated by the War Office. The first army corps is composed exclusively of regulars, but in the second and third army corps the Volunteer Medical Staff Corps is to provide four out of the six bearer companies. In the first attached cavalry brigade a bearer company is also to be provided by the corps. The thus early employment of this special department of the volunteer force must be taken to show how greatly the military authorities would rely upon the Volunteer Medical Staff Corps to render assistance to even the regular forces in case of future hostilities at home. It will be interesting to know what amount of transport is available for the mobilisation. At the recent Aldershot manœuvres an ambulance waggon was in most instances allotted to a brigade.

One British army corps in accordance with medical regulations needs no fewer than sixty ambulance waggons. Are we in possession of this number at the present time?

THE NAVY.

Surgeon W. H. O'Meara has been placed on the Retired List, June 13th. His commission dated from August 21st, 1884.

The following appointments have been made at the Admiralty: Samuel W. Vasey, Staff Surgeon, to the *Nelson*, September 14th; William Tait, M.B., Staff Surgeon to the *Cleopatra*, September 14th; John L. Thomas, Surgeon to the *Invincible*, June 5th; John E. Webb, Surgeon to the *Victoria*, additional, September 9th.

ARMY MEDICAL STAFF.

The leave to England on private affairs, granted to Surgeon-Captain J. S. Edye, who is serving on the Bengal Command, is extended to December 4th.

The undermentioned officers, serving in the Madras Command, are posted to the respective stations specified: Surgeon-Major G. W. ROBINSON, doing duty in the Rangoon District, to the medical charge of the North Station Hospital at Bangalore; Surgeon-Major G. F. POYNDER, doing duty at the Station Hospital at Bangalore, to do duty in the Rangoon District; Surgeon-Captain C. R. WOODS, M.D., doing duty in the Rangoon District, to do duty at the Station Hospital at Belgaum; Surgeon-Captain E. O. WIGHT, doing duty in the Myingyan and Mandalay Districts, to do duty in the Secunderabad District; Surgeon-Captain C. W. JOHNSON, M.B., doing duty at the Station Hospital at Belgaum, to do duty in the Rangoon District; Surgeon-Captain C. DALTON, doing duty in the Secunderabad District, to do duty in the Myingyan and Mandalay Districts.

Surgeon-Lieutenant-Colonel A. L. BROWNE, M.D., who is serving in the Bombay Command, has leave to England for six months on medical certificate.

The death is announced of Surgeon-General H. B. HASSARD, C.B., on July 2nd last. He was appointed Assistant-Surgeon March 14th, 1851; Surgeon January 26th, 1858; Surgeon-Major March 14th, 1871; Deputy Surgeon-General February 13th, 1879; and Surgeon-General November 20th, 1884. He quitted the service on retired pay November 29th, 1888. He served in the Kaffir war, 1851-53; horse shot in Waterkloof (medal); also in the Hazara campaign of 1868, including the expedition against the tribes in the Black Mountain (medal with clasp); and in the Afghan war, 1879-80, with the Cabul Field Force (C.B., medal). Previous to retirement he filled the position of Principal Medical Officer in Ireland. He was nominated a Companion of the Order of the Bath February 22nd, 1881, and was awarded a reward for distinguished and meritorious service in 1888.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month;

		From		To
Surg.-Colonel	F. H. Welch	Cork		Devonport.
Surg.-Lieut.-Col.	J. Riddick	Colchester		India.
,,	H. Stannard	Bengal		Kilkenny.
,,	W. Finlay	Aldershot		Home District.
,,	F. E. Barrow	—		Cork.
Surg.-Major	J. G. W. Crofts	Home District		Colchester.
Surg.-Captain	J. H. A. Rhodes	Belfast		Curragh.
,,	A. M. Davies	Netley		India.
,,	T. E. Noding	Devonport		Woolwich.
,,	A. F. Russell, M.B.	Aldershot		Gibraltar.
,,	T. A. P. Marsh	,,		,,
,,	E. V. A. Phipps	Colchester		India.
,,	R. H. Firth	Dover		Netley.
,,	S. R. Wills	Chester		Burnley.
,,	R. G. Hanley, M.B.	Curragh		Bombay.
,,	J. H. Daly	Birr		Curragh.
,,	C. G. Woods, M.D.	Gosport		Portland.
,,	P. J. R. Nunnerley	Stafford		Salford.
,,	J. R. Burrows, M.D.	Dublin		Fermoy.
,,	T. Browning	Cork		Limerick.
,,	G. T. Rawnsley	St. Lucia		Jamaica.
,,	T. J. Lenehan, M.B.	Curragh		India.
,,	J. C. Jameson, M.B.	Kilkenny		Cork.

The newly appointed Surgeon-Lieutenants, namely—Harry Alexander Hinge, James Gibson McNaught, M.B., Hubert Alaric Bray, Thomas McDermott, M.B., Edward Wheeler Slayter, M.B., Hugh Stanley Thurston, Lancelot Paxton More, M.B., Charles O'Connor Hodgens, Arthur Frederick Tyrrell, William Phayer Ryall, Theophilus Percy Jones, M.B., George Stanley Walker, M.B., William Johnson Smyth, M.D., William Douglas Erskine, M.B., Albert George Thompson, M.B., Alexander Jasper Chambers George Abraham Moore, M.B., Richard Crump Lewis, Reginald Francis Edmund Austin, Henry William Hutchinson O'Reilly, M.B., Nicholas Marder, Edgar Hunt Condon, M.B., Gerald Stewart Mansfield, M.B., Frederick George Faichnie, and Harold William Kingcombe Read, are stationed at Aldershot.

INDIAN MEDICAL SERVICE.

SURGEON-MAJOR C. R. SWAINE, M.D., Madras Establishment, medical officer 2nd Infantry, Hyderabad Contingent, is appointed to officiate as Sanitary Commissioner, Hyderabad Assigned Districts.

Surgeon Lieutenant-Colonel J. H. NEWMAN, M.D., Bengal Establishment, took over charge of the office of Residency Surgeon and Chief Medical Officer in Rajpootana on August 1st.

Surgeon-Major G. SHEWAN, Bengal Establishment, officiating Civil Surgeon of Balasore, is appointed to officiate as Civil Surgeon of Shahabad during the absence of Surgeon-Major R. Macrae.

Surgeon-Captain W. G. THOROLD, Bengal Establishment, Civil Surgeon of Kheri, on return from privilege leave, is appointed to officiate as Civil Surgeon of Goruckpore.

Surgeon-Captain J. SMYTH, M.D., Madras Establishment, is appointed to act as Superintendent of the Lying-in Hospital at Madras, and as Professor of Midwifery Madras Medical College.

Surgeon-Captain E. H. WRIGHT, Madras Establishment, is appointed to act as Resident Surgeon at the General Hospital, Madras, and as Professor of Pathology Madras Medical College.

Surgeon-Lieutenant R. K. MITTER and Surgeon-Lieutenant R. A. YEATES, both of the Madras Establishment, have passed the examination, the former in Persian by the lower standard, the latter in Hindustani by the lower standard. Surgeon-Lieutenant Mitter is ordered to do duty in the Rangoon District, and Surgeon-Lieutenant Yeates to do duty in the Myingyan and Mandalay Districts.

Surgeon-Captain W. MOLESWORTH, Madras Establishment, is appointed to the medical charge of the Detachment of Native Infantry and the Station Hospital at Port Blair.

The undermentioned officers have been granted leave of absence as specified: Surgeon-Major K. M. DOWNIE, M.D., Bengal Establishment, 29th Punjab Infantry, for six months, on medical certificate; Surgeon-Major J. MORAN, Bengal Establishment, Civil Surgeon of Goruckpore, privilege leave for three months from September 1st; Surgeon-Lieutenant Colonel R. CALDECOTT, Bombay Establishment, medical officer 2nd Central India Horse, for six months, on private affairs; Surgeon-Major H. P. JERVIS, Bombay Establishment, for six months in extension, on medical certificate; Surgeon-Lieutenant-Colonel C. LITTLE, M.D., Madras Establishment, Sanitary Commissioner, Inspector-General of Dispensaries, and Superintendent of Vaccination in Hyderabad Assigned Districts, to Europe for twelve months, on medical certificate, in anticipation of the sanction of the Government of his own Presidency.

Surgeon-Lieutenant W. C. SPRAGUE, M.D., Bombay Establishment, is appointed to act as Civil Surgeon of Dhoolia, and took over charge of Dhoolia Gaol on August 4th.

MEDICAL PRECEDENCE AT MESS.

LIEUTENANT-COLONEL, ROYAL SURGEONS, writes to an Indian contemporary: I would beg to disclaim any sort of wish to infringe on the combatant officers' right to order a march past or command a charge, or in any way interfere with their duties or privileges; but if a medical officer who happens to be the senior dining member of a native regimental mess is to be considered incompetent to order the band to play an extra tune after dinner because mess is a parade—which a second lieutenant, who might be his son, could legitimately command—all I can say is that the presence of medical officers should not be made compulsory at mess parades any more than at other military parades of the regiment. A regimental medical officer of twenty years' service has to contribute a larger sum to the cost of mess entertainments than the commanding officer, no matter what his rank may be; and if a medical officer is to be debarred from the slightest act of authority in a mess, it is manifestly unfair that he should be made to contribute to its expenses. The introduction of the station hospital system for native troops.....with regard to messes would simplify the question greatly, and the sooner it is done the better.

*** The old proverb that he who paid the piper had a right to call the tune does not apparently hold in that exceptional institution called a military mess. The "doctor" in a native regimental mess pays handsomely, especially if senior, to regimental funds, but at mess must beg the nearest boy subaltern to order an extra tune! The hierarchs who framed the Queen's Regulations upon which this liberal and enlightened ruling rests do not apparently see where the joke comes in, which is in the appropriation of the "doctor's" money according to his nominal military rank for the upholding of mess and bands! No doubt if medical officers were altogether cut adrift from messes the terrible rank difficulty would be solved. But we strongly object to any such solution; the medical officer must not be severed from the amenities of military life as a sop to unworthy and childish combatant prejudices. His military status must be acknowledged in an open and manly way as the true and proper solution of his precedence at mess and elsewhere.

THE NEW TITLES TO RETIRED OFFICERS.

I. V. R. C. writes: I read with great regret the refusal to extend the new titles to retired officers. I sympathise with these officers, the vast majority of whom have done good service to the State, and to whom the gift of the new title would be a cheap but valued boon. Have they not aided us most materially in our fight? There can be no question that those "liable to recall" should have them at once, but everyone who has retired since the warrant of 1877, which gave command power to the medical service, has "a just title to a just title." I feel much for the surgeon-lieutenant-colonel who retired with the misleading title of surgeon-major. Surely a way can be found to do justice to these officers. Their title was absolutely wrong while in the service, why not make it right now?

*** We very thoroughly sympathise with what our correspondent says. We suppose the want of precedent to give retrospective action to such a part of the warrant stands in the way. How easily can precedent be found or created when there is the will to do it.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE L.M. COOMBE HOSPITAL, DUBLIN.

CORRESPONDENT writes: Will you kindly let me know if an unqualified assistant holding the L.M. of Coombe Hospital, Dublin, can attend midwifery on his own account. It has been the custom until recently for such assistant to attend his own engagements and have the whole fee. If in difficult cases or a case likely to die, he called in his principal, would it be considered by the General Medical Council "covering"? Is it customary for registrars to accept certificates from a man holding the L.M. in cases of death in midwifery, or what legal status does the L.M. of Coombe Hospital, Dublin, give a man?

*** In answer to "Correspondent," there is no law to prevent the person referred to attending midwifery on his own account just as a midwife might do, nor has such a case as that suggested, so far as we know, been hitherto regarded by the General Medical Council as one of "covering." Registrars only accept certificates from persons professing to be qualified medical men. The title referred to has no legal status! We have no knowledge whether registrars ever accept certificates from persons having no other title.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, SEPTEMBER 17TH, 1892.

THE VIBRIO OF ASIATIC CHOLERA.

II.

From the publication of Koch's application of the method of cultivating microbes on gelatine and other solid media in order to effect their separation, dates the immense development of bacteriology that has occurred in recent years. Before this time, no one, unless he had the genius of a Lister or a Pasteur, could hope to obtain valuable results. Since then anyone who has a sufficiency of perseverance has been able to make discoveries—if for no other reason, because he is in a position to discover his own mistakes. The method referred to is, in its general principles, simplicity itself. Its application to the discovery of the cholera microbe may roughly be described as follows:—A minute trace of the rice water contents of the intestine of a cholera patient is added to some meat jelly which has previously been liquefied by warming it to the temperature of the body. The mixture is poured out on to a glass plate, and allowed to solidify. Each of the many microbes that was contained in the rice water employed is thus fixed in position on the glass plate, and presumably at some distance from its neighbours. The glass plate is kept at the temperature of the room, and after a day or two each of the microbes will have developed, producing a cluster or colony that is clearly visible to the naked eye. Each colony will obviously consist of one species of microbe. The colonies produced by different kinds of microbes will vary in appearance, and often a microbe can be identified by the naked eye appearance of the colony it produces. In plate cultures made in this way Koch was able to identify and separate a microbe that was generally present in preponderating numbers, having characters which clearly defined it from other microbes, and that has since then become famous as the vibrio of Asiatic cholera.

At the time of its first discovery in 1883, this microbe was described as a slender bacillus. Only on his return to Europe, when superior means of observation were at his disposal, was he able to show that the form of his cholera bacillus differed from that of all other then known bacilli in being that of a curved and not a straight rod. Since then many other microbes have been described possessing this characteristic curved form, and they are now commonly placed in a separate genus with the designation vibrio. The name "vibrio choleræ Asiaticæ" has now replaced the older and somewhat inaccurate term "comma bacillus."

The members of the genus vibrio are extremely similar, and have frequently been confounded with the cholera vibrio. Miller in 1884 described a vibrio found in the mouth of healthy individuals. The same microbe was also isolated by Klein and Lewis, and asserted to be identical with the cholera vibrio. Only a more minute examination of the characters of the latter served to show the distinctness of these two species of vibrio. In 1885 Finkler and Prior described another vibrio associated with European cholera which was also at first supposed to be identical with Koch's vibrio. The vibrio found in 1885 by Deneke in old cheese, and the vibrio Metschnikovi described by Gamaleïa in 1889, are other members of this genus. The cholera vibrio is distinguished by the appearance of its growth in gelatine and by various biological characters. Among these may be mentioned the production of the so-called "cholera red." In 1885 Brieger observed that, on addition of a mineral acid to a cholera growth in gelatine, a red colour is produced which at the time was considered to be characteristic of the cholera vibrio. Since then many other microbes have been found to exert this action, and the colour has turned out to be merely due to a simple indol reaction. But this colour can be obtained with greater intensity and sooner after inoculation of the culture with the vibrio of cholera than with other members of the genus.

A very interesting character of the cholera vibrio is its nitrifying power. Frankland in this country, and Wynogradsky in France, have recently described certain minute bacilli or cocci which are found in the soil, and which possess the power of oxidising ammonia to nitrates. These nitrifying bacilli no doubt play an important part in rendering the soil fit for the growth of plants. The possession of this power by the cholera vibrio may be regarded as an indication of its fitness to exist in the soil, and thus to lead a non-parasitic mode of existence. The other species of vibrio only possess this nitrifying power to a very slight extent.

For some time after the discovery of the cholera vibrio an almost uniform failure attended the many efforts that were made to reproduce by its means a choleriform disease in animals. The belief arose that the cholera microbe, like the microbes of leprosy, etc., was exclusively pathogenic to human beings. But in 1885 Koch, Ermengem, Doyen, Nicati, and Rietsch, succeeded in producing by means of it a disease in guinea-pigs after the general health of these animals had first been lowered by the administration of opium, alcohol, or other substances.

It is only recently that Gamaleïa and Haffkine, working independently and by different methods, have succeeded in producing a true cholera in dogs and rabbits—not by first lowering the resistance power of the animal, but by the employment of a culture of the cholera vibrio that has been artificially increased in virulence. Perhaps methods similar to those employed by the above-mentioned savants may in the future enable us to reproduce in animals typhoid and other diseases which hitherto have been the exclusive and unwelcome property of suffering humanity. Such experiments would have a more than purely scientific interest, for they would open up the possibility of the production of protective vaccines which could be used for the benefit of mankind.

Already the discovery of methods of transmitting cholera to animals has led to the discovery of different methods of protective inoculation against the disease. It would be strange, indeed, if none of the very dissimilar methods of producing immunity against cholera employed by Brieger,

Kitasato, Wassermann, Klemperer, Gamaleïa, and Haffkine should turn out to be applicable to human beings.

Cunningham, it will be remembered, who had extended opportunities of making observations on cholera patients, has come to conclusions which widely differ from those of other bacteriologists. Instead of one cholera vibrio, he finds that there are ten or a dozen different varieties. He finds that they show considerable differences in their mode of growth on different media, and that these varieties remain constant when taken from one culture tube to another. For such reasons he thinks that these varieties should be regarded as distinct species. It is not reasonable to suppose that cholera is caused by a dozen distinct species of microbe. It may be due to none of them. There is no reason for thinking that any one of the dozen species is more likely than another to be the chosen vessel of wrath, therefore it is probable that none of them is worthy of this distinction.

Unfortunately the validity of this argument depends on a negative result, and in no science are negative results more untrustworthy than in bacteriology. Dr. Cunningham has failed to change one variety into another, therefore he argues they are separate species. He does not even seem to have attempted to produce this change by any of the many methods that seem likely to lead to such a result. For such reasons Dr. Cunningham's negative results are of no value beside the positive results of those authors who have succeeded in producing a choleriform disease in animals by means of the cholera microbe. More than one of the members of the genus vibrio is known to be variable in appearance even to a greater degree than the diphtheria bacillus, and it is no wonder if more or less permanent varieties of the cholera microbe should occur in Nature.

The question of how the cholera microbe manages to escape the action of the acid of the gastric juice is now in our opinion of primary clinical importance. We should, therefore, like to refer our readers to an interesting paper by Professor Matthew Hay, which was published in the BRITISH MEDICAL JOURNAL some years ago.[1] Professor Hay shows that the reaction of the empty stomach in cats is alkaline, and that considerable quantities of liquid can be swallowed without any change in its reaction. Only solid foods can furnish the stimulus necessary for the acid secretion.

Ewald has made similar experiments in man by removing portions of a previously swallowed liquid at intervals by means of a stomach tube. He thus found that the liquid had a neutral or alkaline reaction so long as it remained in the stomach. Obviously, then, under such conditions, the cholera microbe might readily pass through the stomach unharmed. The moral to be drawn from such experiments is that it is well during a cholera epidemic to avoid drinks between meals. These experiments while strongly favouring the use of acid drinks as a preventive of cholera and in the treatment of the preliminary diarrhœa and earlier stages of choleraic infection, as urged by Mr. Ernest Hart in his recent addresses, may also perhaps be regarded as a justification of a belief prevalent among the laity that one should not venture with an empty stomach into the neighbourhood of infectious cases. It is unfortunate perhaps that this side of the question did not present itself to the minds of those who drew the rather feeble memorandum issued this week by the London College of Physicians.

[1] BRITISH MEDICAL JOURNAL, March 13th, 1886, p. 484.

THE WORK OF THE LATE ADMINISTRATION AND THE NEXT.

III.[1]—THE ARMY MEDICAL SERVICES.

The Army Medical Service: Abolition of Honorary Rank: Discontent in the Service: Proceedings of the Parliamentary Bills Committee of the British Medical Association: Camperdown Committee: Questions in Parliament: Representations of the Colleges: Royal Warrant of August, 1891.

IT has been the fate of the Army Medical Service for years to come into collision with successive Governments, and the last Administration unfortunately proved no exception. We may safely say that in these recurring conflicts it has found little to choose in good or evil between opposing political parties, because those in power, when dealing with the doctors, were always largely influenced by the traditional jealousy and unfriendliness of dominant military officialism towards the department.

We have before insisted that in every controversy over their military status and titles the medical officers were never the primary aggressors, but initially always on the defensive. They have repeatedly had to resist open or insidious, designing or simply stupid, attempts to lower or altogether take away their rightful position as officers of an important integral portion of the army. The recent controversy, which was begun in 1887, as will be apparent on review, has been eminently one of defence against gratuitous aggression. Shortly after Mr. Stanhope's accession to office, he found it necessary, in reorganising the Army Supply Departments, to abolish relative rank in them; but in so doing he swept that rank clean out of the Pay Warrant of January, 1887, forgetful or heedless that, such being the only rank possessed by the Medical Department, it was thereby left absolutely rankless.

We are quite willing to believe, as Mr. Stanhope's explanation intimated, that this *coup* was effected without any deliberate intention of injuring medical officers, but rather from sheer indifference, as if they were of no account. When the department awoke to the position which the sudden, unceremonious, and still unexplained abolition of relative rank had left medical officers, great was the indignation. This immediately and naturally, owing to our part in connection with the procuring of army and navy medical warrants, found expression in communications to the Editor of the BRITISH MEDICAL JOURNAL and the Chairman of the Parliamentary Bills Committee of the British Medical Association. Their sentiment of indignation and dismay was, however, at first treated with an affectation of incredulity and indifference by official persons, not excluding some of those high in office in the headquarters of the department itself.

In vain, however, did Mr. Stanhope, misled by his military advisers, belittle the agitation, and declare that, as relative rank never had any meaning, its loss inflicted no injury on medical officers; in vain, also, did his henchmen assure him that the agitation was the work of a few, of whom Mr. Ernest Hart had inconsiderately made himself the mouthpiece, and that the great bulk of the medical officers were content and felt no grievance. Well aware from the number and wide area of the remonstrances addressed to him that these official assurances were gross misrepresentations, the Chairman of

[1] The articles of the series already published have appeared in the BRITISH MEDICAL JOURNAL of August 20th, p. 423; and August 27th, p. 573.

the Parliamentary Bills Committee issued circulars to medical officers of all ranks, setting forth in alternate propositions questions and proposals as to the military rank and titles considered necessary for the due performance of duty, and for placing medical officers on a fair military equality with the other reconstituted army departments. The analysis of the answers thus obtained gave the broad result that three-fourths of the whole were anxious for definite army rank and military titles, and only 5 per cent. for the *status quo*.

The Committee, early in 1888, placed the results of the analysis before the Secretary of State for War, and urged his earnest attention to the position of affairs. But when subsequently questioned thereon on their behalf by Dr. Farquharson in the House of Commons, he again, doubtless on short-sighted advice, simply condemned "collective action on the part of medical officers," declining, also, at the time to listen to the statements of a civilian body on behalf of their military brethren. But despite of such ill-judged efforts to stifle discussion, the tide of discontent rolled on and gathered volume, chiefly through the columns of the British Medical Journal during 1888; so that, early in 1889, Mr. Stanhope found it expedient to institute a committee, under Lord Camperdown, to report on the "pay, status, and conditions of service of the medical officers of the army and navy."

It was at the time pointed out there was no occasion to drag in the naval service, which had not shared in the agitation; and this view was found to be correct in the light of the Committee's report. Although the medical services had no direct representatives on the Committee they found two in the able retired officers nominated for it by the Royal Colleges of Physicians and Surgeons. Evidence was led from officers of all branches of the service, as well as from permanent officials. The Report and recommendations of this Committee were finally presented to Parliament in August, 1889, and may be summarised as follows: Pay, retired pay, and rules of retirement were no more than adequate, and could not be safely or honorably interfered with; relative rank in a Royal Medical Staff to be restored, with consecutive compound titles, from surgeon-lieutenant to surgeon-major-general; sick leave to be the same for medical as for combatant officers; foreign tours not to exceed five years consecutively; the financial advantages of warrants to be extended, as far as practicable, to India; certain conditions of entrance and examinations for promotion to be modified. The Committee also stated that the rank of medical officers should be clearly stated on their commissions, and in all regulations; and Royal warrants should not be issued altering military status or position without the official representatives of all classes of officers affected being consulted.

Months passed before any definite information was extracted how these important and weighty recommendations were to be dealt with. At last Mr. Stanhope informed Dr. Farquharson, who put the question on behalf of the Parliamentary Bills Committee in the House in March, 1890, that he did not propose to give effect to recommendations involving expenditure, and, "as regards the recommendation to confer combatant titles on medical officers, I find that my military advisers are unanimously opposed to it;" also, "he did not intend to publish the evidence."

The opinion of his "military advisers" on the subject was indeed no news, for the opposition to giving medical officers any military status at all had been already stated, considered, and over-ruled by the Committee; but the surprise was that Mr. Stanhope elected to be guided by such prejudices, against the unbiassed and independent opinion of his own Committee, before whom they had been fully heard.

On March 15th, 1890, we were enabled to publish Mr. Stanhope's official decisions on the individual recommendations, which amounted practically to the rejection of everything vital on the question of rank. Even the financial application of warrants to India was declared "a matter for India"—a dictum which we distinctly traversed, and now hold to be untenable. It was then clear that the hostile military party had the upper hand, and were determined not merely to reject the recommendations of the Committee and the claims of medical officers, but to flout the entire medical profession. But later on, when the Army Estimates came before the House, a wiser spirit and policy was happily noticeable, and Mr. Stanhope consented to produce, although not to print, the wished-for evidence given before the Committee, which, with his permission, was forthwith published at the expense of the British Medical Association. It revealed, in a very offensive form, the determined and unreasoning hostility of the "fighting caste" military party to the plainest equitable claims of medical officers to suitable military status, and even a reckless desire almost to cut them adrift from the army, rather than acknowledge any official approach to equality. But there were honourable exceptions, such as in the person of that distinguished and enlightened general officer, Sir Donald Stewart, whose wide and varied experience saw no difficulty in granting his medical brother officers all necessary military status and titles.

The controversy from this time assumed a wider public aspect; the medical colleges and schools of the kingdom were approached, and their moral support was asked and given. Some of these went to the root of the matter, and declared that as it had been determined to set aside the recommendations of Lord Camperdown's Committee, no full settlement was now possible until the Medical Staff was formed into a corps with its own men like the Royal Engineers, and officers thereof having purely military rank and titles for all purposes except general command; such a step would only be following the example of many of the great military powers.

In the end, Mr. Stanhope consented to receive in July, 1890, a very influential deputation from the Colleges in support of the claims investigated by the Camperdown Commission and broadly accepted by the department. They forcibly laid before him the gravity of the position which had been brought about, and received the courteous reply that he would reconsider matters, and be prepared to receive further communications through Sir Andrew Clark, Bart. Meanwhile, the Chairman of the Parliamentary Bills Committee had brought the question anew in all its bearings before the whole of the members of the House of Commons, and before the professors and students of the schools.

During succeeding months an interesting correspondence passed between Sir Andrew Clark and Mr. Stanhope, and was published in our columns. From this it was evident that the latter was preparing to recede from the *non possumus* attitude which had been unwisely thrust upon him by his military advisers. We now wrote: "It is impossible for any unprejudiced person to read the correspondence without being

convinced that the medical officers' claims are well-nigh unanswerable."

Although Mr. Stanhope was not prepared to form a consolidated Medical Corps, his attitude of conciliation was such that all parties felt the controversy should be closed in the spirit of compromise. Accordingly, on August 10th, 1891, a Royal Warrant appeared, giving the compound titles, and with the following important provision: "The substantive ranks of Our Medical Staff . . . . shall carry precedence and other advantages attaching to the rank indicated by the military portion of the title."

Sick leave was conceded on the same terms as to combatants. Pay and retirement was unaltered, except that in the upper ranks three years' service was required before voluntary retirement could carry the pension of the rank. The Warrant was ultimately extended to the Indian service and to the auxiliary forces as far as applicable.

Thus ended a controversy forced on the medical service, yet happily ending in a distinct step forward. In any general retrospect we feel bound to express thanks to Mr. Stanhope for the ultimate concessions he made, and to express the belief that, had he been left to his own fair-minded action, the questions at issue would have been met and settled long before they were.

The final goal of the medical service towards a unified autonomy has not yet been reached, but a road has been opened to it. While thankful for what has been achieved, not a little yet remains to be done in order to bring previous and still existing rules and orders into harmony with the recent Warrant, as well as to give effect to certain recommendations of the Camperdown Committee which have thus far been ignored.

We propose to direct attention to omissions and defects in the conciliatory but firm spirit which we have always held to be the proper temper in which to approach and discuss such subjects.

THE Ontario Medical Association (Upper Canada) has, a correspondent informs us, admitted lady practitioners of medicine for the last two or three years, to the membership of the Association.

IT has now been definitively decided that the Eleventh International Medical Congress shall be opened on September 24th, 1893, and continue its sittings till October 1st. All communications relative to the Congress should be addressed to the Segretaria Générale del' XI. Congresso Medico Internazionale, presso la Clinica Medica, Ospedale di Pammatone, Genova.

THE Indian Government has recommended that Dr. Cunningham, Professor of Physiology in the Medical College, Calcutta, who has been for a considerable time engaged in an investigation as to the origin of cholera, with special reference to the comma bacillus theory, should be allowed a further period of two years to complete his researches. We gather, however, that the Government has not thought fit to excuse him from the duties of his chair during that time.

WE understand that Dr. Adami, Fellow of Jesus College, Cambridge, has been appointed Professor of Pathology in the University of Montreal, Canada. The office carries a salary of £800 a year. In losing Mr. Hankin and Dr. Adami, Cambridge loses two of its ablest bacteriologists of the younger school. While congratulating the University and its professors on furnishing so liberal a supply of accomplished young biologists to India, Canada, and Australia, we cannot help regretting the absence of any institute of preventive medicine, or of any adequate public post or institution in this country in which our bacteriologists can find scope for their abilities and reasonable remuneration.

SIR RICHARD OWEN.

WE are informed that there is very little change this week in the condition of Sir Richard Owen. He is entirely confined to his bed, and takes only small quantities of liquid nourishment. There is, however, evidence of progressive weakness and cardiac irregularity, which, at his advanced age, are not hopeful symptoms.

THE CONGRESS OF DERMATOLOGY.

THE International Dermatological Congress which brought its proceedings at Vienna to a close on September 10th, has decided to hold its next congress in London in 1895, when Mr. Hutchinson is to act as president. The members of the congress went in the evening to Pesth, where they were splendidly received. Their inspection of hospitals and scientific institutions of that capital will alternate with various festivities, the visit occupying altogether three days.

THE CHOLERA VIBRIO IN LIVERPOOL.

A WELL-KNOWN observer writes to us: "I recently examined a patient at Liverpool at a moment when England was officially declared to be free from cholera, and by bacteriological and microscopical examination I have evidence that the case was one of Asiatic cholera. The serious part of it is that the man, a Russian from Hamburg, was thirteen days in Liverpool before he was taken ill." We shall next week publish drawings and photographs of the cultivations believed to afford evidence of the specific character of the disease, and also a microphotograph of the vibrios.

A QUART A DAY FOR DRINKING AND WASHING.

THE victualling scale of allowance of fresh water upon ships, more especially on board British sailing vessels, should, obviously according to Dr. Collingridge, be considerably increased. As it at present stands it amounts only to three quarts a day for each man, of which two quarts are handed over to the cook for tea, coffee, soup, etc., leaving one quart only for drinking and washing purposes.

REASONS AGAINST NOTIFICATION.

SOME very odd reasons are often given by minor local bodies for not bringing into effect the Notification of Infectious Diseases Act. The reasons given by Mr. Symons at a meeting this week of the Rural Sanitary Authority of Penzance are remarkable, and perhaps unique. Nevertheless, that sufficed to induce the authority to refuse to adopt the Act by a majority of two votes. Before long, no doubt, all local authorities will be compelled by Parliament to bring the Act into operation. Mr. Symons is reported to have said "he thought it was quite unnecessary, because they were a rural sanitary authority. It might be necessary in a town where they were visited by foreign ships. To adopt that Act was a reflection on their inspector. They were told that the total cost was half-a-crown for certificates, but it was only the thin end of the wedge, and they did not know how far it might be driven."

THE TOILET WATER-BOTTLE.

PEOPLE in Hamburg have become—rather late in the day—so scrupulous that, after having for years drunk with indifferent temerity the foully polluted Elbe water, half filtered or

unfiltered, it is now announced by Mr. Fielders, that the Hamburg physicians are urging the people to cultivate the virtue of cleanliness "on common sense lines"—and to bathe and wash only in boiled water, and brush the teeth and cleanse the mouth with Apollinaris water. As to the last precaution, it may be remembered that a year or two since an eminent hospital physician gave an emphatic public warning against the danger of the toilet water-bottle, which is often filled by the Continental and even the British housemaid from sources not considered suitable for ordinary drinking water, and which thus becomes an unsuspected danger.

IMPRISONMENT NO CURE FOR INEBRIETY.

The value of our present judicial procedure with inebriates as reforming and deterring was certainly not demonstrated at the North London Police Court on September 8th. A poor old woman, aged 60, was charged with drunkenness in the streets for the 251st time. She was found drunk on the very day on which she was discharged after her last term of imprisonment. The magistrate, evidently satisfied that 250 doses of incarceration without any improvement was an exhaustive trial of this remedy, did not sentence her to another term, but remanded her whilst he sent her list of convictions to the Lunacy Commissioners. It is to be hoped that the Commissioners will be able to seclude her; but this is doubtful. The law does not yet recognise such a record of convictions as an evidence of insanity. Had there been an Act in force for the compulsory detention of habitual drunkards—as there ought to have been long ere this—no difficulty would have been experienced in dealing with this case, which is but a type of many others.

THE FEAR OF THE LORD AND OF THE LANDLORD.

The low death-rate of London this week and last reflects in no small degree the special activity of the local authorities and of the citizens of London in adopting ordinary sanitary precautions and vigorously enforcing the provisions of the Public Health Acts. We are anticipating a similarly happy result from the unwonted activity of local sanitary boards all over the country, due to the fear of cholera. But why should this be only a spasmodic and temporary activity? Mr. Ernest Hart, in his address at Toynbee Hall on Saturday night, addressed to the local authorities and inhabitants of the East End of London, observed that if, as Whitfield preached, "'Cleanliness is next to godliness," there was reason to think that the local authorities were treading with quickened footsteps in the path of godliness; but there was also reason to fear that if they were actuated in their proceedings by the fear of the Lord, they were also much influenced by the "fear of the landlord." The filthy overcrowded slums of the East and West, North and South of London, of which the proceedings this week at St. Giles's afford one out of many examples, bear testimony to this. It is so throughout the country. We give examples, taken at random, this week, from a few out of a hundred or more cases brought under our notice, in which well-known plague spots and foci of disease have been left undisturbed till the last week or two. So long as medical officers of health have no security of tenure, but are appointed at small annual salaries, dependent upon the goodwill of bodies often largely made up of persons directly or indirectly interested in bad house property, this dangerous state of things will continue. If the fear of cholera is to leave permanent traces, it should lead to a remodelling of much of our sanitary administrative system.

BACK-TO-BACK HOUSES IN LEEDS.

It would seem that, though the jerry builder has had much of his own way of late years in erecting dwellings of this objectionable class in the North of England, there are a few sanitarily righteous souls even in Leeds. The owners and occupiers of property in Louis Street in that town met the other day to take measures to prevent the invasion of their precincts by buildings of this kind. It was explained that an understanding existed between the ground landlord and property owners that only buildings of a certain rental should be erected on this estate. While sympathising with those who thus object to back-to-back houses in their own immediate neighbourhood, we hope their sanitary consciences will not be satisfied with anything less than a "complete block" to the whole system of building dwellings, which, in the nature of things, cannot admit of adequate ventilation. We are glad to note that according to the *Yorkshire Post* Councillor C. H. Wilson was prominently concerned in the promotion of this meeting of protestants. We trust he will carry his protestations to the Town Council, who, as the sanitary authorities for Leeds, allow the speculative builder so much latitude in the erection of unhealthy houses. Leeds and Bradford are now we believe the only large towns whose rulers permit them. Surely the artisan class in the trade metropolis of the north are as well able to pay for through houses as their brethren in Manchester and Salford, in Birmingham and in Liverpool.

CREMATION.

The German cremationist societies held their annual congress last week at Baden. The report laid before the congress showed slow but steady progress, not only in Germany, but in most other countries. Resolutions demanding further facilities for cremation, and setting forth its hygienic advantages, were passed, and it was decided to communicate them officially to the different Governments, and notably to the Senate at Hamburg. Sir Spencer Wells writes to the *Daily Graphic*, enforcing the views expressed by Mr. Ernest Hart's lecture at the National Health Society, at which he presided, and strongly urging the practice of cremation, and pointing out its special value in times of epidemic cholera and other zymotic disease. Mr. Seymour Haden suggests in the public papers the fantastic idea that the cholera germ would not support burial 4 feet below the earth.

MEDICAL INSTRUCTION AT FEVER HOSPITALS.

The Metropolitan Asylums Board have issued the following notice to students: A course of instruction in the diagnosis and treatment of fevers will be held at each of the undermentioned hospitals, as follows: Eastern Hospital, The Grove, Homerton, E. (Dr. E. W. Goodall, Resident Medical Superintendent), on Tuesdays and Fridays at 10.30 A.M., commencing Tuesday, October 4th, 1892. Western Hospital, Seagrove Road, Fulham, S.W. (Mr. R. M. Bruce, Resident Medical Superintendent), on Tuesdays and Fridays, at 11 A.M., commencing Tuesday, October 4th, 1892. North-Western Hospital, Haverstock Hill, N.W. (Dr. W. Gayton, Resident Medical Superintendent), on Tuesdays and Thursdays, at 11 A.M., commencing Tuesday, October 4th, 1892. South-Western Hospital, Landor Road, Stockwell, S.W. (Dr. F. F. Caiger, Resident Medical Superintendent), on Tuesdays and Fridays, at 11 A.M., commencing Tuesday, October 11th, 1892. South-Eastern Hospital, Old Kent Road, S.E. (Dr. J. MacCombie, Resident Medical Superintendent), on Tuesdays and Fridays, at 11 A.M., commencing Tuesday, October 11th, 1892. Students desiring to attend a course of instruction are required to bring their authority from the Dean of their School to the Clerk of the Metropolitan Asylums Board, Norfolk House, Norfolk Street, Strand, W.C., on any week day (except Saturday) between the hours of 11 A.M. and 4 P.M. The fee for the course of instruction is £3 3s. for two months, and £1 1s. for each month afterwards; and students will be required to observe the rules and regulations laid down for their guidance by the Local Government Board and the Metropolitan Asylums Board.

THE EPIDEMIC OF FEVER AND THE LONDON BOARD SCHOOLS.

As cases of fever have of late been seriously on the increase in London, so much so that the Asylums Board are at present unable to meet the pressure upon their resources, and as it is well known that a number of cases have to be treated at the patients' private residences in London, it has been suggested that it is high time the members of the School Board for London considered the advisability of closing all board schools in London for a time. On the other hand, the medical officer of the London School Board is of opinion that no good purpose would be served by closing the schools, but the reverse, for as the schools draw their children from a limited and densely populated area, a closure means providing facilities for mixing of susceptible children in the streets. It might in the event of an epidemic be advisable in a country school to close it, for there the facilities for mixing are provided by the school, the pupils coming from distant parts. Under the provisions of the Public Health (London) Act it is the duty of the medical officer of health to send a copy of any notification certificate he receives forthwith to the head teacher of any school attended by the children of an infected house. Thereupon the stringent regulations of the Board come into force; the certificate is circulated amongst the heads of the departments of the school, who endorse on the certificate the action they take and forward it to Dr. W. R. Smith. They by the School Board Code are told to exclude all children from infected houses, and not readmit them until a certificate is produced saying that the premises are disinfected. If the medical officers of health perform their part of the duty the School Board authorities in all respects willingly co-operate; and as a rule the new system works admirably.

THE ART AND MYSTERY OF SAUSAGE MAKING.

There is a wide field open to the enterprising maker of sausages who is not overburdened with scruples, and the possibilities connected with his trade are such as to afford material for pleasing speculation among those who combine a leaning to æsthetics and to squeamishness with an affection for sausages. The appearance from time to time of certain unsavoury particulars in the press has, no doubt, helped to maintain a keen interest in the subject. The finding of buttons and of other portions of human attire has been asserted, while there is no doubt that both diseased and rotten meat have been, and probably still are, used by the less reputable members of "the trade." The fact that there have been seizures of such meat upon the premises of certain sausage makers is plainly sufficient to prove the truth of this statement, at any rate, and we have more than once commented upon the absurdly inadequate punishments inflicted in proved cases of the kind, amounting, as a general rule, to the mere imposition of some trumpery fine. It would seem, however, on the authority of a person who writes to the press under the signature of a "Sausage Maker," that there are respectable members of the craft in existence, and that they cannot all be "stigmatised as rogues," while he nevertheless makes the suggestive admission that he would not like to make himself "responsible for all that sausage makers may do." The immediate cause of this gentleman's appearance in a literary capacity was a paragraph headed "A German Sausage Analysed," which went the round of the press. In this it was asserted on the alleged authority of the public analyst for Bermondsey that the German sausage in question consisted of equal parts of bread and fat, and contained no lean meat. This, of course, if true, is a much milder form of fraud than those to which we have referred to above, but it certainly appears to be doubtful whether a sausage so made, even if "made in Germany," would pass muster at all. As the defender of sausage makers says, it seems likely that such a sausage would not "cut firm," and would be detected without much difficulty as a fraudulent production. The use of bread for making sausages is well known, and it is regarded by many authorities as a form of adulteration; but, in the absence of a settled definition of sausages, it is difficult to see how anything could be done under the Adulteration Acts at present in force. That the attention of public authorities and of public officers should be more frequently directed to the noisome proceedings of certain sausage makers would seem to be desirable, if only for the purposes of satisfying the desire of the scientific mind to arrive at truth for its own sake. Some further light would probably be thrown upon the industrial uses of bad and diseased meat which "must go somewhere," and it may be, also, of the flesh of animals not generally accepted as food by civilised man.

THE SALE BY GROCERS OF PROPRIETARY ARTICLES CONTAINING POISON.

Unregistered sellers of proprietary medicines are naturally anxious as to the liability they may incur by the presence of poison in these articles, and we learn from the report of a meeting of the Manchester and Salford Grocers' Association, held last week, that the subject was then discussed in reference to the action that is being taken by the Council of the Pharmaceutical Society under the fifteenth section of the Pharmacy Act to stop the further sale of proprietary articles containing poison by unregistered persons. A letter was read in which one of the members stated that the sale of these medicines is extensively carried on by grocers, in his opinion, with just as much safety to the public as if the chemists had the trade to themselves. He therefore suggested that subscriptions should be sent to the Grocers' Defence Fund now being raised in Liverpool for the purpose of opposing the action of the Pharmaceutical Society. It was also stated, however, that several firms in Manchester had almost made up their minds to relinquish this trade. In the discussion that followed the opinion appeared to prevail that since most of the preparations in question contain poison they could only be sold by registered persons. One speaker said he had a list showing things which might be sold by grocers and the things they might not sell, and he advised all grocers to withdraw from the sale of all medicines that were labelled poison. On the whole, this shows a commendable disposition on the part of grocers to respect the law in regard to preparations containing poison. It would appear that they only require to be informed of the fact that certain secret preparations do contain poison in order to abstain from selling them in future. The obligation of disclosing that fact therefore rests upon the proprietors of the preparations which have hitherto been unlawfully sold by grocers, so that sellers of these preparations may avoid incurring further liability to penalty under the Pharmacy Act involuntarily.

DEATH AFTER AN ANÆSTHETIC.

Dr. C. Norman Hamper, Resident Medical Officer at the North-West London Hospital, forwards us the following notes of the case of a woman, aged 40, who died on the operating table on September 5th at that institution, after the administration of an anæsthetic: About 8 o'clock on the evening of September 5th, the woman was brought to the hospital in a collapsed, though conscious, condition. She was almost pulseless, so ether was injected hypodermically. On examining the right inguinal region an elongated, hard swelling was diagnosed, so I immediately sent for one of the visiting surgeons. Pending his arrival, I learnt that on the 3rd instant she had had a strain, and that she was taken ill almost immediately after. She had vomited ill-smelling (fæcal) matter from the Sunday. On the arrival of Mr. Brodie, one-sixth of a grain of morphine was injected, and, the husband having been interrogated, it was decided to operate. Ether, by means of Clover's apparatus, was at first tried, but, as it caused such violent coughing, it was discontinued, and chloroform (Duncan and Flockhart's) was substituted; but after about five minutes, the patient being anæsthetised, the administration of ether was recommenced, and

was continued for about twenty-five minutes, during which time ether had to be injected twice. At the conclusion of this period the operation, save the stitching of the wound and its dressing, was completed, her pulse and respirations became very weak, and she died fifteen minutes after the anæsthetic had been discontinued. Just before dying she articulated sounds and moved, which, I think, can be construed as returning consciousness. The verdict was understood to be "Death from misadventure," the jury regretting that the patient was not earlier subjected to treatment, but attaching no blame to the hospital. Dr. Thomas's attention was drawn to the fact that the patient did not die during administration of the anæsthetic.

A METHOD OF OBTAINING WATER FREE FROM GERMS.

V. and A. Babes[1] refer to the different methods of filtration in vogue for the purification of drinking water, and pronounce them to be one and all failures, as far as the removal of bacteria is concerned. In fact, according to their experiments, water filtered by many of the methods in use actually contains more germs than unfiltered water. Alum has long been employed for the clarification of water, but the authors now direct attention to another property of this substance noted by themselves. Powdered alum is added to water, which is then well shaken and allowed to stand twenty-four hours in a cool place. At the end of this time the water is not only clear but quite free from germs. The addition of alum in large quantity is unnecessary and leads to digestive disturbances. To 20 litres of water 3 grammes may be added. After four or five days' use the vessel is emptied, washed out with sterilised water, and refilled. Water can also be rendered free from germs by addition of sulphate of iron or of chalk-powder and sulphuric acid: in the latter case carbonic acid is given off.

A NEW TREATMENT OF GLANDERS.

The prevalence of glanders among horses in London at the present time makes a communication recently made by MM. Claudius Nourry and C. Michel to the Paris Académie des Sciences[2] of special interest. In view of the close pathological relationship between tuberculosis and glanders, it occurred to these investigators to apply to the latter disease the therapeutic methods which have recently been tried in the case of the former. Two horses presenting all the typical signs of glanders were, therefore, treated in the following manner:—Hypodermic injections of creasote oil (at first of the strength of 10 per cent., then of 25 per cent., lastly of 50 per cent.) were given every hour with the object of causing absorption of the morbid material in the lungs and inflamed glands. In order to check the discharge and ulceration of the pituitary membrane, the nostrils were washed out with a solution of chloride of zinc. In this way the creasote treatment of tuberculosis was combined with the "sclerogenic" method introduced by M. Lannelongue.[3] After two months and a-half of this treatment the two horses appeared to be completely cured. In order to obtain conclusive evidence on the subject both animals were slaughtered, and the reality of the cure was placed beyond doubt. MM. Nourry and Michel add that on speaking of their experiments to M. Bureureaux, who is a prominent advocate of the creasote treatment of tuberculosis in France, they were informed by that gentleman that he had tried injections of creasote oil in the case of an assistant in the Pasteur Institute who had accidentally inoculated himself with glanders virus, but without success.

[1] *Centralbl. f. Bakt.*, July 30th, 1892.
[2] *Revue Scientifique*, August 27th.
[3] See Epitome, September 3rd, par. 210.

SCOTLAND.

LECTURES ON CHOLERA IN GLASGOW.

Under the auspices of the directors of the Glasgow Sick Poor and Private Nursing Association, Dr. J. Lindsay Steven has undertaken to give a short course of lectures on cholera to the nursing staff, many of the members of which are engaged in the work of district nursing amongst the poor of the city. The course has been thought necessary in view of the approach of cholera to our shores, so that the district nurses of Glasgow and neighbouring towns should be in some measure acquainted with the main phenomena of the disease if it should appear in our midst. The first lecture was delivered on Monday, September 12th.

IRELAND.

IRISH DISPENSARY DOCTORS.

There has been a conference of Irish dispensary medical officers in Dublin, and they have asked that a general meeting of the Irish Medical Association should be called at an early date to make preparations for the coming session. We hope there will be a very full representation of the dispensary doctors. The cause is their own, and they cannot expect those who are not directly interested to do all the work. We would advise that the names of the subscribers should be printed. We can then know who are anxious to help, even by a little, the reforms which are so much needed.

IRISH STUDENTS AND THE ARMY MEDICAL SERVICE.

There is a movement on foot amongst Irish students to have the limit of age for admission to the Army Medical Service extended to 29 or 30. The ground upon which the concession is sought is the lengthening of the period of study to five years instead of four. It is pointed out that a large number of men do not begin medical studies until they are 21. Still, a candidate who began medicine at that age ought to be able to pass into the army within the seven years which would remain under the present rules.

DISPENSARY DOCTORS AND THEIR HOLIDAYS.

We are informed that at specially convened meetings of the Croom (co. Limerick) Dispensary Committee and the Croom Board of Guardians, held on August 11th, Dr. Hartigan, medical officer to the dispensary and union hospital, was granted one month's holiday, the board agreeing to pay a substitute to do his work. A notice of motion to disallow the payment of a substitute was withdrawn in view of the large number who attended to support Dr. Hartigan's claim to a holiday.

VACCINATION IN IRELAND.

During the second quarter of the year there were 31,575 persons successfully vaccinated in Ireland, in 2,857 the operation was postponed, and 29 children were reported as insusceptible of vaccination. The deaths of 1,658 unvaccinated children under three months old were registered during the quarter, making a total of 36,119 children, with regard to whom particulars as to vaccination were ascertained.

Dr. Lucien Morisse has been commissioned by the French Government to prosecute the studies in medical geography and climatology and in natural history, which he has undertaken to make in the basins of the Upper Orinoco and Amazon.

The will of the late Mr. Joseph Hobson, proprietor of the Theatre Royal at Leeds, leaves to the Leeds Infirmary £100 a year for ten years, to the Leeds Dispensary £50 a yea for ten years, and smaller amounts to other charities.

THE CHOLERA:

IN THE CHOLERA WARDS AT HAMBURG.

MISS HENRIETTA M. KENEALY, who is acting as a volunteer nurse at the Eppendorfer Hospital, Hamburg, writes under date of September 11th: The state of things in Hamburg, so the papers said, was positively appalling. The city was panic-stricken, the citizens were fleeing in all directions, and a terrible gloom lay over everything. The weather was hot and sultry, and, for some portentous ominous reason, the waters of the Elbe, the primary source of contagion, persistently maintained a temperature some six or seven degrees higher than that of the air. All day long the people shuddered at sight of the ambulance wagons, forty of which plied continuously and quickly, carrying the sick; at night they cowered in their beds at sound of the corpse-laden carts passing from homes and hospitals to the cemetery.

Inside the hospitals, it was said, confusion and an utter inability to meet the demands of the situation reigned. The wards were filled and overfilled with the sick and dying, the air was heavy with groans of pain and exhaustion. In the corridors the dead lay waiting their turn for the dead cart, and through the ward doors, opened to cool and sweeten the poisoned atmosphere, the patients from their beds could see the corpses of their predecessors. And we read that to cope with all these terrors, to minister to all the suffering, the number of doctors and nurses was wholly insufficient—one or two nurses to fifty or sixty patients—and such patients!

We telegraphed to the Director, offering our services. A speedy answer came: "If you speak German, you are mightily welcome." Our knowledge of the Teutonic tongue was as Schiller and Goethe wrote it, but we trusted by aid of dictionaries during our twenty-four hours' journey to increase our vocabulary of unclassical and sick room German, and we wired that we were on our way.

I reached Hamburg at 8 o'clock on Sunday morning, but my sister, shortly after leaving Flushing, was seized with a choleraic attack, which made it nothing short of madness for her to go on. She would not hear of my staying with her, so, after seeing her comfortably installed in a hotel at Osnabrück, and administering several doses of a mixture we had brought with us, which acted like a charm, I left her progressing favourably. She joined me in Hamburg a few days later. Hamburg as I drove along looked serenely quiet, the streets being strangely empty, giving the impression that the inhabitants were sleeping or had gone in a body to church. Several cabmen, on learning my destination, shook their heads and declined to take me; no one, they decided, would go willingly to the Eppendorfer Hospital unless already infected. At last one stolid-looking fellow, to whose inner consciousness the existence of cholera had evidently not yet penetrated, opened his cab doors to me, and I was soon on my way.

It was a clear, cold, autumnal morning, and the only unusual sight I encountered was that of two ambulance carts, one of which was staying at a house whence I saw a patient rolled in a red blanket brought out. This cart soon overtook us, and preceded us to Eppendorfer. At the hospital I was received with the utmost cordiality and kindness, and this most friendly welcome has been extended to us by doctors, nurses, and officials during our stay.

The Eppendorfer is a magnificent hospital; it was built between the years 1884 and 1888, and has all the modern improvements. It stands in beautiful park-like grounds, each ward forming a separate "pavilion." The "pavilions" are connected by roadways through the grounds, these roadways being named like streets, the names indicating the quarters to which they lead. There are forty-nine of these pavilions, each ward containing under normal circumstances from twelve to thirty beds; but just now, when the place is crowded, the numbers are almost doubled.

During the present epidemic the beds are placed so close together that there is only just space enough to pass between. Two children lie in a cot, one at the head and the other at the foot. Babies are put with their mothers, and there is in the ward a young mother with a slight attack of cholera who is nursing her healthy infant. Despite the unavoidable crowding, the sanitary arrangements are so complete, and the ventilation from roof, entrance, and windows so well managed, that the atmosphere is quite fresh. The wards are warmed by means of steam stoves, one at each end, and the whole place, even the nurses' bedrooms, are lighted by electricity. Hot and cold water are laid on everywhere. The instruments, poisons, and emergency implements are kept in a locked glass case in the ward, so that they can be readily got at. There is no matron; the "over nurses" and the nurses are superintended by an inspector, and the house-physician in charge of the pavilion takes the place of sister in many ways. The nurses wear no uniform—no caps, just stuff gowns and aprons according to their taste. During the reign of cholera the doctors wear long linen dustcoats ornamented with large brass buttons. There seems now to be a sufficient number of doctors in the hospital, though more are needed in the city. The only English medical man who has put in an appearance is an Anglo-Indian. Some young doctors have come from Berlin.

Hamburg, as the papers represented, was badly indeed in want of nurses, especially in female wards, the men being attended to by orderlies. Now, however, the staff has been increased by the addition of several sisters from a religious community, and the pressure of work is somewhat lightened. Of the absolute want of system and organisation reported we have seen nothing, though they tell us such did exist in the earlier days of the epidemic, the dead lying outside in the corridors till arrangements for removing and burying them quickly enough could be completed.

Though these cholera wards are sufficiently terrible in the swift succession of deaths, they do not realise all the horrors we were led to believe of them. The dead are quickly removed, and we have never seen them left for any length of time in the wards or corridors. It is somewhat appalling, however, to us, who have been used to see such reverent treatment of death, to witness the brusque handling accorded to cholera corpses. The porters, on receiving notice, come in quickly, dash carbolic solution over them as they lie in their beds, roll them in the sheet, drop them, dripping wet, on to canvas-covered stretchers, and carry them off to the mortuaries. But the number to be disposed of is so great that there is but little time for anything but mere disposal. One has quite a difficulty in remembering one's patients: they succeed one another so rapidly, death or recovery quickly ending their hospital career.

Cholera appears to deal badly with the old and very young. Middle-aged persons suffer severely, but a fair proportion recover; healthy young adults in many instances have it lightly, resembling an average typhoid case, and are not greatly distressed by symptoms. The apathy and insensibility of the patients are remarkable features of the illness, many of them apparently suffering no pain, but lying in a lethargic state, sleeping or comatose, absolutely indifferent to their own condition or that of the patients in the next beds.

The cases which end fatally have a peculiar dusky look, less blue than heart cases, really blackish, especially about the hands and feet. The appearance of these latter resembles gangrene, and yet differs in that there is a shrunken look and no purpling, the flesh tints showing as if through coal dust. This dusky look seems to be very ominous.

In those cases we have seen vomiting has been really a more distressing symptom than diarrhœa, though terrible purging and cramps have characterised a large number. Thirst is intense, the children clutching at one's hands as the cup is held to them, in terror lest it be taken away too soon. There are two pretty yellow-haired little sisters who lie in a cot, with whom this characteristic ravenous thirst is the most pronounced symptom. They have no vomiting and but little diarrhœa. They sleep about twenty-three hours out of the twenty-four, and in their lethargy thirst seems to be their only consciousness. One lies grasping a cup with both her small hands, and if an attempt be made to take it from her she automatically and drowsily opens her mouth for a draught, not rousing when the milk is given her but swallowing mechanically.

Extreme cases are unmistakable, but ordinary ones resemble typhoid patients in the second or third week, reaching this condition, however, in a day or two. They are

flushed or show the dull colour of typhoid in the more severe attacks, looking earthy, shrivelled, and blackish.

As regards treatment, medicine is but rarely given, nor are poultices applied. The patients are allowed as much tea or coffee (without sugar) and seltzer water as they please. Some take as much as six pints of the latter during the day. A little ice is occasionally given. Hot bottles are always used. In the stage of collapse, 20 minims of camphor oil are injected hypodermically every hour or half hour, and, if the condition becomes worse and the circulation drained of fluid, one to two litres of salt and water (Koch's "Salzlösung") are injected into the vein of an arm, and, if necessary, later on into the other arm or leg. Sometimes the patients wince at the incision, as at the prick of a morphine syringe, but generally they are so lethargic that they appear not to feel it. This salt-and-water injection is given only in extreme cases, and, with the exception of one girl, who looks favourable, we have not seen any patient live long after it. The deaths are peaceful, lethargy passing into sleep, sleep into coma, and coma into death. The terrible clearness of mind and recognition of the end which are said to be characteristic of cholera, we have not seen. Three babies in the ward sleep quietly, two wail continuously, one in pain, the other from nervous irritability.

The report that cases have been admitted to the hospital suffering from other diseases than cholera and have subsequently contracted this we do not for a moment believe. Even had such patients been admitted it is most unlikely that they would have been infected, the sanitary arrangements being so good, despite the unavoidable crowding.

The rapidity with which patients recover from their seizure is peculiarly and strikingly noticeable. They seem to get well all at once, scarcely anything of their terrible pain and exhaustion remaining. This is due, one would suppose, to the short duration of the illness, there being no time for radical deterioration of strength and constitution. But it is difficult to believe that the woman who to-day is walking about the wards, assisting a little with its domestic duties, is the same who four days before lay prostrate and comatose, vomiting violently every ten minutes, painfully purged almost as frequently, her face pinched and dusky, her limbs and body shrunken, her eyes sunken and black-ringed, praying only for speedy and merciful death. Her whole appearance was so absolutely changed that her nearest relatives might scarcely have recognised her. One can hardly credit that any but a prolonged illness could so alter the aspect.

A little girl, aged 5, who on Monday was "*durstig*" every five minutes and sick as often, pitifully ill, though at no time actually collapsed, on Friday was trotting about the ward, shaking hands with everyone, and dropping pretty curtsies to sisters and doctors. A small boy, whose beautiful face, with the cholera duskiness lying over it, showed like that of a Murillo model in shadow, two days later collected about him a pair of odd and very large slippers, a house-physician's coat, and a bonnet, in which articles of dress he meditated taking his departure. How he procured them no one knew, but suspicion fell upon two other youths aged 6 and 7 respectively, who were up and convalescing, though they, like himself, had not so long before appeared to be at the point of death. They evidently sympathised with his desire to wend his way "*zu Hause*," which was their German rendering of, but many degrees less pathetic than the little English patient's cry "I want to go 'ome." The Murillo model is fast losing his Spanish look and dark complexion. He has been taking day and night about four pints of black coffee, bringing it up as fast as he took it. He is now on sago and milk. We hope to be able to send a summary of our further experiences for next week's issue, but it is not easy to find time for writing amid the rush of so much work.

Great Britain.

Again we have the satisfaction of reporting that no cases of Asiatic cholera have occurred in the United Kingdom, with the exception of one imported case at Grimsby. The patient, who was removed from the steamship *Oldham*, from Hamburg, to the floating hospital on September 5th, died on the 12th.

Germany.

Hamburg.—Our Correspondent writes: Hamburg has two legislative bodies—the Senate, a kind of upper house, and the Bürgerschaft, or house of citizens. That the Bürgerschaft is at last awake to its terrible responsibility in the water question is shown by two resolutions which are announced for discussion at its next meeting on September 14th. The one is: "That the Senate be requested to co-operate in forming a committee, to consist of three members of the Senate and six members of the Bürgerschaft, for the examination of the sanitary condition of Hamburg, and especially to go into the question whether—and if so, how—wholesome water can be supplied to the town until the completion of the sand filters." The second runs: "That the Senate be requested to take steps immediately for boring artesian wells for supplying the town and suburbs with pure water until the town waterworks shall show itself able to supply drinkable sterile filtered water." The figures, which are stated to come nearest the truth, for the last week in Hamburg—it seems impossible to obtain absolutely correct numbers—are:

Sept.	3rd	.....	325 cases	.....	197 deaths.
,,	4th	.....	290 ,,	.....	158 ,,
,,	5th	.....	322 ,,	.....	117 ,,
,,	6th	.....	224 ,,	.....	102 ,,
,,	7th	.....	162 ,,	.....	92 ,,
,,	8th	.....	147 ,,	.....	92 ,,
,,	9th	.....	158 ,,	.....	78 ,,
,,	10th	.....	148 ,,	.....	59 ,,

As the waterway between Hamburg and Berlin is much frequented, and as it is a matter of experience that bargemen do their best to conceal cases of infectious disease, a steamer having a doctor on board is stationed above Berlin to stop and examine each boat that passes. A hospital pavilion has been erected close by for the reception of persons with suspicious symptoms.

A Hamburg sanitary officer (Dr. Erman) has published an article On the Question of the Origin of the Hamburg Cholera Epidemic of 1892, in which he tries to disprove the allegation that the terribly quick and wide diffusion of this epidemic is due to the fouling of the Elbe water by undisinfected excrements.

Dr. Erman writes: "At the outbreak of each cholera epidemic in Hamburg the cholera germs settled on the banks of the Elbe, and in the neighbourhood of the part from which our waterworks draw their water, whether the epidemic was brought in by land travellers, by river traffic, or by ocean traffic. Now, it is said that in this epidemic the extraordinarily quick increase of cholera cases point to the entrance of cholera germs into the water pipes. But when one considers the ten former epidemics of cholera in Hamburg, in which the water supply was managed essentially on the same plan as at present, and in which the fouling of the Elbe by the excreta of the sick took place just as in this epidemic, without any such sudden and widespread outbreak of the epidemic, one will be very suspicious of the statement that this year's enormous extent of the disease is due to the germs, of which the town water is said to be full."

It would be difficult to express a more severe criticism of the Hamburg authorities than is contained in these sentences. The authorities knew that in previous epidemics the water supplied to the town was contaminated, and nothing was done to prevent this for the future.

It is interesting to note that last year, at the meeting of the German Association for Public Hygiene, in Leipzig, the Hamburg town-engineer, Meyer, spoke of "the terrible effect of the contamination" of the Elbe water, and Sanitätsrath Dr. Wallichs, of Altona, added that "the fouling which the Elbe was subjected to from the two thoroughly drained towns, Hamburg and Altona, was very considerable; in consequence of the ebb and flow, the contents of the drainpipes were washed alongside both towns, or else from one to the other."

At a meeting of the Hamburg Medical Society, on August 30th, Dr. Rieder, assistant at the Allgemeine Krankenhaus, gave an account of the different therapeutic methods employed there, and their effects. He said that tannin enemata proved totally ineffective, as did also doses of camphor, ether, and salol *per os*. Subcutaneous injections of salt solution seemed to do good in some cases. But intravenous infusions of salt solution were of the greatest benefit. Dr. Rieder compared the effect of this method to the watering of a half dried-up plant; one could almost watch the liquid entering limb after limb. Two to four litres were well borne by the patient.

A return just made by the Statistical Bureau of the total

number of cases and deaths since the outbreak of the epidemic up to September 10th inclusively shows that 13,328 persons were seized with cholera from August 16th to September 10th inclusively, and 5,805 have succumbed. These figures show that, out of a population of 640,000 souls, 20.7 per 1,000 were attacked, while 9.1 died.

That the official statistics at Hamburg are not altogether trustworthy is sufficiently shown by the fact that while the Hamburg Board of Health reported 2 deaths from cholera on August 18th, 93 on the 24th, 189 on the 30th, 238 on September 2nd, and 34 on September 4th, Mr. Fielders, the representative of the *Morning*, having a very well-founded mistrust of any official cholera records in so infected a region, investigated the list of daily burials at one of the cemeteries. He announces that on August 19th 47 cholera patients were buried, on the 24th 112, on the 30th 348, while on the 2nd and 4th of September the burials of cholera victims amounted to 464 and 497. In reply to inquiries from the medical faculties of Berlin, Leipzig, and Halle whether additional medical aid was required, the Hamburg authorities replied with thanks that no more was needed. On September 14th, 344 cases with 143 deaths were reported at Hamburg.

Berlin.—Our Berlin Correspondent writes: On September 7th an extraordinary meeting of the Berlin Medical Society, at which about 800 Berlin doctors were present, was held in the hall of the Langenbeckhaus. Virchow presided, and in an opening speech said that, with the exception of Hamburg, there was at present not a single cholera nidus in Germany. All the cases that had occurred could be traced to Hamburg. Dr. Guttmann, of the Moabit Hospital, gave an account of the 6 cases treated, and concluded by expressing his firm hope that they were not the forerunners of an epidemic. Dr. Pfeiffer gave some interesting details of bacteriological diagnosis. Virchow was able to repeat his reassuring words on the subject of cholera in Berlin at a meeting of the magistrates on September 8th. But he was of opinion that the rivers and the sewage farms should be closely watched. Virchow further informed the meeting that in the Moabit Hospital a method had been found by which the excreta of cholera patients could be boiled within ten minutes, the steam apparatus of the hospital being made use of, so that all pavilions could thus be disinfected. The Royal Sanitary Commission has addressed a request to the Berlin magistrates to cause a daily bacteriological examination of the town's water at the filters, and to publish the results every three days. Professor Carl Fraenkel, of Marburg, formerly an assistant of Koch, publishes some remarks on the Berlin water supply in the *Berliner klinische Wochenschrift*. He says that his experiments have proved that the sand filters are not germ-tight, and that cholera bacilli are able occasionally to pass through them into the water. He adds that the Stralauer waterworks (which supply the east end of Berlin) make use of very doubtful water, and that therefore it will be well not to be over-confident in the use of this water, that is, to boil it before use. Not only are the autumn manœuvres in the neighbourhood of Metz to be omitted this year—for fear of cholera—but the Emperor has given orders that the Coblentz manœuvres are also not to take place. It used to be the fashion to appoint prayer meetings for the prevention of cholera, but this year prayers are to be shortened for fear of cholera. The Jewish community of Berlin have decided that on the forthcoming two festivals—Jewish New Year, a day of atonement—the usually lengthy service (twelve hours on the latter day!) is to be curtailed to two and a-half hours on the one, and five hours on the second festival, and that the fast—usually kept for twenty-four hours on the day of atonement—is also to be materially shortened. Herr Merke, Director of the Moabit Hospital, Berlin, has succeeded in constructing a boiling apparatus similar to that described above as in use at the St. Petersburg hospitals for the destruction of the cholera germs in the excreta of the persons suffering from the epidemic. By this process Herr Merke hopes to free all the hospital wards from the cholera bacillus.

Stettin.—The epidemic has appeared in this town, where it has caused the death of two workmen employed in a timber yard on September 9th, and of a woman working on a boat, who died on September 10th.

France.

Paris.—Our Paris correspondent writes: Choleraic diarrhœa has not disappeared from Paris, although it has decreased greatly. On September 14th there were 33 cases; on the 8th, 63. The deaths also decrease: 17 instead of 49. In the environs the decrease is not steady. In the Outer Ring of the city there were 27 deaths and 26 fresh cases. A nurse at the St. Antoine Hospital has died from cholera contracted whilst nursing the patients. M. Peyron, Director of Public Assistance, has convened all the directors of the Paris hospitals to reinstruct them concerning the measures to be taken when a cholera patient is taken to the hospital.

Bougival.—At Bougival a man died from cholera after twelve hours' illness.

Fécamp.—At Fécamp a case of cholera has occurred. A young woman who returned from Harfleur by train, was taken ill during the journey. On reaching her destination, she was taken to the hospital, where she died. The Mayor of Fécamp immediately issued a decree that every passenger from Havre, by sea, land, or train, must notify their arrival and dwelling place. Every fresh arrival will be medically inspected during five days.

Havre.—The cholera panic at Havre is subsiding, and the town is resuming something like its normal aspect, and a few days ago the gardeners of Havre held their yearly *fête*; during the panic, when the epidemic was at its height, this would not have taken place. On September 9th there were 11 deaths and 10 fresh cases. On September 14th there were 7 deaths, but only 2 new cases were reported. The Sub-Prefect of Havre has visited the "lavoirs" (washhouses), and directed that disinfectants be used in washing the linen. The Municipal Council has voted funds to be devoted to the construction of a lazaretto in the Port of Havre. The Havre boats are allowed now to enter the Honfleur Port, even those carrying passengers, but they are submitted to medical visits during five days. The Prefect of Calvados has revoked the decree of the Mayors of Trouville, Deauville, and Villeville, prohibiting the entry of Havre merchandise at the railway station on the Havre lines.

Rouen.—At Rouen matters are also improving. On September 9th there were 2 deaths and 1 fresh case. At Darnehal, near to Rouen, 1 case has occurred.

Dieppe.—At Dieppe a sailor has died of cholera. No cases in the hospital nor among the population. From August 22nd to September 2nd 6 men and 6 women were treated at the Dieppe Hospital for choleraic affections; 3 men and 3 women died; they were in an extremely weak state previous to their seizure.

Rille Valley.—The epidemic has invaded the Rille Valley, in the Eure Department. The Commune of Freneuse-sur-Rille, in the canton of Montfort, is the most stricken.

Holland.

Rotterdam.—The first case of Asiatic cholera in this city was notified on September 7th. The patient was a sailmaker. Another fatal case, the captain of a Hamburg steamship, took place on September 12th.

Kralingen.—Two cases of Asiatic cholera are reported here, both the attacked being men who were employed in unloading ships from Hamburg and from Russian ports.

Russia.

St. Petersburg.—According to official statistics published on September 12th, 5,654 cases of cholera and 2,510 deaths occurred in the whole of Russia on September 9th. In St. Petersburg on September 11th there were 62 cases, 28 deaths, and 89 recoveries. The number of fresh cases shows a further slight decrease. The *Times* special correspondent describes as follows the system adopted in St. Petersburg to cope with the present outbreak of cholera there. The town, he writes, has been divided into districts, with a cholera officer for each. The moment a case is taken to the hospital, this officer is notified by telephone or telegram. He proceeds to the house from which the patient came, and carries on the disinfection or any other measure which he deems necessary. Private patients remaining in their own houses are notified to the police, who inform the cholera officer by telephone; he visits the case and decides whether it may be allowed to remain or ought to be removed to a hospital. A second point concerns

disinfection. Clothes, bedding, and similar articles can be absolutely disinfected, but a proper apparatus is necessary. Every hospital should possess a steam disinfector, and there should be as many public ones as the size of the town may require in addition. In one of the hospitals an admirable method of dealing with all discharges from cholera patients is at work. Nothing is allowed to run away into the drains. Everything is collected in proper vessels, and passed through a specially constructed iron chamber, where it is subjected to a temperature of 220° under a pressure of twenty atmospheres. This ensures absolute sterilisation of all germs.

ITALY.

Capri.—The *Mattino* of Naples reports two fresh cases of Asiatic cholera at Capri. These cases have occurred amongst the Italian population of the island, and not, like the first case, amongst people coming from Hamburg. The Government is taking vigorous measures of isolation and disinfection.

PERSIA.

Teheran.—Only 21 deaths from cholera occurred here on September 8th as against a daily average of 200 at the beginning of the month. The epidemic is, therefore, considered to have practically ceased.

UNITED STATES.

New York.—A great sensation was produced in New York by the arrival of the steamer *Scandia* from Hamburg on September 11th with choleraic cases on board. She sailed with 27 cabin and 981 steerage passengers, and a crew of 77 hands, and arrived with a total of 34 deaths from cholera on the voyage—31 steerage, 1 cabin passenger, and 2 of the crew. There were also 11 cases when she arrived at New York, which were removed to the quarantine station at Swinburne Island, and 2 fresh cases and 2 deaths occurred on board the vessel on September 11th. The stringent quarantine regulations made by President Harrison have caused much suffering to the passengers of the *Normannia*. After a long detention they were transferred to the ship *Slinington*, which proved unseaworthy. From this they went on board the *Cepheus* in order to be transferred to a hotel on Fire Island which had been fitted up for their detention in quarantine. It was, however, impossible to land them either on September 11th or 12th, owing to the armed resistance threatened by the inhabitants of Fire Island, and they had to return to the *Normannia* after a journey of several hours in a rough sea in a small boat which had no accommodation for passengers. The inhabitants of Fire Island also threatened to burn the hotel in which these unfortunate people were to have been put. An injunction has been obtained in the Supreme Court restraining the steamship companies from landing passengers on Fire Island, in consequence of which Mr. Foster, Secretary of the Treasury, ordered the receiving station at New York to be placed at the disposal of Mr. Jenkins, the health officer of the port of New York. The injunction having, however, been dissolved, the passengers were landed at Fire Island, and will shortly be released from quarantine.

PRECAUTIONS AGAINST CHOLERA.

The Local Government Board and the Royal College of Physicians. —Order by the Postmaster-General. — Reports from Medical Officers of Health: St. James's, Westminster; Hampstead; St. George the Martyr, Southwark; Lambeth.

The following letter has been sent by the Royal College of Physicians, in reply to one from the Local Government Board:—

Royal College of Physicians, September 3rd.

SIR,—In complying with the request of the Local Government Board to furnish it with instructions for the management of health, in view of the prevalence of diarrhœa and of cholera, the Royal College of Physicians desires to say that the instructions herewith submitted are not intended either to occupy the general ground of prevention so ably and admirably covered by the medical advisers of the Board, or to supersede the necessity of immediately summoning medical assistance to those stricken with disease. They are meant to be followed only when the assistance of a doctor cannot be procured, and when diarrhœa has not developed into cholera. The College proposes no instructions for the treatment of cholera. Every case of this disease requires separate consideration and management. No stereotyped plan of treatment would prove to be either wise or safe, and usually before the choleraic nature of an attack could be established, medical assistance would have been procured. The chief instructions to be followed for the prevention of diarrhœa and of cholera are herewith appended:

1. As cholera is not in the ordinary sense of the term contagious, as it is rarely, if ever, communicated like small-pox or scarlet fever, directly from person to person, as it is probable that those engaged in attendance upon patients suffering from this malady are not more liable than others to become attacked with it, and as it is certain that physical and moral depression favour the reception and development of the disease, apprehensions should be allayed, confidence encouraged, and that manner of living pursued which experience has proved to be conducive to the highest health.

2. The house should be clean, light, thoroughly dry, and well ventilated. Air shafts, traps, and drains should be in perfect working order. Dustbins should be frequently emptied, and no decaying matters of any kind should be permitted to remain in or near the house. Cisterns, reservoirs, casks, jars, and pipes used in the preserving, carrying, or transmitting of water should be frequently inspected and carefully cleansed. All connections of waste pipes with drains should be severed.

3. As water is one of the chief agents by which choleraic infection is conveyed, all water employed for personal and domestic use in the household should be scrupulously protected from contaminations of every kind, and, if any doubts of its purity arise, the water should be boiled, filtered, and consumed within twenty-four hours. Boiled and filtered rain water is probably the best of all waters for use at this time.

4. The dietary should consist daily of three or four simple but nourishing and ample meals, taken at regularly recurring times. The meals may consist of any sort of animal food, fresh and thoroughly cooked, of bread, potatoes, well-boiled green vegetables, if they agree, and of plain farinaceous puddings, or of simply-cooked wholesome fruit. Milk should be boiled before use. Alcoholic beverages should be taken in great moderation, and only at the greater meals, such as at dinner and supper. It is desirable to avoid soups, tinned or otherwise preserved provisions, raw or stale vegetables, unripe, over-ripe, or decaying fruits, pastry, cheese, nuts, hard or indigestible things of every kind, malt liquors turning "hard," ginger beer, strongly acescent sparkling wines, coarse oatmeal gruel, messes between meals, and either long fasts or too frequent feeding.

5. All provisions should be procured fresh, but when some storage is unavoidable, the most scrupulous care should be taken to protect them from contamination by impure air or water. Cooking utensils should be scalded after use and kept carefully clean.

6. Avoid the use of strong aperients, and especially of strong saline aperients. If there is obstinate constipation, take at bedtime either a teaspoonful of Gregory's Powder or one or two teaspoonfuls of castor oil.

7. Avoid excess and irregularities of every kind, overfatigue, prolonged watchings, emotional excitements, undue mental strain, and all such things as irritate and exhaust the nervous system. Especially avoid the frequent use of alcoholic or of any stimulants to cover recurring sensations of sinking, *malaise*, or depression.

8. Take moderate exercise twice daily. Follow early hours and aim at leading a regular, an occupied, and a tranquil life.

9. If, notwithstanding this careful regulation of the manner of living, looseness of the bowels should set in, send immediately for medical assistance, since without personal examination and direction no case of this kind, arising in such circumstances, can be satisfactorily or even safely managed. But if medical assistance is not immediately available, follow the subjoined instructions until the doctor arrives:

10. Choose, if practicable, a bright, airy room; go at once to bed, keep quite warm, and if troubled with cramps or pains, apply hot applications to the entire stomach.

11. Take freshly-prepared fluid or semi-fluid food in quantities of a large cupful at a time regularly every three hours

Such food may consist of boiled milk thickened with rice flour, baked flour, or biscuit powder; of tea made with boiling milk infused about five minutes, and having toast, biscuits, or rusks soaked in it; of farinaceous puddings of the nursery sort; of any kind of gruel, except that made with coarse oatmeal; of meat jelly, of beef tea, or of mutton, chicken, or veal broth. If pain persists, with depression or faintness, take a tablespoonful of brandy or of whiskey in a small claret glassful of hot water after meals, twice, thrice, or four times in the course of the twenty-four hours; but not oftener than is absolutely required for relief.

12. If thirst becomes excessive, sip from time to time small quantities of iced water, just sensibly acidulated with fresh juice of lemons or with aromatic sulphuric acid.

13. As soon as possible after looseness of the bowels has begun take in capsules or in hot milk, or in any other manner preferred, two teaspoonfuls of castor oil. If, when the action of the oil may be fairly supposed to have ceased, the looseness increases to a watery diarrhœa, let the hips be well raised and carefully inject into the bowels a quart or more of hot water containing 2 drachms of benzoate of soda or 30 grains of tannin. Furthermore, if there be much pain in the bowels, 15 to 30 drops of laudanum may be added to the injection. The injection should be retained as long as it is comfortable to the patient, and it may be repeated once or twice daily during the continuance of the diarrhœa, and until medical assistance has been procured.

14 and 15. [After the administration of the injection, if one has been found necessary, mixtures are prescribed according to the urgency of the symptoms.]

16. From the first appearance of the looseness of the bowels the body should be washed with warm water night and morning and quickly dried. Soiled bed or other clothing should be immediately disinfected and destroyed.

A cheap and efficient disinfectant fluid is recommended by Dr. Thorne Thorne, and is thus prepared: Dissolve ½-ounce of corrosive sublimate and 5 grains of commercial aniline blue in 3 gallons of water, and add thereto 1 fluid ounce of hydrochloric acid. Preserve in earthenware jars or wooden tubs.

17. All further general precautions necessary to be taken at this time are admirably set forth in the memorandum issued on August 26th by the medical officer of the Local Government Board.

I have, etc., (Signed) Andrew Clark, M.D.,
President of the Royal College of Physicians.
Wm. Henry Allchin, M.B.,
Vicarius for Edward Liveing, M.D., Registrar.

To Sir Hugh Owen, K.C.B.

Order by the Postmaster-General.

The Postmaster-General has issued the following order in reference to disused clothing, etc.: In accordance with orders issued by the Local Government Board, rags, bedding, and disused or filthy clothing may not for the present be introduced into this country by parcel post from or through Belgium, Germany, Holland, or Turkey. Moreover, the post office of Sweden has given notice that used clothing and similar articles may not be sent from this country in postal parcels to Sweden, and it is very likely that other countries may enforce the same rule. The senders of parcels containing clothing to places abroad are warned that such parcels may suffer detention and damage from disinfection, or may even, in some cases, be destroyed. In such cases, the Post Office declines all responsibility for the consequent loss or damage. It should be distinctly stated in the Customs declaration form of a parcel containing clothing whether it is new or has been worn.

Reports from Medical Officers of Health.

St. James's, Westminster.—Dr. James Edmunds, the Medical Officer of Health, reports that for the four weeks up to September 7th there was no cholerale disease in St. James's. Dr. Edmunds has advised his vestry that, beyond pushing carefully the sanitary work always kept up in St. James's, it is not necessary to take any special measures on account of the cholera. Dr. Edmunds is of opinion that it is not possible to prevent the importation of cholera into London, but that, unless pollution of the districts upon the Thames above the intake of the water companies occurs, cholera cannot become epidemic in London now that surface wells have been shut up.

Hampstead.—At a special meeting of the Sanitary Committee, held on Monday, September 5th, Dr. E. Gwynn, the Medical Officer, stated that the health of the parish was remarkably good. There had only been two deaths from diarrhœa in the four weeks ending September 3rd, both of infants under one year. The usual average for the time of year was ten. The Committee directed the medical officer to make all the necessary arrangements to meet a possible outbreak of cholera, and to present his scheme at their next meeting.

Southwark (St. George-the-Martyr).—Dr. F. J. Waldo (Medical Officer of Health) has presented a report to his vestry, giving detailed instructions as to the precautions to be taken in times of cholera epidemics, and urging the introduction of the pail system of dust removal throughout the whole of the parish, and other sanitary improvements. Handbills containing excellent instructions for the public have been circulated.

Lambeth.—Dr. H. Walter Verdon (Medical Officer of Health) has drawn up a circular containing all necessary instructions and advice for householders and private persons. A handbill has also been issued reminding butchers, poulterers, fishmongers, and greengrocers that, under the Public Health Act, 1891, Sec. 47, any person exposing for sale meat, poultry, fish, fruit, or vegetable which is unsound or unwholesome and unfit for the food of man is liable on conviction to a penalty not exceeding £50, or at the discretion of the court to imprisonment for a period of six months, with or without hard labour. Notices have also been sent to all householders that proceedings will be promptly taken by the vestry against any householder on whose premises an accumulation of dust is found.

Liverpool.—Our Correspondent writes: The prevalence of cholera in parts of the Continent that are in constant communication with Liverpool has led the authorities here to adopt special precautions to prevent its importation. The chief source of danger is in connection with the stream of German, Swedish, and other emigrants that is constantly passing through the city *en route* for the new world, and in consequence great attention is paid to the emigrants' lodging houses, more especially to those receiving emigrants arriving *viâ* Hamburg. These houses are visited night and day by the inspectors, who are instructed to report any case of sickness occurring therein, however trivial it may appear to be. The emigrants' clothing is also disinfected by sulphurous acid, and precautions are taken to maintain the houses in a thoroughly sanitary condition. Careful attention has been paid to the food supply of the city, and the sale of unsound fruit has been checked, while additional hands have been employed to ensure the cleanliness of courts and alleys. As regards the port, the customs officers report all vessels coming from suspected ports, and in the event of any sickness of a doubtful or suspicious nature occurring on board of any vessel, the ship would be detained in the part of the river set apart for the purpose. Cases of cholera would be removed to the port sanitary hospital at New Ferry, where everything is in readiness for the reception of patients.

Disinfection after Death.

Sir Walter Foster, Parliamentary Secretary of the Local Government Board, has written the following letter to the Rev. F. Lawrence, Honorary Secretary of the Burial Reform Association, Church House, Westminster: "I have to acknowledge the receipt of your letter, in which you inquire whether the attention of the Local Government Board has been called to the desirability of destroying choleraic bacilli and the germs of other infectious diseases by placing chemical compounds around the body in the coffin and around the coffin in the grave. In reply, I have to say that the Board have not issued any memorandum upon the question. No general rules can apply to diseases such as measles, whooping-cough, and cholera, all three infectious diseases. Advice which would be valuable in any particular case is best obtained from the local medical officer of health, who is conversant with the circumstances, and knows what disinfectant is available. The information in the possession of this department leads to the belief that all bodies dead by cholera have this autumn been dealt with in the way you indicate in so far as 'around the body' is concerned. This would appear to be sufficient without again placing disinfectants around the coffin in the grave."

Precautions in Ireland.

Cork.—The Rural Sanitary Committee of Cork having applied to the Admiralty for a hulk for the purpose of a floating hospital for cholera patients, were refused; but a citizen well-known in Cork (Sir John Arnott) has generously offered to give the guardians a vessel of 400 tons for the required purpose. It was absolutely necessary that cholera patients arriving in vessels from infected ports should be prevented from landing, and a floating hospital in the harbour had to be obtained, no matter what the cost might be. Sir J. Arnott is the same gentleman who recently contributed a sum of £1,000 to be distributed among the Cork hospitals.

Cholera Statistics.

In his inaugural address at the Sanitary Institute Congress at Portsmouth now being held, Sir Charles Cameron gave the following condensed statistics of past cholera epidemics in Great Britain and on the Continent. He said that according to official statistics, there died from cholera in 1831-32 31,376 persons in England and Wales and 21,171 in Ireland. In 1848 cholera reappeared in England and Wales, and destroyed 53,273 lives. In 1853, 20,097 deaths were ascribed to cholera, of which about one-half occurred in London. In 1866 it reappeared, but with less fatal results. The deaths in England attributed to it were 14,378, in Ireland 2,501, and in Scotland 1,470; total, 18,149. This lessened mortality was not due to the milder character of the disease, but rather to the towns being less filthy than they were during previous visitations. On the Continent, so virulent and widespread was cholera at this time, that it is computed to have caused more than 1,000,000 deaths. In Italy alone it carried off 120,000 victims; and in the small countries of Holland and Belgium it caused 50,000 deaths. It was probably the ravages caused by cholera in 1831-32, and more especially in 1849, that first awakened the public to the necessity of improving the hygienic conditions of towns.

Anti-choleraic Vaccination.

The *Gaulois* having learned of the appearance in the British Medical Journal of an article by Mr. Hankin, who has been vaccinated at the Pasteur Institute with the choleraic virus, has, says the *Times* correspondent, again interviewed M. Haffkine on the subject. After giving in detail the symptoms experienced by Mr. Hankin, he said: "I have tried these experiments on 25 persons, among whom are Dr. Tamamcheff, of Tiflis, M. Wilbouchewitch, an agricultural engineer, of Moscow, and M. Gessard, professor at Val-de-Grâce, whose temperature after the first inoculation was 38.3 C. and 38.6 after the second. All experienced symptoms almost identical, which proves to us that inoculation with our anti-choleraic vaccine, the protective action of which on animals has been experimentally established, presents not the slightest danger to health, and can be practised on man with the most perfect security."

Points in Reference to the London Water Supply.

We recently alluded to the fact that some of the London water supplies had at various times recently been shown to be impure—indeed, to be unfit for drinking purposes; and on previous occasions we have pointed out that the existing system for controlling the quality of the water supply of the metropolis is hardly creditable to the administrative capacity of the authorities concerned with the matter. It is only of recent years that anything approaching a regular system of water examination has existed in the metropolis. Analyses are made and reports are drawn up by various experts, who act independently of one another—a fact which, upon the whole, is advantageous—and who make use of different processes, a proceeding which is anything but advantageous, on account of the confusion which it creates in the public mind, and the unsatisfactory differences of opinion and professional squabbles to which it leads. The official water examiner appointed under the Metropolis Water Act reports monthly to the Local Government Board, and includes in his report the results of the analyses of one sample from each company per month made by the water analyst to the Local Government Board, and also a joint monthly report issued by two analysts who are retained by the water companies themselves. Apparently in consequence of the fact that these reports are always very late in making their appearance, some of the London Vestries carry out independent examinations of the waters supplied to their districts by having samples taken by their sanitary inspectors and analysed by their public analysts. It is in consequence of this action that certain disagreeable revelations have been made as to the kind of water delivered occasionally by some of the companies. In July, 1890, Mr. De Tatton Egerton questioned the President of the Local Government Board as to the bad quality of the water which had been supplied in the parish of St. George's, Hanover Square, desiring to know whether the facts stated in the report of the public analyst for that district indicated bad filtration, and "what penalty attached to supplying water of such an inferior quality." In his reply, Mr. Ritchie admitted that there was a want of "adequate filtration arrangements" at the works of certain companies "to deal with exceptional conditions of the river," but pleasantly suggested that the bad condition of the water at the time alluded to was due only to "the cut grass, etc., lying about in the Thames Valley."

As was pointed out at the time in the British Medical Journal, in a letter written by Mr. Cassal, the public analyst, there are many other things in the Thames Valley besides "cut grass," and the filters of the companies do not behave so conveniently as to remove the organic pollution of animal origin and allow only the "cut grass" water of the Thames Valley to pass.

In January and in February, 1891, Mr. Egerton again put a series of questions to Mr. Ritchie, in consequence of an unfavourable report from the public analyst as to the state of the water. The notice of these questions was undoubtedly the cause of two special samples being taken at the instance of the Local Government Board for analysis by their analyst, Dr. Frankland, who, in his report upon them, stated that they both contained a very large proportion of organic matter, and that in the twenty-three years during which he had examined the waters delivered by the eight companies supplying London, he had never met with a sample so strongly contaminated with organic matter, and that only on one occasion was there a near approach to this degree of pollution. The water was further described by him as being repulsive both to the eye and palate, and as "undesirable" for human consumption.

Although frequent reports on the analysis of the supplies have shown that at certain times the waters derived from the Thames are decidedly bad, such terms as "general excellence" and "average high quality" have been constantly applied to them. It is not permissible to claim as a favourable circumstance that the average quality of a water has been "fair" or "good" during a month or a year, if for a week or a few days, or only one day, it has contained much more than the "average" quantity of organic matter, and has, therefore, then been bad. Whenever the supplies are worse than usual, much ingenuity has been expended in seeking excuses for the companies. It has been said, for example, that the quality of a water has somewhat "deteriorated," but that such deterioration is due only to the presence of an unusual amount of "vegetable matter," and is more apparent than real. During the first two months of 1891, for instance, some of the waters derived from the Thames were in a very bad condition. While it was strongly insisted upon as an incontrovertible fact that the increased amount of organic matter was of "vegetable origin," it was stated that "in no single sample" was there "anything to suggest" an increase of "animal matter" in solution—a very significant phrase—and in replying further to Mr. Egerton, on the occasion above referred to, Mr. Ritchie admitted "that the Thames always contained some soluble constituents of sewage more or less changed by various processes of purification."

Some of the authorities in the South of London have repeatedly complained of the quality of the water supplied in their districts, it being described by the analysts as "inefficiently filtered," and "insufficiently purified for a public supply." There is confusion as to the term "efficient filtration." It appears to be used in the various official and other documents to indicate removal of suspended matter only, whereas, scientifically, it ought to mean not only removal of suspended matters, but adequate purification of the water from dissolved organic matters.

Inasmuch as polluted water affords, perhaps, the most convenient *nidus* for the reception of, and the best means for distributing, the cholera organism, the facts that we have called attention to are of especial moment at the present juncture.

Cholera and Pauper Aliens: a Point of Law.

The London Correspondent of the *Manchester Guardian* says: The revolutionary demand which is being made by Sir Blundell Maple, Sir John Monckton, and a section of the London press for an Order in Council to exclude to exclude all pauper aliens from entry into this country is not likely to meet with any active response, for the simple reason, if for no other, that it constitutes an attempted invasion of the rights of Parliament. "The Crown," says Professor Dicey, "cannot, except under statute, expel any alien from England, nor can it refuse him asylum here, and no is no statute in or existence which confers such power. The last case when the power of expulsion was exercised was in 1575, under Elizabeth; and since the unsuccessful attempt was made to insert a power in the Act of Settlement reviving the legislative authority of the Privy Council, that body has never attempted to claim such authority as it is now sought to induce it to exercise. Although for the moment the steps taken by the Local Government Board to prevent the landing of 'filthy and unwholesome' persons coming from foreign ports may pass unchallenged, it is by no means clear that the Board have not exceeded their powers, as they did once before when a special Act was passed in 1889 to legalise what they had done. The Board now seeks to prevent aliens from landing unless they can satisfy a medical officer of health as to their place of destination in England, and the intention is that if they have no destination in England, but are going across the country to ship for America, they shall not be allowed to do so. I say nothing against the wisdom of such a step, but I am told on good authority that its legality is open to question, especially in view of an Act of Parliament, which has apparently been overlooked all round. I mean the Act for the Registration of Aliens, passed in 1836, and which is still on the Statute Book."

Asiatic Cholera in Europe.

L.R.C.P. & S.E. writes: A few remarks on this disease, which is rapidly spreading over Europe, may not be inappropriate, coming from one who has spent nearly thirty years in India and Burmah, and seen over twenty epidemics of cholera. It generally travels in a direct line of human intercourse, and has a stage of incubation, from seven to ten days, and hence can easily be carried unconsciously through the country, which makes the stamping out of the disease very difficult. The weakly are first attacked. The appearance of what is termed "washerwoman" fingers is most serious. It is strange that all the secretions are affected

by the disease except the flow of milk in a nursing woman, which is undiminished. Drugs are of very little use, and I have found assisting Nature to throw off the poison of more efficacy than any well-known drug. Encourage vomiting and purging by giving fluids freely, with good beef-tea and a free use of stimulants—champagne, where it can be afforded, as it has an exhilarating effect on the patient. If vomiting and purging cease, encourage its return with large doses of calomel (10 to 20 grains) and castor oil. Also encourage the kidneys to act by frequent dry cupping. Directly a case of cholera appears in a place the authorities should advocate the use of boiled water for drinking purposes, or—as many people object to boiled water—weak tea.

Dr. J. A. Goodchild (Hampstead) writes: A couple of hints obtained during the last cholera epidemic in Southern Europe may possibly have some value at the present moment. Amongst the directions circulated to the towns and villages in the province of Porto Maurizio was one to the effect that the people would do well to consume more meat than is their custom to do during the summer. As far as I could learn from the Italian medical men engaged in practice near the French frontier this direction was purely empirical, but at the same time they quoted traditional evidence in favour of its value, and ascribed its success to a tonic action upon the system. I venture to think that physiology provides us with a better theory, founded upon the antagonism of acids to the growth of the bacillus. The population of Liguria is almost vegetarian during the summer months, and the acid gastric secretions, in the absence of a useful field for their employment, are probably scanty. A fair proportion of animal food would at once increase their secretion, and the stomach would become a natural filter, in which the Koch bacillus would be destroyed before reaching the alkaline fluids of the intestines, in which its increase is so immediate and fatal. Another means of combating the disease, the high efficiency of which was testified by those who witnessed it, consisted in burning large quantities of sulphur. This was done to purify the air; but I venture to think that the superiority of this means of fumigation to the various carbolic disinfectants arose less from any aërial disinfection than from the absorption of sulphurous acid by moist surfaces upon which the growth of the bacillus was prevented or destroyed. A similar value was ascribed, for purposes of house disinfection, to the generation of hydrochloric acid by pouring sulphuric acid upon common salt, and would probably prove very efficient in cleansing a room in which a cholera patient had been tended.

Chloroform in the Treatment of Cholera.

Dr. C. R. Drysdale (Sackville Street, W.) writes: Although we may hope that the invasion of cholera into Europe may prove but of slight importance in our well-drained cities, we still, I suspect, must make up our minds that we shall not escape entirely untouched by that formidable contagion; and hence it would be well for us to discuss what line of treatment we should adopt if a case should come before us. I have always thought that the advice of Sir George Johnson that a dose of castor-oil should be given in order to clear out the germs from the intestines was sound, and still hold that view. But, after this point has been attended to, what should be the next thing done? Men of the greatest experience say that nothing is of any service, and that, with the exception of giving the patient ice to suck or cold water to drink, the less drugs the better. In a paper read at the International Congress of Hygiene of Paris in 1889 by Dr. Deprez, that gentleman extolled the use of small doses of chloroform, which he alleged had proved of such benefit in the treatment of cholera that, in an epidemic at Damascus in 1875, no less than 80 per cent. of the patients affected had recovered. The formula employed by Dr. Deprez was: Chloroform, 1 gramme (15.4 drops); alcohol, 8 grammes (2 fluid drachms); acetate of ammonia, 10 grammes; water, 10 grammes; and syrup of hydrochlorate of morphine about 1 fluid ounce. One tablespoonful of this mixture to be taken every half hour. It seems to me that a dose of 20 or 25 minims of spiritus chloroformi of the *British Pharmacopœia* in a tablespoonful of cinnamon water or peppermint water would contain all the important parts of this prescription. It appears, from Dr. Deprez's account, that chloroform has an almost immediate effect on the germs of cholera, and, as the above prescription is said to have proved of great service by Dr. Chapuis, of Toulon, in 1884, and others who have lately had greater opportunities of treating cholera than most British practitioners, I think the remedy should be tried.

Case of Anthrax.—Infection from anthrax in London is rare. Dr. D. Thomas, however, held an inquest on September 10th on a man, aged 37, an engine driver at a firm of horse slaughterers at King's Cross, who died of characteristic anthrax, the bacilli being found abundantly. Dr. G. Farmer, Royal Free Hospital, said that he had seen two such cases before. The manager gave evidence that animals which died from infectious diseases were killed before they were brought to the slaughterhouse yard, where they received hundreds of carcasses of diseased animals from all parts of the country as well as of London. A case of anthrax had occurred in the yard some months ago through a diseased heifer brought from the Queen's farm at Windsor.

Bonacossa Prize.—The subject for the next Bonacossa prize is "Epileptic Psychoses, their Etiology and Clinical Characters." Essays or published works (which must have been the light subsequently to April 1st, 1890) may be written in Italian, French, or Latin, and must be sent to the President of the Academy of Medicine of Turin on or before December 31st, 1894. The prize is of the value of 1950 lire (£78), and if it is awarded to a manuscript essay the money will not be paid till the author has presented a printed copy to the Academy.

THE CONGRESS AT BRUSSELS.

Notwithstanding the fear of cholera, which has caused tourists to flock home in great numbers, the meeting of the Congrès Périodique International de Gynécologie and d'Obstétrique is well attended, and is showing itself clearly as a success from the first. On Tuesday night a Welcome Reception was given by the Belgian Gynæcological and Obstetrical Society at the Bourse. A great crowd of distinguished Belgian and foreign specialists attended, although many members of the Congress did not arrive till the next day. Dr. Kufferath, President of the Society, received, and amongst the visitors were Sir Spencer Wells, Drs. McCann, Murdoch Cameron, Atthill, Doran, Auvard, Apostoli, Segond, Martin (Berlin), Sänger (Leipzig), Halbertsma (Utrecht), Consolas (Athens), Vulliet (Geneva), Cordès (Geneva), and Ott (St. Petersburg). Dr. Parvin, M. Péan, and several other well-known authorities had arrived, but were not present.

On Wednesday morning, at Dr. Jacobs's private hospital in the suburb of Anderlecht, M. Segond performed a hysterectomy for chronic pelvic suppuration before a large number of spectators. The patient was a young woman who had suffered for two years from pelvic pain and frequent febrile attacks. A collection of pus in the region of the right broad ligament was diagnosed. The usual incision was made to free the cervix, then hæmostatic forceps were applied to the broad ligaments. The uterus was removed by *morcellement*, and a great quantity of fœtid pus escaped when the right broad ligament was laid open. A very large number of forceps were left on the proximal side of the divided parts, and the vagina was filled with two iodoform tampons, placed respectively in front of and behind the forceps, to prevent prolapse. Dr. Jacobs, who himself performs this operation, finds that the patient is often well at the end of the first week. Dr. Segond explained all the steps of the operation (which is specially advocated by Péan), and maintained that the absence of an abdominal incision is a great advantage; the collections of pus are more readily reached from the pelvic aspect. It is therefore more surgical to open from the pelvis and thus have done at once with the abscesses than to lay open the abdomen and leave tubes for some time in the abdominal wound. He found that after the most ably-performed removal of inflamed appendages the pains and fever often remained, whilst when the uterus was removed for a similar cause a cure was effected, even if part of the appendages were left behind.

The Congress was formally opened at 2 A.M. on Wednesday by the President, Dr. Kufferath. He congratulated the Congress on the fact that it had received the high patronage of His Majesty the King of the Belgians, who intended to be present at two o'clock at the Thursday sitting, and to receive the members in his palace at 3.30 P.M. on the same day.

Dr. Jacobs (General Secretary) stated that over 400 members were enrolled. Belgium, as a neutral country, was specially favourable for the Congress. The three special subjects for discussion—Pelvic Suppuration, Ectopic Gestation, and Placenta Prævia—were of high importance. He felt sure that all would regret the recent death of Professor Pippinsköld, of Finland, who had intended to be present.

His Excellency M. Debruyn, Minister of Agriculture, thanked the President and General Secretary for their energy in organising the first meeting of the Congress. He welcomed the members to free Belgium, a sentiment which the King, an enthusiastic supporter of science, cordially supported. He invited the members to his reception in the evening.

Sir Spencer Wells, the first representative of distinguished foreigners called upon to speak, said: It is to me a great honour and a pleasure to stand here on behalf of my English friends, and congratulate the Belgian Society of Gynæcology and Obstetrics on the initiation of this, the first International Congress of the branch of the science and art which is making such rapid progress, and to which so many of the colleagues I see around me have so largely contributed by their work and example. The Congress is truly international, for not only is Belgium itself widely represented, but our Transatlantic brethren, who have done so much original and valuable work in this special direction, are here in considerable numbers; and we have distinguished leaders of professional opinion from France, Germany, and Austria, from Italy, Spain, and

Portugal, from Russia, Sweden, Norway, and Denmark, from Turkey, and from the classic land of Greece—all meeting here to renew old friendships and to make acquaintance for the first time with men only known before by their works. Such meetings must have a powerful influence for good—for the good of our common profession, for the whole medical profession in its highest and best and most comprehensive sense, and for the good of the whole human race. What was here learnt was carried away and tested, perhaps modified or improved. They held fast that which was good, avoided that which was bad or false, and became more and more brethren, united by a common desire to do all that they could for the health, happiness, and prosperity of all nations. This, Sir Spencer Wells felt quite sure, was the feeling with which practitioners in England wished every possible success to this Congress, to their Belgian colleagues, and to the Belgian people.

Dr. Englemann (United States) read a cablegram, just received, in which the American Gynæcological Society, the oldest of its class, congratulated the Congress on having started the first truly international meeting of the kind.

Dr. Gussbrow spoke for Germany.

M. Péan said he represented France, a nation friendly to Belgium, and observed that to the speciality of gynæcology general surgery owed some of its greatest recent triumphs.

Drs. Engström (Finland), Consolas (Greece), Porro (Italy), Schonberg (Norway), and Rein (Kieff, Russia) spoke, Dr. Porro referring to the coming meeting of the International Medical Congress at Rome in 1893, where he hoped that obstetrics and gynæcology would make a good show; whilst Dr. Vulliet (Geneva) trusted that in three years' time the International Gynæcological and Obstetrical Congress would meet in Switzerland.

Drs. Westermarck (Sweden) and Pawlacki Bey (Turkey)—who, in the name of the Sultan, concurred with the King of the Belgians in his sympathies with the branch of science represented by the Congress—spoke on behalf of their respective countries. In the name of the Obstetric Section of the Royal Academy of Ireland, Dr. More Madden made some observations; whilst, speaking for the Glasgow Obstetrical and Gynæcological Society, Dr. Murdoch Cameron referred to the introduction of chloroform by Sir James Simpson in 1847, and hoped that the Congress might see its way to meeting on some future occasion in Scotland.

The President then declared that the labours of the Committee of Organisation were at an end.

Dr. Mertens proposed, and it was carried by acclamation, that the members should be re-elected, to form the permanent Committee.

In conclusion the President referred to the very outward and visible evidence of the value of obstetric science in the great rarity of epidemics of puerperal fever at the present time. That disease was to women what war was to man; both those scourges killed human beings when in their prime, and when doing their duty. The effects of antiseptics in eliminating fever from the Brussels maternities were then demonstrated at some length. In conclusion, the President opened the museum.

Drs. Robert Barnes, Goodell, Edebohls, Sneguireff (Moscow), Makieff (Moscow), and Goubaroff (Moscow), and other distinguished specialists arrived on Wednesday in time for the above ceremony. The King received the Committee of Organisation and the Honorary Presidents at 2 P.M. on Thursday, and afterwards assisted at the day's sitting. He invited the members and guests to his palace at 3 P.M.

Dr. Oliver Wendell Holmes.—The genial "Autocrat of the Breakfast Table" celebrated his 83rd birthday a few days ago. He had visitors from Washington, Chicago, and many other places, and according to his own statement, "enjoyed the day very much." In a letter written last May, Dr. Holmes said, "I am an out-and-out believer in preventive measures against diseases as contrasted with what are called curative agencies." Dr. Holmes himself is a living proof of the value of "preventive measures," for without being a valetudinarian he has always kept himself as far as possible protected against the inroads of disease, and to this he no doubt owes his exceptionally green old age.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1892. ELECTION OF MEMBERS.

A meeting of the Council will be held on October 26th, 1892. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than October 5th, 1892.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

South Wales and Monmouthshire Branch.—The next meeting of this Branch will be held at Merthyr on Thursday, October 6th. Members wishing to read papers, etc., are requested to communicate titles before September 21st, to Dr. Sheen, Cardiff.—A. Sheen, M.D., and Arthur Davies, M.B., Hon. Secs.

South-Eastern Branch: East Sussex District.—The next meeting of this Branch will be held at the Palace Hotel, Hastings, on Thursday, September 29th, Mr. E. R. Mansell in the chair. Meeting at 3.30 P.M. Dinner at 5.30 P.M.; charge, 6s., exclusive of wine. The Chairman will show a patient with Enchondroma of Pelvis. Dr. Bagshawe will open a discussion on the question of Sanitation of Lodging Houses in Seaside Resorts. Dr. Spencer will read a paper on Two Cases of Chorea Complicating Pregnancy.—T. Jenner Verrall, Hon. Sec., 97, Montpellier Road, Brighton.

West Somerset Branch.—The autumnal meeting of this Branch will be held at the Municipal Buildings, Taunton (by permission of the Mayor), on Friday, September 30th, at 5 P.M.; John Currie, M.D., President, in the chair. An address by Professor Gairdner, of Glasgow University, on the Future of Therapeutics, will be given at 5.30. Dinner (5s. a head, exclusive of wine) at the Castle Hotel at 7.30. The West Somerset Branch will be glad to see members of neighbouring Branches who may like to join the meeting on this occasion; and the Honorary Secretary will be much obliged if any such, proposing to attend, will be so good as to send him timely notice, stating also if they intend to remain to the dinner, in order that he may make the necessary arrangements. Gentlemen wishing to read papers are requested to send in notice of their titles.—W. M. Kelly, M.D., Honorary Secretary, Taunton.

South-Eastern Branch: East Surrey District.—The next meeting of the Branch will be held at the White Hart Hotel, Reigate, on Thursday, October 13th, at 4 P.M.; Dr. Walters, of Reigate, in the chair. Dinner at 6 P.M.; charge 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. Agenda:—The following papers, etc., have been promised: Dr. Frederick J. Smith: Some Points in Heart Disease. Mr. Golding Bird: Operative Procedure in Retention and Extravasation of Urine—a Clinical Study. Dr. Stone: A Case of Empyema. Dr. J. G. Ogle: Cases of Interest. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary, Henry J. Prangley.

Border Counties Branch.—The autumn meeting will be held at Galashiels on Friday, October 14th, 1892. Members desirous of reading papers, or of bringing forward any questions affecting the Branch, are requested to give notice to the Secretary ten days before the date of meeting.—J. Altham, Honorary Secretary, Penrith.

South Midland Branch.—The autumnal meeting will be held at Luton on Thursday, October 6th. Gentlemen wishing to bring forward communications, etc., are requested to intimate their intention without delay to the Honorary Secretary, C. J. Evans.

SPECIAL CORRESPONDENCE.

BERLIN.

Professor Virchow's Visit to Russia.—Aluminium as a Material for Drinking Flasks and Cooking Apparatus.

PROFESSOR VIRCHOW has been much fêted in Russia. Not only was he most warmly and respectfully received at all the public institutions—hospitals, museums, laboratories, etc.—which he visited, but when he entered the gardens at Pawkowsk the orchestra greeted him with a special "fanfare" and the German national hymn. A dinner in Virchow's honour was given by the medical profession, on which occasion Count Deljanow, Minister for Public Instruction, presided.

A series of experiments made with army drinking flasks and cooking apparatus of aluminium have been brought to a close in the laboratories connected with the Army Medical Department in Berlin. The results are not quite so encouraging as had been expected. It is true that neither water, coffee, beer, wine, brandy, nor lemonade undergo a change of taste if kept in an aluminium flask, but if brandy be left in the flask any length of time dark spots, composed of aluminium tannate, are found on the inner side of the flask, and the colour of the brandy changes to a dirty brown. In the same way, if water be left in the flask, whitish deposits of aluminium salts are formed on the bottle. Both these deposits are easily removed in cleaning the flasks. As a material for field-cooking apparatus there is no fault to be found with aluminium. Cooking experiments with water, salt solutions, acetic acid, coffee, meat, vegetables, bacon, etc., have been made, and it was found that the aluminium resisted all action until after a very long period of use, and even then nothing detrimental to the food was found.

PARIS.

Laïcisation of Hospitals.—Night Refuges.—New Medical Law.—Medical Students and the "Internat."—Vibration in Paralysis Agitans.

DR. HÉRET, Pharmacien en Chef des Hôpitaux, publishes in the *Tribune Médicale* two interesting articles on the laïcisation of hospitals. He maintains that the lay nurses are more docile and better educated than sisters of charity, devote more time to their patients, and are entirely guided by the Chef du Service. The New Municipal Council of Marseilles has under discussion the question of licensing the hospitals of that city. In Paris there are only three hospitals where sisters of charity fill the posts of nurses. The Conseil d'État is discussing the question of lay nurses for the first time; and M. Albert Petrol will question the Prefect of the Seine and the Director of the Public Assistance on the subject. Le Conseil de Surveillance of Public Assistance have just resolved by 8 votes against 6 that lay nurses replace the sisters of charity at the Berck Marine Hospital.

L'Œuvre de l'Hospitalité de Nuit (night refuges) has published its balance sheet; the expenses amount to £4,000. This charity was organised in 1878; in 1891 it sheltered 98,728 men, 2,825 women, 792 children; 1,357 of these paupers were provided with different occupations. Since this charity has been organised, it has succoured 750,860 paupers.

The Chamber of Deputies has voted the new medical law, a summary of which has already been given in the BRITISH MEDICAL JOURNAL. If the Senate accepts the Bill, it will come into force next year; if not, it is difficult to say when.

The Public Assistance has adopted the suggestion made by the medical students as to the age limit of candidates for the *internat* (house-surgeonship), which was formerly fixed at 25. This is now changed, and medical students are not in future to be admitted after the sixth year following their first registration fee. Thus a student commencing his studies November, 1890, can take part in the *Concours pour l'Internat* in 1896. He will then have been able to serve his first year of military service, and if necessary, have tried four times to pass that terrible ordeal of the *concours*.

M. Charcot recently gave at the Salpêtrière a remarkable lecture on a new method of treating certain nervous affections by mechanical vibrations. M. Charcot has observed that patients afflicted with paralysis agitans were greatly relieved by taking long journeys on the railway, or driving. He had constructed by MM. Jégu and Solignac a mechanical armchair which observes the same movement as in a railway carriage when the train is running. This *trépidant* armchair is used by MM. Charcot and Gilles de la Tourette for treating patients suffering from paralysis agitans. After passing a short time in the armchair the patients sleep peacefully, the trembling disappears, also stiffness in their movements. M. Gilles de la Tourette has invented a vibrating helmet which transmits vibrations and localises them. It is very useful in cases of insomnia.

LIVERPOOL.

Hydrophobia.—Appointments at the Stanley Hospital.

A DISTRESSING case of hydrophobia has recently ended fatally in the Royal Infirmary. The patient, an intelligent man, aged 40, a shunter employed at St. Helens, was, two months before his death, bitten in the face by a collie dog, which escaped and was not traced. No serious consequences were observed to follow until August 20th, when after getting up he found that the contact of water in washing brought on a kind of dyspnœa, and he soon experienced difficulty in swallowing. Next day he was brought to the infirmary and was seen by several members of the staff, who had little doubt that the case would prove to be one of hydrophobia. Death took place on August 23rd. A remarkable feature of the case was that for the last twenty-four hours of life there was an absence of dysphagia, and the patient was able to take copious draughts of milk and water. During this time there was generally present more or less excitable delirium, increasing at times to uncontrollable mania. Death appeared to result from gradual exhaustion of the respiratory centre. A *post-mortem* examination showed the characteristic appearances of the disease. Lividity of the fauces and larynx, numerous hæmorrhagic infarcts in the lungs, ecchymoses in the stomach and under the pericardium, and softening with minute hæmorrhages in the spinal cord. A portion of the cord was submitted to Professor Victor Horsley for further investigation. One cannot but feel that this regrettable death might have been avoided if the muzzling order, which was so successfully enforced some time ago, had not been withdrawn.

The posts of physician and surgeon to the Stanley Hospital, rendered vacant by the resignation of Dr. Bradshaw and Mr. Wilson, have been filled by the election of Dr. Charles B. Macalister and Mr. G. Palmerston Newbolt. The office of assistant-surgeon to the Infirmary for Children has been given to Dr. Hugh R. Jones.

MANCHESTER.

Royal Infirmary Extension.—Opening of Medical Session at Owens College.—Medical Dinner.

THE *quæstio vexata* of the extension of the Royal Infirmary on its present site has reached and passed through its first stage. The Board of Management obtained plans with a view to extending the infirmary on its present site. In this view many, but by no means all, the medical staff coincided. The decision, however, rested with the trustees. A poll of this body was taken, 1,450 voting papers being sent out, and of these 698 were returned. The result of the voting showed that 414 trustees were in favour of non-extension on the present site, and 284 for the resolution in favour of extension of the present site. What is to happen now remains to be seen. There are several alternative proposals before the public, but it may be some time yet before a definite decision is arrived at.

The winter medical session at Owens College will be opened with an introductory address by Dr. W. H. Broadbent, of St. Mary's Hospital, London. Members of the medical profession are invited to be present.

The annual medical dinner of the Owens College and the Manchester Royal Infirmary will be held at the Owens Hotel on Monday, October 3rd, at 7.30 P.M. Professor Dreschfeld will occupy the chair, and Dr. Broadbent will be the guest of the evening.

SHEFFIELD.

The General Infirmary.—Report of Medical Officer of Health.—The Water Supply of Rotherham.

At the annual meeting of the General Infirmary held on September 7th, a satisfactory report of the working of the institution was presented. Owing, however, to the necessity that had arisen for the drainage to be extensively renovated, a large deficit had resulted. This, it was hoped, the friends of the institution would soon make good. The appointment of an assistant medical and surgical staff which at the time was thought by the then staff to be hardly in accord with the hospital requirements of the town has now been put an end to. The old arrangement of three physicians and three surgeons has been reverted to. Dr. Cocking has been promoted to full physician, and the assistant surgeons will become full surgeons as vacancies occur.

The report of the medical officer of health for Sheffield for 1891 has just been issued. The death-rate for the year was 25.9, and mention is made in it of the great disparity in the rate in different parts of the borough. In one district it is only 12.5, whereas in two others it is 33.4 and 31.7. In these same districts the average death-rate has for many years been pre-eminent and is not, therefore, due now to any mere accident. The remedy for this state of things by clearing away the poor dwellings and opening out the part into wider streets is plainly pointed out. At another part of the report attention is drawn to the powers now possessed by the corporation to erect public slaughterhouses, and, in view of the unsatisfactory condition of many of those now existing, Dr. Littlejohn does not hesitate to urge that such powers should at once be exercised. But the most interesting part of the report deals with the influenza epidemic, which more than accounts for the increased death-rate of the borough, and the position it occupies in this respect to the other large towns. Never, the report states, in the history of the town had the death-rate previously reached such a height as during the week ending May 2nd last year, 73.0 being the figure reached. Many other towns had a rate reaching over 50.0 per 1,000, but none registered as high as that reached in Sheffield. The death-rate was influenced not only by deaths due to influenza and respiratory diseases, but also by those from other causes such as convulsions, heart disease, and old age. It differed greatly from the small-pox epidemic when even at the worst time the death-rate was hardly appreciably affected by it. The influenza was apparently imported from Hull, spread with great rapidity, and affected large numbers almost simultaneously in all parts of the borough. It attained its maximum in four weeks, and in another month had practically disappeared, leaving behind it a death-roll of 399 as compared with only 96 in the previous year.

Mention was made at the close of last year of the epidemic of typhoid fever which was prevalent at Rotherham and at the adjoining township of Rawmarsh. It had been plainly pointed out by the medical officer for the latter place that the epidemic was to be traced to the water supply from Rotherham. Dr. Theodore Thomson was deputed by the Local Government Board to investigate the matter. His report has just now been issued, and it is very damaging to the water supply of Rotherham. He thinks the presumption is a strong one that for years the Rotherham high water level supply has been associated with exceptional frequency of enteric fever among the population consuming it. The gathering grounds for both the high and low level water are such as to give grave risks of pollution. "Both gathering grounds contain a great deal of cultivated land which is manured not only with farmyard but with midden refuse; and sewage from villages as well as from detached houses find its way into the water supply, more especially on the Ulley (high level) gathering grounds." He mentions other water supplies, and remarks on the reports made again and again by the West Riding analyst as to the impure nature of the water. The publication of this report has drawn from the Mayor of Rotherham a letter setting forth the reasons why he thinks there is no need for alarm in the matter, and quoting a letter from the medical officer of health for the borough that the death-rate is at present at the exceptionally low one of 13.0 in the 1,000.

CORRESPONDENCE.

AT WHAT STAGE IS SCARLET FEVER INFECTIOUS?

Sir,—Without doubt it may occasionally happen that a case of scarlet fever in the early stage—by which I understand the stage antecedent to the full development of the rash—may not impart infection to people who have been exposed to the contagion. Still, such an occurrence, or indeed any number of them, would be no proof that scarlet fever is never infectious in the early stage, unless at the same time it could be proved that the people exposed, who did not contract the fever, were susceptible to infection at the time of such exposure. To arrive at any positive conclusion on such a subject is beyond the scope of existing knowledge. I do not myself think that dogmatic assertions on either side as to the infectivity or non-infectivity of all cases of scarlet fever in an early stage are warranted, although there is probably more seemingly good evidence in favour of the contagiousness of the early stage than against it.

On the other hand, it is sound public policy for the officials of the Public Health Department to hold that no one is justified in exposing in a public place a person who is suffering from a dangerous infectious disorder, whether in an early stage or not. As soon as the disease is capable of diagnosis it must be held that the person is so suffering, and the various Public Health Acts contain no provisos as to the degree of infectiveness; and even if a medical man conscientiously believed that the fever was in too early a stage to be infectious he would be none the less amenable to the law if he did not act as though the case was capable of imparting infection to those around. It must be obvious that, from the point of view of the public safety, the only sound and just method of dealing with fever cases is to treat them as infectious from the earliest moment that a diagnosis can be arrived at until their termination.

With regard to the question as to who is responsible for the removal of an infectious case to an isolation hospital, I cannot agree with Dr. Brock that any responsibility rests upon the medical officer health, unless he has examined the patient—and this of course he will only do with the consent or by the desire of the medical attendant—and then the responsibility for removal is shared equally between them. In the large majority of cases of removal, where the patient or his friends are willing for him to go, and the removal is effected on the notification certificate of the medical attendant, the medical officer of health not having seen the case, the entire responsibility must rest on the medical attendant, unless he has marked on the certificate or otherwise notified to the sanitary authority that the case is not a suitable one to remove to hospital. It is no part of the duty of a medical officer of health, as your correspondent would seem to suggest, that he should examine fever patients in order to decide as to their removal from home to hospital; and if it is not his duty to do so, and he does not see the case, how can he be held responsible?

The medical officer of health merely has to decide as to whether in the public interest, to prevent the spread of disease, the patient can be allowed to remain at home, or whether, the isolation at home being insufficient, the case must be removed to hospital. If the latter, and the patient or his friends are willing, the responsibility for the diagnosis still remains upon the medical attendant, but if the patient or his friends withhold their consent, then a magistrate's order for removal must be obtained; but probably no medical officer of health would proceed to this extremity without having first consulted with the medical attendant and satisfied himself personally that the case was a proper one in every sense for removal.

I am afraid there is no way of avoiding the fact that, in signing a notification certificate, which he is compelled to do by law, the medical attendant incurs the usual risks attaching to a declaration of professional opinion, even although he is no party to the subsequent acts of the sanitary officials which are founded on his signed opinion.—I am, etc.,

Louis C. Parkes, M.D., D.P.H.,
Medical Officer of Health for Chelsea.

Cadogan Square, S.W.

EARLY INFECTIOUSNESS OF SCARLATINA AND MEASLES.

SIR,—Whoever has an opportunity of observing the beginning of an epidemic of measles or scarlatina cannot fail to note the virulence of the infection in the initial stage of both fevers—that is immediately before the appearance of the rash. In measles, of course, it is a matter of common observation that new cases crop up in batches so many days after the previous case fell ill. For example:

A maidservant came from a distance, and after a week's service was sent home as she complained of feeling ill and of being unable for her work. No rash was noticed and no danger suspected. We afterwards found that there had been measles in the village she came from, and that she was laid up with measles as soon as she got home. Eleven days after the dismissal of the maid A., her mistress showed the typical rash of measles. A. received ten children as day scholars; among these were B., C., D., and E. B., who had been in bed for a few days with headache and pyrexia, on the twelfth day became covered with the rash, and was perfectly isolated. B. had had measles badly four and a-half years before ($2\frac{1}{2}$ years is the shortest interval I have heard of). On the thirteenth day C., D., and E. had the rash and were isolated.

Eight days after C., D., and E., F. and G., who had slept in the same nursery, also showed the rash. Unfortunately, as the catarrh was so slight as not to be noticed, and the incubation period so short, F. had been allowed to run about freely till within an hour of the efflorescence, and the disease spread to other families.

Fourteen days after B., the rash came out on H., who had slept in the same room with B. until ten hours before the rash appeared. H. had been suffering for several days from headache and sore throat with high temperature, but the other children were not kept apart till about eighteen hours before the rash was seen, and none of them took the disease, although they never had had measles. Many other cases might be cited to show that the twelve hours before the efflorescence is the period of greatest danger. And the fact that children fall ill at more or less regular intervals in families where there is no attempt at isolation, and that these intervals are not greater than may be observed where there is perfect isolation of every case as soon as it is recognised, goes to show that the period of greatest virulence does not last long after the appearance of the rash—if at all.

The same is true I believe in scarlatina; but owing to the shortness of the incubation period it is more difficult of proof. Here however is an instance: A lad going home after a long absence, stopped by the way to visit friends at X., one Saturday night. He felt "seedy," and on Sunday morning was sick once before breakfast, but went to church. On Monday morning he went home feeling worse, and on Monday night the rash of scarlatina appeared. Soon afterwards we learnt that the five children at X. had scarlatina, the first having fallen ill on the Tuesday night. There had been no cases in the district previously, nor had the lad been knowingly in contact with any case, but there is no doubt that he carried the infection to X. The disease spread no farther. As regards the conveyance of the infection by fomites, the following case shows that it is possible long before there is desquamation. A. and B. were neighbours. A. one morning showed me her two children covered with the rash. It was the first day of the rash, and there were no other cases at that end of the town. In the evening, on going to the confinement of B., I found A. installed as her chief comforter. A. was at once sent away, but the mischief was already done.

There is no doubt about the advisability of rubbing in oil or vaseline to cool the skin and reduce the temperature. But as for the inunction of disinfectants—well, I think the dissemination of scarlatina by epidermic scales is open to question.
—I am, etc.,

Lechlade. P. H. WALKER.

DUTIES OF MEDICAL OFFICERS OF HEALTH UNDER THE NOTIFICATION ACT.

SIR,—As a medical practitioner I must entirely dissent from Dr. Brock's "two-fold" duty of medical officer of health. This implied responsibility of the medical officer of health for the correctness of the diagnosis of the case of infectious disease to be removed is, in reality, although I do not accuse Dr. Brock of intending it as such, an imputation of carelessness or professional incompetence on the medical practitioners of the country, who, as a matter of fact, are probably more likely to form a correct diagnosis of such cases than the ordinary medical officer of health, especially if he is, as he ought to be, debarred from private practice, as he cannot have the experience of the former in constantly having to deal with these, so that, in my opinion, the public would not be a gainer if such a responsibility were placed on the shoulders of the medical officer of health.

The medical officer of health may be responsible for the removal of a case of infectious disease as far as the machinery by which the removal is carried out is concerned—that is, he must see that proper precautions are taken in removing the patient; he may also, in many cases, be called upon to decide as to the necessity of such removal, but in every case it is his duty to take for granted that the certificate of the registered practitioner as to the nature of the disease is correct, and under no circumstances ought he to question this, except, perhaps, in those rare instances when he is called upon officially by his sanitary authority to do so.

Nothing, Sir, in my opinion, would be more likely to hamper the working of the Contagious Diseases Notification Act than the assumption by the medical officer of health of such a responsibility, and I would challenge Dr. Brock to show any Act of Parliament or order of the Local Government Board attributing to them such responsibility. If a medical officer of health were to send a case of ordinary disease to an infectious disease hospital, acting on the notification of a registered practitioner, he would be liable to no penal consequences whatever; and I assert, without fear of contradiction, that there has never been a recorded case of a medical officer of health being held liable for damages under such circumstances, as the notifier must be clearly the only party against whom action, if any, would lie.

Dr. Brock sees evidently how pernicious such a practice would be where medical officers of health are in general practice—in fact, it would soon reduce the above Act to a dead letter, as its successful administration must altogether depend on the hearty co-operation of the profession; yet if there really were any such duty incumbent on the medical officer of health, it would be necessary for him to carry it out whether in private practice or not.—I am, etc.,

Hackney Road, N.E. M. GREENWOOD, M.D., D.P.H.

PAYMENT OF MEDICAL WITNESSES.

SIR,—In thanking the Editor of the BRITISH MEDICAL JOURNAL for bringing this question of medical fees in criminal cases prominently before the profession after my letter of July 16th, I would like to point out one or two mistakes made in the memorial in the issue of July 23rd.

1. I am always allowed 21s. and travelling expenses for attending before the magistrates at Lawford's Gate, Bristol, so that 10s. 6d. is not the maximum sum.

2. The allowance for each night away from home is, I believe, 2s., and not 2s. 6d. (But even that I was refused, as I hinted in my letter of July 16th).

I would further suggest that a distinct fee be paid per day for each subpœna. For example, I attended at the Assize Courts about four years ago; I had two cases there. It was the fourth day when both were tried, but I only got a guinea a day till the fourth day, when I got 2 guineas. Now, I hold that I ought to have received a guinea a day for each subpœna, and that for a number of cases the medical man ought to get the advantage, and not the county.

I believe it is also true that the medical witness is only allowed a guinea for an inquest, no matter how often he may be required to attend an adjourned case.

I trust other medical men will not be backward in responding to your invitation to submit their grievances, etc., to you.
—I am, etc.,

Fishponds, near Bristol. WILLIAM BROWN.

SIR,—With respect to the above, will you allow me to briefly suggest an important omission in the projected memorial to the Secretary of State.

As the law now stands, medical witnesses are allowed a guinea for attending the coroner's court and giving evidence, but it seems they can claim no more in the event of an ad-

journment, no matter how many subsequent attendances are demanded.

Surely this should be altered, and the fee payable for each attendance.—I am, etc.,

Bethnal Green Road, E. H. F. C. Eagle.

*** A witness who always gets a guinea for attending before magistrates under the present system is exceptionally lucky. The suggestion that a separate fee should be claimed and allowed for each day's attendance at a coroner's inquest is a good one. It is rather contradictory of the other suggestion that separate fees should be claimed for each case for which a witness is kept in attendance at an assize. It is natural for a medical practitioner to expect payment for each case in which he is engaged; but the real grievance which it is now sought to remedy is, not adequate remuneration for the cases in which evidence given—generally a guinea or even 10s. 6d. is fairly adequate for each case—but inadequate remuneration for loss of time and expenses necessarily incurred. If a proper scale of allowances for these can be obtained, and the principle of payment in accordance with the length of time during which the witness is kept away from his ordinary work is once recognised, much will have been done.

CLINICAL TEACHING IN POOR-LAW INFIRMARIES.

Sir,—Having been for a short time resident in one of the newest and largest of London infirmaries (St. Saviour's Union, East Dulwich Grove). I have been interested by your article upon the recommendation of the Lords' Committee to open such institutions for clinical teaching.

In connection with the foundation of a new university for London, a great deal has been said about the immense clinical experience available in the metropolis. It is true that the clinical material is great, but it is equally true that but comparative a small fraction is made use of for teaching purposes.

In some at least of the hospitals connected with medical schools, a considerable percentage of students are kept waiting three months for several of the minor appointments; sometimes the time thus wasted amounts to an aggregate of twelve months or more. Some students, of course, never allow lost time to be waste time, but undoubtedly with the majority the want of definite work is not only intrinsically barren, but tends to encourage fitful and listless habits.

Why should not clinical clerkships be made in several of the smaller hospitals—for example, in the children's hospitals—and unemployed students who have been instructed in the methods of clinical examination be drafted off? Such smaller hospitals having been in some way affiliated to the medical schools, the next most useful step would be to open the Poor-law infirmaries. Although the majority of diseases to be seen in infirmaries are undoubtedly chronic, there is a very considerable sprinking of acute. In the infirmary with which I was connected, it was the custom to admit most of the patients who were seriously ill into the wards on the ground floor, and under such an arrangement I have seen some of those particular wards as full of interesting cases as one had been accustomed to see the medical wards when house-physician at Guy's (surgical cases of interest are comparatively rare). Clinical clerkships in an infirmary would however, be of little or no value so long as the infirmary does not possess a visiting staff, and a staff composed if possible of members of teaching schools. No doubt such an innovation would have some drawbacks, but on the whole the parochial authorities have little to fear from the admission of the visiting staff and the associated clinical clerks; on the contrary, such a step would be beneficial to all in whom they are concerned.

The ingress of fresh faces would tend to brighten the life of the patients, and more careful examination would occasionally lead to discovery of vital importance to individuals amongst them. The association of the superintendents and his assistants with teachers from the hospital schools would act as a healthful stimulus, while at the same time there would be increased facilities for adding to their knowledge. Neither would the members of the nursing staff be unaffected; their work would be more assimilated to that of a hospital, and the antipathy of the majority of good nurses to infirmaries would to a great extent disappear.—I am, etc.,

Greenwich, S.E. Theo. Fisher.

SEA SICKNESS AND ITS TREATMENT.

Sir,—After a series of careful trials, I can testify to the efficacy of chloroform in cases of sea sickness. During my experience at sea I have prescribed almost every reputed remedy for this terror to ocean travellers, including cocaine, quinine, nitrite of amyl, etc., but with indifferent and uncertain results in most cases.

Of late it has been my custom to prescribe a mixture of bromide of potassium and spirit of chloroform; this I found to be of considerable service, but unfortunately, like other remedies administered by the mouth, it was exceedingly liable to be rejected by the stomach. Chloroform, however, to my knowledge, has never been rejected, and has seldom failed in allaying the gastric disturbance and nausea, and inducing a refreshing sleep, from which the patient awakes with a clear head, a fair appetite, and a remarkable freedom from those symptoms which were so painfully evident prior to the administration of the solution. Its perfect safety, agreeable taste, and freedom from disagreeable after-effects, all combine to render it an admirable preparation and an ideal sedative.

Pressure upon your space prevents me asking you to give full details of all the cases treated, but I desire to state how it acted in a case of *mal de mer* complicated with a history of gastric ulcer. Unless this solution had been retained, I believe there would have been a great danger of perforation of the wall of the stomach, from the excessive retching.

On the morning after leaving Moville, I was called to see Miss C., aged 22, and found she had been very sick since the steamer started. There was continuous retching, with headache, sleeplessness, and great prostration. She was very weak and markedly anæmic. The peculiar "coffee-ground" appearance of the vomited matter attracted my attention, and I found that the patient had been for two years under treatment for gastric ulcer. I immediately administered half an ounce of chloroform, which was retained, and in twenty minutes secured a sound sleep, which lasted for eight hours. At frequent intervals fluid nourishment was subsequently given, with finely chopped ice and small doses of chloroform. There was no return of nausea or retching. After two days she was able to be moved to the deck, and she continued to improve in her general health until the end of the voyage.—I am, etc.,

George Macdonald, Surgeon *s.s. Ethiopia*, Anchor Line.

Glasgow.

IS SOFT MUSIC A CALMATIVE IN CASES OF FEVER?

Sir,—Seeing that scarlatina is prevalent in London at the present time, I venture to draw the attention of the medical world to statements made from time to time by practitioners in past ages that music (soft and low of course) has proved to be efficacious in cases of fever.

We may suppose, if we will, that diagnosis was not so perfect in ancient times as it is at present; but we cannot ignore the fact that many men of learning and skill who have closely studied the nature of diseases have borne testimony to the power of music as an efficacious sedative. The various histories of music furnish plentiful reference to this. I have not a copy of Dr. Burney's work to quote from, but on page 43 of Nathan's "Musurgia Vocalis," we may read: "Martianus Capella affirms that fevers were removed by song," and a few lines further on, "In the History of the Academy of Sciences we read of a musician who was cured of a violent fever by the performance of music at his bedside."

This sounds unquestionably strange, but is it not worth while to put this matter to the test, and examine whether soft music can or can not reduce the temperature of the blood in cases of acute fever; and, if this experiment be considered to be worth making, how and by whom should it be made? The St. Cecilia Guild has been formed for the express purpose of carrying music to patients of all classes, but, in the first place, our Committee would not deem it right to ask the choir to visit severe cases of scarlet fever; and, secondly, if request were made for admission into a fever hospital, we should most probably, very properly, be refused. Professionals, therefore, are the persons to make this experiment; and in London there will probably be a certain number of young doctors, nurses, or sisters of charity who have been trained to play the pianoforte, and who are accustomed to the danger of infection.

If any of these will have the goodness to write to me (address: 4A, Dean's Yard, Westminster) I shall be happy to send them music suitable for the purposes of trial. I may add that Dr. R. A. Birdwood has kindly promised us the aid of his high influence with the superintendents of the several fever hospitals. So that permission from the proper authority may reasonably be expected under the usual restrictions that apply to those who visit cases of infectious disease.

Trusting that you may deem this appeal one which may appropriately be made in the BRITISH MEDICAL JOURNAL.—I am, etc. FREDERICK K. HARFORD.

P.S.—Some of your readers may be pleased to know that Robert Herrick (1590-1674) wrote a delightful little song, "To Music to becalm his Fever," beginning thus:

Charm me asleep and melt me so
With thy delicious numbers,
That being ravished, hence I go
Away in easy slumbers.
Ease my sick head, and make my bed, etc.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SCARLET FEVER EPIDEMIC APPARENTLY ORIGINATING IN DISEASE OF COWS.

IN the BRITISH MEDICAL JOURNAL of August 20th mention was made of the occurrence of an epidemic of scarlet fever in the southern district of Glasgow which presented features of peculiar interest. The main facts connected with the outbreak are these:—In the three days August 4th, 5th, and 6th, ten cases of scarlet fever were reported, all of which obtained milk from one purveyor. Between August 6th and 8th between 60 and 70 additional notifications were received at the sanitary office by post. In all, from August 1st to 12th, 224 individuals were attacked, concerning whom the evidence points to one particular dairy as the source of the infection. On August 6th the sanitary authorities notified to the proprietor of the dairy the grave suspicion attaching to his milk. On the 7th he inquired of those delivering milk from the farms as to the health of the farm inmates, and later in the day visited the farms. In the family of one he found one member who had sickened of scarlet fever on the 4th. He immediately stopped his supply from that farm, and, returning to his dairy, withheld from sale, and subsequently destroyed, 40 or 50 gallons of milk received from that source. When the Glasgow medical officer of health visited the dairy on the morning of the 8th, he found that already effective steps had been taken to arrest the epidemic. From that day the number of cases notified diminished till, as stated, the primary outbreak had ceased by the 12th, on which day only one new case occurred. Both the dairy and the implicated farm were inspected by the Glasgow and the Renfrewshire medical officers, and they both testify that the business was conducted with scrupulous attention to cleanliness, that none of the conditions usually regarded as insanitary were present. The dates of sickening of the earlier cases in Glasgow and that of the case at the farm, when compared, afforded sufficient evidence that there was no causal relationship between them, but that they all suffered from a common source of infection. The milk clearly suffered no contamination in transit from the farm to the dairy, nor was there the slightest evidence which would suggest contamination of the milk after its delivery. In short, suspicion pointed broadly to the cows themselves. These were examined by the medical officers associated with Principal McCall, of the Veterinary College. The total herd numbered 53. They were well nourished, ate well, were much in the open air; there was no evidence of any general disturbance, no increase of temperature, no persistent cough, no rough or "staring" character of their coats, and nothing unusual had been observed in the quality of their milk; but all, or nearly all, the animals of the herd had suffered, and at the date of inspecting many were still suffering from an eruption on the teats, which is thus described:—

"Its character in its earlier stages cannot be described with even approximate accuracy. It is evidently small, and apparently insignificant, in its beginning, and does not attract the milker's attention until tenderness causes restiveness in the cow during milking. By this time an ulcerating stage has usually been reached. In one animal only did we find a subcutaneous vesicle, not attracting the eye until the finger had first detected a slight thickening or undue resistance on manipulating the teat. This vesicle, on being punctured, exuded a straw-coloured serum. In others there was seen a *quasi*-papular form, with viscid whitish-coloured contents, which could not be taken up by capillary attraction, while in most of the animals the sore existed as a reddish-brown crust, blackening in the centre, and which could, without much difficulty, be detached from a superficial ulceration of varying dimensions. When this was done, some faintly-coloured, and probably blood-stained fluid exuded, or could be pressed out. Three or four of these would be present in one teat, and sometimes all the teats would be affected. It was rare to find one present alone. Nor was it with any certainty that their presence could be recognised on the udder. Some few spots did exist thereon, chiefly in the neighbourhood of the base of the teat, but they were of small size, and in appearance suggested drying pustules. There was no attempt here to simulate the scabbing so prevalent on the teats, most likely because of absence of friction by the finger in milking. Nor was it possible to say that any of the teats were swollen and œdematous, although many were very tender to pressure. Regarding the stage immediately preceding the formation of the crusts, it is impossible to affirm that there was indubitable evidence of umbilication. As to size, many of the spots were barely of the diameter of a threepenny piece, and these were circular. Most, however, were larger than this, and these tended to assume an elongated form—in some cases of more than an inch in length—in the long diameter of the teat. The margin of the ulcers left on separating these crusts was not raised, and, while sharply demarcated, there was no surrounding areola or secondary vesiculation."

The hands of the farmer and of some of the milkers presented sores. Those of the farmer are thus described:—"In front of the wrist there was a small circular spot of about the diameter of a split pea, having no inflammatory areola, but with sharply defined edges and of a distinctly vesicular nature. The centre of the spot was blackening on the surface, apparently from desiccation, but there was nothing suggestive of depression or umbilication. The fluid contents increased, and on August 12th we obtained, by puncturing, some faintly straw-coloured lymph therefrom. Subsequently the sore healed by scabbing. On the inner aspect of the thumb posteriorly there was a second sore, larger in size and more irregularly shaped, but presenting some features corresponding with those already described."

Three of the workers had suffered. One had in consequence been compelled to stop work and go home, and one attributed her sores to inoculation from the teats on the site of punctures and scratches received while picking fruit. At the time this eruption first appeared, the herd was divided into portions—one portion being kept at an upper house of the farm, the other at a lower house. The eruption began in the upper portion four weeks before the inspection, and within two weeks every animal was affected. After about two weeks it appeared in the portion at the lower house, and at the date of inspection almost all the animals there were suffering.

Such are the main facts regarding this epidemic, so far as they have yet been brought together; and the suggestion that the eruption on the teats was of some specific character, and was associated with the outbreak of fever, is obvious. Whether further investigation will yield any information of definite value remains to be seen.

MILL DUST AS BEDDING FOR MILCH COWS.

THE sanitary authorities at Dundee have given offence to the local dairymen by prohibiting the use of mill dust as a bedding for cattle, and a meeting of the trade was lately held to protest against the new regulation. Mr. Anderson, who presided, stated that he and all the other dairymen in the city had been served with notices requiring them to cease using mill dust. In summer, he said, cows were easily kept clean, but in the turnip season it was next to impossible to maintain them in a cleanly state without mill dust. Considering the high price of straw, carrying out the order would entail a largely-increased expenditure. Dairymen should demand to know why the authorities had taken this action. Had they yet traced one case of infectious disease to the use of mill dust? If so, dairymen would not object to obeying the order. As much country milk was supplied to the burgh as city milk, yet country dairymen were still allowed to bed their cattle with mill dust, and mill dust in milk brought into the city was as likely to convey infection as mill dust occurring in city milk. The practice of bedding cows thus had prevailed for more than twenty years.

Other speakers followed, and it was stated that the notices complained of were served under powers given in a new Police Act. A committee was accordingly appointed to appear before the Police Commissioners, and to urge that compliance with the terms of the notices should not be insisted on.

It is not surprising that the action of the local sanitary authority at Dundee should appear to the dairymen of the city harsh and unjust, especially as they are asked to incur an expenditure in regard to production, from which country dairymen, who also supply milk to the city, are free. However, we doubt not the judgment of the profession will be that the order prohibiting the use of mill dust as bedding for milch cows is wise and necessary. If the sanitary authorities of the rural districts in the vicinity of Dundee have the requisite powers, it may be presumed they will shortly take similar action with reference to the dairymen under their control. If they have not the powers, let the county authorities look to it.

Mill hands, as is well known, are, many of them, predisposed to consumption. Not a few are the offspring of phthisical parents; and the warm, moist, impure atmosphere in which nearly all work, weakens and injures the respiratory apparatus. Thus mill dust is always liable to be contaminated with the sputum of consumptive operatives, and is, on this account, not a suitable or safe bedding for milch cows. But even if there were no risk of this dust serving as the vehicle in conveying the tubercle bacillus from man to animals and to milk intended for human food, it would be an objectionable litter for cows. Once in the cowhouse it must be almost impossible to keep it out of the milkpail, and, if not tainted when received, it is always liable to be contaminated with the discharge of a cow affected with phthisis or possibly some other disease.

It appears that between March, 1888, and April, 1892, 14 cows from dairies slaughtered in the Dundee abattoir were found to be suffering from tuberculosis. The danger is, therefore, not imaginary, and it is a danger menacing the young especially, who are always the largest consumers of raw milk. During the last ten years the annual death-rate at Dundee from tuberculous diseases among children under 5 years of age averaged 96. Every reasonable precaution the local sanitary authorities can take is fully warranted, and we trust they will not be dissuaded from enforcing their order prohibiting the use of mill dust as a litter for milch cows.

SANITARY NEGLECT IN THE AYLESBURY RURAL DISTRICT.

A REPORT by Dr. Theodore Thomson, which has just been issued by the Local Government Board respecting the Aylesbury rural sanitary district, shows that the cottage dwellings, the drainage, the arrangements for refuse and filth disposal, the water supplies, are all on the whole most unsatisfactory, but at the same time such as an energetic sanitary administration would not have allowed so long to continue. Summarising the results of his visit, the inspector states that "the unwholesome cir-

stances referred to in this report suffice to show that the sanitary authority have made but little effort adequately to discharge the duties entrusted to them in common with all rural sanitary authorities under the Public Health Act, 1875, and the Public Health (Water) Act, 1878. They have also failed to take advantage of the provisions of the Public Health Act to obtain power to make by-laws as to new buildings. Such by-laws are obviously required in several parts of the district in order to ensure the erection of proper and wholesome dwelling houses, a matter which has hitherto remained practically unregulated." The recommendations of the authority's late capable and energetic medical officer of health have been ignored in many important respects, whilst no steps seem to have been taken by the inspector of nuisances to procure the abatement of long-standing nuisances of which Dr. Thomson was satisfied he had been cognisant. In the important matter of water supply the sanitary authority seem to have been especially neglectful, having permitted condemned wells and a foul brook to be continued in use without taking steps to substitute more wholesome supplies. In the matter of hospital and ambulance provision for dealing with infectious disease, also the Sanitary Authority have likewise failed to take action. The absence of any such provision was severely felt in a recent epidemic of diphtheria at Quainton, when, with the view of checking the spread of the malady, an infant school, badly suited as such a building is for such a purpose, had to be converted into a temporary hospital, and the children suffering from diphtheria had to be conveyed to it in such imperfect ways as could at the time be best devised. As we hear of another outbreak of diphtheria having occurred in this district, it is to be hoped that some means may be found to rouse this apathetic authority to a proper sense of its responsibilities.

ENTERIC FEVER AT ABERGAVENNY.

Dr. L. D. Gamble (Abergavenny) forwards a copy of a letter received from the medical officer of health, in which it is pointedly stated that during the last two years nine cases of enteric fever have been reported in Abergavenny by Dr. Gamble, and none by any other practitioners. As the context throws no light upon this ambiguous and apparently irrelevant remark, it certainly lends itself to the idea that an innuendo was intended, although the facts which it records furnish no ground for anything of the kind.

ADOPTION OF THE NOTIFICATION ACT.

A monthly meeting of the Failsworth Local Board was held on September 6th. A case of small-pox came under observation in Holebottom on August 25th, and, in consequence, several others were found to have been suffering from the disease. The medical officer, in reply to questions, stated that small-pox had been going on for six weeks before it was discovered. Mr. Tong moved the adoption of the Notification of Infectious Diseases Act. It had been before the Building and Sanitary Committee for a considerable time, and had also been recommended by the medical officer of the district. Mr. J. Wild seconded the motion. Mr. Jackson (Chairman of the Sanitary Committee) supported the motion, but threw the whole blame of the delay upon the board, who had twice decided not to adopt the Act. The motion was carried unanimously.

CURIOUS EVIDENCE IN A "MEAT CASE."

In the course of the hearing of an application at the Birkenhead Police Court on August 24th some remarkable evidence was given. A lay magistrate, Mr. William Jackson, was the sole occupant of the Bench, and the application was made by Mr. Atkin, barrister, on behalf of the Birkenhead Corporation, for an order to destroy a carcass of beef seized by the local meat inspector on the previous day. The meat had been deposited for the purpose of sale, or for preparation for sale, at the Woodside slaughterhouses, in connection with the foreign animals wharf. Inspector Wagstaffe said that on Sunday, August 21st, he saw a bullock which had been landed some time before from a ship from America. He was present when it was slaughtered. It was sickly and weak and, in his opinion, nearly dead. It was very unusual to slaughter beasts on Sunday unless it was a case of necessity. He could not see the owner till Monday, when he told him (the owner) the carcass was not all right, and that he must get the medical officer of health to see it. The carcass was accordingly put into the chill-room, and on Tuesday at 2 P.M. the carcass was condemned by the medical officer of health, and removed shortly afterwards.

Dr. Marsden, medical officer of health, said he saw the carcass referred to on Tuesday, and certified that it was unfit for human food. The flesh was not of the natural colour, and the fat was dark. The bullock had not bled properly, and he got the impression it had been in a moribund condition. The kidney fat was very red, as if the kidneys (which had been taken away) had been inflamed. The late medical officer of health and Dr Laird Pearson deposed to having seen the carcass after it had been seized. They both stated that the meat was ill-bled, and had not set properly. The carcass looked like that of a diseased animal. The meat was quite unfit for human food. Mr. Bobbie, veterinary surgeon, corroborated the evidence of the previous witnesses.

After the magistrate had been shown the carcass three witnesses were called on behalf of the owner. Mr. William Ramsden, cattle salesman and butcher, president of the Liverpool Butchers' Association, said he saw the carcass referred to, and had arrived at the conclusion that it was that of a perfectly healthy animal—well fed, thoroughly bled, and with no indication of any disease whatever. It was quite fit for human food. He absolutely disagreed with the previous medical witnesses.

Cross-examined by Mr. Atkin, the witness adhered to his statement that the beast was perfectly healthy, well fed, well bled, with no sign or indication of disease, no smell of decomposition. As the animal was slaughtered on Sunday, he would quite expect decomposition to set in by Wednesday. With such weather decomposition might set in with the most healthy animal within twenty-four hours. The arteries were all closed. He did not know as a matter of fact that they never closed.

Mr. J. S. Baker, wholesale butcher, deposed to having examined the carcass. He agreed generally with Mr. Ramsden in his evidence, but would not go quite so far.

Dr. Brien said he saw the carcass on Tuesday, and thought it was perfectly healthy meat. It had deteriorated since the day before. He could not perceive any indications of disease.

The magistrate said that, having heard the evidence of those gentlemen who have had such long experience, and not scientific experience merely, but long experience as practical men, and especially after the evidence of Mr. Ramsden, he thought it would be impossible to make an order for the destruction of the carcass. He added that he did not mean to impugn the action of the officials, who, he thought, were perfectly justified in doing as they did.

Thus the evidence of the inspector who testified to the illness of the animal having seen it alive, the fact that the animal was slaughtered under exceptional circumstances on a Sunday, and that the offal (including the kidneys) was not offered for sale, but made away with, and the evidence of three medical men (including the medical officer of health), and a veterinary surgeon that the carcass was diseased and beginning to decompose, was all set aside. This was not owing to the medical witness on the other side, but to the weight the magistrate attached to the testimony of the two butchers, who "had such long experience, not scientific experience merely, but long practical experience." Yet one of those butchers was driven to account for the effluvium from the carcass by saying it came from the "joint oil," and to prove that the animal must have been well bled as the blood had "emanated from the arteries, which were all closed."

PERTH AND ITS MEDICAL OFFICER.

The relations of the town council of Perth and its medical officer of health have notoriously been for some time somewhat strained. The local authority have been unable to disabuse their minds of the idea that Perth is one of the very healthiest towns in the country, and that its sanitation is above reproach. In vain has Dr. Simpson reported as to defects in main drainage, defects in house drainage, as to unwholesome dwellings, as to the nuisance from the "toom" for town's refuse. In vain did he venture to call in question even the sanitary condition of "the Lord Provost's tallow works." In one sense the reply of the town council was effective, if not conclusive; it declined to adopt a suggestion from the Board of Supervision that the medical officer's meagre stipend of £55 should be increased. The questions at issue may now be regarded as definitively settled. The Commissioner of the Board of Supervision has reported that things sanitary are altogether out of joint in the good city, and the Board has allowed the local authority a month in which to draw up a scheme giving effect to the recommendations of its Commissioner.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,398 births and 3,688 deaths were registered during the week ending Saturday, September 10th. The annual rate of mortality in these towns, which had increased from 18.0 to 18.5 per 1,000 in the preceding three weeks, declined to 18.9 during the week under notice. The rates in the several towns ranged from 10.2 in Norwich, 11.3 in Croydon, 13.9 in Birkenhead, and 14.3 in Nottingham to 24.7 in Blackburn, 26.5 in Salford and in Leeds, 28.8 in Burnley, and 31.6 in Preston. In the thirty-two provincial towns the mean death-rate was 20.5 per 1,000, and exceeded by 3.9 the rate recorded in London, which was only 16.6 per 1,000. The 3,688 deaths registered during the week under notice in the thirty-three towns included 899 which were referred to the principal zymotic diseases, against numbers increasing from 678 to 984 in the preceding three weeks; of these, 652 resulted from diarrhœa, 62 from scarlet fever, 59 from diphtheria, 54 from measles, 39 from whooping-cough, 30 from "fever" (principally enteric), and 3 from small-pox. These 899 deaths were equal to an annual rate of 4.6 per 1,000; in London the zymotic death-rate was equal to 3.2 per 1,000, while it averaged 5.6 in the thirty-two provincial towns, among which these diseases caused the lowest death-rates in Norwich, Plymouth, Birkenhead, and Huddersfield, and the highest rates in Blackburn, Gateshead, Sheffield, Leeds, and Preston. Measles caused the highest proportional fatality in Huddersfield, Brighton, and Oldham; scarlet fever in Leeds and Swansea; whooping-cough in Derby and Preston; "fever" in Blackburn; and diarrhœa in Leicester, Salford, Hull, Bolton, Sheffield, Gateshead, Leeds, and Preston. The 59 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 37 in London, 4 in Birmingham, 4 in Liverpool, and 3 in Leeds. Three fatal case of small-pox were recorded in Halifax, but not one in London or in any other of the large towns; 4 small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 3 in the Highgate Small-pox Hospital, on Saturday last, September 10th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,338, against 3,088, 3,103, and 3,280 on the preceding three Saturdays; 414 new cases were admitted during the week, against 387 and 461 in the preceding two weeks. The 125 deaths from diseases of the respiratory organs in London were 40 below the average, and were equal to an annual rate of 1.5 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, September 10th, 821 births and 461 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 17.2 to 15.7 per 1,000 in the preceding three weeks, rose again to 16.6 during the week under notice, but was 2.3 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 9.4 in Aberdeen and 16.1 in Edinburgh and in Paisley, and the highest rates 19.3 in Leith and 22.3 in Greenock. The 461 deaths in these towns included 61 which were referred to the principal zymotic diseases, equal to an annual rate of 2.2 per 1,000, which was 2.4 per 1,000 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Glasgow and Leith. The 222 deaths registered in Glasgow included 12 from diarrhœa, 10 from scarlet fever, 7 from whooping-cough, and 3 from diphtheria. Two fatal cases of diphtheria occurred in Aberdeen. The death-rate from diseases of the respiratory organs in these towns was equal to 2.1 per 1,000, against 1.5 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, September 3rd, were equal to an annual rate of 22.7 per 1,000. The lowest rates were recorded in Newry, Dundalk, and Limerick, and the highest in Wexford and Lurgan. The death-rate from the principal zymotic diseases averaged 4.3 per 1,000. The 176 deaths registered in Dublin were equal to an annual rate of 26.3 per 1,000 (against 19.5 and 24.0 in the preceding two weeks), the rate during the same period being 16.6 in London and 14.4 in Edinburgh. The 176 deaths registered in Dublin included 26 which were referred to the principal zymotic diseases (equal to an annual rate of 3.9 per 1,000), of which 19 resulted from diarrhœa, 2 from scarlet fever, 2 from diphtheria, 2 from "fever," and one from measles.

SANITATION IN BOMBAY.

At a special meeting recently held, the Bombay Municipal Corporation passed a motion declaring that the work of constructing the house connections in the city should be stayed till the Corporation had inquired into the sanitary effect of those already constructed. A large committee was appointed to inquire into, and report on the question, and suggest such remedies as might appear desirable or necessary,

DUTIES OF COUNTY ANALYSTS.

An ASSOCIATE asks us the following questions with respect to the duties of a county analyst:

1. What are the duties of a county analyst (not a medical man)?
2. Has he to determine the physiological effects of articles of food on the consumer, or has he only to search for adulterants in food?
3. Is water examination one of his prescribed duties, and has he "to trace its effects as a causation of disease, or is he merely to give the ingredients found in samples supplied for examination"?
4. Are not his duties laid down by Act of Parliament?

*** The duties of a county analyst, or, to speak more correctly, of a public analyst, are laid down in the Sale of Food and Drugs Act, 1875 (38 and 39 Vict., c. 63). These duties relate to the analysis of samples of "food and drugs" submitted to him by certain specified persons—such as inspectors of nuisances and police officers—or by private purchasers who have complied with the provisions of the Act. The analyses are to be made with the view of detecting adulterations. Under ordinary circumstances a public analyst would not concern himself with the "determination of physiological effects," but the Act gives him considerable latitude, and he is at liberty to make any observations that he may consider proper or advisable in the certificates which he issues. Water is not included in the Act, but public analysts are generally called upon to make analyses of water, and we are of opinion that they are the proper persons to do it, while medical officers of health should be called upon to interpret a public analyst's report in relation to the "causation of disease." The duties of a public analyst are laid down in the Act in so far as the Act is concerned, but in his private professional capacity he is at liberty to undertake any analytical work he thinks fit.

IS MEDICAL ATTENDANCE "RELIEF?"

DR. G. CHARLES WILKIN (Harley Street, W.) writes: Under this heading I see in the BRITISH MEDICAL JOURNAL of September 10th a question raised by "S.B.M.," the answer to which is of great importance to Poor-law medical officers, especially to those in the country. Having received an order from a relieving officer to attend a certain person on behalf of the parish, the medical officer's attendance becomes at once Poor-law relief, and compulsory. If the patient had sufficient money to pay the expenses of the illness, clearly the Poor Law had no right to compel its medical officer to attend the case on its behalf, and, however unavoidable, an error having been committed, the guardians, in justice to their medical officer, must pay him his fair claim out of the money seized by the clerk on their behalf, after all other reasonable Poor-law claims have been met. To thoroughly appreciate the importance of the question raised one must have held a Poor-law post in a sparsely-populated country district.

SUPPRESSION OF CONTAGIOUS DISEASES IN ANIMALS.

MR. JOHNSON MARTIN, L.F.P.S. and L.M Glasgow, L.S.A. (Bolton), writes: The statement in the BRITISH MEDICAL JOURNAL of August 20th, 1892, page 427, reads as follows: "The power to deal with the suppression of contagious diseases of animals is vested in the Board of Agriculture, and effectual use of this power has recently stamped out foot-and-mouth disease and pleuro-pneumonia in cattle." Foot-and-mouth disease may be stamped out, but pleuro-pneumonia will never be stamped out by the slaughtering of cattle. Moreover, in this country it has increased for the last forty years, and will continue to increase until proper provision is made for the protection of cattle from cold and heat. Our forefathers provided for the care of live stock; for the last forty years proper care of animals has gradually ceased and pleuro-pneumonia increased. In Lancashire recently, five hundred head of cattle have been compulsorily slaughtered, and has cost about £4,500 in compensation alone, and there is no assurance that the end has come. Under the existing law, farmers dare not report the disease; it means ruination to many of them. The diseased animals are sold and eaten; lately 90 per cent. of the scholars in a school at Heywood were suffering from sore throat. Query, Why?

MEDICAL INSPECTION OF SHIPS.

DR. EDWARD WALFORD (Medical Officer of Health, Cardiff) writes: Under the above heading in the BRITISH MEDICAL JOURNAL of August 20th, you give a short notice of a meeting of the Health Committee of the Cardiff Corporation at which the subject of the inspection of shipping was discussed.

Owing to the fact that the discussion was of a somewhat conversational character, it was doubtless difficult for the representatives of the local press to obtain a very clear notion of the matter under consideration, or to frame a report with the accuracy which usually characterises their notices of the proceedings of this Committee. As the notice to which I refer would seem to convey an erroneous impression of the duties and powers of sanitary authorities, with respect to this inspection I would ask you to be kind enough to allow me to make, through your columns, a slight correction. In the report it is stated that the medical officer of health said: "The cholera order recently issued gave powers to inspect a ship from a foreign port, whether she had been inspected by the Customs officers or not, if the medical officer of health had reason to suspect that she was infected with cholera, but that this power did not apply to ships infected with scarlet fever, typhus, diphtheria, or other infectious diseases, as these might come from home ports."

The first part of the paragragh is substantially correct, as at the request of the Committee I submitted to them a statement showing the powers conferred on the local authority and their officers by the Cholera Order of the Local Government Board issued in August, 1890, and explained that these powers were in every way sufficient for dealing with cases of cholera should the disease be imported into this district; that there was no occasion for excitement or alarm, as everything was in perfect readiness for carrying out the provisions of the Order should the occasion arise; and, moreover, that special instructions had been given to the inspectors of the Port Sanitary District to visit by day and night all vessels from infected ports, and that, with the valuable assistance of the Customs officers, dock officials, and pilots, it was, I conceived, practically impossible that any case of cholera could escape detection; but even then, should a case of the kind be introduced into the town, the best and surest means of arresting the progress of the disease was the removal of all local insanitary conditions.

With regard to that portion of the paragraph in question where it refers to the method of dealing with other infectious diseases such as small-pox, scarlet fever, etc. I had to point out that the officers of the sanitary authority had no power to remove any infected person or thing from a vessel from foreign parts until after the clearance by the Customs officers, and that as the Customs boarding station in this port was inside the docks, or rather within the basin leading into the docks, infectious disease was of necessity introduced within these limits before any notice could be received by the local authority. I was, however, able to state that I was not aware that any serious results had occurred in consequence of this inconvenience, and that since a systematic inspection of the shipping in the port had been carried out, and a prompt removal of infectious cases to hospital had been effected, no single instance had occurred in which the spread of disease in the town could be attributed to the introduction of infection by shipping. At the same time, I pointed out that if the Customs boarding station were removed to a suitable place outside the docks, it would be possible for the sanitary officers to inspect foreign vessels, and to remove infected persons and articles from them before their entrance into the dock. With a view of effecting this alteration in the position of the Customs boarding station, the Health Committee decided in the first instance to communicate with the borough member of Parliament, Sir E. J. Reed, as mentioned in your notice already referred to. This apparent defect in the administration of sanitary matters in certain ports similarly situated will not, I believe, be satisfactorily overcome until the obsolete quarantine Acts, under which the Customs regulations are made, are abolished or amended, and until all matters connected with the sanitation of shipping are dealt with by the local sanitary authority alone instead of as at present by three separate bodies, namely, H.M. Customs, the Board of Trade, and the local authority.

MEDICAL NEWS.

PROFESSOR CARL FREIHERR VON ROKITANSKY, of Vienna, has been appointed ordinary Professor of Obstetrics and Gynæcology in the University of Graz.

MEDICAL MAGISTRATE.—Dr. C. D. Hill Drury has been placed on the Commission of the Peace for the borough of Darlington.

DR. S. KITASATO, the well-known bacteriologist, who till recently was one of Professor R. Koch's assistants, has been appointed a member of the Central Sanitary Board of the Japanese Home Department.

ITALIAN CONGRESS OF INTERNAL MEDICINE.—The fifth congress of the Italian Society of Internal Medicine will be held in Rome from October 25th to 28th, under the presidency of Professor Guido Baccelli.

THE German Anthropological Congress will hold its next (twenty-fourth) annual meeting at Hanover in 1893. Professor Virchow has been chosen President, with Professors Waldeyer and Schaafhausen as Vice-Presidents.

IT is announced that on the reassembling of the Italian Parliament the Minister of Public Instruction will introduce a Bill for the reorganisation of the Universities, and the diminution of the number of institutions of higher teaching in Italy.

Professor Ponfick has been elected Rector of the University of Breslau for the academic year 1892-93.

Vaccination Grant.—Mr. Alfred E. Vaughan, Public Vaccinator for the Haslington District of the Nantwich Union (Cheshire), has been awarded a Government grant for efficient vaccination.

A Congress on Children's Diseases.—The second Italian Congress of Pædiatrics will be held at Naples this year, about the middle of October. The subjects down for discussion are "Scrofula and Tuberculosis," to be introduced by Professors F. Fede and T. De Bonis; and "Hereditary Syphilis in relation to the Sanitary Regulations at present in Force," to be introduced by Drs. L. Concetti and A. Titomanlio.

Foreign Medical Abstainers.—Not many years ago, though Continental medical men have been conspicuous in the advocacy of temperance and in the war being so actively waged abroad against alcoholism, no member of the profession on the European Continent was known to be an abstainer. Now, as we have already noted, there are several in Germany, Switzerland, and other countries. The latest intelligence is that the directors of five of the Swiss lunatic asylums are avowed abstainers, in addition to some of the assistant physicians. The marked advance in the Swiss Republic in this direction is mainly due to the energy and influence of Professor Forel, of Zurich.

New Hospital at Wiesbaden.—The St. Josef Hospital, which has recently been opened at Wiesbaden under the auspices of the Sisters of the Red Cross, contains accommodation for 70 patients. The hospital is intended especially for surgical cases, and will be under the medical direction of Dr. Cramer. There is a gynæcological department, of which Dr. Wehmer will take charge. Cases of infectious disease are not admitted. The street in which the Josef Hospital is situated has been rechristened "Langenbeckstrasse," in honour of the famous surgeon, Bernhard von Langenbeck, who, whilst he lived at Wiesbaden, occupied the house which formerly stood on the site of the new hospital.

Literary Intelligence.—The first number of the *Sheffield Medical Journal*, described as "a quarterly review of the medical sciences for Yorkshire and adjoining counties," will appear in October. It will comprise original articles, clinical cases, and hospital records, abstracts and summaries of medical work at home and abroad, reviews and notices of books, and medical news. The new journal is to be edited by Mr. Simeon Snell, with Drs. D. Burgess, W. T. Cocking, W. Dale James, and A. J. Hall as assistant editors, in association with Dr. Mansel Sympson of Lincoln, Dr. B. A. Whitelegge of Wakefield, Dr. P. Boobbyer of Nottingham, and Dr. J. A. Southam of Derby. So strong an editorial staff should ensure the production of an excellent journal, and we heartily wish our new contemporary success.—It is announced that the publication of a Hungarian textbook of medicine will be commenced in 1893. The various sections will be written by the leading teachers and clinicians in Hungary, and the work as a whole will be edited by Professors Bókai, Kétli, and Koranyi. The first volume, which deals with infectious diseases, will appear next year, and it is anticipated that the work will be completed in four years.—Dr. Messerer has succeeded Dr. Kerchensteiner in the editorship of *Friedreich's Blätter für gerichtliche Medicin und Sanitätspolizei*, published at Munich.—The Berlin Academy of Science has made a grant of 800 marks (£40) to Professor Wernicke towards the expenses of publication of his *Atlas of the Cerebrum*.—Messrs. Cassell and Co. have in the press a *Manual of Physiology*, by Dr. A. T. Schofield.—The first number of a new medical journal, *The American Therapist*, was published in July. The editor is Dr. John Aulde, of New York.—In the same month, the first number of a new French journal, *La Revue Medicale*, appeared in Paris. The editor is Dr. Paul Archambauld, and the journal is apparently intended to be a medical *Review of Reviews*.—The well-known incumbent of the Chair of Church History in the University of Berlin, Professor Harnack, son-in-law of the distinguished surgeon Professor Thiersch, Leipzig, has published a collection of all passages relating to the art of healing in writings on ancient ecclesiastical history. The book, which is dedicated to Professor Thiersch, is entitled *Medizinisches aus der ältesten Kirchengeschichte*.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

Central London Ophthalmic. *Operation Days.*—Daily, 2.

Charing Cross. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operation Days.*—W. Th. F., 3.

Chelsea Hospital for Women. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. Th., 2.30.

East London Hospital for Children. *Operation Day.*—F., 2.

Great Northern Central. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, Tu. Th., 2.30; Ear, M. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

Guy's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

Hospital for Women, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

King's College. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—Tu. F. S., 2.

London. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

London Temperance Hospital. *Hours of Attendance.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

Metropolitan. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

Middlesex. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

National Orthopædic. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

North-West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, Tu., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

Royal Free. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

Royal Orthopædic. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

Royal Westminster Ophthalmic. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

St. Bartholomew's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

St. George's. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

St. Mark's. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, W., 8.45; females, Th., 8.45. *Operation Day.*—Tu., 2.

St. Mary's. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

St. Peter's. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 2.30 and 5, Th., 2, F. (Women and Children), 2, S., 3.30. *Operation Day.*—W., 2.

St. Thomas's. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), Tu., 4, F., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

Throat, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

University College. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th., 1.30; S., 2.

West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

Westminster. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

MEDICAL VACANCIES.

The following vacancies are announced:

BALLINASLOE UNION (Laurencetown Dispensary).—Medical Officer. Salary, £127 per annum, and fees. Applications to Mr. Thomas Connolly, Honorary Secretary, Laurencetown. Election on September 29th.

FOREST HILL PROVIDENT DISPENSARY.—Medical Officer; doubly qualified. Applications to the Honorary Secretary, Frederick J. Marriott, Esq., The Ridge, West Hill, Sydenham.

GENERAL HOSPITAL, Birmingham.—House-Physician. Salary, £70 per annum. Applications to be sent to Mr. Howard J. Collins, House-Governor, by October 7th.

GENERAL HOSPITAL, Birmingham.—Pathologist (non-resident). Salary, £120 per annum. Applications to be sent to Mr. Howard J. Collins, House-Governor, by October 1st.

GENERAL HOSPITAL, Birmingham.—Surgical Casualty Officer (non-resident). Salary, £70 per annum. Applications to Mr. Howard J. Collins, House-Governor, by October 1st.

GENERAL INFIRMARY, Northampton.—Assistant House-Surgeon, [unmarried, doubly qualified, and not under 23 years of age. Salary, £80 per annum, with furnished apartments, board, attendance and washing. Applications to the Secretary by September 19th.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—House-Physician. Salary, £60 per annum, with board and lodging. Applications to the Secretary by September 28th.

HUDDERSFIELD INFIRMARY.—Honorary Physician. Applications to Mr. F. Eastwood, Honorary Secretary, by November 1st.

HUNTINGDON COUNTY HOSPITAL.—House-Surgeon. Salary, £60 per annum, with board, etc. Applications to Dr. McKitchie, Huntingdon.

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon; unmarried. Salary, £50 per annum, with board and lodging. Applications to the Secretary by October 8th.

KIMBERLEY HOSPITAL, Kimberley, South Africa.—Salary, £750, with quarters. Applications to H. A. de Beer, Secretary Kimberley Hospital Board, by October 10th.

LANCASHIRE COUNTY ASYLUM, Rainhill, near Liverpool. Pathologist. Salary, £200 per annum, with furnished apartments, board, attendance, and washing. Applications to the Medical Superintendent.

LIVERPOOL HOSPITAL FOR CANCER AND SKIN DISEASES.—Honorary Assistant Surgeon. Applications and testimonials to A. N. Talbot, 3, Rumford Street, Liverpool, by September 21st.

POPLAR AND STEPNEY SICK ASYLUM DISTRICT, Bromley, E.—Dispenser. Salary, £2 10s. per week. Applications, on forms to be obtained at the Asylum, to Robert Foskett, Clerk to the Managers, by September 19th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Appointment for six months. Salary at the rate of £40 per annum, with board and lodging. Applications to the Secretary by September 23rd.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Assistant House-Surgeon. Appointment for six months. Board, washing, and lodging provided. Applications, endorsed "Assistant House-Surgeon," to the Honorary Secretary by September 19th.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, Henrietta Street, Covent Garden, W.C.—House-Surgeon for six months; must be M.R.C.S. Honorarium, 25 guineas, and board, lodging, and washing. Applications to Walter E. Scott, Secretary, by September 24th.

SCARBOROUGH HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £80 per annum. Applications and testimonials to be sent to the Honorary Secretary, Elders Street, Scarborough, by September 20th.

SUNDERLAND CORPORATION.—Medical Officer of Health for the District of the Borough and Port. Salary, £500 per annum as Medical Officer of the borough, £20 for the like office of the Port, and £5 as Public Analyst. Applications endorsed "Medical Officer of Health and Public Analyst," to Mr. Francis M. Bowey, Town Clerk, Town Hall, Sunderland, by October 29th.

SUSSEX COUNTY HOSPITAL, Brighton.—House-Surgeon, doubly qualified, unmarried and under 30 years of age. Salary, £120, rising to £140 per annum, with residence, board, and washing. Applications to the Secretary, by September 21st.

UNIVERSITY OF ABERDEEN.—Six Examiners for Graduation in Medicine. Grant of £30 per annum each. Applications to Robert Walker, Secretary of the University Court, by October 1st.

WORCESTER COUNTY AND CITY LUNATIC ASYLUM.—Third Assistant Medical Officer. Salary, £100 per annum. Applications and testimonials to be sent to Dr. Cooke, The Asylum, Powick, near Worcester, by September 20th.

MEDICAL APPOINTMENTS.

ANDERSON, John, M.B., C.M.Aberd., appointed Parochial Medical Officer for Brechin.

BAXTER, Wm. W., L.R.C.P., L.M.Edin., M.R.C.S.Eng., appointed Medical Officer for the Third and Fourth Districts of the Tendring Union.

BEDDIE, Wm., M.B., C.M.Aberd., appointed Medical Officer to the Fraserburgh Police.

BIDDLECOMBE, E. H., L.R.C.P.Lond., M.R.C.S., appointed Honorary Physician to the Royal United Hospital, Bath, *vice* H. F. A. Goodridge, M.D.Lond., M.R.C.S., resigned.

BRITTON, Thomas, M.D.St. And., M.R.C.S.Eng., D.P.H.Camb., reappointed Medical Officer of Health to the Shelf Local Board.

CAHILL, Mark Francis, L.R.C.P., L.R.C.S.Irel., appointed Assistant Surgeon to the Children's Hospital, Dublin.

CAUDWELL, Henry, L.R.C.P., L.M., L.R.C.S.Edin., appointed Medical Officer for the First District of the Woodstock Union.

CLARK, Francis W., M.R.C.S., L.R.C.P., D.P.H.Camb., appointed Temporary Assistant Medical Officer of Health to the Tyne Ports.

CRAVEN, R. M., F.R.C.S.Eng., F.R.C.S.Edin., reappointed Medical Officer of Health for the Combined Districts of Westmoreland.

DEAN, Edwin, L.S.A., appointed Medical Officer for the Slaithwaite District of the Huddersfield Union.

ELLIMAN, Arthur C., L.R.C.P.Lond., M.R.C.S.Eng., appointed House Surgeon to the Kent and Canterbury Hospital, Canterbury, *vice* Z. Prentice, resigned.

ELSOM, F. J., L.R.C.P.Edin., M.R.C.S., reappointed Medical Officer and Public Vaccinator to the Whitwell and Cuckney Districts of the Worksop Union.

HECTOR, Edward Bateman, M.B., C.M.Edin., appointed Medical Officer of the Fourth District of the North Bierley Union.

HEYGATE, W. H., M.R.C.S., L.S.A., appointed Medical Officer for the Southwick District of the Fareham Union, *vice* J. Langford, M.R.C.S.Eng., deceased.

JAMIE, R. W., M.A.Aberd., M.B., C.M.Edin., D.P.H.Camb., appointed Medical Officer of Health to the Coalville Local Board.

KENNY, J. G., M.B.Glasg., reappointed Medical Officer to the Wackato Hospital, Auckland, New Zealand.

KIRTON, Mr. C. M., appointed Medical Officer for the Holywell District of the Parish of St. Leonards, Shoreditch.

LLOYD-DAVIES, Harold, M.B., C.M., appointed House-Surgeon to the Devonshire Hospital and Buxton Bath Charity.

LOVELL, C. P., M.A., M.B.Oxon., M.R.C.P., reappointed Clinical Assistant in the Department for Diseases of the Skin, St. Thomas's Hospital.

MCKEITH, John, M.B., C.M.Glasg., appointed Medical Officer for the Third District of the Exeter Union, *vice* C. E. Bell, M.R.C.S.Eng., resigned.

OLDMAN, C. E., M.D., M.R.C.S., appointed Medical Officer of Health to the Godstone Rural Sanitary District.

PARTINGTON, W., M.B., C.M.Glasg., appointed Medical Officer of Health for the Tunstall Urban Sanitary District, *vice* — Cumine, resigned.

RALPH, Hugh, M.R.C.S., L.R.C.P., appointed Junior Resident Medical Officer to the Evelina Hospital, *vice* A. H. Cheatle, L.R.C.P.Lond., resigned.

SANDFORD, Horace V., L.R.C.P.Lond., L.F.P.S.Glas., reappointed Medical Officer of Health for the Rural Sanitary Districts of Bromyard, Hereford, Ledbury, Leominster, and Weobley Unions.

TATE, J. J., L.R.C.P., L.R.C.S.Irel., appointed Medical Officer for the Eleventh District of the South Molton Union.

WACHER, Frank, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Canterbury Local Board.

WELSH, R. A., M.B., B.S.Durh., appointed Medical Officer of the Felton District of the Alnwick Union.

WILKINSON, John, M.B., C.M.Edin., appointed Medical Officer of the Penkridge District of the Cannock Union.

WINTLE, Colston, M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to the Hospital for Sick Children and Women, Bristol.

WOOD, J. C., L.R.C.P., L.R.C.S.Edin., D.P.H., appointed Medical Officer of Health for the Borough and Port of Sunderland, *vice* A. E. Harris, L.R.C.P., L.R.C.S.Edin., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

NICHOL.—On September 8th, at 11, Ethelbert Terrace, Margate, the wife of Frank Edward Nichol, M.A., M.B., of a son.

MARRIAGES.

BROWN—MATTHEWS.—On August 31st, at St. Peter's, Wolverhampton, Herbert Henry Brown, M.D.Lond., F.R.C.S., of 22, Museum Street, Ipswich, to Florence M. de Hane, youngest daughter of Charles Matthews, of Wolverhampton.

LACE—HARRIES.—At St. Chad's Church, Shrewsbury, on the 6th instant, by the Rev. J. W. Lace, Vicar of Pill, Somerset, father of the bridegroom, assisted by the Rev. Edgar Lace, brother of the bridegroom, and the Rev. E. Stanley Carpenter, Vicar of the Parish, William Francis Lace, Surgeon, of Sutton-at-Hone, to Susannah Frail (Daisy), third daughter of John Davies Harries, Surgeon, of Shrewsbury.

DEATHS.

BROWN.—On the 8th instant, at High Street, Rochester, Kent, Ethne Franklyn, aged 4 years and 5 months, the dearly loved child of Arthur Franklyn and Laurie Brown.

FURSE.—September 12th, at 8, Morton Crescent, Exmouth, Edwin Furse, J.P., Surgeon, South Molton, Devon, aged 53.

TURPIN.—September 1st, at Youngrove, County Cork, the Rev. Sydney Gerald Turpin, M.D., D.D., aged 41 years.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not Later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted, will be found under their respective headings.*

QUERIES.

Country Practitioner wishes to know if any work has been published on the treatment of ulcers, more particularly of the lower limb. Would any reader advise any work referring particularly to this subject?

"Grahame Bread."

J. J. de Z. M. wishes to procure "Grahame bread" for a patient who lauds its aperient properties, but knows of it only that it is a whole-meal bread, and made without yeast. Does any member know the formula for its preparation, or where it can be procured?

Home for an Epileptic.

Medicus would be glad to know of a suitable institution for a patient (male, aged about 20) who has mild epilepsy, but who cannot afford to pay much (£20 per annum at the most). Patient requires little or no medical supervision, but is unable for the time being to follow any employment.

Asbestos Fires.

Scalpel would be glad if any reader who has had experience of asbestos gas fires in rooms would inform him if he has found them objectionable. Scalpel has a patient who requires a fire in his bedroom during the winter months. There is a roomy chimney and good draught. If one of these fires would be unobjectionable in a bedroom, it would save a great deal of trouble inseparable from the use of the ordinary coal fire.

Special Courses at Vienna.

A Member asks for information about the short courses on special subjects held in Vienna; whether instruction in English can be had in pathology, pharmacology, and dermatology; the names and addresses of the professors, the cost of living, the address of a respectable inexpensive boarding house. Are classes held in October?

ANSWERS.

Brussels Graduates' Association.

A. H. Reinhardt.—The Secretary of the Brussels Graduates' Association is Dr. Warwick C. Steele, 1, Florence Terrace, Ealing, W.

Conveyance of Cholera.

Dr. W. Moncton.—The greatest danger arises as regards German ports on the North Sea, whence Russian Jews are conveyed into this country, or *en route* for the United States, Baltic ports to which this traffic may at any moment be transferred, and ports of Belgium and Western France. Cholera is not known to have ever been conveyed by corn in bulk.

Treatment of Hypertrichosis.

M.R.C.S., M. and L.S.A., writes: In answer to M.B.'s query with regard to treatment of hypertrichosis in a lady, I might state that I have found epilation of each individual hair very efficacious. The process involves some slight pain which, however, skilful operating reduces to a minimum. It is better to spread the operation over several sittings, removing perhaps twenty each time. Some of the hairs return, but not all, and as a rule the new ones are fine, and light coloured.

NOTES, LETTERS, Etc.

An Appeal.

Dr. Charles G. Skinner (Harpurhey, Manchester) writes: The following amount has been received in addition to those acknowledged in the British Medical Journal of August 27th in response to the appeal published in the Journal of July 23rd:—Dr. Milligan, £1 1s.

The Association and the Council.

G. R. writes: There can be no doubt that the British Medical Association and its Council fail entirely to represent the professional rank and file—the general practitioners. The Council boast that they represent 14,000 members! Well, Sir, they do not in my humble opinion represent 1,000 members. I fancy most men join the Association for the sake of having a medical journal at a cheap rate, which, in spite of its one-sided opinions, still is useful for its literary matter. It is alleged by many that the British Medical Journal refuses to insert letters from members which do not coincide with the Editor's views. Is this true?

*** *Audi alteram partem* is the rule very rigidly followed by us, and the stated allegation is the exact opposite of the fact. It is not very easy to hold an editorial opinion on both sides, but it is and has always been our study to give full and fair play to those professing all shades of opinion in our columns, if any preference is to be shown we extend it to those expressing opinions at variance with our own. As to the Council not being representative of "the general practitioners," that may probably mean that it is not always representative of the precise views of "G. R." or his friends; but it is mainly composed of general practitioners, and is elected by general practitioners in their respective Branches who compose it as they please.

Cholera and Cremation.

The Rev. F. Lawrence, preaching at Doncaster recently, said the earthly human body had its own function and its own glory in life, and in death also. The lifeless body had its function in building up new organisations out of its own decay. Stored up in vast numbers, in durable coffins, in vaults, and crowded graves, the dead vitiated the surrounding soil, water, and air, and might render the visitation of cholera more malignant. This is a tersely stated and powerful argument in favour of cremation, although the reverend gentleman on this occasion employed it more especially in order to recommend inhumation on the earth to earth principle in perishable coffins. This is, however, an imperfect and very unsatisfactory compromise, seeing the unsuitable nature of the soil of a great number of cemeteries and churchyards for the purpose in view.

Doctors and Clergymen.

Whether or not clergymen should take to trade, says the *Pall Mall Gazette*, it is obvious enough that when a parson is possessed of a medical degree he ought not to hesitate to use his qualification in the absence of a resident medical practitioner. This the Rev. Dr. T. W. Belcher, vicar of Frampton-Cotterel, near Bristol, offers to do should a cholera visitation reach the village from Bristol Docks. Dr. Belcher has both the M.D. and D.D. degrees of Trinity College, Dublin, and he owns to having had a long experience of cholera. There is no resident medical practitioner in Frampton-Cotterell, and medical help is required instantly by cholera patients. Although an oldish man, Dr. Belcher is still very active. Until a few years ago he was rector of St. Faith's, Stoke Newington.

The Right Rev. Dr. Wale Hicks, the new Bishop of Bloemfontein, is a Doctor of Medicine, educated at St. Thomas's Hospital; and there have from time to time been several missionary bishops educated in, and trained in the medical profession, among whom the late Bishop Calloway was conspicuous. The number of missionaries who combine skill in medicine and the art of healing the body, and thus gaining the confidence of savage tribes, or of the heathen in the East, while aiming ultimately at their religious enlightenment, is considerable. This form of mission work has been considerably developed of late, and it is agreed on all hands that medical missionaries are peculiarly useful and successful.

Sea Sickness.

Ames Brunton, M.B. (Galashiels) writes: In reference to the discussion on sea sickness in your issue of August 6th, I agree with Dr. Pirie that medicines are useless either as a preventive or cure for this distressing complaint. I write to recommend what is not only an extremely simple means, but is in the majority of cases an absolute preventive of sea sickness. This consists in the applying of a leather strap round the lower part of the thorax and epigastrium. This is put on previous to going on board, and is drawn very tight, and must be kept on till the traveller gains his "sea legs." This hint I obtained from a gentleman who was previously a martyr to sea sickness, but now in his frequent journeys across the Channel makes them with comfort and triumph, and, needless to say, perfect immunity from sickness. If necessary, a pad over the epigastrium can be added. It is possible that the compression over the liver may have something to do with the beneficial action of the strapping, which prevents the sinking which heralds the nausea. I am an ocean traveller of some years, and I can confidently recommend the above plan.

Dangers of the Seaside.

Surgeon-Major T. Murtagh (Eastbourne) writes: With reference to a letter under this heading in the British Medical Journal of August 27th, it is possible that the children contracted the disease outside the lodging house. A few years ago, when in medical charge of troops in a seaside town, I saw a little boy about 4 years old who had a rash on the back of his thighs and legs which I diagnosed as itch. He had several sisters older than himself, but no one else in the house had any disease. His father, a staff officer, lived in his own house, one of the best in the place. His mother was horrified and doubted the correctness of my diagnosis at first, but when a few days' treatment cured the disease she came round to my way of thinking about it. The child wore short frocks, short drawers, and socks, and I concluded that he caught the disease from sitting on one of the seats provided for the public, on which all sorts of filthy people used to sit, and sometimes sleep at night, in the hot weather. If a hose were turned on to all public seats in the warm weather it would perhaps be an improvement.

TWO EXTRAUTERINE PREGNANCIES IN THE SAME SUBJECT.

MR. GEORGE FOY (Dublin) writes: In the EPITOME of June 25th, page 103, paragraph 569, you make mention of "Two Extrauterine Pregnancies in the same Subject." Allow me to draw your attention to perhaps the most extraordinary case of the kind on record, that of S. McK., of Brentram, co Tyrone. The Rev. Dean Copping's account of the case appears in the *Philosophical Transactions* for 1741, and has been reprinted by me in the *Medical Press and Circular*, June 22nd, 1892. In McK.'s case laparotomy was successfully performed by a butcher, named O'Neil, who resided in the neighbourhood.

A DIFFICULT DELIVERY.

DR. S. W. SMITH (Cheltenham) writes: Perhaps the following case may be considered unique: A midwife, who had attended, as she said, hundreds of patients without requiring the aid of a surgeon, had to send for one at last. The young person was a primipara. After awhile she wished me to help her. I proceeded to do so under difficult circumstances, as the outlet was not relaxed but in about the usual condition. Finding the instruments did not become adapted as usual, I withdrew the blade, which I have no doubt had been applied to the presenting neck of the foetus, the spring of which was undoubtedly pressing against the sacrum and the sagittal suture, with the fontanelle immediately behind the symphysis pubis of the parent. It was a suitable case for decapitation had I not been fortunate in reapplying the long curved forceps in the ordinary way. The blades passed over both ears as far as the outer orbits, causing much swelling and contusion of one of them. Near the outlet the instruments described a semicircle in the direction of the right thigh, so that their concave surfaces looked towards the perineum and left thigh. When the child was born the chin was found pressing tightly against the sternum. The head was much elongated and the tumour at the vertex unusually large. The convex shape of the head was destroyed by pressure against the symphysis pubis. It was decidedly concave from this cause. I am happy to say mother and child—the latter several weeks old—are both doing well and vigorous.

GLANDERS.

DR. P. W. PERKINS CASE, C.C. (Wilton Lodge, West Croydon, member of the Beddington Farm Managing Committee) writes: In your interesting and instructive leading article on Glanders, in the BRITISH MEDICAL JOURNAL of August 20th, it is stated that: "The factors specially conducing to this appear to be.....turning horses out to grass without previous inspection or other precaution. The reality of the last danger is emphasised by the report that at a sewage farm near London recently two horses out of sixty grazing in the same pasture were found to be suffering from glanders, and others were suspected. It is impossible to estimate the mischief which may follow the distribution of these animals to their several homes." And: "No animal should be moved for turning out with others without a certificate from an inspector as to freedom from the disease, and of not having been in contact with diseased animals."

As the daily papers recently reported that two horses on the Croydon Irrigation Farm had been affected with glanders and then slaughtered, no doubt many of your readers will infer that we are alluded to; therefore, please allow me to record the facts very briefly, to show we take even greater precautions than those you wisely advocate, namely:

On our sewage farm two horses were detected with glanders, amongst sixty others. They were at once slaughtered and buried under lime. Both these horses were admitted on a veterinary certificate of good health. For many years past no horse has been taken in without such a certificate; even then we find it desirable sometimes to place an animal in quarantine. On discovering the glanders the place was declared an infected area, and since then, and till this is withdrawn, no horses have been taken away nor any admitted. We are rewarded by having no more affected, nor any of our farm horses. When quite clear, probably the grass these horses have fed on will be killed, then ploughed in, all gates and rails tarred, and any other source of contagion destroyed.

DRESS REFORM FOR DOCTORS.

RATIONAL writes: Before the memory of the late unbearably hot weather fades from our minds, cannot something be done to enable the medical profession to adopt a rational dress for hot weather? Fashion no longer prescribes the gold-headed cane and snuff box, but for some unaccountable reason we still affect the frock coat and top hat, whilst continuing to advise our patients to wear apparel suitable to the season. The value of pure wool clothing in winter is now, fortunately, fully recognised, and in summer most of us appreciate the change to holiday attire, whether tweeds or flannels, when we can indulge in them. The favoured "unopposed practitioner" has long ago found out that he can get through his work with far more comfort to himself when suitably dressed, nor do his patients value his services the less because he practises what he preaches. At present few general practitioners would care to make the leap for fear that they should lose caste with either their professional brethren or their patients; but if once the leaders of the profession in Harley Street and elsewhere combine to follow the dictates of that grand old schoolmistress, Nature, I feel sure that within a very short time the rest of us will quickly take the cue. The result is not far to see. The doctor's coachman might to some extent be shielded from the merciless rays of the sun. The public conscience would be aroused; policemen, soldiers, postmen, and all whose duty compels them at present to bake uncomplainingly in heat-storing attire would be provided with clothing calculated to afford ready evaporation, and to throw off, instead of attracting, the pitiless and work-devouring heat.

On the Continent one may see soldiers in white, and in New York the policeman's summer dress is grey. The temperature in Britain may never reach the height that the foreigner is accustomed to, but no one can deny that at times the heat in this climate is undesirably oppressive. Summer garments can be rendered waterproof without impediment to perspiration, and could we but bring about the adoption of cool and serviceable clothing for summer wear there are few who would not feel the benefit, even if they were not actually grateful.

PRESIDENTIAL METAPHORS.

LORD CASTLEREAGH'S celebrated oratorical feat of *embarking* on the chief *feature* on which the question under discussion *hinged*, has long been considered to be what athletes call a "record" in the mixture of metaphors, but it has lately been equalled, if not surpassed, by the president of an American medical society. Speaking of the evils of quackery and the means of combating them, the orator was carried away by his feelings, and in a fine Pindaric frenzy *numeris fertur lege solutis* to the following effect: "Then, and not till then, will this hydra-headed modern Octopus of charlatanism which stalks abroad at meridian sun, clothed in the habiliments of a divinely-inspired vocation, while within is a charnel-house of professional depravity from which emits (*sic*) an insufferable stench, equalled only by the foul and loathsome effluvium that emanates from that filthiest of all places on the habitable globe, 'The Black Hole of Calcutta,' not only be shorn of its tentacles, but be buried beyond the hope of resurrection, so that neither man nor angel will ever roll the stone from its tomb again." The President of course does well to be angry, and we can only echo his admirable sentiments with our own ruder accents. If there were a few more St. Georges like him, the "hydra-headed Octopus" referred to would speedily meet the fate it deserves. We venture, however, to suggest that in view of the effluvium which would be likely to "emit" from so foul a carcass, cremation would be a better way than burial of disposing of the remains.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Mr. W. W. Armstrong, London; Mr. H. H. Aitchison, Wallsend-on-Tyne; Mr. C. E. Addison, Colchester; J. Altham, M.B., Penrith A.M.S. (B) Dr. J. W. Byers, Belfast; Dr. H. H. Brown, Barmouth; Dr. J. Barclay, Banff; Mr. W. M. Beaumont, Bath; Messrs. Bonnechose and Co., London; A. G. Bateman, M.B., London; Mr. J. M. Bryan, Northampton; Dr. J. Buxton, Blackpool; Messrs. W. J. Bush and Co., London; Mr. C. Blackwood, London. (C) Dr. W. A. Carline, Lincoln; Mr. J. Campbell, Saddleworth; Mr. P. T. Carpenter, London. (D) Mr. C. J. Drummond, London; Dr. J. Dreschfeld, Manchester; Mr. M. G. Davies, Penygroes; Mr. F. J. A. Dalton, London; Mr. J. C. H. Dickinson, London; Mr. W. Horton Dale, Newport. (E) Mr. L. C. Evans, London; Messrs. Evans and Marshall, London; E. B.; Mr. A. C. Elliman, Canterbury. (F) Messrs. Farmer, Lane and Co., London; Dr. A. F. Fergus, Glasgow; Mr. M. Ferguson, Sunderland; Mr. M. A. Forbes, London. (G) Dr. H. R. Greene, Portsmouth; Dr. G. M. Gould, Philadelphia; Mr. T. Taylor Genge, Bristol; Sir G. M. Humphry, Cambridge. (H) Mr. T. F. Hale, Chesterfield; Dr. W. Hunter, London; Mr. E. H. Hankin, Cambridge; Dr. G. E. Herman, London; Dr. Holman, London; Mr. A. B. Hicks, London; Mr. J. Heaton, London. (I) Dr. Illingworth, Accrington. (J) Mr. W. Lewis Jones, London; Mr. R. S. Jaques, Dursley. (K) Mr. R. Kerr, Dundee; Dr. Kempster, London; Dr. H. King, London. (L) Dr. E. Liveing, London; Licentiate; Mr. C. P. Lovill, London; Rev. F. Lawrence, York; L.S.A.; Mr. F. W. Langridge, Ilfracombe; Legal. (M) Dr. Maccall, Portree; Mr. G. H. Makins, London; Mr. J. McGaw, Castlewellan; Mr. T. S. Mansford, London; A. G. Macleod, M.B., Bristol; M. H. Monod, Paris; Dr. W. Withers Moore, Burgess Hill; Mr. A. W. Macfie, London; Mr. J. Mc Millan, Exmouth; Dr. C. F. Moore, Dublin; Surgeon-Major Macnamara, Madras; M.B.; Dr. James Murphy, Sunderland. (N) F. E. Nichol, M.B., Margate; Mr. R. G. Naylor, Audlem. (O) Mr. J. Odling, London. (P) Mr. J. Priestley, Leicester; Dr. C. Parsons, Dover; Mr. T. Pope, Burghfield; Sir J. Paget, London; Mr. H. D'Arcy Power, London; Dr. R. M. Philip, Edinburgh; Mr. J. K. Legge Paulley, Harleston; Mr. H. W. Pigeon, Hull; Mr. N. J. Prangley, Anerley; Messrs. Parrett and Co., Chartham; Dr. F. S. Palmer, Marlow. (R) Dr. W. McGregor Robertson, Glasgow; Dr. R. R. Rentoul, Liverpool; Dr. G. Reid, Stafford; Mr. R. H. Rankin, Liverpool; Mr. A. W. Riddell, St. Mary Bourne; Mr. S. W. Rowland, Sale. (S) R. D. Shields, M.B., Wrexham; Mr. S. Snell, Sheffield; Sell's Advertising Agency, The Secretary of the, London. (T) Mr. J. Thorne, London; Dr. D. Thomas, London; Mr. J. Taylor, Buxton; Mr. C. Townsend, Murree. (V) Mr. J. Veith, Rostock. (W) P. H. Walker, M.B., Lechdale; Dr. F. J. Walder, London; Mr. J. W. Wilkinson, London; Mr. C. Williams, Norwich; Mr. J. S. Williamson, Hucknall Torkard; etc.

BOOKS, ETC., RECEIVED.

A Manual of Veterinary Physiology. By Veterinary Captain F. Smith, M.R.C.V.S. London: Baillière, Tindall, and Cox. Price, 12s. 6d.

Medical Microscopy; a Guide to the Use of the Microscope in Medical Practice. By Frank J. Wethered, M.D.Lond. London: H. K. Lewis. 1892. Price, 9s.

Artificial Feeding and Food Disorders of Infants. By W. B. Cheadle, M.A., M.D. London: Smith Elder and Co. 1892.

A Manual of the Operation of Surgery. By Joseph Bell, M.D., F.R.C.S.Edin. London: Simpkin Marshall, Hamilton, Kent and Co. Price, 6s.

A Primer of the Art of Massage. By Dr. Stretch Dowse. London: Simpkin Marshall, Hamilton, Kent, and Co.

A Dictionary of Terms used in Medicine. By R. D. Hoblyn. London: Whittaker and Co. 1892.

*** In forwarding books the publishers are requested to state the selling prices.

SIXTIETH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

PATHOLOGY.

CARCINOMA OF THE MAMMA.

By Harold J. Stiles, M.B., F.R.C.S.Edin.,
Assistant to the Professor of Surgery, University of Edinburgh.

Mr. Stiles prefaced his remarks by demonstrating a series of photographs with the limelight to illustrate the morbid anatomy and histology of carcinoma of the mamma. He was, he said, indebted to the surgical staff of the Edinburgh Royal Infirmary, and of Chalmers Hospital, Edinburgh, for the material for investigation. During the past three years he had examined over a hundred breasts affected with carcinoma. He had to thank Mr. Andrew Pringle for the beautiful photographs he had made of the microscopic preparations. His (Mr. Stiles's) observations led him to the following conclusions:—

1. That the cancer in about 90 per cent. of the cases assumed the form of a single, non-encapsulated, clearly defined, but microscopically infiltrating tumour.

2. That although the naked-eye appearances of the tumours varied considerably, their histological structure was essentially the same in all, consisting, that is, of clusters of modified epithelial cells situated in the lymph spaces and lymphatic vessels of a vascular connective tissue stroma.

3. That the epithelial elements of the tumour differed so widely from the epithelial cells of the adjacent and surrounding gland parenchyma that the old term "cancer cells" might with advantage be applied to them. In properly prepared sections the two kinds of cells, when viewed in the same field, might readily be distinguished from one another. The acinous epithelial cell of the resting mammary gland possessed a small spheroidal nucleus with abundance of chromatine uniformly distributed throughout it. The cells were almost invariably uninucleated; mitotic figures were rarely met with, and fragmentation of the nucleus did not occur. The perinuclear substance was small in amount. Swollen and degenerated epithelial cells were not infrequently seen heaped up in the ducts. The nucleus of the cancer cell, on the other hand, was two or three times the size of that of a normal epithelial cell. The chromatine was relatively much less in amount; the nuclear membrane was very distinct, and the whole nucleus presented a distinctly vesicular appearance. Cells undergoing normal, and in some cases abnormal, mitosis were met with abundantly. Multinucleated cells and cells with fragmented nuclei were common, especially in rapidly-growing tumours. The cancer cell might contain one or more leucocytes in its interior and sometimes the whole cell appeared to have been destroyed by leucocytes.

4. That the stroma of the tumour consisted partly of the pre-existing tissue and partly of a newly-formed tissue, the result of an inflammatory connective tissue hyperplasia, which was secondary to the irritation produced by the cancer cells. In the meshes of the stroma were leucocytes more or less numerous.

5. That the cancer cells lay loose in the tissue spaces of the stroma, and were therefore liable to be washed into the lymphatics by the lymph stream. Probably they possessed a certain degree of independent movement.

6. That the duct and intracystic epithelial papillomata which were sometimes met with in the breast, especially in connection with chronic inflammatory affections, were epithelial hyperplasias, which were secondary to a vascular and connective tissues hyperplasia. Such epithelial hyperplasias were to be distinguished from carcinoma, not only microscopically, but also clinically, since they did not, as far as he was aware, give rise to secondary growths in the lymphatic glands and internal organs.

7. In addition to the primary tumour, which represented the primary focus of disease, secondary cancerous foci made their appearance sooner or later; they were more or less numerous and extensive in different cases. When numerous, extensive, and of early origin they might give rise to a cancerous infiltration of the entire gland, and produce what was termed a "diffuse carcinoma." Carcinoma of the mamma, originating as a cancerous transformation of the entire gland parenchyma, rarely, if ever, occurred.

8. That the secondary cancerous foci, which were found in the extrinsic tissues of the mamma were due to lymphatic dissemination of cancer cells, derived more or less directly from the primary tumour. No spermatic influence was exerted by these cancer cells upon the cells proper to the tissues in which they lay, so that the latter were never transformed into cancer cells.

9. The smaller cancerous foci which were occasionally found in the breast tissue, more or less distant from the main tumour, appeared also, as far as his observations went, to be the result of lymphatic dissemination of pre-existing cancer cells, rather than to arise as independent foci. Cancer originating in the form of multiple foci was as rare in the mamma as it was elsewhere in the body.

10. Those lobules of the parenchyma which were about to be invaded by the cancer were at first the seat of an inflammatory reaction, which might be either acute or chronic. When acute the lobule was infiltrated with leucocytes. Ultimately the adjacent cancer cells invaded the substance of the lobule, and completed the destruction already begun by the leucocytes. When the reaction was chronic, hyperplasia of the interacinous connective tissue occurred, and gave rise to a certain amount of proliferation of the epithelial cells of the acini, which, however, was not of a cancerous nature.

11. Various conditions of the parenchyma were met with here and there throughout the gland in carcinomatous mammæ. In many instances the parenchyma appeared to be perfectly normal. In others, again, catarrhal changes, plugging of ducts with degenerated products, cystic changes, and interstitial inflammation were met with. Many of these changes had been regarded by Heidenhain and others as "precancerous." Such conditions, however, were far removed from cancer proper, and he (Mr. Stiles) had never succeeded in tracing the further stages of their development into cancer. Moreover, these so-called precancerous conditions were equally well seen in breasts which were free from cancer, for example, in chronic circumscribed mastitis, in diffuse lobular mastitis, and in multiple cystic disease, with and without intracystic and duct papillomata. After inquiring carefully into the clinical histories of all the carcinomata he had examined, Mr. Stiles had not been able to trace any special etiological relationship between mastitis and carcinoma.

12. By the *nitric acid method* he had shown that the gland parenchyma extended much farther in all directions than was generally supposed, and that the surgeon frequently fell short of his intention to remove the entire breast. He agreed with Mr. Butlin[1] who had said: "Certainly in the majority of instances there is nothing to lead one to believe that the new growth (recurrence) arises in the outlying lobules of the mammary gland, or in any remains of the parenchyma of the gland." Mr. Stiles's own observations all tended to show that when cancer manifested itself in breast tissue which had been left behind, the disease originated in the majority of cases from pre-existing cancer cells, derived directly or indirectly from the primary tumour, and occupying the lymph spaces or lymphatics of the stroma. In other words, "recurrence" originated in breast tissue which had been left behind in the same way as "recurrence" in the tissues extrinsic to the mamma. It was not difficult, therefore, to understand how partial excisions of the mamma occasionally succeeded, while more radical operations in other cases might fail to prevent recurrence. The principle which should underlie all operations for carcinoma of the mamma should be the complete removal, not only of the tumour and of the breast, but also of as much of the surrounding tissues as was likely to contain the lymphatic spaces and highways along which the malignant elements of the disease had been dissemi-

[1] *The Operative Surgery of Malignant Disease*, p. 378.

nated. Unfortunately, it was impossible in any given case to say to what extent this might have taken place, and herein lay the difficulty and uncertainty of the operative treatment for carcinoma.

PROTOZOA AND CARCINOMA.[2]

By SHERIDAN DELÉPINE, M.B.,
Professor of Pathology in Owens College, Victoria University.

IN discussing the question of the cause of cancerous tumours, and specially of the connection existing between parasites and tumours, it is not my intention to review or discuss the work of a large number of observers who have written on the subject during the last fifty years. It was not even my intention to add anything new to what I have already said on this subject last year at the International Congress of Hygiene and Demography.[3] My friend Dr. Ruffer has, however, again brought the question before our mind, and his paper following rapidly on that of Soudakewitch, is not unlikely to make many believe that parasitic protozoa have actually been proved to exist in cancer.

This I think would be a premature conclusion, for the bodies described have not been proved to be parasitic or even to be protozoa. Without forgetting the observations of many who have worked previously in the same field, I will simply confine my remarks to what I have observed myself. In a previous paper[4] I have alluded to the work of a great number of older writers (I was unfortunately unacquainted with the more recent work of Darier, Albarran, and a few others which had just been, or was being, published when I began my researches). I may say that my interest in this question arose perfectly independently of any intention to investigate the etiology of cancer. It was only as a result of my study of psorospermosis as a disease of the rabbit that I was led to consider the possibility of a relation between psorospermosis and epitheliomata. The subject presented itself to me as it seems to have presented itself to the mind of a number of previous observers. From this it will be evident that if I am prejudiced in any way it must be rather in favour of a connection between protozoa and cancer than in favour of the opposite view.

From the beginning it seemed evident to me that in investigating this question one was bound to follow the rules usually followed in bacteriological investigations, for such rules apply to all parasites, whether animal or vegetable. I therefore studied carefully all the forms which could be observed in the rabbit's liver, both with regard to their morphological characters and to their reactions with various reagents. I found, like others before me, that they could be extremely well seen without the help of any special method of preparation. In sections fixed with osmic acid it was easy to recognise a number of forms:

1. A young coccidium or psorosperm looks much like a nucleus with sometimes a large nucleolus (the previous stages are difficult to make out when embedded in a cell).

2. Larger organisms are ovoid in shape and contain a mass of very coarsely granular protoplasm, in which there is a more or less distinct nucleus-like body. Many of the granules stain black with osmic acid, mahogany brown with iodine, pink with fuchsin, and so on.

3. Most of these oviform bodies have a distinct capsule with double outline, and among the encapsulated bodies there are some which stain deeply with fuchsin.

4. Some of the parasites contain one or several long coiled filaments.

5. Very large bodies, two or three times the size of the others, with comparatively small granules sometimes arranged in radiating lines, and with a large indistinct nucleus, are found here and there among the other parasites. These various forms have been described and depicted in the paper already alluded to above.[5]

I now looked for similar appearances in epithelial tumours, using the same methods of preparation and keeping in mind the possibility of important differences between the parasite of the rabbits' tumours and the possible one that might be found in human tumours. I have elsewhere[6] shown why (though thinking that the parasitic origin of cancer is, on theoretical grounds, not probable) it is possible to suppose that a cellular parasite might act as causal agent, the reason being simply that the parasite might be carried from the primary focus of infection to the various places where secondary tumours occur, in some of the cells entering into the formation of the original tumour. This supposition is, I believe, absolutely necessary to reconcile what we know of the metastasis of epithelial tumours with the idea that they might have a parasitic origin. There was no difficulty in finding in a number of epithelial tumours (squamous, cylindrical, and glandular epitheliomata, that is, carcinomata) bodies very similar to some of the younger and least distinct forms of coccidia, and which might therefore have been young coccidia or allied protozoa. In some cases the appearances were very striking, but side by side with bodies simulating closely parasites, were others having apparently the same relations to the enclosing cells, and which were distinctly the result of endogenous cell formation in a state of more or less advanced degeneration. In some cases I have been able to see in the enclosed body radiating lines corresponding in arrangement and size to the prickles abundantly seen at the periphery of the cells forming the tumour examined (a squamous epithelioma). The appearances presented by these products of endogenous formation were, as is well known, described by Virchow in 1847 and 1851.

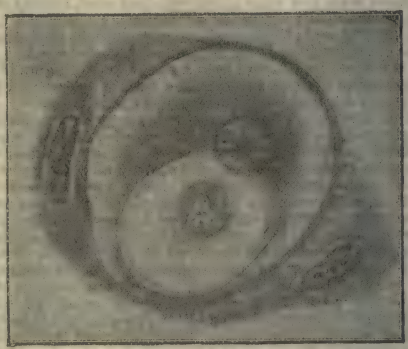


Fig. 1.—Endogenous cell formation in a secondary squamous epithelioma of a lymphatic gland. The nucleus of the mother cell is partly between the encysted daughter cell and the observer, so that, although flattened, it still looks round. × 1100.

Endogenous cell formation in a secondary epithelioma affecting a lymphatic gland is shown in Fig. 1. Though the enclosed body is distinctly a cell it seems enclosed in a capsule, and presses the nucleus of the mother cell to one side just as the suspicious bodies would do. Many of these bodies have exactly the appearances described by Darier, Albarran, and others, and also depicted by Wickham, Hutchinson, and Bowlby; others resemble still more closely young stages of coccidia. None of these bodies, however, corresponded exactly in reactions to those found in the rabbit's liver, nor did they show any unmistakable evidence of division of the contents of one capsule. I thought that these differences might have been due to the nature of the pabulum. In the rabbit's liver the parasites are in bile ducts, containing more or less altered bile, and surrounded by liver cells containing glycogen and other products.

In ordinary carcinomata the surroundings are very different. I therefore searched for a liver presenting lesions analogous to those found in the rabbit's liver. Early in 1890 I found a case of primary carcinoma of bile duct and liver parenchyma (Fig. 2). This liver was obtained from a case under the care of Dr. Dickinson at St. George's Hospital.

[2] This communication was illustrated by photographs and drawings shown by the lantern. Some of them are reproduced here.

[3] BRITISH MEDICAL JOURNAL, 1891, ii, p. 362.

[4] Abstract, BRITISH MEDICAL JOURNAL, 1889, ii, p. 1393; *Trans. Path. Soc.*, xli, 1890.

[5] *Trans. Path. Soc.*, vol. xli, p. 346, Plates XXI, XXII, XXIII.

[6] *Trans. 7th Int. Cong. Hyg. and Dem.*, BRITISH MEDICAL JOURNAL, 1891, p. 362.

Dr. Dickinson kindly provided me with the clinical notes and allowed me to make use of the case for this investigation. The patient was a married woman, aged 49, who had had 11 children, and had always enjoyed good health till a few

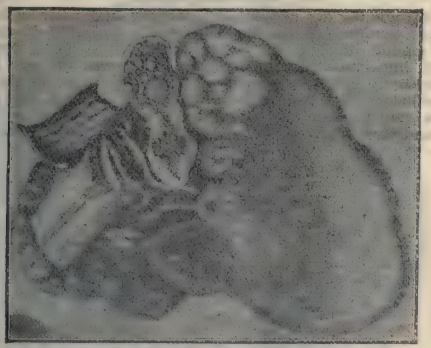


Fig. 2.—Liver seen from its lower aspect. The bile ducts and the gall bladder are opened to show the cancerous thickening of their walls. A small portion of the duodenum and a part of the pancreas are also shown twisted out of their normal position to show the openings of the common bile duct and of the pancreatic duct in the duodenum.

months before her death; eight weeks only before the fatal event jaundice became manifest. At the *post-mortem* examination the liver was found full of nodules, large and small, rather soft, and evidently cancerous (Fig. 3). The common

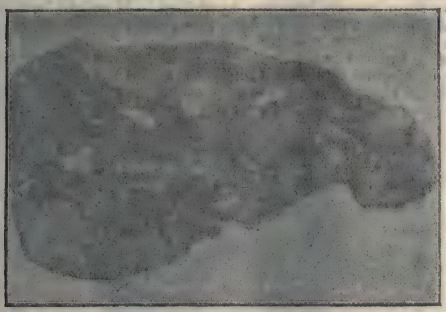


Fig. 3.—An antero-posterior, vertical section of the same liver, photographed from Nature to show the distribution of the cancerous nodules in the liver parenchyma.

bile duct, the hepatic ducts, and all their branches were found much thickened by a papillomatous-looking epitheliomatous growth. The gall bladder was in the same state, and contained in addition a large number of gall stones; it must be remembered that the patient did not show any evidence of jaundice until eight weeks only before her death, so that the gall stones must have been rather the result than the cause of the state of the gall bladder. On dissecting the organ carefully it was found that all the cancerous nodules were situated either at the end or on the course of bile ducts. No other organ than the liver was affected; there was only a slight extension of the growth along the portal lymphatics to the retroperitoneal glands in the neighbourhood of the foramen of Winslow. The pancreatic duct was not affected at all. I naturally examined carefully the walls and contents of the bile ducts, and also the cancerous nodules. I examined them fresh, and after hardening and staining them in various ways, and I drew immediately some of the bodies which seemed to me to resemble coccidia, though I could not find any quite identical with those found in the rabbit's liver. What seemed to me most conclusive was that some of them showed what appeared to be evidences of multiplication within their capsule. I thought for a time I had found the right bodies at last, and I even announced at a meeting of the Pathologica Society (March, 1890) that I had found psorosperms in that case of carcinoma of the liver.

I regret not to have had these bodies photographed; but I have taken accurate drawings of them with the camera lucida

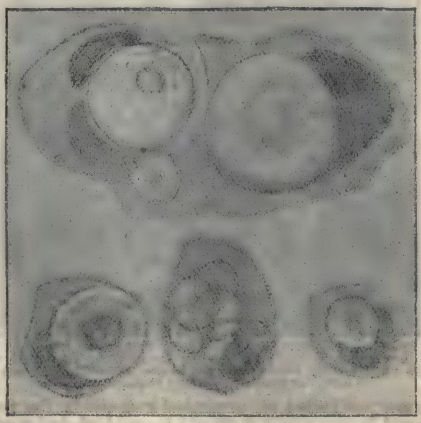


Fig. 4.—Various forms of psorospermoid bodies found in the cells of a primary cancer of the liver. × 1100.

(Figs. 4 and 5), and I think it would be difficult to doubt the identity of these bodies and of those described by Soudakewitch and Ruffer (and of some of those described by Russell).



Fig. 5.—A number of psorospermoid bodies in the midst of a group of cancer cells imperfectly separated from each other. × 1100.

But even in this case, which presented all the conditions favourable to the development of psorosperms, I was unable to find indubitable proof of the parasitic nature of the suspicious psorospermoid bodies.

I began then to cultivate the coccidia of the rabbit's liver, and soon found that in simple scrapings of a psorospermic nodule kept in a moist chamber at the ordinary temperature, or at a temperature of 20° C., it was possible to observe within a few days very typical stages of division in the coccidia. I gave an account of these results in May, 1891, at a meeting of the Pathological Society, and demonstrated without any difficulty the changes described and figured in the *Transactions* of the Society (vol. xlii, Pl. VII). Some of the most typical stages are represented in Fig. 6. I have several times tried

to observe similar or analogous changes in psorospermoid bodies contained in scrapings of carcinomata treated in the same way as the scrapings of psorospermic nodules, but as yet I have failed to obtain definite results.

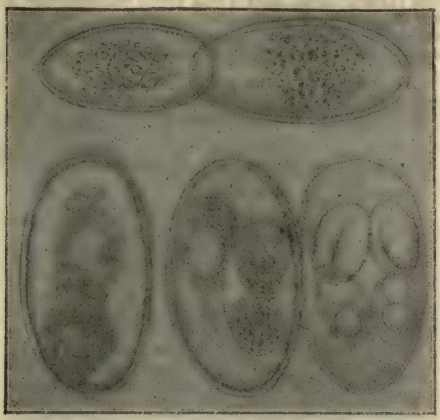


Fig. 6.—Some of the forms observed in psorosperms kept in a moist chamber in some nutrient medium. × 1100.

I have now stated my reasons for doubting the parasitic nature of bodies which I myself thought at first were parasitic, and which I have even described as such more than two years ago. These bodies I have not the slightest doubt, after comparing my specimens with those of Dr. Ruffer and the drawings published by Soudakewitch, are identical with most of the forms described by these observers. I therefore feel justified in asking them to prove the parasitic nature of their bodies.

It is true that they rely on certain typical staining reactions and on certain appearances of multiplication; but I think these criteria are insufficient, for:

A. The staining reactions are unnecessary in such a case, because (1) the bodies are so large and distinct that they can easily be studied with a moderately high power; (2) ordinary methods of staining are quite sufficient, as I have proved; (3) because Dr. Ruffer himself says that these bodies have not always the same reaction, the bodies described and demonstrated by him being extremely variable in that respect; (4) because the same variability of reaction can be observed in products resulting from various protoplasmic degenerations, as may easily be recognised by studying the appearances presented by cells undergoing degeneration, especially the colloid.

B. The evidences of multiplication which are adduced are such that they might easily be produced by endogenous multiplication of cells and nuclei and degenerative changes. I do not say that the bodies in question are not parasites. I only say that certain endogenous productions are much like them, and that no one has proved that these bodies have a life independent of that of the cell. Nobody has shown in them evidences of those stages of development which have been shown to exist in other parasitic protozoa, and are so characteristic in coccidia. I therefore consider that, even with the support of such an eminent authority as Metschnikoff, neither Soudakewitch nor Ruffer has any more right for the present to call the bodies to which they have again attracted attention either protozoa or parasites than those who had described the same or similar bodies previously.

THE German Chemical Society has resolved to found an institute in memory of the late Professor A. von Hofmann. The proposed institute is not designed merely for the furtherance of chemical knowledge, but as a place of general scientific research.

SOME HISTOLOGICAL CONDITIONS OBSERVED IN CARCINOMA OF THE BREAST.

By CHARLES A. MORTON, F.R.C.S.,
Registrar to the Bristol General Hospital; Pathologist to the Hospital for Women and Children.

IN introducing his subject, Mr. Morton first called attention to the tendency in carcinoma of the breast to the formation of gland lumina in the alveoli. (Fig. 1). Sometimes only one such lumen existed, and was by no means necessarily central; sometimes there were many in the same alveolus. Often the cells were arranged around the lumen as a centre, that is, they sloped towards it so as to fit around it, but were not columnar. They varied in size from

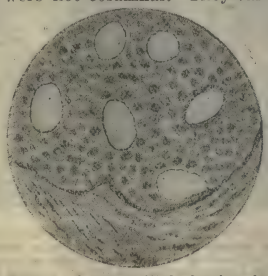


Fig. 1.—The formation of new multiple lumina in an alveolus of carcinoma cells. High power: ⅛-in. objective. Same growth as Fig. 3. From a drawing.

spaces only clearly visible with a high power to a considerably larger size. The alveoli containing them were always large-type alveoli, not the narrow rows of cells. He had also found them in the papillary processes of so-called "duct-carcinoma." They had been present in seven cases out of more than twenty tumours examined. It might be thought that they were the original duct or acini tubes remaining (for the acini, even in the resting gland, sometimes had a minute lumen) but that they were really a new formation in the carcinoma was proved by the fact that they were also found in the secondary growths in the glands. (Fig. 2.) He

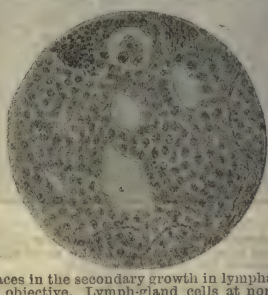


Fig. 2.—The spaces in the secondary growth in lymphatic gland. High power ⅛-in. objective. Lymph-gland cells at north-west corner. From a drawing.

had found them twice in the glands in four cases examined, where they had been present in the primary growth. There was, in fact, a tendency in carcinoma to the production not only of epithelial cells, but of a more specialised formation in the form of gland tubes—a point of no small importance, not only with reference to carcinoma of the breast, but also to the pathology of tumours generally, for here there was a tendency to the reproduction of gland tubes in typical solid alveolar carcinoma. In fibro-adenomatous tumours of the breast there was sometimes the same formation of several lumina in the spaces filled with epithelial cells, but these epithelial cells were not like carcinoma cells. The micro-photograph from which the drawings have been made represented such spaces, though in them the distinction in the cells could not be made out.

In the second form of adenoid cancer to which he wished to call attention, there were large rings of cancerous cells in

large spaces around a lumen of considerable size, and constantly in these rings there were found the small lumina just described as occurring in ordinary carcinoma alveoli. (Figs. 3 and 4.) Sometimes the central large lumen contained



Fig. 3.—Section showing large carcinoma ring in one alveolus and two alveoli, with several smaller lumina. At the lower part (A) is a very early stage of growth in a lobule, with small round-celled infiltration around. Low power: ½-in. objective. From a drawing.



Fig. 4.—The carcinoma rings in alveoli. Low power. Same tumour as Fig. 3. Reticulated appearance of cells due to shrinking of cells from alcohol. From a microphotograph.

a granular mass, staining pink with eosine. The only description of these rings which he could find in English books was in Gross's work on the *Breast*, and in his article in the *American System of Gynæcology*. Gross, however, figured them as a stage in the development of cancer from the epithelium of the acini. Now there was nothing to show that they were in any sense an intermediate stage in development. They were rare, and were certainly not found in the majority of carcinomata of the breast examined. Nor was there anything to show their relation to duct cancer. They might occur quite at the periphery of the breast, as in two of the cases from which the drawings had been made, and could not, therefore, be necessarily connected with the larger ducts. Mr. Morton believed them to be due to a tendency to the production of carcinoma tissue in this particular form, although he had not been able to find them reproduced in the secondary growths in the glands. He had carefully examined a large number of sections of the tumours containing these rings, to see if in their earliest stage of growth—that is, when they were little more than enlarged acini, or small ducts mixed with non-cancerous acini in the same lobule—there was any sign of the retention of a lumen. Only in one such lobule could he find any appearance

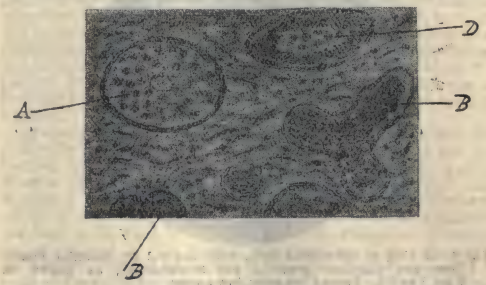


Fig. 5.—An early stage of the carcinoma growth: B B, normal gland; A, carcinoma alveolus, with small central lumen. D carcinoma cells in centre of enlarged acinus. High power: ⅛ objective. Same tumour as in Figs. 3 and 4. From a drawing.

of this (Fig. 5). That sometimes the lumen of the acinus or minute duct might remain to form the lumen of the ring seemed possible; but one could quite understand a central lumen forming *de novo*, and enlarging as the multiple lumina, which remained small, did in other alveoli in which there was no large ring with large central lumen. In tumours where he had found carcinoma develop in association with numerous cystic dilatations of the smaller ducts these rings had not been present, showing that it was not merely a tendency to cystic change which produced them in carcinoma; more probably it was a specialised tendency of the carcinoma formation itself. He had found them in five cases out of more than twenty tumours examined.

In many cases of cystic breasts, or in fibro-adenomata with microscopic cysts, microscopic spaces were found lined with several layers of cells somewhat like these, and it might be thought that these rings in carcinoma were merely the epithelium in such dilated acini or ducts, and not essentially part of the carcinomatous growth. But the cells and their nuclei in carcinoma were much larger; there was more protoplasm around the nuclei, and the cells therefore looked much less deeply stained with the logwood than in non-cancerous epithelium, and the nuclei of the carcinoma cells seemed really to take the stain less deeply. In simple cystic dilatation of ducts and acini, or spaces found in fibro-adenomata, one did not get epithelium which could be mistaken for cancer epithelium. In the rings in carcinoma the cells were not like those in simple cystic breast; they had the characters of carcinoma epithelium just described. Moreover, in cystic non-cancerous spaces the rings were not as thick as carcinoma rings often were; carcinoma rings sometimes almost filled the alveolus. Where all the alveoli together in one area had rings and lay side by side the appearance was produced which Mr. Symonds had figured in a case recorded in Bryant's book *On Diseases of the Breast* as tubular carcinoma. But in some parts of these sections there might be discovered typical carcinoma alveoli full of cells, and the microscopical structure of the lymphatic gland implication would be of the ordinary kind.

In one large carcinomatous growth he had found small lumina in the large alveoli of the primary growth, in the glands, and in a recurrence in the cicatrix; but, what was more interesting, he also found one or two typical large rings in the recurrence when none were seen in the primary growth.

It was a very interesting fact that not only was there a tendency to the reproduction of small lumina in the solid alveoli of carcinoma of the breast, but that sometimes the whole alveolar formation assumed the form of a gigantic gland space with its ring of carcinoma cells. A lumen was not generally present in the resting gland acini, only cylinders or round masses of cells, and yet in carcinoma growing in such tissue the tendency in many tumours was largely to reproduce the lumen present in the actively secreting gland.



Fig. 6.—A ring of carcinoma cells with central (?) vascular space. They are papillary growths, cut transversely, as shown in Figs. 7 and 8. From a drawing, low power.

There was one tumour to which he called special attention. The appearance figured in Drawing 6 puzzled him. There was the ring, and yet inside the ring was a space with fibrous investment containing granular material. On making more



Fig. 7.—A ring of carcinoma cells, with a (?) vascular space in centre. in centre. Papillary process growing into alveolar space, cut across. From a scirrhus tumour of breast. Low power: ½-in. objective. From a drawing. Same tumour as Fig. 6.

sections of the same growth the conditions represented in Figs. 7 and 8 were seen evidently papillomatous, and therefore he concluded that the appearance in the first drawing was due to a pa-



Fig. 8.—A papillary intra-alveolar carcinoma growth from the same tumour as Figs. 6 and 7. Low power: ½-in. objective. From a drawing.

pillomatous growth filling the space being cut transversely, this papillomatous process containing an imperfectly developed vascular space in the centre. In many parts the microscopic structure of this tumour was undoubtedly ordinary carcinoma, and to the naked eye it presented the appearance of scirrhus in the centre with softer growth around. The glands were affected with ordinary carcinoma. Hence it was an ordinary carcinoma with cancerous papillary growth, not an ordinary "duct carcinoma" which did not even to the naked eye resemble scirrhus, nor the form which Mr. Robinson had lately referred to in his lectures at the College of Surgeons, in which there were simply tubes lined with epithelium, which to the naked eye did resemble scirrhus, but a tumour which, while resembling scirrhus in appearance, yet containedin addition to many ordinary carcinoma alveoli also these intra-alveolar papillary cancerous growths.

THE MORPHOLOGY OF TUMOURS.

By RUBERT BOYCE, M.B.,
Assistant Professor of Pathology, University College, London.

DR. BOYCE demonstrated a photographic record of some of the leading types of the epitheliomata in order to show the grounds upon which he was seeking to establish a division of tumours upon a morphological basis.

In the present instance he had selected the skin tumours, having elsewhere expressed his views upon those of the mamma and glands generally. He thanked Dr. Crocker and Messrs. Johnson, Stephen Paget, Walter Spencer, White, and Beadles for abundance of material. Up to date he had examined 250 cases. Recently a great zoologist had expressed the opinion that it might be possible that the neoplasmata belonged to the category of miasmatic diseases. This statement, coming from Metschnikoff, had naturally directed attention to the minute anatomy of the cell. He would, however, chiefly confine his remarks to the various forms assumed by cell aggregates and to the difficulties which presented themselves in accepting the theory of a contagium vivum.

Continuing, he said: It is seventeen years since Thiersch published his work upon skin cancer, and he has this year the satisfaction of finding in the *Festschrift* recently presented to him that his theories have held their own during this period. It is precisely seventeen years also since Virchow published in his *Archiv* a description of molluscum contagiosum, and it is only a few months since he had the satisfaction to learn in the *Festschrift* presented to him by his former and present assistants that his description of molluscum contagiosum and of the peculiar bodies found in it remained good. During this period of seventeen years the interest taken in cancer has not ceased. At first the morphology occupied the attention of pathologists; then came a more close examination into the etiology of cancer. Cohnheim looked to a congenital fault, others to irritation, as determining factors in the etiology of cancer. The relationship of "irritation" to neoplasis has increased in prominence. As is well known, psoriasis lingualis, laryngis, nasalis, and præputialis, and the seborrhœa senilis of Richard Volkmann have engaged, and still engage, very considerable attention. Schuchard in 1885, Rudolph Volkmann in 1889, and others have brought together a very considerable number of surface tumours which were preceded by long-standing sources of irritation, such as, for example, obtained in soot sifting, tar and paraffin working, chronic sinuses, and lupoid and syphilitic ulceration. Amongst other researchers engaged upon these or similar lines may be mentioned Boegehold, Hauser, Heitter, Kuttner, Zenker, Butlin, Posner, Kanthack, and Hutchinson.

In the meantime some were stimulated to seek a specific bacillus for cancer. The number of these researches was not great. One of the first was Wedopil, in 1881, but Scheuerlen obtained most notoriety; he appears to have based his results upon two experiments. It may be mentioned that the priority of Scheuerlen's claim was disputed by Schill and Frière. The simple culture experiments of Ballance and Shattock, and the beautiful monograph of Hauser, appear to have stopped the further search for a specific bacillus, although indeed an account of a specific contagium under another name was published in this country. It is well understood of course that pathologists do not deny to bacilli, or to any other parasite, a very important position in the processes known as irritative; take for example carcinoma arising in lupus and in syphilis, and in distomatosis.

In 1873 Bollinger described a truly enigmatical contagious epithelioma in the hen, and was able to infect healthy hens. He likened the tumours in structure to Virchow's epithelioma contagiosum. Israel, however, in 1892, says that it resembles an ordinary epithelial downgrowth. Bollinger described no contagium vivum. Weisser, in 1888, and Moreau, in 1889, described parasitic bodies in molluscum contagiosum. Then commenced the numerous researches by a group of French observers—Darier, Wickham, Malassez, Albarran, Soudakewitch, etc.—upon coccidia-like bodies in tumours. In the meantime, in Germany and elsewhere, the coccidia question had occupied considerable attention from amongst others—Pfeiffer, Sjöbring, Thoma, Podysoski, Delépine, and very recently Ruffer, and the numerous others to whom references will be found in the writings of Stroebe and Steinhaus. Very many of these observers have taken very strong views, just as Scheuerlen has done. On the other hand, histologists like Thoma, hold themselves very reserved. Recently too, Stroebe, Steinhaus, O. Israel, Karg, Eberth, Ribbert, Hauser, and Delépine, have paid very considerable attention to the nature of these bodies, and I think I may say that they agree with what Virchow said seventeen years ago, and which he has again repeated, namely, that as no previous and no subsequent stages of these bodies can be traced, therefore there is not sufficient evidence as yet in support of their parasitic nature. They term them, in consequence, cell enclosures which may be of endogenous or leucocytic origin. Moreover the majority of these last mentioned observers very strongly go against the idea of a specific contagium. For in truth the difficulties in the way of a theory of a contagium vivum, based upon our present knowledge, are immense. Carcinoma is but a genus of the neoplasmata, the other members of which are the fibrous, fatty, cartilaginous, muscular, and other tumours; they merge into the teratomata, giant growths, elephantiasis, etc., of congenital origin. I will attempt to show in the skin tumours that on morphological grounds we may be able in very many cases to decide whether certain neoplasms are of congenital or of acquired origin—whether, in other words, the cancer springs from a "rest," the "fault" or "irregularity" of Cohnheim—and which may be formed at the period when the tissues are undergoing their differentiation; or whether, on the other hand, it springs from adult tissue. In the latter case irritation undoubtedly appears to play a most important part, and numerous causes of this irritation have been admitted or proved, such as parasitism and mechanical irritation; we however by no means imply any specificity of virus in this assumption. Rudolf Volkmann, working on other lines, came to the conclusion, from his analysis of epitheliomata of the extremities—one of the largest and best which has ever been made—that those epitheliomata which arose from congenital moles, nævi, etc., though few in number, had to be separated from the very large group which resulted from acquired warts, ulcers, and chronically irritated parts generally. He pointed out that the tumours of irritative origin were practically benign; on the other hand, those which arose in congenital marks were exceptionally infective. The preceding observations must I think be taken into account by researchers engaged upon a contagium vivum, as it is obvious that they are a source of difficulty. Whether my own observations will, from the clinical aspect, agree with those of Volkmann I am as yet unprepared to say. Here I may mention that it would be worth the while of the statistician, when he states that cancer is on the increase, to bear in mind the possibility of a division of neoplasms into the congenital and acquired. He would understand that we could have little control over the former, but he would know from history that circumcision appears to have abolished preputial cancer, and improvements in methods of manufacture and of factory hygiene appear to have diminished the form of cancer more particularly associated with the trades.

Cancer, it has been asserted, has every appearance of being due to a living contagium, and undoubtedly cancer may become a terribly infective disease. Further, Novinsky, in 1876, and later Wehr and Hanau, succeeded in inoculating animals, and Hahn and Bergmann the human being. Cancer is, however, an infectious disease which differs from all other known infectious diseases. The secondary foci are grafts of the original focus, which do not confer their malignancy or their infectivity on the tissues around; the metastatic focus of the skin cancer in the liver does not produce, as far as we know, an adenoma of the latter organ. Why, asks Karg, if cancer is infective in the ordinary sense, does not, for instance, œsophageal cancer, when it bursts into the trachea, produce an epithelioma of the trachea? If there is a specific cancer organism like the specific organisms with which we are at present acquainted, then it is obvious enough that there must be one for the squamous epithelium, one for its appendages, one for the liver, and so on. But, it may be argued, there is a symbiosis between the parasite and cancer cell. This is introducing a hypothesis more difficult of comprehension than the theories of Klebs and Schleich. As a matter of fact, the abnormalities of the cancer nucleus have received considerable attention from Hansemann, the pupil of Arnold, and from Klebs, Schleich, and others. Hyperchromatosis is sometimes extremely marked. It is therefore not, perhaps, extravagant to assume for the cancer cell a fusion of chromatins comparable to that which takes place in the egg cell. At any rate, the nucleus appears in the vast number of cases to be abnormal.

To return to the bodies found in cancer cells. It is evident that the large proportion of observers describe the same bodies, but unfortunately they have almost all neglected Koch's most important advice to photograph them. Thus Sjöbring describes a parasite in cancer the life-history of which it has been pointed out tallies in a most remarkable manner with that of the plasmodium malariæ. The psorosperm bodies of the French observers are for the most part very large. Boeck has recently figured Darier's parasite in a case of Darier's disease, which has very considerable dimensions, but Boeck does not take it for a parasite. Karg takes the precaution to photograph a section of the epithelium in a case of Paget's disease; and in that photograph Karg says the bodies described by Wickham can be seen. In my own morphological studies I have paid considerable attention to the cancer cell enclosures. I have in common with others found them to be of variable frequency and of very different appearances, but I have found nothing as yet which would lead me to conclude that they were animal, but it may be that they will be proved to be parasitic. I cannot, however, as yet understand, for the reasons above given, how they will be proved, if parasitic, to be specific—that is, basing my opinion on what we know of infective processes. With regard to the presence of animal parasites in cells, I may here point out that I have elsewhere shown that those parasites, like the sarcosporidia, coccidia, and trichinæ, which dwell in cells, for the most part excite extremely little cell reaction; but I have also pointed out that these same parasites may, for reasons which we know not, give rise to necrosis or neoplasis.

But with all the above difficulties in the way of the theory of a specific virus for cancer, we have the opinion of Metschnikoff, and both his opinion and that of Malassez—though the latter's evidence appears to have been somewhat shaken—is entitled to the greatest respect. At the same time, I think that those who throw out the hint of a contagium vivum should express themselves more clearly upon the manner of infection.

[Dr. Boyce then showed sixty-five photographs arranged into groups, each group showing peculiarities of its own. The first group showed epitheliomata which were preceded by hyperplastic changes, or increased eleidin, horny or mucoid formation. They were stated to be associated with chronic inflammatory processes, and there was usually a considerable number of leucocytes and lymphocytes. The second group embrace the fibro-epitheliomata, in which the preponderance of a spindle-celled stroma was striking from the commencement; these growths had been called scirrhoid cancers of the skin. The third group embraced what Dr. Boyce believed to be congenital epitheliomata; they were very striking growths, both on account of their stroma and epithelium; they included the branchiogenous carcinomata. The fourth group showed the origin of a very common form of rodent ulcer in sebaceous glands; but what may be regarded as endotheliomatous and hair follicle types were also seen. The fifth group showed hair follicle epitheliomata, commencing with molluscum contagiosum. Under this category he would include a cystic and papillomatous epithelioma found in the lip and penis. Photographs were also shown of the bodies found by Virchow in

molluscum contagiosum, by Karg and Wickham in Paget's disease, and one by Dr. Boyce in rodent ulcer.]

Dr. A. RUFFER first wished to deny that he had said protozoa were the cause of cancer; he had said nothing as to the etiology of the disease. What he had said was that in every case of cancer he had examined protozoa were present which were entirely different from the epithelial degeneration shown by Dr. Delépine. Dr. Delépine had neglected to explain in what manner his specimens had been prepared. Had Dr. Delépine hardened his cancers in absolute alcohol, he would most certainly have seen protozoa. Parasites in tumours could only be demonstrated by certain methods of staining (Dr. Ruffer used Biondi's reagent). Dr. Ruffer then described the appearance of the bodies which he regarded as parasites.[7] He considered it quite impossible that these appearances were due to degenerated cells, since the protoplasm stained quite differently from the nucleus of the cells. If they were not parasites, but degenerated cells, they ought to be found in those cancers in which epithelial cells were present in large numbers; but these were precisely the cases in which it was most difficult to find them. Dr. Delépine had said that they might be endogenous formations of cells, that is, cells which had formed within cells. If this were so, there ought to be some change in the nucleus, showing it to be undergoing division, which change was not found, the only variation being that the nucleus degenerated. The number (sometimes as many as seventeen in the epithelial cell), the constancy, and the size of these bodies proved that they were not degenerated cells, but parasites. Dr. Ruffer had never attempted to classify the protozoa, it being impossible to say to what order they belonged until modes of reproduction, etc., had been ascertained. Dr. Ruffer added that he had only found the karyokinetic changes of cancer in one case out of seventy examined by him in a cell containing a parasite, but had often observed this condition in the cells surrounding a parasite, and in its immediate neighbourhood.

Dr. HERBERT SNOW said that in carcinoma of the mamma there was an insidious affection of the marrow, in which malignant cells gained access to the marrow and flourished there insidiously for a long period, there being no tumour anywhere else. In patients thus afflicted, there was found at the junction of the second costo-sternal articulations a slowly progressive prominence, perfectly painless, which gave the patient no trouble, and which only in a small percentage of cases ever proceeded to a tumour.[8] Dr. Snow showed photographs to illustrate his remarks. He then went on to discuss melanotic cancerous disease, which, he stated, only arose in cells that naturally secreted pigment, and was a pigmentary degeneration of the protoplasm. Of this disease there were two forms: (1) Melanotic cancer of the eyeball, which arose in the connective tissue cells of that body, and which was a true sarcoma, not invading the glands by the lymphatic system; and (2) melanotic cancerous disease infecting the integument, arising always in some place where there was a previous abnormal deposit of pigment. These two diseases had been confounded together. Epithelial cells had a particular tendency to mucoid degeneration of the nucleus, and Dr. Snow agreed with Dr. Delépine that the conversion of the nucleus into a mucous fluid was really the phenomenon which had been described as a parasite. Dr. Snow thought that Dr. Ruffer's mistake was in describing cancer cells as mono-nucleated. The normal cell was mono-nucleated, but in a cell which had become malignant there were a very large number of nuclei present.

Dr. RUSSELL said that in his paper published in 1890,[9] he had brought forward a number of figures, and the problem before his mind was as to the nature of these structures in the cells of carcinoma. He was, of course, familiar with the Continental work on the subject. He believed that he had, in the course of his investigations, found a link of connection between these cellular bodies and bodies outside the cell, which he termed fuchsin bodies. These fuchsin bodies were pronounced by all who saw them to be a sprouting fungus. The title which Dr. Russell gave to his paper, and the work embodied in the paper, were the subject of numerous attacks. The bodies described were said by some to be products of degeneration. Since that time, however, Dr. Russell and others had found elsewhere bodies which were not to be distinguished from the detached fuchsin bodies. The precise nature of these bodies had never been satisfactorily explained, but they were certainly not the nucleoli of cells. He could say nothing about the connection between these bodies and the intracellular bodies, which were more particularly in question in the present discussion. Unquestionably Dr. Ruffer had, in his admirable and valuable contribution to this discussion, described bodies contained in the cells of carcinoma. No one who had hardened tissues properly could doubt the existence of these bodies in epithelial cells, though it was still doubtful what these bodies were. A great deal might be said for Dr. Ruffer's view, and great weight must be attributed to the opinion of the zoologists who had examined the specimens; but Dr. Russell thought their opinion could not be regarded as final. Certainly processes occurred in the cells of cancer which were unlike the processes in any other morbid tissues with which he was acquainted. In spite of all the attention he had given to the subject his mind was still open. He believed that the limit of morbid anatomy on this subject had been reached. He had, within the last twelve months, seen no picture of carcinomatous cells with which he was not perfectly familiar. Efforts should, he thought, be made to ascertain the nature of these structures apart from the standard of morbid anatomy.

Dr. SIMS WOODHEAD said that he had long been strongly opposed to the doctrine of specific infection as the cause of cancer. This opinion he had since greatly modified, but he still believed that there must be an essential difference in the specificity from anything at present known, and that certain changes must take place in the condition of the tissues before the causative agency could become active. As regards the specific causal agent, Dr. Woodhead did not understand Metschnikoff to maintain that there was a special organism for the different kinds of cancer, but that he asserted the possibility of there being an organism which would attack epithelium under certain conditions only. It seemed to be generally agreed that certain bodies were found in cancer cells which were not found in other tissues. These were apparently of the nature of protozoa, but so little was known of them that it was impossible to classify them; and, on due consideration, it must be admitted that an open mind must be preserved on the point.

Professor DELÉPINE, in reply, said: 1. Dr. Ruffer has not proved that the bodies under discussion were living nor that they were parasitic, or of the nature of protozoa. It is certainly interesting to hear that such a great authority as Metschnikoff has recognised the resemblances which exist between the bodies enclosed in the cells of epithelial tumours and protozoa; this had been done by several pathologists, and it is advantageous to have this confirmation coming from an experienced zoologist. This, however, does not carry us a step further than we were. 2. Dr. Ruffer says that his bodies differ from those I have described and shown. I still am persuaded that they are absolutely similar in shape, structure, size, positions in the cells and distribution in tumours. (In a tumour of the liver which I exhibited at the last Congress of Hygiene and Demography, and in which I said these bodies were very typical, Dr. Ruffer himself has recognised their presence and even abundance.) 3. Dr. Ruffer attaches an undue importance to staining reactions in this case, for first, he himself recognises and his preparations prove that this reaction is extremely variable, few of his bodies having the same appearance. I am even under the impression that the preparations which I have exhibited both in London and at this meeting, seem to indicate more clearly the parasitic nature of the bodies in question (although they have been stained simply with hæmatoxylin and rubin, with or without orange, or in some cases picrocarmine; I have purposely avoided showing preparations stained by special methods of which I have dyed a large number for my own satisfaction, because when old methods can be used it is better to use them, as in this way it is easier to compare results.) Secondly, these bodies are large enough, being usually as large or larger than nuclei, and often quite as large as epithelial cells; in addition they usually seem to have a capsule, and are therefore quite distinct even under a moderately high

[7] See BRITISH MEDICAL JOURNAL, July 16th, p. 113, for paper and illustrations.
[8] *Ibid.*
[9] BRITISH MEDICAL JOURNAL, 1890, ii, p. 1356.

power of the microscope. Staining reactions are certainly of great use when one has to deal with extremely small organisms such as minute bacteria; but in the case of protozoa this is not the case. Most of these organisms can be studied in the living and unstained state; in fact most if not all the parasitic forms (amœbæ, gregarinæ, coccidia, sarcosporidiæ), flagellata (mostly hæmatozoa), etc., have been discovered, and in great part studied without the use of any staining method. These methods, however, become of great use for the study of structure, and for purposes of demonstration. 4. Dr. Ruffer seems to doubt the existence of endogenous cell formation, yet such a phenomenon has been abundantly shown to exist by Virchow and others since, and I am able to demonstrate in support of this a prickle cell containing two daughter prickle cells; in such a case doubt can hardly exist since the interpretation of the enclosed bodies, notwithstanding their apparent encapsulation and the difference of reaction due to their partial degeneration, is plain enough. On all these grounds and those already given in my communication, I maintain that neither Soudakewitch nor Ruffer has proved the parasitic nature of the bodies which they describe as such.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

HEAT APOPLEXY: HYPERPYREXIA: DEATH.

I think the following case worth reporting, not so much from the rarity of the affection in the tropics, as from the fewness of the recorded cases.

A young woman, aged about 26 years, was seized, at 10.30 A.M., with faintness and vomiting; this was immediately succeeded by convulsive twitching of the face and hands. When I saw her, shortly afterwards, I found her in a comatose condition, with stertorous breathing, arms and legs helpless, knee-jerks abolished, and plantar reflex gone. The pulse was 100, fairly good volume and not laboured; pupils were contracted and inactive to light; face gorged with blood, hands blanched; temperature 107.8°; respiration very shallow. Powdered ice was at once applied in a cloth to the head, and ice applied to other parts of the body. She soon began to vomit a greenish, biliary matter, and urine and fæces were passed involuntarily. There being no improvement I determined to inject antipyrin hypodermically. Half-an-hour after the injection of 3 grains the temperature was 99°, breathing easier, less laboured, but still vomiting. At 4 P.M. the temperature had gone up to 103.8°, pulse 88, small and hard. Croton oil mij is given by mouth. On the sun going down, the patient opened her eyes, and this was the only attempt of a return to consciousness. Temperature 101°. Next morning the temperature was 104°, pulse beginning to fall, very rapid, respiration laboured. I injected 3 grs. antipyrin and administered croton oil mij; there was a slight improvement for a while; vomiting not so frequent, but a great deal of mucus obstructing respiration, and *râles* in the chest. Breathing became more abdominal. Brandy, one teaspoonful every hour, was given during the day; but towards evening the patient was unable to swallow, and she sank about thirty-six hours after the attack; the temperature for the last few hours being subnormal. The points of interest in the case are these:

1. That it is not a high dry heat, but a damp monsoon heat that usually causes heat apoplexy; the temperature during the monsoon being 95°, whereas much higher temperatures are registered in Southern Australia, and the cases are not nearly so frequent.

2. The good effect of antipyrin injected hypodermically in bringing down the temperature, when it would have been impossible to bring down the temperature by any drug administered by mouth.

3. In this case more depletory measures were contra-indicated, as the patient was in enfeebled health and suffering from secondary syphilis. Again, notwithstanding the reduction of the temperature there was no improvement in the peripheral circulation, the hands remaining blanched and the face congested, the rapidity with which the lungs became gorged suggesting paralysis of the nerve centres and loss of tone of vessels.

4. Of any number of cases occurring on a ship, the majority of cases are among the third-class passengers, due (1) to their neglect of proper precautions; (2) to their worse accommodation.

E. C. Williams, M.B.Cantab.,
Surgeon, Royal Mail Steamer *Tara*.

A CASE OF PUERPERAL ECLAMPSIA.

The following case of eclampsia, occurring in a primipara aged 24, may be interesting. The patient had had measles when young, and was subject to headaches, which she attributed to excessive development of the hair, but otherwise had enjoyed good health. Her catamenia were usually regular, and she had an abortion about a year ago. There was no history of epilepsy. During the latter part of the present pregnancy she suffered from dizziness, loss of vision, and severe backache, which was worse when the patient was in the recumbent position.

On Monday, at 1.30 A.M., she was rapidly delivered of a full-timed child, the afterbirth following immediately, and there was some vomiting afterwards. At 1 P.M. on the same day I called for the first time and found that the patient was, as far as I could judge, progressing favourably; but the infant looked weakly, and I in consequence recommended the mother to have it baptised early.

Twenty minutes after my visit the patient was attacked with convulsions, having three seizures in the first hour, from which she did not regain consciousness till the fits entirely left her. I gave an enema of bromide of potassium and chloral and ordered hot bottles, poultices over the loins, and extra clothing. The fits discontinued for two and a-half hours, then recurred every hour—although the bromide and chloral mixture was given by the rectum, and occasionally by the mouth also—till 3.30 P.M. on Tuesday, when Mr. Steele saw the patient with me.

Pilocarpin (gr. $\frac{1}{15}$) was injected into the arm, and, as the temperature was 103° F., the uterus was cautiously washed out with weak Condy's fluid. The effect of the pilocarpin on the heart was very noticeable, recalling to mind the pulse and heart sounds at the termination of a fatal case of diphtheria. She had no convulsions after the administration of the pilocarpin, excepting a "slight attack" two hours afterwards which some of her friends were supposed to notice. I gave another enema of bromide and chloral at 7 P.M., and drew off from the bladder about 2 ounces of urine for examination, it having previously escaped unconsciously. There was a thick deposit of urates, and the nitric acid and heat tests revealed albumen in large quantities.

On Wednesday the patient had improved but was unable to speak. She tossed about as if having suffered from hæmorrhage; there were signs of returning consciousness; temperature normal.

On Thursday iodide and bromide of potash were given by the mouth; the uterus was washed out with Condy's fluid.

On Friday I found the patient sitting up in bed, eating and conversing; she complained of frontal and vertical headache.

On Saturday there was much improvement; examination of the urine showed urates but not a trace of albumen. All but dietetic treatment was now discontinued; but Mr. Milne, for whom I had been taking charge of the case, ordered the hair to be cut for the relief of the headache.

The case seems interesting, as it points to the beneficial results of a judicious use of pilocarpin in the treatment of puerperal eclampsia, and the possibility of fright determining an attack of the disease in a predisposed subject. I had thoughtlessly alarmed the mother by hinting at the doubtful viability of her infant.

Poulton-le-Fylde. Thos. Dobson Poole, M.D.

DILATATION OF THE CERVIX.

I have read with much pleasure the paper by Dr. Athill in which he advocates the preliminary use of a tent before dilating the cervix with bougies in certain cases.

I was much struck some time ago by the difficulty experienced in dilating the cervix with Hegar's dilators when its

canal was narrow, and a small size—No. 7 or 8—had to be used to commence with. It then occurred to me to use a tent first, and I have found this simplify the operation in a remarkable degree. I will give two cases in illustration.

Mrs. A., seen in consultation with Mr. James St. Johnston of this city, August 8th, 1891. She had miscarried several months earlier, and had been "losing" since. The uterus was a little enlarged, but movable; the os was not patulous. As medicinal treatment had been tried without success, it was decided to explore the uterus. A laminaria tent was introduced at 10 P.M., and at 10 A.M. next morning removed, and dilatation carried out with Hegar's dilators, a start being made with No. 13; they were passed in order up to No. 20, and then the finger was easily introduced, and a small mass felt attached to the posterior wall of the uterus; this was removed by scoop and finger, and found to be a piece of placental tissue as large as a marble. The uterus was then washed out with hot water. The patient had no further hæmorrhage, and made a rapid recovery. The operation was done with the patient in the left lateral position. No anæsthetic was used, and the vulsellum forceps was not required.

The other case was a woman, aged 40, admitted into Queen's Hospital with a history of bleeding extending over several months. The operation was carried out in the same way, a tent being put in the night before by Mr. Gamgee, the obstetric house-surgeon. Dilatation was commenced with No. 12, and carried on up to No. 20. A small rough surface was found, scraped with the curette, and the whole interior surface of the uterus swabbed with tinct. iodi. The patient soon recovered, and the hæmorrhage did not recur. In this case the use of the vulsellum forceps was dispensed with, though an anæsthetic was given. The dilators passed in with the greatest ease, the whole process of dilating not lasting more than ten minutes.

In these and other cases I have found that, after using a tent, there was very much less force required, and that, consequently, the chief risk of the graduated bougies—that is, the possibility of tearing the cervix—was much diminished.

Birmingham. C. E. Purslow, M.D.Lond.

ASCARIS LUMBRICOIDES AS A COMPLICATION OF TYPHOID FEVER.

R. F., aged 14 years, of good family history, consulted me on November 20th, 1891. He complained of general *malaise*, with vomiting and pain in the stomach. On the 23rd I was sent for to visit the patient at his home, and found him suffering from the prodromatous symptoms of typhoid fever, with pale face, dark lips, scanty and high-coloured urine, and severe typical diarrhœa. The temperature during the disease was characteristic, rising each evening to fall again next morning, and reaching a maximum of 104.2°. The tongue was furred at the sides and clear at the tip and middle. On the tenth day the "spots" appeared on the abdomen. The case progressed favourably, defervescence taking place by lysis.

After sixteen days' apparent convalescence—that is, on December 26th—the temperature went up, and the diarrhœa returned with its former severity. The symptoms ran a shorter course, and the patient once more became convalescent.

On January 11th, 1892, the disease again made itself manifest, but until the 18th no especial symptom appeared. When making the morning visit to the patient, I found that immediately before my arrival he had passed a large round worm, of about 10 or 11 inches long. From that date forward recovery was unimpeded, and by February 12th it was not necessary to continue visiting at the house. In the early stages of the disease an ordinary saline mixture, with 2 minims of tincture of aconite, every four hours, and 10-grain powders of salicylate of soda thrice daily, were given; no food being allowed beyond a simple milk diet. On November 25th active delirium was present, and continued for some days, the treatment being a sedative draught containing bromide of potassium and tincture of henbane, to be taken at night as required.

The diarrhœa was now uncontrollable. Fortunately at this time there was a correspondence in a medical journal on the treatment of this malady, more especially of the diarrhœa, namely, tincture of iodine and carbolic acid, and, this having been adopted, was followed by great success. The patient received 1 minim of tincture of iodine, and ½-grain of carbolic acid thrice daily, the doses being doubled after three days.

During convalescence he was put on an acid mixture, with sulphate of quinine. On recurrence of the symptoms the former treatment was again used with equal success, and also in the second relapse. After the voiding of the worm no other was passed, although the ordinary vermifuge was given. The only stimulant administered during the attacks was a tablespoonful of hot milk every hour or half-hour as required. The case was reported under the Notification of Diseases Act, and the usual hygienic measures carried out, the stools being received into Condy's fluid.

The fever ran an ordinary course till the first relapse, which was thought to have been caused by a chill, the patient having come downstairs without permission. The second relapse was attributed to the presence of the parasite, and the question now arises whether both cases were not due to the same cause. As the case appears to me to be very rare, it may, perhaps, be of general interest to your readers.

Wolverhampton. J. S. Reynolds, L.R.C.P. & S.E.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, WATERLOO ROAD.

UNUSUAL TERMINATION OF A CASE OF CANCRUM ORIS.

(By S. W. Wheaton, M.D., M.R.C.P., Physician to the Hospital.)

A female child, aged 3 years, was admitted with a livid red swelling of the right cheek, nearly the whole of the inner surface of which was found to be gangrenous. There was slight enlargement of the glands at the angles of the jaw, and the temperature was 99.2°. The gangrenous surface was treated with nitric acid by the house surgeon, Dr. Wilson Smith, and dressed with iodoform, the child being placed face downwards in order to prevent as far as possible the inhalation of septic material. The child's progress was unusually good. The temperature became normal after two days, and continued so. A small scale of exfoliated bone was removed from the alveolus of the upper jaw on the eighteenth day. A month after admission a small scar only remained on the mucous membrane of the cheek, and the child appeared in perfect health, when, four days later, it vomited without apparent cause. The next day it became drowsy, with repeated vomiting, dilated pupils, and occasional periods of great excitement and terror, apparently connected with visual hallucinations. During the next twenty-four hours it passed into a condition of partial coma, lying with eyes widely open, taking no notice of anything, with an occasional piercing inarticulate cry and divergent squint. The conjunctivæ were injected, pupils contracted without reaction to light, respiration was sighing, pulse irregular and rapid, and the temperature rose suddenly to 102.2°. Intense optic neuritis was found in both eyes, with large flame-shaped retinal hæmorrhages. The child died twenty hours later, without developing any further paralysis, eruption, or rigidity of the neck, the temperature rising to 102° just before death, having previously fallen to 96°. The secretion of urine was very scanty, but albumen was absent even in that removed from the bladder after death.

At the necropsy the surface of the brain was extremely congested, and the grey matter was everywhere of a vivid pink colour. There was no excess of fluid in the ventricles, no opacity of the membranes, no miliary tubercles or thrombosis of vessels. Both optic nerves were greatly swollen at their ocular ends, so as to be pear-shaped; the retinal hæmorrhages and greatly swollen optic discs were distinctly seen. The kidneys were enlarged and their cortex pale and opaque, the liver fatty, the mesenteric glands swollen. All the other organs appeared normal; the absence of carious teeth or

necrosis of the jaw was noted. Microscopically the brain showed marked dilatation of the vessels of the pia mater, with exudation of leucocytes into its meshes. The vessels of the cerebral grey matter were greatly dilated; the perivascular spaces were enlarged, and contained free leucocytes and a few micrococci, which were seen when stained by Gram's method. The kidneys presented a condition of disseminated tubular nephritis, the cells of the tubules being generally greatly swollen and opaque, but in some places quite unaffected. Micrococci were seen in the tubules and in the dilated vessels.

Remarks.—1. The clinical and pathological evidence shows that death was due to the sudden onset of septicæmia, causing general encephalitis and tubular nephritis. 2. It is a good illustration of the process of "secondary infection," in which putrefactive organisms obtain an entry through the lesion caused by a primary but independent disease, and cause septicæmia or pyæmia. This process is most frequently seen after acute fevers such as typhoid, in which an entrance is obtained through the intestinal ulcers, and in scarlatina and diphtheria, in which the ulcerations in the throat are the point of entry. 3. The gravity of the prognosis in cancrum oris, the patient not being out of danger even after apparently complete recovery. In the case in point, the organisms had probably remained latent in some thrombosed vein in the cheek, and when the clot began to break down they were discharged into the circulation. 4. The presence of extensive nephritis without albuminuria or œdema—a condition of great interest and not so uncommon as generally supposed, and which may be compared with the rarer condition in which general œdema exists without albuminuria. It would seem that some lesion of the vessels of the skin is a necessary factor in producing albuminuria, and that unless a simultaneous lesion of the cutaneous vessels is present, as, for instance, in scarlatina, albumen may be absent from the urine in cases of nephritis.

For permission to use the notes of this patient I am indebted to my colleague, Dr. Sunderland.

SICK CHILDREN'S HOSPITAL, NEWCASTLE-ON-TYNE.

DERMOID CYST OF OVARY IN A CHILD, AGED 7½ YEARS; SUCCESSFUL REMOVAL.

(Under the care of W. G. Black, F.R.C.S.E.)

M. E. A., aged 7½, admitted April 23rd, 1892, with lameness of the right leg and abdominal enlargement. The lameness of the leg began two years and a half ago, six months after an attack of measles; the limb was fixed in plaster bandage for some weeks. The swelling in the belly was accidentally discovered by the mother when bathing the child, and was then about the size of an orange. She had had measles, scarlet fever, whooping cough, and was said to have had inflammation of the brain. On admission she was healthy looking, plump, and, apart from the lameness and tumour, apparently enjoying good health.

The right leg was flexed at the hip, adducted, and rotated outwards; it was ankylosed at the hip-joint, the muscles were flaccid and wasted; occupying the centre and right lower half of the abdomen was a tumour, the size of a child's head; the tumour extended 2 inches to the left of the umbilicus and 1½ inch above it; it was freely movable, dull on percussion, smooth on the surface; it was surrounded by a resonant area, and the hand could be placed between it and the kidney. There was a distinct wave of fluctuation through it on percussion; there was no pain and no elevation of temperature; no rectal or vaginal examination was made.

On May 1st the belly was opened by median incision 4 inches long, an exploring needle introduced into the tumour, and purulent creamy fluid withdrawn; a large trocar and cannula was next introduced into the tumour, but, as the fluid failed to run, the opening was enlarged, the child turned on to her face, the contents evacuated, and the tumour easily removed. The pedicle, consisting of right broad ligament about 2 inches long and ¾ inch across, was transfixed, and ligatured with carbolised silk. There were no adhesions. Keith's drainage tube was inserted and removed on the third day. The child made an uninterrupted recovery, and left the hospital on the nineteenth day after operation.

The tumour consisted of a single cyst about the size of the fœtal head at term; it was full of purulent, creamy-looking sebaceous matter, and contained several long white hairs growing from its inner surface. The rare occurrence of such a condition, I hope, justifies its being recorded.

SOUTHPORT INFIRMARY.

NOTES OF A CASE OF COMPOUND FRACTURE OF THE SKULL.

(Reported by W. M. Hutton, House-Surgeon.)

L. C., aged 11 years, was struck on the forehead and knocked down by a swing boat at a fancy fair.

On admission (about half an hour after the accident) patient was not absolutely unconscious, but felt pain, and put his hand to his head when the wound was touched. Had been sick, and had vomited on his way to hospital. Pupils dilated, but equal and not completely insensible to light. No paralysis or jerkings. Pulse 45 per minute, and irregular. Some internal strabismus of left eye. Examination showed a lacerated wound just over the left frontal eminence; this led to a triangular depression of bone measuring about 1½ inch by ¾ inch. There was another cut over the anterior superior angle of the right parietal bone, about 1 inch from the middle line of the head; this was about 1½ inch long, and went through the periosteum down to the bone, but there was no fissure of the bone. No other cuts. No bleeding from nose, ears, or mouth, and no subconjunctival hæmorrhage. Within half an hour after admission patient's condition had become much more serious. Now he was much more unconscious, pupils insensible to light, breathing markedly stertorous. Twitchings had now commenced in the occipito-frontalis muscle, the orbicularis palpebrarum, and muscles of upper lip and angle of mouth on the left side. Spasms were clonic, succeeding one another about every ten minutes. Within a few minutes the same muscles of the right side became affected. Later the left arm was slightly affected. The legs were unaffected.

Within an hour of admission Dr. Baines operated. Chloroform was not required, as the patient was now deeply unconscious. The facial spasms were very violent, and recurred every few minutes. Now also there were masticatory spasms, with loud grinding of the teeth. During these spasms the face became quite cyanotic, and the breathing was well marked Cheyne-Stokes in type. The scalp wound was enlarged, and the aperture in the skull also enlarged by means of a chisel and gouge forceps. The outer table was splintered and separated from the inner, which was not broken in pieces, but was driven about ¼ inch under the skull; this also was removed, and dura rose with it, though not bulging into the wound. The dura was scratched but not perforated, pulsated, and there was no extravasation of blood. Pulse now 90, but still irregular. Other symptoms the same as before. The piece of the inner table of bone was replaced entire in a layer of half-clotted blood. A drainage tube was introduced and wound stitched. At 12 midnight (about five hours after operation, during which time an icebag had been applied) patient still unconscious: temperature 101.4° F.; pulse 98, irregular; respiration 26, and not now Cheyne-Stokes in type. Grinding of teeth still continued at intervals of about three-quarters of an hour, and the facial spasms were much less severe.

June 11th, 10 A.M. Temperature 100°; patient restless but not conscious; no more spasms or grinding of the teeth.

June 12th. Temperature normal; quite conscious; no pain in the head, no sickness; felt hungry and quite well; wound dressed and tube removed; all looking well and apparently healed except where the tube had been.

The wounds healed rapidly, and the temperature after the first day was never above 99°. The icebag was only removed for about an hour at a time twice a day for four days; after this it was applied about twice a day for three days and then discontinued. The patient continued perfectly well, but with a pulse of from 46 to 52 per minute, and irregular. He was allowed to sit up about the twelfth day. In less than a month the piece of bone had become firm and appeared quite consolidated.

Now—two months after accident—the patient is quite well; pulse irregular, 70 to 80 per minute, and over the wound all is quite firm.

Remarks.—The following points seem to be specially interesting in this case: (1) Rapidity of onset of symptoms in so

young a boy; (2) occurrence of such symptoms with a lesion over the frontal region, which is said to receive severe injuries without giving rise to severe symptoms, and more especially in a child; (3) slowness and irregularity of pulse for days after the operation. There was no cardiac lesion. The explanation which appears to be most probable is the following: Given a violent quick blow from above and to the left of the person receiving it, the point of contact of the blow being at the outer part of the left frontal eminence, then the point of *contrecoup* would be about the lower end of the ascending frontal convolution, where the centres for the facial muscles are said to lie. That might explain why the muscles of one side of the face were affected. Now, seeing that the muscles of both sides of the face usually act together in voluntary movements, and therefore their cerebral centres probably act more in unison than those for other muscles which act alone on either side of the body, and, if it be granted that the cerebral centres for muscles which usually act on both sides of the body at the same time are closely connected with one another, why should an irritative impression not be transmitted from one facial centre to the other? This looks a very theoretical explanation, and one which for its basis makes use of assumptions rather than definitely-established facts, yet it seems at least plausible. Whether the irritation at the point of *contrecoup* was a small clot or only a concussion would be difficult to say. I would also draw attention to the growth and firm union in less than a month of a comparatively large piece of bone, and also to the rapid healing of the wound under an icebag—attention having recently in the BRITISH MEDICAL JOURNAL been drawn to the rapid healing of wounds under icebags.

REVIEWS.

ATLAS DER PATHOLOGISCHEN HISTOLOGIE DES NERVENSYSTEMS. Herausgegeben von Professor V. BABES (Bucarest), P. BLOCQ (Paris), Professor EHRLICH (Berlin), Professor HOMÉN (Helsingfors), Professor P. MARIE (Paris), G. MARINESCO (Bucarest), Professor MENDEL (Berlin), Professor MÖELI (Berlin), Dozent C. v. MONAKOW (Zürich), Professor RAMON y CAJAL (Barcelona), und Professor VANLAIR (Lüttich). Redigirt von Professor V. BABES und P. BLOCQ. I Lieferung. Die krankhaften Veränderungen der Muskelnerven und deren Endigungen. Mit 8 lithographischen Tafeln. Berlin: August Hirschwald. 1892.

THE names of the editors and of the contributors to this atlas of the morbid histology of the nervous system attract special attention to the portion of their work now published; moreover, this first part is of exceptional interest to neurologists, inasmuch as it records facts gleaned from a field of research that hitherto has been almost neglected. A few data concerning the effects on the motor end-plates caused by resection of the nerve in animals have been given by Krause, Ranvier, and Gessler, but the morbid appearances of the nerve-endings resulting from disease in man have never previously been described systematically. The pathological changes in motor end-plates of striped muscle form the chief subject matter of this number of the atlas, the authors being Professor Babes and M. Marinesco.

Plate I illustrates normal nerve-endings in striated muscle of man, rabbit, and lizard. The human end-plate is described as being of simpler construction than that of rabbits; each branch of the motor spray ends in a bulbous extremity which often encloses a nucleus. It should here be remarked that the authors tacitly reject Kühne's nomenclature of the structures composing an end-plate; their definition of them is in some respects less complete than his; they are reserved in the use of terms, and supply no noteworthy original denomination.

Plate II is descriptive of the changes in the end-apparatus and preterminal nerve fibres produced by excision of several millimetres of the nerve trunk in rabbits, frogs, and lizards. The authors find that the first visible alterations occur in the end-plates. Thirty-six hours after the operation, in rabbits, the processes of the motor spray are represented by fusiform nucleated cells, the protoplasm of which is but slightly stained by the gold; fat granules appear in the sarcoglia, and its basal nuclei are enlarged and surrounded by a ring of clear protoplasm. In the nerves degenerative changes (too well known to require description here, and found in rabbits at a much earlier period than thirty-six hours) are less pronounced the nearer the nerve trunk is approached. Mitosis is apparent in the muscle nuclei a day or two later.

In figure 3 of Plate III, atrophy of the end-apparatus, from a case of amyotrophic lateral sclerosis, is shown. The nerve fibres are very slender and terminate in a delicate fibril with a conical or angular homogeneous dark-stained extremity beneath the telolemma; the nuclei of Henle's sheath are few, a faint reticulation at the site of the nerve-endings is the only remaining vestige to be seen. The muscular fibres are homogeneous. The next figure represents an unusually large Golgi's end-organ of a tendon from the same case.

Plate IV delineates the nerve-endings of man in various general diseases. The motor end-plates, from an emaciated diabetic, are less distinctly circumscribed than normal. In some the epilemmal fibre appears to end in a deeply-stained nucleus from which numerous stained fibrils issue to join nuclei situate at some little distance on the surface of the muscle, or to become bulbous at the free extremity. Henle's sheath is homogeneous, lustrous, and stained red-violet, with methyl violet. Other end-plates are destitute of terminal ramification and covered by clusters of cells; striation has disappeared from the muscle in connection with these. In degenerated muscle from enteric fever some of the motor sprays are represented by a little stained tissue, nuclei, and refractive granules, many of the preterminal fibres and the internode from which they arise are segmented, granular, and fatty. The end-plates of muscles which remain striped show proliferation of their nuclei and those of Henle's sheath, or present a condition which the authors think may be indicative of regeneration. Intercostal muscle from a case of chronic renal dropsy is shown to have lost its striæ; the nuclei connected with it and the nerve-ending have multiplied.

Plate V gives illustrations of motor end-plates and nerve-endings in the endomysium of muscle, from a case of typhoid fever. In one of the former a capillary vessel, partly filled with bacilli, is seen adjacent to a nerve termination. Fatty degeneration of some of the capillaries is the only perceptible morbid change in the endings of the connective tissue nerves.

Plate VI shows nerve-endings in pseudo-hypertrophy of adults and in Thomsen's disease. Very notable degeneration is seen in some of the motor plates, epilemmal fibres, and muscle fibres from the case of muscular atrophy. An end-organ to the tendon of a fibre, which has lost its striation, is apparently normal; a nutrient vessel to the muscle has undergone amyloid change. In Thomsen's disease the motor end-plates are large, but no hypolemmal branching is apparent.

Plate VII indicates the changes found in motor nerves and end-plates in polyneuritis, and in a nerve form a case of amyotrophic lateral sclerosis. In the former case great thickening of Henle's sheath and atrophy of the axis cylinder, motor spray, and sarcoglia is evident.

Neuro-muscular cords—peculiar structures discovered by Roth and Babinski in the interstitial connective tissue of normal and abnormal muscle—are illustrated by Plate VIII. Superficially viewed, they resemble small nerves. Transverse section shows a comparatively thick laminated sheath enclosing several fasciculi of various-sized nerve fibres, most of which are myelinated, one or two muscular fibres, and a small blood vessel. The authors state that hitherto a longitudinal section of these cords has not been observed. They supply the deficiency with an interesting description and exquisite drawing of such, the specimen having been taken from a typhoid patient. One of the figures represents a pathological neuro-muscular cord found in a case of Charcot-Marie's myopathy.

All the plates bear Professor Babes's name as delineator; the lithographic reproductions of his drawings are exceedingly fine. The descriptions of the appearances illustrated in the plates are concise and, for the most part, clear; it, however, is impossible not to recognise that here and there the authors are on insecure ground, and that many wider researches are needed to elucidate much that now is obscure. This leads to the hope that several of the thirty-two parts in which it is purposed to complete the *Atlas* will be devoted to the same branch of neuropathology as the present. So far, the work

is unique, and we have endeavoured to indicate its high value. Two minor points remain to be noted: the lettering of the figures in a few instances is defective, and the print is not quite free from typographical errors; in each case, however, it is not difficult to apprehend the author's meaning.

Life in Motion, or Muscle and Nerve. By Professor McKendrick. London: A. and C. Black. 1892.

This volume contains the substance of a course of lectures given by the author at the Royal Institution. The lectures were designed for and delivered to a juvenile audience, and were given during the Christmas holidays. It was on such an occasion, and at the same institution, that Faraday delivered the well-known lectures on the Chemistry of a Candle, that have made him rank as the prince of popular lecturers. Faraday's subject was simple—the burning of a candle—and from it he deduced in a masterly way most of the fundamental principles of chemistry. Professor McKendrick's subject is equally simple and similar—the contraction of a muscle—and from its consideration he essays to explain to his readers many of the processes which underlie the manifestation of life. And this is done in such a way that attention is kept throughout on the object under consideration, although in many places deviations from the argument are necessitated to explain apparatus. Herein lies a proof of the author's power as a lecturer. His apparatus is most unfamiliar, far more so than the generality of lecturers employ, yet no time is lost in useless explanation, the main points being alone described. But apart from such minor considerations his subject matter is infinitely more difficult than was Faraday's, chemistry, even in his days, being on a more or less firm theoretical basis; but who can say when even a theory will be suggested to account for the marvellous complexity of vital actions?

In spite of all these difficulties the author has succeeded, as far as it is possible, in reducing the elements of physiology to their most simple form, and has produced a work, small though it is, that may claim to rank as an introductory textbook to the most difficult part of physiology. The volume will certainly repay perusal from many a student who fails to grasp the somewhat vague conceptions which underlie modern physiology. To the student and to the more general reader it will prove invaluable.

It is divided into six lectures, which advance by an easy gradient to the summit in Lecture v, which deals with nutrition. Lecture vi is of a slightly different character and includes an elementary account of the electric fishes, a subject in which the author has done so much good work.

The whole book is profusely illustrated, and much of the apparatus used at the lecture was specially devised. The railway myograph is an instrument which, for purposes of demonstration, we should like to see on every physiological lecture table, as by its use students might be saved the trouble of bungling through muscle-nerve experiments for themselves, the significance being nearly always lost in the complexity and delicacy of the manipulations required. The task which Professor McKendrick set himself when he consented to lecture to a juvenile and untechnical audience on such a difficult subject was of almost insuperable difficulty; but by his success in it he has marked an epoch in popular lecturing, and has produced a book which expounds in the most concise and explicit way the principles of life as manifested in movement.

The Electro-therapeutics of Gynæcology. By Augustus H. Goelet, M.D. Detroit, Mich.: George S. Davis. 1892.

The production in two volumes of a book bearing this title is an extreme instance of the tendency to specialisation which marks the present time. The effort is likely to encounter prejudice, and a very strong case must be made out before the amalgamation of electro-therapeutics and gynæcology can be established so completely as it appears to be in Dr. Goelet's mind. Such a case he has by no means made out. He is evidently of a hopeful disposition, and he appears to have started with the assumption that the most intractable maladies are curable, and that, if it can be perceived with little trouble that agents which are well understood are inadequate to the end desired, it must follow that the remedy is in other things, of which little or nothing at all is known. This is a fallacy which was common enough in the darker ages of medicine, and it is to be deprecated as the most formidable obstacle to the slow and laborious progress by which alone science has achieved any great result.

The first volume of Dr. Goelet's book is devoted to the physics of the subject, and presumably it contains what the author believes to be necessary and sufficient for a proper understanding of the therapeutic agent, electricity. From this point of view there is both too little and too much. Thus no one who had not already a considerable knowledge of the subject would understand much of what is written here, and in special instances—notably in the chapter on the faradic current, which extends to close on fifty pages, the expenditure of space is hardly justified by any result, whether scientific or utilitarian.

The second volume has to do with the treatment by electricity of uterine and allied diseases. Its scope and purpose will appear when it is said that the remedy is prescribed for amenorrhœa, dysmenorrhœa, metrorrhagia, metritis, uterine displacements, and a variety of other conditions. The methods are of the simplest, differing little, when at all, in these various conditions; and it is noteworthy that there is hardly anywhere an attempt to apply the more abstract information of the first volume to the highly specialised instances of the second. Thus, it would be interesting to learn in what way the negative pole of a current as such acquires the power of dilating the "os uteri"; and a preliminary chapter might profitably have been devoted to an explanation of this postulate. Such a chapter might have been substituted with advantage for much that has been better written elsewhere. So far indeed have the author's practical speculations emancipated him from the trammels of electrophysics that he might well have dispensed with the preliminary treatise; and it is not unjust to suppose that his physiology is all what Bacon would have called an *eidolon specu*, founded upon a remarkable theory formulated by Dr. William J. Norton, a fellow-citizen of Dr. Goelet, to which attention is directed at considerable length. It strikes us as a remarkable revival of the doctrine of signs, and seems little calculated to further the science of electro-therapeutics.

If we have thought that this book requires notice at considerable length, it is because its publication raises once more a very grave question, and upon this head it must be severely condemned. There is an obvious objection to methods of treatment which are not founded upon a reasonable expectation of benefit to the patient, but when such methods involve the frequent and systematic manipulation of young women who are commonly neurotic, they become glaringly unjustifiable. An instance of a singular disregard at once of science and of decency is the following: "When there is lack of development of the organs (of generation), the local application of electricity affords decided relief, and a satisfactory and permanent result may be confidentially (*sic*) expected where it is persistently and appropriately applied;" for this purpose "treatment should be instituted before the patient has reached her twentieth year." Such views can only discredit electro-therapeutics, while they add no lustre to gynæcology, but fortunately there is little danger of their being adopted in this country.

Essentials of Medical Electricity. By D. D. Stewart, M.D., and E. S. Lawrence, M.D. Philadelphia: W. B. Saunders. 1892.

The writers of this little book lay no claim to originality. They frankly acknowledge their debt to recognised authorities, and their endeavour is simply to help the student to an understanding of things which their experience as teachers has taught them usually present some difficulty. Their object is therefore a good and a reasonable one, and it is perhaps not too much to say that it is founded on the only motive which for the present can justify the further multiplication of books on electro-therapeutics. We can confidently recommend the result in this case. It may be read with profit by anyone who desires to possess an elementary knowledge of electricity as it is applied to medicine. The method adopted so closely resembles that of Dr. de Watteville's well-known treatise, that it is obviously founded upon it, and this implies that it is the best method possible. All experiments are omitted, the complication of the subject by reference to mathematical formulæ

and allusions to difficult problems is carefully avoided; but the essential principles are well stated, and everything is done to attract and to inform the cursory reader. There is, in addition, a useful abstract of Erb's *Electro-physiology*, and the brief indications of treatment are sound and judicious. The book is well printed and well illustrated.

The Student's Handbook of Surgical Operations. By Frederick Treves, F.R.C.S. Ninety-four illustrations; pp. 495.

This small volume is abridged from the author's large *Manual of Operative Surgery*. We have already given a very favourable account of the larger work in our columns. The abridgment is intended for the use of students who are preparing for the final examinations, or who need a handbook to assist them in carrying out operations on the dead body. These intentions have been well fulfilled. Now that every student has to perform a course of operations, a small work of this kind is wanted, and it ought to prove successful. The directions given for the performance of the various operations are very clear and succinct. The letterpress is bold, with heavy-type headings, and the figures have been judiciously chosen and well executed. The book may be cordially recommended to those who wish for a short and clear account of surgical operations.

The Surgical Diseases and Injuries of the Stomach and Intestines. By F. Bowreman Jessett, F.R.C.S., Surgeon to the Cancer Hospital. London: Baillière, Tindall, and Cox. 1892.

This work is based on a short series of lectures delivered by Mr. Jessett at the Cancer Hospital, in which were briefly comprised the results both of his experimental work and of his clinical experience in an important department of surgical work. The author, as is well known, has paid much attention to this subject, and has aided in bringing under the notice of surgeons in this country the important researches and conclusions of Professor Senn. His experiments, many of which have been recorded in the British Medical Journal, together with a wide experience in the operative treatment of malignant and other diseases of the gastro-intestinal canal, claim for Mr. Jessett a hearing on many points relating to the most recent developments of abdominal surgery. At present it is a mistake to aim at the construction of a systematic exposition or general textbook on the whole subject. The surgery of the stomach and intestines is almost a new branch, and it is one which covers a large area, and therefore it is evidently quite impossible just now for one surgeon to deal as an authority with every portion of it. This, we think, is proved by the book before us, for, whilst some parts—those, for instance, on the surgery of the stomach—are really very instructive, others—as those on gunshot and other injuries of the intestinal canal—are weak, and present, for the most part, merely a summary of the work of others.

In the first lecture, which deals with surgical diseases of the stomach, Mr. Jessett discusses, among other subjects of minor importance, pylorectomy, gastro-enterostomy, and Loreta's operation. With regard to the complete removal of the cancerous pylorus in suitable cases, it is held that the operation has of late been so far modified and improved that there is every prospect of pylorectomy being performed at some future time with as much success as any other abdominal operation. The value of gastro-enterostomy, performed by Senn's method, in incurable cases of pyloric cancer is proved by a record of cases which were under the author's care. An unfavourable criticism is given of digital dilatation or divulsion. This plan of treatment, it is stated, has had varying results, has been attended with a high rate of mortality, and, in some instances, has failed to afford abiding relief. The author holds that the object of this operation can be obtained with better results and less risk by adopting in its place gastro-enterostomy by means of approximation plates.

The second and third lectures present a long and somewhat confused review of the surgical treatment of injuries and diseases of the intestines.

The last lecture, dealing with operations on the intestines, is an interesting one. Mr. Jessett, who is a strong advocate of the practice of establishing what is called intestinal anastomosis in most cases of obstructive disease, describes here the details of Senn's operation and of its many modifications. The section on enterorrhaphy, though interesting, has not at present much practical value from a clinical point of view, as many of the ingenious methods here described have hitherto had but little, if any, application, except in experimental researches on healthy animals.

The illustrations, most of which are borrowed, are not such as to add to the value of the book, and we see no reason why certain very rough and indistinct woodcuts should have been allowed to appear more than once in its pages. The list of authors given at the end of the work is quite useless, as no mention is made of the nature and source of their respective contributions.

Diseases of the Rectum and Anus. By Alfred Cooper, F.R.C.S., Senior Surgeon to St. Mark's Hospital for Fistula and other Diseases of the Rectum; and F. Swinford Edwards, F.R.C.S., Surgeon to the West London and St. Peter's Hospital, and Senior Assistant Surgeon to St. Mark's Hospital. Second edition. London: J. and A. Churchill. 1892.

This, though announced as a second edition, may be regarded as almost a new book. It now bears the names of two authors, and contains a large proportion of fresh matter, several chapters having been re-written, while considerable additions have been made relating to the statistics of rectal diseases, and the operative treatment of stenosis of the terminal portion of the intestinal canal. To those who are not satisfied with the many excellent articles on diseases of the rectum which may be found in works on general surgery, this will prove itself one of the most complete and useful of recent treatises on this special subject. Although there is, as may be readily accounted for, a marked tendency to insist too much on the views, especially with regard to treatment, of the staff of a small special hospital, the authors have certainly endeavoured to bring under notice the considerable advances that have of late years been made in rectal surgery. The chapters on fistula, hæmorrhoids, and the operative treatment, both direct and indirect, of malignant disease of the rectum, are full and very instructive, and due recognition is made of the work of other surgeons, both of this and of other countries. A chapter on the uses of electricity in rectal surgery, contributed to the first edition by the late Dr. Steavenson, has been omitted in this issue, as the authors have found that there is but little, if any, use for this remedy. The book is well illustrated by plates and engravings, most of which are original.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

FOOT PROTECTOR AND WARMER.

Mr. H. R. Greene has brought under our notice a new device, which has for its object to provide a protection for the foot and toes against the weight of the bed clothes, thereby preventing cramp and other unpleasant effects. It consists of a frame of wood, metal, or other suitable material with a horizontal part with vertical supports at each end, having horizontal extensions or feet. The extensions project under the mattress, which rests on them, holding the whole arrangement firmly in position. Part of the frame may be made with a bottle or case in which hot water may be placed, thus surrounding the feet with a chamber of warm air. The frame may be hinged in any suitable manner to allow of its being folded up for transport or storage, and the upper part may be telescopic, in order that it may be adjustable to various-sized beds. When the frame is hinged screws or other means will be provided for fixing the parts in position and making the device rigid.

TWO NEW TOURNIQUET FASTENERS.

I have lately planned two forms of tourniquet fasteners which work well, and are now commonly used at Guy's and several other hospitals. The simpler form, shown applied in the figure, resembles a small anchor, having two flukes, a shank,



and a ring. It is made in one piece of metal, all parts of which are carefully rounded; and to the ring a rubber tube, 30 inches in length, is permanently attached.

To apply the tourniquet the clip is held in one hand, and the stretched rubber is passed once, twice, or three times round the limb; then beneath one of the anchor flukes, over the shank, and back beneath the other fluke, and let go.

The other form of clip resembles a grapnel rather than an anchor in that it has three flukes set at an angle of 120° to one another, and slightly inclined to the shank. Two of the flukes have knobbed ends. The ring is not rigidly fixed to the shank of the grapnel, but passed loosely through its free end.

To apply the tourniquet the clip is held in one hand, with the two knobbed flukes directed towards the limb. The stretched rubber is then carried once or several times round the limb, then beneath one of the knobbed flukes, over the shank, and out again beneath the other knobbed fluke, and let go.

The fastening may be rendered still more secure if the free rubber is carried still further round the shank, and brought out between the first fluke and the rubber encircling the limb, as shown in the figure.



The fasteners hold wide, flat rubber or rubber tubing almost equally well. Messrs. Down Brothers, of St. Thomas's Street, S.E., are the manufacturers.

Guy's Hospital, S.E. D. W. Samways, D.Sc., M.A., M.R.C.S.

CARBOLIC SOAP.

The carbolic soap made by Messrs. Warren, of Bristol, has been examined by us, and we regard it as a very good specimen of this class of soap. It is well manufactured, free from adulteration, and contains "carbolic acid"—a term which is not to be understood as synonymous with absolute phenol—in sufficient but not excessive proportion. Unlike most soaps of the kind it is not unpleasant to use. We can recommend it as well suited for the purposes to which such soaps are applied.

STARCHLESS BISCUITS.

We have examined some samples of Starchless Biscuits which are intended by the manufacturers for the use of persons "suffering from dyspepsia, gout, diabetes, obesity, and other ailments in which a non-starchy diet is indicated." We find the biscuits to be free from starch and from bran and fibre. The percentage of mineral matters is somewhat high, as would naturally be anticipated, and they contain a large proportion of phosphates. A very small amount of reducing sugar is present, 0.5 per cent. The biscuits are well made, and they possess the advantage of being very similar in appearance to an ordinary biscuit; they can therefore be used at table without attracting observation, and they will be found not unpalatable, though very hard. They are made by Mr. J. J. Clark, of the Goldstone Bread Factory, West Brighton.

MEAT PREPARATIONS.

We have received a number of the preparations of the Pure Beef Company (5, Water Lane, Great Tower Street, London, E.C.) for examination, which are described as "specialities for invalid" and as "specialities for household use." They consist of "Essence of Beef," a meat jelly put up in small tins; "Concentrated Beef Tea," a firm jelly-like substance in tins; "Household Clear Stock" and "Household Thick Stock;" "Extract of Beef," a preparation differing somewhat from the type of the ordinary "Extractum Carnis," and much more gelatinous; "Brole," a powdered extract of beef containing herbs and flavouring; "Brome," a powdered "thick stock;" "Desiccated Soup," "Concentrated Beef à la Mode," a mixture of cooked meat with various cooked vegetables, mainly carrot, turnip, and potato; and "Meat Lozenges." The preparations have been well manufactured from good materials; they are free from objectionable substances and from chemical preservatives. Their variety, good quality, cheapness, and the convenient form in which they are put up will no doubt make them popular.

JELLY CARNIS.

This is a preparation of Caffyn's Liquor Carnis in the form of a jelly pleasantly flavoured with lemon and pineapple. As claimed by the proprietors, we find the substance to have been made from the juice of meat, and to be "rich in nitrogenous matter and extractives." It is rich in soluble albuminoids and is very palatable. It contains a small amount of boric acid, a preparation of which has been added for the purpose of preservation. To those who do not object to the presence of the small amount of this preservative the Jelly Carnis will, no doubt, be valuable. It is manufactured by the Liquor Carnis Co., 50, Holborn Viaduct.

OLIVE OIL SOAP.

We have received and examined a specimen of "Olive Oil Soap," which, as the name implies, is stated by the proprietors to have been made from olive oil. The results of our analysis show that the soap is a true hard soap, free from adulteration, and made, as claimed, from olive oil. The soap is devoid of "free" caustic alkali, is non-irritating, and will, no doubt, meet a demand, and be found useful. It is made by Warren and Co., of Redcliff Street, Bristol.

SCENTED AND UNSCENTED CURD SOAPS.

We have analysed some samples of the scented and unscented curd soaps manufactured by Messrs. A. and J. Warren, of 23 Redcliff Street, Bristol. We find them to be well manufactured and of very good quality. They had the composition of true hard soaps, and were free from excess of water, and from mineral and other adulterants of soap. They were also devoid of "free" caustic alkali. They may be depended upon as non-irritating, and as pleasant to use.

The Paris Municipal Council has passed a resolution to the effect that the disinfection of schools shall in all cases be carried out under the personal supervision of the medical inspectors. It has been found that in the absence of medical control the necessary measures are often carried out in a very perfunctory manner.

NAVAL SURGERY AS IT WAS.

THE naval manœuvres have naturally set the medical mind wondering what will be the condition of things surgical in our ironclads after a great action. What they were in the old wooden ships we know, though there are few now alive who can tell, from actual experience, the horrors which our sailors endured in days when there was no chloroform and when the surgeon's mate was a distinctly inferior class of practitioner. For many years the Company of Barbers and Surgeons had the power of nominating the surgeons and surgeons' mates to the ships of the Royal Navy, and originally it appears that the surgeons served indifferently in both branches of the King's service, as we know was the case with some of the higher officers, as Monk, who was both general and admiral. When the surgeons separated themselves from the barbers they naturally carried with them the right of examining naval surgeons in surgery, the physician at Greenwich certifying as to their competency in physic. The surgeons' mates were separated by the examiners into several classes, some being found qualified to act as first mate to a first rate, others as second mate to a fourth rate, whilst there were of course intervening degrees. The lowest degree must have implied little or no surgical knowledge, for in one case we find it recorded that the captain complained of the surgeon's second mate as "a raw inexperienced lad, not capable of even letting blood, from whom the men concealed their complaints rather than come under his hands."

Richard Wiseman and William Northcote have given us graphic pictures of the cockpit, both before and after an engagement in the seventeenth and eighteenth centuries respectively. They both appear to have been repeatedly in action, and they give incidentally, whilst illustrating other matters, accounts which are here quoted.

Wiseman, writing of his sea service, which, according to Sir Thomas Longmore, was probably between the years 1637 and 1645, says of the position of a patient whose limbs are to be amputated: "Seat him so as it may be for your conveniency. At sea they sit or lye: I never took much notice, nor do I remember I had ever any body to hold them: with the help of my Mates, and some one or two that belonged to the Hold, I went on with my work." On another occasion he says: "In heat of Fight at Sea, amongst the many wounded men that were put down into the Hold to me, one of them had his right Arm extreamly shattered about two Fingers breadth, on the outside above the Elbow, by a great Splinter. I ought to have cut off this man's Arm presently: But a sudden cry that our Ship was on fire put me in such disorder, that I rather thought of saving myself than dressing my Patients. I hastily clapt a Dressing upon the Wound, and rouled it up, leaving his Arm in his other Hand to support it, and endeavoured to get up out of the Hold as the others did, verily believing I should never dress him nor any of them more. But our men bravely quitted themselves of the Fire-ship by cutting the Sprit-sail Tackle off with their short Hatchets (which they wore during Fight sticking in their Sashes). So we were freed of the Fire, and by our hoisting up the Top-sails got clear of our Enemy, and I returned to work. But I was at a loss what to do, with this man, who lay not far off complaining of his arm. I would have cut it off instantly with a razour, (for the bone being shattered there needed no Saw:) but the man would not suffer me to meddle with his Arm, he crying it was already drest. The fight being over, and we gotten into the next Port, I caused this Mariner's Bed to be set up: (which was four pieces of Wood nailed together and corded and a Bear's Skin laid upon it, and fastened between two Guns to the Carriages:) Upon this I saw him placed; and having ordered his Arm to be laid so that I might the better come to dress it, I sent for dressings, and laid them orderly upon a small Pillow well stuft and quilted in the middle." He then applied proper splints, cleansed the wound, dressed it, and tended it so effectively that the man was so far recovered that "when it came to my turn to be visited by my Brother Cirurgeons of our Squadron, they did not dislike the wound, nor my way of dressing, (for we being used to see one another's Patients, had all much one way of dressing:) but they laught at the excuse I made for not cutting off his arm, and doubted I should yet be forced to do it." In the end "there was in this patient a strong CALLUS filling up the void place of the lost bone at least two inches, with little or no shortning of the arm: but the joint of the elbow was so stiff from the position it lay so long in, that he could not stretch that joint whilst I knew him, which was until that ship was cast away."

Mr. William Northcote, a naval surgeon who served in the tropics between 1757 and 1772, lays down very precise directions as to the surgeon's duty previous to and in an engagement. He very wisely begins by magnifying his office, saying, "the better opinion the officers and men conceive of their surgeon, the more spirits they have for the action; being confident the wounds, etc., they may chance to receive will be properly treated, and their lives (if possible) preserved." Instruments and splints are first to be got ready. "When the enemy is in sight, and you are like to come to an action, as soon as all hands are called to quarters (if your cockpit is not sufficiently large), you must desire the first lieutenant, with the captain's permission, to order the carpenters to lay a platform for your wounded men; if the cables will not be wanted, in one of the cable tires, or otherwise in the after-hold, by clearing of all manner of lumber out of the way. On the top of a smooth and even tire cask, let there be deals or planks laid close together, over them an old sail, and upon that some seamen's bedding from the purser's storeroom (for which you are to have the captain's order, if he will not otherwise deliver them), ready made up, and laid one by another to place your wounded men on after they are drest, that they may lie quiet without being disturbed. If the ship be small, and there is no cockpit, or such as you have not room to perform your operations in, you must, as near the after-hatchway as is convenient, have some cask removed out (if there be not height enough for you to stand upright on the platform), that you may have a place of 8, 10, or 12 feet square, to receive and dress your wounded men, and from thence to hand them to their beds."

"A number of large candles should be immediately lighted as soon as the engagement begins, not forgetting to have your mates and assistants properly instructed in what part they are to act, that everyone may know his station and what he has to do, to prevent confusion in time of action. Here it is necessary to observe that the surgeon should always take particular care to desire the first officer to quarter a sufficient number of hands with him in the cockpit, that he may want no assistance in the day of battle, however bloody the engagement may be.

"All things being ordered, and placed as above in readiness, and the surgeon's and purser's cabin beds made up to receive the captain or any of his commision officers who may chance to be wounded; if you have any sick on board that cannot stand to quarters, let them be put down with their hammock and bedding into the hold, fore-cockpit, or sheet cable tier, out of the way before the action begins; but be sure to keep your platform entirely for the wounded men. Let one of the mates or assistants go to them now and then to see how they are; or else order one of the stoutest of the convalescents to come to you at times, if he is able, and acquaint you if any of them are worse, and in case of faintness to give them a little cordial, which he should have by him for that purpose.

"When the action is begun, if more than one wounded is brought down at a time, always first take care of him who is in most immediate danger, but otherwise dress them as they come without distinction.

"Never encourage those to stay below (after their wounds are drest) who have been but little hurt, but insist on their going up again to their quarters, otherwise threaten to report them when the engagement is over. I have many times known cowardly lubbers come tumbling down the ladder with most violent groans and complaints, though at the same time they have received little or no hurt; and all I could do or say would not prevail on them to make a second trial of their courage, nor go up again until the action was all over. Nay, I have been told (by those quartered at the same gun) that some dastardly fellows have actually put their feet or stood in the way of the carriage on purpose to be hurt, that they might have a plausible pretence for going to the doctor.

"When you are entering on any capital operation, you should use your utmost endeavours to encourage the patient (if he is sensible) by promising him in the softest terms to treat him tenderly, and to finish with the utmost expedition

and indeed you should use expedition, but not hurry; you should not make more haste than the case requires, nor cut less than is necessary, or leave any mischief unremedied. In regard to the wounded you should act in all respects as if you were entirely unaffected by their groans and complaints; but at the same time I would have you behave with such caution, as not to proceed rashly or cruelly, and be particularly careful to avoid unnecessary pain.

"As soon as possible after the engagement is ended and your wounded are all taken proper care of, acquaint the captain how many there are wounded, and the nature of their wounds. And desire he will please to order cradles forthwith to be made, as many as you think necessary, wherein your wounded men must be placed, with their bedding, in a proper berth by themselves. The cradles are to be well cleated, and secured to the deck and sides of the ship, placed so as that you may easily go between to dress the people.

"As soon as the ship arrives in harbour the sick and wounded must be sent on shore, where their cures will be perfected in a much shorter time that is possible on board in an insalubrious air, and on such diet as the ship affords."

THE GYNÆCOLOGICAL CONGRESS AT BRUSSELS.

Thursday, September 15th.

M. Péan in the Chair.

The business of the day was confined to the reading of M. Segond's paper on Pelvic Suppuration, and the ensuing discussion. Owing to the visit of the King, the sitting was suspended during the greater part of the afternoon. The King was present for a short time during the discussion.

M. Segond strongly advocated vaginal hysterectomy, especially in suppurative pelvic peritonitis with fixed uterus, extensive adhesions and multiple collections of pus, and also in recurrence of pelvic suppuration after laparotomy. If vaginal hysterectomy be confined to those cases where the bilateral nature of the lesions was indicated by clinical evidence, as clearly as their incurability was indicated by clinical measures, M. Segond concluded that intervention *per vias naturales* was fully justifiable. Out of 182 vaginal hysterectomies in his own practice, he had undertaken 102 for disease of the appendages, with 11 deaths; 55 were for suppurative lesions, with 10 deaths, 1 from embolism about half an-hour after operation, 8 from peritonitis, including several where the peritonitis was not very marked, but reflex symptoms were noted, and 1 died because a purulent cavity was left behind undrained—an incomplete case. Forty-seven vaginal hysterectomies were performed by M. Segond for non-suppurative lesions, 1 dying from phlegmonous angina on the fifteenth day.

M. Péan supported M. Segond's practice. He held that the purulent collections were more easily emptied by vaginal hysterectomy than by abdominal section. The uterus left behind after oöphorectomy gave more trouble than the appendages left (more or less) behind after hysterectomy.

Dr. Wilkens (Ghent) preferred perineotomy, a semilunar incision being made between the vagina and anus, and the recto-vaginal septum opened up till the abscess was reached.

Dr. Travers (London) spoke in favour of abdominal section. Abscesses were more easily reached and more safely treated in that manner. British authorities had not adopted M. Segond's practice.

Dr. Jacobs (Brussels) agreed with M. Segond. Even in non-suppurative disease of the appendages, he preferred vaginal hysterectomy. After abdominal section, inflammation of the stumps of the tubes often set in, and the patient became worse than before the operation. His mortality in 159 cases of abdominal section was 3.7 per cent. In 61 cases of Segond's operation for the same cause, he had lost 2 cases only (3.2 per cent.), 1 from apoplexy on the third day, and 1 from intestinal obstruction.

Dr. Goubaroff (Moscow) described an operation which he and Dr. Sneguireff practised in cases of pelvic suppuration. By an incision over the external abdominal ring they opened up the connective tissue of the round ligament, and were thus enabled to explore the pelvis and the area of suppuration. This "para-peritoneal" laparotomy, which they had performed in 46 cases, was excellent in parametritis.

Dr. Deghilage (Ghent) vehemently attacked vaginal hysterectomy, and disapproved of all major operations for pelvic suppuration.

Professor Sänger (Leipzig) preferred abdominal section. It allowed of thorough exploration by the eye as well as by touch. But vaginal hysterectomy was best in large pelvic abscesses complicated with suppurating tubes and ovaries, and in cases where there were multiple chronic fistulæ.

Dr. More Madden (Dublin) remembered the days when cases of pelvic suppuration were not treated surgically. Most of these cases recovered. Pelvic peritonitis often demanded operation, he admitted. Parametritis usually cured itself. Direct washing out of an abscess after free incision usually resulted in complete cure. The uterus and ovaries resumed their functions.

M. Gouillaud (Lyons) advocated *débridement vaginal*. The abscess was opened with a trocar and cannula, and washed out. A metrotome was then passed into the cavity to break down all bands; lastly the cavity was drained.

After some remarks by Drs. Pichevin (Paris) and Delagenière (Le Mans), Dr. Vulliet (Geneva) advocated Landau's practice of free puncture, incision, irrigation, and drainage of the abscess cavities. In order to explore the pelvis thoroughly he placed the patient in a special position, and took minute precautions, which he described at length.

Drs. Walton, Doyen, Rouffart, Duret, Tournay, Leeec, Lauwers, and Félix also spoke, and Dr. Segond replied. The attendance during the discussion was very large.

Friday, September 16th.

The greater part of this day was taken up by a discussion on the complicated question of Extrauterine Gestation. Professor Gusserow, Dr. Robert Barnes, Dr. Consolas (of Athens), and others, took the chair.

Dr. A. Martin (Berlin) read a paper on Extrauterine Pregnancy. His conclusions were: 1. The etiology of extrauterine pregnancy remained, to the present day, veiled in the deepest obscurity. Certain hypotheses already advanced only explained isolated cases in a manner which did not defy criticism. The question could not be settled until the physiology of impregnation was better understood. 2. Most frequently the ovum was implanted in the tube. Ovarian attachment was less rare than recently supposed. Abdominal insertion of the ovum remained doubtful. 3. The diagnosis of ectopic gestation was a diagnosis of probability except in cases where we could observe the development of the fœtal sac outside the uterine cavity, or the development of an intrauterine decidua without any distinguishable chorion, or when we discovered the fœtus itself. 4. The evolution of extrauterine pregnancy rarely ended in retrograde metamorphosis (lithopædion, mummification) without any intervening accident. As a rule, the death of the ovum occurred through hæmorrhage into the fœtal sac or into the ovum itself. The blood escaped into the abdominal cavity either out of the ostium of the tube (tubal abortion, properly so-called), or by rupture of the tube, in its continuity into the peritoneal cavity or broad ligament. The hæmorrhage only ceased in exceptional cases. In most instances death occurred either from anæmia or from a peritonitis the precise nature of which remained obscure. Ectopic gestation should always be reckoned as a dangerous neoplasm, and treated accordingly. Cases of development to term were so rare that to respect the interests of the child was to neglect totally those of the mother. 6. Consequently it would appear that operative interference undertaken as soon as possible was the right course in all forms of ectopic gestation. The fœtal sac should be extirpated if possible. Treatment by hypodermic injections of morphine cured very slowly. Treatment by electricity could not yet be rated at its true value, as hitherto recorded observations on this method were not above criticism.

The discussion was opened by Mr. Alban Doran, and continued by Drs. Ott, Rein, Pichevin, Pawlaki Bey, Sänger, Murdoch Cameron, Petit, Englemann, De Strauch, and others.

Dr. More Madden (Dublin) read a communication on Endouterine Treatment, its Objects and Limitations, in

which, having reviewed at considerable length the various endo-uterine diseases calling for such treatment, and the special methods applicable in each case, he exhibited a set of adjustable instruments he had recently designed for intra-uterine purposes. Finally, he strongly urged an early resort to endo-uterine treatment, by which he believed that the extension of inflammatory and other lesions from the endometrium might in many instances be obviated, and that consequently the necessity for laparotomy operations might probably be largely diminished.

Dr. APOSTOLI read a paper on Electricity in Gynæcological Diagnosis.

In the course of the afternoon the PRESIDENT, Dr. Kufferath, read a telegram in which Professor Morisani invited the members of the Brussels Congress to the next meeting of the International Medical Congress, to be held in Rome in 1893.

SATURDAY, SEPTEMBER 17TH.

Dr. MACAN (Dublin) took the chair.

Dr. BERRY HART opened the discussion on Placenta Prævia. His summary of the subject was illustrated by a fine series of specimens, naked eye and microscopical. The definition of placenta prævia was rendered possible by our increased knowledge of the nature of the lower uterine segment and its behaviour during labour. The placenta was a "prævia" when a part of it lay in the lower uterine segment. Our knowledge of the exact anatomy of the lower uterine segment was still defective, as might be well seen from the fact that we could not define the lower uterine segment anatomically as clearly as it was marked out during labour by uterine action. We might thus further define placenta prævia functionally as implantation of the placenta on that part of the uterus proper which became expanded during labour, thus leading to separation of the prævial portion. The mechanism of the separation and its results, as well as other pathological matters relating to placenta prævia, was then discussed. While details as to treatment must vary in such a complex condition, all treatment should fulfil the following conditions: (1) Observance of antisepsis and avoidance of risks of sepsis. This, for instance, would exclude prolonged treatment. (2) Full recognition of the greater value of the mother's life. (3) Recognition of the natural mechanism of this condition. This might be put briefly as follows: In a natural labour we get the membranes in the lower uterine segment separated during the first stage of labour. Placenta prævia only differed from natural labour in that instead of the prævial membranes a portion of the placenta was separated from the necessarily very vascular lower uterine segment. There, therefore, resulted bleeding, which we must check. This was best done by early bipolar version, the labour being then to go on as a footling. Discussion of other methods and their statistics concluded the paper.

Dr. ROBERT BARNES addressed the meeting in French. He began by expressing the pleasure he felt in hearing and seeing the beautiful and instructive anatomical demonstrations of Dr. Berry Hart. He then said there were two methods of research (1) the anatomical pursued on the dead; (2) the clinical and physiological pursued upon the living. Dr. Hart's was an example of the anatomical method. His own, based as he believed upon unsurpassed experience, was the truer study of Nature, the clinical method. This it was that had led him to the true theory of placenta prævia and its treatment; but he had not neglected opportunities of studying the subject on the dead. These anatomical observations confirmed the physiological and clinical experience. Dr. Barnes then drew attention to the history of the subject, showing that in 1847 in the *Lancet*, in 1857 in his Lettsomian Lectures, he had described the division of the lower segment of the uterus from the middle by a distinct line of demarcation, the "boundary line," thus marking out the lower segment of the uterus as the seat of placenta prævia. He showed that this "boundary line" became "Bandl's ring" in 1876. If priority counted for anything he was entitled to call it "Barnes's boundary line." But he went further, and contended that those who called it Bandl's ring failed to grasp its true physiological and therapeutical import. He then said the hæmorrhage was uterine and arterial. In addition to the observers upon this point cited by Dr. Hart, he referred to the previous experiments made under discussions with himself by the late Dr. Mackenzie; these were conclusive. There was not time to discuss the mode of separation of the placenta. He did not think the current theory or the explanation of Dr. Hart was proved. He himself believed it was due not alone to contraction of the uterus, but more often to overgrowth and turgescence of the placenta. The arrest of hæmorrhage was certainly due to contraction of the uterus as well as to retraction of the vessels. He could speak from direct clinical experience. Dr. Barnes then gave a practical demonstration of the subject. He took a fœtal skull surrounded with a rubber ring at its equator. This ring represented the extreme extent to which the uterus must expand. He then referred to a drawing of a placenta prævia from Nature, showing how the prævial flap was marked off from the main body of the placenta; then, placing the cranium on the drawing, it was seen that the ring surrounding it corresponded with the upper margin of the prævial flap. Then again, placing the cranium in one of Dr. Hart's models, it was seen that the ring again coincided with Barnes's boundary line on the model; then, by passing his index behind the cranium and the prævial flap, he showed in what his operation of detaching this part consisted, and that the finger was precisely long enough without stretching the os or cervix. He contended that the whole treatment was not summed in bipolar turning. The hæmorrhage, as had been shown by Puzos, Wigand, R. Lee, Mercier, Cazeaux, and others, often ceased spontaneously, and often did so after artificial detachment. He preferred the forceps to turning when the head presented. The mother certainly had the first right, but the child ought not to be sacrificed. The method best for the mother was often best for the child as well. Dr. Barnes submitted, in conclusion, that he had demonstrated the intimate and integral union of the anatomy, physiology, and therapeutics of the subject. His theory, practice, and success rested upon this law of triple solidarity.

Drs. GELLÉ (Provins), VERRIER (Pau), and GOTTSCHALK (Berlin) spoke; and Dr. BERRY HART replied.

A demonstration of instruments then took place.

In the afternoon Dr. CHARLES (Liège) took the chair. Papers were read by Drs. CHAMBRELENT (Bordeaux), KEIFFER (Brussels), DEBAISIEUX (Louvain), DELÉTREZ (Brussels), HOUZEL (Boulogne), GOTTSCHALK (Berlin), PETIT (Paris), FOURNEL (Paris), PICHEVIN, and many other members of the Congress.

At 4 P.M. on Saturday, September 17th, the Congress proceeded to elect an International Permanent Committee to transact necessary business until the next meeting. It included Drs. Auvard (France), Martin (Germany), Howitz (Scandinavian countries), Doran (Great Britain and Ireland), Vulliet (Switzerland), Englemann (United States of America), La Torre (Italy), Rein (Russia), Treub (Holland), Ziembicky (Austria), and Jacobs (Belgium). It was agreed that the next meeting should be held in 1895 at Geneva, the precise date to be fixed by the Permanent Committee.

The PRESIDENT said that the Congress might well be satisfied with its first meeting, and in its name specially thanked the three members who had introduced the discussions—Drs. Segond, Martin, and Berry Hart. In the name of their respective countries, thanks to the President and General Secretary were given by Drs. SÄNGER, PARVIN, HEINRICIUS (Helsingfors), PORAK, MACAN, CONSOLAS, TREUB, PORRO, SCHÖNBERG (Norway), WESTERMARCK (Sweden), and PAWLACKI BEY.

The PRESIDENT then declared the meeting closed.

AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.—The American Electro-Therapeutic Association will hold its second annual meeting in New York on October 4th, 5th, and 6th, under the presidency of Dr. W. J. Morton. The subjects proposed for discussion are the Relative Value of the Different Currents, and their Application to Ectopic Gestation; and Cataphoresis and its Practical Application as a Therapeutic Measure. Dr. J. Mount Bleyer will give a lecture with demonstrations on the Phonograph and Microphonograph, the Principles underlying them, and their Uses in the Sciences. In connection with the meeting there will be an exhibition of modern medical electrical apparatus.

CHOLERA AND TYPHOID MATERIAL IN THE THAMES.

Important Evidence of Sir George Buchanan, late Principal Medical Officer of the Local Government Board.

No Tests, Chemical or Microscopical, Capable of Determining whether Water Contains Impurity injurious to Health.—Since the Investigation of the Water Cholera Epidemic of 1866 the Medical Department of the Local Government Board had, out of the Limited Purse given by Parliament, only been able to Deal with the Provinces, rather than London.—Investigations of Dr. Dupré and Dr. Cory on Life-history of Microphytes and on Artificial Water Pollution.—Nothing Finally Available but "Field Observation."—Water being Once Obtained from a Polluted Source, Purifying Processes Cannot be Depended on—only Boiling.

We are enabled to lay before our readers some very interesting evidence given recently by Sir George Buchanan, F.R.S., the late principal medical officer of the Local Government Board, before the Royal Commission on Metropolitan Water Supply.

Referring to the tests of the quality of drinking water applicable to epidemic outbreaks, usually outbreaks of typhoid, he stated that in his opinion there was no evidence derivable from such tests whether organisms hurtful to the human species did or did not exist in water after filtration. He stated that no available test could be trusted to prove that the water was not responsible for any typhoid outbreaks; that although certain chemical qualities indicating poisonous organic matter might be present or absent, the pathogenical qualities of the water were not distinguishable. They afforded indications where positive results were obtained of the impurity of the water, or of some undesirable material in it. He called attention to certain analyses taken of a particular water reported on for the Local Government Board, and mentioned in his Report of 1889, and pointed out that of three specimens of the same water taken at the same time and at the same place by Mr. Pattinson, Mr. Stock, and Dr. Dupré respectively, Mr. Pattinson described that water as being "very free from organic contamination, and quite suitable for drinking purposes," whereas Mr. Stock described it as "not satisfactory as drinking water," and he said: "I consider the ammonia to be evidence of recent sewage pollution. I take this item in connection with the microscopical examination, which is of sufficiently suggestive character," and he did not consider the water to be a safe water supply. Dr. Dupré arrived at a somewhat similar conclusion. The water was, even as in its ordinary physical characters, considered and described by one analyst to be "colourless and nearly clear," and by another to be "faint green and slightly milky." That discrepancy he considered to be evidence of a difference of observation and interpretation. He knew of no tests which he could apply, or advise which would determine whether there were organisms in drinking water deleterious to human life or health. He could, of course, investigate organisms present microscopically, or have determined albuminoid ammonia, nitrates, etc., chemically, and deduce inferences therefrom as to the water having received impurity, but that the water contained any impurity injurious to health, such examination was, he must confess, unable to determine. Nor could any analysis whatever of any sample of water give him any information as to the hurtfulness of the organisms. He would prefer to have water with no visible bacteria in it, but no determination could now state whether the water was or was not free from hurtful elements, nor could innocuous bacteria be distinguished at present from morbid elements. It might be worth the while of the Commission to work up the whole subject with a view to the discovery of tests and methods of recognising what was morbid, but they had not that information at present, and it would be a long business. He said the main work of the Medical Department of the Local Government Board was to investigate where the water came from and its history.

Questioned on the subject of the institution, on behalf of the Commission, of a series of experiments in which water purposely mixed with typhoid or small-pox poison should be allowed to stand for three or four days and then filtered, he said that under those circumstances probably 96 per cent. or some possibly larger proportion of the hurtful elements might thus be got rid of, but he did not think that the whole of the microbes of the infected water could be got rid of. He thought it would be an inquiry well worth trying, but he had not heard of any success attending experiments of that kind. Experiments in which contamination of water purposely thus polluted had been made of the water by his old department (the Medical Department of the Local Government Board), but the results of chemical investigation gave very little information. It was certain that the water had been rendered very dangerous, but the chemists did not succeed in telling them what the danger was. He was not aware whether it had been ascertained how large a number of microbes remained visible to microscopic investigation after sufficiently repeated filtrations had been made, or after the microphytic elements had been carried down by the application of Clarke's softening process to such water. Dr. Dupré had made an interesting series of experiments for the determination referred to in the Medical Officer's Report of 1884, in which he indicated that the change in the amount of oxygen present in the dissolved air of a water kept under observation might establish the presence or absence of growing microphytes, and that by observing the extent of change the amount and activity of any microphytic impurity might be judged. And he indicated also the way in which it was sought to recognise microorganisms in their spore state, and by which it might be possible to distinguish between one kind of microphyte and another. There had, however, been too many demands on the limited purse given to the Medical Department of the Local Government Board by Parliament to continue those investigations; other things more pressing and urgent came upon the department, and they were unable to continue those investigations as they ought to have done. He explained to the Committee the importance which would attach to further investigations of the life-history of bacteria in water to determine what were their relative hostilities, to what extent one kind of bacterium, whether by changes in the oxygenation of the water, or by destroying weaker bacteria, morbid and pathogenic, or of an opposite character could ultimately result in aiding the self-purification of water; but all this knowledge was still only in progress, and not yet attained. Referring to certain reports of London water as containing in the month of January 2,088 micro-organisms as compared with 26 in August, a difference hardly attributable to drainage pollution only, and with regard to the question of the distribution of disease in connection with any of the London water supplies, Sir George Buchanan stated that since the investigation in 1866 into the East London water supply, the department had not had so much to do with the health of London compared with what it had to do with the health of the provinces. Where there had been a curious piece of scandal, such as eels being found in water mains, the Medical Department of the Local Government Board had been asked, as the only scientific sanitary department at the disposal of the Government, to investigate it. In that case they found that the eels crawled up the banks. No one knew of this power of eels of crawling up the banks until one of the inspectors stated it. Then they had also had some occasion to find out some risks as they thought of the fouling of the water of the Thames above the intakes from the condition of the subsoil in the Staines sanitary district. That was another danger which the department thought was very probably being incurred by London, but they had not followed that up at all; it was a matter which probably the Commission would be interested in.

Lord Balfour of Burleigh: We are very much interested in it, but we want to know how to investigate it.

Sir George Buchanan, continuing, said he thought there was nothing for it but to go and look after it on the banks of the Thames.

Lord Balfour of Burleigh thought that the very kernel of the question was how to apply a test which would not be a mere rule of thumb test, but one which they could expect other people to see the value of.

Sir George Buchanan was afraid that there was nothing for it but to go and see such things as the Local Government

Board inspectors had seen them. If, he said, one saw a place in the river gravel riddled with cesspools and the cesspools filling when the river was in flood one knew very well that was a dangerous condition of things, but he did not think any test that they could apply, chemically or microscopically, would give them any information as to the danger of it. As to the point whether water so contaminated could be made a safe source of domestic supply by any amount of filtration or treatment, he observed that he could not quite say, because he could not say what was the nature of the excretal pollution. People might be drinking their own or their neighbour's excretal matter; they had repeatedly done so, and apparently without doing them any harm; but there were occasions when those excreta got dangerous elements. Dr. Cory, witness pointed out, had reported to the Board, in reference to waters thus purposely polluted that: "If we could be sure that the waste products contaminating water were by no possibility derivable from any but healthy bodies we might perhaps run no very serious risk if our water were as foul as that of the Holy Well of Mecca—stuff which was saline with urine and yielding to analysis 'nearly six times as much animal matter as is found in the same volume of strong London sewage' (Frankland), but with the introduction of the idea of specific disease the conditions are totally changed. We do not know how small a quantity of material that has been in relation to such disease may when it gains admission to a healthy body suffice to produce like disease in that body. We have no reason for believing that the quantity of disease-producing material in the water, or the likelihood of the water consisting of the harmful qualities, is proportionate either to the total organic matter or to the total animal matter present in the water. The utmost that we have been able to say is that there has been greater opportunity for the entrance of the material of disease into water than can be recognised by the chemist as foul with organic matter, and we have surmised that the material of disease on entering such water may obtain the opportunity of sustaining or multiplying itself."

In reference to the question of whether it would be practicable and worth while for the Commission to try and see whether pathogenic organisms could be recognised and identified in filtered London water, Sir George Buchanan expressed his opinion that until they had more developed methods it would be no use trying. But they might devise methods by the opposite plan of polluting sterile water with definite material under definite conditions, and investigate those from beginning to end, the behaviour of the bacteria that developed in them on plates of one and another sort of cultivating material under different conditions of oxygen, supply, temperature, and so forth; and they might in that way ultimately get to a method of recognising one form of bacteria from another. He could imagine that if it were worth while to "invent" a process, as he had called it, in that way, it would avail to apply it to London water, but it would be beginning at the other end. In reference to analytical methods experimentally devised in Pasteur's laboratory for the elimination by the addition of antiseptic fluids to water of all but certain specific organisms which were not supposed to be killed by these fluids, he was of opinion that they would not be at present available with certainty for the purposes in view; and he did not think that there was anything practically available for the purposes of the Commission, but what might be called field observations—to go and see that what ought not to get into the water did not get into it. When water was once obtained from a polluted source, he did not attach final importance to the treatment of it; there was nothing for it but either to boil it or to leave it alone. His own house was within the metropolitan area, but he did not use the water. Another danger to which he called attention was that after the water had been delivered into the pipes from the company as fit for consumption, it then ran a fresh risk altogether, and one that might be very formidable indeed. This risk was that which was incurred by the lateral in-suction of water from broken and leaking pipes; the in-suction into pipes that were let into common troughs with sewers and so forth. Specific and serious instances traced to that source of risk had been brought to his knowledge. An epidemic in Wales at a place called Mountain Ash, reported on in the 17th Supplement to his Report to the Board for 1887, gave an account of a water supply sent to a number of villages. One branch of the water supplied distributed an enormous amount of typhoid fever, while the other branches went on their way doing no harm to anybody. A map he produced showed places red with dots of typhoid cases which affected one particular branch, the others being free. The story was well worth reading, and very interesting, at any rate, for anyone who liked to look at the investigations.

MEDICAL PROVIDENCE AGAINST SICKNESS AND ACCIDENT.

AT the last meeting of the Executive of the Medical Sickness, Annuity, and Life Assurance Society there were present: Mr. ERNEST HART (President) in the chair, Dr. De Havilland Hall (Vice-President), Mr. F. Swinford Edwards, Dr. Major Greenwood, Dr. J. W. Hunt, Mr. J. Brindley James, Dr. J. Pickett, Dr. W. Knowsley Sibley, Mr. Frederick Wallace, and the Secretary.

It was reported that the state of the funds had warranted the investment of a further sum of £2,000, thus bringing the reserve fund up to no less than £61,000; the amount received from interest for investments since the previous meeting of the Committee being £1,404.

The CHAIRMAN stated that, in addition to notices in the medical press, the general press had recently devoted more than an ordinary amount of space to their recently issued report and balance sheet. Applications for membership had been received from 27 members of the medical profession, bringing the total number of proposals for membership up to 1,558. In addition to this, he (the Chairman) had been applied to for information respecting the Society by other professional bodies now considering the advisability of following the example of the doctors, than which it would be difficult to pay them a greater compliment. Notwithstanding an increased membership, the expenditure for sickness was well within the estimated amount. Compared with the corresponding period of 1891, when the influence of influenza was still making itself felt, it showed a diminished outlay of upwards of £100. The Society continued to show most satisfactory results in every direction. It bore ample proof of the care that had been exercised—especially by Dr. De Havilland Hall—in the admission of members. There were several cases to which the Chairman called their attention, proving the uncertainty of health and the evident advantage of a society like theirs. A young provincial practitioner, who joined in February last, having at that time never suffered from illness, was in the following month suddenly called to attend a case during the night at a long distance, and caught a severe cold, which developed into muscular rheumatism. Severe erythema nodosum also occurred, and at the same time the glands of the neck began to enlarge. He got better of the rheumatism, and returned to work, but the glands continued to enlarge until at last it became necessary to have them removed, which was done successfully. In the meantime he had been a member of the Society for the qualifying period—six months—and therefore claimed and received sick benefit, thus enabling him to obtain a change of air and to obtain with comfort the means of rest and speedy recovery.

Copies of the annual report, prospectuses, and all further information may be obtained from Mr. C. J. Drummond, Secretary, 21, Dalmore Road, West Dulwich, S.E.

THE LONDON POST GRADUATE COURSE.

THIS course has for its object the extension of post-graduate teaching in London, and the utilisation of the clinical material not required by the medical schools.

The year is divided into three terms, each of eight weeks' duration. The spring term commences about the middle of January and ends in March. The summer term includes May and June, and the winter term commences about the middle of October and ends in December. The teaching is essentially practical in character, and the demonstrations and lectures are fully illustrated by cases.

Practitioners can enter for any single course or for a half term or a whole term at a composition fee. The single courses

consist of either eight or sixteen lectures, and the fees are £1 1s. and £2 2s. respectively.

There will be twelve separate courses in the next winter term, and the composition fee is £15 15s. Arrangements have been made with the associated hospitals so that members can enter for practice at any hospital at the rate of £1 1s. a month, and ample time is allowed for this part of the work.

The demonstrations and lectures of the winter term, which will commence on Monday, October 10th, and end on Saturday, December 3rd, will be given by the following members of the staffs of the associated hospitals and institutions, namely:

The Hospital for Consumption and Diseases of the Chest, Brompton, by Dr. Pollock, Dr. Green, Dr. Mitchell Bruce, Dr. Percy Kidd, Dr. Biss, and Dr. Sidney Martin. Wednesdays and Fridays, 4 P.M.

The National Hospital for the Paralysed and the Epileptic, Queen Square, Bloomsbury, by Dr. Buzzard, Dr. Gowers, F.R.S., Dr. Ormerod, Dr. Beevor, Dr. Tooth, Mr. Victor Horsley, F.R.S., Mr. Brudenell Carter, and Dr. Taylor. Thursdays, 2 P.M.

The Hospital for Sick Children, Great Ormond Street, Bloomsbury, by Dr. Sturges, Dr. Barlow, Dr. D. B. Lees, Dr. Lubbock, Mr. J. H. Morgan, Mr. Arbuthnot Lane, Dr. Colman, and Mr. Wagstaffe. Thursdays, 4 P.M.

The Royal London Ophthalmic Hospital, Moorfields, by Mr. Marcus Gunn, Mr. W. Lang, Mr. Quarry Silcock, Mr. Lawford, and Mr. Morton. Mondays, 1 P.M., and Wednesdays, 8 P.M.

The Hospital for Diseases of the Skin, Blackfriars, by Mr. Jonathan Hutchinson, F.R.S., and Dr. Payne. Tuesdays, 4 P.M.

Bethlem Royal Hospital for Lunatics, by Dr. Percy Smith, Dr. Theo Hyslop, and Dr. Corner. Tuesdays, 2 P.M., and Saturdays, 11 A.M.

The London Throat Hospital, Great Portland Street, W., by Dr. Woakes, Mr. Stoker, Mr. W. R. H. Stewart, Dr. Law, and Mr. Wilkin. Thursdays, 8 P.M.

The Bacteriological Laboratory, King's College, by Professor Crookshank. Fridays, from 11 A.M. to 1 P.M.

Pathological Lectures at 101, Great Russell Street, Bloomsbury, by Dr. Galloway. Mondays, 8 P.M.

The Parkes Museum, 74A, Margaret Street, Regent Street, W., by Dr. Louis Parkes. Mondays, 4 P.M.

Midwifery and Diseases of Women, at 101, Great Russell Street, Bloomsbury, by Dr. Dakin, Dr. Herman, Dr. Braxton Hicks, F.R.S., Dr. Potter, and Dr. Amand Routh. Tuesdays, 8 P.M.

The Central London Sick Asylum, Cleveland Street, Mortimer Street, W., by Sir Alfred Garrod, F.R.S., Dr. Ord, Dr. Wilks, F.R.S., Mr. Bryant, Mr. Timothy Holmes, Mr. Jonathan Hutchinson, F.R.S., and Mr. Hopkins. Thursdays, 5.30 P.M.

A prospectus can be had on application to J. Fletcher Little, M.B., Secretary, 60, Welbeck Street, London, W.

THE SANITARY CONGRESS.

Professor J. Lane Notter, President of the Preventive Medicine Section gave an address on the Causes and Prevention of Cholera. It might, he said, be laid down as an absolute rule in reference to cholera that its epidemic occurrence in any place implied besides importation of the contagion certain local conditions, these being: 1. General sanitary defects. 2. Peculiarities of climate. 3. Peculiarities of soil. The history of epidemics in India and in Europe taught us that universally filthy surroundings accompanied outbreaks of cholera all over the world. With hardly any exception in Eastern cities the drinking water was subject to all sorts of contamination, and in villages it was little better than diluted sewage. Wherever there had been a recurrence of cholera the same monotonous conditions existed, revolting contamination of the drinking water and utter negligence in the disposal of excrementitious matters.

On the proposition of Sir Charles Cameron, seconded by Sir Thomas Crawford, a hearty vote of thanks was accorded to Professor Notter for his paper.

Mr. J. Oldfield read a paper on Tuberculosis, in which he discussed the question whether consumption arises from flesh-eating.

Veterinary Captain F. Smith, Professor in the Army Veterinary School at Aldershot, made some observations on the duration of the immunity from small-pox conferred by vaccination.

Sir C. A. Cameron contributed a paper on Infantile Mortality, in which he attributed the high mortality of poor children largely to defective diet and the administration of narcotics in the form of sleeping draughts, etc.

A paper on the Physical Condition of School Children was introduced by Dr. Francis Warner, who presented a sketch of an inquiry relating to the physical condition of 50,000 children seen since 1888 by a joint committee of the British Medical Association and the Charity Organisation Society.

Dr. J. Wright Mason, of Hull, was to have read a paper on the Sanitary Influences of Harbours and Exposed Foreshores, but he wrote that as Hull was in direct communication with Hamburg he, as medical officer of the town and port, was unable to leave his post. In his paper he recommended as a preventive against cholera a careful inspection of all ships arriving from abroad, and urged that quarantine should be compulsory for all ships with infectious disease on board. As a second line of defence special attention should be given to sanitary arrangements ashore, and particularly as to the drinking water.

In the Section of Engineering and Architecture Mr. Hubert L. Terry read a paper on the Smoke Clauses of the Public Health Act, 1875.

Mr. W. H. Collins contributed a paper on the Pollution of Rivers and Canals by Manufacturing and Industrial Operations.

The Cause and Prevention of Typhoid Fever was dealt with exhaustively in a paper by Mr. W. R. Maguire, who described the various channels through which the germs of fever might be conveyed into the human body.

In the Chemistry Section Dr. W. J. Russell gave as his presidential address a Sketch of the Chemical History of the Air.

The evening address to the working classes was given by Professor Corfield, who took as the title of his discourse "Full of Days."

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SMALL-POX EPIDEMIC.

I.—Halifax.

Four new cases of small-pox were admitted on September 13th into the Halifax Hospital. They were all from Upper Cross Street and Lower Wade Street. A man was found to be suffering, and it is said several members of the family have had the disease in a mild form and have recovered. In the next house three young persons had been stricken with the disease and were taken to the hospital. There are now twenty-two cases under treatment.

II.—Warrington.

The small-pox outbreak has now, the *Warrington Observer* states, assumed a most alarming character. Fresh cases are reported every day, and there is little prospect of the epidemic subsiding for some time to come. Notwithstanding the efforts of the authorities to secure the prompt erection of a small-pox hospital immediately the outbreak threatened to be of a serious nature, the hospital is far from being ready for occupation. In the meantime, patients are being treated at their homes, and, though the cases are isolated as far as practicable, it is impossible to secure complete isolation. People pass in and out of infected houses, children of infected parents are allowed to play in the streets, and the refuse from infected houses is carted away without any extra precautions taken. The authorities have been greatly handicapped in not having had a small-pox hospital to begin with, and it was not thought of more importance to isolate the small-pox cases than the scarlet fever cases. The disease appears to have spread to every part of the town. There had been 41 cases reported since July 28th. The number on Saturday last was 21. There are now being treated at home 25 cases, and in the hospital 12, a total of 37. The deaths number 4, and in these four cases the patients had never been vaccinated. The medical officer of health is revaccinating a large number of people and the children at the schools. In one thirty children had not been vaccinated, who had chiefly come from other towns and thus escaped the vaccination officers. The small-pox hospital is being worked all night and day, Sunday included. At the workhouse there are four cases.

III.—Manchester.

At the request of Dr. Tatham, the Manchester Board of Guardians have decided to offer additional facilities for vaccination. Dr. Tatham informed the guardians that small-pox cases were rapidly occurring in widely-separated parts of the city, and that a further spread of the disease was to be contemplated.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,442 births and 3,643 deaths were registered during the week ending Saturday, September 17th. The annual rate of mortality in these towns, which had been 19.8 and 18.9 per 1,000 in the preceding two weeks, further declined to 18.6 during the week under notice. The rates in the several towns ranged from 9.7 in Huddersfield, 12.2 in Plymouth, 13.6 in Halifax, and 13.8 in Bristol to 23.4 in Hull, 23.5 in Gateshead, 25.0 in Derby, 27.7 in Preston, and 30.1 in Salford. In the thirty-two provincial towns the mean death-rate was 19.9 per 1,000, and exceeded by 3.0 the rate recorded in London, which was only 16.9 per 1,000. The 3,643 deaths registered during the week under notice included 747 which were referred to the principal zymotic diseases, against 984 and 899 in the preceding two weeks; of these, 463 resulted from diarrhœa, 65 from scarlet fever, 59 from whooping-cough, 54 from measles, 54 from diphtheria, 50 from "fever" (principally enteric), and 2 from small-pox. These 747 deaths were equal to an annual rate of 3.8 per 1,000; in London the zymotic death-rate was equal to 2.8, while it averaged 4.8 per 1,000 in the thirty-two provincial towns, among which these diseases caused the lowest death-rates in Brighton, Wolverhampton, Huddersfield, Bristol, and Halifax, and the highest rates in Leeds, Oldham, Hull, Salford, and Preston. Measles caused the highest proportional fatality in West Ham, Salford, and Oldham; scarlet fever in Salford, Cardiff, Oldham, Gateshead, and Preston; whooping-cough in Salford, Swansea, and Birkenhead; "fever" in Sunderland; and diarrhœa in Manchester, Bolton, Gateshead, Derby, Sheffield, Leeds, Hull, and Preston. The 54 deaths from diphtheria included 36 in London, 4 in West Ham, 3 in Liverpool, and 3 in Cardiff. One fatal case of small-pox was recorded in Leicester and one in Halifax, but not one in London or in any other of the thirty-three large towns. Four small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 3 in the Highgate Small-pox Hospital, on Saturday last, September 17th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,412, against numbers increasing from 3,088 to 3,339 at the end of the preceding four weeks; 349 new cases were admitted during the week, against 461 and 414 in the previous two weeks. The 142 deaths from diseases of the respiratory organs in London were 35 below the average, and were equal to an annual rate of 1.7 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, September 17th, 821 births and 474 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 15.7 and 16.6 per 1,000 in the preceding two weeks, further rose to 17.0 during the week under notice, but was 1.6 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 8.6 in Perth and 11.2 in Leith, and the highest rates 18.8 in Glasgow and 19.0 in Greenock. The 474 deaths in these towns included 70 which were referred to the principal zymotic diseases, equal to an annual rate of 2.5 per 1,000, which was 1.3 per 1,000 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Glasgow and Perth. The 242 deaths registered in Glasgow included 16 from diarrhœa, 7 from scarlet fever, and 3 from diphtheria. Two fatal cases of diphtheria occurred in Dundee, and 2 in Perth. The death-rate from diseases of the respiratory organs in these towns was equal to 2.6 per 1,000, against 1.7 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, September 10th, were equal to an annual rate of 22.7 per 1,000. The lowest rates were recorded in Dundalk and Sligo, and the highest rates in Dublin and Newry. The death-rate from the principal zymotic diseases averaged 4.7 per 1,000. The 190 deaths registered in Dublin were equal to an annual rate of 23.3 per 1,000 (against 24.0 and 26.3 in the preceding two weeks), the rate during the same period being 16.6 in London and 16.1 in Edinburgh. The 190 deaths in Dublin included 36 which were referred to the principal zymotic diseases (equal to an annual rate of 5.4 per 1,000), of which 28 resulted from diarrhœa, 4 from enteric fever, 3 from measles, and one from whooping-cough.

THE ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD, IRELAND.

IN the previous annual report attention was drawn to the fact that there had been a decrease in the average daily number of persons relieved, both in and out of the workhouse, as compared with the year preceding; and the present returns show a further decrease in the average daily number of persons relieved in the workhouses, and also in those who received out-door relief; the former being 40,742 and 1,107 (in fever and other hospitals), and out-door relief 62,229, making a total of 104,078, which is less than the average in the year previous by 960. There was a decrease of 7,835 in the total number admitted to workhouses in sickness, and a decrease of 12,847 in the number admitted who were not sick, thus showing a decrease of 20,682 in the total number admitted during the year as compared with the number in the previous year. The number suffering from fever or other contagious disease was less by 918, and the total number of persons relieved in workhouses was less than in the previous year by 23,564. The total deaths in workhouses from March, 1891, to March, 1892, were 10,937, or a decrease of 640. Fever caused 337 deaths, or a decrease of 41; lung disease, 2,208, or a decrease of 365; and 3 deaths from small-pox. There was a decrease of 1,369 in the cases of fever treated by dispensary medical officers, and a decrease of 21 as regards scarlet fever. The dispensary tickets issued amounted to 394,880, or a decrease of 16,208; the visiting tickets, 161,362, or a decrease of 26,764; while 93,693 persons were vaccinated, Of these latter, 78,998 were one year or less, 13,174 were above one year old when vaccinated, and 7,521 were adults who were re-vaccinated. The total expenditure for medical and educational purposes, and for salaries under the Public Health (Ireland) Act, amounted to £98,055 7s. 11d., or a decrease of £1,549 4s. 3d., while the Medical Charities expenditure came to £166,330, as compared with £161,341. Since 1890, when influenza prevailed, Ireland has not been wholly free from a form of sickness presenting symptoms characteristic of the same disease, and during last winter a second well-marked outbreak became epidemic.

COPPER IN PRESERVED PEAS.

ANOTHER case of prosecution for selling preserved peas containing copper has recently been heard, this time at Liverpool, in which city the matter appears to have been dealt with far more sensibly and practically than at Glasgow. A grocer was summoned for selling to an inspector from the sanitary department of the Liverpool Corporation a tin of preserved peas which the public analyst subsequently certified to contain copper, the terms of the summons stating the peas to be "adulterated with sulphate of copper in such quantities as to be injurious to health." It was shown beyond dispute by the evidence of the experts, Mr. Williams and Dr. Brown, the analysts, and Dr. Hope, the assistant medical officer of health, that the matter was a very serious one, inasmuch as considerable injury might result by the ingestion of such peas. The analysts proved the presence of 2½ grains of copper sulphate in the tin of peas referred to; and it was stated that stale peas, when treated with sulphate of copper, took on the colour of fresh peas, thereby indicating the fraudulent object of the addition. Curiously enough, it does not appear that the magistrate before whom the case was heard would have convicted the defendant unless he had been satisfied that the presence of the amount of sulphate of copper named was injurious to health, although it is quite plain that, whether the copper was injurious or not, the sale of peas containing it was an offence under the Adulteration Acts. The decision given was a dangerous one, since it implied that a certain small amount of copper salt might be allowed in preserved peas "for the purpose of retaining the natural colour." The magistrate said he was satisfied that this object might be attained by the use of "as little as ½ to ¼ grain of sulphate of copper per pound of peas;" but as in this case there were 2½ grains, he considered that the quantity was injurious to health, and that the case had been made out.

We are not aware that the addition of sulphate of copper retains the natural colour of fresh peas. We are well aware, on the contrary, that it gives them a false colour, due to the formation of a compound of copper with the constituents of the peas, and that the persons who buy them are thereby deceived and possibly injured. The addition in any quantity, however small, of poisonous metallic salts to food is simply dangerous folly when it is not actually criminal. The magistrate thought that the tradesman had been taken in by the manufacturer, and, therefore, only fined him the absurd sum of 20s. and costs, and this solely because the peas were, in his opinion, injurious to health. Can it be said that the magnitude of the punishment is at all commensurate with the magnitude of the offence upon which the conviction was based? Obviously the law should allow of proceedings being taken against the manufacturer, and, if he could be got at, of his being visited with a heavy penalty. But, as things are, the retail vendor, who is, after all, the necessary channel of the manufacturer and wholesale dealer, can alone be directly dealt with by prosecuting authorities; and while in some instances it may be exceedingly unfortunate for him, the vital interests of the public generally demand that he should be dealt with adequately. A slight addition to the law, whereby wholesale dealers and manufacturers could be made co-defendants with retailers in adulteration cases would be very valuable.

PROSECUTION UNDER THE NOTIFICATION ACT.

AT the Stourbridge Police Court, recently, Dr. H. Hammond Smith, of Stourbridge, and Mr. Joseph Moore, of Pedmore, were summoned for neglecting to report to the Bromsgrove Rural Sanitary Authority a case of scarlatina, which had occurred in the house of Mr. Moore. Mr. Herbert Collis, who appeared for the defendants, said they were not aware the Notification of Diseases Act had been adopted in the Bromsgrove Union, and their neglect to notify the case was unintentional. Defendants were fined 1s. each and costs.

THE ISOLATION OF DIPHTHERIA.

THE *Liverpool Daily Post* reports a discussion in the Bootle Town Council upon a recommendation the medical officer of the Borough Fever Hospital that means should be provided for the treatment of cases of diphtheria apart from those of "fever." It transpired that a child admitted with diphtheria had caught "fever" in the hospital and died there. The Health Committee supported the proposition, but it was opposed by a medical councillor, who contended that diphtheria was not infectious, and stated that he had never known it to spread beyond the bed on which it was treated. Undoubtedly diphtheria was formerly admitted into the wards of general hospitals in many cases, and some hospitals still continue the practice, but from the present standpoint of knowledge the risk, be it great or small, would not be regarded as justifiable by the great majority of the profession; even less can be said in its defence in fever hospitals, where to the danger of imparting diphtheria to others is added the risk of giving scarlet fever to the diphtheritic patient. For the same reason that isolation hospitals ought to be free, they ought also to be above suspicion of endangering the lives of patients by exposure to new infection. Any attempt to carry out isolation on a large scale under other conditions will bring about the failure which it deserves.

THE ST. MARYLEBONE REPORT FOR 1891.

THE *Sanitary Chronicles* of St. Marylebone for 1891 have been issued, and, though condensed, they are by no means such dry reading as Mr. Wynter Blyth implies in his preface. As a result of the work of inspection done under the Customs and Inland Revenue Act, he infers that "it is quite exceptional for a block of artisans dwellings of even recent construction to be in a tolerable sanitary condition." Under the Food and Drugs Act a raid was made upon the provisions sold by coffee-house keepers, and several were fined for selling bread and margarine when asked for bread and butter. An index to the monthly issues of the *Chronicles* is a valuable addition.

THE SANITARY CONDITION OF THE CITY OF PERTH.

In consequence of much intestine warfare, and many complaints to the Board of Supervision, continued over a series of years, as to the administration of the Public Health Act in Perth, and the relations existing between the sanitary officials in that city, Dr. Russell, medical officer of health for Glasgow, was appointed by the Board a special commissioner to inquire into these matters and report to the Board. Dr. Russell's report is an extremely judicial, lucid, and withal sympathetic review of the situation. It had been urged on behalf of the sanitary authority that the death-rate was so low that the sanitary condition of the town must be good. But Dr. Russell points out the fallacies which underlie this specious representation. The death-rate for the registration district, which includes a considerable rural area contiguous to the town, has always been accepted as the equivalent of the urban death-rate. The population during the last decade was considerably overestimated, and the death-rate correspondingly underestimated, as illustrated by the circumstance that the official death-rate for 1891 would have been 18.5, while the actual death-rate was 20.3, admittedly a high death-rate for a small town like Perth, but little concerned in the ordinary industrial pursuits of an urban community. Dr. Russell emphasises the fallacy which lies in the assumption that the death-rate is uniform over the whole area of the town, by isolating the central district of the town, an area of 37.2 acres, and having in 1891 a population of 6,727 persons. The average death-rate in this district, over the quinquennium 1887-91, was as high as 29.6, principally due to the excessive incidence of the epidemic diseases of children, of diarrhœa, phthisis, and diseases of the respiratory system. As the result of the general inspection of the town, Dr. Russell admits that credit is due to the sanitary authority for the carrying out of certain town improvement schemes, but points out that very much more could have been done, and without cost to the ratepayers, by the steady and systematic application of the provisions of the Public Health Act to insanitary dwellings. A considerable number of houses were found to be really unfit for habitation, by reason of dampness; their floors were sunk below the general level of the ground, the ceilings were low, and there was no possibility of proper ventilation. Tenements were found out of repair, and even ruinous from age. The scavenging of the town, *quâ* scavenging, appears to be fairly well carried out, but it is estimated that two-thirds of the town are unprovided with water-closets, and are served either by the now discredited privy midden, or by a system which necessitates the storage of the household excreta and refuse in pails, boxes, etc., placed in pantries and odd corners to await the daily round of the scavengers' carts. The public sewers of the town are practically unventilated, and the examination of house drains is but little attended to. The water supply of the town, derived from a somewhat dubious source, runs short in the summer time. The cowsheds seen by the Commissioner were of decidedly unsatisfactory construction. Dairy regulations were adopted in 1890, which, Dr. Russell remarks, "on the whole are excellent, but they do not seem to be enforced." There exists a fairly satisfactory public slaughterhouse, attached to which, however, is one naive regulation requiring that in every case in which the superintendent of the slaughterhouse has any doubt as to the quality of a carcass, such carcass shall be examined by a veterinary surgeon, to be called in at the instance of the owner of the carcass. The local infirmary affords isolation accommodation for the town; but the local sanitary authority has not yet seen fit to adopt the Infectious Disease Notification Act. The town authorities are still, Dr. Russell remarks, at what may be termed "the primitive stage" of the disposal of town's refuse. The situation of the depôt is grievously complained of, and apparently not without reason; it is placed by the side of the main street of the town, and there accumulates, at the hot season of the year, as much as 2,000 tons of refuse, including all the offal from the public slaughterhouse, fishmongers' and greengrocers' refuse, etc. A more suitable site, however, is being sought for. The report makes it abundantly evident that the principal sanitary defect in the city of Perth is in respect of the executive and official machinery. There exists an Executive Committee empowered to receive notices and take proceedings, etc., but this "Committee" includes 21 out of the 26 members of the Town Council. The Committee, it would appear, is not lacking in zeal, for it meets more frequently, Dr. Russell remarks, than the Executive Committee of the city of Glasgow. But this zeal appears to be misdirected, for the meetings seem to be very largely occupied in settling (and engendering) disputes between the officials. The whole system of sanitary administration requires reorganisation. The Executive Committee entertains very curious notions as to its relation to the medical officer of health, as appears from a minute in which the sanitary inspector is instructed to take proceedings in respect of a nuisance, "but a copy of his report is also to be sent to the medical officer for his perusal and opinion." Another minute sets forth that a list of insanitary properties was remitted to the sanitary inspector "to visit and inspect, and to take the opinion of the medical officer, if he deems it necessary." Such a subversion of the ordinary methods of procedure was bound to lead, as it has led, to confusion and to friction between the different officials concerned. The sanitary authority was called upon by the Board of Supervision to appoint a sanitary inspector, debarred from other work; but it set itself instead, somewhat obstinately, to evolve a curious scheme by which the burgh engineer was also to be appointed a sanitary inspector, to execute certain provisions of the Public Health Act, the inspector of cleansing to be appointed an additional sanitary inspector to administer certain other provisions; as the result of this arose a system of communication by letter between the officials, much heart burning, and a continual conflict of jurisdiction. The effect of Dr. Russell's report is that the sanitary condition of the town urgently demands attention and reform, and that the existing system of sanitary administration is radically bad; the medical officer of health should be installed in his proper place as the sanitary adviser of the local authority; a properly qualified man should be appointed sanitary inspector, to devote his whole time to the duties of the office; and the sanitary officials should attend the Committee meetings, so that they may be kept more in touch with the Committee, and more familiar with the inception and progress of the business of their department.

Criminal Abortion in the United States.—At a meeting of the Crawford County Medical Society on July 5th, the following resolution was passed: "Whereas the practice of criminal abortion is steadily increasing, and in the numerous cases which prove fatal it is next to impossible to secure the conviction of the guilty party, because the testimony of the female—who is usually the only available witness in the transaction—is not received by the courts, whereby the evildoer not only escapes punishment, but is encouraged in his work, therefore be it resolved that we petition the Legislature of this State at the coming session to enact a law by which the dying declarations of a person, who may die from the effects of a criminal abortion, shall be received as evidence on the trial of anyone indicted for such offence, the same as is now done in cases of homicide." Copies of the resolution were sent to the various county medical societies of the State for concurrent action.

Torquay Medical Society.—A meeting of this Society was held at the Torbay Hospital on July 8th, Mr. Karkeek, the President, being in the chair. Among the cases shown was one of primary epithelioma of the tonsil in a man aged 63, and a case of perforating wound of the knee-joint successfully treated by incision and drainage, exhibited by Mr. Watson, Senior House-Surgeon of the Torbay Hospital. A case of pernicious anæmia which ran an unusually rapid course was read by Dr. W. Stabb.

OBITUARY.

ALFRED LEACH, M.B.Aberd., M.R.C.P.Edin.

The death of Dr. Alfred Leach, of 21, Belgrave Road, S.W., may be looked upon as another instance of a member of our profession sacrificing his life in the performance of duty. The immediate cause of his death was a severe attack of English cholera, which appeared on September 11th and ended fatally early in the morning of September 14th. The exciting cause is believed to have been the inhalation of sewer gas while investigating the cause of an outbreak of diphtheria in the house of one of his patients. It was two days after this that he first began to complain of diarrhœa and sickness. Thinking too lightly of these symptoms, he would not have any professional aid till cramps began to appear thirty hours after the onset of the disease. The cramps were soon followed by symptoms of collapse, a feeble, intermittent, thready pulse, cold hands, cold perspiration, and sunken features. The case looked as like a case of Asiatic cholera as it well could, only wanting the "rice-water stools" to make it complete. The diarrhœa and sickness were checked, stimulants and nourishment were taken and retained in considerable quantities, yet the state of semi-collapse never yielded, and, despite the constant attention of his medical friends, Dr. Dewar and Dr. Ewart, and the assistance of Dr. Pearse and Mr. O'Donnell, the case terminated fatally twelve hours after the cessation of the sickness. The poison acting on a constitution never robust caused several attacks of dyspnœa, accompanied by loss of vision and excitement. The inhalation of oxygen greatly relieved these symptoms. One fact worthy of notice is that in spite of the weak thready pulse, which often could not be counted (though after the inhalation of the oxygen it was steadied and strengthened) death commenced at the lungs, for the heart was beating when respiration ceased.

A correspondent writes: Dr. Leach's connection with what was known as the "Pimlico mystery" will still be in the remembrance of many. Whatever be the opinion of his action in that case, it brings out one feature of his character—his self-denial and self-sacrifice. No one knows how much his sensitive nature suffered during that trial—how he sacrificed his time, his strength, and risked his practice, because he believed Mrs. Bartlett was innocent; and there can be no doubt that it was owing to his evidence and his efforts that the accused was set free.

In disposition Dr. Leach was gentle and considerate, and in all his dealings most honourable. He had no professional jealousy, but always showed scrupulous regard for the rights and the feelings of his *confrères*. He will be missed by many friends. Although Dr. Leach did not contribute much to medical literature, he was possessed of fine literary qualities, and during his student days in Aberdeen he published a little book on the *Letter H*, and a volume of poems called *The Quadrangle by Moonlight*. He was a good linguist, speaking Arabic, Italian, and French. He had held for several years the post of physician to the Italian Hospital, and was only 35 years of age at the time of his death.

HENRY JOHN TYLDEN, M.A., M.D.Oxon., M.R.C.P.

During the last few months death has laid his hand on many young men in our profession. One of these, Dr. Tylden, had already given promise of work of a very high order. He had for some time been a distinguished figure in the scholastic world, and latterly, since he had turned his attention to medicine, the work that he had done seemed to be an earnest of much to follow. After studying pancreatic diabetes for some time and laying the results of his observations before the Royal Medical and Chirurgical Society, he turned his attention to the subject of typhoid fever, hoping eventually to obtain some method of producing artificial insusceptibility to this disease by inoculation or by other therapeutic means. The work had progressed steadily for some time when, whether as the result of accidental infection or of infection carried in the usual manner cannot now be determined (though, from what can be learned, the latter seems the more probable supposition), Dr. Tylden contracted an attack of typhoid fever of a somewhat abnormal type, to which he ultimately succumbed.

Henry John Tylden was born at Stamford Rectory, Kent, December 14th, 1857; he was educated at Uppingham School, which he entered in 1869 under the late Dr. Thring. In 1870 and 1873 he obtained school scholarships, and, on leaving in October, 1876, he was captain of the school and held one of the school exhibitions. On proceeding to Oxford he obtained an open scholarship at Exeter College. After a distinguished undergraduate career he obtained a First Class both in Moderations and in the Final School. He continued his connection with Oxford as a private tutor in history until 1881, but finally, in 1882, determining to devote himself to the profession of medicine, he entered as a student at St. Bartholomew's Hospital, where he also had a most distinguished career. After graduating in 1886, when he was awarded the Brackenbury Scholarship, he continued his studies in Vienna, and in 1888 he took the Murchison Scholarship in Clinical Medicine and became a Member of the Royal College of Physicians, and later was appointed Assistant-Physician to the City of London Hospital for Diseases of the Chest. He had earlier been appointed Casualty Physician at St. Bartholomew's.

He soon decided to devote himself more especially to the study of pathology, for which he had conceived a great liking, and for which he displayed marked aptitude. His philosophical and classical training here stood him in good stead, and his knowledge of literature and literary methods seemed likely to be of great value to him in the furtherance of his studies.

How great is the loss that pathology has sustained in Dr. Tylden's death may best be gathered from a study of his exceedingly able and interesting article on the "Bearing of Pathology upon the Doctrine of Transmission of Acquired Characters," the last that appeared from his pen, which was published in *Nature* after his death. In this article we have a philosophical study of the bearing of pathology upon Weismann's doctrine, a study that could only have been made by a man full of scientific observation, endowed with a keen and well trained mind, and thoroughly equipped with both philosophical and classical training. The facts on which the arguments are based are well selected, the arguments themselves are well conceived and logical, whilst the deductions will commend themselves to most thoughtful minds. Anyone reading this article must feel that if this could come in the green tree, what might not have been brought forth from the mature?

Only those, however, who knew Dr. Tylden can appreciate how great is this loss; all with whom he worked rapidly came to like him and to appreciate him at his proper value. His never failing courtesy and kindliness of disposition endeared him to his fellows, whilst his vivacity and readiness, his thorough acquaintance with medical literature, both ancient and modern, and his singular fertility of resource made his companionship exceedingly helpful to his friends. The privilege of his acquaintance and friendship will be an exceedingly pleasant memory to many who had hoped to enjoy that friendship for many years still to come.

ANTON BIERMER, M.D.,

Professor of Clinical Medicine, University of Breslau.

Anton Biermer was born at Bamberg in 1827, and studied medicine in the University of Würzburg, where among his fellow students were Friedreich, Kussmaul, Gegenbaur, Rothmund, Gerhardt, A. Vogel, and Von Ziemssen. In due time he qualified as *Privat-docent*, and in 1855 he published a work on the sputum, which contained much of permanent value. He became Assistant in the Medical Clinic, first under Marcus and later under Bamberger. In 1859-60, besides papers on pneumothorax, etc., he published a work entitled *Theory and Anatomy of Bronchial Dilatation*. In 1861 he accepted a call to the Chair of Special Pathology, with charge of the Medical Clinic, in the University of Berne. While holding this appointment he collaborated with Moritz Schiff, Rudolf Demme (whose death we had recently to chronicle in the British Medical Journal), and A. Ziegler in the editorship of the *Schweizerische Zeitschrift für Heilkunde*, in which appeared many papers from his pen. In 1865 he was called to Zürich to a chair which had previously been occupied by Schönlein and Griesinger. Whilst at Zürich, Biermer wrote

the chapters on Diseases of the Bronchi and Parenchyma of the Lung, on Whooping-cough, on Influenza, on Hay Asthma, Bronchitis, Emphysema, etc., for Virchow's *Handbuch der speciellen Pathologie und Therapie*. The cholera epidemic, from which Zürich suffered severely in 1867, gave Biermer material for another work of rather more popular character, on *The Causes of Epidemics, especially of Cholera*, in which he enunciated the view that the cause of cholera is a body capable of reproducing itself, and expressed himself as follows: "I do not believe that the multiplication of cholera germs on the intestinal mucous membrane and the changes in the latter thus set up are the direct cause of the symptoms peculiar to cholera; I hold rather that the cholera foci produce a specific decomposition of the intestinal contents in which poisonous chemical combinations are liberated. According to this hypothesis, the cholera contagium is not to be found in the blood, but blood poisoning occurs through diffusion of the products of decomposition formed by the cholera." A melancholy interest belongs to an essay on Progressive Pernicious Anæmia published by Biermer whilst he was at Zürich, as his wife, to whom he was devotedly attached, was doomed some years later to fall a victim to that very disease.

In 1874 he was called to the Chair of Clinical Medicine at Breslau. This appointment he continued to hold till a few months before his death, when ill health compelled him to resign it.

Biermer was a conscientious teacher and an indefatigable worker. In addition to the writings which have been mentioned, he published numerous papers on Bronchial Asthma, on Typhoid Fever (based on 1,300 cases), on Aphasia, on Spinal Hæmorrhage, on Cancerous Growths of the Heart, Primary Cancer of the Kidney, etc. All his writings are marked by scrupulous accuracy of observation, precision in statement, closeness of reasoning, and last, but not least, by a lucidity of style which is not so common as might be wished in the literary efforts of German professors.

To quote the words of a sympathetic biographer in the *Berliner klinische Wochenschrift*, "in Biermer science loses a prominent investigator, his pupils a distinguished teacher, those about him a most true friend."

ALEXANDER ALLAN, M.D. Edin.,

Surgeon-Colonel, Army Medical Staff.

We regret to hear that news of the death of Surgeon-Colonel A. Allan, M.D., Medical Staff, the Principal Medical Officer of the Rawal Pindi District, was received at the War Office on September 5th. Surgeon-Colonel Allan died of cholera early in the morning of September 5th, at Murree, and news of the death of Surgeon-Captain Kenny, M.S., was received at the same time, at Gharial, Murree Hill, from the same disease.

Surgeon-Colonel Allan entered the service on January 12th, 1853, and served for many years in the 17th (now Leicestershire) Regiment. He was promoted Surgeon on March 1st, 1873; Surgeon-Major, April 1st, 1874; Brigade-Surgeon, April 1st, 1885; and Surgeon-Colonel, January 14th, 1890. Surgeon-Colonel Allan held the appointment of Registrar at Netley for five years, and served in a similar capacity in the Soudan campaign of 1885 (medal and clasp and Egyptian star). On promotion to Brigade-Surgeon he went to Poona, and on being gazetted to the administrative ranks he served first as P.M.O. of Dublin, and then of Edinburgh. In the spring of this year he went out to India, and took up the appointment at Rawal Pindi, which he held up to the date of his death.

Surgeon-Colonel Allan was a general favourite in the department and in the army; and being of a singularly amiable disposition, it may truly be said of him that while he had innumerable friends he had no enemies. Surgeon-Colonel Allan leaves a wife and large family to mourn his loss.

Professional Secrecy.—At a recent meeting, the Conference of Advocates to the Paris Court of Appeal discussed the following question:—Is the person who has a secret confided to him in a professional capacity justified, if called as a witness, in refusing to testify as to the facts which have thus come to his knowledge, if he is relieved from his obligation to secrecy by the person who had imposed it?" The question was decided in the affirmative.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1892. ELECTION OF MEMBERS.

A meeting of the Council will be held on October 26th, 1892. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than October 5th, 1892.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Francis Fowke, *General Secretary*.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

South Wales and Monmouthshire Branch.—The next meeting of this Branch will be held at Merthyr on Thursday, October 6th. Members wishing to read papers, etc., are requested to communicate titles to Dr. Sheen, Cardiff.—A. Sheen, M.D., and Arthur Davies, M.B., Hon. Secs.

South-Eastern Branch: East Sussex District.—The next meeting of this Branch will be held at the Palace Hotel, Hastings, on Thursday, September 29th, Mr. E. R. Mansell in the chair. Meeting at 3.30 P.M. Dinner at 5.30 P.M.; charge, 6s., exclusive of wine. The Chairman will show a patient with Enchondroma of Pelvis. Dr. Bagshawe will open a discussion on the question of Sanitation of Lodging Houses in Seaside Resorts. Dr. Spencer will read a paper on Two Cases of Chorea Complicating Pregnancy.—T. Jenner Verrall, Hon. Sec., 97, Montpellier Road, Brighton.

West Somerset Branch.—The autumnal meeting of this Branch will be held at the Municipal Buildings, Taunton (by permission of the Mayor), on Friday, September 30th, at 5 P.M.; John Currie, M.D., President, in the chair. An address by Professor Gairdner, of Glasgow University, on the Future of Therapeutics, will be given at 5.30. Dinner (6s. a head, exclusive of wine) at the Castle Hotel at 7.30. The West Somerset Branch will be glad to see members of neighbouring Branches who may like to join the meeting on this occasion; and the Honorary Secretary will be much obliged if any such, proposing to attend, will be so good as to send him timely notice, stating also if they intend to remain to the dinner, in order that he may make the necessary arrangements. Gentlemen wishing to read papers are requested to send in notice of their titles.—W. M. Kelly, M.D., Honorary Secretary, Taunton.

South-Eastern Branch: East Surrey District.—The next meeting of the Branch will be held at the White Hart Hotel, Reigate, on Thursday, October 13th, at 4 P.M.; Dr. Walters, of Reigate, in the chair. Dinner at 6 P.M.; charge 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. Agenda:—The following papers, etc., have been promised: Dr. Frederick J. Smith: Some Points in Heart Disease. Mr. Golding-Bird: Operative Procedure in Retention and Extravasation of Urine—a Clinical Study. Dr. Stone: A Case of Empyema. Dr. J. G. Ogle: Cases of Interest. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary, Henry J. Prangley.

Border Counties Branch.—The autumn meeting will be held at Galashiels on Friday, October 14th, 1892. Members desirous of reading papers, or of bringing forward any questions affecting the Branch, are requested to give notice to the Secretary ten days before the date of meeting.—J. Altham, Honorary Secretary, Penrith.

South Midland Branch.—The autumnal meeting will be held at the Bute Hospital, Luton, on Thursday, October 6th, at 3 P.M. The luncheon will take place at the Midland Hotel at 1.30 P.M. Gentlemen wishing to

read papers, cases, etc., are requested to intimate their intention to the Honorary Secretary without delay. Communications have been promised by Dr. Buszard, Dr. D. Thomson (Luton), and Mr. Bull (Stony Stratford).—C. J. EVANS, Honorary Secretary, Northampton.

EAST ANGLIAN BRANCH.

THE autumnal meeting of this Branch was held at Sherringham on September 8th, Dr. AMSDEN (President) in the chair. There were 45 members and visitors present.

Sir Frederic Bateman.—The minutes of the last meeting having been read and confirmed, a letter from Sir Frederic Bateman was read expressing his grateful acknowledgment of the courteous resolution of the Branch congratulating him upon the honour of knighthood recently conferred upon him.

President's Address.—The PRESIDENT delivered a short address on Some Sanitary Defects.

Dangers of Otitis Media.—Professor VICTOR HORSLEY, F.R.S., delivered an address on the Dangers and Consequences of Prolonged Otitis Media, with especial reference to Cerebral Abscess, which was abundantly illustrated by macroscopic and microscopic photographs, shown by limelight.—Mr. CADGE proposed and Dr. LATHAM seconded a vote of thanks to Professor Horsley, which was unanimously carried.

Social Festivities.—After the meeting the members present, accompanied by ladies, took a drive through Sherringham woods and park to the Hall, where they were entertained at afternoon tea by Mrs. Upcher, and those unable to accompany the excursion were entertained by Dr. and Mrs. Ernely Sumpter.

INDIA AND THE COLONIES.

INDIA.

TANSA WATERWORKS.—A gold-lettered marble tablet is to be erected in the new municipal offices at Bombay with the following inscription: "The Tansa Waterworks, which supply the city of Bombay with 21 million gallons of water *per diem* through a duct fifty-five miles in length from a lake six square miles in area, were first designed and reported on by Major Hector Tulloch, R.E., Executive Engineer, Bombay Municipality, in the year 1872. They were commenced in the year 1889 on the recommendation of Sir Charles Edward Kayll Ollivant, K.C.I.E., C.S., Municipal Commissioner for the city of Bombay, whose administrative and financial abilities were conspicuously displayed during their construction. He was supported in his recommendation by many prominent citizens, especially Dr. Thomas Blaney, Coroner of Bombay, who has during the course of a long life gratuitously given to the city services beyond computation in money. The works were carried out by Mr. W. J. B. Clarke, M.I.C.E., C.I.E., with signal engineering talent. Completed during the time that Mr. H. A. Acworth, C.S., held the office of Commissioner, at a cost of 150 lakhs of rupees, and opened by His Excellency the Marquis of Lansdowne, G.C.M.G., G.M.S.I., G.M.I.E., Viceroy and Governor-General of India, on March 31st, 1892. This tablet is erected by the command of the Municipal Corporation of Bombay, in order to commemorate the successful completion of an undertaking which, in costliness, magnitude, and importance stands unrivalled among municipal works in India, as well as the names of those who, having been chiefly instrumental to so great a result, best deserve the gratitude of the citizens of Bombay. By order of the Municipal Corporation. May, 1892."

VACCINATION IN BURMAH.—The resolution on the report on Vaccination in Burmah for 1891-92 states that the number of persons vaccinated in Lower Burmah during the year was 129,509, being less by 10,812 than in 1890-91. The number of vaccinations in Upper Burmah was 57,985, against 37,956.

BARODA.—The Gackwar of Baroda has given orders for the opening of three hospitals, the establishment of a State Sanitary Commissionership, and the engagement of the services of a lady doctor.

MCLEOD GOLD MEDAL.—Dr. Koilas Chundra Bose has sent to Dr. Birch, Principal of the Calcutta Medical College, a cheque for 1,250 rupees presented by a young Marwari gentleman for the establishment of a gold medal to be called the McLeod Medal, which is to be awarded annually to the student who obtains the highest number of marks in surgery at his final examination.

SIMLA WATER SUPPLY.—At a committee summoned by the Governor-General of the Punjab, the waterworks question has (says the *Indian Medical Gazette*) been settled, and the necessary operations will be carried out at once.

BANGALORE WATER SUPPLY.—A sum of Rs. 972,000 has been provided in the Military Works Budget Estimate for the year 1892-93, on account of the Bangalore water supply, and of that sum half a lakh has been allotted for expenditure during the present year.

NEW SOUTH WALES.

DR. GRAHAM and Dr. Sydney Jamieson, Curator of the Sydney University Museum of Normal and Morbid Anatomy, have been authorised to visit the public schools of the colony for the purpose of taking the measurements and weights of the children attending the schools in different districts. The results will be compared, with the object of forming a judgment as to the places most favourable to physical development.

VICTORIA.

ACCORDING to the returns of the census taken on April 5th, 1891, no fewer than 1,097 persons residing in Victoria were suffering from paralysis; 420 were epileptic, 384 were deaf and dumb, 627 were deaf only, 995 were totally blind, 103 nearly blind, 2,139 were mutilated or deformed, 3,770 were lunatics, and 355 idiots.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

EXAMINATION IN SANITARY SCIENCE.—Order of examination, 1892: Part I.—Tuesday, October 4th, 9 A.M. to 12 M., in the Senate House, paper; 2 to 5 P.M., at the Chemical Laboratory, practical and oral. Wednesday, October 5th, 9 A.M to 12 M., in the Senate House, paper; 2 to 5 P.M., at the Physiological Laboratory, practical and oral. Part II.—Thursday, October 6th, 9 A.M. to 12 M., in the Senate House, paper; 1.30 P.M., in the Senate House, practical and oral. Friday, October 7th, 9 A.M. to 12 M., in the Senate House, paper; 1.30 P.M., in the Senate House, practical and oral. Parts I and II.—Saturday, October 8th, 9 A.M., in the Senate House, practical and oral; 1.30 to 5 P.M., in the Senate House, practical and oral.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.—We are requested to publish, for the information of members of the profession, the following list of branch officers:

No. 1. Hammersmith and Kensington.—*Divisional President:* Frederick H. Alderson, M.D., Southerton House, Hammersmith. *Vice-Presidents:* W. A. F. Bateman, M.R.C.S., Bridge House, Richmond; Frederick C. Dodsworth, L.R.C.P., M.R.C.S., Arlington House, Gunnersbury; E. O. Fountain, M.D., M.R.C.S., Arlington Park, Chiswick; C. B. Keetley, F.R.C.S., 56, Grosvenor Street, W.; Frederick Lawrance, M.R.C.S., St. Alban's Terrace, Hammersmith; J. Savage, M.R.C.S., L.R.C.P., Avonmore Road, West Kensington; F. J. Wadd, M.B., Prospect House, Richmond; Forbes Winslow, D.C.L., M.R.C.P., M.B., 70, Wimpole Street. *Council:* Charles Andrews, M.R.C.S., L.S.A., Hammersmith Road; Robert Banning, M.D., J.P., The Hall, Bushey, Herts; R. D. Batten, M.D., B.S., 14, Finsbury Circus, E.C.; S. D. Chippingdale, M.D., F.R.C.S., Notting Hill Terrace; Charles Creed, M.R.C.S., L.R.C.P., Girdler's Road, West Kensington; A. H. Clemow, M.D., C.M., Comeragh Road, West Kensington; L. B. Diplock, L.S.A.Lond., Bolton Gardens, Chiswick; H. A. Smith, M.R.C.S., L.R.C.P., High Road, Chiswick; A. G. Wells, M.R.C.S., L.S.A., Keith House, West Kensington. *Honorary Secretary:* F. Herbert Alderson, M.B., 32, West Kensington Gardens, W. North London District.—*Divisional President:* E. Hooper May, M.D., F.R.C.S., Tottenham, N. *Vice-Presidents:* D. Fairweather, M.B., Wood Green, N.; Frank Godfrey, L.R.C.P., L.R.C.S., Compton Terrace, Highbury, N.; Frank Greaves, M.R.C.S., L.S.A., Junction Road, N.; G. Greenwood, L.R.C.P., M.R.C.S., Bush Hill Park, Enfield; George Henty, M.D., Camden Road, N.; Charles P. Langford, M.R.C.S., L.S.A., Hornsey Lane, N.; T. Boswall Watson, M.D., Tufnell Park Road, N.; W. T. Watson, M.D., M.R.C.S., Tottenham, N. *Council:* W. B. Benjafield, M.B., C.M., Lower Edmonton, N.; J. B. Cook, M.R.C.S., L.R.C.P., Packington Street, N.; James Dawson, M.D., L.R.C.S., Petherton Road, N.; W. Donston, L.D.S.R.C.S.I., Tottenham, N.; L. Grant, M.D., New Southgate, N.; Arthur Greenwood, L.R.C.P., M.R.C.S., Hornsey Rise Gardens, N.; James Heath, M.D., Upper Edmonton, N.; G. T. Penny, M.A., M.D., M.R.C.S.E., Oakfield Road, Finsbury Park, N.; J. J. Pitcairn, L.R.C.P., M.R.C.S., Parkhurst Road, Holloway, N.; G. H. Vos, M.B., M.R.C.S., Tottenham, N.; A. O. Ward, M.D., M.R.C.S., Tottenham, N.; E. Wood, L.R.C.P., M.R.C.S., Enfield. *Honorary Secretary:* Lloyd G. Smith, M.D., C.M., The Green, Tottenham, N. Northumberland Division.—*Divisional President:* Walter Riddell, M.S., F.R.C.S., Newcastle-on-Tyne. *Vice-Presidents:* R. A. Campbell, M.D., Newcastle-on-Tyne; C. L. Fraser, F.R.C.S., Berwick-on-Tweed; J. A. Jackson, M.D., Hexham; G. R. Murray, M.B., M.R.C.P., Newcastle-on-Tyne; Augus Martin, L.R.C.P., North Shields; Frank Russell, M.B., C.M., Heaton; Auban Wilkinson, M.D., M.S., Tynemouth; W. T. Wilson, M.A., M.D., Newcastle-on-Tyne. *Council:* A general meeting of the members of the division will shortly be held, when members of the Council will be elected for the ensuing year. *Honorary Secretary:* Francis W. Clark, L.R.C.P., D.P.H.Camb., Dispensary, Newcastle-on-Tyne. Somerset Division.—*Divisional President:* Thomas Cole, M.D., F.R.C.P.Lond., Bath. *Vice-Presidents:* Theodore Davis, M.D., F.R.C.S.E., Clevedon; J. Farrant Fry, L.R.C.P., Shepton Mallet; Edward Liddon, M.D., J.P., Taunton; G. F. Rossiter, M.B., Weston-super-Mare; J. Kent Spender, M.D., Bath; J. Mulville Thomson, L.R.C.P., Bradford-on-Avon; A. Law Wade, M.D., County Asylum, Wells. *Council:* A general merting of the members of the division will shortly be held, when members of the Council will be elected for the ensuing year. *Honorary Secretary:* Hugh Lane, L.R.C.P., 11, The Circus, Bath.

TUBERCULOSIS AT MUNICH.—From the registers of deaths in Munich between 1814 and 1888, to which he has had access, Dr. Weitemeyer estimates that in a total number of 329,862 deaths that have occurred in that city during 75 years, 47,282, or 14.33 per cent., were caused by tuberculosis. The proportion of deaths from tubercle to those from other diseases showed some variation at different periods; thus while it was 15.34 per cent. during the first 25 of the 75 years under consideration, it was 14.93 during the second, and 13.71 during the third, period of 25 years. The decrease in tuberculosis is, however, only apparent, for on comparing the deaths from tuberculosis, not with the deaths from other diseases, but with the population at different periods, it is found that the death-rate from tubercle remained fairly constant at about 4.7 per mille throughout the whole period of 75 years.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, SEPTEMBER 24th, 1892.

THE SCHOOLBOY'S MEALS: OUR PUBLIC SCHOOLS.

None will deny that the public schoolboy of to-day is better fed, as well as taught more, than was his grandfather. So far as concerns the actual amount of food obtainable by him during each twenty-four hours of the school term, there is, admittedly, nothing which deserves the name of stint, and certainly no risk of starvation. But whether he is fed properly is a question which would appear to have a distinct claim upon the consideration of both schoolmasters and parents. The matter cannot be settled off-hand by an appeal to individual beliefs, nor even by demonstrating that the total supplied by the day's rations fulfils—generously, it may be—the inexorable demands of a growing lad's physiological needs; for a very moderate practical acquaintance with the actual conditions of the problem will suffice to show the inquirer that it really hinges essentially upon the method according to which the food is provided.

In all the great public schools of England there obtains an essential similarity in the arrangements for furnishing food to the pupils, or for the obtaining of it by them; for each school has more or less perpetuated the characteristics of its original foundation, or has adopted those of its more venerable rivals. In the earlier days of English teaching her scholars were probably but scantily, as they certainly were, judged by modern standards, roughly fed; and a sort of Spartan pride has attached to the conservatism of ancient methods, as was shown some years ago, when the attempt to abolish the use of the wooden dinner trenchers provoked a famous revolt at Winchester. Hence it is that the fare actually provided for their pupils by some of our oldest and most famous schools is really poor in kind and scanty in amount. It is easy to understand that what might have sufficed the scholar in whose time Newton had not yet been born, and whose classical lore, while it trained his memory, did not greatly tax his intellectual powers; whose scarce reading was limited by sundown; to whom aught of natural science would have been anathema, and for whom competitive examinations did not exist, would prove all too scanty to meet the physiological outgoings of the pupils of more recent generations. And hence naturally arose and grew the custom of the pupil's supplementing the school fare by purchases made out of his own pocket. An old Etonian has told the world in his memoirs that, when inviting his fellows to breakfast, it was customary to order a dozen sausages for each guest, a statement which certifies to the robustness of the digestion of his time; while the whole story corroborates the admitted insufficiency of the fare directly provided by the school. And, indeed, all old public school men will allow that, but for the possibility of such extraneous additions, life would have gone hard indeed with them and with their fellows. Vast improvement has, indeed, been effected in these matters within recent years; but, even in the schools of more modern growth, the "tuck shop" exists and thrives as a supplement to the full complement of regular meals provided directly by the school.

Nowadays, however, the reproach of a semi-starvation diet can rarely be sustained. The meals provided in one master's "house" may perhaps compare unfavourably at times with those obtainable elsewhere. This is generally a question to be settled with the mistress, or housekeeper, and the cook; but of food good, plain, and wholesome, and, moreover, generally appetising and attractive of its kind, the total amount provided is ample. It is not so certain that it is generally provided in the right way, or that it is sufficiently varied in character. In some schools coffee or cocoa, with bread and butter or biscuit, is obtainable on rising, and before the hour's work which precedes breakfast, during the colder months, at all events. The arrangement is an excellent one, but in practice greater supervision is needed to prevent the late riser shirking his *déjeûner* in order not to be late for morning chapel, and to safeguard the small and often delicate boy (who really needs such a pick-me-up most of all) from being ridiculed or bullied out of taking advantage of it. Breakfast ought to be a substantial meal by regulation, that is, meat of some kind, or a fresh egg should be served for each boy as a matter of routine, and not furnished only as an extra and by special arrangement with the parent.

A by no means unimportant matter is the beverage provided at this meal. If the coffee were always made with about one-third to one-quarter of the boiling water usually employed, much more milk would be drunk with it, and it would then form a valuable food-item in the meal, besides being better liked. The tea, also, should be kept hot in a separate vessel after standing for not more than five minutes on the leaves with which it is made, and the drinking of plenty of milk with it should be encouraged. The interval of from five to five hours and a-half between breakfast and dinner is too long for growing boys, many of whom are really young, and too many nowadays "delicate" in one way or another. Under the conditions which generally obtain, this difficulty can only be parried by the school doctor ordering such a lad a glass of milk and a biscuit at about 11 o'clock. The good effects of the prescription are soon apparent in such cases. In one or two schools milk and biscuits are obtainable by every boy during the regular interval of fifteen minutes' break in the school-work which occurs at 11.15, but schoolboys need a great deal of encouragement to induce them to adopt any plan of the kind which is either an innovation on their usual practice, or which, more repellant still, carries with it any suspicion of fad or coddling. By the time morning school is over at 12 or 12.30 a healthy boy is beginning to feel hungry, and so long as his pocket money holds out, he not unnaturally stays this craving by a visit to the "tuck shop." Here it is the more attractive, and not necessarily the most substantial, viands which secure his suffrages; but cakes and sweet biscuits are apt to vitiate his

appetite for mid-day dinner. This is the meal which, more than any other, suffers from maladministration.

While the food is abundant in quantity, it might not infrequently be better cooked, or still more often it might be better served. A greater variety of dishes might be provided from day to day, and Dr. Clement Dukes, of Rugby, has ably shown how this may be accomplished. There is in almost all cases need for a more generous and more varied supply of green vegetables; there is some practical difficulty experienced under this head in the months of winter and early spring, but the difficulty is exaggerated, and is by no means insuperable. Supervision also is needed at the table in order that the younger and smaller boys be not defrauded of their fair share of vegetables. Slight cases of scurvy present themselves from time to time amongst schoolboys, and their origin is almost always traced to a combination of fraud and coercion thus exercised by the victim's schoolfellows. "Green meat" might with advantage enter more largely than it does into the ordinary dietary; watercress, mustard and cress, or plain salad are excellent additions to the breakfast fare. Of course, all vegetables should be carefully cooked and properly sent to table; the discovery of a defunct caterpillar will spoil the reputation of all cabbages and cauliflowers for a whole season, or even longer. The use of fruit, fresh and "evaporated," is more general than it was, and it might be still further used, especially plainly stewed, or served with boiled rice rather than with pastry. Several schools have their own dairy farms in the present day; some have their own vegetable gardens, but it is worth noting that none has, so far as we can find, its own fruit garden or its orchard. Now that fruit growing is becoming so important an element in agricultural economy, there is an additional reason for remedying this deficiency. Like other meals, dinner is too often taken as a race against time, and the lad whose every minute since breakfast may have been occupied by school work and private tuition, bolts his meal in competition with the fastest eater in the room. Here comes in the question of allowing books at meals; there is something to be said on both sides, and probably the worst rule is that which allows no boy to open his book until he has finished eating, for this induces him to hurry; and the best, that which allows no book to be opened until after the lapse of a specified time from the commencement of the meal. Nor should boys be permitted to indulge in active violent exercise for some three-quarters of an hour after the meal is ended. The amount of ale allowed at dinner should be strictly limited; there is still some room for reform here, though there now hardly anywhere exists that extraordinary possibility of abuse which obtained until quite recently.

Tea is a meal which the pupil often provides for himself in his study or form-room; the "tuck-shop" furnishes or largely supplements its materials, and in this connection especially has the need for some supervision of this addendum to the commissariat forced itself upon the attention of the authorities. In one or two instances the problem has been boldly grappled by a standing committee undertaking the whole management of the concern, buying and selling, at a very reasonable rate, only comestibles of approved and wholesome composition. The great advantage of such a plan lies in the hygienic safeguards which it supplies. Incidentally, the profits being divided between charities and school games, etc., the boys directly benefit by the scheme, and the Rifle Corps, for instance, may eat itself into financial repletion. At one public school of which we know it was found that the total takings during ten years amounted to more than £22,000, and the net profits during the same period to over £3,000, to say nothing of the obvious sanitary benefits conferred. The old-fashioned supper of bread and cheese and beer has now practically yielded to a meal of bread and butter, with milk for those who will take it, and home-made lemonade—and this with obvious advantages, no less moral than physical.

But while there are certain very obvious blots on the system according to which food is provided in our large schools, it must in fairness be admitted that the faults are not entirely on the side of the school authorities. The schoolboy is a slave of fashion, and in his mind reason is closely attended by prejudice and instinct. Little can be done for him, or with him, if these two factors be ignored. Thus not long since, a certain school tried the experiment of fish at dinner once a week. The fish was good and really well cooked, and as fresh as an express service direct from Grimsby could secure. But the leaders of fashion ordained that fish was "bad form," and, though the boys really liked it, that stern fiat amounted to a practical boycotting, and the experiment had to be abandoned. When any such change is contemplated, true diplomacy will counsel house-masters and others of influence to take the older and leading boys into their confidence beforehand, and to discuss the *pros* and *cons* of the scheme in the spirit of frank fellowship with them. If their support can be secured—if each of them can be induced to become *particeps novi*—the novelty will be sanctioned, and even a tradition may be revolutionised.

To sum up, it may be said that the basis of the charge now being made against public schools in certain quarters is really that of ill-managed, rather than of insufficient feeding. The relative hours of work, meal time, and play, do unquestionably need some readjustment; the cooking and the serving of the viands should have greater, and must always have continuous, attention at the hands of someone—be it bursar or hall-master—invested with full authority. The greatest possible variety, and a far larger allowance of fresh vegetables should be provided. Thorough mastication of all food should be encouraged; regular periodical examinations of the teeth of all pupils should be carried out—an important matter still much neglected, but now beginning in some quarters to receive consideration; and greater attention might well be given to the idiosyncrasies of certain boys, whose physical peculiarities are naturally recognised and allowed for at the family dinner table at home, while at present they are too apt to be disastrously ignored in the procrustean bill of fare at a big school. Boys enter school with the vaguest and often much mistaken notions as to the care of their own bodies; in this great department of education they have, until quite lately, been left almost to their own devices and to the rough schooling of experience. Now we are beginning to do something useful for them in the way of physical education; but the really important matter of nourishing the body is still regarded as too simple or too contemptible a subject for instruction. Yet "an army fights upon its stomach;" and the manhood of a nation may be greatly made or marred by the habits of imperfect nutrition contracted and practised in its youth. In all serious-

ness, we venture to urge upon our pastors and masters the due recognition of "the art of feeding" as being, in both theory and practice, an item not unworthy of more consideration in the education of the young.

"MALLEIN": THE NEW DIAGNOSTIC FOR GLANDERS.

One of the chief difficulties attached to the stamping out of glanders in the stable or elsewhere is the difficulty of recognising the disease in its earliest stages. Koch's discovery of tuberculin, and its employment for the diagnosis of tuberculosis, awakened the idea of employing in a similar way, a product of the bacillus of glanders for the diagnosis of glanders and farcy in suspicious cases.

In February, 1891, it was reported that in the bacteriological laboratory of the Veterinary Institute at Dorpat an extract had been prepared from the bacillus mallei by means of which the diagnosis of the disease in doubtful cases was assured. This welcome news was, however, shortly followed by the melancholy addendum that Dr. Kalning, the discoverer of the preparation, had contracted the disease himself, and had died. Kalning's mode of preparation[1] of the extract was as follows: He took 5 grammes of a pure culture of bacillus mallei, added to it 20 cubic centimetres of sterilised distilled water, and placed the mixture in the thermostat at 120° C. for twenty minutes. He repeated this heating process four times in forty-eight hours, and then left the mixture another forty-eight hours in the thermostat at 39° C. His next step was to filter the mixture through a porcelain filter under pressure; thus he obtained 12 cubic centimetres of a clear yellow liquid, which was again exposed for fifteen minutes to a temperature of 20° C. in the thermostat. This liquid was used for subcutaneous injection in the horse, 1 cubic centimetre being used for each animal. Of five horses injected, two were sound, two were manifestly glandered, a fifth was inoculated with glanders at the same time the subcutaneous injection was made. During the next four-and-twenty hours the injection caused no noteworthy rise of temperature in the two sound horses, but in the other three the temperature rose in the first thirteen hours from 38.5°, 38.0°, 38.6°, to 40.5°, 40.7°, and 41.3° C. *Post-mortem* examination of these three horses left no doubt of all of them being really glandered.

In a way similar to that of the unfortunate Kalning, but independently of him, Dr. Preusse, veterinary surgeon at Dantzic, attempted the preparation of an extract of the glanders bacillus. Preusse[2] used for this purpose old, dried-up cultures of the bacillus mallei grown on potato; these he steeped for several days in a mixture of water and glycerine (equal parts), at the temperature of the body (38° C.). The extract he filtered several times, and sterilised in the steam bath. It was finally an imperfectly clear, dark yellow, oily liquid, of neutral or faintly acid reaction; it possessed a characteristic odour. Preusse tried the action of this extract first of all on guinea-pigs he had inoculated with glanders. Later in the year he tried it on six horses belonging to certain large stables in which glanders had just previously broken out; none of the six horses, however, showed at the time of his experiments any unequivocal sign of being themselves glandered. The result of the trial on the horses was most striking. In five of them a considerable increase of temperature occurred, the maximum being attained about fifteen hours after the first injection, about eight hours after a second; the rise amounted to as much as 2.2° C. In the case of the sixth horse—a young foal—a rise of temperature amounting only to 0.5° C. ensued seven hours after the first injection, and no perceptible rise at all followed the second. The first five horses on the succeeding day showed lassitude; the foal was as well as it had been previously. *Post-mortem* examination of all six was made twenty-four hours later. Unmistakable evidence of glanders was discovered in the first five horses, but not in the young foal. The next trial was performed on a horse known to be sound; it was inoculated on three occasions with extract of the bacillus, and each time the temperature remained within the limits of health for the forty-two hours following the injection. In a horse showing manifest symptoms of the disease the rectal temperature ran up 1.5° C. nine hours after the first injection, and more than 2° C. after a second.

In the military veterinary school at Berlin a somewhat similar investigation has been pursued by Dr. Pearson,[3] who cultivates virulent growths of glanders bacillus in glycerine-peptone broth at 35° C., and when the rich growths thus obtained are fourteen days old, kills the bacilli by exposure to 80° C. for several hours, and then filters off the fluid through a porcelain filter. The clear fluid thus obtained is sterilised on three successive days by twenty minutes steaming. This sterilised extract he has tested on healthy and glandered guinea-pigs in doses of 0.25 to 2.0 cubic centimetres. He finds that in the healthy animals this dose causes a mere a trace of local reaction, and must be increased tenfold to produce febrile disturbance. But in the glandered animals even a quarter of a cubic centimetre causes the local symptoms of swelling and redness, and a well-marked febrile reaction.

Pearson's published experiments are less numerous and detailed than are those of Preusse. On Preusse's mallein observations have been repeated by Heyne,[4] Schilling,[5] Peters and Felisch,[6] Dieckerhoff and Lothes,[7] and by Walter.[8] Subcutaneous injections of mallein have been employed by the six first named of these upon, in all, 64 horses. Of the 64 one animal was obviously at the time of injection glandered, but the remaining 63 showed at that time no definite symptoms of the disease. In 41 of the horses a first injection of mallein was followed in about eight hours, and a second in about four hours, by an elevation of temperature altogether above the limits of the normal. In 23 horses no rise of temperature whatever followed the injection. Every one of these 23 cases proved on *post-mortem* examination to be completely free from anatomical signs of glanders. Of the 41 horses which gave a febrile reaction after injection, 38 were found by *post-mortem* examination to be actually glandered, but in 2 of the 41 the most careful scrutiny failed to reveal any signs at all of a glanderous condition. In the remaining case one suspicious nodule was discovered in the lung, but did not prove infectious in a guinea-pig inoculated from it.

[1] *Archiv für Vetinärwissenschaften*, Bd. i, May, 1891.
[2] Preusse: Versuche mit Rotzlymphe-Mallein. (*Berliner thierärztliche Wochenschrift*, No. 29, 1891.)
[3] Pearson, Ueber die Wirkung des Malleins. *Zeitschrift für Vetinärkunde*, 5, 1891.
[4] Versuche mit Rotzlymphe bei Pferden. *Berliner Thierärztliche Wochenschrift*, No. 33 and No. 48, 1891.
[5] Zur Werwerthung des Malleins für die Diagnose der Rotzkrankheit, *Ibid.*, No. 36, 1891.
[6] Impfversuche mit Preusse'scher Rotzlymphe, *Ibid.*, 39.
[7] Beiträge zur Beurtheilung des Malleins, *Ibid.*, 49, 50, 51.
[8] Eber, *Centralbl. für Bakt. u. Parasitenk.*, Bd. xi, p. 22, 1892.

It is found that 0.5 cubic centimetre of the mallein diluted with 5 cubic centimetres of 1 per cent. aqueous carbolic solution is the medium dose of Preusse's mallein suitable for an adult horse. More recently still Professor Nocard has prepared a mallein with which encouraging results have been obtained at the Pasteur Institute in Paris. There it has been tested on a large number of animals from omnibus stables. Of this extract undiluted, "malléine brute," the dose is rather less than the dose recommended above for "mallein Preusse." At the Brown Institution mallein kindly furnished by M. Roux, of the Institut Pasteur, as well as some prepared by Professor Sherrington at the institution, has for some time been under trial in London. The results at present obtained have not been altogether so thoroughly satisfactory as those reported from Dantzic; but the number of cases in which trial has been made is still insufficient to afford basis for a positive opinion.

MR. G. P. FIELD will deliver the next course of Harveian Lectures "On the Pathology and Treatment of Suppurative Diseases of the Ear" before the Harveian Society.

THE State of New York has passed a law appointing a Commission to select a site and prepare plans for an institution for the treatment of epileptics on the colony system.

THE annual dinner of the old and present students of the Faculty of Medicine of University College, London, will be held in the Hôtel Métropole on Monday, October 3rd, at 6.30 P.M. Sir George Buchanan, M.D., F.R.S., late Medical Officer to the Local Government Board, will be in the chair.

THE Local Government Board Inspectors, who have already visited all the principal port and riparian districts on the Eastern and Southern coasts of England, and also the ports and districts on the Bristol Channel and South Wales coasts, have now in hand the districts on the coast of North Wales.

FOR the first time since the formation of the Local Government Board, says the *Times*, its Parliamentary Secretary is now a practical physician, and the country will look to him to take care that the efficiency of the sanitary department is not unduly curtailed. We had occasion yesterday, our contemporary continues, to refer to the enormous increase of work which has been cast upon the inspectors by the near approach of cholera, and it would be a matter of much regret if, on that account, the ordinary business of the office had to be left undone.

THE OWNERSHIP OF UNHEALTHY DWELLINGS.

THE coroner for Oldham has adopted a novel procedure in cases where death seems to have been due in any measure to insanitary conditions of the dwelling. He has summoned the owner of the property to the inquest as a witness, hoping no doubt that the unpleasant publicity thus incurred will have a wholesome effect upon others as well. A bold beginning was made with a local magnate who, however, under the special circumstances, was allowed to appear by deputy. The idea is a good one, if carried out judiciously, and deserves consideration by other coroners.

DEATH UNDER CHLOROFORM.

THE death of a woman is reported at Llanelly Infirmary on September 13th after chloroform had been administered for the removal of an abdominal tumour weighing 20 lbs. The anæsthetic was administered by Dr. Lloyd, an experienced chloroformist, who informs us that chloroform and ether combined were administered. About half an ounce of chloroform was administered on the corner of a towel, and about one ounce of ether on lint; the same anæsthetics had been administered for a similar operation successfully a short time previously. The evidence of Dr. Lloyd at the inquest went to prove that the deceased took the anæsthetics very well. She became unconscious without going through any stage of excitement, and all went well until towards the completion of the operation, when there was some difficulty in the respiration. Soon, however, an improvement set in, and the deceased was removed to her bed in order that the temperature might be maintained. The jury returned a verdict in accordance with the medical evidence; they were of opinion that everything had been done that could be done by the medical attendants.

MR. G. CROOM ROBERTSON.

THE death is announced of Mr. George Croom Robertson, late Professor of Philosophy and Logic in University College, Gower Street. Mr. Robertson's death took place on September 20th, after a few days' illness. He had long been in failing health, and on that account resigned his professorship at the end of last session. He resigned the editorship of *Mind* last year. He was in his fifty-first year. Mr. Robertson counted a number of distinguished medical men and psychologists among the contributors and readers of *Mind*, and his writings on subjects cognate to the study of mental psychology and alienism were greatly esteemed.

NEW GOVERNMENT ORDER AS TO SUPPRESSION OF GLANDERS.

WE are informed that the Board of Agriculture have drawn up and will issue forthwith orders conferring upon county councils (and especially that of London) new and increased powers for the suppression of glanders and farcy. They will include powers of inspection of public stables and places of sales for horses, and powers of isolation, disinfection, and destruction. They do not go to the full length desired, owing to money questions, but will be very effective. The London County Council are proposing immediately to appoint a special staff of veterinary superintendents and inspectors to put them in force.

THE BRUSSELS CONGRESS.

THIS Congress proved a great success. The hospitality of the Brussels Gynæcological Society, of the President (Dr. Kufferath), and of the General Secretary (Dr. Jacobs) was fully appreciated; and the visit of the King, to whom the principal representatives of each country were presented, rendered the meeting highly popular with the inhabitants of the beautiful city of Brussels, and was naturally taken by the members of the Congress as a gracious honour. At the visit of the members of the Gynæcological Congress to the King's Palace, Sir Spencer Wells, Dr. R. Barnes, Mr. Alban Doran, Dr. Murdoch Cameron, and Dr. More Madden were presented to the King of the Belgians. The proceedings terminated on Saturday night with a banquet given by the Brussels Gynæcological Society at the magnificent rooms in the Grande-Harmonie. The chief guest was M. Debruyn, Minister of Agriculture and Public Works.

A CHEAP SYSTEM OF NOTIFICATION.

THE threatened invasion of cholera has revealed many notable defects in the armamentarium of local authorities. Thus, for example, a correspondence on the subject in the columns of the *Scotsman* has brought to light the existence of a curious system of notification in Leith. The sanitary authority there is evidently of a frugal mind; it desires to have the credit of a system of notification without paying for it. At the end of each week, it appears, a sanitary officer calls at the houses of the medical men in the town and leaves a form upon which the medical men are asked to make a

return of the cases of infectious disease which have occurred in their practices during the week. Under this unique system the local authority may learn of an outbreak of scarlet fever at a dairy in the course of a week or of a case of cholera after it has been buried. It is gravely stated on behalf of the corporation that the system "works admirably." Notwithstanding which we find that some of the medical men in the town decline to take part in the farce and direct the form to its proper destination—the waste paper basket. Now that public attention has been directed to the matter it is to be hoped that our Leith brethren, as a body, will insist upon receiving the modest remuneration of half-a-crown per case which the Legislature has declared to be their due in respect of notifications of infectious disease, and that the local authority may thus be forced to abandon their easygoing policy of locking the door when the steed has been stolen.

MEDICAL WOMEN IN BOSNIA.

The Government of Bosnia has passed a law to the effect that, "in the interest of the female population," a duly-qualified medical woman is to be assigned to each *Kreisstadt* or capital town of a district. This functionary, who is to have the official style and title of *Wundärztin* (*Wundarzt*, or "wound doctor," is the title in Austria of a lower grade practitioner, below the professional rank of a Doctor of Medicine) will be paid a yearly salary of 1,000 gulden by the State, and will further be provided with a house rent free or with an additional allowance of from 200 to 300 gulden a year for lodgings. In towns the population of which exceeds a certain limit, an additional grant will be made from the public funds.

HOSPITAL ACCOMMODATION FOR SCARLET FEVER.

The congestion at the fever hospitals of the Asylums Board has become acute, and it has been found necessary day by day during the last fortnight to inform the several sanitary authorities that no more cases could be admitted until vacancies arose through the discharge of recovered patients; and these authorities were requested to renew their applications daily before noon for the admission of sufferers detained in their own homes. No information is forthcoming at present as to the number of cases now under treatment at home for want of room at the hospitals, but it need not be said that every such case is likely to be the means of spreading infection, and so of extending the area of the epidemic. For the state of things thus unfortunately existing the Asylums Board repudiate responsibility, the Chairman (Sir E. H. Galsworthy) having in unmistakable language attributed the blame to the dilatoriness of the Local Government Board, who had been deaf to the repeated applications of the managers for permission to acquire the Tottenham land as a site for the new fever hospital. No sooner did the requisite permission arrive, than the managers held an extraordinary meeting, at which the architects received *carte blanche* to erect a temporary hospital for not less than four hundred patients. It is fully expected that the new hospital at Tottenham will be ready for occupation forthwith, and it is anticipated that the extra accommodation thus provided will enable the Asylums Board managers to tide over the present difficulty.

PUBLIC CONVENIENCES FOR WOMEN.

The long suffering of women from want of free latrine accommodation in places of public resort, streets of cities, railway stations, etc., seems at length to have attracted such sustained attention in the daily and weekly press and at the meetings of vestries, county councils, railway directors, and others in authority that the grievance seems to be in a fair way of abolition. The *Times*, by opening its columns to the wail of those who have felt aggrieved by the latest device for the abstraction of the unwilling copper from female suffering humanity, namely, the penny-in-the-slot system, has done excellent service towards the abolition of that special impost, and the whole vicious principle on which it rests; for, why should females pay for an accommodation that is free to men? The London County Council, by recognising the right of each sex to public conveniences free of cost to the users and constructing a plentiful number of the same in the most densely-thronged thoroughfares of the metropolis, has conferred a boon on women which is in the highest degree worthy of imitation by other municipal authorities; and now that the Secretary of the London and South-Western Railway has promised, on behalf of his directors, that the objectionable penny-in-the-slot system shall be abolished at the stations of that improving railway, it is much to be desired that other boards of directors will see their way to a prompt decision in the same direction. A calm perusal by each director of the recent public correspondence on the subject, in which the inconvenience of present arrangements—often entailing positive cruelty on unwary females—was well portrayed, would probably lead to a complete abolition, not only of the slot device, but also of the whole system of compulsory payment by women. The withdrawing rooms must of course have caretakers or they would become unfit for use. Let the directors, if they fear the expense of retaining these attendants, permit voluntary contributions from the well-to-do, and there is no reason to fear that the shareholders would then be called upon to bear any of the expense incurred for the attendants' wages. The present arrangement, at any rate, is a very real and pressing grievance, and need only be dispassionately considered to meet with the prompt condemnation of all right-thinking men and women.

INQUESTS ON FIRES.

At the meeting this week of the Associated Chamber of Commerce, Mr. Phillips (Plymouth) moved: "That the great increase in the number of fires of a suspicious character renders it desirable that inquests should be held by coroners or other public officers into the origin of such fires as result in the destruction of property which has been insured; that the Executive Council be requested to arrange for a deputation to the Board of Trade on this subject, and if thought desirable to prepare a Bill to introduce into Parliament." After some discussion, on the suggestion of the President, the matter was referred to the Executive Council. The subject is one of professional interest in relation to medical appointments to coronerships. It is highly desirable in the interests of life and justice that the coroner should be a person possessed of medical knowledge, seeing that in the coroner's court he is usually not assisted by counsel on either side, and has to make up his mind unaided by adequate cross-examination from duly-instructed counsel on questions of art. The "inquests on fires" would be used as a lever for ousting medical men from future coronerships. Such inquiries should be conducted by proper officers duly appointed; there could be no more clumsy apparatus of inquiry than an ordinary coroner's jury as to questions of the origin of fires.

DOCTORS AS POPULAR LEADERS.

A statement having been made in a German professional work to the effect that Mr. Gladstone had prophesied that doctors would become the leaders of the people, a correspondent wrote to the Prime Minister for the purpose of ascertaining the truth of the matter. In reply Mr. Gladstone said: "So far as regards the exact words cited in your letter I cannot positively say aye or no, and I rather think that I should in using them have added some qualifying or limited expressions. But it is certainly a fact that for a very long time I have believed the medical profession to be both in a state of absolute advance from the progress of its science—this, it may be said, is mere commonplace—and of relative advance from the particular features attaching to our civilisation in its onward movement." The statement and query evidently refer to the speech made by Mr. Gladstone at the banquet held in the Great Hall of Lincoln's Inn, on the occasion of

the meeting of the British Medical Association in London on August 16th, 1873. It may be of interest here to quote the relevant passage in that remarkable speech :

It has been given to you, gentlemen, I think to achieve within the memory of living man a degree of real improvement and real advancement such as has perhaps hardly accrued to any other profession. It would be presumptuous in me or any other one not belonging to your ranks to presume to pass a judgment upon the scientific excellence of the physician or surgeon of to day and the physician or surgeon of fifty years ago, and I am aware that fifty years ago as well as a hundred and a hundred and fifty years ago and more there were physicians, and there were surgeons whom, as I believe, none of you can either hope or desire individually to surpass. I speak now of the body of the profession, and not of the few—the elect and favoured children of fortune and of skill; and speaking of the body of the profession, even as an observer from without, it is impossible for us not to notice the change; it is impossible for us not to see how far more strongly now than of old the medical man of to-day conforms to those general laws of common sense and prudence which are after all universal laws of human life in every one of its departments. It is impossible not to see his greater and more sustained earnestness of purpose, that elevated sense of his professional dignity, that desire to make it subservient to the good of humanity, that general exaltation of his aims in the exercise of the profession. And, gentlemen, in every way as it seems to me, the course of affairs tends to show that this process will continue. Your position has long been, and I think must continue to be, one of constantly increasing influence and power. Never in my life but once before had I the honour of addressing a medical assembly; it was at the Middlesex Hospital, on an occasion when the distinguished staff and the pupils connected with the hospital were assembled; and I think then, some thirty years ago, I ventured to express to them the same opinion, that both they and their profession had before them rapidly opening and extending careers; and I think so, gentlemen, for this reason: that this age is distinguished by an unbounded activity of all the sciences of observation; and that of all the sciences of observation conversant with material things, yours is the noblest.

A NEW MILK EPIDEMIC OF SCARLET FEVER.

FIFTY-ONE cases of scarlet fever have been reported to the medical officer to the Leyton Local Board. Thirty-nine of these have been traced to milk which came from one dealer, and further inquiries have proved that at one of the farms in the Ongar district from which the dealer was supplied with milk, the farmer and several members of his family were suffering from scarlet fever.

FATAL CASE OF POISONING AT PRESCOT.

THE circumstances connected with a fatal case of poisoning at Prescot lead us to direct attention to other irregularities in the sale of poisons (besides that illegal sale of proprietary articles to which we are hoping to put a stop, with the aid of the Public Prosecutor and of the Pharmaceutical Society). The evidence given at the inquest proved that the deceased purchased 2 ounces of oxalic acid at a chemist's shop at Prescot, and shortly afterwards swallowed the whole of it. The person who supplied the acid was a girl, aged 14, and the excuse given for the sale of the poison by her was that the manager—a legally qualified chemist—was at the time absent at his dinner, and had left the girl in charge of the shop. The evidence given by the manager appeared to show that he was very imperfectly acquainted with the provisions of the Pharmacy Act in regard to the sale of poisons, and it led to the remark by one of the jury that he did not seem to know his own duties, as he admitted he had never seen a copy of the Act. In reference to the legality of leaving an unqualified person in charge of a chemist's shop to sell poisons, the coroner remarked that not being able to refer to the Pharmacy Act he could not say whether it was lawful or not, but, if it were so, he thought the sooner the law was altered the better it would be. Eventually the police superintendent was instructed to inquire into the matter, and take such steps as might seem to be requisite. On referring to the official *Register* of chemists and druggists, it does not appear that there is in Prescot any chemist of the name given as that of the proprietor of the shop at which the poison was procured, though there is one of that name in the neighbouring town of St. Helens. It may therefore be inferred that the Prescot shop was a branch of some other business, and it is precisely under these conditions that neglect of the provisions of the law is to be apprehended such as that indicated by the above case.

SICKNESS IN THE ROYAL NAVY.

WITH reference to the statement extensively circulated that the Royal Naval Hospital at Plymouth is overcrowded in consequence of unusual sickness in the Royal Navy, we have ascertained on inquiry that the following are the figures for the last four weeks :

Plymouth Hospital.

Week Ending	No. in Hospital.	Mumps.	Measles.
August 27th	452	3	8
September 3rd ...	467	9	12
,, 10th ...	536	12	10
,, 17th ...	524	27*	6
	—	51	36

* All mumps from "Lion."

As Plymouth Hospital contains 667 beds, it cannot be admitted that the wards of the establishment have been overcrowded, nor that there exists any necessity for the immediate construction of a new hospital at Torpoint. The zymotic block may be somewhat crowded, as this contains but 56 beds. The Inspector-General can, however, easily remedy this defect if required.

THE COMBINED HEALTH APPOINTMENT AT SUNDERLAND.

THE Corporation of Sunderland are setting an exceedingly unfortunate example to local authorities. They have advertised that they are prepared to receive applications for the appointment of medical officer of health and public analyst, the salary as medical officer to the borough and port to be £520 and the salary as public analyst to be £5, in all £525 per annum. We have before had occasion to protest, in the interests of the public as well as in those of the profession, against the highly objectionable system—now discarded by the more public-spirited and the better-informed authorities of the country—of uniting the appointments of medical officer of health and public analyst, and it is difficult to understand why the Local Government Board do not set themselves against it in an unmistakable and resolute manner. The two offices have nothing in common. They do not require the same training; they do not demand the same personal qualities; while the proper discharge of the duties of either interferes most prejudicially with the due performance of those of the other. For these reasons among others the combination of the two posts is to be strongly discountenanced in so far as general public interests are concerned; while in reference to the professional dignity and the professional interests of both medical officers of health and public analysts the combination is also to be unequivocally condemned. There are many persons who, for reasons best known to themselves, regard the Acts of Parliament which have brought such offices into being with anything but a favourable eye, and who, accordingly, are by no means solicitous of seeing them enforced. Where such enforcement can be avoided under the letter of the law, such persons are not slow to take advantage of the fact, and their influence is used whenever possible to minimise the importance of sanitary appointments, and to endeavour to get the salaries paid for them fixed and maintained at the lowest possible points. The influence of these persons always tells considerably in local government;

they are always active; they are generally noisy; and a combination of these qualities, with a judicious amount of posing as the "friends of the overburdened ratepayer," is sufficient to secure a fair following among the ignorant and foolish. It would unfortunately appear that such influences have been more than normally successful in moulding the decisions of the corporation of Sunderland. Nothing severe need be said against that august body, for it has merely acted in accordance with its lights. Its corporate action is no doubt quite conscientious; it is the net result of the collective wisdom of its members; and, while it is to be deplored, it may be, to a certain extent, excused—at any rate, for the time being. Were it not for this it might be said by irreverent persons that the advertisement in question was an outrage to the common sense of the people of Sunderland, and an insult to the professional men whose candidature it invites. For what is to be said of the proposal to pay £5 per annum for the services of the public analyst to a borough with a population of 135,000? A more cynical disregard of the Acts passed by the Legislature to protect the people from adulteration, and a more contemptuous treatment of the central authority which is supposed to see that those Acts are enforced, could hardly be conceived. The advertisement states that "the borough contains an area of about 3,306 acres, with a population of about 135,000," that "the candidate appointed will be debarred from private practice, be required to devote the whole of his time to the duties of the office, to reside in some convenient situation in the borough, and to perform all the duties of Medical Officer of Health and Public Analyst, as prescribed by the Public Health Acts, the Food and Drugs Acts, the Housing of the Working Classes Act, 1890, and any other Act or Acts, etc.," and "generally to undertake all such duties as were discharged by Dr. Harris, and as may be directed by the Corporation." The system of thrusting all sorts of extraneous duties on the shoulders of a medical officer of health is injurious to the public service as well as unjust to the officer. Mean and short-sighted persons may hug themselves with the belief that by adopting such a system the duties of distinct offices will be discharged for the lowest pay which can be given for only one of them, but it may be hoped that the time is not far distant when the fallacy of this notion will be rendered generally evident, and when local authorities will be compelled by law to separate the appointments referred to, and to attach a respectable salary to each of them.

PURIFICATION OF DRINKING WATER.

Letters from Sir Spencer Wells and Sir Samuel Baker on the subject of cholera and drinking water have appeared in the *Daily Graphic*, in which the boiling and subsequent filtration of all water to be used for drinking is recommended as a precaution never to be omitted during "cholera time," and this is a recommendation which we unequivocally endorse, so long as the boiling is sufficient and the filtration is carried out in an unexceptionable filter. Sir Samuel Baker states that long experience in various unhealthy portions of the world has induced him to boil both water and milk invariably before consumption, and he considers that the most malarious climates can be passed through by the traveller without danger if he personally supervises the operation, and if he himself inspects his filter. He very properly calls attention to the fact, well known to experts but generally lost sight of by the public, namely, that a filter may easily become a dangerous source of contamination by the accumulation of impurities within it. This is precisely the reason why any filter, to be a satisfactory one, should not only have a filtering medium capable of effecting purification when in normal working order, but should be so constructed as to admit of easy cleaning of all parts and of the ready introduction either of fresh filtering media or of the filtering substance after purification by heat. There are but few filters that fulfil these requirements, and yet it is a fairly simple matter. The passing of some quantity of boiling water through a filter will, it is true, afford a fair amount of protection, and is a very useful suggestion, but it must be borne in mind that if a filter has been long used it ceases to exercise any purifying effect beyond that obtained by the straining off of the coarser kind of matters in suspension.

A LOW BIRTH-RATE.

A fact constantly observable in vital statistics respecting the well-to-do districts of the West End of London is the lowness of the birth-rate. In no parish, perhaps, is this circumstance more marked than in Paddington, which comprises two registration districts—St. John's, in the south, and St. Mary's in the north. The former district, bordering on Hyde Park ("Tyburnia"), is chiefly occupied by the mansions of the wealthy; whilst St. Mary's district, adjoining Kilburn and extending along the Harrow Road, is largely inhabited by artisans and persons of similar social standing. In St. John's the birth-rate from January to March last was only 14.8, whilst in St. Mary's it was 28.8; and usually the St. John's birth-rate is about half, or even less than half, of the rate in St. Mary's. In the statistics for the most recent year at present available (1890), the ratio of births to population was 1 to 34 in North Paddington, but only 1 to 72 in South Paddington; and while the birth-rate for London in 1890 was 29.1 per 1,000, and for England and Wales 30.0 per 1,000 in the same year, it was only 14.0 per 1,000 in South Paddington, being (according to the statistics of Dr. J. Stevenson, the medical officer of health) almost identical with the death-rate. The births in the district in the year were, in fact, 512, against 502 deaths. This great difference in the birth-rates of two districts of the same parish is remarkable, and is observable in other West-End parishes. A correspondent, conversant with Paddington, suggests that it may be explained as follows. The persons who inhabit the Hyde Park district are usually advanced in life; they have made money by success in trade or the professions, and upon retiring take highly-rented mansions. Their time of life for increasing the race has ended before they go to reside there. Those who live with them are their single sons and daughters, and numbers of unmarried men and women employed as indoor servants, amongst whom the birth-rate is almost *nil*. If the sons or daughters marry they do not usually remain in this or adjoining expensive districts, but reside elsewhere during the child-bearing period of early married life; and in the case of marriages of servants, removal from the district is, for financial reasons, almost certain to occur. The remainder of the population of the district comprises a proportion of tradesmen and their families, and of coachmen and their families in the mews; these probably contribute their fair quota to the birth-rate.

CHICORY AND COFFEE.

In connection with the dismissal of certain summonses for selling adulterated coffee, a daily contemporary remarks, with apparent innocence, that "the analysts and the police magistrates of London are not in all cases agreed as to what constitutes adulteration in the matter of coffee." It would, indeed, be refreshing if the analysts and police magistrates could be relied on to agree upon any one thing. The somewhat malicious suggestion might be made that before this result is attained it will be needful for both the experts in law and the experts in analysis to agree among themselves in matters of adulteration, and then for each class of expert to understand the other. In the particular case of coffee, summonses are frequently dismissed on the ground that the sample supplied was labelled as a "mixture," and this when the proportion of chicory certified to be present amounts to 70, 80, and even 90 per cent. It can only be supposed that in cases of this kind the attention of the magistrates has not been called to the sections of the Act of 1875 whereby such an abuse of the mixture-labelling clause can be prevented, and to the decisions of superior courts which have settled

the matter beyond doubt, if any had, in reality, ever existed. By the eighth section of the Act it is provided that labelling as a mixture is no defence where the admixture of an adulterant has been "fraudulently to increase the bulk or weight" of the article. To use the word "coffee" as the principal title of a mixture containing as much as 90 per cent. of chicory is plainly fraudulent; to state such a case, in fact, amounts to a *reductio ad absurdum*. To make use of the word "coffee" at all, either as principal or subsidiary title, in labelling a preparation containing more than 50 per cent. of an adulterant, is, we hold, improper, unless the exact proportion of each ingredient is fully and plainly set forth on the label. It is highly desirable that a check should be put on the extensive sale of what is virtually chicory under the protecting names of "coffee," "French coffee," "coffee and chicory," and "chicory and coffee," with the word "coffee" very large, and the word "chicory" very small. Public authorities are far too ready to accept the decisions of police magistrates as final, and the proceeding is a feeble one. These decisions, while they may create precedents for police magistrates do not "make law," and when they are of such a nature as those we have alluded to, the more often they are appealed against the better it will be for the public, for whose protection the Adulteration Acts were passed.

MEDICAL CONGRESS IN CUBA.

The second Cuban Medical Congress will meet at Havana on October 27th, the date of the discovery of the island by Columbus, who described it as "the most beautiful country which the human eye ever beheld." The official programme of the Congress includes such questions as the Topography and Medical Statistics of Cuba; the Etiology, Prophylaxis, Treatment, and Pathology of Yellow Fever; Malaria and its Relations to Pregnancy and Parturition; is Malaria the Cause of the Perniciousness of Fevers in Havana? the Skin Diseases most commonly met with in Cuba, etc. We are glad to see that among the questions proposed for discussion there is one relative to a plan for the improvement of the sanitary condition of the city of Havana, which seems to be one of the places on the earth's surface most needing purification.

KAKKE OR BERI-BERI.

As is well known, and as we have at various times reported, the sickness, mortality, and invaliding in the Japanese navy from kakké (beri-beri) was at one time excessive. In a Review of the Preventive Measures taken against Kakké in the Imperial Navy the Central Sanitary Bureau, Navy Department, Tokio, contrasts the present state of matters in this respect with that which obtained only a very few years ago, indicating the means which have brought about the enormous improvement characterising recent times. In 1883 in a total force of 5,346, 1,236 cases of kakké occurred; of these, 49 died, 4 were invalided, and much expense to the public treasury was incurred for treatment. In addition to this the services of the sick were lost to the State for variable periods of weeks or months. This was during the year preceding the reforms we shall presently allude to. The year 1882 was even worse. In that year, out of a total of 4,769, 1,929 contracted kakké, of whom 51 died and 17 were invalided. Director-General Dr. Takaki, F.R.C.S., believing that kakké was caused by a dietary physiologically defective, inasmuch as it contained too little nitrogen, by persistent effort and representation, got the authorities to provision certain ships in accordance with his views of a physiological diet. This experiment proving satisfactory, the dietary of the entire fleet was revolutionised. The amount of rice, which formerly formed the staple, was reduced to a minimum, and beef, pork, fish, eggs, beans, and other more highly nitrogenous foods substituted. Concurrently with the introduction of this improved dietary kakké began to decline, and in two years had ceased to figure in the medical returns. In 1886 not a single case occurred in the entire fleet, and the disease may now be considered to be practically extinct in the Japanese navy. At the same time the general health has undergone a remarkable change for the better, the average body weight has increased, and the ratio of cases of general disease has fallen from 3,063.97 per million—what it was in 1883—to 388.55 per million in 1889. Without endorsing in their entirety Dr. Takaki's views as to the importance of dietary in the etiology of beri-beri, we cannot but congratulate him and the Japanese Government on this strikingly successful experiment in hygiene.

A CRUSADE AGAINST SPITTING.

Neither the sense of social decency nor the recent teachings of bacteriology have yet availed to restrain the average American citizen from exercising his privilege as a free man of voiding his sputum wherever he pleases. The ladies are now, we are pleased to observe, taking the matter in hand, and what the American woman sets her mind on doing she generally manages to effect. Dr. T. M. Prudden recently asked: "Shall we not have a Society for the Prevention of Expectoration?" The object of the proposed society is beyond all praise, though perhaps a little "thorough" (in Strafford's phrase) as long as unperfected man continues to be subject to catarrhal infirmities. It was not long, however, before Dr. Prudden was informed that his proposal had been anticipated. Mrs. John M. Oakley, of Pittsburg, Secretary of the Women's Health Protective Association of Allegheny County, announces (in the *New York Medical Record*) that she and the body of which she is an ornament have been fighting the spitting nuisance by organised effort for more than a year. "By ceaseless importunity," she says, "we have induced the managers of the different street car companies to post placards prohibiting spitting in all their cars, and a noticeable improvement in the condition of these vehicles has already been effected." The Pittsburg, Cincinnati, and St. Louis Railroad and the Allegheny Valley Railroad have placed similar notices in their stations, and it is hoped that the other railways will in time follow their example. A notice specially prepared by the State Board of Health pointing out the sanitary dangers of indiscriminate expectoration will soon be posted in every public schoolroom in Pittsburg, and the teachers are to be instructed to preach to their pupils every week from the text supplied by this notice. Mrs. Oakley adds, with a fine hygienic enthusiasm which we should like to see more general in members of the fair sex, "Forty thousand children will thus be taught not to spit in public." Among the millions over whom the American eagle spreads its protecting wings, forty thousand are as a drop in the ocean, but if even a small number can be got to dispose of the secretion of their bronchial tubes in a manner conformable to the requirements of civilised life, it may serve in time to leaven the mass. It must not be thought because we have used the great Western Republic to point the sanitary moral here enforced that we think our own country without fault in this matter; if the evil is not so universal among us, still it is sufficiently widespread to call for some measures for its repression. Similar regulations would add greatly to the comfort of travellers on the Continent, especially in Germany, where expectoration in public places, if not cultivated as an art as it is in America, is almost universally practised in a gross and aggressive manner, probably born of the barrack room and the beer saloon.

SCOTLAND.

PROFESSOR WILLIAM MACEWEN.

We are officially informed that the Queen has been graciously pleased, on the recommendation of the Secretary for Scotland, to approve of the appointment of Dr. William Macewen, Surgeon to the Royal Infirmary of Glasgow, to be Regius Professor of Surgery in the University of Glasgow. The appointment will be received with approval and satisfaction by

the profession generally, not only in Great Britain, but throughout Europe. A surgeon of great merit and distinction, but of much modesty and reticence, Professor Macewen achieved almost suddenly, in a wide circle of British and European surgeons, the reputation which had been previously confined to a smaller circle. His address at the meeting of the British Medical Association in Glasgow, in August, 1888, and the remarkable series of successful cases in cerebral and spinal surgery which he showed, greatly impressed the profession with the research, logical power, and technical skill with which his deductions had been made and his successful operations planned and carried out. They were much studied and commented on, and gave a fresh impetus to this important and novel department of remedial surgical proceedings in affections which, but for the work of Ferrier, Macewen, and Horsley, might long have remained outside the domain of curative methods.

PROFESSOR OGSTON.

Professor Ogston, of Aberdeen, has been appointed Surgeon to the Queen in Scotland in place of the late Sir George Macleod. Professor Ogston, who is Regius Professor of Surgery in the University of Aberdeen, enjoys the highest reputation as a surgeon and pathologist. A well-known operation bears his name, and his appointment will be universally recognised as a well-merited and suitable distinction. Professor Ogston had the honour of being received by the Queen on Tuesday evening on his appointment.

GLASGOW ROYAL INFIRMARY AND THE MEDICAL EDUCATION OF WOMEN.

The resolutions come to at a meeting of managers of the Royal Infirmary, held some weeks ago, to withdraw from female students the privileges of studying at the infirmary, have now been rescinded, and the infirmary will continue to afford the only clinical instruction available for women in Glasgow. Hitherto two sets of female students have been admitted to the infirmary: (1) those of Queen Margaret College, for whose exclusive instruction two wards, one medical and one surgical, were set apart; and (2) those of St. Mungo's College, formerly the Royal Infirmary Medical School, who were taught along with the male students of St. Mungo's College. The nominal reason for shutting out female students was that the male students sent up to the managers a complaint against the mixed classes. Obviously this complaint was directed only against the women students of St. Mungo's College and not against those of Queen Margaret College, and was no logical ground for a resolution to discontinue women's instruction, but rather a reason for following the Queen Margaret College example of teaching women in classes arranged for them alone. The Royal Infirmary can supply abundant material for the separate instruction of women without diminishing in any way the opportunities of study offered to men. This is the solution now likely to be made use of by the managers, and the medical education of women is likely to benefit rather than suffer by the recent temporary threatening. The greatest difficulty will probably be found in arranging separate dispensary instruction, for hitherto, even for Queen Margaret College students, there were no separate dispensary hours. But here, too, a solution will be found in the great resources of the infirmary and its very large out-patient department.

IRELAND.

THE SANITARY STATE OF CORK.

The Cork Medical and Surgical Association has done good service in addressing a letter to the Public Health Committee of that city containing suggestions as to the measures to be adopted in view of a possible invasion of cholera. But the most important point which they make is that the water supply is bad, being exposed to sewage contamination from Macroom, Blarney, and Ballincollig. A statement of this kind has not been made without due examination. It would be of the utmost gravity at any time, but at the present moment a more serious announcement could hardly be made. Water is the most common vehicle for the dissemination of cholera in a community, and if it is exposed to contamination from ordinary sewage the results are sure to be disastrous. The Cork sanitary authorities have now received an authoritative warning, and we hope that they will as speedily as may be safe set themselves to the removal of every danger which threatens the lives of the citizens.

A MEDICAL OFFICER REMOVED BY SEALED ORDER.

At the last meeting of the Nenagh guardians, a "sealed order" was read from the Local Government Board, dismissing Dr. Powell, medical officer of the Silvermines dispensary district. The guardians have unanimously requested the Board to withdraw the order, and permit him to resign, otherwise he will not be eligible for any Poor-law appointment in Ireland.

QUEEN'S COLLEGE, GALWAY: ANNUAL REPORT.

During the session 1891-92 there were 110 students on the books of the College, 38 of whom were engaged in the study of medicine. The President refers at considerable length to the advantages likely to accrue in consequence of the Galway County Infirmary being converted into a general hospital. The Bill to provide for its reconstruction received the Royal assent on June 27th, 1892. Under the provisions of this Act the Body Corporate of the County Galway Infirmary ceased to exist; the power of appointing the medical staff of the new hospital was vested by the Act in the Local Government Board, which has duly appointed the Professors of the Faculty of Medicine in the College to that position, a proceeding authorised and suggested by the Act, and who very generously have consented to act without fee or reward. As the President points out, it would be difficult to overestimate the importance of this Act in its bearing on the prospects of the Medical School, for the ample means of clinical instruction thus secured can hardly fail to raise the medical curriculum to the highest level of efficiency. It also places at the disposal of the public—especially of that class who, from the nature of their employments, are more liable than many others to accidents and disease—the services of five gentlemen eminent for their knowledge of medical and surgical work.

Trained Male Nurses.—The seventh annual Report of the Hamilton Association for Providing Trained Male Nurses, which was founded by Miss Jane Hamilton in 1885 shows a better financial position than was the case last year, and the Committee believe that there is now every prospect of the Association becoming permanently established on a satisfactory basis. To total amount received for wages up to the end of May 1892 was £2,541, and the number of cases attended since May 1891 was 265, being an increase of 62 as compared with the previous year. The reports from employers as to the conduct and efficacy of the houses were as follows: Very good, 83; good, 41; fair, 7; no report (indicating, it is presumed, that satisfaction was given in most cases), 130; unsatisfactory, 4. Fines have been inflicted in several cases, but in no instance has it been deemed necessary to discharge a nurse. The men employed have all received a proper course of training, either in civil or military hospitals or in asylums, and the cases nursed by them included not only cases of mental disease and alcoholic delirium, but a goodly proportion of ordinary medical and surgical cases such as gout, pneumonia, phthisis, and influenza. The number of men on the roll on June 30th was 31; the average of men employed daily during the year was 21. Agencies have now been established in various towns and districts for the supply of male nurses on the roll of the Association.

THE CHOLERA:

SPECIAL REPORT ON THE WATER SUPPLY OF HAMBURG.

(BY OUR OWN COMMISSIONERS.)

The Old and New Filter Beds.—The Waterside Population supplied direct from the Elbe.—A Considerable District supplied by a System Seventy Years Old.—The Water fresh from the Filter Beds infested with Germs.—Insufficiency of Sand Filtration.—The Polluted Tributaries of the Elbe.—The Canalisation of Hamburg.—The Polluted Surface Wells and Pumps.

THE existing water supply of Hamburg and the means of amending it in the future are just now subjects of international interest. They are fraught, too, with painful instructiveness to other cities; even London may learn some lessons. We have been at pains to investigate the history of the water supply from a series of official and other publications, and from investigations made by our representative specially commissioned on the spot.

HISTORY OF THE PRESENT SYSTEM.

According to the official volume, *Hamburg and its Buildings*, published by the Hamburg Architects' and Engineers' Association in 1891, the oldest system of water supply, which was established in the fourteenth, sixteenth, and seventeenth centuries, was replaced in 1822 and 1843 by new systems, where steam power was first used. They were only in force in part of the town, but are not entirely out of use in certain districts at the present time.

After the great fire in 1842, W. Lindley undertook the water supply of the entire town, after Mylne's system, then in force in London; by 1849 the new supply was in full working order. In July, 1890, the sand filtration system of the water, pumped from the Elbe, was established at the central depôt of the waterworks at the expense of seven million marks, and it now supplies districts including a population of nearly 800,000 souls. There are 64 fountains in Hamburg city, 39 being for drinking purposes; but, of course, the ornamental fountains and "market fountains," so familiar in Germany for public laundry work, play out water accessible to persons who may be more thirsty than prudent and more thrifty than foreseeing. There remains the supply to private and public houses and offices. The Altona Waterworks at Blankenese supply a population of 140,000; they were originally built, after Hawksley of London's plan, in 1857, and nearly half of the present buildings remain as he projected them, but improvements were made on a large scale in 1873 5 and 1884-8. Extensive sand-filtering beds were then constructed. It was on the recommendation of Herr Henry Gill, the director of the Berlin Waterworks, and Augustus Fölsch, that sand filtration was introduced at Hamburg.

THE NEW SYSTEM.

Herr Arnold Samuelson, engineer to the Hamburg works, has published a treatise on the establishment and working of the new system in his city. The later treatises, pamphlets, and articles on this filtration, published this year, are, as might be expected, less congratulatory than those issued at an earlier date. Herr Samuelson implies that the results are not satisfactory, whilst in a work on the lighting, drainage, and water supply of Hamburg, published in 1887, it is stated, at the conclusion of the paragraphs on the drainage and sand filtration, that the Elbe water purified by this system is remarkably good, especially pleasant and wholesome to drink, and at the same time well suited for ablution and laundry work, owing to the small quantity of calcium salts which it contains. The system is doubtless good, the filter beds have been excavated, and paved with care. But not only may the water be polluted between the filter beds and the public fountains and private cisterns, as evidently occurs; not only, as we have already stated from evidence gathered on the spot, do a large waterside population drink water direct from the Elbe, but there remains the fact noted at the beginning of these paragraphs, a fact which long descriptions of new designs of filter beds must not make us forget. A considerable district is yet supplied by a system seventy years old. Evidence is also not wanting that the water fresh from the filter beds is not free from germs, indeed it appears to be infested with them.

THE ELBE WATER AND SAND FILTRATION.

This turns our attention to another fact above noted—the supply of water is from the Elbe. It is quite possible to filter away solid bodies, and to precipitate noxious inorganic chemical salts, but organic germs cannot be removed by retaining millions of cubic feet of water, from one of the great muddy continental rivers, in extensive open filtering beds. A few pints of water are easily purified, perhaps without boiling, in the wards of a hospital, but none would willingly rely on sand filtration alone for purifying water from a river which has run for hundreds of miles through hundreds of towns and villages. At least, such filtration would never be trusted had an epidemic once broken out in the neighbourhood of a hospital. When it comes to the purity of the water supplying a great city, the insufficiency of sand filtration of river water is thus rendered self-evident.

Hence it is not surprising to learn, not only that the authorities of Hamburg cease to put their trust in sand filters, but we further find them talking of "the completion" of these filters. We have already noted this significant fact at length. The Bürgerschaft, or House of Citizens, has already requested the Senate to take immediate steps for boring artesian wells for supplying the town and suburbs with pure water until the town waterworks shall show itself able to supply drinkable sterilised filtered water. So much, then, for the avowed insufficiency of the filters; and a previous request specifically referred to "the completion" of the sand filters.

Amongst the rules issued for the public benefit by the Imperial Sanitary Board, we find clauses relating, not only to ditch water, river water, and water from the basins of town pumps and fountains, but also to "suspicious water" from any source. The citizen is warned not to drink any water that may in his own opinion be suspicious, and he is also reminded that small house filters are untrustworthy, not being perfect purifiers of water which may be impure when put into the filter (the Hamburg water being no doubt borne in mind when this caution was framed), besides being specially dangerous when not kept perfectly clean by frequent changing.

THE PAST OF THE WATER.

Judging from official and medical works on Hamburg, that city has suffered very severely in the fourteen epidemics of cholera which, beginning in 1831, have hitherto visited that city until the last appearance of the disease in 1873. In all these publications the water is blamed, but it is the Elbe water fresh from the river that is meant even when not specified. In all the visitations, the waterside poor were first attacked, and this truth, confirmed by statistics, is only what might have been expected. But an elaborate work on Hamburg, its natural history and medical aspect, lays all the blame on unfiltered Elbe water and those who drink it; and this work appeared in 1876, that is to say, three years after the last epidemic. The explanation therein given as to the way in which the disease spreads to the wealthy, and to parts of Hamburg far from the Elbe and Alster, is clearly a hypothesis on which the authorities have been lulled into a false security.

The present epidemic shows that something has been overlooked. The first to suffer, says the work above quoted, are the sailors and poor close to the Elbe, then, when a large number of them are dead or ill, the infection is carried from man to man into the other parts of the town. Thus direct contagion is made to account entirely for the spread of the disease. There is not a suggestion that the waters from the filters might be incompletely purified, although it is clear from close examination that in 1876, as now, the apparatus for filtration was not adequate, was not placed at the general disposal of the town, and, besides, did not promise such adequate filtration from organic impurity as its projectors professed it could give.

TRIBUTARY STREAMS AND LOCAL SUPPLIES.

Besides the "water supply" of the stricken city, in the

official sense of the term, we may consider the total supply of water procurable in any way, whether from nature direct or from local sources. Dr. Wibel wrote an exhaustive monograph on the River and Surface Water of Hamburg in 1876. The three rivers in the immediate vicinity of the city are the Elbe, Bille, and Alster. The analysis of water taken from the middle of the Elbe showed that Elbe water was not different in composition from that of any other river similar in its source, length, and course. The tourist who has visited the beautiful district near Dresden known as the Saxon Switzerland, is aware that the Elbe, as it flows by Schandau and Pirna, far from the great city near its mouth, is already a very dirty river; and even at Leitmeritz, in Bohemia, the narrow, rapid "Elbestrom" is as muddy as the Mississipi. Nobody would care to drink it there. At Hamburg it is, of course, much worse. The Bille is a small stream which flows from the woods where once our Saxon ancestors dwelt. Dr. Wibel shows that in the suburbs of Hamburg it is fairly pure. But near its entry into the Elbe, within the city, it is thoroughly polluted, and full of all sorts of organic substances. The Alster arises in Holstein, and enters the Elbe after dilating, on account of artificial impediments, into the famous "Outer and Inner Alster," which are amongst the "lions" of Hamburg, and give a characteristic appearance to the city. The analytical tables show that the Alster is not nearly so polluted as the other rivers; probably its two great ponds, used for boating and skating, are not so near low quarters and housewives with pails and dustbin produce as are the Elbe and Bille. Unfortunately there flows into the outer Alster a stream of notorious ill fame, the Eilbeck, which neutralises much of the advantage that the Alster may gain from the kind of protection above referred to. The Eilbeck flows through the town of Wandsbeck in Holstein, and before opening into the Alster, it spreads out as a pond known as the Kuhmühlenteich. The Eilbeck was tried and found guilty in 1874 of having caused an epidemic of typhoid in a district through which it flows.

Canalisation and Pollution.—Surface Wells and Pumps.—Possibility of Artesian Wells.

Hamburg once had the great advantage of a large number of running streams of pure drinkable water. Hence, no doubt, in past centuries, when the hygiene of the town was otherwise far worse than at present, the citizens escaped dangers to which their living descendants are now exposed. The extensive canalisation of Hamburg has entirely destroyed many of these streams. Only four remain, and three are thoroughly polluted, running through dirty slums; one of them receives the drainage of the main cemetery. The fourth, the "Englischer Brunner," is less noxious. This pollution of bright streams is a sad affair, and their restitution to their pristine purity a theme worthy of the consideration of sanitarians. Dr. Wibel notes that the ease with which water can be obtained from the waterworks supply has caused the good old fashion of drawing water from these streams outside the town to die out. Our surprise about the prevalence of cholera will be much allayed when we find that Dr. Wibel analysed the brook water from certain pumps close to the streams. Out of the pumps much evil must be drawn. The pumps, properly so-called, drawing surface water and not water from the rivers or streams, are next considered. Their water is condemned, and yet some of them are specially used for table purposes. A few surface-water ponds with drains exist in the neighbourhood of the city; of course, they are polluted. Lastly, Dr. Wibel describes his researches respecting the artesian wells, of which, it appears, there are ten at the disposal of the city. The water is fairly pure, but as it flows in different wells through different strata, it varies greatly in chemical composition; in some cases it is highly charged with soluble inorganic salts. It is not satisfactory to find that Dr. Wibel does not consider that it is an easy matter to discover fresh artesian wells. There is no known indication for calculating where they can be pierced so as to reach water at a safe depth without great cost and difficulty. Dr. Koch, however, is of opinion that if within a very short time wells are not bored, so as to make Hamburg independent of the present waterworks, the epidemic may increase until it rivals that which raged in 1848, and lasted for several years.

Summary.

Thus the sources of water supply are as little satisfactory as the manner in which the available Elbe water is officially distributed in Hamburg. The effects of canalisation seem as bad as the results of direct pollution, or rather they are worse, since they will greatly hinder any attempt to purify the streams.

It is distressing to see how the excellent endeavours of able specialists to ensure a pure water supply have been frustrated. If the conscript fathers of Hamburg have failed to protect the lives of the citizens of their free Hanseatic city it has not been for want of counsels of perfection. Messrs. Grahn, of Essen, and Meyer, of Hamburg, issued, in 1877, an exhaustive Report of an Official Inspection of the French and English Systems of Sand Filtration. They give full details of the Grand Junction, West Middlesex, and other great British companies' works. But are the city fathers of Hamburg alone subject to indictment? Are our own filters so pure that we may defy the cholera now and next summer? Have we not plenty of running streams spoilt by canals, and plenty of pumps drawing polluted surface water in our cities? Is the Thames itself not subject to dangerous pollution? Let the evidence which we publish elsewhere answer.

Artesian Wells and Sand Filters.

The mention of artesian wells in relation to Hamburg renders it necessary that all who take a real interest in the restitution of that city to a sanitary condition should remember precisely what an artesian well is, and how it is made. It is a spring of water rising above the surface of the ground by natural hydrostatic pressure, as the result of the boring of a small hole down through a series of strata to a water-carrying bed enclosed between two impervious layers. In the first place, the difficulty of boring a small hole through a great depth of strata varying in density is considerable, and the expense high. The boring is always more or less experimental; the precise position of subterranean water is not always to be determined. Sometimes the boring need be but about 300 feet, as in many English wells; at others, 3,000 or even 4,000 feet are exceeded. Then the boring may strike water lying between two impermeable strata; but there may be a flaw in one of the strata, or the lower may be damaged by boring too far. In both cases the water will not rise, as it escapes through the flaw or sinks below the lower impermeable stratum running through the boring into porous soil beneath. In boring a well at St. Louis, Missouri, in 1868, water was found at the depth of 3,147 feet, but it proved to be brine. Hence minute precautions must be taken, else all the engineer's labour may be in vain. Boring too many wells close together prevents the water from rising to the surface, so that pumps have to be used. To cry out for artesian wells at once is like demanding the instant building and equipment of ironclads when the foe is near the coast. The inhabitants of Hamburg must purify the water now supplied to them as best they may during the present epidemic. The boring of the wells is a necessary prophylactic duty which the authorities must deliberately, but not hurriedly, undertake. As for shallow wells, digging for them is out of the question, as they are never to be tolerated in a porous soil—as at Hamburg—on which houses are built. The best bricking in of the sides cannot protect them from impurities entering from above and below.

For understanding sand filter beds much knowledge of sanitary engineering is demanded. But in relation to their failure at Hamburg, it is interesting to know how they may fail. In the filter beds the bottom is paved, then layers of clean material are spread, decreasing in coarseness from small rubble to sharp sand, with a total average thickness of about 4 feet. The actual filtration is effected by the upper layer of sand, and the lower layers allow the passage of the water unaccompanied by the sand. The efficiency of the filtration depends upon the slowness of the passage of the water; sometimes defects may cause the water to flow too fast. The top layer of sand soon becomes choked with the matter removed from the water. Hence the filter must periodically be cleaned by scraping off the top surface of the sand. Thus it is easy to understand that a filter bed may be faulty and is easily mismanaged.

IN THE CHOLERA WARDS AT HAMBURG.

Osnabrück and its Laundresses.—Travellers and Disinfectants.—Red Cross Tents at Hamburg.—The Iron Barracks.—The Dress of Medical Officers and Nurses.—Patients' Clothes.—Nervous Symptoms and Sequelæ.—Pneumonia.—Pustular Dermatitis.—Bedsores.—Thirst.—"Potus Hydrochloricus."—Character of the Stools.—Illness among the Medical Staff.

MISS ANNESLEY KENEALY writes to us from the Eppendorfer Hospital, under date September 18th: After ignominiously succumbing at the outset to the foe I went forth to meet—being laid up at Osnabrück for several days with a choleraic seizure—I made a second start for Hamburg, and found myself at last in the wards of the Eppendorfer Hospital. During my enforced brief stay at Osnabrück, I gathered a few impressions of the surface sanitation of the town; and as these may be of interest at this time, when the conditions of all the outlying districts of the cholera centre are of interest, I record them.

The streets are fairly clean, and the drainage but too evident, but I stood amazed to see the washing of clothes take place in a murky, sluggish river, upon the surface of which float dead remains and various kinds of refuse. I saw people calmly filling pails and saucepans at the river side, using the water, doubtless, for drinking and cooling purposes. Yet Hamburg and the cholera are only some sixty miles distant. To atone for such negligences, the authorities propitiate the offended sanitary gods with huge offerings of chloride of lime, and so far Osnabrück has been singularly free from cholera. Large numbers of cows, and still larger numbers of pigs, are brought direct from Hamburg.

The railway carriage in which I travelled to Hamburg was permeated with disinfectants. A doctor travels in each train, and all passengers are subjected to a very searching scrutiny. In the next carriage was a lady who had, previous to starting, supplied herself with a large bottle of a milky fluid, which was obviously a disinfectant, and with this she from time to time saturated the seat and back of the corner she occupied, and also sprinkled her dress.

In a large piece of waste ground outside the gardens of this hospital one meets with the picturesque and unfamiliar sight of many tents, flying their Red Cross flags. These have been erected in case a sudden epidemic increase should overflow the wards. They are thirty-five in number, and are, we are told, exactly similar to those used in the Franco-Prussian war. Each holds sixteen patients, is teak-floored, contains a lavatory and bath room screened off, and is supplied with hot and cold water. The canvasses are thick, and so adjusted that there is good ventilation without draught. All are lighted by electricity, as are likewise the grounds in which they stand, giving the most charming effects by night. In these tents, which at present are empty, the beds are made, the sheets kept well aired, and a slate, a temperature chart, and two mugs stand at each bedside, awaiting a possible patient. Orderlies are in readiness night and day in case of need. In addition to this field of tents, there are eight iron buildings, which are called "the barracks," and in these at the present time all new male cases are being placed. Women and children are still being treated in the wards of the hospital proper, but as the epidemic is decreasing, these are being collected into that portion of the building used ordinarily for infectious cases. The male nurses (orderlies are in attendance only in the barracks and tents) wear brown holland suits, and all the doctors wear long holland coats, adorned with big brass buttons, looking from a distance like coachmen in light livery. Convalescent men and boys wear also holland suits and caps.

The clothes of all patients before being again worn are, after soaking in disinfectant solutions, placed on wire shelves inside an immense oven and baked at a temperature of 300° Celsius. Many of the garments are burnt outright. Quite a large proportion of the infected come in only partially dressed—women wearing a nightgown and skirt, children wrapped in a shawl—being brought right away the moment unmistakable symptoms declare themselves. The blankets in which incoming patients are wrapped are thrown on the grass in the hospital grounds and forthwith treated with carbolic or corrosive sublimate solutions.

We have seen no proper ambulance wagons, the patients arriving in ordinary one- or two-horse cabs, which are, one would suppose, chartered and kept solely for this purpose. Preparatory to leaving the wards, those patients who have not the means to provide themselves with a new outfit—and there are many—are taken to an inspector, who has charge of the clothing department. They come back sumptuously clad, the charitable ladies of the city keeping the hospital well supplied. One old lady of 86, who had made a good recovery from a severe attack of cholera, having been ten days ill with a subnormal temperature, was made supremely happy by a very complete and comfortable outfit.

It has been said that at least two-thirds of cholera patients die of fright, but the experiences on which this opinion were founded were gathered in India, where it is doubtless true. Though possible in the highly-nervous Hindu, it is not easy to believe of the phlegmatic German; yet some of these people have a stricken startled stare. The delirium or lethargic drowsiness, both of which are common, show that the disease makes some special attack upon the nervous system. It is stated that the brain and nervous centres are being now more affected than in the earlier days of the epidemic.

I have seen two cases of absolute dementia resulting from cholera, the patient being perfectly imbecile and apathetic, looking with vacant, meaningless eyes, the features pinched, the complexion dusky, the temperature persistently and considerably below the normal. In both cases—which ended fatally—there was the utmost difficulty in persuading the women to take food. Some of the patients shriek wildly and at the top of their voices day and night.

Pneumonia is a frequent complication and increases the resemblance to typhoid, which is so striking in the less acute cases. There is a convalescent girl in whom symptoms of rapid phthisis have made their appearance.

A great number of the patients suffer from a pustular eruption extending over the lower half of the back, sometimes reaching as high as the shoulders. The skin is much inflamed, and sprinkled more or less plentifully with large pustular, unwholesome-looking spots. I do not know if the rash be only incidental, but it is so general, and is in all cases alike, so that it would appear to be a true accompaniment of cholera. Bed-sores are very frequent, appearing in a few days and spreading rapidly. It may be supposed that with the unhealthy condition of the back, it is difficult to prevent these, and the use of the draw-sheet is not here carried to such a fine art as it is at home. At the height of the epidemic thousands of bottles of seltzer-water were consumed daily, the patients not being permitted to drink or even wash in water which had not previously been boiled, and there being a scarcity of this. Even now a big van comes, morning and night, to take away the empty mineral water bottles. With thirst as intense as it is from the beginning of the attack until convalescence is established, patients frequently spring out of bed and unless prevented drink any liquid they can seize upon. One hears a "thud," and on looking round sees a staggering creature making for the tables where the mugs stand, or a patter of small feet calls attention to some infant who has scrambled from its cot and is running feverishly to and fro in search of a draught.

The lips are dry and cracked, the mouth inside sore, parched, and often bleeding; the tongue is coated with a thick fur.

In the ward there is a large bottle labelled "Potus Hydrochloricus," a measure of which is mixed with the medicines, and of this "potus" convalescents are allowed to drink freely, and they make the most of their permission.

In some wards ice *ad libitum* is given, patients crying for it even when pulseless, cold, and collapsed. In other wards ice is not approved, as it is believed to check the perspiration. In these very hot drinks, such as coffee, soup, and mulled claret are given to encourage free action of the skin. Velvé, a kind of oatmeal gruel, is a favourite form of diet; some patients are confined strictly to this and claret. Milk is given only to children and infants, but even these prefer the accustomed sausage and coffee.

Cholera convalescents have enormous appetites, despite which, and the short duration of their illness, they look livid and haggard, and old, as if they had been ill for months. The recovery in a few days from an apparently moribund con-

dition to one of comparative comfort is remarkable, but it is by no means a recovery in the sense of a return to health; the patients look anæmic and wasted, and shattered for long after their attack.

As might have been anticipated from the misery and starvation caused by the stagnation of business, typhus fever is beginning to appear in the city. Cases have already been admitted to this hospital. Thirty thousand of the inhabitants are said to have fled since the epidemic first showed itself, and trade is so completely at a standstill that the shopkeepers greet a customer with surprise. Women and children are appreciably scarce, these forming the greater number of the fugitives.

The fifty doctors who came here from Bavaria, Berlin, Vienna, and other parts of Germany were up day and night for two weeks and a-half, working almost without cessation; not one, it is said, escaped a more or less severe choleraic attack. The epidemic is now quickly diminishing, and already certain wards are being disinfected and cleaned for the reception of general patients.

Cholera at Home and Abroad.

The precautions taken by the port medical officers of the United Kingdom are still strictly maintained. Cases of choleraic diarrhœa have been discovered on board of ships entering Hull, Cork, Grimsby, and other seaport towns; they have been promptly isolated, and the ships disinfected. Dr. Haughton, the sanitary medical officer for the port of Cork, visits all Transatlantic passengers from infected American ports calling at Queenstown to land passengers. In the event of any case of sickness having occurred on board during the passage, the liner will have to remain for a specified number of days in quarantine before any passenger can be landed or proceed to Liverpool.

France.

Paris.—Choleraic diarrhœa has not entirely disappeared in Paris. There are from 30 to 20 cases daily, and from 8 to 12 deaths. In the environs of Paris skirting the north side of the fortifications the epidemic, though greatly diminished, has not totally disappeared. One day last week the returns were 26 cases and 9 deaths, on another 13 cases and 5 deaths.

Havre.—At Havre the epidemic decreases daily, the last returns are 15 cases and 3 deaths. The permanent night medical service organised at the Hôtel de Ville is broken up, being considered no longer necessary.

Fécamp.—At Fécamp 2 more deaths have occurred.

At Brionne and Pont Audemer, in the Eure department, fresh cases have occurred.

Germany.

Hamburg.—Our Berlin Correspondent writes: The cholera epidemic in Hamburg is declining slowly. The hospitals are much less crowded than they were a fortnight ago, and the numbers of the sick and dead transported have declined. But the daily lists published are hopelessly inexact. Every day we read of "Nachmeldungen"—that is, after-notifications—and it is impossible to find out whether these belong to the day before or to a date still further back. The figures considered most reliable for last week are as follows:

Sept. 12th	.....	333 cases	.....	142 deaths.	
,, 13th	.....	344 ,,	.....	148 ,,	
,, 14th	.....	283 ,,	.....	108 ,,	
,, 15th	.....	306 ,,	.....	128 ,,	
,, 16th	.....	276 ,,	.....	136 ,,	
,, 17th	.....	286 ,,	.....	127 ,,	

The last sitting of the Bürgerschaft (House of Citizens) was rather stormy. The burgomaster, Dr. Mönckeberg, endeavoured to clear Hamburg from the reproaches of wilful neglect, concealment of cholera, etc., cast upon it from all sides; while Herr Woermann courageously exclaimed: "Our system of government is radically wrong. Hamburg is governed by *Laien* (non-professionals) and by subaltern officials. What we want are responsible superior officials." One million marks (£50,000) were voted for expenses connected with the cholera, and a committee of six elected for the execution of further measures. This committee has—at last!—decided to bore artesian wells, and if, as is thought, they will give enough water to supply Hamburg, the town water pipes will be closed until some means have been found to sterilise the water.

A rescript has been issued obliging each house owner immediately to disinfect the cistern of the house with milk of lime. Exact directions for carrying out the disinfection are given. Each house in Hamburg is fitted with a cistern, in which the water from the main passes before flowing into the house pipes; in popular language, these cisterns go by the name of "fish boxes" on account of the varied fauna found in them.

Dr. Ahlborn has published a series of papers on the water question in the Hamburg *Correspondent*. He touches upon the widespread notion that the soil of Hamburg is eminently favourable to cholera, and answers it by pointing to Altona, which stands on the same soil and has the same climate as Hamburg, but which has sand-filtered water; in Altona the epidemic has not taken root, though the daily traffic to and from Hamburg is considerable.

Herr von Richthofen has been appointed by the German Government "Imperial delegate for public health" in the Elbe District. He has divided the distance between Berlin and Cuxhaven (including the Havel, which flows into the Elbe, and the system of canals which have connection with it) into eight subdistricts, with a superior medical officer for each; each ship or barge, as it passes the examination station, undergoes a thorough inspection. No ship whatever is allowed to pass along the waterway in the district of these eight stations between the hours of 8 P.M. and 7 A.M.

Three cases of cholera were announced in Berlin on Sunday, September 18th; all three were persons newly arrived from Hamburg. The houses in which they had slept the night before the seizure have been thoroughly disinfected, and everything done to prevent a possible spread.

Belgium.

Brussels.—Two fatal cases in the Molenbeek Hospital are reported, and three in the suburbs.

Antwerp.—Two more fatal cases of Asiatic cholera were reported here on September 9th, and one on September 20th. A return which has been published of the attacks and deaths from August 15th to September 15th shows cases, 144; deaths, 44; recovered, 75; under treatment, 25.

Holland.

At *Rotterdam* five fresh cases of Asiatic cholera and four deaths were reported on September 19th.

Cases have occurred also at Dordrecht, Bergambacht, and Bleskengraaf.

Austria-Hungary.

Asiatic cholera has broken out at Podgorze, a suburb of Cracow. A woman died within a few hours of the attack on September 9th, and a child on the following day; three more cases have occurred in the same block of houses. The Emperor of Austria sent Professor Weichselbaum from Vienna to investigate the true nature of the outbreak, and the Professor's bacteriological examination leaves no doubt that it is one of Asiatic cholera. Four deaths have been officially announced, but private telegrams state that there have already been ten fatal cases in the town, and on September 19th there were seven patients suffering from Asiatic cholera in the Lazarus Hospital at Cracow. Since 1866 there has been no cholera in Galicia, the previous cholera epidemics having occurred in 1849 and in 1856. Down to September 21st 32 cases and 11 deaths were reported from different parts of Galicia.

The Hungarian system of keeping off the cholera is to destroy by fire everything that might possibly carry the infection. In pursuance of this system, carded wool from England, clothing from Dresden, ropes from Wurtemburg, and even several cases of bulbs and flowers from Germany, have been burnt. All hides, bedding, old clothes, and rags from Germany, Russia, France, Belgium, and other infected countries are likewise burnt.

New York.

Deaths from Asiatic cholera have occurred in New York. Bacteriological examination of the intestinal fluids taken from the bodies left no doubt in the matter. The deaths occurred on the following dates: one on September 6th, 10th, two on the 11th, and one on the 13th. Four of the deceased were adults. A sixth death occurred on September 14th, since when no deaths or cases have been reported. Dr. Walser, the deputy health officer of New York, reports that

fifty-two cases of cholera have occurred on board the *Bohemia* since that vessel left Hamburg. Eleven patients have died, four have been transferred to Swinburne Island, and thirty-seven remain on board the vessel. The sufferers have been isolated from the rest of the passengers, and are likely to recover.

THE BLACK SEA AND THE MEDITERRANEAN.

A telegram from Algiers, received in Paris on September 18th, states that an English ship coming from the Black Sea with a cargo of grain has anchored in the roads at Algiers with cholera on board. It was further stated that the ship had been refused permission to obtain supplies at Malta. The statement in this telegram, though it appears to have attracted but little attention, is, if well-founded, of the very gravest significance, and ought at once to engage the attention of the International Sanitary Board. Asiatic cholera, as is now well known, spread eastward from Baku on the Caspian Sea along the Trans-Caucasian Railway as far as Tiflis, but there is no authentic evidence as to any extension beyond that city. Tiflis is, however, in direct daily communication with Batoum and Poti. It is possible, therefore, that these ports may be infected, although the fact has not yet been made public. On the other hand, the fact that the vessel is said to contain a cargo of grain renders it more probable that it has come from a northern port, such as Taganrog, in which case the infection would have been derived indirectly from the north-western extension of the epidemic. However this may be, the important fact—if fact it be—is that an infected ship has found its way to Mediterranean ports. It may be the forerunner of other vessels similarly infected, in which case we shall have to face the possibility of a Mediterranean epidemic next year.

DANGER FROM RUSSIAN EMIGRANTS.

Our LIVERPOOL CORRESPONDENT writes: Attention was lately drawn in the BRITISH MEDICAL JOURNAL to the fact that four imported cases of cholera had occurred among Russian emigrants sojourning in Liverpool on their way to America. A large number of emigrants continue to arrive by rail, but no further cases of the disease have appeared. It is, however, alleged that the emigrant traffic is carried on under conditions which threaten a fresh importation of disease, and which, in the event of its arrival, would be likely to lead to its wide dissemination in the town. It is alleged that emigrants on their arrival by train are frequently kept waiting for hours on the station platforms with their baggage, and on the same platforms are to be found large quantities of milk in cans for the Liverpool dairies and boxes containing fruit, fish, and game for the markets. Some of the emigrants—especially those from Russia—are in a most uncleanly and insanitary condition, and their baggage is often of more than doubtful cleanliness and has to be fumigated before it is taken on board the steamers. The filthy and insanitary habits of the Russian peasantry are pretty generally known, and their condition is made worse by the restraint and confinement of a long railway journey. It is pointed out that the contact of these people and their luggage with the milk and other food stuffs on the same platform is attended with great risk of the germs of disease being conveyed to the latter, and it is incumbent on the railway companies to take steps to prevent such an occurrence. It appears that the health authorities have already made representations on the matter to the companies concerned, and for some days the platforms have been kept free from the emigrants and their baggage. It seems, however, that the former condition of things has been reverted to. It is much to be desired that so long as persons in the uncleanly condition complained of are allowed to arrive in the country, the health authorities should see that they are not allowed to congregate where they can form a danger to the public or to come into contact with food that is about to be exposed for sale.

THE METROPOLITAN ASYLUMS BOARD.

REPORTS relating to the progress of the fever epidemic and to the preparations made to meet any outbreak of cholera in this country were presented at a meeting of the Metropolitan Asylums Board held on September 17th. Sir E. Galsworthy, who presided, said the Board declined to take the responsibility for the present state of things as regarded fever patients and the insufficient accommodation provided. The report of the Cholera Committee of the Metropolitan Asylums Board stated that, with the approval of the London County Council, the services of Mr. Shirley Murphy, medical officer of health to the Council, were accepted, and that wheeled litters and stretchers were placed in readiness, permission having been given by the metropolitan and City police authorities to the litters being wheeled upon the footways. Letters were addressed to the Corps of Commissionaires, the National Association for the Employment of Reserve Soldiers, and other societies, to provide men to man the litters, and satisfactory replies were received. Within a week a list of places where 500 beds were then actually ready was published, and now there were 1,600 ready. A map of London had been spotted to show where cases could be received, and in answer to an inquiry from the Local Government Board, the Board had undertaken the transport of the whole of the cases in the metropolis. Sir Vincent Kennett Barrington, in presenting the report, said he thought it reflected the highest credit upon the Local Government Board and upon the sanitary authorities of London and the nine ports at which cases of cholera had occurred, that in no single instance had the disease extended from those cases. The second year of the cholera was usually the worst, and he hoped that the Committee would be able to go on with their inquiries, and to have everything ready in case the disease was found in England.

Mr. Stanhope, the correspondent of the *New York Herald*, who is in possession of a certificate signed by M. Pasteur to the effect that the cholera vaccine has been introduced into his system by injection, is reported to have been admitted into the Eppendorfer Hospital. It is his wish to attend the sick, take his meals with them, drink Elbe water, and utterly disregard any precaution for the purpose of testing the alleged immunity from infection conferred upon him after undergoing vaccination under M. Haffkine, of the Pasteur Institute.

A private telegram from Halle, recently published in the *Berliner Tagblatt*, stated that several physicians (who, in response to the appeal made by the Hamburg authorities for extra medical assistance, undertook service in that city without having stipulated definite terms), were offered 3s. 6d. as their daily remuneration, whereas labourers engaged for the transport of the sick are being paid at the rate of 15s. per day! On refusing such a preposterous offer the doctors in question, the writer says, were abruptly dismissed without a word of thanks.

PRECAUTIONS IN IRELAND.

So far no case of cholera has been reported in Ireland, but precautions are still being carried out with zeal. Last week the steamer *City of Rotterdam* from Hamburg arrived in the port of Dublin, and was immediately boarded by the sanitary inspector, Dr. Joseph Burne. There was one case of diarrhœa on board, and the ship was ordered into quarantine and the patient removed to the floating hospital. Fortunately the disease turned out to be of the ordinary type, and the man recovered. The ship was, however, fumigated before being allowed to come to the quays, where she discharged her cargo. She has since left for Hamburg.

CONCEALMENT OF CHOLERA.

Privy Councillor GUTTMAN severely criticises, in the *Deutsche medicinische Wochenschrift*, the system of concealment of cholera, which he declares is practised in France. "Attempts," he says, "are now being made in that country to pretend that the epidemic was introduced into France from Hamburg, although it is notorious that it has existed in Paris since April. This policy is pursued at Havre, where, in spite of the fact that the cholera existed weeks before the outbreak at Hamburg, the authorities allege that it was introduced from Germany. The reports of the French authorities giving fancy names to the disease are merely quibbling and playing with public patience."

THE TREATMENT OF CHOLERA.

Dr. C. R. ILLINGWORTH (Accrington) writes: The remarks of "L.R.C.P. and S.E.," in the BRITISH MEDICAL JOURNAL of September 17th, are so peculiarly lacking in consistency that I venture to enter a most emphatic protest against their acceptance, because of the large experience the writer has undoubtedly had. To encourage the return of the vomiting and purging appears to be advocating a policy of "kill him if he seems to be mending;" whilst heroic doses of calomel cannot possibly have a beneficial effect on the ever-threatening and dangerous collapse of cholera. I have never seen a case of Asiatic cholera, but I have cured scores of cases of the vomiting, purging, cramps, collapse, and *vox cholerica* of the English form of the disease; and taking my stand on what I claim to be a fact, that medicine is as exact as any other science, there are drugs of very great use in the symptoms just mentioned. Those drugs are ammonia, belladonna, and chloral. Cholera being a disease due to abnormal fermentative changes in the intestinal tract, radical measures for the correction of those processes should be always adopted. I give the biniodide of mercury in one-sixteenth grain doses with 2 grains of sugar, three times a day; and I have always found it to answer admirably. Carbolic

acid in 2 minim doses is an excellent medicine for vomiting, in virtue, I think, of its anæsthetic and sedative action upon the filaments of the vagus in the stomach. I have advocated its use also as an injection *per anum* (1 in 180), to correct the fermentative changes in the lower bowel. The superiority of chloral and belladonna over opium I pointed out in the British Medical Journal, on and before December 13th, 1884, and I am supported now in my condemnation of opium by Dr. Pavlovsky, of Kieff, I notice. I am confident that if "L.R.C.P. and S.E." will try a combination of ammonia, belladonna, chloral, and carbolic acid in effervescing mixture, with the biniodide in powder as an anti-fermentative, he will have more excellent results than he would seem hitherto to have experienced.

H. L. D. writes: Supposing that the cause of death in some cases of cholera is the inability of the thick dehydrated blood to flow through the pulmonary capillaries, would not the inhalation of aqueous vapour be a sound remedy? H. L. D. suggested this remedy some years ago in India, but believes it was never tried. A Lister's spray producer would supply the steam.

Cholera and Cremation.

When the cholera epidemic first threatened our shore, says the *Leeds Mercury*, the advocates of cremation thought it was an excellent opportunity to impress the public mind with their theory. Sir Spencer Wells and Sir Henry Thompson wrote to the newspapers recommending the adoption of cremation in the interests of the public health. It seemed as if an agitation would spring up; but comparatively little has been heard of cremation during the last week or two. No doubt this is partly due to the fact that the cholera has obtained no footing in this country. Its operations have not been permitted to extend beyond the persons who have come from an infected foreign port. And yet it would be rash to assume, in view of the indifference shown in regard to cremation, that the theory has made no progress in England. There is evidence to prove that it has. But perhaps the most striking demonstration of this progress is found in a communication from the Rev. Teignmouth Shore, a clergyman of well known reputation and influence. He affirms that the real difficulties in the way of cremation are superstition and prejudice, and goes on to say: "These are strong forces, and can be overcome only by gradual enlightenment and by continual ventilation of the subject. We hope to teach people that the question is a purely physical one. The proposition is, How best to resolve the dead body into its original elements. Shall this be done by a protracted process, which is hideous and ghastly beyond description, and which involves serious danger to the health of the population? or shall it be accomplished by a method which is rapid and pure, and which prevents the possibility of dangerous results to the community? Briefly, shall it be 'ashes to ashes' by the action of fire, the symbol of cleansing and purifying power, or shall it be 'earth to earth' by the revolting process of decay and corruption in the soil?" Some of the most formidable objections to cremation have hitherto proceeded from religious quarters, but the appeal of so eminent a churchman will, of course, carry weight, and be pondered with interest by Christian people.

A Recalcitrant Vestry.

The Sanitary Committee of the Fulham vestry have adopted the following report for submission to the vestry: "That Her Majesty's Government be informed that, whilst the vestry are willing and anxious to prevent the spread of cholera and provide for its proper treatment should necessity arise, they must strongly urge upon Her Majesty's Government the importance of stopping the immigration of pauper aliens from infected places, with a view to preventing the importation of disease, that, in the opinion of this Committee, it is not necessary for any action to be taken at present with reference to the cholera epidemic which is prevailing on the Continent, and that it be an instruction to the medical officer of health (Dr. Edwin Cooney) not to send any communication to the Local Government Board without first submitting it to the Committee; that, having received a letter from the Local Government Board stating that their attention has been drawn to the question of the adequacy of the number of the sanitary inspectors of the parish of Fulham, and trusting that the vestry would give their prompt consideration to the matter, the Committee have instructed the Clerk to inform them that the vestry had been, and were, giving the matter attention."

THE VIBRIO OF CHOLERA.

In view of the probability that medical men may desire to have an opportunity of closely examining and identifying the cholera vibrio in patients whom they may have to treat, we here reproduce the excellent drawings from Baumgarten's *Lehrbuch der pathologischen Mykologie* (Braunschweig: Harold Bruhn, 1890), in which are shown the preparations of the cholera bacillus, well drawn, and described in Figs. 4 and 5. We give, also, the illustrations from the same source of cultivations in gelatine of Koch's cholera vibrio, of Deneke's cheese spirillum, and of Finckler-Prior's spirillum, which have sometimes been confounded with the true cholera vibrio, but which are especially distinguishable from it by their mode of growth under culture:

It must be remembered that the cholera vibrio is extremely variable in appearance. Specimens from a very fresh and vigorous culture may be so short and thick, that only a slightly greater curvature of one side of the vibrio is to be noted as a sign of their characteristic curvature. Specimens made from the same culture a few days later, when the rate of division is less rapid, will show the curved form of the microbe in a clear and striking degree. Their curvature is also liable to be masked if the films on the cover glasses are dried too quickly. It is advisable to always allow the film to dry completely at the temperature of the air, and only then to pass it through the flame.



Fig. 1.

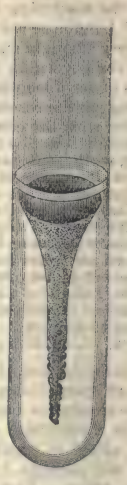


Fig 2.



Fig. 3.

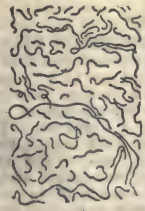


Fig. 4.

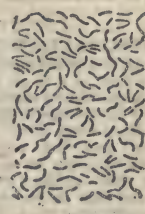


Fig. 5.

Fig. 1.—Gelatine culture of the Finkler-Prior vibrio, grown at the temperature of the room, four days after inoculation. A large quantity of the gelatine is liquefied, and uniformly turbid.

Fig. 2.—Gelatine culture of the vibrio isolated by Deneke from cheese, grown at the temperature of the room, four days after inoculation. A smaller quantity of the nutrient medium is liquefied than is the case with the Finkler-Prior vibrio when grown under similar conditions.

Fig. 3.—Gelatine culture of the vibrio of Asiatic cholera, grown at the temperature of the room, four days after inoculation. In the small quantity of gelatine that has been liquefied along the track of the inoculating needle is to be seen a quantity of whitish granular matter. Owing to evaporation at the surface of the liquefied gelatine, a bubble of air has been drawn below the surface. The formation of such an air bubble occasionally takes place in cultures of the Finkler-Prior vibrio and other microbes.

Fig. 4.—Dried and stained preparation of the vibrio of Asiatic cholera, (× 950), from an eight-day old gelatine culture.

Fig. 5.—Dried and stained preparation of the vibrio of Asiatic cholera, (× 950), from a fresh bouillon culture grown at 37° C.

THE SMALL-POX AT BRIGHOUSE.

The outbreak of small-pox in the Brighouse district, which has prevailed for some months, is, it is stated, in course of being effectually stamped out, but at great outlay. For three weeks no cases have been discovered in the district of the Brighouse Local Board and the Clifton sanitary authority. A few cases have come to light in the Rastrick Local Board district, and in each instance the patients have been removed to the new small-pox hospital at Thornhills, Clifton, and the houses in which the disease has broken out have been throughly disinfected and placed in a state of quarantine. There are now about thirteen patients in the hospital, those most recently admitted being two from the Rastrick district who were removed from their homes. A death has occurred at the hospital, making about the sixteenth since the commencement of the outbreak.

CORRESPONDENCE.

PROPOSED ASSOCIATION OF LICENTIATES OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

SIR,—The wording of the resolution recently passed by the College of Physicians of London *re* the transfer of patients by Fellows and Members very strongly emphasised the complete indifference with which the governing body regard the social and pecuniary interests of its Licentiates. I hope that your powerful remarks in bringing the resolution before the notice of the profession, together with the correspondence which has appeared in your columns, will not be the end of the subject; but that the Licentiates, while still smarting under this most recent injustice, will now determine to form an association to watch over our special interests. The consideration that the burden of official duties, combined with private practice, must necessarily deprive most of the senior Licentiates of any time they might otherwise have been dispose to give to such labours, has induced me (after communication with Dr. Gibson Bott) to offer to act as honorary secretary to such an association. Meanwhile, I shall be pleased to hear from any who may be willing to associate with us, and have not already intimated that intention to Dr. Bott.—I am, etc.,

35, Elm Road, Clapham, S.W. JAS. BUSFIELD, M.R.C.S., F.I.C.

*** The experience hitherto has, it is stated, been in this matter that while many sympathise, and are willing that others should pick the chestnuts out of the fire, few help. Those who feel that the Licentiates should have some organisation and some voice in matters concerning their interests and dignity will perhaps, however, think it well to communicate with Dr. Gibson Bott, 61, Kennington Park Road, S.E., or Mr. Busfield.

THE NOTIFICATION OF INFECTIOUS DISEASE.

SIR,—There is a point concerning this subject that I should like to ventilate, as it is an important one to a large section of medical men. Some months ago a medical gentleman, in the parish of St. George's, Hanover Square, asked me to see a case of diphtheria with him, and I did so. The child was choking, and the only thing that could be of any avail was tracheotomy or intubation, and I left the house after giving that opinion, and I believe that a surgeon was applied to and that an operation of some kind was performed. Some few weeks afterwards I was much surprised to receive a curt official note from the office of the medical officer of health for the said parish, inquiring why I had not notified the case to him as I was bound to do. I replied that I never did notify, that I always left that duty to the medical man in charge.

The answer I received to this was that the Act requires every one who is called in to a case of infectious disease scheduled under the Act to notify, and I was referred to the wording of the Act, which reads that "everyone attending or called in to visit shall," etc. I was further politely informed that as I had sinned in ignorance no action would be taken on this occasion. In other words I must not be a bad boy again or I should receive a whipping.

Now there is no doubt that the strict letter of the Act is in accord with the contention of the medical officer of health of St. George's, Hanover Square, but it is obvious to me that this strict interpretation of it was not intended by its framers, for see what it leads to. In the case I have given three of us saw the case, and we all were in duty bound to notify. In another instance the gentleman who first saw the case notified it as scarlatina; I came next, and thought it was enteric fever; a friend who saw the gentleman in my absence did not know what it was, and after a few days it turned out to be influenza. Take one other case: I saw in consultation a bad case of scarlatinal nephritis in the fourth or fifth week after the fever. The boy was peeling freely. He was infective enough certainly. According to the medical officer of St. George's, Hanover Square, I ought to have notified. If so there would be no end to the work of the medical officers of health. Their energies would be eaten up in finding out who was who and what was what. But, Sir, I would interpret the letter of the law thus: Everyone "attending, or called in to visit" is a legal periphrasis deliberately intended by the draughtsman to cover his man, namely, the doctor first called in to see the patient. And very wise is this wording in my opinion, for there are many cases where there is no attendance; the doctor is merely called in to say what a disease is, and he never sees the case again. The only instance in which I have myself notified was a case of this sort: I was asked to see a case of scarlatina, to say what it was; there was no one in attendance, but I was covered by the Act, being called in to visit, so I notified.

I venture to urge, Sir, most strongly that this is the reasonable and right interpretation of the Act as regards the duty of those called in as consultants, and indeed I have reason to know that a large number of medical officers of health do so construe the meaning of the Act. But as there is at any rate one, and he unfortunately no mean authority, who thinks otherwise, the matter requires consideration.—I am, etc.,

Weymouth Street, W. JAMES F. GOODHART.

SIR,—It must be considered a fortunate coincidence that two letters should have appeared in the BRITISH MEDICAL JOURNAL of September 17th, one from Dr. Louis C. Parkes, and the other from Dr. M. Greenwood, criticising the opinion that I expressed in your columns to the effect that I believed the medical officer of health should be held the responsible person in the event of the removal of a patient under the Notification of Infectious Diseases Act. Both gentlemen have disagreed with the views that I expressed; and inasmuch as the former holds the position of a medical officer of health, and the latter is, I presume, a general practitioner, an examination into the causes for their dissent is important. Before, however, I defend the position that I took up, let me assure Dr. Greenwood that it was no part of my intention to cast aspersions upon, or to disparage in the smallest degree, the capabilities of the general practitioner. On the other hand, however, I entertain the very highest opinion regarding the professional attainments of medical officers of health as a body, and I have the privilege of knowing several of their number, whose abilities are most pronounced. But to return to our subject.

In order to estimate the amount of responsibility thrown upon the general practitioner under the Notification Act, let us see to what he is required to certify. For this purpose, I introduce a quotation from the certificate he is required to fill up: "I hereby certify that, in my opinion, the person hereinafter named is suffering from an infectious disease to which Section 55 of the Public Health (London) Act applies."

In this certificate not a word is stated about the fitness or otherwise of a patient for removal. If the practitioner "has marked on the certificate or otherwise notified to the sanitary authority that the case is not a suitable one to remove to hospital" (Dr. Parkes), it seems to me that he is asked to do duty as a public health official, as this is just one of the things the medical officer of health should decide for his sanitary authority. According to Dr. Parkes, the medical officer of health has to decide as to whether in the public interest to prevent the spread of disease the patient can be allowed to remain at home, or whether, the isolation at home being insufficient, the case must be removed to hospital. On this point I should say that except a medical officer visit the spot he will not have the means of forming anything more than a very general conclusion. For instance, one member of a large family of children, whose parents are well-to-do, falls ill with scarlet fever. Although the family occupy the whole house owing to their numbers they may not have the means for isolation. The parents are unwilling to accept the recommendation of their medical attendant that the child should be sent to a hospital. Should this patient be allowed to remain or should he not, in the interests of public health, be removed?

Both your correspondents believe that it is no part of the duty of a medical officer of health to visit fever patients to decide as to their removal from home to hospital. If my memory serves me aright, I believe a case occurred in the metropolis a short while back where the medical officer of health visited a case on his own authority which was con-

sidered both by the medical attendant and by an expert to be non-infectious. Dissenting from this view the removal of the patient was ordered, a course of action which was subsequently held to have been within the rights of the medical officer of health.

May I also take the liberty of directing the attention of your correspondents to Section 7 of the Duties of the Medical Officer of Health as laid down by the Local Government Board? "On receiving information of the outbreak of any contagious, infectious, or epidemic disease of a dangerous character within the district, he shall visit the spot without delay and inquire into the causes and circumstances of such outbreak, and in case he is not satisfied that all due precautions are being taken, he shall advise the persons competent to act as to the means which may appear to him to be required to prevent the extention of the disease, and, so far as he may be lawfully authorised, assist in the execution of the same."

These regulations came into force in 1880, before the days of notification. Now that medical practitioners are compelled to send information of such outbreaks to medical officers of health, has time diminished or increased the obligations weighing upon those whose duty is the preservation of the public health? We have still to learn what amount of good the public are reaping from paying for compulsory notification. It is for the medical officers of health to demonstrate that the working of the Act is conferring such a substantial benefit as may justly be expected.—I am, etc.,

South Hampstead, N.W. J. H. E. Brock.

SCHOOLBOYS AND THEIR FOOD.

Sir,—The question of the feeding of boys at school has again come to the front, and justly so, and it will, I trust, arise again and again until the grievances are remedied. As girls are inferior beings their bringing up at school has scarcely yet been deemed worthy of consideration, so I, like the public, will for the moment ignore them. My advice to boys and to parents is cry aloud, and over and over again; perhaps those who should remedy the evils are sleeping, or peradventure they are hunting, or fishing, or mountaineering; at all events they do not heed the cry. The grievances in a boarding-house or a school are frequently known to everyone except the master, who should know them, and it is my opinion that they can never be really redressed until every master courts complaints from his present pupils, and, above all, from his old pupils, instead of snubbing any boy who complains, and making it so hot for him that, literally, boys dare not on this subject state their grievances to him. Before any remedy can be found masters must recognise the fact that it is the boys alone who know where the shoe pinches. They should be invited, whenever anything is wrong with the food, to bring a specimen of it to him immediately after the meal is finished, and ask him then and there whether the food is as it should be. This would be a far better process than complaining to the parents in the holidays, and writing justly indignant anonymous letters to the newspapers when the evidence is beyond the range of proof, and every master denies the facts, and the conscientious master suffers in reputation with him who has no conscience in the matter whatever. It is often, I admit, the boys alone who know and suffer when the milk is sour, the meat tainted, and the bread sour. But my point is that the master commits a grave dereliction of duty when he does not know it. When such is the case a cruel wrong is perpetrated, and the boy's constitution carries the wrong that has been done him to his dying day.

But it must be added that the grievances are not all real, some are imaginary. For instance, there is nothing so capricious under the sun as the stomach of a boy who is too plentifully supplied with pocket money with which he purchases the delicacies of the pastrycook, so that plain, wholesome food cannot be eaten. In such a case it is the parent who is to blame rather than the master, though we cannot exonerate him from all blame, for such matters should be under the control of the school authorities.

Those who know most of the inner working of our public schools are cognisant of the fact that there is no public school in England to which these strictures are not applicable; but it is important to bear in mind that our large public schools are composed of many boarding-houses, to some of which they do not apply, for in some of these boarding-houses the feeding, and, in fact, all their arrangements, manifest the greatest conscientiousness and thoughtfulness in every detail on the part of the master, and prove of lifelong value to those boys who have the good fortune to pass their years of growth and development under his care.

But if some—even though it be a small proportion—boarding-houses are thus conducted, it will be asked, Why not all? There it is that individuality comes in, for masters are not simply automatic machines. Were this the case, boys might obtain what they are entitled to if their parents "put their penny in the slot." But as it is they have to reckon with human nature, and all her idiosyncrasies and frailties. Therefore all that parents can do, and this they sometimes seriously neglect to do, is to make minute inquiries, and not take it for granted that all human beings are cast in the same mould, for this error in judgment may mean life-long injury to their children.

Dr. Clement Dukes has, in his work on *School Diet* (a work which should be in the hands of every parent and master), pointed out with minuteness where the wrongs lie, and their remedies. They are too many and various for me to do more than point out a few of the main faults.

1. Where a deficiency of food exists, all that can be said is that this is one that is wanting in common honesty; it is no myth, and it is one not only of sausages, and such like titbits, but even vegetables will not go round, and the earliest applicants, usually the big boys, have their fill at the expense of the smaller boys, who are the great sufferers at all schools, and do not receive the supervision that is their due.

2. Where the food is coarse and the cooking bad, it arises mainly from a failure of duty, for we often hear it asserted that "anything is good enough for boys;" and yet those masters are handsomely paid to provide the best of food. But partly, I trust, from ignorance of the injury that is conveyed to those who should have been shielded from its incidence.

3. Where the variety is insufficient it arises from the incompetence of the caterer, and a few lessons in housekeeping would remove this fault, for this is a serious one and should not exist. For the monotony of diet does not only occur in the meat foods, but also to a still greater extent in school puddings.

Now the testimony of boys, parents, and doctors is incontrovertible on this subject, although masters only too frequently deny or ignore it. Therefore the case must be taken as proved. At no period of life is the feeding of the young of greater importance than at the school age; for during this period of life they work hard, play hard, and their main growth has to take place. Moreover, they have not yet learnt from experience the necessity for careful mastication, but bolt their food, often from necessity, without any thought of the consequences, and this, with the very imperfect cooking, lays the seeds of life-long indigestion. Where, in addition, the food supply is scanty, imperfect growth and development only can take place, with detriment to the individual and the race.—I am, etc.,

Scholasticus.

WHAT IS AN ASEPTIC WOUND?

Sir,—Owing to the holidays I have only just had the pleasure of reading Mr. Maylard's letter in the British Medical Journal of August 6th, 1892. I gather from his remarks that he hardly appreciates that the report from which he quotes is a continuation of one published in the British Medical Journal on October 25th, 1890. I venture to think that had he seen the first report he would have found answers to some of his questions.

With regard to my use of the word "aseptic," a glance at the writings of British or foreign surgeons will show that it is used every day in the sense in which I have employed it. I have merely given it a strict definition. I cannot help thinking that the difficulty which Mr. Maylard, and I believe others, have in accepting the definition is due to misapprehension. In my preliminary report I wrote: "It is proposed .....to confine the use of the word aseptic to wounds which contained no microbes, and to apply the word septic to those which did." The word "antiseptic" is also used, but I did not think it necessary to define such a well-known term. However, to avoid ambiguity, it is printed in italics and always

in such connection as to imply that it does not connote the absence of microbes, as for instance, in the paragraph which Mr. Maylard quotes, and which refers to a wound especially referred to under the heading Septic. I assumed that it would be understood that an antiseptic wound was one in which an attempt had been made to afford protection against septic inoculation.

It also seems to me that there is confusion upon another point. After I had defined an aseptic wound as being one which contained no microbes, I went on to say that I should call those which did "septic." Here we have two separate and distinct propositions, and the correctness or incorrectness of the second has no bearing whatever upon the truth of the first. Clearly, if it is correct to call sterile wounds aseptic, it is quite another question what we shall call those which are infected. I merely thought it expedient, considering the great uncertainty as to the properties of so many of the microbes which infest wounds to class them under a term which includes by far the greater number. I assumed that microbes which had already been classified would be kept in the class to which they are acknowledged to belong, for example, the tubercle bacillus.

I also infer that objection is taken to my definition of an aseptic wound because the means which are taken to prove its sterility may be fallacious. This, I submit, is a mere confusion of ideas. Obviously the scientific accuracy of the test can have nothing to do with the correctness of the definition. In the preliminary report I merely claimed that culture media were a delicate and reliable test, and added: "Nevertheless I have reason to think that there are microbes or phases in the life of microbes for which ordinary nutrient media are not well adapted." When this was written I had in my mind such objections as that which is raised by Mr. Maylard when he refers to tubercle bacilli. I was quite aware that in the definitions of both aseptic and septic wounds I used the word microbes as a universal term. I did this for two reasons: first, I am not aware that anyone knows all the properties of all the microbes which infest wounds. Many are septic in the sense that they produce fœtor, others in the sense that they produce pus; all, I believe, in the sense of being harmful. Now I venture to think that until our knowledge is more accurate it would be better not to attempt to particularise, even in our definitions. Second, I hoped that those who accepted the definition of an aseptic wound would endeavour to carry it to its logical conclusion, act upon it, and aim at sterile and safe wounds. Obviously the means which prevent the ingress of the commoner and, as some think, non-pathogenic kinds are exactly those which keep out the rarer pathogenic varieties; thus the absence of one is an indication of the absence of the other. I have never seen or read of a sterile wound which developed tubercle or anything else.

In the preliminary report I dealt with the question why clinical evidence cannot for scientific purposes be accepted as evidence of the asepticity of wounds, and therefore I need not do so again.

In conclusion, I would merely add that the testing of wounds by culture media is a very simple and easy process, and all who have tried it seem to agree that it is a very stringent test, and most conducive to a high standard of perfection in wound treatment.—I am, etc.,

Upper Berkeley Street, W. C. B. LOCKWOOD.

THE COMMA BACILLUS AND THE VIBRIO.

SIR,—In the second of two articles on "The Vibrio of Asiatic Cholera" it is said: "The name 'vibrio choleræ Asiaticæ' has now replaced the older and somewhat inaccurate term 'comma bacillus.'" Has the name been changed with the discoverer's sanction, or, in other words, does Dr. Koch now admit that his comma bacillus is a vibrio? However that may be, I ask leave to recall some criticisms and observations that were made within a few months of the announcement—from Calcutta on February 2nd, 1884—of his discovery of the cholera germ in the form of a hitherto unobserved comma bacillus. On July 10th, 1884, Dr. Klein wrote in *Nature*: "As Cohn[1] has shown, and as is now generally accepted, a rod bacterium which is characterised by being curved is regarded, not as a bacillus, but as a vibrio, and it is not quite clear why, unless, for the sake of novelty, Koch, generally accepting Cohn's terminology, should, in the case of the cholera bacterium, have deviated from it, and should not rather have spoken of it as a vibrio, because a vibrio, and particularly a vibrio rugula,[2] is the organism which he describes as a comma bacillus." But, if anyone turns to Cohn's numerous figures of vibrio rugula[3] he will find that not one of them has the faintest resemblance to a typographical comma. They are all rods of uniform thickness, the shorter ones slightly curved, the longer ones slightly waved.

Writing in *Nature* on December 25th, 1884, Professor Ray Lankester gave another explanation of the origin of the new name which Dr. Koch had given to a kind of organism: "They are well known to botanists as the segments of a spirillum, the result of the breaking up of a spirillum into little pieces, one corresponding to each turn of the spire. They have been clearly figured, and their nature recognised by Zopf." This explanation of the so-called comma bacilli was afterwards adopted by the late Dr. Timothy Lewis in the Report which he drew up as honorary secretary to the Committee appointed by the India Office to consider the conclusions arrived at by Drs. Klein and Heneage Gibbes in their mission to study the cholera in India in 1884-5.

Lewis's opinion is thus summarised by the editor of the memorial volume of his collected papers: "He had long since arrived at the conclusion that they [the comma bacilli] were identical with some of the minute vibrios which have so frequently been referred to by former writers as being present in cholera dejecta, the comma being, in short, nothing more than a segment of one of those vibrios which had become detached during the process used by Koch." (I may remark that Lewis must have adopted that view subsequently to his memorandum of September 1st, 1884, in which he claims to have found the same commas in dried and stained preparations of the mucus of the teeth as in the choleraic matters which he examined at Marseilles, along with spirilla in both cases, recognising, however, the commas as forms new to him, and as distinct from the spirilla.) Such is the explanation of Lankester and Lewis, and I shall not attempt to decide whether it accounts for the curved forms of Dr. Koch's cultivations. The latter, indeed, if they are mere segments of spirilla, should be easily distinguishable in size from the moving spiral organism of which they are assumed to be the parts. Vibrios or spirilla subjected to what is called "cultivation," in a medium which is not their natural one, may or may not break up (I do not profess to know) into curved segments corresponding to so many turns of the spiral; but these segments of curves are no more distinctively like to commas than to cucumbers, and could never have been the occasion of the name deliberately chosen by Dr. Koch. In explanation of the latter, and of the connection between the comma bacillus and the vibrio, I offer the following observation which I happen to have made when the name of comma bacillus was first made public.

Being in the country in the summer of 1884, and having a microscope with me, I chanced to examine the green water of a stagnant pool. Among other objects I saw innumerable vibrios or spirilla (it matters not of what genus) darting across the field of vision with the usual spiral movement; among these I saw two motionless objects, which were so exactly like the commas of this or any other printed page (that is to say, objects with a distinct round head and a mere slender body or tail tapering therefrom in a curve), that I at once thought of the new name of the organism which Dr. Koch had sent from Calcutta a few months before. The two seen by me must have been several sizes larger, and they had no relation, of course, to Asiatic cholera. As I watched them they got into motion, first one and then another, darting suddenly across the field with the same spiral figure as the vibrios or spirilla around them, and becoming lost among the rest. The conclusion seemed to be that the comma form, correctly so called, was merely the vibrio or spirillum in a state of repose. At all events, so complete was the resemblance of the two motionless objects to typographical commas that I at once realised what Dr. Koch must have had before

[1] *Beiträge zur Biologie der Pflanzen*, Heft II.

[2] *Supra*, Cohn.

[3] Plate III of the paper cited, "Untersuchungen über Bacterien."

him in other circumstances when he had suggested to him the new name of comma bacillus. On referring afterwards to his reports from Calcutta, I found in one of them an explicit statement that comma bacilli did assume the spiral form when in active movement in a wet preparation; and that recorded fact, which may be verified by those who care to do so, satisfied me, for the purposes of a private judgment, that his comma-shaped organism was no other than some species of vibrio or spirillum in the resting state. Meeting the late Dr. T. R. Lewis shortly after, I told him what I had seen and what inference I had drawn; but it will appear from the above that he eventually adopted Professor Lankester's view that the curved bacilli were segments of spirilla detached in the process of cultivation—an explanation which fails, I think, to account for the remarkable name of comma bacillus.

It is beyond my purpose to say anything of the significance of vibrios and spirilla in the choleraic discharges; but it should be kept in mind that they were among the most prominent living objects seen by the first microscopic students of cholera, and that equally miscellaneous forms and sizes of them have been seen in other organic infusions. It may have been vibrios (Cohn certainly thinks so) that Leeuwenhoek saw, at the end of the seventeenth century, in the stools of a patient with diarrhœa: "*Animalcula ad instar anguillarum.*"—I am, etc., C. CREIGHTON.

*** We beg to point out that in our first article we expressly stated that vibrios, very probably identical with Koch's "comma bacillus," had been seen in cholera dejecta by the earlier observers. Koch's merit consists in the fact that he did *not* confound these vibrios with "the equally miscellaneous forms and sizes of them that have been seen in other organic infusions," but that he obtained them in a pure culture, showed that they were distinct from other similar species, and adduced reasons for thinking that they were causally related to cholera.

GLANDERS IN LONDON.

SIR,—In the BRITISH MEDICAL JOURNAL of September 17th it is announced that the Board of Agriculture is about to issue a new order which will enable the London County Council to deal effectually with the prevalence of glanders. The order is to provide three things: (1) Compulsory notification of all cases of disease by the owner and by the veterinary surgeon attending. (2) A staff of inspectors to visit all stables belonging to companies, jobmasters, etc., and to inspect sale yards and knackers' yards. (3) Compensation is to be paid to the owners of slaughtered horses—but this is apparently problematic and has been submitted to the law officers of the Crown. These provisions, I suppose, are the essentials of the new regulations.

The first has nothing new in it except the compulsory notification by veterinary surgeons, and I unhesitatingly say that the existing law gives the Board no power to enforce any such order. The words of the Act are: "Every person having in his possession or under his charge an animal affected with disease shall.....give notice of the fact, etc." By no stretch or misinterpretation of language can a private veterinary surgeon be held to have the diseased animals in a stable under his charge. Failure to notify would be an offence under the Act rendering the professional man liable to a penalty of £20, or to imprisonment. No class of men can possibly allow themselves to be brought within the grasp of a criminal law by any such side-wind as this.

The second provision proposes to do what no order of the Board can enforce—give the right to inspectors of visiting any person's stable when they like. The law has defined the powers of the inspector; he may enter "where he has reasonable grounds to suspect the existence of disease." Further he cannot go without an Act of Parliament.

The third provision is simply *in nubibus*, and I need not discuss it until it assumes a definite legal shape. It is important, because without compensation no compulsory slaughter for farcy can be carried out: and this, as you pointed out in the BRITISH MEDICAL JOURNAL of August 20th, is the great and essential point of any reform.

Of the three new provisions then I may say—two require a new Act of Parliament to make them legal, and one is so doubtful that it has had to be referred to the law officers of the Crown.

Why is such an order issued? The authorities seem to know that without unfairly, if not illegally, stretching their powers, no "permissive" order can be effective. Why do they not proceed with glanders as they have done with other diseases? Why, having found "permissive" legislation useless, do they not prepare an amended Act? Only one explanation can be offered—there is a feeling that something must be done promptly in obedience to the scare which occurred a month ago.—I am, etc.,

Fulham Road, S.W. WILLIAM HUNTING, F.R.C.V.S.

THE CROWN VACANCY IN THE GENERAL MEDICAL COUNCIL.

SIR,—A letter from "F.R.S." appears in the *Times*, and a paragraph which is quite obviously inspired by the same pen in the *Daily Telegraph* on the subject of "The Crown Vacancy in the Medical Council. The letter is in its way a model of meddlesome interference. It is not difficult to trace its source. It is therein intimated that the Secretary for Scotland is not free to choose" or "to exercise a wise discrimination," and it is suggested that Lord Kimberley should overrule his decision, if it should, as "F.R.S." ardently anticipates, not be in accordance with his own views.

The sort of backstairs influence which has on various occasions been freely used to induce the Lord President of Council to appoint as Crown nominees gentlemen likely to be agreeable to the inner circle of the Medical Council has produced results which have not commended themselves to the profession at large. At the last meeting of the British Medical Association there was a unanimous expression of a desire that the representation of the general practitioners of the profession should be increased on the Council, and that the Lord President of the Council should have regard to this in filling up the future vacancies of the Crown nominees. "F.R.S." assumes that the vacancy must necessarily be filled from among the "professors and teachers," and that this is of "vast importance not only to the profession of medicine, but to the public generally." This might pass for cynical irony if it were not obviously meant to be in great seriousness, and is an audacious contradiction to the fact that the extension of the student's curriculum from four to five years—which "F.R.S." especially invokes as a reason for his demand that Lord Kimberley shall veto any appointment which may not be that of a professor or teacher—has a peculiar and direct relation to the general practitioner. It was arranged largely in response to the demand of the general practitioner for some substitute for the old practice of apprenticeship, and for more time for completing the practical knowledge of the newly-fledged diplomates. The present, if any, is the time for counterbalancing the influence of old Parliamentary hands, such as "F.R.S.," their private pressure on officials and their methods of nobbling the press by direct appeal to the Lord President and the Scottish gentry, from those who truly and directly represent the great body of the profession. I am not aware whether the direct representatives of the profession in the General Medical Council or those to whom the conduct of this question has been entrusted on behalf of the British Medical Association have taken or are yet taking any steps in the matter. It is probably now too late to take any which will have effect on this occasion.—I am, etc., VIGIL.

SCARLET FEVER IN SEASIDE LODGINGS.

SIR,—"M.D., F.R.S.E." does me too much honour. I do not pretend to have "made an exhaustive induction of facts," or to have discovered a new "natural law." I have merely ventilated the question of the early infectiousness of scarlet fever, giving my own opinion as based upon my own observations and reading. Like the rest of the profession (with the exception of "M.D., F.R.S.E.") I am an empiric, and draw my own conclusions from experience, which is practically experiment, and not from logic or pure reason.

Even "exhaustive induction of facts" has no weight with your correspondent. The collection of "a million cases" would do no more than "raise a probability" in his mind

upon such a point as that under discussion. Indeed, it is difficult to understand how a medical officer of health, who declares "that nothing is so dangerous as being sure of anything except saying so," can entertain any convictions upon any cognate subject whatever—say, the duration of infectivity, or even the matter of diagnosis. Such an attitude of agnosticism is scarcely one to assume while attempting to "knock the bottom out" of any theory or proposition.

As to authorities, those quoted by "M.D., F.R.S.E." are, with the exception of Dr. Wilson, obviously half-hearted in their utterances. Squire certainly says what is attributed to him in the article referred to; but a little further on it will be found that he states that "timely isolation of the first case, or separation of the susceptible, is generally successful." Thomas may "give no countenance" to my proposition," but many other authors do the same—that is, they say nothing about it. Drs. Guy and John Harley merely say what is "thought" on the subject. Dr. Roberts's book is, doubtless, a very good one in other particulars, but it certainly is not strong on the subject of etiology; for no allusion is to be found in it to the early infection of mumps, whooping-cough, or chicken-pox; and as to the infection of scarlet fever, all that he will commit himself to is that "it is safer to consider it as beginning with the incubation period." Buck, too, is cautious: "It is safe to say that the infection begins with incubation." "Safe" will bear more interpretations than one.

Against these somewhat ambiguous utterances I will quote Dr. E. O. Shakespeare, of Philadelphia, who, in the *Annual of the Univeral Medical Sciences* for 1888, makes comprehensive reference to literature, and says: "It is admitted that scarlet fever in its early stages is little if at all communicable from the sick to the sound." Dr. William Osler, in his recent work on *Medicine*, states that "the contagion of scarlet fever is probably not developed until the eruption appears." This, perhaps the latest dictum, is at least adverse to the opinion that scarlet fever is infectious throughout the period of incubation.

There is a rule in the etiology of infectious diseases that when incubation is short, infection is late and long-lived; and that when incubation is long, infection is early and sooner over. This rule applies, I believe, accurately to the rapidly-incubating scarlet fever on the one hand, and to the slowly-developing measles or mumps on the other.

Six years ago I read a paper at a district meeting of the Association, which was subsequently published in the BRITISH MEDICAL JOURNAL of July 24th, 1886. I then advanced the view which I have recently urged. More than one medical officer of health was present on that occasion, and my conclusions were not challenged in the discussion that ensued. What I have seen since that time has only strengthened my conviction. On the appearance in a school or a lodging house of an imported case of scarlet fever, provided that early separation is effected, and all suspect clothing is disinfected, I make a promise that there shall be no more of it. I have never been disappointed yet; and, in spite of the letter of "M.D., F.R.S.E.," I shall still say the same, at least until some more valid reasons than he has given shall induce me to alter my opinion.—I am, etc.,

Broadstairs. THOS. F. RAVEN.

SIR,—If an experience of nearly forty years, twenty of which have been passed as a medical officer of health with considerable opportunity for observation, "has made me sure of anything," to use the formula which Dr. Raven has consecrated *ad hoc*, it is in cordially concurring with your correspondent "M.D. and F.R.S.E." that scarlet fever is infectious from the very earliest stage at which it can be recognised, and probably in many cases before. For my convictions, founded on my experience, tend constantly to strengthen me in the belief that, as the *fons et origo* of the infection in scarlet fever is the throat, so soon as evidence of congestion can be detected in the fauces in a person who is, or has been, exposed to the infection of the disease, so soon is it expedient to assume that that person has probably become a centre of infection to others. And with this conviction have also grown up two others: First, that as the throat is the prime source of infection, so it is also in the large majority of cases the last; secondly, that if active local medication were directed to the throat in the earliest stage in which the disease can be recognised the severity of the attack might in most cases be greatly mitigated, even if it might not in some be entirely arrested. It is a constant subject of regret to me when visiting cases under treatment by my professional brethren to observe how far a good many of them are from recognising the importance of these facts, which Dr. Raven's letter and proposition show will require a good deal of hammering into their heads before they will be fixed there "like a nail in a sure place."

As to the practice of sending convalescents from scarlatina away to lodgings at the seaside or anywhere else, it is a most pernicious one and ought to be firmly discouraged. In the majority of cases it is quite unnecessary, as the patient would recover strength at home quite as quickly if only rationally treated; whilst, in view of the extreme difficulty of saying when infection has disappeared, it involves a risk of spreading the disease which should, so far as possible, be avoided. Only a few days ago I had under my observation a case in which a mother and son—the latter a convalescent from scarlet fever—were allowed, on what was thought to be reasonable evidence of cessation of the disease, to go to a seaside boarding-house, with the result that the mother, on returning a fortnight later, was found to be peeling, and that shortly after her return two persons who came in contact with her developed the infection. What the effects on the boarders at the house aforesaid may have been I have not been able to learn.—I am, etc., ANOTHER M.D. AND F.R.S.E.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A CORONER ON UNQUALIFIED PRACTITIONERS.

On September 17th, Mr. A. W. Wyatt held an inquiry at Lambeth respecting the death of George Thomas Rossiter, aged 36 years, a farrier. According to the report before us, William Hodges said that at about 7 A.M. on September 15th deceased was shoeing a horse, when he suddenly staggered, and fell to the ground. "A local medical man" was at once sent for.—Mr. Wyatt: Is he in attendance?—*Dr. Dorin*: No; I believe he is a non-qualified man. He is not here.—The Coroner: Oh, I suppose he is one of those eighteenpenny cheap dispensary doctors. Is there not a society for the prosecution of these unqualified men?—Dr. Dorin: There is the Medical Council, but they never take any steps in such matters; they leave it to the public. They never act themselves unless the public take up the prosecution, which of course is not worth their while. Dr. Dorin stated that he had made a *post-mortem* examination of the body, which showed that death was due to syncope and serous apoplexy. The jury returned a verdict accordingly.

PROFESSIONAL CONFIDENCE AND ABORTION.

M.B.—A woman who administers a drug to herself for the purpose of procuring her miscarriage commits a felony; and any person, whether a medical practitioner or not, who assists her in procuring or administering the drug is also guilty. The law, however, does not impose any duty on people who are aware that a crime has been committed of giving information about it voluntarily; and a medical man cannot be blamed for not volunteering statements about his patients. If he is subpœnaed as a witness he is bound to answer truly such questions as are put to him, and is not protected from answering on any ground of privilege. But till he is in the witness-box, he is not only justified in holding his tongue, but is morally bound to keep secrets disclosed to him in confidence by his patients.

CHANGE OF ADDRESS.

PRACTITIONER writes: I am leaving my present consulting rooms and surgery for others. This occurs through my landlord. Is there anything unprofessional in my sending a circular to each patient whose name is in my ledger on the occasion of moving into new premises?

*** To our correspondent's special question our reply is in the affirmative, to which we may add that when impracticable to notify personally the change of residence, the most unexceptionable mode is to transmit an autograph note, or a carefully executed *fac-simile* thereof on notepaper, to the *bond fide* patients of the newly-located practitioner, or to enclose an ordinary address card with "Change of Address" inserted at the top—the old address in the lower right corner being defaced by a black line, and the new one engraved in the left-hand corner, or *vice versâ*.

UNQUALIFIED PRACTICE AND THE LAW.

VERITAS.—Any person, qualified or not, may give advice without infringing the law, but if he untruly holds himself out as being qualified, or styles himself doctor without being one, he becomes liable to a penalty. On the facts stated, the adviser might properly be convicted of falsely holding himself out as being qualified; and if such a conviction were obtained it would not be likely to be reversed on appeal. The result would depend on the view taken by the Court before which the case comes in the first instance.

M.R.C.S.—A M.R.C.S. can legally claim his fee for midwifery and vaccination.

NAVAL AND MILITARY MEDICAL SERVICES.

TAMPERING WITH ROYAL WARRANTS.

When last November the Royal Warrant extending to army medical officers the advantages of Article 1,208B of the Pay Warrant was published, the preamble to that Warrant ran thus: "Whereas we deem it expedient to extend to the officers of our Medical Staff the same privileges as that enjoyed by combatant officers as regards reckoning time on half-pay towards retirement;" but we subsequently noted that when this Warrant was reprinted in the present Pay Warrant issued this year words were inserted in italics which entirely altered the meaning of the Royal Warrant. We are glad, however, to be able to announce that this insertion, which we believe was made under a misapprehension, has been ordered to be struck out, and army medical officers will have the same privilege in future as all combatant officers have enjoyed since 1880. We are, indeed, glad to notice a desire, on behalf of those in supreme authority, to avoid fresh cause for the oft-repeated charge in days gone by of breach of faith. But we do not readily understand how any one concerned in these extraordinary proceedings could have supposed themselves justified in tampering with a Royal Warrant, and taking away by an italic interpolation of the order a privilege which it expressly conferred. Had such a proceeding occurred in a Warrant applicable to combatant officers it would have been very loudly resented, and we really fail to see why greater liberties should be taken with the medical department of the army, which has too often been made the subject of ingenious methods of paring away substantial privileges accorded by previous Royal Warrants. We doubt whether the matter should be passed over without more public notice than it has received. It is, perhaps, fortunate for those concerned that Parliament is not sitting.

ARMY MEDICAL STAFF: EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office orders with the notice. The first post on Thursday mornings is the latest by which advertisements can be received.

Surgeon-Major, expecting to be ordered abroad early in 1893, wishes to exchange with a Surgeon-Major recently returned from foreign service.—"Omega," care of Sir Charles McGrigor, Bart., and Co., 25, Charles Street, St. James's Square, London, S.W.

A Surgeon-Major wishes exchange home. Arrived Bombay Presidency last April. Healthy station and capital shooting.—All particulars to "Surgeon-Major," care of G. Utke, Esq., 71, Leinster Road, Rathmines, Dublin.

THE NAVY.

The following appointments have been made at the Admiralty: Horace B. Marriott, Surgeon, to the *Colossus*, September 13th; George Ley, Surgeon, to the *Hotspur*, September 13th; Herbert P. Shuttleworth, Surgeon, to the *Pembroke*, additional, to be lent to the *Briton* for the training season, from September 26th; Richard A. Fitch, Surgeon, to the Royal Marine Artillery, Portsmouth; Charles J. Fife, Surgeon, to the *Pembroke*, additional, for disposal; Edward M. Dobinson, Surgeon, to the *Wildfire*, additional, for service at Walmer Depôt; Octavius S. Fisher, Surgeon, to the *Defiance*, additional, for disposal; and William M. Craig, Surgeon, to the Plymouth Division Royal Marines, to date September 15th; and Alfred M. Page, Surgeon, to Plymouth Hospital, to date September 22nd; Charles Strickland, Surgeon, to the *President*, additional, for three months' study, September 12th; Hugh W. Macnamara, Surgeon, to the *Royal Sovereign*, September 6th; Samuel J. Oddie, M.B., Surgeon, to the *Excellent*, additional, September 19th; Henry B. Hall, M.B., Surgeon, to the *Nelson*, for temporary service, September 19th; Henry W. G. Green, Edgar F. Mortimer, and Beauchamp F. Parish, Surgeons, to the *Vivid*, additional, September 19th; Thomas E. Honey, Surgeon, to the *Pembroke*, September 19th; Frederick A. Capps, Surgeon, to the *Wildfire*, additional, September 19th; Charles F. Warren, Surgeon, to the *Victory*, September 19th; Daniel J. P. McNabb, Surgeon, to the *President*, additional, for three months' study, September 22nd; Montague W. Roe, to be Surgeon and Agent at Helford Passage, September 20th.

ARMY MEDICAL STAFF.

Surgeon-Major John Leader died at Cahir, Ireland, very suddenly, of heart disease, on September 12th. He was appointed Assistant Surgeon, March 31st, 1868; Surgeon, March 1st, 1873; and Surgeon-Major, March 31st, 1880. He quitted the service on retired pay, February 27th, 1889.

Surgeon-Captain C. W. Reilly, who is serving in the Bengal Command, has passed the examination in Hindustani by the lower standard.

Surgeon-Captain E. D. Farmar-Bringhurst, who is serving in the Madras Command, is granted an extension of leave from August 7th to December 6th, on medical certificate.

Surgeon-Major H. Martin, M.B., Surgeon to the Governor of Bombay, is allowed privilege leave for two months and twenty days from September 2nd.

Surgeon-Captain W. A. Morris has been appointed to the Staff of the Royal Victoria Hospital at Netley.

Surgeon-Major W. Keays, serving in the Bengal Command, has been appointed to the medical charge of the Station Hospital and Convalescent Depôt at Darjeeling from May 1st.

INDIAN MEDICAL SERVICE.

Surgeon-Lieutenant-Colonel T. H. Hendley, C.I.E., Bengal Establishment, resumed charge of his duties as Medical Officer of Jepore Residency on July 29th.

Surgeon-Captains B. H. Deare, J. S. S. Lumsden, and S. B. Smith, of the Bengal Establishment, have passed the examination in Hindustani by the lower standard.

The services of Brigade-Surgeon-Lieutenant-Colonel G. Thomson, Bengal Establishment, Medical Adviser to His Highness the Maharajah of Putiata, are placed at the disposal of the Government of India, Military Department.

Surgeon-Major H. K. McKay, Bengal Establishment, officiating Civil Surgeon of Nagpore, is appointed Honorary Surgeon to the Nagpore Rifle Volunteers.

Surgeon-Captain D. G. Marshall, Bengal Establishment, is appointed to the civil medical charge of Roorkee, in addition to his military duties.

Surgeon-Captain J. J. Pratt, Bengal Establishment, Civil Surgeon of Bahraich, is transferred to Fyzabad District.

Surgeon-Captains H. F. Cleveland and E. L. C. Smith, of the Bombay Establishment, have passed the required examination, the former in Arabic by the higher standard, the latter in Hindustani by the higher standard.

Surgeon-Lieutenant-Colonel J. Duke, Bengal Establishment, Medical Officer to the Malwa Bheel Corps to the Bhopawur Political Agency, is granted privilege leave for ninety days from August 15th.

Surgeon-Lieutenant-Colonel J. E. C. Ferris, Bengal Establishment, has retired from the service, which he entered as Assistant Surgeon March 30th, 1872. He became Surgeon-Lieutenant-Colonel March 30th, 1892. He served in the Afghan war in 1879-80, receiving the medal for that campaign.

Surgeon-Captain A. W. T. Buist-Sparks, Bengal Establishment, in medical charge of the 12th Kelat-i-Ghilzai Regiment at Dorunda, is directed to take civil medical charge of Ranchee, in addition to his own duties, during his absence on privilege leave of Surgeon-Major F. R. Swaine.

THE VOLUNTEERS.

Mr. Joseph Thomas Harty is appointed Surgeon-Lieutenant to the 1st Cornwall Artillery (Duke of Cornwall's), September 10th.

Surgeon-Lieutenant J. H. Mitcheson, 1st Volunteer Battalion East Kent Regiment (formerly the 2nd Kent) has resigned his commission, which was dated May 4th, 1889.

Surgeon-Lieutenant J. G. McCann, 5th Volunteer Battalion King's Liverpool Regiment (formerly the 18th Lancashire), has also resigned his commission, dated May 31st, 1890.

Surgeon-Captain J. A. Rigge, 2nd Volunteer Battalion Oxford Light Infantry (late the 2nd Oxfordshire), is appointed Second Lieutenant in the same corps from September 10th.

Surgeon-Captain G. S. Payne, 1st Volunteer Battalion Northamptonshire Regiment (late the 1st Northamptonshire), is promoted to be Surgeon-Major from September 10th, and is permitted to resign his commission from the same date, retaining his rank and uniform.

Surgeon-Captains N. Lawrence and R. M. Wilson, 3rd Volunteer Battalion Gordon Highlanders (late the 3rd Aberdeenshire) are promoted to be Surgeon-Majors September 10th.

Surgeon-Lieutenants T. M. Dawson, 1st Lancashire Artillery, and J. H. Rees, M.D., 2nd Glamorganshire, are promoted to be Surgeon-Captains September 17th.

John Morgan Whiteford, is appointed Surgeon-Lieutenant to the 1st Lancashire Engineers, Fortress and Railway Forces, Royal Engineers, September 17th.

Surgeon-Captain J. Knox, 2nd Volunteer Battalion Derbyshire Regiment (late the 2nd Derbyshire), is promoted to be Surgeon-Major September 17th.

Brigade-Surgeon-Lieutenant-Colonel J. Armstrong, 5th Volunteer Battalion Manchester Regiment (late the 20th Lancashire), has resigned his commission, with permission to retain his rank and uniform. He also resigns from the Manchester Brigade of Infantry Volunteers.

THE MEMORANDUM.

Surgeon-Lieutenant-Colonel, writing from India, says: It is a very strong fact in support of your memorial for the reduction of the tour of foreign service, that the tour for officers of the Royal Engineers in India was reduced a few months ago from seven to five years. Moreover, unless an officer of that corps elects for continuous Indian service, he seldom or ever puts in a second tour in the country, so that the reduction is all the more remarkable, and in strong contrast to the increase of the tour for officers of the Medical Staff, who, as a rule, put in several tours in India.

*** The reduction of the tour for officers of the Royal Engineers has no doubt been based on very sufficient reasons, connected with health and efficiency. It is certainly an opportune precedent for the reduction of the medical tour, and an argument we shall not lose sight of.

Bearing on the same subject, a correspondent sends us a cutting from the *Civil and Military Gazette of India*, headed "The Dearth of Doctors." Alluding to the economies effected through the establishment of station hospitals, the article states that such has been the cutting down in the establishment of medical officers, and the grievous injustice thereby inflicted on individuals, that even the less unconscionable officials at headquarters are beginning to be ashamed, if not alarmed. "Both the Army Medical and Indian Medical Services are

more than sufficiently undermanned. There is not a man to spare to supply the place of a doctor on leave, and in many stations one doctor appears to be left permanently to do the work of two."

What is the result? The severe strain of the continuous performance of double duties quickly breaks down the health, and, unable to get private leave, the unfortunate officer is driven to appear before a medical board.

"But," says the article, "a strong man ought not to be driven before a medical board by the mere strain of the work which Government places upon him," especially as the record of sick leave "goes against him when selection is made for any special duty of importance." But the cruel economy which is at the bottom of such injustice is not even real; for "the saving of pay by employing one man to do the work of two is more than counterbalanced by the deterioration of the service rendered, and the feeling of discontent aroused."

There is "no holiday on Thursday or Sunday" for the doctor in India, as for other ranks; his grind is interminable. The article goes on to say that if the Government of India is unable or unwilling to put its medical services on a sound and proper footing, an appeal should be made to the authorities and the public at home.

*** From what we have been able to learn we fear the foregoing comments represent only too accurately a perilous condition of affairs in Indian medical administration. It is no use blinking the fact that an establishment pared to the quick, and insufficient for the duties in peace, will prove totally inadequate in the event of war. The Indian Government probably calculate on being able to indent freely on the Home establishment should they become involved in a big frontier war; but they are probably leaning on a broken reed. If Russia throws down the gauntlet, every officer and man of the Medical Staff at home will be absorbed in the mobilisation of a couple of army corps. A scratch medical service—with all its dangers and inefficiency—will be will be the only resort. We fear, therefore, a medical crisis, among others, threatens our Indian Empire. Time was when the Government of India recognised that its stability was founded on the health and efficiency of its European servants, from the least to the greatest. Can that be maintained by an undermanned, underpaid, and overworked medical establishment? The station hospital system has effected real economies, but, pushed beyond a certain point, it becomes only penny wisdom and pound foolishness. A starved medical service in a country like India ultimately means inevitable financial loss through disease and death, and cannot therefore be a real economy. If the effect is disastrous in Indian administration, the result is also fraught with hardship and injustice to the members of the medical service, which we suspect is already beginning to make itself felt. What between extended tours, reduced establishments, non-adjustment of the rates of pay, and the depreciated rupee, service in India is becoming less and less desirable to medical officers—an unfortunate condition of affairs which is certain to be soon brought home to those who apparently think they can do what they like with the "doctors."

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

THE following officers who have been under instruction from the Staff of the School have recently passed the proficiency examination for volunteer medical officers, conducted by the Army Medical Staff at the headquarters of regimental districts: Surgeon-Major C. Shrimpshire, 1st (Breconshire) Volunteer Battalion South Wales Borderers; Surgeon-Major J. Raglan Thomas, M.D., 4th Volunteer Battalion Devonshire Regiment; Surgeon-Captain W. H. Lloyd, 1st Volunteer Battalion The Welsh Regiment; Surgeon-Captain J. E. Scowcroft, M.D., 2nd Volunteer Battalion The Loyal North Lancashire Regiment; Surgeon-Captain F. E. Fenton, 1st Middlesex (Victoria and St. George's) R.V.; Surgeon-Captain S. S. Hoyland, 1st Volunteer Battalion Suffolk Regiment; Surgeon-Captain J. Cunningham, M.B., 1st Argyll and Bute Volunteer Artillery; Surgeon Captain A. K. Crossfield, 2nd Devon Volunteer Artillery; Surgeon-Captain J. W. Hinings, 1st Herefordshire R.V.; Surgeon-Lieutenant E. B. Reckitt, 1st Lincolnshire Volunteer Artillery; Surgeon-Lieutenant G. G. Fergusson, M.B., 1st Tower Hamlets Rifle Volunteer Brigade; Surgeon-Lieutenant Trevor Dagg, 1st Surrey Rifles; Surgeon-Lieutenant H. G. Wilkins, 2nd Volunteer Battalion Middlesex Regiment; Surgeon-Lieutenant H. D. Brook, 20th Middlesex (Artists) R.V.; Lieutenant [1] J. L. Fawcus, Oudh Rifle Volunteer Corps.

The next class will be held at the headquarters of the Queen's Westminster R.V., James Street, Victoria Street, S.W., by permission of Colonel Howard Vincent, C.B., M.P., commanding the regiment, commencing at 2.30 P.M. on Monday, September 26th, 1892.

All officers, whether proficient or not, who wish to join the class or to obtain further information concerning it will apply to Surgeon-Captain R. R. Sleman, 20th Middlesex (Artists) R.V., 7, St. Benet Place, Gracechurch Street, E.C.

(By Order), H. F. STOKES,
Surgeon-Captain Army Medical Reserve of Officers and London Rifle Brigade; Senior Medical Officer Instructor.

EMPLOYMENT OF RETIRED OFFICERS.

VERAX returns to the charge, and says the retired brigade-surgeon who wishes for employment at home or abroad evidently wishes he were back on the active list. It would be interesting to know why he retired. He did not attack individuals, but the principle of reducing home tours by the excessive employment of retired officers. In nine cases out of ten, retirement is to escape foreign service, but it puts it on others.

*** The excessive employment of retired officers in home appointments is certainly to be deprecated in the interests of the active list; but our other correspondent proposes in good faith to open certain colonial appointments also to retired officers, which would assist the home tours: we see no harm in that, but do not think many retired officers would wish to serve in the colonies; a few might who have colonial connections and ties. But for retired appointments there would be no inducement to retire, and but for the saving in the employment of retired officers, comparatively early voluntary retirement would not be permitted. We feel confident the present system is for the ultimate benefit of all, whether retired or actively serving. Retired officers renounce promotion, and that is all in favour of those who choose the risk of serving on.

[1] Obtained Army Ambulance certificate.

BEST BOOKS FOR PROMOTION EXAMINATION.

IF "Surgeon-Captain" will refer to the BRITISH MEDICAL JOURNAL of August 20th last, he will find we answered this question to the best of our knowledge and ability.

MEDICAL NEWS.

A NEW Odontological Society has recently been formed in Rome under the presidency of Signor Bargnoni.

THE Paris Municipal Council has voted 8,000 francs to provide the children in the schools with wholesome drinks.

A NEW convalescent home at Harrogate was opened by the Mayoress of Sunderland on September 15th.

DR. E. O. SHAKESPEARE, author of the elaborate report to the United States Government on "Cholera in India and Europe," has been appointed Physician to the Port of Philadelphia.

DR. CHARLES E. SAJOUS, of Philadelphia, editor of *The Medical Annual*, has been named a Knight of the Legion of Honour by M. Carnot, in recognition of his services to the French colony in Philadelphia. Dr. Sajous is of French descent.

NEW YORK appears to be suffering from a visitation of glanders as well as London. The disease was recently discovered among the horses of the Third Avenue Railroad Company, and in two days nineteen horses had to be slaughtered on account of it.

MEDICAL PRACTICE IN HOLLAND.—The Dutch Minister of the Interior recently brought in a Bill granting permission under very favourable conditions to foreign medical men to practise their profession in Holland. The proposed measure has called forth vigorous protests from the Dutch practitioners.

THE Gilchrist Scholarship of £50 a year for five years, offered by the trustees of the Gilchrist Education Fund to the student of the London School of Medicine for Women who took the highest place in the preliminary scientific (M.B.) examination of the University of London, has been awarded to Miss Urania Lathem.

SECRET REMEDIES IN DENMARK AND NORWAY.—The Pharmaceutical Section of the fourteenth Congress of Scandinavian Scientists, recently held at Copenhagen, passed a resolution expressing regret that there were no legislative restrictions in Denmark and Norway on the importation of "specialities" and secret remedies, and urging drug vendors themselves to co-operate "in the most earnest manner" in putting down the trade in such preparations.

THE will, dated May 10th, 1884, of Sir William Aitken, M.D., LL.D., F.R.S., late of Grove Cottage, Woolston, Hants, who died on June 25th, was proved on August 12th, at the Winchester District Registry, by Dame Emily Clara Aitken, the widow, and sole executrix, the value of the personal estate amounting to £2,403. The testator gives, devises, and bequeaths all his estate and effects to his wife for her absolute use.

A COLUMBARIUM, or receptacle for cinerary urns, is being erected at the Kensal Green Cemetery. The building is 8 feet in height, and is handsome in appearance. It is constructed of Caen stone, ornamented with Sienna and rouge royal marble. The compartments for the reception of the urns are arranged in rows and tiers. The structure will contain forty-

two urns. Each of the compartments is fitted with a plate-glass door, with patent locks. The building owes its initiation, of course, to the advocates of cremation.

The London Hospital.—The resignation is announced of Mr. William J. Nixon, who after 46 years' service as house-governor of the London Hospital, has retired from office. Mr. Nixon is we believe the senior of the house-governors and secretaries of the hospitals in London. He has rendered great service to the hospital, and has long held the highest position in the esteem of the governors as an able organiser and most devoted and industrious official. He will carry with him in his retirement the sincere respect and good wishes of all who knew him. Mr. G. Q. Roberts, M.A.Oxon., has been appointed house-governor in his place, and will now hold the combined offices of house-governor and secretary.

The Teaching of Hygiene in Italy.—A meeting of teachers of hygiene is to be held at Florence on October 4th, for the purpose of discussing the best means of reforming the teaching of that important subject in the universities of Italy. Discussions on the methods of teaching at present in vogue will be introduced by Professors Sormani, Di Vestea, and Maggiora; on the relations between the teaching of hygiene and the sanitary administration of communes, by Professor Roster and Bordoni-Uffreduzzi; on the relations between the teaching of hygiene and the sanitary administration of provinces, by Professor Canalis; and on the relations between the teaching of hygiene and the sanitary administration of the State, by Professor Celli.

A Feat of Endurance.—The well-known French cyclist, M. Stephane, has recently concluded an astounding feat on the Velodrome cement track in beating the bicycle record of Mr. Shorland, who had done 413 miles 1,615 yards in twenty-four hours. M. Stephane completed 421 miles 473 yards within the stipulated time, and, although he was fatigued after his great effort, his pulse was then 80, and his temperature normal. During the whole ride M. Stephane only made three stoppages, amounting altogether to less than thirty minutes. The weather during the twenty-four hours was most favourable for the cyclist, without a breath of wind, and with the sky clouded during the hours when the ride was progressing in the daylight; but even with all these advantages, the ride, which, on an average, exceeded 17½ miles per hour, was a remarkable performance, and, a few years ago, would have been considered to be quite impossible.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries and the colonies who have recently passed away are Dr. K. Murata, Professor in the Medical Faculty of the Japanese University of Tokio; Dr. A. Pollock, of Pittsburgh, for many years one of the leading medical men of Western Pennsylvania, formerly President of the Medical Society of the State of Pennsylvania, and ex-Vice-President of the American Medical Association, and in 1876 a delegate from that body to the International Medical Congress, aged 72; Dr. Enoch Chase, the oldest medical practitioner of Milwaukee, having settled there fifty-seven years ago on the site where the city was afterwards built, aged 83; Dr. J. J. Reese, some time Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania, and the author of a well-known textbook on forensic medicine, aged 74; Professor P. W. Bedford, of New York, founder and editor of the *Pharmaceutical Record*, aged 56; Dr. John Bennitt, of Cleveland, Ohio, who had been for nearly thirty years Professor of the Practice of Medicine in the Cleveland Medical College, aged 62; Dr. José E. Ramos, for many years Professor of Botany in the University of Havana; Dr. W. H. Henderson, Professor of Clinical Medicine in the Royal College of Physicians and Surgeons, Kingston, Canada, and President of the Ontario Medical Association, aged 36; and Dr. Manuel P. de Péralta, Professor of Clinical Medicine in, and formerly Dean of, the Medical Faculty of Buenos Ayres.

American Jottings.—The Illinois State Board of Health will not accept a death certificate bearing the words "heart failure." It wants more definite information as to the cause of death. It is to be hoped that it may get it.—The drink bill of New York City is estimated by an American journal at seventy million dollars a year. Freedom has evidently not yet produced sobriety, at least in New York.—New York has a special summer medical service charged with the duty of visiting every tenement house in the city, and treating all cases of sickness among those who are unable to pay fees. The service numbers fifty practitioners, who have to work eight hours a day for two months for a remuneration of 200 dollars.—The abuse of charitable institutions appears to be rampant in New York. Within the present year the wife of a prominent official, with a salary of 10,000 dollars a year, sought gratuitous advice for her child at a public institution. She gave untruthful answers to the usual questions as to the position and earnings of her husband, and it was only when the surgeon, finding the case a serious one, proposed to take the child into the hospital, that she confessed that she was able to pay for attendance at home.—An interesting experiment is about to be tried in Minneapolis. The Board of Charities and Corrections, finding the expense of having prescriptions made up by the local druggists too heavy, is going itself into the drug business, and in a room in the City Hall will dispense free medicines to the poor under the care of the city physician.—Some alarm has been caused in Eastern Massachusetts by the occurrence of one or two cases of rabies, which were magnified by sensational newspapers into "an epidemic of that dread disease." The Board of Health, however, declares that most of the cases reported are spurious, adding that, during the last half century, the deaths from hydrophobia in Massachusetts have number "but a little over 100."—There appears to be a scare about small-pox in some parts of the United States, for the State Board of Health has issued a circular calling attention to the increase of that disease in the country, urging vaccination and revaccination, and offering to supply vaccine at a very low price, or, if necessary, gratuitously.

MEDICAL VACANCIES.

The following vacancies are announced:

BALLINASLOE UNION (Laurencetown Dispensary).—Medical Officer. Salary, £127 per annum, and fees. Applications to Mr. Thomas Connolly, Honorary Secretary, Laurencetown. Election on September 29th.

BETHLEM HOSPITAL, S.E.—Two Resident Clinical Assistants. Apartments, rations, and attendance provided. Applications, endorsed "Clinical Assistantship," to the Treasurer by October 3rd.

BRADFORD MEDICAL ASSOCIATION.—Qualified Out-door Assistant. Salary, £120 per annum. Applications to "Una," 38, Little Horton Lane, Bradford.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum. Applications to the Secretary, 24, Finsbury Circus, E.C., by October 19th.

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY, Wakefield.—Junior House-Surgeon; unmarried. Honorarium, £40 per annum, with board, lodging, and washing. Applications to the Honorary Secretary by October 4th.

COUNTY BOROUGH OF STOCKPORT.—Medical Officer of Health for the District of the Borough, and to the Infectious Diseases Hospital, and Surgeon to the Police. Salary, £400 per annum. Applications, endorsed "Application for Appointment of Medical Officer of Health," to Waller Hyde, Town Clerk, 2, Lord Street, Stockport, by October 15th.

DERBY PROVIDENT DISPENSARY.—Dispenser. Salary, £78 per annum, house, and allowance for cleaning. Applications to the Secretary, T. H. Harrison, 18, Wardwick, Derby, by September 30th.

GENERAL HOSPITAL, Birmingham.—House-Physician. Salary, £70 per annum. Applications to be sent to Mr. Howard J. Collins, House-Governor, by October 7th.

GENERAL HOSPITAL, Birmingham.—Pathologist (non-resident). Salary, £120 per annum. Applications to be sent to Mr. Howard J. Collins, House-Governor, by October 1st.

GENERAL HOSPITAL, Birmingham.—Surgical Casualty Officer (non-resident). Salary, £70 per annum. Applications to Mr. Howard J Collins, House-Governor, by October 1st.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—House-Physician. Salary, £60 per annum, with board and lodging. Applications to the Secretary by September 26th.

HOLBORN UNION.—Resident Medical Officer for the Workhouse, Shepherdess Walk, City Road, N. Salary, £200 per annum, with furnished apartments, gas, coals, and washing. Applications, endorsed "Application for Resident Medical Officer," to James W. Hill, Clerk to the Guardians, Clerkenwell Road, E.C., by October 4th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—House-Physician. Applications to the Secretary by October 13th.

HUDDERSFIELD INFIRMARY.—Honorary Physician. Applications to Mr. F. Eastwood, Honorary Secretary, by November 1st.

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon; unmarried. Salary, £50 per annum, with board and lodging. Applications to the Secretary by October 8th.

KIMBERLEY HOSPITAL, Kimberley, South Africa.—Salary, £750, with quarters. Applications to H. A. de Beer, Secretary Kimberley Hospital Board, by October 10th.

LANCASHIRE COUNTY ASYLUM, Rainhill, near Liverpool.—Pathologist. Salary, £200 per annum, with furnished apartments, board, attendance, and washing. Applications to the Medical Superintendent.

NENAGH UNION.—Medical Officer to Silvermines Dispensary. Salary, £110 per annum and fees. Applications to Mr. James O'Leary, Honorary Secretary. Election on September 28th.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, Henrietta Street, Covent Garden, W.C.—House-Surgeon for six months; must be M.R.C.S. Honorarium, 25 guineas, and board, lodging, and washing. Applications to Walter E. Scott, Secretary, by September 24th.

SUNDERLAND CORPORATION.—Medical Officer of Health for the District of the Borough and Port. Salary, £500 per annum as Medical Officer of the borough, £200 for the like office of the Port, and £5 as Public Analyst. Applications endorsed "Medical Officer of Health and Public Analyst," to Mr. Francis M. Bowey, Town Clerk, Town Hall, Sunderland, by October 29th.

TAUNTON UNION.—Medical Officer of the Workhouse. Salary, £80 per annum, and 10s. extra for midwifery cases. Applications to W. F. B. Dawe, Clerk, by October 7th.

UNIVERSITY OF ABERDEEN.—Six Examiners for Graduation in Medicine. Grant of £30 per annum each. Applications to Robert Walker, Secretary of the University Court, by October 1st.

MEDICAL APPOINTMENTS.

ANCRUM, G. Wayland, M.B., C.M., L.R.C.S., L.R.C.P.Edin., appointed Assistant House-Surgeon to the General Infirmary at Gloucester and the Gloucestershire Eye Institution.

BALFOUR, Mr. J. A., appointed Medical Officer for the Presteign District of the Knighton Union.

BERRY, James, B.Sc.Lond., F.R.C.S., appointed Surgical Registrar to St. Bartholomew's Hospital, *vice* C. B. Lockwood, F.R.C.S.

BRATTON, J. Allen, M.A.Cantab., L.R.C.P., M.R.C.S., appointed Medical Officer and Public Vaccinator to the Ewell, Cuddington, and Chessington Districts of the Epsom Union, and Medical Officer to the London and South-Western Railway Company Friendly Society, *vice* G. R. Barnes, M.D., M.R.C.S.

CAMPBELL, Walter Scott, M.B., C.M.Glas., appointed Medical Officer for the Crediton District and the Workhouse of the Crediton Union.

DALBY, A. W., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for the Frome Rural and Urban Sanitary Districts, *vice* Joshua Parsons, M.R.C.S.Eng., L.S.A.

DIXON, Mr. W., appointed Medical Officer for the Second Hougham District of the Dover Union.

EATON, James, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Spittlegate District and the Workhouse of the Grantham Union.

EDGE, Frederick, M.D., B.S., B.Sc.Lond., F.R.C.S.Eng., appointed Honorary Acting Gynæcological Surgeon to the Wolverhampton and District Hospital for Women.

FOSBROKE, George Haynes, M.R.C.S.Eng., L.S.A., D.P.H., reappointed Medical Officer of Health for the Worcestershire Division of the Alcester Rural Sanitary Authority.

GEDDIE, William, M.D., M.B., C.M.Aberd., appointed Surgeon to the Accrington Police.

GREENHALGH, J., L.R.C.P., L.M.Irel., reppointed Medical Officer for the Cumberworth Sanitary District of the Huddersfield Union.

GRIFFITH, Augustine, M.B.Lond., appointed Second Assistant Medical Officer to the Nottingham Borough Asylum.

HEATON, Arthur F., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Wrexham Infirmary.

HEWITSON, Charles Christopher, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the St. John's District of the Weardale Union.

HUGHES, William Lewis, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Carmarthen Town Council.

IRWIN, Stewart, M.B., appointed Medical Officer for the Almondsbury District of the Thornbury Union, *vice* N. H. Lower, M.R.C.S., deceased.

JEPHCOTT, Robert William, L.R.C.P., L.M., L.R.C.S.Edin., reappointed Medical Officer of Health for the Warwickshire Division of the Alcester Rural Sanitary Authority.

JONES, G. E., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glas., reappointed Medical Officer for the West Ardsley Sanitary District of the Wakefield Union.

JONES, Hugh R., M.D., M.B., B.C.Camb., appointed Assistant Surgeon to the Liverpool Infirmary for Children.

LAMBERT, F. W., L.R.C.P., L.M.Edin., M.R.C.S., appointed Medical Officer and Public Vaccinator for the Calverley-with-Farsley Sanitary District of the North Bierley Union.

LAWSON, D. J., M.D., C.M.Edin., appointed Medical Officer for the Portland Sanitary District of the Weymouth Union.

LOWNDS, Henry Arthur, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of the Workhouse of the Doncaster Union.

MACALISTER, Charles J., M.B., C.M.Edin., appointed Physician to the Liverpool Stanley Hospital, *vice* T. R. Bradshaw, M.D., resigned.

MACARTHUR, D., L.R.C.P., L.M.Edin., L.F.P.S.Glasg., reappointed Medical Officer for the Lofthouse-with-Carlton Sanitary District of the Wakefield Union.

MACGREGOR, D. A., M.D., C.M.Edin., reappointed Medical Officer for the Emby and Flockton Sanitary Districts of the Wakefield Union.

MACKENZIE, W. S., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer for the Sharlstone, Warmfield-cum-Heath, and Newland Sanitary Districts of the Wakefield Union.

MADDEN, Thomas More, M.R.C.P.Irel., F.R.C.S.Edin., L.F.P.S.Glasg., appointed Consulting Physician to the Children's Hospital, Temple Street, Dublin.

MASON, William, L.R.C.P., L.M., L.R.C.S.Edin., reappointed Medical Officer of Health for the St. Austell Rural and Urban Sanitary Districts.

MONAGHAN, Thomas Joseph, L.R.C.P., L.R.C.S.Edin., D.P.H., appointed Medical Officer of Health to the Accrington Town Council.

NEWBOLT, G. Palmerston, M.B.Durh., F.R.C.S.Eng., appointed Surgeon to the Liverpool Stanley Hospital, *vice* A. H. Wilson, L.R.C.P.Lond., M.R.C.S., resigned.

NICKLIN, M., M.B.Lond., L.R.C.P.Lond., M.R.C.S.Eng., appointed Honorary Assistant Surgeon to the Wolverhampton and District Hospital for Women.

OAKLEY, A. R. H., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Fifth Sanitary District of the Romford Union, *vice* William Bruorton, M.R.C.S., resigned.

OGSTON, Alexander, M.B., M.D.Aberd., appointed Regius Professor of Medicine at the University of Aberdeen.

O'MARA, Francis, L.R.C.P., L.R.C.S.Irel., appointed Assistant Medical Officer to the Limerick Lunatic Asylum.

PEARCE, John P., M.R.C.S.Eng., L.S.A., appointed Medical Officer of Health to the Lewes Town Council.

PRICHARD, Richard, M.D., C.M.Glasg., reappointed Medical Officer of Health to the Cardiff Rural Sanitary District.

READER, J., M.R.C.S., appointed Medical Officer for the Alverthorpe Sanitary District of the Wakefield Union.

ROULSTON, William, M.D., M.Ch., M.A.O.Irel., reappointed Medical Officer for the Crofton Sanitary District of the Wakefield Union.

SANDERS, Thomas, F.R.C.S.Eng., appointed Medical Officer for the Tenth Sanitary District and the Workhouse of the South Molton Union.

SANDERSON, C., L.R.C.P., L.F.P.S.Glasg., reappointed Medical Officer of Health for Hastings.

SINCLAIR, J. E., L.R.C.P., L.M., L.R.C.S.Edin., appointed Medical Officer of Health for the Parish of the Close of St. Peter, Westminster.

SMITH, Patrick A., M.B., C.M., F.F.P.S.Glas., appointed Visiting Physician to St. Peter's Seminary, Bearsden.

STONEHAM, Mr. H. A., appointed Medical Officer for the Outdoor Poor of the Stepney Union.

THOMSON, Andrew, M.B., C.M.Edin., reappointed Medical Officer for Bretton West Sanitary District of the Wakefield Union.

THORNTON, George E., M.D.Edin., M.R.C.S., L.R.C.P.Lond., appointed Resident Clinical Assistant to the St. Marylebone Infirmary.

WALKER, H. U., L.R.C.P., L.R.C.S., L.M.Edin., reappointed Medical Officer for the Carlton Sanitary District of the Worksop Union.

WEBSTER, Arthur, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the No. 1 District of the Middlesbrough Union.

WILLETT, George Gilmore Drake, M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Bitton and Marksbury Districts of the Keysham Union.

WILSON, Arthur Marius, M.B., B.S., L.R.C.P., M.R.C.S., appointed Assistant Medical Officer of Health (Temporary) to the Port of Colchester to inspect all in-coming vessels.

WYNNE, William Arnold Smith, M.D.St. And., M.R.C.S.Eng., reappointed Medical Officer of Health to the Lowestoft Urban and Port Sanitary Authorities.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

LE MOTTÉE.—On September 10th, at Chakrata, N.W.P., the wife of Surgeon-Major G. H. Le Mottée, M.D., M.S., of a daughter.

MARRIAGES.

BICKERSTAFF—GREENWOOD.—On September 15th, at St. Clement Danes, Strand, George Roger Bickerstaff, L.R.C.P.Lond., M.R.C.S., of Waltham Abbey, Essex, younger son of the late Rev. J. Bickerstaff, Rector of Bonsall, Derbyshire, to Grace Catherine, elder daughter of the late Rev. H. B. Greenwood, Rector of Sutton-upon-Derweut, Yorkshire.

CALVERT—KING.—On September 13th, at St. Bede's, Melrose, by the Rev. George Paulin, Muckart, assisted by the Rev. James Brown, M.A., Lochgelly, William Hall Calvert, M.D., C.M.Edin., to Jean King.

CROCKER—WHALLEY.—On September 21st, at Eastbrook Wesleyan Chapel, Bradford, Yorkshire, by the Rev. Featherstone Kellett, James Meadmore Crocker, M.R.C.S., L.R.C.P.Lond., eldest son of James Crocker, M.R.C.S., L.S.A.Lond., of Bingley, to Florence, second daughter of William Whalley, M.D., Bradford. No cards.

JOHNSON—NADEN.—On September 13th, at St. Giles's, Hartington, by the Rev. William Fyldes, M.A., J. Mountford Johnson, M.B., eldest son of Mr. William Johnson, of Roche Mount, Leek, to Evangeline, third daughter of Mr. John Naden, of Hartington. No cards.

DEATHS.

AITKEN.—On September 11th, at Baden-Baden, Thomas Aitken, M.D., Medical Superintendent of the District Asylum, Inverness, aged 60.

SUTCLIFFE.—On September 16th, at Stock's Lane, Stalybridge, William Sutcliffe, Surgeon, aged 68.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted, will be found under their respective headings.*

QUERIES.

W. R., who has a female patient, aged 21, growing a full beard, would feel grateful for information as to successful treatment (if there be any such) for permanently destroying the growth.

Amateur wants the name of some good work on water analysis; and the address of some maker of chemical apparatus who supplies the requisite material for analysis, chemicals, etc.

M.R.C.S. writes: I have a case of lupus erythematosus of one side of the nose, occurring in a girl, aged 16. The patient is strong and healthy; menstruation normal. All the ordinary remedies are ineffectual. Can anyone advise?

W. J. L. writes: I would be obliged to any of your readers if they could let me know the name and address of the medical publisher in the Midlands (I think in Saltaire) who advertised some time ago a system of book keeping called the A B C system; and also for an opinion on the system.

M.D. asks for suggestions regarding the treatment of a most obstinate case of chronic urticaria. The sufferer is a thin, wiry, very high-spirited, and excitable boy, aged 8. He was born in India (instrumental delivery), and has ever since suffered from urticaria. He is seldom more than two or three days free from the rash. The spots are not large, but are numerous, and appear on all parts of the body. His general health is good excepting when the rash is out, and then he is irritable and slightly feverish. All remedies recommended in such cases have been tried with only temporary good effect. Gregory's powder appears to have the most beneficial effect, but he now rebels so much against taking it that it is painful to administer it. He has been carefully watched, but there has never been any sign of intestinal worms.

Infantile Paralysis.

Mr. Legge Paulley (Harleston) asks for information as to any home or institution, in town or country, where a little boy with infantile paralysis could be received and well cared for. He is 9 years old and cannot walk at all; his friends would pay £50 a year for him.

English Sanitary Law.

M.Ch. asks for the name of some complete book on the laws of England as regards sanitary matters and public health, suitable for reading to prepare him for D.P.H.Camb.

*** A brief digest, fairly up to date, is given in Reid's *Practical Sanitation* and in Wilson's *Hygiene*, but for the purpose stated it would be advisable to supplement these by reference to the originals.

Epileptic Farm Colonies.

Epilepticus writes: Is there such a place as an epileptic farm colony in England, where is it situated, and to whom should I apply for particulars?

*** There is, we are informed, a home for epileptics at Maghull, near Liverpool, and Lady Meath's "Home of Comfort" will shortly be opened at Godalming. A National Society for the Employment of Epileptics is also being started which proposes to buy about 100 acres near London, and occupy the epileptics with market gardening, dairy work, poultry farming, and some trades, but it is not yet actually in existence. The Honorary Secretary is Miss Burdon Sanderson, Branksome, Greenhill Road, Hampstead, N.W.

Knotting of the Cord.

Mr. T. Reuel Atkinson (Sherborne) writes: A few days ago I was summoned to a confinement, and at once proceeded to the house. I found the child—a full-sized male, just born—with the cord twisted tightly round the neck and a knot in the cord half way between the umbilicus and placenta. Was the cause of death to be found in the knot or in the cord round the neck? I incline to the latter, since the cord itself was a large one, very resilient, and the knot was easily untied. Death had occurred some days previously, and there were several large blebs on the body containing bloody serum. The caput succedaneum was one of the longest I have ever seen, and the bones of the skull very loose, and could easily be made to overlap.

*** We have referred this case to an eminent obstetrical authority, who writes:—Knotting of the cord, or twisting of the cord round the the neck rarely, if ever, causes death of the child during pregnancy. In the few reported cases in which knots seem to have caused death the Whartonian jelly has been atrophied from pressure at the seat of the knot; and in some other cases the neck has been found extraordinarily thin from compression by the cord twisted round it. In Dr. Atkinson's case I should think intrauterine death was due to some cause quite independent of the knots in the cord.

ANSWERS.

Hants should certainly communicate with the Secretary of the Royal College of Surgeons.

Training of Nurses.

Quæstor will find all information in the *Nursing Directory*, published by the Record Press, Limited, 376, Strand, W.C.

Salicylate of Sodium in Diabetes.

F. W. L.—In the *Practitioner*, vol. xlvii (August, 1891), p. 91, Dr. E. Mansel Sympson gives a bibliography and a very good account of cases of diabetes treated by salicylate of sodium.

Climate of Blackpool.

Dr. J. Ruxton (Blackpool) writes: In reply to query of "Junior Member" about the climate of Blackpool in winter for a case of chronic bronchitis, I may state that many such cases are greatly benefited by residence here. I would recommend his patient to try the winter climate, which is by no means a severe one for England, for two months before breaking up his establishment elsewhere. Rooms can then be had at a very moderate rate.

Asbestos Fires.

Mr. William Soper (Clapham Road, S.W.) writes: If "Scalpel" will write to Thomas Fletcher, of Warrington, he will obtain from him a stove made at my suggestion that is very perfect for bedroom purposes. It brings moist air and thoroughly warmed from the exterior of the house, and to my idea does away with the fatal objection to gas stoves, namely, a dry and desiccating atmosphere, and when not in use, acts as a Tobin's tube. It can be made with asbestos, iron, or illuminating flame; the latter is preferable. It would be well when ordering to give cubical contents of air space to be warmed.

Carriage for Suburban Practice.

Dr. Chas. E. Addison (Colchester) writes: In reply to M.D.'s inquiry in the British Medical Journal of August 27th as to the best carriage for suburban practice, I can confidently recommend him Bligh's (of Canterbury) "Canterbury Car." It is a two-wheeled pannel cart, hung on two side and one cross spring, most easy to ride in, light of draught, strongly put together, and very stylish looking and easy of ingress and egress. It is generally made for cobs and ponies, but can of course be had of any size. I have used one all this summer, find it a great comfort, and should be very sorry to be without it. This cart is, I believe, always on show at the Bazaar, Baker Street, London.

NOTES, LETTERS, Etc.

Erratum.—In Dr. George Macdonald's letter on "Sea Sickness and its Treatment," published in the British Medical Journal of September 17th, page 665, for "chloroform" read "chlorobrom."

London Coroners.

In the British Medical Journal of September 10th it was stated that Mr. Luxmore Drew would shortly be elected to the South-Western District. We are requested to state that this is inaccurate, as that district will be assigned to Mr. Braxton Hicks, as one of the existing coroners. Mr. Luxmore Drew, if elected, will be appointed to the Western District, lately in the jurisdiction of Dr. T. B. Diplock, not to the South-Western.

Neglect of Vaccination in British Columbia and its Results.

As if to add emphasis to the evidence before the Royal Commission on Vaccination, we have before us a letter with which we have been favoured, written on July 29th at Victoria, Vancouver Island: "Small-pox is very bad here at present; there is a perfect scare, and the authorities are strictly enforcing sanitary measures. Everyone has to be vaccinated, under a heavy penalty, and if one in a house takes the disease, no one is allowed to leave it for twenty-one days, and the unfortunates who do take it are taken to the pest house. If they die they are buried immediately. They always have the graves ready, or rather the common grave. There is no respect for persons; if you take the disease, you are just so much offal. One unfortunate was put into the box he was to be buried in while life still remained; he sat up and looked around. Some say the shock killed him. They are in such a hurry to bury, and everyone is nervous. They put a yellow flag out of every house where it breaks out, and set watchmen day and night. The doctors and chemists are doing well, but it is ruination to Victoria.....There is a gloom over the city, and every one of the schools is closed; service is stopped in some of the churches. The city is under quarantine laws; no strangers will visit this year, and that in itself is ruin to many of the big hotels, with their retinue of servants and hangers-on; there is a lot of trouble everywhere."

ANALYTICAL CHEMISTS AND LICENCES.

MR. G. H. ROBERTSON (Secretary Institute of Chemistry, 9, Adelphi Terrace, Strand, W.C.), writes: It may be of interest to your readers to know that the following letter has been received from the Excise authorities in reply to a memorandum laid before them by Mr. Carteighe, Vice-President, in accordance with the request of the Council of the Institute of Chemistry.

Inland Revenue, Somerset House, W.C.

"SIR,—Having laid before the Board of Inland Revenue your letter of July 28th, I am directed in reply to acquaint you, for the information of the Council of the Institute of Chemistry, that the Board have no desire to extend the obligation to take out a licence to analytical chemists using stills solely for purposes of distilling water. If an analytical chemist, called upon to take out a licence by one of the Board's officers, will submit his case to the Board, they will be prepared to give the matter careful consideration.—I am, Sir, your obedient servant, (Signed) W. B. HEBERDEN, Assistant Secretary."

A NOVEL NUISANCE.

THE reports of the Highland County Council meetings are amusing, if not always instructive, reading. From an account of the last meeting of the Ross-shire County Health Committee it would appear that the duties of the county sanitary inspector are not confined to things of the material world but extend into the domain of the spiritual. In the parish of Kintail some time ago a parishioner, who was a Roman Catholic, was buried in the St. Duthus burying ground, which is not the customary place of burial. Complaint was made of a nuisance, but the sanitary inspector reports that the body was buried 8 feet deep, and that it was the ghost of the dead person that was a nuisance.

SALT AS A SWEETENER OF SUGAR.

SUGAR and salt are sometimes held to be incompatible or antagonistic in their action on the organs of taste, but it is a common social experience that the addition of the slightest dash of salt adds flavour to sweet coffee, and sugar-cured hams have their own reputation, while meat and vegetables cooked "sour and sweet" are a favourite delicacy in Germany. Professor Zuntz, at the Physiological Society of Berlin, definitely explained the making of sugar sweeter by the addition of salt. From his experiments he finds that, if to a solution of sugar there be added a slight amount of salt and water, so weak that it excites no saline taste, the result is extra sweetening of the sugared water. The weakest of quinine solution is said also to produce similar results. The explanation given of the above seeming incongruity is, that the ever so feeble saltness or bitterness imparts an increased sensibility to the sensation of taste by the simultaneous stimuli, and hence an appreciation of additional sweetness.

THE INFLUENCE OF MATERNAL EMOTIONS ON THE CHILD.

MR. J. MACLAGAN REID, M.B., C.M. Edin. (Oxford) writes: A baby, 4 months old, was brought to me the other day by its mother, who was very much alarmed because, as she said, the baby had been suddenly taken with a throbbing all over its body, that, on placing her hand on its belly, it was raised up by each pulsation. On examining the child I found that there was indeed very strongly marked abdominal pulsation, very manifest both on inspecting and palpating the abdomen. On auscultating, the transmission of the heart sounds could be very distinctly heard. There were no other symptoms of note. Up till this time the child had been very healthy, and was being nursed by its mother. The day before the pulsation appeared the mother had been very much frightened by one of her children being nearly run over by a carriage. I gave the baby some ½-gr. doses of bromide of ammonium, and recommended the mother to "give it the bottle" for the time being. On seeing it next day the pulsation had almost entirely subsided. The same child, when born, had a ring of vessels round the iris. The mother stated that shortly before the child was born her eyes became inflamed, and that, with one of them, she could only see a ball of crimson; she was afraid lest this should have some effect on the baby. The vessels in time disappeared, leaving no trace of a mark.

TOO LEARNED BY HALF.

THE latter-day singing master is nothing if not scientific, and his acquaintance with the anatomy of the vocal organs is as extensive, and sometimes as peculiar, as Sam Weller's knowledge of London. There are still, it is true, some excellent teachers who stand upon the ancient ways, caring nothing about the thyro-arytænoideus muscle, and content to believe that the "head voice" is produced somewhere in the region of the sagittal suture. One very eminent *maestro* till recently believed that the vocal cords were placed transversely in the larynx, and, though he has since "found salvation" on this point, we have not heard that this has in any way improved his teachings. Far from us be the thought of rushing in where angels might fear to tread, and attempting to arbitrate between what we may call the "scientific" and the "artistic" schools of vocal training. Knowledge may not always be power as far as the voice is concerned, but it can never fail to be useful if properly applied. It seems to us, however, that the "scientific" teachers would do well, as they are strong, to be merciful; otherwise there is a risk that their lessons, horribly stuffed with epithets of the dissecting room, may not only perplex their pupils, but cause needless alarm to parents and guardians. The following extract from an "imaginary conversation" (not by Walter Savage Landor, but by an anonymous American humourist) amusingly illustrates the effect likely to be produced on the untutored mind by the scientific jargon affected by our "up-to-date" professors of singing. A lady, who had taken her daughter to have her voice tried by several of these superior persons, returned home much discouraged, and gave the following report to her husband: "The first professor said that Almira sings too much with her borax. If she keeps on she will get digestion of the lungs. He said she ought to try the abominable breathing and practice solfudgery. Then the next teacher told me she ought to sing with her diagram, and not smother her voice in the sarcophagus. Then the next he poked a looking glass down her throat and said the phalanx was too small, and the typhoid bone and the polyglottis were in a bad way; and I never knew that Almira had so many things down her throat, and I am afraid to let her sing any more for fear it will kill the poor girl." We may laugh at this poor Mrs. Malaprop, but her experience points a moral which may be commended to the attention of those who undertake to train the voice by the light of the laryngoscopic lamp.

LETTERS, COMMUNICATIONS, ETC., have been received from:
(A) A. W. H.; Mr. Alfred Allen, Bath; Mr. C. E. Addison, Colchester; Dr. Apostoli, Brussels; Dr. Anningson, Cambridge; Dr. S. W. Abbott, Boston. (B) Mr. R. J. Bateman, London; Mr. W. G. Bott, London; Mr. E. R. Bowen, Pen-y-groes; Dr. J. Bellairs, London; Messrs. Burroughs, Wellcome, and Co., London; Mr. H. G. Barling, Birmingham; Mr. R. Brown, Vichy; R. A. Beaver, M.B., Liverpool; Dr. W. Boulting, London; Mr. R. Benridge, London; J. Berry, M.B., London; Mr. J. Busfield, London; Mr. C. F. Beadles, Colney Hatch; Mr. W. H. E. Brock, London; Mr. R. Broadbent, Leicester; Mr. J. W. Bullen, Belfast; Mr. E. Brockfield, Adlington; Mr. E. Bayley, London. (C) Cotopaxi: Mr. J. R. Chibnall, London; Dr. Creighton, London; Dr. M. Charteris, Jersey; Messrs. J. Coxeter and Son, London. (D) Dr. H. L. Donovan, Tipperary; Mr. W. G. Dreaper, Lincoln; Mr. J. W. Dewar, London; Dr. T. O. Dudfield, London. (E) Mr. G. Young Eales, Torquay; Mr. G. Eastes, London. (F) A. Hanbury Frere, M.B., Leeds; F. T. F. (G) Dr. E. Goodall, Wakefield; Dr. S. E. Griffiths, London; Mr. J. Gray, London; Mr. G. M. Gould, Philadelphia; Messrs. Grindlay, Groom, and Co., Bombay: Dr. J. F. Goodhart, London. (H) R. M. Horne, M.B., Edinburgh; Mr. W. E. Hacon, Christchurch; Mr. C. N. Hamper, London; Mr. H. R. Hatherly, Nottingham; Dr. J. Hunter, Exmouth; Dr. J. B. Haycraft, Hurstpierpoint; H. L. D.; Mr. G. E. Hale, London; Mr. W. Harvey, Newton Abbott; Dr. Herman, London; Mr. W. Hunting, Chelsea; Mr. L. Hawken, Hassocks. (I) J. P. Irving, M.B., Huddersfield; Inquirer; Dr. J. Ince, Swansea. (J) Mr. A. Jones, Stokesley; Dr. Jaeger, London; Mr. Basil Jackson, London. (K) Dr. W. M. Kelly, Taunton. (L) Dr. J. A. Lindsay, Belfast; J. F. Little, M.B., London; Liable to be Recalled; Dr. J. J. Lloyd, Llanelly. (M) Mr. W. Allan May, Devonport; Messrs. S. Maw and Son, London; Dr. P. W. Macdonald, Dorset: A Medical Student"; Dr. W. Murrell, London; H. C. Munro, M.B., Paisley; Dr. T. M. Madden, Brussels; Surgeon-Major Maitland, Ootacamund; Dr. Mead, London; Dr. A. C. Munro, Paisley; M.D.; Mr. G. S. Mill, Wakefield; Dr. Mackenzie, Balham; Dr. J. Murphy, Sunderland; Dr. A. T. Myers, Cheltenham; Dr. J. W. Malony, Hull. (N) Mr. M. Nicklin, Wolverhampton; Mr. P. W. G. Nunn, Bournemouth. (O) Messrs. Oliver and Boyd, Edinburgh; Mr. T. W. Openshaw, London; Dr. I. Owen, London. (P) Mr. J. D. Phillips, Scole; Mr. H. R. Pike, Gloucester; Messrs. Parke, Davis, and Co., London; G. D. Pidcock, M.B., London; Professor Penberthy, London; Mr. C. S. Perkins, Sydenham. (R) Mr. W. Richardson, Gosport; Dr Reid, Stafford; Mr. J. J. Ridge, Enfield; Dr. A. Roberts, Harrogate; F. W. Ross, M.B., New Brighton. (S) Mr. J. Smith, Brechin; Mr. R. Sterling, Newcastle-on-Tyne; Dr. Saundby, Birmingham; Senex; Mr. S. Snell, Sheffield; Synctironal; Surgeon-Captain W. Smith, Dharsala; Mr. A. Syke, Hellesdon; Mr. W. Soper, London; Mr. F. Staperley, London; P. A. Smith, M.B., Glasgow; Dr. C. S. Sherrington, Ipswich; Dr. C. Spurway, Como; Messrs. Sthamer, Noack, and Co., Hamburg; Mr. E. H. Saunders, Weymouth; Mr. J. A. Salmond, Ayr; Dr. W. S. Steele, Torquay; Dr. E. M. Skerritt, Clifton. (T) J. C. Thresh, M.B., Portsmouth; Dr. Thin, Calais; Mr. E. Thompson, Omagh; Mr. E. H. Taylor, Dublin; Dr. H. Taylor, Guildford; Mr. H. P. Topping, Forest Gate; Mr. G. H. Temple, Manchester. (V) Vox et Præterea Nihil. (W) Dr. Willoughby, London; E. T. Wynne, M.B., Rainhill; Mr. M. W. Wright, London; E. T. Wynne, M.B., Rainhill; W. F. T.; Mr. C. J. Wood, London; Mr. A. M. Wilson, Colchester; Mr. R. W. Willington, Lincoln; Mr. F. H. Wood, Wakefield; etc.

BOOKS, ETC., RECEIVED.

Le Choléra: ses Causes. Par le Dr. G. Daremberg. Paris: Rueff et Cie.

Keep your Mouth Shut: A Popular Treatise on Mouth Breathing, its Causes, Effects, and Treatment. By F. A. A. Smith, M.D., C.M. Glasg. London: Baillière, Tindall, and Cox. 1892.

Medical Microscopy. By T. J. Wethered, M.D. London: H. K. Lewis. 1892. Price 9s.

Human Monstrosities. By Barton Cooke Hirst, M.D., and George A. Piersol, M.D. Philadelphia: Lea Brothers and Co. 1892.

Sea Sickness: Cause, Treatment, and Prevention. By Thomas Dutton, M.D. London: Henry Kimpton. 1892. Price 2s.

The Art of Feeding the Invalid. By a Medical Practitioner and a Lady Professor of Cookery. London: Scientific Press Limited. Price 3s. 6d.

Hamburg in naturhistorischer und medicinischen Beziehung. Hamburg: L. Friederichsen and Co.

OPENING OF THE MEDICAL SCHOOLS: INTRODUCTORY ADDRESSES

ON

MEDICINE & SCIENCE: FACTS & THOUGHTS.

Delivered at the Opening of the First Session of the Queen's Faculty of Medicine in connection with Mason College, Birmingham.

By Sir GEORGE MURRAY HUMPHRY, F.R.S.,
Professor of Surgery in the University of Cambridge.

The Union of the Colleges typifying the Relation between Medicine and Science.

We are met to-day for two chief purposes. First, to celebrate the union—the nuptials, we might say—of two great institutions. The older of these was commenced in 1825 with a course of lectures by Sands Cox, a well-known figure in surgery in my early time, who had the felicity—as it was also my privilege—to teach human anatomy in conjunction with physiology and surgery, and to impart to it the interest resulting from that union. It was chartered as "Queen's College" by Her Majesty in 1845, and has grown into a well-equipped school of medicine, which is now about to enter upon a fresh hopeful career, in new and extensive buildings, fitted up with due regard to the necessities of modern medical education, and supplemented by the clinical material which the hospitals of a great manufacturing centre afford. The other institution has the peculiar interest of being the outcome of the intense appreciation of science by one who, from the most humble beginnings and the most humble education, had raised himself by practical genius and business quality to be one of the foremost and wealthiest men in this great and active town, and who rejoiced in the hope that he would hereby leave behind him "an intelligent, earnest, industrious, and truth-loving and truth-seeking progeny for generations to come."

Could Sir Josiah Mason and Mr. Sands Cox be with us to-day, how heartily would they shake hands in the participation of this ceremony, in the realisation of much that they longed for, and in the prospect of much more good results in time to come!

The union of medicine and science, which is thus typified, is one that is essential to the fulness of both and that has existed throughout their history. The only persons of scientific pretensions in the Homeric period appear to have been physicians. In the great school of Alexandria and in every subsequent great school of learning and science—in Italy, in France, in Germany, and Britain, wherein we still include Ireland, and long hope to do so—medicine has held a prominent place. The physicians—to wit, Linacre and Caius—were the most learned men of their time; and though many still rank high in learning and science, the range of literature and the scope of knowledge is now so great that no man can attain the same eminence in many subjects as was reached by those masters in bygone centuries. It thrills me a little when I hear medicine designated as an art. True, it is an art; but it is a science also. It is a compound of both, for it is both science and the practical application of science; and the practical application of its science advances *pari passu* with the science itself. Its subject is the human body, in which other sciences—physical, physiological, and psychological—culminate, and in the aberrations—the morbid phenomena—of which the most complex and difficult of all scientific problems are found. So difficult are they that they often set scientific thought at defiance and cause charlatanry to step in and cut their Gordian knots. Hence charlatanry has ever been an attendant upon medicine, usurping the field most where science is weakest, and waiting for its expulsion in the time when the further developments of science shall have made deeper search into the mysteries of medicine. Where, it may well be asked, can physics and chemistry find higher and worthier scope than in the anatomical mechanism, and in the physiological and pathological processes of man? and how can medicine make much advance except by the aid of these, her true handmaids? Never did medicine turn to them with more earnestness and more longingly than at this time, when she is prying closely into the processes of life, and searching anxiously into those changes which constitute disease and into the recondite sources of them; when a new and fertile field of research has been opened up, and patient, careful investigation has given fresh hope of combating the maladies which devastate our people.

Sad would it be for both if medicine and science were ever separated, and great reason have we to hope that the aspirations of your founders will be realised by the mutually inspiring work of their institutions; and we may confidently look forward to ever increasingly beneficial results from the proceedings of this day.

It is interesting to note, in connection with the events of the day, that Sir Thomas Gresham, the prince-merchant and great financier of Elizabeth's time, who appreciated the value of education, having been placed by his father, who was also a great merchant and financier, at Caius College in Cambridge, and who, like your Josiah Mason, founded a College of Science, which still exists in the City of London, left as an injunction that "the lectures were to teach things interesting to city men, but they must go to the bottom of them." He thereby indicated his consciousness that interest and benefit lay not simply in the things themselves, but also, and still more, in the mental exercise involved in the search into their causes. Possibly he further indicated his consciousness that that source of interest never could be exhausted, forasmuch as the bottom of things never could be reached; that, however deep in future ages the human search might go, a deeper still would remain to stimulate research, and to inspire interest.

"We speak the wisdom of God in a mystery" are the words of one of the most eloquent and earnest as well as most sincere of men. How true is the remark as applied to science, and indeed all knowledge—*σοφία ἐν μυστηρίῳ*—true now as much as when he wrote. In spite of all the—to us—enormous advance which has taken place in the intervening eighteen centuries and a-half, and in spite of our pride of this nineteenth century, the source of life and all force is still in what seems to be an eternal, *εἰς τοὺς αἰῶνας*, mystery.

The great questions, "*Whence* comest thou, and *whither* goest thou?" are still unanswered, and unanswerable by human ken. They need evidently a higher than human ken to tell; and those who are most advanced in knowledge, and have the highest and clearest range of view, are most ready to admit this.

Our second function on this present occasion is to give honour to whom honour is due, to recognise those who, by good work, have won their way to the front in student life, and to urge them to continuance in well-doing, and to wish them the future happiness which it will merit.

The Greek Ideal of Education Applicable to Medical Education.

No nation, I suppose, gave greater heed to education than the Greeks of old, and none with greater success, as is proved by their unrivalled philosophical disputations, their unrivalled dramatic productions, their unrivalled works of art, and their unrivalled military prowess.

Their ideal was that a man should be a "speaker of words and a doer of deeds," which implies that he should be also a thinker of thoughts, for good thinking lies at the root of good speaking and good doing. Their aim in education was to make a man eloquent and persuasive in council, and brave and resolute on the field of battle, having a good soul and a strong body—as the Romans also expressed it, *mens sana in corpore sano*—all the powers developed in due proportion, by such mental and physical training as best leads to goodness of soul and strength of body. The consummation of the ideal was that thought should be free, and action free by making both rational, and so attaining to the realisation of the glorious sentiment "the Truth shall make you free," and the prize aspired to was the crown of laurel and the respect of their fellow-citizens.

The ideal was a high one, as the ideal of life and duty should ever be. It is an ideal well suited to the life of medicine, for

to no man in a greater degree than to the medical man is the combination of goodness of soul and strength of body more requisite, and to no man is the crowning addition of goodness of heart more important. Upon him it devolves to bring hidden things to light, to step cautiously from the old upon new ways, to weigh probabilities (wherein, I suppose, consists what we call "common sense"), and with severe bodily strain, by night and by day, promptly and energetically yet with gentleness and kindness, to carry out the practical application of his knowledge to the relief of his fellow men. Upon no man, in short, is there greater demand for varied qualities of mind and body. To attain them all in any high degree is impossible, but you must not be thereby dispirited, for, happily, there is no line of life in which good quality of some kind is more appreciated and more telling. Energy and boldness, quietude and modesty, keenness and inventiveness, patience and perseverance, each and all have influence in the work of acquiring professional knowledge, and in gauging and influencing the bodily and mental constitution of the sick.

The Working Life a Happy Life.

Man, it has been said, "is born to trouble as the sparks fly upward." Happily, there is a hereditary antidote to this inheritance, for it may be as truly said that man is born to work, and work is one of the great sources of his happiness. The work-a-day life is the happy life. Many of you have already experienced this, and all of you may be congratulated on the prospect of more fully realising it in the working life that is before you. Many of you, I say, have already experienced this, for those of you, at any rate, who have won the laurels know the pleasure of work. Everyone has pleasure in work when he takes to it with earnestness. Pleasure in work is, therefore, a measure of earnestness in it, and the better the work the greater the pleasure. You, gentlemen, who have thus far succeeded, therefore, had pleasure proportionate to your earnestness in the good work you have had to do.

All power brings with it its measure of enjoyment, and to man is given, in addition to the animal power and the enjoyment of the body, the higher and greater power and enjoyment of mind and thought. The former naturally preponderates in early life, the latter at a later period, but both, as the Greeks felt, are necessary to make up the complement of the perfect man. The young man should rejoice not only in the growing strength and activity of his body, but also in the increasing vigour and power of his mental faculties, and in the means by which both are promoted. Pleasure, therefore, in the time of student life, bodily and mental pleasure, is by all means to be compassed, and I take it for granted that you have experienced, and do experience, it, and the measure of it enjoyed now is the best guarantee for it in time to come.

Examinations, and their Relation to Teaching: their Defects.

The examination prospect, I grant, is not always a pleasant one, and the less you look at it the better. The tendency of examinations to cast a gloom over, and to detract from, enjoyment in work is their greatest evil—an evil which much increases with the increased multiplicity of them. It was at its minimum in my day, when a single hour of oral searching was the only trial to which we were subjected at the great portal in Lincoln's Inn Fields, and as the result of it we were sent forth armed, as it was judged, *cap-à-pié*, to combat the maladies which attack the human frame, and to wield the scalpel—that weapon more formidable than the sword—upon those who entrusted themselves to us. The threatening cloud, therefore, no larger than a man's hand cast little shadow upon us. It has now spread over the horizon, and almost threatens to deluge the scene and drown the joyousness of study. Well, gentlemen, the only resource is to gird up your loins and run, like the prophet, boldly before it. Examinations are a terror to idle men, and should be that only. Keep steadily to your work, and the less you think about examinations the better will you pass them. They should be merely a stimulus and a guide to the diligent, the direction posts along the way telling him what paths he had better take as the best and surest road to the acquisition of that knowledge which will most fit him for the duties he has to perform. It is this feeling which should influence both the examiner and the examinee, both the teacher and the tester of that which is taught. There should be no conflict between examination and teaching. They should co-operate harmoniously in promoting the improvement of mental training and the acquisition of sound knowledge. I do not think this is sufficiently appreciated by teachers, examiners, and students at the present time; and I am often surprised to hear the sentiment expressed in an aphorismal and somewhat sententious manner that "teaching should guide examination, and not examination guide teaching." It is becoming rather a cant phrase; and I often wonder whether those who utter it have really thought out the purport of what they say. The real fact is that examining and teaching are, and must be, supplementary to one another. The examiners and the teachers are, or should be, guides and checks and adjuncts to one another. They should combine to indicate the best subjects and the best methods. Every teacher is improved as a teacher by examining students other than those he has taught, as well as by examining his own students, and every examiner is improved as an examiner by regarding the students from the point of view of a teacher. I have for many years been an examiner as well as teacher, and I do not think I ever learnt more as a teacher than by examining, during a period of ten years at the College of Surgeons, where I became intimately familiar with the thoughts and methods of other teachers, realised my own failings and theirs, and appreciated more fully the qualities and the needs of the various classes of students. I would say that for the completion of the mental equipment of a teacher it is desirable that he should have the experience derived from being an examiner of students who have been taught by others. I highly estimate the value, both to the student and to the teacher, of class examinations, which I have been in the habit of conducting almost daily for nearly fifty years; and I also highly estimate the value, both to the student and to the teacher, of that wider area of examinations in which teachers are confronted with those who are not their pupils, whereby the range of view and thought of both teacher and pupil is widened and over-assurance in individual method and idea is checked. Each question which an examiner puts has, indeed must have, an educational bearing, and should be looked upon in that light by him who sets it; and the right-minded student will not regard his examiner from a hostile point, as one who is actuated by the exclusive desire to probe the depths of his ignorance. Be it remembered that it is the part of the examiner to ascertain ignorance as well as knowledge, that it is hard to do one without the other, that if the student does not know the position of the femoral artery, or the symptoms of pneumonia, or the treatment of iritis, it is the duty of the examiner to find out such voids and others of more or less serious import.

Too many Subjects and too much Detail.

The great defect in examinations consists, I think, in the difficulty of estimating power in the application of knowledge. It is comparatively easy to ascertain whether there is or is not the knowledge of a fact, but it is by no means equally easy to ascertain whether or not there is the knowledge of the bearings of the fact, that is, its relation to other facts; whether, in short, there is the power of thinking about the facts known, and the power, consequently, of rendering the knowledge available. This difficulty of holding the balance between knowledge and thought is, and I fear must be, one of the chief defects in examinations, however conducted, and is the cause of some of the dissatisfaction which we hear now and then expressed with regard to the results in particular instances. One can quickly and easily ascertain whether a candidate knows the symptoms of a dislocation of the hip, and the method to be employed for its reduction, but it is a longer and less easy process to ascertain whether he understands the *rationale* of the symptoms and of the treatment required.

Facts and Thoughts.

Herein lies the difference between what is called "cram" and intelligent knowledge. The one is just an acquaintance with facts, the other implies an inquiry into and acquaintance with their causes, their being, use, and ends—an acquaintance, that is, with principles. The two should go together. In this matter-of-fact age, when practical knowledge

is so much in demand, the one commonly dominates over the other; and the tendency in teachers is to crowd the student's mind with copious, too often ill-digested facts, and in examiners to estimate the amount held and produceable at a given time, rather than the ability to use it. This is attributable in no small degree to the number of subjects required, and still more to the increasing details in each; and it is to be corrected only by paying more attention to principles and less to details. In the subjects accessory to medicine—especially biology, physics, chemistry—to give and require a good grounding in principles, with so much detail only as serves to illustrate the principles. The same remark applies, to some extent, to physiology and materia medica. The need of this limitation of detail grows as the several subjects grow, and as the teaching and examining in them falls more into the hands of those who are specially instructed in them and highly estimate them; and whenever I read over syllabuses of study and examination papers, I am impressed with the importance of narrowing the range of detail required. This feeling grows with me more and more; and I feel with regard to certain subjects that they had better be left out of the programme altogether than that the student should be overladen and wearied and his spirit broken by the multitude of facts and details that are required to be got up. The work of professional study above all should be happy work, and the period spent in it should especially be a cheerful, happy period. The work is then most likely to be well done without damage to body or mind, and the results well remembered; and there can scarcely be a greater bar to educational progress than that which causes a distaste for study, and which, by overloading, makes work burdensome and painful to bear, and turns into dislike that love of knowledge which is a natural feature, an inborn and most blessed quality of the human mind, that indeed to which all progress is mainly due.

All facts have a halo of interest about them which gives them their attractive glow, without which they are scarcely worthy of a place in the human thought. Facts may be regarded as pegs whereon thoughts may be hung, and thoughts are the rivets whereby the pegs are fastened. I do not wish you to despise facts. Without them there can be no thoughts; and those who have the clearest knowledge of facts are usually the persons who have the greatest power of thinking and reasoning upon them. This must not be forgotten, for facts constitute the great stronghold of medicine, the marking of them is the basis of experience, and the best and keenest observer of facts, who is usually also the best holder and combiner of them, is the best practitioner of medicine. Hence the cultivation of the good and acute observation of facts is, or should be, one of the great aims in medical education. It is indeed to the combination of the two great qualities—observation and reflection—that man owes his pre-eminence in creation; it is to the amount of good balance of these two that one man owes his superiority over others. By this the great masters in our profession, all along the line of its history from Hippocrates to those who now hold sway, acquired and hold their places. By this you must hope to win, and remember it is much under your own control.

The Importance of Attention.

Both observation and reflection imply, and are much dependent upon, attention. It may be called the cardinal talent, without which little can be done, whatever other qualities may be present. The attentive or intent worker is the good worker, whether in a manual or a mental sphere. Slovenliness in either results from want of attention. The attentive man is talented, and the talented man is attentive. The cultivation and promotion of this faculty should be one of the great efforts of education. This, indeed, is the necessary effect of good education, for no good learning can be done without it. It is the soul of accuracy; it is the soul of memory. If a man cannot remember you may be certain that he cannot attend. It is the soul of good thought and ripe judgment. Cast your eye round the dissecting room, you soon perceive who are the real learners of anatomy. You judge by their intentness uninfluenced by slight surrounding abstractions. A glance at the dissections enables you to judge by the neatness or slovenliness, that is, of the greater or less attention that has been given to the manipulatory process. A few questions tell you whether there is real attention and thought upon the work which is being done, whether the student is a mere manipulator or whether he knows what he is about. A few questions upon the part dissected a few days ago gives still more valuable information, forasmuch as you then elicit information as to the enduring value of the attention—that is, of the impress which attention has made. A student reads in the ward a case which he has just taken. You judge of his attention to the case by the account he gives of the patient's appearance, tongue, pulse, etc., and by his description of the malady, and you form an estimate of his thoughtful attention from the manner in which he infers the nature of the case by the collection of the symptoms. Question him upon the case a few days afterwards without his notebook, and you ascertain to what extent his memory was impressed, and you judge that the recollection of the case is proportionate to the attention bestowed in taking and thinking upon it. You learn, in short, what real good the case-taking did him. How far better, as a process of mental training in observation and thought, is one case well—that is, carefully—seen and taken, as compared with many cases carelessly observed; the results in knowledge being proportionate, not so much to the opportunities of seeing many cases as to the attention bestowed upon a few. It is not the walking round a hospital that gives large—rather should I say deep—knowledge. The test of this will be afforded by a few questions at the conclusion of the visits, such questioning being, I apprehend, the very best kind of clinical lecture that can be given. Unfortunately, it will be found that the knowledge acquired is often in an inverse ratio to the number of cases which have been seen. Let a man observe carefully the cases in the Birmingham hospitals, let him note well the questions and remarks of the able and experienced medical officers in examining the patients, for each question has its import, and he will have ample field for the acquisition of medical knowledge. Let the student digest the food thus supplied him, and he need have no sighing for pastures new.

Self Examination and Independent Thought.

Finally, gentlemen, let me exhort you to cultivate the habit of examining yourselves. At the conclusion of each hospital visit consider what you have seen and learnt, and thus impress the lessons on your memory. Hurry not from one thing to another. In this, as in so many things, the more haste the less speed. At the same time, do not dawdle. Be intent, but be deliberate. By questioning yourselves you will be your own best teachers. Rely not so much on others as on yourselves. By cultivating self-reliance in study you will best promote self-reliance in your future vocation. We hear much at the present time of German universities, of German teachers, and German students. We acknowledge their superiority in some respects, more especially in the opportunities for, and the devotion to research, and we would, if our restrictive laws did not hinder, imitate them in this; but we wish you to hold by the freedom and independence of thought and activity of body of Englishmen. We would not that you should be dragged at the chariot wheels of any heroes, for that implies deadness, but rather that you should stand erect and march on by your own force with the firm, straight, dignified step that indicates strength of mind, determination of purpose, and unselfish nobility of character.

Leprosy in Louisiana.—The Louisiana State Legislature has now before it a Bill for the prevention of the dissemination of leprosy and the creation of a lazaretto for the segregation of lepers. From a report presented by the State Board of Health, it appears that there are now some 250 lepers in Louisiana, of whom 30 belong to New Orleans itself. The Bill provides for the construction of a leper house in New Orleans in the neighbourhood of the small-pox hospital in that city, and for the isolation of persons recognised to be suffering from leprosy in the lazaretto. All persons are forbidden, under various pains and penalties, to harbour lepers. There is, it appears, a sort of colony of lepers at a place called Bayon-Lafourche, where these unfortunate outcasts live in the marshes, where they have shops, a school, and a church of their own. Their spiritual needs are ministered to by an Italian priest who is himself a leper.

CASE OF RATTLESNAKE BITE IN LONDON.

BY SIR JOSEPH FAYRER, K.C.S.I., M.D., F.R.S.

ON August 4th a gentleman, of about 30 years of age, came to me at about 10 P.M. with his hand bandaged. He informed me that about an hour previously he had been bitten by a *crotalus durissus*, 4 feet long. The accident happened in this wise:

It appears that, being interested in poisonous snakes, he keeps several as pets. He was feeding this rattlesnake, and was pushing a dead mouse into its throat with his finger when the reptile imbedded one fang in the mouse and the other in his finger, near the apex and by the side of the nail. He withdrew his finger rapidly; it was bleeding freely. He sucked the wound, went immediately to consult a medical man, who most judiciously applied a ligature tightly round the finger, gave him some whisky, made an incision into the puncture and applied nitric acid to it. He then went to a hospital, where he received further attention and was invited to remain; this however he declined to do, and came on to my house.

When I saw him, about an hour after being bitten, he looked fairly well, not frightened, but rather confused and excited—perhaps from the whisky which he had taken. He said he had swallowed about a tumblerful of that stimulant. The finger was much swollen, probably from the ligature, and the wound discolored from the nitric acid. The ligature had been removed and the wound was still oozing blood; it had been carefully dressed at the hospital. There were neither constitutional indications of poisoning nor pain in the injured part. He said he had a tingling sensation in the mouth, but this was probably due to the whisky he had imbibed.

I re-applied the ligature tightly round the finger and sent him back to the hospital at once, to remain there all night under observation, giving him a note recommending that the ligature should be kept on as long as it safely might be, and that a solution of permanganate of potash, 1 to 10 or 20 should be injected into the wound, which should also be allowed to bleed freely if it would. I urged him to lose no time.

Next day, at 1.30 P.M., he called at my house when I was out; he did not appear to be suffering, I was told.

On August 6th I met him walking in the street; his hand was still bound up, but he had suffered no further inconvenience. He said he had spent the nighti n the hospital, and was allowed to leave on the following morning.

I heard nothing further of him till August 20th, when he presented himself in his usual state of good health, the wound on the finger still unhealed, but looking healthy; evidently there had been no constitutional poisoning, but the finger was still swollen.

The case is interesting, as it throws light on the explanation of those cases of bite from the more venomous snakes in which no evil result ensues.

In this instance the patient had been clearly punctured by the long vibratile fang of a large rattlesnake, irritated and hungry for its food. The bite was probably not intentional, and, the finger being rapidly withdrawn, no time was allowed for compression of the jaws or forcible injection of the poison into the puncture. It was, moreover, promptly and judiciously treated immediately after the bite, and this alone might account for the immunity from symptoms of poisoning. I am inclined, however, to believe that either no poison had been injected at all, or so little as to cause no ill effects. It is in this way that people do sometimes escape, and it is thus that so-called antidotes sometimes acquire a reputation they do not deserve.

It is to be hoped that this will prove a salutary lesson to this gentleman, and make him more careful in future how he handles and feeds his dangerous favourites; a little more pressure of the jaws, with a little deeper penetration of the fang, and a less happy result might have been recorded.

I need hardly say the case was full of interest, and it was a source of great satisfaction to find that both on the part of the patient and the medical adviser all that presence of mind and common sense, combined with appreciation of the urgency of the case could suggest, had been so promptly and vigorously done.

It is curious that I should have had two opportunities of seeing cases of snake bite in London, the first from a puff adder, *vipera arietans;* the second from a rattlesnake, *crotalus durissus*. In both cases the result was favourable.

REPORTS

TO THE

SCIENTIFIC GRANTS COMMITTEE

OF THE

BRITISH MEDICAL ASSOCIATION.

REPORT ON THE BACTERICIDAL ACTION OF ALEXINS.

BY E. H. HANKIN,

Fellow of St. John's College, Cambridge.
[From the Pathological Laboratory, Cambridge.]

I HAVE elsewhere shown that proteid substances capable of killing bacteria, and now known as alexins, can be obtained from the bodies of various animals. Further, I have given reasons for thinking that during life these bodies are contained in cells; that by an appropriate stimulus on the death of the animal they may be liberated, and pass into the body fluids; that the bactericidal power of the cell-free blood serum (which has been ably dealt with by Buchner and others) is probably due to the presence of traces of these alexins. Lastly, I have shown that from the chemical standpoint these bodies are identical with Halliburton's cell globulin-β, a substance having the same action on blood plasma as fibrin ferment.[1]

A belief is prevalent that the bodies of animals killed by a lightning flash putrefy with unusual rapidity, and that their blood refuses to clot. If this is so, we might suppose that the lightning flash has destroyed fibrin ferment and its allies. Among the latter must be counted the alexins. Consequently, decay-producing bacteria might penetrate the tissues with more than ordinary rapidity. As this somewhat vague possibility was among the suggestions that originally led me to seek for a bacteria-killing proteid among the allies of fibrin ferment, I have recently thought it worth while to subject the matter to an experimental investigation. As lightning flashes are not included in the armamentarium of the laboratory, I had to be content with sparks from a six-plate Wimshurst electrical machine, for the use of which I owe my best thanks to Professor J. J. Thomson.

I may here point out that such sparks, though containing electricity of very high potential, contain it in such small quantity that the thermal, electrolytic, or other physical changes they are capable of producing are extremely small, and could only be measured, if at all, by extremely delicate physical methods. Consequently their action on alexin solutions—which I shall describe below—cannot be explained by a reference to the more ordinary effects of an electric current. First, with regard to the action of such sparks on the bactericidal power of serum. In the case of rabbit's serum it must be trivial or non-existent, for it could not be demonstrated by the following method employed by me for estimating the bactericidal power of serum:

A rabbit's throat is cut and the blood is allowed to flow directly into a sterilised centrifuge tube. As soon as clotting has occurred the clot is loosened from the walls of the tube by means of a sterilised glass rod. The tube is loosely plugged with cotton-wool and placed in a centrifugal machine for some minutes. By this means the serum is expressed from the clot in greater quantity, and more rapidly than would be the case if the serum were left to itself. The serum is then decanted by means of a 1 c.c. pipette into a number of small test tubes that have previously been sterilised and plugged. Exactly 1 c.c. of serum is placed in each tube. The tubes are then inoculated with varying quantities of a vibrio Metschnikovi culture.[2] A 24-hour-old bouillon growth should be em-

[1] On a Bacteria-killing Globulin, *Proceedings of the Royal Society*, vol. 48, p. 93, May 21st, 1890. On the Conflict between the Organism and the Microbe, BRITISH MEDICAL JOURNAL, July 12th, 1890; and On Immunity, read before the Congress of Hygiene and Demography, London, August, 1891.

[2] The vibrio Metschnikovi is preferable for this method, and the anthrax microbe for the plate culture method of estimating the bactericidal power of alexin solutions, for reasons mentioned later on in this paper.

ployed. It must first be well shaken. Then 0.01 to 0.02 c.c. of it is removed by means of a graduated pipette, and mixed with 10 c.c. of a sterilised normal salt solution. The graduated pipette is again sterilised by immersion in boiling water, and used to inoculate the serum tubes with gradually-increasing quantities of the diluted culture. Perhaps the first test tube of the series receives 0.005 c.c. of the diluted culture; the next 0.01 c.c., and so on till the last tube receives 0.1 c.c. of the original undiluted culture. This last tube will certainly produce a growth after twenty-four hours, if the serum of ordinary rabbits is employed. A varying number of the other tubes will remain sterile. Perhaps the tube containing 0.03 c.c. of the diluted culture will have produced a faint indication of a growth. Tubes inoculated with larger quantities will be found to show typical growths after twenty-four hours. Those, on the other hand, inoculated with smaller quantities appear to be sterile. In this way a rough estimation can be obtained of the quantity of the culture that 1 c.c. of the serum in question is capable of destroying. This method is only applicable to liquids showing a well-marked bactericidal power, but is easier to carry out than the plate culture method.

When tested in this way rabbit's serum, through which ten to fifteen loud sparks from a Wimshurst machine had been passed, showed just as great a bactericidal power on anthrax and on vibrio Metschnikovi as normal serum.

In the case of rat's serum I have, however, obtained evidence that sparks of high potential can affect its bactericidal power to a slight degree, as shown by the following experiment:

Three rats were killed by decapitation, and their blood collected in the same vessel, which was kept in a cool place till the next day to permit the separation of the serum. Part of this serum was mixed with virulent anthrax spores from a fresh agar culture, and immediately injected in quantities varying from 0.02 to 0.06 c.c. Of these mice four survived. A control mouse inoculated with anthrax alone died within eighteen hours. Another portion (less than 1 c.c.) of the same serum was placed in a small sterilised U-tube, where it formed a column about 1 centimetre long. Two stout platinum wires were taken. One end of each was coiled up into a little ball. One was passed down each arm of the U-tube till the coiled end was just immersed in the serum. The wires were held in position by plugs of sterilised cotton wool. The wires projected about 2 inches out of the ends of the tube, and these free ends were furnished with little brass balls about half an inch in diameter. One ball was placed in contact with one pole of the Wimshurst machine. The other ball was kept at 2 to 4 inches distance from the other pole, and six loud sparks were allowed to pass. This "sparked" serum was then mixed with spores, and injected into five mice exactly as in the first part of the experiment. Of these only one survived, showing that the power of the rat's serum to prevent the development of anthrax in mice was to a great extent removed by the passage of a few sparks of high potential. The serum used in this experiment had a faint reddish colour, and showed the spectrum of oxyhæmoglobin both before and after the passage of the sparks. The sparks also were without effect on its chemiotactic action on the leucocytes of the mouse.

In another similar experiment of four mice inoculated with normal rat's serum and anthrax spores only two survived, while of four inoculated with "sparked" serum everyone succumbed.

In another experiment, however, in which the serum in the U-tube was in a longer column, and in which shorter sparks were employed, no result was obtained; all the mice, whether treated with "sparked" and normal serum, surviving, only the control mouse dying in the usual time.

With pure alexin solutions, on the other hand, very clear proof can be obtained of the action of electric sparks on their bacteria-killing activity. The bactericidal action of such solutions is completely removed by the passage of a few electric sparks, as shown by the following experiments:—

1. October 20th. The spleen of a dog immediately after the death of the animal was cut out, triturated in a mortar, and a quantity of alcohol was added. The next day the alcohol was filtered off, and the residue was extracted with 20 c.c. of a one-tenth saturated sodium sulphate solution till October 22nd. The solution was then filtered, and a large quantity of alcohol was added. On November 3rd the precipitate that had been formed by the alcohol was filtered off and dried. On November 4th it was pounded up and extracted with 10 c.c. of 0.75 per cent. Na Cl solution that had been made faintly alkaline with sodium phosphate, and put in a shaking machine for six hours; then another 10 c.c. of 0.75 per cent. Na Cl solution was added, and the liquid was kept in ice till November 6th. On this day, after filtering, it was dialysed for one hour and a-half against two litres of sterilised 0.75 per cent. salt solution at a temperature of 42° to 43° C. All these manipulations were carried out under strict antiseptic precautions. After the dialysis the liquid was divided into two equal parts. Of these one was placed in a small sterilised U-tube. A series of sparks from the Wimshurst machine of the length of from 8 to 12 centimetres were passed through the liquid, as in the experiments above described. The alexin solution was then poured into a sterilised test tube, and, with the other portion which served as control, tested for a bactericidal power by the plate culture method. The results were as follows:—

Numbers of Colonies on:

	Control Plate.	Plate made after ½-hour.	Plate made after 1 hour.
Normal alexin solution ...	194	11	8
Alexin solution after passage of sparks	120	226	746

Thus the normal alexin solution exhibited a bactericidal power, while a similar solution which had been subjected to sparks from an electrical machine proved itself an excellent culture medium. Still more striking than the results of counting the colonies were the conditions of the two test tubes on the day after the experiment had been made. The tube containing the normal alexin solution showed no apparent growth. A slight sediment was, however, present which under the microscope showed anthrax bacilli apparently commencing to develop. The tube containing alexin solution through which sparks had been passed showed, on the contrary, a copious and typical growth. Another experiment gave a precisely similar result as follows:—

2. The spleen of a dog was chopped up with 150 c.c. of alcohol. After half an hour the alcohol was filtered off, and the residue was extracted with one-tenth saturated sodium sulphate solution, and placed in a shaking machine during the night. The next morning (October 17th) it was filtered and precipitated with several times its volume of alcohol. On November 12th about half this precipitate was freed from alcohol by filtering and drying. It was pulverised in a mortar, and 15 c.c. of normal salt solution was added at 11.45 A.M. It was kept at a temperature of 37.5° C. till 12, and then placed in a shaking machine till 1.45 P.M. It was then dialysed till 3.30 at a temperature of 44° to 48° C. against sterilised normal salt solution; then it was filtered and divided into two parts; one of these, as in the former experiment, had 8 or 10 sparks passed through it. Both parts were then tested as to their bacteria-killing power, with the following result:—

Numbers of Colonies on:

	Control Plate	Plate made after ½-hour.	Plate made after 1 hour.
Normal alexin solution	700	436	168
Alexin solution after passage of sparks	562	742	*

* Colonies so numerous that they could not be counted owing to liquefaction of the gelatine.

On the following day both tubes presented an anthrax growth.

Similar results were obtained with the alexin of the rabbit, as shown in the following experiments.

The spleens of two rabbits were ground up in a mortar with powdered glass, and then left under alcohol for three days. The alcohol was then filtered off and the mass extracted with 10 c.c. of a one-tenth saturated sodium sulphate solution for some hours. After filtering the liquid was mixed with several times its volume of alcohol. The precipitate was filtered off and dissolved in 5 c.c. of 0.75 per cent. sodium chloride solution. It was then dialysed at a temperature of 38° C. for two hours, and again filtered. The solution was then divided into two equal parts, of which one received six sparks, the other served as control. In this experiment vibrio Metschnikovi and not anthrax was employed. Of a twenty-four-hour-old bouillon culture, 0.005 c.c. was taken, and well mixed with 10 c.c. of a 0.75 per cent. NaCl solution. Of this diluted culture about 0.25 c.c. was used to inoculate each of the tubes of alexin solution, and of the latter 0.1 c.c. was taken for inoculating each of the plates. Agar at 42° was used instead of gelatine, and the plates were kept at 33°, till the next day, when the colonies were counted with the following results:—

Numbers of Colonies on:

	Control Plate.	Plate made after ½-hour.	Plate made after 1 hour.
Ordinary alexin solution	70	11	4
Sparked alexin solution	84	77	107

The progressive diminution in the numbers of colonies from the ordinary alexin solution shows that the greater part of the microbes contained in it were killed within an hour. On the other hand the alexin solution through which sparks had been passed had not the slightest power of killing the microbes, or even of delaying their development as shown by the progressive increase in the number of colonies on the different plates.

Another experiment gave a similar result.

These experiments are, I think, sufficient to prove that a few electric sparks of high potential are capable of robbing a pure alexin solution of its power of killing bacteria. Whether solutions of ordinary digestive ferments lose their powers when subjected to a similar treatment would, I think, be an interesting matter for research.

This action of electric sparks on alexin solutions has a certain theoretical interest for the following reason. When it was first shown that blood serum possesses a power of killing bacteria, it was suggested that we were here dealing merely with the effects of a "change of medium." Haffkine[3] showed that the bacillus of typhoid fever is killed by an abrupt removal from bouillon to aqueous humour. Further, that it can be habituated to living in the latter medium, and in this condition it is killed by removal into ordinary bouillon. The latter now exerts a "bactericidal power" on the microbe in question. However the "change of medium" criticism may apply to the bactericidal action of blood serum,

[3] Recherches sur l'Adaptation au Milieu chez les Infusoires et les Bactéries, *Annales de l'Institut Pasteur*, June, 1890, p. 363.

it applies with still greater effect to the bactericidal power of alexin solutions which may contain but a trace of nutrient substances in solution, and which may exhibit a very limited power of destroying bacteria.

If I urge that anthrax bacilli are no longer killed by being placed in alexin solution that has been previously heated, this scarcely disposes of the difficulty. No doubt the passage from bouillon to boiled alexin solution is a change of medium, but the fact that they can survive one change of medium does not prove that they are immune against other changes of medium, of which the passage from bouillon to unboiled alexin solution may be quoted as an example. Besides, in the process of heating an alexin solution various physical changes are brought about—coagulations, removal of gases, etc.—which may very well cause it to approximate in nature to the bouillon in which the bacilli have been living, and so prevent the usual effect of a sudden change of medium. Again, if I urge that keeping an alexin solution for some days at a temperature of 37.5° C. causes it to lose its bactericidal power, it may be retorted that various physical alterations may have occurred in consequence of which it no longer presents a dangerous change of medium to bouillon-grown bacilli. Kitasato has shown that if bouillon is kept for some days before use it almost loses its power of supporting the growth of the tetanus microbe. Obviously this alteration is due to some physical change. No one would suggest that it was due to the development of a specific bactericidal power. Conversely, why assume the removal of a specific bactericidal power to explain how an alexin solution becomes by keeping fit to support the growth of microbes?

In reality such objections have less force than may at first sight appear. What is really implied when we say that a microbe has been killed by a change of medium can be illustrated by a couple of examples. If we take some tetanus microbes from an animal dead of the disease, and attempt unsuccessfully to cultivate them in stale bouillon, we may say that the microbes have been killed owing to the change of medium. Supposing we take some anthrax bacilli from a fresh bouillon culture and place them in bouillon that has been saturated with chloroform the microbes equally perish, and their death is also obviously due to the change of medium. There is, however, a difference in the two cases. In the first case the microbes have been subjected to a completely new set of biological conditions. They have been unable to adapt themselves to the circumstances of the environment and consequently have perished. To ascribe their death to the change of medium is both justifiable and convenient. In the latter case the microbes have not been subjected to a completely new set of conditions. Only one condition, namely, the presence of the chloroform, is hostile to the microbes. In this case, to ascribe the death of the bacilli to the change of medium is correct but inconvenient. To ascribe their death to the presence of a bacterial poison is the simpler mode of expressing the facts of the case. That the latter mode of expression more conveniently describes the cause of death of anthrax bacilli in alexin solutions is well shown by the effect on the latter of electric sparks of high potential, as above described.

In these experiments the property on which the bactericidal action of alexin solution depends is removed by a means which is not known to produce any other physical change in the medium. Anthrax bacilli from a bouillon culture, when placed in such a "sparked alexin" solution, are subjected to a "change of medium" apparently as great as any incurred by them in Haffkine's experiments, but yet the plate-culture method shows that no diminution in the number of living bacilli occurs. It is obviously still open to anyone to say that anthrax bacilli, when placed in an alexin solution, are killed owing to a change of medium. The same mode of expression would lead one to say that a patient killed by an overdose of arsenic had succumbed to a "change of diet." But in both cases to ascribe the result to a specific poisonous action is the more convenient nomenclature. Nor is the case in any way changed by urging that, because anthrax bacilli can be gradually acclimatised to living in an alexin solution, therefore their death on their first introduction into it was merely due to the change of medium. A patient may be gradully so accustomed to arsenic that it becomes an integral and even necessary part of his diet. Yet no one would say because of this that arsenic is not a poison.

I do not at all wish to deny that bacteria may perish owing to the effect of a "change of medium" in the absence of a specific bactericidal substance. I think that Haffkine's experiments with the typhoid bacillus form a striking example of this. The typhoid bacillus, when mixed with the aqueous humour, is killed. That the result is not due to the presence of any specific bactericidal action is shown by the fact that, when tested with other microbes, such as the bacillus of anthrax, the vibrio Metschnikovi, the bacillus of quarter evil, or the bacillus of swine erysipelas, aqueous humour has been found by various authors to be an excellent culture medium, although serum from the same animal may exert a well-marked bactericidal action on the microbes mentioned

The anthrax bacillus can, as has been shown by Buchner, withstand such a sudden "change of medium" as removal from a mouse's spleen to a solution containing 40 per cent. of sugar and 1 per cent. of peptone. I have often noticed that if 0.1 c.c. of a fresh bouillon culture of anthrax is placed in 10 c.c. of 0.75 per cent. NaCl solution a copious growth is apparent after twenty-four hours. These and many other facts point out that the anthrax bacillus is one well capable of resisting the action of a sudden change of medium, and this is why I have almost exclusively worked with this microbe in investigating the specific bactericidal power possessed by alexin solutions.

Lastly, I may mention that Christmas[4] has suggested that the bactericidal power of blood serum may be due to the presence of carbonic acid gas. This idea scarcely agrees with von Fódór's observation[5] that serum from arterial blood has a greater bactericidal power than that obtained from venous blood, and, further, that the bactericidal power of serum is diminished by exposure to an atmosphere of CO_2. In any case there is no reason for thinking that the purified alexin solutions with which I have worked contain any appreciable quantity of this gas.

REMARKS ON A CASE OF CHOLERA AT LIVERPOOL.

By THOMAS WHITESIDE HIME, B.A., M.D.,
Bradford.

INHUMAN indeed would be the heart which is not stirred by deepest sympathy for the inhabitants of those localities which have recently been attacked by this direful scourge. One knows but little of the distant, dumb sufferings of the great Russian empire (so different from the hysterical excitement shown in another country at the mere idea of approaching danger) beyond the fact that for months past the vitality of its vast population is being sapped by cholera. Nearer to ourselves is Hamburg, which is like a city in which a terrific conflagration had suddenly burst forth, whereof the sparks are being carried broadcast, causing imminent danger far and wide.

> Wehe, wenn sie losgelassen,
> Wachsend ohne Wiederstand,
> Durch die volkbelebten Gassen
> Wälzt den ungeheuren Brand!

There is some tendency in the public press of this country to a pharisaical exultation that we are not as other men; that we, having swept and garnished, drained and disinfected in good time, have definitely escaped the cholera as a natural reward for our prescience and forethought.

This frame of mind is one of the dangers of the situation, and is only too well calculated to breed a sense of false security and negligence. The indications are happily that just now the combination of conditions which produce susceptibility to epidemic cholera does not exist among us. But how long will this last? No one can tell. But every experienced person does know that one of the most potent and necessary factors for the spread of epidemic cholera is absolutely under our control; we ourselves produce the filth which in the air, in the soil, in our drinking water, in our houses, and about our persons, not only induces low condi-

[4] Etude sur les substances microbicides du sérum et des organes d'animaux à sang chaud, *Annales de l'Institut Pasteur*, vol. v, August, 1891, p. 487.

[5] Neuere Untersuchungen über die bacterientödtende Wirkung des Blutes und über Immunisation, *Centralblatt für Bakteriologie*, vol. vii, pp. 753 *et seq*

tions of personal vitality predisposing to disease, but which also furnishes actual pabulum for the specific organism of cholera. This factor we can eliminate, as we have produced it, and with the elimination of this factor we acquire a vast reinforcement of our power of individual and national ability to resist epidemic cholera.

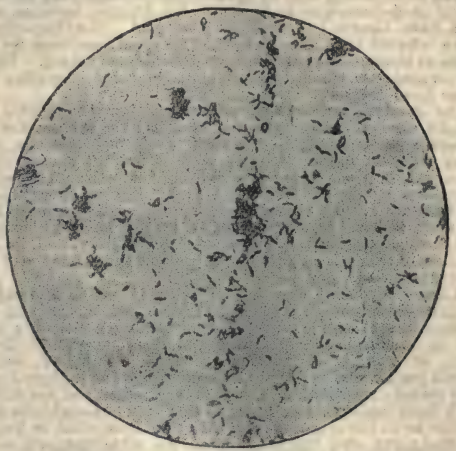
I have recently been in communication with many gentlemen in reference to cases of supposed cholera, some of which I was able to demonstrate by microscopic and bacteriological methods were not cholera at all. But that true cholera may effect an entrance into our midst, and be unrecognised for want of those unerring means of diagnosis, I have proved in one case. I regard it as a national misfortune, and one with possibilities of widespread disaster, that every initial or doubtful case cannot be certainly diagnosed, as might be done were they tested by these crucial methods.

I have most willingly given my services for this purpose to my colleagues, and shall be happy to continue to do so to the extent of my power, but that is limited. In Germany the State makes provision that there shall be at hand persons skilled in the employment of these special methods; and, considering the importance of diagnosing the first case of cholera, it is not too much to require. The presence of the comma bacillus is a certain proof that the case is one of Asiatic cholera, and its demonstration is not difficult nor costly. I know that I shall be meeting the wishes of a large number of practitioners by a few brief, practical hints on the subject.

The case to which I referred above as having been allowed to pass officially for harmless English cholera, was that of a Russian named Leile Friedel, who was admitted into the Park Hill Hospital, and which I had the privilege of examining by the kindness of the physician in charge, in Liverpool on September 5th. He had come from Hamburg thirteen days previously, and been resident, I was informed, for ten days in Liverpool before he was taken ill. There is a good deal of obscurity about his movements, and the name of the ship he came in is, I believe, not known. Through the courtesy of the hospital authorities I learned some particulars, for which I wish to express my obligations to them. The patient had the classic symptoms of cholera sufficiently marked to make Dr. Roberts and his colleague and other gentlemen familiar with cholera pronounce it to be the Asiatic disease, but others, including the municipal authorities, disputed this.

In such a case clinical diagnosis is hardly ever decisive to either party, depending, as it does, so much on personal opinion and experience, on the relative importance attached to various symptoms, and to some extent even on prejudice, and the tendency to adopt foregone conclusions. A physical diagnosis which relies on the recurrence of what may be termed *special reactions*—such as the demonstration of a chemical or bacteriological agent in the excretions—is, however, indisputable. That the exact diagnosis of the nature of a case of suspected cholera is important I need hardly urge, as on it would depend grave interests. The unerring diagnosis of the hospital physician does not always convince outside authorities. Besides the symptoms there were very characteristic rice-water stools, but these are not pathognomonic. A minute speck, however, when mounted stained and examined by the microscope revealed the presence of the specific comma bacillus of Koch, with other organisms. Another minute particle, propagated after the method of Schottelius, gave a copious harvest of pure comma bacilli in about ten hours. Gelatine in tubes inoculated from both these sources subsequently gave characteristic growths, containing in some instances pure cultivations, in others mixtures of the comma with other micro-organisms such as are common in intestinal dejecta. Finally, plate cultivation supplied the completion of the evidence—by the characteristic growth of the colonies, and the subsequent production of pure and typical cultures derived from them in tubes of gelatine continued generation after generation. Within less than twenty-four hours the diagnosis was established beyond a doubt; in less than half that time it was pretty certain.

In order to demonstrate the appearance of the bacilli, and the pure and typical character of some of the microscopic preparations, even though they were hurriedly made, I sent some to Mr. A. Pringle, of Bexley Heath, so well known for his skill in microphotography. The beauty of the original photographs produced by that gentleman well maintains his reputation as one of the best living specialists in this department. I would like to add that I am much indebted to him for the great pains and care he has combined with his skill in carrying out my wishes.



Microphotograph direct from the cover × 1,000.

The uniformity of the curve of the bacilli is striking; the younger ones generally are but little curved, others appear straight where seen edgewise. The equality of size of the great majority is noticeable; the size of individuals no doubt varies under certain circumstances. The general thickness and plumpness of the comma, and its shortness, are in contrast with the appearance of the tubercle bacillus, and the Finkler-Prior which it somewhat resembles in contour. The comma is about ½ to ¾ the length of the tubercle bacillus. When mounted on the same slide and examined simultaneously it would be absolutely impossible even for the most inexperienced to mistake it for either of those named.



Cultivation tube, fourth day.

The appearance of the growths in the tubes is no less characteristic.

The photographing of the tube cultures is a very difficult matter, owing to the great number of reflecting surfaces, and the shape of the receptacle. Of course there will be modifications in the dates of the appearance of changes in the culture depending on the concentration, etc., of the nutritive medium, the temperature, etc. The medium used in the culture in the drawing contained a rather small proportion of gelatine. One notices the thin, clean, straight line along the track of the inoculation puncture; the flocculent masses which gradually appear; the gradual liquefaction of the upper part of the gelatine proceeding from the point of puncture towards the sides; but above all, the thickening of the point of puncture at the surface, and its dilatation into a funnel-shaped enlargement. After four to six days the funnel usually has extended to the sides of the tube, and in from six to fourteen days about two-thirds of the upper part of the gelatine become liquid. In from fifty to seventy hours a similar culture of the Finkler-Prior bacillus (of English cholera) will almost have liquefied the whole of the gelatine, a regular and characteristic difference between the two.

The "comma" grows admirably in milk, but does not produce any change in its appearance. It is found constantly in cases of Asiatic cholera, but never in any other disease. Its pre-

sence is constant in the contents of the intestines and dejecta of cholera patients, and on linen, etc., soiled by them; it is found exceptionally in the vomit, never in the blood or organs. The same characteristic organism is found in cholera cases in Egypt, India, Europe, America, and, as I have shown last week, in Liverpool. The characters I have referred to as present in the Liverpool specimen are the same as those observed wherever the disease occurs. There are organisms which resemble it in some respects, but none do so in many.

The greatest authorities, whose opinion is entitled to weight, agree that the "comma" and Asiatic cholera are inseparably associated. Of course there are persons who deny this, as there are some who deny that the earth is spherical, or that Count Mattei is an impostor, after recent exposures by the Mattei Committee. But so invariable is its association with cholera that for diagnostic purposes it is far more reliable than the rash in scarlet fever, which may last only a few hours, or be absent entirely. Like the bacillus of tubercle its presence is proof of the existence of one specific disease.

A most important question and one in which the whole country is interested, is where and when did the patient become infected; was it during the thirteen days after his arrival in England, or during the ten days he was in Liverpool, or was it at Hamburg, before he sailed, which would push back the date of infection some two to three days? The period of incubation of cholera is irregular, and not within such fixed limits as small-pox, so that it is impossible to dogmatise as to the origin of the infection from what is known on that point. On the other hand the civic authorities do not seem to have traced the source of infection to a local nidus, and were disposed, on incomplete evidence, to regard the case as not Asiatic, but English cholera. It is impossible any longer to doubt that it was true Asiatic cholera.

With regard to the incubation of cholera, Indian experience is, I believe, generally that it is short—not above two to three days usually. Bryden records an interesting experience of 611 soldiers exposed only for a few hours to the infection, in an infected locality. Of these 10 per cent. (60 persons) took cholera within ten days, the first severe case appearing within three days. Von Pettenkofer[1] gives 3.6 days as the incubation in the case of healthy persons arriving in an infected place, and for a number of individuals observed who had come from an infected to a healthy locality, 7.7 days. Where cases are few and occur in a small place there is greater facility for noting details. The following particulars are recorded by Rambert[2] as to an outbreak of cholera including 84 cases in the little district of Bourg de Conie, in the autumn of 1865, the incubation lasted:

In 11 cases	a few hours	to	1 day.	
,, 35	,,	1 to	2 days.	
,, 11	,,	5 ,,	7	,,
,, 6	,,	8 ,,	12	,,
,, 1 case	24 days (?).			

In 57 per cent. of these cases the incubation was under 2 days, and in 89 per cent. was under 7 days.

Banti gives particulars[3] as to 8 patients in the S. Maria Hospital, in Florence, in 1885, who became infected with cholera from one patient in the hospital, 7 with a fatal result. The incubation could be definitely fixed and in the case of 6 was 36 to 40 hours, and of the other two 40 to 45 hours. These patients were under treatment when they became infected, respectively for pulmonary phthisis, heart disease, bronchitis, malaria, sciatica, vesical and rectal paralysis, contusion of the spine, and cerebral tumour, none of them diseases which (like diarrhœa) could have masked the commencement of cholera.

Dr. Goodeve[4] considers that "when cholera breaks out in ships at sea several days after leaving port the attacks are probably due to freshly-acting causes," meaning that the attack is not due to virus which had been incubating in the patient all that time.

Dr. Bristowe[5] believes that the incubation "probably varies generally between a few hours and three days." Aitken[6] also supports the opinion of extreme shortness of incubation. He quotes the experience of Kierulf as to Bergen, who found that 1.4 day elapsed from the date of the supposed infection to the outbreak of the disease, which most frequently appeared on the second day after exposure. Budd says the incubation "seldom exceeds three days, while Niemeyer holds that it lasts not less than thirty-six hours, nor more than three days in duration. In one case Parkes was able to fix the period to a limit of not more than sixty hours, and probably less." (Quoted by Aitken, *loc. cit.*)

Fagge[7] is not very definite in his opinion on the point, only remarking that the incubation "is believed to be generally two to three days, but sometimes is not more than twelve to twenty-four hours."

From these opinions it must, I think, be concluded that if Friedel became infected with cholera before he left Hamburg, the incubation certainly lasted an unusually long time, even though his case was one of an infected person coming to an uninfected locality. That the absence of the element of danger arising from local infectedness should allow of a longer period of incubation is not only in accordance with the above mentioned statistics of Von Pettenkofer, but seems *a priori* probable. But even allowing for such prolongation of the incubation from this cause, it would seem that to assume the patient was infected in Hamburg, and never showed any symptoms until after he had crossed the sea and been ten days resident in Liverpool, would be to adopt a rare and exceptional duration of the incubation. On the whole it seems to me most probable that the patient brought the infection with him in dirty linen or some such vehicle, and that he was exposed to its action many days after his arrival in Liverpool, and then and there became infected.

This is the readiest explanation, and would be contrary to none of the facts. Such an explanation supports the opinion I offered at the beginning, that all the conditions for propagating epidemic cholera are not at present existing among us, otherwise it would have broken out. So far it is consolatory and gratifying. But, on the other hand, there is the depressing certainty that the virus had passed the guards at the port of entry and gained admission into our midst.

[1] Lebert, in *Ziemssen's Handbuch d. spec. Pathologie u.s.w.*, B. ii, 1 Th., p. 388.
[2] *Real-Encyclopädie der gesammten Heilkunde*, hgbn von Eulenberg, *sub voc.* Cholera.
[3] *Lo Sperimentale*, 1887.
[4] *Reynolds's System of Medicine*, vol. i, p. 139.
[5] *Treatise on the Theory and Practice of Medicine*, p. 232.
[6] *Science and Practice of Medicine*, vol. i, p. 723.
[7] *Principles and Practice of Medicine*, p. 291.

SIXTIETH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION
Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

OBSTETRIC MEDICINE.
ALFRED LEWIS GALABIN, M.D., President.

A CASE OF TUBAL GESTATION IN WHICH BOTH TUBES WERE GRAVID: OPERATION: RECOVERY.

By WM. WALTER, M.A., M.D., F.R.C.S.I.,
Physician to St. Mary's Hospital for Women, and the Manchester and Salford Lying-in Hospital.

ON August 7th, 1891, Mrs. S., aged 29, was admitted into St. Mary's Hospital for Women, Manchester, complaining of abdominal pain, painful defæcation, and painful menstruation. The patient had been married ten years, and had five pregnancies, the first a year after marriage, and the last four years ago. Her second pregnancy ended in abortion, her third in premature labour, the fœtus being putrid, but the first, fourth, and fifth terminated at full time, the labours and puerperia being normal. Menstruation first began when she was 14, and has, up to two years ago, been, as a rule, regular though painful; since that time her periods have been too often and too profuse. Her last period was at the end of July, prior to

which she had not menstruated for eight or nine weeks; in other words, she missed her period in May and June. During the whole of June she was laid up in bed suffering from abdominal pain, especially during defæcation. She also, at the same time, suffered from sickness and pains in her breasts, but did not think she was pregnant.

We found the uterus normal in size and position, and its mobility was slightly impaired. In the left broad ligament, and close to the uterus, was felt a mass the size of an orange, but so considerable was the tenderness on bimanual examination that this swelling could not be outlined accurately. We advised abdominal section, and she consented to remain in the hospital for that purpose, but before the operation could be performed, it was found compulsory to close the hospital for alterations, and the patient returned home. I did not see her again until December 14th, 1891. She was then suffering very much from cough and bronchitis. She still had the pain during defæcation, and had menstruated regularly since the last week in July.

On bimanual examination the uterus was found as before; the swelling in the left broad ligament could be outlined and felt as large as a hen's egg and semi-cystic. Her pelvic symptoms being less urgent than before, it was thought advisable to postpone operation until her cough became better, and it was not until February 19th, 1892, that she was readmitted into hospital. We then discovered that she menstruated at the end of December, 1891, but missed her period in January, and menstruated again on February 17th, or two days before her return to hospital. During these seven weeks of amenorrhœa she suffered a good deal from sickness.

On February 21st, 1892, her period having ceased, a vaginal examination was made, and the following change was found to have taken place since the examination in December. The uterus remained normal in size and position, the tumour in the left broad ligament was still the same, but on the right side of the uterus a new swelling could be felt, cystic in character, and extending transversely behind the uterus. The uterus and both swellings were matted together.

The operation was fixed for February 26th, and during the afternoon of the 25th the patient was given a dose of aperient medicine, later in the afternoon she took her tea, and almost immediately afterwards her bowels acted, and were moved five times during the course of the evening; at 11 P.M. the patient was seized with sudden pain in the lower part of the abdomen, and began to vomit and feel very faint. The House-Surgeon, Dr. Helme, saw her and found her in a considerable state of excitement; he made a vaginal examination and felt no change had taken place in the physical signs, except that the abdominal walls were contracted, and palpation was more painful than before. Her pulse was 110, and weak. Rupture of one of the tubes was suspected to have taken place. The patient however quickly rallied, and the next morning I performed abdominal section.

The Operation.

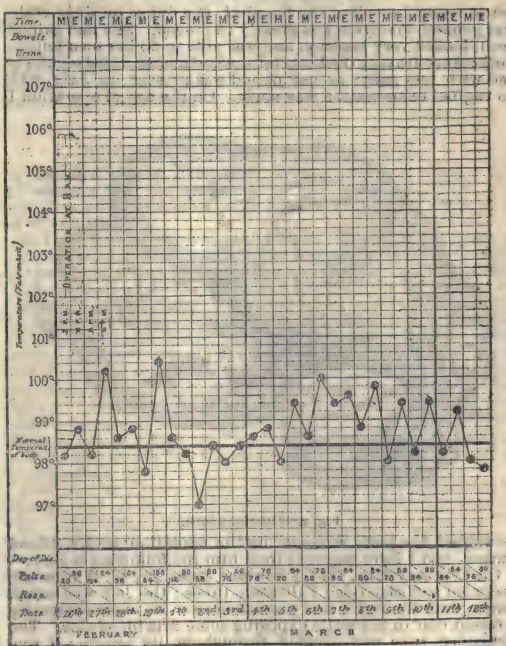
On February 26th, 1892, the patient was placed under the influence of chloroform by Mr. Kerr, and Dr. Helme, to whom I am largely indebted for the notes of the case, acted as assistant. I made an incision 3 inches in length in the linea alba. As soon as the peritoneum was incised its edges were found to be thicker than normal, and at the same time a quantity of fluid blood with clots escaped from the abdominal cavity. Passing two fingers through the wound I explored the pelvic organs, and whilst doing so the blood escaped more freely, and was chiefly of a semi-clotted consistence. The uterus was in the normal position and not enlarged, a tense cystic swelling a little larger than a Tangerine orange was felt in the left broad ligament, a similar one was found to the right side and behind the uterus.

As both these swellings were adherent to the surrounding parts and could not be raised up from their attachments, I inserted two fingers of the right hand into the vagina, and thus obtained considerable assistance by pressing against the vaginal roof, whilst with the left hand I broke down the adhesions. The swelling on the right side I separated first, and raising it up towards the abdominal incision, found it was of a dark red colour, and that it consisted of the right Fallopian tube distended with blood. The right ovary was adherent to the tube, and was smaller than normal, but otherwise healthy. The right broad ligament was now transfixed and tied with silk by means of the Staffordshire knot, and the tube and ovary were removed.

I then turned my attention to the left appendages, on which side the swelling was a little larger and softer than on the right, and, when separating the adhesions, I found the tube became almost enucleated, so that its pedicle did not require transfixion, and was accordingly tied by a single silk ligature. The left ovary was small and flattened, and so adherent low down in the broad ligament, that no attempt was made to remove it. The abdomen was then irrigated with hot water at the temperature of 114° F., and several large clots which had been hidden amongst the coils of intestines escaped. Had I trusted merely to sponging the pelvic cavity, these clots would assuredly have been left behind. The flushing of the abdomen was continued until the water returned colourless. A glass drainage tube was inserted. The abdominal wound closed with silkworm gut sutures, and dry dressings of sublimate wool were applied to the wound.

I will now give a short summary of the after-history of the case; to go into the daily details would involve more time than we have at our disposal. The patient did not show marked symptoms of shock, and soon recovered from the effects of the anæsthetic and operation, but she complained a good deal of pain and sickness for several days. During the first twenty-four hours after operation the fluid removed from the tube was almost pure blood, and measured ℥ivss; during the second twenty-four hours the fluid measured ℥x, and consisted of red serum; twelve hours later, that is, on the third day, the fluid was simple serum and the tube was removed.

Of her temperature and her pulse there is little to record. The evening after operation the temperature reached 100.2° and the pulse 104; the highest temperature reached (100.4°)



was on the fourth evening. Her pulse varied but slightly, and was generally between 80 and 90, except on three occasions, when it went over 100.

The day after operation menstruation began and lasted for three days; as soon as it ceased the sickness also stopped, and

the pain became much less intense. Some of the sutures were removed on the seventh day, the remainder on the twelfth, by which time the wound was practically healed.

On March 17th the patient was convalescent, and left the hospital on March 26th. A few days ago I wrote and asked



Fig. 1.—The left tube in section.

her to report herself at the hospital; she did so on July 26th. Her general condition was greatly improved. She had gained flesh, looked very healthy, and was able to do her own housework; since leaving the hospital she had menstruated regularly and with less pain; as her period was present on July 26th no vaginal examination was made. On the day of operation I

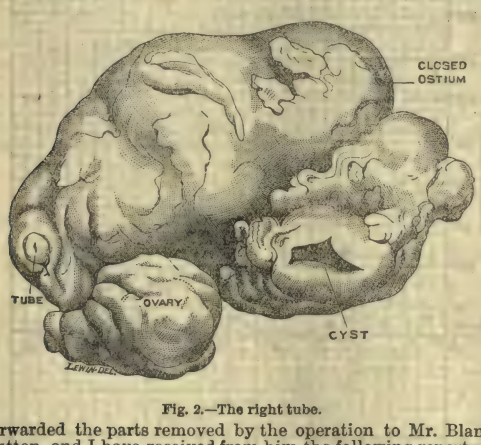


Fig. 2.—The right tube.

forwarded the parts removed by the operation to Mr. Bland Sutton, and I have received from him the following report:—

On February 27th, 1892, I received from Dr. W. Walter two occluded and distended Fallopian tubes; the left was much larger than the right, and presented near its outer extremity a recent tear in the walls exposing some firm blood clot. The distended tube was divided throughout its length; it was found to be mainly occupied by an apoplectic ovum (tubal mole), and the amniotic cavity was occupied by an embryo 6 cm. in length. The embryo was so thoroughly saturated with blood that it resembled in colour the clot by which it was surrounded.

The general appearance of the tube, ovum, and embryo are represented in Fig. 1. On examining the right tube the abdominal ostium was found completely occluded and its walls were intact. On bisecting it the interior was found to be occupied by a tubal mole; the amniotic cavity was persistent, but no embryo was detected. The general appearance of the right tube is shown in Figs. 2 and 3.

A portion of the wall of the tube with an adjacent piece of the mole were hardened, and in due course embedded and sectioned for the microscope. Chorionic villi were found in clusters, and demonstrate beyond any doubt that the organised clot in the right tube is a tubal mole. In this instance we have to deal with a pregnancy in each tube, but the pregnancy in the left tube is much more advanced than that in the right tube. An examination of the parts does not enable me to decide whether the impregnation in each tube occurred at or near the same time, the ovum in the right tube becoming apoplectic and ceasing to grow, or whether the right became gravid at a later date than the left tube, or *vice versâ*.

As far as my knowledge of the subject extends this is the first indisputable example of a tubal pregnancy occurring concurrently in both Fallopian tubes of the same individual. There are three cases in which it was probable that this accident had happened, but the facts were not completely demonstrated.

Dr. T. Rowan[1] described a case in which he operated on a

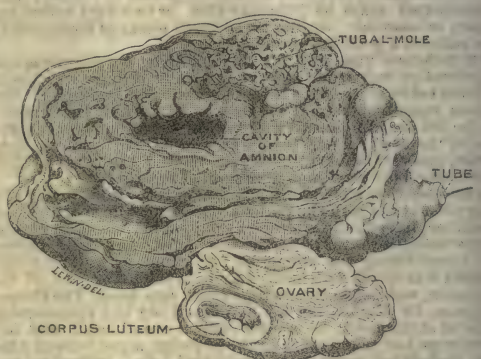


Fig. 3.—The right tube in section, to show the tubal mole or apoplectic ovum.

woman, aged 29, who presented all the signs of primary rupture of a gravid tube. The right tube was dilated to the size of a hen's egg, and when cut open revealed a large piece of placental tissue firmly adherent to one side. Dr. Rowan had no doubt that it was a "tubal pregnancy of some six or seven weeks which was undergoing retrograde changes." The left tube was dilated into a cyst the size of an orange; it was filled with grumous blood.

Doran[2] has published a very detailed account of a case in which he operated, and found the right tube occupied by a typical mole; the tubal ostium was widely patulous; the left was dilated and ruptured. There was much free blood in the peritoneal cavity, but no ovuline structures were found.

Dr. Savage[3] showed an example of tubal pregnancy occurring on each side. On the right the tube was ruptured about its centre, and an apoplectiform mole had escaped. On the left a tumour as large as the closed fists full of black clot was found adherent to omentum and intestine; it came away whole. The ampulla was dilated, and gave the appearance as if the escape had been through it, an instance of so-called "tubal abortion." It is a matter for regret that this case was not made absolute by vigorously searching the clot for the second ovum or mole.

Thus in Rowan's case the evidence of double tubal preg-

[1] *Australian Medical Journal*, 1890, p. 265.
[2] BRITISH MEDICAL JOURNAL, 1891, vol. ii, p. 789.
[3] BRITISH MEDICAL JOURNAL, 1892, vol. i, p. 556.

nancy was suggestive. In the cases described by Doran and Savage, the existence of two gravid tubes in each patient was exceedingly probable, but the facts were not quite complete. In the case the subject of this report, the existence of an impregnated ovum in each tube is beyond any doubt.

Since this report has been written, Mackenrodt[4] has published a case of bilateral tubal pregnancy which he observed in a woman aged 32. In May, 1890, she was seized with symptoms indicating rupture of a gravid tube; operation was refused. In October, 1891, she was seized again with the symptoms of rupture of a gravid tube. On this occasion, the abdomen was opened, and a gestation sac the size of a goose's egg removed from the left side. On the right side a second sac surrounded by matted intestines was found; it contained fœtal bones. The patient made a good recovery.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

DIABETES INSIPIDUS IN CHILDREN CAUSED BY HOT WEATHER.

When in Calcutta in May I visited the General Hospital there, and through the kindness of Surgeon-Major Crombie I was enabled to take the following notes of four cases of diabetes insipidus.

The disease occurs in India in the hot season, previous to the bursting of the monsoon, and lasts from some weeks to months; it does not seem to cause any permanent injury to the constitution of the child. In spite of a high fever of a constant type, with the passing of an immense quantity of water, the little patient keeps in fairly good general health, and presents nothing abnormal in any organ. The exact etiology of this disease is still vague. This diuresis of a large quantity of limpid urine of a specific gravity little above that of ordinary water seems to be synchronous with the fever. The treatment in every case is the administration of the tincture of belladonna pushed to complete dilatation of the pupils. This cures both fever and diuresis, which pass off never to recur or in some cases to return next hot season.

Case I was that of a male child 2 years and 6 months old. When I saw him he had been in hospital one week. The fever commenced a week previous to his admission to the hospital, and had been preceded one day by the diuresis, according to the mother's statement. Fever, 100° to 102° F.; sometimes the temperature fell to normal. Occasionally 100 or more ounces of water were passed in the twenty-four hours, the specific gravity being 1,002; except for a little bronchial catarrh the child was healthy; it was improving under 15 minims of belladonna daily.

Case II, also a male, 9 months old. He had had fever and diuresis for thirty-one days, and had been in hospital for four days. The fever varied between 99° and 102° F. His mother said she noticed he had fever and passed large quantities of water; at the same time all his organs were normal. A brother, aged 5 years, when 2 years old was attacked in the same way, and had the diuresis for nine months. Treatment was the same as in the last case.

Case III was that of a female child who was in fairly good general health and had a good appetite but very great thirst. He was about 20 months old. The fever commenced with the diuresis a fortnight before admission. The fever, which had lasted twenty-seven days, kept between 100° and 102° F., generally rising in the morning. All the organs were normal; no diarrhœa or constipation. She was taking one minim of belladonna every two hours.

Case IV presented nearly the same features as the others. The patient was a male, 1½ year old, who had had fever for fourteen days previous to admission. The fever varied between 100° and 102° F. The boy was very thirsty and drank a large amount of water. The urine was passed continually. It was limpid and almost colourless, but owing to his age the amount could not be properly estimated.

Galashiels, N.B. James Brunton, M.B.Edin.

[4] *Zeitschrift für Geburt. u. Gyn.*, Bd. xxiii, Heft 1; *Die Verhandlungen der Gesellsch. für Geb. u. Gyn.*, zu Berlin, S. 301.

THE MECHANICAL TREATMENT OF CONSTIPATION.

[Communicated by the Director-General of the Medical Department of the Navy.]

In the Epitome of August 13th, par. 145, there is a notice of the treatment of constipation recently by Ivanoff by means of shot enclosed in wooden or celluloidin globes. On several occasions during the last two or three years I have successfully tried a somewhat similar method, but one which I think offers several advantages. Two circular pieces of calico about 5 inches in diameter are sewn together by their edges so as to form a round bag. This is filled to about four-fifths its capacity with shot (3½ to 4 lbs.), and the mouth of the bag closed. A somewhat globular and very yielding mass is thus formed, which the patient, lying supine, rolls about over his abdomen (preferably following the course of the colon, though this is not of much consequence) before rising in the morning, and if necessary again at night. When needed the pressure of the bag can be supplemented by that of the hands.

I first tried this method of treatment in the tropics, where, from various causes, especially on board ship, constipation is a very frequent annoyance, for purgatives soon lose their usual effect, and when given stronger often bring on troublesome diarrhœa. The "shot bag" treatment was on every occasion on which I tried it very efficacious.

In many of the cases of "costiveness" from which women suffer this method would, I think, prove of much value, but from the nature of my service I have had naturally but few opportunities of giving it a trial. About two years ago, however, during the convalescence of a lady from a rather sharp attack of parametritis with considerable matting of tissues, and where in the treatment of the resulting constipation efficient purgatives gave much pain and the enema produced hardly any effect, the "shot bag" proved of immediate and constant utility, and after two or three weeks' operation no further attention was necessary to this part of the illness.

Owing to the plastic nature of the bag it as it were "grasps" the inequalities of the abdomen, and thus offers a manifest advantage over the rigid balls used by Sahli and Ivanoff. The apparatus is exceedingly simple and cheap in construction, and certainly efficacious. H. B. Beatty, Surgeon R.N.

TUBERCULOSIS OF THE STOMACH.

In the Epitome of September 17th, par. 256, a case is reported in which the stomach was the seat of tubercle. As this is a rare condition, the following notes of a case may be of interest:—

E. H., a female, aged 58, came under treatment for pain in the region of the stomach, and occasional vomiting of food. She had been ailing four months; suffered from winter cough. On examination of the abdomen there could be felt in the region of the umbilicus what appeared to be a round, smooth, deeply-seated tumour, which was movable, and descended with inspiration. There were enlarged glands in the right axilla. Examination of the chest pointed to phthisis. After this occasional vomiting occurred, and there was pain in the abdomen, but never of a severe character. Œdema of the right arm and hand, and also of both legs, set in, and the patient became very weak. Urine, specific gravity 1032, with the presence of albumen. She died nine weeks after coming under observation, but before death the œdema had entirely disappeared.

Post-mortem Examination.—The stomach was considerably dilated, and at its pyloric end extensive ulceration existed with thickening of the edges in places. This, on microscopical examination, was found to be tuberculous. Suppurating caseous glands stretched along the spine behind the pancreas, and also in the right axilla. The abdomen only was allowed to be opened.

Colney Hatch, N. Cecil F. Beadles.

SYPHILIS AND SCARLET FEVER.

The following case may be of interest, showing, as it does, the possibility of confounding scarlet fever with syphilis.

A. B., aged 22, was taken suddenly ill with vomiting, sore throat; rash on neck, trunk, and limbs; temperature 104°. On examination the rash could not, with any certainty, be

distinguished from that of scarlet fever. The face, however, was thin and pale, there was no noticeable swelling beneath the jaws, and distress was not so accentuated as it usually is during the invasion period of scarlet fever. A doubt thus arose as to the precise nature of the case, and, on further questioning, it was elicited that the throat had been troublesome for a week previously, and that the patient had been recently treated for gonorrhœa. On careful search a cicatrix was found under the prepuce, and in the groins were the characteristic syphilitic buboes. Other considerations rendered the diagnosis certain, and the relatives were told that the case was not one of scarlet fever, while the patient himself learned for the first time that he had contracted syphilis. A grain of calomel was prescribed. In twenty-four hours the rash had almost disappeared, and the temperature touched 99°.

It may be pointed out, first, that hurried or superficial examination would undoubtedly have led to a diagnosis of scarlet fever, with what results to the patient he himself will fortunately never know; secondly, that it would be well, when treating a case of gonorrhœa, to bear in mind the probability of concomitant syphilis.

Caledonian Road, N. J. H. HEANEY, M.B.

EPITHELIOMA OF THE LIP IN WOMEN.

WITH reference to Dr. Sinclair's letter in the BRITISH MEDICAL JOURNAL of July 30th, and previous letters on the same subject I may note that I removed an epithelioma from the lower lip of a native woman in June, 1891. The nature of the growth was verified by microscopical examination.

J. MAITLAND, M.D.,
Surgeon-Major.

Ootacamund, India.

SPECIFIC GRAVITY OF URINE IN DIABETES MELLITUS.

SIR E. SIEVEKING'S note in the BRITISH MEDICAL JOURNAL of September 17th on the above subject recalls a case that came under my notice about two months ago. A man of over 60, who had been under my care last winter complained of an ulcer under the ball of the great toe which refused to heal. The appearance of the ulcer immediately suggested diabetes, and on my asking the patient whether I had ever examined his water he replied "No, but another gentleman did a few years ago and told me I had diabetes." I asked for a specimen and found specific gravity 1010, slightly acid reaction, no albumen. I immediately remembered having heard a very high authority on diabetes remark in the wards one day: "With specific gravity under 1030 one need not test for sugar." In spite of great veneration for great authorities a little mental uneasiness caused me to apply Fehling's test next morning and I was much surprised to find indisputable evidence of sugar.

South Petherton. A. W. MACILWAINE.

IN support of the warning conveyed in Sir E. Sieveking's article published in the BRITISH MEDICAL JOURNAL of September 17th, it may be interesting to record another exceptional case now under my care. The patient, an editor, aged 56, passes about 50 ounces of urine *per diem* (the normal quantity) of a specific gravity varying from 1020 to 1022. Each ounce contains 1 grain of sugar. There is no albumen. The patient is on strict diabetic diet. He has also constant pains in both legs, sometimes of "lightning" character, loss of knee-jerk, and a gait which is suggestive of commencing tabes dorsalis.

Hampstead. WM. BOULTING, L.R.C.P. Lond.

AN OFFICIAL BACTERIOLOGIST FOR NEW YORK.—The Board of Health of the City of New York has reorganised its disinfecting corps, which till lately consisted of sixteen laymen. The corps, which is henceforth to be known as "the Division of Pathology, Bacteriology, and Disinfection," will have at its head a bacteriological expert, who will have ten medical men under him as disinfectors, to each of whom will be assigned the supervision of a particular district. Professor Herman C. Biggs, who has been in charge of the Carnegie Laboratory for many years, has been appointed chief of the new division at a salary of 3,000 dollars a year.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

CHELSEA HOSPITAL FOR WOMEN.

CASES OF METRORRHAGIA.

(Under the care of Dr. ARTHUR W. EDIS.)

Menorrhagia: Anæmia.—A. B., aged 14, single. Catamenia commenced at 12 and recurred regularly until ten months before admission, since which time she had been losing blood by the vagina almost continuously. Although her general health was feeble, there was nothing abnormal to be detected in the condition of either the heart, liver, kidneys, or spleen. The hymen was intact, the cervix uteri small, and the uterus normal in size and position. Rest in bed, with a mixture of iron, magnesia, and digitalis was prescribed, and a nourishing diet given. After the first few days the hæmorrhage ceased, and she was discharged cured at the end of three weeks.

Incomplete Abortion: Curetting: Recovery.—S. H., aged 28, married five years, mother of three children. Two months before admission the period came on a week later than expected, and was very profuse, accompanied by pain in the abdomen, intermitting in character; at times rather severe. The hæmorrhage continued on and off for two months. The uterus was found to be bulky, anteflected, the cervix granular, and the os somewhat patulous. Dilatation of the cervix was effected by means of tents, and the interior of the uterus curetted, iodised phenol being subsequently applied. Nothing beyond thickened endometrium was detected, but there was very little doubt that conception had occurred and an early miscarriage taken place. The hæmorrhage was checked entirely after the operation, and the patient left the hospital convalescent within a fortnight.

Villous Endometritis: Menorrhagia: Curetting.—M. W., aged 57, married twenty-seven years, mother of two children, the youngest aged 23; one miscarriage. The catamenia ceased four years before admission for two years. She then commenced to lose irregularly, the loss being severe at times. She had no offensive discharge, but for the last two years and a-half suffered from almost constant dragging pain in her back. The uterus was found to be fairly normal in size and position, mobile, the sound passing upwards and forwards readily, giving the idea that the uterine cavity was enlarged, and causing rather smart hæmorrhage. The cervix was dilated and the cavity of the uterus explored. No polypus nor malignant deposit could be detected. The endometrium was curetted and the cavity swabbed out freely with iodised phenol. This was repeated on subsequent occasions. Ergot and cinchona were prescribed. The hæmorrhage was checked from this date, and the patient left the hospital three weeks later, there having been no further loss of blood. This patient was seen six months after. There had been no recurrence of the hæmorrhage.

Metrorrhagia: Retention of Placental Tissue: Curetting.—S. P., aged 23, married five years, mother of three children, youngest 14 months. She stated that she had a flooding three months before admission, but did not remember whether at a period or no. She thought she had not missed a period. There had been irregular losses ever since the flooding. The uterus was found to be bulky, fairly normal in size and position, the cervix lacerated and very granular. As the evidence of conception was not clear, and the patient's health was anything but satisfactory, there being a loud systolic apex murmur, and a very troublesome cough, rest in bed, the treatment of symptoms, and local application of iodised phenol were resorted to. The hæmorrhage persisting at the end of a month, the cervix was dilated and the interior of the uterus curetted. Several portions of placental tissue were removed, and the cavity was then washed out and swabbed with iodised phenol. From this date the hæmorrhage was checked, and the patient convalesced without further difficulties.

Hæmatocele: Menorrhagia.—A. L., aged 44, married twenty

years, mother of three children, the youngest aged 16 years. The periods had been fairly regular but rather profuse, and too frequent during the six months before admission. Three weeks before admission, just before a period was due, she thought she caught a cold; she shivered continuously and ached all over. A few days later she began to suffer from bearing-down pain and pain in the lower abdomen. The period came on, and was more profuse than usual. The uterus was found to be very bulky, pushed forward, and fixed in the pelvis by a dense mass occupying the sacral cavity, and markedly circumscribed, not diffused, as generally found in cases of pelvic cellulitis. Rest in bed, with regulation of the bowels, avoidance of stimulants, and a mixture of bromide of potassium and cinchona were prescribed. At the end of a month the mass was to a great extent absorbed, the patient could get about without discomfort, and she was allowed to go home.

Metrorrhagia: Intrauterine Polypus: Removal.—M. W., aged 50, widow, mother of one child, two miscarriages, the last twenty-two years ago. The periods were regular until three months before admission, although they had been profuse for nine months. For three months she had been losing blood continuously, often accompanied by clots. Ten days before admission she had a severe flooding, and was obliged to keep her bed. The uterus was found to be excessively bulky, retroflexed, mobile. The os uteri was patulous, the cervix fairly normal. The sound moved freely in the uterus as if the cavity were enlarged. Dilatation by means of laminaria tents was effected and the uterus explored. On passing the finger through the cervix uteri an oval fibroid polypus, about the size of a large walnut, was detected just within the internal os, springing apparently from the fundus uteri. This was seized with volsella forceps and dragged down; a strong pair of ovum forceps were then applied, and the polypus removed by torsion and traction. Iodised phenol was applied to the base. A ring pessary was subsequently inserted to keep the uterus in position, and the patient convalesced perfectly.

Epithelioma of Cervix Uteri: Removal.—M. M., aged 46, married twenty years, mother of nine children, youngest five years. Sanguineous discharge for over twelve months, almost continuous, worse at times, no pain, discharge occasionally offensive. Malignant degeneration of the cervix was discovered, the disease extending some distance up the cervical canal. Supravaginal amputation of the cervix was performed by means of scissors, the uterus being well drawn down by volsella. The whole of the diseased mass was removed, healthy uterine tissue being detected surrounding the diseased mass. Three weeks later the wound was found to be healthy and contracting, and the patient was allowed to return home. It is now eight months since the operation, and there are no signs of any return. Under the microscope the malignant nature of the disease was fully confirmed.

REVIEWS.

Essays on Acromegaly. By Dr. Pierre Marie and Dr. Souza Leite. Translated by Procter S. Hutchinson, M.R.C.S. New Sydenham Society. 1891.

Contribution à l'Étude Anatomique et Clinique de l'Acromégalie. Par le Dr. G. Duchesnau. Paris: Baillière. 1892.

Under the term acromegaly there are included, as is now well known, a group of cases which are characterised by an enlargement of the feet, hands, face, and lower jaw, and oftentimes of the pituitary body. They were first grouped together and named by Dr. Marie, and the volumes under notice are an attempt to collate what is at present known of the natural history of the disease. This is particularly the case in the New Sydenham Society's volume, which is in the main a reproduction in abstract of the thesis of Dr. Souza Leite, one of Marie's pupils, followed by some case histories collected from various sources.

Dr. Duchesnau's account is in the main confined to the description of a case under Professor Rénaut's care at Lyons, which presented certain peculiarities of gait just before her death. There can be no doubt that in this case the patient was affected with acromegaly, but a careful perusal of the described symptoms makes it somewhat uncertain whether the case was uncomplicated or not. On page 115 the absence of patellar reflex is noted as occurring some time before death, whilst later on in the disease, and just before the fatal issue occurred, we find that she was quite unable to stand alone and if desirous of walking *était obligé de s'arcbouter contre les murs.* Notwithstanding these facts, the careful drawings of the skull, with the enlarged lower jaw, and of the bust at an earlier stage render the account one of considerable value.

It is perhaps singular that in the New Sydenham Society's volume no mention should be made of Professor Virchow's conclusions, though his lecture is alluded to and the drawing of his man Westphalen is reproduced. This is the more remarkable as both his case and Freund's lend considerable support to his view, namely: That in acromegaly as hitherto delineated we have only half a disease described, the latter half with its degenerative details, whilst at an earlier period it is often accompanied by an increase of muscular power and is in some instances apparently hereditary.

Notwithstanding this undoubted omission, the book gives on the whole a good summary of what is known of the disease, and contains an excellent bibliography. We wish we could say as much for the illustrations. They are execrable, and their badness does not depend, as the editor tells us in his preface on the injurious effects of previous service, but on the impossibility, apparently, of printing the process blocks on the paper which is used by the Society. Woodcuts come out on it well enough, as anyone can see who will look at the brain on p. 62, or the man on p. 48; but the reproductions on pp. 38, 39, and 52 are no credit to the Society, especially as they might be remedied with scarcely any increase of expense.

There are a few spelling anomalies which disfigure the pages, such as "sella tursica." Why the letter "s" should be substituted all through the book for "c," we are at a loss to understand.

Variolo-Vaccine: Contribution à l'Étude des Rapports qui existent entre la Variole et la Vaccine. Par Ch. Haccius, avec notes originales de MM. les Docteurs Voigt, Fischer, et Hime (Bradford). Geneva and Paris. 1892.

This volume appears opportunely—concentrating within its pages the latest information on a subject the interest in which has been reawakened by an important paper by Dr. Hime which we recently published describing his original researches as to the variolous origin of vaccinia. Those who read Dr. Hime's paper must have felt that by successfully variolating the calf he produced a general infection of the animal which resulted in the production of genuine typical vaccinia in children inoculated with lymph derived from that calf. This result is testified to by experienced medical men and public vaccinators. Dr. Hime's results are not by any means isolated ones; they are confirmed by those of Voigt, of Hamburg, and Fischer, of Carlsruhe, and more recently by Haccius and Eternod, of Geneva. The outcome of their experimental researches is to verify the earlier experiments of Thiele, Ceeley, Badcock, and others, and to discredit the conclusions of Chauveau and the Lyons Commission, as well as the theoretical support given to those conclusions by Crookshank. We speak of Crookshank's support as theoretical because, although he is very affirmative in his opinions, there is no evidence in his two large volumes[1] that he ever attempted to variolate a bovine. The work of M. Haccius is, on the other hand, a record of experimental work demonstrating the possibility of variolating bovines and of producing thereby genuine cow-pox, which, when transferred to the child, manifests its action by indisputably typical Jennerian pocks, with the attendant characteristic symptoms.

A large number of photographs of the pocks produced by the variolation on the cow and calf, as well as on the child (when inoculated with the lymph derived from these animals), attest the character of the pocks. Chauveau had declared that the variola-vaccines which MM. Haccius and Eternod used in their vaccinations with perfect success were after all nothing but small-pox. Any reply which he may

[1] *History and Pathology of Vaccination.*

feel called on to make to the accumulation of facts arrayed against him will be awaited with interest. Those who are interested in this important question—and few medical men are not—will find this book well deserving of study.

MANUAL OF AUTOPSIES; Designed for the use of Hospitals for the Insane and other Public Institutions. By I. W. BLACKBURN, M.D. Philadelphia: Blakiston, Sons and Co. 1892. Pp. 84. Figs. 9.

WE gather from the preface that this book is the outcome of the action of the Association of Medical Superintendents of American Institutions for the Insane. A committee of that Association decided that it was advisable to agree upon a proper routine for the performance of necropsies, and that for the guidance of the persons making them a little manual should be prepared. Next, it was laid down that proper outline representations of the cortex of the brain, with schemes of the distribution of the cerebral vessels, and diagnoses of sections through various regions of the brain should be given. And, lastly, they laid it down that pathologists and non-expert physicians who made necropsies should record accurately what they found, giving gross appearances and conditions, omitting inferences and opinions. Upon this it may be remarked that any records of non-expert physicians can be of little value, and that necropsies ought not to be entrusted to them. Further, if they knew the difference between what they find and what they infer, the word non-expert would hardly be applicable to them. However, on the above lines Dr. BLACKBURN, with the co-operation of Dr. Welch and other pathologists entrusted with the preparation of this manual, have performed their task well. The order in which the necropsy should be done, the instruments, the examination of the various organs, the weights of the organs, and the hardening of the tissues for microscopic examination, are all dealt with in a clear and able manner. The brain and spinal cord are, as we might expect from the title, fully dealt with, some rough but clear diagrams lending their aid. The book can be recommended to those for whom it is intended, and is calculated to achieve the objects for which it was written.

A LECTURE TO TRAINED NURSES ON SOME IMPORTANT POINTS IN CHOLERA NURSING. By G. A. HERON, M.D., F.R.C.P., Royal British Nurses Association, 8, Oxford Circus Avenue, Oxford Street, London, W.

BESIDES the active part taken by local vestries, asylums boards, and other sanitary magnates in connection with the recent cholera scare it was very natural that the new generation of nurses should desire to know something about the disease which there was some probability they might be called upon to nurse. Dr. HERON has accordingly complied with a request from the Royal British Nurses Association, and has published his remarks on the subject, which no doubt will prove equally acceptable to the probationer and amateur as well as to the trained nurse. In a disorder like cholera, where so little can be done to check the progress of the disease, the nurse's duties are mainly confined to watching the symptoms and assuaging the incessant thirst, maintaining the body temperature by such means as are at her disposal, and in relieving spasms and cramps in the abdomen and limbs by a repetition of hot fomentations should such symptoms, as they frequently do, supervene. Happily in all these matters the nurse will be guided by the medical attendant, and as the disease mainly affects the poorer classes, for whom ample provision is made in the voluntary hospitals, there is little probability of these important measures being neglected. Considerable stress is laid in the course of the lecture, and very properly so, on the importance of stamping out the infection conveyed through the evacuations of the patients. The methods are practically the same as trained nurses are accustomed to in nursing enteric fever. We doubt, however, the feasibility of requiring a nurse to envelop herself in a macintosh and her head in an oilskin cap, though it is all-important they should use reasonable precautions to ward off infection from herself and others. It may be a question which among the numerous disinfectants now at our command will prove most efficacious and handy for the destruction of the cholera microbe. The solution of the perchloride of mercury is very much in fashion, but its poisonous qualities render it very dangerous for ordinary household use, and it can hardly be said to supersede carbolic acid, and it is well known that for soil pans and house-drains nothing has been found so efficient as crude sulphate of iron—a wooden spoonful of which should be used each time the bed pan or other utensil is emptied. Dr. Heron's advice to nurses is direct and simple, and it is to be hoped that nurses will profit by it should the disease get a footing amongst us.

PATENT ALIAS QUACK MEDICINES. By the EDITOR of *Hygiene*. London: Beaumont and Co. 1892.

"MAN," says Southey, "is a dupeable animal. Quacks in medicine, quacks in religion, and quacks in politics know this, and act upon that knowledge. There is scarcely anyone who may not, like a trout, be taken by tickling." The EDITOR of *Hygiene* has for some time past devoted himself to the task of exposing the later forms of medical quackery; and in this interesting little work we learn all that the analyst has to tell us about such loudly trumpeted preparations as Count Mattei's "Electricities," Du Barry's Revalenta, Sequah's Prairie Flower, Mother Siegel's Syrup, Allen's Hair Restorer, and a host of similar money-making articles. It is interesting to know precisely what these things do or do not contain, but we fear that no amount of exposure will abate the incomes of the proprietors so long as they advertise sufficiently. As for the spread of education tending to make the public less dupeable, there is no evidence that it is acting in this direction. Explain the baseless pretences of the electropathic belt, or the preposterous nature of the claims of Count Mattei to the most highly educated dupe, and he will listen to you complacently, and then smilingly ask you if the analyst has solved the mystery of life, or if you can tell now nerve force is generated in the brain, and how it is translated into muscular contraction. A little physiology, chemistry, or philosophy just enables the susceptible patient to understand sufficient of the quack's pretension to enable him to fall an easy prey to his wiles; and we have no doubt that such dupes will read this book without abating the least of their confidence in their favourite "patent." Still, as a contribution to our knowledge of the ways of quacks and their victims, it is to be welcomed; and we hope all our readers will make it their business to acquaint themselves with its contents.

METHODS AND FORMULÆ USED IN THE PREPARATION OF ANIMAL AND VEGETABLE TISSUES FOR MICROSCOPICAL EXAMINATION, INCLUDING THE STAINING OF BACTERIA. By PETER WYATT SQUIRE, Fellow of the Linnean Society. London: J. and A. Churchill. 1892.

ONE of the great difficulties experienced by those engaged in histological work is that of obtaining a reliable description of the various methods and formulæ most useful in the preparation of animal and vegetable tissues. There are numerous, almost philosophical descriptions of whole series of methods which, on coming to be tested in actual practice, are found to be useless for any but special purposes.

In order to assist those who have felt such want of a concise and practical description of the above subjects Mr. P. W. SQUIRE, F.L.S., has, with the assistance of Mr. F. J. Warwick, M.B.Cantab., collected and described the best methods of hardening, fixing, and decalcifying tissues, the various embedding media, and staining fluids. A clear and succinct description of nuclear and plasmatic stains is given, and the general uses to which these may be put, and the special advantages of special stains for various tissues are described. Then follows a very complete and accurate account of the methods of staining, dehydrating, clearing and mounting animal and vegetable tissues, and also the general and special methods of preparing bacteria for microscopic examination. Most of the descriptions are exceedingly good, though here and there, where the staining and embedding have to be carried on simultaneously or in rapid sequence, they are scarcely full enough. The great value of the work is that the author, after referring to the original description of any method, has evidently tried it himself, and has, in many instances, elucidated points

which, in the original descriptions, are not sufficiently explained.

We can recommend this little work with very great confidence to those who are engaged in histological research. It is well brought up to date, the only omissions that strike one being the more recent methods of hardening and staining nerve tissues. The work is well printed and is in handy form for laboratory or class-room reference.

NOTES ON BOOKS.

Zur Kenntniss des specifischen Gewichtes des Blutes. (On the Specific Gravity of Blood.) By Sophie Scholkoff. Inaug. Dissertation. (Bern: Stampfli et Cie. 1892.)—Professor Roy was the first to introduce a working method for obtaining the specific gravity of such small quantities of blood as can be obtained from a finger prick. This method consists in placing drops of blood in various mixtures of glycerine and water of known specific gravity until one is found in which the drop neither rises nor falls. Various modifications have been proposed in the fluid used, and of these Hammerschlag's (benzene and chloroform) appears to be the best. The present research by Madame Scholkoff was carried out on healthy and pathological blood much in the same way as Dr. Lloyd Jones has already done in this country. She, however, did not use any of the modifications of Roy's method, but the capillary picnometer of Schmaltz instead. The chief results obtained are (1) that the method is a good one, (2) that the specific gravity of healthy blood is directly proportional to the amount of hæmoglobin, though not to the number of corpuscles present, (3) the daily variations are small, a rise taking place after meals, (4) in different forms of anæmia there is a marked fall in the specific gravity of the blood. Observations on the blood in a large number of other diseases are given, but the number of cases of each are so small that the conclusions stated appear to require confirmation.

Ueber den Einfluss in den Magen eingeführter Säuren und Alkalien auf die Alkalescenz des menschlichlen Blutes und auf die Reaction des Harns. (Effect of Administering Acids and Alkalies on the Reaction of the Blood and Urine.) By A. Frendberg. Inaug. Dissertation. (Berlin: G. Reimer. 1891.)—Dr. Frendberg has employed the usual methods of titration in examining the reaction of urine; thanks to the researches of v. Jaksch, he was also furnished with a method of estimating the alkalinity of the blood; this method, which may be described as titration in miniature with tartaric acid, is applicable to such small quantities of blood as are obtainable in clinical work. The influence of administering acids and alkalies on the alkalinity of the blood was often *nil*, and never very great. The effect on the urine corresponded exactly to the agent given. The latter conclusion is of therapeutic interest; the former seems to suggest that the blood has a regulating mechanism in relation to its alkalinity.

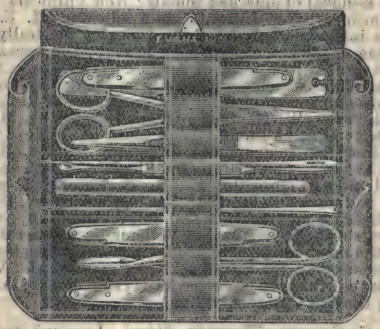
Puberty and the Change of Life: a Book for Women. By J. C. Webster, M.D., M.R.C.P.E., Assistant to the Professor of Midwifery and Diseases of Women in the University of Edinburgh. Price 1s. (Edinburgh: E. and S. Livingstone.)—We find it hard to understand why the author should have written this book. We find no fault with it; its information is accurate and its advice sound. But in our opinion a girl at puberty had much better ask her mother about anything that perplexes her, than read a work like this; and a mother anxious about either her daughter or the approach of her own climacteric changes will be wiser if she consults a doctor than after the most thorough study of Dr. Webster's pamphlet. We hope that Dr. Webster's ability and energy may not be further diverted from scientific work by any supposed necessity for popular manuals of this kind.

University of Innsbruck.—The total number of students in the University of Innsbruck during the last summer semester was 849, of whom 267 belonged to the medical faculty. The teaching staff numbers 17 professors and 3 lecturers, who, during the forthcoming winter semester, will give 42 courses of lectures and practical instruction.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

AN ANTISEPTIC POCKET CASE.

It has occurred to me that, in this age of antiseptics when all our operation instruments are being made with metal handles so that they may be rendered thoroughly aseptic, we have not paid that amount of attention to our pocket books that the importance of the case requires. To this end I have had an aseptic book made, of which all the instruments can be rendered easily and thoroughly aseptic. The handles of the knives being made entirely of metal allows of them being placed in the steam steriliser without harm, in fact, with



marked benefit, as they are cleaned and sterilised at one and the same time. This pocket book I am sure will supply a much needed want of my busy brethren, and as the case costs considerably less than the usual shell-handled knives I take it that it will not on that account be any the less acceptable. My ideas have been faithfully carried out by Messrs. Evans and Wormull, 31, Stamford Street, S.E.

A. Dixon Jollye, M.R.C.S.,
Medical Officer, St. Luke's Home for Sick Women and Children, Walworth; Surgeon, St. Stephen's Club, Westminster.

A SIMPLE DROP BOTTLE.



I submit the plan shown in the accompanying illustration of making a "chloroform-drop" bottle out of an ordinary glass stoppered bottle as being simple and effective. The notches may be made with an ordinary edged file. When *in situ* the stopper can be made to turn on or off like a tap.

J. H. McGee.
Mater Misericordiæ Hospital, Dublin.

Dr. A. Lingard has been appointed to the Civil Veterinary Department, Calcutta, as Professor of Bacteriology and Comparative Pathology, in charge of the Imperial Bacteriological Laboratory, with the title of Imperial Bacteriologist.

Biological Laboratory at Calcutta.—A new biological laboratory is about to be established in the Calcutta Zoological Gardens. Babu Joy Gobinda Law, a member of one of the wealthy native families of Bengal, has offered 15,000 rupees towards the cost of the building and its equipment. The laboratory is primarily designed for the investigation of snake poison with the view of finding an antidote if possible, but it will also be available for anatomical and pathological researches.

THE ANNUAL MUSEUM: NOTTINGHAM MEETING.

INSTRUMENTS, Etc.

III.

The pressure of urgent matter during the last few weeks has led to the suspension of the publication of the further notice necessary to complete our review of the exhibits in the annual museum at the Nottingham meeting.

In No. 2 room were collected for the most part series of medical and surgical instruments and appliances.

Messrs. Arnold and Sons, West Smithfield, London, had a considerable display of instruments. Among those chiefly to be noticed were: A new form of Uterine Dilator (T. F. Gardner); Immediate Perineorrhaphy Case (J. B. Hellier); Improved Tonsil Guillotine (A. Morison), this instrument is an improvement upon that of Mackenzie's, and greatly facilitates the removal of enlarged tonsils; New Phimosis Dilator (T. F. Gardner); New Intrauterine Applicator (H. E. Trestrail), this instrument obviates the difficulty generally found in applying medicaments to the uterus by the means of a Playfair's probe; new form of Aseptic Hypodermic Syringe (T. J. Bokenham), which can be easily and perfectly sterilised; Nasal Ointment introduced for the Treatment of Rhinorrhœa in Scarlet Fever (W. Gayton); Ovum Curette (A. Meredith Whitehead); Uterine Double Tenaculum (A. Duke); various Aseptic Operation Instruments; Colotomy Dilator (Harrison Cripps); Circumcision Clamp (Dr. Sinclair, of Selangor); an improved form of Tonsillotome (A. H. Butcher); two new forms of Stricture Dilator (Surgeon-Major Lawrie), these instruments are a modification and improvement upon Holt's instruments and the Divulsor of Vollemein; a general assortment of the most modern instruments for Gynæcology; the latest instruments for Eye, Ear, Nose, Rectum, and Vagina; various forms of Clamp Forceps for Hysterectomy; Auvard's Flushing Uterine Curettes.

Mr. C. G. Gümpel (Newman Street, London) showed a full size Model of a Patent Spring Spinal Support, intended for simple cases of weakness of the spine, and to be worn in lieu of the ordinary corsets; but inapplicable in the treatment of pronounced deformity.

Messrs. Hurst and Co. (6, Fowkes' Buildings, Great Tower Street, E.C.) showed a considerable series of Galvanic and Electrical Apparatus.

The Teufel Remedial Appliances Co. (61, Moor Lane, E.C.) exhibited a varied selection of Abdominal Belts for the treatment of umbilical hernia, displacements of the womb, floating kidneys, weak spines, etc., also for wear during pregnancy and after confinement. The special features of the appliances include adjustability in every part and freedom from rucking. The belts are kept in various suitable materials, including Dr. Jaeger's pure woollen fabrics. An appliance for female use was shown in the new "Safe-Guard" Menstrual Bandage; a velvet-rubber receptacle being provided to carry an antiseptic wood wool pad in such a manner as to obviate risk of chafing and afford protection from cold. The "Stoop Cure," by a back-support for the prevention of round shoulders in children and adults. When properly fitted its presence under the clothing could not be detected. A new Suspensory Bandage had a triangular piece of netting supported by a waistband, which envelops the scrotum and carries it up against the body, out of harm's way; a separate compartment for the penis making the bandage suitable for cases of gonorrhœa.

Mr. H. Wilkinson (Broad Street, Nottingham) exhibited an Improved Abdominal Supporting Belt, the advantages claimed for which are that it can be adjusted to the figure, does not work up through the action of the body, while it gives support to the lower parts of the abdomen, and can be worn without inconvenience; also an Elastic Thigh Knee Stocking fitted with a joint, which expands and contracts with the bending of the knees, keeping straight and preventing creasing in various positions of the limb; and a large variety of Elastic Surgical Stockings, Knee Caps, Belts, and other appliances made of silk, cotton, and wool, and an assortment of Trusses of improved construction.

The Sanitary Knitted Corset Company (Mansfield Road, Nottingham) showed their Knitted Corsets (on which we have recently reported) in fine and thick wool, fine and thick cotton; the lighter make for summer wear, the thicker and warmer qualities for winter. They exhibited also the Arctic Driving Gloves, Knitted Cholera Belts, Socks, and Pure Natural Wool Underclothing, of substantial make and neat finish.

Messrs. Danielsson and Co. (Beaumont Street, Portland Place, W.) showed their Clinical Figures and Charts for case recording, Lantern Slides for lectures, histological scenes, and medical illustrations.

Messrs. Salmon, Ody, and Co. (Strand, W.C.) exhibited various Surgical Appliances. Among them was a very effective Tourniquet, which was much approved of by most of those who examined it. They had also an ingenious Patella Truss for use in cases of displacement of the patella, which has been successful in fractures. Beside this there were their own adjusting and various kinds of Trusses, Limbs, Spinal Jackets, Ladies' and Gentlemen's Abdominal Belts, Elastic Stockings, Bandages, Catheter Bougies, etc.

Messrs. Bailey and Son (Oxford Street, W.) gave prominence to an excellent collection of Trusses of their own make and for which they obtained the first prize at the Cutlers' Hall Exhibition. Their India-rubber Trusses for infants are noticeable for the softness of the material. Their Anatomical and Abdominal Belts are of old reputation, and still maintain their popularity. Among the Nurses' Appliances there were a good many Wallets, and a new Aseptic China Bed Bath, used also as a slipper, with no angles or crevices for uncleanly accumulations, worth the notice of hospitals and public institutions. Their new "Court" Silk and Cotton Elastic Stockings are particularly fine in texture, soft and yielding, and are specially recommendable in warm weather and hot climates. They showed some very soft Cushions and Pillows made from fine tempered steel wire, as soft as feather pillows and as comfortable, but cooler and not so liable to displacement; very useful as a back rest in medical and surgical cases. They exhibited, also, many Obstetrical Appliances.

Messrs. Krohne and Sesemann, Duke Street, Manchester Square, W., showed their latest improvements and modification of Junker's Chloroform Inhaler, which are very economical in the amount of chloroform required, and in so far also probably less risky, since a minimum of chloroform suffices. The feather indicator shows the rate and depth of the respiration, and enables the anæsthetist to time the injection of chloroform-ladened vapour with perfect accuracy to inspiration only. The apparatus is portable and convenient, and easily allows of continuous vigilance, affording accurate information of the progress of anæsthesia. They also showed simple Cones made of leather, with removable felt lining, with and without their respiration indicator, which take but little space in the surgeon's bag. These inhalers are suitable for chloroform, ether, or the A.C.E. mixture. Complete sets of Instruments for operations requiring abdominal section, comprising the latest improvements devised by the chief operators in this important branch of surgery; Decalcified Bone Plates and Tubes, as used by different operators; Flushing Scoops for large and small abscesses; Hagedorn's Flat Suture Needles, and his latest improved Needle Holder; new and improved Instruments for operations in the mouth, larynx, ear, and nose, also for operations on the rectum, male and female urethra and bladder; Scalpels, Amputating and other Operating Knives and Instruments, with metal handles; a complete set of Aseptic Midwifery Instruments, as in general use at the London Hospital, conveniently fitted into a leather bag; Dr. Champetier de Ribes's Inflating Bag for inducing labour, with Forceps for introducing it.

Messrs. J. and E. Ferris (Great Russell Street, Bloomsbury, W.C.) sent a series of their well-known Artificial Legs

and Arms with Automatic Action at Joints, and also specimens of their Extension Foot and Boot for shortened and deformed legs, Patent Belts for attaching full length artificial leg, and a pair of Improved Spring Crutches.

Messrs. Gray and Selby (Nottingham) showed a good assortment of Surgical Instruments and Appliances, including several Novelties in Aluminum and Celluloid Instruments. They had also samples of Henckel's Patent Scissors which give a draw cut (the larger sizes being capable of cutting boots off in case of accidents to the limb); the blades can be quickly taken apart for cleaning. In Orthopædic Instruments they had a novel arrangement with a Helical Spring for Turning the Foot Outwards in cases of "pin toe;" they also showed Abdominal Belts, Elastic Stockings, Antiseptic Dressings, etc.

Mr. A. Fournet (Welbeck Street, London, W.) exhibited his Compound Ophthalmic Refractometer, an instrument of utility for determining with exceptional accuracy the lens or combination of lenses required for the correction of every defect of vision.

Messrs. Mayer and Meltzer (London, Melbourne and Cape Town) exhibited, as specialities, a collection of Victor Horsley's Instruments used in operations on the brain (the original patterns of these were made by them); also Metallic Antiseptic Splints, which possess the advantages of cleanliness, adaptability, and durability, at the cost, in most cases, of less than the ordinary wooden splints; Antiseptic Sponges, Catgut, and Drainage Tubes in Bottles; Prepared Plaster-of-Paris Bandages, in tins, by the use of which the practitioner is saved the trouble and inconvenience attendant upon the preparation of these bandages for use; the most recent patterns of Aural, Nasal, and Laryngeal Instruments.

Mr. Schall (55, Wigmore Street, London, W.) exhibited Mr. A. B. Woakes's Transformer, for utilising the 100-volt current supplied for lighting houses for cautery, surgical lamps, and faradisation, and a Board with Rheostats and other accessories for utilising the same current for galvanisation, electrolysis, and faradisation; also a great variety of Portable Batteries for galvanosation, electrolysis, and electric light, fitted with dry Leclanché elements, and a Large Combined Battery for Specialists; Induction Coils (twelve various patterns) partly worked with dry cells, partly with acid cells; and his well known Cautery Batteries and Instruments. He further showed Cystoscopes, Urethroscopes, Laryngoscopes, etc., in action.

Messrs. Lynch and Co. (192, Aldersgate Street, London) showed a large and varied collection of surgical instruments and surgical sundries, special attention being drawn to the collection of Ovariotomy Instruments as used by Mr. Lawson Tait, and his new Uterine Scissors Forceps, made with a joint, which always can be taken apart and which will not get out of order; Mr. Lawson Tait's New Pure Aluminum Dilators, Retractors, Ascites Trocars; Dr. Murdoch Cameron's Portable Clover's Crutch, which all unscrews for portability; Thin Flat Sponges, specially selected for ovariotomy operations; Portable Aluminum Hypodermic Syringes, complete in cases of the same metal, with four bottles for solutions or tabloids, absolutely no rust, cement, or plating, will stand all climates, and weighs only a few ounces; New Portable Enema, fitted with an enamelled iron box, which forms the reservoir, thus avoiding all injections of air, hardened glass valves, which can be removed: advantages—cleanliness and portability; Celluloid-mounted Syringes, fitted with glass barrels for ward, ear, urethra, and nose; Portable Clinical Binaural Stethoscopes; Clinical Thermometers, which will take the temperature in 30 seconds; Portable Sets of Aseptic Pocket Dressing Case Instruments, a small compact case for the pocket in all metal handles and case; Aseptic Sets of Minor Operating Instruments, all metal handles; Dr. Bantock's Pure Aluminum Pessaries, always clean, and very light; Sprays for the ward or sick room with a spiral pump action, doing away with the ordinary rubber bellows. Most of these instruments and appliances were remarkable for their relatively low price.

Messrs. Barth and Co. (Poland Street, London, W.) showed their Apparatus for the Administration of Nitrous Oxide alone or in conjunction with ether, and Dr. F. W. Hewitt's Apparatus for the Administration of Oxygen with Nitrous Oxide, designed for a continuous supply of the mixture in variable proportions.

Messrs. Down Bros.' exhibits comprised some interesting surgical instruments, most of them designed with special reference to aseptic surgery, the blades and handles forged entirely out of solid steel; Scissors and every form of Forceps, to take apart at the joints; Cases of Metal and with metal lining for instruments, the instruments themselves being placed in metal racks, which could be lifted out and placed bodily in the steriliser, while the inner lining of the cases formed a tray for placing the instruments in antiseptic solution during operation; Catheart's and Schimmelbusch's apparatus for Sterilisation of Instruments; Catheters, metal and elastic, with solid ends, and small and convenient apparatus for sterilising them; also Eye Knives and Needles forged entirely out of solid steel, Eye Scissors and Forceps, made to take apart at the joints; and Cathcart's Sterilisation Apparatus, made suitable for eye instruments; a new portable Ophthalmoscope, made at the suggestion of Mr. Simeon Snell, and an improved form of Morton's Ophthalmoscope, patented by Messrs. Down; Haydon's Ophthalmic Atlas for recording pathological conditions of the fundus, by means of superimposed layers of colour; O'Dwyer's Aseptic Intubation Instruments, for children and adults, made entirely of metal; Decalcified Bone Plates and Tubes, and special Needles and Forceps for intestinal surgery.

Mr. R. Rauschke, 35, Bond Street, Leeds, exhibited Eagland's improved Umbilical Girdle and Uterine Supports; Teale's Trusses with ivory pads, for direct and indirect inguinal and femoral hernia; Abdominal Belts, and other appliances. Among other instruments, Clover's Ether Inhaler, Antiseptic Cases, Braithwaite's improved Hegar's Dilators in portable roll-up case, Braithwaite's improved Zwanke's Pessary, Celluloid Hypodermic Syringe, with barrel, piston, and needle mount made of three solid pieces, thus rendering it antiseptic, and an assortment of other useful novelties in instruments.

Messrs. Miller and Woods, electrical engineers and contractors (Gray's Inn Road, Holborn) showed Medical Batteries for simple and combined currents. In addition to the usual accessories of milliampère meter, etc., the boards were fitted with a new form of dial collector, so constructed that a resistance is interposed between any two studs at the moment of passing from one to the next, and the cell or cells between are therefore not short circuited, and thereby rapidly deteriorated. This is of great importance now that dry cells of low internal resistance have taken the place of the Leclanché formerly employed. They also showed specimens of the various types of "Hellesen" Dry Cells, and a Focussing Electric Lamp for throat operations, etc.; small Transformers for working medical and dental apparatus from the street electric mains; also the special form of Milliampère Meter for faradic currents used by Dr. H. Lewis Jones in his lecture on alternating current measurements.

Messrs. Coxeter and Son (Grafton Street, London) showed a variety of Surgical Instruments, chiefly for the ear, throat, and nose, etc. But the special feature of their exhibit was Electrical, brought chiefly, we understand, from the Crystal Palace, and for which they had gained a gold medal. Amongst many interesting things the following were notable. A new form of Dry Cells, which, while possessing all the characteristics of the Leclanché, pack into a very small space; two of these cells were ringing an electric bell, to the back of which they were attached. There is, therefore, a powerful current in these miniature cells, and they are so cheap as to be well within the reach of even the hospital patient. High Frequency Coils were shown worked by these Dry Cells, in which the usual vibrator is replaced by one of a novel construction, which gives such rapid vibrations as to be quite pleasant in the application of the current. The current strength of the induction is graduated perfectly by the rotation of a screw-head. Their new "Rubberene" Electrodes deserve notice, as

by their use flannel coverings are dispensed with, and the current is applied without needing to wet them. Various apparatus for the use of Dentists were also shown, and an ingenious application of a new Dental Hammer was in operation, serving effectually as an engraver or writer on metal.

Mr. John Carter (6A, New Cavendish Street, Portland Place, W.), whose many ingenious appliances for invalid furniture and surgical appliances are well known, made a special feature of his new Revolving Operation Table, for flushing operations, irrigations, etc., which greatly facilitate not only major operations and interference with the body cavities, but also the ordinary dressings in surgery, where cleanliness and a free use of water is desired. Much attention was attracted also by the Stanmore Bishop Hip Disease Bed, which was figured in the British Medical Journal of February 13th, 1892.

Hall's Coca Wine (Stephen Smith and Co., Bow). In this preparation the quantity of leaves used is standardised, and equals 1 drachm of the leaves to 2 ounces of wine. The wine claims to be prepared from Bolivian leaves without the addition of cocaine. It has a flavour, resembling fresh tea, which is exceedingly pleasant.

Many of the leading medical publishers showed a selection of New Books. Amongst those shown by Mr. H. K. Lewis (Gower Street, W.C.) may be mentioned Professor Boyce's *Textbook of Morbid Histology*, illustrated by 130 coloured microphotographs; Drs. Steavenson and Lewis Jones's *Medical Electricity*, a new volume of Lewis's Practical Series; Dr. J. F. Goodhart's Lectures on *Common Neuroses*, and new editions of such well-known works as Martindale's *Extra Pharmacopœia*, Buxton's *Anæsthetics*, Lusk's *Midwifery*, etc.

Young J. Pentland, Publisher (West Smithfield, London, and Edinburgh), sent copies of recent works, many of which are of considerable value and exceedingly well got up, and illustrated; as did also Messrs. Wright and Co. (Bristol) and F. A. Davis Company. The F. A. Davis Company also contributed lifelike Anatomical Models of various kinds and sizes, made of strong *papier maché*, representing anatomical sections of the human body or of domestic animals, adapted for public schools and lectures. They showed, also, Pure Calf Lymph, prepared at the institutes, established in 1865 of Dr. Pissin, of Berlin, under direct control and supervision of the Imperial Health Office. This lymph is used for vaccinations made in the Royal Household at Berlin, and has been adopted by the German War Department for use in the army, where it has given during the last twenty-seven years thorough satisfaction. For the emulsified preparation, guarantee is given that it will remain active for a period of at least six months.

THE INFLUENCE OF VISUAL DISTURBANCES IN PRODUCING SEA SICKNESS.

By GRAILY HEWITT, M.D., F.R.C.P.,
Emeritus Professor of Obstetric Medicine, University College.

In a former paper (British Medical Journal, May 21st, 1892), it was shown that visual disturbances are greatly concerned in the etiology of sea sickness. I must, however, disclaim altogether the idea which has been imputed to me of claiming for visual disturbances that they are the exclusive cause of sea sickness. The following quotation from my paper proves this:—"The co-existence, occasionally, at all events, of blindness and liability to sea sickness shows, of course, that other disturbances besides those connected with visual impressions are capable of occasioning sea sickness. This, no doubt, necessitates the conclusion that in any general theory of the cause of sea sickness the visual disturbance theory cannot play an exclusive part." This paragraph seems to have escaped the notice of some of those who have criticised my statements.

At present my chief endeavour is to collect data for determining the extent to which visual disturbances are the cause of the sickness, and to suggest methods by which these visual disturbances may be prevented. Since my last letter on the subject some further facts and criticisms of importance have reached me. They are as follows:—

Extract from letter of an eminent London physician, under date June 1st, 1892: "I cannot doubt that you have most ingeniously accounted for a great part of the phenomena of sea sickness, but not, I presume to think, for the whole of them. I suspect that sudden variations of intravascular pressure upon the nervous centres influenced by rapid and irregular changes of position, constitute cardinal factors in the trouble."

Another eminent London physician writes, under date of June 15th, 1892, concerning my essay on sea sickness: "I think there can be little doubt of the soundness of your views; and your experiments are remarkably interesting. I may mention I have myself occasionally succeeded by lying down and keeping my eyes steadily closed, in staving off the miseries of the Straits of Dover."

Dr. Mastin, of Mobile, writes as follows, June 27th, 1892: "So long as I can confine myself to my state room, and keep my eyes closed, I am free from distress. My attention was first directed to this in a voyage from New York to Liverpool. The sea was very rough, and I, very uncomfortable, went to my state room and lay down. As soon as my eyes were closed, I became quiet and experienced no discomfort from the roll and pitch of the vessel, but so soon as I would open my eyes and catch a glimpse of the towel which was hanging by the wall and tossing to and fro, just so soon would I become deathly sick. When I would avoid looking at the towel I would soon become relieved." Dr. Mastin is satisfied, from the experiments related in my paper, that "this is the correct solution of the vexed problem."

Dr. J. C. Reeve, jun., of Dayton, Ohio, writes, July 11th, 1892: "Your work on sea sickness has interested me, and I can agree with your result largely, but not to the extent of claiming visual impressions as the whole cause of the trouble. An incident sustaining your position, and perhaps of more time than any yet given in the British Medical Journal, because motion takes no part, occurred at the scene of a railroad 'wreck.' Our railway cars are, as you know, of one compartment, and with their great length, in some cases over 70 feet, and lofty and wide in proportion, make of the interior quite a *salon*. The backs of the numerous seats and the edges of the windows produce respectively two systems, a horizontal one of parallel lines and a vertical one of similar lines, and it is in these positions one is accustomed to see them. A car was tilted not only towards one side, but also with one end in a telescopic position. Now, to attempt to walk up the aisle, the passage way in the middle between the seats, was quite difficult, not because of the incline, but the inco-ordination, and produced a feeling of sickness in many of the sightseers and in myself."

Prevention and Treatment of Sea Sickness.—From what has been stated in my former papers it may be assumed that a very important part of the prevention of sea sickness consists in a persistent successful endeavour to prevent the occurrence of visual disturbances, these latter being in a very large proportion of cases the exciting causes of sea sickness.

This is not, of course, the sole treatment that may be employed to prevent sea sickness, for there are cases in which, visual disturbances being shut out, there is yet sickness. I wish, however, now to point out how to prevent occurrence of visual disturbances, hoping thus to obtain from those who may be induced to make trial of the method reports as to the results of their experience.

There are two methods available for preventing visual disturbances, of each of which I have had numerous practical and personal experiences: (1) To close the eyes continuously during the whole of the voyage, or (2) To fix the vision on some object away from the vessel, and thus to get rid of the sight of the complex movements of the vessel, or of any part of it.

Prevention of Sea Sickness in Short Voyages by Maintenance of Horizontal Posture and Bandaging the Eyes.—Individuals who are readily made sea sick should lie down as near the centre of the vessel as possible before the vessel begins to move, the eyes should be carefully bandaged, and this position maintained until the vessel ceases to move. This plan is especially useful in short voyages such as the "Channel" passage, which is proverbially a very trying one. This method, to have a fair chance, must be religiously carried out, the eyes not being allowed to perceive a vestige of light. In taking food or drink care must be taken not to disturb the eye bandage. It cannot be too strongly impressed on the patient that it is fatal to the success of the treatment if any object in the cabin can be even dimly seen. Those who fall into a sleep should be watched over, for it is likely otherwise that the bandage may become displaced, and a break-down will then probably occur.

It is possible in some instances, where the individual is strong minded, to dispense with the bandage, the eyes being firmly closed and the patient remaining in the horizontal posture. Few can, however, be trusted to go through the trial without the bandage successfully.

It is an undoubted assistance, if the bandage is employed, that the patient should remain in the horizontal position, because it is then easier to maintain the bandage in place. In

dealing with lady passengers, as a rule the horizontal position and the bandage are preferable to other plans for preventing visual disturbances.

The following is an interesting experience of effects of the preventive treatment above described:—

"Mrs. ——, aged 48, crossed from Dover to Calais, November, 1879, with her son, aged 20 years. Both great sufferers from sea sickness, and the mother in great dread of it from previous experience, both agreed to bandage the eyes and remain in a horizontal position. Report of results by the mother:—"As far as I was concerned the plan answered admirably. I did exactly as I had been instructed, and I felt no more of the motion than if I had been in my own bed at home. Others were ill, and even the noise of them did not set me off. We were two hours and a-half crossing." The son did not succeed in warding off the illness. He was tempted by the apparent smoothness of the water to do as others did, and it appears that he thereupon became very ill. On trying the plan of closing his eyes and lying down, it was found to have no effect in relieving him. The result in the case of the mother was good because the preventive treatment was well carried out. The result in the case of the son was negative, the prescribed preventive treatment having been neglected. Experience shows that once the sickness has obtained the mastery, the eye bandage and horizontal position will be comparatively useless until after lapse of some time.

Prevention of Sea Sickness in short Voyages by steady fixing of the Eyes on some Object not on the Vessel.—The passenger must, of course, be on deck. The best position is standing close to and looking over the bulwarks. The eyes must be steadily fixed on a passing ship or a portion of the coast line, or a cloud, or the horizon, and the greatest care must be taken to avoid seeing any part of the vessel. It is generally easy to carry out this treatment unless the weather is very wet, and even then by aid of a macintosh a male passenger can usually continue on deck. It is better to select a spot rather near the vessel's centre, but in paddle steamboats the centre parts are not so available as in screw vessels. It is essential that the fixation of the vision should be begun as soon as the vessel begins to move. Change of place should be avoided, for during such change the fixation of vision is lost, and the sickness may set in and be difficult to throw off. In some instances the sickness is kept at bay by sitting on the deck in a corner and perseveringly reading a book with wide margins, holding the book rather close to the eyes.

Preventive Treatment in Long Voyages.—The treatment required differs in different instances. We may, for practical purposes, divide cases of a liability to sea sickness into three classes.

A. The patient is known to suffer little, and during a day or so only. The patient should be encouraged to keep on deck and fix the eyes on objects away from the vessel, taking a rest now and then with the eyes quite closed. After a while the liability disappears.

B. The malady is more severe; the patient should remain lying down and at rest with the eyes bandaged for the first twenty-four hours, and food in a liquid form given occasionally. The second day the patient may be taken on deck with the eyes still carefully bandaged, and when on deck the patient, if feeling free from sickness, may be allowed to look at objects away from the ship. If not feeling well, the horizontal position or a deck chair may be employed, and the eyes closed by a bandage for a little longer.

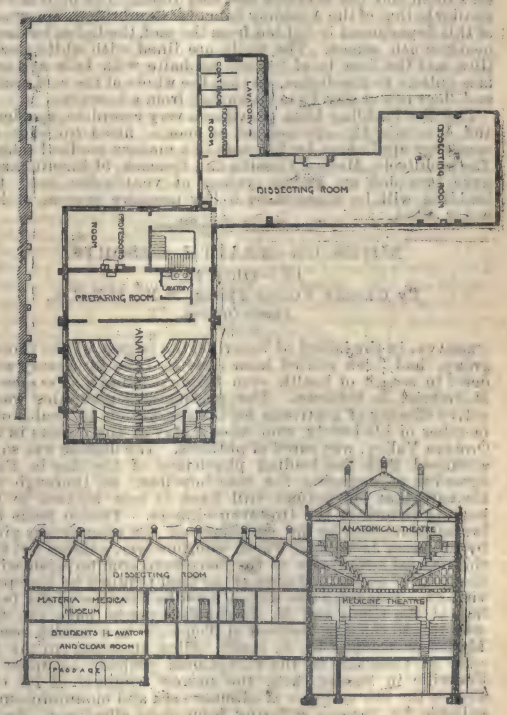
C. Extreme liability to the malady, the patients having suffered very much on former occasions. The same treatment as in Class B should be enforced, but the patient should not be allowed to use the eyes for two or three days, the greatest care being taken to sustain the strength by giving liquid nourishment, as soup or beef-tea, or egg beaten up with water or milk, and, in cases requiring it, one or two teaspoonsful of brandy mixed with five or six parts of water every four hours.

I refrain from special recommendation with reference to the use of special drugs in cases of sea sickness; first, because experience has shown me that the preventive measures above described are, in the majority of cases, amply sufficient; and, secondly, because if drugs are given in the cases where the action of visual disturbances is prevented, it is impossible to say whether the patient is benefited by the drugs administered, or by the absence of visual disturbances. In order to obtain satisfactory proofs of the efficaciousness of those preventive measures drugs should not be simultaneously ordered for the patient. Before drugs are administered, especially the more powerful ones, proper medical advice should be sought. It is well known that sleep has a great influence in warding off sea sickness. If the patient lies down and falls off to sleep there is a double preventive action: (I) the visual disturbances do not occur, and (2) the nervous centres are in a comparatively quiescent condition. In some instances the immunity from sea sickness during sleep may be due to the first, and in others the second. When medicines of a narcotic character are administered, and sleep thereby produced, the explanation becomes of course further complicated. Cases in which no sleep occurs, in which the eyes are bandaged and no medicines are given, offer the best evidence that the remedial action of the bandage is due to the absence of visual disturbances.

THE MEDICAL FACULTY OF MASON COLLEGE, BIRMINGHAM.

We publish elsewhere the inaugural address delivered by Sir G. Murray Humphry on the occasion of the opening of the the first session of the Queen's Faculty of Medicine in connection with Mason College, Birmingham. The Faculty has hitherto formed a part of Queen's College, Birmingham, but the advantages which would flow from a more intimate union with the great science College have long been apparent, and are eloquently outlined by Sir G. Murray Humphry.

The transfer has necessitated the extension of Mason College. The new buildings for the medical school form two detached blocks, separated from the older buildings by a quadrangle, but connected by a covered enclosed bridge, which crosses the quadrangle and forms a continuation of the main central corridor. The new buildings, which cover an area of 12,000 square feet, have a separate entrance in Great Charles Street, so that Mason College now extends from Edmund



Street, where is the principal entrance, to Charles Street. The general scope of the extension is shown in the accompanying sketch-plan and section. It consists of two blocks

arranged in an L-shape. The one block contains in the ground floor a medicine theatre with seats for 326 students; under it, in the basement, is a gymnasium and other rooms, and over it an anatomical theatre with seats for 230. Adjoining each theatre are convenient preparing and professor's rooms and lavatories. The theatres are approached by ample staircases of stone and iron, and every part is well lighted.

The other block contains the working rooms and museums, hereafter more particularly specified. In the basement are spacious anatomical stores, approached by a subway, servants' latrines, chamber for the heating apparatus, and several spare rooms, all entered from the quadrangle.

The ground floor is entered from Great Charles Street, and on one side of the entrance hall is a room for students' lavatories and lockers, and on the other side the dean's room, the staircase, and hall. Further down the corridor are the janitor's rooms, and yard, and beyond, near the medicine theatre, is the pathological museum, 47 feet by 45 feet, lighted from the top over more than half its area. Near the end of the medical corridor is the staircase by which the theatres are approached. On this floor also are latrines for students and for professors, and a hall from which the bridge to the old College is entered.

On the first floor are materia medica and public health and anatomical museums, 35 feet 6 inches by 32 feet and 46 feet by 20 feet respectively, and, adjoining the lift, the prosector's preparing room and a demonstrator's room. On the same floor, adjoining the theatre block, are a dental museum and laboratory and a bacteriological laboratory.

On the second floor is the dissecting room, 91 feet long by 21 feet wide, extending in one part to 34 feet wide, and with an area of 2,180 square feet, and adjoining are the demonstrator's room and the lavatory and coat room. The plan is very similar to that of the Anatomy School at Cambridge. The whole of this department is lighted from the roof, the lights having a nearly north aspect. The walls are lined with white glazed tiles, and the floor is of Seysell asphalte with falls and surface gutters to the drains, so that the whole of the roof, walls, and floor can at any time be washed from a hosepipe.

The new building thus provides a very complete, spacious, and conveniently-arranged set of rooms, fitted up with all necessary appliances for the work of a modern medical school. The architects, Messrs. Cossins and Peacock, of Birmingham, have provided an ample system of ventilation, and the building will be warmed by a low pressure system of hot water pipes.

NOTES ON HEALTH RESORTS.

IX.—OROTAVA.

By GEORGE VICTOR PEREZ, M.B., M.R.C.S.,
Puerto Orotava.

OROTAVA, in the island of Teneriffe, the largest of the Canary group, had been visited from time to time by a stray wanderer in search of health even before it found a *vates sacer* in M. Gabriel de Belcastel. That gentleman's pamphlet[1] was a votive offering of gratitude for the restoration to health of a member of his family, who, after a stay of three years in the Orotava Valley, was cured of phthisis. The disease was so far advanced that the leading physicians of the day in Paris agreed in pronouncing the case hopeless. So thorough was the cure that the patient still lives to bear witness to the healing virtues of the Orotavan climate. Twelve years ago further testimony to the excellence of the climate was given by Professor Jaccoud, of Paris, who, however, pointed out that the natural advantages of the place were counterbalanced by the want of accommodation of the kind required by European visitors. This criticism was, it must be admitted, fully justified at the time; and M. Jaccoud's remarks gave the first stimulus to the development of Teneriffe as a health resort. My father, the late Dr. V. Perez, called attention (in the *Revista de Canarias*) to the exceptional position occupied by Teneriffe in having, with the narrow compass of its own shores, the two varieties of climate—sea and mountain—most suitable for persons suffering from chest affections. As the result of his untiring efforts, a local hotel company was started, and a beginning was made in the provision of comfortable accommodation for invalids.

It was Mr. Ernest Hart, however, who really laid the foundation of the fame of Orotava as a health resort by his letters first published in the BRITISH MEDICAL JOURNAL in 1887, and afterwards republished as a pamphlet.[2] Mr. Hart's brilliant description of the natural charms and climatological excellences of Teneriffe caused an afflux of visitors in the following season too great for the resources of the place, which was not yet prepared for the popularity thus suddenly thrust upon it. Orotava, however, was not slow to profit by this indication of the great possibilities before it, and since 1888 the accommodation for invalids has increased and improved to a degree that makes it equal, if not superior, in that respect to any new health resort in the world. Intending visitors have now a choice of several first-class lines of steamers, sailing, as a rule, every week from Southampton and Plymouth alternately, which make the passage in from four and a-half to six days. Those to whom expense is an object may prefer to travel by the old-established Liverpool boats which call at the Canaries on their way to the West Coast of Africa. By this route, a return ticket, available for one year, costs £15.

The most favoured spot in Teneriffe is the valley of Orotava, which might almost be thought to have been designed by Nature as a harbour of refuge from the storms of ill-health. The ground rises at first with a gentle slope, and, after having attained an elevation of 2,000 feet, shoots up rapidly to the *Cordillera*, or range of mountains going across the island, which here averages from 7,000 to 9,000 feet in height. On the east and west sides two high ridges, fully ten miles apart, descend from the *Cordillera* towards the sea, enclosing between them an amphitheatre rather than a valley. Thus guarded on three sides from the winds that might otherwise occasionally visit it too rudely, it opens out on the northern side to the Atlantic, getting the full benefit of the pure, soft, and invigorating ocean breezes. The "balmy trades" which fan Orotava begin to blow some hours after sunrise, and cease some time before sunset, when they are replaced by the southern land wind. When the north-east or trade breezes begin to be perceived, small clouds form in the mountains, which soon coalesce, and about 11 A.M. the upper parts of the island are generally covered by a "parasol" of cloud. No doubt in this latitude, where even in winter the days might be unpleasantly hot, with a clear sky in the middle of the day, this cloud phenomenon is very welcome, and enables invalids to be in the open air when the strength of the sun would otherwise keep them indoors.

The comparative warmth of the night wind has doubtless a great influence on the remarkable equability of the climate of Orotava. The reason of this is that the air has to descend from a height of 7,000 feet, and in reaching lower strata is condensed, and, in doing so, becomes warm; no doubt, also, the heat absorbed by the ground during the day is gradually given off to this descending air. The almost clock-like regularity of the trade winds is very unfavourable to cyclones, and storms are very rare at Orotava. From May to August it does not rain, and in the rainy season the rainfall is very small—the average for ten years being only 13 inches, while that of Madeira is nearly 30. The average number of rainy days at Orotava is 51.

The table of comparative records of sunshine will serve to show the remarkable equability of the climate of Orotava throughout the year. The "means" for Orotava are those registered by Mr. Perry, at the Sitio de Cullen; the readings for Jersey and Southbourne are taken from a pamphlet entitled *Ten Years' Sunshine in the British Isles*, published by the Council of the Meteorological Society. These two places stand highest in respect of sunshine of any mentioned in the records there given.

These figures show that the months in which the sunshine almost reaches vanishing point in England hardly differ appreciably from the others in Orotava; in other words, there is during the winter months between two or three times as much sunshine in Orotava as at Jersey, and more than ten times as much as in London. As regards temperature, between the coldest and the warmest month there is a difference of only 14° F. The mean temperature for the winter (November, December, January, February, and March) is 63.8° F.; that of

[1] *Les Iles Canaries et la Vallée d'Orotava au point de vue hygiénique et médical*, Paris, 1862.

[2] *A Winter Trip to the "Fortunate Islands"* (Smith, Elder, and Co.).

Madeira being 61.7° F.; that of Nice, 49.6°; and that of London, 41.7°.

Comparative Record of Sunshine in Orotava, Jersey, and Southbourne. The figures indicate hours of clear sunshine.

Month.	Orotava.	Jersey.	Southbourne.
January	164	68	49
February	163	87	71
March	176	149	116
April	149	187	147
May	203	243	213
June	198	233	200
July	183	230	204
August	182	242	200
September	153	175	131
October	162	124	107
November	142	65	60
December	152	57	49

Comparative Record of Sunshine during the winter months at Orotava, Jersey, Southbourne, and London.

Month.	Orotava.	Jersey.	Southbourne.	London.
November	142	65	60	20
December	152	57	49	4
January	164	68	49	11
February	163	87	71	24
Total	621	277	229	59

It is not climate alone however which has made Orotava a favourite winter station, especially for persons intending to make a prolonged stay. The healthiness of the locality is unquestionable, the mortality at Port Orotava not exceeding 20 in the 1,000, a very exceptional rate in warm climates. The chief cause of this low death-rate is no doubt the very excellent and abundant water supply.

Another factor in its salubrity is the great porosity of the soil; however much it may rain, no dampness remains on the surface, and there is hardly a day in the year on which an invalid may not walk out and be in the open air.

On the excursions and other amusements which Orotava offers in abundance to all classes of visitors it would be out of place to dwell in a scientific journal; I therefore pass on to speak of the kinds of cases in which its climate is likely to be beneficial. Bronchial cases do extremely well, and pulmonary consumption finds in Orotava the conditions of hygienic treatment which modern knowledge demands to a greater extent, perhaps, than anywhere else. There a patient in the first and second stages of the disease can live in the open air all day, and can with less risk than elsewhere sleep at night with his windows open. He can stay on the island well into June; in fact he may pass the summer there without inconvenience.

Many cases of phthisis seem to lose their acute symptoms, and gradually become chronic. I have known several such cases. As for advanced cases, in the third stage, I can confidently assert that life is much prolonged, though of course I would not advise such patients to come out, or at any rate could not give much hope of cure by their so doing.

Scrofulous patients or those threatened with joint trouble, could not be sent to a better place. Rheumatic sufferers are almost certain to benefit, there is so little dampness in the soil or air, and rheumatic fever is a disease extremely rare in the native population. I have never seen a case of gout in one of the inhabitants. Convalescents from influenza rapidly regained their strength after a short stay at Orotava. The equability of the climate makes it particularly suitable for kidney disease. I have had several cases of albuminuria after influenza and scarlet fever, which have soon recovered; whilst nowhere could the chronic albuminuric patient be sent to pass the winter with so few chances of a fatal chill. Diabetics —a class of patients also requiring an equable climate—as a rule do well. Anæmia soon finds in our sunny winter climate, in an atmosphere so rich in ozone, a cure that has perhaps been sought in vain with endless tonics. Delicate, quick growing children, with bad family histories, also do admirably, a fact which is testified to by the many resident English families. Another class of patients eminently amenable to the climatic influences of Orotava are those broken down by malaria, in countries like India, the West Indies, the West Coast of Africa, etc. Many such invalids doubtless would meet with a speedy death from inflammation of the lungs, etc., if suddenly hurried back to cold European climates; they will avoid this risk by recruiting their strength beforehand at some intermediate station like Orotava, where, it may be added, malaria is unknown.

THE SALE OF PROPRIETARY MEDICINES CONTAINING POISON.

On this subject the following communications have recently passed between the Chairman of the Parliamentary Bills Committee of the British Medical Association and the President of the Pharmaceutical Society of Great Britain:

British Medical Association, Parliamentary Bills Committee, September 13th, 1892.

To the President of the Pharmaceutical Society.

Sir,—Referring to my previous communications on the subject of the illegal sale of proprietary medicines containing poison, may I ask you to inform me what steps have been taken in the matter by the Council? The public records which have fallen under my notice afford very scanty information on the subject, and, indeed, seem to have led to a conclusion —which, however, I believe, would not be a correct one—that your Society has instituted but very few prosecutions since June—(in virtue of the powers conferred upon the Society, and the consequent duties involved in the 15th Section of the Pharmacy Act of 1868)—as a consequence of the action of the Treasury in prosecuting, at my instance, a test case to establish the fact that proprietary medicines containing poisons are subject to the provisions of that Act. I see it stated, in certain journals connected with pharmacy, that the Council is thought to be indisposed to take action, though there are persons ready to contest the further application of the decision arrived at, and to defend any charges brought against them under the above-mentioned section of the Act. It will be important for my Committee to be informed of the present position of the case, as they would desire to make the salutary results of the late decision, and of the action thereupon by the Pharmaceutical Society, as far-reaching as possible, and so extended in area as effectually to protect the public against the evils involved by disregard of the law.

Hoping that you may be able to favour me with a statement of facts up to date, and a further statement as to the intentions of the Council to carry out such proceedings until the illegal sale of proprietary medicines containing poison be abandoned, I am, dear Sir, yours faithfully,

Ernest Hart.

Pharmaceutical Society of Great Britain, 17, Bloomsbury Square, London, W.C., September 26th, 1892.

Ernest Hart, Esq., Chairman, Parliamentary Bills Committee, British Medical Association.

Sir,—In reply to your letter of the 13th instant, I beg to state that at the meeting of the Council in July last, the necessary evidence having been procured, the Council authorised legal proceedings to be taken for the sale of "chlorodyne" against several of the largest retail dealers of proprietary medicines in the metropolis, one of whom has a number of branch establishments throughout the country. Each of these firms, after consultation with their legal advisers, paid the penalties claimed without going into court. They also undertook not to sell proprietary preparations containing poison in future. So far as we can ascertain by means of our officers, the above-mentioned firms, together with many others who have been warned, have now discontinued the practice.

As penalties under the Pharmacy Act have to be recovered in the County Court, no publication of the names of the persons offending is allowable when the penalties are paid before going into court.

It is the intention of the Council of this Society, having regard to its responsibilities to the public under the Pharmacy Act, 1868, to carry out the provisions of that Act until the

illegal sale by unregistered persons of proprietary preparations containing poison is discontinued.—I am, Sir, yours faithfully,

M. CARTEIGHE, President.

THE THIRTY-FOURTH ANNUAL REPORT OF THE COMMISSIONERS IN LUNACY FOR SCOTLAND.

Increase in the Number of the Insane.—Growth of Pauper Lunacy.—Need for Further and Classified Accommodation.

THE Commissioners have to chronicle an increase in the number of insane persons under their control, namely, 12 private and 219 pauper patients, during the year 1891 as compared with 1890. There is also an increase in the number of voluntary patients, that is, persons who with the sanction of the Lunacy Board voluntarily enter asylums for treatment of mental disorder, but whose mental condition is not such as to render it legal to grant certificates of insanity in their cases. The number of such cases in 1891 was 77, as compared with the annual average of 64 for the previous ten years. The Commissioners speak in favourable terms of the advantages of this provision of the law. The results of treatment as regards recoveries are given, calculated upon the number of admissions, in the different classes of institutions. For instance, the discharges of recoveries in Royal and district asylums reaches 35 per cent.; in private asylums, 28 per cent.; in parochial asylums, 42 per cent.; and in the lunatic wards of workhouses, 13 per cent. The death-rate in all classes of establishments per cent. of the number resident is about 9.3.

In their report the Commissioners draw especial attention to the increased recognition of the importance of hospital accommodation in asylums, and they emphasise this point by stating that there is a growing and a clearer perception of the fact that the efficiency of an asylum as a curative institution is more satisfactorily attained when the arrangements specially designed for this purpose are kept to a great extent separate from those which have more immediately in view the providing a home for the inmates. The hospital sections in the district asylums at present being erected, the Commissioners tell us, will afford accommodation for not less than a third of the total number of inmates, thus bearing out the two great functions of asylums as medical institutions and as homes for the insane. They are careful, however, to point out the value attached to having these two great departments separate, though not completely so, for as the condition of patients varies they may have to be removed from one section to the other, and this should be accomplished without difficulty or delay. The annual cost per head for the year 1891 for patients paid for by the parochial boards is £23 4s. 9d., as compared with £23 0s. 6d. for the previous year.

With regard to the much-debated question as to the alleged increase in lunacy, the Commissioners arrive at the following conclusions:

1. That the increase of pauper lunacy is much beyond what would naturally result from the increase of the population.

2. That it cannot be attributed to accumulation resulting from longer periods of residence of pauper lunatics in asylums.

3. That it is only in a very slight degree due to a lowering of the death-rate.

4. That there is no reason for believing it to be due to an increased tendency to insanity in the community.

5. That it is not due to any one cause, but to many causes operating with different degrees of force in different localities and under different social conditions.

Again, the erection of new asylums, with readier means of access by railways, the dying out of prejudice and suspicion towards asylums, and the greater readiness of the poorer classes to avail themselves of early treatment, together with their increased unwillingness to submit to all that is involved in keeping an insane relative at home, tend towards increasing the number of asylum inmates. There is also a greater willingness of parochial authorities to recognise claims to parochial relief on the ground of insanity, which has been stimulated by the giving of the State grant in aid towards the cost of maintenance of pauper lunatics.

There can be no doubt, the Commissioners go on to say, that persons labouring under mild forms of imbecility, or suffering from the mental decay of old age, who would not formerly have been regarded as insane, are now readily certified as lunatics when that course is for any reason thought to be desirable.

In stating these causes of the increased number of paupers lunatics, it has been assumed that the amount of mental unsoundness which now exists in the country has since 1857 remained substantially, if not absolutely, in the same proportion to the population. None of the above causes are causes which relate to the production of mental disease, and the Commissioners conclude that there is no evidence that any considerable contribution to the increasing mass of lunacy which is shown by each year's statistics to have passed under certification, has as yet been made from the wealthier strata of society. It the case of certified private patients, the proportion of the insane to the population has undergone little or no change during the whole period covered by their statistics. To a great extent the parochial boards possess the means of checking the growth or lessening the burden of pauper lunacy, whilst with regard to removing lunatics early from asylums when their residence therein becomes no longer necessary, the duty devolves upon the medical officers.

We have referred at some length to the increase of insanity as dealt with by the Scotch Commissioners, on account of the increasing attention drawn to the subject in all parts of the country. The constant reference to the matter which appears in the daily press shows how the ratepayers are beginning to feel the weight of their pecuniary responsibility. That two classes of institution are necessary is evident, namely—homes for the incurable chronic cases, and hospitals for the recent and acute, the two being separated but not distinct. The necessary accommodation must be provided for both classes, the responsibility of providing it in proportions according to local requirement will devolve upon the county councils, whilst, according to the Scotch Commissioners, the responsibility of checking the numbers will rest, to some extent, with the parochial authorities.

THE PHYSIOLOGICAL CONGRESS AT LIÉGE.

[FROM AN OCCASIONAL CORRESPONDENT.]

The Physiological, Zoological, and Anatomical Institutes.—Opening Meeting.—The Telephone in Physiology.—Composite Photographs.—The Structure of Muscle.—English Physiologists.

THE Second International Congress of Physiology, which this year had for its meeting place the important town of Liége—a place readily accessible not only to French and German scientists, but also to those in this country who are interested in physiology—was specially interesting because of the evidence it afforded of the good work that is being done by physiologists, and from the fact that a considerable number of men whose names are physiological household words met to give the results of their own work and to criticise the results obtained by others. A feature that struck even the most casual observer was the magnificence of the rooms and laboratories in which the meetings were held. Professor Frédéricq's Physiological Institute, with its spacious class rooms, elaborate apparatus for the proper demonstrations of experiments and diagrams, the convenient preparation rooms, and the admirably equipped laboratories provided with all modern appliances, could not but raise a feeling of envy in the breasts of those who were privileged to see them, but who themselves have to carry on work in less palatial work and class rooms; whilst the splendid Zoological and Anatomical Institutes, admirably planned for the purposes for which they were intended, and each complete in itself, necessarily made a very good impression on the visitor, and gave some idea of the practical interest that the Belgian Government takes in the advancement of scientific teaching and research in its schools, and one could not help feeling that the classical researches of Schleiden and Schwann, Van Beneden, and a host of others had made the Belgians proud of the part their countrymen had taken in inaugurating a

new era in biological science, and that she was determined that—so far, at any rate, as the provision of opportunity for the work was concerned—her sons should still be in a position to contribute their share.

The opening general meeting of the Congress was held in the large theatre of the Physiological Institute, and Professor Holmgren, of Upsala, was elected president, after which a series of interesting papers, the titles of which we have already given in a former number, were read. At the later meetings many most interesting demonstrations were given. Hürthle of Breslau gave a paper on the mechanical registration of the heart sounds, in which, by a combination of telephone and registration apparatus, he was able to give a most accurate and interesting demonstration. Wedensky, of St. Petersburg, contributed a series of most admirable telephonic demonstrations of the currents of action of nerves, and of the electrotonic variations of the excitability of nerves; these were specially interesting from the fact that the observer was actually able to hear by means of the telephone the passage of the currents along the nerves. The experiment brought home very forcibly the fact that the physiologist, with the aid of the physicist, appears to be overstepping the bounds of apparent possibilities. It was certainly somewhat startling to be told that we were listening to the passage of a nerve current.

Professor Bowditch's composite photographs went a long way to prove that the typical individual—represented as built up from a considerable number of photographs—is a much finer fellow than are most of the individuals from which the photographs are actually taken. It is certainly consoling to think that a race made up of such men has a brighter future before it than one might expect from a study of the individuals.

The ever open and ever interesting question as to the nature of the structure of muscle was again keenly fought out, and many of those who had already made valuable contributions towards its solution took the opportunity of supporting or criticising Professor Schäfer's paper on that subject.

A detailed account of the many interesting papers and demonstrations that were given is here, however, quite out of the question, though it is to be hoped that they may be published in collected form for the benefit of those who were not able to be present. Some of the papers, indeed, attracted but little attention, and certainly added little to the interest of the Congress, owing to the fact that they were mere statements of results of experiments, sometimes in the form of figures and tabulated statistics, which could not possibly be assimilated in the short time at the disposal of the members of the Congress, and which would have been far better left to be published in a permanent form to be studied at leisure. These papers, too, were unfortunately unaccompanied by demonstrations of either apparatus or experiments, and, as a necessary result, extremely valuable papers fell perfectly flat, and the authors were disappointed because their work and results received so little attention. In this respect one was glad to notice that our own countrymen were not the sinners; the communications they made were short but to the point, and, in most instances, were illustrated by admirable experiments. Indeed, one could not but feel that our physiologists showed that they had a firm grip of the subjects at which they were working and very considerable power of imparting their results to their fellows. There can be little doubt that much of this faculty of demonstration and precision of description has been acquired as a result of the demonstrations that are from time to time given before our own Physiological Society, from whose book many of our other scientific societies would do well to take a leaf. It is probable, however, that the form of meeting of the Physiological Society has been, in great part, determined by the nature of the teaching in our large physiological schools, and that being the case we cannot but feel that the physiological investigation and teaching of the future rest in the hands of men thoroughly well grounded in their subject and well trained both in what may be called pure physiology and in physiology in its medical aspects.

In spite of the oft-repeated cry that our men are getting too scientific and not sufficiently practical, anyone who had the good fortune to attend the Physiological Congress at Liége must have felt convinced that a thoroughly scientific training cannot possibly interfere with a practical knowledge of pathology, therapeutics, and clinical work. It has sometimes also been held up to us as a reproach that we are so intensely practical that we pay too little attention to the scientific side of medicine. Such a reproach has often been proved to be undeserved, and even the tradition now bids fair to be removed from our doors. Amongst us the practice of medicine, with its handmaid science, is rapidly making for this country a reputation second to that of none in the world. For long it was said that the practical English mind utilised the pure science of the worker in other countries, but now we feel that, whether amongst the ranks of scientific workers or in the practical application of science to medicine and hygiene, our men can hold their own against all comers. At this Congress we have learned much from foreign workers, and we have contributed something; we have made many friends, both personal and scientific; have received hospitality from our Belgian *confrères*, and have been greatly encouraged to go on working, in order that we may be able to learn as much and contribute as large a share to the meeting to be held in Berne in 1895 under the veteran physiologist, Kronecker.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE NOTIFICATION OF INFECTIOUS DISEASE: A COUNTY COUNCIL MEMORANDUM.

The Public Health Committee of the Derbyshire County Council have issued the following memorandum to the urban and rural sanitary authorities in the county of Derby:

THE INFECTIOUS DISEASES (NOTIFICATION) ACT.

The above Act has now been adopted by 24 of the 46 sanitary authorities of Derbyshire, and it appears to the Public Health Committee that these authorities do not and will not obtain the full value from it until it is uniformly enforced throughout the country. For the benefit of those authorities who are now considering the question of its adoption, the Committee has obtained the following information with regard to the cost of its administration and the results which have been obtained through its agency.

Scarlet fever has been taken as the index of the effect of the Act, because it is a disease which is less dependent upon sanitary conditions, such as good drainage and water supply, than typhoid fever and other zymotics. This disease was first notified in Bolton in the year 1877, and it appears that for the ten years previous the average number of deaths from scarlet fever per annum in that borough was 104, while the average for the ten years subsequent to the Act being enforced was reduced to 50.

In Blackburn notification, which was adopted in a local Act, came into force in 1880. The death-rate per 1,000 from scarlet fever for the nine previous years was 1.5, while for the ten years after the Act was in force it was reduced to 0.64 per 1,000.

In Huddersfield a similar Act came into force about the same time, with the effect that the death-rate from the disease fell from between 0.4 and 0.5 to a little over 0.1 per 1,000.

With regard to the cost of working the Act, from information which has been afforded by those authorities in whose districts it is in force it appears that the expense would be covered by a rate of less than a farthing in the pound.

As more than balancing this expenditure, it must be borne in mind that where the Act is in force it should be rarely if ever necessary to close schools on account of scarlet fever; that the ratepayers of the district should obtain a reduction in their doctors' bills; that a certain number of deaths, with their incidental expenses, would be prevented; and that a number of persons would be saved from becoming permanently disabled by the sequelæ of infectious diseases.

With regard to the method of working the Act. It is perhaps well to clearly lay down that the Infectious Diseases Notification Act *per se* can do nothing to prevent infectious diseases from spreading; it merely indicates the spots upon which the sanitary authority should concentrate their strength.

This Committee, after carefully considering the working of the Act, is of opinion that the fullest advantage will be derived by adopting the following system:—

As soon as a case is notified the medical officer or the inspector of nuisances visits the case and fills up an inquiry form, the headings of the inquiries being different in the different diseases; for convenience the forms being printed on different coloured paper. The forms should be retained by the medical officer, who will then have a complete record of all necessary particulars relating to each of the diseases notified.

At the time of the first visit a list of instructions for the prevention of the spread of infectious disease should be left at the house, and the head of the family informed that no child from the house must attend school, except in the case of typhoid fever, erysipelas, and puerperal fever, and that the person who is ill must not enter any public thoroughfare until after the house has been thoroughly disinfected. In cases of typhoid fever, if the water is supplied from a surface well it should be analysed, and when there are drains communicating with the house they should be tested with smoke. The same day a notice should be sent to the Sunday school superintendent and the headmaster of the day school attended by the children giving notice of the presence of infectious disease in the

house, and stating that another notice will be sent when the house is free from infection.

This Committee is further of the opinion that such records should be kept and notices be given in all districts, whether the Notification Act is in force or not.

NOTIFICATION IN SOUTH DEVON.

WE have received from Dr. Harvey, of Newton Abbot, a communication in reference to the paragraph which appeared in the BRITISH MEDICAL JOURNAL of August 27th under the above heading. He complains, *inter alia*, that his attitude in regard to notification has been misrepresented. He considers that notification is necessary in towns, but is still, to some degree, an open question in rural districts, and he challenges an expression of opinion upon the point from rural medical officers of health who are debarred from general practice. As regards the question of its adoption in the Newton rural district, he states that the district is without the services of an inspector, and, knowing that the authority would not concede both, he considered the inspector preferable to notification. This makes the case against the rural sanitary authority even worse than Dr. Harvey's original report, which spoke only of the need for an additional inspector. We expressed no opinion as to the relative importance of inspection and notification, and upon this point Dr. Harvey is clearly right. But we cannot accept the position that default in respect of an important statutory duty is a good reason for refusing the assistance which notification would give, although its usefulness must of necessity be lessened by the lack of efficient sanitary inspection.

TAILORS' WORKMEN IN THE WEST END OF LONDON.

STARTLING statements have been made of late in several newspapers as to the clothing of distinguished persons being sent out and made in fever dens in Poplar and elsewhere.

In reply to our inquiries, Dr. James Edmunds (Dover Street, W.), medical officer of health for St. James's, writes: An immigration of working tailors is constantly taking place into St. James's, where all the great West End tailors have their business establishments. But it is not impossible to prevent such immigration into quarters where the most costly work is done, and where, naturally, the wages of working tailors are highest. What appals one is the gullibility which enables newspaper readers to believe that "the Prince of Wales's waistcoats are sent to be made up in a filthy and badly ventilated garret in a court at Poplar." Such a statement is an invention so rude as to lack all artistic interest, and not even to need refutation.

Referring to the statements made by a reporter to an evening paper, the vestry clerk of St. James's at once wrote for names and addresses in order that the responsible sanitary officials might inspect the workplaces there described. Unfortunately the editor replied by vague generalities, and without sending a single name or address. A second letter has been sent asking again for the requisite particulars, but, until now, no reply has been received.

As to the general questions involved in these sensational reports, there is great difficulty in knowing what to do. I have several times suggested the establishment of workshops where all the garments might be made, but the objections on the part of the best workmen to this leaving of their own homes is very great. In the first place, a man in his own home can work early and late, and can dispose of his leisure as he pleases. Under these conditions the man can earn more money and do his work with more comfort as to his meals. Then, again, the good workman can get the subordinate parts of his work done by wife or daughter, and the family and home are kept together better. In some cases the good workman sets aside his best room for his work, and he has in training under him one or two apprentices or improvers. Now, in a master's shop, subject to trade union regulations, or what is akin thereto in spirit, no such advantages can be secured by a superior workman, and his earnings are greatly cut down, while the wife and daughter, if their assistance is needed, have to go out to work away from home. On the whole, I think that the instinct of the good workman is right, and that the keeping the home together and aggregating the family earnings is the best course all round.

There are some cases in which this (which I would describe as the chamber master system) is abused by being developed into what may be called "a sweater's den." This would be where the master workman mainly relies upon other workmen, not members of his own family, where he overcrowds his workroom, where he exacts an undue measure of work, and perhaps underpays poor ignorant workers. But such places come under the Factory Act, and for them the Home Office inspectors are responsible. I have long urged that in the progress of sanitary legislation, each sanitary authority should be charged with the supervision of its own factories, its own milkshops, its vaccination and other matters, subject only to a central authority as the Poor-law medical authorities are to the Local Government Board. But at present the supervision of all places that could be called "sweaters' dens" rests with the Home Office inspectors.

There is often great difficulty in preventing the overcrowding of the little homes of workmen tailors and others, who are the appendages of the great shopping districts, and the work of such companies as the Artisans' Dwellings Company with cheap trains will probably cause the transfer of all such home industries to new houses in the suburbs. In fact, that has already taken place—to a large extent in St. James's. The streets east of Regent Street are very old, and the tenement houses there need constant watching. Some years ago I brought forward a project for running a new street northwards from Regent Circus through the Golden Square district, and on to join Titchfield Street, but the proposal would have been very costly. This district is now rapidly being turned into workshops, and if the union house in Poland Street could be moved into a suburb and its site utilised for workshops or artisans' dwellings, it would be an enormous improvement for this district.

DIPHTHERIA AND DEFECTIVE HABITATION.

SOME time ago an action was raised in the Dundee Sheriff Court by Mrs. Margaret Scott or M'Laren, Cedar Place, Broughton Ferry, against George Sheriff, clerk, for recovery of the sum of £10 10s., being the half-year's rent of a house occupied by the defender, of which the pursuer is proprietor. Defender brought a counter claim of £15 in name of damages alleged to have been caused to him owing to diphtheria breaking out in the house, and causing his removal. Sheriff Campbell Smith held that defender was, in the circumstances, justified in leaving the house. The defender's liability for rent ceased when his family were driven out of the house, and, as he occupied it only for about two-thirds of the half-year, he should pay only two-thirds of the rent—that was £7

REMUNERATION OF MEDICAL OFFICERS OF HEALTH.

FOR extra services rendered during the late severe epidemic of smallpox in Batley, Dr. Swann, the medical officer for the borough, is to be allowed £250, this sum to cover a period extending to the end of the present month. Afterwards he is to receive one guinea per case at the hospital with regard to patients coming from within the borough, and two guineas for those admitted from outside, the minimum total per year to be at the rate of £25.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,003 births and 3,361 deaths were registered during the week ending Saturday, September 24th. The annual rate of mortality in these towns, which had declined from 19.8 to 18.6 per 1,000 in the preceding three weeks, further fell to 17.2 during the week under notice. The rates in the several towns ranged from 8.4 in Croydon, 12.4 in Halifax, 12.5 in Wolverhampton, and 13.2 in Norwich to 21.8 in Gateshead, 21.9 in Hull, 24.2 in Bolton, 24.4 in Salford, and 29.2 in Preston. In the thirty-two provincial towns the mean death-rate was 18.7 per 1,000, and exceeded by 3.6 the rate recorded in London, which was only 15.1 per 1,000. The 3,361 deaths registered during the week under notice in the thirty-three towns included 605 which were referred to the principal zymotic diseases, against numbers declining from 989 to 747 in the preceding three weeks; of these, 344 resulted from diarrhœa, 58 from diphtheria, 56 from "fever" (principally enteric), 53 from scarlet fever, 51 from whooping-cough, 43 from measles, and not one from small-pox. These 605 deaths were equal to an annual rate of 3.1 per 1,000; in London the zymotic death-rate was equal to 2.1 per 1,000, while it averaged 3.8 in the thirty-three provincial towns, among which these diseases caused the lowest death-rates in Croydon, Plymouth, Bristol, and Halifax, and the highest rates in Birkenhead, Hull, Salford, Gateshead, and Preston. Measles caused the highest proportional fatality in West Ham, Salford, Oldham, Huddersfield, and Gateshead; scarlet fever in Preston and Huddersfield; whooping-cough in Nottingham; "fever" in Huddersfield, Sunderland, and Birkenhead; and diarrhœa in Cardiff, Birkenhead, Sheffield, Leeds, Hull, Gateshead, Newcastle-upon-Tyne, and Preston. The 58 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 43 in London, 3 in West Ham, and 3 in Birmingham. No fatal case of small-pox was recorded last week either in London or in any of the thirty-two provincial towns; two small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 6 in the Highgate Small-pox Hospital, on Saturday last, September 24th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,477, against numbers increasing from 3,052 to 3,412 on the preceding five Saturdays; 370 new cases were admitted during the week, against 461, 414, and 349 in the previous three weeks. The 152 deaths from diseases of the respiratory organs in London were 33 below the average, and were equal to an annual rate of 1.9 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, September 24th, 816 births and 499 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 15.7 to 17.0 per 1,000 in the preceding three weeks, further rose to 17.9 during the week under notice, and was 0.7 per 1,000 above the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 15.8 in Dundee and 15.9 in Edinburgh, and the highest rates 19.0 in Greenock and 21.6 in Leith. The 499 deaths in these towns included 77 which were referred to the principal zymotic diseases, equal to an annual rate of 2.8 per 1,000, which was 0.3 per 1,000 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Edinburgh and Leith. The 243 deaths registered in Glasgow included 16 from diarrhœa, 7 from scarlet fever, 8 from whooping-cough, and 6 from fever. Seven fatal cases of measles and 6 of scarlet fever were recorded in Edinburgh. The death-rate from diseases of the respiratory organs in these towns was equal to 2.4 per 1,000, against 1.9 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, September 17th, were equal to an annual rate of 20.7 per 1,000. The lowest rates were recorded in Armagh and Lisburn, and the highest rates in Newry and Londonderry. The death-rate from the principal zymotic diseases averaged 3.3 per 1,000. The 156 deaths registered in Dublin were equal to an annual rate of 23.3 per 1,000 (against 26.3 and 28.3 in the preceding two weeks), the rate during the same period being 16.9 in London and 18.9 in Edinburgh. The 156 deaths in Dublin included 24 which were referred to the principal zymotic diseases (equal to an annual rate of 3.6 per 1,000), of which 18 resulted from diarrhœa, 4 from different forms of "fever," one from measles, and one from whooping-cough.

THE POLLUTION OF THE DEE.

A SUB-COMMITTEE of the Water Committee of the Aberdeen Town Council has had under consideration the subject of the alleged pollution of the Dee above the point from which the supply for that city is taken. The committee insist that the Ballater Police Commissioners and the Deeside District Committee respectively shall acquire land requisite for treating by irrigation the sewage from the burgh

of Ballater, and the villages of Braemar, Aboyne, and Kincardine O'Neil; that these bodies shall execute at their own cost the necessary works for intercepting and conveying the whole of the sewage from the places named in the irrigation grounds, and uphold them; that the Council shall be entitled to erect on the irrigation grounds such works as it may deem expedient for the treatment of sewage. In view of the continued growth of these villages on the upper portion of the Dee, the activity and resolution of the Town Council to ensure all reasonable purity of water supply to the citizens will commend itself to all. For, as the matter stands at present, the risk of impurity to the water increases year by year.

SMALL-POX AT MANSFIELD.

At a meeting of the Mansfield Board of Guardians held on September 22nd the clerk read a letter from the Local Government Board sanctioning weekly and daily vaccination in Mansfield, on account of small-pox, and also sanctioning the meetings of the board being held in the Town Hall so long as the medical officer of the workhouse may advise owing to small-pox existing in the workhouse.

SMALL-POX AT WARRINGTON.

The small-pox patients who have been under treatment at home and those who have been sheltered in the Askin Street Infectious Diseases Hospital have, says the *Liverpool Mercury*, now been removed to the temporary hospital off Dallam Lane. The two wards at the new hospital will accommodate 90 beds, and are situated about a hundred yards from the nearest dwelling house. The rush of people to be vaccinated has been continuous, and some of the more timorous of the residents have left the town until such time as the outbreak may subside.

WHAT A SLIGHT OUTBREAK OF SMALL-POX COSTS.

At a meeting of the Rural Sanitary Authority of the Wakefield Union held on September 14th, Mr. Herbert Beaumont, the clerk, reported that in consequence of the recent outbreak of small-pox in the authority's district it would be necessary to make a supplemental call upon the overseers equal to a rate of 2d. in the pound. The progress of the epidemic had entailed an expenditure of about £1,000 in excess of the original estimate, which was made at a time when there was no apprehension of the outbreak. £444 was expended by the authority in making compensation to persons whose bedding and wearing apparel were destroyed prior to a disinfector being procured by the authority. The actual amount in excess of the estimated expenditure was £986 10s., and as it would be necessary to pay £550 out of the current rate in connection with the new corrugated iron hospital which it was recently deemed necessary to erect near the authority's isolation hospital at Carr Gate to meet possible contingencies, the total liabilities thus incurred by the epidemic might be put at £1,546 10s. It is satisfactory to note that, notwithstanding a large number of cases have been treated at the isolation hospital, there has not been a single death. We have already expressed, and now take this opportunity of repeating with some urgency, our desire to be favoured by medical officers or clerks of unions where outbreaks of small-pox have occurred with statements, such as the above, of the cost of the epidemic. Put together they will form a valuable and most instructive record. Such record we would ask from Batley, Bradford, Dewsbury, Handsworth, Huddersfield, Leeds, Liverpool, Pembroke Dock, Shaftesbury, Sheffield, and Yarmouth.

LEGAL CORONERS.

Fair Play writes: I was telephoned for from the police station to see a man who had fallen suddenly in the street. Death had just taken place when I arrived, and the body was ordered to be removed to the mortuary. The coroner (a solicitor), though duly informed by the police that I had been called to the case, summoned another practitioner to make the *post-mortem* examination and give evidence at the inquest. As I understand the same coroner has acted in a similar manner before, may I ask if it is in the power of the coroner to call in his own medical man and totally ignore the doctor who has been the first to see the deceased after death?

*** Section 21, Clause 1, of the Coroners' Act, 1887, enacts as follows: "Where it appears to the coroner that the deceased was attended at his death or during his last illness by any legally-qualified medical practitioner, the coroner may summons such practitioner as a witness; but if it appears to the coroner that the deceased person was not attended at his death or during his last illness by any legally-qualified medical practitioner, the coroner may summon any legally-qualified medical practitioner who is at the time in actual practice in or near the place where the death happened, and any such medical witness as is summoned in pursuance of this Section may be asked to give evidence as to how, in his opinion, the deceased came to his death."

It is usual for the coroner to act in the manner prescribed by law as above stated, and we consider that "Fair Play" should have been summoned to attend the inquest and give evidence as the first medical man called to the deceased. This course of practice is universally adopted by the metropolitan coroners.

FEES FOR WORKHOUSE LUNACY CERTIFICATES.

C. C., who is a workhouse medical officer, writes to say that he has hitherto been unable to obtain any fee for certifying for the removal of lunatics from his workhouse to an asylum, and that the clerk to the guardians contends that they (the guardians) are not empowered to grant a workhouse medical officer any remuneration beyond his salary for certificates given for this purpose. C. C. asks how he can prove his right to the fees in question.

*** Lunacy Act, 1890, 53 Vict., chap. 5, clause 285, is as follows: "Whenever a justice directs a lunatic or alleged lunatic, whether a pauper or not, to be examined by a medical practitioner under the provisions of this Act, the justice directing the examination, or any other justice having jurisdiction in the place where the examination took place, may make an order upon the guardians of the union named in the order for payment of such reasonable remuneration to the medical practitioner, and of all such other reasonable expenses in and about the examination and the inquiry whether an order for the reception of the alleged lunatic in an institution for lunatics or workhouse ought to be made, and also, if an order is made, for payment of such reasonable expenses of carrying the order into effect, as the justice thinks proper."

It is evident from this clause that the justice who acts in the case, or any other justice having similar jurisdiction, may order a proper fee to be paid, but unfortunately no one is compelled to make this order, though the guardians can legally pay without the order. If, however, they decline to do so, we see no way to compel them, and in such case we consider our correspondent would be quite at liberty to decline to give any such certificates in the future, it being no part of his duty as workhouse medical officer to do so unless by special contract with the guardians he has undertaken it.

C. C. would, we consider, do well to consult a judicious solicitor, who would probably write a temperate and explanatory letter to the magistrate who has hitherto refused to make an order for medical fees, pointing out that this is usually done elsewhere, that very considerable responsibility is incurred by giving the certificates in question, and that by the clause above quoted it was evidently intended by the Legislature that these certificates should all be paid for by a proper fee.

COMPULSORY NOTIFICATION OF PUERPERAL FEVER.

F.T.F. writes: The letters which have appeared in the British Medical Journal under this heading have hitherto contained no special reference to puerperal fever. The reason must be that medical men do not notify it, for although it is, happily, an uncommon disease I believe that those who complain of the administration of the Notification Act would give the first place to puerperal fever if they had ever notified a case.

I recently had occasion to notify my first case. This is what happened: I was called to see a woman five days after parturition who was being attended by a midwife. She was very ill with pneumonia, which I took to be septic. She died the next day, and I notified it to the medical officer of health as puerperal fever. He wrote to ask me for the name and address of the midwife, which I gave him, at the same time I told him that I had given her directions and warned her not to attend another case; I added that I supposed whether she did so or not would depend very much upon whether she was asked to. I heard nothing more until I visited a house close to, when I was told that an inspector had been to So-and-So's and that he had examined the drains, inquired into the milk supply, etc., and had said, in the presence of my informant, that if the doctor had attended Mrs. —— when the child was born "we should have stopped his labour practice for three months." I was disgusted, and wrote to the medical officer of health for an explanation. He was, of course, very sorry, but his only explanation was that it must have been intended for the midwife.

The compulsory notification of puerperal fever was, no doubt, intended to prevent it, but it is not likely to be productive of anything but quarrelling if, as soon as the knowledge gets to the sanitary officer, it is abused in this way.

I would suggest that whenever a case of puerperal fever is reported to have been attended by a midwife that every medical man in the neighbourhood should have the name and address of that midwife sent to them, for these reasons: It would be the best way of preventing the spread of puerperal fever and would then put notification to its proper use. It would place medical men in regard to midwives in the position they ought to occupy. It would be giving the power to those who are qualified to use it. It would be good for medical officers of health too, for if they really wish for the "hearty co-operation" of men in practice here is their opportunity for getting it.

At present there is nothing to prevent a doctor recommending as a nurse a woman who has recently attended, on her own account, a case of puerperal fever about which the doctor knows nothing, although he will perhaps hear of it when his patient is dead and there is a talk of stopping his practice.

In regard to the sanitary inspector. Suppose him to be a half educated man who has passed an examination at the Sanitary Institute and is disposed to magnify his office. Suppose, too, that he has read in the sanitary journals that at a meeting of the medical officers of health it was actually proposed, in order to prevent the "various abuses" by the doctor of notification, "to have the fee, if retained, reduced to one shilling." Suppose, finally, that he has been told to go and threaten the midwives, should it be a matter for surprise that he should threaten the doctor as well?

INFECTIOUS DISEASE (NOTIFICATION) ACT.

C. M. A.—It is the duty of the medical officer of health to investigate any case in which there appears to have been wilful exposure of an infected person in a public place. It is not part of his duty to verify or question the diagnosis of the notifying practitioner, save under exceptional conditions, which do not appear to have existed in the present instance. In any case, this course should not be adopted without the knowledge of the medical attendant.

LEGAL.—When a local authority within the meaning of the Act have legally adopted the Infectious Disease (Notification) Act, 1889, they cannot rescind such adoption either wholly or partially.

PORT SANITARY OFFICER'S FEES.

W. D. R. asks what would be a proper fee for inspecting (and, if necessary, disinfecting) ships lying from one to two miles from land, including the necessary certificate of health or otherwise.

LOCAL BOARDS AND THEIR CHAIRMEN.

SANITARIAN writes: A local board meeting is composed of six members including the chairman. A resolution is proposed and seconded, three voting for it. An amendment is proposed and seconded, for which three also vote, including the chairman. The chairman then gives what he calls a "casting" vote, making a second in favour of the amendment, which is said to be carried. Is this legal?

*** The chairman has a casting vote. If there is no other objection, the amendment is properly carried.

VACCINATION IN COUNTY LUNATIC ASYLUMS.

ONE of the medical staff of a county lunatic asylum writes as follows: In consequence of a recent small-pox scare, we have been obliged to revaccinate all the patients. Can we claim any fee from the guardians for successful or unsuccessful revaccination; and if so, how much?

*** Only public vaccinators, or others specially employed by the guardians, have any claim on them for vaccination fees.

THE new reservoir for Cardiff, situated in Taff Vawr Valley, Breconshire, recently opened in the presence of the Cardiff Corporation, has cost over £374,000.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF DURHAM.

EXAMINATION FOR THE DEGREE OF BACHELOR IN HYGIENE (B.HY.) AND FOR THE LICENCE IN SANITARY SCIENCE (L.S.SC.).—The following candidates have satisfied the Examiners:

Degree of Bachelor in Hygiene.—Second Class Honours: B. J. Stokoe, M.B., B.S.Durh. Pass List: J. A. Kendall, M.B., B.S.Durh.

The Licence in Sanitary Science.—J. J. Oakman, M.R.C.S.Eng., L.S.A.

EXAMINATION FOR DEGREES IN MEDICINE AND SURGERY.—The following candidates have satisfied the Examiners:

Second Examination for the Degree of Bachelor in Medicine.—Second Class Honours: L. C. E. Calthrop, M.R.C.S., L.R.C.P., London Hospital. Pass List: W. E. Alderson, College of Medicine, Newcastle-upon-Tyne; R. Brown, College of Medicine, Newcastle-upon-Tyne; W. A. FA. Charlton, College of Medicine, Newcastle-upon-Tyne; P. Davidson, College of Medicine, Newcastle-upon-Tyne; G. Gocher, College of Medicine, Newcastle-upon-Tyne; W. T. Harkness, College of Medicine, Newcastle-upon-Tyne; L. Harman, St. Thomas's Hospital; A. G. Hinks, M.R.C.S., L.R.C.P., St. Mary's Hospital; C. J. Jeaffreson, College of Medicine, Newcastle-upon-Tyne; W. E. Jones, M.R.C.S., L.R.C.P., Middlesex Hospital; F. Laughton-Smith, Mason College, Birmingham; B. J. Mayne, Middlesex Hospital; W. F. Miller, Guy's Hospital; J. R. Prior, King's College Hospital; F. W. Rowland, Guy's Hospital; T. Sanderson, College of Medicine, Newcastle-upon-Tyne; E. P. Satchell, Mason College, Birmingham; G. W. Scott, College of Medicine, Newcastle upon-Tyne; F. C. Smith, M.R.C.S., M.R.C.P., L.S.A., University College, London; W. Smith, College of Medicine, Newcastle-upon-Tyne; E. J. Steegmann, M.R.C.S., M.R.C.P., L.S.A., St. Mary's Hospital; G. H. Tomlinson, Mason College, Birmingham; P. H. Wardell-Johnson, College of Medicine, Newcastle-upon-Tyne.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, SEPTEMBER, 1892.—The following candidates passed in:

Surgery.—J. N. Dobie, Cambridge, and St. Mary's Hospital; G. Grace, Bristol; G. B. Hillman, Yorkshire College, Leeds; S. L. Martin, London Hospital; G. H. Jones, Middlesex Hospital; R. A. Smith, Edinburgh.

Medicine, Forensic Medicine, and Midwifery.—E. Henry, St. Bartholomew's Hospital; M. Richards, London Hospital; J. M. Swanson, Charing Cross Hospital; P. M. Thomas, Cleveland, U.S.A.; A. E. Wilson, St. Mary's Hospital.

Medicine and Forensic Medicine.—W. Fowler, Durham; G. L. Godwin, Edinburgh.

Medicine and Midwifery.—W. E. Barker, Owens College, Manchester; F. B. Lewis, London Hospital; E. D. Madge, Middlesex Hospital; J. H. Roberts, Guy's Hospital.

Medicine.—D. Berne, Royal Free Hospital.

Forensic Medicine and Midwifery.—F. V. Denne, Westminster Hospital; E. J. T. Jones, St. Thomas's Hospital; A. J. Russell, London Hospital.

Forensic Medicine.—B. S. Foulds, Charing Cross Hospital; S. L. Martin, London Hospital; T. E. Pallett, Westminster Hospital.

Midwifery.—E. C. Adams, St. Bartholomew's Hospital.

Messrs. Dobie, Fowler, Grace, Hillman, Lewis, Martin, Pallett, Smith, Thomas, and Wilson, were granted the diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 26th day of October next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

September 29th, 1892.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting of this Branch will be held at Merthyr on Thursday, October 6th. Members wishing to read papers, etc., are requested to communicate titles to Dr. Sheen, Cardiff.—A. SHEEN, M.D., and ARTHUR DAVIES, M.B., Hon. Secs.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of the Branch will be held at the White Hart Hotel, Reigate, on Thursday, October 13th, at 4 P.M.; Dr. Walters, of Reigate, in the chair. Dinner at 6 P.M.; charge 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. Agenda:—The following papers, etc., have been promised: Dr. Frederick J. Smith: Some Points in Heart Disease. Mr. Golding-Bird: Operative Procedure in Retention and Extravasation of Urine—a Clinical Study. Dr. Stone: A Case of Empyema. Dr. J. G. Ogle: Cases of Interest. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary, HENRY J. PRANGLEY.

BORDER COUNTIES BRANCH.—The autumn meeting will be held at Galashiels on Friday, October 14th, 1892. Members desirous of reading papers, or of bringing forward any questions affecting the Branch, are requested to give notice to the Secretary ten days before the date of meeting.—J. ALTHAM, Honorary Secretary, Penrith.

DORSET AND WEST HANTS BRANCH.—The next meeting will be held at Sherborne on Wednesday, October 12th, 1892. The business meeting will be held at the Yeatman Hospital at 2.30 P.M. Mr. Williams will be pleased to see any members or friends at his residence, "The Cedars," Sherborne, to luncheon before the meeting. A conveyance will be at Pennill station to meet the 12.52 train and take members to Sherborne, returning for the 9.52 train. Gentlemen wishing to avail themselves of it should communicate with Mr. William Rendall, Maiden Newton, two days before the meeting. Agenda:—Election of new members of the Branch. Place of the May meeting. Dr. Lush will move: 1. That a donation of five guineas be granted to the British Medical Benevolent Fund. 2. That after the present year the Branch subscription be reduced from 4s. to 2s. 6d. per annum, and that by-law 4 be amended accordingly. Discussion:—Albuminuria, its Prognosis and Treatment. Communications:—Mr. Atkinson: A case of Double Labyrinthine Deafness, with interval of three months between the attacks—a doubtful sequela of influenza. Mr. Parkinson: Case of Hypospadias after Operation. Dr. Childs: On the Work of the Anæsthetics Committee of the Association. Mr. Marsh: Pregnancy in a Rudimentary Double Uterus. Mr. Charlton: Patient with Pulmonary Fistula (see BRITISH MEDICAL JOURNAL, September 17th, 1892). Dinner at the Digby Hotel at 6.30 P.M.; charge 6s. each, without wine. Members intending to be present are requested to signify the same to Mr. Williams, Sherborne, on or before Monday, October 10th.—WILLIAM VAWDREY LUSH, M.D., Weymouth, and C. H. WATTS PARKINSON, Wimborne, Honorary Secretaries.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held at the Radcliffe Infirmary on Friday, October 28th, at 3.15 P.M. Members are requested to send notice of papers, cases, etc., on or before October 14th to W. LEWIS MORGAN, Honorary Secretary, 42, Broad Street, Oxford.

SOUTH MIDLAND BRANCH.—The autumnal meeting will be held at the Bute Hospital, Luton, on Thursday, October 6th, at 3 P.M. The luncheon will take place at the Midland Hotel at 1.30 P.M. Gentlemen wishing to read papers, cases, etc., are requested to intimate their intention at once to the Honorary Secretary. The following communications have been promised:—Dr. Buszard: Cervical Paraplegia. Dr. Thomson (Luton): Uterine Fibroids and their Treatment. Dr. Jones: On some Affections allied to Exophthalmic Goître. Mr. Percival: A case of Pyloric Stricture, with Operation. Mr. Bull (Stony Stratford): Some specimens of Surgical interest.—C. J. EVANS, Honorary Secretary, Northampton.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The annual general meeting of the Branch will be held in Marischal College, Aberdeen, on Saturday, October 15th, at 12 o'clock noon, Dr. Ogilvie Will, President, in the chair.—J. MACKENZIE BOOTH and C. THISELTON URQUHART, Honorary Secretaries.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, OCTOBER 1st, 1892.

THE INCREASE OF FEMALE INEBRIETY AND ITS REMEDY.

For some time past we have repeatedly called the attention of our readers to the steady extension of drunkenness among women, which has been taking place in recent years in various countries, though most rapidly in Britain. Twenty years ago, an inebriate female was, in Austria in the old world and in the United States in the new world, a *rara avis*. To-day in the former country, the women of which had for centuries been famous for their sobriety, so sad has been the change for the worse, that children are frequently sent by their mothers to school visibly under the influence of intoxicants. In America, though not as a rule in the eye of the public, a substantial proportion have "taken to drink," some having developed into devotees to essence of ginger and other still more destructive forms of inebriety. Nor are these nations without their rivals in this miserable race to female degradation among colonial and other foreign peoples.

Yet all other countries put together are far behind Britain in this unenviable notoriety. Twenty years ago, a woman was rarely seen drinking at the bar of a publichouse or beer-shop; now, especially in the metropolis and in other large cities, it is a common sight to see more women than men so assembled. Of late, batches of women, including girls, have been making a weekly habit of going from one publichouse to another till all have become drunk, the day's proceedings often ending in a free fight. In England and Wales, of commitments of already convicted offenders, the number of females rose from 5,673 in 1878 to 9,451 in 1884. Of the 145,000 individuals responsible for the 250,000 commitments to prisons last year over the whole kingdom, there were 112,000 males and 33,000 females. From these striking facts we learn that the proportion of male to female prisoners, which used to be 7 to 1, is now only 3 to 1. Terms of imprisonment of ten years and over are 60 per cent. more frequent among women than among men. In London, where the number of female convictions for drunkenness two years ago was 3,000, there was an increase last year of 500. In addition to this marked increase, there were 8,373 apprehensions on a charge of having been "drunk and disorderly."

Glasgow shows a still more shocking record. In that great commercial centre the commitments of women to prison number 10,500. Of the 4,000 women represented by this total of commitments, no fewer than 450 were sent to gaol for from six to thirty-four separate terms. Ireland has contributed the champion inebriate female record breaker, one of Hibernia's daughters having undergone apprehension on no fewer than 700 different occasions, though not yet 40 years old. One woman had been in prison on 52 separate charges during twelve months. These sentences, too, were imposed on offenders of all ages, ranging from 12 to 80 years of age. Many of these female habituals have been convicted one, two, three, four, five, and six hundred times in the cities, those with so terrible a record being from 2 to 7 per cent.

Among the non-criminal classes the increase of intoxication among females has, in England, been nearly as great. The overwhelming rush of applications for admission to special homes discloses such an amount of female intemperance existing in our midst, at the present time, as is almost incredible. The standard of sobriety among women has come of late to be gradually but perceptibly lowered, till unhappily now women are much more often seen affected by liquor in the streets and at public and private gatherings. Nor has the increase been restricted to the poor and those in straitened circumstances; notwithstanding the many remarkable converts to abstinence of women moving in the highest ranks, intemperance, generally secret, has been unmistakably increasing among the cultured and wealthy of the land.

To the *Daily Telegraph* the thanks of the profession and the community are due for the following up of its extended correspondence and emphatic endorsement of compulsory legislation for inebriates last year, by the recent exposition of the rapid rate of progress of female intemperance and the ventilation of proposals for meeting this distressing state of things.

An elucidation of the various factors which have contributed to what the *Telegraph* justly calls "A National Shame" is essential to an intelligent appreciation of the remedial effort from which amelioration and prevention of the evil may be hoped. The frequent systemic perturbation which involves acute suffering to so many women from functional crises peculiar to the sex is responsible for probably the largest number of cases of inebriety arising from any single cause. Transmission of the inebriate diathesis, of some other exchangeable neurosis, and of mental instability comes next, and, indeed, adds to the inebriety-generative influence of the former source. Mental and physical overwork, household and family worry, the neurasthenia of other diseases, of too frequent parturition and of accident, account for a goodly proportion. Idleness, want of steady occupation or pursuit, which would distract the individual from that *ennui* and depression which invite the deceptive solace of anæsthetics, with other predisposing and exciting causes, are the starting point to an inebriate career of not a few. Selfish indulgence to every passing whim, the non-cultivation of inhibition and thought also swell the roll of causes which render women an easy prey to the delusive and transitory lethe of intoxication, and break down the will.

There is not always a "crave" for drink. Many women hate the narcotic, from which they cannot refrain, with unutterable loathing. The crave, where it exists, is not for the article by which intoxication can be secured, but for intoxication itself. Mostly there is an impulse, an uncontrollable

over-mastering, indescribable *force majeure*, which is satisfied —though for the moment only—to satiety in the oblivion of drunkenness.

The causes of inebriety being both physical and mental, the combination of medicines with hygienic measures, intellectual, moral, and elevating influences, with absorbing occupation, largely muscular, are all called for. The plan of punishing female drunkards having utterly failed, though many of these have undergone hundreds of doses of this "cure," it is manifest that a new departure must be made. Hitherto, we have treated habitual drunkards as wilful criminal offenders. Let trial be made of the method of treating them as diseased individuals, in a hospital instead of in a prison. The most unremitting care of magistrates, constables, and prison cells having proved futile, if the Legislature, as there are strong indications will be the case, will hand these offenders over to the medical profession, with adequate appliances and powers of seclusion, we have little doubt that a large proportion of these hitherto uncured women will be relieved of their malady, and will become peaceful, industrious, law-abiding citizens. The experiment will be a grand one, fraught with important issues alike to the criminal and non-criminal victims, the profession, and the community at large. Ample provision should also be made for a similar compulsory therapeutic procedure in the case of all classes of confirmed inebriates.

THE VIBRIO OF ASIATIC CHOLERA.

III.—CRITICISMS.

APPOSITE criticism of the opinions and deductions, based upon the results of scientific research, has ever been found provocative of further advance, and even where the opposition has been unduly severe, not to say unjust, that very opposition has led to increased endeavours and the production of even more important and more definite results in science. Thus we are of the opinion that the long-continued distrust that has been manifested, not only in this country, but also, to a less extent, abroad, with regard to the specific nature of the vibrio choleræ Asiaticæ has been of positive advantage to bacteriology and to medicine.

The elaborate preparation of his animals, previous to their inoculation with the vibrio which he found necessary, was sufficient to raise just doubts as to whether Koch had in reality induced in them a true choleriform condition, and whether therefore, his microbe was specific; and these doubts have led to attempts not to prepare, and weaken, the animals, but to intensify the virulence of the vibrio, and, as has been already been pointed out in the BRITISH MEDICAL JOURNAL of September 17th, Gamaleïa and Haffkine have of late succeeded in bringing about this intensification. With the intensified virus they have given a true choleraic disease to dogs and rabbits, and with this have supplied the proof positive, according to the canons of bacteriology, that Koch's vibrio is capable of inducing cholera. This much may then be regarded as definitely settled.

Yet it is urged that Koch's vibrio is but one out of a large number of closely-allied species, and on these grounds its specificity has been questioned by several writers. Surgeon-Major D. D. Cunningham describes ten species which he obtained from typical cases of cholera at Calcutta, and can arrive at no other conclusion than a denial that the primary cause of cholera is represented by any species of intestinal schizomycete discovered up to the present, and an admission that possibly those schizomycetes, whose existence is favoured by the existence of the choleraic condition, may exert an important influence on the ultimate outcome of individual cases of the disease. Surgeon-General Cornish lately, in a published magazine article of great interest, gave expression to a somewhat similar view, denying that we know anything positive as to the intimate nature of the cholera contagium, and employing as his main argument the fact that Klein (?), Lewis, and Cunningham have found the comma bacillus in the drinking waters of India in seasons when the people using such waters are absolutely free from cholera.

We are inclined to consider that those who employ this argument have neglected to take into account the not inconsiderable mass of facts that have accumulated bearing upon the variation of other pathogenic micro-organisms, facts which satisfactorily explain away this objection. We know now that it is not safe to look upon the species of pathogenic microbes as constant, possessing unvarying attributes. Our employment of the term must be elastic. Take the bacillus of diphtheria; Roux and Yersin have shown very clearly that its virulence is capable of great variation. Take the anthrax bacillus, or in fact any other pathogenic microbe; grow it in an environment diverging but very slightly from the normal, and the virulence diminishes. If in India a form indistinguishable from the cholera vibrio be found in the water of districts unaffected with cholera, this fact is but on a par with the frequent presence of the staphylococcus pyogenes in ordinary saliva and upon healthy skin, or of the diplococcus of pneumonia in the saliva of 30 per cent. or more of individuals in perfect health. While the actual modifications to be seen in the mode of growth of the cholera vibrio obtained from different cases and from diverse localities find their counterpart again in Banti's observations upon the diplococcus pneumoniæ. Studying the cases of pneumonia that came under his care during five years, Banti found that with successive epidemics variations were to be made out in the characters of the microbe. The type form, as described by Fraenkel and Talamon, was the most frequent, and this he obtained from his cases in the years 1886, 1887, and 1890; but for two years he never came across typical growths, obtaining instead three varieties or races, differing slightly, but nevertheless characteristically, from the normal, and showing little tendency to revert. It has long been known that growths of the vibrio choleræ Asiaticæ obtained from different epidemics or from different regions during the course of the same epidemic are distinguishable, grow with greater or less rapidity, produce more or less pigment, possess higher or lower virulence. The researches of Hueppe and Cartwright Wood have indicated that this artificial variation in the properties of this microbe can be brought about with ease; and everyone who has studied preparations of the pure cultures under the microscope can distinguish the very considerable variations in size and shape that are to be made out between the individual microbes. In fact, the vibrio choleræ Asiaticæ is, as a species, capable of wide change, and everything points to the conclusion that modifications or races of fair permanency are easily to be produced. The inherent probability of this view is far greater than that of Cunningham, who would multiply species to an extent destructive of all bacteriology.

DANGEROUS QUACK LITERATURE: THE MORAL OF A RECENT SUICIDE.

Medical men have repeated—nay, almost constant—evidence brought under their eyes of the ruin wrought by a peculiarly pernicious class of quack literature, which, in spite of recent legislation, and of the efforts of the police, continues to be widely circulated. This class of handbill, pamphlet, and advertisement identifies, with diabolical ingenuity, the ordinary and frequent symptoms of "lassitude," "debility," "loss of memory," "low spirits," etc., especially common in adolescents and nervous and dyspeptic or hypochondriac young men, with serious maladies and personal faults of conduct or habit. They fill the minds of such readers with dire despondency and erroneous fears, and by describing what are often physiological phenomena incidental to adolescence as evidences of deep-seated mischief, fraught with peril to mind and body, they thus make confirmed invalids and hopeless patients of those who only need a little sound lecturing or gentle remonstrance, or cheery reassurance. Week after week we receive despairing letters from these victims of foul birds of prey, who have obtained their first hold on those they rob, torture, and often ruin, by advertisements, which are, we regret deeply to say, inserted far too freely, and with too little sense of responsibilty, by newspapers of a respectable, nay, even of a valuable and respected, character. Religious newspapers, daily evening papers of high class and aim, cheap and highly-popular social journals, do not hesitate to print advertisements of which the mischievous pretences are transparent or very thinly veiled. One such is now published in all the papers almost without exception; nor has recent and frequent exposure of the worthlessness of the "curative method" proposed induced any one newspaper, so far as we know, to refuse it insertion. Recently—to take only one case in point—we received an official request from the authorities who concern themselves with the law which was recently aimed at the most palpable and coarsest of these advertisers (who allow themselves to cross the narrow border which commonly divides their artfully framed advertisements from open obscenity) to advise whether the analysis of the particular nostrum recommended as the vehicle and cover of a system of fraud was in itself so palpably dangerous, or afforded in itself so clear a legal basis of action that criminal proceedings could be taken with the certainty of conviction. The case was in its way noticeable. The advertiser had found large access to the columns of respectable newspapers and journals. As, however, the wording of the advertisement was not so ingenious as usual, there was ground for proceedings under the Act of last year for an offence against public propriety. The benevolent and wealthy proprietor of the paper was waited on, and the improper character of the advertisement pointed out. Attention to the subject was promised. The advertisement continued, however, to appear with the alterations in the wording necessary to take it out of the reach of the law. A further interview, in which copies of the deceptive and mischievous documents forwarded to those who answered the advertisement were laid before him produced the answer, which is common, that neither editor, manager, nor proprietor could undertake the suggested "censorship" of the advertisements. *Populus vult decipi, decipiatur.*

We are very well aware of the difficulties which surround the censorship of advertisements. We have almost weekly experience of them. Not only are large classes of advertisements systematically rejected by us, so that they have ceased to be offered, but even with the knowledge of the principles of censorship which we adopt, ingeniously adapted variants come habitually under notice in which it requires a good deal of vigilance to detect covered infractions of ethical rule. The rejection involves the sacrifice of many hundreds, nay, in all of some thousands, a year of income from an always flowing Pactolian stream. But it is surely a duty which all those who aspire, and justly aspire, in their own columns to be leaders of public opinion, guardians of public morality, and reformers of abuse owe to the dignity and worth of their ubiquitous and powerful influence. The press, it has been repeatedly said of late, is developing new powers and forming an "estate" which grows continually in greatness in the State. It is sometimes declared to be largely assuming the functions of the pulpit and the platform. It leads crusades with fervour and sincerity, it puts social purity, benevolence, personal honour, physical and mental progress in the foreground of its programme. This in the editorial columns; but a few shillings or a few hundred pounds often purchase admission to another part of the paper for thinly veiled garbage, palpable, monstrous, and mischievous lying and hardly concealed plots for defrauding, terrifying, and making miserable the unhappy victims of a system of mental intimidation and deception.

At an inquest held at Westminster this week on a young butcher, aged 21, who had cut his throat, there were produced a varied selection of the sort of pamphlets sent to the unwary, who fall into the traps set by newspaper advertisements of the kind to which we refer. The police inspector who found them said "that a young man reading them might think he was suffering from every disease imaginable." Dr. Pearce, the divisional surgeon, said that "no doubt the deceased had worried himself by reading the pamphlets. Suicides had occurred before under similar circumstances." No doubt a great many suicides. But there must be countless cases of protracted misery, alarm, and depression from mental anxiety amongst young men of the less educated and wealthy classes at a time of life and under circumstances when such suffering greatly prejudices their career. The answer, "*caveat emptor*," does not seem to us to sum up all that ought to be said or done in the matter, and we submit the case to the further consideration of our colleagues in the press, and of proprietors of popular newspapers and journals.

We are informed that Sir Richard Owen's condition has improved during the last few days. He has taken a little solid food, and is a trifle stronger.

The Old King's College Hospital students' annual dinner will take place on Monday, October 3rd, at Limmer's Hotel, Conduit Street, at 6.30 for 7 P.M. Dr. Burney Yeo will be in the chair.

The death is announced of Dr. G. D. Longstaff, (father of Dr. Longstaff, member of the London County Council) at Wandsworth, on September 23rd, at the age of 94. He was widely known for his public benefactions. He built and presented to Wandsworth the Longstaff wing of the Free Library, which was opened a few years ago. Quite recently it was mainly due to Dr. Longstaff's munificence that that institution was freed from a debt of £4,000.

Dr. E. Symes Thompson, Gresham Professor in Medicine will deliver lectures at the Gresham College on Cholera on October 4th, 5th, 6th, and 7th, at 6 o'clock. Among other things he proposes to discuss the value of medical knowledge and experience in the person of the Parliamentary Secretary of the Local Government Board.

Professor Hankin, B.A., Fellow of St. John's College, Cambridge, leaves for India to-day to take up his appointment as Bacteriologist, Chemical Examiner, and Analyst to the North-West Provinces and Oude. We hear that Mr. Hankin, who it will be remembered recently underwent inoculation with Haffkine's anticholeraic vaccine at the Pasteur Institute, has since swallowed some of Haffkine's "virus exalté"—that is to say the cholera germs in a degree of virulence estimated to be twenty times as great as normal—without any other consequence than that of a slight diarrhœa. This may be regarded as an additional, though not yet conclusive, reason for hoping that Haffkine's method of inoculation has proved efficient in this case, and that it may prove to be capable of effectual application in India.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

The Harveian Oration before the Royal College of Physicians of London will be delivered by Dr. J. H. Bridges on Tuesday, October 18th, at 4 P.M. On Tuesday, November 8th, at the same hour, the Bradshaw Lecture will be delivered by Dr. S. J. Gee, who has chosen for his subject "The Signs of Acute Peritoneal Diseases."

DEATH CERTIFICATES AND REGISTRARS.

We understand that the statement which has appeared that fresh instructions were about to be issued to registrars respecting certificates of deaths is without foundation. The question of what constitutes a *bonâ-fide* attendance entitling a practitioner to give certificates must depend upon the circumstances. Certainly attending a patient by proxy, that is by an unqualified assistant, is not *bonâ-fide* attendance, and it has been held in one case that seeing a patient once did not constitute attendance as contemplated by the law.

GIFT OF A HOSPITAL.

We are informed that under the will of the late Mr. Edwin Smallwood, of Redditch, the sum of £5,000 has been left to his trustees to found and endow a hospital in that town, to be called the Smallwood Hospital. Through the generosity of his brother, Mr. W. Smallwood, the residuary legatee, a further sum of £10,000 has been added to the above. In addition, the sum of £1,000 has been promised by Mr. S. Allcock, and £500 by Mrs. T. Bartleet, for purchase of site, etc.

MEETINGS OF METROPOLITAN MEDICAL SOCIETIES.

The first metropolitan society to begin the work of the new session is the Obstetrical Society, which will meet on Wednesday evening, when Dr. Cullingworth will introduce the subject of the Value of Abdominal Section in Pelvic Peritonitis. On Friday the West London Medico-Chirurgical Society will meet to hear the presidential address of Mr. Swinford Edwards, on Urinary Surgery of the Present Day contrasted with that of Twelve Years Ago. The Medical Society of London will meet for the first time on Monday, October 17th.

SCARLET FEVER AND THE ASYLUMS BOARD.

The hospitals of the Asylums Board are still completely filled with scarlet fever patients, new cases in small numbers being admitted daily to fill the beds vacated by discharges and deaths. The new North-Eastern Hospital at Tottenham will be inspected on Friday. The hospital will hold nearly 500 patients, giving each a cubical space of 2,000 feet. It consists of twenty-two wooden buildings for patients, with accessory buildings for the administration, bringing the total number up to nearly fifty. The land has been purchased, and the whole of the work, including furnishing, has been done in less than seven weeks. On Tuesday next it is anticipated that it will be ready for the reception of cases, but it is to be feared that the patients now retained in their own homes for want of accommodation in the existing hospitals will go far to exhaust the four hundred beds thus to be added to the managers' resources. The time is at hand, however, when past experience justifies the hope that the epidemic will begin to subside. Meanwhile, it is satisfactory to note that, although the number of cases notified and in hospital are greatly in excess of those of any previous year, the deaths, which in the preceding three weeks had been 38, 34, and 31, further fell last week to 27, and were two below the corrected decennial average.

LESSONS FROM LAST WEEK'S "BILL OF MORTALITY."

It is satisfactory to note, from the Registrar-General's return for last week, that the mortality in London was below the average, the total deaths registered being 1,238, or 116 fewer than the average number in the corresponding week of the preceding ten years. With the exception of enteric fever, which showed a slight excess, and of diphtheria, which showed a marked excess, the mortality from each of the principal zymotic diseases was considerably below the average; the deaths from respiratory and nervous diseases also showed a marked decline. The most satisfactory features of the Registrar-General's return are that the deaths both from diarrhœal diseases and from choleraic diarrhœa and simple cholera were fewer than in any recent week; and that, notwithstanding the general prevalence of scarlet fever in the metropolis, and the fact that there are nearly 3,400 cases of this disease under treatment in the Metropolitan Asylums Hospitals, the deaths from scarlet fever did not exceed 27, and were actually below the average number of deaths in the corresponding week of the preceding ten years.

PARIS WASHHOUSES.

Our Paris Correspondent writes: The "Samaritaine," the well-known hot bath establishment on the banks of the Seine, will shortly disappear. The building is in a tumble-down condition. The proprietor has applied to the Municipality for permission to make the necessary alterations, which has been refused, on the grounds that the existence of the floating baths and washhouses are inimical to the public health. By this method of preventing necessary repairs, all the *bateaux lavoirs* on the banks of the Seine will inevitably disappear.

VARIABILITY IN THE SYMPTOMS OF CHOLERA.

It has been perhaps too much the custom to speak of Asiatic cholera as a disease always presenting symptoms so characteristic and of so much gravity that it would certainly and surely be recognised by any competent physician on the look out for cases of the disease. A communication from Sir William Moore, which we print in another column, calls timely attention to the fact that in cholera, as in most if not all other infectious diseases, the symptoms now and then are very anomalous, and may present nothing distinctly characteristic. It is not merely that cases of a mild type may be mistaken for cholera nostras, but that marked diarrhœa and collapse may be absent. Yet there can be no doubt that the evacuations from these anomalous cases are capable of spreading the disease. The researches of Koch have placed in our hands a criterion for deciding the question in doubtful cases, and Dr. Hime's paper, also published in this

number, shows with how much startling success the methods of cultivation may be applied. The method has been widely resorted to on the Continent, and has been employed in New York, but, so far as we are aware, has not received any official sanction in this country. Yet it is very desirable that a system should be established by which the Medical Department of the Local Government Board should be prepared to undertake bacteriological examinations in all cases of cholera or severe choleraic diarrhœa occurring in our ports during the prevalence of the present epidemic in Europe. The examination can be completed in a comparatively short time, as the cholera organism soon presents characteristic appearances when grown on gelatine nutrient material. In this way doubt and conflict of clinical opinion could be removed and much danger and anxiety prevented.

PUERPERAL FEVER IN DENMARK.

Official statistics published by the Danish Board of Health show that there has been a remarkable decline in the mortality from puerperal fever in Copenhagen and the provincial towns of Denmark during the last thirty years. In Copenhagen the death-rate (per mille of births) from that cause was 9.66 in 1860-69, 5.41 in 1870-79, and 3.33 in 1880-89, the corresponding figures for the provincial towns being 5.20, 5.17, and 2.75. The first decade represents the pre-antiseptic period, the second the experimental period, and the third the period of thorough antisepsis. Antiseptics are at present in universal use among Danish midwives.

DRUGS AND DISPENSERS.

The keeper of the Supply Stores at West Bromwich has been prosecuted by the local authorities, under the Food and Drugs Act, for the sale of milk of sulphur containing 46 per cent. calcium sulphate in place of precipitated sulphur, the article asked for by the purchaser, and a fine was inflicted by the magistrates. In the local papers the defendant, John Vincent Webster, was described as a "chemist," but no such name appears upon the Register of Chemists and Druggists. We learn that he is an unregistered person, against whom proceedings have already been taken by the Pharmaceutical Society for the illegal sale of poisons, and that the business carried on by him is one of those ostensible companies which are held to be legally outside the Pharmacy Act, although the proprietorship is virtually in the hands of the individual carrying on the business. The practical evasion of the law by means of this device is, with good reason, a source of complaint on the part of the medical profession, who need adequate guarantees of the education of those to whom is entrusted the dispensing of prescriptions, while it is a source of danger to the public that chemists' business should in that manner be carried on by persons who do not possess the qualification that is requisite in itself and demanded by the law.

CASE MORTALITY OF SCARLET FEVER.

The compulsory notification of scarlet fever in London affords the means of comparing the proportions of deaths to cases, and also the relative proportions of deaths to cases among those treated in the Metropolitan Asylums Board's hospitals and those treated at home or elsewhere. It appears that during the first eight months of this year the case mortality of scarlet fever was equal to 4.6 per cent.; but while the mortality in the Metropolitan Asylums Board's hospitals was equal to 7.1 per cent., it did not exceed 2.1 per cent. among those patients treated elsewhere, the difference being chiefly due to the fact that the more acute cases were removed to the hospitals. It is, however, noteworthy that the proportion of deaths to cases treated outside the hospitals should have shown such a marked decline during the current year, since the percentage of such deaths was 4.0 in 1890 and 3.8 in 1891, while the case mortality in the hospitals has varied but slightly. The proportion of notified cases that are removed to the hospitals still shows a steady increase, the percentage during the current year being 51, against 43 and 46 respectively in 1890 and 1891. No fewer than 77 per cent. of the total deaths in London from scarlet fever since the beginning of this year have occurred in the Metropolitan Asylums Board's hospitals, while in 1890 the proportion was only 46 per cent.

DENTISTRY IN SCHOOLS.

Early in this year we called attention to a report made by a member of the British Dental Association of an examination of the teeth of 900 children at the Hanwell School. Shortly afterwards a dental surgeon was appointed to this school to take charge of the teeth of these children. We have now much pleasure in calling attention to a similar investigation made at the schools at Sutton. Here the teeth of 1,985 children have been examined, and the report sent in to the Board of the South London Metropolitan School District is no less serious than was the one at Hanwell. Of these 2,000 children, there were only 527 with sound dentition, while there were no fewer than 4,677 teeth requiring attention—2,991 of the temporary set and 1,686 of the permanent one. Of the former, 2,025, and of the latter, 1,173, required filling; the remainder, from neglect, requiring extraction. The directorate of this school would do well to adopt the recommendation of the British Dental Association and appoint a dentist to the school. The initial outlay would probably amount to £40, with an annual outlay, say, of £150 to £160 for the dentist, who should visit the school at stated intervals and make a report, and £10 for materials. By this means much local suffering would be prevented and the general well-being of the inmates promoted, for it is practically impossible for nutrition to proceed satisfactorily while mastication is rendered difficult by the presence of untreated carious or defective teeth. It cannot be too strongly urged upon those entrusted with the care and welfare of children, whether pauper or otherwise, that the benefit accruing to them from the skilled attention of the dentist vastly outweighs the cost attending such attention.

THE MEDICAL CO-EDUCATION OF THE SEXES.

Dr. Stephen Smith, writing in the New York *Philanthropist*, has given some interesting facts connected with the education of Dr. Elizabeth Blackwell in the United States. She had been refused admission by several medical colleges, when the Dean of an institution notorious for the rowdyism of its students, astonished them by the suggestion that a lady should be permitted to attend the lectures. The proposition was put to the vote, and the class, numbering 150 students, carried the motion with only one dissentient "No." Miss Blackwell's entrance into that Bedlam of confusion acted like magic, the class was transformed. One morning the lady was missed at the anatomy lecture; the lecturer explained that as they were approaching delicate subjects he had advised her to absent herself. But the lady declined to be so advised, she had paid for a full course and she offered, if she were likely to embarrass the lecturer, to remove her bonnet and take a back seat. She trusted that his interest in his subject would lead him to forget the presence of student No. 130, her registered number. The lady received an ovation from her fellow-students, perfect order reigned in the theatre, and in due course Miss Blackwell took the first medical diploma granted to a woman in the United States.

LONDON SEWAGE TREATMENT.

It is now about eight years ago since the late Metropolitan Board of Works decided to adopt the present system carried out for the disposal of the sewage of London, which involves the precipitation of the sewage at the two outfalls at Barking and Crossness, and the carriage of sludge to sea in steamers. These works cost about £800,000, and the annual working expenses, including interest on capital, amount to about £120,000. The system of dealing with the sewage in the

manner described was originally put forward and strongly advocated by Mr. W. J. Dibdin, chemist to the London County Council, who held the same position under the Metropolitan Board of Works. At the outset it met with considerable opposition from various authorities who predicted the failure of the scheme. The process, however, has now been completed under the auspices of the London County Council, with the result that although the works at the southern outfall at Crossness came into operation so recently as last June, the water of the Thames is now said to be completely free from nuisance. This result, which we understand has been accomplished at a cost of about one-half the amount of the lowest estimate of the Royal Commission on Sewage Disposal, is claimed to be due to the careful consideration of the facts underlying the systems of chemical precipitation of sewage, for whereas the custom that yet obtains throughout the country is to use very large quantities of expensive precipitation agents, the sewage of London is at the present moment being freed from solid matters by Mr. Dibdin's process of employing a very small quantity of about four or five grains of lime and one grain of copperas to the gallon of sewage. It was originally proposed as an additional safeguard that the effluent might in summer time be treated by a dose of permanganate of soda, but the experience of the past few months has conclusively demonstrated the possibility of freeing the river from nuisance without employing this expensive salt. It may be stated that the London County Council, through its officers, are carrying out a careful series of experiments for the purpose of ascertaining the most efficient and economical method of filtering the effluent so as to render it purer, so that it may, if necessary, be discharged into the river in a perfectly clear and pellucid condition.

WATER SUPPLIES FROM LAKES.

A LONDON physician acquainted with Hamburg writes to the *Times* under the initials "F.R.C.P." to urge that the Elbe should be entirely abandoned as a source of water supply for Hamburg. He states that among the lakes within a reasonable distance of the town, two—that at Ratzeburg at a distance of 35 miles, and that at Schallsee a little further off—might be made to furnish a trustworthy source of water supply. The population resident on the banks of these lakes is small, and "F.R.C.P." suggests that with proper filtering beds the water might be rendered perfectly pure. The letter is an echo of the tendency shown in this country to resort to lakes rather than to rivers for urban water supplies. If we accept the principle that the way to obtain a pure water supply is to prevent pollution, and not to rely on removal of impurities after pollution has been permitted to occur, it follows that we must look to lakes, natural as in the case of Manchester, or artificial as in that of Liverpool. A lake is a far more manageable unit than a river which runs through a large tract of country and is liable to pollution at any point of its course. A large and wealthy city such as Hamburg may acquire absolute rights over the whole watershed of a small lake, and may so deal with the sewage of the inhabitants of the basin as to ensure that it shall not find its way into the lake.

ILLEGAL SALE OF POISONS.

WE publish in another column communications which have passed between the Chairman of the Parliamentary Bills Committee of the British Medical Association and the President of the Pharmaceutical Society. We are enabled to state that there is no foundation whatever for the suggestion that the Council of that Society is in any degree indisposed to enter upon the task of enforcing the provisions of the Pharmacy Act, in accordance with the decision in the chlorodyne case as expressly urged by the Treasury and by the British Medical Association. That suggestion in a trade journal was perhaps based upon nothing more substantial than the non-appearance of cases of prosecution by the Council. The fact is, as we are informed, that prosecutions have to be taken to the County Courts, and when the persons proceeded against admit their offence, no publication of the fact can be made. It appears that in several instances firms having extended agencies throughout the country have been proceeded against for the illegal sale of proprietary articles containing poison, and without exception they have paid the penalty incurred besides promising to discontinue the illegal practice. Consequently the statement which has been made that "there are defendants ready" to dispute the decision in the chlorodyne case and contest the action of the Council of the Pharmaceutical Society is obviously erroneous. On the other hand we learn from various sources that the illegal sale of proprietary preparations containing poison is being generally discontinued, and that such articles cannot now be purchased of grocers or other unqualified persons. Moreover we are informed that the Council of the Pharmaceutical Society is proceeding to fulfil the duty which rests upon it in regard to the sale of poisons—discreetly and temperately, but not the less stringently, wherever it may be necessary; and we are glad to learn that the intention is to follow up that course of procedure until a stop is put to the illegal and pernicious sale of poison which has been so long a matter of censure by the medical profession, and of danger to the community.

THE TREATMENT OF FEMALE INEBRIATES IN NEW YORK.

A LAW was passed by the New York State Legislature at the close of last session giving judges power to commit women who are confirmed drunkards, or who are addicted to the excessive use of any narcotic drug, to St. Saviour's Sanitarium, a new institution which was lately founded for the purpose. The committal may be for one year, with further extensions if necessary. The Episcopal Sisterhood of St. Mary has undertaken to manage the institution, which is situated in the northern part of New York, on Inwood Heights, overlooking the Hudson River and the surrounding country. The institution is designed especially for women of the wealthier classes, and the charges are from about 5 to 10 guineas a week. In the case of women of superior education and culture, however, who are victims to inebriety, want of means will not constitute a bar to their admission.

SUICIDE OF A COLONIAL SURGEON.

PUBLIC feeling has been greatly stirred during the last week by the tragic circumstances connected with and following the inquest on a young woman named Sharpe, who had for some time passed as the wife of Dr. Heron, colonial surgeon at Bathurst, on the Gambia River, West Africa. The circumstances attending the death were in the first instance of a very puzzling character, and have not yet been cleared up. When medical help was summoned the symptoms were considered by Dr. Benham, the medical man called in, to be consistent with rupture of a vessel at the base of the brain, but then other symptoms indicating narcotic poisoning were present. A considerable number of injections of ether and strychnine were made, but without effect; and, according to statements subsequently made, both morphine and belladonna, apparently, had been taken before death. The whole matter, however, will be further investigated at the adjourned inquest, when the toxicological conditions will be reported on by Dr. Luff. Dr. Heron gave evidence at the inquest, when he was much agitated, and appeared to be overwhelmed with grief. But on this aspect of the painful case nothing more can be said until the facts are more definitely investigated. Meantime, however, the unhappy man has committed suicide, so that the mouth of the principal witness is for ever closed. According to statements made in the daily papers, Dr. Heron was a diplomate of Glasgow, and acted for some time as an assistant to Dr. Kennedy, of Plaistow, during the years 1883-4, entering the colonial medical

service towards the end of 1884. Dr. Kennedy is reported to have spoken of him as an able assistant, who was much liked. He was born in Jamaica, and had, whilst studying in London, married at the age of 18, returning with his wife to live in Jamaica. It is stated that his first wife died in Jamaica from poisoning, which was found at an inquest to have occurred from misadventure. According to an account published in the *Times*, Dr. Heron held the appointment of parochial medical officer at Manchester, Jamaica. He was a general favourite in the island, his handsome presence and polished manners being a subject of remark amongst all classes. His wife was an exceedingly accomplished and pretty woman, but of a very jealous temperament. As a consequence the pair did not live very happily together, violent quarrels being of frequent occurrence. In 1881 Mrs. Heron was in ill-health for some time, and her husband prescribed for her. One day the illness took an alarming turn, and Drs. George Rogers and Cook were hurriedly called in. They found Mrs. Heron in a very serious condition and foaming at the mouth. She never rallied, and died soon afterwards. A *post-mortem* examination was held, and traces of prussic acid were found in the stomach. At the inquest Dr. Heron first offered the explanation that his native dispenser had accidentally sent him prussic acid instead of morphine, as he had requested. Subsequently he stated that no prussic acid was administered, but that he had inadvertently given his wife an overdose of morphine. The verdict of the jury practically exonerated Dr. Woodburn Heron, but so strong was the general current of opinion against him that he was boycotted by the residents, professionally and socially, while the coloured population regarded him with superstitious distrust. As a consequence his private practice dwindled down to very small proportions, though he still retained his official appointment. Within a few months of his wife's death he appeared to become very dissatisfied with his existence in Manchester, and resigned his post, finally quitting the island five months after the inquest. As a physician, Dr. Heron had, it is said, a curious partiality for prescribing morphine in almost every case.

CORONERSHIP FOR NORTH-WEST LONDON.

Dr. Luxmore Drew, Barrister-at-Law, has been appointed Coroner for the North-West Metropolitan District, in the place of the late Dr. Diplock, by the County Council. The salary is £780 a year. There were numerous candidates, and twelve were submitted to the vote. Dr. Drew was, as we have previously stated, the candidate recommended by the committee of selection.

VIEWING THE BODY.

At a recent metropolitan inquest considerable discussion occurred between the coroner and a medical witness as to the necessity of viewing the body, to which the witness raised objection as being unnecessary and dangerous to health. The facts are, however, that unless an inquest be held *super visu corporis* it is not legal. The coroner has no discretion. The jury must view the body as the law now stands. Inquests have been held without view, but at the risk of being quashed, or of the coroner being censured by the Lord Chancellor. In such cases no one has interfered, and the inquests have passed unchallenged. An alteration of the law was contemplated by a Bill introduced last session in the House of Commons, but it was not passed. The coroners are themselves divided in opinion as to retaining or dispensing with the view. The matter has been warmly debated by the Coroners' Society, and the view entertained by a small majority was that any alteration of the law should be permissive.

We regret to report the death on Monday last of Dr. Alexander Keiller, of Edinburgh, at the advanced age of 81. For two generations Dr. Keiller has been a prominent figure in the medical profession in and about Edinburgh.

SCOTLAND.

The managers of the Edinburgh Royal Infirmary are about to proceed to the appointment of two assistant physicians and two assistant surgeons. Many candidates are in the field for the four vacancies.

We are glad to be able to report that Surgeon-General Fasson, the superintendent of the Edinburgh Royal Infirmary, is gradually recovering from his recent serious illness. Much sympathy is felt with Mr. Fasson, who has comparatively recently passed through severe family affliction.

EPIDEMIC OF SCARLET FEVER IN EDINBURGH.

Eighty-one cases of scarlet fever were last week reported to the medical officer of the city, and 63 during the previous week. At the end of last week something like 160 cases were under treatment in the fever wards of the City Hospital—a number which could scarcely have been received but for the comparative absence of the other infectious fevers in the city. At a subcommittee meeting of the Public Health Committee of the Town Council held on September 23rd, it was agreed that the Canongate Hospital should, if required, be called into requisition for scarlet fever patients. This Hospital had been set aside as a cholera hospital, but its use in this other way will not involve any relaxation of the precautions.

OPENING OF THE NEW INFIRMARY BUILDINGS, ABERDEEN.

The new infirmary buildings are to be opened by the Princess Louise on Tuesday, October 4th. Her Royal Highness will be received by the directors of the institution, the chairman will present her with an address, and afterwards the Lord Provost will present her with a silver key to open the new wing of the building.

THE ABERDEEN UNIVERSITY EXTENSION SCHEME.

Not much has been heard of lately regarding the extension scheme of the University, but the energy of the promoters has not been wasted. Within the past week Mr. Charles Mitchell, of the firm of Sir William Armstrong, Mitchell, and Company (Newcastle), has given a fresh stimulus to the scheme. Mr. Mitchell came to Aberdeen for the purpose of consulting the members of the Committee who are developing the extension scheme with the idea of suggesting various improvements he desires to see effected on the plans, and for the carrying through of which he generously offered the needed funds. Mr. Mitchell is anxious that science classes for artisans should be established in the evenings; that there should be a professor of engineering and a professor of agriculture; and he also desires that a large central hall should be erected. The money required to carry out the new suggestions would be between £10,000 and £12,000.

IRELAND.

VICEREGAL APPOINTMENTS.

The new Lord-Lieutenant of Ireland has made the following appointments to the Viceregal Household: Dr. Christopher Nixon, as Physician in Ordinary to the Lord-Lieutenant; Mr. Tobin and Mr. Chance, as Surgeons; Dr. A. H. Jacob, as Surgeon Oculist; and Mr. Corbett, as Surgeon Dentist.

INFANT MORTALITY IN DUBLIN.

A correspondence in the *Echo* on the question "Can scientific men explain why a larger proportion of children survive their first year of existence in Dublin that in the twenty-eight large towns of Englands and Wales?" reminds one a little of the famous question, attributed to Charles II, "Why does a full bowl of water not overflow when gold fish are added to

it?" The fact is that the mortality of children under a year old in Dublin is not only excessive, but is, we believe, the highest in the kingdom, Glasgow ranking next. The facts and figures and the reasons why the Dublin child mortality stands so high were ably discussed in an elaborate paper by Dr. T. W. Grimshaw, M.A., Registrar-General for Ireland.[1] This is a much more fertile inquiry. The four main causes assigned are: (1) The large proportion of very poor in Dublin; (2) the inferior house accommodation of the artisan and labouring classes; (3) the habits of the people; (4) carelessness with regard to children in general and of sick children in particular.

QUEEN'S COLLEGE, BELFAST: ANNUAL REPORT.

President Hamilton's annual report has just been issued, and is a most satisfactory document. The principal events of the year have been the establishment of a lectureship in pathology, to which Dr. W. H. Barrett, formerly Assistant-Professor of Pathology in the University of Edinburgh, has been appointed; and the creation by the trustees of the Sorella Trust (founded by the late Mr. William Dunville in memory of his sister, Miss Sarah Dunville) of a fund for the endowment of the proposed "Dunville Professorship in Physiology." The number of students during the late session was the largest on record. There were in the Faculty of Arts 185 students, in the Faculty of Medicine 270, in the Faculty of Engineering 11, and in the Faculty of Law 19. There were 8 women in attendance upon the various courses. The block of buildings in connection with the department of chemistry containing quantitative laboratory, qualitative laboratory, professor's private laboratory, practical class room, lecture theatre, chemical museum, preparation room, etc., is now in course of erection. The proposed Students' Union, that is, a building containing dining and refreshment rooms, rooms for the accommodation of the various college societies, etc., has been most heartily taken up, and a sum of over £3,000 has already been subscribed towards its realisation. The President points out that further buildings are necessary, and specifies, among other necessary additions, a biological laboratory and a physical laboratory.

CONGRATULATORY DINNER TO SIR WALTER FOSTER, M.P., M.D., F.R.C.P.

The following is a list of those gentlemen who have intimated their intention to be present at the congratulatory dinner testifying the satisfaction of the members of the British Medical Association and the profession generally at the selection of Sir Walter Foster, Vice-President of the Association, and a practising member of the medical profession, to a post in the Government. This is the first precedent for such an appointment. A yet larger number of letters have been received by the Committee from correspondents all over the United Kingdom, expressing their great satisfaction with the steps which are being taken to mark the interest felt by the medical men in the recognition of the claims of the profession to representation in the administration of the Public Health Departments of the State, and that the first recognition thus made should be in the person of a gentleman who has been long and closely allied with the public health work of the Parliamentary Bills Committee of the British Medical Association, and with the efforts of the Association to secure the enactment of the Medical Acts. This movement united the whole profession of Great Britain in one common effort for the improvement of medical education and registration, and for securing common rights to members of the profession in each of the kingdoms of Great Britain to practise throughout Great Britain, and gave also to the profession direct representation in the General Medical Council, created for the purpose of carrying out the Acts.

We shall give next week extracts from some of the most interesting of these letters.

The Right Hon. H. H. Fowler, President of the Local Government Board, has accepted an invitation to be present at the banquet, which has been fixed for Wednesday, October 26th, at 7.15 for 7.30 P.M., at the Whitehall Rooms of the Hôtel Métropole, Whitehall Place; Dr. Withers Moore, President of the Council of the British Medical Association, in the chair. Tickets will be allotted in the order of application. Letters and cheques, crossed "Union Bank," should be addressed to the Honorary Secretary of the Foster Dinner Committee, 429, Strand, W.C.

Dr. F. H. Alderson, London
Dr. B. Anningson, Cambridge
Mr. W. Aston, Birmingham
Dr. F. Bateman, Whitchurch
Dr. R. W. Batten, Gloucester
Dr. J. G. Black, Harrogate
Dr. Bower, Bedford
Dr. A. T. Brett, Watford
Dr. T. Bridgwater, Harrow-on-the-Hill
Dr. J. S. Bristowe, London
Mr. H. T. Butlin, *Treasurer*, London
Mr. H. L. Browne, West Bromwich
Mr. Lennox Browne, London
Dr. S. Cameron, Leeds
Mr. C. Campbell, Saddleworth
Mr. Andrew Clark, London
Dr. J. E. Cooney, London
Dr. H. R. Crocker, London
Mr. T. W. Crosse, Norwich
Dr. G. W. Crowe, Worcester
Mr. W. B. Davies, Llandrindod Wells
Dr. P. M. Deas, Exeter
Dr. W. Dickson, Upper Norwood
Dr. T. M. Dolan, Halifax
Dr. J. L. Down, London
Dr. A. Downes, London
Dr. S. Dowse, London
Dr. D. Drummond, Newcastle-on-Tyne
Mr. F. Durham, London
Dr. T. J. Dyke, Merthyr Tydfil
Mr. G. Eastes, London
Dr. W. T. Edwards, Cardiff
Dr. W. A. Elliston, Ipswich
Mr. O. H. Fowler, Cirencester
Dr. E. L. Fox, Clifton
Dr. J. H. Galton, London
Dr. C. E. Glascott, Manchester
Surgeon-Colonel A. Gore, Chester
Dr. O. Grant, Inverness
Dr. J. Griffiths, Cambridge
Dr. F. de H. Hall, London
Surgeon-Colonel J. B. Hamilton, London
Dr. H. Handford, Nottingham
Mr. J. D. Harries, Shrewsbury
Mr. J. H. Hemming, Kimbolton
Mr. H. Hemming, Whitchurch
Dr. G. Henty, London
Dr. C. Holman, London
Mr. F. A. Humphry, Brighton
Sir G. Humphry, Cambridge
Surgeon-Major P. Hunt, London
Mr. V. Jackson, Wolverhampton
Deputy-Surgeon-General C. M. Jessop, London
Dr. J. S. Johnston, Bletchley
Mr. H. R. Leech, Edgbaston
Professor D. J. Leech, Manchester
Dr. T. Ligertwood, London
Dr. W. C. Lucas, Enfield
Mr. J. M. McCarthy, St. George's
Dr. P. W. MacDonald, Dorchester
Mr. N. C. Macnamara, London
Dr. E. D. Mapother, London
Surgeon-Colonel T. Maunsell, Dover
Dr. Withers Moore, *President of Council*, Burgess Hill
Mr. W. J. Morris, Portmadoc
Dr. W. Muil, Kirkby Moorside
Dr. J. Murphy, Sunderland
Mr. Shirley Murphy, London
Mr. A. B. R. Myers, London
Mr. P. W. G. Nunn, Bournemouth
Dr. W. Orange, London
Mr. C. B. Parkinson, Wimborne Minster
Dr. C. Parsons, Dover
Dr. G. H. Philipson, Newcastle-on-Tyne
Mr. F. M. Pope, Leicester
Mr. E. Rickards, Birmingham
Dr. J. Roiston, Stoke
Dr. J. Roberts, Chester
Dr. W. Russell, Edinburgh
Dr. R. Saundby, Birmingham
Dr. C. B. Sewell, London
Dr. A. Sheen, Cardiff
Dr. E. M. Skerritt, Bristol
Mr. E. Noble Smith, London
Mr. Priestley Smith, Birmingham
Dr. S. Sunderland, London
Mr. Lawson Tait, Birmingham
Mr. J. Taylor, Chester
Dr. J. C. Thresh, Chelmsford
Dr. D. H. Tuke, London
Sir Spencer Wells, London
Mr. C. G. Wheelhouse, Filey
Mr. J. White, *President*, Nottingham
Mr. F. P. Wightwick, London
Mr. A. Winkfield, Oxford
Mr. W. L. Winterbotham, Bridgwater

THE HOME OFFICE INQUIRY ON HABITUAL DRUNKENNESS.

We are informed that the Departmental Committee of the Home Office, which is taking evidence on the legal questions connected with the present mode of dealing with criminal and other habitual drunkards, will resume its sittings to-day (Friday). The principal witnesses thus far examined have been Sir John Bridge and Mr. De Rutzen, the well-known metropolitan magistrates, whose experience of the uselessness and cost of repeated convictions has been very impressively stated to the Committee, and Sir George Dibbs, Minister of New South Wales, whose recent visit to this country has enabled him to afford to the Committee some valuable information concerning colonial legislation on the subject.

The first witness examined to-day will be Dr. Usher, also a colonial physician, who has recently travelled through the United States of America to investigate the American methods of dealing with habitual inebriety, and their results. Thus far the evidence has tended strongly towards indicating the necessity of providing places of compulsory detention for habitual and convicted drunkards, where they can be placed under due surveillance and treatment; and for increasing the efficiency of the present law in respect to asylums for confirmed drunkards of the well-to-do classes.

In the temporary absence of Mr. Wharton, M.P.—who is, however, recovering from his indisposition, and will shortly resume his place as Chairman of the Committee—Mr. Pemberton will take the chair.

[1] Falconer, Dublin, 1889.

THE CHOLERA:

Cholera at Home and Abroad.

Since our last report three cases of Asiatic cholera have been imported into British ports. The first case occurred on September 22nd on board the Hamburg steamer *Uranus*, which arrived at Hull early in the morning, and was boarded by the medical officer of health and his assistants. Every man on board was subjected to close examination, and all appeared in perfect health. Nevertheless, one of the firemen was taken suddenly ill about noon, and the medical officer of health at once declared the illness to be Asiatic cholera. The patient was conveyed to the port sanitary hospital, where he died after twenty-four hours' illness. The second death occurred at Dovercourt. Charles Chesnall, a fireman on the Great Eastern Railway Company's steamer *Ipswich*, from Rotterdam to Harwich, was suddenly seized with choleraic symptoms on September 25th, and was removed to the infectious diseases hospital at Dovercourt, where he died within twenty-four hours. A third case occurred at Hull, where the steamer *Esperanza* arrived on September 24th. About an hour after the steamer was berthed the captain was seized with numbness and vomiting. The medical officer of health was summoned, and pronounced the attack to be one of Asiatic cholera. Up to the present the patient is progressing favourably. The city authorities have decided not to relax their vigilance against the probable advent of cholera in the Port of London, notwithstanding present favourable appearances. It has been observed that on two previous occasions cholera broke out in England in October, and it is therefore needful that the greatest care should still be taken against its introduction. At the instance of Dr. Collingridge it has been decided to make substantial additions to the hospital ship at Gravesend, for which the City Surveyor is now engaged in preparing plans. Meantime special inspectors are keeping careful watch at Sheerness, Queenborough, and Southend.

Aberdeen: Precautions against Cholera.

At a meeting of the Town Council on Monday it was agreed, on the motion of Dr. John Robertson, that in view of the emergency caused by the prevalence of cholera, the Infectious Diseases (Notification) Act of 1889 should apply within the city to British cholera and choleraic diarrhœa, the order to come into operation on September 30th and to continue in force until December 31st. At the same meeting Dr. Hay, medical officer for the city, reported that fortunately, although several vessels had arrived at Aberdeen from infected ports, such as Hamburg, no cases of cholera were imported, and that the disease had not otherwise made its appearance in the city. Dr. Hay added, however, that the most stringent precautions are being exercised, that a special staff has been employed to aid the authorities in the inspection of vessels arriving from infected ports. In view of the possible necessity of having to accommodate cholera patients in the City Hospital, the Council approved of provision being made in each ward of the wooden pavilion for the steeping of the patients' clothing in a disinfecting solution before removing them to the hospital laundry; at the same time provision will be made for the more convenient emptying of the portable baths than at present exists.

Precautions against Cholera in Cork.

Sir John Arnott, D.L., has generously offered the Sanitary Committee a vessel of 800 tons, called the *Mont Blanc*, which has recently arrived in Cork for the purpose of a floating hospital. When the Committee have passed the vessel as satisfactory, Sir John Arnott will at his own expense have her repaired and put in a perfectly seaworthy condition, and then present her to the rural health committee as a permanent floating hospital for Cork Harbour. This generosity on the part of a citizen contrasts very favourably with the refusal of the Government to grant a hulk—a great many of which are lying idle in English ports—for a cholera hospital.

GERMANY.

[From our Special Correspondent in Berlin.]

The Floating Population and the Pollution of Rivers.—Decrease of the Epidemic in Hamburg.—Generous Hamburg!—The Imperial German Sanitary Bills.—Protective Inoculation.

Much abuse has been heaped upon the floating population on the rivers and canals, who, by using the Elbe and the waterways communicating with it both as drinking vessels and as "water" closets, carry cholera infection from place to place. But it now appears that these poor creatures are more sinned against than sinning, inasmuch as there is not a single public pump or other arrangement for drinking water, nor a single public closet along the waterways between Berlin, Hamburg, Breslau, Thorn, Danzig, etc. At the landing places in Berlin provisional arrangements have been made to remedy this terrible state of things, and it is to be hoped that the river sanitary inspectors newly appointed will take steps to make suitable provision in the districts under their care.

In Berlin there have been a few cases this week, all from the waterway population. The Government officer for Potsdam has issued a rescript, in which he says: "It may be assumed that the water of the Elbe, the Havel, and the Spree, and the waterways in communication with these streams, are permeated with cholera germs."

Things are looking better in Hamburg at last. The official numbers for Sunday, September 25th, are: 126 cases, 47 deaths. The total up to September 24th is given as 17,157 cases with 7,339 deaths.

About the end of August, when doctors and nurses were badly wanted, the Hamburg Senate applied to several Prussian universities for young doctors and medical students willing to help. Amongst others, some medical students from Halle responded to the appeal and worked manfully in the Hamburg hospitals. When their services were no longer required and they were ready to leave, a fee amounting to £5 per month—the ordinary house-assistant's fee at the Hamburg hospitals—was handed them, and was indignantly refused; 3s. 3d. is certainly not princely pay for a day's work of the kind done by the volunteer doctors, and some bitter newspaper correspondence has been the consequence.

In the Imperial Board of Health a special committee of experts is sitting to deliberate on new Imperial legislation for infectious diseases. Dr. Köhler, Director of the Hygiene Department, is President, and is assisted by Dr. Rahts and Dr. Petri. The Committee is formed by members of the Government Health Department and by Professors Robert Koch, Gerhardt, and Lewin (Berlin); Wolffhügel (Göttingen); Reuk (Halle); Bockendahl (Kiel); and Bruns (Tübingen); Pettenkofer and v. Kerschensteiner (Munich); and others from Saxony, Baden, Würtemberg, and Hesse. The new laws are to embrace protective measures, the compulsory notification of infectious diseases, the questions of indemnification for loss of private property, etc., and the penalties for infringement of the laws, and will be binding on every State of the German Empire.

Dr. Klemperer, of Berlin, has made some interesting experiments on the subject of protective cholera inoculation, which he has published in the *Berliner klinische Wochenschrift*. He subjected himself and a few young colleagues to subcutaneous injections of extremely virulent living cholera cultures. The effect was in every case only a slight local inflammation and slight general symptoms. A few days after the injection a little blood was taken by venesection, and 0.5 to 1 cubic centimetre of the serum injected into the peritoneum of guinea-pigs. These animals afterwards proved immune to a deadly dose of cholera bacilli. Klemperer concludes that the human subject treated by subcutaneous injection of cholera bacilli must have obtained immunity to cholera.

NOTES FROM HAMBURG.

Professor v. Pettenkofer's Views.—Notification of Infectious Disease in Hamburg.—The Death-rate for the last Quinquenniad.—The New Hospitals and Disinfecting Stations.—Therapeutics.—Intravenous and Intra-arterial Transfusion.—Hot Packs.—The Old Hospital.

Dr. T. Whiteside Hime writes from Hamburg, under date September 27th:

I had the great pleasure and advantage of a long conversation with Professor von Pettenkofer, who had been specially brought from Munich to advise the authorities here. After an investigation of the local conditions of Hamburg and consultations here with Korl and others he is satisfied that the drinking water cannot be regarded as the vehicle or direct medium which has spread the virus. Had the virus been distributed by the drinking water the geographical and temporary incidents of the outbreak must have been very different. Dr. Gaffky is here officially investigating this and other points, but so far nothing positive whatever has been discovered.

The official sanitary arrangements up to the outbreak of the epidemic were certainly not such as an active sanitarian would think effective. Notification is compulsory for scarlet fever, measles, typhoid, whooping-cough, small-pox, cholera,

diphtheria and croup, puerperal fever, dysentery, and recurrent fever. On asking what was done on the receipt of the notification form I was told they were used "to make statistics!" The premises were not inspected or disinfected, unless the occurrence of several cases suggested there was something serious. At that time there was one medical officer of health, who had no private practice, and three assistant medical officers, who were allowed to practise. The first received 11,500 marks yearly (£575) and each of the others 5,760 marks (£288) yearly. Considering the size of the district with a population of over 600,000, covering an immense area, and the work to be done, the salaries are small. The late medical officer lived out of town and altogether got involved in such trouble at the outbreak of the epidemic that his place became vacant and is now temporarily filled by another. A certain amount of public health work is also done by doctors under the police department.

Hamburg is not merely one city. It is a district, extending down to Cuxhaven, which is some three hours' distance by train and five hours by steamer. Hence the death-rates are deceptive, as they include places quite disconnected from the city.

During the past five years the death-rate from all causes and from typhoid and diarrhœa were as follows:

	All Causes per 1,000.	Typhoid per 10,000.	Diarrhœa per 10,000.
1887	27.1	0 8	3.6
1888	25.2	0.5	2.1
1889	23.9	0 4	2.9
1890	23.3	0.3	2.2
1891	23.6	0.2	2.6

Since the first hours of the outbreak of cholera wonders have been worked. In an incredibly short time excellent hospitals have been erected and well fitted out, with first-rate beds, abundant supply of hot and cold water, and every medical and surgical appliance. Some time ago, even, there were active and skilful staffs at work in all, and nurses sprung up from every quarter, including, as might be expected, large numbers of volunteers from religious orders. The buildings are splendidly ventilated, and altogether are marvels of what energy, skill, and an unlimited generosity can do in a short time. The temporary "barracks" at the Seemann's Hospital were complete in a week. At present there are 3,300 beds available for cholera cases.

Before the outbreak there was only one disinfecting station, and that of a very inferior kind, with dry heat. Now there are twenty-one stations with steam disinfectors, and free distribution of disinfectants, of cold boiled (not filtered) water, and where a staff of men are collected who, on receiving reports, attend to the disinfection of houses, etc., in their respective districts.

The medicinal treatment is in general regarded with but little confidence in any of the hospitals; transfusion, injections high into the intestines and subcutaneously, and symptomatic therapeutics (camphor, musk, morphine, wine, etc.) are most in vogue. Both intravenous and arterial injections have been tried, but the former are much preferred. Enormous quantities have been used, 1 and 2 litres (nearly 1 to 2 quarts), the material used being chiefly 0.5 or 0.6 solution of salt. At the Eppendorfer Hospital, 25 per cent. of peroxide of hydrogen has in some cases been added; tannin, in 1 per cent. solution, has been chiefly used for intestinal injections. Dr. Lauenstein, Director of the Seemann's Hospital, and the Director and many members of the staff of the Eppendorfer Hospital, have been most obliging and courteous in affording me every opportunity of seeing the cases and the treatment.

Dr. Lauenstein has had in all under his care 277 cases, including doubtful cases and some not cholera. Of these, 132 died, and 145 were discharged. Of these, 117 received transfusion, with 31 recoveries (equal 26 per cent.), and 86 deaths. It will be borne in mind that all the very bad cases were transfused, and none of the mild cases. Of 58 cases transfused in another hospital, 17 recovered, and 41 died. He uses 0.5 per cent. salt solution, rendered slightly alkaline with sodium bicarb., heated to 42° C., which allows for the unavoidable cooling during the operation.

In the Cholera Wards at Hamburg.

Miss HENRIETTA KENEALY writes to us from the Eppendorfer Hospital, under date September 23rd, with reference to the injections:—

The apparatus used consists of a glass jug, holding rather more than a litre (35 ounces) of solution; to it is attached an indiarubber tubing, eight feet in length, interrupted by a few inches of glass tubing and a stopcock; at the other end of the indiarubber tubing is a silver cannula. The irrigator is placed at different heights according to the pressure desired. This hospital is supplied with galvanised iron stands, six feet high, in which the glass vessel is fixed; but hundreds of wooden stands have been improvised to meet the present emergency.

The forearm having been well sponged with pure ether, the vein is laid bare and its distal end tied with a catgut ligature. Another ligature ready for tying is passed beneath its proximal end. An opening is then made of sufficient size to admit the cannula, which is inserted some three or four inches in the vein, and the second ligature tightened upon it. Sometimes the fluid infuses very slowly, there appearing to be an obstruction, but generally the necessary quantity is rapidly absorbed. From 1 to 2 litres of the solution may be infused into an adult patient; from 10 to 20 ounces for a child. It is considered wiser in all cases to commence with the smaller quantity. The temperature of the solution is 101° or 102° F. when placed in the irrigator, as it cools in the transit. After the infusion is completed the cannula is withdrawn, the second ligature tied, and the wound dressed with folds of iodoform gauze, iodoform bandage, and plain gauze bandage. When necessary, the infusion is repeated as many as four or five times. If the patient be severely collapsed a hot pack follows closely on the infusion. The patient is immersed for three or five minutes in a bath at a temperature of 103° F., and afterwards closely wrapped in blankets for an hour.

The old hospital is situated in the poorest and most squalid portion of the city, and it was here that all the first sufferers from the epidemic were brought. When, however, the contagion spread, and the old hospital became daily a scene of greater confusion and overcrowding, the Eppendorfer cleared its wards, sending its patients in waggon loads to private hospitals, to homes, or any institution where room could be made for them, and filling the vacated beds forthwith with the cholera stricken. The old hospital is used generally for chronic cases, but in time of epidemic its inmates proper have been thinned or dismissed wholesale in order to make room for the infected. The hospital is built after the style of the old military barracks. One block is closed. The wards are dingy, the staircases winding and long, and the corridors narrow. In the grounds tents and barracks have been erected, and two doctors from the Eppendorfer, the reputation of which is considerable, have been invited to take charge of these. There seems to be a very general impression that the condition of the old hospital is such, that it is rumoured that it will be pulled down as soon as accommodation has been provided elsewhere for its inmates.

France.

Paris.—The return for September 26th was 19 new cases for Paris and the suburbs and 12 deaths. It is stated that the percentage of deaths in the present epidemic is only 40, whereas in previous outbreaks it amounted to 80.

Havre.—There were 5 deaths here on September 26th, and 4 fresh cases were reported. Dr. Guibert, of Havre, has furnished *La Normandie Médicale* with the following statistics of the outbreak of cholera there and the extent of the mortality. The first recognised case of Asiatic cholera occurred on July 14th. No other case took place for a fortnight, then a third case was discovered in the following week, and two more 48 hours after that. A few days later 13 persons were attacked, and from that time the cases increased rapidly. Of the first 50 persons attacked, no fewer than 48 died, according to the hospital authorities. But as time went on either the mode of treatment became more effective or the virulence of the disease moderated, for on September 11th, out of a total of 1,091 cases only 393 had terminated fatally. Dr. Guibert points out that in the course of the epidemic there were choleraic attacks which were not of the true Asiatic type, but which as a precautionary measure were treated by the hospital authorities. He estimates the mortality as much higher than the official returns indicate.

Portel.—Cholera broke out at Portel, a fishing village near Boulogne, on September 17th. The outbreak is said to be due to water from a contaminated well, which was immediately closed. Sixteen deaths have occurred, 6 of the victims being infants. The sanitary arrangements of this village are of the most primitive order. A fumigating apparatus has been procured from Arras and set up for use. It is stated, authoritatively, that no case of cholera has occurred in Boulogne. The water supply is alleged to be perfectly pure, but as a precautionary measure the police have made a house-to-house visitation, and recommended that the water should be boiled before drinking.

Paturages.—An outbreak of cholera occurred here on September 20th. There have been 20 cases altogether, 7 of which have been fatal, and 8 more of those attacked are not expected to survive.

Holland.

The Hague.—A case which occurred in a common lodging-house here is stated to be Asiatic cholera.

Rotterdam.—One fresh case of Asiatic cholera is reported

here, one at Zonnemaire and another at Harlingen. There has also been another case of Asiatic cholera at Groningen.

BELGIUM.

Brussels.—Five cases of cholera are reported here.

RUSSIA.

St. Petersburg.—Ten deaths from cholera occurred here on September 26th, and 17 fresh cases were reported. The recoveries were 43.

UNITED STATES.

New York.—The situation amongst the passengers by the infected liners is daily becoming more satisfactory, and there have been no cases of cholera for a week past. One fatal case of cholera is reported from New Jersey.

BESSARABIA.

Reports from the south-western Russian frontier state that the cholera is assuming alarming proportions in Bessarabia. The epidemic is raging amongst the population and amongst the troops, which are massed in great numbers along the frontier. Hundreds of people are said to be dying daily. The infection is reported to have spread to Roumania.

BULGARIA AND TURKISH QUARANTINE.

Travellers are warned against attempting the railway journey to Constantinople at present. The quarantine barracks erected on the Bulgarian and Turkish frontiers are stated to offer such miserable accommodation that an enforced stay in them is likely to be very injurious to health.

CANADA.

The Canadian Government has prohibited until further notice the importation of rags from Europe.

REGULATIONS AT ALEXANDRIA.

At Alexandria the International Quarantine Board have rejected all the Turkish delegate's proposals for imposing quarantine, and have adopted Mr. Micville's proposal ordering a medical inspection of ships from the Mediterranean ports of Europe, excepting those of Turkey and Greece.

QUARANTINE AT LISBON.

There were recently twenty-two steamers in quarantine at Lisbon awaiting the decisions of the Board of Health.

TREATMENT OF CHOLERA.

Surgeon-Captain R. PORTER, M.B., Army Medical Staff (Ranikhet, Bengal) writes: I have tried various forms of treatment in the two epidemics of cholera that I have had to deal with, but the one above all others I have found the most successful is the following. 1. Any patient brought to hospital suffering from diarrhœa to have an acid astringent mixture at once, this to be repeated every two or three hours as required. 2. Any patient brought to hospital with undoubted cholera—calomel, grs. viii, to be given by the mouth, to be repeated in doses of grs. v every six hours until bile appears in the stools. (*a*) a hypodermic injection of ergotin to be given; the needle ought to be inserted fairly deeply into the adipose tissue of the buttock. (*b*) As soon as the first signs of collapse appear, or if they have already set in when the patient is first seen, he is to be completely immersed to his neck in a hot water bath for half an hour, then to be taken out, quickly dried, and placed in bed. This to be repeated four times during the twenty-four hours if the patient is awake. (*c*) When the stools commence to change their character and bile appears, a sinapism of mustard to be applied over the region of the kidneys, and small doses of tincture cantharadin to be administered. (*d*) If the patient is vomiting two large blisters to be applied, one on either side of the neck, between the angles of the jaw and the mastoid processes. (*e*) The patient to have water to drink, *ad lib.*, beef tea, chicken broth, and milk and soda water, to be given as laid down in the diet chart; no alcohol to be given. I have treated a number of patients suffering from Asiatic cholera according to the above method with a success far exceeding anything I have attained by other methods, and I venture to assert that if these instructions are carried out in their entirety, a large number of recoveries will take place. As far as I have been able to judge, the calomel and hot water baths are the most important part of the treatment, probably the latter the more important of the two, particularly in the stage of collapse. I may mention the case of one man, a schoolmaster in the Royal Artillery, perhaps one of the worst cases of cholera I have ever seen. This man had been worn down by tropical diarrhœa previous to the attack of cholera. When brought to hospital he was in a state of complete collapse—cheeks and eyes sunken, breath cold, the pulse could not be felt at the wrist, the extremities perfectly cold and clammy, the tissues of the hands and feet shrunken—in fact, when the bath was prepared for him I could hardly tell whether he was alive or dead. However, I had him completely immersed in the hot water bath for half an hour, and on taking him out I noticed that the skin of the hands and feet, which appeared and felt to the touch like that of a dead body previous to the bath, had filled out, and had become nearly normal in appearance. The patient was placed in bed, he immediately fell asleep, and slept for about eight hours. Calomel and the hypodermic injection of ergotine had been given previous to the bath. On the second day the stools became fæcal in character, on the third he passed urine, and ultimately recovered. I consider alcohol in any shape or form absolutely injurious; it ought not to be given until convalescence has set in. I am certain I have seen brandy, given in small doses, bring about a reaction that only hastened the patient's death.

HERBERT W. G. MACLEOD, M.B., M.Ch.Edin. (late Surgeon-Captain 19th Punjab Infantry, H.M. Bengal Army) writes: With regard to the difficulty of treating a fully-developed case of cholera by giving medicines either by the mouth or *per rectum*, I think the hypodermic method might with advantage be tried. Dr. Ringer, in his *Handbook of Therapeutics*, states that 5 to 10 grains of chloral given hypodermically have been found by some writers very serviceable; and also that Bartholow speaks most highly of this treatment. In a case that had gone into the stage of collapse I ordered a hypodermic injection of 4 grains of chloral, which was repeated about an hour afterwards. The case terminated successfully. I had, unfortunately, no opportunity of trying the treatment again. The late Deputy-Surgeon-General D. B. Smith, Professor of Medicine at Netley, recommended calomel in frequent doses as being the best treatment in his experience, which had been a wide one. In a case of mine which was treated with calomel from the first, the patient, on the second day of the disease, was apparently on the fair way to recovery, but got out of bed and walked about, though cautioned not to do so. Feeling weak, he tried to get into bed again, suddenly fell back, and expired—probably from cardiac failure due to the disease. The common opinion of army medical officers serving in "the home of cholera" is that opium and astringents should be given at once to check premonitory diarrhœa, and that at the commencement of the disease opium or "chlorodyne" are valuable. It is considered hazardous to try castor oil and other purgatives on the theory of dislodging bacilli or their products. It is true that an eminent authority considers diarrhœa and cholera to be separate entities, and that the one will not run into the other under any form of treatment. The question is, whether the persistence of the diarrhœa will not render a patient more liable to an attack of cholera, apart from its being a premonitory symptom. Medical officers of great experience generally think it will.

RUBINI'S TINCTURE OF CAMPHOR.

RUBINI'S Tincture of Camphor, which is again being much recommended by letters to the daily papers as a safe preventive of cholera, is a preparation which should only be taken with caution. This solution is about five times stronger than the spiritus camphoræ of the British *Pharmacopœia*, and is a solution of camphor in absolute alcohol, containing nearly one grain in two minims. It is prepared by dissolving one ounce of camphor in one ounce by weight of absolute alcohol. A moderate dose of Rubini's solution is 2 to 5 drops on sugar, repeated according to the severity of the symptoms. It is, however, often prescribed under the guise of "homœopathy" (!) in doses of 10 to 15 drops repeated every fifteen minutes until relief is obtained. There can be no doubt that this solution requires to be administered with great caution, since the camphor is in the most favourable condition for immediate absorption. It is a well-known fact that camphor as a solid in powder does not produce the same immediate results as when given in a saturated alcoholic solution. There are on record a number of cases where serious results have followed the administration of this strong tincture; it is certainly a preparation which cannot be considered a perfectly safe one for general administration, especially in large doses, without medical supervision.

VARIATION OF THE SYMPTOMS OF CHOLERA.

Surgeon-General Sir WILLIAM MOORE, K.C.I.E., Q.H.P., writes: It has been too much the custom to regard cholera as a disease always characterised by certain definite symptoms. Cholera is protean in its manifestations. It may commence and terminate as a slight diarrhœa, or as a sudden paralysis of the vasomotor system, between which degrees there are very numerous phases. Horton endorses Pognanski's statement, that a slow pulse—sometimes as low as 45—for days or weeks is often pathognomonic of the approach of cholera. Very frequently there are premonitory symptoms of *malaise* and painless diarrhœa, extending from one to several days or longer. But such symptoms may be quite absent, or there may be *malaise* and no diarrhœa, extending from one to several days, or longer. But such symptoms may be quite absent, or there may be *malaise* and no diarrhœa, or diarrhœa and no *malaise*. In some epidemics preliminary diarrhœa has been so frequently absent that Surgeon-General Pringle considered there was usually no such stage. In most great outbreaks of cholera persons die—especially at first—suddenly from collapse without distinctive symptoms; often without vomiting or purging, or after one or two loose motions. This was noticed in Bombay in 1883. Cases occurring at Poona assumed the form of "sweating sickness" of the 16th century, commencing with rigors, followed by purging and profuse perspirations. In instances when death occurs from sudden collapse without vomiting or purging, there may be violent cramps. Chevers mentions two epidemics in Bengal having all the symptoms of cholera, excepting that the stools were blood tinged. A somewhat similar outbreak has been described as hæmorrhagic cholera, when the stools consisted of mucus or gelatinous fluid mixed with blood. C. A. Gordon mentions cases in which black vomit occurred, similar to that of yellow fever. Rice-water evacuations may be absent in the old and feeble, or rice water may be found in the intestines after death, none having been passed during life. Sometimes the stools are not turbid like rice water, but colourless like blood serum. While cramps may be absent, cramps and twitchings have been noticed without other symptoms; a condition which has been described as "tetanic cholera." Sensations of pins and needles, or anæsthesia, or paralysis, are occasionally present. Dickson, speaking from his experience, remarked on an occasional increased flow of urine during cholera. Sometimes instead of albumen, urine if passed, contains sugar. In the stage of reaction there has been noticed obstinate vomiting of thick greenish material. In one epidemic delirium occurred in most of the cases. In females there is sometimes a sanguineous vaginal discharge, when the person is not menstruating. Among the peculiar sequelæ of cholera are to be noted convulsions, especially in children, nettle rash, roseole choleraica, constipation, gastric affections, hæmorrhages, bronchial and pulmonary attacks, sloughing of the cornea, sloughing of the scrotum, persistent and fatal hiccough, abscesses in different parts, a peculiar smell, considered by Surgeon-General Murray to be like that of arum maculatum; a condition exactly resembling typhoid fever; and abortion in females. Macpherson, Curran, Bellew, Green, Blanc, Macnamara, Waters, Smith, Sullivan, and others have all remarked on the resemblance of cholera to some forms of fever. As mentioned by

Sir Joseph Fayrer, cases commencing as ague terminate as cholera, and the reverse. Surgeon-General Murray remarked on the cholera of Central India in 1860, that many of the cases assumed an intermittent type. Bellew said of Peshawar fever that it is "exactly like cholera." And C. A. Gordon observed that it was not always possible in the early stages to prognosticate whether the symptoms were those of cholera, or of the severe form of fever then prevalent. Summer diarrhœa is often associated with cramps. The summer diarrhœa of children is so severe as to have obtained the name of cholera infantum. Whenever cholera occurs there are usually more numerous cases of diarrhœa, and the question has yet to be answered, At what stage does the sufferer from diarrhœa become the victim of cholera? The late Dr. Norman Chevers said: "Familiar as I was with the cholera of Calcutta, the disease which I treated in 1874 was of a type altogether new to me; no two cases were precisely similar." Sir Guyer Hunter wrote: "As there are many degrees of fever so there are varying degrees of cholera." All this is merely in accordance with what happens in the course of many other diseases of which there may be mild or severe cases, and which may present anomalous symptoms. Mere degree is not sufficient ground for considering a disease different in essential character, no one would deny a particular case to be one of diphtheria, or typhoid, or measles, because the symptoms were mild, or because all the symptoms of a typical case were not presented; and it is only reasonable that the same breadth of view should be accorded to cholera. Then it would be recognised as what it really is, namely, a disease occurring principally in hot climates, or in the warmest weather of temperate climates, although not always with the same degree of violence in the latter. Then India would not be credited with originating all the cholera of the world. Then the necessity for continued sanitation in all senses of the word, instead of spasmodic sanitation during epidemics, would be the more universally understood, admitted, and practised.

Cremation and Cholera.

The report of the Committee of the Royal Society of Victoria on the various systems of the disposal of the dead with particular regard to hygiene and economy comes with particular appropriateness at the present time. The Committee pronounces in favour of cremation. It finds that "burial now entirely fails to satisfy the demands of hygiene." Cremation, it declares, is the simplest, cheapest, and most hygienic of all systems, and it appears to be particularly suitable for cities. The sum for which a body could be cremated in Melbourne is put at £1 1s., including medical examination of body and cost of memorial urn, etc. The purifying influences of fire are proved by the fact that the clothes of all cholera patients are burned, and why the body should not also be it is hard to say. In Bristol to this day may be seen a large open space in the centre of the city, upon which no building is allowed to be erected, as the space thus preserved marks the site of one of the plague burial grounds. Even at this distance of time danger to public health is feared were the earth to be disturbed. In the foreigners' cemeteries in Japan a family grave is never allowed to be reopened if one of the bodies therein was that of a cholera victim.

London Drinking Water.

Dr. A. Royle writes from Albany Lodge, Esher: Supposing someone from Hamburg, St. Petersburg, Paris, Rouen, or Havre were to reside at Staines and there to develop cholera, what chance would there be of four millions of the inhabitants of London escaping? Most of them drink the Thames water, into which the Staines people pour their sewage just above the intake of the chief water companies. Surely this subject is one of vast importance at all times, and now especially.

The Seine as a Source of Drinking Water.

At a recent meeting of the Town Council of Clichy the Mayor (Dr. Hellett) stood out against those members of the Council who wanted to unite with other municipalities on the Seine below Paris in bringing a civil action for damages against the Town Council for defiling that river. He thought the course suggested unpractical, and the cost would be endless. A suit for damages against the city of Paris for polluting the Seine could not be decided for perhaps a dozen years. What would be better would be for the township of Clichy to persevere in claiming clean water from the city, and if it did not give it to take an action for non-fulfillment of contract. The city of Paris bound itself to supply pure, healthy, and unpolluted water. It was finally decided that the township of Clichy should not join in an action against the city of Paris for polluting the Seine with sewage. A resolution was carried to the effect that the Minister of the Interior be asked to put himself in relation with the Committee of the Board of Health, and consult with it on the measures requisite to purify the Seine. The Code adopted the old Royal ordinances to protect the Seine from defilement. There was one of Louis XIV that is still good in law. It sanctioned heavy penalties, and in some cases the confiscation of the transgressor's fortune, but Governments have been careless, and there has been practical impunity for Seine pollution.

Milk, Butter, and Cheese in Relation to Cholera.

Experiments would appear to show that there is considerable risk that milk may receive and also foster the germs of cholera, whilst butter is a less dangerous medium and cheese almost free from the reproach of harbouring the enemy. Professor Crookshank, in his communication on Tuberculosis in Cattle read in the Section of Pathology at the Glasgow meeting of the Association in 1888, showed that milk drawn from tuberculous cattle contained the specific bacillus of tubercle and fostered it.

Dr. L. Heim, of Bavaria, published in 1889 a paper on the relation of the germs of cholera, typhoid, and tuberculosis to milk, butter, whey, and cheese. It is contained in the fifth volume of the *Arbeiten aus dem kaiserlichen Gesundheitsamte*, 1889. He showed, as the result of experiment, that milk is very unsafe in times of cholera. He admitted that there were slight discrepancies in different experiments as to the relative power of fresh and of sour milk as culture mediums, but the discrepancies seem to imply that both were perilous. In one series of experiments it was found that in milk kept in a warm place, which grew earlier and more regularly sour than samples of the same fluid kept in a cool place, the germs lived longer in the milk kept cool. Other experiments showed that the cholera bacillus resisted lactic acid fermentation for some time, and continued to develop for a while in sour milk, whilst they died sooner in milk kept cool which did not turn sour quickly. The discrepancies are explained by Dr. Heim. There are other products, developed possibly by the specific bacillus themselves, which end by killing their reputed parents, whilst the precise manner in which these products arise remains undetermined. The bacillus has incontestably been found living both in sour and in fresh milk for several days. Dr. Heim, in conclusion, observes that milk may, as above shown, foster cholera germs even when kept sweet in a well-managed dairy or kitchen, nor when it begins to turn are the germs necessarily destroyed.

Butter appears to be much less dangerous, as it is harder to infect, yet when once the germs enter that substance they may, under favourable circumstances, live in it for a month; hence butter is not absolutely safe. Cheese, properly made, will not maintain the existence of the cholera bacillus for over a day. As for curds, that product seems to be an actual germicide, as it kills off the bacillus within a yet shorter space of time. Unfortunately, the man who eats old cheese and curds in a cholera-stricken district may clearly expose himself to the dangers of gastric irritation which favours the admission of the bacillus from other sources.

As might be expected—for the dangers of milk in respect to typhoid fever are well known—Dr. Heim found that the typhoid bacillus lives for many weeks in milk. Butter harbours it for about a month at the longest; cheese for three days; whey for one day.

The following table shows the maximum of time in which the specific germs of the three diseases—cholera, typhoid fever, and tuberculosis—were found living and capable of development. The numbers in every case indicate days.

Cultivating Medium.	Cholera.	Typhoid.	Tuberculosis.
Milk	6	35	10
Butter	32	21	30
Curds	0	1	2
Whey	2	1	14
Cheese	1	3	14

Cremation of the Dead.

Our Paris Correspondent writes: The Cremation Society publishes a circular, stating that at the Health Congresses cremation of cholera corpses is always urged, but routine and ignorance unfortunately gain the day, and by burial the cholera germs of future epidemics are carefully stored away in mother earth. The cremation apparatus at Père la Chaise can cremate nineteen bodies *per diem*. If the city of Paris organised one or two of these crematory stoves, all the bodies of cholera patients could be cremated during an epidemic, even the most violent. M. Proust, Inspector of the Sanitary Service, has gone to Bellegarde to organise a sanitary service.

Medical Inspection of Schools in France.—On learning that every year 60,000 children attending primary schools die, M. Bourgeois recently inquired as to the medical inspection of these establishments. He has ascertained that everywhere it is gratuitous, and only practised in times of epidemics; in thirty departments there is no sort of inspection, and in most schools hygiene is not thought of by teachers. The Minister is preparing a Bill to secure inspection by well qualified doctors, and will propose that dispensary doctors be also appointed to inspect primary schools. Things are on a different footing in the communal schools of the city of Paris, which are regularly inspected. Girls and infants are, as much as possible, placed under the inspection of lady doctors.

THE GLANDERS OR FARCY ORDER OF 1892.

This new order, drawn up by the Board of Agriculture, has now been issued. The order is to take effect from October 17th next. The new points to which we may call attention deal with slaughter and compensation, and also the disposal of carcasses.

Under Article 19 it is provided that (1) a local authority may, if they think fit, and when required by the Board of Agriculture shall, cause to be slaughtered (*a*) any diseased or suspected horse, ass, or mule; and (*b*) any horse or mule being or having been in the same field, stable, shed, or other place, or otherwise in contact with any diseased horse, ass, or mule, or having been in any way exposed to the infection of disease. (2) The local authority shall out of the local rate pay compensation as follows for any horse, ass, or mule slaughtered under this article: (*a*) where the horse, ass, or mule slaughtered was diseased, the compensation shall be one-half of its value immediately before it became so diseased; but so that the compensation do not in any such case exceed £20; and (*b*) in every other case the compensation shall be the value of the horse, ass, or mule immediately before it was slaughtered. (3) Provided that if the owner of the horse, ass, or mule gives notice in writing to the local authority or their inspector, or other officer, that he objects to the horse, ass, or mule being slaughtered, it shall not be lawful for the local authority to cause that horse, ass, or mule to be slaughtered, except with the further special authority of the Board of Agriculture first obtained.

Article 20 deals with the mode of ascertainment of value; and Article 21, which is new, provides as to the withholding of compensation as follows:

(1) A local authority may, if they think fit, withhold, either wholly or partially, compensation in respect of a horse, ass, or mule slaughtered by their order under this order where the animal was in their opinion diseased at the time of its being brought into their district. (2) A local authority before determining under Subsection 7 of Section 20 of the Act of 1878, or under this Article, to withhold either wholly or partially compensation, or other payment in respect of a horse, ass, or mule slaughtered by their order under this order, shall give to the owner of the horse, ass, or mule an opportunity of making representations to them respecting the facts and circumstances of the case, and shall consider the same.

With regard to the disposal of carcasses the order says:—23 (1). The carcass of every horse, ass, or mule that was diseased at the time when it died or was slaughtered shall be disposed of by the local authority as follows: Either the local authority shall cause the carcass to be buried as soon as possible in its skin in some proper place and to be covered with a sufficient quantity of quicklime or other disinfectant and with not less than six feet of earth, or the local authority may, if authorised by licence of the Board of Agriculture, cause the carcass to be destroyed under the inspection of the local authority in the mode following: The carcass shall be disinfected and shall then be taken in charge of an officer of the local authority to a horse slaughterer's or knacker's yard, approved for the purpose by the Board, or other place so approved and shall be there destroyed by exposure to a high temperature or by chemical agents.

There are other general provisions contained in the order, but the main alteration of the law consists in the power given to the local authorities to slaughter horses affected compulsorily and to pay compensation.

The responsibility for the carrying out of the order will fall entirely upon the local authorities generally throughout the country, who will necessarily appoint their own veterinary inspectors, and pay them out of the local rates. It is therefore important that none but experts should be employed.

Although it may not be possible without unduly restricting the movements of horses to get rid of the disease, it is to be hoped that the various local authorities will see that the orders are strictly carried out, and more especially that the carcasses of diseased animals are absolutely destroyed, as it is a common thing when horses are sent to the knackers for the carcasses to be simply boiled and sold for cat's-meat, and even as food for human beings.

SPECIAL CORRESPONDENCE.

MELBOURNE.

Importation of Small-pox: Quarantine and Vaccination.—Medical Titles.—Medical Practitioners' Bill.—Admission of Women to the Association.—Veterans in Hospital.—Dr. Wolfe, of Glasgow.

Shortly after the arrival of the R.M.S. *Oroya* the health authorities were apprised of the illness of one of the passengers who was then residing at a coffee palace situated in the centre of the city. The information conveyed the apprehension that the circumstances surrounding the case were suggestive of variola. The most active precautionary measures were immediately adopted to prevent any spread of the disease. The coffee palace, which is a most frequented one, was at once surrounded by a *posse* of police, and while anyone was permitted to enter the place, strict orders were given to let no one out. It was thought by this ruse to secure all those who resided in the palace at the time of the outbreak. To a great extent this was successful, and after a thorough disinfection of the place, revaccination of the inmates, and the removal of the patient to the quarantine hospital, *pratique* was granted and the lodgers allowed to leave the premises. A few days subsequently another isolated case was discovered and the usual precautions taken. In the meantime, all the other colonies were communicated with and requested to make search for every passenger who had travelled by the ship. The ship itself was placed in quarantine and the crew vaccinated. In each of the other colonies a few cases of small-pox were notified, and altogether four deaths were reported. As far as is ascertainable, the history of the outbreak is as follows: A Miss Jones, shortly after leaving England, was a sufferer from an affection which the medical officer of the *Oroya* determined as "prickly heat" and subsequent eczema, and for which conditions he treated her. On the other hand, this evidence is contradicted both by the health officer of Melbourne, Dr. Gresswell, and by the health officer of Adelaide, Dr. Whittell, who both assert that even now the marks on the body of Miss Jones could only have originated with variola. The theory of the ship's officer is that the actual infection came from Colombo, where small-pox is always rampant; that the passenger affected in Melbourne had his linen washed at Colombo; and that the disease exhibited itself at the end of the incubation stage, which would be just about the time the vessel arrived in Melbourne—namely, a fortnight or a little over. As soon as the vessel, on her return journey, arrived at Adelaide, information was sworn against the captain and the medical officer; but ultimately the case was dismissed on a technical point. In his evidence at the Adelaide Police Court Dr. Gresswell gave as his opinion that, provided a man be vaccinated, that he had a covering over his head and a waterproof covering to the body, and that the covering and boots were afterwards sponged over with a disinfectant, he might, without any danger to himself or others, visit a case of small-pox.

The question of medical titles—with particular reference to the advisability of every medical practitioner appropriating the title of "Dr."—was recently under discussion at a meeting of the Melbourne and Victoria Branch of the British Medical Association. The matter was introduced by Dr. W. H. Embling, the chairman of the staff of the Alfred Hospital. His principal argument, in opening the debate, was to the effect that for the last twenty years the public had been in the habit of applying the title to all medical men, irrespective of their diplomas. He considered that in many instances the title of "Dr." was an honorary one, and did not always imply a fixed degree never conferred save after severe examinations. As the question had been recently raised in the law courts—whether the title should not be restricted to those who held the degree, he thought that the abandonment of the title by those who had been using it would lead to misconception on the part of their clients. The discussion which followed showed that the members were pretty evenly divided. Dr. Cutts, who is a member of the council of Melbourne University, thought that the use of the title in a generic sense was neither professionally nor morally wrong, and that the practice was so firmly implanted that it would be useless to attempt to abolish it. The debate was postponed; but Dr. Embling evidently had enough of the matter as he declined to deal with it any further, and so the subject has dropped.

At the present moment we have a Medical Practitioners' Bill before Parliament. The real object of the Bill is to give the public an opportunity of distinguishing between quacks and qualified men. For that purpose a few clauses added to the old Bill would have done very well, but, unfortunately, the "profession" decided to place the whole Bill before our legislators for the purpose of the amendment. The result, so far as it has gone, has surprised a good many. The first thing done with it in the Upper House was to severely criticise the scale of fees for visits and operations which for many years has been generally recognised as proper charges. The tendency of the members was to materially affect the charges by a reduction all round. The matter is to come up for discussion next week. Some points in the debate are worthy of record. The introducer of the objectionable clause to reduce

the fees had some difficulty in stumbling through the list of technical names. So, for instance, tracheotomy was called "trashy tommy." Another legislator complained because a practitioner charged £157 in an amputation case and did nothing more. Another illustrated as an exhibition of common sense, and of doing nothing when nothing was obviously required to be done, and to charge a fee nevertheless, that a medical man entered a sick friend's room, and commenced proceedings by placing a thermometer under the patient's arm to ascertain his temperature. The patient bore the operation like a man, and, after breathing hard and blinking for a few minutes, ejaculated with relief, "Thank you, doctor, I feel much better; what's the charge?" He goes about to this day convinced that his medical adviser restored him to health miraculously in three minutes by a painless yet mysterious process. A further illustration was given of another gentleman (unqualified) who will go to sleep with a lock of your hair upon his forehead, and charge you handsomely for his snooze. There is another who will breathe upon you at so much a zephyr, and sell you a little phial of healing water to be shaken before applied, because the "magnetism" is heavy, and sinks to the bottom like a sediment. It is no doubt rather amusing to find a number of laymen discussing doctor's fees, for they make no distinction between operations, and altogether disregard skill and ability. It is proposed, for instance, to allow £5 5s. for the removal of a tumour, quite indifferent as to whether complications are to to be encountered or not, and the treatment of a compound fracture is to be charged for at the same rate as a simple one.

We have learnt by cablegram that women are to be admitted to the privileges of membership of the Association. Advantage of this change of the Articles of Association, it is expected, will be at once taken by those ladies (among whom are a number of local graduates) in Melbourne who are qualified to practise.

It may be of interest to English readers to know that in a charitable institute here there are two distinguished veterans. One is a man named Grennan who took part in the charge of the Light Brigade, and the other man is Sergeant Casey, who was a drummer boy at the funeral of Napoleon Bonaparte.

Dr. Wolfe, of Glasgow, who is now on a visit to the colony, has met with a cordial reception by the Governor and the profession. The staff of the Eye and Ear Hospital have invited him to demonstrate his operations on cases placed at his disposal, and the Council of the Congress, which is to be held in Sydney, have requested him to take part in the proceedings. He intends to return in November by way of San Francisco.

CORRESPONDENCE.

COTO BARK AND CORROSIVE SUBLIMATE.

SIR,—May I venture to suggest that the result shows that it might have been well if one or two of the rank-and-file of Licentiates—accustomed to the surroundings of the homes and lives of the poor, and of those situated in remote districts out of the reach of the doctor—had been appointed to co-operate with the small committee of those recently described in your columns by the old man eloquent as "the select and favoured children of fortune and of skill?" At any rate, they would have suggested doubts as to the shot-gun prescription of "coto bark," etc., etc., as the common formula for the use of the million, to be obtained at an emergency at the village shop by those who, being far from the madding crowd, are also out of the reach of the doctor.

I must confess I never heard of the substance, and I do not know where it is to be got. I have not been able to find it in my copy of the *Pharmacopœia*, out of which the College of Physicians are supposed to prescribe. I suppose it is some new fad; but as all our patients will now be asking us for coto bark, and we cannot afford to be less knowing than the general public who will soon be clamouring for it, perhaps the committee who drew up these public prescriptions will afford the profession some information concerning it—where it comes from; what are its special virtues against cholera; who has used it in cholera epidemics; and where and in whose hands it acquired its reputation. As my old teacher Sir William Gull used to tell us we "must make haste to use it while it is new, while it still cures. After the novelty wears off it will not cure so well." It will be quite in order now for the College to issue an additional memorandum for professional consumption only, telling us something more about coto bark; what else it will cure, and who says so, for that is the great point nowadays. Perhaps it kills the cholera bacillus, and will supersede its rival favourite, the "sulphuric acid lemonade" or "orangeade," which is now so freely on tap as a "preventive drink," and which our village clergyman is distributing gratuitously by the gallon. I think very well of it, although I do not find it pleasant drinking. I am afraid it will cause a good many stomach-aches, and it certainly sets my teeth on edge. Who will tell us what no doubt we ought to know about coto bark for the million?

A few words as to the harmlessness of gallon tubs and "wide-mouthed" jars full of a pretty blue solution of corrosive sublimate as a household pet and cottage fluid for children to play with and country yokels to sprinkle about might also not be out of place. Thank heaven it cannot be bought at the village shop, where "Jones's Fluid" and "Smith's Tar-powders" are sold, and our only chemist refuses to retail it in quantities, except by my order, and with two witnesses; for he says it is "scheduled" as a dangerous poison under some Act or other, and if he sold it without great formalities he might be held responsible for the people poisoned by it. I am glad to say that he is a timid man, and thinks more of the law and the Pharmaceutical Society than of the recommendations of the College of Physicians, who do not, he declares, seem to know the law about the sale of poisons, and cannot give him dispensation against "accidental homicide"—which amounts, he is told by his friend the solicitor, to "manslaughter" when it occurs through non-observance of the law.

I am thankful to say that our enterprising vicar and his amiable wife are thoroughly frightened about this, and when they learned that "perchloride of mercury" is corrosive sublimate, and has neither warning smell nor taste, and that a grain of it might kill, they refused to distribute it among the cottagers, and the vicar will advise the "local authority"—you ought to see my "local authorities!"—to do likewise.

So far I am easy in my mind; there will be no "poisoning by misadventure" arising out of this memorandum in my district, I hope. But I am still unhappy about coto bark. I have written up to Apothecaries' Hall for a supply and I am expecting some down. But I want to know something about it besides the information as to cost—which the invoice will give me—for my people think a good deal of me, and are sure to ask me all sorts of questions, although, Sir, I am only

September 28th. A RURAL LICENTIATE.

THE DUTIES OF MEDICAL OFFICERS OF HEALTH UNDER THE NOTIFICATION ACT.

SIR,—I quite agree with Dr. Goodhart that the point he raises "is an important one to a large section of medical men." The case he refers to was a fatal case of diphtheria, the first intimation of which I received in the mortality return supplied to me by the district registrar. I, of course, at once made inquiries, found that three medical men had been "attending or called in to visit the patient," and wrote to them to ask why they had not certified the case to me. On receiving replies which satisfied me that there had been no intentional concealment of the case, I reported to this effect to the Sanitary Committee, who decided, at my recommendation, to take no action in the matter.

Dr. Goodhart seems to think that only one medical attendant is required to certify a case, and that he was not that one. The words of the Act are, however, perfectly clear: "Every medical practitioner attending on or called in to visit the patient shall forthwith, on becoming aware that the patient is suffering from an infectious disease to which this section applies, send to the medical officer of health of the district a certificate stating," etc.

As a matter of fact, if several medical men see a case and only one certifies it to the medical officer of health, the latter is quite satisfied, as he does not want more than one certificate of one case, but if no one of them certifies it he is bound to report them all to his committee as delinquents.

Dr. Goodhart says: "I was further politely informed that

as I had sinned in ignorance no action would be taken on this occasion. In other words, I must not be a bad boy again or I should receive a whipping."

In this, I think, he exactly describes the position, and as he has made it publicly known that he has neglected to certify a case of diphtheria which proved fatal, my friendly advice to him is that he should take very great care to certify any case of "notifiable" infectious disease that he may attend or be "called in to visit" in future.—I am, etc.,

W. H. Corfield, M.A., M.D.Oxon.,
Medical Officer of Health for St. George's, Hanover Square.
19, Savile Row, London, W., September 27th.

Sir,—The correspondence which has been carried on in the British Medical Journal as to the question with whom the responsibility should rest in case of the removal of a patient suffering from an infectious disease is of great importance, and, as an outsider, being at present neither a general practitioner nor a medical officer of health, my opinion may at least be accepted as unprejudiced.

That there is responsibility in removing any case of infectious disease all intelligent practitioners will admit. That the general practitioner was very averse to be saddled with the responsibility of notifying cases of infectious disease none will venture to deny. Is it possible then that the latter responsibility, having been forced upon general practitioners by law, any individual general practitioner desires voluntarily to assume the far greater responsibility which attaches to the removal of his patient? One can hardly believe that even professional jealousy could have such an effect. Instead of venturing to assume greater responsibility than the law has thrust upon them, it seems to me the duty of general practitioners to insist that in notifying the case of infectious disease their responsibility shall cease, the responsibility for the cause and consequence of such disease resting entirely with the medical officer of health. The position of medical officer of health is just as much more responsible as that of the general practitioner, as the prevention is more important than the treatment of disease, and thus it follows that our medical officers of health ought to be a very superior class of practitioners—not raw youths, who have never engaged in practice or seen a case of infectious disease, but men acquainted with practice and able in diagnosis.

It is to be feared, however, that our medical officers of health are misusing the knowledge with which the notification of infectious diseases supplies them, since it would appear that it leads to the removal of the patient to the hospital rather than to the elucidation and the removal of the cause of the outbreak of such a disease. Thus, for example, in Edinburgh scarlet fever patients are removed to the hospital till there is overcrowding, while insanitary conditions, such as the emptying of pipes from the kitchen sinks, baths, basins, and waterclosets of one great tenement directly into one common pipe, even when pointed out, is not condemned by the medical officer of health. It were perhaps better, instead of removing scarlet fever patients from such tenements and allowing such insanitary conditions to remain, to allow the patients to remain and remove the insanitary conditions.—I am, etc.,

Canonbie, N.B, September 26th. John Haddon, M.D.

Sir,—As one to whom this subject is of present practical interest, I am glad to see it under discussion in the pages of the British Medical Journal. I think that when a medical officer of health is asked to see a case in consultation he always does so as a matter of common courtesy. This is only an occasional occurrence, however, and is rather beside the main points. These appear to be two: Should a medical officer of health visit personally every case of infectious disease notified, or should he visit every case he is about to send into hospital?

Dr. Brock quotes from the order of the Local Government Board: "On receiving information of an outbreak of infectious disease, etc., of a dangerous character, he shall visit the spot, etc." This refers, as I suppose, to an original outbreak, as when an infectious disease occurs as a fresh event in a district, and does not refer to every individual case of an epidemic. If Dr. Brock were to make the inquiry of any medical officer of health for a London district he would be told that to pay personal visits to all cases notified is quite impracticable, and that if so much time were given up to investigations into the etiology of zymotic diseases, there would be no time for anything else, and the duties of a medical officer of health are manifold. As to seeing the case with the idea of confirming the diagnosis, as Dr. Greenwood has pointed out, this may be taken as showing a great want of faith in the practitioner who notifies, who may resent the interference, with a result disastrous to the satisfactory working of the Act. The same holds good in regard to cases going into hospital. Unless representation be made by the medical attendant or friends of the patient to the contrary, a medical officer of health is surely right in assuming that every case of scarlet fever, small-pox, or typhus is fit to be removed to hospital. As to cases of diphtheria and enteric fever, inquiries have to be instituted in each case before removal, not necessarily, however, by actual observations made on the spot by the medical officer of health himself. Some mistakes must occur, such as a few errors in diagnosis. Neither the medical officer of health nor the medical practitioner is infallible in this respect, but it would be no help to introduce unpractical methods, and, after all, a mistake of any great seriousness is of extremely rare occurrence. The medical officer of health is rightly allowed a large discretion, and it would be very stupid to bind him by an invariable rule as well in this matter of visiting infectious cases as in many other matters. Great power is put into his hands, and his moral responsibility is correspondingly heavy. A little sympathy and goodwill from the outside will always be more acceptable than criticisms, especially when these come from persons whose knowledge of the duties and surroundings of a medical officer of health is insufficient to allow them to form opinions of any worth. This is by no means the position of Dr. Brock, to whom we are indebted for introducing this subject for discussion on the present occasion. I believe the members of the profession have sufficient public spirit to give intimation to a medical officer of health when the condition of a case is such as to prevent it being removed to hospital, though we are all aware that this is extra to the requirements of the Notification Act. The general tenor of Dr. Brock's latest letter, instead of pointing to the desirability of a happy mutual aid being rendered from either side, rather seems to be to the effect that the medical officer of health should give all and expect nothing.

In the last few lines of his letter Dr. Brock questions the good that notification of infectious diseases is doing, and challenges medical officers of health to demonstrate it. Is it possible that he can be in earnest? Perhaps he has no faith in disinfection nor in the value of statistics, but if he looks towards Tottenham he will see a new hospital being erected with the utmost expedition, to add 400 more beds to the thousands already provided in London for the accommodation of notified cases. I feel sure Dr. Brock will allow that it is better for say 10,000 cases of fever occurring in London this year, to be provided for in isolation hospitals, than allowed to remain in the 10,000 places in which they are discovered by notification.—I am, etc.,

Cheltenham, September 26th. J. H. Garrett, M.D., D.P.H.

Sir,—Dr. Brock misunderstands me when he says I object to a M.O.H. visiting the homes of fever patients to decide whether their removal is necessary; the very essence of my objection is that they have no official duty whatever to question the diagnosis of the practitioner in attendance. With regard to the Order of the Local Government Board to visit places where infectious disease has broken out, I see no suggestion here of a duty to examine the cases to see if the diagnosis has been correct; and if such a duty were expected the position of a M.O.H. would be a very unenviable one, and the public health would not, in my opinion, be advanced.

I do not know the particular case Dr. Brock refers to, but his words remind me of one that occurred in London a few months ago, in which a M.O.H. got a magistrate's order for the removal of a patient, but there the M.O.H. was the medical practitioner first called in. I should like to add that I think Dr. Parkes very accurately describes the duties of M.O.H. in this respect.—I am, etc.,

Major Greenwood, M.D., D.P.H.
Hackney Road, N.E., September 24th.

SIR,—With your permission I will deal shortly with a few points regarding the notification of infectious disease which have been alluded to in BRITISH MEDICAL JOURNALS of recent dates.

We are all agreed about the difficulties in forming a correct diagnosis, and also about the benefits to be derived from notification, but we do not all agree about the justice or wisdom of the Notification Act in its present form. Undoubtedly the medical man who notifies a case is entirely responsible for the diagnosis and for any legal consequences which may follow in case of a mistake. That the medical practitioners of this country should so long have tolerated having thrust upon them such a serious responsibility is difficult to understand. It can only be accounted for by supposing that they have never seriously considered the subject; they have gone on notifying, just as they used to do in lunacy cases, until many medical men were ruined by being prosecuted. Similar prosecutions and penalties for maldiagnosis are not unlikely to follow notifying. In the JOURNAL have been reported particulars of several such prosecutions under similar laws in the States, where heavy penalties with costs were inflicted.

The medical officers of health are only acting within their present legal rights in refusing to accept any responsibility in diagnosing. After a case has been removed to an infectious hospital, however, how can a M.O.H. faithfully discharge his duty to his patient and to his employers by "in every case taking it for granted that the certificate of the registered practitioner as to the nature of the disease is correct, and under no circumstances ought he to question this?" I believe medical men cannot be legally compelled to act as experts, nor do they generally profess to be such. The M.O.H., however, by accepting his appointment, becomes at once a professed expert, and the law, in all fairness, ought to compel him to act as such in the interests of the ratepayers. Why should the general medical practitioner have forced upon him this responsibility, whilst at the same time he has to pay his proportion of the professed expert's salary? The climax of this injustice is only reached when we are told, in so many different ways, how incapable we are of diagnosing infectious disease. A M.O.H. in this neighbourhood recently stated publicly before a meeting of the sanitary authority "that 95 per cent. of our medical men are incapable of diagnosing a case of malignant infectious disease." In spite of this expression of opinion, I am inclined to agree with one of your correspondents when he says that "the medical practitioners of the country are probably more likely to form a correct diagnosis than the ordinary M.O.H.," who has been placed in an altogether false position with regard to the rest of the medical profession.

But medical officers of health not only bring a charge of incapacity against us, they repeatedly have accused us of making wilful misstatements about the nature of infectious disease for the purpose of either obtaining a fee, or have evaded notification altogether by yielding to the prejudices of our wealthier patients. Are medical practitioners prepared to sit quietly under such a libel not only on their professional but on their moral character?

Although, personally, I have been compelled to notify under various Acts, I have always taken care to shield myself from legal liabilities, with the result that I have been four times summoned for not complying with the Acts. On each of these occasions the case was dismissed, and for the last seven years matters have been at a deadlock between me and the Jarrow Corporation. During that period they have received no notifications from me at all, although verbally, on one occasion, I brought under their notice an outbreak of typhus, and would be quite prepared on all occasions to inform the sanitary authority of the existence in my practice of "infectious disease of a dangerous character." It will thus be seen that compulsory notification has not worked so smoothly, in Jarrow at least, as might be inferred from official reports.—I am, etc.,

Jarrow, September 21st. W. WHAMOND.

SIR,—As divisional surgeon of Metropolitan Police, I am constantly required to visit houses in which policemen are living on the outbreak of contagious disease, and to furnish a certificate to the inspector on duty. It has happened to me dozens of times to find a case of scarlet fever under the treatment of another medical man who has already duly certified to the medical officer of health. I never notify such cases. I should consider it a fraud upon the vestry to claim a fee for sending information which had already, to my certain knowledge, been given by the medical man in attendance. I always imagined I was doing my duty in a proper spirit, and am, therefore, much surprised that anybody in the world should call such conduct in question.

If Dr. Goodhart be wrong in his view, undoubtedly hundreds of medical men besides him and myself may expect to come under the censure of some medical officer of health who is prone to interpret the law in a narrow-minded fashion, for in an ordinary practice one has to certify in many parishes, and to more than one medical officer of health.—I am, etc.,

Hammersmith, September 24th. E. C. BARNES.

P.S.—I am in exactly the same position as surgeon to the Post Office.

THE INFECTIVE PERIOD OF SCARLET FEVER.

SIR,—With regard to this matter many letters from eminent authorities have appeared in the BRITISH MEDICAL JOURNAL within the last two or three weeks, so that I hope you will allow me to say that, if an experience of sixteen years as medical officer of health and medical officer of an infectious hospital—to which during that time many hundreds of cases of scarlet fever have been sent from their homes on the first, second, and even third day of the rash, without secondary cases arising in them—has told me anything it is that, as a rule, the disease is not infectious in its first stage.

This experience enables me to use this non-infective stage as an all-powerful argument in trying to persuade unwilling parents to send their child suffering from scarlet fever to the hospital, so that the remainder may escape the disease; and I find it a most successful and effective one. The greatest difficulty with me has been to know when, after convalesence, the patient is free from infective power, as even after eleven weeks' detention in the hospital a patient has been returned home and other children have, within a few days, become infected, whereas during the whole period of the absence of the initial case the other children have remained free from the disease.—I am, etc.,

Derby, September 24th. W. ILIFFE.

SIR,—All my published writings insist upon scarlet fever being infectious from its commencement. While I was Secretary of the Epidemiological Society I called the attention of the Society and so of the profession at large to a miscarriage of justice at the Epsom petty sessions in the previous November (1875, I think), where a person escaped penalty for removing a scarlet fever patient in a hired fly by obtaining direct medical testimony that the disease was not contagious in its early stages. My previous statements to that Society, and subsequently, that an early separation was likely to be successful when the exposure had not been at very close quarters are based upon quite other grounds than that scarlet fever is free from infection at its commencement.—I am, etc.,

WILLIAM SQUIRE, M.D., F.R.C.P.

Harley Street, W., September 26th.

PAYMENT OF MEDICAL WITNESSES.

SIR,—I have read with much pleasure the correspondence on the above subject, and should like to add myself to the number of aggrieved members of the profession in this matter. It was my unfortunate luck some two months ago to get called to a case of assault. The magistrates committed the prisoner to the assizes. In due time my subpœna arrived ordering me to attend at a certain time on a certain day. I went at 10 o'clock—the time named—to find the judge's charge would not be given till 5 P.M., and the cases for trial were to commence the following morning. Well, Sir, I attended the assizes for seven days from about 10 A.M. till 3 P.M., and sometimes after, no one being able to give me any idea as to when my case was likely to come on for hearing; and as I had a railway journey of fourteen miles to go each way (Liverpool), I certainly lost much more than I gained as far as remuneration was concerned. I received 10s. 6d. per diem for attending before the local magistrates,

and 21s. per diem, *plus* second class railway fare, at the assizes.

I shall be glad if something could be done by which medical witnesses having to come from a distance could be informed on what day their case was to be heard. Living, as I do, in a country district, it is very inconvenient to attend assizes at such a distance day after day, wasting time when one's own work might have been done at home. If the fees were increased and a special day appointed for the hearing of the case it would be much more satisfactory, and be also a great saving of public money by not having witnesses there day after day doing nothing. I sincerely hope that urgent steps will be taken at once to remedy this grievance.—I am, etc.,

September 19th. VOX ET PRÆTEREA NIHIL.

*** A good deal might be done by more frequently fixing cases for a certain day so as to avoid the unnecessary attendance of witnesses at other times. Most judges, however, are very chary of fixing cases for fear of being left without work to go on with. It is very difficult to predict how long a case may last and consequently when the court will be at liberty to take another; but the number of witnesses kept in attendance on the chance of their case being called on is usually far in excess of what is necessary.

THE SCHOOLBOY'S BEER.

SIR,—In an excellent and suggestive leading article on Schoolboy's Meals, replete with sound sense and true scientific teaching, an expression which you employed is certain to be interpreted by the profession generally, as well as by the public, as commending and sanctioning an allowance of ale at dinner. You say: "The amount of ale should be strictly limited; there is still some room for reform here, though there now hardly anywhere exists that extraordinary possibility of abuse which obtained until quite recently." I submit that there is a general consensus of medical opinion as to the non-necessity of giving any intoxicant to young people in health, and that, therefore, the only reform admissible is the total withdrawal of ale *et hoc genus omne* from a dietary for schoolboys.

The abuse arising from intoxication, such as used to happen occasionally at public and private schools, was trivial compared with the present risk of a strictly limited dietetic sanction and administration as an article of food of a beverage useless in health, while perilous to boys with an inebriate heredity or allied neurosis which makes them more susceptible to the influence of anæsthetics, and less strong in control and in inhibitory power to resist this heightened susceptibility.—I am, etc.,

Grove Road, N.W., September 26th. NORMAN KERR, M.D.

THE SCOTTISH CROWN VACANCY ON THE GENERAL MEDICAL COUNCIL.

SIR,—May I urge medical practitioners resident in Scotland to take action so that the practitioner to be appointed by the Crown be a representative of the great mass of the practitioners of Scotland and not of their medical corporations? The latter are at present over-represented. The Universities of Edinburgh, Glasgow, Aberdeen, St. Andrews, the R.C.P., R.C.S.Edin., and the F.P.S.Glasgow each have a representative upon the Council. The late Sir G. H. B. Macleod was the Scottish Crown nominee, but practically represented the Glasgow University.

It is to be remembered that a few of us have asked the General Medical Council to petition the Privy Council to enact that the number of Direct Representatives be increased; such action being provided for by Section 10 of the Medical Act of 1886. This the Council has refused to do. We have also petitioned the General Medical Council to see that some of the Crown nominations be filled by those who represent the great mass of the profession, and not the diploma-granting bodies. Our wish has been treated with contempt. It is to be remembered that almost all the money employed in supporting the General Medical Council and in administering the Medical Acts is found by the medical practitioners through the payment of their registration fees. If the corporations will exclude the representatives of the profession, then let these corporations pay their representatives. Nor will the bald statement, that the representatives of the corporations represent the profession in general, hold water, because as a rule only the Fellows and Doctors are given the power to vote.

As bearing upon this question, I would call attention to the Report of the Royal Commissioners on the Medical Acts, 1882, page lx, where the following weighty words occur: "While we insist that the reason of the existence of the General Medical Council is the interest of the public, we cannot but recognise the vital interest of the whole medical profession in the constitution of that body. It seems to us highly important that the profession should have full and complete confidence in the Council, and seeing that the governing bodies of the medical corporations, which now elect members to the Council, can hardly be said to represent the great majority of practitioners, we think it advisable to give the general practitioner an effective voice in the body which will be the principal authority of the medical profession. We can see no reason to suppose that the members elected by direct representatives will be less eminent than those nominated either by the Crown or the divisional boards."

Let us see that this valuable recommendation is carried out. To effect this I suggest (*a*) that each practitioner residing in a Scottish parliamentary division write at once to his member of Parliament asking him to use his influence with the Privy Council so that a representative of the Scottish corporations be not appointed as the Scottish Crown nominee, but that a practitioner representative of the great body of the profession in Scotland be elected; (*b*) that the practitioners in each city and town get up a petition to the Privy Council, praying that a Scottish practitioner nominated by Her Majesty with the advice of Her Privy Council be selected from among the profession in general, and that he should not be selected by, or from, the medical corporations; (*c*) that practitioners nominate one of their number for the post. I think that Drs. Farquharson, Clark, Cameron, and other Scottish members of Parliament should be approached at once, and also that the help of the Parliamentary Bills Committee of the British Medical Association should be invited.—I am, etc.,

Liverpool, September 28th. ROBERT REID RENTOUL.

THE ROYAL COMMISSION ON VACCINATION.

SIR,—Allow me to express a hope that my suggestions which you kindly inserted some time ago with regard to vaccination may not be forgotten before the Royal Commission completes its labours. These were principally that some provision should be made with regard to revaccination, and also some means taken to prevent the false security caused by imperfect vaccination by private practitioners, such as their certificates being countersigned by public vaccinators. This must do a great deal to lessen the prejudice against vaccination, a consummation devoutly to be wished. If the Local Government Board was half as active as the anti-vaccinators in distributing leaflets we should have much less of the latter. It is quite certain that vaccination has been at a discount since the Royal Commission has been sitting, and it is to be hoped their future action will in some measure redeem the harm done in the past.—I am, etc.,

September 24th. W. W.

DEAF JURYMEN.

SIR,—The recent retrial before Mr. Justice Collins of a case of murder in consequence of the subsequently-discovered deafness of two of the jurymen, is of considerable importance, owing to the waste of public time and money which such a proceeding involves, not to mention the unnecessary harrowing of the feelings of the prisoner, who may, of course, be innocent. Some means should, therefore, be taken to prevent the recurrence of such a mishap, and for this purpose the following suggestions may be thrown out.

There are two points to be considered: First, no persons unable to hear the evidence should serve on a jury. This may be secured by imposing a small fine on anyone who does so, and now that the subject has been brought into public notice there is less likelihood of this occurring. Secondly, means must be taken to prevent well-hearing persons from obtaining exemption on the plea of deafness. This can only be attained by requiring each person who is exempted to present a certificate from a competent surgeon certifying as to his deafness. The methods employed for detecting malin-

gerers are well known. Most persons suffering from deafness come at some time under the care of an aural surgeon, who is the best able to form an opinion on the subject; and if he certified that the deafness were of a permanent character, the certificate might hold for a greater or less time according to circumstances.—I am, etc.,

Brighton, September 26th. E. CRESSWELL BABER.

ELECTRIC BELTS.

SIR,—Will you allow me to ask, through your columns, any medical men who have friends or patients who have been defrauded by means of so-called "electric belts" sold by an advertising company to communicate with me at their earliest convenience?—I am, etc., A. G. BATEMAN, M.B.,

64, Longridge Road, Hon. Sec., Medical Defence Union.
South Kensington, September 26th.

SUTURE OF THE SPINAL CORD.

SIR,—In the EPITOME of September 24th, paragraph 261, I notice a criticism by Chipault on a proposal of Maydl and others to suture the spinal cord, holding such an operation to be anatomically impossible in the cases suggested, owing to inelasticity of the cord and resistance of the ligaments. The question of spinal lesions is one in which I have for some time taken an interest, and the idea of resection and suture of the cord in certain cases has presented itself. The operation is one which, I hope, will not be lost sight of by surgeons, and I believe, notwithstanding the statement of its anatomical impossibility, that it will yet be performed.

It is unfortunately true that in spinal accidents its applicability must be very limited; but in these days, when the surgeon feels that nothing almost should prevent him attempting to give relief, it is an operation which deserves a trial. It may make all the difference between years of helpless misery and hopelessness and a life of comparative comfort and hopefulness. The operation I would propose is to shorten the spinal column in order to overcome the difficulties referred to, and so permit of the divided ends of the cord being placed in apposition, and suturing of the membranes. Details of the operation would require to be worked out on the cadaver, but there should be no insuperable difficulty in the removal of part or the whole of a vertebra, or portions of two adjacent vertebræ, if necessary, by means of gouges or drills, interfering as little as possible with surrounding liagments, having first ascertained by trephining that retraction of the cord is not so great, or the part requiring resection so extensive, as to render operation obviously impracticable.

Disease only too often performs operations which shorten and variously modify the form of the spinal column, and the surrounding parts adapt themselves marvellously to the altered conditions. Is there, then, any vital objection to antiseptic surgery, acting in a more scientific manner, trying by operation to restore to something like life some cases which, without its aid, must look forward to a future of such utter hopelessness?—I am, etc., D. LECKIE,

Carlisle, September 26th. Medical Staff.

THE PROPHYLAXIS OF TUBERCULOUS DISEASE.

SIR,—The enclosed hints, if widely distributed, might do much to diminish the prevalence of tuberculous disease.—I am, etc.,

Davos Platz, Switzerland, WILLIAM R. HUGGARD.
September 26th.

HINTS TO PREVENT THE SPREAD OF CONSUMPTION.

All cases of tuberculous disease of the lungs ("consumption") take origin directly or indirectly from other cases. This is now an established fact. Infection, however, is easily provided against if certain simple precautions are taken.

The chief modes of infection are

(1) *By inhaling dried and pulverised expectoration.*

This is apt to occur when an ordinary pockethandkerchief is used by a tuberculous person for expectoration. When such a handkerchief is opened, the dried expectoration is likely to be pulverised and diffused through the air. Thus it may be inhaled by others as well as by the patient himself, who is likely to suffer from drawing disease germs into portions of lung previously unaffected.

Another source of pulverised expectoration is the habit of spitting on the ground. The expectoration becomes mixed with dust; and then is easily carried into the air. This habit, therefore, is not merely offensive, but dangerous.

(2) *By using spoons, cups, and other articles of the kind which have not been properly washed after having been used by tuberculous persons.*

(3) *By kissing.*

This source of infection is especially to be guarded against in the case of children.

Self-infection may occur, in addition to the ways mentioned, *by swallowing the expectoration.* This habit is likely to lead sooner or later to infection of the intestines with tuberculous disease.

Knowing the channels of infection, we can easily take effective *precautions.*

The sputum must be destroyed and must not be allowed to become dry.

A spitting cup or flask containing just enough disinfectant solution to cover the bottom of the vessel should always be used for the expectoration. Out of doors a pocket spitting flask, such as Dettweiler's, should be employed.

Pieces of linen or calico about 10 inches square may also be carried. These should be use only in cases of absolute necessity, and should be burnt as soon as possible afterwards. No piece should be used more than once.

Bedrooms that have been occupied by tuberculous patients *should be thoroughly disinfected* before they are occupied by other persons; and a declaration or assurance on the point should always be demanded.

If the previous occupant of the room never allowed the furniture, hangings, or carpets of the room to be contaminated with the sputum, there would be little need for this precaution. But as people, ordinarily of cleanly personal habits, sometimes show a surprising amount of ignorance or carelessness in this respect, the following points should be insisted on:

(1) Carpets, curtains, and bed-coverings should have been exposed to superheated steam under high pressure.

(2) The floor and walls of the room should have been properly disinfected. (Rubbing with new bread, followed by the application of corrosive sublimate solution, is probably the most effective practical method.)

There is *no danger of infection from the breath of a tuberculous patient.* The sole danger of social intercourse arises from neglect of the precautions described.

Fresh air is of the highest importance for tuberculous persons. Hot and stuffy rooms have an evil influence over the disease. Except in special circumstances, the bedroom window should be kept open by night as well as by day.

OBITUARY.

ROBERT HESLOP, L.R.C.S.EDIN., L.S.A.

WE have to announce with regret the death, at Southport, on September 21st, of Mr. Robert Heslop, L.R.C.S., L.S.A., a well-known Manchester practitioner, at the age of 68. He was educated at Sedbergh Grammar School, and received his medical education at the old Pine Street School of Medicine in Manchester. He was actively engaged in general practice in Stretford Road, Manchester, for a period of over 30 years. He was surgeon to St. Mary's Hospital for 20 years, and for the last 10 years he was on the consulting staff of that hospital. He was a general practitioner of the old school and one of the best examples of a now fading type. His cheery bearing and kindly nature endeared him to all with whom he came in contact. He leaves two sons, members of the profession; the younger in practice at Blackpool, and the elder, who succeeded to his father's practice in Manchester, is the well-known divisional police surgeon of that city. Mr. Heslop succumbed to vesical disease, borne with great fortitude, and was interred at Southport on Saturday, September 24th.

FREDERICK WILLIAM SALZMANN, M.R.C.S., L.S.A.

MR. F. W. SALZMANN, who died recently at the age of 47, was educated at Guy's Hospital, which he entered in 1862. He became a Member of the College of Surgeons in 1866, and shortly afterwards was appointed House-Surgeon to the Brighton and Hove Lying-in Institution, where he acquired that love for the obstetrical branch of the profession in which he was so successful in after-life. On a vacancy occurring in the Sussex County Hospital, where he had been a pupil for two or three years before entering at Guy's, Mr. Salzmann was appointed House-Surgeon without opposition, and held the post till 1870, when he joined his brother-in-law, Mr. J. N. Winter, in partnership as a general practitioner in Brighton. He was almost immediately elected Honorary Surgeon to the Brighton and Hove Lying-in Institution, an appointment which he held for many years, only giving it up in consequence of the growing demands on his time made by his own private practice. In recognition of his valuable services the Committee appointed him Honorary Consulting Surgeon. He was a Fellow of the London Obstetrical Society, as well as their local honorary secretary, and was much appreciated by many of the London obstetricians. He was a past president of the Brighton and Hove Medico-Chirurgical Society.

Mr. Salzmann was regarded with esteem and affection by

his patients—rich and poor alike—and he was always willing to give his services to those requiring them with a disregard to pecuniary reward rarely met with, and he will be missed by very many. He was a great reader on all kinds of subjects and found his best recreation and truest delight in his library. In later years his health had been visibly affected by the strain of continued devotion to his profession without needful rest and change, and he had become subject to dyspepsia. The apparent cause of his death was gastric ulcer, though this was not absolutely ascertained.

EDWIN FURSE, M.R.C.S.Eng., L.S.A., J.P.

We regret to have to record the death from heart disease of Mr. Edwin Furse, which took place at Exmouth on September 12th. For some three years past he had been in bad health, and sought medical advice in London. He, however, continued in practice at Southmolton until about two months ago, when he resigned his professional duties, and went to Exmouth for a change. He gradually grew worse, and died at the age of 54.

Mr. Furse was the youngest son of the late Mr. Robert Furse, and was highly respected in Southmolton and the neighbourhood. He took the diploma of M.R.C.S.Eng. in 1861. For a number of years he was a member of the Southmolton Town Council, and he occupied the position of chief magistrate of the borough in the year 1876-7, shortly after which date he was appointed a justice of the peace for the borough, and last year a similar honour was conferred on him for the county of Devon. He was also an alderman of the borough, and acting surgeon of the 4th V. B. D. R., in which battalion he took great interest. Only a few days before he left Southmolton he presented a valuable cup for competition amongst the local volunteers. The deceased was twice married, and leaves a widow.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ADVERTISING DENTISTS AND MEDICAL TESTIMONIALS.

The dental profession has recently held its annual meeting at Manchester, when both the retiring and in-coming President alluded in strong terms to the various methods adopted by advertising dentists to evade the Dentists Act, and letters have appeared upon the subject in the columns of the British Medical Journal from a medical man in Manchester and two of the leading dentists in London. One of them, Mr. Morton Smale, referred to the support given by medical men to the advertising or unqualified or unregistered dental practitioner. An example of perhaps one of the worst forms of this has been sent to us. It is to be regretted that a gentleman holding qualifications such as those appended to the signature of the letter could be found so far to forget his own dignity and the honour of a younger branch of the medical profession as to write a testimonial to a person guilty of such an advertisement. The advertisement and testimonial are as follows, but for the credit of our own profession we have erased the name of the gentleman who wrote the testimonial, but hope, nevertheless, that he may in the future cause the publication of both his name and testimonial to be withdrawn:

"Artificial teeth. A complete set for £1 1s.; single tooth, 2s. 6d. A written guarantee for five years with every set of teeth. Misfits remodelled, no matter where made, and cases repaired. Country patients supplied in one visit. Teeth scaled and filled. Painless extractions with gas. These teeth are fitted by atmospheric action and without fastenings of any kind; they are adjusted without extracting loose teeth or stumps, and do not give the slightest pain. Testimonial from Dr. ———:

"'Scarborough, May 3rd, 1890. I have much pleasure in rendering my testimonial to the very superior workmanship in your dental department, not only from those supplied to myself, but from several others I have met with since you have opened your Scarborough branch; and from your moderate charges, either for a few or a complete set of teeth, I have no doubt you will meet with every success.———, M.D., M.R.C.S.'

"The London Dental Supply Association, 24, Westborough, Scarborough (over Cox's Toy and Fancy Repository). Attendance every Thursday, from 10 A.M. to 4.30 P.M. Also at Ludgate Hill, London; and 52, Whitefriargate, Hull."—*Scarborough Evening News*, August 27th, 1892.

PATIENTS AND PRACTITIONERS.

Perplexed writes: Dr. A. and I are on the best of friendly terms. Six months ago I was asked by him to see the child of B., a patient of his, in consultation with him. I did so, and heard from him that my advice had, fortunately, been of good service. I had no conversation with B. at the time except in A.'s presence, and I have not seen or heard from B. till a day or two ago. A few days ago B. called on me and desired me to attend her at her confinement due some month or two hence. I at once referred her to A., and pointed out that it would, in my opinion, be very objectionable that I should take from A. a patient to whom I had been introduced by him in mutual confidence. B. replied that she had made up her mind to discard A. as her medical attendant, and that if I did not care to attend her she would call in C., another medical man, but, meantime, would wait for the result of my appeal to you. Knowing that a patient has an absolute right to change his or her medical adviser, I wish to know whether, in view of B.'s determination not again to employ A., I should still refuse to attend her, as C. will be the only one to benefit by my so doing.

*** Perplexing as may seem to be the position of our correspondent (whose ethical procedure in relation to the case has, we gladly note, been in strict accord with professional etiquette), we think that the apparent difficulty may readily be solved by his calling upon and explaining to Dr. A. the contingent circumstances in which he, "Perplexed," is placed, and frankly soliciting an expression of his views and wishes thereon, and being guided thereby, for it would, in our opinion, be better to sacrifice an intending patient rather than the amity of a brother practitioner with whom he is "on the best of friendly terms." If Dr. A. be, as we assume, a reasonable and considerate practitioner, he cannot hesitate, annoying though the loss of a married lady patient could scarcely fail to be, to release "Perplexed" from his medico-ethical obligation, and so tend to strengthen their existing bond of union.

M.B.Glas. and L.R.C.P.&S.Ed.—A careful and unbiassed consideration of the points involved in the correspondence which has passed between M.B.Glas. and L.R.C.P.&S.Ed. in relation to our comments on the case which appeared in the British Medical Journal of September 10th, p. 590, under the above initials, leaves a distinct impression upon our mind that both parties have, as is too often the case, been, perhaps unwittingly, deceived by the patient and relatives. Be that, however, and the alleged "true facts," what they may, it is, we think, much to be regretted that "M.B." should not only have rejected "L.R.C.P.'s" courteous explanatory disclaimer, but have addressed thereto a reply such as that bearing date September 13th, by which, however seemingly just may have been his complaint in the first instance, he has, in our opinion, clearly put himself in the wrong. This view is accentuated, moreover, by "L.R.C.P.'s" explicit disavowal of the imputation which, to our mind, bears the impress of truth. Need we add that such a line of action ill calculated to promote professional harmony and good feeling, and therefore, from our point of view, is more especially regrettable?

PARTNERSHIPS BETWEEN MEDICAL MEN AND DENTISTS.

Spes writes: Would a legally qualified practitioner be likely to incur the censure of the General Medical Council, 1, by entering into partnership with a legally qualified and registered dentist, one doing the medical part of the practice and the other the dental, or acting as an assistant to a registered dentist?

2. Or by entering into partnership, or becoming the assistant of a qualified and registered chemist?

*** 1. We know of no legal objection to a partnership between two practitioners, each of whom is duly qualified and registered by the General Medical Council, though the particular combination suggested is, we believe, unusual.

2. The partnership or assistancy here suggested is open to many grave objections, and would certainly meet with the disapproval of the General Medical Council and of the profession at large.

MIDWIFERY FEES.

Beta writes: I was rung up at 5 A.M. and asked to attend a confinement, as the family doctor, Dr. A., is from home. I do so, and find it is a miscarriage about the third month. Next day I called twice. The day after Dr. A. returns and takes charge of the case. Who gets the fee?

*** Inasmuch as the above case cannot be regarded as a confinement—for which "Beta" would otherwise be entitled to one-half the fee—but simply as an abortion, it should, in our opinion, be governed by the following rule, extracted from the Ethical Code, chap. II, sect. 5, rule 7, modifiable by the degree of intimacy and any reciprocal professional arrangement that may exist between Dr. A. and himself.

Should "Beta" be in doubt as to the fees chargeable for his professional attendance, he will be able to solve the difficulty by referring to "Miscarriages" in the explanatory notes of the *Medico-Chirurgical Tariff*, page 14:

"When a practitioner is called to an urgent case, either of sudden or other illness, accident, or injury, in a family usually attended by another, he should—unless his further attendance in consultation be desired—when the emergency is provided for, or on the arrival of the attendant in ordinary, resign the case to the latter; but he is entitled to charge the family for his services."

MEDICAL WITNESSES AT THE COURTS.

A Correspondent writes to complain that, as one of the honorary surgeons of an important infirmary, he has been summoned to give evidence in the police court; and in the report, as published in the *Cheshire Observer*, it appears that at the court our correspondent questioned the conduct of the magistrates in issuing a summons for his attendance, stating that he considered the attendance and evidence of the house-surgeon sufficient, and designating the issue of a subpœna to himself as "a great piece of impertinence."

*** The case was one in which a charge of murder had been preferred, and in such cases the evidence of two and often more medical witnesses is required in the interests of justice, more especially when the verdict is dependent on the result of such evidence,

and it is not for the medical witness to discuss the value of his evidence, or why or wherefore he is summoned. We are fully aware of the inconvenience, loss of time, and often very inadequate remuneration which fall to the lot of medical witnesses in the criminal courts; but nevertheless, when subpœnaed on behalf of the Crown, they are bound to attend in the performance of a public duty, as witnesses in the cause of truth and justice. Had our correspondent attended in the spirit we suggest, he would certainly have spared himself the unpleasant criticism which the magistrates felt compelled to make in reply to his ill-advised observations on the subject.

ASSISTANTS AND FEES.

SENEX writes: I had an assistant A. who gave a lunatic in charge to the police. A. went the following Saturday, at great inconvenience to myself and patients, to the police court, which entailed a journey by train, and gave evidence: he was promised a guinea and expenses, but before he got the fee he left me, as we had arranged some months before. The police now refuse to pay me. What remedy have I?

*** The police authorities may decline to recognise or pay anyone except A., whom alone they employed. He has a claim to the fee. Whether he is obliged to hand it, or any part of it, over to his principal is a matter depending on the terms of the agreement under which he was engaged. If he agreed to hand over such fees, the amount when received by him may be recovered from him through the medium of the county court.

MEDICAL AID SOCIETIES.

MEDICUS writes to ask our opinion of the National Medical Aid Co., Lim. We have had numerous letters in the past relative to this enterprising society, and we have frequently before, in the columns of the BRITISH MEDICAL JOURNAL, pointed out that a medical man will best consult his own dignity by having nothing to do with it. There can be little temptation on the score of pecuniary profit, as the acceptance of members at the rate of one half-penny per week can hardly prove lucrative to the medical officer, while the system of "touting," as practised by this society, by means of which they endeavour by the smallness of their fees to procure for their medical officer the patients of other medical practitioners, cannot be too strongly condemned.

UNQUALIFIED ASSISTANTS.

F.H.A. writes: Can a medical man recover for attendance by an unqualified assistant?

*** The reply to our correspondent's question depends materially upon the facts of each particular case. If the relation of master and servant is clearly established, and if the assistant acts strictly under the guidance of the former and after consultation with him and not on his own responsibility, the master would probably be able to recover. The case would be strengthened where the master has made some personal visits. Strictly speaking, of course the practice of an unqualified assistant should be confined to his master's house.

COVERING.

L.S.A. puts the case of an unqualified practitioner, A., attending cases of scarlet fever and calling in a qualified surgeon, B., to see the patients, notify, and claim the fee.

*** Having seen the cases, B. is legally bound to notify them, and entitled to the fee for doing so, but the implied collusion with A. is of course unpardonable.

MEDICO-ETHICAL RULES.

DROIT asks: A system of rules on medical etiquette is frequently referred to in the BRITISH MEDICAL JOURNAL; where can such a code be obtained?

*** The "system of rules on medical etiquette," to which our correspondent refers, is known by the title of the *Code of Medical Ethics* which has passed through four editions, and is now published by Mr. H. K. Lewis, 136, Gower Street, W.C., price 3s. "Droit" will find it advertised in the Educational Number of the BRITISH MEDICAL JOURNAL of September 3rd.

A PARTIAL CHAIRMAN.

SYNCHRONAL.—We would hope that our correspondent has either been unintentionally misled, or that the alleged facts have been unduly magnified, inasmuch as for the chairman of a local board wittingly to avail himself of the information contained in an official document with a view to benefit his son professionally, and disparage an assumed rival practitioner, would, we take it, irrespective of the libellous language alleged to have been used, constitute a more or less grave breach of official duty. If the facts can be established, they could scarcely fail to induce the Local Government Board, if appealed to, to administer an official rebuke to the offending chairman. Before having recourse to such a step, however, we would especially counsel our correspondent to be sure of his assumed facts, otherwise the imputation would recoil upon himself, and seriously endanger his position.

CORONERS' INQUESTS AND MEDICAL DEATH CERTIFICATES

DR. EDWARD RICE (Oxford) writes with reference to the statement that it is an offence against the law to give a certificate for registration of "the death where an inquest is required by law." I have looked up the point several times, but have failed to find any Act dealing with this question, and have always thought that provided a practitioner gave an absolutely true certificate of the cause of death he incurred no further responsibility; and that the duty of informing the coroner rested with the friends of the deceased, or the registrar, who is allowed a certain amount of discretion as to whether to accept a certificate or not. Of course I do not dispute for a moment the advisability of a practitioner refusing to give a certificate under certain circumstances and advising the death to be reported to the coroner, as a matter of courtesy and public expediency; but I am not aware of any compulsion on the part of practitioners generally to act as "jackal" to coroners.

*** Our correspondent expresses the state of the case correctly. There does not appear to be any law requiring that a medical man shall not give a certificate under certain circumstances, however inexpedient it may be. There can be no doubt, however, that it is desirable that whenever the death has resulted directly or indirectly from violence, the coroner should be communicated with before the certificate is given, as it is not within the province of the medical man to decide whether the "causing" violence was accidental or not.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF: EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office orders with the notice. The first post on Thursday mornings is the latest by which advertisements can be received.

A Surgeon-Major wishes exchange home. Arrived Bombay Presidency last April. Healthy station and capital shooting.—All particulars to "Surgeon-Major," care of G. Utke, Esq., 71, Leinster Road, Rathmines, Dublin.

THE NAVY.

STAFF-SURGEON H. E. F. CROSS is promoted to be Fleet-Surgeon, September 3rd. He was appointed Surgeon, March 31st, 1877, and Staff-surgeon twelve years therefrom. He was Surgeon of the *Orontes* during the Zulu war in 1879 (medal); Surgeon of the *Téméraire* at the bombardment of the Alexandrian Forts in 1882, and during the subsequent Egyptian war (medal and clasp, and Khedive's bronze star). During the operations in the Eastern Soudan, in 1884, he served with the Royal Marine Battallion, and was present at the battles of El Teb and Tamaai; he was wounded, was mentioned in despatches, promoted to be Staff-Surgeon for his services, and received the clasps for Suakin and El Teb-Tamai.

Staff-Surgeon ALFRED T. CORRIE is promoted to be Fleet-Surgeon, September 8th. He was appointed Surgeon, March 31st, 1872, and Staff-Surgeon twelve years therefrom. He was with the late Commodore Goodenough at Santa Cruz Island, South Pacific, in 1875, when a most treacherous attack was made by the natives on the boats, resulting in the death of the commodore and two men. Fleet-Surgeon Corrie was in medical charge of the boats sent to punish the outrage. He forwarded notes of the cases of arrow wounds following this attack to the *Lancet*, and he is also the author of a valuable paper on "Lord Howe Island," published in the *Transactions of the Royal Geographical Society*.

Staff-Surgeon W. B. DREW is promoted to be Fleet-Surgeon, September 18th. His commission as Surgeon dates from September 30th, 1871; that of Staff-Surgeon from September 30th, 1883. He was Surgeon of the *Cockatrice* during the Egyptian war of 1882 (medal and Khedive's bronze star), and served with the Royal Marine Battalion at Suakin during the operations in the Eastern Soudan in 1884-85.

The following appointments have been made at the Admiralty: JAMES MCC. MARTIN, Surgeon, to the *Daphne*, undated; EDWARD C. WARD, Surgeon, to the *Hyacinthe*, undated; ERINGTON F. S. MCKAY, Surgeon, to the *Herald*, September 23rd; HENRY E. SOUTH, Surgeon, to the *Nymph*, September 23rd; BOBLEY H. BROWNE, Surgeon, to the *Victory*, additional, September 29th.

ARMY MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL R. P. FERGUSON is promoted to be Surgeon-Colonel, *vice* A. Allan, M.D., deceased, September 6th. Surgeon-Colonel Ferguson entered the service as Assistant-Surgeon, March 31st, 1862; became Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; received the rank of Lieutenant-Colonel, March 31st, 1882; and was made Brigade-Surgeon-Lieutenant-Colonel from April 13th, 1887. He served in Bhootan in medical charge of the Royal Artillery during the campaign of 1864-65, and was present at the attack and capture of Bala and Buxa Dooars (medal with clasp); in the Afghan war in 1878-79 with the Second Division Peshawur Valley Field Force (medal); and in the Egyptian war of 1882 (medal and Khedive's star).

Surgeon-Lieutenant-Colonel R. G. EATON is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* R. P. Ferguson, September 6th. His previous commissions are thus dated:—Assistant-Surgeon, March 31st, 1866; Surgeon, March 1st, 1873; Surgeon-Major, March 31st, 1878; and Surgeon-Lieutenant-Colonel, March 31st, 1886. He served in the war in Afghanistan in 1878-80, and received the medal for that campaign.

Brigade-Surgeon-Lieutenant-Colonel G. W. MCNALTY, M.D., who has been serving in India since October, 1887, is directed to proceed from India for retirement from the service on superannuation.

Surgeon-Lieutenant-Colonel E. J. FAIRLAND has been appointed Assistant-Professor of Military Medicine at Netley, *vice* Brigade-Surgeon-Lieutenant-Colonel W. F. Stevenson, transferred to the Chair of Military Surgery, in place of Surgeon-Colonel Godwin.

Surgeon-Lieutenant-Colonel F. E. BARROW has been appointed to the medical charge of the troops at Fermoy, *vice* Surgeon-Lieutenant-Colonel Eaton, transferred to the Curragh.

Surgeon-Lieutenant-Colonel W. F. BURNETT, Surgeon-Captains R. J. A. DURANT, J. B. W. BUCHANAN, M.B., S. J. W. HAYMAN, and R. J. D. HALL

at present serving in the Bombay Command, have on completion of their six years' tour of Indian service, been selected to return to England during the trooping season of 1892-93.

Deputy-Surgeon-General George William Powell died suddenly on September 15th. He entered the service as Assistant-Surgeon, August 20th, 1844; became Surgeon, March 28th, 1854; and Surgeon-Major, September 27th, 1865. He retired on half pay, with the honorary rank of Deputy-Surgeon-General, October 4th, 1873.

ARMY MEDICAL RESERVE.

Surgeon-Major C. T. Vachell, M.D., and Surgeon-Captain C. P. Oliver have resigned their commissions. Dr. Vachell's dated from May 23rd, 1888; Surgeon-Captain Oliver's from July 15th, 1891.

Surgeon-Captains J. K. Butter, M.D., 2nd Volunteer Battalion South Staffordshire Regiment (late the 3rd Stafford), and John Cunningham, M.B., 1st Argyll and Bute Volunteer Artillery, are appointed Surgeon-Captains of the Reserve, September 28th.

INDIAN MEDICAL SERVICE.

The services of Surgeon-Captain A. W. Alcock, M.B., Bengal Establishment, Surgeon Naturalist to the Marine Survey of India, are placed permanently at the disposal of the Government of Bengal.

Surgeon-Major M. S. Eyre, Madras Establishment, is, as a temporary measure, appointed to be Civil Surgeon of Pakokku, in addition to his military duties.

Surgeon-Major D. S. E. Bain, Madras Establishment, is permitted to return to duty within the period of his leave.

Surgeon-Lieutenant W. E. A. Armstrong, Madras Establishment, is directed to do duty in the Southern District.

Surgeon-Lieutenant-Colonel D. D. Cunningham, Bengal Establishment, Officiating President of the Zoological Garden, Calcutta, is confirmed in that appointment, *vice* Sir J. Edgar, K.C.I.E., C.S.I., resigned.

Surgeon-Major W. R. Browne, M.D., Madras Establishment, Surgeon to the General Hospital, and Professor of Surgery, Madras Medical College, is appointed a Fellow of Madras University.

Surgeon-Major H. Allison, M.D., Madras Establishment, Fort Surgeon, and Professor of Anatomy, Madras Medical College, is also appointed a Fellow of Madras University.

Surgeon-Captain H. W. Stevenson, Bombay Establishment, is appointed to act as medical officer on the staff of the Governor of Bombay during the absence of Surgeon-Major H. H. Martin, M.B., on privilege leave.

The undermentioned officers have leave of absence as specified:—Surgeon-Major W. A. Gilligan, Bengal Establishment, for six months on medical certificate; Surgeon-Lieutenant-Colonel E. Palmer, Bengal Establishment, 9th Bengal Lancers, to proceed out of India on medical certificate for four months and fifteen days; Surgeon-Major W. K. Hatch, M.B., Bombay Establishment, acting Senior Medical Officer, Jamsetjee Jejeebhoy Hospital, Bombay, privilege leave for three months from September 24th.

Surgeon-Captain R. C. Macwatt, Bengal Establishment, has passed the examination in Hindustani by the higher standard.

Deputy-Inspector-General William Campbell, M.D., late of the Bombay Establishment, died at Folkestone on September 19th, at the age of 74.

It is announced from India that the designation of the Principal Medical Officers of Her Majesty's Forces in Madras and Bombay is to be altered to Principal Medical Officer of Her Majesty's Forces, Madras Army and Bombay Army respectively, so as to distinguish them readily from the District Principal Medical Officers located in the towns of Madras and Bombay.

THE VOLUNTEERS.

Surgeon-Lieutenant H. Gurney, 1st Essex Artillery (Eastern Division Royal Artillery), has resigned his commission, which was dated September 4th, 1889.

ACQUIREMENT OF THE RUSSIAN LANGUAGE.

The following new rules regarding the acquirement of the Russian language have been published:—Officers of the Indian Army and of the Indian Medical Service proceeding from India to Russia, in order to qualify as interpreters in the Russian language, if subject to the leave rules for the Staff Corps, will be considered as on leave from date of quitting appointment to date of arrival in Russia, and from date of quitting Russia to date of rejoining appointment in India; and if they are subject to the military furlough regulations for 1868 or 1875, they will be entitled to count as Indian duty for promotion and pension, but not as service for furlough, the period from the date of quitting India until date of arrival in India within two months after their final examination. They shall, however have the option of counting the whole or a portion of such period as furlough and of drawing furlough pay accordingly, so far as they are eligible for such furlough under the furlough regulations to which they are subject. Officers of the Indian Army and Indian Medical Service, who may be permitted to proceed to Russia from India, and who may succeed in qualifying to be interpreters, will receive a gratuity of £200, and a further sum of £20 towards the cost of the journey to Russia, plus half of the consolidated sum of £32 or £42 which is allowed to officers who have proceeded from England for travelling expenses to and from St. Petersburg or Moscow, as the case may be.

THE NEW QUEEN'S REGULATIONS.

Observer writes: In the new issue of these Regulations the unsatisfactory position of medical officers has not been remedied; he notes the following: (*a*) Sec. xvii, paras. 39 and 43, and Sec. xv, paras. 37 and 39: Medical officers are to attend, but not form parts of, mixed boards on ships, buildings, or sites for hospitals or barracks; but there is one concession, probably wrung from the powers by the action of the British Medical Association, medical officers may be appointed presidents (why not members also?) of mixed courts of inquiry, committees, and boards when, in the opinion of the officer convening the board, it is considered desirable they should act in that capacity (*vide* Sec. vi, para. 126). It is strange that the Queen's Regulations exclude army medical officers under all circumstances from membership of mixed boards, even on sanitary subjects; but under the rules of procedure they may be members of courts of inquiry on the same subjects. These points may be commended to members of Parliament. The best medical officers fight shy of attending sanitary boards, where they feel in a degraded position devoid of influence.

(*b*) There is still no recognition of the rank of Surgeon-Major-General in the turning out of guards. This has nothing to do with discipline or command, as has been falsely asserted, but is an honour paid to a particular commission (*vide* Sec. iii, paras. 25 and 33).

(*c*) The principal medical officer of an army in the field is removed from the staff of the Commander-in-Chief, and sent back to the lines of communication, to satisfy the vanity of some military advisers who are above taking medical opinion. Is this in the interests of the army or the State?

(*d*) The medical is always last on official lists.

The foregoing are still retained in the Regulations to soothe the prejudices of a small but influential military class, who have too long regarded the army as their own happy hunting ground. Will the new Government do nothing?

*** The above are among the points to which the Parliamentary Bills Committee of the British Medical Association propose to draw the attention of the new Secretary of State for War, as well as independent members of Parliament. We are not without hope that in time the Regulations for the Army may be brought into line with facts and equity.

THE DEPRECIATED RUPEE.

Medical Staff says: Your statement that the purchasing value of the rupee in India is greater than its exchange value is hardly fair, and an exaggeration; because nearly all the supplies we consume are imported, and the English value, *plus* carriage, have to be defrayed by a rupee at 1s. 2d.; meat, milk, butter, vegetables, and firewood are about the extent of the country supplies we consume. Besides we have to remit home at exchange value money to support our families. For aught we can tell the current rate of exchange may soon be 1s., or even 9d.

MILITIA MESS ALLOWANCE.

Fiat Justitia complains that while combatant officers of the regular army, detached from their regiments for the purpose of assisting in the drill and instruction of militia during training, receive a mess allowance of 4s. per diem (para. 519 Allowance Regulations), medical officers similarly employed are denied it.

*** We have several times before dealt with this complaint. As the allowance is also granted to militia officers, and as the regular medical officer has replaced the extinct militia surgeon, we think it both wrong and shabby that it should be refused him; in most cases he must join in the mess or go without food.

STUDY TIME AND EXAMINATION FOR PROMOTION.

Medical Staff writes: The hardships attending an examination for promotion in India are well shown in the following case: An officer got six months' warning, which was fair enough; but the hot season was on; some of the troops were in cholera camp; and just as he commenced reading he was attacked with enteric fever. The result was that when the time came he was "ploughed!" The circumstances were probably unknown at home, but no doubt a black mark for having failed was put against his name. Is it right to expect a man so situated to pass a stiff examination?

India writes: I fully endorse your remarks respecting the necessity of granting special leave for study at some large civil hospital. I may have been unfortunate, but I can safely say that during thirteen years' service I have never performed, nor had an opportunity of seeing performed, a single operation at any of the hospitals to which I have been attached for duty.

*** Our correspondent must refer to capital operations.

Another A.M.S. writes: There are many besides myself who fully endorse your editorial remarks on the examination of surgeon-captains. We have no special leave for study, and many of us are quite unable to get up what may be called the fads of an examiner, and suffer accordingly. The standard is evidently pitched too high for all practical purposes. To be plucked in this way is most disheartening, and ill calculated to stimulate to the performance of duty afterwards.

Surgeon-Captain writes: Your remarks on the recent—the second—examination for promotion to the rank of surgeon-major equally apply to the first under the new regulations. At many of the centres of examination four out of five candidates have been rejected in medicine or surgery or both. The standard is absurdly high, and the result of the passing over will lead to the retirement of many tried and zealous officers. It is impossible that officers knocked about all over the world, and often doing duty in the tropics under the most adverse circumstances, can make up the work with the exactitude required by the "two gentlemen appointed by the Secretary of State for War." Besides, the average age—about 35—of the officers makes it difficult or impossible for them to cram with the avidity of medical students. It is time the matter was brought to the cognisance of the authorities.

*** We had not heard of such a large proportion as four out of five being rejected anywhere; but if such be the case, it affords strong presumptive evidence of a preposterously high standard of examination. It is strange how seldom examiners can hit a happy mean; their very extravagance has before now led to the abolition of the examination—as in the case of that for the rank of brigade-surgeon.

IN *RE* CHOLERA.

M.D. writes: Should cholera unhappily slip past our sanitary sentinels, I see it is proposed by the public health authorities to appoint extra medical men to assist them in dealing with it. May I remind these authorities that there are a large number of army medical men in the country who have had practical experience of the disease in its worst form in tropical countries, and know how to deal with it? The appointment of such men as cholera experts might do much to allay panic.

MAXIMUM AGE OF CANDIDATES.

M.B. sends us extracts of correspondence in some of the Irish papers, advocating the extension of age for admission into the Medical Staff, to compensate for the extra year of study enforced by the General Medical Council. The limit is now 28, but our correspondent thinks it ought to be 29 or 30, as, he says, "the great majority of students enter on their medical study at 21." We are not prepared to say yes or no to this suggestion without full discussion, and hearing all sides of the question. We cannot but think it is an absurd mis-statement to say the "great majority" do not begin medical study until 21; the average age is certainly much younger. But be that as it may, we fear that the mature man of 30, of formed habits, is not likely to take kindly to army medical life; this, we know, is the experience of those best acquainted with the service, and we have an idea that the military authorities like to catch their medical (as other) recruits young. We believe that during recent years the average age of successful candidates for the medical staff has ranged between 23 and 24 years, and it has been noticed during the varying fortunes of the department, that as its popularity waxed the average age fell, and as it waned it rose. Various inferences may be drawn from this curious fact, but we doubt if it would be considered a ground for extending the age of competitors.

SICK LEAVE.

A.M.S. writes: Will any of your correspondents answer the following question: Whether a surgeon-captain, compelled by medical board, through bad health incurred by tropical service, to take the full amount of sick leave granted (eighteen months on full pay) will suffer either towards promotion or retirement?

*** The question is easily answered by referring to the Regulations; the officer will not suffer if he has only the maximum sick leave allowed; if leave goes beyond that, of course he suffers certain disabilities clearly laid down.

MEDICAL NEWS.

MR. W. DUNNETT SPANTON has been placed on the Commission of the Peace for Staffordshire.

DR. D. NOËL PATON, Lecturer on Physiology in the Edinburgh School of Medicine, and formerly Examiner in Physiology in the University of Edinburgh, has been appointed Examiner in Physiology for Degrees in Medicine in the University of Glasgow.

A MEMORIAL tablet has been placed on the house at Bergen, in Rügen, in which Professor Billroth, who on October 1st celebrates the twenty-fifth anniversary of his appointment to the chair of Surgery in the University of Vienna, was born on April 26th, 1829. The tablet was formally dedicated by Professor Schmidt, of Leipzig. A *Festschrift* is being prepared by Professor Billroth's pupils in honour of his jubilee, and the students are to have a *Festcommers*, to be followed by the usual torchlight procession in the evening.

ITALIAN CONGRESS OF MEDICINE.—The programme of the fifth Italian Congress of Medicine, which, as already announced in the BRITISH MEDICAL JOURNAL, will be held in Rome on October 26th, 27th, and 28th, includes discussions on the following subjects: Focal Changes in the Cerebellum, and Curative Measures, to be introduced by Professors L. Bianchi and F. Vizioli; Aërotherapeutics, to be introduced by Professors C. Forlanini and B. Luzzatto; and Rheumatic Infection, to be introduced by Professors A. Riva and T. Gualdi.

UNIVERSITY OF VIENNA.—From the prospectus of the University of Vienna for the winter semester of 1892-93, which has just been published, it appears that last summer the number of students was 4,919, of whom 2,380 belonged to the medical faculty. Of these, 606 were "extraordinary" students. Among the foreigners the Russians head the list with 81, the United States coming second with 47. The active teaching staff numbers 60 professors, and 71 lecturers and assistants, who during the forthcoming winter semester will give 190 courses of lectures and practical instruction.

PROFESSOR MOLESCHOTT.—The friends and admirers of Professor Jacob Moleschott, of Rome, who celebrated the completion of his seventieth year on August 9th, propose to commemorate his services to science by placing a bronze bust of him in his lecture room. A committee has been formed for the purpose, which includes the names of Professor Bizzozero, Mosso, Albertoni, Struever, Luciani, and others of hardly less note. An appeal has been issued for subscriptions. It is intended to postpone the formal celebration of Professor Moleschott's Jubilee till December 16th, which will be the 31st anniversary of his first academical lecture (in the Ateneo at Turin) in Italy. Professor Moleschott, was born at Herzogenbusch in Holland in 1822, and after lecturing privately at Heidelberg, was called to Zürich in 1856, was appointed to the Chair of Physiology at Turin in 1861. He was called to the corresponding chair in Rome in 1878. He was created a Senator of the Kingdom of Italy some years ago. The list of his contributions to scientific literature is a long one, beginning with a dissertation entitled "De Malpighianis pulmonum vesiculis," presented to the University of Heidelberg for his degree in 1845.

PROPOSED HIGHER MEDICAL DEGREE IN FRANCE.—The French Minister of Public Instruction has, it is stated, submitted to the Council of the Faculties of the Universities of France a proposal for the establishment of a medical degree superior to the ordinary M.D., carrying with it the style and title of "Docteur ès Sciences Médicales" (Doctor of Medical Science). The utility of the proposed new degree is not apparent, but the mere fact that such a proposal has been seriously made in a country like France, where the titles question has no real existence, will serve to show what may be expected on this side of the Channel when we are all full-blown Doctors of Medicine.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Franz Romeo Seligmann, Emeritus Professor of the History of Medicine in the University of Vienna and a distinguished Orientalist, aged 85; Dr. C. E. Pillat, Honorary Professor in the Medical Faculty of Lille; Dr. W. J. Porái-Koschiz, *Privat-Docent* of Dermatology and Syphilography in the University of Charkoff; and Dr. Anders Anderson, some time Professor of Obstetrics and Gynæcology in the Mecical Faculty of Stockholm.

LITERARY INTELLIGENCE.—Dr. Oliver Wendell Holmes is now at work dictating reminiscences of his long and well-filled life. He has not, it is stated, yet made up his mind whether they shall be published during his lifetime, or kept till he is beyond the reach of reviewers—and interviewers. In the latter case we hope the delay in the appearance of the book may more than fulfil the Horatian precept, *Nonum prematur in annum*.—Messrs. Oliver and Boyd have in the press the first volume of a large work by Dr. J. W. Ballantyne, of Edinburgh, entitled, *Diseases and Deformities of the Fœtus*, which is described as an attempt towards a system of antenatal pathology.—It is announced that the Rev. H. R. Haweis is writing a memoir of the late Sir Morell Mackenzie, which will be published by Messrs. W. H. Allen and Co. early in 1893.—A medical journal, entitled *Excerpta Medica*, has just made its appearance at Basle. The new periodical, which is on the lines of our own EPITOME, will be published monthly by Carl Sallmann.

MEDICAL VACANCIES.

The following vacancies are announced:

BETHLEM HOSPITAL, S.E.—Two Resident Clinical Assistants. Apartments, rations, and attendance provided. Applications, endorsed "Clinical Assistantship," to the Treasurer by October 3rd.

BRIGHTON THROAT AND EAR HOSPITAL, 23, Queen's Road, Brighton. Non-resident House-Surgeon. Salary at the rate of £50 per annum. Applications to the Secretary by October 12th.

CHARING CROSS MEDICAL SCHOOL.—Lecturer on Organic Chemistry. Remuneration a guaranteed minimum of £100 per annum. Applications to Stanley Boyd, Dean, 62 to 65, Chandos Street, Strand, by October 18th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum. Applications to the Secretary, 24, Finsbury Circus, E.C., by October 19th.

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY, Wakefield.—Junior House-Surgeon; unmarried. Honorarium, £40 per annum, with board, lodging, and washing. Applications to the Honorary Secretary by October 4th.

COUNTY BOROUGH OF STOCKPORT.—Medical Officer of Health for the District of the Borough, and to the Infectious Diseases Hospital, and Surgeon to the Police. Salary, £400 per annum. Applications, endorsed "Application for Appointment of Medical Officer of Health," to Walter Hyde, Town Clerk, 2, Lord Street, Stockport, by October 15th.

COVENTRY AND WARWICKSHIRE HOSPITAL, 10, Hay Lane, Coventry. Assistant to the House-Surgeon. Appointment for six months. Honorarium, £15, with board, residence, washing, and attendance. Applications marked "Applications for Assistant House-Surgeon" to Arthur Seymour, Secretary, by October 11th.

GENERAL HOSPITAL, Birmingham.—House-Physician. Salary, £70 per annum. Applications to be sent to Mr. Howard J. Collins, House-Governor, by October 7th.

GENERAL HOSPITAL, Birmingham.—Pathologist (non-resident). Salary, £120 per annum. Applications to be sent to Mr. Howard J. Collins, House-Governor, by October 1st.

GENERAL HOSPITAL, Birmingham.—Surgical Casualty Officer (non-resident). Salary, £70 per annum. Applications to Mr. Howard J Colins, House-Governor, by October 1st.

HOLBORN UNION.—Resident Medical Officer for the Workhouse, Shepherdess Walk, City Road, N. Salary, £200 per annum, with furnished apartments, gas, coals, and washing. Applications, endorsed "Application for Resident Medical Officer," to James W. Hill, Clerk to the Guardians, Clerkenwell Road, E.C., by October 4th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—House-Physician. Applications to the Secretary by October 13th.

HUDDERSFIELD INFIRMARY.—Honorary Physician. Applications to Mr. F. Eastwood, Honorary Secretary, by November 1st.

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon; unmarried. Salary, £50 per annum, with board and lodging. Applications to the Secretary by October 8th.

KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Third Assistant Medical Officer; unmarried. Salary, £175 per annum, rising £5 yearly to £200, with furnished quarters, attendance, coal, gas, washing, garden produce, and milk. Applications to Francis R. Howlett, Clerk to the Visiting Committee, 9, King Street, Maidstone, by October 11th.

KIMBERLEY HOSPITAL, Kimberley, South Africa.—Senior House-Surgeon. Salary, £750, with quarters. Applications to H. A. de Beer, Secretary Kimberley Hospital Board, by October 10th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Female Clinical Assistant for In-patient Department, fully qualified. Appointment for six months. Applications to M. M. Bagster, Secretary, by October 3rd.

ROYAL UNITED HOSPITAL, Bath.—House-Surgeon; must be M.R.C.S. Eng. Appointment for one year. Salary, £80 per annum, with board, lodging, and washing. Applications to Walter Stockwell, Secretary-Superintendent, by October 13th.

TAUNTON UNION.—Medical Officer of the Workhouse. Salary, £80 per annum, and 10s. extra for midwifery cases. Applications to W. F. B. Dawe, Clerk, by October 7th.

UNIVERSITY OF ABERDEEN.—Six Examiners for Graduation in Medicine. Grant of £30 per annum each. Applications to Robert Walker, Secretary of the University Court, by October 1st.

MEDICAL APPOINTMENTS.

BLUETT, John, M.R.C.S., L.M., appointed Medical Officer of Health for the Borough of Chesterfield.

BOSTOCK, John, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Wymeswold District of the Loughborough Union, *vice* John Woodruffe Brown, M.R.C.S.Eng., deceased.

BRATTON, James Allen, M.A.Cantab., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of the Ewell District of the Epsom Union, *vice* George R. Barnes, M.D., deceased.

BROWNE, Dr., appointed Second Assistant Surgeon to the Derby Friendly Societies' Medical Association, *vice* Frederick W. Stansfield, M.B.Vict., resigned.

BURNS, Robert John, L.R.C.P.Lond., M.R.C.S.Eng., appointed, *pro tem.*, Surgeon to the Sunderland Police, *vice* J. C. Wood, L.R.C.P., L.R.C.S. Edin., resigned.

BYASS, Edgar Spry, M.B., C.M., L.R.C.S.Edin., reappointed Medical Officer for the No. 2 District of the Cuckfield Union.

COWAN, Richard Hamilton, M.R.C.S., L.S.A., appointed Honorary Medical Officer to Royal Albert Edward Infirmary, Wigan, *vice* Robert F. Woodcock, L.R.C.P., M.R.C.S., deceased.

DALISON, Bernard E., appointed Medical Officer and Public Vaccinator for the Puddletown District of the Dorchester Union.

DREW, Clifford Luxmore, M.B., M.R.C.S.Eng., appointed Coroner for West Middlesex, *vice* T. Bramah Diplock, M.D., deceased.

HOLMAN, H. C., M.R.C.S. reappointed Medical Officer for the No. 2 Sanitary Districts of the Hailsham Union.

HOSKINS, E., M.R.C.S., reappointed Medical Officer for the Little Eaton Sanitary District of the Shardlow Union.

HYATT, James Taylor, L.R.C.P.Edin., M.R.C.S., appointed District Medical Officer of the Shepton Mallet Union.

INNES, John Caithness, L.R.C.S., L.M.Edin., appointed Medical Officer for the Cromford District of the Bakewell Union,

JACKSON, Arthur M., M.D.Oxon., M.R.C.S.Eng., appointed Senior Assistant Medical Officer to the Kent County Asylum, near Maidstone.

JACKSON, Robert, M.B., C.M.Edin., appointed Deputy Medical Officer of the Sutton District of the Prescott Union.

KNOX, John, M.D.Aberd., L.R.C.S.Edin., appointed Medical Officer for the Hartington Middle Quarter District of the Bakewell Union.

MOON, D. S., L.R.C.P., L.R.C.S.Edin., appointed Honorary Consulting Surgeon to the Royal Infirmary, Dundee.

MOORE, Samuel Johnstone, M.D.Glas., appointed Consulting Medical Officer to the Caledonian Railway Company, *vice* Sir George H. B. Macleod, deceased.

PRITCHARD, Ernest James, M.B., C.M.Glasg., reappointed Medical Officer for the Stoke Golding District of the Hinckley Union.

PURVIS, George Carrington, M.D., B.Sc. (Pub. Health) Edin., appointed Assistant Medical Officer of Health (temporary) to the Port of Leith.

READMAN, Thomas, L.R.C.P.E., L.R.C.S.E., and L.F.P. & S.G. and L.M.E., appointed Medical Officer and Public Vaccinator for the Aldbrough District of the Skirlaugh Union.

SHORTRIDGE, Thomas Wood, M.D.Brux., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health to the Honiton Town Council.

SMITH, Robert Bradshaw, L.R.C.P.Edin., L.R.C.S.Irel., reappointed Medical Officer for the Wolvery District of the Hinckley Union.

STOCKWELL, Frederick, M.D Lond., M.R.C.S.Eng., appointed District Medical Officer the Shepton Mallet Union.

STONEY, Ralph, appointed Surgeon to the Peninsular and Oriental Steam Navigation Company's Service.

STROVER, Herbert Charles, L.S.A., L.A.H.Dub., appointed Medical Officer of the Sandy District of the Biggleswade Union.

THOMPSON, Dr. S., appointed Medical Officer for the Buckland District of the Bideford Union.

WELSH, Robert C., M.B., C.M.Edin., appointed Medical Officer of the Tempsford District of the Biggleswade Union.

WILLIAMS, Frederick Mann, L.R.C.P., L.M.Edin., M.R.C.S.Eng., D.P.H. Camb., appointed Medical Superintendent of Quarantine at Port of Plymouth, *vice* Francis Fox, M.R.C.S.Eng., resigned.

WILLIAMSON, Archibald S., M.A., M.B., C.M.Aberd., appointed Medical Officer of Health to the Sandal Local Board, *vice* J. W. Walker, L.R.C.P., M.R.C.S., resigned.

WILMOTT, C. C. Eardley, M.B.Durh., appointed Junior Assistant Medical Officer of Health to the Middlesex County Asylum, near Tooting, S.W.

DIARY FOR NEXT WEEK.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 P.M.—Specimens will be shown by Dr. Galabin, Dr. McAdam Eccles, Dr. Horrocks. Dr. Rutherfoord, Dr. Amand Routh, and Dr. Cullingworth. Dr. Cullingworth: The Value of Abdominal Section in certain cases of Pelvic Peritonitis.

FRIDAY.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, Board Room, West London Hospital, 8.30 P.M.—Opening address by the President, Mr Swinford Edwards: Urinary Surgery of the Present Day contrasted with that of Twelve Years Ago.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

PRATT.—September 27th, at Weedon, Northamptonshire, the wife of W. Sutton Pratt, L.R.C.P.Lond., M.R.C.S., of a daughter.

SCOTT.—September 21st, at Heathfield, Bromley, Kent, the wife of John Scott, B.A., M.B., M.R.C.S., of a son.

MARRIAGES.

CARPENTER—FROOM.—September 24th, at St. Mark's, Hamilton Terrace, by the Rev. Canon Duckworth, Percy Tranter Carpenter, M.R.C.S., L.R.C.P.Lond., younger son of the late Alfred B. Carpenter, solicitor, to Amelia, younger daughter of the late Mr. Alfred Froom.

CHAMBERS—DOWLING.—On July 19th, at St. George's Cathedral, Cape Town, by the Rev. John Deacon T. Stewart Chambers, F.R.C.S.Edin., etc., of Hanover, Cape Colony, to Harriott Fanny (Pearl), third daughter of William Dowling, Esq., late of Over Wallop, Hants.

LAWRY—BATTLEY.—On July 21st, at the Wesleyan Church, Mt. Albert, Auckland, N. Z., by the Revs. H. H. and A. C. Lawry, father and brother of the bridegroom, Thomas Spencer Lawry, M.B., C.M.Edin., M.R.C.S., Eng., to Florence Mabel, second daughter of Frederick Battley, Esq., General Manager of the New Zealand Loan and Mercantile Agency Co., Ltd.

DEATHS.

ANDREWS.—On September 21st, Henry Charles Andrews, M.D., M.R.C.S., L.S.A., L.M., late of 11, Addison Terrace, Notting Hill, London, aged 65. Friends will kindly accept this intimation.

COMPTON.—On September 26th, at Pelham House, Poole, Francis Charles Compton, M.R.C.S.E., L.R.C.P., aged 38.

GARNEYS.—On September 20th, at Waveney House, Bungay, Thomas Garneys, M.R.C.S., L.S.A., in his 65th year.

HESLOP.—On September 21st, at 92, Windsor Road, Southport, Robert Heslop, L.R.C.S.E. and L.S.A., Consulting Surgeon to St. Mary's Hospital, Manchester, aged 68.

LONGSTAFF.—On September 23rd, at his residence, Butterknowle, Wandsworth, George Dixon Longstaff, M.D., in his 94th year.

RICHARDS.—On September 25th, the result of an accident, Robert Crout Richards, M.R.C.S.E., L.R.C.P.I., L.M., of Orchard House, Shotley Bridge, aged 40, son of Alfred Richards, Portreath, Cornwall.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. Th., 2.30.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, Tu. Th., 2.30; Ear, M. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—Tu. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, Tu., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30 (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, W., 8.45; females, Th., 8.45. *Operation Day.*—Tu., 2.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 2.30 and 5, Th., 2, F. (Women and Children), 2, S., 3.30. *Operation Day.*—W., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), Tu., 4, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th., 1.30; S., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 2; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

GENERAL PRACTITIONER writes: Having occasion to buy a new microscope, I should be glad of advice as to maker and instrument.

S. H. would be glad to know of a comfortable home or institution for a patient (male) suffering from locomotor ataxy, who cannot afford to pay high terms.

AMBULANCE would like to know where cheap wooden splints can be purchased fit for lecture purposes, without paying the fancy prices asked by the ordinary dealers.

MR. F. J. JOYNES (Dursley, Gloucester) asks how many beds should an infectious disease hospital contain in a rural district with twelve to thirteen thousand inhabitants? The present available number for treatment of such cases, and those occurring amongst paupers, is eight only.

SNORING.

THE WIFE OF A MEMBER would like to know if there is an effectual cure for snoring?

M.D. BRUX.

L.R.C.P.E. writes: Would anyone who has taken this degree give information as to subjects of examination, textbooks, fees, time to be there, and state the nature of the examination?

SCHOOL FOR BACKWARD EPILEPTIC BOY.

DR. EDWARD MORAN (Dublin) writes: Could any of your correspondents inform me where a youth of backward education, aged 14, would receive a comfortable home, with instruction suited to his capacity, in conjunction with from four to twelve other youths under present educational supervision? He suffers from occasional slight attacks of epilepsy. Please state what the annual expense would be.

"THE TRUTH ABOUT VACCINATION."

MR. RICHARD T. CÆSAR (Wellington) writes to ask where he can obtain a copy of *The Truth about Vaccination*, by Mr. Ernest Hart, published by Smith, Elder, and Co.

*** The little volume has been out of print some time, and it is not, we find, to be purchased anywhere. Will anyone lend a copy? It will be taken every care of and safely returned. The author has himself no copy left.

THE DENTAL CURRICULUM.

DENTIST writes: I am a young medical man, and I want to take up dentistry. How long will it take me to become a dentist, and what examinations shall I have to pass?

*** In two years a medical man can present himself for examination for the L.D.S. He will be examined only by the dental section of the Examination Board. During the two years it will be necessary for him to learn both the operating and mechanical portions of the profession, so that simultaneously he must be attending a dental hospital, or a dental department of a general hospital recognised by the Royal College of Surgeons, and learning the mechanical work in the laboratory of a dental surgeon. He will have to send in a schedule certifying that he has done two years' mechanical dentistry and two years' operative dental surgery, courses of lectures on dental anatomy, dental surgery, dental mechanics, and metallurgy. Only one examination is necessary.

ANSWERS.

"PROTECTION OF A PRACTICE."—The question is one for a private solicitor.

MESMER.—Among the many books on hypnotism that have appeared lately, the short treatise by Dr. Moll, of Berlin, is one of the best, which has been well translated under the title *Hypnotism* (price 6s.). Binet and Féré's *Animal Magnetism* is also a sound textbook (price 5s.); and there is much to be learnt from Professor Bernheim's larger book *De la Suggestion dans l'Etat Hypnotique*, which has been translated in America (price 16s.).

URBAN OFFICER (Lincolnshire) asks to be recommended to a practical sanitary periodical suitable for a country medical officer of health in an urban district, keeping one up to date especially in relation to the Local Government Board.

*** *Public Health*, and *The Local Government Board Chronicle* would most nearly answer the requirement.

LUPUS ERYTHEMATOSUS.

A. H. F. writes: If "M.R.C.S." has not used Unna's salicylic and creasote plaster he should certainly give it a trial, applying fresh each week till cured.

CARRIAGES FOR SUBURBAN PRACTICE.

LICENTIATE fully endorses all Dr. Chas. E. Addison (Colchester) writes regarding the comfort, etc., of the machine hung on side springs with cross spring. He offers to give further particulars by letter.

CHRONIC URTICARIA.

A. H. F. writes: I believe "M.D." will find that iron in some form will suit best in the case that he relates. Perchloride of iron and sulphate of magnesia have been very successful in my hands, and vinegar and water (1 part to 3) to any rash that is out.

INFANTILE PARALYSIS.

IN reply to Mr. Legge Pauley's query respecting home for little boy with infantile paralysis, Dr. C. T. Griffiths, Birmingham, strongly recommends him to place the patient in Mr. Luke Freer's Home, Ormeside, Llandudno, where he will receive every comfort and medical supervision. Mr. Freer's experience in cases of the above as well as in orthopædic work is, he says, extensive. The climatic conditions of Llandudno highly recommend themselves.

TREATMENT OF ULCERS OF THE LOWER LIMB.

M.D. (Bradford) writes: "County Practitioner," making inquiry (BRITISH MEDICAL JOURNAL, September 17th) for some work on the treatment of ulcers of the lower limbs, may be glad to be referred to an article by F. A. Phillipi, M.D., on their treatment by Professor Unna's method, in the BRITISH MEDICAL JOURNAL, February, 1888; also to a paper by Dr. Gordon Black, in the *Provincial Medical Journal* for April, 1888.

MEDICAL BOOKKEEPING.

B.T.R. writes: In answer to "W. J. L.," I should like to say that the *A.B.C. System of Medical Bookkeeping* is published by Mr. E. Allsop, *Shipley Times* Office, Saltaire, Yorkshire. I have used these books for some years, and am extremely pleased with them. They save an immense amount of time and labour.

A. H. F. also gives the address of Mr. Allsop, and adds that in his opinion *Kempe's System*, published by H. Silverlock, 92, Blackfriars Road, S.E., is much handier; it can be carried in the pocket.

NOTES, LETTERS, Etc.

ANXIOUS INQUIRER (Wantage).—We feel some delicacy about publishing the query (which seems to carry an imputation), as our sympathies are known to be in another direction. "Inquirer" might obtain some useful information concerning assurance against sickness and accident from Mr. C. J. Drummond, 21, Dalmore Road, East Dulwich, Secretary to the Medical Sickness, Accident, Annuity, and Insurance Society.

THE GYNÆCOLOGICAL CONGRESS AT BRUSSELS.

To the names of the speakers in the discussion on M. Segond's paper, as reported in the BRITISH MEDICAL JOURNAL of September 24th, should be added Dr. Heywood Smith, Professor Chéron (Paris) and Professor Mangiagalli (Milan).

TREATMENT OF FRACTURES OF THE ELBOW-JOINT.

A. HANBURY FREER, M.B. (Menston) writes: In regard to a splint for the above, in the BRITISH MEDICAL JOURNAL of July 16th, 1892, I should like to ask Dr. Ormsby two things, namely: 1. How long he keeps the arm extended? 2. Whether he places the forearm supine, semiprone, or prone? If Dr. Ormsby places the forearm supine or semiprone, he has been extremely fortunate in obtaining "perfect results:" for in this case flexion is extremely apt to cause displacement of the fragments. If, on the other hand, it is meant that the forearm should be kept prone, then Dr. Ormsby's so-called "new splint" is an excellent means of carrying out the method recommended about two thousand years ago by Hippocrates, and more recently by Drs. Illingworth, Lauenstein, Nunn, and myself.

A BELOVED PHYSICIAN.

IT is a touching circumstance that the last lines written by John G. Whittier, not long before his death, were addressed to Dr. Oliver Wendell Holmes, on the occasion of his eighty-third birthday. The poem, which was published in full in the *Atlantic Monthly*, is remarkable for the deep note of sincerity that vibrates in every line, and gracefully expresses the enduring affection that linked the hearts of these great twin brethren in Apollo. The concluding verse, which Whittier sent to the magazine too late for publication, runs as follows:

"Beloved physician, if grave practice fails
To cure the age's ails,
Thy songs, at least, have cheer and help for all
As David's had for Saul."

THE DIARY OF A THIEF.

F.R.C.S. writes: It may be within your knowledge that a man, prosecuted by Dr. Samuel West, was convicted and sentenced in July last to seven months' hard labour for theft. This man had been systematically robbing doctors at the West End for two years, more than 200 pawn-tickets for microscopes, books, etc., being found at his abode. The *modus operandi* of this thief was, unfortunately, widely circulated by the press, and has led, and will, in my belief, lead to further thefts.

On September 19th a man, a Bow Street reporter by occupation, prosecuted by me and others, pleaded guilty at Clerkenwell sessions to stealing silver goods from my house on August 17th, and from 24, Harley Street, on August 31st. This thief was arrested on September 12th. His traced career lasted from August 10th to September 12th, and is briefly as follows:—August 10th: Called at 68, Harley Street; took two books and a collecting box containing £2 odd. August 13th: Called at 7, Wimpole Street at 4.30; Mr. R. out; would write a letter; did so; went, taking spirit decanter under his arm, the maid thinking his arm was injured. August 16th: Called at 16, Wimpole Street at 4 P.M.; Mr. O. out; thief said he had an appointment; would wait; in ten minutes rang the bell; could not wait longer; was staying at Langham; would bring sister to see Mr. O. at 2 on following day, if hour convenient; at 6 P.M. silver missed. August 25th: Called at 34, Queen Anne Street; waited five minutes; pocketed four silver spoons; shown into Dr. W., and left, having made appointment for Dr. W. to see his wife on following Saturday. August 29th: Called at 7, Queen Anne Street, but obtained nothing of value, I believe. August 31st: Called at 24, Harley Street; Mr. P. in; waited five minutes; pocketed silver value £4; saw Mr. P.; made appointment to bring his wife to see Mr. P. next day.

I have not the dates, but I have every reason to believe that more than two other surgeons have been called upon by the same thief.

Now, Sir, as you may remember, on August 19th I sent round to the nearest of my neighbours a hundred circulars giving a description of this thief. I am convinced that the circulation of his description, not only warned other professional men, but led to his detection. I would further lay before you three points: (1) That the circulation by the press of the exact *modus operandi* of these thieves tends only to point out to other thieves how easy the business is. (2) That, provided the housemaid can identify the thief and the article stolen, she is able to prosecute on behalf of her master, who consequently can have no shadow of excuse for neglecting a public duty. (3) That a notice, containing a description of any thief (and there will be more), sent round to the profession residing in any particular street or streets would warn them and probably lead to the arrest of the thief. With the object of facilitating this, Mr. Hodsoll, of the Free School Press, Rupert Street, E., will, upon the receipt of a cheque for 1 guinea and a description of a thief, distribute 150 copies of the same to the profession residing in any streets mentioned by the drawer of the cheque.

ALCOHOL AND PROTOPLASM.

DR. J. J. RIDGE (Enfield) writes: In your review of my book *Alcohol and Public Health*, in referring to my experiment with the geraniums, you do me some injustice in not noting the following sentence in paragraph 37: "All I infer from the experiment is that alcohol, in its action on protoplasm, affects it in much smaller quantities than we should have supposed, and affects it injuriously in proportion to its amount." It took some time for the effect of the alcohol to be apparent, and in tracing the effect of small doses of alcohol on the human organism much time is essential for the development of the results. It has been claimed, without adequate proof, that these results are beneficial: we claim that the shortening of life and the production of degeneration and disease are consequences which prove the deleterious effect of small doses continued for years. The geraniums simply exhibited a corresponding damage more rapidly and easily demonstrated, but similar in kind. If protoplasm is injured by alcohol, whether vegetable or animal, it is one of those facts which any amount of cachinnation will not alter.

DOCTOR'S BILLS.

FROM time to time the question of the remuneration of medical men by their patients is discussed by correspondents in the daily papers. The most recent controversy appears in the *Globe* with results much more to the credit of our profession than to our patients. One gentleman says that though it is easy enough to reckon up the doctor's fees, it is by no means so easy to estimate "the things for which he does not charge—his personal interest, care, and kindness." A doctor complains that medical men "make unlimited bad debts;" he admits that this may be due to the fact that they "give unlimited credit." It would seem that the long credit system, which is fast dying out in trade, ought to gradually be reformed in medical practice. It is recorded that Herodicus, of Selymbria, who in the time of Hippocrates treated diseases by gymnastics, was the first to demand a fee in the place of the presents which were given by patients to their doctors. It is interesting to know that in those remote times patients acknowledged their indebtedness to their doctors in any form. There would seem to be a growing disinclination on the part of many persons to pay their medical men, either in money or in kind.

"PROVIDENCE AMONGST DOCTORS."

UNDER this head the *City Press* has the following: "Now that we are hearing on all sides of schemes whereby an annuity of a certain sum will be payable by the State to every individual on his attaining a given age, it cannot be too widely known that not a few professions and trades have solved the problem for themselves by organising societies which have for their *raison d'être* the granting of such annuities. Conspicuous amongst the societies which have been established for this purpose is the one which the doctors have formed for the medical profession. As its name implies, the Medical Sickness, Annuity, and Life Assurance Society seeks to fulfil three objects. A member can obtain either one or all of the benefits that the society is able to afford to all associated with it. For the payment of a certain sum (remarkably low when the advantages to be enjoyed are taken into consideration) a member can

secure for himself a grant of three or four guineas a week when, through sickness or accident, he is temporarily prevented from carrying on his practice. By means of a second branch, a member on reaching the specified age of 65 is entitled to an annuity ranging from £50 downwards, according to the rate of premium. Thirdly, there is the life assurance branch, through which a member, on payment of a certain annual premium, terminable at the age of 65, secures for his relations at his decease a sum of £200 and downwards. The Society, since its establishment in the year 1884, has made astonishing progress in every way. The number of members it now boasts is 1,222, an advance of 87 upon the total the managers were able to report a twelvemonth back. The benefits it has been able to confer upon both present and past members have already been very considerable. To take the sickness branch during the past twelvemonth, the Society was the means of distributing to the members in weekly grants no less a sum than £3,723, which compares with £3,239 in the preceding year. An increase of a similarly gratifying character is also noticeable in connection with the two other branches. It is satisfactory to note that, consequent on the care with which its affairs are conducted, the Society, regarded financially, is at the present time in a most flourishing condition in every way. The balance to the credit of each branch has increased year by year most remarkably, and this in spite of the fact that as the members advance in age the payments naturally have a tendency to increase. In the sickness branch the increase of the balance last year was nearly £4,000, while in the other two branches it was £3,300 and £400 respectively. The excellence of the management is further evidenced by the fact that, while the expenses of administration are given a maximum of 10 per cent. of the premium income, so far they have been under 5 per cent., a wonderfully low percentage bearing in mind the smallness of the Society. The Society is as yet still in its infancy, so that the progress it has made can be described as nothing short of extraordinary."

It is satisfactory to see that this Society is now being widely appreciated as affording an example of being followed by other professions and persons of other calling.

TREATMENT OF ACROMIAL DISLOCATION OF THE CLAVICLE.

MR. A. TODD, M.B., B.Ch. (Ex-House-Surgeon, Monkstown Hospital, ex-Resident Surgeon, Steevens's Hospital, Dublin) writes: I beg to submit my experience of four cases of dislocation of the acromial end of the clavicle that have come under my notice, the last of the series being at present under treatment, which in each case has been identical, and so far uniformly successful. As the dislocation is really one of the scapula, not of the clavicle, the primary object of the treatment must be directed towards immobilising this bone. I take a broad strip of adhesive plaster mounted on holland about 3 yards long and about 2½ inches broad; the end of this I double back on itself, and stitch it so as to form a loop; this I slip over the hand and up the arm until it occupies a position about the middle of the upper arm. I then place a large pad made of tow, wadding, and lint freely dusted over with pulv. zinci oxidi in the axilla, the pad being about 2 inches thick, 2½ inches long, and about 12 inches broad; the breadth I consider the most important point, as it is necessary to allow it to come well beyond the axillary border of the scapula. I then pull my long strip of plaster strongly backwards so as to pull the arm and elbow well behind the patient, and wrap it firmly round the patient's chest and upper arm, taking care that the plaster with its adhesive side towards the skin passes over the posterior projecting border of the axillary pad and the scapular region. I then stitch the end of the plaster to the pad in front and behind, and wherever it happens to terminate to the previous laps of plaster. I then take another strip of plaster about 4 inches broad, and cutting a slit for the elbow in a longitudinal direction about its middle, I place the elbow in the slit and bring the anterior end of the plaster along the forearm placed obliquely on the chest, so that the fingers point towards the sternal end of the clavicle on the sound side, cross it over the root of the neck, at the same time pulling the elbow forwards and upwards as much as possible, and attach the end by strong thread to the encircling plaster behind the posterior end of the second strip of plaster. I bring tightly over the apex of the scapula over the root of the neck on the sound side (crossing the anterior end of this strip of plaster), and I attach this to the encircling strip of plaster in front. The whole I then bandage over with strong calico, partly with a view of adding support, but more to prevent the plaster from sticking as it gets softened to the patient's clothes. I may add that I have tried many methods of treatment previous to selecting this one, and I have never met with much satisfaction until I adopted the method I advocate. I cannot agree with Mr. Pickering Pick in his advocacy of a pad over the acromial end of the clavicle (*Fractures and Dislocations*), for press how you will in a well-developed man you will never get the prominence to disappear, the only alternative is to raise the scapula by first fixing it as far as possible, and then pulling it upwards by the second piece of plaster with the slit for the elbow, or by some similar device, for if the mountain will not come to Mahomet he must go to it.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Mr. F. H. Atkinson, Grimsby; Messrs. W. H. Allen and Co., London; Mr. A. W. Aikey, London; A. W. H.; Mr. O. W. Andrews, Noumea; A. H. F.; Mr. F. V. Adams, Glasgow; Dr. J. G. Adami, Cambridge; Anxiety. (B) Dr. W. G. Bott, London; Mr. J. Brown, Pirbright; E. H. Bannister, M.B., Barbados; Messrs. Burroughs, Wellcome and Co., London; Mr. E. M. Beaman, Carlisle; Mr. J. Brecon, Aldershot; Mr. E. L. Brown, London; Mr. W. J. Barclay, Banff; Mr. H. C. Burdett, London; Mr. S. Butler, Stafford; B. T. R.; Mr. E. C. Barnes, London; Mr. C. Bell, Dundee; Dr. Bowles, Folkestone; E. C. Baber, M.B., Brighton; Dr. A. G. Bateman, London; Mr. Wynter Blyth, London; Mr. R. D. Blumenfeld, London; Mr. J. B. Bailey, London. (C) Mr. R. J. Collyns, Dulverton; Mr. H. Collie, Bournemouth; Mr. R. H. W. Cowan, Wigan; Mr. G. S. Clarke, Bloemfontein; Mr. P. T. Carpenter, London; Dr. R. Crawford, Glasgow; Dr. C. Childs, Weymouth; Messrs. Cazenove and Co., London; Mr. E. Cotterell, London; Dr. Corfield, London. (D) Mr. A. Dalton, Wantage; D. Davies, M.B., Bristol; Dr. W. Duncan, London; Mr. P. Dalison, Puddletown; Dr. H. E. Dixey, Woodgate; Dr. T. Dutton, London; Dr. S. Davis, Plumstead. (E) Mr. A. Edington, Grahamstown; E. T. C.; Mr. J. Edwards, Witham; Mr. D. J. Evans, Montreal. (F) Mr. E. P. Furber, Beechcroft; Mr. W. R. Feltham, Portsmouth; Mr. G. P. Field, London; A Faddist; A. H. Frere, M.B., Leeds. (G) Dr. H. Goude, London; Dr. Glascott, Manchester; Mr. T. B. Goss, Bath; Dr. J. H. Garrett, Cheltenham; Dr. C. T. Griffiths, Birmingham; Dr. M. Greenwood, London. (H) Mr. J. E. Hunter, Helensburgh; Rev. H. R. Haweis, London; Dr. Hime, Bradford; Dr. W. D. Halliburton, London; Dr. A. Humphreys, London; Mr. E. H. Hankin, London; Mr. A. Horniman, London; Mr. J. B. Haycraft, Brighton; Mr. S. J. Hutchinson, London; Dr. J. Haddon, Canonbie, N.B.; V. Horsley, M.B., London. (I) In Nubibus; Mr. W. Iliffe, Derby. (J) Mr. T. Jones, Mansfield; Mr. R. S. Jacques, Stoke-on-Trent; J. W.; Mr. W. B. Jackson, London; Mr. F. J. Jones, Derby; Dr. H. J. Johnston-Lavis, Harrogate. (K) Mr. A. A. Kanthack, Cambridge. (L) Dr. C. J. Lewis, Stirling; L.R.C.P.E.; Mr. T. Spencer Lowry, Auckland; Mr. D. Leckie, Carlisle; Licentiate; Dr. A. B. Luff, London. (M) Dr. J. D. Mann, Manchester; Mr. H. L. Morgan, Oxford; Dr. L. Moritz, Manchester; M.R.C.S.E., etc.: Messrs. J. W. Mear and Co., Blackburn; Mr. E. Mathews, Redditch. (N) Dr. A. Napier, Crosshill; Mr. D. Nicholson, Broadmore; National Health Society, The Secretary of the, London. (O) Dr. J. Ormsby, Dover. (P) Dr. H. H. Phillips, Reading; Mr. J. Penberthy, London; Mr. C. E. Paget, London; Mr. W. F. Pentland, Bridgnorth; Dr. F. S. Palmer, London; Messrs. Potter, Sandford, and Kilvington, London; Dr. A. Parkin, Hull; R. Porter, M.B., Bengal; Mr. A. S. Percival, Newcastle-on-Tyne; Mr. C. H. Parkinson, Wimborne. (R) R. R. G.; Dr. A. Ruffer, London; Mr. W. Reid, Canterbury; Mr. P. H. Mills Roberts, Llanberis; Mr. W. J. Russell, London; Mr. T. F. Raven, Broadstairs. (S) Dr. Steele, London; Dr. J. Struthers, Edinburgh; Messrs. Street and Co., London; Mr. F. A. Stewart, Upper Keith; J. G. Scroggie, M.B., Aberdeen; Mr. W. Snell, Brighton; Mr. W. D. Spanton, Hanley; Mr. T. F. H. Smith, Farningham; Dr. W. Squire, London; Mr. W. Stockwell, Bath; G. C. Stewart, M.B., Castor; Mr. Morton Smale, London; Mr. S. Snell, Sheffield; Dr. G. W. Smith, Cheltenham; Dr. W. K. Sibley, London; Dr. R. Savage, London; A Scotch Member; Dr. Stockman, Edinburgh. (T) Dr. C. Lloyd Tuckey, London. (U) Mr. F. R. Usher, Ventnor. (V) Mr. A. E. Vaughan, Crewe. (W) Mr. F. E. Walton, Ridgmount; Dr. L. A. Weatherly, Bath; Dr. Willoughby, London; Mr. R. W. Walden, London; Dr. W. Woodward, Worcester; Dr. B. C. Windle, Birmingham; Dr. E. Walford, Cardiff; Dr. H. Woods, London; Messrs. A. M. Waller, London; Mr. J. C. Wood, Sunderland; Dr. W. H. Welch, Baltimore. (Y) M. Young, M.B., Clifton; etc.

BOOKS, ETC., RECEIVED.

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An Epitomised Review of the Principles and Practice of Maritime Sanitation. By Joseph Holt, M.D. New Orleans: L. Graham and Son.

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Die Lehre von den Naseneiterungen. Von Dr. Ludwig Grunwald. München und Leipzig: J. F. Lehman.

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Congenital Obliteration of the Bile Ducts. By John Thomson, M.D. Edinburgh: Oliver and Boyd. Price 5s.

Guide to the Examinations in State Medicine. By Herbert Jones, D.P.H. Camb. London: Baillière, Tindall and Cox. 1892.

Napheys's Modern Therapeutics—Medical and Surgical. By A. J. Smith, M.D., and J. A. Davis, M.D. London: Baillière, Tindall and Cox.

Regional Anatomy in its Relation to Medicine and Surgery. By J. H. B. McClellan, M.D, Edinburgh and London: Young J. Pentland.

Recueil des Travaux du Comité Consultatif d'Hygiène Publique de France. Le Choléra. Par Henri Monod. Melun: Imprimerie Administrative.

Recueil des Travaux du Comité Consultatif d'Hygiène Publique de France et des Actes Officiels de l'Administration Sanitaire. Vols. XIX and XX. Melun: Imprimerie Administrative.

*** In forwarding books the publishers are requested to state the selling prices.

OPENING OF THE MEDICAL SCHOOLS: INTRODUCTORY ADDRESSES

ON

THE INTELLECTUAL INTEREST OF THE STUDY AND PRACTICE OF MEDICINE.

Delivered at the Opening of the Medical Session at Owens College, Manchester.

By W. H. BROADBENT, M.D.,
Physician to St. Mary's Hospital.

DID not think, when I undertook the task of delivering this introductory lecture, that one part of my duty would be to give public expression to the sorrow and regret with which all members of Owens College, and all who had at any time been associated with the late Professors Morgan and Ross at the Royal Infirmary, whether as students or colleagues, heard of their untimely death. The resignation by Dr. Morgan of the professorship in the College, and of his position on the medical staff of the infirmary, was already a serious loss to both institutions, and, indeed, to the medical profession generally. Still greater is the loss by his death to those who were honoured by his friendship. His eager, genial, and sparkling conversation, the enthusiastic interest he manifested in professional, social, and public questions, the warmth of his attachments, made him a most agreeable companion and valuable friend; and he will be greatly missed at all social gatherings, where his speeches were always looked forward to as certain to be original and amusing. He entered the profession late, having, like his brothers, had a most distinguished university career. I probably knew him longer than any of his colleagues here, for I was first house physician, and later medical registrar, when he was studying under Drs. Chambers and Sibson in the wards of St. Mary's Hospital, London, and can well recall the zeal with which he threw himself into clinical work. The brilliant reputation he brought from Oxford secured him an early appointment on the staff of the Royal Infirmary. You, who were on the spot, know better than I do the part which he took in the development of Owens College and of the Victoria University, but in London I was in a position to recognise the esteem in which he was held by the medical profession, and to see the influence which his name carried. Of Dr. Ross I knew less personally, but his reputation was high and widespread, and he was cut off before his usefulness to the College and Infirmary had been fully developed.

Reminiscences of Manchester Medical Schools.

It would be impossible for me to find myself face to face with an audience of Manchester students without going back in memory to the time when I was a Manchester student myself, and it would seem unnatural to you were I not to refer to that period of my life. There were then two schools of medicine in Manchester, known as the Pine Street and Chatham Street Schools. It must be thirty-eight or thirty-nine years since I took my seat in the theatre of the former, called also the Royal Manchester School of Medicine, and heard an introductory lecture by Mr. William Smith. The recollection of that lecture—of its earnest and lofty tone, of the enthusiasm it kindled in my mind, of its elevating and stimulating influence—has always been to me a justification of the traditional introductory address.

William Smith was lecturer on physiology at the school. His lectures were singularly lucid and instructive, and served me well as a thread on which to string my reading on this subject. He was one of the surgeons to the infirmary, and in skill and care was surpassed by none of his contemporaries. I had the great advantage of acting as his dresser. During my tenure of this office there was what, thank God, you will never see—an epidemic of hospital gangrene. You cannot imagine the discouragement of seeing case after case attacked, and of watching the reduction of skin and muscles to a slimy mass of sloughing tissue. You will scarcely credit it, but it was at that time a debated question whether the spread of this terrible disease took place through the air of the wards, the poison entering the system by the lungs, or was due to local infection of wounds. I very soon came to a conclusion on the matter. Mr. Smith died suddenly in his consulting room some years after I had settled in London. Upon one incident of my term of office I look back with peculiar pleasure. Sir William Roberts just then came to the infirmary as house-surgeon, and I piloted him round on his first visit to the wards, and translated Lancashire for him.

The name which comes next to my lips is that of Mr. Lund; he was lecturer on anatomy, and at the same time demonstrator, and was surely the best teacher of anatomy ever known. The orderly method in which he took us over the bones was a lesson for life, not in anatomy only but in the storing up of knowledge generally and in the arranging of ideas for use. Mr. Lund became surgeon to the infirmary, and professor of surgery in Owens College, and is happily among us, and I am glad to have the opportunity of acknowledging publicly my great indebtedness to him, and I am sure I am giving expression to the sentiments of many generations of Manchester students.

Another member of the staff, both of school and hospital, to whom I owe much and whom I am very happy to see here to-day, was Dr. Browne. His lectures on medicine were marvellously complete, and were models of clearness in arrangement. He had apparently read, digested, and condensed for our use all the important works of that day, had formed a sound judgment on all the important questions in dispute, which included, you will be astonished to hear, the distinction between typhus and typhoid fevers. I was his clinical clerk, and remember to this day his making a diagnosis of mitral stenosis, which at that time was something new to do. I ought not to pass over without mention Mr. Turner, a genial, kind-hearted gentleman—one of the founders, I think, of the Pine Street School, who still continued to give a few lectures on physiology.

While I was at Manchester the two schools were amalgamated, which brought me into relation with Messrs. Dumville and Southam, lecturers on surgery and surgeons to the infirmary, of both of whom I have a grateful recollection. Members of the staff of the infirmary, besides those already named, were Drs. Wilkinson, Renaud, and Watts, and Messrs. Ransome, Beever, and Jordan. The last-named was a noted character. Stories used to be told of his eccentricities outside the hospital; in the infirmary they were conspicuous enough, and made him everything that a surgeon ought not to be. He took snuff profusely, and his coat, neckcloth and shirt were always freely powdered with it. Going round the wards he was particularly fond of handling and exploring wounds, but I never knew him to wash his hands; a wipe on a towel and a pinch of snuff was sufficient.

Owens College.

My teachers at Owens College were Professor Frankland, who lectured on chemistry, and Mr. Wanklyn, who demonstrated in the laboratory, and Professor Williamson, who was the lecturer on comparative anatomy. The teaching accommodation of those days was of the most rudimentary description—appliances there were none. The Pine Street School was one of a block of buildings apparently built as small warehouses. On the ground floor was a lecture theatre and a small lecturer's room, on the first floor a museum, above this a dissecting room—that was all. Such a thing as a class room was not dreamt of; there was not even a chemical laboratory, still less a physiological or pathological laboratory. At Chatham Street the provisions were somewhat better, but even there I have no recollection of a laboratory of any kind. The Owens College was, of course, very much in advance of the schools of medicine, and the chemical laboratory and class rooms were spacious for the number of students, but they were not to be compared with the magnificent equipment which is ready to the hand of the present generation of students. I have been filled with admiration, almost with envy, in looking at the splendid pile of buildings to which Owens College has grown, and in going over the

wonderfully arranged laboratories and lecture theatres placed at the service of the medical department.

Clinical Work and Clinical Teaching.

The clinical teaching at the infirmary was of the most rudimentary and casual description. There was, of course, abundant material for observation open to the student who was prepared to take advantage of it, but no systematic help or guidance was afforded us. It was not the fault of the physicians and surgeons. Dr. Browne and Mr. Smith were always ready to give me information, as were no doubt other members of the staff. There was, however, no obligation to take notes, no instruction by the house-physician or house-surgeon, nor supervision of any kind. I remember having had to attend for a short time to dress slight surgical cases. *Post-mortem* examinations were rare, and, so far as I could learn, it was no one's business to make them. I used to go down into a sort of cellar to examine for myself after death cases in which I had been interested in the wards.

I regret to find that the one weak spot in the otherwise splendid opportunities for medical education at Manchester is the imperfect organisation of the clinical teaching. There is not, apparently, the close association between the infirmary and the College which ought to subsist.

Now, organised clinical work is not only necessary for the training of medical men, it is a great advantage to the patients. It secures for the patient an amount of care and attention which could not by any possibility be otherwise bestowed. These students—including, as I do, the resident medical officer—are so many eyes for the teacher, seeing for him a multitude of points in the intervals between his visits which he could not ascertain when going round the wards; they are also so many eyes upon him, watching eagerly the course of the illness, the verification or falsification of his diagnosis and predictions, and the result of his prescriptions; asking questions which severely test his knowledge and compel him to look at every side of the problem presented by the case, so that he cannot afford to do less than his very best. There is nothing like a band of eager students for keeping a physician or surgeon up to the mark in every way.

The presence of a number of intelligent young fellows also brightens the wards and relieves the tedium of sickness, confinement, and exile from home surroundings. The sufferers feel that an interest is being taken in them. An act of real unkindness on the part of a student or of resentment on the part of a patient of the examination to which he is subjected has been, in my experience, extremely rare. The rule is that a bond of genuine sympathy is established between the clinical clerk and his patient, which is good for both.

The infirmary could not have better officers than the professors at Owens College, and ought to be eager to secure their services. On the other hand, such officers of the infirmary as have a place on the teaching staff of the College ought to be responsible to the College authorities. His first duty is, of course, towards the patients; but side by side with that should stand his duty towards the students and towards the College, and, as I have said, he will discharge the first all the more efficiently if charged with the second.

[Turning then to address the new students more directly, Dr. Broadbent, after a few preliminary observations, said:—]

The Medical Career and Happiness in Life.

What are the conditions of happiness in a man's life, and how far are these satisfied by a medical career? The first is satisfaction of the ordinary wants—the enjoyment of the simpler comforts and freedom from care for the future of himself and his family. Unfortunately I cannot say that the medical profession affords all of us such a livelihood as to assure us from pecuniary anxiety and the means of providing for a family, but I can say that the general level of comfort and security among medical men is high and the proportion of wrecks and failures low.

Another element of happiness is the consciousness and the prospect of advancement in life. This most of us enjoy. At first our patients are the poor at hospitals and dispensaries, or members, perhaps, of clubs, or parish paupers. We have little or no remuneration for our work, we are unknown, we are held in little respect, and enjoy small consideration. But this does not last long; patients of a better class seek our aid, among our patients we find friends.....As long as he lives and wherever his life may be cast, the medical man goes on adding to the number of his friends. He is not restricted to his contemporaries in age, but is brought by his professional ministrations into intimate and confidential relations with an ever-increasing circle of men and women younger than himself, who become attached to him by ties of gratitude and regard. The children of his early patients grow up under his eye, and hold him in honour and affection. But comfort, freedom from oppressive care and anxiety, advancement in position and consideration, while essential to the happiness of an educated man, are not what constitute the attraction of the medical profession. Wherein, then, lies our advantage?

Some would answer in the consciousness of doing good, the pleasure of relieving suffering, the satisfaction of saving life. I should be the last to underrate these.....But these privileges are too sacred to be cast into the balance.....Nor yet must we bring into account the gratitude of our patients, great and heartfelt as is the pleasure which we sometimes experience from this. Both are imponderables.....What, then, is it which, to those who are mentally and morally fitted for it and who enter it from genuine inclination, makes the medical profession the happiest career a man can choose? For such it really is. To this I answer, first and foremost the opportunity for free and continuous exercise of the intellectual faculties.....With the elevation of the race have been developed intellectual appetites. There is a hunger and thirst after knowledge and a passionate desire for achievement, and the pleasure and satisfaction attending the attainment and employment of knowledge are as much higher and more durable than the gratification of the senses as mind is higher than body—as the intellectual operations are superior to sensation.

The Intellectual Interest of Medical Studies.

All the sciences are laid under contribution by medicine..... As you master the principles of chemical structure and affinity, as you come to understand the relation between chemical action and the absorption or evolution of energy, thermal, electrical, and nervous, your ideas are enlarged, your imagination is excited, and the intellectual interest is awakened, which is gratified at each further step you take, but never satisfied.

A step further, and the interest of your work increases. Pathology deals with the deviations from normal physiology, and with the results of such deviations on the structures and organs of the body, that is, morbid anatomy. In disease the same processes are at work as in health; there are no new laws, but only new conditions. From symptoms we read backwards to causes which have disturbed the harmony of the economy and onwards to effects which result in the readjustment of the organism to its surroundings or in its ultimate destruction. What we call symptoms are not all simply the indications and effects or morbid processes to be repressed or corrected; they are frequently only stages in the reaction by which the system recovers its balance..... The very business of our lives is the solution of intellectual problems of the most interesting character. On the large scale we see the working out of general laws, the causation, genesis, and spread of disease affecting populations, the influence of heredity or climate, of modes of life. We note the vindication of the moral principles of right and wrong, the slow working of God's mill which grinds exceeding small, as there are unrolled before us the effects of self-indulgence and of self-restraint.

The Interest in Modern Pathology.

Pathology at the present moment surpasses in interest every other department of study and research. For a long time it was almost identified with morbid anatomy, and concerned itself chiefly with results; but it has emerged from this stage, and the attention of the new school of pathologists is concentrated upon processes, and the method of experiment in their hands is yielding results of surprising value and importance.

Phagocytosis.

The discussion before the Pathological Society on phagocytosis was as exciting as a debate in Parliament, and the

combats between the cells and invading bacteria as realistic as one of Homer's battles. A septic wound is made, the leucocytes crowd to the spot, block up the avenues by which the hostile bacteria seek to gain entrance into the lymph spaces, and engulph and destroy them, the bacteria at the same time multiplying with amazing rapidity, and endeavouring to disintegrate the cells and to force a passage. This local war is defensive inflammation. If from any cause—the amount of virulence of the infective inoculation, or, in other words, the number, character, or activity of the microbes, or, on the other hand, the imperfect afflux or defective vigour of the phagocytes (that is, the inadequate local reaction)—the line of demarcation and limitation is imperfectly drawn, the microbes obtain access to the circulation, and in the blood and fluids find an unlimited supply of food and unbounded opportunities of multiplying.

It has been known ever since *post-mortem* examinations were first made or dissection was practised that if a dissection wound were followed by inflammation and abscess the mischief would probably not go further, but that if there were only a little pain at the seat of the cut or puncture, while the lymphatic channels and glands became swollen and painful, fatal septicæmia or pyæmia was probably impending; but it is only now that the defensive process can be understood and explained.

When I was a student the name zymotic disease had, it is true, obtained a footing in medical terminology, but under protest from many distinguished men who distrusted theory of all kinds. It was pointed out that the analogy between the action of yeast on a solution of sugar and the course of a fever was but weak at best, and was open to the objection that the successive stages of incubation, invasion, and decline might represent not the life and work of an organism in the system but the stages of the reaction of the system. Especially were we warned against basing treatment upon such uncertain grounds. Now we know that the parallel holds good down to the smallest particular; just as the yeast grows and multiplies with extraordinary rapidity, splitting up the sugar into carbonic acid and alcohol till its further progress is arrested by the alcohol which is a product of its own activity, so the bacteria multiply at the expense of the fluids of the body, form ptomaines which, like alcohol, act as poisons to the nervous system, and which, again, like alcohol, bring the action of the microbes to an end. Our methods of protection against fevers are now entirely derived from definite knowledge of the life-history of the bacteria or microbes by which they are caused and our treatment will be more and more determined by such knowledge.

We are shown, also, how the defensive processes may be reinforced or impaired. It is well known that drunkards fall ready victims to fever, erysipelas, and septic diseases generally, and the general deterioration of the tissues produced by alcoholic excess has been accepted as a sufficient explanation. But this, while true, is not the whole truth.

You will not all have followed the discussion about which I have spoken, and I must ask you to listen to the following:

A bacteria culture of a given kind and degree of virulence is injected under the skin of a rabbit; local inflammation, and perhaps abscess follows, but the animal does not fall a victim to the poison. In another rabbit, or in the same at another time, an injection of the same kind is made, but simultaneously a dose of chloral is injected into some remote part of the body; the local reaction is imperfect, general infection rapidly takes place, and the creature very soon dies. What is the reason? It is that chloral paralyses the leucocytes. They cease to display their wonted activity; examined on the warm stage, instead of pushing out pseudopodia in every direction and undergoing frequent changes of shape, as is observed in the normal state, they are sluggish and retain a spherical form. When bacteria, therefore, are introduced into the subcutaneous tissue, they take no notice of them, but remain perfectly passive, and leave the way open into the lymphatic spaces, whence the invaders pass into the circulation, carrying destruction to every organ of the animal's body. Now alcohol in excess has a similar action on the leucocytes, and this, as well as the deteriorating influence on the tissues of chronic alcoholism, predisposes to septic infection. A single debauch, therefore, may open the door to fever or erysipelas.

It is difficult to divest the mind of the idea that the leucocytes in the operations just alluded to are acting purposively or that, at any rate, the whole process is purposive, and the language employed often tends to encourage this view. It is true that the result is protective, and that without such a defence the continued existence of the race would be impossible, but this is not an explanation which we can accept. There must be some change in the capillary walls or in the protoplasm of the tissues or leucocytes which arrests the phagocyte cells at the infected spot, and causes their accumulation here, and some molecular attraction between the leucocytes and the bacteria, little more vital in character than that which causes two droplets of mercury or two air bubbles to run together, which leads the one to engulph the other. It is fortunate for us that such an attraction or affinity exists, but the fact that it is for our advantage is not the cause of its existence.

Let me illustrate what I mean. Valvular disease of the heart is followed by hypertrophy, which enables the heart to carry on the circulation in spite of the lesion. Were it not for this the sufferer would soon die, but the efficient cause of the compensatory change is not the prolongation of life, but the simple fact that additional work is thrown upon the muscular walls of the ventricles, and that the muscular fibres respond by increase of substance and strength, just as do those of the blacksmith's arm.....

Public Health.

Of the prevention of disease I have not time to speak. On the large scale it has become a special department of medicine under the name of public health, and to the cultivation of this we owe the immunity from cholera which we have enjoyed for so many years, notwithstanding that it has been brought over and over again to our doors. Typhus, again, has been almost banished, and typhoid is being gradually tracked down and intercepted. But for wrong-headed men in the profession and fanatics out of it, small-pox would by this time have been a rare and curious survival, and the ravages of syphilis would have been circumscribed.

Experiments on Living Animals.

Protective inoculations against various diseases have been discovered, and had it not been for the ill-judged restrictions on experiment which have deprived this country of the precedence in research which would have been earned for it by the zeal and insight of our young experimental pathologists, we might perhaps already be in the possession of protection against scarlet fever, diphtheria, and other diseases, which would do for this country in saving the lives of children what has been done for France in protecting sheep and cattle from anthrax, preventing the loss of hundreds of thousands of pounds to its agriculturists. We have at length, thanks to experiments on animals, learnt the true nature of phthisis, and how it is propagated; and we can now not only direct our efforts to strengthening the constitution so as to render the soil unfit, but to the destruction of the seeds. In this respect Owens College, as represented by Dr. Ransome, occupies a leading position. Here our difficulty will arise from the apathy and carelessness of individual members of the community.

In politics, and in all other departments of public life, no honourable antagonist thinks of imputing motives. In experimental pathology all our motives are found for us, one worse than another, and we are allowed no credit whatever for a desire to alleviate the sufferings of men and animals; the very highest motive with which we are credited is scientific curiosity, and by this is really meant scientific cruelty. You may drown a superfluous puppy, but if you do it with a view to experiments as to how animation may be restored, you place yourselves within the grasp of the law.

Therapeutics.

Scepticism in the sense of a general disbelief in the efficacy of remedies, which was formerly not uncommon, and was, indeed, the mark of the "superior person" in medicine, becomes every day more unjustifiable. At one time, indeed, there was a great gulf fixed between science and practice. Chemistry, physiology, and even pathology were left behind at the door of the hospital ward, were indeed by some carefully shut out. With some few exceptions, and these distrusted, there was no connecting link between chemistry or

physiology and therapeutics. The symptoms of disease and the influence of remedies were facts of observation pure and simple, to which it was unsafe to apply reasoning or conclusions drawn from science of any kind. But this is no longer the case. When pathologists were in the habit of looking only at the effects of disease—at lungs riddled with cavities, at the liver and kidneys shrunken and hardened by fibroid change, at the brain torn by a hæmorrhage—they might scoff at the efforts of the therapeutist to deal with such conditions, but they have all had a starting point, and the patients who have ultimately died have lived through all the stages which have culminated in the ruin displayed on the *post-mortem* table, while this same *post-mortem* table has displayed scores of instances in which similar disease has been arrested at one or other of these stages. Processes are now the chief object of study and research, and in proportion as these are understood power will be gained of intervening and counteracting. As we learn how to set in motion morbid changes we learn how they may be arrested. It is in functional derangements that organic disease begins, in dynamic influences that structural changes have their origin. Perturbation in the activity of cells is brought about by deviations from the normal composition of the blood. Now we can at will introduce into the blood substances which can influence the activity in one direction or another of every cell in the body; we can intensify or suspend the influence and control of the nervous system over organic operations, and it is our own fault if we cannot employ these tremendous powers for the advantage of our patients. It is true that at present our comprehension of the ultimate mode of action of remedies is very imperfect, and that we have still to be guided by the flickering light of experience rather than by the broad daylight of science, and it is true that experience is uncertain and at times misleading.

Experience and Experiments.

But experience must not be too much decried. The marvel to me is that by trial of this or that herb or mineral, suggested by superstition or astrological fancies, or by analogies of the most outrageous kind, so much had been definitely ascertained as to remedies. Experience had taught our ancestors the action of digitalis as a diuretic and heart tonic before experiment had demonstrated its action on the cardio-vascular muscular fibres. Experience had shown us the remarkable action of colchicum in acute gout, which has not yet been explained chemically or experimentally.....

Experience presents as an ascertained fact the remarkable influence of quinine in malarial fever. Some have actually accepted and been satisfied with this as an explanation that quinine is antiperiodic; we want to know whether it is by its action on the malarial micro-organism, or on the human solids and fluids, or nervous system, that the effect is produced, and then what there is in the chemical constitution of quinine which confers upon it this power. We point to the action of mercury and iodide of potassium upon syphilis in its varied manifestations made known by experience, action as certain in its way within given limitations as the operation of gravitation, and we ask similar questions. The explanation cannot possibly be the same or even similar, since quinine is a complex organic compound and mercury and iodide are simple mineral substances. When we can obtain answers to such questions as these—when we can point out the relation between the chemical constitution of morphine and the chemical changes by which nerve force is liberated in the cerebral cortex, or between the chemical constitution of strychnine and the chemical reaction between the blood and the cells in the anterior grey cornua of the spinal cord which gives rise to motor impulses, through which morphine and strychnine respectively produce their effects—we shall direct these powerful influences with much greater precision and with more far-reaching object.

If we could only understand so elementary a question as why sodium salts are present in such abundance in the liquor sanguinis and not in the corpuscles, whereas potassium salts are contained in the corpuscles and not in the serum, and why the proportion of sodic and potassic compounds in the corpuscles and liquor sanguinis respectively should remain so constant whatever the amount taken in food, we should have a piece of knowledge of surpassing value. It is obvious that affinities exist between organic compounds and mineral substances, exemplified by the combination of the serum albumens with sodium and of the corpuscular globinoids with potassium, which play a most important part in vital chemistry. For my own part, it is to the elucidation of these affinities that I look for a satisfactory explanation of gout; and the recent valuable work of your old teacher, Sir William Roberts, on the urates has for me a special interest as looking in this direction.

Antipyretics.

An enormous step towards the comprehension of the mode of action of remedies has been made in the discovery of the antipyretic class of substances. In these, as in chloral, the chemical constitution of a drug is a clue to its effects, so that from the chemical constitution the effects can be predicted, and our scientific chemists know in what direction to push their endeavours in order to obtain a safer or more powerful substance. When this is fully worked out, and we know not only the factor in the drug, by variations of which the results are influenced, but the exact way in which the chemistry of the system is modified and the heat-producing reactions between blood and tissue are restrained, we shall have obtained knowledge going far beyond that we now possess. In the meantime this tremendous power of lowering the temperature and of relieving certain kinds of pain placed in our hands by these substances is, I fear, thoughtlessly and recklessly employed. We have so long looked upon a high temperature as denoting the intensity of acute disease, and as an indication of the danger attending it, that the lowering of the temperature has almost come to be considered equivalent to the cure of the disease, whereas not infrequently the patient is knocked down as well as the pyrexia, and in any case we ought to bear in mind that we are dealing with an effect and not with the cause, and that unless the effect is itself a danger, we may be doing more harm than good. We may actually be interfering with a defensive reaction. So common is the abuse of antipyretics, that from time to time, in cases admitted into hospital, the drug has to be diagnosed as well as the disease.

The Happiness of Continuous Work.

Another of the advantages of the profession of medicine and surgery is that it provides you with continuous work, and it is impossible to overestimate this as an element of happiness.

In what way is the study of medicine to be undertaken? No general recommendation could be made which would apply to all; one intellect is analytical, another constructive; one is characterised by receptivity and the faculty of storing up impressions and facts, another by lucidity in perceiving the relations which underlie phenomena; one man ponders slowly, another is instant in action. Memory, the very basis of intellectual operations, varies not only in degree but in kind; in one the memory is visual and a man retains only what he sees, while he thinks in pictures, in another it is auditory and he learns by lectures and thinks in verbal associations. You will have to find out for yourselves what method of working suits you best.....

While I do not interfere with the function of your teachers by recommendations as to the order and method of your studies, I may speak of the spirit in which they should be pursued, and of the object you should keep before you. Professor Huxley—let me give him the title recently conferred upon him, but long held by him in our esteem, the Right Hon. Thomas Henry Huxley—in one of his lay sermons on education, makes this the burden of his exhortation: "Learn what is true, in order that you may do what is right." Now, if this applies to the self-training of a man for the ordinary duties of life, it applies with special force to preparation for the medical profession. The sentence might have been devised as a motto for medical students, "Learn that which is true, in order that you may do that which is right," and I hope some of you will adopt it and live up to it. Your every act as practitioners of medicine and surgery is the application of knowledge, and in proportion as your knowledge is imperfect, which unfortunately must always in some degree be the case, your treatment will be tentative, if it is wrong you will do harm. And the knowledge, to be of any real use, must be your own. To know, you must have seen. Without this you have not really learnt what is true. You read or hear a description of a

disease, and this is necessary as a guide in your clinical work, but until you have translated the vague conceptions you form thus into definite visual pictures, your ideas may be altogether remote from the truth. I tell you that in pneumonia there is dulness on percussion, tubular breathing, exaggerated vocal resonance and vibration, but it will take you weeks of careful attention and practice to realise at all what I mean. I might describe with great care and minuteness the rose spots of typhoid fever, and if I then asked you to point them out in a case in the ward you would not improbably show me fleabites. . . . .

I have spoken of scepticism in medicine as unjustifiable, but I would now warn you against credulity, against, say, accepting on inadequate evidence statements as to the effects of remedies. Now no evidence is really adequate which has not been verified by your own personal observation, or which does not bring the fact stated within the scope of some general law. . . . .

The Duties of the Practitioner of Medicine.

One word more without which I should not have fully discharged what I consider to be my duty. There is no calling, not even that of the priest, which demands more imperatively a high standard of duty, a pure code of honour, and a stern sense of moral obligation. We are trusted as no other men are, by the force of circumstances as well as by the relations of mutual confidence which grow up between patient and medical man. Enormous power for good or evil falls into our hands, on our discretion depends frequently the happiness and welfare of families. These are matters to be borne in mind from the moment when you devote yourselves to the practice of medicine. A loose student career, habits of indulgence in alcoholic stimulants, excessive smoking, late hours of going to bed and getting up, are no fit preparation for the upright, self-denying, self-contained life you will be called upon to lead if you are to be worthy members of the profession.

I am thankful to say that medical men, as a rule, rise to the height of their responsibilities and that examples are rare of breach of trust or violation of confidence. The late Canon Liddon, speaking of the sobering influence of the duties which attend the exercise of the medical profession, said that a grace as of ordination appeared to fall on its members after they were qualified and entered upon practice.

Once numbered in the ranks of the profession, you are under special obligations to every other member of it. Besides your duties to the community as good citizens, besides your sacred relations with the patients who place themselves and their families under your care, you owe particular respect, consideration, and regard to all your professional brethren. It is not without reason that we adopt the French term "*confrères*" and call each other "brother practitioners." We are bound up together, and if our individual interests clash—as they will sometimes—we must give each other credit for good motives, and be ourselves actuated by good feeling, and see that the republic of medicine suffers no injury at our hands.

ST. GEORGE'S HOSPITAL.

THE APPLICATIONS OF PHYSICS TO PHYSIC.

By R. L. BOWLES, M.D., F.R.C.P.,
Folkestone.

The Disappearance of the System of Apprenticeship.—The Importance to the Medical Student of a Study of the Physical Sciences.—Their Application to the Study and Practice of Medicine and Surgery, Pathology and State Medicine, Materia Medica, Pharmacology, and Therapeutics.

Dr. R. L. Bowles, in commencing his address, said that he would speak rather as an old student than from the professorial point of view. He paid a high compliment to the staff of the hospital, and pointed out that the opportunities for clinical study within the hospital were virtually unlimited, since the wards, containing 350 beds, were thrown open to students in a manner comparatively unrestricted. He called attention to the increase in the number of house-physicians and house-surgeons, and observed that the extension of the medical curriculum to five years would enable many more students to obtain these advantageous positions. He commended the present arrangement of the curriculum, and said: "However we, who sat at the feet of the Gamaliels of the old school, may deplore it, the apprenticeship system is dead, defeated and killed by the rapid march of science; the revolution is complete, we cannot march backwards, and so that system must, once for all, be wholly and finally abandoned. We do not say this without a pang nor without a consciousness that much that is good will go with it. The business habits so essential to the well-doing of the general practitioner, the knowledge of minor surgery and of the treatment of ephemeral diseases in the homes of patients, the niceties of practice, the early acquaintance with infectious diseases which we never see in our hospitals, will all be missed by the student of to-day."

Passing then to the proper subject of his address—the application of physics to physic—he sketched the circumstances which had aroused in his own mind a keen appreciation of the importance of a knowledge of physics for a proper understanding of the phenomena of life. He referred to his early experiments, conducted for the late Dr. Marshall Hall, as to the resuscitation of the apparently drowned, and to his own well-known observations on the mode of production of stertorous breathing and its relation to apoplexy. Snoring in pugs and pigs, and its absence in sheep and oxen, roaring in horses, and other noises of various kinds in living animals were all, he found, to be relegated to the domain of physics, for all were due to a mechanical "something" standing in the way of easy natural breathing. "Suffocation," he continued, "supervening in states of unconsciousness from whatever cause is made dangerous in the same way, as also are various forms of paralysis, for as so-called vital force diminishes so do the forces of physics then assert their sway. The paralysed muscles, as before pointed out, no longer amenable to the subtle influence of the patient's will, become the sport of forces from without, forces which will only yield to what the ancients called the 'vires vitæ.'

"In surgery almost all its work is done by the proper application of the laws of physics; injured parts and broken limbs are kept at rest, dislocated parts are placed in their natural positions, redundances are removed, and natural deficiencies often well supplied; crooked paths are made straight, and blocked and narrowed ones are rendered patent; stiffened joints are made to move, crooked limbs put into shape, eyes are made to see that would not, and ears to hear that could not."

Surgery had, in fact, become a department of physics—a physical art; and medicine, formerly the region of the unknown and the happy hunting ground of quacks, was rapidly following in the same lines. By applying to the study of the phenomena of the living body physical methods of observation, physiology was steadily elucidating the ways and doings of animal life. He urged upon his hearers the importance of acquiring sound principles and exactness in those sciences which were indispensable preliminaries to the study of medicine. Anatomy, physiology, and pathology—the bases of all true medical work—were the fields of medicine on which the sciences played their part.

"Pathology," the lecturer said, "comprising all those grave and palpable changes in the body which we are accustomed to regard as disorder, disease, or death, is chiefly applied by practising physicians to individuals. We have to reckon with the morbidity of the condition in particular cases, and to get at the root or cause of the condition; if we have a parasite, we deal with it; if disordered function, we deal with that, and the *plus* or *minus* of that function will probably sufficiently indicate our course of action in treatment. But there is a much wider sense in which during recent years we have been compelled to take the problems of pathology into our consideration; I mean in their relations to the body politic, what we now understand as State medicine. Until the reign of our present Queen, almost no notice was taken of the general health of the country; disease and death were allowed to have their way; contagia were not understood, and little or no effort was made to prevent one individual from causing the death of multitudes."

Sir John Simon had been able to demonstrate that the science of medicine was a most important part of the political

economy of the country. He succeeded in bringing the State and the medical profession into organised relation to one another; great benefits to the community had followed the accomplishment of this great work. Dr. Bowles then proceeded to discuss the application of physics for remedial purposes. He spoke of exercise in connection with recreation, and warned his hearers that fatigue, mental or bodily, could only be removed by rest, and not by bodily exercise. He touched on the difficulty the practitioner often found in deciding the amount and character of the exercise which a patient ought to be recommended to take, and then proceeded to discuss the influence of fresh air and change of air. He pointed out the extreme complexity of the problems involved. The physicist, the meteorologist, the chemist, the electrician, and the histologist had all to be called in at the very threshold of the inquiry. The influence of sea air required to be further studied; while it suited some people it made others ill, and sometimes places on the seaside and short distances from each other produced quite opposite effects on the same individual.

After touching upon the effects of heat, light, and electricity, he proceeded to discuss the administration of medicines. "Materia medica," he said, "or the knowledge of the remedies employed in medicine, has its divisions, its departments; each and all, being worked on scientific principles, will require all your preliminary knowledge to prosecute their study successfully. The physiology and distribution of plants, the chemistry of the metals and of crude substances, the methods of extracting active principles and of combining and preparing medicines for administration, all require the help of science, but especially is this the case when we come to deal with pharmacology and therapeutics." Pharmacology is defined as "a knowledge of the mode of the action of drugs upon the body generally, and upon its various parts." See what a range we have here. To be perfect we must have, first, a perfect knowledge of physiology and of drugs, and, secondly, we must remember that substances do not act on the human body as they would in a test tube; they produce in the body actions and reactions, affecting at one time one organ, at another time another, and it is at present impossible to produce a simple precise action which would make an observation conclusive.

"Therapeutics, rational and empirical, imply the administration of remedies suitable for the relief of particular symptoms in proper doses and proportions; a very important matter for the patient, but a matter frequently dealt with in a most reckless and perfunctory manner by the prescriber. Commonly, even at the present day, a number of drugs are jumbled together in a mixture in the hope that some of them may hit the mark. In old fashioned prescriptions we see six or eight different remedies combined; of these, each may be a preparation compounded of several drugs, so that in one prescription we may be giving the poor patient as many as thirty or forty different drugs of more or less potency.

"We should know what to do and do it, select our single bird, not blaze away at a covey; first see our object distinctly, not fire into a fog. Not a single drug ought to enter the body except under clear intention what object it is to fulfil there. Compounds may be good cookery, but they do not fulfil our ideas of scientific medicine."

ST. MARY'S HOSPITAL.

THE TRAINING OF THE MEDICAL STUDENT.

By ARTHUR P. LUFF, M.D.,
Lecturer on Medical Jurisprudence at St. Mary's Hospital.

The Five Years' Curriculum.—Intellectual, Physical, and Moral Training.—Chemistry.—The Unwisdom of the "Anti-vivisection" Enthusiasts.

Dr. Arthur Luff dealt with the objects of medical study and work under three heads, (1) the methods to be adopted for the acquisition of the requisite education and training; (2) the opportunities thus offered for the moulding and development of the moral character; (3) the means offered for the training of powers of observation and thought.

Though but average mental power and ordinary ability were requisite for the successful prosecution of medical studies, for the passing of examinations, and for after-practice, yet the one thing that was indispensable was industry. Students at the outset of their medical studies might probably be surprised, and perhaps alarmed, at the diversity of the subjects with which they had to form some acquaintance, and with the wide range of medical education of the present day. The relationship of some of these subjects to the practice of medicine might not at first be apparent, but the curriculum of study and work had been mapped out with much forethought and care, and well comprised what is necessary. Due regard had been paid to the relationship to medicine and surgery of those departments of science which preceded the direct study. Chemistry, for instance, was a most important and useful science, but the question was not whether chemical knowledge was of worth, but what was its relative worth. Remembering how the time for the acquisition of knowledge was limited, it was necessary to use an expression of Bacon's to "determine the relative values of knowledges." This, he claimed, was well done in the curriculum of work that had been drawn up for guidance.

The study of physics, chemistry, and biology would prepare the way for and lead you up to the study of physiology. "Our forefathers," Dr. Luff continued, "adopted an entirely different system of medical training; with them a period of pupilage with a medical man preceded the studies of the medical school, so that the student of those days was first brought face to face with disease before he had learnt the facts and phenomena necessary for the comprehension of it. This, I venture to think, was a most baneful system, it wa the building of the house on the sands of empiricism, instead of its erection on the rock of scientific knowledge."

The lecturer then proceeded to urge the importance of a systematic arrangement of the hours of the working day. Side by side with the acquisition of facts should go the cultivation of the power of observation. It was frequently impossible to detect progress day by day, but knowledge was surely being acquired.

Moreover, the display of interest by students and their energetic discharge of their duties constituted a great encouragement to teachers, and furnished a direct stimulus to them in their work of instruction. Nothing was more discouraging and depressing to a teacher than to see a student sitting in the lecture theatre or class-room looking bored and uninterested.

"The new five years' curriculum," Dr. Luff continued, "which has come into force this year will, I think, prove a boon to you, in that it will enable you to do thoroughly what it was almost impossible to accomplish under the four years curriculum. With the exception of biology, no new subject is interpolated into this extended curriculum, but one most important and useful reform has been introduced, and that is that a certificated course of study at a fever hospital is now insisted upon as part of the curriculum. I rejoice at the institution of this reform, for it is most essential that you should obtain a practical knowledge of the principal infectious diseases before you go into practice, not only that you may diagnose them correctly and by their early recognition take means to prevent their spread, but also because under the Infectious Disease Notification Act, that came into force in 1889, a power is placed in your hands which is almost the power of the *lettre de cachet*. There is one other reform which I trust we shall ere long see instituted, and of which those of you who are now commencing your curriculum will in all probability be able to avail yourselves five years hence, a reform which is sorely needed as a matter of justice and equity to the majority of London medical students, and that is the establishment of a university in London where the degree of doctor of medicine will be within the reach of all medical students, and where it can be obtained by a less rigorous series of examinations than the present somewhat exclusive degree of the University of London. A Royal Commission has been appointed to recommend a scheme for establishing a new university, and I devoutly hope that their deliberations will shortly bear fruit."

The lecturer then recommended his hearers not to restrict their education to purely professional subjects and books. It was not wise to crush beauty and poetry out of life. A man would not be efficiently equipped for the discharge either of

professional or social duties if the acquirement of deep information on medical matters had been obtained at the cost of general culture in literature and the fine arts. Herbert Spencer had well said of the cultivation of literature and the fine arts: "As they occupy the leisure part of life, so should they occupy the leisure part of education."

Dr. Luff then dwelt on the great value of health as the chief and most important factor in happiness. Excessive devotion to mental education had in modern times resulted in a corresponding neglect of bodily education. Physical development underlay mental development. At the medical schools recognition of this fact was well shown in the endeavour of students to combine work with play, as illustrated by various athletic and sports clubs. Some of the sports, however, such as football, cricket, rowing, etc., were not immediately accessible, and therefore, without the slightest intention of underrating the value of these sports, he would mention one which possessed peculiar advantages to the student residing in London—cycling; rational cycling, not the horrible exhibitions of cycling too frequently seen nowadays, not the individual who, with crooked back and head dangling over the front wheel, tore along indifferent to the safety and comfort of others, and who was so aptly compared by the observant *gamins* of London streets to "a monkey on a gridiron." It was time that members of the medical profession, whilst advocating the immense benefits of athletic training, should raise their voices against the growing evils of athletic straining. A bicyclist had recently ridden 421 miles in twenty-four hours, that is, that, not allowing for any stoppages, an average pace of over 17½ miles an hour had to be maintained for the twenty four hours.

"I have been a cyclist for sixteen years," Dr. Luff added, "and in my earlier athletic days I frequently associated with, and therefore had the opportunities of observing, young men who at that time stood prominent in the athletic world as champions and record-breakers, many of whom, alas, now sleep the long sleep, hurried prematurely to their graves by the insane desire for so-called record-breaking fame and prize winning."

In speaking next of moral training, the lecturer expressed the opinion that in these days of competition and hurry men and women did not sufficiently cull the little wayside flower of cheerfulness. "What a man has in himself is then the chief element in his happiness," said Schopenhauer. Self-discipline and self-control strengthened the moral fibre—self-improvement meant not only self-elevation, but an addition to what should be the highest ideal—the perfection of humanity.

He spoke next of the student's opportunities for the training of powers of observation and of thought. The work, and especially the clinical work, was so arranged as to stimulate thought, and to promote the cultivation of independence of judgment. Knowledge, the mere possession of truths and intellectual cultivation, the acquired power of applying those truths, must be gained simultaneously. One of the chief hindrances to development was an undue respect for so-called "authorities in medicine." The only sure road to truth was devotion to independent inquiry; medical science was markedly different from many other sciences in that the field of original observation and work was open to all members of the medical profession, high and low, from the hospital physician and surgeon to the humblest general practitioner.

Avowing his own personal attachment and predilection to chemistry, and admitting that many would not be able to give more than a small share of time to the study of chemistry, he said that those who could spare the time to acquire a more extended knowledge of that science, would become possessed of a factor most useful in the treatment of disease, and most potent in aiding the discovery of some of the hidden secrets of the causation of disease.

Although some measure of success had been attained of late years in the treatment of diseases of the individual, yet a much greater measure of success had been obtained in the prevention of the diseases of communities; and, in the future, preventive medicine would doubtless attain to a much higher degree of perfection. It therefore behoved the medical profession of this country, in the furtherance of this enormously important work of preventive medicine, to look out that we were not left hopelessly in the rear by other countries, for to the advancement of what was so obviously of the greatest national importance, a great obstruction had been offered in this country by the hysterical antivivisection movement. Even the most advanced opponents of so-called vivisection would agree that the lessening of the sum of suffering should be one of the highest aims of every human being, and if the abolition of much suffering and the saving of the lives of thousands of human beings could be secured, even at the cost of the infliction of some pain on a few of the lower animals, was not such action not only justifiable, but righteous? The utility and necessity for experiments and observations on animals could not be rightly estimated by an unskilled public. The sentimentalists were, no doubt, actuated by the most benevolent feelings, but he would ask them to direct some of their energy to the prevention of some of the cruel operations practised on animals to fit them for human food or labour, or to the altogether unnecessary and cruel suffering that is inflicted in the name of sport. "If," he continued, "I, as a medico-legal expert, and in the interests of justice, perform the almost painless experiment of injecting a poison into a mouse in order to observe its effects, the strong arm of the law can fall heavily upon me, although I am engaged in the vindication of the law, while, at the same time, the most horrible infliction of pain and suffering is permitted and even applauded at aristocratic pigeon-shooting matches, in pheasant preserves, in the hunting to death of terror-stricken foxes and tame stags—yea, in the last-mentioned instance, it is even fostered and subsidised by the State. While these cruelties are allowed to continue, the well-intentioned sentimentalists and opponents of so-called vivisection are straining at an infinitesimal gnat and swallowing a mammoth camel. Instead of impeding the advance of science, let them turn their attention to the suppression of this daily hecatomb of helpless animals, butchered to make an English holiday."

UNIVERSITY COLLEGE HOSPITAL.

MEDICAL EDUCATION AND THE DENTAL PROFESSION.

By S. J. HUTCHINSON, M.R.C.S., L.D.S.Eng.,
Dental Surgeon to University College Hospital.

The Rebuilding of University College Hospital.—The Five Years' Curriculum.—Medical Degrees for London Students.—The Medical Practitioner and the State.—Dental Surgery as a Career.—Nursing as a Career for Ladies.

After some introductory remarks, Mr. Hutchinson referred to the approaching rebuilding of the hospital on a larger scale than at present.

He then went on to speak of the five years' curriculum. He recommended every student to pass the Matriculation Examination of the London University, as it was certain that many more men would take the London degrees if they had only passed that examination. It was only when a student got thoroughly interested in his work that he realised how one step led to another, and how much more easy it was to pass examinations in his student days than to go back again after commencing practice to study for some coveted higher degree. He urged upon every one of his hearers the importance of striving for the "best possible"—that is to say, the highest degrees attainable, the M.D. or M.S.Lond., or the F.R.C.P. or F.R.C.S. The curriculum of the Conjoint Board did not admit of the six months' private tuition in general practice which was originally proposed, and which was recommended by the General Medical Council, and which would have been an attempt to realise the best points of the apprenticeship system without its drawbacks.

There was always a certain fear of medical students acquiring a "hospital manner," which, however efficacious it might be in the exigencies of hospital practice, certainly did not suit in private practice. The lecturer recommended his hearers to cultivate a spirit of consideration towards the patients with whom they were called upon to deal during their studentship, and to behave towards them as far as possible as they would towards their own patients in private practice. With regard to professional knowledge, there were certain

things to which it was worth while to pay special attention and which could not be known too well. These were anatomy and physiology, and pathology in its widest sense. Without a thorough knowledge of these the sciences of medicine and surgery were simply the "baseless fabric of a vision." It was well also to pay special attention to the "art of prescribing." Whilst brilliant skill, the *tactus eruditus* of the master, was the fine art of surgery, so was an efficient and palatable prescription the fine art of a skilful physician. Almost anybody could paint a door, but it took an artist to paint a picture. So it was with prescriptions, and few things conduced so much to the success of a medical practitioner as an artistic prescription in its truest sense.

After touching on the recommendations of the Lords' Committee, Mr. Hutchinson dwelt at some length on the question of medical degrees for London students. After pointing out the "glaring anomaly" of a man who had gone through the five years' curriculum and several severe and searching examinations not being able legally to style himself "Doctor," he proceeded as follows: Now, the solution of this difficulty appears very simple, and I submit the suggestion for your earnest consideration, for probably the consummation will be in your hands and not in ours. I say the simple solution is this:

Let every medical practitioner who has duly gone through the curriculum ordained by the General Medical Council, and who has passed finally in medicine, surgery, and midwifery, be thereafter legally entitled to style himself "Dr.," just as every clergyman or minister who has fulfilled the prescribed ordinances is styled "Reverend." The case is absolutely on all fours, and it would save an immense amount of trouble. It would not abolish one single university or examining board, and, best of all, it would not create a new one. It would still be open for the student to graduate at Oxford or Cambridge, Dublin or Edinburgh, or at the London University, and he would be legally called Dr. So-and-so, with M.D. or M.B. after his name, as the case might be. Let me be clearly understood on this point, for I would not lessen in any way the value or stringency of the London University degree, though I would rather it were styled the "Imperial" University. The profession knows how to appreciate the higher degrees. The public cannot rightly judge of the value of any degree; it would be sufficient for them that the medical man they employ is legally entitled to be called "Dr." I am aware that this scheme does not provide a university degree for London medical students, but it does provide a title for them which they would not have to go away from London to procure. And I cannot see why the machinery which now exists to provide a medical education and examination all over the kingdom, should not be utilised to bestow the coveted title of "Dr." equally as well by an examining board as by a so-called university. It is quite certain that it would simplify the machinery of checking irregular practice, for no one could then call himself "Dr." and practise physic unless he had duly passed through the ordained curricula and examinations.

The lecturer went on to say that the State might be called upon to do a little more than it did for the medical practitioner. The State insisted upon the medical student undergoing a five years' curriculum of severe study in all sorts of subjects; it compelled him to pass difficult examinations at all periods of his career, and then, when he had done everything and satisfied everybody, and got his degree or diploma, what did the State do for him? Did it protect him in any way against the bonesetter, the herbalist, the medical electrician, the mesmerist, the midwife, or the prescribing chemist, or the legion of American and other foreign gentleman with a may-be bogus degree? The penal clause was emasculated and inert, because in order to convict an unlicenced and unregistered person it was necessary to prove that the said person wilfully and falsely represented himself to be a duly qualified practitioner with intent to defraud. He thought this was carrying the liberty of the subject a trifle too far. The legally qualified practitioner should receive a little more help than he got at present. There ought to be another general practitioner on the General Medical Council and at least one dentist.

The lecturer went on to speak of dental surgery as affording a good opening to those possessed of manual dexterity. He said those specially interested in the dental licence had all along endeavoured to assimilate it with the conjoint diploma, so as to offer every possible inducement to dental students to secure both diplomas, and, he was glad to say, that many of the best junior men in the dental profession had found it quite possible to do so. He pointed out that students of University College were singularly favoured in their opportunities for acquiring a knowledge of dental surgery on account of their proximity to two dental hospitals—one in Leicester Square and one in Great Portland Street. In the face of these advantages, it did not seem desirable for University College to establish a dental school within its walls. The dental diploma required by law, 1878, was a very good one, and it required actually more medical education than the Medical Act of 1815 required of the medical practitioner of that date.

With regard to the professional status of the dentists, it was worthy of notice that there were the Odontological Society of Great Britain and the British Dental Association, the latter with branches all over the kingdom to which they could belong, provided they did not advertise their skill or their charges, and provided they conducted their practices in a professional manner. These societies, by these ethical laws, had done and were doing much to instil truly scientific and honourable spirit amongst their members.

Mr. Hutchinson insisted on the necessity of blending amusement, and especially healthy physical exercise, with their work. He went on to urge upon his hearers the great advantage to be gained by joining some of the various societies for medical life assurance, and especially commended the Medical Sickness, Annuity, and Life Assurance Society.

He concluded by referring to the invaluable help which physician and surgeon alike derived in the successful practice of their profession from skilful and attentive nursing. Whether in the hospital or the home, the nurse was almost as essential as the doctor, but only so far as she understood how properly to fulfil the instructions of the medical man. He did not think it was possible to surpass the system of hospital nursing in vogue at University College Hospital, and he paid a tribute of respect and thanks to the sisters and nurses of All Saints for the efficient manner in which the nursing arrangements were carried out. He had not one word to say against those ladies who were hard-working enough and clever enough to become doctors themselves. At the same time he thought there was no more glorious or useful field open for ladies than nursing, provided they were willing, if able, to do the hard work which proper nursing really was, and provided they "went in" for it with the intention of fulfilling their duties, and not merely for the sake of wandering aimlessly about under the influence of some fleeting impulse.

The lecturer brought his remarks to a close with an allusion to the question of public and official honours for medical men.

WESTMINSTER HOSPITAL.

THE ALTERED RELATIONS OF THE MEDICAL PROFESSION TO THE PUBLIC.

By CHAS. A. MERCIER, M.B.,
Lecturer on Neurology and Insanity in the Medical School.

Social Maladies.—Paupers, Accidental and Essential.—The Relation of "Essential Paupers" and Criminals to Lunatics.—Practical Consequences of the Recognition of this Relationship.—Intellect and Character as Elements in Success in Life.

Dr. Mercier reviewed the altered relations of the medical profession to the public, first in regard to the relations of the individual doctor to each patient, and then the relation of the profession as a whole to the rest of the community. In the first relation he remarked how the intercourse of doctor and patient had become less oracular and more confidential. Now the indiscriminating *sic volo sic jubeo* of the doctor had given place to a code of instruction whose reasons were imparted to the patient; now in the treatment of disease the doctor no longer contented himself with administering two tablespoonfuls of physic three times a day—a mode of treatment often little superior to that of wearing an amulet round the neck—but sought to take the whole mode of life of the patient into his hands, and to modify and regulate it in

accordance with the new conditions that the malady required.

The old view of disease that was now passing away regarded the patient as a body, some organ of which was deranged in its working. The new view regarded the patient as an acting, thinking, feeling man, whose power of acting, thinking, and feeling was impaired and needed to be restored. The notion that our predecessors had of the body was much like that which an intelligent outsider might obtain of some great engineering workshop. They knew and understood nearly as well as we the structure and working of the various organs of the body—of the machinery by which the work of the body was done—what they failed to appreciate was the nature and mode of action of the power by which the machinery was actuated and the work of the body performed. It was the working of this power, which resided in the nervous system, to which attention was now being directed, and the study of nervous action was rising continually more and more into prominence. Among the results of our increasing knowledge of the action of the nervous system, and the altered views that were beginning to prevail with regard to what might be termed diseases of the body politic—maladies affecting the community itself—by which was meant not widespread maladies affecting large numbers of individuals, such as influenza or cholera, but disorders of the community which might coexist with a good standard of health in the individuals of which the community was composed, disorders which impaired the efficiency of the social body, which impeded it in its struggle to maintain its place among the nations, which diminished its welfare and retarded its progress. Such social maladies were crime, pauperism, and insanity. The lecturer contended that different as these conditions were in superficial features, they exhibited, upon close investigation, such substantial similarity, that they might be regarded as several branches of one stock. The pauper, the criminal, and the lunatic were alike, it was contended, in being stragglers from the great army of civilisation. They had failed to keep pace with the great moving body to which they belonged. They had fallen hopelessly to the rear, and would perish by the wayside unless they are gathered into one of the three great ambulances that civilised States provided for their wounded and their inefficient, and which were called respectively the workhouse, the lunatic asylum, and the gaol. An examination of the inmates of a workhouse would show that, exclusive of the sick, the children, and the aged, who might be termed accidental paupers, the remainder, or essential paupers, were so by reason of some defect of constitution, some want of intelligence, or of stability of character, or some infirmity of temper or passion, which, on the one hand, vitiated their capacity for labour, or made their labour unremunerative, and, on the other hand, allied them to the insane. A large proportion of these essential paupers will be found to be or to have been criminals, and a larger proportion to possess the instincts and habits of criminals. Of criminals, all, so long as they are in gaol, are of course paupers in fact, and a disproportionately large number are found to have obvious mental defects. In addition to these individuals, who bordered, and more than bordered, on insanity, it had been established beyond cavil by Lombroso and the school of criminal anthropologists that the criminal man was of a different physical organisation from the normal man, and resembled the lunatic in many respects. Lastly, while every insane person was potentially a pauper, that was to say, incapable of supporting himself continuously by his own labour, all, or nearly all the insane, were potential criminals also; that was to say, their appreciation of their duty to their fellow-men was so dim and so distorted that, but for the restraining influence of asylum life, they would bring themselves within the purview of the criminal law. It was further pointed out that there was a constant transference of individuals from one class to the other, and that the majority for instance of the insane had passed through the workhouse or the gaol; that while our gaols were being closed for want of inmates, and pauperism was diminishing relatively to the population, lunatic asylums were being extended in all parts of the country. Finally, it was contended that the same remedial agent—compulsory employment—was used, and was found efficacious in each of the three disorders, so that the poetic dictum that "the lunatic, the lover, and the poet are of imagination all compact," should read "the lunatic, the criminal, and the pauper."

The practical bearing of the views advocated was to be found in the modification of treatment that would follow if the close relationship of the three maladies were admitted. The process for admitting a lunatic to an asylum had already been assimilated to that for committing a criminal to gaol. In both cases the detention was for a definite period, and at its termination the patient was discharged quite irrespective of the state of his malady at the time. In the case of the lunatic, the patient could be further detained if, in the opinion of his physician, he was not sufficiently recovered to render him a fit person to be entrusted with his liberty. In the case of the criminal, this provision did not exist, and herein the criminal had the advantage of the lunatic, but whether the arrangement was equally advantageous to society was another matter. It was certain that if the reclamation of the criminal was to be effected the period of his detention must be indefinite in duration, and must depend on the amelioration of his character.

The value of these speculations from a medical point of view was claimed by the lecturer to consist in the broadened and more accurate conception that they afforded of the nature of insanity and allied disorders. It was not by peering through the microscope only that we should ever discover the reason for the existence of a delusion, or be able to account for disorders of conduct. The explanation of such phenomena was to be found, not in visible structural peculiarities, but in the operation of biological and sociological laws; not in alterations of the brain, even though such alterations existed, but in the ancestral history of the individual and in the complex interactions between the forces that animated him and the conditions in which he was placed.

The lecturer concluded by inferring from these instances of non-success in life, the conditions that were necessary for success, and dealt with the respective shares of intellect and character in conducing to this result. Cleverness, he said, was becoming commoner every day; it was almost a drug in the labour market. But character retained and would always retain its value. Strength of character, energy, courage, and integrity were priceless qualities. They could not be gotten for gold, neither could silver be weighed for the price of them; and while men of brilliant intellect failed every day, men with these qualities could always command success.

MIDDLESEX HOSPITAL.

ON THE IDEAL IN MEDICINE.

By SIDNEY COUPLAND, M.D.,

Lecturer on Practical Medicine Middlesex Hospital Medical College.

Study and Examination.—Progress in Surgical and Medical Therapeutics.—The Study of Materia Medica.—The Public Confidence in Drugs.—The Significance of Pathology.—The Schemes for a new University in London.

Dr. Coupland said: My first words must be ones of regret and apology—regret which all feel that Dr. Pringle, to whose address we had been looking forward, should have been ultimately compelled by indisposition, arising from too unremitting devotion to duty, to abandon the task we had imposed on him. He has been reluctantly compelled to deprive us of an anticipated pleasure, and that has necessitated my appearance before you in an unexpected character. I am very grateful to my worthy colleague, Dr. Pasteur, for relieving me of my official duties on this occasion, but I owe my readers an apology for having rashly undertaken to play the part of understudy to the chief actor of the day. We felt, however, that to have omitted this portion of the programme altogether would have been hardly courteous or right. I trust, then, that I may have your indulgence while I endeavour to maintain this time-honoured institution. The main object, I opine, for these introductory addresses at the opening of our winter session is to welcome those who sit on these benches for the first time, to hold out to them the hand of fellowship, and to bid them Godspeed in their new career. To such, then, on behalf of my colleagues and all members of this school, I offer this cordial greeting, promising that, although you may find the pursuit of medical studies somewhat arduous and exacting, yet it is full of those pleasures which are well known to accompany the exploration of new

regions, and that day by day, as Nature yields up her secrets, you will find them more and more fascinating. If it were not for those examinations which loom so fearfully in the distance your career here might be almost romantic as you explore the unknown; but we are forced to realise the stern utility of our labour and think to what purpose we shall be required to put the knowledge we are gaining. I have only this to say, that he who does pursue his work in the spirit of the scientific investigator will be sure to have his knowledge so accurate that he will have no fear of any board of examiners. Therefore, the chief advice I would give you is to work practically and personally at all your subjects so as to fully master them and never stop to inquire whether it might be better to omit some matters and to dwell long on others because they may or may not be likely topics to find favour in the examiners' eyes. Gentlemen, you are fortunate in the time of your entrance upon this calling. For in no period of the world's history has there been such a keen desire to find out the truth of things. The sciences which at the opening of this century were emerging from obscurity are now daily enriching the world with their benefits. Never, indeed, were the advances of knowledge so rapid and so fruitful. We see this not merely in the multiplicity of inventions, all tending to conduce to the material comfort and happiness of mankind, but notably also in medical science, where the labours of numberless investigators in tracking diseases to their sources are leading us to more rational measures for their prevention and treatment. If the Golden Age ever does arrive—and preventive measures have made scarlet fever, typhoid fever, diphtheria, and tuberculosis as rare in this country as typhus fever, relapsing fever, the plague and leprosy, and to a certain extent all manner of surgical septic diseases—there will still remain much for medicine to do in its task of rendering the earth fit to live in. Only quite recently we have been forcibly reminded of our ignorance and impotence. For, as if to mock our science and our skill, the world has witnessed during the past three years the recurrence of a pandemic disorder which has periodically traversed the globe in historical times—a malady which, though often apparently trivial in its immediate symptoms, has indirectly been responsible for an untold amount of sickness and mortality.

Another aspect of our art is that which strictly comes under the heading of healing. Is the advance also great upon that line, and how is it being pursued? It seems a truism to say that the more we know about diseases the better we shall be able to treat them. Still, although we have learned much respecting the art of healing, we have infinitely more to learn, and much, I think, to unlearn. The sarcasm which Molière levelled at the physicians of his day is not without meaning now. We, too, may often err in assigning too great importance to remedial measures and too little to the beneficent working of the organism itself. No one has more emphatically urged this than the late Dr. H. G. Sutton, of the London Hospital, who combined in one the gifts of the practical physician, the philosopher, and the poet. His lectures should be read by every member of our profession as an antidote against the common error of mistaking recovery for cure. It has been sometimes urged as a reproach to physic that in respect to the treatment of disease her advance has been far behind that of surgery. I am not about to make invidious comparisons or to meet this criticism with the rejoinder that the opportunities for the performance of the new surgery have been largely owing to a sounder knowledge of the facts of pathology and a greater perfection in diagnosis.

That there is also progress in the domain of medical therapeutics it would be idle to deny, but unfortunately in this department we are still largely under the influence of teachings framed in times when the structures and functions of the body were imperfectly known, and the operations of disease hardly understood at all. And, moreover, it is because of the darkness which still prevails concerning the intimate processes of disease that we still have to grope our way and trust to the haphazard inferences of experience in many of our prescriptions. I am far from wishing to minimise the importance of those studies in materia medica to which you will have to devote many hours; they have their place, not only as a mental exercise, but as a source of information upon what was once the chief armamentarium of the doctor which it would be a pity to lose. Nevertheless, at the risk of being pronounced a heretic by the College to which I have the honour to belong, I make bold to say that the place taken by drugs in the treatment of disease is very often a purely subsidiary one. In saying this, I must guard myself from misconception. There are many occasions where the prescription of appropriate remedies is of inestimable service, but in very many this part of treatment is necessarily unscientific—that is, empirical or irrational. The difficulty is in affirming in many cases what is the precise nature of the change introduced into the economy by the administration of physic. And this difficulty is enhanced by the fact that we deal with patients, living individual organisms, and not with abstract morbid states. That much abused genius Paracelsus was far in advance of his contemporaries of the dark age of medicine when he declared that drugs acted on the body by virtue of chemical changes; and the lacuna that has still to be filled is to determine what is the precise change that is necessary in any given case. Of one thing at least we may be thankful, and that is that the days of polypharmacy are numbered; but, as a set-off to this, we seem to be living in times when a new remedy is vaunted every week, and after a brief but glorious existence sinks into oblivion. I tremble to think of the labours you would have to undergo were it not for the limitations imposed by the *British Pharmacopœia* and the Schedule of Drugs which the Examining Board has considerately drawn up as being all that is really necessary for you to know. I suppose that the old conception of the apothecary as one whose skill was bound up with the multiplicity of the remedies he might have for every ill is still prevalent, for we have ample testimony of the popular belief in the virtues of physic daily before our eyes. Few things are more surprising, and, indeed, saddening than to find in these enlightened days when the schoolmaster is abroad in all parts of the land, that one of the most certain ways to a great fortune is to be the inventor of a pill or a mixture, or even of an ointment. Nay, you have only to shut yourself up in a remote castle and turn out bottles of electrified distilled water to be praised and even worshipped as a saviour of society by the learned and noble. How deeply ingrained must have been the old faith in medical magic for it to have survived so many centuries and to have thriven even amongst those who have been subject to all the culture of the nineteenth century. In this blind unreasoning faith in panaceas—the very antithesis of the scientific spirit—we have a striking object lesson, not of the virtues of medicine, but of its weakness and the triumph of credulity over knowledge in the effects of such misnamed "remedies" of the influence of the mind over the body. Another explanation is, possibly, that even we who wish to deal with diseases in an intelligent manner have inherited traditions and prejudices as regards healing which we are unable or unwilling to cast aside, although we cannot help feeling how little we often really know of the action of drugs in individual cases. life and environment which may influence the individual organism, including the tendencies to special forms of disease that may be present in the patient's family. The old practitioner who is familiar with the constitution of his patients and their children is mostly a far better guide than the consultant whose acquaintance with them is probably of not more than ten or fifteen minutes' duration. I should have liked to trace out in more detail the directions in which it seems to me the medicine of the future will mainly tend; but under the special circumstances of this occasion I forbear to tax your patience or my powers in the pursuit of what after all would be mere fanciful calculations. I therefore hasten to turn to a more prosaic, but to all of us a more immediately pressing question, that of medical education in general and in this city in particular. The aim of our profession being, as I have indicated, of a twofold nature—namely, to prevent disease on the one hand, and to assist the natural powers of recuperation in the deranged or injured organism; it is plain that the basis of all our study must be founded on a thorough knowledge of the laws and conditions of life, and of the structure and functions of the body. Starting from this foundation, the next superstructure in the edifice of our art is that of pathology, the sum of all the ascertained facts concerning the mechanism by which diseases are brought about, and the effects they produce on the organism. In its fullest sense, then, pathology embraces not only the

changes to be ascertained by dissection and microscopic and chemical analysis of the dead body, but the perversion of the natural vital processes and even the causes or antecedent conditions to the departure from a state of health. It is not for me here and now to criticise the scheme of study which, in conformity with the revised regulations of the Conjoint Board, we have adopted here. In very many respects it is a decided benefit to the student, who will find that even five years is all too brief to enable him to assimilate all the subjects that are now demanded from him. But I cannot avoid expressing my own conviction that the next step in the improvement of the curriculum must be the relegation to a period antecedent to the strictly medical course of the purely scientific subjects—physics, chemistry, and biology. The great merit of the new scheme of study is undoubtedly the prominence it gives to practical work. In almost every one of the branches there are now classes and arrangements to enable each student to find out for himself most of the facts about which he reads in his book or learns from the lips of the lecturer. Time was when this kind of work—the most attractive and the most fruitful—was limited to only one or two subjects. But we live under a new *régime*, and, if only it be faithfully carried out, it should prove of great advantage. By faithfully sticking to his practical work, whether in the ward, the *post-mortem* room, the laboratory, or the dissecting room his memory will be strengthened, since the avenues to it through the senses will all have been opened up. Then when the examination day comes round the diligent dissector will have his anatomical facts almost literally at his fingers' ends, the patient histologist will see in his mind's eye what he has perceived through the microscope, and the clinical worker will recall the physical signs of the cases he has observed far more readily than he will remember the descriptions which he has merely read. It is surely well in these days, when there is a plethora of textbooks and an almost inordinate amount of oral tuition, to remember that the only knowledge which is really one's own, that which is of the only real service in practical life, is the knowledge founded on personal observation, upon which we were told of old time that "the whole medical art consists." The institution of a final examination in clinical and practical medicine and surgery is a future of the new scheme of the Royal College which deserves especial mention, and the manner in which the fifth year of study is to be spent should make that period of your career the most interesting of all. It seems to me to give in a fitting manner a completeness to the curriculum not hitherto secured. With a few modifications, which experience may show to be necessary, the course thus laid down by the College may without exaggeration be said to be as academic as that of any university, and, this being so, it may seem to be a hardship that it does not lead to the possession of academic distinctions. When, thirteen years ago, I had the honour of acting in a similar capacity to the present, I think that I was sanguine enough to say that there was no reason at all why the majority of the London medical students should not take London University degrees. I thought then, when perhaps the memory of my student days was more fresh upon me, that one great reason for the singular paucity of London graduates lay in the equally singular ignorance concerning the University which would seem to exist in the schools of the country. But I have learnt since from a wider experience of other universities that this is not the sole reason, for although the number of London graduates is yearly increasing they form a small minority of the London students, whereas in Edinburgh the reverse is the case. I take it that the grievances of the London medical student are established.

After detailing the history of the various proposals which have been made regarding the new London University, the lecturer proceeded: "It matters little so long as the true interests of learning are kept in view and the welfare of the large numbers who come up to London every year to enter on the study of medicine. The time is approaching when something will be done to relieve the greatest city in the world of the reproach that it has any local organisation for higher education; and to the medical schools in particular one anticipates nothing but benefit from their union on common grounds within the *ægis* of one university. Thereby medical education itself will be rendered more stable and more efficient. It would seem that the spirit of activity and unrest characteristic of the progress of the age is touching the subject in which we are most interested at present. Thus the desire for improvement and perfection is a healthy sign, and, although we may be living in the turmoil of transition we can look forward to a more peaceable period when, under the new order, the training demanded of those who are fitting themselves to be medical practitioners shall be founded on rational and scientific lines, for the desire of all must be that our profession should not fall behind in the race, but should continue as heretofore to lead the van in the great work of bettering the conditions of human existence. And for the individual practitioner a well-conceived and systematic course of training is of much more value than academic honours. If to knowledge he adds the common virtues of sympathy, gentleness, and strength he will go forth to his daily contest with misery and suffering, not only fully equipped for all emergencies and all trials, but with consciousness that, in his little corner of the earth he is doing something to brighten life and to assuage its woes. What higher vocation could be set before him—what could make to him life more worth living? That is the career which opens on many of you to-day on which we welcome you, and in which we wish you all prosperity and honour."

YORKSHIRE COLLEGE, LEEDS.

DOCTORS IN LITERATURE: OLD AND NEW.

By W. MITCHELL BANKS, M.D., F.R.C.S.,
Surgeon, Liverpool Royal Infirmary.

Gil Blas and Ohnet.—Molière and Sidney Grundy.—The Flemish Painters and Luke Fildes.

Mr. Mitchell Banks devoted the main part of his address to a comparison of the doctor of medicine of to-day with the doctor of medicine of two centuries ago. He worked out his subject by taking the picture drawn by a novelist, a dramatist, and a painter at each epoch. The earlier novelist chosen was Lesage, and the portrait of Sangrado was sketched mainly by extracts from the novel (*Gil Blas*) itself. Sangrado was contrasted with Dr. Rameau, the hero of George Ohnet's novel of that name. Molière was the dramatist of earlier days who supplied such unflattering portraits as Purgon, Diafoirus, and so biting a burlesque of an official ceremony as was contained in the interlude which closed the *Malade Imaginaire*; while Mr. Sidney Grundy was the modern dramatist whose striking study of Sir Peter Lund in the *Fool's Paradise* recently delighted all London when interpreted by Mr. John Hare. The engraving from Nanteuil's picture, "Le Bassin," and Dutch and Flemish pictures of the type of "La Femme Hydropique," were contrasted with Mr. Fildes's picture, "The Doctor." "The situation," Mr. Banks continued, "is not an unreal one. It is a painfully common and real one. It is one which occurs continually in our lives. Would that I had some Asmodeus to lift off the roofs of the houses of Great Britain to-night, and to take these critics to where life and death are engaged in the final contest for the mastery. They would see to-night, this very night, Luke Fildes's doctor sitting by the bedside watching for every deeper breath, every stronger pulse that might give him hope to go on with the fight. They would see the country doctor in the Highland cottage or the Yorkshire farmhouse. They would see the physician of renown in some great nobleman's palace; they would see the house-surgeon in the hospital ward; but, in whatever capacity he might be revealed, of this I am sure, that he would be seen overmastered by the one idea of how to save his patient, and how to show himself the gentle comforter of the afflicted friends. I have just said that we owe much to Molière for lashing out of us the quackery and ignorance that prevailed in his day. But what do we not owe to Mr. Fildes for showing to the world the typical doctor, as we would all like him to be shown—an honest man and a gentle man, doing his best to relieve suffering? A library of books written in our honour would not do what this picture has done and will do for the medical profession in making the hearts of our fellow-men warm to us with confidence and affection."

"And now, my dear young friends, we are nearing the end of the nineteenth and you will be the doctors of the twentieth century. Upon you will devolve the responsibility of maintaining that honourable position in the sight of all men which your forefathers have struggled to win for the profession of their choice. You are no longer students of a mere provincial school of medicine. You are members of a college of a university which, before your days are ended, will have revolutionised education in the north of England. The ground has been prepared, and planted, and watered, and you are the first fruits. Yours it is to bring forth an abundant harvest of good works not merely for the credit of your profession, but for the glory of your Alma Mater. You must copy the intense industry, the resolute will, the singled-eyed devotion to science of le Docteur Rameau. You must, like Sir Peter Lund, learn to be wise as serpents as well as gentle as doves, so that you may bring to bear upon your patients' cases not merely a knowledge of morbid anatomy and drugs, but also a knowledge of the ways of the world and of the inner workings of men's lives. But, above everything, whatever may be the rank in your profession to which you may attain, remember always to hold before you the ideal figure of Luke Fildes's picture, and be at once gentle men and gentle doctors."

SHEFFIELD MEDICAL SCHOOL.

THE STATE AND SCIENCE.

By DUNCAN BURGESS, M.A., M.B.,
Lecturer on Pathology and Senior Physician to the Public Hospital and Dispensary.

Preliminary Education in Ancient and Mediæval Times.—The Recognition of Physics.—The New Regulations as to Pupilage.—The Evil Influence of the Medical Corporations in the Past.—Foreign Universities and the Liberality of Foreign Governments.—The Illiberality of the British Government.

In speaking of preliminary qualifications, the ideal pupil of the old Sanscrit writers was referred to. According to the Hippocratic law, "to acquire a competent knowledge of medicine, first of all a natural talent is required: for when Nature opposes, everything else is vain." The time of Hippocrates was the age of Pericles. Then no guarantee of general education or culture was required in Athens, at all events. But when Galen practised in Rome in the second century of our era a preliminary examination was wanted greatly, for cooks and cobblers were made into doctors in six months.

In ancient times care was taken to exclude pupils in bad health or with obvious defects. A high standard of bodily vigour would have deprived the profession of this country of some of its greatest ornaments: for Sir Astley Cooper had suspected indications of phthisis in his youth; Dr. Latham was delicate from childhood; and Dr. Wilson Fox never had a robust frame.

The first definite course of preliminary study was that of the school of Salerno. No one was permitted to study medicine there until he had passed through a three years' course of logic. A sound general education is the only introduction to the medical curriculum demanded by our General Medical Council. A boy who is intended for the profession need not therefore be made the victim of peculiar theories of education. But he should be sent to a good school where he will get the mental and bodily training best suited for him, and consequently for any calling or profession he may adopt. When he has reached years of discretion, if he cannot give his whole heart to medicine, he should on no account become a medical student.

The recognition of physics as a separate subject was considered a great improvement in the new curriculum. The thorough and precise work and the accurate reasoning which characterises the exact sciences should give the medical student an invaluable training. The audience were reminded that Thomas Young, whose name occupied the most distinguished place in the history of physical optics, was a London physician, and that Helmholtz, who stood beside Lord Kelvin pre-eminent among living physicists, was a doctor of medicine.

The provision in the new recommendations for partially resuscitating the old system of pupilage, was thought to be a mistake in its present form. A student would become the pupil of a general practitioner to get little practical tips and useful wrinkles, and to be made a man of the world. During the time thus occupied, a formidable examination in medicine, surgery, and midwifery would be hanging over his head. The degree or other title which qualifies for the *Medical Register* might be deferred for six months or even a year after the final examination. This interval might be probably spent with a suitable practitioner. Probably the most valuable way of occupying it would be by residing in a general hospital as assistant house-surgeon; but it might be very advantageously employed in London, at the Rotunda Hospital, Dublin, and other special hospitals, or on the Continent.

The standard of the qualifying examination has been raised by the control exercised by the General Medical Council over the multifarious licensing bodies. There should be no royal or easy road to the *Medical Register*. But in each of the three kingdoms the same State examination should be passed.

After alluding to the first institution of medical schools in Ancient Egypt, to the Museum of Alexandria, and to work done by the Arabs, the lecturer went on to say: In the universities of the Middle Ages, wherever a medical faculty was encouraged and helped, famous teachers attracted pupils from distant countries. Unfortunately medicine was neglected by the English universities, and the trade marks of the corporations formed to remedy this neglect had been too plainly stamped on the profession. The benefactors of the famous Italian schools were animated by a very catholic spirit. The magnificent academy of sciences at Bologna was dedicated to the whole world. We were proud of Harvey, but his famous discovery was clearly the outcome of the opportunities he enjoyed during the five years he passed at Padua. For the great anatomist Vesalius, who described the valves, the changes of form, and the movements of the heart was one of the celebrated line of Paduan professors His pupil and successor established the pulmonary circulation as an inductive truth. And it was at Padua that Harvey had the valves of the veins demonstrated to him by his master Fabricius, who had then only recently made this important observation.

The University of Paris, on which the universities of Scotland have been modelled, may be cited to show what France has done in the past for medical education. At the present time the Republic spares no expense on its medical schools. According to Puschmann, the salaries of the medical faculty in Paris alone amount to 700,000 francs a year. If the universities of the German Empire were enumerated and the professors counted of the institutes and libraries, with their crowds of paid attendants and costly contents, were inspected, the observer might well be amazed at the liberality of the governments. The Empire of Austria was equally generous. In Vienna, the new university buildings vied in magnificence and architectural effect with the opera, the theatre, the town hall, the parliament house, and the imperial museums in that city of splendid palaces. To contrast with all this the meanness of the richest nation on earth he would appeal to Ruskin. What he had said years ago was still true: "We are still glad enough to make our profit out of science. We snap up anything in the way of a scientific bone with meat on it readily enough, but if the scientific man comes for a bone or a crust to us that is another story." Ruskin's famous illustration of the gentleman who professed to be fond of science, and who spent two thousand a year on his park but refused to give sevenpence for a unique collection of fossils, was too scathing an illustration of what the English nation did for medicine. The Chancellor of the Exchequer cackled over the amount he extracted from the profession by his taxes. Registration fees were imposed on medical men at the outset of their career to pay the expenses of the Crown representatives on the General Medical Council, and to keep a *Medical Register* for the convenience and protection of the public. Moreover, zealous and able workers who were eager to prosecute researches at their own expense were hindered by the law of the land from working on the only lines likely to yield useful results.

The Sheffield Medical School and the new public hospital and dispensary occupied most of the latter part of the lecture.

After quoting from Latham's *Clinical Medicine*, the lecturer concluded his address by saying: "If you follow Dr. Latham's advice, you will do more than command success, you will deserve it. Success with honour is worth striving for. May it be yours ere your courage be daunted by hope deferred that make the heart sick. Remember the deathbed message of Dr. Wilson Fox to his students: 'Tell them the surest road to success is to have a high standard of right and honour, and to adhere strictly to it.'"

MEATH HOSPITAL, DUBLIN.

THE GRIEVANCES OF THE MEDICAL PROFESSION.

By L. HEPENSTAL ORMSBY, M.D., F.R.C.S.,
Surgeon to the Hospital.

Grievances of Irish Dispensary Doctors.—Exclusion of Irish Diplomates from English Hospital Appointments.—Grievances of the Army Medical Service.—Exclusion of Members of the Medical Profession from the Peerage and from the Privy Council in England and Ireland.

After welcoming the students and incidentally mentioning that the session now beginning was the 142nd since the opening of the Meath Hospital Medical School, the lecturer made some remarks on the five years' curriculum. He then passed on to the subject of his discourse, namely, "A Few of the Grievances of the Medical Profession in 1892."

He dealt first with the grievances of the Irish dispensary medical officers, particularly with the question of superannuation. The present Superannuation Act had one word *may*, which in any future legislation required to be changed into *must* or *shall*. When that was done the guardians would have no choice in the matter, as it would then be obligatory on them to grant to all worn-out officers in the Poor-law Service their just and well-earned retiring allowance. Some boards of guardians had given the smallest retiring allowance they could, others had persistently refused to give any at all. Some doctors were now at work who were over 80 years of age. One who wished to resign struggled on, suffering from ulcer of the stomach. One day he went to attend a patient, and was found lying in a ditch by the road side, in agony. The ulcer had perforated, and he died next day. Another was induced to resign at 77, on promise of a pension, but afterwards the pension was refused. There was no more sad or disgraceful story in any department or public service.

The next grievance was the exclusion of Irish and Scotch diplomates from English appointments. The question was a very important one, and had received the serious attention of many influential bodies. The Irish Medical Association, the British Medical Association, the Irish Medical Schools and Graduates' Association, were all in line on the subject, and by their combined strenuous efforts in the direction of justice and British fair play had induced the governors of the Bristol General Hospital, and the East Sussex Hospital, Hastings, to expunge from their by-laws this unfair and un-British-like disability. Within the last three months a friend of the lecturer, a very able and accomplished surgeon, holding the Fellowship of the Irish Royal College of Surgeons, had been declared to be ineligible for the assistant-surgeoncy of a London hospital, on account of the source of his qualification.

Passing next to the grievances of the Army Medical Service, the lecturer said that though many of them had now been removed, some still remained. One of these was the meagre and miserable name by which the Army Medical Service was known, namely, Medical Staff—a meaningless term. He was inclined to think that before long the service would be termed, as it in all justice ought to be, Royal Medical Staff. By making the service "Royal," its *esprit de corps* would be increased, and better officers would join it, and so its efficiency and social position would be improved. Among other grievances was the additional year of foreign service recently imposed on army doctors. The present compound titles were cumbersome and misleading. Why could the military authorities not have their medical officers styled as they ought to be—captain, major, colonel, or general, "Royal Medical Staff Corps?" Would this not simplify matters, and clearly define their non-combatant rank? Let the army surgeon have patience, for his civil brethren would continue to agitate, because his cause was a good one, having justice and reason on its side.

Another grievance of the medical profession was the exclusion of members of the profession from the peerage, and the non-appointment of a Cabinet Minister of Health and Sanitary Science. After alluding to the elevation to the peerage of Sir Lyon Playfair, and the appointment of Sir Walter Foster as Parliamentary Secretary to the Local Government Board, he said they must still fight against obstacles, until the general masses and Ministers of State were properly educated so as to understand correctly and clearly the rights and aspirations as well as the grades and social position which the members of the medical profession ought to occupy. Dr. Ormsby continued: "In the constitution of our governmental system there should be (and it is imperatively called for) the Minister of Health and Sanitary Science, who should occupy a seat in the Cabinet, to be only filled by a physician or surgeon of eminence and ability, and not bestowed on some worn-out practitioner, when his limbs are feeble and his brains past their work. Scientific medicine must and will take an exalted position in the world when the component parts of the great ship of State are properly arranged and reformed. The profession of Law, with its Legal Peers and Lord Chancellors, the Army with its Military Lords, and the Church with its Spiritual Peers, must, in justice, give places of emolument and position to their Cinderella sister, Medicine. Therefore, the Minister of Health and Sanitary Science must be an appointment in the future, and at no distant date." The lecturer went on to say that, as regards State recognition, the medical profession, in comparison with the others, came last of all. He contrasted the treatment meted out to medical practitioners in England with the recognition accorded them in other countries, notably in Germany. Good grounds might and could be shown why medical men should be called to the Upper House. They had the advantage, during their professional career, of obtaining a wide knowledge of the wants and conditions of all classes, and were, consequently, good and ready authorities on all social problems.

"If," said Dr. Ormsby, "medical science has had anything to do with Mr. Gladstone's health, and, consequently, his position to-day—and who can doubt that it has had much, owing to the care taken of it by Sir Andrew Clark?—what higher duty can devolve upon him as Prime Minister than to mark his assumption of office by advising the Queen to at last do justice to medicine by creating at least two medical Peers, Sir William Jenner and Sir James Paget, a physician and a surgeon respectively of world-wide reputation, who have personally well deserved the honour? The medical profession at large would be ennobled by their elevation."

The lecturer proceeded to allude to another grievance, namely, the exclusion of medical men from seats on the Privy Council in England and Ireland. After congratulating Professor Huxley on the distinction recently conferred on him, and quoting what the British Medical Journal had said on the subject, he expressed the hope that Ireland would not be behindhand in recognising the claims of the medical and surgical leaders in Dublin, and that very soon two of them might be appointed members of the Irish Privy Council in the persons of Sir George Porter and Sir John Banks.

Dr. Ormsby next addressed himself to his junior hearers, whom he divided into three classes: (1) The first year's students, or beginners; (2) those who are in the middle of their course; (2) those just qualified. With a few words of appropriate advice to each of these he brought his address to a close.

Widows and Children of Russian Martyrs to Duty.—At a recent sitting of the St. Petersburg Municipal Council a proposition was brought forward by Councillor E. J. Kedrin that provision should be made out of the public purse for the families of any medical men, medical assistants, nurses, or members of the disinfecting staff who should fall victims to cholera in the discharge of their duties during the present epidemic. He suggested that the widows of medical practitioners dying under these circumstances should be awarded a pension of 900 roubles (£90) a year, and that a further yearly grant of 150 roubles (£15) should be made for each child till it was old enough to be sent to school, after which it should be educated at the expense of the city. The proposal was referred to a committee.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

AMYLOID DISEASE OF CEREBRAL CORTEX.

THE accompanying drawing shows a rare condition in a patient who died of general paralysis. For comparison cortical vessels from an ordinary general paralytic are shown.

The usual thickening of the vessels and proliferation of the nuclei are present in both specimens, but the capillaries are very different. In Fig. 1 they are much swollen, but have an almost structureless appearance, with a few ill-defined nuclei scattered here and there. These swollen capillaries are seen terminating in, traversing, or passing close to the side of irregular, deeply stained, faintly granular masses. This condition was not uniformly distributed, but occurred in patches, most abundantly around the bottom of the sulci, and chiefly in the lower layers of the grey matter.

To the naked eye the cortex showed nothing to lead one to expect anything unusual under the microscope. Fresh sections, stained with blue-black or china blue, exhibited a very obvious mottled appearance of the grey matter when held up to the light. With iodine and iodine and sulphuric acid the grey matter gave no reaction, either when applied to the brain or to fresh sections. Methyl violet, however, gave a well-marked reaction, staining the vessels and masses drawn in Fig. 1 a distinct red.



Fig. 1 shows amyloid disease of vessels in a fresh section from first frontal convolution. A few of the nerve cells have been indicated. Spider cells are absent in this part of section; elsewhere they were abundant. *a* = small artery; *b* = a mass of amyloid material; *c* = capillaries. Zeiss's D eyepiece, No. 4.

The condition of the other organs was briefly as follows:—The right lung contained a cavity the size of a hen's egg at the apex. The left lung contained a large thick-walled suppurating cavity, occupying nearly the whole of the upper lobe. Over the rest of both lungs there were scattered patches of tuberculo-pneumonic consolidation. The liver was fatty, and gave no amyloid reaction. The kidneys gave a slight but distinct amyloid reaction, and, microscopically, amyloid disease was found, but not advanced. The spleen gave no reaction. The intestines were, unfortunately not tested.

There was no evidence and no history of syphilis. Beyond the excavation of the lungs no other cause for the amyloid disease was found.

From these facts it would appear that the condition seen in the cerebral cortex was an amyloid degeneration, the result of pulmonary tuberculosis.

Textbooks of pathology mention the skin, conjunctiva, and tongue as occasional seats of amyloid degeneration, but I have not found the brain mentioned. Unfortunately I am



Fig. 2 shows the usual condition of corresponding vessels in general paralysis. Spider cells are conspicuous. *a* = small artery; *c* = capillaries. Zeiss's D eyepiece, No. 4.

unable to refer to the original papers on the subject, but so far as I have been able to look up the papers in *Virchow's Archiv* I have failed to find any record of the disease in the brain.

E. T. WYNNE, M.B.,
Pathologist to Lancaster County Asylum, Rainhill.

ACUTE INTESTINAL OBSTRUCTION: ABDOMINAL TAXIS: RECOVERY.

MISS M., aged 18, well nourished, rather hysterical, was taken ill on June 23rd with pain referred to the umbilical region, and constipation. There was no history of error in diet. Obstinate vomiting ensued, and on the morning of June 27th this became stercoraceous. Dr. Fox saw her in consultation with Dr. Barber the same evening. On examination the abdomen was tense and tender, and a small area near the right iliac crest was poorly resonant, with much gurgling. The hernial rings were clear, the pulse was quick, the temperature varied between 99° F. and 99.6° F., the tongue was rather dry. The patient was nervous and fidgety, often vomiting foul fæcal-smelling liquid. The catamenia had commenced on the preceding day. The diagnosis of acute obstruction of the bowels, not improbably caused by volvulus, was made. It was decided to give time. A large poultice was applied—opium gr. ½ and tinct. belladonnæ ♏xv were given every four hours, and enemata used; no food was allowed. The vomiting quite ceased and she became fairly easy, but nothing passed the rectum and the temperature gradually rose (100.4° F.)

On June 29th Dr. Barber administered chloroform, and a thorough examination was made by Dr. Fox. The abdomen was found to be soft all over, but full and rather tense. The rectum was quite empty, the finger could be hooked round a fold high up on the left side of the bowel, where it turned to the left. The patient was kept under the anæsthetic for about three-quarters of an hour, whilst abdominal taxis, after the method described in Hutchinson's *Archives* was applied. The hips were raised on three pillows so that the abdomen formed

a sharply-inclined plane, whilst from three to four quarts of warm water were slowly and easily injected by the rectum. Then the abdomen was gently but thoroughly kneaded with the hands. Following this she was shaken forcibly up and down and from side to side, first in the supine and then in the prone position, the hips being raised the while. Finally the abdomen was again kneaded. She vomited whilst recovering from the chloroform, and water continually drained from the rectum bringing one small fæcal lump. The following morning the temperature had fallen to 99° F., and the patient felt greatly relieved, but no stool passed all day. On July 1st, at 7 A.M., 32 hours after the application of the taxis, a small but well-formed stool was brought away by a warm water enema. The next day the bowels acted freely, and in a few days she was quite well. The case shows the value of the taxis, especially when it is applied early in a class of cases, which are happily rare but of no little anxiety; the risks of an exploratory operation are not light.

R. Hingston Fox, M.D., M.R.C.P.
London. H. Vaughan Barber, M.A., L.R.C.P.

THE SPECIFIC GRAVITY OF THE URINE IN DIABETES MELLITUS.

Sir E. H. Sieveking's paper on the above subject bears out what I have recently observed in two cases of diabetes mellitus. One case, a youth, aged 17, passed 13 pints of urine *per diem*, which had specific gravity of 1010. Fehling's test gave abundant evidence of sugar. The other case was a woman, aged 57, who never passed more than 3 pints of urine, generally about 2 pints. The specific gravity was 1017, and sugar was present.

The latter case is remarkably interesting from the two facts: first, the small amount of urine passed; and, secondly, the low specific gravity when sugar was present.

Harrogate. Arthur Roberts, M.D.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

PAISLEY INFIRMARY.

FRACTURE OF THE PATELLA: SUBCUTANEOUS PERMANENT SUTURE (BARKER'S METHOD).

(By William F. Gibb, M.D., C.M., Surgeon to the Infirmary.)

E. R., aged 68, a hawker, was admitted on March 26th, 1892. On the previous day she fell while walking, and fractured the left patella, at the same time bruising the thigh and leg somewhat severely. About seven years ago she sustained an injury to the same limb, probably fracture of the neck of the femur, and since then had walked lame with the limb everted and much shortened. She stated that prior to the fracture of the patella the knee was stiff, and could not be bent to a right angle.

I saw her first on March 28th, and found the knee considerably distended, but not very tender. The patella was fractured obliquely, half an inch above the attachment of patellar ligament, the fragments being about an inch and a-half apart.

On March 29th, under chloroform, after careful antiseptic precautions, the patella was sutured as directed by Mr. Barker.[1] Through the incision some six to eight ounces of blood were expressed, when it was found that the two portions of the fractured bone could be brought into close contact. Strong silk cord, previously boiled for half an hour, then immersed in 1 in 2,000 perchloride of mercury solution, was the suture adopted. The temperature remained normal.

On April 19th the wound was healed. The patient strongly objected to passive motion of the knee. The fragments were closely apposed.

On April 28th the splint was removed and the patient allowed to move the limb in bed.

[1] British Medical Journal, February 27th, 1892, p. 425.

On May 27th she could walk with the help of a crutch, and was able to bend the knee slightly; the joint was devoid of tenderness, and the patella freely movable. The union between the fragments remained close and firm, and the line of union was discoverable only in part of its extent. The suture could not be discovered.

Remarks.—In view of the wide separation of the fragments and the large effusion into the joint, the case was one eminently suitable for treatment by evacuation and suture. The patient's opposition to early passive motion, and the comparatively useless state of the limb from old injury, prevented an ideal result from being obtained. Stout silk seems to answer as well as wire, and is probably preferable as being less likely to cause future discomfort. From the ease and safety with which it can be done—every care being taken—Mr. Barker's operation presents advantages over more troublesome and risky methods. But whether it be desirable or not that all recent transverse fractures of the knee-cap, even in the absence of separation of fragments—and such cases do occur—should be subjected to a routine treatment by suture, as I understand Mr. Barker to suggest, is perhaps a question still to be decided.

REVIEWS.

Quain's Elements of Anatomy. Edited by E. A. Schäfer and G. D. Thane. Tenth Edition, Vol. II, Part II, 1892. Pp. 593; Figs. 423. London: Longmans, Green, and Co.

This volume of the new edition of this standard work deals with arthrology, myology, angeiology, and for each of these Professor Thane is responsible. Those who are familiar with the previous editions of *Quain's Anatomy* will find that the general plan which was adopted in them has been adhered to, but that each topic has been amplified and brought up to date. New and excellent figures have been added wherever their presence has been needed to illustrate the text. Indeed, these additions are so clear and good that they draw attention to the poorness of many of those which have been retained from previous editions. This is very striking if Fig. 182 be contrasted with that on the opposite page—Fig. 183. A great deal of trouble, too, has been saved by the method which has been applied to the new figures. Instead of putting small and almost indistinguishable numbers upon the various structures to mark the printed reference, as is done in the old figures, the names have been printed in the margin in bold and clear type. This plan saves so much trouble that we wish it could have been carried out in every instance. However, this seems to be a defect which is inseparable from endeavours such as this. Sometimes, too, numbers have remained upon the figures, although the corresponding reference has been taken away. These are, however, mere trifles, and wherever we look we find that the distinguishing features of *Quain's Anatomy* have been retained, namely, clearness and correctness. This is very noticeable in the description of the knee-joint, especially where the very complicated mechanism of this most interesting joint is discussed. It is not unusual to find that problems such as these are not very fully dwelt upon in anatomical textbooks. As regards the mechanism of the pelvis, it seems hardly clear what position is adopted as to the wedge action of the sacrum. The late Dr. Matthews Duncan, in his *Researches in Obstetrics*, was most emphatic in his rejection of the "wedge theory" and most enthusiastic in his adoption of what we may call the "suspension theory." Nevertheless, the former may so plausibly be argued to hold good for certain positions that it deserves a better fate than to be dismissed in a single sentence.

The part of the volume which treats of myology has been brought well up to date, and the paragraphs in small print upon muscular anomalies have had additions made to them. These paragraphs are very useful, and give students an additional interest in the dissection of the muscles. For the same reasons, the discussion of the morphology of the muscles and of the vessels will be found very valuable.

We have nothing but praise for the very clear and correct account of the vascular system. The results of the latest and best investigations have been embodied, and a short but good account of the anomalies and morphology of the larger vessels

given. The coloured illustrations, too, are an excellent feature.

It will have been inferred from what has been said that a very favourable opinion has been conceived of this edition of *Quain's Anatomy*; not only does it give the latest and best information, but it gives it in an available form, inasmuch as a most exhaustive index has been compiled. Both teachers and students owe much to Professors SCHÄFER and THANE for the pains they have taken, and we do not doubt but that they have added to the popularity of an established favourite.

CANCER OF THE MOUTH, TONGUE, AND ŒSOPHAGUS; THEIR PATHOLOGY, SYMPTOMS, DIAGNOSIS, AND TREATMENT. By FREDERIC BOWREMAN JESSETT, F.R.C.S.Eng. Pp. 183. London: Baillière, Tindall, and Cox. 1892.

IN this book Mr. BOWREMAN JESSETT has given a good account of cancer of the lips, gums and antrum, jaws, tongue, tonsil pharynx, and œsophagus. Although there is very little new material the book contains much useful information gathered from various sources, and may save surgeons the trouble of seeking it in papers contained in journals and archives. On questions of surgical treatment the author is generally very sound, and his views may be accepted with scarcely any hesitation. On questions of pathology he is not so thoroughly at home. For instance, the belief which he expresses that tuberculous ulcers of the tongue "never exist as primary growths, but are always secondary to tuberculous disease of the lungs" would not be shared by those who have studied this form of ulcer. If Mr. Jessett had made further search of medical literature, he would have found many good papers relating to tuberculous disease of the tongue, and a full account of the diseases in at least one well-known textbook.

THE EXTRA PHARMACOPŒIA. By WILLIAM MARTINDALE, F.C.S., and W. WYNN WESTCOTT, M.B.Lond. Seventh Edition. London: H. K. Lewis. 1892.

ALTHOUGH an interval of two years only separates the present edition of this valuable work from the last, such has been the large number of new synthetical compounds introduced during this period and the progress made in pharmacology, that upwards of 300 new entries have been made in the index, and the book increased by about 40 pages. The very latest information is given upon the new antipyretics and analgesics, and the further researches which have lately been made upon salicylic acid, chloroform, and the mydriatic alkaloids. Several new preparations of iron and mercury have been introduced, also recent formulæ for various applications for skin diseases, and an abstract of *The Additions to the British Pharmacopœia* (1890). The more important alterations in the Pharmacopœia Germanica are mentioned, and also various preparations from the new Guy's Hospital Pharmacopœia. The new edition has been prepared with the same care and pain as were expended on former issues, and the work reflects the greatest credit on the knowledge, accuracy, and industry of its joint authors.

EPIDEMICS, PLAGUES, AND FEVERS: THEIR CAUSES AND PREVENTION. By the Hon. ROLLO RUSSELL. London: Edward Stanford. 1892.

THIS is a work of more than ordinary interest. Few men outside the medical profession are better qualified than Mr. RUSSELL to write upon epidemiology, and especially those branches of the subject with which his name is identified. He has produced a book which, in spite of certain obvious imperfections, is a valuable store of information, and certainly fills a gap in epidemiological literature. Its blemishes, or most of them, are of a kind which might have been avoided by more careful revision. The arrangement is not of the clearest, nor are the several parts always well balanced according to their relative importance.

Medical statisticians will not fail to note a few inaccuracies in respect to the infectious diseases of this country. Measles is spoken of as becoming epidemic every four years. The more usual interval is two years, although the author can certainly point to authorities in support of the longer range which he adopts. He has apparently overlooked the statistics relating to the seasonal curve of measles given in the 47th Annual Report of the Registrar-General. The twelfth day after exposure to infection is too early to end the quarantine in case of measles, as is suggested at page 227. The practical value of the article on small-pox is lessened by the omission of any reference to Dr. Barry's Sheffield Report, and although the significant change in the age incidence of fatal small-pox since the introduction of vaccination is mentioned, it is not brought into the strong relief which its importance demands.

Mr. Russell reproduces without comment the now obsolete doctrine that age and sex are without influence as regards the severity of scarlet fever attacks. He quotes Buchan and Mitchell's classic researches on the seasonal curve of scarlet fever in London, with its characteristic maximum in October, and suggests that the high temperature of late summer and autumn may cause the microbe to increase and multiply in the filthy farmyards and manure heaps which abound in all parts of the country. There is no direct evidence of any kind in support of this hypothesis, and it is scarcely consistent with the well-known fact (not mentioned by Mr. Russell), that in many parts of Northern Europe scarlet fever reaches its maximum in January, while in New York the seasonal curve is almost exactly the reverse of that observed in London. Equally unsubstantiated is the suggestion (page 436) that "another factor in the seasonal curve of scarlet fever may be acidity of blood, caused by consumption of sour fruit, apples, etc." By implication, not only scarlet fever, but also whooping cough, small-pox, and measles, are grouped with diphtheria and erysipelas as being due to filth conditions (page 466). Upon the whole, errors of commission are creditably few, but there are one or two startling lapses, as for instance, the statement on page 338 that the contagion of typhus is supposed not to be carried by clothes!

The index, an important matter in a work of this nature, is very meagre. Among the omissions may be noted measles, mumps, chicken-pox, and German measles, all of which are treated of in the text. This defect can easily be remedied in a second edition, and so can a few unnecessary repetitions, which tend to confuse the reader, the last paragraph of page 290, for example, being substantially a repetition of what was said two pages back. Another oversight is the occasional omission of important references, such as the authority for the statement that plague was carried to Nuremberg in 1819 in bales of cotton (page 236) and for many of the data as to rabies. As a rule, references are given; but in some instances it would seem that the author has been content with second-hand data when the original were readily accessible; thus he cites the brief notice in *Public Health* as his authority for Dr. Ballard's conclusions in regard to the pneumonia epidemic at Middlesbrough, and not the full report issued by the Local Government Board.

It is of course impossible in a brief review to do justice to the mass of useful and accurate detail which Mr. Russell has gathered from so many sources. His book is intended primarily, it seems, for those "who are interested or officially concerned in the promotion of health," and by such it will be read with profit.

PRACTICAL SANITATION: a Handbook for Sanitary Inspectors and others interested in Sanitation. By GEORGE REID, M.D., D.P.H.; with an Appendix on Sanitary Law, by HERBERT MANLEY, M.A., M.B., D.P.H. London: C. Griffin and Co. 1892.

THIS is a most satisfactory little manual, and does credit both to author and publishers. Dr. REID has kept steadily in view the requirements of sanitary inspectors, and has succeeded in placing before his readers the principal points of domestic and municipal sanitation in plain and unambiguous language, commendably free from medical technicalities and unnecessary detail. The work will be useful to medical officers of health, and to the increasing section of the public who take an active interest in these matters. It is eminently practical throughout, and diagrams are freely introduced. Upon questions which are still in dispute Dr. Reid gives his own views—not in a dogmatic way. Errors and even misprints are few, and those few are of minor importance. At page 96, lines 11-12, "square yard" should obviously be "cubic

yard," as the context shows. It is stated (page 191) that small-pox may be conveyed by food, a danger which has not been confirmed by actual observation, however probable *a priori*. It would, perhaps, have been well to explain that the school quarantine table on page 190 is (in the main) that recommended by the Society of Medical Officers of Schools, since the incubation periods assumed therein are not always quite consistent with the intervals which Dr. Reid mentions elsewhere. These, however, are small matters, and it speaks well for the care bestowed upon the book that a tolerably careful perusal of the first edition has brought to light no error of importance.

Dr. Manley has contributed a very useful Appendix, summarising the principal Sanitary Acts in a convenient form. The book is not only good in itself, but meets a want which has long been felt. To sanitary inspectors it will be invaluable.

Leitfaden der Hygiene. Von Dr. Aug. Gärtner, O. Ü. Professor der Hygiene und Director des Hygienischen Instituts der Universität Jena. Berlin: S. Karger. 1892.

Among the many wise sayings of Wendell Holmes is one which insists upon the importance of "depolarised" versions of familiar creeds. Even science may become obscured by traditional phrases and doctrines, the more so, if studied from only one standpoint and in only one language.

English readers of Professor Gärtner's treatise will derive both pleasure and profit from his clear and concise account of sanitary science as understood in Germany. Many points which are dismissed too briefly in our textbooks receive at his hands much more adequate treatment, the chapters dealing with industrial hygiene, for example, being exceptionally valuable. Perhaps the most interesting part of all is that devoted to the infective processes, which, although condensed, is most lucid and well up to date. Occasionally, and particularly in reference to drainage, we are left with the impression that Germany has still something to learn from England. There is a tendency to trust too much to traps, and scarcely sufficient appreciation of the importance of disconnection and systematic flushing by siphon tanks. The arrangement represented by the diagram on page 188 would not be accepted in this country as satisfactory in design or workmanship. It shows a sink waste, protected by a siphon trap, but forming a bad joint with a large vertical indoor pipe—possibly a soil pipe—and not disconnected. Then, again, in only one of the three forms of steam disinfection apparatus which are figured is there any provision for keeping the disinfected goods apart from the infected.

Dr. Gärtner tells us that fumigation by sulphurous acid or chlorine has been given up in Germany, as having very little practical use. Surface disinfection is secured by other means, and experiment has shown that more than this cannot be hoped for from any fumigation. As is not unusual in German scientific works, comparatively little reference is made to recent English observations. We find no mention of the Hendon or Welbeck outbreaks, or of Mr. Power's Fulham inquiry. It is still more surprising to find the author speaking with some reserve even as to the occurrence of milk epidemics of diphtheria and scarlet fever. He states incidentally that in England upwards of fifty outbreaks of enteric fever have been traced to milk, but omits to point out that this list (due to Mr. Ernest Hart's research in 1880), is now twelve years old. The present record is far greater.

Cremation is not regarded by Dr. Gärtner as a matter of much hygienic moment, since direct proof of injury to health traceable to burial under proper conditions is still wanting. Nor does he consider that pollution of soil is conducive to the growth of pathogenic organisms: "the more impure the soil, the more saprophytes it contains, and the more easily will parasitic microbes be conquered."

Another example of deviation from ordinary English teaching will be found in the standard proportion of carbonic acid in air, adopted for purposes of ventilation. The proportion in fresh air is given as 0.25 to 0.35 per 1,000, and the maximum permissible limit of respiratory impurity 1.0 per 1,000. The occasional divergence from the views current in this country by no means detracts from the interest of the work, and for the most part it is of course concerned with facts accepted by all sanitarians alike.

Notes on the Technical and Disciplinary Organisation of a Medical School. By Brigade-Surgeon-Lieutenant-Colonel Evatt, M.D., Army Medical Staff. (Printed for private circulation.)

Though this pamphlet is written by a military medical officer, the aim of the author is not confined to the education of army medical officers. Brigade-Surgeon-Lieutenant-Colonel Evatt's scheme is a much more ambitious one; it is nothing less than a proposal to revolutionise the whole system of medical education throughout the kingdom. The plan sketched in the "Notes" has the merit of thoroughness, the author going straight to his point with small regard to the difficulties in the way, arising from custom, prejudice, or vested interests. The author has two ends in view: first, social supervision under well-regulated discipline; and, secondly, an improved system of professional education. The scheme involves greatly increased power in the hands of the General Medical Council, "to deal with those badly-equipped and defectively-manned schools, which lower the whole average of medical education, and afford a back door by which students can escape the thorough training of really good schools."

Dr. Evatt attacks the low standard of general education required for the entrance examinations. On this point we suppose there is little difference of opinion. The standard has been disgracefully low. It is not even equal to the preliminary examination required from candidates before they are permitted to enter themselves for admission to the competitions for Sandhurst or Woolwich.

The "supervising functions" of the General Council of Medical Education, under this scheme, are widely extended, giving power not merely, as at present, to see that the examinations for licence to practise are thorough, but to control the whole course of medical education from first to last, prescribing residence under university discipline, the order in which the various subjects are to be taken, frequent test examinations under which the students are restrained from entering on the studies of another year until they satisfy their examiners that the subjects under study of the previous year have been mastered. The tutorial system, in preference to the present lecturing system, is strongly advocated.

The author urges that, under his system, idle and incompetent men will be excluded. That parents who send their sons into the medical profession will have some guarantee that their money will not be wasted, inasmuch as under this system those who have been tempted to enter them "by the bait of an easy matriculation," will be made aware of the mistake in time to prevent waste of time and money. In other words, Dr. Evatt hopes to extinguish the class of "chronics" that are now to be found in every medical school in the kingdom; and above all to raise the status of the profession, and restore physicians to the place they occupied when they were "educated in universities, shared in their culture, and partook of their internal discipline." The scheme may, at all events, serve as a basis for discussion, when the time comes for the much-needed revision of the present system of medical education in the three kingdoms.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

IMPROVED SYRUP OF CHLORIDE OF IRON.

The perchloride of iron is probably the most frequently prescribed form of iron. The value of this salt as a hæmatinic is well known. The official solutions, the tincture and liquor, have the disadvantage of being very acid—free hydrochloric acid being present—they are destructive to the teeth, and very astringent. We have examined a sample of "Weld's syrup of chloride of iron," prepared by Messrs. Parke, Davis, and Co., manufacturing chemists, Detroit, Michigan, and find that these objectionable characters are absent. The preparation is a watery solution of perchloride of iron with sugar and flavouring matter, it has only a very faint acid reaction, and

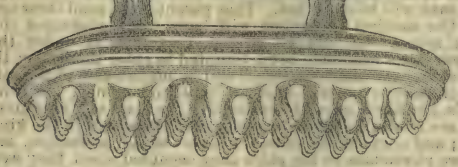
is not astringent. This syrup will commend itself to the prescriber who desires to administer the perchloride of iron in a palatable and non-astringent form.

PEPSIN (ASEPTIC).

The pepsin of the *British Pharmacopœia* is prepared by scraping the stomach of the pig, sheep, or calf, with a blunt knife, and drying this mucous lining at a temperature under 100° F. The light-brown, yellowish powder obtained by this process contains mucus, and is very apt to acquire an unpleasant odour. The *United States Pharmacopœia* gives a method whereby the pepsin is made free from mucus. The mucous membrane of the hog's stomach is macerated in water and acidulated with hydrochloric acid for several days. Sodium chloride is added to the strained liquid, and after several hours the floating pepsin is skimmed from the surface, put on a cloth to drain, and finally submitted to strong pressure to get rid of the saline solution. This pepsin when air dried is very tough and parchment like, and of a brownish-yellow colour. It can be further purified by dissolving in acidulated water and precipitating as before. The product when perfectly dry is immersed in pure water for a short time, after which it is rapidly dried in the form of scales. Half a grain of this pepsin dissolves at least 1,500 grains of albumen. The sample of pepsin in scales sent by Messrs. Parke, Davis, and Co., Detroit, Michigan, and New York, is of very good quality. Its solution in water acidulated with hydrochloric acid is without turbidity and unpleasant odour, thus indicating the absence of mucus. It possesses a very high digestive power, and has evidently been most carefully prepared.

MASSAGE RUBBER.

Crutchlow's Massage Rubber (Albert Chambers, Victoria Street, S.W.) consists of a serrated and waved surface of specially prepared india-rubber attached to a brass plate, and fixed in a polished hard wood body, with ebony handle.



It is intended to be used after the bath, and to take the place of ordinary massage in improving the muscular condition and quickening the activity of the skin. It is a very convenient and cleverly-designed little instrument, and is likely to be popular. It is a very effectual form of mechanical masseur.

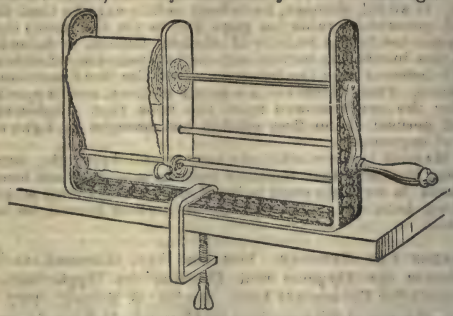
NEW COMBINED THERMOMETER, PENCIL CASE, AND CHART.

Messrs. Salt and Son, of Birmingham, have brought under our notice a very handy little case containing a thermometer and pencil, with a tablet on which to record the temperature. The case is made of aluminium bronze, gilt, and engraved by hand, and the chart is of celluloid. In using this case the necessity for a separate chart is removed, the pencil is always at hand, and the chances of breaking the thermometer minimised. It is neat, compact, and well finished, and is an acceptable addition to the conveniences of the medical practitioner and of the trained nurse.

BANDAGE ROLLER.

We have received from Mr. James Bellaers, wholesale ironmonger, of Regent Street, Leicester, a bandage roller made by him which appears to be distinctly superior to most of those in ordinary use.

The apparatus is constructed throughout of metal; it can therefore be easily kept clean, and is not likely to get out of order. Its general construction will be apparent from the engraving. The central upright can be shifted on the lower horizontal bars, and adjusted for any width of bandage.



The roller is especially designed to supply a light, portable, and strong machine at a low price (6s. 6d.) for the use of members of ambulance corps and nursing classes. It will, however, probably be found to meet with a common want, both in the surgery and in hospital wards.

NEW ANTISEPTIC SYRINGE.

Messrs. Mayer and Meltzer (71, Great Portland Street) have produced a new antiseptic syringe for which some important advantages are claimed, and on good grounds. Two deaths having lately occurred, the cause of which was attributed to the use of septic hypodermic needles, they have devised a syringe with a lamp, which is arranged for the purpose of thoroughly sterilising the needles. Fig. 1 represents the spirit lamp; sufficient spirit is absorbed by the wick to heat the needle. Fig. 2 shows the method of using the same. Fig. 3 shows the improved needle (manufactured of an alloy), which when heated does not lose its keen point, as is the case with the ordinary steel needle. The form of needle mount allows the exact measurement of dose, as the end is in contact with the piston.



Fig. 1.



Fig. 3



Fig. 2.

OBITUARY.

THOMAS AITKEN, M.D.

It is with great regret that we announce the death of Dr. Aitken, Physician and Superintendent of the District Lunatic Asylum, Inverness, which took place at Baden-Baden on September 11th. Dr. Aitken was a native of Dumfries, and throughout his life took a deep interest in Border literature and traditions. He was born in 1832, and studied medicine at the University of Edinburgh, where he graduated as M.D. in 1858. After graduation he became assistant to Dr. Browne, in the Crighton Institute, Dumfries. In 1859, thirty-three years ago, he was appointed Medical Superintendent for the Inverness District Asylum, which office he held at the time of his untimely death. This asylum has always enjoyed a high reputation, thanks to the admirable management and skill of its superintendent. In suitable cases he believed in allowing his patients a considerable measure of liberty, and afforded them every opportunity for healthy outdoor exercise. Dr. Aitken had a marked literary turn, and he possessed a wide knowledge of the literature, not of the Borders only but also of literature in general. He read much on scientific and archæological subjects, and always kept himself abreast of the newest discoveries in his profession and the cognate sciences. As archæologist and geologist he was familiar practically with the North of Scotland, and he was a frequent contributor of papers on this subject to the Field Club.

Dr. Aitken was a kindly, genial, warm-hearted, and affectionate friend, and was greatly beloved and esteemed by the whole community of the Highland capital. His well-known figure, cheery laugh, and his genial presence will be much missed by his friends.

For years the strain of managing a great asylum, with all its responsibilities, has weighed heavily on him, and perhaps it is to this that we may attribute the development of some cardiac symptoms some short time ago. He seemed to have recovered to a large extent from the palpitation from which he occasionally suffered, and so well did he feel that he was spending his holiday on the Continent with one of his daughters, when he caught a chill at Baden-Baden, which rapidly developed into pneumonia, and with a heart already somewhat feeble, the end soon came.

Dr. Aitken, after settling in Inverness, married a daughter of the late Dean Torry, Coupar-Angus, who survives him with a numerous family of sons and daughters. His many friends will long cherish his memory and grieve for the loss of so estimable a man.

ALEXANDER KEILLER, M.D., LL.D.

As briefly announced last week, Dr. Alexander Keiller died at North Berwick on September 26th, at the advanced age of 81 years. He had only been ill for about ten days. Alexander Keiller became an L.R.C.S.E. in 1833, a Fellow shortly after, M.D.St.And. in 1835, F.R.C.P.E. in 1849. In 1886 the University of St. Andrews conferred on him the honorary degree of LL.D. He began practice in Dundee, but only remained there some seven years, when he moved to Edinburgh, and soon got into a large practice. He all along gave himself to midwifery and the diseases of women and children. He was always much interested in the medical charities of Edinburgh, and occupied positions on the managing boards of several of these. He was one of the ordinary physicians of the Royal Infirmary for some fifteen years, and later, consulting physician to the same institution. For many years he was a member of the staff of the Royal Maternity Hospital, the Royal Hospital for Sick Children, and the New Town Dispensary. He had at one time occupied the high position of President of the Royal College of Physicians of Edinburgh. He was also one of the examiners in that College, as well as in the University of St. Andrews. Personally he was extremely popular. He is survived by his wife, two sons, and a daughter. Two of his sons are members of the medical profession.

The Municipal Council of St. Petersburg has voted a sum of 6,100 roubles (£610) for the immediate establishment of a bacteriological department in the municipal laboratory of that city.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF: EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office orders with the notice. The first post on Thursday mornings is the latest by which advertisements can be received.

A Surgeon-Major wishes exchange home. Arrived Bombay Presidency last April. Healthy station and capital shooting.—All particulars to "Surgeon-Major," care of G. Utke, Esq., 71, Leinster Road, Rathmines, Dublin.

THE NAVY.

Surgeons J. J. Dinnis, M.D., and G. F. Wales, having served twelve years, are promoted to be Staff-Surgeons, October 2nd. Dr. Dinnis, while Surgeon of Malta Hospital, received the expression of their Lordships' satisfaction at receiving the report of his able performance of his duties during the operations in Egypt, 1882. He was Surgeon of the *Turquoise* during the naval and military operations in the Eastern Soudan, of Suakin, 1884-85 (Egyptian medal, Khedive's bronze star). As Surgeon of the *Turquoise* he served with the Naval Brigade, landed with the army, during the Burmah Annexation war, 1885-1887, and was present at the capture of Mandalay, and further expedition to Bhamo (medal with clasp).

The following appointments have been made at the Admiralty: William E. Home, M.B., Surgeon, to the *Swallow*, September 28th; Cyril J. Mansfield, Surgeon, to the *Britannia*, September 28th; William A. Whitelegge, Surgeon, to the *Volage*, September 28th; J. Crowley, M.D., Staff-Surgeon, to the *Scout*, undated; C. A. Macaulay, Staff-Surgeon, to the *Castor*, September 30th; John H. Thomas, Surgeon, to the *Bellerophon*, October 1st; John L. Barrington, Surgeon, to the *Melita*, October 1st; John P. J. Coghlan, Surgeon, to the *Ruby*, October 1st; Frederick J. Burns, Surgeon, to the *Belleisle*, October 1st; John J. Dinnis, M.D., Staff-Surgeon, to the *Phaeton*, reappointed, October 2nd; James M. France, Surgeon, to the *President*, additional, October 11th.

ARMY MEDICAL STAFF.

Surgeon-Captain W. H. Lendrum, M.B., serving in the Bengal Command, has leave of absence for six months on medical certificate.

The under-mentioned officers serving in the Bombay Command, whose tour of foreign service, as previously announced, will expire during the trooping season 1892-93, will proceed to England in Her Majesty's troopships, doing duty with troops on the voyage: Surgeon-Lieutenant-Colonel W. F. Burnett, *Serapis*, October 19th; Surgeon-Captain R. J. A. Durant, in exchange with Surgeon-Captain J. D. Join, who exchanged with Surgeon-Captain Hayes, *Euphrates*, January 11th, 1893; Surgeon-Captain J. W. B. Buchanan, *Euphrates*, March 25th, 1893; Surgeon-Captain S. J. W. Hayman, *Crocodile*, October 8th.

Brigade-Surgeon-Lieutenant-Colonel I. McD. O'Farrell, retired pay, has taken over medical charge of the Station Hospital at Leicester, from Brigade-Surgeon E. L. Low, retired pay.

Surgeon-General John Phillips Cunningham, M.D., late of the 20th Hussars, died at Bedford on September 30th, aged 65. Appointed Assistant-Surgeon, April 13th, 1852; he became Surgeon, March 11th, 1859; Surgeon-Major, April 13th, 1872; Brigade-Surgeon, November 27th, 1879; and Deputy-Surgeon-General April 17th, 1889. He was granted retired pay, with the honorary rank of Surgeon-General, August 23rd, 1882.

Surgeon-Major J. W. H. Flanagan, serving in the Bombay command in medical charge of the station hospital at Kamptee, is appointed to the medical charge of the station hospital at Aden, *vice* Surgeon-Lieutenant-Colonel W. F. Burnett, tour expired.

Surgeon-Colonel C. H. Y. Godwin has been appointed an Administrative Medical Officer in Bengal, *vice* Surgeon-Colonel F. W. Wade.

Surgeon-Captain W. L. Gray, serving in the Madras command, is granted an extension of leave from August 26th till the date of his re-embarkation for India on private affairs.

Surgeon-Major A. E. J. Croly, serving in the Bombay command, is transferred from general duty at Poonah to the medical charge of Kamptee Station Hospital, *vice* Surgeon-Major J. W. H. Flanagan, transferred to Aden.

Surgeon-Captain R. C. Thacker, serving in the Bombay command on general duty at Poonah, is transferred to general duty at Aden.

The following officers have been selected to return to England during the ensuing trooping season, on completion of their tour of service in India: Brigade-Surgeon-Lieutenant-Colonels H. S. Muir, M.D., R. H. Carew, D.S.O., G. J. H. Evatt, M.D., and W. McWatters, Surgeon-Lieutenant-Colonel M. D. O'Connell, M.D., in exchange with Brigade-Surgeon-Lieutenant-Colonel W. S. M. Price; Surgeon-Lieutenant-Colonel H. H. Stokes, M.B., Surgeon-Captains N. Manders, G. Cree, H. Carr, M.D., C. H. Melville, M.B., B. L. Hills, M.D., G. S. Cordew, M.B., J. B. Wilson, M.D., J. Kearney, M.D., F. A. Saw, M.B., F. W. G. Hall, M.B., A. Kennedy, H. P. G. Elkington, T. G. Lavie, W. R. D. Crooke, M.D., W. P. Squire, C. P. Walker, M.B., and W. Dowman.

The death is announced of Surgeon-Captain R. Fowler, which occurred at Topa, on the Murree Hills, on September 6th, from cholera. His commission was dated July 30th, 1881. He arrived in India July 29th, 1889. He was engaged in the Burmese expedition in 1886-89, received the Frontier medal, with two clasps.

Surgeon-Captain H. N. Kenny, M.B., also died at Murree on September 4th, aged 31. His commission dated from August 1, 1885, and he arrived in India December 9th, 1890.

The War Office authorities have decided in future to detail officers of the Army Medical Staff for general service in India, leaving their distribution to Presidencies, as well as their exchanges and transfers from one Presidency to another, to be dealt with under the orders of the Commander-in-Chief in India by the Principal Medical Officer in India.

INDIAN MEDICAL SERVICE.

SURGEON-CAPTAIN A. W. ALCOCK, Bengal Establishment, is appointed Deputy Sanitary Commissioner Metropolitan and Eastern Bengal Circle.

Surgeon-Major J. W. EVANS and Surgeon-Captain J. L. VAN GEYZEL, both of the Madras Establishment, are permitted to return to duty within the period of their leave.

Surgeon-Captain F. J. DEWES, Madras Establishment, and Surgeon-Captain G. E. FOOKS, Bombay Establishment, are also permitted to return to duty.

Surgeon-Captain W. G. PRIDMORE, Madras Establishment, has passed the examination in Hindustani by the lower standard.

Surgeon-Major K. R. KIRTIKAR, Bombay Establishment, civil surgeon of Thana, is appointed to act as Superintendent of Thana Gaol, in addition to his own duties.

Brigade Surgeon-Lieutenant-Colonel G. THOMSON, Bengal Establishment, is appointed Principal Medical Officer, Peshawur District.

Brigade-Surgeon-Lieutenant-Colonel D. E. HUGHES, M.D., Bombay Establishment, is promoted to be Surgeon-Colonel from September 15th, *vice* Surgeon-Colonel W. E. CATES, retired. Dr. Hughes was appointed Assistant-Surgeon March 31st, 1866, and dates as Brigade-Surgeon-Lieutenant-Colonel from October 28th, 1888.

Surgeon-Lieutenant-Colonel J. F. KEITH, M.D., Bombay Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel from September 15th, *vice* D. E. Hughes. Dr. Keith's first commission dates from September 30th, 1886, and that of Surgeon-Lieutenant-Colonel from September 30th, 1887. He was in the Abyssinian War in 1868 as Assistant-Surgeon attached to the General Hospital at Zoulla (medal), and in the Afghan war in 1880, being present at the defence of Candahar, in the sortie of Deh Khojah, and at the battle on September 1st (mentioned in despatches, medal, with clasp). He also served in the Burmese campaign in 1886-88, and has received the Frontier medal with two clasps.

THE VOLUNTEERS.

SURGEON-CAPTAIN and Honorary Surgeon-Major G. GRIFFITH, 1st Volunteer Battalion Welsh Regiment (late the 1st Pembrokeshire), is promoted to be Surgeon-Major, October 5th.

THE ISAZAI FIELD FORCE.

YET another expedition is to be sent to punish the tribes on the Black Mountain, on the North-West Frontier of India. Sir William Lockhart, who is in chief command, has been ordered to start on the projected campaign with the main object of destroying Baio, which has harboured Hashim Ali, the rebellious Hassanzai chief. Sir William is at the same time to avoid becoming involved in any complications with the Bonerwal tribe. Surgeon-Colonel R. Harvey, of the Bengal Establishment, will be the Principal Medical Officer. It will be remembered that he filled the same position in the expedition against the Miranzais last year and under the same commanding officer. The medical corps will be supplied with the full marching scale of establishment and equipment, also with ambulance transport and camp equipment. There will, however, be no field hospital. This seems incredible!

CAVALRY REMOUNTS.

A CORRESPONDENT sends us a cutting from the *Madras Mail*, wherein it is stated that the surgeon in charge of the 3rd Madras Lancers had applied for permission to select a charger from the Remount Depôt, Hosur, and been refused on the ground that medical officers are not entitled to such a privilege, which they certainly were under the old Madras Army Regulations. This is taken to mean that an unattached station hospital system is in the wind. It seems to us altogether unfair to deny to medical officers a privilege enjoyed by all other cavalry officers; it is surely enough that they are mounted with cavalry.

LATE OPERATIONS ON THE WEST COAST OF AFRICA.

IN reference to the operations leading to the gallant capture of the strongholds of Tambi and Toniataba in April last, we are informed that Surgeon-Captain J. McLaughlin, M.D., the Principal Medical Officer of the expedition, is the only officer sharing in all the operations who has not been substantially rewarded, unless it be that the thanks of His Royal Highness the Commander-in-Chief is to be considered of that nature. Medical officers cannot well expect promotion for such work, but there is the Distinguished Service Order, if considered worthy. The *Sierra Leone Times* calls attention to this subject. Wars in this region, notably the Ashanti, were called doctors' wars, because climate was more to be combated than human enemies; but this seems changed; for late operations there, one C.B., two D.S.O., and two brevet promotions were given to combatants, but nothing to the medical officers.

THE VANISHING RUPEE.

SURGEON-MAJOR I.M.S. writes: Candidates for the Indian Medical Service cannot surely be aware that the rupee, in which they will be paid, has sunk from the old nominal value of 2s. to an exchange of value of 1s. 2d. It is very likely to be soon 1s. only, and this will mean practical half pay to those who are paid in that coin. On entering an Indian career, their outfit will cost nothing less than about £100; but to remit this to their tailor will practically cost 2,000 rupees, or £200. How are they to save this out of the slender pay of their first years of service? The depreciation in silver was never thought of by those entering the service in years gone by, but is now a vital factor in all calculations. Let them note one remarkable fact: that competition for the once coveted Indian Civil Service is at an end; at last examination there were only a sufficient number of candidates for the places given—an unprecedented circumstance. How is it? Let the rupee answer.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,072 births and 3,236 deaths were registered during the week ending Saturday, October 1st. The annual rate of mortality in these towns, which had declined from 19.8 to 17.2 per 1,000 in the preceding four weeks, further fell to 16.6 during the week under notice. The rates in the several towns ranged from 7.4 in Croydon, 10.5 in Portsmouth, 11.2 in Brighton, and 12.1 in Bristol to 21.4 in Manchester, 21.5 in Preston, 21.8 in Salford, 21.9 in Hull, and 23.5 in Blackburn. In the thirty-two provincial towns the mean death-rate was 17.5 per 1,000, and exceeded by 2.3 the rate recorded in London, which was only 15.2 per 1,000. The 3,136 deaths registered during the week under notice in the thirty-three towns included 533 which were referred to the principal zymotic diseases, against numbers declining from 989 to 607 in the preceding four weeks; of these, 252 resulted from diarrhœa, 81 from diphtheria, 61 from measles, 57 from scarlet fever, 46 from "fever" (principally enteric), 34 from whooping-cough, and 2 from small-pox. These 533 deaths were equal to an annual rate of 2.7 per 1,000; in London the zymotic death-rate was equal to 2.2 per 1,000, while it averaged 3.1 in the thirty-two provincial towns, among which these diseases caused the lowest death-rates in Bolton, Newcastle-upon-Tyne, Gateshead, and Bristol, and the highest rates in Leeds, Sunderland, Hull, Salford, and Preston. Measles caused the highest proportional fatality in Birkenhead, Oldham, Leicester, Huddersfield, West Ham, and Salford; scarlet fever in Preston; whooping-cough in Norwich and Swansea; "fever" in Preston, Plymouth, and Sunderland; and diarrhœa in Wolverhampton, Blackburn, Sunderland, Leeds, Hull, and Preston. The 81 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 50 in London, 5 in West Ham, and 4 in Liverpool. Two fatal cases of small-pox was recorded last week Halifax, but not one either in London or in any other of the large towns; two small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 6 in the Highgate Small-pox Hospital, on Saturday last, October 1st. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,514, against numbers increasing from 3,052 to 3,477 on the preceding six Saturdays; 369 new cases were admitted during the week, against 349 and 370 in the previous two weeks. The 177 deaths from diseases of the respiratory organs in London were 43 below the average, and were equal to an annual rate of 2.1 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, October 1st, 792 births and 475 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 15.7 to 17.9 per 1,000 in the preceding four weeks, declined again to 17.1 during the week under notice, but was 0.5 per 1,000 above the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 12.6 in Leith and 14.5 in Edinburgh, and the highest rates 18.8 in Aberdeen and 22.3 in Perth. The 475 deaths in these towns included 84 which were referred to the principal zymotic diseases, equal to an annual rate of 3.0 per 1,000, which was 0.3 per 1,000 above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Edinburgh, Dundee, and Perth. The 232 deaths registered in Glasgow included 12 from scarlet fever, 12 from diarrhœa, 6 from diphtheria, and 6 from whooping-cough. Ten fatal cases of measles occurred in Edinburgh, and 5 of "fever" in Dundee. The death-rate from diseases of the respiratory organs in these towns was equal to 2.5 per 1,000, against 2.1 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, September 24th, were equal to an annual rate of 19.6 per 1,000. The lowest rates were recorded in Drogheda and Armagh, and the highest rates in Galway and Wexford. The death-rate from the principal zymotic diseases averaged 3.3 per 1,000. The 132 deaths registered in Dublin were equal to an annual rate of 19.7 per 1,000 (against 28.3 and 23.3 in the preceding two weeks), the rate during the same period being 15.1 in London and 16.0 in Edinburgh. The 132 deaths in Dublin included 19 which were referred to the principal zymotic diseases (equal to an annual rate of 2.8 per 1,000), of which 15 resulted from diarrhœa, 2 from typhoid fever, one from scarlet fever, and one from whooping-cough.

THE RUNCORN ISOLATION HOSPITAL.

DR. MACLENNAN has published in the *Runcorn Guardian* a severe indictment of the management of the fever hospital of that town. He describes the grounds as being overgrown with weeds, and the internal arrangements as most unsatisfactory. There is said to be but one "nurse," an "old lady" who is on duty day and night, with charge of four patients. An instance is mentioned in which a boy, suffering from typhoid fever and without proper accommodation, was refused admission to the fever hospital because his parents were too poor to pay the fees. It is scarcely credible that any authority which has had the wisdom to provide means of isolation for infectious cases should stultify itself and defeat the very object of the hospital by bungling of this kind.

SCARLET FEVER OR RÖTHELN.

QUERY asks what is to be done, in the interest of public safety, under the following circumstances. An epidemic has prevailed for some months in a locality, and caused several deaths. All the practitioners in the place, with one exception, are agreed in thinking it scarlet fever. The one dissentient is the medical officer of health, who regards it as

rötheln, and when cases are reported to him no measures of disinfection or isolation are attempted. Direct and indirect appeals to him have produced no effect.

*** It might be advisable to ask the opinion on the matter of the medical officer to the Local Government Board, stating that the sanitary authority adopt no precautions to prevent the spread of scarlet fever, and setting forth the grounds upon which the diagnosis of scarlet fever is based. The occurrence of "several fatal cases" is in itself *primâ facie* evidence against the German measles view.

NUISANCE IN A WORKHOUSE

Koumiss asks whether, upon receiving complaint of the existence of a nuisance in a workhouse, it is the duty of the medical officer of health to inspect, there being a workhouse medical officer.

*** Not necessarily to inspect, but to ensure that if there be any such nuisance the proper steps are taken for its abatement. Usually a friendly conference with the workhouse medical officer, or even a note to him, would settle the whole matter, and for every reason this course should be followed.

COMPULSORY CONNECTION WITH DRAINS.

D.P.H. asks whether, in a town which has partially adopted the pail system, and is being sewered in sections, owners of houses within the 100-feet limit can be compelled to connect them with the sewers under Section 23 of the Public Health Act, 1875, "thus doing away with the pails."

*** The connection can be enforced. The adoption of the pail system does not remove the necessity for drainage, or affect the application of the section cited; but neither does the connection of the house drain with the sewer necessarily do away with the pails.

AGE FOR MEDICAL HEALTH APPOINTMENTS.

P. R. G.—There is no statutory limit of age as regards the appointment of medical officers of health, the matter being left in each case to the discretion of the appointing authority. The same remark applies to the appointment of medical inspectors under the Local Government Board, but in the latter case it should be remembered that there is a Treasury rule as to compulsory retirement at the age of 65.

VILLAGE WELLS.

In an exhaustive report upon the existing water supply of Writtle and Oxney Green, Dr. Thresh gives particulars of analyses of every well in the village, over fifty in number, with the result that only a very small proportion fail to show evidence of more or less intense pollution. Bad as it is in quality, the supply is also insufficient in quantity.

Erratum.—Dr. James Edmunds writes: An unfortunate duplication of the negative—and a stultification of my sentence—has crept in at the 5th line of paragraph 2 of my "Tailors' Workmen" article, page 748. I wrote, or meant to write: But it is not possible, etc., whereas it now reads: "not impossible."

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE COOPER INQUIRY IN DOUGLAS.

Our Liverpool Correspondent writes: The inquiry into the charge of murder preferred against George Barker Cooper in the Court House in Douglas, Isle of Man, has excited an unusual amount of interest, not alone in the island, where such cases are happily rare, but throughout the whole of the North of England. Several medical witnesses were called, both for the prosecution and for the defence. Their testimony was all but unanimous, and was largely drawn upon by Mr. Ring, the prisoner's counsel, in putting forward his view of the case. This circumstance, together with the peculiar character of the fatal wound, seems to call for some comment from a medical point of view.

The fatal wound was inflicted with a small knife, a "corn cutter," with a blade 2½ inches long. It was situated on the left side of the chest; its superficial extent was about 3 inches, commencing at a point over the second intercostal space, close to the sternum, and extending upwards and outwards towards the left shoulder. The medical witnesses were agreed that the knife had entered at the inner angle of the wound; it passed through the intercostal space, traversed the pleura and lung, and inflicted a small puncture in the pulmonary artery, on the upper aspect of the bifurcation, or, as one of the witnesses put it, on the commencement of the left branch. The outer part of the wound was superficial, and was supposed to be caused by the withdrawal of the knife. The left lung was found collapsed, and there was about a pint of blood in the pleura. A little blood was also found in the pericardium, from which it would appear that the knife must have just grazed the sac. In pursuance of a practice sanctioned by a recent statute in the Isle of Man, the prisoner was examined on oath in his own defence, and gave his evidence to the effect that in the course of a quarrel with his wife the deceased struck him on the face, and that he struck back at her without thinking of the knife with which he was paring his nails at the time.

The acceptance of this version of the affair would reduce the crime from murder to manslaughter. It was asserted by the prisoner that until she was found in the room he believed the deceased had only fainted, a statement borne out by the medical evidence, which was to the effect that death must have taken place some five or ten minutes after the infliction of the wound, that it was preceded by syncope, and that the hæmorrhage being mostly internal the amount of blood visible externally would not excite alarm. In this connection it is worth noting that the prisoner seems to be affected with a high degree of myopia, and that he states that his glasses were knocked off by the blow he received. An interesting point in the case is that the medical evidence aimed at showing that it was all but impossible for the wound to have been caused in any other way than that described by the prisoner, and that one witness stated that from the appearance of the wound alone he would have formed the opinion that it had been caused in that and in no other way. The case was gone into at great length, and lasted five days, although the proceedings were only analogous to the finding of the grand jury in England. The result was the finding of a true bill on the capital charge, and the prisoner will be tried at the general gaol delivery in November.

SUSPECTED COVERING.

Kelvindale writes: In the village in which I have the misfortune to dwell, there exists a certain "wound doctor and man midwife," who attends confinements (using instruments, etc.) at a reduction of 25 per cent. on usual professional charges. As this person is totally unqualified, when a death is likely to occur in the case of mother or child, a medical man of some standing from the neighbouring town makes his appearance on the scene, and takes charge of the case. I do not believe there is any direct proof of covering, yet the medical man in question obtains an introduction to my patients, as they are ashamed to send for me after employing the "man midwife." Is the action of the town practitioner in accordance with professional etiquette? What remedy (if any) exists?

*** The proceeding described is undoubtedly contrary to the ethics of practice. Our correspondent should communicate the circumstances with the evidence he is able to bring in support of his statements, to the Registrar of the General Medical Council, 299, Oxford Street, London, W. We understand that when a case is brought to the notice of the Council officials, they may institute a preliminary inquiry, and if this elicits evidence of covering, they will summon before them the incriminated practitioner.

HOSPITALS AND PROVIDENT DISPENSARIES.

In Nubibus writes: We have what is improperly named a provident dispensary in this town, for it is not self-supporting, deriving no less a sum than £500 a year from the local infirmary, which is a charity. This money is divided amongst several district doctors, enabling them to make a living for themselves. It inserts the enclosed advertisement weekly in the Monday's paper, and they take into it all and sundry patients who are known to be in receipt of £3 to £4 a week, ship captains' families, and others.

Do you consider this is in accordance with etiquette and fair to the profession? What is your opinion as regards the advertising?

Sunderland Provident Dispensary, 6, Lambton Street.

Scale of Fees.

	Cost of Admission.	Monthly Payments.
For an adult...	1s. 9d.	4d.
,, Man and Wife	2s. 1d.	8d.
,, Man, Wife, and Child ...	2s. 3d.	10d.
,, Man, Wife, and two or more children under 16 years of age	2s. 5d.	1s.

The payments are called for once a month.

Medicines are supplied from the Surgeries of the District Medical Officers to patients residing in the outlying portions of the town.

For full particulars, rules, etc., apply to Robt. H. Mushens, Secretary.

*** With the view to more fully ventilate the subject of the alleged abuse at the so-called "provident dispensary" in question, we deem it well to give insertion to our correspondent's letter; but in the absence of the "full particulars, rules, etc.," referred to in its weekly advertisement, and, also, as to the *de facto* official association of the "local infirmary" therewith, we are not in a position to express a definite opinion thereon, other than that the alleged annual payment of £500 out of the funds of a purely charitable institution in aid of a provident dispensary, to the professional benefits of which persons "in receipt of £3 to £4 a week, ship captains' families and others," constitutes an anomaly that we fail to comprehend, and which latter statement, if true, is not only discreditable to the recipients, but a flagrant injustice, and needs careful investigation and redress.

INSURANCE COMPANIES AND MEDICAL FEES.

A Scotch Member writes: Last week I had put into my hands, by the relatives of a deceased patient whose life had been insured, a schedule which had been sent to them by the insurance company. This schedule had printed upon the outside, with blank spaces for names, "The Representatives of the late Mr. So-and-so will be much obliged by Dr. So-and-so filling up the annexed form of report, and sending it direct to the Life Association of Scotland, 82, Princes Street, Edinburgh."

The inside of the schedule is headed, "Life Association of Scotland. Confidential statements by the medical attendant during last illness of the late Mr. So-and-so." Then follow ten questions, forming an elaborate inquiry into the nature of the last illness of deceased, his personal habits, etc.

I informed the relatives that I would not fill up this report unless asked to do so by the office direct, and the request accompanied by a fee. I wrote to the secretary of the office to the same effect. I have a letter from him to-day stating that, "as the report forms part of the proofs of death required by our directors to be furnished by the claimant under the policy, therefore the fee for such report (if any) is accordingly pay-

able by them." He adds further, "We never have any difficulty in obtaining those reports from medical men all over the country."

I have replied that I adhere to my position. I now wish to ascertain whether in your opinion, and in the opinion of your readers, I have acted rightly in the matter.

*** We are informed that it is the rule for the information as to the cause of death and other matters pertaining thereto to be furnished by the representatives of the deceased at their own cost. The policy is issued subject to these conditions, and, until they are fulfilled, the office will naturally decline to pay the amount due on it. It is manifestly the duty of the representatives of the deceased to furnish the particulars required by the assurance company, and they are the people who should pay for it. This is quite a different matter from the question of paying for the medical examination of a candidate for assurance. In this case the medical examiner acts on behalf of the company, and he is paid by it, whether the life is accepted or not.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

NEW COURSE IN PHYSIOLOGY.—The Professor of Physiology (Dr. Michael Foster) gives notice that Dr. Shore, of St. John's College, Demonstrator of Physiology, will give an intermediate course of lectures, with demonstrations and practical work, on physiology, specially for medical students, on Wednesdays and Fridays at 10 during the Michaelmas and Lent terms, commencing October 14th. Practical work in the laboratory will be taken at 11 on Wednesdays and Fridays, and at other times by arrangement. A special feature of this new departure is that no student will be admitted to the lectures who has not completed the general elementary course. Students who have thus gained an acquaintance with the principles of the science will have an opportunity of learning in a practical manner its applications in pharmacology and medicine.

UNIVERSITY OF DURHAM.

At the Convocation held on Saturday, October 1st, the following gentlemen were recommended for the undermentioned Degrees:

Degree of Doctor in Medicine for Practitioners of Fifteen Years' Standing.—W. G. Creswell, L.R.C.S., L.R.C.P.Ed.; A. B. Vanes, L.R.C.P., L.R.C.S.Ed., L.S.A.

Degree of M.D.—B. R. Adkins, M.B.Durh.; R. C. Benington, M.B., B.S.Durh.; S. Bodger, M.B., B.S.Durh.; G. W. Davis, M.B., B.S. Durh., M.R.C.S., L.R.C.P.; A. W. Dawson, M.B.Durh., M.R.C.S. Eng.; C. C. Eardley-Wilmot, M.B., B.S.Durh.; A. Hardwick, M.B. Durh.; C. E. Jennings, M.B., B.S.Durh.; A. W. B. Warde, M.B., B.S.Durh., M.R.C.S., L.R.C.P.; T. Watts, M.B., B.S.Durh., M.R.C.S., L.R.C.P.; R. J. Williams, M.B.Durh., M.R.C.S., L.R.C.P.

Degree of Bachelor in Medicine (M.B.).—Second Class Honours: W. H. Maidlow, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; F. H. Marson, Queen's College, Birmingham; J. P. Willis, College of Medicine, Newcastle-upon-Tyne; B. B. T. Thorne, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital. Pass List: A. Badock, London Hospital; W. H. Bishop, College of Medicine, Newcastle-upon-Tyne; E. C. Bridges, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; H. S. Burniston, St. Mary's Hospital; E. E. Cass, Yorkshire College, Leeds; F. W. Clark, M.R.C.S., L.R.C.P., D.P.H., Middlesex Hospital; R. A. D. Daniel, L.R.C.S., L.R.C.P.Ed., L.S.A., St. Mary's Hospital; H. K. Dawson, College of Medicine, Newcastle-upon-Tyne; G. Elam, M.R.C.S., L.R.C.P., Middlesex Hospital; R. Green, College of Medicine, Newcastle-upon-Tyne; J. S. Hall, College of Medicine, Newcastle-upon-Tyne; W. Oliver, College of Medicine, Newcastle-upon-Tyne; W. E. Peacock, College of Medicine, Newcastle-upon-Tyne; L. W. Rolleston, St. Bartholomew's Hospital; T. J. Selby, L.R.C.P., L.R.C.S.Ed., Edinburgh School of Medicine; H. Shore, Queen's College, Birmingham; H. S. Stockton, M.R.C.S., L.S.A., Charing Cross Hospital; W. J. N. Vincent, M.R.C.S., L.R.C.P., London Hospital; S. S. Whillis, College of Medicine, Newcastle-upon-Tyne; G. J. Williams, College of Medicine, Newcastle-upon-Tyne.

Degree of Bachelor in Surgery (B.S.).—A. Badock, London Hospital; W. H. Bishop, College of Medicine, Newcastle-upon-Tyne; E. C. Bridges, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; H. S. Burniston, St. Mary's Hospital; E. E. Cass, Yorkshire College, Leeds; H. K. Dawson, College of Medicine, Newcastle-upon-Tyne; G. Elam, M.R.C.S., L.R.C.P., Middlesex Hospital; R. Green, College of Medicine, Newcastle-upon-Tyne; W. H. Maidlow, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; F. H. Marson, Queen's College, Birmingham; W. Oliver, College of Medicine, Newcastle-upon-Tyne; W. E. Peacock, College of Medicine, Newcastle-upon-Tyne; L. W. Rolleston, St. Bartholomew's Hospital; H. Shore, Queen's College, Birmingham; H. S. Stockton, M.R.C.S., L.S.A., Charing Cross Hospital; B. B. T. Thorne, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; W. J. N. Vincent, M.R.C.S., L.R.C.P., London Hospital; S. S. Whillis, College of Medicine, Newcastle-upon-Tyne; J. P. Willis, College of Medicine, Newcastle-upon-Tyne; G. J. Williams, College of Medicine, Newcastle-upon-Tyne.

THE will of John Abercrombie, M.D., formerly of Cheltenham, and late of 33, Upper Wimpole Street, W., who died at Harrow on August 20th, has been proved to be of the personal value exceeding £63,000.

SUCCESSFUL VACCINATION.—Dr. J. Wigmore, public vaccinator for the Second Rural District of the Bath Union, has been awarded the grant for successful vaccination.

HOSPITAL AND DISPENSARY MANAGEMENT.

ROYAL HOSPITAL, BELFAST.

AT the quarterly meeting, held August 22nd, Dr. Lindsay and Dr. Wheeler were re-elected staff-physician and staff-surgeon respectively. For the office of house-physician four candidates presented themselves, of whom Dr. Isaac Davison was elected by a large majority. The finances of the hospital were reported to be in a satisfactory condition, all debts being paid, and a balance of several hundred pounds remaining to the credit of the institution. The most notable point in the financial statement was the increase in the contributions of the working classes. Other subscriptions and church collections showed a slight decline.

REPORT OF THE BIRMINGHAM CITY ASYLUMS FOR 1891.

Winson Green Asylum.—On May 10th influenza broke out in the asylum, and continued with greater or less severity till August. During that period 120 patients and 40 officials were attacked. No fewer than 24 cases of pneumonia supervened, and with the exception of one male all were rapidly fatal. Coupled with this epidemic of influenza, diarrhœa, in some instances assuming a dysenteric form, was noticeable throughout the year, and there were in addition several cases of typhoid fever. This naturally excited suspicion as to the condition of the drainage. The Committee, with commendable promptitude, proceeded to deal with it, and in the words of Mr. Whitcombe, the medical superintendent, it has been interesting to observe improvement in the general health of the institution following the progress of the sanitary alterations and improvements. Out of 314 admissions, 80 had previous attacks, and many were in a hopeless physical condition, 34 were general paralytics, 54 had heart disease, 33 were epileptics, and 6 were in an advanced stage of phthisis. No fewer than 95 had suicidal tendencies; yet with all this unfavourable record the recoveries, calculated upon the number admitted, reached the highly satisfactory standard of 54.7 per cent. The death-rate was naturally high, namely, 13.2 per cent., calculated upon the total number under treatment. In July the jubilee meeting of the Medico-Psychological Association was held at this asylum under Mr. Whitcombe's able presidency, a circumstance to which he alludes in his annual report with feelings of justifiable satisfaction.

Rubery Hill Asylum.—The average number of patients resident during the year was 597; only four cases are shown as admissions, and Dr. Suffern says he has no expectation that any of them will recover. The death-rate was only 4.52. It must be remembered, however, that the inmates are all chronic cases transferred from the Winson Green or other asylums. Many of them are epileptics, and many are in a helpless and hopeless condition, living on from year to year mere wreckages of humanity. This is emphasised by the fact that out of this large resident population only three cases were discharged during the year as recovered. The Commissioners in Lunacy at their inspection speak well of the management of the institution, and of the efforts made for the comfort and welfare of the patients.

THE death is reported, at the age of 37, of Dr. Haime, of Barnsley, from inflammation of the lungs, on September 20th. The deceased had been ill only a few days, having caught a chill whilst attending a call in the night.

PASTEURISM IN BRAZIL.—The total number of persons who applied for treatment at the Pasteur Institute of Rio de Janeiro from February 8th, 1888, to June 30th, 1892, is given in a report published in the *Gazeta Medica da Bahia* as 1,149. In 473 of these cases treatment was for various reasons not carried out. Of the remaining 676, 511 belonged to the male and 165 to the female sex; 105 were treated in 1888, 90 in 1889, 158 in 1890, 242 in 1891, and 81 in 1892. In 505 cases the bites were inflicted on uncovered parts of the body, in 171 the animal's teeth had penetrated the clothes. Cauterisation was performed effectually in 34, ineffectually in 392, cases: no cauterisation was done in 250 cases. Among the animals inflicting the bite there were 613 dogs, 52 cats, 2 mules, and 1 horse. In one case the treatment was applied on account of the contamination of an accidental wound by the saliva of a rabid calf, and in another on account of a similar mischance caused by a cow which had contracted the disease through a bite from the same calf. In six cases the treatment was applied in consequence of accidents (of what nature is not stated) which occurred in the Institute. In 6 cases the bite was inflicted on the head, in 236 on the hands, in 131 on the arms, in 201 on the legs, in 29 on the trunk. In 10 cases the patient had been bitten in several parts of the body. In 80 of the cases the nature of the disease was established by experiment, in 287 by the symptoms presented by the animal; in 300 the animal's symptoms were so suspicious as to make the diagnosis almost certain. With regard to the results (deducting 15 cases in which the treatment was discontinued because the animal turned out to be not rabid, or the patients died of fever during the treatment, or the bite having been inflicted on the head the incubation period was so short that the treatment could not overtake the disease), the mortality in the 661 cases in which the treatment was completed was 7, or 1.05 per cent.

A PRINCELY BEQUEST.

By courtesy of Mr. John Hunter, of Lincoln's Inn, we are enabled to publish a statement of the way in which the princely sum of £152,000 has been recently applied to public purposes in virtue of the bequest of the late Mr. Berridge:—

To the National Society for Promoting Education, and to the other societies who provide the voluntary schools throughout the country, in proportion to the number of their schools, £50,000 to be applied exclusively towards teaching cooking and providing the necessary appliances for such teaching in the voluntary primary schools throughout England and Wales. This sum has been distributed in the following proportion: To the National Society, £40,000; to the British and Foreign School Society, £4,000; to the Wesleyan School Society, £2,800; to the Roman Catholic Poor School Committee, £3,200.

To the National Training School of Cookery at South Kensington, which trains the teachers of cooking employed at the primary schools throughout England and Wales, £5,000.

To the Queen Victoria Jubilee Institute for Nurses, to assist them in their object of educating and training nurses to attend the sick poor in their own homes, and to instruct them how to make homes more healthy and comfortable by attending to simple sanitary principles, £5,000.

To the Mansion House Council on the Dwellings of the Poor, founded in 1883, whose object is through local committees in every district in London to inculcate habits of cleanliness, decency, and order, and to show the relation which these habits bear to health, more especially in the case of children, to show further how infectious diseases and their extension may be prevented, £5,000.

To the Worshipful Company of Plumbers in the City of London, to be devoted exclusively to their scheme for educating, examining, and registration of plumbers, £20,000.

To the Sanitary Institute of Great Britain, £10,000.

To the International Congress of Hygiene, held in London on August 10th, 1891, £500.

To the Society of Medical Officers of Health, whose object is to promote the efficiency of the medical officers of health, and to ensure their education in sanitary science, £4,000.

To the Association of Public Sanitary Inspectors, whose object is the promotion and interchange among its members of that species of knowledge and practice which falls within the department of an inspector engaged in carrying out the duties imposed upon him by the Public Health and other Sanitary Acts, and the general promotion of the objects of sanitary science in connection therewith, £3,500.

To the College of State Medicine, the objects of which are to aid the theoretical and practical investigation and study of State medicine, public health, and sanitary science which seek to prevent or anticipate disease occurring or spreading, as distinguished from science, which is engaged in curing or relieving disease, £5,000.

To the British Institute of Preventive Medicine recently incorporated, whose object is to provide a place where research may be carried on, with the ultimate object of finding the means of preventing and curing diseases of men and animals; to provide instruction and education in preventive medicine to medical officers of health, medical practitioners, veterinary surgeons, and advanced students, £20,000, conditionally on the Institute being incorporated (which has since been done); and conditionally on the public subscribing the sum of £40,000, or such larger sum as may be required, for the purchase of a site and the erection of the buildings, £20,000.

To King's College, London, towards the expenses of founding its intended Public Health Department, £10,000.

To the University College, London, towards the expense of the Chair of Hygiene and the Hygienic Laboratory, £10,000.

To the National Health Society (53, Berners Street, W.), the objects of which are to collect and diffuse sanitary knowledge, and all other knowledge bearing on the physical and moral welfare of all classes of society; to call public attention to the serious pecuniary loss and injury to the health and comfort which arise from defective sanitary arrangements; to investigate the facts and diffuse by publications, lectures, or otherwise, knowledge respecting any of the following matters, that is to say, clothing in relation to health, prevention of disease, spread of fevers, house sanitation, foods, cookery, temperance, ventilation, cleanliness, diseases, disinfectants, the supply of pure water, drainage and sanitation of houses, appliances for the sick room, home nursing, and home education, £4,000.

CALENDAR OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The Annual Calendar has just been published by the Council of the College. From it we ascertain the following facts. It appears that there are 1,110 Fellows on the roll of the College (of whom 830 obtained the Fellowship by examination, 15 were elected as members of 20 years' standing under Section 5 of Chapter 15 Victoria, and 2 are "ad eundem" Fellows). There are 16,771 Members, 704 Licentiates in Midwifery (the granting of this licence was discontinued in 1876), and 793 Licentiates in Dental Surgery. The holders of the Diploma in Public Health, granted in conjunction with the Royal College of Physicians, number 126.

During the past collegiate year 687 candidates presented themselves in Elementary Anatomy and Elementary Physiology, of whom 484 passed in both subjects, 50 in Elementary Anatomy, 105 in Elementary Physiology, and 48 candidates were referred in both subjects; 89 candidates presented themselves in Elementary Anatomy only, 78 of whom passed; of the 57 who presented themselves in Elementary Physiology only 47 passed. The examiners are appointed in conjunction with the Royal College of Physicians. The fees received from candidates for this examination amounted to £4,048 16s., the examiners receiving as fees £573 15s. Of 753 candidates who presented themselves in Chemistry 504 passed and 249 were referred. Of 976 candidates who presented themselves in Materia Medica 549 passed and 427 were referred. The examiners in Chemistry and Materia Medica are elected by the Royal College of Physicians.

The examiners in Anatomy and Physiology for the Second Examination are appointed annually in conjunction with the Royal College of Physicians; they have conducted the Primary Examination under the old regulations as well as the Second Examination of the Examining Board, 771 candidates presented themselves in Anatomy and Physiology, of whom 365 passed in both subjects, 152 passed in Anatomy only, 64 passed in Physiology, and 190 were referred in both subjects; 109 presented themselves in Anatomy only, 84 of whom passed; of the 178 who presented themselves in Physiology only 117 passed. The fees received for these examinations amounted to £4,291 17s. 6d., the examiners receiving in fees £1,621 5s.

The Board of Examiners in Anatomy and Physiology for the Diploma of Fellow, consisting of nine members, annually elected by the Council, held during the past collegiate year two examinations, at which 155 candidates presented themselves, of whom 64 passed and 91 were referred. The fees paid by candidates amounted to £1,018 10s., and the fees paid to the examiners to £697 10s.

The Court of Examiners consists of ten members, elected by the Council for five years from the Fellows of the College. They conduct the Third or Final Examination in Surgery of the Examining Board, as well as the Pass or Final Examination under the old regulations and the Pass or Final Examination for the Fellowship. During the past collegiate year the Court has held two examinations for the Fellowship and four for the Membership; at the former there were 66 candidates, 46 of whom passed, 4 were referred for one year, and 16 for six months. For the Membership there were 926 candidates, of whom 532 passed and 394 were referred. The fees paid by candidates amounted to £10,104 18s., and the fees paid to the Court of Examiners and the Examiners in Midwifery to £5,792 11s. The Examiners in Medicine under the scheme for an Examining Board in England are elected by and the Examiners in Midwifery in conjunction with the Royal College of Physicians. Of the 839 candidates who presented themselves in Medicine during the year, 521 passed and 318 were referred; in Midwifery, of 791 candidates, 542 passed and 249 were referred.

The Board of Examiners in Dental Surgery, consisting of

eight members, elected by the Council for five years, held two meetings for the examination of 81 candidates, 51 of whom received their diploma and 30 were referred. The fees paid by the candidates amounted to £535 10s.; of this the Board received, as fees, £340 4s.

The Examiners in Public Health, appointed in conjunction with the Royal College of Physicians, have examined 58 candidates in Part I, 49 of whom passed and 9 were referred. For Part II 52 candidates presented themselves, 40 of whom obtained the diploma and 12 were referred. The fees paid by candidates amounted to £276 3s., and the fees paid to the examiners to £231.

With regard to the finances of the College, it appears that the income from all sources amounted to £39,619 10s. 1d., the largest receipt being, as already shown, derived from the fees paid by candidates for the diplomas of the College—£20,275 14s. 6d., the next largest being from sale of stock, £11,248 14s.; investments, £5,879 1s. 9d.; rents from chambers adjoining College, £665 3s. 1d.; incidental receipts—hire of rooms, sale of calendars, questions, etc., £540 11s. 4d.; trust funds, £251 16s. 11d.; fees retained for candidates, £660 10s.; balance at bank Midsummer Day, 1891, £97 18s. 6d.

The expenses for the year amounted to £39,283 6s. 10d., leaving a balance of £336 3s. 3d., the largest item being for extension of College premises, namely, £10,209 6s.; fees to examiners amount to £9,256 5s.; half expenses Examination Hall and laboratories, £5,373 4s. 4d.; salaries, wages, and pensions for officers and servants in the three departments—museum, library, and office, £4,927 2s.; rates, taxes, and insurance absorbed the sum of £1,003 9s. 3d.; extraordinary expenses, £1,959 2s. 7d.; fees returned to candidates, £560 10s.; alterations and repairs, £676 11s. 9d.; fees to Council, £289 16s.; law expenses, £755 16s. 3d.; purchase of books, etc., for library, £662 8s. 11d.; lectures, specimens, catalogue, etc., for museum, £816 0s. 6d.; under miscellaneous items—for fuel, light, printing, stationery, trust funds, etc., about £3,000 appears to have been expended.

IMPROVEMENTS AT THE METROPOLITAN MEDICAL SCHOOLS.

DR. BROADBENT, in his address to the students at the Owens College, Manchester, observed that the splendid laboratories and museums provided for their use must excite the admiration, and even the envy, of those who can remember what medical school buildings were a generation ago. Without going back so far, it is easy to see an immense change for the better since those who are still young were students. It has been our pleasurable duty for several years past to note at the opening of each winter session the structural alterations and improvements carried out at the various medical schools within the preceding twelve months. The changes noted this year again include many important improvements which will facilitate the educational work carried on in the metropolitan medical schools.

St. Bartholomew's.—The laboratories for public health and for biology have been completed during the year. The first named is designed for the laboratory work required for the diplomas in public health. The biological laboratory, which occupies a new story over the medical theatre, has been built to meet the requirements as to biology under the new regulations for the five years curriculum, and for the biological teaching of students preparing for the preliminary scientific examination. A students' recreation room has also been provided. The hospital buildings have been thoroughly overhauled during the year. The several blocks have been renovated, and put into thorough sanitary repair. The whole drainage system of the hospital and medical school has been relaid on the most modern and approved principles. This work, which has entailed a large outlay, is now complete.

Charing Cross Hospital Medical School.—The medical school has only occupied its present home for twelve years, but it has already been found necessary to make considerable additions. This enlargement has been made, partly in view of the steady increase in the number of students, and partly in order to increase the efficiency of the practical laboratory instruction given. The addition to the east side of the building, which was completed during last summer, has increased its capacity by nearly a half. A large and lofty room occupying the basement and ground floor of the new portion, and provided with two galleries, has been assigned to the anatomical and pathological museums. The second floor contains the histological laboratory. The third provides a new anatomical theatre, and a small pathological laboratory. These additions have rendered it possible to remodel the older part of the building. On the upper floor a new anatomical classroom has been formed, and is so arranged that it can, if necessity arises in the future, be thrown into the present dissecting room. A materia medica museum, with a very complete collection, and a small class-room have also been provided on this floor. On the floor below the *post mortem* department remains as before, but a bone room has been added, and the chemical department has been enlarged by the addition of a room for advanced work, provided with a balance and apparatus for gas and water analysis. This room will be used for research work and for the special instruction in subjects required for the public health diplomas. Opening off the new histological laboratory is an advanced physiological laboratory, with water power laid on. The histological laboratory will be used for teaching rudimentary physiological chemistry, and for the special classes in biology required by the new regulations as to the five years' curriculum; it has been carefully fitted for microscopical work, including micro-photography. On the ground floor the removal of the museum has permitted the enlargement of the library and the provision of a good room for the students' Club. This room communicates by a special staircase with the old students' room, which will probably be converted into a gymnasium.

St. George's Hospital Medical School.—A new residence has been erected for the house officers. The old "cottage" has been pulled down, and a large new building erected on its site. Accommodation has been provided in this new house for the four additional house-physicians and house-surgeons, and the two obstetric pupils, as well as for the rest of the junior staff.

Guy's Hospital.—During the last twelve months very important additions and alterations have been made in the hospital and school buildings. An extension of accommodation had become urgently necessary, not only in consequence of the great increase in the number of the patients and students attending the dental department, but also in order to provide for the more thorough practical teaching of the preliminary sciences—biology, chemistry, and experimental physics. Accordingly a block of buildings has been erected close to Petersham House, on a site previously covered in part by the carpenters' workshops and storage lofts, which had fallen into a very dilapidated condition, and have, therefore, been pulled down and replaced by new and more commodious shops, which occupy the basement and a portion of the ground floor of the new Petersham building. The rest of the floor is taken up by a laboratory of experimental physics for advanced students, and by waiting rooms for dental patients. In the construction of the physical laboratory Professor Reinold and other experts have been consulted. The use of iron has been, as far as possible, avoided, and every precaution has been taken to secure freedom from vibration. There are two waiting rooms for dental patients, one for men and the other for women, each capable of accommodating about fifty persons. From these rooms a separate staircase leads up to the dental laboratory on the first floor, and to the conservation room above it. The laboratory is about 85 feet long by 24 feet wide, and will be fitted with all the most recent appliances for the teaching of mechanical dentistry. It is laid with wood blocks set upon a fireproof flooring according to the patent of Mr. Fawcett. The conservation room, which measures about 100 feet in length by 24 feet in width, is raised above the surrounding buildings, and has the advantage of a north light from its windows, being also lighted from the roof, half of which is constructed of glass, with special precautions against drip from condensation of moisture. The new iron dental chairs, of which 50 of the Morrison pattern have lately been purchased at a cost of £750, are arranged in three tiers, with cross gangways between each pair of rows. At the bottom of the gangways, and at the end of each row of chairs, is a basin supplied with hot and cold water for the washing of instruments. Space is left in the

middle of the room for the chair used by the assistant dental surgeons for the purpose of the morning and afternoon clinical demonstrations. The new room is arranged on the lines of the old conservation room, which was found to be excellently adapted to its purpose, though the rapid expansion of the school soon rendered it too small for the number of students. Opening off the conservation room is a large well-lighted lecture room, capable of seating 100 students, in which the dental and other lectures will be given. As it is intended to use this room for the lectures on physics, it is being fitted with thick felt blinds to darken it when necessary. Adjoining this room is a second physical laboratory, to which students will resort after the lectures. Descending the main staircase in the tower of the building, one reaches the chemical laboratory upon the first floor; it is an L-shaped room, the angle being used for the demonstrator's platform; its total length is 112 feet, and its width 24 feet, and it is planned to provide room for 100 students to work in at one time. The walls here, as in most of the other laboratories, are lined with glazed and washable bricks, the lower part being brown, and the upper a lighter colour. The laboratory is lighted from the roof as well as from both sides, and the benches and fittings have been designed under the instructions of Dr. Stevenson and Mr. Groves, the lecturers on chemistry. Adjoining the laboratory is a balance room for the use of advanced students engaged upon quantitative work. On the same floor is a new bacteriological laboratory, two sides of which are occupied with large windows, the walls being lined with white-glazed bricks, and the corners carefully rounded off. Built out from the laboratory is a sterilising chamber, and the incubators and other fittings have been designed by Dr. Washbourn, the demonstrator of biology, after a careful examination of similar laboratories upon the Continent. The whole block is faced with stone and red brick, in harmony with Guy's original buildings, and it is thoroughly heated by steam upon the high pressure system. The cost of the structure, exclusive of internal fittings, has been about £10,000.

King's College.—New rooms for the use of students have been built and furnished. These include reading and smoking rooms, and will no doubt do much to increase the welfare and comfort of the students. The new Public Health laboratories which were built some time ago have now been completely fitted up.

The London Hospital Medical College.—The only alteration in the buildings of the medical school, which were completed in 1887, has been the addition of an osteology gallery. It will be remembered that in the new wing added to the hospital last year a new and large operating theatre, a clinical theatre, and students' rooms had been provided.

St. Mary's Hospital Medical College.—The foundation-stone of the new buildings at St. Mary's—to be called the Clarence Memorial Wing—will be laid by the Prince and Princess of Wales early in November. During the last few months the site has been cleared by pulling down twenty-three houses in Praed Street. The new buildings will provide the following additional accommodation: A new out-patient department, occupying the whole of one floor of the block; lying-in wards for cases of difficult labour; and additional special wards with a new operating theatre. These additions will raise the total number of beds in the hospital to nearly 400. The Clarence Memorial Wing will also contain a nurses' home and a new residential college.

St. Thomas's Hospital Medical School.—The large chemical laboratory has been considerably improved, and the smaller experimental rooms have been refitted to render them suitable for the prosecution of original research. The arrangements of the physiological department have also been modified; the large laboratory has been specially adapted for use as a lecture room and for lantern demonstrations; it will now accommodate with ease a practical class of 120 workers. In the hospital important alterations are being made in the operating theatres. They are being entirely refitted, and adapted to the requirements of modern aseptic surgery; the arrangements will permit of thorough disinfection. One theatre is now complete, and its appearance has been greatly improved. The electric light has been introduced into the theatres and into the special departments.

The London School of Medicine for Women.—The London School of Medicine for Women has been enlarged by the addition of an adjoining house. The new premises provide accommodation for the classes of elementary physics and biology and tutorial materia medica, now included in the curriculum, as well as a curator's workroom, an extra reading room, and dressing room. At the Royal Free Hospital the drainage system has been thoroughly overhauled preparatory to the rebuilding of the front of the hospital, which will be undertaken as soon as the funds will permit. The curator of the school museum, Miss Gordon, L.R.C.P.&S.Ed., has prepared a set of bones marking attachments of muscles, etc., which forms a valuable addition to the school museum.

OPENING OF THE MEDICAL SCHOOLS.

University of Cambridge.

The Michaelmas term began on October 1st. Dr. Peile, the Vice-Chancellor, in the address he delivered to the Senate, referred in the following terms to the events of the past year which affected the medical school. One of those who had passed away was "so long known that it is hard to conceive of Cambridge unrepresented by him." Sir George Paget was the head of our medical school during the days in which by the energy of its chief representatives, it has risen from comparative unimportance to be the largest in England. To the very last he was a foremost figure at every public gathering, eager in all that touched the usefulness or the honour of the University, the Nestor of our debates." "Dr. T. Clifford Allbutt, of Gonville and Caius, has been appointed to the Regius Professorship of Physic, and has been elected to a Fellowship at his own college. His high reputation for scientific ability and for practical sagacity assures us that he will worthily discharge the increasingly important duties of his office."..... "The long and important work done by Mr. J. W. Clark, now Registrar, during the 25 years of his connection with the New Museums, deserves our cordial acknowledgment. He has been succeeded by Mr. S. F. Harmer as Curator of the Museum of Zoology, and by Mr. Shipley as Secretary of the Museums and Lecture Rooms Syndicate.

"A Grace for the appointment of a syndicate to consider whether alternatives might be found for one of the two classical languages in the previous examination was rejected last October by an unprecedentedly large majority of the Senate; and a Grace arising out of that rejection for the appointment of a syndicate to consider a memorial largely signed by some of our most influential residents praying for the consideration of the whole question of science degrees, was also decisively defeated in February. To enter upon the reasons which led to the rejection of the first Grace, or the arguments for its adoption, would be to-day unfitting and unprofitable. I will only express the hope that one object of those who raised the question—to bring to Cambridge a new body of serious students—may yet be attained. Although the number of our students has doubled in the last thirty years, yet when compared with the number of those whom we might reasonably expect to reach by the offer of educational advantages not elsewhere attainable, it is lamentably small. There is a real danger that the view that men should go to Cambridge for social gain should obscure throughout the country the belief that the University is a place for students.

"The number of candidates at our Examination in State Medicine continues to increase, and bears satisfactory witness to the value of our diploma.....

"It is no pleasant task, at the conclusion of this sketch of the present needs of the University and the attempts made to meet them, to record once more the inadequacy of the funds at its disposal. In no year has the strain to meet even the necessary annual expenses, to say nothing of the outlay needed for the natural development of our teaching, been more severely felt than in this. It does not seem unreasonable to hope that old members of the University no longer resident at Cambridge and other wealthy men who are interested in higher education and research may be willing to give out of their abundance to enable Cambridge to hold its own in carrying on the proper work of a great university. That residents in Cambridge are willing to make sacrifices for this purpose is shown by the unanimous acceptance by the Colleges—even the most sorely tried—of the report of the Council which provided for the relief of distressed Colleges

by no permanent remission of their contributions to the University, but only by postponing for a short time the periods of increase of those contributions."

DINNERS AND PRIZE DISTRIBUTIONS.

St. Thomas's Hospital.—Sir John Lubbock distributed the prizes gained in the preceding session at St. Thomas's Hospital Medical School on October 3rd. Subsequently, in addressing the students, he observed that a great many people for want of a little forethought lost a great deal of time in what was neither work, exercise, nor amusement. He was often astonished at the want of care with which many persons selected their reading. He referred to the progress which had been made in the surgical treatment of diseases of the brain and in the treatment of wounds. He strongly advised his hearers to cultivate habits of business. If a man made himself useful he would certainly be used.

Middlesex Hospital.—After the delivery of the introductory address by Dr. Sidney Coupland, which will be found at page 785, Sir Lionel Pilkington, Bart., one of the vice-presidents of the hospital, distributed the prizes, and subsequently addressed a few well-chosen words of advice to the students. Afterwards a reception was held in the dining hall of the Residential College, and in the evening an unusually large number of past and present students attended the annual dinner at the Holborn Restaurant. Dr. Wm. Duncan presided, and among the guests present were Sir Lionel Pilkington, Baron Nordland, M.D., Mr. Bell Sedgwick, the Rev. Hay Chapman, Mr. Vowles, and others. The evening passed off most pleasantly; the usual speeches were enthusiastically received, and the admirable playing of Mr. Wilhelm Ganz was once again a feature of the musical portion of the programme.

St. Bartholomew's Hospital.—The annual Old Students' Dinner took place on October 3rd in the Great Hall, and was well attended. Dr. Russell, Lecturer on Chemistry to the Medical School, took the chair. Among the distinguished old students and visitors were Sir Frederick Abel, Sir Richard Quain, Sir James Paget, Sir William Savory, Sir George Humphry, the President of the Royal College of Surgeons, and the Conservator of the Museum of the College (Professor Stewart), Dr. Clifford Allbutt, and Dr. Odling. The toasts of "The Queen and Royal Family" were given by the Chairman, Mr. Howard Marsh proposed the toast to the "Army, Navy, and Reserve Forces;" Drs. Strickland and H. Jones, and Mr. D'Arcy Power replying. The Chairman drank "Prosperity to the Hospital and School," Sir George Humphry replying. Sir William Savory proposed "The Treasurer," Sir Trevor Lawrence, who was unable to be present. "The Visitors" were proposed by Sir James Paget, Dr. Allbutt and Sir R. Quain replying. Sir Frederick Abel proposed "The Chairman," and Mr. Power "The Honorary Secretary," Dr. Hensley, who replied. There were 109 diners, of whom 11 were visitors.

King's College Hospital.—The annual dinner of the old students of King's College Hospital was held on Monday last at Limmer's Hotel, Professor L. Burney Yeo occupying the chair. This dinner, which replaces the former inaugural address, attracted a very large gathering of old students. Amongst those who spoke were the following: Professor Burney Yeo; Colonel Mackinnon, who responded to the toast of the "Army and Navy;" Rev. Dr. Wace, Principal of King's College and Chairman of the Hospital Committee of Management; Professor William Rose, who proposed "Country Friends," for whom Dr. Allfrey of St. Leonard's replied; Dr. Fenn of Colchester, who proposed the toast of "Town Friends," responded to by Mr. Thomas Bond of the Westminster Hospital; Professor A. B. Duffin, Mr. Richard Turning, Mr. F. H. Cheatle of Burford, Mr. J. H. Salter of Kelvedon, and Dr. Tirard also spoke. As evidence of the interest shown in these gatherings, it was mentioned that one country friend had that day travelled over 200 miles to be present at the dinner.

Charing Cross Hospital Medical School.—The Scholarships of 60 guineas, open to students of the Universities of Oxford and Cambridge, has been awarded to Mr. Walter S. Sheppard, of Christ's College, Cambridge. The Entrance Scholarship of 120 guineas has been awarded to Mr. Sidney Herbert Berry, and that of 60 guineas to Mr. Alfred Burn.

Guy's Hospital.—The first Entrance Scholarship in Arts, value 100 guineas, has been awarded to Mr. Arthur William Nourse, of Guildford; the second, of 50 guineas to Mr. Charles J. Thomas, of Aberberg, Wales. The first Open Scholarship in Science of 125 guineas has been gained by Mr. Edmund Ivens Spriggs, of Market Harborough; the second of 50 guineas by Mr. Frank W. Goldie, of Clapham, S.W. Certificates of honour have been awarded to Mr. Richard T. Fitz Hugh, of Nottingham, and to Mr. Hubert John Starling, of Warrington Crescent, W.

St. Thomas's Hospital.—The first Entrance Science Scholarship of the value of £150 has been awarded to Mr. A. W. Sikes, the second of the value of £60 to Mr. C. G. Seligmann.

London School of Medicine for Women.—The Entrance Scholarship has been awarded to Miss Beatrice Knowles, of Manchester. The Gilchrist Scholarship of £50 a year for five years has been gained by Miss Urania Latham.

ENTRANCE SCHOLARSHIPS.

St. Bartholomew's Hospital.—The following awards have been made: 1. Open Science Scholarship, value £75, in Chemistry and Physics, to Charles Todd, B.A. Cantab., Clare College. 2. Open Scholarship in Biology and Physiology, value £75, to Walter d'Este Emery, of Mason and Queen's Colleges, Birmingham. 3. Open Science Scholarship in Biology, Chemistry, and Physics, value £150, to Stanley Bean Atkinson, Prel. Sc. Lond. 4. Preliminary Scientific Exhibition in Biology, Chemistry, and Physics, value £150, to Joseph Henry Churchill, of City of London School. 5. Jeaffreson Exhibition in Classics and Mathematics, value £20, to James Hugh Thursfield, B.A., Trinity College, Oxon.

GUY'S HOSPITAL PHYSICAL SOCIETY.

As is customary, the opening of the new session was celebrated at Guy's Hospital by a special meeting of the Physical Society, on the first day of the session, October 3rd, when an address was delivered by Mr. A. Ernest Maylard, of Glasgow. He pointed out the importance of remaining a student throughout life. The best faculty a student could cultivate was that of inquiry, and by continuing it into his after-life he would not only avoid make mistakes, but would be in the way to learn something new. The spirit of inquiry led to advance in two ways, since it favoured the detection of false theories and the making of true discoveries. As instances he referred to the application of the principles of antiseptics to the treatment of wounds, and the attitude of the physician confronted by some form of disease for which no remedy was known. The spirit of inquiry also led to an attitude of humility; and, further, the deeper any subject was inquired into, the broader must become the mind, and the more extended the view.

SOCIETY FOR THE STUDY OF INEBRIETY.—A quarterly meeting of this Society was held on October 4th, in the rooms of the Medical Society of London, the President, Dr. Norman Kerr, in the chair. The President called attention to the recent correspondence in the *Daily Telegraph*, and the work of the Departmental Committee now sitting, to inquire into the best mode of dealing with inebriates, as hopeful signs of the speedy enactment of compulsory legislation. Dr. H. W. Williams, in a paper on "The Urgent Need for Amended Legislation for Inebriates," based this plea on three considerations: (1) as regards the inebriates themselves: (2) as regards the families and relatives; (3) as regards their neighbours and society at large. He contended that inebriety was a disease, requiring medical and hygienic, as well as mental and moral, treatment. As their will had been broken down, compulsory seclusion was called for in their own interest, as well as for the protection of the relatives and the community. In the ensuing discussion, Drs. Arthur Jamison, Joseph Smith, Longhurst, Heywood Smith, F. J. Gray, Usher, and Brigade-Surgeon Pringle took part.

THE remains of the late Dr. R. C. Richards, of Shotley Bridge, who died at Durham Infirmary from the effects of injuries received in a carriage accident the previous week, were interred on September 29th, amidst a large gathering of friends, in the graveyard belonging to St. John's Church, Snods, Shotley, Northumberland. The deceased gentleman was 40 years of age.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, OCTOBER 8TH, 1892.

"TO BE CALLED DOCTOR AND BE RESPECTED."

At the present time when some hundreds of the educated youth of this country are flocking to the medical schools attached to our great hospitals, it is an interesting, and not altogether unprofitable, mental exercise to inquire what may be the *vis à tergo* which impels so many to devote their lives and talents to the study of the healing art. There are two answers to the inquiry, which are commonly suggested. The practical one suggests that, as in the great majority of cases it is imperative for the candidate to choose some method of earning a livelihood, he may possibly succeed better as a doctor than in anything else. The other, which can never be out of date, and of which the tradition renews its vitality in the introductory addresses at the opening of the Medical Schools, has for its basis the devotion to humanity and the enthusiasm of doing good. Probably only a very small proportion indeed of those who will enter their names in the next few weeks at the Medical Schools will do so simply as an act of self-sacrifice on the altar of humanity in the concrete, or of science in the abstract, and we may, at any rate, confine our attention and address our remarks to those who simply seek a means of livelihood in an honourable and interesting profession. There is a legend in an ancient Buddhist manuscript of the early days of the physician of the Gótama Budha, whose name was Jíwáka, which puts the case for the aspirant for medical honours very aptly for our present purpose. It having become necessary for the youthful Jiwaka to select a profession, "he considered the character of the eighteen sciences and the sixty-four arts, and determined that he would study the art of medicine that he might be called doctor, and be respected, and attain to eminence." This, although coming from the flowery East, is a good deal more practical and much less poetical than some of our own First of October utterances, or even than the advice often prominently addressed to the readers of the "Students' Numbers" of medical journals. If we assume that the student selects our profession in order that he may "be called doctor, be respected, and rise to eminence," we shall probably have a very fair and a very proper answer to the question, What impels so many to enter the portals of medicine? That the profession of medicine is a very honourable one is abundantly proved from its history in the past and the growing esteem in which it is held at the present day. The oldest medical documents are the various medical papyri of Ancient Egypt. In that country the position of the members of the medical profession was very high. Students of medicine were educated with the priests and astronomers in the great temple schools of Heliopolis, Memphis, and Thebes. In the famous medical papyrus translated by Chabas there is a chapter of advice to such students, in which they were urged to diligence, cautioned "not to hang their affections on pleasures lest their books should fall out of their hands," and they were reminded that, "whoso is dexterous in his craft, achieves power and fame." In another papyrus of the same class the teacher says: "It has been reported to me that thou neglectest thy studies and seekest only thy pleasure, wandering from tavern to tavern. But what profiteth the odour of beer? Avoid it: for it drives people away from thee, impoverishes thy wits, and likens thee to a broken oar upon the deck of a ship." If the student desires to share the honour and dignity of a medical life let him lay to heart that those honours and dignities have come down to our day through a long line of noble men who were the heroes, and very often the martyrs, of medicine. With a great price have these honours been purchased. Let him also do his part to preserve the treasure entrusted to his hands. Professor Max Müller recently said that his advice had ever been to his countrymen abroad to do their utmost to sustain the honour of the Fatherland as though it depended on their individual efforts.

Medicine has its hagiology, its calendar of martyrs and confessors, whose labours have made it possible for the student to peacefully and easily pursue his studies to-day. Readers of Georg Ebers's delightful Egyptian romance, *Uarda*, will remember how the Egyptian doctor Nebsecht imperilled not alone his life, but (in his own estimation) his eternal salvation, to obtain possession of a single human heart for anatomical purposes.

Students of medical history will reflect that the great writers in medicine from Hindu, Egyptian, Greek, and Roman times amassed the information and won the honours which we use and wear to-day in face of obstacles and dangers of which we can have little conception. If, therefore, it is now honourable and lucrative to be a doctor, the least the student can do is to uphold the dignity which he desires to share, and to take care that medicine loses nothing by his connection with it. Let him read and ponder well the oath which the Greek student of medicine took when he was received into the Society of the Asclepiadæ; let him peruse "the Law" and the "Oath" of Hippocrates. In these ancient documents he will see what our profession requires of him beyond the mere learning which it will help him to obtain. He shall share its glories; it will rest with him and his fellows that there are any glories to share in the generations to come.

If the great dignity of the healing art largely consists in its efforts to relieve human suffering, it must not be forgotten that it also shines in less resplendent glory by the services which so many of its professors and disciples have rendered to the accessory sciences. In natural history, chemistry, botany, materia medica, pharmacology, hygiene, and other branches of human knowledge, physicians have always been amongst the foremost and most distinguished discoverers and ardent workers. Pythagoras, Aristotle, Democritus, amongst the ancients, Boyle, Helmholtz, Donders, Hooker, Owen, Huxley, Flower, Birdwood, Hunter, Hendley, amongst the moderns, are a few of the many sons of medicine

who in other than their own proper spheres have served their generation by great services to the sister arts and sciences. From the temple of medicine many doors lead to paths of distinction in these accessory studies. Jiwaka's ambitions may thus be satisfied still, but his industry must be imitated by those who desire his rewards. It is recorded that his preceptor at the close of his pupilage bade him go out of the city gate and examine the ground around for the space of sixteen miles and make a collection of all the roots, flowers, and fruits which were useless in medicine. The pupil did so, but on his return told his teacher that he had met with no substance that was useless in medicine; there was no such thing on earth. The moral, of course, is that to the man of research Nature is ever ready to communicate more and more of her secrets. The man who complains of his opportunities in the study of medicine would find the Nile itself insufficient for a bath. In thus impressing on the alumnus the wisdom of trying to live up to his opportunities, we have no desire to limit either his reasonable pleasures and relaxations, nor to make him a mere book-worm or a fad; his first lessons in physiology and his common sense will teach him how necessary it is to keep the body in vigorous health if the mind is to be equal to the demands made upon it. To this end he should live in a healthy locality, with surroundings suitable to his character. There is the college residence, with its study and club and its athletic associations; suburban field lodgings or residences, such as Toynbee Hall, where his higher social and moral instincts will find full play and large opportunities for health development, as a letter from Mr. Barnett which was recently published indicates. The medical student happily is rapidly redeeming his character. Probably no class of students work so heartily and thoroughly, but we would like to see the School of Medicine considered less in the light of a club and gymnasium, where parents' money is wasted, and towards which their hearts so frequently turn with hope deferred, while their sons are making not even the pretence of any real efforts to shorten a period of pupilage which it must be confessed is often seducingly pleasant. The rowdy student is, we believe, all but extinct. We wish we could believe that the "hanger on" was equally a curiosity.

FEMALE INEBRIETY.

THE stock attempt has been made to connect this "national shame" with the off-licences. But this has been on this occasion, as always before, fully refuted. It is a ruse of the publicans, and a trap into which some unwary prohibitionists have fallen. If there be prohibition, it is the publican's licence, with its accessory temptations to drunkenness, which must go; and if local option be exercised it would be certainly in that direction that it should operate—short of total prohibition—for which, probably, the nation is not, and may never be, ready.

For the prevention of this national disgrace of drunkenness sound instruction in every school on the powerful and often injurious action of alcohol on body and brain should be considered among the things essential. The great mass of the people, in the cultured as well as in the uncultured classes, have never been taught the composition, character, and effects of intoxicants, and have had no opportunity of becoming acquainted with the influence of various species of inebriants on man. An elementary knowledge of the subject ought to be imparted at a very early stage of school life.

One correspondent of the *Daily Telegraph*, "Ex-M.P.," has called attention to a consideration of the highest importance in any project for a better state of matters. In graphic terms he has denounced the sadness with which Britons take their pleasures, and the dispiriting gloom pervading the general environment in which the bulk of the community have to drag on the weary routine of daily toil indispensable to the earning of a living. From a medical point of view depression of spirits and lowered vitality constitute an influential factor in the genesis of inebriety. This true neurasthenia is, among the poor, a leading incentive to intoxication. Lowering and faulty unhygienic conditions are a most prolific source of inebriety, and operate more powerfully on the female than on the male. Many of the men pursue their avocations away from home, but most of the women spend nearly all their time in their dingy, disheartening, and disease-generating apartments. These women, such of them as are mothers, have besides the care of the children and of the cooking, and it is, perhaps, not surprising that they should seek an evanescent oblivion of their dull existence. Apart altogether from the predisposition of inebriate or interchangeable heredities, combined with the devitalising and insufficient nutrition of a dietary composed mainly of tea and bread, we have here the very group of factors which, as medical observation and experience have taught us, cannot but lead, amid such overwhelming temptations as our present licensing system affords, to free drinking.

The elevating and attractive power of good instrumental music, the benign influence of which on the people is only beginning to be understood in Britain, through the excellent work of the Popular Musical Union and other similar efforts, should be widely utilised by the local authorities, especially in large towns. Such a provision would aid powerfully in lightening the gloom amid which so many of our poor toil, in chasing away that utter weariness, melancholy, and *ennui* which so work together to exhaust vitality and vigour, and thus lead to indulgence in anæsthetic and narcotic intoxicants.

There is no satisfying some people. One dissatisfied correspondent writes to the *Telegraph*, complaining that only 45 per cent. of the inebriates treated at the Dalrymple Home and other institutions of the same kind have been cured. We believe this is too high an estimate of permanent success. The Dalrymple Home has been open for only some eight years or so, and one-third would be nearer the actual result in the long run, judging from the longer experience of treatment in America and other quarters of the globe. Yet, some twenty years ago, when the British Medical Association advocated the treatment of inebriates by a special therapeutic care and detention, very few, even in the profession, and hardly one person outside medical circles, except a few enthusiastic abstainers, believed that a cure could ever be effected. Some of the most liberal donors to the Dalrymple experiment shared in this disbelief, and have been most agreeably disappointed at the wonderful and unanticipated measure of success. This objector assumes that all who are admitted to homes in this country, where there is no power to receive an inebriate except with his own consent, apply for admis-

sion entirely of their own free will. This is, unfortunately, not the case.

A large proportion apply for admission only after every other expedient has been tried and has failed, and under the strong moral pressure of their friends, backed in some instances by a threat to withdraw further financial assistance unless they consent to go into a home for a term. The average length of the period of addiction should also be remembered in judging the results of treatment. In the institution referred to, that period averaged between eight and nine years. The success which has been achieved so far has been most encouraging; were the same proportion of successful cases attained in the attempt, which we trust will ere long be made by the State, to seclude compulsorily and put under reformatory treatment female police-court "repeaters," the reclamation of one-third of the offenders would be an inestimable boon to women themselves, their families, and the community. The proportion of cures will probably be greater in such an experiment than with private cases under the existing law, as it must be taken for granted that in the carrying out of such an undertaking the Government would take care to reserve power to prolong the detention where ascertained to be necessary, and would avail themselves of every therapeutic, hygienic, and other means which might be at their disposal to restore the diseased and will-paralysed inebriate to sound mental and bodily health.

The condition of Sir Richard Owen continues the same; there is no increase in strength.

The *New York Medical Journal* states that Professor Hobart A. Hare, of Philadelphia, has, at the request of the Nizam of Hyderabad, undertaken a new research on the action of chloroform.

The first meeting for the present session of the Clinical Society of London will be held on Friday next, October 14th. The first meeting of the Royal Medical and Chirurgical Society will be held on Tuesday fortnight, October 25th.

The first meeting for the session of the North London Medical and Chirurgical Society will be held on Thursday, October 20th, in the Out-Patients' Room of the Great Northern Central Hospital. Dr. Cholmeley, the President, will take the chair, and Sir William Savory, Bart., will deliver an address on "Symptoms in Perspective."

The first meeting of the Hunterian Society will be held on Wednesday next, October 12th, at 8.30 P.M., when the first Hunterian Society Lecture will be delivered by Dr. Robert Barnes on Some Observations on Absorption in Relation to Physiology, Pathology, and Therapeutics. The meetings of the Society are held at the London Institution, Finsbury Circus.

THE INTERCOLONIAL MEDICAL CONGRESS.

Professor Andrew Stuart, Sydney, New South Wales, has sent us a telegraphic message by cable, stating that the Intercolonial Medical Congress of Australasia was a complete success; 600 members were present, and 160 papers were read.

THE MEDICAL SOCIETY OF LONDON.

The next course of Lettsomian Lectures before the Medical Society of London will be delivered by Dr. J. S. Bristowe, F.R.S., who has chosen for his subject Syphilitic Affections of the Nervous System. The first lecture will be delivered on January 9th, 1893. The annual Oration will be delivered by Professor W. Mitchell Banks on May 1st, 1893, when the customary *conversazione* will be held. The anniversary dinner will take place on March 8th, 1893. As already announced, the first meeting of the present session will be held on October 17th—Monday week. Among those who are expeted to contribute papers during the session are: Dr. Lauder Brunton, F.R.S.; Dr. B. W. Richardson, F.R.S.; Mr. Meredith, Dr. Ralfe, Mr. Buckston Browne, Dr. Sansom, Mr. Doran, and Mr. Bland Sutton. A number of new Fellows have joined the Society recently.

FRENCH SANITARIANS IN ENGLAND.

The Paris Municipal Council recently voted a grant of £160 to cover the expenses of a journey to England of delegates appointed to study the system of filtration of the water supply for large cities. The Council General of the Seine has added its support. The party includes the President of the Council-General, M. Deschamps; M. Humblot, the principal engineer; M. Mourot, his secretary; and M. Leroux, one of the chief of the city officials.

A HALFPENNY-WORTH OF HOT WATER.

London may take a useful hint from the establishment in Paris of hot-water fountains, which, by a simple automatic mechanism like that of the domestic Geyser, furnish eight quarts of hot water for a halfpenny. The domestic uses of this supply for the poorer classes and for many housewives is obvious; and so is the sanitary value. Let the water be made boiling by dropping "a penny in the slot," and the drinking-water question is appropriately solved by compromise. The "penny in the slot" may help us to work out some forms of social salvation.

LENIENCY TO FEVER.

The outbreak of enteric fever at Easington (Durham) seems to have been traced to wells, public and private, some of the worst examples of which have been sentenced by a rather lenient bench of magistrates to be cleansed and re-examined in a fortnight! As the analyst found abundant pollution, and other witnesses spoke of drains pouring into one of the wells, it is to be hoped that much more effectual measures than these are being adopted for supplying the village with pure water. According to the *Newcastle Daily Leader*, there are other unwholesome conditions in Easington besides shallow and polluted wells—an overstocked churchyard, for instance, and imperfect drainage.

MALLEIN IN GLANDERS.

Mr. George Fleming writes: In the interesting article which appeared in the British Medical Journal for September 24th on "Mallein, the New Diagnostic for Glanders," it is stated that Dr. Kalning (of the Dorpat Veterinary Institute) was the discoverer of the preparation. This I believe to be a mistake. The discoverer was C. J. Helman, of the Institute of Experimental Medicine at St. Petersburg, whose name, strange to say, does not appear in the article at all. This fact is, so far as I know, universally recognised on the Continent, where the excellent work done by this most distinguished bacteriologist and pathologist is highly valued. He died quite recently, and a brief account of him and his labours, especially those relating to rabies and glanders, is given in the *Archives des Sciences Biologiques*, recently issued by the Imperial Institute of Experimental Medicine of St. Petersburg.

RATIONAL CYCLING.

In recommending athletic sports to the medical student, Dr. Luff, at St. Mary's Hospital, laid special stress on one which possessed peculiar advantages to the student residing in London—cycling; rational cycling, not the horrible exhibi-

tions of cycling too frequently seen nowadays, not the individual who, with crooked back and head dangling over the front wheel, tore along indifferent to the safety and comfort of others, and who was so aptly compared by the observant *gamins* of London streets to "a monkey on a gridiron." It was time that members of the medical profession, whilst advocating the immense benefits of athletic training, should raise their voices against the growing evils of athletic straining. A bicyclist had recently ridden 421 miles in twenty-four hours, that is, that, not allowing for any stoppages, an average pace of over 17½ miles an hour had to be maintained for the twenty-four hours, "I have been a cyclist for sixteen years," Dr. Luff added, "and in my earlier athletic days I frequently associated with, and therefore had the opportunities of observing, young men who at that time stood prominent in the athletic world as champions and record-breakers, many of whom, alas, now sleep the long sleep, hurried prematurely to their graves by the insane desire for so-called record-breaking ame and prize winning."

CONTRABAND DISEASES.

IT is exceedingly desirable that the officers of Her Majesty's Customs should have power to detain ships for other infectious diseases besides cholera, yellow fever, and plague, and that the powers of the sanitary authorities should be likewise extended. Dr. Collingridge states that this would rarely involve any delay to the vessels, and the advantages of such precautions are obvious. Not long ago we had occasion to notice an instance in which small-pox was introduced into a sanitary district by persons landed from a ship, the authority being powerless in the matter until the mischief was done. It seems to be doubtful whether, under the present regulations, any disease other than the three named above need be reported in reply to the routine quarantine questions.

HORSE WATERING AND GLANDERS.

MR. M. VESEY FITZGERALD (Rugby) writes to call attention to the danger of spreading glanders among horses by the use of public drinking troughs. The danger undoubtedly exists, and attention has on several occasions been drawn to it in these columns. As a rule, no doubt glanders is spread by the introduction of an infected animal into a stable of healthy horses. The regulations as to the notification of cases and the destruction of diseased animals strike, therefore, at the main danger; but since the other source of dissemination of the disease is probably accountable for the spread of infection in a minority of cases, a suggestion made by our correspondent seems well worthy of consideration. It is that every licensed vehicle shall be required to carry a bucket of canvas or other light material, from which each driver might water his own horses from public standpipes, which should be provided at suitable points. As London is the great centre for glanders in this country, and as the London County Council appears to be determined to make a real effort to stamp out the disease, it will be well that this suggestion should be considered by that body. It would be a mistake to leave any loophole for the persistence of the infection in London, for if all the available regulations and precautions are enforced, veterinary authorities believe that very few glandered horses would be left in the streets of London by next May.

MEDICAL STUDENT LIFE IN LONDON.

A GREAT deal has been done within the last ten years to increase the amenity of medical student life in London. The establishment in connection with the medical schools of residential colleges and the enlargement and improvement of those already in existence has been a great boon. In every instance, we believe, these colleges have been successful, and in some the demand for rooms has always exceeded the supply. They have done much to diminish the number of students who were formerly compelled to spend their evening hours in a depressing isolation injurious to their intellectual and moral development. They have not, however, touched another defect of London as a school of life as well as of physic. They have, indeed, brought the medical student into more intimate social relations with his fellow-students, but they have done nothing to diminish the isolation of medical students as a body from students and thinkers in other fields of intellectual activity. This is undoubtedly an evil, and it would be well if medical students could be induced to take more advantage of the opportunities which do exist for a larger university life. These are, no doubt, few in number, but one highly successful movement of the kind is the collegiate life of Toynbee Hall. We published in the Student's Number (September 3rd) a communication from the Warden (the Rev. S. A. Barnett) which stated some of the advantages offered. In the first place it may be well to mention, since the question of ways and means is commonly a most serious one for medical students, that a man may live there very cheaply. The total, inclusive cost of board, lodging, washing, etc. (exclusive of mid-day meals), need not exceed 15s. a week. Each resident has a combined bed and sitting-room furnished, and each house has a common room. There is a good library which contains 5,000 volumes, and the *Winter Plans for Lectures, Classes, Societies, etc.*, is so long and comprehensive, that every man may be sure of finding some scheme calculated to meet his wants, whether for instruction or recreation. In addition to university extension lectures, and classes and reading parties in literature, modern languages, and science, departments of the Hall's activity at which the much be-lectured medical student may be disposed to look a little askance, there are a large number of societies which afford excellent opportunities for general culture; thus there are Elizabethan, Shakespearean, Antiquarian, Natural History and Chemical and Electrical Societies, an Adam Smith Club, and an Economic Club. There is also a Camera Club, a musical society, a tennis club with a court, and two rowing clubs. This does not exhaust the list of outlets for activity, mental or physical, but it will give an idea of their varied nature. Toynbee Hall is close to the Aldgate stations of the Underground Railway. A copy of the *Winter Plans* can be obtained by sending a stamped wrapper to the Warden, Toynbee Hall, Commercial Street, E.

THE NORTH-EASTERN FEVER HOSPITAL.

THE managers of the Asylums Board paid a visit of inspection to their fever hospital, designated North-Eastern, on Friday week. The hospital (which is situated in St. Ann's Road, Tottenham) is now open for the reception of scarlet fever cases. The hospital, which was put in hand on the day following the acquisition of the site, will have been completed within a period of seven weeks. The site, little less than 19 acres in extent, was acquired instantly upon receipt of the tardy sanction of the Local Government Board for its purchase. When we state that the hospital will accommodate 456 or 548 patients, according as the full allowance of 144 superficial feet of space, or the usual amount of 120 feet, per bed is allowed, as well as a staff of 207 officers and servants, it will not be questioned that the managers, the architects, and the various contractors are entitled to praise for the remarkable energy displayed. It is to be regretted that the hospital was not ready for occupation a month ago, for then there would have been no occasion for refusing admission to many patients who have been detained in their own homes for want of room in the existing hospitals. A controversy has arisen as to who is to blame for the delay. The Chairman of the Asylums Board, in a statement made to the managers at a recent meeting, openly charged the delay to the dilatoriness of the Local Government Board in giving sanction to the acquisition of the site, although they knew that none other was available. That Board, in a reply savouring somewhat of special pleading, denies the charge, and attributes the delay to the managers themselves. It

would be bootless at the present time to endeavour to decide which body was in fault, but it must be obvious that if it was proper for the Central Board to sanction the purchase of the site in August, 1892, there could not have been any unsurmountable reason for withholding its sanction in the middle of 1891. The site really appears to be a very good one in many respects. It is bounded on one side by a railway embankment. The opposite side, some 800 feet in length, is bounded by the St. Ann's Road, from which the hospital is shut off by a seven-foot wall. The managers have acquired adjoining properties on the other two sides, so that the site is well isolated, especially as no ward will be within 100 feet of the boundaries. We trust that the beds about to be added to the managers' resources will suffice for the needs of the occasion, although there is at present no sign of an immediate decline of the epidemic.

MERITS AND SHORTCOMINGS OF THE NEW ORDER CONCERNING GLANDERS.

With reference to the action of the Board of Agriculture and to its new orders aiming at the suppression of glanders and farcy, it will be noted that some important methods of prevention which it would have been desirable to insert are absent, especially the requirement of compulsory notification of cases by the veterinary surgeons in attendance, the power of inspection of public stables, and the power of inspecting all horses sold by public auction. In respect to compulsory notification it is to be regretted that this power is not given, for it certainly would have been within the power of the Board of Agriculture to include this in the new order. It would have added greatly to its efficiency, as the experience of notification in other contagious diseases has shown. To have included the other two requirements, namely, the inspection of stables or places of auction, would not we believe, have been possible under the existing law; it would require further legislation. An important element for the success of the Act is that the power of compensation is now given to county councils on the same lines as those they previously possessed in cases of pleuro-pneumonia and other contagious diseases. Guided by the experience of the working of these orders, a proviso will be inserted with a view to empower the county councils to refuse compensation where the disease existed before the animals were within the county limits. The reason for this may not be very apparent, but experience has shown, for example, that in the case of pleuro-pneumonia owners have been quick to proceed to rich counties, and from which compensation was most promptly obtainable. The metropolis itself has suffered in this way, hence this very wise precaution. Half the value of the animals will be paid in suitable cases up to the amount of £40, which will involve a maximum to be paid by the council of £20 for any one animal.

"OURSELS AS ITHERS SEE US."

The address by Mr. Mitchell Banks, at the opening of the winter session at Yorkshire College, Leeds, an abstract of which we print at page 787, very happily compares the doctor of the present day with his representatives of two hundred years ago, very much to the advantage of ourselves. Selecting a novelist, a dramatist, and a painter from each of the two periods, he produced the evidence of Lesage, Molière, and Nanteuil as satirists of the "Sangrados," the "Dr. Diafoirus," and the Uroscopists—the physicking, purging, bleeding charlatans of the past—and opposes it by the hero of George Ohnet's charming novel, *Le Docteur Rameau*, the Sir Peter Lund, the physician of Sidney Grundy's play, *The Fool's Paradise*, and "The Doctor" in Luke Fildes's great work. The popular conception of the medical profession of Molière's time was on the whole a true one; it reflected the manner of the overbearing, greedy, hardhearted quacks, who, to a great extent, composed the medical profession of the times. The medicine, bitter as it was, has done its work, and we can afford to be grateful to the caricaturists who administered it. Equally correct is the popular conception of the doctor of to-day—the modest, unpretending man of science, who, while working wonders for his patients, would have them believe he is a medical agnostic; the devoted servants of the deserving poor, whose appeal to the charity of the representative modern doctor is never made in vain; the typical, honest, and gentle man, doing his best to relieve suffering. Such are the two sets of pictures of past and present medical life which Mr. Mitchell Banks held up before his audience, and he earnestly urges the students to take Luke Fildes's picture as their ideal, and to "be at once gentle men and gentle doctors."

THE JUBILEE OF THE SCHOOL OF PHARMACY.

The fiftieth anniversary of the opening of the School of Pharmacy, in Bloomsbury Square, in connection with the Royal Pharmaceutical Society, was marked by a gathering in the Society's House, Bloomsbury Square—of unusual number and distinction—of the friends and supporters of this important school. The chair was occupied by the President, Mr. Carteighe, who in a brilliant address ably reviewed the history of the school from its foundation, recalling the names of the distinguished men who were its earliest members—Pereira, Anthony Todd Thompson, Fownes, Redwood—and subsequently their able successors, Bentley, Attfield, and others. The lecturer discussed with great critical ability the principles of pharmaceutical education which still remain unfulfilled. The meeting was subsequently addressed by Mr. Ernest Hart, who moved a vote of thanks to the Chairman, and by Sir George Buchanan, who seconded it. Amongst those present were Sir Richard Quain, Bart., President of the General Medical Council, Dr. Stevenson, F.R.S., Dr. A. P. Luff, Dr. Langdon Down, Professor Bentley, Professor Attfield, Professor Armstrong, Dr. Paul, Mr. Bremridge, Mr. Martindale, Mr. Savory, and nearly all the leading members of the Pharmaceutical Society in London. In the evening a dinner was held at the Pharmacy Club, at which many interesting speeches were made. Mr. Carteighe's address was so able and weighty, and dealt with so many subjects of interest to the physician as well as to the pharmacist that we shall hope to be able to devote some space to it in our next issue.

THE ILLEGAL SALE OF POISONS.

Now that public attention has been directed to the contravention of the Pharmacy Act by the irregular sale of poisons in the form of proprietary articles, it is desirable that this matter should be thoroughly followed up until the illegal practice is discontinued. From our communications with the President of the Pharmaceutical Society it may be gathered that the disposition of the Council of that body is to exercise the powers with which it is entrusted by Act of Parliament, and thereby to secure due compliance with the law. Already we learn that several proprietors of articles, which are in ordinary parlance termed patent medicines, have now spontaneously followed the example of the proprietor of Dr. Collis Browne's chlorodyne, by attaching the poison label to their preparations. A commendable inclination is thus shown, on their part, to conform to that construction of the statute, which is the only one reasonably consistent with its object. By the use of the poison label, users of the preparations are duly warned that danger attaches to them if they are improperly used, and at the same time persons who are not legally authorised to sell poisons are thus enabled to avoid incurring liability to penalties by continuing the sale of these articles. But we have reason to fear that much still remains to be done before the illegal sale of poisonous preparations is effectually suppressed. From inquiries we have made it appears that some of the proprietors of articles containing poison are reluctant to adopt the course indicated by Mr. Lushington's decision as being the proper one. We find that various anodynes,

cough medicines, teething powders, etc., containing opium or morphine, are still being sold without the poison label, and even when inquiries are made by retailers as to whether these preparations contain scheduled poisons, only evasive replies can be obtained. In one instance that has been brought under our notice, a distinctly defiant attitude has been assumed and a preparation which contains morphine and hydrocyanic acid is sent out for sale without the poison label, but with a label stating that it can be sold by any person who has a patent medicine licence. This is a contumacious proceeding which calls for prompt and decisive interference. In another instance a similar article, which has long been labelled poison, is now declared to be exempt from the restrictive provisions of the Pharmacy Act on the ground that it is actually the subject of a patent. The information given on that point is too indefinite to admit of the statement being verified without a more lengthy search at the Patent Office than we have yet been able to make; but on the face of the matter it may reasonably be doubted whether a patent would be granted to allow the sale of an article involving a breach of the statute law. In regard to the retailing of such articles as are now referred to, we are informed that in consequence of proceedings instituted by the Council of the Pharmaceutical Society several large firms have now discontinued the sale of chlorodyne and some other articles of a similar nature; but we find that the articles are still being extensively sold by other unqualified persons. It appears, therefore, that the warnings which have been given have not in all cases had the desired deterrent effect, and that nothing short of actual prosecution will suffice. We are decidedly of opinion that, until that restriction of the trade in poison which was the object of the Pharmacy Act be thoroughly established and strictly enforced, there will be no adequate remedy for the evil which has been for years a subject of remonstrance on the part of the medical profession, and we shall not rest content until that be effected. The grocer's shop is no place for the distribution of poison in any form—whether it be labelled or not. It has been urged that the frequent use of the poison label would cause its warning to be disregarded as a consequence of familiarity; but this is too weak an argument for supporting disregard of the law, and it has very justly been pointed out in the *Pharmaceutical Journal* that familiarity with the poison label is less to be feared than "uninformed familiarity" with poison itself. Certainly a reckless disregard of the warning conveyed by a poison label might be expected to result from the sale of articles so labelled at a grocer's shop; and if that practice were in any degree permissible, it may well be understood how the association of such articles with the commodities properly falling within the scope of the grocer's business might tend to make the poison label dangerously familiar. But, as we read the provisions of the Pharmacy Act, one object of the demand that poisons shall be labelled is to keep them entirely away from such trades as the grocer's, and to restrict their sale exclusively to persons properly qualified to deal with them. For purposes of protection it would often be impracticable to establish any precise distinction between poison and medicine. The difference is entirely one of proportion. While a proper dose would be beneficial a larger quantity might have a fatal effect. It is as a warning of this fact that the poison label is often necessary even for medicine, and for the same reason the sale of such medicines should be strictly confined to those who are competent to exercise discretion and to supplement the somewhat clumsy legislative device of the poison label in cases where it may be requisite to do so by the exercise of their special technical knowledge.

PRESCRIBING BY CHEMISTS.

The *Daily Telegraph* recently contained a report of an inquest held on a child, aged 6 years, which affords a striking illustration of the danger incurred by chemists who go beyond their legitimate business and venture to undertake the duties of medical men. It appeared from the evidence given at the inquest that the child was supposed to be suffering from a cold, and her father procured from a chemist in Wardour Street a powder, which was given to the child. Next day she was attacked with severe vomiting and diarrhœa. On Monday the father went to the chemist again, and, on describing the symptoms, was supplied with a mixture containing aromatic sulphuric acid and capsicum. It was not until Tuesday morning that a medical man was called in, and next day the child died, the *post-mortem* examination showing that death was caused by acute peritonitis. The medicine given was, therefore, highly improper, and would not have been prescribed by anyone knowing the state of the child. Mr. Troutbeck, the coroner, very appropriately pointed out the danger of chemists prescribing as if they were qualified medical men, and the jury concurred with him in the opinion that it is most improper for chemists to take upon themselves such a responsibility. We fully endorse that view, and do not hesitate to express our surprise that it is not more generally recognised among chemists, who are now supposed to receive a professional education, and are, in connection with medical art, entrusted with special duties which other persons are not allowed by law to perform. At the present time it is especially desirable that the natural relations between pharmacists and medical men should be respected in practice, and we cannot imagine anything more calculated to disturb those relations with disadvantage to chemists than a continuance of the very reprehensible practice of prescribing for or attempting to treat diseases without any adequate qualification.

BARON DR. MUNDY, OF VIENNA.

Baron Mundy, who has just been receiving congratulations from his friends and admirers of all ranks and positions in the chief countries of Europe on the attainment of his 70th birthday, is a man who thoroughly deserves the tribute thus paid to his merits, if a life of personal exertions for the alleviation of suffering ever deserves such testimonies of kind feeling and approval. The entire Vienna press has been of one accord in their congratulations on the event and in recalling with satisfaction the principal incidents of his active life. It may be remembered that a few years ago he came to London to urge the importance of every railway company having at hand the necessary means of assistance, as regards appropriate conveyances and surgical appliances, to meet the needs of severe railway accidents, and that he delivered a lecture in English at the Royal United Service Institution on the subject. Originally a military medical officer in the Austrian army, and subsequently a distinguished lecturer on sanitary science, his genius has led him to devote his energies mainly to improving the hospital accommodation and means of carriage of the sick and wounded of armies in time of war. Whenever and wherever hostilities have broken out in Europe, there Baron Mundy has been prominent for his devotion in ministering to the necessities of the wounded. Not only has he given his time and personal services, but he has expended two considerable inherited fortunes in this humane work. The large temporary hospital which he organised and administered during the siege of Paris in 1870-71 was perfect in all its arrangements for the occasion, and was a source of incalculable benefit to the many patients who had the advantage of being received and treated under its shelter. In 1866 in Bohemia, in 1876 in Servia, in 1878 in Turkey, and again in 1885 in Servia, Baron Mundy was not only unceasing in his activity for the welfare of the sick and wounded, but he was an ever-moving spirit in stimulating others to interest themselves for the sufferers, and always independently of the nationality to which the patients belonged. But probably the chief source of his popularity in Vienna, and of the universal demonstration of regard which has recently been expressed there through the medium of the press, is the fact that he was the founder and organiser of the Vienna Life-Saving Society—the Rettungs-Gesellschaft—which has rendered such valuable service on several occa-

sions of disaster to which the city has been subjected by fire and other calamities. Of this society he is not only the founder, but he has all along acted as its chief physician; and as the Society is now most firmly established and provided with ample means, it will probably be the work by which Baron Mundy will be chiefly remembered in his native country in the future. Long may he still be spared to carry on the good works in which he has become so popular and so eminent.

M. RENAN ON EUTHANASIA.

M. Renan, whose recent death is mourned so widely, published in his *Souvenirs de Jeunesse* his thoughts on this subject. It is one which is familiar to the thoughts of medical men and one on which, in the course of the sad incidents of practice, these thoughts are often elicited by anxious patients. M. Renan wrote: I have only one petition to make to the good genius who has so often guided, counselled, and comforted me—a sudden and painless death at the allotted hour, be it early or distant. The most desirable death is that on the field of battle. If, at times, I may have desired to be a senator, it is because I imagined that, at no distant date, perhaps, that position will afford an occasion to be shot or killed in a way far preferable to a long malady that destroys you slowly and by inches. God's will be done . . . I should be saddened at having to go through one of those periods of gradual dissolution when a man, who has had strength and virtue, is but a shadow and ruin of himself, and often, to the delight of fools, labours to stultify the whole edifice of his former life. Such an old age is the worst gift of the gods to man. If such a fate were in store for me, I protest in advance against the weaknesses that a softened brain might prompt me to speak or write. It is Renan sound in mind and heart, such as I am to-day, not the Renan half destroyed by death that I shall be if I am doomed to slow decomposition, that I wish people to believe and listen to. The life which was given me unasked has been for me a blessing. If it were once more offered me, I should gratefully accept it. The century in which I have lived will probably not rank as the greatest, but will doubtless be held as the most amusing of centuries. Unless my remaining years have cruel pain in store for me, in bidding farewell to life I shall only have to thank the cause of all that is good for the charming excursion it has been given me to take through reality.

THE NEW ROME.

Dr. Edmund C. Wendt, the Special Commissioner of the New York *Medical Record* in Italy, has recently published what may be called a vindication of the sanitary character of Rome, which is of special interest in view of the International Medical Congress which is to be held in that city next year. After expressing his admiration of the cleanliness of the streets and his disgust at the barbarous and evil-smelling public urinals which disfigure the walls of so many houses, he approaches the important question of water supply. Here his testimony is favourable enough to satisfy the most exacting sanitarian. The drinking water of Rome, he tells us, is clear, pure, and tasteless, and in fact, except for a certain degree of "hardness," chemically and bacteriologically above suspicion. The supply is abundant, the Vergine aqueduct giving 80,000 cubic metres, the Paola 40,000, the Marcia 108,000 in twenty-four hours, to say nothing of the Felice and the nine or ten minor sources of supply. According to the authorities, these quantities could easily be doubled, so that, in point of water supply at least, the new Rome is equal to the old in the days of its highest estate. Dr. Wendt states, however, that as regards sewage disposal, and especially in all that relates to sanitary arrangements in houses, the Italian capital is still far behind the age. According to him, nothing short of a complete reformation of the system of house plumbing at present adopted in Rome will suffice to bring it up to "the best Anglo-American standard." The sewage is discharged into the Tiber, and under present conditions this method of disposal is apt to give rise to trouble and danger when floods occur or when the river runs abnormally low; these evils will, however, be remedied when the fine granite embankments now in course of construction are completed. In spite of the imperfections of its drainage system and of a still excessive mortality from malarial disease, Rome is one of the healthiest cities, not only in Italy but in Europe. With regard to the much-dreaded "Roman fever," Dr. Wendt adduces the testimony of Dr. T. Edmonston Charles, physician to the British Embassy in Rome, who is sceptical as to the existence of any fever peculiar to the Eternal City. Dr. Charles has seen three fevers in Rome: (1) malarial, (2) typhoid, (3) common continued fever. With respect to the first, he states that he has never seen a case of malarial fever caught in Europe in any Englishman or American. There is, in fact, little or no malaria in Rome itself since the old uninhabited districts within the walls have been built over. With regard to typhoid, Rome has a cleaner bill of health than any large city except London. Dr. Charles's predecessor, Dr. L. Aitken, told him that he had seldom seen a case of typhoid fever contracted in Rome, and Dr. Charles's own experience confirms this. There are, however, plenty of cases imported from other Italian towns; Naples used to be the great focus of infection till the last visitation of cholera induced the authorities to purify their water supply. The records of the burials of Americans in the Protestant Cemetery in Rome during the ten years from June 1st, 1881, to May 31st, 1891, show only five deaths that can with any approach to certainty be assigned to typhoid fever. As for simple continued fever, Dr. Charles argues that there is nothing specifically Roman about it; it is, in his opinion, a fever due to chill acting on a system suffering from nervous exhaustion, as by too much sight-seeing and going into cold churches or museums when overheated. Examples of this fever may, according to him, be met with wherever there is a hot sun in the day and cold wind at night. But it is often, no doubt, diagnosed in Rome as typhoid fever to the needless alarm of the travelling public and to the possible misleading of the medical profession by utterly unreliable statistics as to the results of treatment.

DEATH OF DR. HENRI GUENEAU DE MUSSY.

The news of the death of Dr. Henri Gueneau de Mussy, who lived for many years in this country, will be received with deep regret by a large number of attached friends. During his long residence in England, where he accompanied the exiled King Louis Philippe and the other members of the Orleans family, whose trusted physician and friend he was during the greater part of his life, Dr. de Mussy was elected a Fellow of the Royal College of Physicians of London, a rare honour for a foreigner. Amiable, cultivated, skilful in his profession, and first in arts and literature, he made innumerable friends in this country and had no enemies. When the turn of political events enabled the members of the Orleans family to return to France de Mussy, ever faithful to their fortunes, accompanied them. On this occasion, and to mark the affectionate regard in which he was held by his medical brethren in the metropolis, a dinner was organised by a small committee, of which Mr. Ernest Hart was the honorary secretary; Sir Thomas Watson consented to occupy the chair, and the occasion developed to unusually large proportions. Sir Thomas Watson delivered on that occasion one of his strikingly happy and eloquent addresses, and the eulogy which he then pronounced on the character and life of Dr. de Mussy was one of which any man might be proud and will remain the best memorial of his life and character.

HOSPITAL RELIEF IN INDIA.

Rather more than thirty years ago the total number of hospitals and dispensaries in British India was only 181 and the total number of their patients just over 111,116. Now there

are in India 1,641 institutions treating 265,000 indoor patients and 11,978,000 outdoor, making a total of over twelve million persons receiving medical aid and advice. Besides these there are 25 lunatic asylums and 23 leper hospitals. In calling attention to these remarkable statistics in the *Asiatic Quarterly Review* Surgeon-General Sir William Moore bids us remember that by the exertions of the Marchioness of Dufferin, aided by Lady Reay, Lady Lyall, and others, women's hospitals have been established at many places, and lady doctors, midwives, and female nurses have been supplied. From the last report of the National Association for Supplying Medical Aid to the Women of India, it appears there are 48 female hospitals or dispensaries in operation, 9 being in the Native States. Also that last year there were treated 412,591 females, including 51,973 in the hospitals of the Native States. Before this movement some women were treated in Indian hospitals. But the encouraging fact is that the new lady doctors and female hospitals reach a class of Indian women who were by social mandate unable to avail themselves of previously existing means of relief in sickness.

SCOTLAND.

Dr. Robert J. Garden opened the new operating theatre in the Royal Infirmary, Aberdeen, on Saturday, October 1st, by performing excision of the upper jaw for sarcoma. A large number of medical men and students were present.

APPOINTMENTS AT THE ROYAL INFIRMARY, EDINBURGH.

The managers of the Edinburgh Royal Infirmary, at their meeting on October 3rd, made the following appointments: Dr. Alexander James to be Ordinary Physician, in place of Dr. D. J. Brakenridge, whose term of office has just expired. Drs. Ralph Stockman and G. Lovell Gulland to be Assistant Physicians. Dr. C. W. MacGillivray has been appointed Ordinary Surgeon in room of Dr. John Duncan, whose term of office has expired. Messrs. David Wallace and Alexis Thomson have been appointed Assistant Surgeons.

WITHDRAWAL OF PROFESSOR OGSTON'S RESIGNATION.

At the meeting of the directors of the Aberdeen Royal Infirmary, held on September 28th, Mr. David Littlejohn, the chairman, stated that, as the result of a conference which had taken place between members of the Infirmary Board and Professor Ogston, he had seen his way to withdraw his letter of resignation, and to continue his services to the hospital. Mr. Littlejohn stated that this was a gratifying result to the patients, as well as to everyone who had an interest in the welfare of the infirmary, or in the development and influence of the medical school.

THE EXTENSION OF THE CITY HOSPITAL, ABERDEEN.

The Committee of Public Health of the Town Council has agreed to start at once with the extension of the City Hospital, at a cost of £12,700. The plans prepared by the city architect show that it is intended to include within the grounds of the hospital the whole of the area between the present buildings and Urquhart Road, which already belongs to the town. A high wall will be built along Urquhart Road, and an entrance gate and lodge erected at that side. The back wing of the administrative block will be demolished, and a larger building of granite take its place, in which ample accommodation will be provided for the nursing staff. The pavilions to the north and south of the administrative block will be extended eastwards to double their present size, the present offices will be discontinued, and a large new building will be erected in the vacant space at the south end of the hospital grounds.

IRELAND.

THE MEATH HOSPITAL.

Sir George Owens presided at the delivery of Mr. Lambert Ormsby's address at the Meath Hospital, Dublin, on October 3rd. An abstract of the address is published in another column. In the evening the usual dinner of the staff and old students took place; Dr. J. W. Moore presided. The usual toasts on such occasions were given and responded to.

DISPENSARY DOCTORS' GRIEVANCES.

On October 6th the Conference Committee, representing the Irish Medical Association and the British Medical Association, will meet in the College of Surgeons, Dublin, for the first time since the recess. The Committee will have before it the Bills on superannuation and on the redress of the other grievances of Irish dispensary medical officers.

INTERNATIONAL MEDICAL CONGRESS, ROME, 1893.

Committees from each country to be represented at the meeting in September, 1893, are being formed, and these will co-operate with and aid the central body in Rome in promoting the success of the Congress. We understand that Sir James Paget, Bart., Sir William Stokes (of Dublin), and Professor Grainger Stewart (of Edinburgh), have been entrusted with the formation of committees for each division of the United Kingdom. Those nominated on the committee for Ireland are: Sir George Porter, Bart., Regius Professor of Surgery, University of Dublin; Sir William Stokes, Professor of Surgery, Royal College of Surgeons; Dr. E. H. Bennett, Professor of Surgery, University of Dublin; Mr. William Thomson, Surgeon to Richmond Hospital, Senator Royal University of Ireland; Dr. Samuel Gordon, ex-President Royal Academy of Medicine; Dr. James Cuming, Professor of Medicine, Queen's College, Belfast; Dr. C. J. Nixon, Professor of Medicine, Catholic University, Ireland, Senator Royal University of Ireland; Dr. D. J. Cunningham, Professor of Anatomy, University of Dublin; Mr. Henry Swanzy, F.R.C.S., Surgeon to the National Eye and Ear Infirmary; Dr. J. M. Purser, Professor of Physiology, University of Dublin; Dr. Lombe Atthill, ex-Master Rotunda Hospital; Dr. Edmund M'Weeney, Professor of Pathology and Bacteriology, Catholic University, Ireland.

MEDICAL EVIDENCE.

A well-informed correspondent writes: An inquest was held near Londonderry on September 29th, regarding the death of a young gentleman named Carleton Christie, who had been assaulted by some members of a "National" party about six weeks before. He complained of the blows upon his head, but he was able to return to school. There he was attacked by meningitis and died. The *post-mortem* examination was made by Dr. Bernard and Dr. Hetherington for the Crown, Dr. McLaughlin being present on behalf of the accused. There was recent inflammation of the base of the brain and membranes and on the top of the brain, corresponding to very transparent patches in the skullcap. The inflammation at the vertex was more recent than that at the base. Dr. Bernard said there was no evidence to show connection between the blow and the inflammation, and being pressed by the jury, he said there was no evidence of cause and effect, and that the doctors did not come there as advocates. The other medical witnesses concurred. Dr. Bernard's observation is important as asserting what is the position which medical witnesses should take in all cases before the courts. A doctor is called to give evidence of fact, and of opinion as an expert only. The functions of the advocate belong to the lawyer, and any temptation to take sides in the ordinary sense should be resisted by all medical men who happen to be called upon to give evidence.

CONGRATULATORY DINNER TO SIR WALTER FOSTER, M.P., M.D., F.R.C.P.

The following is a corrected list of those who have expressed their intention to be present, with addition of the 21 names forwarded this week, making 123 up to the present date. The dinner will take place at the Hôtel Métropole on Wednesday, October 26th, at 6.45 for 7 P.M.; Dr. Withers Moore, President of Council, in the chair. Application for tickets (price 23s.) should be addressed to the Dinner Committee, 429, Strand:

The Right Hon. H. H. Fowler, M.P., President of the Local Government Board.
Sir Andrew Clark, Bart., President of the Royal College of Physicians.
Mr. Joseph White, F.R.C.S., President of the British Medical Association.

Dr. F. H. Alderson, London
Dr. B. Anningson, Cambridge
Mr. W. Aston, Birmingham
Mr. R. Atkinson, Ripponden
Dr. H. Barnes, Carlisle
Dr. F. Bateman, Whitchurch
Dr. R. W. Batten, Gloucester
Dr. J. G. Black, Harrogate
Dr. Bower, Bedford
Mr. J. N. Bredin, London
Dr. A. T. Brett, Watford
Dr. T. Bridgwater, Harrow-on-the-Hill
Mr. R. W. Brimacombe, Bristol
Dr. J. S. Bristowe, London
Mr. H. L. Browne, West Bromwich
Mr. Lennox Browne, London
Mr. H. T. Butlin, *Treasurer*, London
Mr. H. Butterfield, Sevenoaks
Dr. S. Cameron, Leeds
Mr. C. Campbell, Saddleworth
Mr. Andrew Clark, London
Dr. J. E. Cooney, London
Surgeon-General Cornish
Dr. H. R. Crocker, London
Mr. T. W. Crosse, Norwich
Dr. G. W. Crowe, Worcester
Mr. W. B. Davies, Llandrindod Wells
Dr. P. M. Deas, Exeter
Dr. W. Dickson, Upper Norwood
Dr. T. M. Dolan, Halifax
Dr. J. L. Down, London
Dr. A. Downes, London
Dr. S. Dowse, London
Dr. D. Drummond, Newcastle
Mr. F. Durham, London
Dr. T. J. Dyke, Merthyr Tydfil
Mr. G. Eastes, London
Dr. W. T. Edwards, Cardiff
Dr. W. A. Elliston, Ipswich
Dr. J. Ewart, Bolton
Dr. R. Fegan, London
Mr. D. E. Flinn, Kingstown
Mr. O. H. Fowler, Cirencester
Dr. E. L. Fox, Clifton
Dr. J. H. Galton, London
Dr. C. E. Glascott, Manchester
Surgeon-Colonel A. Gore, Chester
Dr. O. Grant, Inverness
Dr. J. Griffiths, Cambridge
Dr. F. de H. Hall, London
Surg.-Col. J. B. Hamilton, London
Dr. H. Handford, Nottingham
Mr. J. D. Harries, Shrewsbury
Mr. J. V. Hartill, Willenhall
Mr. J. H. Hemming, Kimbolton
Mr. H. Hemming, Whitchurch
Dr. G. Henty, London
Dr. J. Herron, London
Mr. G. F. Hodgson, Brighton
Dr. C. Holman, London
Dr. J. Housley, Retford
Mr. F. A. Humphry, Brighton
Sir G. Humphry, Cambridge
Surgeon-Major P. Hunt, London
Sir Guyer Hunter, London
Mr. V. Jackson, Wolverhampton
Deputy-Surgeon-General C. M. Jessop, London
Dr. J. S. Johnston, Bletchley
Mr. P. W. Jones, Enfield
Dr. Norman Kerr, London
Mr. H. R. Leech, Edgbaston
Professor D. J. Leech, Manchester
Dr. T. Ligertwood, London
Dr. W. C. Lucey, Enfield
Mr. J. M. McCarthy, St. George's
Dr. P. W. MacDonald, Dorchester
Mr. N. C. Macnamara, London
Dr. E. D. Mapother, London
Surgeon-Colonel T. Maunsell, Dover
Dr. Withers Moore, *President of Council*, Burgess Hill
Mr. W. J. Morris, Portmadoc
Dr. W. Muil, Kirkby Moorside
Dr. J. Murphy, Sunderland
Mr. Shirley Murphy, London
Mr. A. B. R. Myers, London
Mr. P. W. G. Nunn, Bournemouth
Dr. B. O'Connor, London
Dr. W. Orange, London
Mr. D. C. L. Owen, Birmingham
Mr. C. H. W. Parkinson, Wimborne Minster
Dr. C. Parsons, Dover
Dr. G. H. Philipson, Newcastle
Mr. F. M. Pope, Leicester
Dr. H. C. Pope, London
Dr. G. Reid, Stafford
Mr. E. Rickards, Birmingham
Dr. J. Rolston, Stoke
Dr. J. Roberts, Chester
Dr. W. Russell, Edinburgh
Dr. R. Saundby, Birmingham
Mr. A. W. Scatliff, Margate
Dr. C. B. Sewell, London
Dr. A. Sheen, Cardiff
Dr. E. M. Skerritt, Bristol
Mr. M. Smale, London
Mr. E. Noble Smith, London
Mr. Priestley Smith, Birmingham
Dr. S. Sunderland, London
Mr. Lawson Tait, Birmingham
Mr. J. Taylor, Chester
Dr. Thorne Thorne, London
Dr. J. C. Thresh, Chelmsford
Dr. D. H. Tuke, London
Mr. J. S. Turner, London
Sir T. Spencer Wells, Bart., London
Mr. C. G. Wheelhouse, Filey
Mr. F. P. Wightwick, London
Mr. A. Winkfield, Oxford
Mr. W. L. Winterbotham, Bridgwater
Dr. Outterson Wood, London
Dr. W. S. Wyman, London
Dr. G. E. Yarrow, London

American Jottings.—It is announced that Yale College will this year admit women to all its post graduate courses. There can be no question that America "licks creation" in its yearly output of medical practitioners, if in nothing else. This year some 5,000 new-fledged doctors have been let loose on the public of the United States.—The *Denver Medical Times* is responsible for the statement that Marie Juneau, a Frenchwoman of Guayaquil, Ecuador, has added seven healthy units to the population of the United States at one sitting.—A hospital for patients suffering from phthisis will, it is stated, shortly be erected in New York at a cost of 300,000 dollars. The institution will be under the charge of Catholic Sisters of Charity.—The New York Physicians' Mutual Aid Association is said to be now able to pay 1,000 dollars on the death of a member, this being the full amount allowed under the by-laws. The number of members at present on the roll is 1,106.—A St. Louis physician reports that there are in that city no fewer than 20,000 persons who habitually practise hypodermic injections on themselves, the great majority being women of the well-to-do classes.

THE CHOLERA:

Cholera Maps: Map II.

The map on the accompanying page shows the progress of the present epidemic of Asiatic cholera during the last ten weeks; if it be compared with that published on July 16th (page 137), the rapidity of the progress of the epidemic westward, and the degree to which it has spread northward becomes very evident. At the time when the earlier map was prepared the most western points to which cholera had attained were Simbirsk and Kazan on the Volga; now it has been present for some weeks at the mouth of the Elbe and the Rhine, and cases have been carried to the estuaries of the Thames, the Orwell, the Humber, the Tyne, and the Forth, to mention only those ports which are on the east coast of England, and in the direct line of the epidemic.

Only those towns in which cases have occurred are shown, and the date of the first recognition of the disease is given in the case of Russian, German, and Austrian towns. This date will be, of course, in every case a little later than that of the actual presence of the disease, and in estimating the rapidity with which the disease was passed from country to country, allowance must be made for this. The dates of the appearance of the disease in French towns is not given, because owing to the prevalence of choleraic disease in Paris earlier in the year, some doubt exists as to the date of the appearance of true Asiatic cholera; it is not certain that the earlier epidemic in Paris (June) was true Asiatic cholera. Neither are the dates of the occurrence of cases in British ports given, because there has been fortunately as yet no epidemic prevalence of the disease in this country; in fact it has not been demonstrated that a single case has arisen in this country. The cases which have occurred in British ports are really outlying units of Continental epidemics. Such cases may eventually give rise to an epidemic in this country if the precautions as to isolation and disinfection are relaxed.

The latest date shown on this map is Buda-Pesth, October 2nd, but the entry of Odessa under date of September 23rd is one of more serious significance. The infection of Odessa is of importance directly to this country, since the trade between Great Britain and that port is large, and indirectly, owing to the increased probability that Mediterranean ports may be infected.

We are assured that the Russian authorities have not sought to suppress or delay the publication of facts as to the outbreak of cholera. An official statement as to the health of other Black Sea ports at the present time would be opportune.

Chart of Cholera at Hamburg.

The accompanying chart, compiled from official sources, shows the progress of the epidemic of Asiatic cholera in Hamburg from August 20th, when it was already producing over 30 deaths a day until September 20th, when the epidemic was rapidly abating. From this it will be seen that the maximum number of cases occurred on August 27th, the total on that day being 1,103. The maximum number of deaths was recorded three days later on August 30th, on which day 484 persons succumbed. It will be noted that the death-curve, indicated by the thick continuous line, does not correspond exactly in form with that of the case-curve which is indicated by a thin continuous line. The death-curve is broader, owing probably to the varying duration of illness in the fatal cases.



SKETCH MAP
ILLUSTRATING
THE RECENT PROGRESS
OF
CHOLERA.

The figures give dates of earliest report of the presence of Cholera.

Stanford's Geogl. Estabt. London.

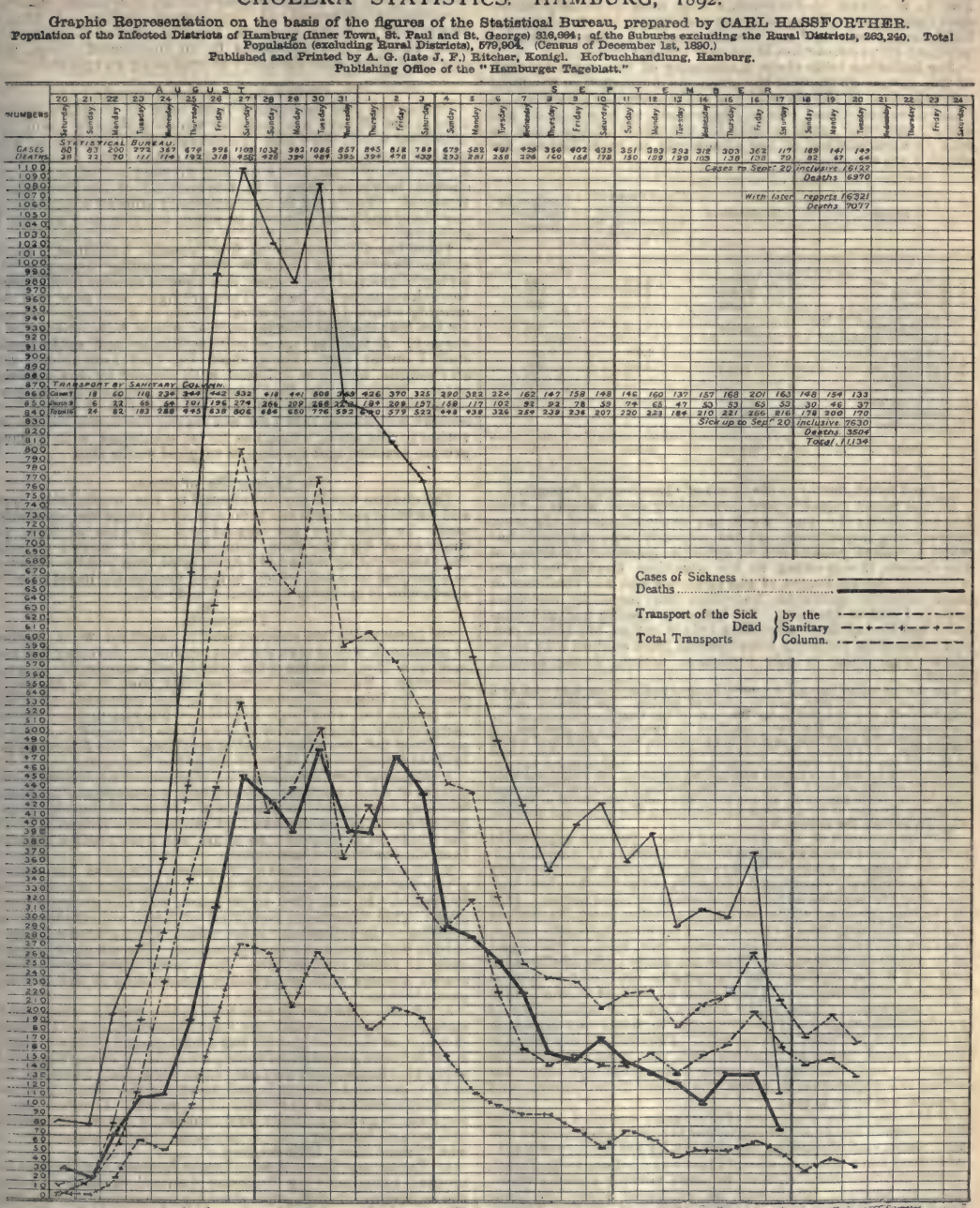
CHOLERA STATISTICS. HAMBURG, 1892.

Graphic Representation on the basis of the figures of the Statistical Bureau, prepared by CARL HASSFORTHER.

Population of the Infected Districts of Hamburg (Inner Town, St. Paul and St. George) 316,994; of the Suburbs excluding the Rural Districts, 263,240. Total Population (excluding Rural Districts), 579,904. (Census of December 1st, 1890.)

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Publishing Office of the "Hamburger Tageblatt."



THE CHOLERA IN HAMBURG.

DR. T. W. HIME, of Bradford, writes from Hamburg under date October 1st: The gratifying and rapid fall in the morbidity and mortality from the cholera here offers a cheerful prospect of its extinction at no very distant date.

The following table gives a summary of the cases in each of the eleven districts of the city. As published in the local journals, four of the six columns are incorrectly added up. I have corrected these errors (the source of which I do not know), and have made a total for the whole of the cases, as well as a calculation of the attack-rate in each district, for which I am responsible.

District.	Population.	Total Cases of Cholera from August 14th to Sept. 24th.	Attack-rate per 1,000 living.
1. Interior	160,800	4,082	219
2. St. Georg	84,600	1,888	194
3. St. Pauli	74,000	1,766	237
4. Suburbs: on the right of the Alster	92,900	1,882	149
5. Suburbs: on the left of the Alster...	95,000	1,953	178
6. The Elbe	56,200	1,741	263
7. Elb-inseln...	1,250	26	18
8. Seegebiet	9,000	10	2
9. Marschgebiet	17,500	187	93
10. Bergedorf	18,500	21	2
11. Ritrebüttel	8,250	7	7
Total	622,530	13,253	184

The Comma Bacilli in the Stools of Convalescent Patients.

Of the many valuable and interesting facts which I have learned during the past week, one especially is of the most far-reaching importance. It has generally been assumed that when a cholera patient has succeded in resisting an attack of the disease, it was owing to his organism having not only withstood the onslaught of the microbes and the virulence of their morbific products, but that the invading microbes perished within his body. Dr. Cornet (of Berlin and Reichenhall) has to-day discovered that this is not so, but that a person apparently perfectly convalescent from cholera may carry about with him in his intestines active, living comma bacilli.

The case in which this important discovery was noticed was that of a man whose mother, wife, and son died of cholera. He himself had a slight attack, and was put under the care of Dr. Carl Lauenstein, of the Seemann's Hospital. He was nine days in hospital, and received five tannic intestinal injections against his diarrhœa, which was not of a very severe type. The patient recovered perfectly, and was on full diet. Last Friday he was up and very anxious to go home, but was induced to stay. On Saturday he was still better, and had no motion at all, and it was with difficulty he was induced to remain. On Sunday Dr. Cornet discovered that in the stools passed on Friday there were large quantities of bacilli. While the director of the hospital was discussing this important question with Dr. Cornet, the patient left.

The importance of the discovery that a patient apparently perfectly convalescent may still be the means of disseminating the disease cannot be overrated. The fact will probably be as unwillingly recognised and accepted as the kindred one, well known to those who have investigated the subject, that the milder so-called cholerine which so often precedes cholera epidemics is true Asiatic cholera. The virus for some reason does not always show itself in its most fatal form at the outset of an epidemic of cholera. There are many cases of diarrhœa and not a few deaths, but the attacks are not the typical murderous onslaughts of the disease as noticed at the height of an epidemic. This is the time when the fatal policy of public authorities in endeavouring to hush up alarming truths bears its most deadly fruit. They refuse to recognise these initial cases as cholera lest the public should be alarmed, and wait until a true destructive epidemic has seized the population to allow the truth to be known, and precautions to be taken.

It is many years since von Pettenkofer asserted his belief that a person apparently healthy could convey cholera to a distant place, and illustrated his opinion by the history of a man who went from Munich, where there was cholera, to Stuttgart, which was free from it, and infected several persons there, without, however, producing an epidemic there, as some essential conditions were wanting, probably, as von Pettenkofer thought, through local conditions of the soil. We have here no doubt one of the reasons why no quarantine has ever successfully withstood an invasion of cholera. A further reason may be that a vigorous, healthy person may possibly carry virus in his intestines to an uninfected place, and deposit it there with the effect of producing an epidemic.

The Cholera Hospitals and Barracks.

During the past ten days I have been in constant attendance at the cholera hospitals, in which I usually spend my time from 9 A.M. till 4 P.M. Unfortunately the principal hospital, at Eppendorf, is a very long way out of town. I have spent a great deal of time, and with the greatest advantage, in the cholera barracks erected in the grounds of the Seemann's Hospital. Here I am most courteously allowed admission at any time, and even allowed to enter actively into all that is going on.

These barracks consist of four wooden buildings, erected within five days, at a cost of £550, including drainage, the laying of gas and water pipes, and a sound cement floor. Each barrack contains 20 beds. They are light and airy and admirably adapted for their work. There is a separate barrack for the four medical officers, each of whom have charge of a barrack. A finer or more self-sacrificing and enthusiastic staff I never saw. Their chief, Dr. Carl Lauenstein, sets an example which is followed with ardour by his subordinates. When I say that usually Dr. Lauenstein has gone round each barrack three times before 3 P.M., I think your readers will realise that I am not saying too much for his devotion to his work, which has to be combined with a large private practice and the care of surgical wards also.

The Disinfection of Stools.

The cholera stools are disinfected in the wards with lysol and carbolic acid, and are then run into a large well-cemented tank. In this they are treated with chloride of lime, six times every day, the lime being thoroughly mixed up with the excrement by means of a horizontal iron paddle attached to a vertical iron rod, which is kept constantly in rotation by a man who is specially appointed to do this.

Treatment.

Dr. Lauenstein has endeavoured to ascertain what method of treatment would give the best results by devoting one barrack at a time to some plan which was supported by good authority. He observed to me one day that in a disease of such a terribly rapid course and in the treatment of which few people had very large experience one was under a serious responsibility to give heed to the advice of those who, so far as one could tell, were the wisest councillors. The following is a brief summary of the experiences he has had so far:

1. *Expectant and Symptomatic.*—This includes the administration of wine, analeptics, anodynes, warm stupes, hot baths, friction, hot coffee, and tea, with enema of tannin (1 to 2 quarts given, so as to pass high up into the intestine). On the whole he is disposed to think the best results were got from this method of treatment.

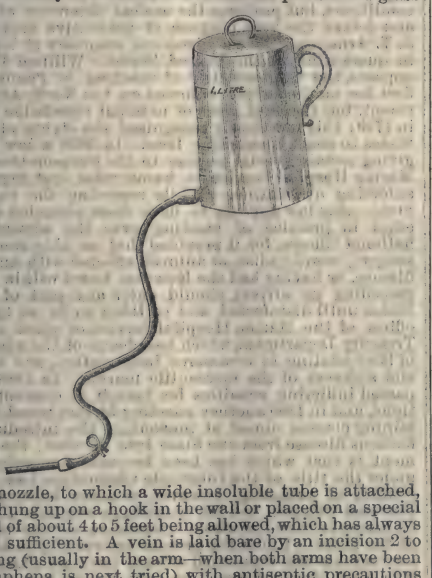
2. *Hypodermic Injections of Morphine.*—He gave fair trial to a method loudly advocated by an American doctor from Memphis. It was tried in 30 cases, and did no good whatever. This treatment consisted of warm subcutaneous injections of the following: ℞ Ac. sulph. dil., 1 gramme; morph. sulph., 0.01 gramme; aq., 45 grammes. The whole injected at once at blood temperature. In 5 cases there ensued deep-seated abscess with gangrenous destruction of the subcutaneous tissues.

3. *Creolin.*—He also gave a trial to the creolin treatment so strongly recommended by the bacteriologist, Professor Hueppe, of Greifswald. It was administered by the mouth—a 2.5 per cent. solution in water, a couple of dessertspoonfuls every two hours—and also *per rectum* as a high injection, but only 1 per cent. strength was used for the latter purpose. This treatment also was found of no value. It was most objectionable to the patients, and constantly caused intolerable itching and burning. Dr. Lauenstein briefly characterised it as a "horse cure" (*Pferde-Kur*).

4. *Tannin and Lactic Acid.*—Lastly he used very largely the method introduced by Professor Cantani, of Naples, during the epidemic of 1884, and strongly recommended by him. This method consists of copious high intestinal injections of

warm 1 per cent. solution of tannin, and lactic acid by the mouth against vomiting. The lactic acid is administered in a solution of 30 parts to 500 of water. No good whatever was obtained by the use of the lactic acid, and it was greatly objected to by the patients. The tannin injections seemed to do good, and the patients generally felt better after them when the colicky pains, which often ensued, had passed off. That the tannin in no way acts as a disinfectant of the bowels is clear, from the existence of active commas in the bowels of a convalescent patient for whom they had been freely used.

5. *Intravenous and Subcutaneous Injections.*—For both purposes a solution of 0.6 per cent. of common salt, slightly alkalised with bicarbonate of sodium, in water which has been sterilised by boiling is used. The quantities given subcutaneously have been from 1 to 1½ litre (about 1 quart to 3 pints), and intravenously even as much as 2 litres (somewhat more than 2 quarts). The transfusion in both cases was made by gravitation only. The warm solution is placed in a glass



jug with a nozzle, to which a wide insoluble tube is attached, and either hung up on a hook in the wall or placed on a special stand, a fall of about 4 to 5 feet being allowed, which has always been found sufficient. A vein is laid bare by an incision 2 to 3 inches long (usually in the arm—when both arms have been used the saphena is next tried) with antiseptic precautions and tied. The cannula is introduced and tied in above the ligature, the pinch cock is opened, and the whole quart is infused in 2 to 4 minutes. The effect is sometimes astounding; the cyanotic, algid, pulseless, breathless creature, with shrunken wrinkled features, sunken lack-lustre eyes, and the whole aspect of a moribund, will, as if from a deep sleep, arouse himself and tell the delighted doctor he feels vastly better. Unfortunately the results are not always lasting—of which more in my next.

Germany.

Hamburg.—Our Correspondent writes: Professor Gaffky, of Giessen, has been appointed a member of the Cholera Commission in the Imperial Board of Health. He is at present in Hamburg, where he superintends the bacteriological work and advises the authorities on sanitary improvements for the city. In a house in the St. Pauli suburb, containing 150 persons—one of the large flat buildings, of course—no fewer than 40 persons have been attacked with cholera. By order of the Sanitary Commission the house was cleared and the inhabitants and their goods and chattels stowed away provisionally in one of the large municipal buildings. The house is to be pulled down. Similar good work is being done by the sanitary commissions in various parts of the city; notorious fever dens are being cleaned up, and there are plans on foot for the building of model dwellings, etc. The schools are still closed in Hamburg, but by a new arrangement the teachers are present in the school houses every day from 9 to 12, so that children who come voluntarily may have home work set and corrected.

Berlin.—Our Correspondent writes: Eighteen drinking fountains of pure water have been put up at the landing-places in Berlin for the use of the river and canal boats. It is to be hoped that this example will be followed all along the waterways.

Professor Virchow has been interviewed on the cholera question, and has given it as his opinion that there need not be the slightest fear of an epidemic in Berlin at present; the excellent water supply, the great care given to the scavenging and cleansing of the town, and the admirable arrangements for disinfection as soon as a case appears must unite in preventing the spread of the disease.

Fears have been entertained that the water of the Stralauer waterworks (which supply the east part of Berlin, and which take their water from a loop arm of the Spree) might become infected by cholera bacilli, and Dr. Günther, assistant at the Hygienic Institute, was appointed to make a daily bacteriological examination of the water before its passage through the sand filters. In his report, dated September 23rd, Dr. Günther gives an exact account of his method of examination, and concludes by saying that no trace of cholera bacilli have been found in the water.

The river and canal examination stations (*Schiff-kontrol-stationen*) have done good work in the short time since their establishment. From September 13th to 29th they have examined 9,856 boats and barges, have cleaned and disinfected 7,275 boats and barges, have examined no fewer than 34,128 persons, of whom 7 were found to have choleraic symptoms, and 78 cholera. Of these last, 65 cases belonged to the immediate neighbourhood of Hamburg.

A large cholera pavilion is being erected at Spandau for the reception of river-boat patients.

France.

Portel.—Our Paris Correspondent writes: Ten cases of choleraic diarrhœa, ending in death, have occurred at Portel, a fishing village near Boulogne. The health officer has set up a disinfecting stove. The Mayor of Boulogne, the Sub-Prefet, and Dr. Aigre are at Portel to ensure sanitary measures being taken. The fishermen have ceased their fishing expeditions until the epidemic disappears.

Havre.—The Municipal Council of Havre have decided to lay down a new system of sewage, which will cost five or six million francs. M. Loubel will ask the Chamber of Deputies to place at his disposal some Crosses of the Legion of Honour, to be distributed among those who have rendered service during the Havre cholera epidemic.

Paris.—At Paris the choleraic diarrhœa still furnishes some cases, and deaths. On October 3rd there were 20 fresh cases and 6 deaths.

Great Britain.

So far England still presents a clean bill of health. A few suspicious cases have occurred, which have been promptly dealt with by medical officers of health, both inland and at the outports. On September 28th, a sailor who had just returned from abroad, was seized with choleraic symptoms whilst travelling on the Great Western Railway near Bridgwater. Here he was removed from the train, placed in an isolated building connected with the infirmary, and attended by the borough medical officer. The man has recovered, but all his clothing was burned, and all possible precautions observed. The arrival of an infected ship from South Russia at Bristol was reported on September 28th by Dr. Frank Tratman, acting for the Bristol Port authorities. The steamship *Penwith* left Genitsky, on the coast of Azov, on September 3rd, and took labourers on board at Kertch, where there had been much cholera. Three days after leaving Kertch the steward sickened with serious symptoms of cholera, and though he quite recovered from the disease, he remained so weak that he was removed to the Port Sanitary Hospital, on arrival on September 25th within the jurisdiction of the Bristol Port Sanitary authorities. On September 12th, another of the crew sickened with typical symptoms of true cholera, and died on the following day. Three other members of the crew suffered from diarrhœa. Dr. Davies, Chief Port officer and Dr. Tratman carried out all preventive measures, including disinfection and the pumping out of the tank water in the ship. It may be noted that this is the first vessel having any history of cholera that has reached our shores this year from South Russia.—The London steamer *Maggie* arrived at Queenstown on October 1st from Michalaeiff. The captain reported that two of the crew had been ill on the passage with choleraic symptoms. They were examined by the medical officer of health for the port, who found that they had been suffering from severe cramp and an aggravated form of diarrhœa, but were almost well. The forecastle and all the effects belonging to the crew were thoroughly dis-

infected.—A fruit and vegetable dealer of March, Cambridgeshire, was reported to have died from cholera. Dr. Waters, the medical officer of health, reported to the March Local Board that in consequence of the attack being of a severe and exceptional character, he had called in Dr. T. J. Walker, of Peterborough, who had agreed with him that it was a case of cholera. The deceased had lately had consignments of fruit from the Continent and from Hamburg. Every precaution was taken to prevent the spread of the disease, and the clothing of the deceased was burnt. A medical inspector from the Local Government Board has visited March to investigate the case, and has declared his opinion that it was a case of choleraic diarrhœa only.—A case diagnosed as Asiatic cholera is at the present time under treatment at St. Thomas's Hospital. Dr. Bulstrode, who has inquired into the history of the patient, has failed to trace any connection between this case and cholera abroad.

RUSSIA.

The cholera is greatly on the decrease in St. Petersburg. The report for October 3rd gives only 19 fresh cases and 5 deaths. The epidemic still rages violently in the provinces of Saratoff, Tamboff, Don, Pultava, and Lublin. In the first named province there are about 400 cases and nearly 300 deaths daily, and in Tamboff the daily rate is about 200 cases and 50 deaths. In the provinces of Bessarabia, Kieff, Mohileff, Tula, Kherson, and the Ural the daily death-rate only amounts to from 20 to 30. In the Caucasus the mortality is still many hundreds daily; some accounts state it to be 750. In all these provinces the incidence of the disease falls upon the country villages, the principal towns being almost free from it. Major Fukurhima, a Japanese officer, who is riding home from Germany across Asia, gives some account of the conditions under which the cholera has been raging in Western Siberia, in a letter to a German contemporary. He writes: "I have traversed a succession of cholera districts, especially between Tiumen and Semipatalinsk, a distance of about 1,500 versts. To take only one example, a small town with about 5,000 inhabitants, on the right bank of the Irtish, 365 cases occurred within eighteen days, of which 337 ended fatally. Except in the towns doctors are few and far between. The population are in utter ignorance of the nature of the disease and of the necessary sanitary precautions. As a consequence there is nothing to check the violence of the epidemic."

THE FATAL CHOLERA OUTBREAK IN THE PUNJAB: DEATHS OF THREE ARMY SURGEONS.

A VERY fatal cholera outbreak occurred on September 3rd and 4th, 1892, at Murree, Punjab. It appears that the Government of India desired that the Kashmir troops for Gilgit should be moved towards Srinagar *viâ* the Punjab railway and the Jhelum Valley Road. To do so they had to pass by Murree, the Punjab sanatorium 7,000 feet high in the Himalayas. Cholera dogged their footsteps, and they appear to have carried it right into Murree station. A very fatal outbreak followed, and carried off many valuable lives, including Surgeon-Colonel Allan, A.M.S., P.M.O.; Surgeon-Captain Fowler, A.M.S.; Surgeon-Captain Kenny, A.M.S.; Major Cole, 3rd Dragoon Guards; Major Dimond, 3rd Dragoon Guards; and Mrs. Gilbert, wife of Surgeon-Captain Gilbert, I.M.S.

Surgeon-Colonel Allan was actually Principal Medical Officer of the Rawal Pindi District, and had, it is stated, strenuously opposed the movement of the ill-organised Kashmir troops. He himself was almost the first victim of the march. He was attacked on September 3rd, and died on September 5th, 1892, being buried the same day in Murree Cemetery.

Surgeon-Captain Fowler, A.M.S., was in charge of a camp close by Murree at Thobba; he was attacked on September 4th and died on September 6th, 1892, and is buried at Gharial Camp.

Surgeon-Captain Kenny, A.M.S., was in charge of the Gharial Camp, and was virulently attacked on September 3rd and died on September 4th, 1892. He lies at rest beside his brother officer.

All these officers—as, indeed, all the victims—were at the Murree Club, where an entertainment was given on September 2nd. This great loss of valuable life has caused much pain in every circle of Punjab opinion, and it is likely a court of inquiry will be assembled to investigate the whole matter.

Surgeon-Captain Fowler was devotedly nursed through his attack by his commanding officer, Major Parke, 3rd Dragoon Guards.

The main cart road to Kashmir, by which all stores are being pushed on to Gilgit, and Kashmir runs actually under the Murree Station and the Kooldunna Barracks, and it is a continual source of dread to the authorities lest the Kashmir or Punjab cholera should thus enter these important places.

Happily, by the energy of General Luck and his staff, advised by the late Surgeon-Colonel Allan, cholera had thus far been kept out of the places, but the march of the Kashmir troops was a matter beyond their control, and hence the lamentable results.

QUARANTINE IN THE UNITED STATES.

A special meeting of the Section in Public Health of the New York Academy of Medicine was held on September 19th, when a number of papers on the question of quarantine were read. The resort to quarantine, in the ordinary sense of the word, was condemned by several speakers. Dr. A. L. Carroll, for instance, recommended that on the arrival of an infected ship all passengers should be removed from the ship; the sick to be transferred to hospital, and the well who had been exposed to infection to some place where they could be kept under observation until the period of incubation was passed. "To keep the well and the suspected on board," he says, "for this 'quarantine of observation' is not only contrary to the dictates of humanity and common sense, since it multiplies the risk of continuance and intensification of disease, and the imperilment of human lives under the most unfavourable conditions, but prolongs the useless detention of commerce, and delays the very purpose of preventive medicine." Dr. S. T. Armstrong gave a historical summary of legislation as to quarantine in the United States. William Penn has, it appears, the responsibility of enacting in Pennsylvania the first law on the subject enforced on the North American continent, but the first piece of national legislation was passed in 1799; this law clearly recognised the rights of the several States to enact quarantine laws. In 1878 a law was passed giving certain special powers to the Surgeon-General of the Marine Hospital Service to frame rules and regulations for enforcing quarantine. While reserving the rights of the States, this law appears to have been intended to have the effect in practice of handing over the administration to national officers, for it provided that no ship conveying passengers, merchandise, or animals affected with any infectious disease, or having had the latter on board within thirty days preceding its arrival, should enter any port of the United States until disinfected, and certified to be so by a medical officer of the Marine Hospital Service or other agent of the Treasury Department which has charge of the administration of laws relating to commerce, immigration, and the hygiene and sickness of the mercantile marine. In 1888 a law was passed inflicting penalties for breach of quarantine regulations, and in 1890 another enacting further penalties and containing clauses aimed at preventing the introduction of infectious disease from one State into another; the last enactment is that which has been frequently mentioned of late under the title of the Interstate Quarantine Law. A certain conflict of authority, however, remains between State and National officials, and Dr. Armstrong suggests that it would be better to have the whole quarantine service in the hands of the latter. Under the present system of political appointments State and municipal officers have no fixity of tenure. "It is too often the case," he says, "that, just as an official becomes of value, he must go out with the administration that appointed him." It is the old story of the spoils system, and it has no doubt retarded the growth in the United States of a sound opinion on the question of quarantine.

TREATMENT OF CHOLERA.

Professor Rumpf has published in the *Deutsche medicinische Wochenschrift* an article on the treatment of cholera, and his experience of the most usual methods employed in about three thousand cases during the present epidemic. His experience of drugs has been very unfavourable. Of the various preparations, salol, cresoline, creasote, muriatic acid, lactic acid, cresol, chlorine water, sulphuric acid, and morphine, not one, he says, was of any avail. Tannin clysters, as recommended by Cantani, did good in the less severe cases, and after the crisis was over. The best results were obtained by doses of calomel. Warm baths and subcutaneous injections of solutions of common salt and of camphor and morphine have proved the next best remedies. Dr. Rumpf concludes as follows: "There is no specific remedy for cholera yet known. The discovery of a remedy which would annihilate the virus in the body without damaging its functions would be an essential step forward in the treatment of cholera. Modern bacteriology will perhaps help us in this direction." Professor Klebs, of Zurich, has also made experiments at the Hamburg hospitals with the remedy he has discovered, and named anti-cholerin. He declares that, owing to the abatement of the epidemic, he has only had limited opportunities of applying his remedy, but that the few experiments he has made have had excellent results. After injections of his fluid, which is obtained from culture of the bacillus, the temperature of the patient soon becomes normal. This result is asserted by Dr. Klebs to be caused by the direct action of the preparation upon the cholera vibrio. Several cases which were regarded as hopeless he claims to have cured within three days.

NOTIFICATION OF CHOLERA NOSTRAS.

Dr. Francis Buckell, M.O.H. (Romsey, Hampshire), writes: The question having arisen, whether cases of "cholera nostras" should be "notified," I wrote to the Local Government Board, and received the following reply, which I forward for publication in the British Medical Journal, thinking that the same inquiry may be made in other localities.

"Local Government Board, Whitehall, S.W.,
"September 26th, 1892.

"Sir,—I am directed by the Local Government Board to acknowledge the receipt of your letter of the 13th instant, and to state, in reply to your inquiry, that they are not empowered to give an authoritative interpretation of the meaning of the word "cholera" in the Infectious Diseases (Notification) Act, 1889. The Board are, however, of opinion that the addition of the word "nostras" in the case of cholera does not remove attacks so qualified from the list of diseases proper for notification.

"I am to add that any cases which may be probably connected with any known outbreak of Asiatic cholera, although not so serious in their symptoms, should be regarded as cases to be notified.—I am, Sir, your obedient servant, "C. N. Dalton, Assistant Secretary.

"F. Buckell, Esq., Medical Officer of Health, Romsey."

*** The interpretation of the Local Government Board commends itself as reasonable and expedient, and at the present juncture will meet with little dissent. The differential diagnosis of Asiatic cholera, English cholera, cholera nostras, choleraic diarrhœa, and acute cholera, is often a matter of considerable difficulty, and we cannot yet afford to disregard for notification purposes all which the certifying practitioner is not prepared to designate Asiatic cholera. Even apart from this, it is well that outbreaks of acute diarrhœal diseases, which are commonly due to preventible causes, should at once be brought to the knowledge of the sanitary authority.

THE CHURCH CONGRESS.

THE UTILITY AND MORALITY OF EXPERIMENTS ON LIVING ANIMALS.

On Thursday, October 6th, this subject was debated by the Church Congress now sitting at Folkestone, a large number of persons being present. The chair was taken by His Grace the Archbishop of Canterbury. The question under discussion was the following: "Do the interests of mankind require experiments on living animals, and, if so, up to what point are they justifiable?"

A telegram from Sir Andrew Clark was read to the effect that nothing but official duty prevented him from appearing. It went on: "My sympathies with experimental research are strong and unwavering; the law of sacrifice is the law of life, which no one can escape; and provided it is conducted with reverence, of necessity, and under supervision, I regard experimental research not as a mere privilege, but as a moral duty."

Dr. Wilks inquired why Mr. Lawson Tait was not present.

The Bishop of Dover replied that Mr. Tait had been asked to take part in the debate, but the question was raised whether he was a Churchman. The Secretary had written to Mr. Tait, and his reply left some doubt on the minds of the Committee. The Bishop informed Mr. Tait that his appearance on the platform meant that he was a *bonâ fide* Churchman. Mr. Tait's reply said that he would rather be excused from appearing in a position requiring this explanation.

Dr. Samuel Wilks, F.R.S., said that much prejudice and misconception had been imported into the question. The very term commonly used—vivisection—prejudiced the question, since it was understood to mean the dissection of a live animal, whereas the majority of experiments caused no more pain than a prick, or amounted only to the administration of a drug or some patent article of food. But he would ask, had the relation between man and animals ever been defined? What were the rights of animals? Had mankind recognised that animals had rights in the same sense as the term was used in speaking of the relation of man to man? If animal life were considered irrespective of man, it would be seen that suffering existed independent of man. We saw the carnivorous animals adapted to prey upon other animals, and these animals presenting special adaptations favouring their escape from their foes. Disease in animals produced suffering, and often inevitable death by the utmost extremity of starvation. If, then, we regarded the presence of man in the animal world, we saw an essentially carnivorous animal, who even still enjoyed the chase, not for the sake of the food it provided, but for the sake of the chase itself, and we saw man resorting, in order to entrap animals, to deceit and treachery which he would not use to his fellow-man. For his own purposes, man employed animals in irksome and painful occupations, and resorted to similar methods to provide food suited to his palate, or clothing adapted to his taste. There was no national conscience as to cruelties of this character. There had been no legislation until recent times, and that was directed not against the cruel practices of trade or sport, but against individual acts of cruelty distasteful to the observer and not affecting his personal interests. What the majority approved was not opposed. The Lord Chief Justice had stated in a recent judgment that the mere infliction of pain did not constitute cruelty, but if the suffering inflicted was necessary the act might be excused; the question of necessity was held to be the essential point; in this opinion Mr. Justice Hawkins had concurred, and had adopted the opinion that if an act made an animal more serviceable it was not cruelty. It came to this, therefore, that infliction of pain was to be permitted for purposes useful to man. It was argued that experiments on living animals were not useful, and, therefore, ought not to be permitted. Some asserted that medicine had gained nothing by experiments on animals, others that man should not occupy his time in peering into his own anatomy, but should turn his attention to moral problems only. The true foundation of the agitation was shown in the speech by the late Cardinal Manning, in which he "deplored the science-worship of the present day." Professor Freeman had asked whether it was lawful to seek for knowledge by means which would be confessedly blameworthy if used for some other purpose. But since such means were used for other purposes, and were not then considered blameworthy, his argument fell to the ground. The fact was, that it was killing an animal for scientific purposes which was held to constitute the offence. But the arguments used rested upon another ground, and all antivivisection literature was directed to prove the worthlessness of results obtained by experiments on animals. Thus we were brought to the point that the legitimacy of vivisection had been made to depend on its utility. Upon that point those who were best, in fact alone, competent to speak, had expressed their opinion in the most positive terms at the International Medical Congress in 1881, and at the meeting of the British Medical Association in Nottingham this summer. A misapprehension which existed was that students performed these experiments. This was altogether a mistake; students did not perform, and few even witnessed, experiments. The amount of suffering produced in scientific inquiries was infinitesimal as compared with that produced in the cause of trade or sport. The opposition to experiment might be very well compared with that which had been shown a hundred years ago to dissection; yet science could only be advanced by experiment. The Greeks were good observers, but natural science made no advance until it took Bacon's advice and "tried." The love of scientific inquiry could not be put down by Act of Parliament. He hoped the Congress would make no declaration on the subject; it was the first time that the Church had been called upon to discuss the relation of man to animals, and it would be a matter of regret if the Congress allowed itself to play into the hands of those who sought to place science and religion in opposition, and who, in attacking experimental science, were in reality only actuated by a hatred of all science.

Bishop Barry claimed for the Congress liberty of thought and speech. The object of the Congress was to form public opinion. This was a burning subject. In this, as in other subjects, there was a right on the part of the lay as distinguished from scientific experts, to express a judgment. Before such an audience, too, the rights and wrongs of the question could be threshed out. It was in the interests of man, his body as well as his soul, and also in the interests of animals that he had taken up this subject. Vivisection, he held, of animals must lead to the torture of men, at least such was the unhappy direction in which vivisection tended to lead its votaries. The law permitted man to use animals for his own purposes, but never with the infliction of unnecessary pain. In eighteen kinds of experiments the absence of anæsthetics would defeat the experiment itself. He said that 3,000 medical men thirteen years ago petitioned the Government to permit experiments without anæsthetics. Such experiments were permitted under certificates, and 1,400 such experiments were, according to the last report

of the inspector of experiments, done in England and Scotland. Righteousness and mercy were greater than truth, as shown by the fall of man in Paradise. The prolongation of mere physical life was not the highest consideration for man. This question was not altogether a scientific one, but was also one of morality.

Professor VICTOR HORSLEY, F.R.S., B.S., F.R.C.S., in a vigorous address, said that he had accepted the invitation to take part in the discussion because the occasion seemed a favourable one for explaining the real character of the anti-vivisection movement. He contended not only that scientific experiments were essential to the progress of medicine and surgery, but also that the antivivisectionist agitation was false from beginning to end. The very term "vivisection" was false, since it connoted "the cutting up of animals alive without anæsthetic," but it was applied by antivivisectionists to thousands of experiments in which there was not the slightest pain caused to the animals under observation. The persons who ought to be the judges as to whether experiments were useful were those who were fully conversant with the sciences of physiology, pathology, and practical medicine and surgery. But there were others who considered themselves competent to judge; these he would divide into two categories: (1) those who were ignorant of the sciences mentioned, and (2) those who knew something but falsified the facts. Proof of the utility of scientific experiments to man and the lower animals might be found in any textbook of physiology or pathology, or of clinical medicine or surgery, which were immeasurably indebted, not only for the knowledge on which alone an accurate diagnosis could be based, but also in treatment. Those who had not time to read such textbooks, or had not the technical knowledge necessary to understand them, might find a final proof of the utility of experiments in resolutions adopted at a great international and a great national congress. He then read the resolution adopted at the International Medical Congress in London in 1881 as follows:

> That this Congress records its conviction that experiments on living animals have proved of the utmost service to medicine in the past and are indispensable to its future progress. That accordingly, while strongly deprecating the infliction of unnecessary pain, it is of opinion, alike in the interests of man and of animals, that it is not desirable to restrict competent persons in the performance of such experiments.

He next read the resolution adopted at the Nottingham meeting of the British Medical Association this year:

> That this general meeting of the British Medical Association records its opinion that the results of experiments on living animals have been of inestimable service to man and to the lower animals, and that the continuance and extension of such investigations is essential to the progress of knowledge, the relief of suffering, and the saving of life

These were the unanimous opinions of those who knew the subject, and whose verdict consequently was alone of value. Yet Bishop Barry had thought it worthy of him to warn his hearers at a recent public meeting of antivivisectionists that such scientific opinions were nothing but "the arrogance of intellectual experts." As Bishop Barry had not withdrawn or explained the position he had assumed, Professor Horsley felt that he was entitled to ask the Congress whether it considered that it was intellectual arrogance for a hard-working and earnest profession, confining itself to those subjects of which it was of necessity the best judge, to defend itself against odious calumnies? He next turned to consider the question of the morality of scientific experiments. *A priori* scientific experiments were moral, since they were a pursuit of truth, for truth's sake, than which there was no higher aim in life. If in such pursuit pain were unavoidably caused, none would regret it more than the medical profession, whose mission it was to abolish pain; but such a possible concurrent fact did not invalidate the morality of the work. The Bishop of Durham had recently revived a curious dictum of Sir Charles Bell's, to the effect that God could never have arranged matters so that man should receive the benefit of knowledge at the cost of pain. This was a personal opinion unsupported by the analogy of Nature. Millions of animals were daily doomed to be torn to pieces alive, or killed under circumstances of exquisite cruelty, to provide the food of other animals. Could it be denied, then, that there existed, as an integral part of the mechanism of nature, a wholesale scheme of pain on a scale so gigantic as to be really beyond conception? He contended that the doctrines and methods of the antivivisectionists were immoral, and rested, consciously or unconsciously, on a false basis. Ministers of the Church, holding positions of the gravest moral responsibility, had taken statements at second hand from tainted sources, and had not ascertained for themselves what scientific experiments in reality were by visiting the university laboratories. Bishop Barry, basing his action on false grounds, had made use, in speaking of the scientific work of honourable men, of such expressions as "a moral offence," "cruelty," and "demoralisation." Canon Wilberforce, relying for his information on the same untrustworthy source, had applied the epithet "inhuman devils" to men of whom he knew nothing, and stigmatised as "abominable sin" experimental research of which he was utterly ignorant. He contended that such ignorance in men who presumed to dogmatise and condemn was culpable ignorance. Professor Horsley then proceeded to examine the statements made by Miss Cobbe in her book *The Nine Circles*. This book was the textbook of the antivivisectionist. In it Miss Cobbe stated that accurate records of the experiments were given, and that special care had been taken to mention the use of anæsthetics, if any such were employed. But the actual facts had been deliberately misrepresented. As an example he quoted the account of an experiment made by Dr. Shore; the experiment was described in *The Nine Circles*, but no mention was made of the employment of an anæsthetic, yet on referring to Dr. Shore's original paper it would be found stated in the very first line of his description that the animal was anæsthetised by the use of both morphine and chloroform. This was by no means a solitary instance of the suppression of an essential fact. In twenty-six experiments involving cutting operations mentioned in the book as being performed by English scientists, and in all of which anæsthetics were used, Miss Cobbe did not mention the fact at all in twenty, and only stated it without qualification in two out of the remaining six. Yet in every instance the statement that anæsthetics were used was distinctly made. He charged Miss Cobbe with having deliberately suppressed this all-important fact, and he called upon Bishop Barry and Canon Wilberforce publicly to retract statements and arguments drawn from such a source. As an example of the faith of a lay antivivisectionist when put to the test, he related an anecdote of the Duke of Newcastle, a vice-president of an antivivisection society. During the recent second epidemic of rabies the Duke's brother was bitten by a dog. The dog was killed, and the Duke took its dead body to Professor Horsley at the Brown Institution. They were informed that the question whether the dog had rabies or not could only be decided by making inoculation experiments; the Duke assented, and frequent inquiries were made by a member of the family to ascertain the result of these experiments, which fortunately remained negative. This was a typical example of the hypocritical character of the agitation. Again, Mr. Hutton, who was constantly attacking experimental science in the *Spectator*, was actually a member of the governing committee of the Brown Institute, and yet, though frequently challenged to go there and see what "vivisection" really was, he had never accepted the challenge. Mr. Lawson Tait wrote and spoke to the general public denouncing experiments, but at the Nottingham meeting which he attended he did not oppose the resolution which had been quoted, and as a member of the Scientific Grants Committee of the British Medical Association he had not opposed the granting of £600 a year for the furthering of the progress of medicine and surgery by scientific experiment. In conclusion, he urged that the agitation was now only nominally humanitarian; it was really a phase of the line of thought which was constantly seeking to oppose science in the name of religion. Yet science was truth; whatever was not true in scientific work was speedily found out. Falsehood could not survive in the struggle for knowledge, and knowledge was the basis of utility. Finally, on the great question of moral conduct, no man, be he bishop or layman, had the right to publish defamatory statements against a man or a body of men without having taken the pains amply to substantiate his position.

Mr. F. S. ARNOLD believed that vivisection had been of no single advantage to medicine. He thought the Hyderabad Commission, which inquired into the action of chloroform, Koch's inquiries as to tuberculin, and Pasteur's as to hydrophobia, had all been proved to be absolutely valueless.

Dr. Armand Ruffer said that as Archbishop Magee had said, "Cruelty is the infliction of unnecessary pain"; if so, then in medicine ignorance meant cruelty, for it was when we were most ignorant that we inflicted most pain. Science meant humanity, for when we had acquired knowledge then we could apply it with the least risk and pain to our patient. Science could only be advanced through research, and every truth once discovered might be followed by countless future applications and blessings to man and animals. The discovery how to prevent putrefaction had been followed by the remarkably beneficent work of Pasteur and Lister. By Pasteur's researches, too, the mortality from rabies had been immensely lessened. For the prevention of anthrax in animals an immense amount had been done, and also for the prevention of quarter-evil. These facts were vouched for by agriculturists – the owners of the animals. Almost all knowledge of physiology had been derived from experiments on animals. Should, then, the opinion of the leaders of the medical profession in every country, or that of the ladies and gentlemen whose contributions to medical science were published chiefly in the *Manchester Guardian* and *Echo* prevail? Nothing seemed more likely to bring religion into contempt than to allow such slanderous statements as those made in the *Journal* of the Antivivisection Society to be published respecting the leaders of medical opinion. In animals and man physiological action was similar. It was in this way that experiments were of use. Our knowledge of the action of drugs on man had been entirely derived from experiments on animals. People objecting to experiments should become vegetarians and join the Peculiar People. To the question whether researches for the good of mankind should be continued, he would reply Certainly, for the investigation of cancer and other equally painful and fatal maladies. What would future ages think of the intelligence of this country if in this day we were to arrest the development of medicine – the growth of the healing art? It was not right that one of our fellow-creatures should die rather than an animal suffer.

Dr. John Clarke read a paper in which he said that as a student he did not do otherwise than consider the doings of his teachers who were vivisectionists as necessary. In after life his opinions underwent a rude awakening. As to the resolution favouring vivisection passed by the British Medical Association at Nottingham, the proceedings of the Sections at Nottingham showed that more vivisection all round was required. Anæsthesia in animals was a fraud. After the operation the animal wakes up to most miserable suffering. Vivisectionists, in the end, come to operate on mankind, losing all humanitarian feeling.

Sir James Paget sent a letter, in which he said that, if the saving of life, maintenance of health, and relief of pain were of paramount importance to mankind, the opinion of the medical profession in favour of the question was almost unanimous. As to the utilitarian view of the question there could be no doubt; as to the moral view, vivisection produced infinitely less suffering than many practices done for the sake of sport. He trusted the Church would not oppose scientific research, but that clergymen and medical men would together proceed in the investigation of truth.

A letter from Sir G. M. Humphry was also read.

The Bishop of Manchester spoke of the question from the moral point of view. His idea of the purpose of life was the service of love to God and man and God's other creatures, and that the search after truth was only right in so far as it assisted that service of love. Man was bound not to give pain to animals if he could avoid it. The tiger had the right to kill, because God gave it the right so to live. Man has the same right, but it must be done without cruelty. If man, by the law of evolution, should in the future become as high above man as man was above the anthropoid apes, then some day these vivisectionists might be experimented on by this higher race. Men who practised vivisection must become callous to suffering. He had no fear of science, but he protested against vivisection on the ground of its immorality alone. If Miss Cobbe had made false representations she would undoubtedly apologise.

The Bishop of Edinburgh said it was unfortunate that the two representatives of the Church had been the opponents of science; but were they the true exponents of the opinion of the Church on this matter? He had listened with the greatest indignation to the views expressed by Bishop Barry. Knowledge was worth any amount of speculation. The opinions expressed as to experimentalists by Bishop Barry were not charitable nor founded on fact. Bishop Barry and his friends had seemed to be content with morality up in a balloon. It must not go forth to the world that the Church adopted the opinion on this question promulgated by Bishop Barry and the Bishop of Manchester.

Bishop Barry offered to hand to Mr. Horsley his paper, and if there was in it any misstatement he would withdraw it and apologise for having made it.

Physical Recreation, its Use and Abuse.

Miss J. Stuart Small read a paper eulogising physical exercise for girls, recommending daily gymnastics, the proper clothing to be used therein, and dwelt on the necessity of avoiding over-much gymnastics.

Colonel Onslow observed that all exercise should tend to health and longevity. Excessive exercise, however, made the brain of man a blunted tool, no longer ready for good work; the brain and body should be educated together. All exercise should be regulated by the fitness of those who underwent it. The tired town dweller who suddenly plunged into violent exercise invariably paid the penalty. He should gradually educate himself up to the proper point.

Sir R. Webster, Q.C., spoke chiefly of the abuse of physical exercises. It was, he said, impossible to develop the highest mental capacities unless the physical growth of the body was also developed. The boy at school who required most to be watched by the master was the loafer who indulged in no exercise at all. The opportunity now given to the poorer classes to obtain physical exercise brought brightness and sunshine into lives in which heretofore there had been very little of the same. There was a tendency to put too much stress upon athletic exercises. Athletes should inculcate a good high general merit, and not encourage "record breaking."

The Rev. E. Hoskyns asked what was to be done for the toiling masses who could not get away to Scotland and other holiday countries. Those most to be pitied in his East London experience were the small boys and girls who had just left school and who could not obtain recreation. He had lately seen four girls in East London who had all been working for seventy or eighty hours weekly; all had anæmia, and all had broken down.

The Earl of Meath thought more encouragement should be given to the recreation of the people, both in town and country, for the physique of the inhabitants of this country (who were now flocking in overwhelming numbers into the towns) was degenerating. In London, owing to the agitation of one society, 163 playgrounds were now kept open on Saturday. England was the only nation in North Europe, he regretted to say, that did not make physical cultivation compulsory in elementary schools.

Mr. George Eastes read a paper on the physiology of exercise. He referred to the harm that came from its abuse, especially in persons who, leading usually sedentary lives, suddenly rushed off into violent exercise in mountainous health resorts when the annual holiday set them free from their daily occupations.

Bishop Smythies, in closing the debate, said that all who would undertake missionary work, especially in Africa, must have good physical powers.

The Temperance Movement.

Sir W. J. Herschel opened a discussion on this subject, and urged the necessity of a codification of the law.

Sir Dyce Duckworth urged that two classes of drunkards must be distinguished, (1) the careless vicious drunkard, who was yet amenable to primitive discipline, (2) the insane drunkard, who, as the subject of brain disease, was irresponsible and incorrigible. The drunkard of the second class must be treated as an insane person, and placed in permanent seclusion.

Numerous other speakers took part in the discussion.

Presentation.—Dr. Arthur Kempe was on September 24th presented with a silver salver and a framed illuminated address, in appreciation of his services as medical officer to the Exeter Fire Brigade.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 26th day of October next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

September 29th, 1892.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of the Branch will be held at the White Hart Hotel, Reigate, on Thursday, October 13th, at 4 P.M.; Dr. Walters, of Reigate, in the chair. Dinner at 6 P.M.; charge 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. Agenda:—The following papers, etc., have been promised: Dr. Frederick J. Smith: Some Points in Heart Disease. Mr. Golding-Bird: Operative Procedure in Retention and Extravasation of Urine—a Clinical Study. Dr. Stone: A Case of Empyema. Dr. J. G. Ogle: Cases of Interest. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary, HENRY J. PRANGLEY.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will take place on Tuesday, November 8th, at St. Bartholomew's Hospital, Chatham; A. T. Franklyn Brown, M.B., in the chair. Gentlemen desirous of reading papers or exhibiting specimens are requested to inform the Deputy Honorary Secretary of the District, E. Ground, M.D., 23, Gabriel's Hill, Maidstone, not later than October 20th. Further particulars will be duly announced.—E. GROUND, Deputy Honorary Secretary.

BORDER COUNTIES BRANCH.—The autumn meeting will be held at Galashiels on Friday, October 14th, 1892. Members desirous of reading papers, or of bringing forward any questions affecting the Branch, are requested to give notice to the Secretary.—J. ALTHAM, Honorary Secretary, Penrith.

DORSET AND WEST HANTS BRANCH.—The next meeting will be held at Sherborne on Wednesday, October 12th, 1892. The business meeting will be held at the Yeatman Hospital at 2.30 P.M. Mr. Williams will be pleased to see any members or friends at his residence, "The Cedars," Sherborne, to luncheon before the meeting. A conveyance will be at Penmill station to meet the 12.52 train and take members to Sherborne, returning for the 9.52 train. Gentlemen wishing to avail themselves of it should communicate with Mr. William Rendall, Maiden Newton, two days before the meeting. Agenda:—Election of new members of the Branch. Place of the May meeting. Dr. Lush will move: 1. That a donation of five guineas be granted to the British Medical Benevolent Fund. 2. That after the present year the Branch subscription be reduced from 4s. to 2s. 6d. per annum, and that by-law 4 be amended accordingly. Discussion:—Albuminuria, its Prognosis and Treatment. Communications: Mr. Atkinson: A case of Double Labyrinthine Deafness, with interval of three months between the attacks—a doubtful sequela of influenza. Mr. Parkinson: Case of Hypospadias after Operation. Dr. Childs: On the Work of the Anæsthetics Committee of the Association. Mr. Marsh: Pregnancy in a Rudimentary Double Uterus. Mr. Charlton: Patient with Pulmonary Fistula (see BRITISH MEDICAL JOURNAL, September 17th, 1892). Dinner at the Digby Hotel at 6.30 P.M.; charge 6s. each, without wine. Members intending to be present are requested to signify the same to Mr. Williams, Sherborne, on or before Monday, October 10th.—WILLIAM VAWDREY LUSH, M.D., Weymouth, and C. H. WATTS PARKINSON, Wimborne, Honorary Secretaries.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held at the Radcliffe Infirmary on Friday, October 28th, at 3.15 P.M. Members are requested to send notice of papers, cases, etc., on or before October 14th to W. LEWIS MORGAN, Honorary Secretary, 42, Broad Street, Oxford.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The annual general meeting of the Branch will be held in Marischal College, Aberdeen, on Saturday, October 15th, at 12 o'clock noon. Visit to the new infirmary buildings at 11 A.M. Business: 1. Minutes, nominations, etc. 2. Ballot for admission of Dr. J. P. Watt, Aberdeen. 3. Council's report and Treasurer's balance sheet. 4. Election of President-elect for ensuing year. 5. Election of two Honorary Secretaries. 6. Election of Honorary Treasurer. 7. Election of members of Council (*vide* Rule viii). 8. Selection of place for next June meeting. After the meeting the members are invited by the Medical Faculty of the University to visit the various laboratories and museums, where a number of preparations, instruments, etc., will be shown. The annual dinner will be held in the Imperial Hotel, Stirling Street, at 3 P.M.: price (including attendance but exclusive of wine) 5s. per head. Those intending to be present at dinner are requested to send notice to Dr. Mackenzie Booth, 367, Union Street, Aberdeen. Members desiring cabinet photographs of groups taken at summer meeting, Old Meldrum, may obtain them from Mr. Geering, Union Street, Aberdeen.—J. MACKENZIE BOOTH and C. THISELTON URQUHART, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The first meeting of the session will be held at the Town Hall, Hackney, on Thursday, October 20th, at 8.30 P.M. The chair will be taken by Dr. Pavy, President of the Branch. Dr. Pye-Smith will read a paper on "The Rational and the Empirical Use of Drugs." Visitors will be cordially welcomed.—H. E. POWELL, Honorary Secretary, Glenarm House, Upper Clapton, N.E.

LANCASHIRE AND CHESHIRE BRANCH.—The autumn meeting of this Branch will be held in the Town Hall, Preston, about the last week in November. Gentlemen wishing to read papers or communications, or show cases, are requested to write to Dr. Glascott, 23, St. John Street, Manchester, as soon as possible.—C. E. GLASCOTT, M.D., JAS. BARR, M.D., Joint Honorary Secretaries.

YORKSHIRE BRANCH.—The autumn meeting of the members of the Yorkshire Branch will be held at Harrogate on Wednesday, November 2nd, at 4.30 P.M. Members intending to read papers are requested to communicate with the Secretary, ARTHUR JACKSON, Wilkinson Street, Sheffield.

NORTHERN COUNTIES (SCOTLAND) BRANCH.—The autumn meeting will be held at Forres, within the Station Hotel (Mr. Macdonald's), on Thursday, October 27th, at 11 A.M., when it is proposed to visit the Leanchoil Hospital recently opened for patients. Members desirous of reading papers or of bringing forward any question affecting the Branch are requested to give notice to the Secretary not later than October 15th.—J. W. NORRIS MACKAY, Hon. Sec., Elgin.

SPECIAL CORRESPONDENCE.

MELBOURNE.

The Medical Act Amendment Bill: Rejection of the Proposal to to Reduce Medical Fees by Legislation.—Women in the Profession and in the British Medical Association.—Hindoo Child-wives.

THE attempt on the part of a few members of Parliament, to endeavour to obtain a reduction of medical fees, has been fortunately frustrated. On a division being taken it was decided by a large majority to avoid any interference in a matter which medical men could very well be permitted to arrange for themselves. It is fair to acknowledge that the debate was throughout temperate in character, and very fair in conceding to the profession those qualities of honour and sentiment which we ought to possess. The Medical Amendment Bill has yet to pass a few stages further before it is allowed to see daylight, so that it has many chances of assuming different shapes.

The next Medical Congress is to take place in Sydney on September 26th. Owing to the absence from Sydney of the President-elect, Dr. M'Laren, a serious split among those forming the executive took place. It seemed to be a question of sides in favour of one or the other man for the position of president. Happily for the success of the Congress matters have been successfully arranged, and Dr. Sydney Jones has been elected to the position of President. I am told that great preparations are being made to render the occasion a memorable one.

Dr. Margaret Whyte, one of our lady graduates, has been unanimously appointed to the position of resident medical officer to the Women's Hospital. As this is the first occasion on which such an appointment has been conferred on a lady in this part of the world, Miss Whyte has every reason to believe that her name will be perpetuated for a considerable time in conjunction with this historical event. From telegrams received from London we are informed of the passing of the resolution which permits of qualified women joining the Association. Besides Miss Whyte there are a few other ladies who will avail themselves of this newly-acquired privilege.

An interesting paper was read before the Branch by Dr. Emily Ryder, a lady who has been practising among the female Hindus. The paper, which bore the title of "The Child-Wives of India," endeavoured to explain the social

position and customs of the Hindu woman. It was asserted that Sir Andrew Scobell's Act had failed in its working, and that the condition of these child-wives, as seen in the hospital, was something very heartrending. It was stated that it was a fallacy to believe that the Hindu reaches maturity at an earlier age than her Western sister. The fact is, she matures several years later. At 12 years of age the girls are slight, with narrow chests and pelves. Owing to religious sentiment all women must be married and living with their husbands before the first menstruating period. A few of the cases admitted into the hospital nine days after marriage showed the left femur dislocated or fractured, the flesh round the genitalia in shreds, and perineal ruptures into the anus. Other cases presented similar conditions, with slight modifications. Dr. Ryder suggested that a Bill should be framed in which the limitation should be one of development rather than of age; while marriage might be allowed, cohabitation should be prevented until after a civil ceremony depending on an examination by a committee of matrons.

SHEFFIELD.

Opening of the Medical School.—Increase of the Water Supply.—Fire in a Hospital.—Small-pox and Travelling Vans.—Explosive Caps.

The Medical School was opened by an address by Dr. Burgess.[1] It was preceded by the distribution of certificates and the presentation of the Simon Prize, which has been founded by the generosity of Dr. Hunter for encouraging the study of the causation of disease. The lecturers afterwards dined together, and spent a most enjoyable evening. The President of the Medical School (Mr. Favell) presided, and was supported by several colleagues from Firth College. During the vacation, additions of great value for teaching purposes have been made to the physiological department of the school.

The water supply of the town has always been plentiful, but it is pleasing to note that when the Damflask reservoir is completed it will add a further quantity of three million gallons a day, making a total supply of ten million gallons, or sufficient, it is computed, for a population of 500,000 persons, a number greatly in excess of that which there is any probability of the town reaching for a considerable time hence. The filling of this reservoir was commenced some years ago, but it was discovered to be not water tight, owing to the fissured and broken condition of a band of rock.

A fire broke out recently at the Jessop Hospital for Women. It occurred in an unoccupied ward, and appears to have resulted from disinfecting the ward with brimstone, and closing it up. The inmates were naturally alarmed, but it was soon explained that the fire was very limited, and that there was no cause for their fears.

A way in which small-pox—or, indeed, any other infectious disorder—may be spread is shown by a case mentioned just now at the Wombwell Local Board. A case of small-pox came in a van with people who sold cocoanuts for "shies at demon soldiers." They had been for some time at Denaby, where small-pox was prevalent. The authorities after this case stopped other vans coming to the feast, and ascertained where the inmates had come from, and inquired as to their health.

It is reported from the Chesterfield Hospital that a boy has again been admitted in consequence of injury to hand caused by the explosion of a cap. It is further added that three or four other cases have been admitted during the preceding few weeks from the same cause. Attention was directed in a former letter to the apparent ease with which children obtain these explosive caps, and the injuries resulting either to their eyes, faces, or limbs, etc.

MANCHESTER.

Opening of Winter Session at Owens College, Address by Dr. Broadbent.—Medical Dinner.

The winter session of the Owens College Medical Department was opened on Monday, October 3rd, by Dr. W. H. Broadbent, of St. Mary's Hospital, London, whose address we publish elsewhere. From the annual report of the Dean of the Medical School we learn that the total number of students attending the department during the year 1891-92 was 423, of whom 134 are in preparation for the degrees of Victoria University, 62 for London University, and about 188 for the diploma of the Conjoint Colleges. In no year has the increase in the number of medical students been so great as the one just gone, there being an increase of 52 over the year 1890-91. In 1873, when the medical department was instituted by the incorporation in the College of the Manchester Royal School of Medicine, the total number of students was 134. The new buildings commenced some months ago to meet the growing requirements of the Medical School are approaching completion. A further appeal will shortly be made to the public, and to the medical profession in particular, for support in this undertaking, the success of which is of the highest moment to the College and to medical education in this part of the country.

The annual medical dinner of the Owens College and the Manchester Royal Infirmary was held in Manchester on Monday evening. Professor Dreschfeld presided, and Dr. W. H. Broadbent was the guest of the evening.

[1] See page 788.

CORRESPONDENCE.

THE LATE SIR GEORGE MACLEOD.

Sir,—In the biographical sketch of my lamented friend and colleague on the General Medical Council, Sir George Macleod, the writer has fallen into an error which I beg you to allow me to correct. He states that Sir George Macleod was the only civil surgeon to whom the medal with clasp for Sebastopol was awarded. The late Dr. Robert McDonnel was "one of the men who afterwards became distinguished," and who was the worthy recipient of the medal and clasp for Sebastopol, and also the Turkish medal.—I am, etc.,

Dublin, Oct. 1st. John Banks.

MORTALITY OF CHILDREN IN DUBLIN.

Sir,—The correspondent who supplies you with news from Dublin is not very reliable; he seems only to be acquainted with ancient history, and, so far as child mortality in Dublin is concerned, he has not brought it down to date. He says that the mortality of infants under one year old is greater in Dublin than in any town in the United Kingdom save Glasgow. He is egregiously mistaken, not only with respect to Dublin, but as to Glasgow, as the following figures show:

Mortality of Infants under One Year, 1890.

	England and Wales.	Twenty-eight English Towns.	London.	Dublin.
To 1,000 of the estimated population under 1 year..	149	173	164	162
To 1,000 births registered ...	151	172	163	164
To 1,000 deaths registered...	233	241	233	166
For 1891 the Figures Stand:				
For 1,000 of the population under 1 year	151	168	155	165
To 1,000 births.....	149	167	154	165
To 1,000 deaths	231	241	229	177

The death-rate of the Dublin population, as a whole, is much higher than the mean rate for the twenty-eight large towns, though it is less than the rate in some of the towns—Manchester, for example. In Dublin the death-rate of children under 1 year was (in 1891) 4.7 per 1,000 of the population of all ages; in England and Wales the ratio was 4.7; in the twenty-eight large towns 5.4; and in London 4.9. In Dublin infant life, at least in 1890 and 1891, was better preserved than in English towns, whilst the lives of persons over 1 year was less preserved.—I am, etc.,

Charles A Cameron,

Oct. 1st. Chief Medical Officer of Health for Dublin.

*** In reference to the above, we are afraid that all we can say is that matters appear to have slightly improved recently, but are still very bad. There is no ground for comparing Dublin with the twenty-eight English towns taken in bulk, many of which are smaller than Dublin, and there are only about twelve towns equal to, nearly equal to, or exceeding Dublin in population, and which are fair standards for com-

parison. These are those selected in Dr. Grimshaw's pamphlet, and Cork is obviously put in as being the only other large town in Ireland besides Belfast, which is even faintly comparable with Dublin. It is rather excessively modern for Sir Charles Cameron to speak of the years 1879-1888 as being "ancient history"; they are, unfortunately, very modern years. We have applied to Dr. Grimshaw, the Registrar-General, for more recent information, completing his table up to date, and he has obliged us with a table up to the end of last year. From this it will be seen that the Dublin average for ten years exceeds all other towns except Liverpool and Manchester. Dublin is happily showing signs of improvement. In the year 1888 it was as good as in 1891, but in 1889 it was the worst but one (Liverpool).

Deaths Under One Year Per 1,000 of Registered Births in Thirteen Large English Towns of the United Kingdom during the Ten Years, 1882-91.

Towns.	Number of Deaths under One Year Per 1,000 of Registered Deaths.										Average Annual Rate.
	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	
London	151	146	153	148	150	158	146	141	163	154	152
Liverpool	178	185	194	174	183	186	168	188	195	189	184
Birmingham ...	167	160	174	157	175	176	154	170	183	171	169
Manchester ...	179	177	188	175	183	191	176	176	187	192	182
Leeds	179	166	184	155	181	172	173	177	172	177	174
Sheffield	165	163	172	164	168	177	178	174	195	170	173
Bristol	142	133	143	152	149	149	123	146	151	146	143
Bradford	178	146	181	143	167	178	153	182	169	181	168
Dublin	186	180	178	176	168	200	166	180	163	166	176
Belfast	151	162	126	170	135	163	145	163	162	149	153
Cork	127	109	115	120	110	123	140	125	107	139	121
Edinburgh ...	132	129	136	120	136	137	127	132	144	137	132
Glasgow	150	155	151	156	140	138	130	155	149	149	147

THE ROYAL COMMISSION ON VACCINATION.

SIR,—"W. W." is quite right when he states that vaccination has been at a discount since the Royal Commission commenced its sittings; and he might have added especially so since the Report on Cumulative Penalties was issued. After fourteen years' experience as a public vaccinator I am led to believe that an entirely new system of carrying out the Vaccination Acts is imperatively necessary if efficient vaccination is to be universally performed. Judging from the inspection of some 8,000 school children, I should say that at least 15 per cent. of them were most imperfectly protected against small-pox, having either ill-defined marks or only one or two well-defined ones. To have the whole of the infantile population thoroughly well vaccinated I would suggest that public vaccinators should be appointed by the Local Government Board, whose sole duty should be to carry out the Vaccination Acts in the districts assigned to them. In addition to their attendance at the public vaccination stations, arrangements could be made for their attendance at private houses where the parents are willing to pay a stipulated fee. In all large towns the Local Government Board should keep up a supply of fresh calf lymph. If such a supply has proved a success in London, what reason is there why it should not be supplied to Birmingham, Liverpool, Manchester, and other equally important places?—I am, etc.,

Cardiff, Oct. 1st. T. GARRETT HORDER.

DR. HIME'S REMARKS ON CHOLERA.

SIR,—Dr. Hime's "Remarks on a case of Cholera at Liverpool" in the BRITISH MEDICAL JOURNAL of October 1st call for some further remarks on the same subject by myself.

At the outset, permit me to point out that Dr. Hime had no connection whatever with the case of Friedel other than as a visitor to the hospital to whom the usual courtesies were extended. I deem it necessary to emphasise this, as the impression appears to be general among those who have read the "remarks" that Dr. Hime's services as bacteriologist were engaged, and, not unnaturally, it is wondered why I went so far a-field for such assistance. The fact is that Dr. Barron, our able professor of pathology and teacher of bacteriology, was, at my request, good enough to undertake the microscopic and bacteriological examination of the stools in the case, with results which I need not detail here, as this is not a report of the case. Let it suffice that his results at once put an end to all doubts that may have existed as to the nature of the case.

On learning from the house-physician at Parkhill Hospital that Dr. Hime had called there with the object of obtaining a specimen of rice-water stool from our earlier cases of cholera, and that he was disappointed, I left instructions at the hospital that a test tube of the material should be kept for him on the first opportunity offering. This was done when Friedel (admitted subsequent to Dr. Hime's first visit) began to pass the stools; and as, for obvious reasons, I could not sanction the sending of a specimen of suspected cholera stool by post, Dr. Hime came to Parkhill for it, and whilst there he had an opportunity of seeing the patient, for which he makes due acknowledgment.

This was Dr. Hime's connection with the case of Friedel. He came unasked to Parkhill, to procure material for his own private investigation, the results of which he now publishes, together with information obtained at the hospital, and that without thinking it necessary to consult me in the matter, or to ask my consent.

In the third paragraph of the "remarks," the following sentence occurs: "But that true cholera may effect an entrance into our midst, and be unrecognised for want of those unerring means of diagnosis, I have proved in one case." Later on he states that this is the case of Friedel. Who can be referred to here as failing to recognise the disease for want of the "unerring means?" It can hardly be the staff at Parkhill, because it is stated later on (not quite accurately) that we pronounced the case to be one of Asiatic cholera from clinical diagnosis. Moreover, we were not without the means referred to, as Professor Barron undertook the examination of the very first rice-water stool passed by the patient. Is it the health authorities of the city that are referred to? If so, it is nothing less than absurd, for the man was removed to hospital on the very first appearance of the premonitory symptoms, and even the unerring means would not have availed during the ten days he was well.

Thanks to the admirable service of inspection organised at this time by the medical officer of health's department, every case of illness occurring amongst the emigrants was at once detected, and isolated at Parkhill, if in the least suspicious. Dr. Hope, acting on behalf of the medical officer of health, visited Friedel at the lodging house, and dealt with the case with the same promptitude and judgment that had gained for him the thanks of the profession and the public in the previous cases.

Another sentence to which I take exception occurs at the end of the fifth paragraph. It reads thus: "The patient had the classic symptoms of cholera sufficiently marked to make Dr. Roberts and his colleague, and other gentlemen familiar with cholera, pronounce it to be the Asiatic disease; but others, including the municipal authorities, disputed this." It is incorrect to say that I definitely pronounced the case to be one of true cholera before Professor Barron found the bacillus and made his cultivations. All connected with the case regarded it at first as somewhat doubtful. Dr. Taylor, the medical officer of health, who had had the largest experience in cholera, entertained strong doubts at first as to its being true cholera. Dr. Hope, the assistant medical officer of health, and Dr. Walker, the house-physician, were rather more impressed with the gravity of the case than I was at first.

I find that I must close this communication at once or lose the chance of having it inserted in this week's issue.—I am, etc.,

N. E. ROBERTS,

Liverpool, Oct. 4th. Physician to the Parkhill Hospital.

ELECTRIC BELTS.

SIR,—Will you allow me to thank, through your columns, those medical men who have so kindly furnished me with cases of patients and friends who have reason to complain of misrepresentation in respect to so-called electric belts? Although I have important evidence I must ask your readers to

still continue to send me any information they possess as for the legal process for which we require it—we cannot have too much.—I am, etc.,

64, Longridge Road, London, S.W., Oct. 4. A. G. Bateman, Hon. Sec., Medical Defence Union.

THE BRITISH MEDICAL ASSOCIATION AND DIRECT REPRESENTATIVES ON THE GENERAL MEDICAL COUNCIL.

Sir,—For once, at least, the irreconcileables, the faddists, and the spouters at the annual meetings at whom your now historic and cynical correspondent has pointed the finger of scorn, may claim that they have the British Medical Journal on their side, and that its Editor has allowed their voice to be heard in the land.

"Vigil," whose remonstrance in the columns of the British Medical Journal speaks the voice of many, and Dr. Rentoul last week, make only too tardy and yet a just remonstrance against the sleepy and acquiescent indifference with which the mandates of the annual meetings are habitually treated. The meeting at Bournemouth instructed the Council to take steps to obtain for the profession a larger direct representation on the Council, and especially a larger infusion of the general practitioner element. What has been done? If I remember aright, the Council of the Association addressed a letter containing a copy of the resolution to the General Medical Council, which was treated with contumely, and one of the direct representatives, on the eve of seeking re-election, made a speech on the subject, which was derided as an electioneering device, and there the matter dropped. With what other high matters the Council of the Association, which "A Correspondent" pompously and repeatedly designates as its "governing body," may be occupied, neither I nor any of the irreconcileables can well understand, for its published minutes for the last, as for many years past, disclose little transacted or discussed except matters of the most empty and bald recurrent routine, of which it hardly needs a council of a hundred to dispose, at a cost of many hundreds a year, for they could all have been dealt with in an hour, or by an intelligent clerk.

Not one word can one find of any action taken to enforce or quicken progress in the one only important question of which for many years the Council of our Association have taken charge.

Has anything whatever been done in the matter? I am aware of the bald communication made to the General Medical Council, that they would be bound, *a priori*, to endeavour to quash, because it is contrary to the corporate interests which they separately and collectively represent, just as they all collectively and individually opposed the very principle of direct representation, and did their utmost for years to frustrate it. That they did so vainly was due almost wholly to the energy of that indefatigable man the late Dr. Waters, of Mr. Sampson Gamgee, of Birmingham, and I am bound in justice to add, of the generally conservative Editor of the British Medical Journal.

Will no member of the Council take up the mantle of Dr. Waters? Can "the governing body," which includes so many able men, not be roused from its apathy and lift itself out of the rut of meeting at intervals of three months for sittings of two or three hours with great expenditure from the common purse for railway fares, mainly to elect lists of candidates for membership (who could be elected with better discrimination and without cost at Branch meetings), to order payment of the quarterly bills for printing and publishing the Journal, and to pass resolutions of condolence or gratification?

All that the records of the "governing body" now show is clerical "business," that could be as well transacted and overlooked by half-a-dozen men; who should, however, it might be thought, in order to keep any sort of supervision over the kind of business transacted, according to the minutes, meet at least once a fortnight. To pretend really to control a business of £30 000 a year by a brief and hurried quarterly meeting must self-evidently be a hollow form. It is a favourite reproach to the General Medical Council that their business is transacted at a cost of a guinea a minute. But at least they deal with matters of imperial import and their meetings are reported, so that we learn something from them. I calculate that the meetings of our Council, except those held during the general meetings, cost us £2 2s. a minute, while their published minutes are as dust and ashes in the mouth, and are, I should think, hardly ever read or intended to be read. Of the spirit which informs them or of the policy which guides them, the Journal never vouchsafes a word or even a line, whether of report or comment, though it reports very fully and discusses ably the proceedings of the Parliamentary Bills Committee of the Association, and thus often gives rise to valuable correspondence and opens discussion.

The one body ought hardly to be less important than the other; it certainly occupies a less elevated position in what, I think, has been called lately the "hierarchy of the Association"—whatever that may mean. Would it not be respectful to the Council and fair to the members that the Journal should report the proceedings and debates at the Council as fully as of the Parliamentary Bills Committee? At least we should understand better what we get for our money, and the Council as a "governing body" would not be—"misunderstood."

Here is, anyhow, one piece of work above and outside the empty record of routine "proceedings" which has been specially committed to the Council by the Association. All of us will join with "Vigil" in thinking that, if the Council has done anything beyond the merely clerical proceeding of forwarding a letter and a resolution, it ought to be made known to the members; and if it has not, the Council might possibly think proper to explain why not, and take better and larger thought for its higher functions in the future.

I have no great confidence that you will have the courage and candour to publish this letter, notwithstanding your recent declaration that your motto is "Audi alteram partem," and that on the whole you give a preference to letters which do not accord with your own opinions and express different views of public policy than those which you entertain. But I wish to point out that the matters herein discussed are of importance to all the members and to express the humble belief that there is nothing in the plain frankness with which they are stated which should in fairness preclude their publication in a Journal which has, among other functions, that of being an "organ of communication" between members.

I dare hardly hope to have your sympathy on some of the points raised, for I have been in my time, and am likely to remain,

Sept. 28th. A Faddist.

*** The minutes of the Council published are those officially furnished for publication, and we are not furnished with any other report. The charge of disrespect is therefore groundless.

THE NOTIFICATION OF INFECTIOUS DISEASE.

Sir,—It is clear that nothing is to be expected from the medical officer of St. George's Hanover Square, concerning the point I raised in the British Medical Journal of September 24th, and I do not wish to take up your space further than to make clear the point at issue. Dr. Corfield is unable to go outside the strict letter of the Notification Act, and maintains that no matter how many medical practitioners are called in to see a case of infectious disease, every one of them is bound to notify. "As a matter of fact," he says, "if only one certifies it to the medical officer of health, the latter is quite satisfied, as he does not want more than one certificate of one case, but if neither of them certifies he is bound to report them all." But it is not a question of the satisfaction of the medical officer of health. The question is, What is right? and the right is determined in a new Act by the administrators of that Act. Most Acts, if we abide by their letter, are, in places, doubtful in their meaning, or often enough absurd; and in this case I maintain that to compel three or four individuals to notify, when only one certificate is required, is absurd and is not the intention of the Act, whatever the wording may be. I further maintain that inasmuch as the medical officers of health are the administrators of the Act, they are not "bound to summon everyone who may happen to be called in to see a case of infectious disease." The one in charge of the case is the one who is responsible, and no one else; and the medical officers of health ought so to work the Act. How am I to know who is the medical officer in twenty

or thirty parishes not my own? Moreover, I know, as I said in my former letter, that a large number of medical officers of health interpret the Act in this liberal spirit. So they tell me, and there ought to be some uniformity.—I am, etc.,

Oct. 3rd. JAMES J. GOODHART.

SIR,—The English language as she is spoke, and, still more, as she is wrote in Acts of Parliament, is a living supple thing not always safely to be construed according to the published rules of the grammarian, any more than the individual's psychology is to be learned from a textbook of anatomy. As a humble student of my mother tongue, I venture to dissent from that interpretation which Professor Corfield places upon the clause quoted by him from the Infectious Diseases (Notification) Act, 1889. As he says: "The words of the Act are perfectly clear; every medical practitioner attending on or called in to visit.....shall forthwith.....send to the medical officer of health.....a certificate .....etc."; and the grammatical pedant is apt therefrom to conclude that each and every of the whole number of medical men who attend or are called in to see such a patient at any time throughout the duration of the illness is legally bound (as soon as he is cognisant of the infectious nature of the malady) to despatch the specified certificate, and is equally entitled to the complementary fee. So be it.

But no one will deny that the intention of the Act was to secure (1) that every case of infectious disease included in the schedule should be notified; (2) that this notification should be made, once for all, as promptly as possible by a medical practitioner, and this whether pathognomonic symptoms of infectious disease be developed during the course of his attendance on a patient, or whether he finds these symptoms already patent when he happens to be "called in to visit the patient" for the first time. Few will contend that —as seems to be inferred by Professor Corfield—the Legislature intended this notification to be multiplied indefinitely by every practitioner who may subsequently or jointly see the case, and arrive at the same conclusion as to its nature; such a rain of certificates would be as embarrassing to the medical officer of health as the consequent increase of expenditure would be objectionable to the local boards. I submit that the clause in question was conceived, and is intended to be construed, rather in this sense. As soon as any medical practitioner who is attending on, or who is called in to visit, a patient, becomes aware that the patient is suffering from an infectious disease to which this section applies, he shall (unless this has already been done) forthwith send.....a certificate stating.....etc.; but only one such certificate shall be sent to the medical officer of health in respect of each patient. Thus each case of infectious disease is to be at once notified by the practitioner or by one of the practitioners in attendance as soon as its nature is recognised, once for all.

So recently as 1850 a special Act was passed permitting, for the first time, the use of more than one full stop in each Act of Parliament. Hence, perhaps, arose the notion of the proverbial permeability of these enactments. Professor Corfield's inference that the traditional coach and six may, in the present instance, be replaced by an indefinite number of medical broughams at 2s. 6d. a-piece, appears to be doubtful law, and is clearly opposed to the common sense and equity of the question.—I am, etc.,

Hertford, Oct. 3rd. C. E. SHELLY.

SCHOOLBOY'S MEALS.

SIR,—May I express my sincere thanks for your admirable article of September 24th on Schoolboy's Meals, and make a special application of it?

There is probably no public school in which the medical profession takes so deep an interest as Epsom College. Hundreds of its members have been educated there, it is managed by a council of medical men, and doctors' sons form a very large percentage of present boys. It should, therefore, be a model school, especially as regards health and all that conduces thereto, including the very important item of food.

Now from an intellectual standpoint the College leaves little to be desired. The boys do remarkably well at London University, about a score pass the Matriculation Examination every year, and about half that number the Preliminary Scientific Examination also, whilst two or three open scholarships at the older universities are every year won by Epsom boys. A good deal of inquiry has convinced me also that the moral tone of the school at the present time is thoroughly healthy and improving every year. Amongst the lads themselves there is great pride in their school, and contentment with its administration. "I like the life here very much," was the satisfactory declaration of one of the boys, who was away from home for the first time in his life. And this has been the prevailing sentiment of all the boys, and they are many, whom I have questioned. I have a very high opinion of the school, and have sent boys there. It is prosperous and will continue to prosper.

But when we come to test its dietary by your article, which Dr. Norman Kerr characterises as "replete with sound sense and true scientific teaching,"—an opinion which will be endorsed by all your readers—then a weak spot is revealed, and just where a medical school above all others should be free from reproach and a pattern to similar institutions. Where should we seek a model school dietary if not in a public school so largely supported and almost exclusively governed by medical men? As you remark, "As concerns the actual amount of food obtainable by a boy, there is nothing which deserves the name of stint, and certainly no risk of starvation." For breakfast you advocate "a substantial meal, meat of some kind or a fresh egg," and coffee or tea "with much more milk" than is usually employed. Would that the members of the Council would take the hint and initiate this reform. Epsom Downs forms a glorious site for a school, but the air is very fresh and appetising, and eagerly would the boys welcome an egg even on alternate mornings, and the extra milk. The expense would not be extravagant and the recent raising of the terms might do something towards meeting it.

I will not join you in advocating the glass of milk at 11 o'clock and a biscuit lest one seem to demand too much, but pass on to dinner. Here one remark of yours needs special emphasising, "the need of a more generous and more varied supply of green vegetables." Why, sir, there is little or no supply at all of green vegetables. In a fortnight there was "a piece of lettuce" twice, but, as one boy said consolingly to another, "in the winter there are green potatoes sometimes." That green vegetables are essential to health, or at least wonderfully helpful thereto, and that they ought to be easily obtainable in a rural district like Epsom, will hardly be disputed. Surely a slight expense ought not to stand in the way of so wholesome an addition to a school boy's diet.

You further remark, "The old-fashioned supper of bread and cheese and beer has now practically yielded to a meal of bread and butter with milk, for those who will take it, and home-made lemonade;" I am glad to hear it, but this does not apply to Epsom College. Here the alternative is ale or water. Dr. Kerr hardly seems to exaggerate when he writes: "There is a general consensus of medical opinion as to the non-necessity of giving any intoxicant to young people in health." But the Epsom alternative practically drives many boys to ale who would gladly take milk if provided. A father—not an abstainer—told me when his son returned home for the holidays he was surprised and shocked to find a lad of under 13 demanding his supper beer as the result of a habit learnt at school, the last place where drinking habits of any sort, even the most harmless, should be encouraged.

Again, milk suggests expense; but, again, your admirable article suggests a practical remedy. "Several schools have their own dairy farm in the present day; some have their own vegetable gardens, but none has its own fruit garden or orchard." A small dairy farm, large vegetable and fruit gardens, and, let me add, a poultry run, would form excellent auxiliaries to the library and museum, gymnasium and swimming baths, laboratory and carpenter's shop, fives courts, and playing fields provided already for the pupils. Land there is easily obtainable. Three good men could manage the whole; and then the boys could have an egg for breakfast, an apple or pear for lunch, a good glass of milk for supper, as well as plenty of milk in their tea and coffee. If the Council would "read, mark, learn, and inwardly digest" what you have written great reforms would be initiated that would meet the approval of the whole medical profession, and which would still further increase the prosperity of the school, which is so largely due to their modern spirit and excellent administration.—I am, etc.,

Oct. 5th. PATERFAMILIAS.

MEDICAL NEWS.

Mr. Thomas Garneys, surgeon, of Bungay, died at his residence, Waveney House, on September 20th, from a paralytic seizure which occurred on the previous day.

The next Congress of French Scientific Societies will take place in Paris. The first general meeting will be held in the Sorbonne on April 4th, 1893.

The annual dinner of past and present students of Charing Cross Hospital will be held on Friday, October 21st, at the Holborn Restaurant, 6.30 P.M. for 7 P.M. Tickets, 5s. 6d. each, may be obtained from Mr. Robert D. Muir, house-surgeon, at the hospital.

M. Pasteur will attain the age of 70 on December 27th. A subscription has been opened by a committee of the Society of Physical and Chemical Sciences at Copenhagen to offer him a medal on that occasion. The well-known Danish brewer, Mr. Jacobson, takes an active part in this movement, in recognition of the immense services rendered to the brewing industry by M. Pasteur's researches regarding fermentation.

Cigar Ends for Sale.—If it be true, as stated in evidence on behalf of the Commissioners of Inland Revenue, that a large illicit trade is being done in making up cigar ends into cigars, it is difficult to conceive a more filthy trade or one more dangerous to health. Of course, so far as such "illicit" cigars are burnt away they are "purified by fire," but the ends which are sucked can hardly fail to be often contaminated with germs of a variety of foul diseases. The traffic should be stopped by all means. Disused cigar ends should be "cremated."

MEDICAL VACANCIES.

The following vacancies are announced:

BRIGHTON THROAT AND EAR HOSPITAL, 23, Queen's Road, Brighton. Non-resident House-Surgeon. Salary at the rate of £30 per annum. Applications to the Secretary by October 12th.

CHARING CROSS MEDICAL SCHOOL.—Lecturer on Organic Chemistry. Remuneration a guaranteed minimum of £100 per annum. Applications to Stanley Boyd, Dean, 62 to 65, Chandos Street, Strand, by October 18th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum. Applications to the Secretary, 24, Finsbury Circus, E.C., by October 19th.

COUNTY BOROUGH OF STOCKPORT.—Medical Officer of Health for the District of the Borough, and to the Infectious Diseases Hospital, and Surgeon to the Police. Salary, £400 per annum. Applications, endorsed "Application for Appointment of Medical Officer of Health," to Walter Hyde, Town Clerk, 2, Lord Street, Stockport, by October 15th.

COVENTRY AND WARWICKSHIRE HOSPITAL, 10, Hay Lane, Coventry. Assistant to the House-Surgeon. Appointment for six months. Honorarium, £15, with board, residence, washing, and attendance. Applications marked "Applications for Assistant House-Surgeon" to Arthur Seymour, Secretary, by October 11th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—House-Physicians. Applications to the Secretary by October 13th.

HUDDERSFIELD INFIRMARY.—Honorary Physician. Applications to Mr. F. Eastwood, Honorary Secretary, by November 1st.

INVERNESS DISTRICT ASYLUM.—Medical Superintendent. Applications to Robert Davidson, Clerk to the Inverness Board of Lunacy, Queensgate Chambers, Inverness, by October 15th.

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon; unmarried. Salary, £50 per annum, with board and lodging. Applications to the Secretary by October 8th.

KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Third Assistant Medical Officer; unmarried. Salary, £175 per annum, rising £5 yearly to £200, with furnished quarters, attendance, coal, gas, washing, garden produce, and milk. Applications to Francis R. Howlett, Clerk to the Visiting Committee, 9, King Street, Maidstone, by October 11th.

KIMBERLEY HOSPITAL, Kimberley, South Africa.—Senior House-Surgeon. Salary, £750, with quarters. Applications to H. A. de Beer, Secretary Kimberley Hospital Board, by October 10th.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park Place, Cheetham Hill Road, Manchester.—House-Surgeon. Salary, £80 per annum, with apartments and board. Applications to Mr. Hubert Teague, 38, Barton Arcade, Manchester, by October 29th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Physician, Appointment for six months. Salary at the rate of £80 per annum. Applications to C. H. Byers, Secretary, by October 10th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Surgeon. Appointment for six months. Salary at the rate of £80 per annum. Applications to C. H. Byers, Secretary, by October 10th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Assistant House-Surgeon. Appointment for six months. Applications to C. H. Byers, by October 10th.

READING AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer, age not to exceed 35. Terms, £70 per annum. Applications to the Resident Medical Officer, Dr. Stansfield, 80, Southampton Street, Reading, by October 8th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Junior Resident Medical Officer, doubly qualified. Board and residence provided. Applications to the Secretary, C. W. Thies, by October 24th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Appointment for six months. Salary at the rate of £100 per annum, with furnished apartments and board. Applications to the Secretary by October 20th.

ROYAL UNITED HOSPITAL, Bath.—House-Surgeon; must be M.R.C.S. Eng. Appointment for one year. Salary, £60 per annum, with board, lodging, and washing. Applications to Walter Stockwell, Secretary-Superintendent, by October 13th.

MEDICAL APPOINTMENTS.

Archer, E. J., M.B., C.M.Dub., appointed *pro tem.* Medical Officer for the Second Sanitary District of the Southampton Incorporation, *vice* E. J. Archer, M.B., M.Ch., deceased.

Bailey, T. C., L.R.C.P., L.M.Edin., M.R.C.S., appointed Medical Officer for the Crewe Sanitary District of the Nantwich Union.

Carling, W., M.B., B.C.Camb., appointed House-Surgeon to Guy's Hospital.

Carnelley, M., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Gotham Sanitary District of the Basford Union.

Chaplin, T. H. Arnold, M.B., M.R.C.P., appointed Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria Park, *vice* Dr. H. J. Tylden, deceased.

Clarke, Thomas F., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the First District of the Dartford Union.

Cowan, Michael W. W., M.B., C.M.Edin., appointed Medical Officer of the Knightwick District of the Martley Union.

Digby, C. A., M.D., B.Ch.Irel., appointed Medical Officer for the Ticehurst Sanitary District of the Ticehurst Union.

Francis, Ernest Edward, M.R.C.S., L.S.A., appointed Surgeon to the Assam Bengal Railway.

Fraser, Donald Alexander, M.D.Brux., M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health for Totnes Borough.

Forrester, R. A. P., M.B., C.M., Edin., appointed Health Officer of Wycheproof, Victoria, South Australia.

Godson, A. H., M.B., B.C.Camb., appointed House-Surgeon to Guy's Hospital.

Grigg, William Hughes, M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Hockworthy District of the Tiverton Union.

Haydon, William Rudall, M.D., M.B., C.M.Glasg., reappointed Medical Officer for the Washfield District of the Tiverton Union.

Hirsch, Charles T. W., M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., appointed Assistant Government Medical Officer at Fiji.

Hooper, Marshall, L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer for the Codner Park Sanitary District of the Basford Union.

Housley, J., M.D.St.And., M.R.C.S., reappointed Medical Officer of Health for the East Retford Sanitary District.

Jewell, J. W. F., M.B.Lond., M.R.C.S., L.R.C.P., appointed House-Physician to Guy's Hospital.

Kempe, C. M., M.R.C.S., reappointed Medical Officer of Health for the Port of Shoreham.

Kempster, William Hy., M.D.St.And., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for Battersea.

Landon, E. E. B., M.R.C.S., L.R.C.P., appointed Assistant House-Physician to Guy's Hospital.

Liesching, Charles Edward, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer for the Sampford Peverell District of the Tiverton Union.

Lyle, Henry, M.R.C.S.Eng., appointed Honorary Assistant Surgeon to the Cancer and Skin Hospital, Liverpool.

McKay, Joseph B., M.D., R.U.I., appointed Medical Officer for the Fifth District and the Schools of the Wycombe Union.

May, Frederick, L.A.H.Dub., reappointed Medical Officer for the South District of the Stratton Union.

Mullalby, W. T., M.D., M.Ch., L.R.C.P.Irel., appointed Health Officer for the Shire of Ballarat, Victoria, Australia.

Robinson, Dr., appointed Medical Officer for the Fleetwood District of the Fylde Union, *vice* E. C. A. Ramsay, L.R.C.P.I., L.F.P.S.Glas.

Sheen, A. W., M.B.Lond., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to the Guy's Hospital.

Sichel, G. T. S., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to Guy's Hospital.

Thomas, I. D., M.B., B.C.Camb., appointed Assistant House-Physician to Guy's Hospital.

Ward, Anthony Arthur, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Christchurch Sanitary District and the Branch Workhouse of the Parish of St. Giles, Camberwell.

Williams, G. R., L.R.C.P., L.M., L.R.C.S.Irel., appointed Medical Officer for the Seventh Sanitary District of the Depwade Union.

Wilson, Arthur C. J., L.R.C.P., L.M.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health to the Thurlstone Local Board.

Young, F. C., M.B., B.C.Camb., appointed House-Physician to Guy's Hospital.

Young, Richard W., M.R.C.S., L.S.A., appointed Government Medical Officer and Vaccinator for the Lower Clarence River District, New South Wales.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. R. Marcus Gunn: External Examination of the Eye. Parkes Museum, 74A, Margaret Street, W., 4 P.M.—Dr. L. C. Parkes: Water Supply. 101, Great Russell Street, W.C., 8 P.M.—Dr. Galloway: Malignant Growths.

TUESDAY.

LONDON POST GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Percy Smith: Hysteria, Delirious Mania. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Mr. Jonathan Hutchinson: Cancer of the Skin. 101, Great Russell Street, W.C., 8 P.M.—Dr. Potter: Albuminuria in Pregnancy.

WEDNESDAY.

LONDON POST GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. Green: Cases in the Wards. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Quarry Silcock: Choroidal Affections.

HUNTERIAN SOCIETY, 8.30 P.M.—Dr. Robert Barnes: Hunterian Society Lecture on some Observations on Absorption in relation to Physiology, Pathology, and Therapeutics.

THURSDAY.

LONDON POST GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Ormerod: Ataxy. Hospital for Sick Children, Great Ormond Street, 4 P.M.—Dr. Sturges: Heart Disease in Children. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Sir Alfred B. Garrod: Medical Cases in the Wards. London Throat Hospital, Great Portland Street, 8 P.M.—Mr. W. R. H. Stewart: Examination of Ear Cases.

BRITISH GYNÆCOLOGICAL SOCIETY, 20, Hanover Square, 8.30 P.M.—Dr. Fancourt Barnes: Specimens and Notes of a case of Vaginal Lithotomy. Mr. Bowreman Jessett: Specimens. Papillomatous Growth in the Bladder removed by the Suprapubic Operation.

FRIDAY.

LONDON POST GRADUATE COURSE, Bacteriological Laboratory, King's College, 11 A.M. to 1 P.M.—Professor Crookshank: Lecture—The Microscope. Practical Work—Types of Bacteria. Hospital for Consumption, Brompton, 4 P.M.—Dr. Green: Cases in the Wards.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. W. H. Brown: A Case of Intestinal Obstruction accompanied by Thrombus in the Abdominal Aorta extending down the Iliac Vessels. Mr. Arbuthnot Lane: A case of Extensive Nævus of the Peritoneum. Mr. Clutton: A case of Traumatic Aneurysm of the External Iliac Artery in a Boy 6 years of age. Mr. Frederic Eve: A case of Cicatricial Stricture of Œsophagus, Œsophagotomy for Removal of Impacted Symonds's Tube; Complete Division of Stricture; no Recurrence Two Years after Operation.

SATURDAY.

LONDON POST GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. Theo. Hyslop: Mania.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

COMPTON.—On October 4th, at Litton, Longfleet, Poole, Mrs. Francis Charles Compton, of a daughter.

GURNEY.—October 2nd, at Stour House, Doverdourt, Essex, the wife of Harold Gurney, L.R.C.P.E., etc., of a daughter.

MACKINTOSH.—October 2nd, at Stirling, N.B., the wife of W. A. Mackintosh, M.B., C.M.Edin., of a daughter.

STRUGNELL.—On October 1st, at 114, Brixton Hill, the wife of Walter T. Strugnell, M.D.Lond., M.R.C.S., of a son.

MARRIAGES.

BOON—MATTHEWS.—On Wednesday, September 14th, at St. George's, Bloomsbury, by the Rev. H. R. Haweis, M.A., Incumbent of St. James's, Marylebone, Ernest Gerald Boon, L.R.C.P.Lond., M.R.C.S. Eng., youngest son of the late Joseph Henry Boon, M.D., of St. Kitts, West Indies, to Frances Anny, daughter of the late J. N. Matthews, of Buffalo, New York, United States.

TOYNE—BIRKETT.—On September 28th, at St. Lawrence Tinsley, by the Rev. J. F. Buckler, B.A., Walter Ernest Toyne, L.S.A., Wincobank, eldest son of W. C. Toyne, Sheffield, to Henrietta Cecilia (Ella), eldest daughter of Hector Birkett, Rotherham, and granddaughter of the late Isaac Dodds, C.E.

DEATHS.

LONGSTAFF.—On September 23rd, at his residence, Butterknowle, Wandsworth, George Dixon Longstaff, M.D., in his 94th year.

POPJOY.—On September 21st, at his residence, 19, Victoria Road, Tue Brook, Liverpool, in his 76th year, Joshua Joseph Bird Popjoy, L.R.C.P.Lond., M.R.C.S., and J.P., late of Accrington.

SMITH.—At the Schoolhouse, Lochgoilhead, on October 2nd, John Smith, M.A., M.B., C.M., late of Abergavenny, Monmouthshire. Friends please accept this intimation.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

DR. G. AINSLIE JOHNSTON (Gale House, Ambleside) writes: I should like to know of any hospital where a boy subject to epileptic fits, the son of poor parents, could be received for a small sum.

PORTABLE ANTISEPTIC MOUTH WASH.

A MEMBER would be obliged for suggestion as to a suitable mouth wash or gargle for use when in attendance on infectious cases. A cheap concentrated solution which could easily be carried in waistcoat pocket and used alone or in water at patient's house is what is specially desired. Now that influenza is likely to appear, suggestions on the subject would be most acceptable.

SALE OF POISONOUS PROPRIETARY PREPARATIONS.

M.D., C.M. ABERDEEN asks us whether it is illegal for grocers to sell chlorodyne, and, if so, whether a case can be quoted of successful prosecution for reference? He unfortunately has, he adds, a case of what may be termed chlorodyne drinking, and an apparently unlimited supply can be obtained from the grocers in his neighbourhood.

*** It is undoubtedly illegal for any persons except registered chemists to sell articles that are included in Schedule A of the Pharmacy Act. Chlorodyne, being a preparation of morphine or a preparation of opium, and containing also chloroform, hydrocyanic acid, and probably other articles included in such schedule, its sale by grocers or other unregistered persons is certainly a breach of the law. In the *Pharmaceutical Journal* for April 29th, 1882, there is a report of a prosecution of a grocer for the sale of poison. There have been many similar prosecutions instituted quite recently for the sale of chlorodyne by grocers, since the communications of Mr. Ernest Hart to the Public Prosecutor and the Pharmaceutical Society have set the powers of the law—so long in abeyance—steadily and resolutely in motion, but we are informed that in every instance the persons proceeded against have paid into court the penalty incurred, and consequently there has not been an opportunity of reporting the cases. Anyone can institute a prosecution for the sale of poison unlabelled; and on due information of the fact that chlorodyne or any similar article containing poison—labelled or unlabelled—is being sold by a grocer or other person not legally qualified to sell poison, being supplied, the Council of the Pharmaceutical Society would no doubt institute a prosecution under the 15th Section of the Pharmacy Act, which the Council had for many years allowed to sleep, but which it is the special duty of the Council to enforce, and which they are enforcing, since the initiative taken to which we have above referred.

ANSWERS.

THE M.D. BRUX.

DR. MAJOR GREENWOOD, Secretary of the Brussels Medical Graduates' Association (243, Hackney Road, N.E.) writes: In answer to "L.R.C.P.E." I beg to forward the following information relative to the M.D. Brux.:

The examinations for this degree take place at Brussels on the first Tuesday in November, December, February, May, and June. They are all *viva voce*, and candidates must present themselves at the University (secretary's office) at the latest before 2 P.M. on the day preceding the examination.

Candidates before admission to the examination will be required (*a*) to produce diplomas, showing that they are legally qualified in their

own country to practice medicine, surgery, and obstetrics; (*b*) to pay the following fees: for inscription of name in the books of the University £8 12s., for examinations £13, for legalisation of diploma 8s.

If a candidate fail in only a portion of the examination, part of the fee for same is returned.

The examination consists of three tests, namely:

First Doctorate.—General therapeutics, including pharmaco-dynamics, special pathology, and therapeutics of internal diseases, mental diseases, general pathology, and pathological anatomy, with the use of the microscope.

Second Doctorate.—Surgical pathology, including ophthalmology, theory of midwifery, public and private hygiene, medical jurisprudence (not including toxicology).

Third Doctorate.—Examination at the hospital of St. Jean or St. Pierre of one or two patients under medical or surgical treatment; examination in midwifery, consisting of operations on the mannekin (model of pelvis); examination in operative surgery, consisting in some of the usual operations on the dead subject, such as amputation, ligature of an artery, etc.; regional anatomy on the dead body with dissections.

The stay required at Brussels to comfortably go through this examination averages about ten days.

An interpreter is provided, without additional fee, for those not conversant with the French language.

No textbooks are officially recommended for this examination, but its subjects are fairly covered by most of those in general use in this country for the various qualifying diplomas; at the same time, it must be well understood by all intending candidates that it is no use presenting themselves for examination at Brussels unless they are, at least, as well up as when they presented themselves for their qualifying examinations in this country, as the standard over there is certainly as high and the practical examination at the hospital is considerably longer and more searching, than for the ordinary diplomas over here; neither must it be forgotten that, as the whole of the examination is *viva voce*, a candidate has not the same time to think out questions, and therefore requires to be more thoroughly up in the various subjects.

Intending candidates must, also, remember that this degree, in the present state of the law, is unregistrable, but, at the same time, he should know that five-sixths of the Brussels candidates in this country have been enabled to register under the last Medical Act, so that the future holder of this degree can at all events claim to possess a degree which the Legislature has considered worthy of registration in the case of the great majority of his fellow graduates, and he may reasonably hope that before long a more liberal public opinion will compel the abolition of this anomaly, and concede to them the same right allowed to the older graduates.

NOTES, LETTERS, Etc.

Coto Bark.

Dr. Richard Neale (South Hampstead) writes: Since Dr. Burney Yeo specially drew attention to the value of coto bark in diarrhœa in 1879 there are few chemists who are not prepared to dispense it when ordered. Had "A Rural Practitioner" (page 766) referred to the *Medical Digest*, he would "have seen at a glance" for what diseases coto has been recommended during the last fourteen years.

The Cartwright Prize.

The Cartwright Prize of 500 dollars, which is offered by the alumni of the Medical Department of the New York College of Physicians and Surgeons for an original research on any subject connected with the science of medicine will be awarded in June, 1893. The competition is absolutely open, and the precise subject of the investigation is left to the choice of the candidate. The prize will not, however, be given to two or more persons working jointly, nor to anyone who has presented his essay elsewhere in competition for another prize. Essays must be sent, under the usual conditions as to concealment of the writer's identity, to the Secretary of the Alumni, on or before April 1, 1893.

Chloroform Addiction.

James Bowskill, who described himself as a qualified chemist of London, was charged at Halifax on September 20th with attempting to commit suicide by inhaling methylated chloroform. On September 17th he visited several chemists in the town, and procured four ounces of chloroform. Afterwards he presented himself at the police office in a dazed condition, with a piece of lint soaked in chloroform in his pocket. Before the Bench he argued with the chairman as to the dangerous nature of the doses which, he said, he took as stimulants, and added that between Thursday and Friday night he inhaled 13½ ounces without receiving the slightest injury. He submitted that the police had not proved any intention on his part to kill himself. In answer to the chairman, the prisoner said he had recently been charged with a similar offence at Huddersfield. The magistrate bound him over in his own recognisances of £20 to keep the peace for three months.

Advertisements.

An Undergraduate (Edinburgh University) writes: Kindly draw the attention of the medical faculty to the accompanying advertisements, so that Edinburgh graduates and licentiates are not the only ones who advertise. The *Daily Telegraph*, Launceston, August 12th, 1892: "F. W. Fraser, M.R.C.S.Eng., *L.R.C.P.Lond., Physician* and Surgeon, 69, St. John Street, Launceston. Advice and Medicine, 4s. inclusive. Consultation by post, with Medicine, 5s. post free. Teeth extracted, 1s. 6d. Hours of attendance, 8.30 to 10.30 A.M., 12.30 to 1.30; and 6 to 8 P.M. Telephone, No. 121." "What about the dignity of the physician, and the solicitude of the London College for the honour of its body corporate?"

Schoolboy's Meals.

O. U. S. C. writes: As there appears to be a great deal of talk just now about schoolboy's grievances in the matter of feeding, I venture to sound the proverbial "note of warning" to caution us against going to the other extreme and pampering the rising generation. Without for a moment denying that there are many points in the schoolboy's life which require attention, I would ask the question: Supposing you give a boy four or five good substantial meals a day, will you guarantee that he will not feel hungry an hour after any one of them? My recollection of public school life tells me that we had breakfast, lunch, dinner, tea, and supper; that we had as much good plain food as we could eat at the three principal meals, and also that we were ready at any minute to go out of bounds (to the pastry) and steal a slice of dry bread or whatever came handiest, to rob orchards, to ransack farmers' potato heaps, and even to cut slices from mangold-wurzels and carrots, as they grew in the fields in order to satisfy our inward cravings. I fact I always associate sheep, kittens, and schoolboys as three animals whose stomachs it is impossible to satisfy.

Phagocytosis.

Dr. C. R. Illingworth (Accrington) writes: As the new theory called phagocytosis is hardly yet proved "up to the hilt," permit me as an unbeliever in every part of it, to ask Mr. T. J. Bokenham a question regarding the three observations upon erysipelas which appear in the British Medical Journal of September 10th. How can anyone prove that the so-called phagocytic action upon micrococci is not the well-known process of fibrination around each organism, set up by stasis around each, and consequent union of fibrinogen and fibrino-plastic material? The more virulent the culture the greater the diminution of the fibrin elements of the blood and the less, in consequence, the formation of so-called "cellular elements" for "phagocytic action." The fibrin once formed shuts off further supplies of nutrient material to the attracting micrococci, which therefore die and break up into their elementary constituents as all other tissues do in the processes of nutrition and excretion. In other words, they are absorbed.

Mr. T. J. Bokenham writes, in reply to this note: Dr. Illingworth is of course not alone in his scepticism with regard to the doctrine of phagocytosis. I do not see, however, that the explanation he proposes of the phenomena described by me is any better than my own. Indeed, the evidence of the microscope in this particular case was so clear and the masses surrounding the groups of streptococci were so evidently nucleated cells that I have practically no doubt that the explanation advanced by me at Nottingham was correct. If Dr. Illingworth had seen the specimens which I was able to throw on the screen I think he would agree with me that it was really a question of cells and not of unorganised "fibrinated" proteid. In conclusion, may I point out that that a micrococcus is not a "tissue," nor can it be compared, as Dr. Illingworth suggests, with "all other tissues," and, further, that fibrin is an excellent nutrient medium for the S. erysipelatis.

The Art of Tea Drinking.

Dr. Wm. Woodward (Worcester) writes: I am giving a lecture on tea, etc., and wish to quote from your able article in the British Medical Journal of September 10th, page 580. Will you kindly state where I can obtain one of the Japanese pots you speak of at beginning of second paragraph (small and cheap with strainer). I cannot get one here. Your article will cause quite a revolution in tea drinking.

Mr. A. Hanbury Freke (Menaton) writes: In view of certain remarks by the Editor in the British Medical Journal of September 10th, and as the subject of tea-making is a most important one, I desire to make a few observations on the same. Any instructions as to diet to be practical must be based on common sense, as well as on scientific principles. I think it is Sir W. Roberts who says that we are guided by the same instincts as the lower animals in the choice of food, and that therefore our generalised food customs are not random practices, but the outcome of profound instincts. I cannot help thinking that the use of milk and sugar with our tea is a practice that may be the result of a profound instinct rather than a "barbarous practice." It is, in my opinion, of little use to stigmatise as a "purely British superstition" the old saying "Unless the kettle boiling be, filling the teapot spoils the tea." It is impossible to learn in the East what is suitable to our British climate. I am well aware of the many errors in tea-making perpetrated every day in this country, but this does not prove our European method to be bad. But seeing that our European method is what it is, and recognising the impossibility of popularising a new conception of what tea ought to be, I have always endeavoured rather to guide and direct our present process so that no harm may result. When I meet with a patient who says that he has been forbidden to touch tea, or that tea always gives him pain, I ask him to observe the following simple rules: 1. The water must be up to, but not past, the boil. 2. The water must not stand longer than five minutes on the leaves. In this way I have found that people who had become afraid to take tea have been able to enjoy without any inconvenience whatever "the cup that cheers, but not inebriates." I am not at present able to give a satisfactory explanation of the fact, but shall be glad of any information on the subject. I believe that much of the harm that results from tea drinking is from the use of cheap teas and allowing the water to boil for some time and then allowing it to "stand" too long. A certain amount of tannin is a good thing, as it restrains digestion and prevents our food from passing into the system too rapidly, as is apt to be the case when cookery is become a fine art.

Ascaris Lumbricoides in Typhoid Fever.

M.R.C.S.E. writes: Reading an account of case of enteric fever in the British Medical Journal of September 24th, where the lumbricus is mentioned as a complication, I would point out that cases similar to the one mentioned are not at all uncommon in China, where the ascaris lumbricoides is so prevalent. I can remember very few instances of febrile attacks or continued fever out there, during an experience of seven years, in which one or more of those parasites have not been voided during the pyrexial stage. A child, aged about 12, under my care for scarlatina in Stonehouse, Devon, several years ago, passed over 250 of these parasites during the febrile stage of that disease.

THE HUMAN BODY USED AS A MEDICAMENT.

THE leaders of the late antiforeign movement in China stirred up their emissaries to hatred of the foreign dwellers in their midst by various false accusations. Missionaries were charged with bewitching women and children, and murdering them for the sake of their hearts and eyes. According to Dr. Macgowan, who has lived in China for years, these charges are far from preposterous; for in that country various portions of the human frame are credited with therapeutic properties. In the only Chinese authoritative materia medica thirty-seven remedies of the kind are given. Human blood, taken into the system from another, is thought to strengthen it. Of course, this idea is not purely Chinese, as Western medicine has its transfusion of the blood of others as a last resource in extreme hæmorrhage. But other Chinese remedies are not elsewhere recognised as efficacious. Thus, human muscles are supposed to be a good remedy in consumption, and children mutilate themselves to administer their flesh to sick parents. This treatment, too, is especially frequent among the *literati*. A graduate, finding "the snipping of the skin from his own arm too painful, seized a hatchet and cut off a joint of one of his fingers, which he made into broth mixed with medicine, and gave to his mother." The recipient must be kept in absolute ignorance of the potion thus prepared, whilst the operation is never performed for an inferior, as by a husband for a wife, or by a parent for a child. There is, consequently, a demand for portions of the human body, which command a certain price; and this fact tempts men to murder others that they may obtain the money which will be paid for the portions in question.

THE LITERATURE OF COTTAGE HOSPITALS.

MR. HENRY C. BURDETT (Porchester Square, W.) writes: Under this heading, in the BRITISH MEDICAL JOURNAL of September 10th, page 619, you state quite correctly that there is not much recent literature on the subject. I have in hand at the present time, and hope to publish early next year, a third edition of *Cottage Hospitals*, the second being now exhausted. My aim has been, as much as possible, to confine the larger work, *Hospitals and Asylums of the World*, to institutions of fifty beds and upwards, and to deal with the smaller ones in *Cottage Hospitals*. Perhaps you will allow me to say this much to prevent misapprehension and disappointment, as the space devoted to cottage hospitals in the larger work has purposely been confined within narrow limits. May I add that I should welcome suggestions and information from those interested in cottage hospitals to enable me to make the third edition of my book as useful as possible to everybody concerned?

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BOOKS, ETC., RECEIVED.

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Inorganic Chemistry. Part I. Edinburgh: E. and S. Livingstone. Price 1s.

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*** In forwarding books the publishers are requested to state the selling prices.

SIXTIETH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

SURGERY.

JOHN CROFT, F.R.C.S., President.

A DISCUSSION ON THE SURGERY OF THE THORAX.

BY RICKMAN J. GODLEE, M.S., F.R.C.S.,
Surgeon to University College Hospital, and to the Hospital for Consumption and Diseases of the Chest, Brompton.

EMPYEMA.

To introduce a discussion on the surgery of the thorax in half an hour will not allow an ornamental exordium, and I shall be fortunate if I ever reach the peroration, so I will at once plunge *in medias res* by asking why the treatment of empyema is, as all allow, so much more successful than it was twenty years ago. I read my surgery in the fifth edition of Erichsen, 1869, where it is written: "If the accumulation be an empyema, the cannula or an elastic tube may be left in the chest, and the pus drawn off, or removed as it accumulates, or a gum catheter or drainage tube may be left in, and the pus allowed to drain off as fast as it is secreted. Should air have got admission into the pleural sac it will be necessary to make the opening free, so as to secure a ready exit for the fluid, lest putrefactive changes ensue in it." And then follows a description of the method adopted by Goodfellow and De Morgan of introducing a Chassagnac's drainage tube through a puncture made by a cannula in the sixth space in front, and another in the lower part of the chest behind. When we remember the small size of the original Chassagnac's drainage tubes and the prevalence of putrefaction in those days, the answer is easily found. We are more successful now because we make our openings very free, and our success depends in great measure upon the attainment of perfect drainage in all positions of the body, but not a little on the prevention of septic changes in the fluid secreted by the freely opened pleura.

Site of Election for Incision in Empyema.

And now I would reiterate an often expressed opinion that, in a complete empyema, no position is better—none, indeed, is so good—as that opposite the ninth rib, just outside the angle of the scapula, for (1) it is just above the level to which the diaphragm becomes adherent to the ribs when it has been drawn up as much as possible. (2) It is, therefore, very soon, if not at first, one of the most dependent parts of the pleural cavity when the patient is standing up, and it is always the most dependent part when he is lying on his back. (3) Because (and this is a much more cogent reason) I practically find that this is a much more advantageous position for the opening. I do not think I have ever had to open one in front because the posterior opening did not answer, but I have often had to supplement an anterior or lateral by a posterior opening, because the former did not drain the lower and posterior part of the pleura.

After all, a practical reason is much better than a theoretical one, otherwise one might be overpersuaded by the theoretical assertion that the last part to close ought to be the side of the chest; or that, as Nature so often selects the fifth interspace at the edge of the pectoralis major for spontaneous rupture, we should follow her example; or we might be deterred by the assumption that the division of the latissimus dorsi would be a source of trouble afterwards, or that the angle of the scapula must get in the way. Far be it from me to assert that all cases will get well if the spot I advocate be chosen, or that none will recover if the axilla be selected. I only maintain that in the greater number of cases it is the best place.

Removal of Rib as a Routine Practice.

Let me also very briefly state the arguments (to me convincing) in favour of removing a piece of rib as a routine practice with very few exceptions. 1. It allows of the best possible exploration of the pleura with fingers and probes. 2. It permits of the evacuation of masses of lymph. 3. It obviates to a great extent the difficulty, which is common afterwards, of retaining or reintroducing the tube. And let me thus answer the common objections to it: 1. "That it is unnecessary." Granted in a certain number, but it is uncertain at the time of operation which these cases will be, whilst in the majority it is of great value, and, except for one very rare contingency, it is perfectly harmless. 2. "The rib may not be regenerated." Again granted in exceptional cases, but, even if this do occur, it apparently makes no difference to the patient. 3. "It prolongs the operation and makes it more severe." These assertions cannot exactly be gainsaid, but the increased time and severity are really trifling; and, in case the patient be so ill that they are of importance, I would omit the resection. If it be merely a question of danger from the anæsthetic owing to distension of the pleura, a certain amount of the fluid may either be drawn off by an aspirator, or the intercostal space may be incised before the rib is removed.

I did this in a gentleman who had a tropical abscess of the liver which had burst into the right pleura, which after a few days became greatly distended, so that the breathing was much impaired. It would have been quite unsafe to give him chloroform under these circumstances, but it was most important to anæsthetise him, in order to search for the opening through the diaphragm; and for various reasons this exploration could not be postponed to another day. After drawing off a large quantity of thin pus, he took the anæsthetic quite well during a somewhat prolonged operation.

In a very putrid case there may be a danger of the tube causing ulceration of the intercostal artery. So, under these circumstances it is best to divide the artery and tie it in two places. I always employ a single flanged red rubber drainage tube as large, for an adult, as the little finger; smaller for a child. It should be just long enough to enter the chest cavity, and have not more than one, or at most two, holes close to the end. It should never be shortened, but when the time comes for its removal, removed altogether. One of smaller bore than the original may often conveniently be substituted during the progress of the case. Rigid tubes are sometimes, if not generally, painful, and are not required when a piece of rib has been removed.

Method of Ending a Case of Empyema.

The time of removal of the tube depends upon the amount and character of the discharge. Thus no definite period for it can be stated, but in young children, if the case be uncomplicated, the tube can commonly be dispensed with in ten days or less; in adults in three weeks, but it must often be retained much longer and it is best to err, if at all, on the safe side.

If the discharge be serous and small, sometimes even although it be purulent, closure of the cavity may often be obtained by removing the tube and tapping the cavity with a railroad catheter, at first daily, then at two or three, or more days' interval. Thus the absorbing power of the pleural vessels is brought into play to aid in the closure of the cavity. If, after three or four days, only a drachm or two of clear serum escapes, the periodical tapping may be omitted. If the fluid remain, or become purulent, it must be continued, or else—and this is usually the best plan—the tube must be put back.

Method of Opening a very Bad Case.

In any case it is well not to put the patient far over on to his sound side; but he should be brought over the edge of the table, and the operator should, if necessary, sit down. If the chest be very full, a good plan is to place the patient well over on the diseased side—semiprone in fact. It will then be found quite easy to reach the ninth rib outside the scapular line, by standing behind him.

I believe a little chloroform is, on the average, the best anæsthetic to employ, that is, not enough to produce very profound anæsthesia. An anæsthetic should never be used for simple aspiration. Ether is especially contraindicated where expectoration is a feature of the case, or where the chest is very full. It may be safely used in operating on old

previously opened cases, or in those where the respiration is unimpeded and there is no expectoration.

Let me now say a word about two classes of empyema in which considerable caution must be used.

Double Empyema

is not perhaps so rare as one might be apt to think. A single empyema is occasionally missed. Sometimes this is revealed at a *post-mortem* examination, sometimes no doubt the matter is inspissated and absorbed. So, also, a second small empyema may sometimes escape notice when one side has been dealt with. Some double empyemata are septic, and then fortunately they are likely to be localised. Some are probably tuberculous. If the case be septic it may be very acute, and so it may be almost essential to operate on both sides, either at the same time or within a very short period of one another. But, if there be no hurry, I can see no reason for doing both at once, and it must involve some risk, for it is impossible to be certain of the extent of adherent lung on either side. Moreover, the mere opening of one side only often causes a considerable disturbance of respiration, which in a few hours or a few days is recovered from. I have heard of a well authenticated case where the accidental wound of the sound side of a patient with a single discharging empyema proved fatal, so I cannot doubt that the right practice is to open first one side and let the patient get thoroughly accustomed to this modification of his thoracic arrangements, and then in due time to tackle the other. My own experience is confined to three cases—one in which the second empyema was undiagnosed in a tuberculous baby; one, in a child, where the first was almost healed before the second opening had to be made; and one in a young lady who, after a septic throat, developed double empyema, possibly pericarditis, and certainly acute suppuration of the hip-joint; the latter I incised very early, and, though she had also large bed-sores, she has made a remarkably good recovery.

Tuberculous Empyema and Pyopneumothorax.

Much caution should be observed in dealing with these cases, especially in adults. I do not say they are never to be freely incised, but I believe that, if the disease be quiet, a free incision will almost certainly accelerate the patient's death, and I would submit a method of dealing with these cases which, in two or more instances, has in my hands proved successful. Into the anterior part of the chest a needle is to be inserted connected with an india-rubber tube passing into a bottle containing some sterilised or antiseptic water—say, for example, concentrated solution of boric acid, or 1 in 4,000 sublimate solution—another needle, connected with the bottle aspirator, is then inserted into the most dependent part of the chest, and the pus is drawn off. After a while the fluid begins to flow in to replace the pus, and at last it will flow clear into the aspirator bottle. Then the anterior needle may be taken out, and the greater part of the liquid may be withdrawn from the pleura.

A simple pneumothorax may be much relieved by drawing out the air with the aspirator. I refer to cases arising spontaneously. It is well known to be of service in traumatic cases.

Mortality from Empyema.

One is apt to speak nowadays as if all empyemata recovered, but this is not the case. I have, quite in recent years, seen or heard of one dying before it was opened; two chronic cases of an acute, presumably septic, nephritis, with albuminuria; four or five of cerebral abscess, one of amyloid degeneration; one of hæmorrhage, one of shock; one, quite suddenly, presumably of embolism or heart failure, whilst apparently doing quite well, some days after the operation; and some chronic cases during the course of irrigation. I am myself astonished, considering how well most cases do, in drawing up this list. Let me say a few words on some of these modes of death.

Injection.

It has not yet been proved why deaths sometimes occur during the washing out of empyemata—perhaps chronic ones, in which the same process has been carried out apparently in precisely the same manner and under exactly similar circumstances often before. It does not appear to depend upon the sort of fluid employed, nor upon the side of the chest affected. Under these circumstances it is probably wisest to avoid washing out unless it seems to be absolutely necessary, and to take particular care that no pressure of fluid is ever produced inside the chest—though it has not been proved that intrathoracic pressure is the cause of the fatal result. Fortunately, the cases in which irrigation is necessary are very few. I never employ it unless the discharge remains or becomes offensive several days after the opening has been made. The most stinking cases generally become quite sweet in a few days after incision, and, indeed, very often behave just as well as the aseptic ones. If it must be done, the patient should be in the recumbent posture, and a small tube—much smaller than the opening—say a No. 8 or No. 10 Jacques catheter, should be attached to the end of a longer india-rubber tube, which, in its turn, is attached either to a simple glass funnel or to an irrigator. Whichever of these be employed, it should not be raised more than 18 inches above the level of the patient. I have generally used either tincture of iodine, mixed with water till a sherry colour is produced, or a 1 or 2 per cent. emulsion of creoline of about body heat.

Great caution should be used in injecting cases where there is an internal fistula, as it often sets up very troublesome attacks of coughing.

Shock.

Shock must not be forgotten, and it must be borne in mind that the patient often loses a large amount of blood during the opening of an empyema, from the granulations lining the cavity which are suddenly released from the pressure to which they have been subjected. I know of no means of controlling this hæmorrhage, nor of guessing in which cases it is likely to happen; the amount is often quite difficult to estimate, because the blood runs into the pleura. I am convinced that it is the main factor in producing the shock, which is sometimes very severe, and which makes it essential that the patient should be carefully watched for a good many hours after the operation, and, if necessary, helped over the dangerous period by stimulants.

This bleeding is, of course, similar to that which follows the opening of tightly-distended abscesses with highly-vascular walls, which, as is well known, may sometimes be very serious. I have known death from this cause follow the mere opening of an enormous psoas abscess in a delicate girl, and I can imagine that in such cases it might sometimes be wise to resort to transfusion.

Secondary Hæmorrhage,

presumably from the intercostal artery, occurred in one of my cases some years ago. It was a very septic one, and I had removed a piece of rib, thus leaving the vessel unprotected from any ulceration that might be caused by the drainage tube. In a similar case, now, I should cut the artery across, and tie it at the time of the operation.

Cerebral Abscess.

Cerebral abscess is a not uncommon complication of empyema and pulmonary abscess. I will give the salient points of a few cases in my own practice.

CASE I.—A lady, aged about 30, had a left empyema imperfectly opened in the spring of 1891; she was taken with a rigor in Switzerland in September, and came under my care in October, 1891; she was at that time complaining of a stiff neck and other unexplained symptoms. I opened the pleura freely, and inserted a large tube on October 13th. After a very few days the symptoms of an abscess in the left motor area declared themselves, and on October 23rd I trephined and evacuated a small amount of pus, but she died on October 29th unrelieved.

CASE II.—A lady, aged about 40, had suffered from a right empyema, which she was expectorating. It was of very long duration, and was supposed to have dated from the swallowing of a plum stone. I opened it on July 14th, 1890, and she improved greatly, but did not cease expectorating. No further operation was done. In January, 1891, she manifested symptoms of an abscess in the left cerebral hemisphere. On January 30th, I trephined over the motor area, but did not hit on the abscess, which was in the left occipital lobe, although the localising symptoms appeared to be remarkably definite.

CASE III.—A woman, aged 34, had a left basic tuberculous cavity and a left empyema outside it, the latter opening by several sinuses round the left breast. She had become melancholic since the bursting of the abscess. I opened it freely behind, about May 7th. On May 23rd an abscess in the left corpus striatum burst into the ventricle, and rapidly caused death.

CASE IV.—A man, aged 36, died last year in University College Hospital, with two abscesses, one in the right ascending parietal region, which Mr. Pollard opened, and one a little further back, which was unrelieved. He had been under my care, and that of many of my colleagues, for ten years

or more, and we had performed numerous operations for the relief of empyema. Latterly he had been his own attendant, and had let some half-dozen drainage tubes slip into his chest.

I might record other cases, but these are enough to show that the abscesses do not necessarily follow soon after an operation on the ribs, and practically may be quite independent of surgical interference; that neither side is specially affected; and that the abscess may occur in any part of the brain. Why abscess of the brain should be specially liable to follow suppuration in the chest—I think it must be allowed that such is the case—I cannot tell. It is certainly not always because the blood is being returned by the pulmonary veins, for in many cases there is no pulmonary abscess, and then blood is being returned by the azygos veins, which, as far as the brain is concerned, are in the same position as any other systemic veins. I have only in one instance met with metastatic abscesses elsewhere.

Prolonged Retention of Drainage Tube.

It is wonderful, by the way, how long a patient may exist with a drainage tube or similar foreign body in his chest; it is even possible that the wound may heal up over it and remain closed for months at a time. I have seen this happen with a tube, a piece of necrosed rib, and a bullet; the last, however, lay in a minute cavity which communicated with a bronchus, and—whether as a result of this or not I cannot say—the patient developed tubercle and ultimately died. What I have said, however, furnishes no excuse for not making an attempt at the removal of a drainage tube from the pleura; it will probably be found quite easily, if not directly below the external opening, then at the posterior part of the pleural cavity. If, therefore, the tube have slipped in through an anterior opening, it may be necessary to make a posterior incision for its removal, but the original opening should first be freely enlarged.

Amyloid Degeneration and Clubbed Fingers.

These conditions are often met with in old running empyemata, but they are not more common than in chronic phthisis and bronchiectasis. It is interesting to know that, even although well marked, these symptoms may completely clear up if efficient drainage leads to closure of the cavity. It is also an instructive fact that a patient may go on for years with a discharging empyema and yet show but slight signs of amyloid disease. I have a man under observation with a very small cavity, which he stoutly refuses to have operated upon, resulting from an empyema which I opened as long ago as 1876, but he continues to work as a costermonger and is in very good health. His fingers certainly are slightly clubbed and there is slight albuminuria, but he changes very little from year to year, though the discharge from the pleura is fairly free and very offensive.

Tumours.

Cancer of the lung or pleura may give rise to serous effusion, either clear or bloody (I have seen both in the same individual), or to an empyema, but I have not seen the latter arise before the pleural cavity had been aspirated. I have also seen cancer of the lung give rise to a pneumothorax, which rendered still more difficult the diagnosis of an already obscure case. Whatever the nature of the effusion may be, I believe it is wisest to avoid a free opening as long as possible, but sometimes this cannot be done. I have never seen the incision close where there was malignant disease of the lung or pleura. Amongst a good many cases of cancer of the lung or mediastinum, I have never yet met with one that at all suggested the possibility of removal by operation. Such operations have, however, been suggested, but the circumstances under which there can be even a chance of success must be exceedingly rare; and thus—although, in animals, portions of lung may be ligatured off and removed without producing any very serious symptoms—I do not think that this is at all a promising branch of surgery.

I regret that I can give you no personal experience of operations on tumours of the thoracic walls. They are of three sorts: 1. Enchondromata of ribs or rib cartilages. 2. Primary malignant growths of ribs or neighbouring structures, probably always sarcomatous. 3. Secondary malignant growths. The last are frequently met with after scirrhus of the breast, and occasionally after malignant disease elsewhere. It may surely be described as meddlesome surgery to interfere with these. The lymphatics of the chest wall pass into the mediastinal or sternal glands, and are almost certain to be affected before the growth in the chest wall is apparent. I do not mean to say that if, in removing a scirrhus, the intercostal muscles should be found to be involved, the affected part should not be taken away if possible; but all will acknowledge that, under these circumstances, the prognosis is almost certain and bad. Primary sarcomatous growths of the chest walls have not infrequently been removed, and with some amount of success; but the operation is a formidable one if the growth be large, and has not seldom proved fatal. The mere opening of the pleura on one side need not deter the surgeon from operating.

Exostoses of ribs and rib cartilages are not common, and are often of excessively slow growth. They should therefore always be watched for a time before an operation for their removal be attempted. And this is all the more advisable because there are certain things that are liable to be mistaken for this disease; for example, an accessory or cervical rib, and the deformity of an otherwise normal rib. I have cut down on one of these deformed ribs, and have twice successfully removed accessory ribs. This is an operation that presents no very great difficulty, and may occasionally relieve very distressing nervous symptoms.

Pulmonary Abscesses.

It is necessary to say a few words about pulmonary abscesses, but I feel I have not much to add to the somewhat full discussion of the subject in my lectures at Brompton some years ago.[1] The cases that have occurred to me since that time have not been many, and, I am bound to add, not very successful. It may seem strange that the greater number of pulmonary abscesses that are submitted to me are bronchiectases; and yet bronchiectasis is supposed to be a somewhat rare disease. I have operated on a good number of them, but only one has been cured—the case reported by Dr. Theodore Williams and myself in the *Transactions of the Royal Medical and Chirurgical Society for 1886*, vol. lxix, p. 317. This patient died of cardiac syncope last year, and *post mortem* we found a shrunken cavity communicating by numerous openings with dilated bronchi. It had long ceased to secrete. But the others have nearly all followed the same unfavourable course. If anything has been opened it has been a smooth-walled fusiform cavity; the expectoration has been at once much diminished and become less offensive, and the patient has improved in general condition up to a certain point—but only up to a certain point. Then matters have become stationary, and then something has happened: hæmorrhage, cerebral abscess, or some other intercurrent disease, or, at best, the tube has been retained, and the patient has continued to get rid of his secretions by the artificial opening as well as the mouth.

Let me emphasise two dangers in dealing with any pulmonary abscess, but especially a bronchiectatic one, both depending upon the facts, first, that it is impossible to diagnose with certainty the presence or absence of pleural adhesions, and, secondly, that in cases of bronchiectasis it is not uncommon to find a normal pleura over that part of the lung in which the physical signs of cavity are well marked. The dangers, then, are these: 1. Simple puncture of a lung containing a septic abscess may, and often has, given rise to septic inflammation of the pleura, even though no pus has been extracted through it. I have seen it in a case of bronchiectasis, and also in one of septic pneumonia following aneurysm of the aorta. In both empyema was the result. 2. A healthy pleura may be met with after the exploring needle has struck pus, under which circumstances the lung will probably fall away, and all the indications of the position of the abscess would be lost. Of course, we must explore these abscesses before attempting to open them; and so risk No. 1 must be run. It is minimised by always employing an exhausting syringe or aspirator, and not a simple exploring trocar. Risk No. 2 may be avoided by taking care not to injure the pleura in the preliminary incisions and removal of rib. Then, with a Hagedorn's needle of full curve, a single or double series of stitches should be placed deeply (½-inch to ¾-inch) through the pleura in the place where the lung is

[1] *Lancet*, 1887, vol. i.

supposed to be. If the pleura be healthy and the lung in contact with the chest wall, the desired object will be attained; if the pleura be adherent no harm will have been done; and if, as sometimes happens, there is a small effusion no good may result, but the surgeon will feel that, according to our present lights, he has done his best.

Basic cavities, whether tuberculous or the result of pneumonia, are far the most favourable for operation, but they are not very frequently met with; single tuberculous basic cavities are certainly very rare.

I will not myself dwell upon the question of the incision of tuberculous apex cavities, because I have no personal experience of the matter. This, I suppose, is because my colleagues at Brompton, at all events, do not anticipate much good from this line of treatment. I expect that some surgeons here will be able to give us the benefit of their experience, though I cannot, after searching such current literature of the last ten years as I could lay my hands on, find anything worth bringing before you. And, so far as I can discover, the result of the operation, when it has been performed, has not been very satisfactory. It has always seemed to me, however, to be legitimate surgery to drain a single large apex cavity if the other lung be healthy, because it ought at least to diminish expectoration, and thus free the better lung from a certain amount of danger; but then, unfortunately, cases answering to this description are not met with every day.

Difficulties in Diagnosis.

Perhaps it may not be inappropriate, in conclusion, to mention a few cases of difficult diagnosis that have occurred to me—not in detail, though I should be happy to supply particulars if any should be asked for.

Pyopericardium.

CASE V.—Male, aged 24. Left empyema, and copious purulent expectoration. Incision of pleura September 3rd, 1887. A soft round substance felt with the finger and mistaken for lung. The symptoms improved, but the expectoration continued, and death occurred on September 25th. *Post mortem* it was found that the smooth round substance was the pericardium, distended by a large quantity of pus, which the patient was no doubt expectorating, though the actual communication with the lung could not be found. The empyema opened into the lower part of the lung, which contained bronchiectatic cavities.

Had the diagnosis have been made correctly it would no doubt have been possible to drain the pericardium through the pleural opening, following the example of Sir William Savory.[2]

Uncomplicated pyopericardium should, I think, be treated by free incision and drainage, the fifth interspace near the sternum being probably the most convenient position for the incision. It must not be forgotten that the pleuræ are symmetrical behind the sternum and rib cartilages on the two sides, that is, that the pleura does not follow the outline of the notch in the left lung. Care must, therefore, be taken that the pus from the pericardium be not admitted to a healthy pleura, which can be done by incising *gradatim*, and, if necessary, stitching the pericardium to the costal pleura.

The fifth interspace on the left side is not the only spot which may be chosen for puncturing the pericardium. The sixth interspace and the fourth have been selected; the sternum has been trephined, or a puncture has been made through the fifth interspace on the right side, or into the lower surface of the pericardium, through the epigastrium. The internal mammary artery is very close to the edge of the sternum at the lower part, and it would be very likely to be injured in puncturing close to this bone. It has been asserted that there is no spot at which one can be certain to avoid puncturing the pleura (except by going through the sternum) and considering the variations in the extent of the pleura, this is probably true. On the other hand it has been said that the pleuræ are pushed aside by the distended pericardium; but Pirogoff's frozen sections of the bodies of patients dying with pericardial effusion do not support this view, nor do one or two observations of my own, in which the pericardium was injected with gelatine. When the needle has entered the pericardium it should not be pushed far backwards, lest it should wound the heart, which occupies the upper and anterior part of the distended pericardium

Embolism.

CASE VI.—A girl, aged 12, who had been a patient at University College Hospital since 1884, at various times, with heart disease and bronchitis, was admitted, April 27th, 1887, with obscure cardiac symptoms and a sanguineous effusion in the left pleura, which was tapped. In July she was readmitted with left empyema, which was opened on August 17th. There was much collapse next day, and in the evening there occurred embolism in the renal, splenic, and both femoral arteries. Both legs passed into a state of gangrene, and half the spleen sloughed and lay loose in an abscess which burst into the stomach. She lived forty days after the operation, and *post mortem* it was found that there was an abscess in the heart substance and pericardium.

[2] *Med. Chir. Trans.*, v l. lxvi, p. 235.

Subdiaphragmatic Collections of Fluid.

CASE VII.—A woman, aged 30, had an incision in the right side of the chest, by means of which a drainage tube had been introduced through the ninth intercostal space; but it was, when I saw her, lying outside the ribs. There was a large, round, obviously hepatic swelling in the abdomen. The patient was greatly emaciated. On following the track down between the ribs, it was found to enter an enormous hydatid cyst of the liver, which had pushed the diaphragm up so high that dulness in front existed as far as the second cartilage.

This might serve as a text for the discussion of a large class of cases in which a collection of matter beneath the diaphragm simulates empyema. I could mention several of tropical abscess of the liver, with great enlargement upwards, in one of which the matter had burst between the liver and the diaphragm, and formed a large collection there; in another I opened the healthy pleura on the way down to an abscess that had burst from the upper part of the liver into the lung.

Peritoneal Suppuration.

I have also opened a collection of pus starting from suppuration about the appendix through, I think, the sixth right space in the axilla, but whether below or above the diaphragm I was never able, with certainty, to determine. And similarly confusing cases are those of localised peritoneal suppuration starting from a ruptured intestine, which may push the diaphragm up to a quite unexpected height. These cases are sometimes rendered doubly confusing because they may contain gas; a fact which has originated the almost ridiculous name of "subdiaphragmatic pneumothorax." Ulcer of the stomach, the duodenum, and the transverse colon are most likely to give rise to this sort of abscess. It may occur on either side.

Dermoid Cyst.

CASE VIII.—A woman, aged 30, had an apparently ordinary right empyema, of eight years' duration, which communicated with a bronchus. On opening it, a soft, firm mass was to be felt, which, at the time, was quite inexplicable; but which, at the second operation, turned out to be a mass of hair which had grown from the interior of a huge dermoid cyst that had long ago ruptured into the pleura. I described the case in the *Transactions of the Medical and Chirurgical Society*. After living for four years, she died at last of blood-poisoning.

Peculiar Discharge from the Mediastinum.

CASE IX.—A man, aged 21, was seized, in January, 1891, with dyspnœa, followed at an early date by some expectoration. He partially recovered from this attack. Three weeks after the onset his left pleura was punctured, and some thick yellow fluid drawn off. On admission he had a large effusion of dark brown fluid in the left side of the chest, and a round swelling at the epigastrium, to which the pulsations of the heart were forcibly transmitted. After several aspirations of the pleura, as no change took place in the epigastric swelling, I cut down carefully upon it and let out a quantity of thick brown fluid, amongst which was a large number of small rounded knobby masses of a material the colour and consistence of the yellow palm oil used for lubricating the wheels of railway carriages. It evidently came from some deep part of the mediastinum, and on another occasion I trephined the middle of the sternum, and went in search of it; but turned back when I found my finger at the base of the heart and amongst the great vessels there. I shall be indeed grateful if anyone can aid me by reference to such another case.

And so this disjointed paper must stop, without ending; I have only touched on a very few of the subjects which might fairly have been introduced; partly from lack of time, but chiefly because it does not seem worth while to enter into theoretical discussions about matters with which one has little or no practical acquaintance. There are interesting subjects, such as mediastinitis, with which I am unacquainted, except as the sequence of wounds in the neck; peripleuritis, which I have only met with in caries of ribs; and all the wide question of thoracic injuries, about which volumes have been written, and on which, I hope, no one will feel himself debarred from speaking, because I have omitted them. I can only apologise for my own imperfections, and trust that they may be counteracted by the debate which is to follow.

Mr. PEARCE GOULD agreed with Mr. Godlee as to the advantages of the posterior position for opening, and that a portion of rib should always be removed. He, however, advocated irrigation of the pleural cavity in all cases. A stream of warm antiseptic fluid should be allowed to flow in gently and

out again until it returned clear. An endeavour should be made to leave the pleural cavity as clean and dry as possible. Subsequent irrigation should be avoided. The length of tube should be sufficient to reach the pleural cavity, not longer. There should be no lateral openings, and a rigid tube was to be preferred for three or four days, as it left a better sinus. With respect to double empyema, he agreed with the previous speaker that the second opening should be delayed, but only for a short time, a few days being sufficient. He thought the distinction often drawn between local and general empyema was misleading, as in no case was an empyema total, but there was every grade of case between a dry small local collection and the most extensive effusion.

Dr. Newman related a case of empyema with a fatal issue due to irrigation, which he believed to be due to the impact of the stream of fluid on the pleural surface of the pericardium; also another case which terminated successfully after the evacuation of 13 pints of fluid from the pleura. There was no removal of ribs at the time or subsequently, yet very marked shrinking and falling in of this side of the chest had followed. He related two cases of empyema in which spontaneous cure had resulted; both cases in children, that is, under 16 years of age; both ending in definite pus collection outside the chest wall. Absolute recovery ensued after free incision. He called attention to the difficulty of determining by auscultation the conditions of an empyema. He raised the question whether respiratory murmurs might not be transmitted from the unaffected side.

Mr. Jordan Lloyd expressed the opinion that in dealing with an empyema the most important practical question was to determine whether the empyema was simple or constitutional, that is, tuberculous, for the reason that the former usually recovered after simple free incision and the latter did not. The early diagnosis of fluid in the chest was nowadays a matter of absolute simplicity, for if a chest was dull on percussion and the local fremitus was diminished fluid ought to be present, and, if there was any doubt in the matter, a clean hypodermic needle would settle the question in a few moments. Empyemata were even now not infrequently overlooked, and deaths from this condition were put down to other causes. With respect to the incision, he had tried all varieties, and believed that the lateral incision gave as good results as any other. Freedom of drainage might be secured by extending the incision along the intercostal space for 2 or 3 inches. He believed in the existence of local empyemata, and that, as a rule, they were tuberculous. Such cases should be diagnosed early and at the time when they were local, for then their treatment by free removal of all tuberculous matter by free operation might be followed by a satisfactory result. He objected to irrigation as a routine practice as being "meddlesome" and unnecessary, but in stinking septic cases irrigation might be practised with advantage.

Mr. Charters Symonds agreed with Mr. Jordan Lloyd that the operation of opening an empyema should be as simple as possible, for treated thus the majority recovered. He never removed a piece of rib unless there was insufficient room for a good-sized tube. He did not irrigate nor take the trouble to remove the lymph, and the cases did as well as those in which there was no lymph. If there was any cardiac difficulty, he suggested that sufficient fluid should be removed by the aspirator to relieve the distress before chloroform was administered. In some cases he had encountered lung and had torn it—without, happily, any evil result—by passing a needle either up or down and finding the pus, the adhesion usually being small. He thought the action of the physician in the present day in needling all doubtful cases, and thus bringing the empyema under surgical treatment early, had as much effect in determining the good results as the action of the surgeon. He called attention to the condition of the pleura after drainage in cases in which a probe could be put in for 6 to 8 inches, and yet complete recovery occurred without resection of ribs. In double empyema he would incise one side and relieve the other by aspiration temporarily, subsequently incising. If in a case after incision there was hectic temperature, he suspected pus in the opposite pleura. Hæmorrhage was so rare that he thought when it did occur that it was probably from ulcerating pulmonary tissue and not from granulation tissue. He asked Mr. Godlee how he dealt with a pulmonary cavity when the pleura was not adherent. He had in two cases not found the lung collapse on opening the healthy pleura.

Dr. Ward Cousins thought that in cases of tuberculous empyemata more harm than good was often done by operation. The opening of local empyemata through the lung was by no means an unfavourable means of exit. When the collection was large and fœtid it should be evacuated. Irrigation of the chest should be avoided except in fœtid cases. Aspiration in children he considered a very successful method of treatment. He recommended opening the chest by first of all puncturing with a trocar, which was turned into a knife, and a free incision made from within outwards. He thought that very few of the cases in which free rib excision had been practised had come to a successful termination. He always practised free incision, and when necessary, excised a portion of a rib to assist exploration and drainage, but the best results in his practice had certainly followed free incision only. The deep incision must be free, and success depended upon early operation. He thought operations upon the pericardium were not attended with very great danger. The indications were the amount and character of the effusion. The best instrument was a fine trocar in which the point could be protected. Although the fifth intercostal space near the sternum had been generally recommended, the exact spot was always a matter of selection after careful examination. The emptying of the sac should be only partial, and as soon as the dyspnœa appeared relieved, the evacuation should be stopped. The patient should be, as nearly as possible, in the recumbent position, but this was sometimes quite impossible from extreme dyspnœa. The physical signs of most value were the spreading and increase of the pericardial dulness and its shape. The presence of an effusion in the left pleural cavity added difficulty to the diagnosis, and when the heart sounds were not clear on the right side, and the epigastric region was full, it was highly probable that the case was complex. The cardiac sounds were generally weak, and there was a disproportion between them and the force of pulse. These were the signs which had especially guided him in two cases in which he had operated, in one successfully.

Dr. Thomas Eastes observed that cases of subdiaphragmatic abscess might be difficult to diagnose when the accumulation was great, and reached high posteriorly; the rising and falling of the lowest limit of resonance on deep expiration and inspiration might generally be taken as a proof that the fluid was below the diaphragm, but there might be pleuritic effusion as well. In these cases he thought it wiser to aspirate the pleuritic fluid first, and after a day or two to incise the thorax, sew the diaphragmatic to the parietal pleura, incise the diaphragm, and put in a sufficiently large drain. If the whole operation was done at one stage there was more risk of the pleuritic effusion becoming purulent. One other point, which, though a simple matter, might save a life now and then, was exemplified in a case of Mr. Jacobson's related in the British Medical Journal of July 23rd, 1892, p. 178. It was the use of a small stream of oxygen into the inhaler in cases of great dyspnœa where there seemed a probability that the result might otherwise be fatal.

Mr. J. R. Ratcliffe insisted on the advisability of always treating each case individually, and of defining the limits of the empyema by means of a needle instead of by percussion alone: in support of this he drew attention to the obliteration of the lowest limit of the pleural cavity by adhesions. He said that in most cases of empyema the lowest limits of the pleural cavity were much higher than usual, on account of adhesions between the diaphragm and the costal pleura, and mentioned two cases. In the first this obliteration had gone on as high as the level of the seventh rib in the mid-axillary line, and in the other as far as the eighth. In the first the opening had been made in the post-scapular line, and had opened into adhesions; and in the second between the ninth and tenth ribs, and the spleen had been incised. He insisted that the incision should be made along the track of the exploring needle which had found pus.

Mr. Mayo Robson said that in empyema what was really to be aimed at was a free opening and free drainage. He discussed the question as to what was to be done when the patient appeared to be too ill to have an anæsthetic administered. He advocated the use of cocaine. With respect to the resec-

tion of ribs, he stated that the rule at the Leeds Infirmary was not to excise. It prolonged the operation, and offered no advantages over the simpler method. Washing out of the cavity was a practice he could not recommend. Where an empyema had gone on for a long time, excision of the ribs was sometimes necessary. He had performed an operation of this sort lately, removing portions of eight ribs, including the second. The patient made a good recovery. With respect to cases of tuberculous pleurisy, it had occurred to him that it might be advisable to adopt the same method that was adopted in cases of tuberculous peritonitis—that is, to drain the pleura, after finding that simple aspiration and the usual medical treatment did not prevent the fluid recurring.

Mr. Godlee, in reply, said that he would not venture to discuss the question of physical signs, but was strongly in favour of the use of the exploring trocar if there were any reasonable suspicion of pus in the chest, and of not trusting to the stethoscope. He believed that serous effusions were much more frequently tuberculous than empyemata, and that tuberculous empyemata were more frequently complete than localised. He thought drainage of tuberculous pleurisy by free incision would be a very dangerous proceeding. No doubt the lung would fall away, for such falling away did undoubtedly occur when the pleura was freely incised if the lung were healthy; this assertion he had demonstrated by some experiments on animals and observations on cases. He thought that the distinction between complete and localised empyemata was an important practical one, because the opening of a localised case interfered very slightly with the function of the lung, and because in these cases the prognosis was much more favourable than when the whole cavity was involved. He remarked that the hæmorrhage referred to in the paper did not appear to come from the lung, as no hæmoptysis accompanied the operation. If the case was too ill to bear an anæsthetic because the amount of fluid was so large, he would follow the plan suggested in the paper; if from other causes he would, personally, operate without an anæsthetic, being rather shy of injecting cocaine in a person who was very much exhausted. He observed that a great many operations for which it was the custom to give an anæsthetic were really quite well borne without it, and especially mentioned a case of ligature of the femoral artery and one of strangulated umbilical hernia.

OPHTHALMOLOGY.

Priestley Smith, M.R.C.S., President.

ON THE MANAGEMENT OF PROLAPSE OF THE IRIS AFTER SIMPLE CATARACT EXTRACTION.

By W. J. Cant, L.R.C.P., M.R.C.S.,

Consulting Surgeon Lincoln General Dispensary; Honorary Surgeon Lincoln County Hospital.

The operation of simple cataract extraction is followed in a small percentage of cases by prolapse of the iris, and this occurs without any fault of the operator or patient. But after having performed 100 cases of simple extractions, I have found that, if dealt with during the first twenty-four hours by the following method, it is of very slight importance. The extraction is performed in the patient's own bed; no speculum is used, and the lens cavity is washed out with warm water. From twenty to twenty-four hours after the eye is dressed and the upper lid raised, when, should there be any prolapse, however slight, the patient is put under chloroform and the prolapse excised, any tendency to adhesion at the edges being freed with the spatula. In doing the iridectomy the scissors should be held at right angles to the wound, and the iris cut at one snip, when, as the corneal wound has been kept open by the prolapse, the iris usually falls readily into place. No irritation is caused during the first twenty-four hours by the prolapse, but if left much longer the iris becomes irritated and inflamed by the healing wound compressing it, and then it is much more difficult to free its edges; also the eye does not so well bear the interference. All the cases made an uninterrupted recovery.

A DISCUSSION ON MINERS' NYSTAGMUS.

A Chapter in the Early History of Miners' Nystagmus.

By J. H. Bell, M.D.,

Bradford.

It is not unusual for discoveries in medicine and science to be made about the same time by different persons. The first case of miners' nystagmus, so far as I am aware, was published by Déconde, of Liége, in 1861. The first case recorded at the Bradford Eye and Ear Hospital was in 1858, thirty-four years ago. During the following few years other cases not infrequently came under the notice of my colleague, the late Dr. Bronner, and myself. They excited our interest on account of their peculiarities and differences from other forms of nystagmus with which we were familiar. Some of these peculiarities and differences were:

1. That the affection was primary and not a symptom of other disease, or a sequela, as nystagmus up to that time invariably had been considered.

2. The dioptric media were clear, vision frequently normal when the eyes were steady, and the ophthalmoscope revealed nothing unnatural.

3. The movements were always increased by looking upwards, and diminished or stopped by looking downwards.

4. They were also in all cases increased by stooping of the body or shaking of the head. They were worse in a dull light, better in daylight and bright gaslight.

5. The general health was good. At that time nystagmus was not known as a symptom of disease of the central nervous system.

In July, 1864, when one of my patients, a miner, was under our examination, it was found that the previous cases similarly affected, which had interested us so much, were also miners. From that time miners' nystagmus was a recognised disease at the Bradford Eye and Ear Hospital. For many years afterwards wherever I went, and whenever I had the opportunity, I spoke to ophthalmic surgeons on the subject, among others to my neighbour, Mr. Pridgin Teale, of Leeds, and, when in London, to the late Sir William Bowman, at that time Mr. Bowman, the late Mr. Wordsworth, the late Mr. Soelberg Wells, the late Mr. Zachariah Lawrence, Mr. Jonathan Hutchinson, Mr. Bader, and Mr. Nettleship; none of these gentlemen had seen or heard of any such cases, excepting Mr. Wordsworth, who recollected one case of a miner from Rotherham whom he admitted into Moorfields Hospital, and discharged after a fortnight's stay without benefit.

In February, 1869, Mr. Hutchinson, one of the editors of the *Royal London Ophthalmic Hospital Reports*, wished me to send him the particulars of some cases for publication, but I may confess that I am naturally lazy, and even at that time, more than twenty-three years ago, my hands were so full I could not be induced to do anything which was not absolutely necessary.

On August 13th, 1870, I spoke to the late Mr. Oglesby, of Leeds. He did not think such cases of any interest or importance, and told me that the late Mr. Seaton, then one of the surgeons to the Eye and Ear Department of the Leeds General Infirmary, had drawn the attention of himself and others to similar cases.

On August 6th, 1873, during the annual meeting of the British Medical Association in London, I mentioned this subject to Mr. Jeaffreson, of Newcastle, Dr. Charles Bell Taylor, of Nottingham, and others. They had not at that time seen or heard of such disease. In due course the seed which I had sown broadcast over the country for ten years germinated, grew, and bore fruit. In the British Medical Journal of January, 1874, appeared a Clinical Memorandum "On a Peculiar Form of Nystagmus," which was signed R. P. Oglesby, Leeds. The first sentence was as follows: "I have lately had occasion to observe a peculiar form of nystagmus, which I believe has not hitherto been noticed." Mr. Oglesby must have forgotten the conversation I had with him on the subject three years and a-half before. In consequence of this publication I prepared the first edition of the present paper, which I read before the Leeds and West Riding Medico-Chirurgical Society in February, 1874, in the hope of meeting with Mr. Oglesby, but I was disappointed.

In June, 1875, an article appeared in the *Lancet* headed "Observations on Miners' Nystagmus, a New Disease," by Charles Bell Taylor, M.D., F.R.C.S.E., Surgeon to the Nottingham and Midland Eye Infirmary, the first sentence of which was: "During the past twelve years the neighbouring colliery district has furnished me with several examples of a peculiar malady which I have not found described in any of our textbooks, and which I presume to be a comparatively new or hitherto unstudied affection." Dr. Taylor, in thus writing, appears to have forgotten that I had spoken to him about this disease nearly two years before, and that he stated he had not seen any case of the kind. About the same time I became aware that Mr. Gillett, of Sheffield, and Dr. Samelson, of Manchester, were familiar with the disease, although they had not written anything about it.

In July, 1875, in a letter to the *Lancet*, Mr. Snell took up the subject, and he has kept hold to the present time. The book written by him, recently published, gives a fair, full, and complete account of our knowledge of this affection, and merits the highest commendation.

So much for the history of miners' nystagmus; but as the subject is down for discussion, perhaps I may be allowed to add a few words. In several cases which have come before me the symptoms were first observed on resuming work after recovery from a severe illness. Some patients have the power, within certain limits, to stop or to start the movements. In the slightest cases the movements will appear on the patient turning the eyes upwards as far as possible; in the severest cases the movements will stop on the patient turning the eyes downwards as far as possible.

The severity of the nystagmus may be accurately measured. It is equal to the degree above or below the horizontal plane at which the movements commence, and may be expressed in degrees, a horizontal line being placed above or below the figures. This appears to me to be a better method of recording the amount of nystagmus than the words "latent," "incipient," "slight," "not marked," "not well marked," "marked," "well marked," "very well marked."

What are the peculiar conditions surrounding miners likely to produce nystagmus? The first and perhaps the most important is the position of the miner at work. In the Bradford district he has often to work in thin seams of 28 in. to 30 in. for hours at a time, with the head considerably inclined to one side or the other, producing strain, weariness, and weakness of muscles, with consequent nystagmus. I will not express any opinion as to whether the eye inclines equally with the head or not, as this is a disputed question; but I may say that the ganglionic system of nerves governs and restores the normal functions and positions of organs when disturbed and tends to maintain the equilibrium of health, and I am of opinion that the ophthalmic ganglion has some influence over the movements of the eye, tending to restore it to its natural vertical position when displaced. I look upon it as the brain of the eye, so to speak, governing and presiding over its movements, originating motion, within certain limits, quite involuntarily and independently of the cerebrum; hence it is, when the head is inclined to either side, the ophthalmic ganglion is constantly trying, through the muscles, to roll the eye round into the natural vertical position.

We meet with many cases of nystagmus, however, which faulty position does not appear to be sufficient to explain, persons, for example, who work mostly in the upright position, the head inclined neither to the one side or the other, as in iron-stone miners and others; therefore, we believe there is another condition of surroundings peculiar to miners which has a considerable influence in producing this affection—that is, the deficiency of light. Whatever renders objects looked at indistinct, if sufficiently long continued, will cause nystagmus. It may be from too much light, as in albinos, or from too little light, as in those who have some mechanical impediment to its passage from opacities of cornea or lens, other parts of the eye being healthy. We know that the degree of light does modify considerably the development and structure of the eye. The absence of the stimulus of light, long continued, causes blindness. In the dim light of the pit there is indistinctness of outline of objects, so that there is no necessity for, or possibility of, exact fixation of the eye, tending in time to a want of power to fix, especially in the direction in which the muscles are weakest—upwards.

Much has been written respecting the influence of different kinds of lamps in producing this disease. My opinion is that whatever diminishes the degree of illumination increases the tendency to nystagmus, therefore a good lamp may be better than a poor candle. Deficiency of light is not sufficient, however, in most cases, to produce nystagmus; you must have also the unnatural position of the body and inclination of the eyes, otherwise it would be more frequent in young miners, but such is not the case; the average age of the miner with nystagmus is about 38 years.

A Case of Miners' Nystagmus associated with Double Spasmodic Torticollis.

By W. T. Cocking, M.D.Lond.,
Physician to the Sheffield General Infirmary.

J. L., aged 48, first presented himself for treatment at the Sheffield General Infirmary at the beginning of November, 1891. He gave the following history. He had been employed as a coal-getter for forty years, his work being chiefly "timbering" and "holing." He had worked by candle light until twelve months previously, except on odd days when the presence of gas was suspected in the workings. For the last year he had used safety lamps. There was no family history of neurosis, and no history of injury.

History of Onset.—The first symptom noticed was a dancing of the lights in the pit, which made its appearance some time before the use of candles was abandoned. Somewhat later—about twelve months before he came to the infirmary—he began to be troubled whilst at work with a spasmodic affection of the left arm, in which the elbow would become slightly flexed and the fingers suddenly extended, causing his grasp of the pick to be loosened. Later still the muscles of the neck were attacked with spasm, the face being drawn gradually over at intervals towards the right shoulder, and held in that position for some moments; at first this occurred when he was at work only, but at a later period it would come on when at rest also. It gradually got worse, and interfered considerably with his employment, so that at this time he was able to work on an average only three days a week. A "shaking of the head," which was his chief reason for seeking advice, then commenced, and he was completely incapacitated, and gave up work entirely three months before being admitted as an out-patient. This "head-shaking" came on in attacks of from a half to five minutes' duration, with intervals of freedom lasting from a few minutes to half an hour. After a longer intermission than usual the head would again be drawn over for a short time to the right shoulder.

Physical Examination.—His condition was found to be as follows: Nystagmus was readily induced when he directed the gaze obliquely upwards to either side, but was more marked when directed to the left. As the man when holing worked chiefly lying on the right side, this excess of spasm on looking to the left was to be expected, and accords with the experiences of Mr. Snell as stated in his work on *Miners' Nystagmus*. The head movements consisted of very rapid rhythmical oscillations from side to side, the head being held rigidly erect in the middle line. Both sterno-mastoid muscles and the upper part of the trapezii were firmly contracted during the attack, and no other accessible muscle appeared to be affected. The spasm was accompanied by considerable pain in the back of the neck, so that altogether the man was in a state of great discomfort, the rotations of the head being almost constant. Associated with the head movements was slight spasm of some of the scapular muscles, which caused irregular movements of the arm.

Progress.—After six weeks' further rest and treatment the nystagmus was still present, though less marked. The bilateral spasm of the neck muscles had considerably improved, and, ordinarily, nothing more than a coarse tremor of the head was observed. This came on at longer intervals than previously, and was increased on turning the head to one side. When, however, he assumed the position which he stated he most frequently adopted when engaged in holing, and which he demonstrated on the floor of the out-patient room (lying on the right side, with the lower leg doubled under him, the body resting on the right hip and shoulder, with

slight inclination of the head to the lower shoulder, and the face turned somewhat to the left), the oscillations of the head became rapidly much more extensive and energetic, and nystagmus was developed to a marked degree. This vigorous spasm lasted for several minutes after resuming the erect posture, and recurred at intervals for some days afterwards. The effect was so marked, and made such an impression upon him that he could not be prevailed upon to assume this posi- again for the purpose of having his photograph taken.

Present Condition.—At the present time the nystagmus has almost entirely disappeared; it can be evoked in very slight degree when the eyes are turned obliquely upwards. The head affection has also improved considerably. When last seen (two days before this paper was read), a fine tremor only was noticeable on close observation. When the head was turned to one side, especially the left, the tremor became considerably intensified. He stated that the head was still drawn over to the right shoulder at intervals, but much less frequently than before. It was interesting, in view of the statement of Gowers, in his *Diseases of the Nervous System*, that double torticollis is always associated with retrocollic spasm, to note that this symptom was observed for the first time about a month ago, when the to-and-fro oscillations of the head were more marked than at present. As the patient himself remarked, his head was "chucked back" at intervals.

Remarks.

The chief interest of this case appears to me to lie in the relation which the torticollis bears to occupation, in its association with nystagmus—a similar clonic spasm affecting certain ocular muscles—and in the light it sheds on the etiology of the last-named affection. With regard to occupation: whilst engaged in "timbering," or fixing beams to support the roof of the passages, the miner is obliged to kneel, and even in that position the low height of the roof and the nature of his work prevent his carrying his head comfortably erect in the natural way, and necessitate a constant turning of the head and eyes obliquely upward. In the occupation known as "holing," he is engaged in getting coal whilst lying on his side. The head is, therefore, more or less horizontal, with an inclination towards the lower shoulder; in order to maintain it unsupported for any length of time in this unnatural posture a considerable amount of muscular effort must be necessary; and as he works chiefly with the right side down, this duty would fall more especially on the left sterno-mastoid, one of whose functions it is to approximate the left mastoid process to the shoulder. It was in this especially overworked muscle that the spasm commenced; but it seems reasonable to suppose that the majority of the neck muscles must be kept in a state of tension, and their nerve centres on the alert, so to speak, to prevent any unpremeditated movement of the head which would bring it into contact with the roof of the working place, or even with the pick. If that supposition be correct, the groups of nerve cells which control the movements of those muscles and their proper co-ordination would readily, as the result of over-exertion and consequent impaired nutrition, take on a disordered action, manifesting itself in irregular and involuntary muscular contractions. That the danger of injury to the head unless it be kept more or less stationary is not imaginary is proved by the fact that this man on one occasion, owing to the want of proper control over the muscles of the left arm, and to the jerky movements of his head, inflicted a wound on his forehead with the pick.

I believe, then, that in this case the double torticollis is the direct result of the excessive use of the neck muscles necessitated by his occupation. Indeed, I think that anyone who had seen the remarkable manner in which a tremor was converted into a violent spasm, whereby the head was jerked rapidly from side to side when the patient assumed his peculiar working posture, could scarcely come to any other conclusion. This view as to the causation of the affection receives support from the history of the spasm in the left arm, which, from its close resemblance to a case of hammer palsy in a smith recently under my care might be called "pick palsy." Its occurrence at any rate showed a tendency to this class of neurosis.

Another case of nystagmus, associated with an occupation neurosis, may be briefly mentioned, as it was for some time under my care, although in the first instance it was under that of Mr. Snell, who reported it to the Ophthalmological Society as a case of nystagmus occurring in a compositor. This patient also suffered from compositors' cramp, in which, however, the symptoms were chiefly sensory, the man being unable to pick up the type owing to numbness and pain in the thumb and fingers, and partly also to associated muscular weakness. There was no suspicion of lead poisoning nor of central nervous disease. The patient recovered after a rest of some months, and is at the present time following his previous occupation, on full night duty, in a large printing office.

The subject of these notes was shown at the Sheffield Medico-Chirurgical Society in December last, and my reason for reading an account of the case in the Ophthalmological Section is that, in my opinion, it has an important bearing on the etiology of miners' nystagmus; for if, as I believe, and have endeavoured to prove, the torticollis was brought on by the overaction of the neck muscles; if the hammer or pick palsy is due to excessive use of certain muscles of the arm (which, from its similarity to like affections occurring in those who follow other occupations, I see no good reason to doubt), it appears most highly probable that a similar spasm, affecting a group of muscles in another situation, muscles which Mr. Snell has shown to be called into very frequent use in holing as well as in other occupations, is due to a similar cause, namely, excessive use.

No one could seriously contend that defective illumination could in any way occasion the condition of the neck muscles, nor could safety lamps have been the primary cause of the nystagmus, seeing that it arose whilst J. L. was working by candle light and before he commenced the use of the lamp. Moreover, the rapid oscillations of the head, which are the distinctive feature of the case, may be regarded as a marked exaggeration of the fine tremors of that part which frequently accompany nystagmus in miners, a combination of symptoms which I have had frequent opportunity of observing in the ophthalmic department of the Sheffield Infirmary.

Defective Illumination as the Cause of the Nystagmus and other Ocular Disorders Observed in Miners.

By J. Court, L.R.C.P.Lond.

The Proportion of Miners Affected.—The Influence of Insufficient Light.—Defects of Safety Lamps.—Comparative Frequency of Ocular Disorders among Workers with Safety Lamps and Candles.—Photometrical Comparisons of Safety Lamps and Candles.—The Association of Nystagmus with other Spasmodic and Ocular Disorders.

The interest in the subject in the Midland district is very great, 50,000 persons being employed underground. If, therefore, the miners' disease throughout the country amongst the men using safety lamps be in anything like the proportion found in this locality, a Government inquiry into the subject is demanded.

Referring to my first report upon the Derbyshire miners, it was said that influence was brought to bear upon the men, so that all whose eyesight was affected put in an appearance, and thus the total average was unduly raised. To meet this objection fresh evidence has been taken quite recently. At two of the Staveley Collieries the whole of the men, numbering 735, have been examined down the pits. The coalgetters, which include stallmen, holers, loaders, and headers numbered 597, and of these 207 were affected, or 34⅔ per cent., which was a higher average than was given in the first report. The comparison was made with the same classes of miners. Amongst those who actually won the coal—the stallmen and holers—numbering 376, I found 172 cases of nystagmus, or an average of 45¾ per cent. In both collieries holing was done. The seams were 6 feet in thickness. These facts more than confirmed the average got out in my previous investigations.

Respecting the cause of disease. The evidence I produce is entirely opposed to the "position theory," so ably advocated by Mr. Snell. The true cause is the insufficient light of the safety lamp, producing ocular strain. Where the light was improved, as by the use of a candle, the disease became rarer; and in the light of a torchlamp, giving 2¼ times the light of a

candle (the best light of all), there was no disease. The light from a safety lamp had an irritating effect, which the miners call glass-glare, and they use a shield to screen the light from their eyes.

Again—an important point. The bonnet and pedestal of the lamp cut off a third of the light, and there is incessant accommodation of the eyes, which is injurious. With candles there are no shadows. I am opposed to the position of the miner, whilst holing or undercutting the coal, being regarded as the cause of nystagmus, and deny that during this work the eyes are turned "obliquely upwards." My photographs (Figs. 1 and 2), taken in the pit, prove this.



Fig. 1.

In 1890 I found that out of 524 men using safety lamps, 164 had nystagmus, 127 night blindness, and 61 photophobia, while among the 573 men using naked lights only 32 had nystagmus, 12 night blindness, and 1 photophobia, and of these 32 men, 29 had previously worked with lamps.

If the position theory was the correct one, the results ought to have been the same with naked lights as with lamps. As to the upward and oblique direction of the eyes in men doing "holing," I find by numbers of careful inspections that it is not so.

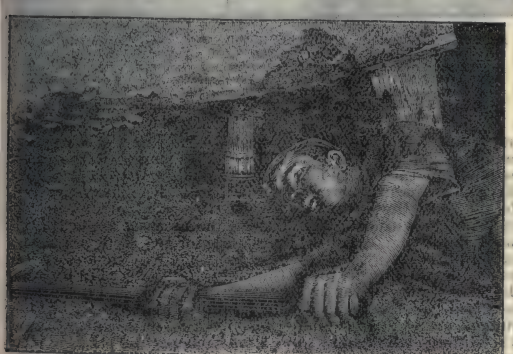


Fig. 2.

The examinations of the Durham miners are regarded as of the utmost importance. These men were examined in the mine, and nearly a third of those using the safety lamp were affected, and yet they never lie upon their sides to work, and their eyes are never turned obliquely upwards. The candle-light miners here, also, were free from disease. A strong argument against the position theory is that numbers of men with the disease had gone from the inferior illumination of the safety lamp to the superior light of naked lights, and got well, although going on with their work in the same positions.

Mr. Snell has said that cases of nystagmus were found amongst the miners in candle pits, but these men had often used safety lamps. Then it was said that when a holer suffering from nystagmus changed his work in the same mine he got better, but this was due to the improved illumination, as it is well known that holers and stallmen have less light than their fellow-workmen.

The light of a candle is not a good one, and it is quite possible that with this illumination there is visual strain, with disease. But I rely upon the great contrast between the large numbers affected with the inferior light and the small minority of persons suffering who use the superior light, and this inferior light is, without doubt, at the bottom of the mischief.

I found by Bunsen's photometer that the light of a safety lamp, when measured in a horizontal line, was only equal to 0.75 of a miner's candle, and a miner's candle is only equal to three-quarters of a standard candle. The total light of the safety lamp was reduced to less than half that of a miner's candle by the shadows cast by the bonnet and pedestal. I produce drawings

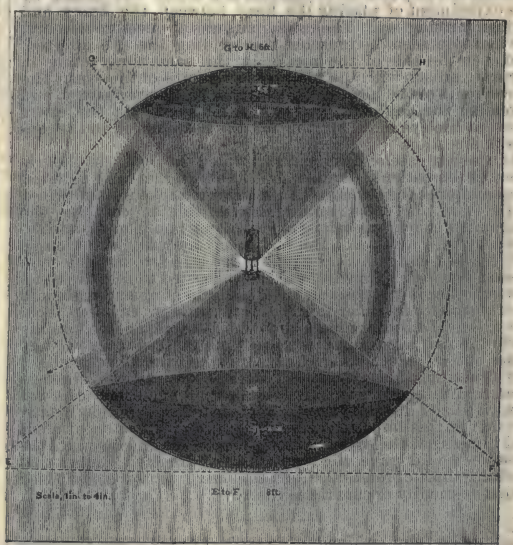


Fig. 3.—The thin shadows in the zone are projected by the bars or supports in front of the glass of the lamp. It is estimated roughly that a tenth more light is cut off, as there are six of them. Only three are shown in this sketch.

(see Fig. 3) which show that the bonnet of the safety lamp cuts off nearly one-sixth of the actual light given, and the pedestal cuts off still more. In addition to this the six brass pillars in front of the glass reduce the light another tenth. The safety lamp light was still more lessened by the laws regulating its use. In naked-light collieries the miners could place the light anywhere they wished. The candle did not vary in its light during the day, but a dirty safety lamp at the end of a working day gave only three-quarters of the light of a clean lamp. Taking the results of the Derbyshire and Durham examinations together—the persons numbering 1,397—the miners' disease is frequent in the worst light and absent in the best, regardless of the position in which the men work. Position therefore, is not the prime cause.

A definition of the disease should include night blindness, nystagmus, photophobia, and head symptoms, because these symptoms all occur together in men working with the inferior light, and all are absent in men using the superior light.

Sixty-seven of my cases of nystagmus in the Derbyshire men had either night blindness, photophobia, or both. The majority of the bad cases had all three symptoms well marked, and this points to their intimate relations. As deficient illumination is so troublesome to the great nervous structures of the eye and as these diseases are all found only with this bad

light, it may be argued that they have a common origin. The evidence I produce gives force to Mr. Jeaffreson's opinion that the complaint is a central one rather than a local muscular trouble.

The Combined Influence of Attitude and Deficient Illumination.

By H. Bendelack Hewetson, M.R.C.S., F.L.S.,
Ophthalmic and Aural Surgeon to the Leeds Infirmary.

The Influence of Light and Posture.—Other Movements Associated with Nystagmus.—Tenotomy.—Heredity.—Treatment.

Mr. Bendelack Hewetson thought that there was a combined reason for the production of miners' nystagmus. The difficulty of fixation and the position were certainly both factors in its production. The connection with defective light was made evident by the fact that nystagmus was brought out in cases suffering from it by the evening light. Further the importance of position as a factor was shown by the experiment of placing the head between the knees and suddenly rising up. The nystagmus was at once brought out. He had also seen the muscles surrounding the eye affected, and even the side of the mouth at the same time acting in accurate unison with the rotatory nystagmus of the eyes. The movements of the head he believed to be compensatory and reversing the confusion caused by the eyes. At the exact moment the eye moved to the left the head moved in the opposite direction.

In a severe case of nystagmus in which he had, at the request of the patient, divided first the external and internal recti and then the superior and inferior recti, he was surprised to find that the oblique muscles were able to continue the movement exactly as before the tenotomy; no benefit was derived by the operation. He had seen one case in a woman who worked in a mine in early life, and still retained the complaint. Sir J. Crichton-Browne had suggested to him the question whether it was possible that this form of nystagmus could be transmitted by inheritance. Mr. Hewetson had seen three daughters of a colliery manager, who became affected in his early life as a worker in the mines, all affected, without any other optical or other defect of the eyes except very slight hypermetropia in each case. This was an isolated observation, and must be supported by further evidence. He was surprised and disappointed to have heard no mention by any speaker in this important debate of the subject of treatment, but hoped that the investigation of the cause and origin of the trouble would pave the way to this. He had found that nothing short of removal from the mine at all contributed either to modify or cure these cases.

Fatigue of Ocular Muscles owing to Constrained Attitude at Work as the Main Cause of Nystagmus.

By Simeon Snell, F.R.C.S.Ed.,
Ophthalmic Surgeon to the General Infirmary, Sheffield.

Nystagmus in other Occupations than that of Mining.—Fatigue due to Overstrain the Main Cause.—Nystagmus not Uncommon among Workers with Candles.—The Evidence of Photographs.—Political Aspects of the Controversy.

Mr. Snell said he was pleased to hear Dr. Bell's interesting paper, and to find that he agreed with so much of it. Dr. Bell, he understood, agreed that the character of nystagmus in the albino was not the same as that met with in the miner. Mr. Snell showed from Dr. Court's diagram that in the place a collier would work undercutting the coal 18 inches high the shadow he had spoken of would reach the roof or floor so quickly that it could have practically no existence. The subject of miners' nystagmus was a very wide one, much wider than the papers introducing the subject indicated. He had treated the matter fully in his book, and he must hope his hearers had read or would read it, and to it he must refer them for a correct exposition of his views. Nystagmus was, he contended, found to prevail with all forms of illumination in the pit—with safety lamps, candles, and open paraffin or oil lamps. Instances were given in his book, and he referred to others now. In men working in better light at the pit bottom the disease was met with, and even above ground in other occupations. Not only was there his own case in a compositor, but Nieden had described a case of acquired nystagmus in a plank cutter, and Dr. Berry had also reported an interesting case. The cases above ground were accumulating. These facts pointed out that there was a more potent cause at work than that of imperfect light only. He referred to the prime cause as being fatigue induced in the ocular elevators in consequence of the strained attitude at work. Illumination was secondary in importance. He mentioned that it would be found that a particular class of the workers in the mine were chiefly affected. Special muscles were implicated, and then there was the effect of treatment, a man being able to continue work in the pit, still using safety lamps, if he gave up the prejudicial kind of work. Again, all men in a pit were not equally affected; all muscles were not equally implicated; they should be if the light was the only or even chief cause. Turn the eyes up and the oscillations commenced or increased; turn them down and they ceased. Mr. Snell said, alluding to Dr. Court's paper, that even if he were to accept his figures as reliable—which he did not—viewed fairly, they merely showed that the disease was more frequent in pits where safety lamps were used than in those where naked lights were employed. There was nothing opposed to this in what he had written, but to ascertain the exact proportion all the workers in pits, doing as near as possible the same kind of work, would have to be examined



Fig. 4.—A photograph of a miner at work, lying underneath the seam of coal "holing." Taken in the mine by the flash light, by an amateur interested in colliers, but who is a non-medical, and not connected with colliery work. The man was simply told that his face was wished to be seen as he struck the coal. The eyes will be noticed to follow the pick point. The wooden "sprag" supporting the coal is shown.

impartially, and on a large scale. Dr. Court's comprised men only got together by the miners' leaders. All the cases he found in the safety-lamp pits were doing the work which Mr. Snell maintained was prejudicial. He had not given details of the work done by those suffering among the workers with candles. Having found cases among these men employing candles, Dr. Court immediately began to explain them away, as they were dead against the theory he was endeavouring to prove—namely, that safety lamps were the only cause of the nystagmus. Thus he said that these men had previously used safety lamps. An equally fair argument would be to exclude those working with safety lamps who suffered who had at some time used candles; and, if this were done, there would be no cases to discuss at all. Mr. Snell stated that inquiries he had made showed that the men who had never used a safety lamp in any given mine were few. Dr. Court mentioned three such cases who suffered from nystagmus, and yet he asserted that safety lamps were the chief, if not the sole, cause of the disease. This, Mr. Snell said, was illogical. The figures in Dr. Court's pamphlet were difficult to understand, and did not altogether agree with each other. In his book Mr. Snell had shown that the disease was by no means uncommon amongst the workers with candles.

Mr. Snell objected altogether to Dr. Court's way of treating this subject in the press. This was the first time he had

brought the matter before a meeting of his medical brethren, but his pamphlets had been widely circulated among the miners and others. Mr. Snell showed a large series of photographs—more than eighty in number—taken in the interior of the coal mine by the flash light or electric light. He had had nothing to do with their being taken, and yet they substantiated his views as to the position occupied by the miner at his work. One in particular (Fig. 4) showed a miner's face as he was engaged working underneath the coal, and exemplified the direction a man's eyes must, under such circumstances, assume. The photograph was taken by an amateur but skilful photographer, who had himself gone underneath the seam of coal in order to take it.

Mr. Snell stated that Dransart in France supported his views, and he read also portions of a letter from Nieden showing how much in accord he was also. Mr. Snell said that the miners' leaders appeared to be anxious to prove that the safety lamp was detrimental. It was for these leaders that Dr. Court took up the subject, and it was by them that his report had been issued. Mr. Snell quoted from their speeches, and while one said that "it would be another powerful lever in favour of shorter hours," another had stated "it would undoubtedly strengthen the hands of the miners' leaders in their contention for an eight hours' day from bank to bank."

Dr. Court also in the report that had been issued contended for shorter hours, but Mr. Snell considered that such questions ought not to be imported into the discussion of a purely medical subject by medical men. Mr. Snell also referred briefly to the work done in mines alluded to by Dr. Court in Durham.



Fig. 5.—Photograph taken in the mine with the flash light of a "deputy" examining the condition of roof.

The Importance of Imperfect Illumination as a Factor in the Production of Nystagmus.

By J. Tatham Thompson, M.B.Edin., C.M., Cardiff.

Nystagmus in the South Wales Coal District not Associated with Constrained Posture.—Nystagmus comparatively Unknown until Safety-lamps were Introduced.—Attitude of "Steam-Coal" Workers not Constrained, but the Men Affected by Nystagmus.

Mr. Tatham Thompson gave an account of his investigation among the miners in the South Wales coal district, and stated that when he first went there he was inclined to believe in the position theory, but on questioning those nystagmic patients coming to him as to their modes of working he found that almost invariably they denied that they worked in a recumbent position. This led him to make an inquiry into the methods of coal mining in South Wales, and brought out the fact that, broadly speaking, there were two distinct classes of miners; first, those working the "house-coal," and those working the "steam-coal." Of these two classes of miners the former worked as a rule with naked lights, in very thin seams necessitating the prone position and "holing," the latter working in thick seams, as a rule, with sufficient head room to allow the upright position, doing no holing, but owing to the "fiery" nature of the coal working with safety lamps.

If, according to Mr. Snell's contention, the "position" was the prime cause, it would naturally be expected that nystagmus would be more prevalent amongst the former. As a matter of experience he found that nystagmus was exceedingly rare amongst those, but common amongst the "steam-coal" workers who did not work in the constrained position. He was therefore forced to the conclusion that the "position theory" as a prime cause was untenable. On the other hand, he found that as the illuminating power of the source of light used increased, nystagmus became more and more rare, and as it diminished, more common; he had, therefore, been forced to the conclusion that insufficient illumination and consequent strain of accomodation and imperfect stimulus of co-ordination, were at least as great, if not greater, factors than constrained position. This opinion, he found, was borne out by the statements of medical men in all parts of the district; some colliery surgeons of large experience in the house-coal districts had never seen nystagmus until the safety lamps were introduced, although for generations the men had been "holing." It was almost impossible to get statistics from men who had worked exclusively with either safety lamps or naked lights, but an enormous majority of the cases of nystagmus which had passed through his hands were men working with safety lamps but not working in the constrained position. He had been underground himself to see the method of working, and had assured himself that there was no necessity for the collier working at the face to place the eyeballs in any abnormal position. Some of the seams he had visited were as much as 10 feet in height; whilst working the upper part of this the man's gaze must be directed above the horizontal, but with the head thrown back the eyes were still directed straight forward; at the middle portion straight ahead; and at the lower part the eyes must be directed downwards, or the head inclined downwards and the eyes direct, or else the miner must go out of his way to bend the head down and the eyes upwards in a most uncomfortable and purposeless manner.



Fig. 6.—Seven-feet seam of coal, taken at Aberdare.

Mr. Tatham Thompson agreed with Dr. Bell as to the greater susceptibility of miners to this disease when resuming work after any illness, and added that he believed that any condition lowering the general vitality or any position or occupation producing extra bodily or nervous fatigue greatly aided the onset of nystagmus. A very considerable proportion of the cases showed some form of ametropia, principally hypermetropia and hypermetropic astigmatism, but many were emmetropic.

Speaking of the extreme difficulty in keeping up concentrated gaze in imperfect light, he stated that he had himself found it difficult to read even with the incandescent electric

lamps at the bottom of a pit; he did not for a moment consider the light of a candle perfect illumination; but, imperfect though such illumination might be, it was very much better than the average lamp, and it was extremely significant that his own investigations and those of Dr. Court both brought out the fact that nystagmus was so much more common where the safety lamps were used. He believed that labourers, hauliers, and timbermen were freer from nystagmus because they did not depend to anything like the same extent on their eyes in the work performed. Through the kindness of Mr. Thomas Evens, a mining engineer in Cardiff, he was enabled to show photographs (Fig. 6) which showed colliers at work at the face in the upright position, with plenty of head room, and the eyes directed to the work without any abnormal position. Whilst believing that any unusual position or extra fatiguing work aided in producing nystagmus, he was very strongly of the opinion that imperfect illumination was as great if not a greater factor.

ATTITUDE AND DEFICIENT ILLUMINATION BOTH IMPORTANT FACTORS IN THE PRODUCTION OF MINERS' NYSTAGMUS.

BY PRIESTLEY SMITH, M.R.C.S.

Nystagmus caused by the Continuous Effort to "Fix" under Conditions which rendered Continuous Fixation peculiarly Difficult.—Fixation largely a Reflex Automatic Act.—Proposal to Appoint a Committee.

The PRESIDENT urged that there was no real conflict between the two explanations which had been so strongly upheld. Insufficiency of light and excessive muscular effort were certainly both concerned in the causation of miners' nystagmus. It was unwise to minimise the importance of either. Such expressions as "strain of the eye" and "effort to see in the dark" had no precise value. Nystagmus, speaking strictly, was a disordered action of the motor apparatus of the eyes, and the nature of the movements proved that the seat of disturbance was the brain centres which control the co-ordinate, bilateral movements. The cause of nystagmus might, he thought, be broadly but correctly defined as the continuous effort to "fix" under conditions which render continuous fixation peculiarly difficult. This definition would apply to all forms. It was certain, on the one hand, that insufficient stimulation of the retina disposed to nystagmus, for fixation was largely a reflex automatic act, performed most easily when the retinal picture was bright; indeed, by many people hardly to be avoided under these circumstances without a strong effort, as everyone who used the ophthalmoscope knew well. Conversely, the absence of good retinal pictures tended to make fixation difficult. This was the cause of the nystagmus of those children who, by reason of imperfectly transparent media, never acquired the power of steady fixation. The coal miner obviously laboured under the disadvantage of insufficient retinal stimulus. On the other hand, nystagmus was manifestly allied with certain other motor disorders which were induced by excessive muscular effort. Moreover, in the miner disordered movements were sometimes present in other groups of muscles besides those of the eyes. It could not be reasonably doubted that the attitudes which demanded an unusual effort of the ocular muscles—attitudes admirably shown in the photographs exhibited—must increase the miner's difficulty in maintaining steady fixation, and must, therefore, tend to cause nystagmus. The exact value of each of these causes in an individual case would be difficult to determine, and in different cases one or other cause might preponderate. The statistics which had been presented showed remarkable discrepancies, and, in the speaker's opinion, the only satisfactory way of clearing up the doubtful points would be to appoint a committee to investigate the matter on a definite plan, and on a sufficiently large scale.

Dr. PEGLER bore witness to the care with which Dr. Court's inquiries had been carried on. He considered that there was more than one cause in operation, but upon the question of illumination he was at one with Mr. Tatham Thompson in the belief that candles were a by no means satisfactory or sufficient mode of illumination. He found, however, after lamps had been substituted for candles in the pits over which he had had observation, that nystagmus had very much increased amongst the miners employed in them.

Mr. J. B. LAWFORD said that he felt greatly indebted to the President for putting before the meeting, in such a clear and succinct way, opinions which he thought were held by many of those present. He could not speak from practical experience, as he had seen very few cases of miners' nystagmus; he knew only what he had learned from reading and hearing the speakers to-day. He had thought of making the suggestion which had emanated from the President, that the question should be referred to a committee.

RESOLUTION.

It was moved by Mr. BICKERTON, seconded by Mr. HEWETSON, and resolved that:—

A committee be appointed to collect evidence and report concerning the causes of miners' nystagmus, and that the selection of the committee be left to the President and Vice-Presidents of the Section.

REMARKS ON THE PATHOLOGY OF SOME INTRAOCULAR TUMOURS.

By J. B. LAWFORD, F.R.C.S.,
Assistant Ophthalmic Surgeon to St. Thomas's Hospital.

IT has been generally held and taught, at least in the last few years, that all primary intraocular tumours (I exclude tuberculous and syphilitic conditions) are either sarcomata of various forms, originating in some part of the uveal tract, or gliomata arising in the retina. Some pathologists (Ziegler) would include all under the one heading, sarcoma, although the two classes of cases differ so widely in their clinical characters.

It is to the question as to the real nature of some of the intraocular growths that I ask your attention. I venture to suggest that we have been too exclusive in our pathology in relegating all primary intraocular growths to the group of sarcoma (for convenience sake I will include glioma of the retina in this group).

There is, I think, some evidence, as yet entirely histological, that a certain, though perchance small, number of these tumours are in reality carcinomatous, or, to put it more generally, of epithelial type. I am inclined to believe that careful observation will show that the number is larger than appears from published records; upon this point members of this Section may be able to give valuable information.

I need not dwell upon the histological difference between sarcoma and carcinoma; the distinctive characters in typical specimens are known to all, though I suppose everyone has occasionally found difficulty in deciding upon the nature of atypical growths.

There is, so far as I am aware, no anatomical reason why a tumour of the epithelial type should not originate within the eyeball. Indeed, our recently acquired knowledge concerning the secreting structures of the ciliary body, for which we are indebted mainly to Treacher Collins in this country and Nicati in France, gives us some *a priori* grounds for expecting the occasional development of tumours from the glandular epithelium of this part of the uveal tract. A few cases have been published (so far as I know very few) which leave no reasonable doubt that this expectation has been, and therefore will again, be realised. About two years ago, in a paper upon the Glands of the Ciliary Body,[1] Treacher Collins referred to two cases of tumour arising in the ciliary region. From their microscopic characters the growths were carcinomatous. He gives a drawing of one, which shows very well the epithelial type of tumour. I had an opportunity at the time of examining both specimens, and quite agree with the opinion expressed. One of the tumours had been examined by me some years previously; at that time I looked upon it as a sarcoma which had undergone mucoid degeneration.

In a recent number of the *Archives d'Ophtalmologie* (March, 1892), Badal and Lagrange report a case entitled Primary Carcinoma of the Ciliary Body, and append drawings of sections of the growth. The plates and the description given of the tumour leave no room for doubt as to its histological characters; it was certainly of the epithelial type, and almost as certainly originated in the glandular epithelium of the ciliary body.

In the same journal (in 1889) Gayet published a case en-

[1] *Trans. Ophth. Soc.*, 1891.

titled Adenoma of the Choroid; the description of the tumour is that of a glandular carcinoma, but, as far as I can judge from the notes, the growth did not involve the ciliary region. There is room for doubt, moreover, whether the intraocular growth in this case was primary or secondary.

Although it is not difficult to offer a plausible explanation of the pathogenesis of an epithelial tumour of the ciliary region, it is less easy, though not, I think, impossible, to account for the development of neoplasms, with the histological characters of carcinoma in other parts of the choroid. Certain it is that we now and then meet with such cases.

In one instance of tumour of the choroid, which grew in the upper outer part of that tunic near the optic disc, and did not involve the ciliary region, histological characters closely resembled those of the ciliary tumour already referred to. The patient was a woman, aged 44.

It is often very difficult to distinguish microscopically between adenoma and carcinoma, or, to put it differently, to decide when an adenoma takes on malignant characters. This is a question of greater clinical than pathological interest, for all adenomata and carcinoma belong to the same large group of epithelial tumours, and arise in tissues derived from epiblast or hypoblast.

The intraocular carcinomata, if I may use the term, belong generally, though apparently not invariably, to a very small group, namely, the melano-carcinomata, and it seems not unlikely that the known rarity of melanotic cancer may have increased the tendency to consider all primary choroidal tumours as sarcomata. In addition to this, the presence of pigment in a new growth, especially if abundant, adds greatly to the difficulty of making a correct histological diagnosis. In many of the choroidal sarcomata, for example, it is almost impossible to see anything but pigment in a microscopic section.

We are, I believe, as yet in ignorance of any clinical differences between sarcomata and carcinomata of intraocular origin, although it is not improbable that such differences exist and have been overlooked hitherto, perhaps mainly owing to our incomplete pathological knowledge. The mechanical symptoms, if I may so say, are not likely to vary much, in the different kinds of intraocular tumours, and it is probably to other symptoms that we should look for aid in diagnosis. As to prognosis, I can give no reliable information. Are the chances of permanent recovery greater or smaller in cases of carcinoma than in sarcoma? The prognosis in sarcoma of the uveal tract has been worked out in figures by several observers, and we have more or less definite information thereupon; it is, I think, possible that some of the cases in the tables furnishing figures were unrecognised cases of carcinoma; the prognosis in intraocular carcinoma has yet to be determined.

Mr. Doyne drew attention to the fact that intraocular pigmented sarcomata did not seem to be so malignant as was the case with pigmented sarcoma of other parts.

Mr. Adams Frost suggested that pigmented sarcoma of the choroid was really of a different nature from melanotic sarcoma of other parts, the pigmentation being as it were accidental and due to the proximity of the pigment cells in the choroid. Clinically choroidal sarcoma was certainly not so malignant as the true melanotic sarcoma. His experience of gliomata of the retina led him to think that recurrence was not common if the growth had not extended along the optic nerve.

Mr. Simeon Snell said that he had removed an eyeball for undoubted glioma several years ago without recurrence. The case had been recorded. He mentioned a case also in which the optic nerve at the point of division was infiltrated with glioma cells; recurrence had been confidently anticipated, but down to the time of speaking, nearly a year after the operation, it had not taken place.

Mr. H. Bendelack Hewetson showed a painting of small-celled sarcoma of the iris which was removed by an iridectomy; at the end of four months he could see no evidence of its return. In the cases of gliomata which had come under his observation he had found that there was a considerable preponderance occurring in infants in a district half way between Leeds and Bradford. It would be interesting to have a map made of the districts in which these cases occurred. It might possibly bring out something as to the origin of the people living in such spots. The inhabitants of the district alluded to were, probably, largely composed of Flemings, who had originally come to Yorkshire to follow the trade of weavers.

Mr. Lawford, in reply, said that the great clinical differences between "glioma" of retina and sarcoma of choroid was one of the strongest arguments against the inclusion of both classes among the sarcomata. He had never met with nor did he know of any records of tumours of the lens. He thought the glandular epithelium of the ciliary body offered a very favourable site for the development of a tumour with epithelial characters.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

AN ALLEGED CASE OF CHOLERA IN CAMBRIDGESHIRE.

J. H., aged 44, potato and fruit merchant, living at March, was seized on Friday night, September 16th, with purging and sickness, followed by severe cramps, affecting principally the fingers, calves of the legs, and thighs; the stools were profuse, but without colour and but little smell; the vomit was of the character of rice water; there was an entire absence of bile in both stool and vomit, and but little pain except from the cramps. Thirst soon became a very troublesome symptom, and the patient seemed unable to assuage it. In a short time the patient appeared cyanotic, especially the extremities. The features were shrunk, the eyes half closed, and the skin bathed in cold sweat; the hands and fingers appeared as though they had been in a washtub for hours; on pinching up the skin the folds were slow to disappear. The surface of the body was very cold, the temperature under the tongue 98°; the pulse was feeble and thready. There was great restlessness, and the urine was entirely suppressed for the first two days; on the third he made a small quantity, but not after. The purging and vomiting continued during the whole course, but the character of the discharge from the bowels became altered in colour the last two days of life. The coldness of the surface of the body continued to the end, with a feeble, small pulse. The mind was clear. At first there was great anxiety and fear about himself, but afterwards an indifference as the end approached. The patient lived nearly five days from the commencement of the attack.

March. Alfred J. G. Waters, M.O.H.

CASE OF STRANGULATED HERNIA WITH SYMPTOMS OF INTERNAL STRANGULATION A WEEK AFTER REDUCTION.

On the afternoon of July 6th, I was called to a man who was said to have met with an accident at a coal pit. I found my patient—a man about 40 years of age—in a semi-conscious state, with pale, pinched countenance, pulse very weak and rapid, cold extremities, and prostrate. On examining him I found an inguinal hernia on the left side easily reducible, and on the right side an inguino-scrotal hernia, very tense and painful, as he cried out when touched there. I tried to reduce it in the usual way by taxis, but was unsuccessful. I ordered opium pills every four hours with hot fomentations to the tumour and hot bottles all around him.

His friends would not hear of any operative procedure till he became conscious and gave his consent. Next day I found him suffering extreme pain, the abdomen fully distended, pulse wiry and quick, and quite conscious. He would not allow operation as his wife had died in hospital from a similar complaint after operation, and he said he would rather die. I again tried taxis but without avail, but on turning him upside down and again attempting it I felt it move a little, and it went up about an inch. I gave him an injection of olive oil without any good result, then ordered brandy and large linseed poultices over the abdomen, to assist in reducing the distension, also assafœtida internally. Other injections were given him, and next day I was told that he had passed wind.

The tumour was now almost reduced, and by gentle taxis I easily got all the bowel inside. After that he passed a great deal of wind *per rectum*. On the day following he had two good motions, and his tympanites had disappeared; his pulse was good and his urine normal. Everything went on well for a week after, and he seemed to be recovering, when all at once symptoms of internal strangulation set in. He had again great pain and tenderness in the right iliac region, severe tympanites, quick wiry pulse, hiccough, vomiting, first of ingesta mixed with bile, then stercoraceous, and latterly brown frothy with fæcal odour. His visage, lips and hands, were shrivelled and bluish, and he was almost in a state of collapse.

I immediately gave him a large injection of olive oil, and went through the same treatment as before, and ordering another injection in two hours I left him. Next day I was surprised to hear he was alive and much better. He had felt something give way internally after his second injection, and a great deal of wind was passed with a small, pale, tape-like motion which was shown me. After that he went on recovering daily, and by August 26th I left him quite well. He is now at work and wears a double truss. The peculiarity of the case lies in the symptoms of internal strangulation setting in after complete reduction and recovery. In my opinion his secondary symptoms were due to invagination.

J. S. WILLIAMSON, M.B., C.M.Aberd.

Hucknall-Torkard, Notts.

A CASE OF OPIUM POISONING.

THE following case of laudanum poisoning may be interesting in connection with the case described in the BRITISH MEDICAL JOURNAL of August 27th. The patient was a frail man, 65 years of age, who was suffering from mitral regurgitation, and had been in the infirmary in 1884 suffering from paralysis of the right arm "due to cortical embolism." His intelligence was greatly impaired. On August 21st he had gone to sleep in a common lodging-house. Something in his appearance attracted the suspicion of the lodging-house keepers, and an attempt was made to rouse him. As this proved futile they summoned the police, who brought the man to the infirmary shortly before midnight. An empty 4-ounce bottle, which had evidently contained laudanum, was found in his possession.

When admitted he was found to be in a condition of complete coma; the pupils were contracted to pin points, and the breath smelt strongly of laudanum. His stomach was at once washed out by Dr. Cuthbert Thomson, and then filled with strong coffee through the tube. The fluid which came away first was discoloured, and smelt strongly of laudanum. As the patient seemed to be roused a little by this treatment, an attempt was made to make him walk about, but this was at once found to be hopeless. He became more and more deeply comatose; his respiration became slower, and his pulse very weak.

A hypodermic of $\frac{1}{75}$ gr. of atropine sulph. and two of 30 min. of ether were given at short intervals, and a strong faradic current applied to his extremities. This also failed to rouse him, and a little before 1 A.M. his respiration stopped altogether, and artificial respiration had to be resorted to. This had to be continued steadily till 5 A.M. before the patient showed the slightest sign of returning vitality, and it was nearly 7 before it could be done without altogether. During this time occasional injections of ether and strophanthus were administered when judged necessary.

At 7 the patient's stomach was again filled with strong coffee through the stomach tube, and by 9 he was able to tell his name. All day he continued very drowsy, but there was little difficulty in keeping him awake. At night he was rather sleepless, and talked a good deal of nonsense. He did not suffer much from exhaustion, and was dismissed from the the infirmary on August 27th.

W. B. DRUMMOND, M.B., C.M.,
Resident Physician Edinburgh Royal Infirmary.

THE German Baths Association held its first public annual meeting at Kösen on October 6th, 7th, and 8th. A large number of questions concerning watering places, their relation to the Government and the medical profession, etc., were discussed, and papers on hydrotherapeutical subjects were read by Drs. E. Pfeiffer, of Wiesbaden, Fr. C. Müller, of Alexandersbad, C. Nagl, of Carlsbad, and others.

TWO CASES OF CONSERVATIVE SURGERY.

THE two following cases of "conservative surgery," exemplifying the antiseptic powers of boric acid when employed as a dressing, were shown at a meeting of the Jamaica Branch of the British Medical Association on February 24th. The first was a young man, M. W., who had with a sharp knife accidentally cut off the tip of his left thumb; the end of the index finger—top of phalanx cut through—leaving bridge of skin; and the end of the middle finger—the cut passing obliquely through the middle of the phalanx—also leaving a bridge of skin. The severed portions of the index and middle fingers were carefully cleansed with boric acid lotion, sutured, and kept in position with splints. There was complete and immediate union, not only of the soft tissues but of the bone, and now no deformity of the fingers exists beyond the faint line of cicatrix across each phalanx.

The second case was that of a young man, H. L., a carpenter, who accidentally, by a blow of his chisel, completely laid open the metacarpo-phalangeal joint of his left index finger, across the dorsal aspect, a small bit of the cartilage on the proximal end of the phalanx being also cut through but kept in position by fibres of the joint ligaments. The extensor tendons were not completely severed. The joint was well irrigated with boric acid lotion, the joint closed with catgut sutures and the skin wound with silk, and dressed with boric acid. The result is complete recovery with perfect joint.

W. H. W. STRACHAN, L.R.C.P., M.R.C.S.

Kingston, Jamaica.

CASE OF RECOVERY AFTER SWALLOWING 4 FLUID OUNCES (=320 GRAINS) OF SYRUP. CHLORAL. HYD. *(B.P.)*

ON the morning of September 7th, about 2 o'clock, I was called to see Mrs. E. On my arrival I found her in a state of most extreme torpor, with cold and livid extremities, livid and moist face, stertorous breathing; pulse very small and very irregular; heart's action very slow and very irregular and hardly audible; pupils contracted and fixed. She was sitting in an armchair with her head thrown back. Her brother, the sole occupant of the house, assisted me to loosen the garments round the neck and chest and to carry her to bed. On searching her pockets I found a ℥iv bottle labelled "Syrup. chloral. hyd. *P.B.*," quite empty, and a second smaller bottle containing ℥ij of the same substance. The brother gave me to understand that she only arrived at his place from the Midland Counties on the evening of September 5th, and that she had been the subject of very serious domestic troubles, and on the day following her arrival had walked about in a very "dazed" condition. He left her after his supper at 10.15 to smoke a pipe in the open air, and she opened the door to him at 11 P.M. and walked in front of him into the parlour and sat herself down in the chair and immediately fell fast asleep. He watched her for two hours or so, and then, as she could not be roused, he came to me. This fixes the time of taking the chloral at about five minutes, at the most, before 11.

I went home to fetch a stomach pump, etc., and on my return I found her respiration much slower and her pulse almost imperceptible. Anæsthesia was complete. Neither vapour of liq. ammon. fort. under the nostrils, nor pricking the skin with needles, nor cold affusion to the face, nor slapping the chest and cheeks violently with a wet towel elicited the slightest responsive movement. A nurse was fetched, and in the meantime I continued my efforts to restore sensibility by affusion and slapping the face and chest.

At 2.30 A.M. I gave a subcutaneous injection of liq. strychninæ ♏iv, and repeated this at 2.50, again at 3, and at 3.15. By this time the nurse had arrived and had made a quart of very strong coffee. One pint was thrown up the rectum and retained. The pulse became more regular and was certainly fuller, and the heart's action began to be more regular but could not be counted; respiration at 3.15 was 20 per minute. The stomach pump was used at 3 A.M. and the stomach thoroughly well washed out, several quarts of warm water being used during the operation, which lasted on and off for about half an hour. Hot water bottles were packed round her extremities.

At 3.40 I gave her the fifth dose of liq. strychninæ, and after a short time there was a slight spasmodic action of facial muscles on repeating the beating of the cheeks with the hand. This action on my part was varied occasionally by using the wet towel, and still with occasional twitchings of the facial muscles. The pupils were certainly less contracted, but showed no action to light. A second injection of Oj strong coffee was thrown up at 5 A.M.

My neighbour, Dr. Douglas Ross, saw her with me at 5.30, and we gave her, through a flexible feeding tube, about 5 ounces of strong coffee. The passage of the tube through the nostril and down the throat caused no muscular contractions or reflex actions, and failed to rouse her in the slightest degree. A sixth dose (same quantity) of liq. strychninæ was given at 6 A.M., and at 6.30 a pint of strong coffee, this time mixed with 2 ounces of milk, was thrown up. From this time sensibility gradually returned. Liq. ammon. fort. held under the nostrils caused violent facial contractions and gaspings, and this, together with slapping the face and chest with wet towels was continued till 9 A.M., when another pint of coffee and milk was administered, and another subcutaneous injection of liq. strychninæ was given. The temperature in the axilla now was 98.3°, the pulse 86.

The nurse continued using liq. ammon. fort. occasionally, and the patient was seen twice during the morning by my friend Dr. Ross owing to my unavoidable absence. At 12 noon she gradually took a teacupful of strong coffee and milk, the first she had swallowed. She gradually recovered, but was semi-comatose for the remainder of the day and most of the night. On the morning of the 8th she was able to answer questions in a sensible mannner, and informed me that she swallowed the whole of the contents of the 4-ounce bottle of syrup. chloral. hyd. immediately before she opened the door to admit her brother, and the last thing she recollected was walking into the sitting-room as soon as she had opened the door. She admits taking the drug with the intention of destroying her life. She is now fairly well, and perfectly recovered from the effects of the dose, and free from any of its ill-effects. She never took chloral hydrate before. As far as I know this is the largest dose of chloral hydrate taken at one time which has not proved fatal.

I am inclined to think that the prolonged use of the stomach pump—over half an hour—with water constantly passing in and out of the stomach of about 105° temperature, must have exercised some very powerful influence in restoring the heat of the body, besides its effect of thoroughly washing out the stomach. Electricity was not used, the sole remedial agents being liq. strychninæ, constant beating of the face and chest, and prolonged use of the stomach pump, copious injections *per rectum* of strong hot coffee, and coffee poured into the stomach.

Brighton. EBENEZER SNELL, M.R.C.S., L.S.A.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

SAND RIVER RAILWAY HOSPITAL,
Cape Government Railway Northern Extension, Bloemfontein, Orange Free State.

CEREBRAL ABSCESS: OPERATION OF TREPHINING: DEATH.

(Under the care of H. MUIR EVANS, M.B.Lond., M.R.C.S., L.R.C.P., Resident Medical Officer.)

On June 4th, 1892, H. P., aged 40, a ganger on the works, was seen by some Kaffirs staggering out of his tent about 5 P.M. with blood streaming from his forehead. At 7.30 P.M. temporary dressings were applied, and he was at once removed to the hospital hut. His condition on arrival was as follows:—He was fully conscious, though giving somewhat contradictory accounts of the attempted suicide or accident; he could walk with slight assistance; the breath was foul and alcoholic (for several days he had been morose and despondent, and had been drinking heavily); over the left eye, half an inch above and external to the inner angle of the orbit, was a charred wound, with grains of powder driven into the skin around. This was evidently the aperture of entry of a revolver bullet, weighing 125 grains; to the left of this, in a direction upwards and outwards for an inch and a quarter, was a jagged, slit-like aperture of exit. The probe, when introduced into the lower opening, showed that the upper margin of the orbit was bare and rough, and no foreign body or fracture could be detected. The left eyelid was greatly swollen, as was also the left cheek, with extravasated blood. The eyeball was not ecchymosed and the vision was unimpaired; the pupils were dilated but equal; the pulse was 120. The wound was thoroughly cleaned and syringed out with 1 in 1,000 perchloride of mercury solution, and a drainage tube was passed along the track of the bullet from one wound to the other. Iodoform was dusted over the wounds, and a carbolised wool dressing applied. A hypodermic injection of morphine (one third of a grain) was given.

June 5th. After a wild, restless night, the patient became quiet in the morning. Milk was retained. Pulse 88. Temperature in mouth 99°, in right axilla 97.6°, in left 98.8°. Urine was passed in the evening, and the patient slept well after morphine gr. $\frac{1}{3}$.

On June 6th, forty-six hours after the accident, the wound was dressed; the swelling was found to have subsided; the lower wound was somewhat red, but there was no tension or discharge. Vision was unimpaired. The dressings were reapplied, and to avoid repetition, I may say that rigid antiseptic precautions were observed throughout. The diet consisted each day of milk, beef-tea, and two raw eggs beaten up.

June 7th. The wound was redressed and the tube removed, as there was no discharge. The redness had disappeared, and there was only slight pain at the seat of the wound. The patient read and smoked, and had a good appetite.

On June 13th the temperature was equal on the two sides of the body; up to this date, although the temperature was never above normal, there had been from 5° to 1° F. difference, the right axilla registering the lower temperature. Between June 18th and 20th the temperature reached 99.5° F. on two occasions, and headache had been complained of. The wound was dressed, and as the examination with a probe caused great pain, chloroform was given, and underneath an inflamed spot to the left and below the upper wound, a small piece of lead weighing 25 grs. was discovered and removed. The wound in a few days became quiet and the temperature normal, though headache shooting from behind the left ear across the face was complained of occasionally, and there was some chemosis of the left conjunctiva.

From June 24th to July 6th the temperature reached 100° F. on one occasion, but was normal with this exception. The patient walked about the ward and verandah, was on full diet, and with the exception of a few drops of purulent discharge from the lower wound and occasionally frontal headache, was apparently convalescent. The danger of the bone necrosing where the bullet had glanced off the skull was borne in mind.

On July 7th the headache became severer in the left frontal region; sleep was not affected, but on three or four occasions vomiting occurred without any relation to food. There was no fever, but he was listless, and preferred to keep his bed.

On the morning of July 9th he gradually became unconscious. When the change was first noticed, he answered questions sluggishly and without fully appreciating their meaning; there was no paralysis of the limbs; he could sit up in bed; the grasp of the two hands was equal on the two sides, but weak. There was complete left ptosis; the left pupil was dilated and larger than the right, and did not react to light. The pulse was 52; there was no rise of temperature. Unfortunately, the eyes were not examined with the ophthalmoscope. At 5 P.M. the coma became complete; the pulse was 54, and the respirations 10 to the minute. It was decided to trephine, and, with the assistance of Dr. Heberden, who also gave chloroform, the operation was commenced. A semilunar incision, as recommended by Professor Horsley, was made, and, the flap being laid down, the periosteum was raised over a small area above and external to the spot laid bare by the bullet. On raising the disc of bone cut by the trephine, the dura mater was of a bluish tinge, and bulged markedly; it was incised, and the scalpel was passed for

fully half an inch into the brain tissue in a direction downwards. No pus escaped along the blade. The bare area of bone was then removed with a small saw and bone forceps. No fracture existed, but close to the orbital margin a few drops of pus seemed to well up from the cancellated tissue of the bone. The dura mater was inflamed, being rough and red in appearance. Hoping to find a subdural abscess, the dura mater was incised, but with no result. A clear view could not at this stage be obtained, as we were working in a small angle, and any further removal of bone would have opened up the frontal sinuses. The apparent suppurative inflammation of the bone appeared to us at the time sufficient cause for the symptoms, assuming an acute inflammation had been set up. The absence of fever should, I think, have led us to be more certain of our diagnosis; and we should have had no hesitation in further exploring the brain, which, in fact, was mooted, but not carried out, owing partly to the very bad condition of the patient. The operation was quickly finished, a drainage tube being passed down to the inflamed bone. The coma was not relieved, and the patient died sixteen hours after the operation.

A *post-mortem* examination was made eight hours after death. On removing the upper portion of the skull, the inflamed and thickened area of dura mater was seen to be of the size of a florin. There was no fracture. On raising the dura and lifting up the left frontal lobe a gush of thin yellowish fluid, consisting of pus and broken down cerebral matter, escaped. The abscess cavity was of about the size of a hen's egg, and its floor was formed for half its extent by the dura mater resting on the roof of the orbit, but posteriorly it extended into the frontal lobe itself. The incision into the brain tissue, shown clearly by a few crystals of iodoform sprinkled over it at the time of the operation, was separated by about ½-inch only from the wall of the abscess; and the incision through the thickened dura was only prevented from entering the abscess by its thick caseous lining. The abscess was confined to the anterior and lower part of the frontal lobe. The olfactory nerve was not implicated. The rest of the brain appeared normal. The liver was fatty and enlarged. The cortex of the left kidney was markedly diminished, and its capsule adherent, as was to be expected in a man of the patient's habits.

REMARKS.—The case appears to me of interest as showing the necessity of thorough exploration with a trocar, aspirator, or grooved director after trephining in cases of suspected cerebral abscess; the peculiar latency of the symptoms is also worthy of note. The unfortunate termination was certainly avoidable, and with the view of preventing others from failing in similar operations I venture to send this report.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, OCTOBER 5TH, 1892.

J. WATT BLACK, M.D., President, in the Chair.

THE VALUE OF ABDOMINAL SECTION IN CERTAIN CASES OF PELVIC PERITONITIS BASED ON A PERSONAL EXPERIENCE OF FIFTY CASES.

DR. C. J. CULLINGWORTH read this paper. The question considered was whether surgical interference was or was not frequently called for in cases of pelvic peritonitis. The author answered this question in the affirmative, and supported his opinion by a detailed record of 50 cases in which he had himself operated. The paper was accompanied by a table, showing for each case the symptoms, the physical signs, the diagnosis, the actual condition disclosed at the operation, the nature of the operation performed, and the results, immediate and, where possible, remote. The cases were arranged in the order of their occurrence, their classification being reserved for the concluding part of the paper. This method seemed to be the best suited for showing the gradual development of the author's present views and practice, and at the same time served to emphasise the fact that a correct classification could only be made after the diagnosis had been tested by actual inspection of the diseased parts. The cases included the whole of the author's experience of the operation up to the end of February, 1891, and were classified as follows: Suppurating salpingitis, 20; non-suppurating salpingitis, including 6 cases complicated with suppurating ovarian cyst, 12; tuberculous disease of Fallopian tubes, 2; pelvic abscess, seat undetermined, 3; pedunculated retroperitoneal cyst, with abscesses in walls, 1; tuberculous abscess in abdominal wall, with masses in pelvis (tuberculous glands) and miliary tubercle of peritoneum, 1; hæmatocele, 2; hæmatosalpinx with hæmatocele, 3; hæmatoma of broad ligament, 1; broad ligament cysts (*a*) with ovaritis, 2, (*b*) with hydrosalpinx, 1—3; encysted peritonitic effusion, 1; retroflexed uterus with fibroids, 1—total, 50. Pelvic peritonitis was common to all the cases except the last named, in which an erroneous diagnosis was made. The cases of suppurating salpingitis were subdivided as follows:—(*a*) With occlusion (pyosalpinx) 5; (*b*) with distal end open, 2; (*c*) with suppurative disease of the ovary, 1; (*d*) with a direct communication between the tube and a suppurating cyst of the adjacent ovary (suppurating tubo-ovarian cyst), 6; (*e*) with non-suppurating cystic ovary, 1; (*f*) with suppurating hæmatocele, 1; (*g*) with hydrosalpinx, 2; (*h*) with intraperitoneal abscess, 2—total, 20. The cases of non-suppurating salpingitis were subdivided as follows:—(*a*) uncomplicated cases, 2; (*b*) with suppurating ovarian cyst, 6; (*c*) with non-suppurating ovarian cyst, 2; (*d*) with hæmatosalpinx and hæmorrhagic ovarian cyst, 1; (*e*) with double hæmatocele, 1—total, 12. Pelvic suppuration was present in 30 cases, or 60 per cent. It occurred in the Fallopian tube alone in 13 cases, in the ovary alone in 6 cases, in both tube and ovary in 7 cases—in six of which tube and ovary were in direct communication—while in the remaining 4 cases the seat of suppuration was either not precisely determined or did not involve either the tube or the ovary. There was strong presumptive evidence of gonorrhœa in a large proportion of the cases, and in 4 cases the proof seemed complete. Nine of the cases died, a mortality of 18 per cent.; 7 of the deaths were due to peritonitis, probably septic, 1 to acute nephritis, and 1 to collapse on the eleventh day. Of the fatal cases, 1 was tuberculous disease of the tubes, 2 were purulent salpingitis, 1 was double salpingitis with old hæmorrhage, 2 were suppurating tubo-ovarian cysts, 1 was retro-peritoneal suppurating cyst, 2 were old peritonitis with serous cysts of broad ligament. As experience increased the mortality became sensibly diminished. Hæmorrhage, to a greater or less extent, existed in 12 of the 32 cases of salpingitis. In 5 cases there was amenorrhœa, in 3 dysmenorrhœa, whilst in 12 the menstrual function was undisturbed. In 16 cases the removal of the appendages was complete, in 23 partial. Of the former, 15 recovered; of the latter, seventeen. The peritoneum was flushed in 22 cases, of which 18 recovered. Drainage was employed in 47 out of the 50 cases. In 2 cases a fæcal fistula formed, which in each instance healed spontaneously. In 5 cases the patients complained some time after the operation of more or less persistent pain. A sinus existed in 6 of the cases when the patients left the hospital; in 2 of these it had not healed when the patients were last seen. In 4 cases a hernia had occurred in the line of incision. Attention was called to the unreliability of the temperature as a sign of the existence of pelvic suppuration, the temperature before operation having been absolutely normal in 12 of the 30 cases in which suppuration was present. In the course of the remarks appended to each case the following incidental propositions were laid down, either directly or by inference: 1. Recurrent attacks of pelvic peritonitis in the female ought always to lead to a strong suspicion of the existence of chronic disease of the uterine appendages, and to careful bimanual examination. 2. Purulent collections in the pelvis are particularly apt to set up recurrent peritonitis, and are more common than is usually supposed. 3. Where distinct swellings are found in the posterior quarters of the pelvis, in connection with recurrent attacks of pelvic peritonitis, surgical relief is usually indicated, and, generally speaking, the sooner such relief is afforded the better. 4. Purulent inflammation of the mucous membrane of the Fallopian tube differs from purulent inflammation of other mucous membranes in the absence—owing to the anatomical situation of the Fallopian tubes—of a natural outlet for the pus. A very slight amount of swelling of the mucous membrane

suffices to block the tube at its uterine end, and if pus be present in the tube, it must then either remain pent up in the tube or be poured out through the fimbriated end into the peritoneum, in either case becoming a source of danger. 5. Salpingitis being a painless affection, the wall of a pyosalpinx may be on the point of perforation before an acute attack of peritonitis gives warning of the presence of serious disease. 6. It is safer to attack cases of pelvic suppuration from above than from below. 7. Suppurating tubo-ovarian cysts are usually the result of ulceration on the tubal side of the adhesion between tube and ovary, but in exceptional cases result from ulceration on the ovarian side. 8. The immediate results are more satisfactory after complete than after partial operations. 9. One of the chief risks in the operation for the separation and removal of inflamed tubes is the liability to mistake thickened and adherent intestine for diseased tube. The way to avoid error is to trace the tube from its uterine end outwards. 10. The exceptional instances in which pain persists after operation for gross lesions of the uterine appendages are generally to be explained either by omental or intestinal adhesions, or by the co-existence with the actual disease of a neurotic condition, of which the pelvic pain is a mere local expression. 11. Tubal disease in the virgin is generally, if not always, tuberculous. 12. Hydrosalpinx, in the great majority of cases, is merely a form of retention cyst, due to occlusion of the distal end of the tube from without. 13. Simple collections of serum, both large and small, are apt to form beneath the peritoneum covering the tube and broad ligament in chronic cases of pelvic inflammation, especially in those of very long standing. Probably the best treatment of these cysts, after exposing them and making certain of the diagnosis by abdominal section, is simple puncture and evacuation, the risk of removal being, in the author's experience, out of proportion to their importance. 14. Hæmatosalpinx, though no doubt due, in the majority of cases, to tubal gestation with apoplexy of the ovum, is sometimes an incident in the course of a chronic salpingitis. In these exceptional cases the walls of the distended tube, instead of being attenuated by the distension, as Bland Sutton has shown them to be in tubal gestation, are thickened by inflammatory deposits.

Dr. JOHN WILLIAMS said that he felt personally indebted to Dr. Cullingworth for bringing this paper before the Society, for although he differed widely from Dr. Cullingworth both in conclusions and in practice, he believed that the discussion would help to place the practice of opening the abdomen for pelvic disease on a sounder and more reasonable basis than that on which it rested at present. The first difference he had with Dr. Cullingworth was as to the title of the paper. He thought the title was misleading, for on examining the cases he found that 24 of the 50 were cases of ovarian or other cysts which were simple, inflamed, or suppurating; and with regard to the propriety of the removal of these there were no two opinions; in these cases the pelvic inflammation might have been independent of the new growth, although it was well known that inflammation was a very frequent consequence of cystic disease in the pelvis. Then, again, there were 6 cases of pelvic abscess in which the only reasonable plan of treatment was to open them, let out the pus, and drain them; it might be a matter of opinion whether the opening should be made from the vagina or through the abdominal wall. In some cases the way through the vagina would probably have been better, while in others the abdominal method would be preferable. There were, moreover, 10 cases of hæmatocele, 1 with ruptured cyst of the broad ligament, and 1 suppurating, and 1 case of hæmatoma of the broad ligament; the case in which suppuration had occurred, all would agree, should have been treated like an abscess, but it was probable that the other 9 would have got well without operative interference, for death from hæmatocele was extremely rare. Dr. Williams had only seen two such. There were 5 cases of apparently uncomplicated cases of pyosalpinx and 7 cases of salpingitis or hydrosalpinx, for he could not admit that Cases 9, 16, and 36 were cases of suppurating salpingitis. With regard to Case 9, Dr. Cullingworth found during the operation that the right tube contained serous fluid, and the left was healthy: this in itself would be enough, perhaps, to establish Dr. Williams's view of this case, but what was seen on *post-mortem* examination appeared to demonstrate the correctness of it, for the woman died from septic peritonitis, and pus was found not only in the left tube, but also in the stump of the tube which was the seat of a serous effusion at the time of operation. Two cases operated upon were tuberculous disease of the tubes; he did not think that operation was justifiable in cases of this disease, and especially where tubercle was found in other organs. He had an observation to make with regard to the result. The mortality was high, but he did not think it was higher than the mortality from these operations was throughout the country generally, although in a few hands it was less. The cases, or many of them, presented great difficulties to the operator, and it was in such cases that the mortality was high in skilled hands. He had pointed out that skill in operation favoured a low mortality, and that one great secret of a very low mortality was operating upon cases in a condition as near that of health as possible. These was a mortality which necessarily arose from the difficulties of the operation, and this mortality was eliminated when operations of this kind were undertaken for trivial deviations from health. When considering the mortality of the operation, the mortality from the disease should be borne in mind. He had seen two cases only of death from ruptured tubes or abscesses, and he calculated that with a mortality of 18 per cent., the mortality of the operation was several hundred times greater than that of the disease. Then, as to the permanent result: 9 died after the operation and 1 within twelve months of cancer of the stomach; 14 were seen a year or more after the operation, 8 appeared not to have been. Then as to the permanent result. Were the cases operated upon cured? Nine died after the operation, and 1 of cancer of the stomach twelve months after operation. This left 40 to be accounted for. Of 14 only of those was anything known after the lapse of twelve months after the operation. Of 8 there was no account at all after they left the hospital; this left 32. It was impossible to trace all patients operated upon in a place like London, and under a Government such as ours; this could only be done where everyone was under police supervision, as in Germany, and Dr. Williams knew of no statistics of any value on the permanent result of removal of the appendages except those of Schmallfuss. Those of English operators were absolutely worthless, because of the impossibility of following the cases. Of the 32 operated upon by Dr. Cullingworth, and subsequently traced at all, 5 suffered pain of a more or less permanent character, 6 had sinuses for a longer or shorter interval, 4 had hernia, and 2 required a second operation. That meant that in about half the cases more or less suffering was present after the operation. In so far as he could gather from the most reliable statistics, about 30 per cent. of patients in which diseased appendages were removed were cured by the operation, many more were benefited and cured by time and other treatment, while the rest continued to suffer.

Mr. ALBAN DORAN remarked that he considered it was good surgery to ensure the escape of pus and the other products of inflammation, and that in so far as that object was gained Dr. Cullingworth's practice was sound. He noted that Cases 5, 6, 8, and 13 were typical instances of good surgery; abscesses were opened or serous effusions liberated, and the patients recovered without mutilation. Parametric abscesses required similar treatment; it was not sufficient to make a mere puncture. A free incision should be made through an abscess which pointed anteriorly, the cavity should be washed out, and then explored as carefully as the peritoneal cavity was explored in an ordinary abdominal section. Then there would be no fear of leaving a deeper collection of pus unopened. He himself treated suppurative parametritis as a matter for the operating table, and not for mere puncturing and poulticing. In a recent case where the appendages and parametrium were inflamed he left the tubes and ovaries alone after free opening of abscesses. Recovery was perfect; all local signs of tubo-ovarian disease steadily disappearing. Case 13 showed that when pus was discharging from the rectum the fistulous tract closed of itself when the abscess was well opened from the abdominal aspect. In cases like 19, where a cyst opening into the rectum was removed, it would be interesting to know how the operator avoided damage to the rectum and fæcal fistula. Dr. Cullingworth overlooked one cause of persistence of pain after removal of the appendages. The stump was usually more or

less unhealthy, like the parts cut away, and the ligature might cause much irritation. The stump of a true ovarian tumour, it must be remembered, was usually made up of tissues free from inflammatory changes; hence it bore ligature well. When an abscess was opened without removal of appendages, then, if other parts were healthy at the time, recovery was very complete; no stump and no ligature remained behind. Mr. Doran then referred to MM. Péan and Segond's practice of vaginal hysterectomy for the cure of pelvic suppuration. British surgeons would hardly adopt that operation. The patients often recovered because the wholesale cutting allowed the free escape of pus. Amputation of the thigh for hip-joint disease might also cure the patient by allowing of the free escape of pus. In both cases good surgery demanded the same object by other means which did not include perilous mutilation. The French operators asserted that it was dangerous to remove the ovaries and leave the uterus, whilst when the uterus was removed even inflamed appendages underwent atrophy. Grammatikati, however, had found from after-histories[1] that the appendages did not atrophy under these circumstances. Mr. Doran urged that when the operator found that the tube and ovary were merely bound down by adhesions they should be set free, but never removed. In 5 cases where Mr. Doran had only separated adhesions, complete cure from pain had followed, in 1 other case where he removed the appendages on one side and liberated their fellow from adhesions the patient afterwards bore children. Drainage was good in these conservative cases as it ensured the escape of the products of inflammation. He noted how often Dr. Cullingworth used the drainage tube according to the tables. This practice was probably more justifiable and important than might at first appear. As far as Dr. Cullingworth's practice harmonised with the simplest principles of general surgery as above explained, so far would it abide and become established.

Dr. Champneys said he shared in the feelings of other speakers who had objected to the title of the paper. Pelvic peritonitis was a complication of a very large number of known diseases, and he thought it was evident that a good many of these were capable of diagnosis, and had indeed been diagnosed before operation. Among these were ovarian tumours, tubo-ovarian cysts, and hæmatoceles. He thought it was of some importance to point this out because one of the chief objects of the paper was to show that abdominal section was often called for in pelvic peritonitis. In the ordinary sense of the term this was not the case, nor did the cases in the paper bear out that view. But if the heading of the paper were retained, he would ask who in that room had ever seen 9 deaths from pelvic peritonitis, or even 4 deaths (the number of fatal cases after operation in the paper and appendix respectively)? Pelvic peritonitis was one of the commonest of all affections of the pelvis, and the cases were rarely dangerous to life. As regarded the duration of the disease before operation, he did not think that mere lapse of time proved the necessity for operation. Nothing was commoner than for patients to go about for months with this affection, or to lie up after a fashion at home. When they came under observation the temperature was raised and there was pain, both of which ceased on strict confinement to bed, and might never return after proper medical treatment. As regarded the imminence of the escape of pus noted in some cases in the paper, he did not think there was often any cause for alarm even if this took place. The pus escaped, an ordinary perimetric abscess formed (often with great rapidity) and its evacuation was followed by cure. Hæmatocele very rarely justified an operation. He did not agree with the opening of pelvic abscesses by abdominal section except in rare cases. The advantage of abdominal section was the opportunity which it gave of exploring, but the risk of life was considerable, drainage was in opposition to gravitation, and the risk of ventral hernia was great, for these cases necessarily required drainage sometimes for a long while. The advantage of improved antisepsis in abdominal opening was more theoretical than practical, for it was easy to get excellent surgical results in vaginal operations if we knew how to manage them. On the whole, then, he was still unconvinced that pelvic peritonitis required abdominal section, except in rare and exceptional cases.

[1] Epitome, October 1st, 1892, par. 289.

Dr. Playfair said that none of the previous speakers seemed to him to have sufficiently recognised the great value of Dr. Cullingworth's paper. He could hardly recollect any previous paper he had heard in the Society in which more trouble had been taken and in which cases had been more accurately and carefully recorded. The subject was one of immense importance, and it merited the most careful consideration and discussion. He felt that Dr. Cullingworth's conclusions were in many respects open to criticism, nor could he at all endorse many of them. As to the general principle that when marked structural disease of the uterine appendages existed connected with suppuration, a free exit should be given to the pus, and that such exit was often best obtained by laparotomy, everyone nowadays would probably agree. That was consistent with sound general surgical principles. But it seemed to him that the author's surgical zeal carried him far beyond this, and that his axioms, if generally adopted, would lead to much rash, hazardous, and frequently unnecessary interference. He would object altogether, for example, to the acceptance of Dr. Cullingworth's third proposition, "Where distinct swellings are found in the posterior quarter of the pelvis in connection with recurrent attacks of pelvic inflammation, surgical relief is usually indicated, and, generally speaking, the sooner such relief is afforded the better." Who was there who had had sufficiently long experience of more conservative practice, who could not call to mind case after case of recurrent pelvic peritonitis accompanied by complete fixation of the uterus, with distinct swellings in the posterior quarter of the pelvis, which did not eventually completely recover without surgical interference of any kind? Would it not be easy to conceive what disastrous results would follow if every youthful and ardent gynæcologist said: "Here is a swelling in the posterior quarter of the pelvis. Dr. Cullingworth says it must be at once dealt with; therefore I must open the abdomen." That might possibly be all very well with Dr. Cullingworth's surgical aptitude and experience; but even in his hands nearly one out of every five of his patients died. What would be the results in hands less skilled? So far from admitting that such cases should be interfered with soon rather than late, he believed that removal of diseased appendages should be considered a *dernier ressort* instead of a *premier ressort*, and should be looked upon as a confession of failure to cure. These cases rarely proved fatal *per se*. Doubtless they led to a vast amount of pain, suffering, and broken health, which very often fully justified operation, but they could generally wait until they were sure that Nature could not effect a cure. Once the operation was done it could not be undone, and permanent and occasionally useless operations might be avoided. If, however, the history were sufficiently long, and the evidence of structural disease by examination was clear and distinct, then he fully admitted that laparotomy was a perfectly justifiable procedure, and one which he himself constantly resorted to. No fewer than 7 out of the 51 laparotomies were for hæmatocele, but was it not the fact that the vast majority of hæmatic effusions about the pelvis got well without any interference at all? Six more were in cases of non-suppurating salpingitis—a condition surely not beyond the hope of spontaneous cure. He trusted that in making these criticisms on his friend, Dr. Cullingworth's paper, he was not going beyond the limits of legitimate discussion, but he felt it his duty to point out that in his judgment the conclusions arrived at were such as could not be safely admitted as correct. The only other point he had to mention was Dr. Cullingworth's extreme partiality for the drainage tube, which was used in 47 out of the fifty cases. In his own operations he hardly ever used it, and yet he certainly should have no fear of contrasting his results with those which Dr. Cullingworth had given. He felt quite confident that Dr. Cullingworth had resorted to drainage with an altogether needless frequency.—The discussion was adjourned to the November meeting.

Specimens.—The following specimens were shown:—1. Dr. McAdam Eccles: Distension of Vagina and Uterus with Muco-puriform Fluid, accompanied by Dilatation of Bladder and Ureters from Pressure in a Child Seven Weeks Old. 2. Dr. Rutherfoord: Pelvis (with Bladder, Uterus, and Rectum *in situ*) of a Cat which died two hours after giving Birth to Five Large Kittens. 3. Dr. Amand Routh: Uterus Ruptured during Parturition.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Friday, October 7th, 1892.

F. Swinford Edwards, F.R.C.S., President, in the Chair.

Presidential Address.—After alluding to the present satisfactory position of the Society, the President proceeded to the subject of his address, namely, urinary surgery of the present day contrasted with that of twelve years ago. The wide range of applicability of litholapaxy was first referred to, and followed by a description of the revival of the operation of suprapubic lithotomy, and the cases for which it is best suited. The various operations upon the prostate were next discussed, including prostatotomy as advocated by Mercier and Gouley, of New York, moulding of the prostate by bellied bougies, suprapubic prostatectomy as performed by McGill, and electrolysis by means of a current passed through its substance, the negative pole being inserted through the rectum. The use of the thermo-galvanic cautery, as designed by Bottini, was also referred to. The consideration of diseases of the bladder itself was next entered upon, and the manifold and great advantages of Leiter's cystoscope as an aid to diagnosis pointed out. The advance during the past few years in the surgery of the kidney was then dealt with, the operations of nephrotomy, nephrectomy, and nephrorraphy receiving in turn their share of attention. In relation to the surgery of the urethra, the value of electric illumination for diagnostic purposes was again alluded to, and the preliminary use of a 5 per cent. solution of cocaine previous to all instrumentation strongly recommended. The electrolytic treatment of certain cases of non-traumatic and resilient stricture was advocated, and reference made to the diminished frequency of cases of urethral fever since the employment both locally and by the mouth of antiseptics. In the former relation sublimate solution, 1 in 6,000 to 1 in 10,000, received first preference, while boracic acid and permanganate of potash in weak solution were also recommended. For internal antisepsis salol and boracic acid were most advantageous, and in cases of pyuria and irritable bladder benzoate of ammonium in combination with boracic acid and buchu had been found of considerable value. Amongst the most efficacious injections for urethral discharges were permanganate of zinc, ½-grain to ℥j, and the extract of Canadian pine, ℥j to ℥j.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Tuesday, October 4th, 1892.

J. H. Bell, M.D., President, in the Chair.

President's Address.—The retiring president, Mr. R. Mercer, having vacated the chair, the introductory address was delivered by Dr. Bell, who after mentioning that he had occupied that position twenty years before, reviewed the changes wrought since then. These were mostly due to the intellectual activity of professional life, and to the action of the General Medical Council. There was a rapidly increasing proportion of medical men to the population, and the higher education of many placed them, like the clergy, out of touch with the mass of the people, hence they were with these at any rate being supplanted by others of an inferior grade. The practice of pharmacy was failing in the profession, and ere long would pass into the hands of others. With higher education, too, midwifery tended to the midwives, who undoubtedly ought to be qualified and registered; this probably would reduce the puerperal death-rate fifty or even sixty per cent. Specialism had arisen and would develop. Instead of special hospitals there ought to be special departments of general hospitals, these latter being cheaper, better managed, and more efficient. Incurables and convalescents wanted better looking after.

Exhibits.—A large number of specimens were exhibited, including histological preparations of tumours and of pathogenic bacilli in the tissues and from cultures. One specimen of abscess of liver occurred in a man of 35, seven years after return from India. He was in bad health twelve months, and only seen when wasted, jaundiced, and *in extremis*; the abscess cavities, of which there were two, held upwards of a quart, and about a pint of pus respectively.

A Clinic of Mental Diseases, of which Professor Mesch[illegible] has been appointed Director, has been established in the University of Königsberg.

REVIEWS.

The Hygiene, Diseases, and Mortality of Occupations. By J. T. Arlidge, M.D., F.R.C.P., Consulting Physician to the North Staffordshire Infirmary, and late Milroy Lecturer at the Royal College of Physicians. London: Percival and Co. 1892.

This is an important volume of nearly 600 pages, containing a large amount of highly valuable, if necessarily somewhat miscellaneous, information. By the conscientious labour which he has expended upon his task Dr. Arlidge has earned the gratitude, not only of his medical brethren, but of legislators and others who are interested in the investigation of the many social and economic questions involved in the statutory regulation of workshops and hours of labour.

The writer states in his preface that the work had its origin in the course of Milroy Lectures which he delivered at the College of Physicians in 1889, and which he was requested to print in book form. But as the course only allowed the consideration of the diseases consequent on the inhalation of dust, he deemed that it would represent only an isolated chapter of a very wide subject, and that therefore it would be better to delay until he could present a general outline of the hygiene, diseases, and mortality of all the principal occupations pursued in this country. In the following extracts the writer states the purpose of the work:

"It requires no argument to prove that a man's occupation must, after a longer or shorter period, react upon his mental and corporeal condition.....Many trades exhibit features distinctly injurious, especially to bodily soundness, by conditions inseparable from them; still more operate by circumstances that may be pronounced accidental, though often of greater potency for evil. The main purpose of this volume is to elucidate and illustrate this truth, to which, in my opinion, far less attention has been given than it deserves. It is as essential to the medical man to acquaint himself with the occupation of a patient as an important health factor, as with the hygiene of his home and neighbourhood or with his family history."

Dr. Arlidge regrets that more attention is not given by medical officers of health in general to the subject of industrial diseases, though he notes exceptions in the case of the medical officers of Sheffield (and we may add of Blackburn). He points out the importance, as well as the difficulty in many cases, of distinguishing between trade-made diseases and town-made diseases. It is hopeless for a town, in which the main occupations of the inhabitants are such as necessarily tend to shorten life, however much care may be taken to perfect its municipal hygienic arrangements, to expect to show as low a death-rate as one in which the staple occupations are more favourable to longevity. On the other hand, much of the sickness and mortality among the workers at a particular trade may be due, not to the necessary circumstances of that trade, but to bad housing and other conditions remediable by the local authority.

The injurious conditions apparently inseparable from a trade—for example, poisoning by lead in the case of plumbers, and inhalation of dust by potters and grinders—the writer terms "incidental," while he calls "accidental" those injurious conditions which, though frequently found affecting a trade, are not essential to its exercise. Examples of such conditions are want of ventilation and other bad hygienic conditions of workplaces, and want of personal cleanliness, and prevalent habits of alcoholic indulgence among the workpeople. He points out, however, that this distinction is not absolute, and that, owing to the progress of improvement in manufacturing processes, circumstances which formerly appeared inseparable from a given employment have not infrequently ceased to be so.

The writer gives a valuable historical sketch of the literature of the subject, and remarks that it is strange that no systematic treatise on it has appeared in this country since that of Thackrah in 1831, though many valuable contributions on the health aspects of particular industries have appeared from time to time in the British Medical Journal and other periodicals. The principal information is contained in the reports of the chief inspector under the Factory Acts, of the

Medical Department of the Privy Council and Local Government Board (especially the investigations of Drs. Greenhow and Ballard), of the Registrar-General, and of various Parliamentary and other Commissions, and in the statistics of certain insurance societies, to all of which the writer expresses his acknowledgments. He has made little use of foreign statistics, owing to the very dissimilar conditions of life and work abroad and in this country. His own position in one of the principal manufacturing counties of England has, moreover, enabled him to give valuable information at first hand respecting many trades, especially that of the making of pottery.

The second chapter gives a very interesting general summary of the conditions and circumstances of labour as affecting health, treating of the effects of such matters as overexercise, outdoor and indoor employment, associated and solitary labour, use of machinery, choice of a trade, construction of factories, dust-laden air, habit, and State regulation. On the now much-debated question of the limitation of hours of work by the State, he concludes that if the law is to interpose and to be called upon to limit the duration of labour, the persons to be in the first place selected to receive the benefit should be those engaged in pursuits which are demonstrably most inimical to health and life, and that its intervention could not logically be claimed in behalf of those engaged in pursuits calling for stronger bodily labour, but rather in the interests of sedentary workers. Unfortunately, it seems likely that the benefit in question (if such it be) will be gained by the strongest and best-organised trades, rather than by those which on hygienic grounds are most in need of it.

In a chapter on the defects of statistics, it is pointed out that high rates of sickness and of mortality do not necessarily go together. In a trade requiring great strength or vigour, a man is disabled from work by an amount of illness which would not incapacitate him from following a sedentary occupation. Hence men whose health has been undermined by a laborious and unhealthy occupation often drift into a lighter one, and at their death the apparent mortality in the former is thus relieved at the expense of that in the latter. Moreover, the men who would enter a laborious occupation would be originally on the average "better lives" in the actuarial sense than those who would enter a sedentary one. The author classifies occupations from a hygienic point of view as follows:—

I. Occupations not raising new wealth from the earth: Class 1, non-traders; Class 2, traders; sub-class, mechanical trades.

II. Occupations raising new wealth from the earth: 1, agriculture; 2, mining and manufacture.

The latter, *quoad* injuriousness to health, he classifies on an etiological basis, namely, occupations injurious to health by: 1, generation of dust; 2, the employment of poisonous or noxious materials; 3, the evolution of poisonous or injurious vapours; 4, the action of excessive temperatures; 5, the action of electricity; 6, abnormal atmospheric pressure; 7, excessive use, friction, or strain of the body, or of special organs or parts; 8, exposure to infectious, contagious, and parasitic disease. Of these, the first two exercise the greatest influence. Many trades, however, are injurious in more than one of these ways, or in different ways in different branches—for example, the making of pottery, which to some classes of workpeople employed therein is injurious by the inhalation of dust, to others by lead poisoning, and to others, again, by exposure to heat.

It can hardly be claimed that this classification is a very scientific one, as it contains many overlapping classes. The division between "mechanical trades"—for example, nail and chain making, and "manufactures"—for example, needle making, seems a distinction without a difference, nor is it easy to see why brickmaking should be classed among "occupations not raising new wealth from the earth," or the conversion of iron into steel as one "using materials of organic origin;" or why "costermongers, hawkers, and street sellers" should be classed among non-traders, unless it be that persons with a regular peripatetic business get registered under the heading of that business, leaving in the class in question only those with whom the offering for sale of a few matches, flowers etc., serves merely to legitimise begging.

It is curious that, among persons having no definite employment, the death-rate exceeds that in the population at large. The explanation in great part is that this class largely consists of elderly retired persons; of persons who have no calling in life, because of some bodily infirmity; and of persons having modes of life not conducive to health. It is a charitable rule of the Registrar-General that no deceased person is to be described in the death register by a term conveying a stigma, and hence many vagrants, paupers, idiots and lunatics, prostitutes and criminals, are described as "of no occupation."

A useful and instructive chapter is given to the pathology of dust inhalation. The author holds that dust induces a malady bearing a strong similitude to tuberculous phthisis, yet that this malady is not tuberculous in its actual nature, but a process of fibrosis and ulceration. Upon the lesions thus produced tubercle bacilli may, however, be readily implanted, and true phthisis, as a superadded malady, be thus set up, though in the causation of phthisis Dr. Arlidge seems elsewhere to attribute more to exposure to cold and changes of temperature, and less to opportunities of bacillary infection than is now the fashion. Emphysema is a secondary process, complementary to the fibrous consolidation of portions of the lung tissue. He remarks upon the dearth as regards many trades of accurate *post-mortem* observations. The injuriousness of dust when inhaled depends much upon the shape and chemical nature of the particles of which it is composed, mineral dusts being more hurtful than vegetable, and vegetable than animal ones, while of mineral dusts the hard and angular grains of silex, and the jagged fragments of steel are more hurtful than the rounded particles of chalk, and the slowly soluble ones of gypsum. The differential characters by which the disease set up by dust inhalation may be distinguished from tuberculous phthisis are given as follows. The disease begins with a clearing cough in the morning, soon followed by shortness of breath. The cough is more paroxysmal and violent than that of phthisis, and the dyspnœa greater, and out of proportion to the extent of consolidated lung. Hæmoptysis does not occur early and often not at all. The appetite remains good; there is, apart from intercurrent disease, no fever, no quickened pulse, and no rapid emaciation. The sputa are not green, but at first white and frothy, with streaks of black foreign matter, and, later, purulent. The signs of condensation are not specially limited to the intraclavicular spaces, but are found in patches distributed over the chest, with emphysematous areas between them.

We have noted a few minor slips. On pp. 318 and 319 some figures seem inconsistent with the text, doubtless through typographical errors. Alston is not in Yorkshire. The influence upon health of slag grinding, to which the author says on p. 327 no attention has as yet been given, has been treated of by Dr. Ballard in his report on pleuro-pneumonia at Middlesbrough. The process of recovering wool from mixed tissues is stated to have been first described in 1887, though two processes for this purpose are mentioned on p. 62 of the Annual Report of the Medical Officer Local Government Board for 1885.

Much has been done to lessen the injuriousness to health of mining and manufacturing industry, largely through the operation of the Mines and Factory Acts, partly through the adoption of improved processes of manufacture, partly also through the growth of better and more careful habits among the operatives, though in this latter particular there seems to be in many cases still room for much improvement. We fear, however, that the gain to the health of the nation from the mitigated unwholesomeness of mining and manufacturing industries is outweighed by their attracting an ever increasing number of workers from the primitive and healthful industry of agriculture. The displacement of handwork by machinery (which on artistic grounds is deplored by Mr. Ruskin and his school) does not seem to be an unmixed evil to the health of the worker. On the one hand, it tends to draw him, as with the Sheffield grinders, from the country to the town, and makes him instead of an intelligent craftsman a mere minder of a machine; but in other cases it takes him from home labour under wretched conditions to a well-appointed factory, where the evils of dusty processes can be counteracted by efficient mechanical ventilation, and where he is spared the hurtful strains involved in processes such as the cutting into lengths of nail rods and of steel wire for needles.

Recueil des Travaux du Comité Consultatif d'Hygiène Publique de France. [Le Choléra, Finistère, 1885-86.] (Collection of Reports of the Consultative Committee of Public Hygiene in France [Cholera, Finistère, 1885-86]. Par Henri Monod, Directeur de l'Assistance et de l'Hygiène Publiques. Imprimerie Administrative. 1892.

If anything were needed to prove the energy and ability with which M. Henri Monod has entered on his campaign against preventable disease, and on the task of guiding his fellow-countrymen in the direction of an efficient sanitary administration, it would be supplied by the volume issued this year from the Public Health Department of the French Ministry of the Interior, of which department M. Monod is chief. As a pure administrator he disclaims all intention of attempting to teach that which properly belongs to medical science, and asks only to be allowed to play the modest part of adding a number of facts to the history of preventable diseases, and thus to help in the task which those who are engaged in studying preventive medicine have taken in hand. And the result is that he places before the public a volume of some 650 pages, which embodies the history of cholera in a special department of France since 1832, and which well deserves to be styled a classic work.

In his story of cholera in Finistère, he traces the course of the several occurrences of that disease in the department from 1832 to 1886. No fewer than six epidemics are carefully discussed, and each one is illustrated by means of a map which, by different colourings, shows the amount of mortality which resulted. One chapter is devoted to cholera during 1885-86, its cause being traced from the arrival of vessels from the extreme east at Mediterranean ports and their passage thence to Brest; the epidemic in each case being followed out with minuteness, and the details being summarised in tabular and diagrammatic form. Separate outbreaks in separate villages and towns are discussed with much precision, and the labour which has been bestowed in explaining all the circumstances as to means of diffusion, age, condition, sex, etc., of persons attacked and the conditions of housing, drainage and water supply, under which the inhabitants were placed, recall the best efforts that have, in any country, been made in the matter of public health reports. These details cannot be properly discussed in such a notice as this, but they should find a place in the library of every epidemiologist.

In dealing with cholera "Hors de France," M. Monod recalls certain statements to the effect that cholera in Europe always has its starting-point in British India. Too often this has been true, and M. Monod's graphic diagram, showing the lines by which the disease has travelled from the Ganges into south-eastern and eastern Russia on the one hand, and his references to the traffic *vid* the Suez Canal on the other hand, demand the most serious attention of epidemiologists and statesmen. But when he declares that cholera has only one cradle on the surface of the earth and that this cradle is British India, he goes beyond that which admits of proof, in so far as the present generation at least are concerned. The European cholera of 1885-86, which broke out on the southern coast of France after the arrival there of vessels from Tonkin, cannot for any practical purposes be referred back to the Ganges. There are parts of Asia besides British India in which cholera must now be regarded as having made a home, whatever the original source of this disease may have been in the somewhat remote past. But, setting aside this point, we are free to admit the contention that Europe has in almost all instances up to 1884 received its cholera by one or other route from our Indian possessions, and we will further admit that we can never disclaim all responsibility for this so long as there remain in the valley of the Ganges conditions capable—perhaps at an immense cost—of removal and which we well know to favour the development of this disease.

M. Monod regards the defence of the Suez Canal as the one European question in connection with cholera, and he declares it would long ago have been solved had it not been for the opposition of England. Since he wrote this passage we have had proof that cholera in Europe does not intend to limit itself now any more than formerly to the Suez Canal route, and we hope M. Monod will be ready to admit that the resistance of England to the proposals of Europe at Constantinople, Vienna, and Rome has been more than justified by the fact that, with the active co-operation of France, reasonable restrictions have for the first time been proposed and accepted in Paris last June, whereby such cholera as chooses to select the sea route may be dealt with at the entrance of the Suez Canal. England only maintained an attitude of opposition so long as the restrictions laid down were unreasonable. M. Monod, in our opinion, gives too much prominence to the sea route, and perhaps his reason is that he regards prevention by the land route as well-nigh hopeless under existing circumstances. We are inclined to fear much more, so far as England is concerned, from the Russo-Turkestan railway communications than from any shipping; but, whatever the route chosen, we are cast back by M. Monod's work on the central point of its diffusion, namely, British India; and his observations on this point merit serious consideration.

M. Monod brings forward an array of witnesses as to promises made by English and Anglo-Indians from the date of the Constantinople Conference downwards, promises which he declares have not been fulfilled. He contrasts the statistical results of English sanitary administration at home and of Anglo-Indian sanitary administration in the East; and he enforces his contention by quotations from Koch and others, including many English authorities, as to the filth of the tank system, etc., and by pointing out that between 1878-88 the deaths from cholera in British India have numbered no fewer than from 119,256 to 488,788 per annum. This part of the volume may by some be regarded as a little strained, for whilst it admits that something has been done, it hardly gives due credit for that which, in the face of great difficulties, has already been accomplished. At the same time, we will not cavil at the chapter from this point of view, for, with our national contention that filth goes hand in hand with cholera, we can hardly object to any hard words that will serve as a stimulus to our Anglo-Indian administration to get rid of Indian filth, and, above all, potable filth, at a more rapid rate than they have done hitherto. And, having admitted thus much, we could have wished that M. Monod had dealt otherwise than he has done with some of his allegations against England. Thus, after discussing the question of the importation of cholera by British ships, he puts prominently into England's mouth the words, "Jamais le choléra n'a été transmis par un navire Anglais," whilst he relegates to a small type footnote the two statements made at Rome on which this seems to be based. One is by Sir Guyer Hunter, who merely said that such transmission had not been "démontré"; the other by Dr. Thorne Thorne, to the effect that cholera had never reached Europe from England. And, continuing this subject, M. Monod refers to the Egyptian epidemic of 1883; he implies that the disease was carried there by an English ship, of which there is not only no evidence, but abundant proof to the contrary from Dr. Simpson, whom M. Monod elsewhere accepts as a trustworthy witness; and he then says as to this cholera: "Il s'étendit en Egypte. On le retrouva à Smyrne au mois d'Avril, 1884, et au mois de Juin à Toulon, d'où il envahit ....." Marseilles, Spain, Italy, etc. But he says not one word of the fact which France has never even denied, that it was one of her own vessels which brought cholera in 1884 from Tonkin to one of her Mediterranean ports. And, this being ignored, he literally adds later on that the poor fishermen of Finistère, to whom the Tonkin cholera extended, have a right to make demands on England for their sufferings. A few such passages go some way to mar a monograph of great value. The volume is, however, one that Englishmen may study with profit, and it certainly forms a most valuable contribution to the history of cholera during the present century.

NOTES ON BOOKS.

Die Verbreitung der Syphilis in Berlin. Von Dr. A. Blaschko. (Berlin: S. Karger, 1892.)—This is a reprint, with additions, of a lecture based on official documents, and delivered by the author before the German Public Health Society. Dr. Blaschko states that during the past thirty years, that is, beginning from about the time when brothels were suppressed, venereal diseases of all kinds, but especially syphilis,

have considerably and steadily decreased in Berlin until the last three or four years, during which period there has been again a slight increase in the number of cases. The decrease has been due, in the author's opinion, to (1) greater facilities afforded to the general population for the treatment of venereal diseases, more especially through the generalisation of sick clubs; (2) sanitary control, constantly pursued, of professional prostitution; (3) increasing knowledge of the people concerning the nature and modes of communication of sexual disorders. Still further progress, Dr. Baschko thinks, would be made by: (1) the removal of all restrictions which stand in the way of the treatment of sexual disorders, both inside and outside hospitals, and particularly by the modification of the law as it affects sick clubs; (2) a more perfect medical examination of prostitutes; (3) the further enlightenment of the growing population on the subject of sexual disorders.

Roaring in Horses; its Pathology and Treatment. By P. J. Cadiot, Professor at the Veterinary School, Alfort. Translated by Thomas J. Watt Dollar, M.R.C.V.S.G.B. (London: Swan, Sonnenschein and Co. 1892.).—Considerable interest has been excited in the subject of this small book, but on perusal of its pages we fail to discover anything which we may consider an advance in our knowledge of the matter. The statement that "when roaring appears without having been preceded by a bronchial or pulmonary affection, it is due to hereditary cause, or to an accidental injury to the recurrent or pneumogastric nerves," is not very satisfying. The major portion of the book is occupied with the description of the operation termed "arytenotomy." Comparing the operation of Möller (excision of the affected arytenoid cartilage) and that of Fleming (extirpation of the arytenoid cartilage and the vocal cord), M. Cadiot states: "Although I have not as yet had a long experience in these operations I have made my choice, and do not in the least hesitate to give my preference in every case to the method established by Möller." There is a fair though ponderous description of an operation in no essential differing from Möller's, an account of which was published in 1888. We venture to think that veterinary surgery in Great Britain is in advance of Mr. Dollar's ideas of it, or he would scarcely have considered it necessary to occupy more than two pages in a description of a "tampon cannula," which has for four years at least been in common use here. Referring to anæsthesia, we scarcely require to be informed that "recent researches of Möller and Guinard have proved that chloroform is not more dangerous to the horse than to man," when the fact has been made patent to us by daily practice for nearly a quarter of a century. Extirpation of the arytenoid cartilage has been carried out in a large number of instances in England, and the whole operation from commencement of the administration of chloroform has been completed in eight minutes. This expedition has been conduced to in no small degree by the use of electric light in illuminating the larynx, a refinement not alluded to by M. Cadiot. The results of a large number of operations skilfully performed by English veterinarians appear to prove that extirpation of the arytenoid and vocal cord is not a justifiable surgical method. From what we can learn of Möller's later cases, his early average of successes has not been maintained. If this little book has any value, this depends on the description of an operation of whose worth the author is not even convinced. It would have been more becoming to have waited for the teachings of experience.

How to Become a Nurse and How to Succeed. By Honnor Morten. (London: The Scientific Press, Limited.)—To those who are frequently appealed to by girls in their teens or by young women of maturer years as to the steps they should take to become nurses, this book of Miss Morten's must prove a perfect godsend. It deals with the nursing arrangements of most, if not all, the training schools in London and throughout the country, and gives the novice a thorough insight into the duties expected from her. There is no mincing the matter. To be a good nurse requires many virtues apart altogether from a real or ideal love of the work. They comprise a fair education, retentive memory, methodical habits, quick observation, combined with obedience, self-denial, and a cheerful temperament. To those entering, or desirous of entering, any branch of the profession, there is no other guide we know of which contains in so small a compass more useful or practical information. It is illustrated with excellent portraits of some of the best-known gentlewomen who have devoted their lives to the work of nursing the sick, and gives illustrations of the costumes worn by nurses, sisters, and probationers in the leading hospitals and training schools. We would advise every one aspiring to be a nurse to consult the book before finally deciding what hospital or maternity institution she elects to train in.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

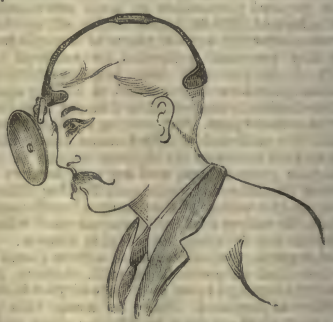
LARYNGOSCOPE WITH STEEL SPRING HEADPIECE.

The accompanying illustrations show a laryngoscope which has been made for Dr. Thomas Harris, of Manchester, by Messrs. Weiss and Son. The chief feature of the instrument is a spring headpiece or band which grasps the head at the occiput and at the forehead, and so holds the reflector in position. This band is hinged at several places so that it can be folded round the mirror which it then protects; the instrument is thus rendered compact and portable. Dr. Harris thinks the spring head will be found more comfortable and much more readily fixed than the usual forehead band composed of elastic webbing or other material. He has found it



more comfortable, especially where, as in seeing hospital throat cases, it has been necessary to keep the instrument a long time in position on the head. It is not so hot to the head as the elastic band on the forehead. Dr. Harris thinks that it will also be found more comfortable than the spectacle frame laryngoscope, for all who have at the same time to wear spectacles. The small compass into which the instrument can be folded renders it very convenient for being carried in an ordinary instrument bag.

The reflector is attached to the forehead band by a double ball and socket joint, so that very extensive movement can be given to the reflector. These ball and socket joints can be readily tightened by a milled headed screw, if they tend to work loose.



When the reflector is being moved, in order to direct the rays of light in the required direction, it will be found advisable to steady the spring head band with the left hand whilst the reflector is being moved with the right. Since this in-

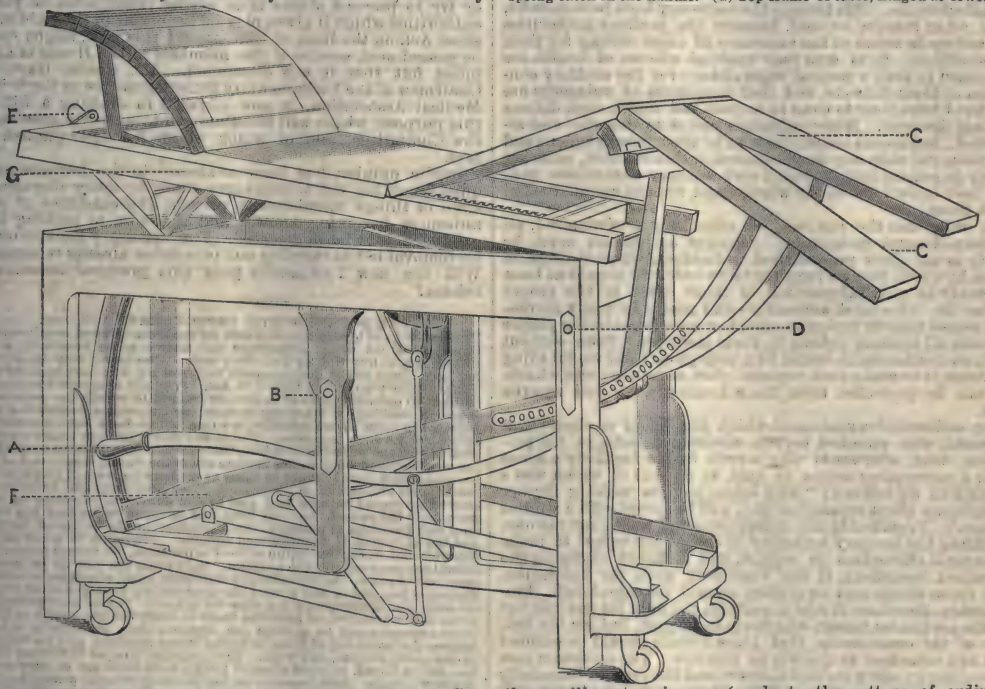
strument has been made, Dr. Harris has learnt that somewhat similar head supports for laryngoscopes have been made, especially on the Continent, but he has not seen one which could be folded into so small a compass, the reflector being at the same time protected.

IMPROVED OPERATING TABLE.

This table, which has been in use for some years at King's College Hospital, was designed by Professor William Rose, to meet a suggestion of Miss Monk, the Sister-Matron, that an operating table, capable of being moved to the bedside, would be a great desideratum and saving of suffering in many cases where the frequent moving of a patient is attended with pain. Several of these tables have now been made, and are in use in many of the London and provincial hospitals, and also abroad.

Its principal advantages are that, by a simple mechanical contrivance, four rubber-tyred wheels are brought into play, and the table smoothly and silently moved about, whilst by reversing the action the table can be made absolutely steady on its legs. The headpiece is jointed on the same principle as a revolving shutter, and raised or lowered by means of a handle, so that the patient's head and shoulders can be elevated or depressed at pleasure. These and other movements are indicated by the letters on the woodcut, made from a photograph of the table. At King's College and other hospitals the tables are worked in duplicate, so that whilst one patient is being removed to the ward, another can be at once brought into the theatre, having been previously anæsthetised, if desired, in an adjoining room, and thus much time saved.

(A) Handle for raising or depressing the rubber wheels, released by touching the button (B). To place the table on wheels depress this handle; to put the table on its legs, press the button and raise the handle. (C) Leg pieces which can be raised or lowered at pleasure, or detached entirely. To lower them press the side button (D). (E) Handle attached to revolving screw to raise or lower jointed headpiece. (F) Long lever to raise or depress lower third of table top. The lever, as shown in the picture, is depressed to its full extent, but may be maintained in any position by a spring catch in the handle. (G) Top frame of table, hinged at lower end



to main frame to allow of raising the upper on iron supports, not often required. Arm-pieces may be added to this top frame, but for clearness of view are omitted from the picture.

The table is made by Mr. Roskilly, of 7, Berkeley Road, Regent's Park, N.W.

A SELF-REGISTERING PUPILLOMETER.

It is a singular fact that the majority of textbooks on general and ophthalmic surgery or even medicine, either wholly omit to mention the pupillometer as an aid to diagnosis in disease, or else refer to it casually. This might seem to imply that the instrument is of little importance; but, on the contrary, the value of the pupillometer has been so long established, that the neglect to mention it arises rather from a tacit understanding that every medical man possesses one, and is familiar with its use. To the therapeutist the pupillometer is invaluable, and it comes among the foremost in his list of appliances.

Having occasion recently to make some observations on the action of tropacocaine on the eye, it seemed to me that the pupillometers in use (made to the pattern of ordinary gauges) were, if not actually primitive, a little clumsy in application, and therefore apt to register an inaccurate record. It occurred to me that an instrument made on the principle of the "iris diaphragm"—such as is attached to the more modern microscopes and photographic cameras—might prove more serviceable.

Mr. Stevenson, 8, School Hill, has kindly made such a pupillometer for me, and its advantages are obvious and many. There is only one circular aperture, which can at will be made as large as 1 centimetre or as small as 1 millimetre, thereby enabling the observer to make as accurate a record of the size of a pupil as is possible by comparison. The stationary disc is so graduated, that a pin attached to the revolving disc records the diameter of the aperture as it is enlarged or lessened, thus making the instrument self-registering.

The same principle may be applied in making gauges for bougies, etc., but I fear the delicate mechanism of the instrument will not bear the frequent contact of any hard material.

Aberdeen. George Ferdinands.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

INTIMIDATION OF TENANTS.

THE difficulties with which sanitary reformers have to contend are numerous. Not only is there often apathy or even active opposition on the part of the occupiers of insanitary premises, who object to being disturbed even for their own good; but the owners of those premises not unnaturally dislike being called upon to defray the expenses necessary for putting them in proper order. By degrees the hands of the local authorities entrusted with the duty of administering the sanitary laws have been strengthened, and they now are empowered, and in some cases required, to put those laws in force, though both occupier and owner may prefer to let things remain as they were, and actively or passively resent all interference. But though the necessary legal powers exist, they often remain unused, because the sanitary authorities are not made aware of the existence of cases calling for their intervention. It is true that medical officers of health are supposed to keep a general supervision over the sanitary condition of their districts, and that inspectors of nuisances are required from time to time to inspect and report such defects as they discover. Many nuisances are thus detected and remedied. But unless inspection is to be much more frequent and inquisitorial than any as yet known in this country, more are likely to remain undiscovered, and sanitary authorities with the best intentions in the world must remain unable to deal with them.

In order that the law may be effectively administered, all concerned must co-operate. Sanitary authorities must be ready to use their powers, and individuals who are aware of cases in which the law requires to be enforced should at least be ready to give information of those cases to the proper authority. One local authority—and probably many more—has issued notices urging tenants to report direct to the proper officials all sanitary defects in their premises. Even without such an invitation, it would be a very proper and useful thing for tenants to make such reports. But, unless tenants who do so can be protected from their landlords, few will run the risk.

An authoritative statement which lies before us shows that a tenant, who reported certain sanitary defects in his premises, soon afterwards was served by his landlady's agent with a peremptory notice to quit, at the end of which was a postscript as follows: "Any other tenants making further complaints about reparation, etc., will be served with a similar notice." Presumably the defect reported was a serious one, entitling the sanitary authority to call on the owner to make structural alterations or repairs, and probably rendering the premises insanitary, if not absolutely unfit for habitation, till those alterations or repairs should be completed. Presumably, therefore, it was important, not only for the comfort of the particular tenant who made the report, but for the welfare of the community, that those defects should be pointed out and remedied as quickly as possible. The epidemic now prevailing in many parts of Europe, and the present immunity of this country, point specially to the importance of promptly discovering and remedying all such cases. But if those who know of cases calling for the interference of the sanitary officials are to be intimidated against giving information, the difficulties of local authorities will be greatly increased, and the security from disease of the inhabitants of Great Britain will be correspondingly diminished.

Is there, then, no means of preventing such high-handed procedure on the part of a landlord? Apparently there is no penalty imposed by law on such conduct. All right-minded people would doubtless reprobate it, and many landlords and agents would probably be deterred from issuing similar notices or writing letters containing such threats by the fear of their conduct being known and commented on adversely. Publicity should therefore be given to all such letters. Those who publish them need be under no fear of any proceedings for libel, and the writers of the letters would probably regret the notoriety they brought upon themselves. But more than this is wanted. Threats of eviction may not be very frequent, at any rate not in so flagrant a form as that before us. But the intimidation produced by fear of eviction may nevertheless be very real, and its effect be very deterrent. If, instead of giving information which might possibly result in legal proceedings being taken, the tenant were to give that same information as evidence in those proceedings, he would be protected by the law as it stands now. This year it was found that, though witnesses giving evidence in courts of law were adequately protected, witnesses who gave evidence before Royal or Parliamentary Commissioners were not so, and an Act has been passed for the purpose of giving them protection. Any person who threatens or in any way punishes, damnifies, or injures, or attempts to punish, damnify, or injure anyone for having given evidence on any injury or on account of the evidence which he has given on any such injury is now guilty of a misdemeanour, and punishable with fine or imprisonment. It appears to us that the principle of this Act should be carried a little further, and that a similar penalty should be imposed on persons who, by means of intimidation, prevent or try to prevent others from giving information to public authorities which if given may be beneficial to the public. A short Act, on the lines of that passed this year, might easily be passed next session if the members of the House of Commons felt that it was demanded. Mr. Ernest Hart, the Chairman of the Parliamentary Bills Committee of the British Medical Association, is now engaged in drafting a Bill for this purpose, which will be submitted to an early meeting of the Committee, and of which we shall shortly publish the text.

Public opinion has been awakened to the importance of quickly getting rid of nuisances likely to foster disease. A state of things calculated to prevent the existence of such nuisances becoming known, and therefore to prolong their existence, is to be deprecated. The necessary legislation for its removal is but carrying out principles already recognised. Will the new Parliament pass this practical measure of reform?

THE BOURNEMOUTH IMPROVEMENT ACT, 1892.

TENTATIVE local legislation followed by the more general application of those provisions which experience has shown to be beneficial is our British way of building up a sanitary code. The latest step in advance has been taken by the Bournemouth Corporation, who have secured additional sanitary powers by their new Act. They are authorised to demand (subject to payment) lists of customers from milk vendors or persons engaged in washing or mangling clothes—an important concession most valuable in cases where infection is suspected to have been transmitted by milk or through laundries. The power of compulsory removal to hospital of persons suffering from infectious diseases and without proper lodging or accommodation, under Section 124 of the Public Health Act of 1875, has sometimes been thought to apply only where the want of proper accommodation is prejudicial to the patient. The Bournemouth Act expressly states that regard is to be had also to the danger of infection to other persons in the same house. By-laws may be made regulating the admission and discharge of patients, their conduct in the isolation hospital, and the exclusion of unauthorised persons. Provision is made for the appointment, at the discretion of the Corporation, of nurses to attend to infectious cases outside the hospital. Rain pipes are not to be used as sewer ventilators. All sinks in new buildings must, where practicable, be disconnected, and in new streets the Corporation have power to require drainage and sewerage on the separate system. Compulsory powers are given to the Corporation enabling them to apply the smoke test to drains when necessary and to enforce the disconnection of sinks in existing houses, the provision of sinks or drains where required, and the filling up of cesspools, ashpits, and wells. They can also compel the owner of any inn, eating house, or other place of public entertainment to provide one or more urinals. New houses must not be occupied until proper drainage and water supply have been completed, nor until the surveyor has given a certificate that all the by-laws have been complied with. Mr. Nunn, the medical officer of health, states that as regards houses already occupied a voluntary system of certificates, issued after inspection, has been in operation for many years with excellent results, and that it is rare to find a house not in a sanitary condition. A house-to-house inspection is now being made. Cisterns for the supply of drinking water are declared to be a nuisance under the 1875 Act, if so placed or constructed that the water is liable to contamination. Additional powers are given in connection with common lodging-houses and slaughterhouses, an important item in regard to the latter being the power to prohibit slaughtering anywhere except in the public abattoirs, on condition of compensating the owners and occupiers of private slaughterhouses. The nuisance which often arises from the burning of garden refuse is to be brought under control by means of by-laws. Some of the sanitary clauses of the new Act were already brought within the reach of the Corporation by the adoption of Acts of 1890, but others are new and owe their existence in great measure to the able advocacy of Mr. Nunn.

THE ENFORCEMENT OF THE ADULTERATION ACTS.

IT would appear that some of the better class of traders in foods and drugs are at length becoming impressed with the importance of endeavouring to secure a more thoroughly efficient administration of the

Adulteration Acts. In the *Standard* of September 30th "A Merchant" writes to complain of the inadequate manner in which, as he says, the Acts are enforced in London, and asks what can be done to ensure the better administration of "these most useful Acts of Parliament." The use of this language is of interest, seeing that not so long ago the only public pronouncements made by merchants and others affected by the Acts were in the direction of disapproval and complaint. The writer referred to pointed out with much truth that, generally speaking, the vestries of London have failed to grasp the importance of the subject, and that their efforts, such as they have been, "have been wanting in that earnestness which is necessary for the successful carrying out of the powers placed in their hands." He states that, with regard to "margarine or butter substitutes," it is well known in the trade that this is sold in large quantities all over London as pure butter at prices ranging from 10d. to 1s. 2d. per pound, leaving a very handsome profit to the vendor, but defrauding the public and doing great injury to those who will not run the risk of losing their reputation for just dealing or even the remote chance of a prosecution under the Acts, and who are therefore frequently compelled to sell pure butter at an absolute loss or find their customers going to the unfair competitor. The initial step generally taken by the London vestries in appointing inspectors of nuisances or sanitary inspectors to purchase samples is undoubtedly a mistake on one, inasmuch as these officers are not infrequently the best known persons in the district, and are, of course, constantly served with pure articles. This statement is well borne out by the Local Government Board reports, which always show that a much larger proportion of samples purchased privately are found adulterated than is the case with those purchased by the official inspectors. The remedy, however, is not to be found, as suggested in the *Standard*, in the appointment of officers by the London County Council to carry out the Acts. That body has quite enough on its hands. By the judicious expenditure of a little more money and a little more common sense the local authorities would be quite capable of dealing satisfactorily with adulteration in their districts if they felt really disposed to do so, and in those cases where they did not feel "so disposed" the application of a little statutory compulsion would no doubt be sufficient to put them into the right road. It must, however, be noted that the London vestries are by no means the worst sinners by omission. The Acts are scandalously burked in many counties and in several large cities and towns, and there can be no doubt that the only way of coping with the evil is to make the enforcement of these Acts compulsory upon all public authorities, in such degrees as shall be suitable to the respective populations.

A CASE OF GLANDERS IN GLASGOW.

In his latest report to the Glasgow Town Council the Medical Officer of Health records a case of glanders in man. The man was a foreman stableman, and had to attend horses suffering from the disease, and had to keep the crib and stall clean, scraping off discharge, etc. He had some knowledge of the disease and of the need of care on his own behalf. About a fortnight before he became really ill, he noticed a small, hard, slightly painful thickening or swelling on the inner aspect of the calf of the right leg, which did not at first attract much attention, but finally became an abscess. The patient became ill, for the first time, on September 20th. In about seven days he was compelled to keep in bed. About the eighth day a thick brawny swelling appeared at the upper part of the left calf, and the eruption first showed itself. Pulmonary complications declared themselves at about the end of the first week, but the characteristice nasal discharge and facial expression were not obvious till within twenty-four hours of his death, which occurred on October 3rd, the fourteenth day of illness.

THE SCOTCH BOARD OF SUPERVISION AND THE LOCAL AUTHORITIES.

Severe friction between the Board of Supervision and several local authorities in different parts of Scotland at present exists. Thus the Board has threatened Lochmaben Town Council with legal action if immediate steps are not taken for obtaining a proper water supply and drainage system for that burgh.

The Leith Town Council has been invited by means of a representative committee to a conference with the Board of Supervision regarding the sanitary state of that burgh. Similarly the local authorisies of Perth and Burntisland are being taken to task by the Board, and very much resent the pressure.

Evidently very confused notions as to the functions and powers of the Board of Supervision prevail among local authorities. Not very long ago we reported in the British Medical Journal the Earl of Wemyss and March, on behalf of the East Lothian County Council, as chafing against the criticism of the Board. It were well, therefore, that the Board should definitely convince these local office holders of its province. It will earn the gratitude of all if it will insist on a sufficient and pure water supply and an effective drainage system, as the best means to prevent the spread of cholera should it attack us.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,1 2 births and 3,470 deaths were registered during the week ending Saturday, October 8th. The annual rate of mortality in these towns, which had declined from 19.8 to 16.8 per 1,000 in the preceding five weeks, rose again to 17.8 during the week under notice. The rates in the several towns ranged from 10.3 in Croydon, 11.9 in Blackburn, 12.7 in Leicester, and 13.0 in Derby to 21.8 in Manchester, 22.0 in Liverpool, 22.5 in Preston, 23.3 in Bolton, and 26.7 in Salford. In the thirty-two provincial towns the mean death-rate was 18.7 per 1,000, and exceeded by 2.3 the rate recorded in London, which was only 16.4 per 1,000. The 3,470 deaths registered during the week under notice in the thirty-three towns included 505 which were referred to the principal zymotic diseases, against numbers declining from 999 to 535 in the preceding five weeks; of these, 206 resulted from diarrhœa, 73 from diphtheria, 70 from measles, 68 from scarlet fever, 45 from "fever" (principally enteric), 43 from whooping-cough, and not one from small-pox. These 505 deaths were equal to an annual rate of 2.6 per 1,000; in London the zymotic death-rate was equal to 2.0 per 1,000, while it averaged 3.0 in the thirty-two provincial towns. No fatal case of any of these diseases occurred last week in Halifax: in the other towns they caused the lewest death-rates in Derby, Bristol, Birkenhead, and Blackburn, and the highest rates in Swansea, Hull, Leeds, Preston, and Salford. Measles caused the highest proportional fatality in Huddersfield, West Ham, and Salford; scarlet fever in Plymouth and Preston; whooping-cough in Huddersfield and Salford; "fever" in Portsmouth, Leeds, and Swansea; and diarrhœa in Bolton, Cardiff, Leeds, Nottingham, Hull, and Preston. The 73 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 51 in London, 4 in Croydon, and 4 in Sheffield. No fatal case of small-pox was registered last week either in London or in any of the thirty-two provincial towns; three small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 6 in the Highgate Small-pox Hospital on Saturday last, October 8th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,628, against numbers increasing from 3,052 to 3,514 on the preceding seven Saturdays; 412 new cases were admitted during the week, against 370 and 389 in the previous two weeks. The 184 deaths from diseases of the respiratory organs in London were 53 below the average, and were equal to an annual rate of 2.2 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, October 8th, 824 births and 515 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.9 and 17.1 per 1,000 in the preceding two weeks, rose again to 18.5 during the week under notice, and was 0.7 per 1,000 above the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 11.5 in Paisley and 11.6 in Greenock, and the highest rates 19.8 in Edinburgh and 20.6 in Perth. The 515 deaths in these towns included 68 which were referred to the principal zymotic diseases, equal to an annual rate of 2.8 per 1,000, which was slightly above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Leith and Edinburgh. The 252 deaths registered in Glasgow included 13 from diarrhœa, 11 from scarlet fever, 7 from whooping-cough, and 3 from diphtheria. Seventeen fatal cases of measles and 3 of diphtheria were recorded in Edinburgh. The death-rate from diseases of the respiratory organs in these towns was equal to 3.0 per 1,000, against 2.2 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, October 1st, were equal to an annual rate of 22.5 per 1,000. The lowest rates were recorded in Wexford and Newry, and the highest rates in Galway and Dundalk. The death-rate from the principal zymotic diseases averaged 2.8 per 1,000. The 144 deaths registered in Dublin were equal to an annual rate of 21.5 per 1,000 (against 23.3 and 19.7 in the preceding two weeks), the rate during the same period being 15.2 in London and 14.6 in Edinburgh. The 144 deaths in Dublin included 25 which were referred to the principal zymotic diseases (equal to an annual rate of 3.7 per 1,000), of which 20 resulted from diarrhœa, 2 from "fever," and one each from measles, scarlet fever, and whooping-cough.

THE REMOVAL OF HOUSE REFUSE.

A Member B. M. A. states that for twelve months past he has been unable to get the sanitary authorities to remove house refuse, although he has written to the medical officer of health and to the inspector of nuisances.

*** If the local authority have undertaken the duty of removing house refuse, either by their own staff or by contracting for the work, formal notice in writing should be given to them, as provided by Section 43 of the Public Health Act of 1875. If the refuse is not removed within seven days after such notice, the authority are liable to a penalty not exceeding 5s. for each day of default, to be paid to the occupier of the premises. If the authority have not undertaken the removal of house refuse, the duty rests with the owner or occupier; and as the accumulation of twelve months probably causes a nuisance, the authority seems to have been remiss in not interfering long ago.

NOTIFICATION IN SOUTH DEVON.

Dr. William Harvey (Newton Abbot) writes: I am glad to find that the British Medical Journal has at length discovered, or at all events admitted, the superiority of inspection over notification. This is a generous concession of the whole point I tried to make. The paragraph is preceded by a Derbyshire Council memorandum, in which reduction of fatality from scarlatina to less than half is stated. Typhoid is also mentioned. The credit of this is given to notification, and the adoption of the Act is therefore urged on every sanitary authority in that county. *Audi alteram partem.*

The above is not a very great reduction comparatively. In this district those same diseases in about the same period have so far diminished that their mortality has descended, not to one-half or one-third, but to something like one-twentieth. This has been done without notification. Would it not, therefore, be wise to urge on the other authorities in Devon not the adoption of the Act but its repudiation? No; it is a case of reasoning from small data in both cases. Yet the inference is logically equitable, the Devon case being rather stronger than the Derbyshire one.

*** It is not clear what Dr. Harvey means by "the superiority of inspection over notification." What we have stated is that, while the former is the more important, both are essential, and that neglect of the one is no reason for neglect of the other, but can only make matters worse. They are not alternative means to the same end.

ROYAL COLLEGE OF SURGEONS.

A QUARTERLY COUNCIL was held at the College on Thursday, October 13th; Mr. T. BRYANT, President, in the chair. The minutes of the last Council were read and confirmed. The Secretary reported the death of Mr. Edward Cock, past President, and of Mr. Samuel Lane, past member of the Council of the College. Votes of condolence with the families of the deceased were carried.

Mr. J. N. C. Davies-Colley was formally introduced as a member of the Court of Examiners. It was announced that the vacant examinership in anatomy thus occasioned would be filled up at the ordinary meeting of the Council in December. The reports of the Museum and Library Committees were read and confirmed.

It was resolved, on the recommendation of the General Purposes Committee, that a sum not exceeding £120 be expended in fitting up the room next to the Secretary's office as a common room for the Fellows and Members.

A report was read from the Committee of Management. Mr. Jonathan Hutchinson was re-elected a member of the Committee, and Mr. T. Bryant was appointed to the vacancy caused by the resignation of Sir William Savory.

The Committee recommended that, as the courses of practical instruction given at St. Bartholomew's Hospital and at the Bristol Medical School fulfilled the requirements of the Conjoint Board for the diploma in Public Health, the same should be recognised.

It was further recommended that the Durham College of Science should be recognised as an institution where candidates may receive instruction in Chemistry, Physics, Practical Chemistry, and Elementary Biology for the First Conjoint Examination.

Mr. J. W. Hulke was re-elected on the Laboratories Committee, and Mr. Howse was appointed on the Board of Examiners in Dental Surgery.

It was announced that the report to be presented to the Fellows and Members at the meeting to be held on November 3rd, would be ready on October 20th, and would be forwarded by post to the Fellows and to such Members as might apply for it.

The President stated that the Bradshawe Lecture would be delivered by Mr. Christopher Heath on December 1st, at 4 P.M.

MEDICAL AID ASSOCIATIONS.

DR. LESLIE PHILLIPS, Secretary of the Medical Defence Union, has recently addressed an open letter to the General Medical Council with reference to the dangers to be apprehended from the growth of medical aid associations. The subject, as we have often indicated, is important, and deserves the serious attention, not only of those to whom it is addressed, but of all members of the medical profession. Readers of our pages will have noted that a system has been gradually developing itself by which unqualified laymen derive considerable profits from farming out the services of qualified medical practitioners, who are rewarded by small and very inadequate salaries, and are, in fact, merely the servants of the committees who employ them. Full details of the existing facts are furnished by Dr. Leslie. These medical associations, which are becoming common in populous neighbourhoods, are commonly the outcome of working men's clubs and friendly societies, which, among the benefits they confer on their members in return for their subscriptions, usually include gratuitous medical aid in time of sickness.

It is legitimate enough for a qualified practitioner to accept the appointment of doctor to a club; and the remuneration he gets, calculated according to the number of subscribing members, forms in the case of many a country practice a substantial and welcome addition to an otherwise precarious income. The more modern medical aid association is not, however, a friendly society conferring various benefits (only one among which is medical aid) on its members, but is merely a plan for providing the working classes—and others too—with medical attendance at a cheap rate, and at the same time for making a profit out of so doing. In the case of the club, the members' subscriptions, or a definite proportion of them, are assigned to the doctor, who in return undertakes to attend on the members when required; the association pays a fixed salary, and pockets as many subscriptions as it can get. In some cases it requires the whole services of its doctor in return for the salary paid; in others it allows him to take private practice too, if he can get any, but exacts from him a stipulated proportion of the fees he receives. Whichever form the employment takes, the doctor is merely the servant of the committee, and is practically "sweated" for their profit.

This is a most improper state of things, and should not only be mended, but, if possible, should be ended. The difficulty is how to bring this about. The letter shows—what has, we fear, already been abundantly proved—that merely to call on the practitioners who have accepted service under such committees to resign their appointments would be useless. The salaries paid, though very inadequate for the work to be done, are yet such as to attract some desirous of making a livelihood, and not always finding it easy to do so. So that if the present occupiers were to resign to-morrow, their places, according to experience, would be filled directly, and possibly at even lower salaries than those now paid. The General Medical Council is to be appealed to. They will require to be backed by the opinion of the profession. We trust that they will feel able to say that the system to which attention is directed is professionally degrading. Otherwise there is reason to fear that men will be found to accept these posts, and these *soi-disant* medical aid associations will continue to flourish. An unqualified person may employ a qualified assistant to carry on a practice for his (the employer's) profit without, so far as we are aware, breaking any law so long as he does not hold himself out as being qualified to practise. Except, so far as they may be illegal associations for want of being registered under the Companies' or Friendly Societies' Acts, the medical aid associations cannot by any mechanism which suggests itself to us be prevented from carrying on their business by means of qualified servants, and from making any profit they can out of it. But they must, of course, have *qualified* servants who are on the *Register*. It therefore becomes a question for our own profession whether qualified practitioners are to be at liberty to accept such a position. The General Medical Council have already, in Dr. Leeson's case, decided that for a registered practitioner to act as cover of an unqualified person, so as to enable him to carry on a medical practice as if duly qualified, constitutes "infamous conduct in a professional respect," within the meaning of Section 29 of the Medical Act, 1858; and neither Mr. Justice North nor the judges of the Court of Appeal before whom the case subsequently came intimated the slightest doubt of the correctness of this decision. The letter of Dr. Leslie Phillips contends that the medical officers of these medical aid associations are in reality covering the practices carried on by the committees of these associations, and so are committing the same offence for which Dr. Leeson was struck off the *Register*. In the cases where such medical officers have agreed to pay over to the associations any portion of the fees they receive from private practice, the offence, as put by Dr. Phillips, is distinctly raised. There is, however, a distinction—which it may be difficult to overcome—between the case of an unqualified man who himself practises and employs a qualified assistant to cover him and that of an association which employs a qualified man to practise and derives a profit from his labour. The cases where a fixed salary is paid for attendance on members of an association, leaving the medical servant unfettered as regards his private practice outside, seem also very dubious. The association, no doubt, in many such cases, makes a considerable profit out of the difference between the subscriptions received by it and the salary paid to its doctor; but some margin for expenses of management and contingencies would probably be allowed. It would be difficult probably to lay down a general rule for such cases, but each could be dealt with on its merits, according to the particular facts proved.

The profession, at any rate, has a right to expect that all reputable practitioners will decline to continue to serve under such associations, and that the committees of the associations will see the necessity of modifying those conditions, even though they thereby diminish the illicit gains which they have amassed.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, OCTOBER 15th, 1892.

THE CHURCH CONGRESS AND VIVISECTION.

For many reasons it is a matter for congratulation that the Church Congress decided to admit the question of Vivisection as one of the subjects of debate. Although no vote is taken, owing to the fact that the audiences at this Congress are not wholly composed of the executive officers of the Church—that is, the clergy—yet the general expression of the opinion of the members of the Congress is very easily given, and on the recent occasion, when scientific experiments were discussed, it was very distinct.

The relation of the clerical and medical professions has always been so intimate and cordial that anyone disturbing such concord involves himself in very grave responsibility. That responsibility now rests very heavily on the shoulders of Bishop Barry, and to a less extent on Bishop Moorhouse. The mode in which it has been incurred is as follows:

The antivivisectionist agitators resolved some time back to press their propaganda forward in the Church of England, and Bishop Barry was the only too willing instrument employed for this purpose.

Before entering into any details, we wish to warn the profession that the antivivisectionist attack is not now directed only on a few prominent scientists, but is aimed at the medical calling itself, and those who follow it. Readers of modern antivivisectionist literature know well that it is the general practitioner who is now the object of libellous depreciation among these people.

Mr. Lawson Tait has thought it well to cast in his lot with the antivivisectors. His position in this matter is a peculiar one. Mr. Horsley in his speech at Folkestone stated that Mr. Tait has evinced a remarkable reticence on this subject when in the presence of his medical brethren who are well informed on the whole subject, and are especially capable of forming an intelligent opinion upon the question of the value of experimental physiology to practical medicine. At first Mr. Tait accepted the invitation to attend the discussion at the Church Congress, but subsequently declined, and wrote to the *Birmingham Daily Post*, saying, "I have been excluded (I have certainly not withdrawn) from the discussion."

It was with such prefaces that the discussion took place on October 6th, at Folkestone. It has been so fully reported in our own columns and in the daily press, as to make it unnecessary for us to do more now than discuss the light it throws on the general relation of the leading speakers to science, at least, to medical science; the opinions as to the outcome of the discussion; and finally the position of those taking part in it who are hostile to the progress of medicine and surgery.

With regard to the Church, it was abundantly clear from the first that Bishops Barry and Moorhouse stood alone in their uncompromising attacks on medical men and their methods. They did not in the least represent the clergy, as was shown by the attitude of the majority of those present, and although Bishop Barry especially seemed at first to regard himself as the representative of his professional brethren, they made it abundantly clear to him at the meeting that he was nothing of the sort.

The fact is, that though some clergymen might for the moment be led astray from the simple questions of morality involved in the debate by high sounding phrases and skilful illogicality, their final judgment as intellectual men is based on a reliance upon their personal experience of the humanity and good sense of the members of our profession. On the latter point, namely, the general character of doctors, the most curious feature of the discussion was, that although for obvious reasons he gave no example, yet Bishop Moorhouse alleged that the moral characters of medical men who gained knowledge by the aid of experimental science must of necessity be degraded.

It would seem very extraordinary that a Bishop should be found capable of uttering such a monstrous assertion, of which he has not a shadow of proof, did we not remember the behaviour of this reverend prelate on a previous occasion. In October, 1891,[1] we expostulated with the Bishop for having, in a sermon, scattered broadcast the same allegations, and worse, for he positively characterised experiments as "diabolical." He neither withdrew his statements nor inquired into the facts. But putting aside conjectures as to what his conduct in the future should be, he has now placed himself in a very grave position.

Mr. Horsley has formally charged him, as indeed we were constrained openly to do in 1891, with a distinct want of morality and sense of religious duty in committing himself publicly to such gross charges against the medical profession without making an effort to find out whether the basis on which he is and has been acting was that of truth. That basis (it is hardly credible) is nothing more than a series of unscrupulous misstatements of the antivivisectionists. For a Bishop to have unhesitatingly accepted such vile aspersions on the character of men with whom he must often come in contact, and rarely without a sense of respect, is a most serious comment on his justice and discrimination.

What makes the situation still worse is that we are informed by Mr. Horsley that, at the request of a mutual friend, he supplied the Bishop as long ago as last spring with a refutation of the principal misstatement with which the Bishop had been only too successfully plied. No acknowledgment has been received, and the Bishop made no allusion at the Congress to what he had learnt, or to the fact of his having made no investigation of his own into the truth of the libel he so freely disseminates. What are ordinary men of the world to think of conduct such as this?

Fortunately for the honour of the Church the Bishop of Edinburgh made a very powerful speech on the side of truth.

[1] "A Word with the Bishop of Manchester," British Medical Journal, p. 755.

In it he said "I repel with the utmost indignation the expressions used by Bishop Barry and his attitude towards the medical profession." The Bishop of Edinburgh then went on to say that the members of the medical profession in Edinburgh were known to him personally, and he then dwelt with warmth upon the attempt of Bishops Barry and Moorhouse to represent such men as anything else than of high moral character and in the truest sense humane.

In this the Bishop reflects the real feeling of the Church, and for the kindly expression of the loyal relationship existing between the two professions we are grateful to him.

Next as to the opinions upon the general effect of the discussion nothing can be clearer than that this miserable agitation has received what ought to, and we believe will prove to be, its death-blow in the estimation of honest and intelligent men. The gradual spread of science in general education has for years steadily undermined it, but it needed a final push to overthrow the fabric of misstatements and ignorant abuse. In its ruin it has necessarily involved the reputations of its supporters, and while we cannot feel much regret that retribution has at last overtaken those who, though sitting in high places, are guilty of injustice and misrepresentation, even if unintentional, we regret that the office of Bishop has been exposed to depreciation through the ill conduct in this matter of those holding it.

As for the position of others who stand now before the bar of public opinion, Miss Cobbe's is unquestionably the most unenviable. She stands charged by Mr. Horsley with "deliberate fraud," and he substantiated his charge to the Congress. The reputation for truthful statement or fair argument which Miss Cobbe has with some persons borne in this agitation has long been estimated by physiologists and physicians at its true value. Now, however, she is literally brought to book, and it will be no easy matter for her to rehabilitate her damaged character in these respects, since it is on the point of deceit that she is impaled, and from which she will hardly extricate herself.

For persons like the Duke of Newcastle, who is alleged to accept the good of modern experimental research at one moment, and at the next minute to revile the hand that helped him, it is difficult to feel much respect; and as a typical example of an antivivisectionist, and, holding a position of some prominence, he would do well to make an answer, if he has an answer to make.

There remains the consideration—What will be the next step of the Antivivisectionist Society, comprising, as it does, such a heterogeneous mass of pseudo-moralists? Will they meet in order to dissolve partnership, on account of the public exposure that has been made of each other's moral shortcomings?

We doubt it, though we shall watch with interest the behaviour of Lord Coleridge and my Lords Bishops of Bath and Wells, Manchester, Liverpool, Southwell, Wakefield, Carlisle, and Coventry. These gentlemen have a reputation to preserve; we ask them to consider their position now, to make those inquiries into the nature of experiments from the sources of truth that they ought in morality and justice to have made long ago, and to cut themselves loose from a Society which is now publicly demonstrated to propagate falsehood and to be supported by ignorance.

In conclusion, a new lesson may be drawn from this contest. It is that the little known Association for the Advancement of Medicine by Research, which has silently done most valuable work, should receive the earnest and active support of the profession. This Association has for its Presidents the President of the Royal College of Physicians and the President of the Royal College of Surgeons, its Treasurer is Dr. Samuel Wilks, and its Secretary Mr. Stephen Paget. It is ever ready to help the original investigator, and to make lighter, if possible, the administration of the ridiculous and often obstructive provisions of the so-called Vivisection Act, which frequently act in a manner altogether contrary to the public welfare. Its work is laborious, difficult, and thankless; the profession and the public should therefore now energetically and substantially assist it to accomplish its most useful purpose.

THE WORK OF THE LATE ADMINISTRATION AND THE NEXT.[1]

IV.—PROSPECTIVE MEASURES REQUIRED.

ARMY MEDICAL SERVICE.—Our readers will be aware that during the past six years of the controversy we had full and certainly unique opportunities of judging of its merits or demerits in every detail. A large number of correspondents sent us many confidential communications, for which we return thanks, and of which we endeavoured to make the best use, in setting forth a balance of opinion. Since the issue of the Warrant, we have also been favoured with many searching criticisms into its provisions, and the direction in which it requires to be strengthened or supplemented; such points we recently embodied in a memorandum, which we proposed to submit to the Secretary of State for War; it will be convenient to take the points *seriatim*, and discuss them in the light of further criticism which we have had since it was issued.

1. *Full Application of Rank.*—What rank? That set forth as "substantive" in the Warrant; which on mature reflection we think can only mean substantive army rank, because that and honorary rank are the only ranks now known in the service and named in the regulations. Some have thought it to mean substantive departmental rank, but, in the first place, there is no such rank; and secondly, both text and context of Article 267A forbid such an interpretation. The precedence and advantages the rank conveys are those attaching to the military portion of the medical officer's title; while the limitations in command and the presidency of mixed courts and boards can only refer to the army at large, and could have no significance in an inter-departmental rank. The nature of the rank being, therefore, clear, within defined limitations in the Royal Warrant, any infringement of its scope by Regulation for Her Majesty's Army, or Army Order, cannot be permitted, and the whole must be brought into harmony, which has not yet been done.

We would name the invidious and indefensible order, contrary to Sir Sidney Herbert's Royal Commission, by which medical officers are practically excluded from sitting on mixed boards, and are called only as witnesses; their presence on many such boards, relating to military sanitation and hygiene, would undoubtedly be of great advantage to the army; but, lest they should in the matter of seniority come

[1] The articles of the series already published have appeared in the BRITISH MEDICAL JOURNAL of August 20th, p. 423; August 27th, p. 513; and September 17th, p. 648.

between the wind and the assumed superior combatant class, they, forsooth, are, by a side order, relegated to the position of helpless and voteless witnesses. The public can hardly be aware that such absurd prejudices are still pandered to in the army.

Again, we would like to know what sense or justice there can be in the rule that the oldest and most senior medical officer must always be held junior to the youngest combatant at the semi-social mess table; this is a clear violation of the precedence resting on military title, and must be swept away. Then on what ground, except that of obsolete custom, are the names of medical officers always placed last in staff and other military lists. The departments in the *Army List* are ranged alphabetically; and, at the very least, individual medical officers are entitled to have their names placed in a similar order in all staff and official lists. Further, we know how general officers, with some most honorable exceptions of the highest rank, and Court, and other officials, are permitted to play ducks and drakes with the precedence of medical officers at ceremonial functions; this is an unwarrantable abuse of place and power which must be put a stop to by regulations which cannot be perverted or ignored. The precedence attaching to the military portion of the title must be made a reality, which no jack-in-office will presume to infringe. Some civilians may think these matters are not so important as we make them; but life in the army is made up of many elements of precedence and etiquette, without which it becomes insupportable. We are quite aware it is semi-officially held and stealthily acted on that the grand theory of command practically overshadows and annuls the military precedence of non-combatants; which convenient assumption, if true, of course reduces a Royal Warrant conveying rank and titles to such officers to a veritable mockery, delusion, and a snare. We hardly think even the most stiff-necked and hidebound upholder of military caste would venture to affirm publicly that any document bearing Her Majesty's sign manual was of that character. The command theory, indeed, has its limits, like everything else, and medical officers are fully prepared to recognise where it should come in, and where it should not, in matters of army precedence.

2. *Full Application of the New Titles.*—The compound titles have, of course, been given to all active officers of the Home, Indian, and Auxiliary Forces, but have been withheld from those on the Reserve or Retired Lists who had ceased to be active before the issue of the Warrant. The value of these titles, in being consecutive and showing conclusively the military status of the holder, is unquestionable. It has again been suggested that the rank would be better emphasised if the conjunction "and" be inserted, thus, "Surgeon and Captain etc.," There is good historical precedent for this course. It is one which we advocated from the first and which had very influential support. We regret that it was not adopted and we think the suggestion is one which should be further considered by the authorities. Some have called them cumbrous, but the objection has not been strongly pressed, except in the case of brigade-surgeon-lieutenant-colonel, which is mongrel as well. It is a pity that no better title has yet been evolved for this important rank.

That the new titles should be extended to those retired officers who are "liable to be recalled to service" is universally recognised; there are at present about 140 of them bearing the old titles, and nothing short of wilful and perverse titular confusion can result, should they be brought back to serve; for instance, an old recalled surgeon-major might assume seniority and command over a new surgeon-lieutenant-colonel! But besides those subject to recall, there are a number who, although not liable, being over 55 years of age, are still serving in retired-pay appointments under Article 352 of the Pay Warrant; it seems very proper that these officers should also have the new titles. But we might go beyond both classes, and inform the Secretary of State for War that it would be a great boon and gracious act to extend the optional use of the new titles to all retired officers. Most of them, particularly the old surgeon-majors ranking as or with lieutenant-colonels, find themselves titularly handicapped in public and social life by their younger brethren. If precedent is wanting for such retrospective action, one might be created for a concession at once harmless, reasonable, and inexpensive.

3. *Financial Application to India.*—This was one of the recommendations of Lord Camperdown's Committee; but we are sorry to say, although just and equitable on the face of it, still not only refused but excused on grounds which we venture to characterise as illogical, inconsistent, and indefensible. What are the facts? The Medical Staff in 1892 are actually serving in India in the ranks and pay of the Warrant of 1858, long since obsolete everywhere else. That Warrant was tardily accepted in 1864, and the Indian ranks and pay entirely remodelled on it. But in the teeth of that it was actually lately put in Mr. Curzon's mouth in the House of Commons that Indian pay had no connection with and did not vary with the home rates as settled by Warrants! This pay grievance in India is a great loss, especially to young officers, who did not engage to serve under the Warrant of 1858, which was abrogated before some of them were born. As the Medical Staff are in theory and practice lent to India, it is the duty of the Secretary of State for War to see that thereby they do not suffer pecuniary loss. The financial application of Warrants is not, therefore, as Mr. Stanhope put it, "a matter for India," but for the Home Government, and is all the more important and urgent in these days of a vanishing rupee!

4. *Tours of Foreign Service.*—The recommendation of the Committee that these should not exceed five years consecutively has as yet been ignored. It was based on the great and lamentably heavy sick- and death-rate of army medical officers, which is undoubtedly mainly caused by the stress of constant duty and the strain of service in unhealthy climates. The imposition of an extra year on each foreign tour must aggravate these evils. We put it to the War Minister to find out whether this most unpopular measure has been of the smallest good in lengthening the home tours; has it not rather resembled the famous but futile lengthening of Paddy's blanket? But it is also full of absurdities; Ceylon, for instance, is too hot for more than four years, but the adjoining temperate plains of Madras may be borne for six!

5. *Leave for Study.*—Medical officers are expected to keep abreast of the ever-advancing tide of professional knowledge, in spite of long foreign tours, harassing duties, and conditions of life most inimical to study. We say study is impossible without leisure, and knowledge merely acquired from

books imperfect; the developments in medicine and surgery must be witnessed in hospital practice to be of real benefit, and this is fully recognised in the navy, where study time is accorded. Let the same be done in the army, and medical officers granted leave on full pay—say six months—between the sixth and twelfth years of service for study at one of the great medical schools of the kingdom. Similar arrangements might be made in this matter as in France, where batches of army medical officers are allowed to have leave for certain periods for special study. We are sure the benefit to the individual directly and to the service indirectly would amply repay the State.

6. *Exchanges.*—The privilege of exchanging is a boon greatly prized in all grades of the service, and, within due limits, of much benefit to the State. But exchanges between medical officers have, we think, been needlessly hampered by vexatious restrictions, both written and unwritten, as we understand. They seem compelled to exchange places on the roster in the dark, while other officers always know what they are doing and where they are going. They should be allowed to exchange within a reasonable time after being warned for foreign service, and at any time after return home, if physically fit. What is the objection in the latter case; is it that they are too liable to return in shattered health after over-long foreign tours? What a confession! We think the reasonable restrictions in the Queen's Regulations on exchanging are all that is required for medical as for other officers.

The suggestions which we have put forward are based upon correction and amplification of the existing Warrant and cognate regulations. We do not by any means imply that the existing Warrant—which takes as its point of departure in respect to rank and title the actual organisation of the Army Medical Staff and the bestowal of compound titles in respect to that organisation—can be accepted as final. We have good reason to know that the wish nearest the heart of the great body of army medical officers is that the Army Medical Staff should be organised as a separate corps, upon the model of the Royal Engineers, and with a distinct and recognised title as a "Royal Army Medical Staff." Such a reorganisation we have always advocated; it would imply corresponding revision and modification of rank and title. The officers of the Royal Army Medical Corps would have substantive rank in that corps like every other officer in the army, and no more difficulty would be felt in assigning to them, on the face of their title in the army medical lists, their substantive rank—coupled with limited command—than is felt now in the case of the Royal Engineers. This would, we are satisfied, be the best and true solution of all difficulties, and would prevent the frequent friction which arises under the Warrant of 1890. Whether it will be in the power of the present Secretary of State for War to carry out this most desirable modification of the present state of things it is not for us to form a judgment. If he should see his way to do it, he will undoubtedly signalise his administration by a reform which would imply no additional burden on the Estimates, and which would not in any way affect the general discipline of the army otherwise than favourably, while it would do very much to smooth any existing difficulties. Such a change would undoubtedly render the Army Medical Service much more desirable and acceptable to the medical profession than it is at the present moment.

NAVAL MEDICAL SERVICE.

The late Government were not unmindful of the claims of the medical service of the Royal Navy, and it must be conceded that they have in many ways ameliorated the condition of that service, not only by adopting a conciliatory policy towards its *personnel*, but by conceding many improvements which experience and the progress of medical science indicated as necessary to the treatment of the sick. Such policy has had as its results the formation of a contented and reliable professional service. To this, the permanent body, there has now been added a reserve force raised by volunteers from amongst civil practitioners. In the season afloat improved accommodation for the sick has been provided in all recently built ships, so that ailing or injured persons now may be as comfortably attended to afloat as in any permanent hospital on land. The authorised scales of medicines and of medical stores have been revised and brought into accordance with modern ideas, remedies, and appliances which have generally received the approval of the profession being introduced. Nor has the question of dietary been ignored, the issue of suitable necessaries for the sick having been discussed in committee, and an improved supply sanctioned. The advancement of medical science has also been encouraged in that the teaching of bacteriology, especially with regard to the recognition of water-borne diseases in Her Majesty's ships, in the Haslar School has been established as part of the course for newly entered surgeons; and, in addition, classes for practical tuition in dental surgery have been commenced in order that all medical officers of the Royal Navy may have at least some elementary knowledge in the common method of preserving the teeth of the *personnel* of the service.

Very encouraging have been the results of the establishment of an examining board independent of that for the sister services. Competition for commissions has been more severe than in past years, and the professional qualities of the successful candidates have been of a high standard. To surgeons of a few years' seniority regulated opportunities have been given for clinical study at the metropolitan hospitals, such officers receiving their full pay, while others have been appointed to one of the naval hospitals either at home or abroad for such periods as would ensure that each should in his turn have at least one year's opportunity of renewing his professional experience. By careful calculation of the probable requirements of the service, and by limiting the number of commissions offered for competition, half-pay has practically been abolished. The system of nursing the sick has been thoroughly reorganised by the training of young marines especially suited for such duties, and the formation of a special hospital corps for services ashore or afloat, in addition to the permanent nursing staff attached to all naval hospitals at home and abroad. Experiments to prove the efficiency of this body have been carried out each year on a somewhat extensive scale by landing from vessels returned from the naval manœuvres numbers of imaginary wounded men requiring prompt removal to hospital.

WE are asked to remind members of the Executive and General Committee of the Medical Sickness, Annuity, and Life Assurance Society that the next quarterly meeting will be held on Wednesday, October 26th, at 4 P.M. and 4.30 P.M. respectively.

SIR RICHARD OWEN.

Sir Richard Owen's condition has been steadily improving during the past week. He takes now much more nourishment. He is still confined to his bed, and does not wish to rise, amusing himself by looking at illustrated papers and books, which appear to give him much pleasure. He does not read, but he is quite able to converse for a short time. His condition is absolutely painless. Sir Richard does not see many people, except his daughter-in-law and his grandchildren, who are residing in the house, and Dr. Palmer; but the Prince of Wales, the Duchess of Teck, and Princess May, and Sir James Paget have visited him during the last few few days.

THE MEDICAL INSPECTOR OF H. M. CUSTOMS.

We are officially informed that Dr. T. H. Dickson has been appointed Medical Inspector to H. M. Customs. The duties of the office embrace the medical care of about 1,000 officers and other employés scattered over an area of about twenty square miles. They usually occupy eight to ten hours daily, including official writing and attendance at the Custom House. The emoluments are diminished by heavy travelling expenses and other charges for the benefit of the patients. Unceasing vigilance is necessary to maintain discipline. Personal knowledge of the men is an important factor in this regard, and Dr. Dickson possesses the great advantage of long experience and an intimate knowledge of the details and pecularities of the work acquired by acting with his father as an unpaid assistant.

ENTRIES AT THE MEDICAL SCHOOLS.

We have received official returns from a number of the medical schools of the entries of students up to date. They are, however, far from complete, the majority of the schools preferring to reserve their announcements until the roll of entries is completed at the end of the week. A good deal of curiosity is felt to know the number of new students, as the present session is the first in which the new rules as to the extension of the curriculum to five years come into force. It has been thought that the extension of the curriculum to five years might have some effect in deterring young men from adopting the medical profession as a career. So far as the returns at present received show, however, there does not appear to be any evidence of the kind. Taking the six schools which have already favoured us with the records of entries, we find that the total number of new entries for the full curriculum is 163 this year as against 156 last year.

THE BERRIDGE BEQUEST.

There is not, we understand, any clue to the causes which induced the late Mr. Berridge to leave so large a sum towards promoting education in sanitary and economic science. He named the matter to his solicitor and trustee, Mr. John Hunter, when he gave instructions for his will, and promised to do something to work out his scheme in his lifetime; but he left no further instructions and gave no other hints as to his wishes than what are to be found in the will. The scheme for teaching cookery in the voluntary schools is, we are informed, to be settled by the Committee of the National Society for Promoting Education of the Poor, so far as the Church of England schools are concerned, and by the committees of the other three societies so far as the voluntary schools under their charge respectively are concerned. The committees who manage these societies have large experience in all educational matters, and the trustees are content to leave the matter to them.

THE CHART OF CRIME.

One of the most striking papers read at the recent Congress of Criminal Anthropology at Brussels, the substance of which appears in the published reports, is that of M. Hector Denis. M. Denis has devoted himself to demonstrating the terrible parallelism which exists between criminality and the price of bread, or the rise and fall of salaries and wages. When the price of bread rises, or the rate of wages falls—in short, whenever a severe economic crisis prevails—crime augments, and, at the same time, the ratio of the marriage and birth-rate diminishes. The eloquence of figures is sometimes spoken of; it is there seen, and, at the same time, the evidence of the laborious devotion by which the results have been traced. These sympathetic conclusions are only arrived at by an amount of hard work which is not readily appreciated.

THE SALE OF POISONS IN INDIA.

We have from time to time called attention to the great danger to the public and the serious encouragement of criminal tendencies occasioned by the unrestricted traffic in deadly poisons in India. We are aware of the old argument of those who counsel non-interference, namely, that in a country where deadly herbs grow on every roadside and open space it is impossible to prevent their improper use, but this argument scarcely applies to the wholesale and retail dealings in white arsenic, which we understand can be bought without let or hindrance, or any record of the sale or purchase, in every village bazaar throughout the country. The chemical examiners to the various Governments invariably show that in about three-fourths of the cases in which poison is used with criminal intent the article selected is white arsenic, not only for the putting away of obnoxious individuals but for the destruction of cattle as well. Strychnine is used in India for the destruction of the larger carnivora, and to a limited extent finds its way into the native drug market. The common drug used for hocussing and subsequent robbery is the seed of the thorn apple or common datura, but this indigenous and common drug is rarely used with intent to kill. It is a convenient tool for the highway robber, who, instead of using violence, takes an opportunity of dropping datura seeds into the currypots of travellers, and thus stupefies his victims.

THE LAW AS TO THE SALE OF POISONOUS PROPRIETARY MEDICINES.

In the report presented to the Annual Congress of the Grocers' Federation at Manchester, it was stated to be the opinion of the Committee that the present interpretation of the Pharmacy Act in regard to the sale of proprietary medicines is most improper and unfair. The Committee therefore recommended that any prosecutions to recover penalties should be opposed, and that the Federation should support the defence of such cases financially and otherwise. The subject was again brought forward at a subsequent meeting by a motion that the earliest opportunity should be taken to test thoroughly the question at issue. It would appear from this that the Council of the Pharmaceutical Society can readily take such action as would furnish that opportunity forthwith, and we await the result of that course of procedure with considerable interest.

MEDICAL CORONERS.

Through the death of Mr. Bevis Heywood Thelwall, Dr. Edward Davies, who has been acting as Deputy-Coroner for the eastern division of the county of Denbighshire, has offered himself as a candidate for the now vacant office of Coroner. As a Welshman and a Doctor of Medicine, having an extensive practice among the inhabitants of Wales, Dr. Davies possesses all the necessary local and general qualifications. His long experience, too, in the work of the coroner's court gives him a particular qualification, as it begins, we believe, to be now more widely than ever recognised, that the duties of the coroner, as at present defined and carried on, require medical and technical knowledge, as much as an acquaintance with the laws of evidence of witnesses and the routine of a preliminary legal inquiry—such as a coroner's inquest is. The coroner has not the same

advantage as other judges have of being assisted by counsel in eliciting from the witnesses by cross-examination, the technical details on the one side or the other, necessary to establish a scientific medical fact or detect any shortcomings in evidence or intentional omissions. Unless the coroner himself possesses a considerable amount of medical knowledge, and understands of his own knowledge the relative value of symptoms during life and *post-mortem* appearances, he is at an immense disadvantage in drawing any accurate conclusion from the medical evidence in any inquiry. In other courts these difficulties are overcome by briefs of counsel engaged in eliciting the truth by testing the evidence on technical data specially supplied to them in each case, but in the coroner's court the parties usually appear without any legal assistance; thus the coroner, unversed in medical and pathological lore, is at every moment liable to fall into errors due to his own ignorance. He is practically at the mercy of either the medical witness, who may sometimes himself be at fault and imperfectly versed or unconsciously biassed in the questions which require solution; or he may rely on what he considers to be common sense or popular knowledge. Such causes of inefficiency are often to be noted in published inquests, and the coroner's court has thereby fallen into frequent disrepute. Inquiries by merely legal coroners often result in a verdict either ridiculous or contrary to fact, and lead to the defeat of the object of such inquiries. We hope that Dr. Davies may be successful, and it would be satisfactory to know that this particular district of Wales is guaranteed by his appointment against the frequent absurdities of coroners' inquests.

UNIVERSITY COLLEGE HOSPITAL.

THE windfall which recently came to the Council of University College in the form of £15,000, for which they surrendered the privilege of barring up Gower Street once a year, has probably helped them to make up their minds as to the much-needed reconstruction of the hospital. It is announced that it will shortly be rebuilt on a larger scale. The present building is singularly ugly, and is defective in comfort and sanitation. There is no longer any ground for complaint as to want of room. The Council have secured the freehold of the whole of the square plot of ground bounded by Gower Street on the east, Huntley Street on the west, Grafton Street on the north, and University Street on the south, and on this site it is proposed to build an entirely new hospital after the most modern plan. A portion of the new hospital will probably be erected in the rear of the present building, and, when completed, patients will be transferred to it so that there will be no interruption in the reception of patients or the clinical work of the school. The new hospital will contain accommodation for 400 patients.

THE GREAT MILITARY RIDE: DRUGGING AS AN AID TO ATHLETICS.

WE could not, without laying ourselves open to the rebuke addressed to the cobbler of antiquity who rashly tried his hand at art criticism, discuss the great ride of German and Austrian officers between Berlin and Vienna from the military point of view, and with regard to the cruelty to the horses which such a contest involved we can only echo the condemnation which has passed on it by the whole press of this country. There is an aspect of this matter which seems to have escaped the notice of most persons, and that is the novel application of drugging to sport which it exemplifies, if it does not inaugurate. We read that Lieutenant von Miklös and some other riders, both Austrian and German, only succeeded in bringing their lamed and over-ridden mounts to the winning post by the aid of hypodermic injections of morphine, supplemented in one or two instances by the exhibition of heroic doses of brandy. Now the injection of morphine would appear likely to increase the suffering of the miserable horse by adding to the pain of fatigue a forced struggle against the soporific effect of the morphine. As to the brandy, we know that as regards the human subject the experience of the athletic as well as of the medical world is opposed to the use of alcohol when great and continuous exertion has to be undergone. Perhaps, however, in respect of both these powerful drugs, the horse can say with Lady Macbeth: "That which hath made them drunk hath made me bold." However that may be, we confess we view with some alarm the possibility of such formidable "pick-me-ups" becoming fashionable among human athletes. By the scientific use of the imagination it is easy to form mental pictures of pugilists who have just received a "nasty blow" in some tender part of their anatomy finding balm for their wounds in the Gilead of the morphine syringe, or of oarsmen who are "going to pieces" being braced up for fresh efforts by injections of ether or strychnine, or of "pumped-out" runners getting their wind again by recourse to the oxygen bottle. Caffeine and all the newest heart stimulants would, of course, be kept "on tap" on every well-regulated ground. The presence of an experienced doctor will then be as indispensable at athletic contests as it is at duels, and a new and highly promising form of specialism will be opened to an overcrowded profession.

"TO BE CALLED DOCTOR AND TO BE RESPECTED."

OUR attention is called to the fact that in Germany dentists from America holding the diploma of D.D.S. or D.M.D. have been fined by the Courts for using the title of Doctor. There are in this country many dentists from America who have in two years managed to get a qualification for manual dexterity granted by those who have taught them, and whose preliminary education is far from being adequate to sustain the title of Doctor of any science. There are, a correspondent suggests, two medical defence societies now, and one or both of these might with advantage make a raid upon a few of the gentlemen above referred to. This, it is stated, may be the more necessary that it is alleged that some Englishmen are found who avoid the four years' curriculum required for the dental licence in this country by going to America and becoming naturalised citizens, in order that they may obtain a diploma in two years which entitles them "to be called Doctor" and enables them to claim to be registered under the clause in the Dentists Act relating to foreign dentists. The General Medical Council will, it is suggested, be justified in refusing such applications on the grounds that it is contrary to the spirit and intention of the Dentists Act, and the question can then be considered by the Privy Council.

WATER ANALYSIS AND THE DEFECTIVE INFORMATION AFFORDED BY IT.

DR. THRESH, medical officer of the Essex County Council agrees with Sir George Buchanan in his estimate of the inadequacy of the information to be obtained from chemical or bacteriological evidence as to the safety of drinking water. He stated recently at Portsmouth—and his colleagues appeared to agree with him—that our methods of analysis give us so little information as to the source of any organic matter present, that to condemn one water merely because it contains a little more organic nitrogen or carbon, or yields a little more albuminoid ammonia than another, when we know nothing of the nature of the bodies yielding them, or because, when examined bacteriologically, we find a few more organisms in one than in another, while yet we know nothing of the nature or properties of these organisms, is so illogical as to be absurd. Yet this is what is usually done at the present time. As previously stated, the medical officer of health is not justified in passing a water as safe unless its history and source is known to him, and he has satisfied himself that not only is the water free from an excess of organic matter, but that it is practically impossible for any dangerous polluting material to gain access to it.

However exhaustive the chemical, microscopical, or bacteriological examination, the source of the water and its surroundings must be investigated before the opinion is expressed that the water is well adapted as a domestic supply, whether to a simple cottage or to a large community. Even when all these precautions have been taken, instances are known in which some unsuspected source of pollution has been overlooked only to be discovered when an outbreak of disease has caused a more thorough investigation to be made.

ALIEN IMMIGRATION.

If evidence were needed of the effect produced by the drastic measures of quarantine adopted by America during the prevailing cholera epidemic upon the flow of Russo-Jewish transmigrants from Hamburg across Great Britain on their way to the West, it may be found in the return of the Board of Trade as to the number of aliens arriving at ports in the United Kingdom during the past month. In place of the 5,615 aliens who landed on our shores from Hamburg *en route* for America in September of 1891, there was not one such entry in the same month of the present year. It is thus seen how effectually America has done for England that which she herself did not see her way completely to accomplish, and certainly not in the manner in which America has deemed necessary to her safety. We find further from the same return what has been the effect upon alien immigrants other than those bound for the Western States, of the cholera orders issued in August by the Local Government Board, prohibiting the importation of bedding, among other things, and requiring in certain cases that persons on board ship shall satisfy port health officers as to their precise destination before permission to land is granted. In regard of the former, the alien Jews from Russia not infrequently lay great store by their bedding, and, poor as they are, the loss of bedding would reduce them to absolute beggary; whilst, as to the second point, it is certain that large numbers of these immigrants have but little idea of their actual place of abode beyond that of reaching England; and, as a result, only 56 aliens came from Hamburg to the United Kingdom last month as against 2,235 in September of 1891.

THE LICENCE FOR NOISE.

From time to time we are acutely reminded—not that we can ever forget—how real a torment are the noises of our present civilisation. In every street of our great cities noise is incessantly at work breaking down the nervous systems of the more intellectual inhabitants, or driving to the verge of desperation the sufferers from the many forms of nervous disorders which are at once a distinguishing characteristic of the age and a product of its civilisation. It is not alone the race for wealth, the struggle for luxurious existence, and the desire for distinction which are wearing out men's brains and making men old before their time, but it is the thousand and one irritative ceaseless hammerings on the nerves which make us touchy, snappish, and restless, when they do not actually make us lunatics. The symbol of the activity of the present day may fitly be considered the electric bell, formerly a more or less musical tintinnabulation sufficed to indicate that an applicant was at the other end of the wire which caused it; now an imperious succession of unmusical trembling must agitate the sense of hearing and rouse our whole body because somebody wants to ask us a question. A well-dressed man rushed the other day into a church in Fleet Street, and demanded that the bells should cease ringing, as their noise was driving him mad. What of that? The chief end of what has been called "the age of Moloch" seems to be to drive us all mad. An American visitor to Glasgow is said to have asked his host the other day, "If I happened to be the owner of the Infernal Regions and Glasgow, do you know what I should do?" His host was puzzled. "Sir," said the American, "I should let Glasgow." The traffic of a great city cannot probably ever be conducted without more or less noise. A great deal of quite preventable torment is, however, owing to some absurd notions on popular freedom, permitted to worry us when we are endeavouring to sleep after the traffic has ceased. A policeman was rebuked the other day by a London magistrate for arresting some persons who were brawling and shouting in the streets in the small hours of the morning. His worship told the constable that there was perfect freedom in England to make as much noise in the streets as anybody liked to make. Some have said to themselves in desperation, after they have been tossing on their pillows disturbed by the howls and drunken yells of the Jehus, who, like the pestilence, walk in darkness (and often dance, too), "Perish the Magna Charta! but give us power to keep the streets quiet when honest citizens are in bed." Few Continental nations—certainly not Germany—would tolerate a tenth part of the street noises, some of which are believed to have a musical character, that are borne so patiently by the long and much-suffering Englishmen. It is always 1 o'clock in the morning ere the public-house revellers homeward plod their beery way, with the vocal accompaniments affected by the hilarious and unmusical Briton in his cups. By 5, or even earlier, market carts, early trains, and the general awakening influences of town life, disturb the light sleeper and prepare him for the coming agitations which are prelusive of the breakfast bell. Singing, shouting, yelling, and the like at night, should be made a punishable offence, like brawling in church. There should be a close time for weary brain workers, say, between midnight and 6 in the morning. Wood pavements may be too much to demand. To silence the midnight disturber of the peace should at least be within the power of its guardians.

THE DISCUSSION AT THE OBSTETRICAL SOCIETY.

We are devoting more space than usual to the report of the recent meeting of the Obstetrical Society, as it includes the discussion on the value of abdominal section in certain cases of pelvic peritonitis. There is no question so contested in gynæcology as that of "oöphorectomy." The removal of the ovaries for neuroses and for the arrest of hæmorrhage in uterine fibroids does not form part of the discussion, which is confined to operations for chronic inflammatory disease of the tube and ovary, and to kindred surgical proceedings, not excluding the opening and draining of abscesses and other inflammatory effusions. Dr. Cullingworth had prepared, with great care, a table of fifty cases with after-histories. Some well-known authorities took part in the discussion, which, though prolonged till 10.30 P.M., was adjourned till November 2nd. The chief questions are: How far can chronic disease of the appendages be relieved by rest alone? How long should the patient be kept at rest before it is justifiable to operate? Do collections of pus in the peritoneum never dry up, and if not, if they require opening, should they be laid open through a wound made in the abdomen or through the vagina? Above all, the relative mortality of operative and expectant treatment was freely discussed.

THE CASE OF CHOLERA AT ST. THOMAS'S HOSPITAL.

We are indebted to Dr. W. M. Ord for some particulars of the case of the man who died in St. Thomas's Hospital with symptoms of Asiatic cholera. The case raises many points of great interest, and the careful investigations which these demand are not yet complete. The cholera vibrio has not been found in connection with this case. Repeated bacteriological examinations have been made by Mr. Shattock, and all the cultivations and preparations have yielded only bacilli of the type found by Emmerich in certain cases of sporadic cholera. This bacillus was also found in almost complete predominance in the secretions of the intestines obtained after death. The bacteriological investigations must be taken, therefore, to indicate that the case was not one of true Asiatic cholera. The fact,

however, remains that every recognised symptom of Asiatic cholera was present. Dr. Ord writes to us :—"I had been very fully in contact with cholera in 1854 and after, and could not clinically distinguish the attack from those which I had witnessed before. The patient was admitted early on October 2nd with the symptoms of cholera. I saw him a few hours later. Pending my arrival, a warm solution of chloride of sodium had been injected into the veins of the arm to the amount of eight pints. This had raised the temperature of the body from 94.0° to 99.0°F., or thereabout. But he was still in the state of collapse, was vomiting, and was passing large quantities of typical rice-water evacuations. He had complete suppression of urine, blue shrunken skin, hissing voice, and obscured intellect."

TESTIMONIAL TO DR. WALTER DICKSON, C.B., R.N.

A valuable service of silver plate, from an exquisite design of Benvenuto Cellini, was presented on September 29th to Dr. Walter Dickson, C.B., R.N., on his retirement from the office of Medical Inspector H.M. Customs, which he had filled with the highest success and universal goodwill for thirty years. It was subscribed for by 550 members of the out-door department as "a token of their appreciation of his many admirable and estimable qualities and of the affection and esteem in which he has been held during his long connection with the department." The testimonial was of a spontaneous character, and might easily have been made more costly; but the subscriptions were kept low so that many might have the pleasure of contributing. The subscribers wished Dr. Dickson a bright and sunny old age to enjoy his well-earned and well-deserved retirement. Dr. Dickson, who on rising was loudly cheered, said that on such an occasion words failed to express the feelings. To leave a body of gentlemen with whom he had been intimately associated for thirty years was a great trial. He concluded by thanking them most heartily for their valuable and beautiful gift, which would always be doubly precious to him by reason of the good feeling which prompted it, and which he thoroughly reciprocated. It may be anticipated that some well-earned honour from the Crown will, according to precedent, crown so distinguished an official career.

PRESCRIBING BY CHEMISTS.

We have noticed, with much satisfaction, that in the *Pharmaceutical Journal* of last week this irregular practice on the part of chemists and druggists is spoken of with unreserved disapproval. The particular incident that gave occasion for this expression of opinion was indeed of such a nature as to admit of no other view, and it is we think one which ought also to receive attention from the authorities whose business it is to deal with cases of unlawful practice of medicine. Considering the intimate relation existing between the legitimate practice of pharmacy and the medical profession, it is surprising that chemists do not more generally abstain from laying themselves open to the reproach of interfering with the proper functions of qualified medical practitioners. By omitting to do so they help to perpetuate that estrangement between the two bodies which was perhaps natural at one time, but might have been long since practically extinguished with advantage to chemists and to the medical profession. The improvement of pharmaceutical education within recent years has no doubt contributed to bring about a more appropriate limitation of the chemists business. Taking the Pharmaceutical Society as representing the better class of chemists and druggists—those who desire to be regarded as pharmacists—we were glad to hear the President of that body on a recent occasion, express his belief that properly educated pharmaceutical chemists would not be found to dabble with prescribing or with things they did not understand. According to his experience the best educated men amongst them "are those who never trench upon the medical man's province." Learning the important difference there is between one kind of knowledge and another, they are conscious that chemistry, materia medica, and botany, having been almost cut out of the medical student's curriculum, those subjects are practically handed over to pharmaceutical students, and that it is the duty of pharmacists to make those subjects their own, so as to be the proper colleagues of medical men in those departments of work. Such an argument in favour of the further improvement of pharmaceutical education cannot fail to meet with appreciation and support from the medical profession. To the true pharmacist it should recommend itself as indicating the only means by which the calling he is engaged in can be advanced to a becoming position of dignity and recognition. With chemists and druggists whose business consists in the sale of fancy articles and patent medicines, and in counter prescribing, it may be understood that Mr. Carteighe's arguments in favour of a better system of education will have little weight. But we take it that that fact alone will be sufficient evidence of the necessity for some better means of practically differentiating between properly educated pharmacists and mere mechanical traders, than has hitherto been afforded by a mere examination test. We look therefore to the establishment of a more thoroughly efficient system of pharmaceutical education as the most certain means of suppressing the mischievous practice of counter prescribing.

ALCOHOLIC LIQUORS IN WORKHOUSES.

According to a return by the Local Government Board of the quantities and cost of spirits, wine, and malt liquors consumed in the workhouses of England and Wales during last year, the aggregate was 120,123 pints of spirits, 54,456 pints of wine, and 456,221 gallons of malt liquors, costing in all £34,332, amongst a daily average of 176,020 inmates. In the metropolitan workhouses alone, with a daily average number of 56,171 inmates, 38,294 pints of spirits, 24,786 pints of wine, and 206,830 gallons of malt liquors were consumed at a cost of £12,410. The expenditure in these directions appears to have varied immensely in different unions. Thus in Westminster, with only 461 inmates, £131 was spent upon spirits and £111 upon beer, whilst in St. George's, with 1,261 inmates, and Lambeth, with 1,146, the expenditure was *nil*. Again, in St. George's Infirmary, with 560 patients, only one pint of spirits and 11 pints of wine were consumed, whilst in the infirmaries of St. Pancras and St. Marylebone respectively between 2,000 and 3,000 pints of spirits and upwards of 1,000 pints of wine were administered. "Evidently," the *Daily Telegraph* observes, "the medical officers of these establishments are not agreed as to the place of alcohol in the dietary of the sick."

EUROPEANS IN EGYPT.

M. Ferdinand de Lesseps, in his *Recollections of Forty Years* (translation by C. B. Pitman, vol. i, p. 149) states that "Since the beginning of history all the conquerors of Egypt have been obliged to abandon it: Persians, Assyrians, Greeks, and all. The reason is a very simple one. None of the Europeans or foreigners can reproduce their species there." The theory of the eminent Frenchman who achieved the Suez Canal, if correct as regards former colonists, seems to point to the natives of the British Isles as intended by Nature for the regeneration of the wonderful land of Egypt, inasmuch as so far from reproduction ceasing among them while residents in that country the essential function is on the contrary developed in a very extraordinary degree. During the last decade the number of births in the English colony has been quite remarkable, and numerous instances have occurred in which marriages, previously sterile, have become fruitful. So much so, indeed, has this been the case that medical men acquainted with the fact have recommended childless couples desirous of having heirs to pay a lengthened visit to Egypt, and often with the most favourable results. One very prominent example of the fecundating influence of the climate occurred as far south as Assouan, where a bride of 20 years' standing

presented her husband with a blooming daughter; and there are many other examples further north of previously barren wives having become prolific after all hope of progeny had been long abandoned. The opinion of M. de Lesseps was probably founded in a great measure on the experience of his own country people, who certainly appear to have given grounds for the accusation during the lengthened period they were paramount in Egypt; but even in their own land the deficiency of reproductive power in the French nation has attracted the attention not only of physiologists but even of politicians. It is not surprising, therefore, that the same defect should be apparent in a foreign country where children are more expensive luxuries than they are at home. Greeks, Syrians, Albanians, Armenians, and "Levantines" generally are prolific in Egypt as might be expected, for their mode of life is much the same there as in their own countries, with the addition of more plentiful and better food. The birth-rate at Port Said, where the foreign population is very great proportionately, is returned at 111.8 per 1,000 per annum, and at Suez and Ismailia it is even greater, namely, 117.4 per 1,000. The general birth-rate for Egypt is said to be 63.8 per 1,000, but allowance must be made for understated population.

SCOTLAND.

OPENING OF THE WINTER SESSION IN EDINBURGH.

The medical classes in the University and Extra-academical School were opened on October 11th. In some few cases formal introductory addresses were given, but in most cases the lecturers at once began the serious work of the session. Professor Grainger Stewart, after indicating the plan of his course of lectures, spoke of the influenza and cholera epidemics. As to cholera, he held that it was established that it was due to the presence of the cholera bacillus, that it was propagated largely by water, but that it might be communicated by the clothing of patients. We had accomplished much in the way of preventing cholera, but very little in the way of curing it. Professor Rutherford delivered a lecture on colour sense on the same lines as that which he gave to the British Association in August last.

THE NEW EDINBURGH UNIVERSITY ORDINANCES.

In opening the class of Materia Medica in the University of Edinburgh on October 11th, Professor T. R. Fraser spoke of the large and important changes which would be brought about in medical education by the recent ordinances of the Scottish Universities' Commissioners; and he further particularly referred to specialisation in medicine and surgery, and to the necessity that would presently arise for giving diplomas or degrees in those special departments, in order to prevent unqualified persons from assuming claims to be considered specialists without sufficient knowledge.

GLASGOW UNIVERSITY: CHAIR OF SURGERY.

Professor William Macewen presented his commission to the Chair of Surgery to the Senate on October 7th, and after reading a Latin essay, prescribed in accordance with an ancient custom as "a trial of his abilities," and signing the declaration *de fideli*, was duly inducted to the chair and took his seat as a Member of Senate. The subject of his essay was "Quibus indiciis externis locus suppurationis in cerebri regione temporo-sphenoidali recte reperiatur."

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

The first meeting for the session of this Society was held on October 7th, when the President, Dr. Coats, read a paper in which he discussed the question whether cancer was an infective disease. The paper presented a very able and lucid statement of the objections to the view that cancer was of bacterial origin. Recently, however, Dr. Coats has so far modified his opinion as to admit that there are undoubtedly fairly strong grounds for the view that cancer may be due to the action of a minute animal parasite.

EXTENSION OF ABERDEEN ROYAL INFIRMARY.

The new surgical block of the Aberdeen Royal Infirmary, opened by the Princess Louise last week, is four storeys high and contains a male and female ward on each floor. The male wards contain 19 beds each, the female 13 beds each, and there is an allowance for each bed of 90 square feet floor space and 1,400 cubic feet air space. The operating theatre is capable of accommodating 200 students, and a smaller operating room about 60; between the two operating rooms is an anæsthetic room. There are also special ophthalmological and gynæcological wards. The pathological block, which is a separate building, is at the north end of the surgical block.

THE FORFARSHIRE MEDICAL ASSOCIATION.

A quarterly meeting of the Forfarshire Medical Association was held in the anatomy class room, University College, Dundee, on October 7th, Dr. Rorie, president, in the chair. There was a good attendance of members, and much interest was taken in the different papers as they were read. The first was a report by Dr. Stalker, of a case of abscess of the spleen. The patient had been seven years in the army, and had had Malta fever in Malta, and enteric fever in Egypt, but had spent the two years between the date of his discharge and the outbreak of his present illness in good health in Dundee. The result was fatal. Dr. Kynoch then read a paper on the operative treatment of eclampsia, in which statistics were given showing the high rate of maternal and infantile mortality in *ante-partum* cases of eclampsia.

IRELAND.

The report of a case of cholera at Banbridge is proved to have had no foundation.

IRISH DISPENSARY DOCTORS.

On Monday, October 10th, the Conference Committee met at the College of Surgeons, Dublin, to resume the preparations for the introduction of Bills into Parliament dealing with the grievances of Irish dispensary doctors. It was agreed to push forward one Bill dealing with superannuation, and another having reference to various reforms which are necessary. The Committee also determined to ask Mr. Morley, the Chief Secretary, to receive a deputation to which reporters should be admitted. It was stated that at least forty Irish members had already promised to support the cause of the doctors, so that their claims are certain to be put forward vigorously in the next session of Parliament.

DEATH OF DR. THOMAS CROWE.

Dr. Thomas Crowe died on September 25th at his residence, Dundrum Villa, co. Tipperary, from typhoid fever at the early age of 30 years. Dr. Crowe was dispensary medical officer of the district, esteemed by all sections of the community. His remains were interred on October 2nd in the family burial ground at Sologhead.

EXTRAUTERINE GESTATION.

On October 4th Dr. Byers operated at the Royal Hospital, Belfast, on a case of ruptured tubal pregnancy, and removed the torn left Fallopian tube, which had been the seat of the gestation, and the ovum. The patient, who was extremely blanched and weak before the abdominal section, has made an uninterrupted recovery. This is, we understand, the first case of tubal pregnancy which has been operated on in Belfast.

THE CHOLERA:

ASIATIC CHOLERA AND RESTRICTIONS ON BRITISH COMMERCE.

THE following appeared in a second edition of the BRITISH MEDICAL JOURNAL published last week

In view of the unreasonably severe and ill-founded restrictive measures placed upon our commerce by foreign countries, and the injury to British shipping which still obtains owing to what we cannot but regard as a misconception of the actual facts respecting cholera in our country, we have deemed it desirable to collate the data bearing on the subject in tabular fashion and in chronological sequence. Accordingly we have constructed the following table, which is a complete record of cases of Asiatic cholera occurring in this country. It will be seen that neither Ireland nor Wales figures in the table.

Cases of Asiatic Cholera in the United Kingdom, 1892.

No. of Case.	Port of Embarkation.	Vessel.	Date of Arrival.	Port of Arrival.	Place of Seizure.	Date of Attack.	Sex.	Where Isolated.	Remarks.
1	Hamburg	ss. Hélène Sauber	Aug. 19	Grangemouth	In dock	Aug. 19	M.	Town Hospital	Died August 19
2	,,	ss. Gemma	Aug. 25	London	During	voyage	F.	Port Hospital	,, ,, 25
3	,,	,,	,,	,,	,,	,,	F.	,,	,, ,, 26
4	,,	,,	,,	,,	,,	,,	M.	,,	,, ,, 27
5	,,	—	,,	Leith	Glasgow	Aug. 27	—	Hospital	Recovered } Russo-Jewish
6	,,	—	,,	,,	,,	,,	—	,,	,, } transmigrants
7	,,	ss. Gerona	Aug. 27	Middlesbrough	In dock	,,	M.	Port Hospital	Died August 27
8	,,	ss. Talavera	,,	Grimsby	During	voyage	M.	Floating Hospital	Recovered
9	,,	,,	,,	,,	,,	,,	M.	,,	,,
10	,,	Barquentine Hélène	,,	Dover & Gravesend	,,	,,	M.	London Port Hosp.	,, (1)
11	,,	,,	,,	,,	,,	,,	M.	,,	,, (1)
12	,,	—	Aug. 28	(2)	Liverpool	Aug. 28	M.	City Infec. Hosptl.	,, (2)
13	,,	—	,,	(2)	,,	,,	M.	,,	,, (2)
14	,,	—	,,	(2)	,,	,,	M.	,,	Died August 31 (2)
15	,,	—	,,	(2)	,,	,,	M.	,,	Died September 2 (2)
16	,,	—	(3)	London	St. Pancras	,,	M.	Royal Free Hosp.	Recovered
17	,,	ss. Gerona	Aug. 27	Middlesbrough	North Shields	Aug. 29	M.	Port Hospital	,, (4)
18	,,	ss. Talavera	,,	Grimsby	In dock	Aug. 30	M.	Floating Hospital	,,
19	,,	ss. Peregrine	Aug. 29	London	Islington	,,	F.	St. Bart.'s Hosp.	,,
20	,,	,,	,,	,,	,,	,,	M.	,,	Died August 31
21	,,	ss. Talavera	Aug. 27	Grimsby	In dock	Aug. 31	M.	Floating Hospital	Recovered
22	,,	ss. Clement	Aug. 31	Falmouth	During	voyage	M.	Port Hospital	,,
23	,,	,,	,,	,,	,,	,,	M.	,,	,,
24	,,	,,	,,	,,	,,	,,	M.	,,	,,
25	,,	ss. Elbe	Sept. 4	Tynemouth	,,	,,	M.	Floating Hospital	Died September 5
26	,,	ss. Oldham	Sept. 5	Grimsby	,,	,,	M.	,,	Died September 11
27	,,	ss. Ashington	Sept. 6	Blyth	,,	,,	M.	Port Hospital	Recovered
28	,,	ss. Hélène Sauber	Sept. 15	Grangemouth	In dock	Aug. 15	M.	Town Hospital	,,
29	Antwerp	Schooner Titania	Sept. 16	London	During	voyage	M.	On board	,,
30	Hamburg	ss. Uranus	Sept. 19	Hull	In dock	Sept. 19	M.	Port Hospital	Died September 20
31	Rotterdam	Channel boat	,,	Dover & t(Harwich)	On passage	,,	M.	,,	Recovered
32	Hamburg	ss. Esperanza	Sept. 24	Hull	In dock	Sept. 24	M.	,,	,,
33	Solomono	ss. Glenavon	,,	Sutton Bridge	Bridgwater	Sept. 27	M.	Infirmary	,, (5)
34	—	Tug Queen	—	—	Lambeth	Sept. 30	M.	St. Thomas's Hosp.	(6)

[1] Cases 10 and 11.—It is doubtful if these should find place in the table. When the vessel arrived off Dover, three cases of sickness displaying "choleraic symptoms" were announced; but when she came round to Gravesend two days later, Dr. Collingridge found only two, one being a recovery from a mild attack of cholera, and the second a case of fever after cholera.

[2] Cases 12 to 15.—These four cases occurred in Russo-Jewish transmigrants, who crossed England on their way to America. The names of the vessel conveying them and the port of arrival have not transpired.

[3] Case No. 16 is said to have "just arrived from Hamburg" before attack, by what vessel is not known.

[4] Case No. 17 travelled overland from Middlesbrough to North Shields before developing cholera. He was a shipmate of case No. 7.

[5] Case No. 33 was attacked in the train near Bridgwater, *en route* for Plymouth from Sutton Bridge, and nineteen days after leaving Solomono, near Archangel. The ss. *Glenavon* touched at Bergen on the voyage. In the absence of information as to cholera at or near Solomono the case seems at present a doubtful one.

[6] Case No. 34 worked on a steam tug on the River Thames, near the sewer outfall at Barking. Though clinically of the "Asiatic type," according to the medical authorities at St. Thomas's Hospital, detailed inquiry by Dr. Bulstrode, of the Local Government Board, has failed to trace any connection of the case with cholera from abroad. The patient died on the evening of the 7th inst.

STATE-AIDED QUARANTINE.

THE cry of "State-aided Quarantine" is just now being raised by certain of our ports, doubtless with the purpose of inducing converts to the scheme under which it is desired to impose a seven days' quarantine on all vessels from cholera-infected places. Grimsby would seem to have been the prime mover in the matter, though for what reason does not appear on the surface. It cannot be on account of the five cases of cholera that have been brought to her waters from Hamburg during the past few weeks, since they have given rise to no apprehension, and have not spread beyond the limits of the port, or to other persons than those coming from Hamburg; and if the scheme has relation to her purely local commercial interests, this is no justification for endeavouring to force upon the port authorities of England, and through them upon our Government, the taking of such a retrograde step as the re-establishment of quarantine.

RECENT EXPERIENCE OF MEDICAL INSPECTION.

Moreover, it is by no means certain that the attempt has met with any general favour at the hands of our seaboard towns. Certain it is that a neighbour so close at hand as Hull will, so far as her port authority is concerned, have nothing to do with the proposal. Hull very wisely relies on our present system of medical inspection, and on her experience of its working. For six weeks our eastern ports have been exposed to the full force of any danger which their proximity to Hamburg has constituted, and yet, from Berwick to Deal, we can only learn of 19 cases of cholera brought from the Continent of Europe during that period, with an entire absence of the spread of the disease in this country. Of these cases, only 2 have reached Hull, notwithstanding her large carrying trade with a city where cholera has been—at times for days together—claiming its victims by the hundred. But if the constituted authorities at Hull have had regard to these facts, not so the local press, which would seem to fancy the people of their town in such imminent danger from two isolated cholera cases as to call for an immediate securing of quarantine on vessels ariving from Hamburg; and such a measure of precaution the local press demands. This country has been practically free from cholera for nearly thirty years, and we have so far weathered the danger to which the present Continental epidemic has exposed us. If a system is to be

judged by its results, then surely our own has amply justified the confidence which has been placed in it. We cannot for one moment imagine an English Government listening to a petition for harking back to a measure which has been superseded by action that experience has shown to be in every way its superior—a measure which the highest medical authorities on sanitary science have condemned and still condemn. England has consistently held to her belief in the lines on which she now proceeds towards ships coming from foreign ports, and has led the delegates of various other nations to her way of thinking. It is true that England is alone in having in actual practice a system in which quarantine against cholera has no place; but then she is also alone in her internal sanitary administration. Foreign countries are not in a condition, from a sanitary point of view, to look calmly, as England has done, generally speaking, on chance importations of the disease.

Depressing Effect of Quarantine on the Shipping Trade.

It is true that the millions which we have expended towards perfecting our systems of water supply, drainage, and the like do not save our commerce from suffering at the hands of other peoples, whose parsimony has withheld from them those elementary safeguards of the public health. But this is no reason why England should further hamper her already sufficiently depressed shipping trade by following the antiquated notions of other nations.

Costliness of Quarantine.

Quarantine is frequently much more costly than works of sanitation, since it not seldom happens that a port which persists in holding its shipping at its dock gates for periods of observation finds that shipping transfers itself to other and more friendly harbours. The trade thus diverted is not always easy to regain, at any rate in bulk; a new market will often retain its hold permanently on what was to have been a merely temporary access of trade. A more striking example could hardly be mentioned than that of Beyrout during the autumn and winter of 1890, during which time her trade prospects were ruined by the rigorous quarantine on all the Syrian ports north of the town. The state of the importers of European goods for the Syrian markets was such that from 15 to 50 per cent. of their trade left them, and this, too, in a year when abnormally large business ought to have been done. The town of Beyrout itself was brought to a deplorable condition, trade being quite at a standstill, and the poor literally living from hand to mouth.

Possible Retaliation.

Apart from such a result of quarantine, it is not outside the range of probability that unpleasant retaliation would be made by other nations if England were to depart from her fixed principle of simple inspection of vessels; and since we have immeasurably the largest carrying trade in the world, it behoves us to be careful how we proceed in such an important matter. We should rather do our utmost towards securing to our shipping immunity from those harassing restrictions now placed upon it by countries which, even when no cause exists, impose them upon British ports.

Quarantine as a Cause of Spread of Cholera.

To place a quarantine upon "infected" ports is to invite those ports to seek a way of escape from the imposition, and this they would not be slow to do. Nor has it been found difficult of accomplishment. But to carry it out often involves other ports when, after the export trade has been diverted there for a time, a few cases of cholera crop up, and any access of business is more than counterbalanced by a declaration of quarantine against these emergency ports as being themselves "infected." At the present moment a quarantine to be effectual would need to be levelled against the whole of Western Europe. More especially would this be needful next summer if cholera should break out with renewed virulence.

Financial Objections to an Imperial Subvention.

Why, above all things, a subvention should be sought from Imperial funds by the advocates of quarantine is not apparent. The rivalry that exists between seaports for the carrying trade of their locality betokens the fact that they consider the added industry to be beneficial to their towns. Then why should the State be mulcted in the amount expended to "guard" local interests? The plea that our ports are doing an Imperial work, and safeguarding the country as a whole rather than locally cannot be admitted.

Once admit the necessity for a seaward quarantine, what follows? If Grimsby were declared an "infected" port, would her inland neighbouring districts sit down quietly and allow her to spread the disease to the areas over which they exercise jurisdiction? A cry would at once go up for the establishment of land cordons and the like, and for recoupment from the Exchequer of grants in aid of action adopted to cut off the infected centre from the rest of the kingdom. And if an "infected" foreign port is to be deemed quarantinable, what about an English seaboard town in view of the enormous coasting trade all along our shores? One thing more remains to be asked, and that is, Are we to be required to quarantine for cholera only? What about other infectious diseases coming from foreign ports? Who can estimate to what an extent our so-called indigenous diseases are seaborne? They cause much heavier mortality in England than we need ever fear from cholera. If once the principle of quarantine be admitted, where is the line to be drawn?

THE CHOLERA IN HAMBURG.

Transfusion and Injection of Salt Solutions.

Dr. T. W. Hime, of Bradford, writes from Hamburg under date October 7th: As mentioned in my last, the transfusions of solutions of salt in water (0.6 per cent.), which have been almost without exception employed in all very bad cases of collapse, are not always of permanent benefit. Sometimes within half an hour or so the patient again sinks, sometimes within half that time there is a copious evacuation of watery "motions," causing the impression that the infused liquid is actually ejected. But undoubtedly the transfusion is like the rope thrown to the drowning man: it enables him to be saved from his immediate peril, and gives an opportunity for something to be done to bring him to life.

So far as the actual operation is concerned, it has as a rule been performed with great success. The subcutaneous injections of salt water (0.6 per cent.) are done by gravitation, like the transfusions. The large quantity injected (2 to 3 pints usually) makes it desirable to introduce it in several places; some do so in two, others in three or more places. The hypochondriac regions are most commonly used. I only saw four cases of inflammation in consequence of the operation. They were treated by large incisions the moment pus was detected, and all continued throughout aseptic after operation. The principal antiseptics used are perchloride, carbolic acid, and lysol. The latter is a coal-tar product, smelling like carbolic acid. It is used in 1, 2, and 3 per cent. solutions. The solutions feel soapy in the hands, and do not attack the skin. It is much cheaper than carbolic acid, costing retail 2s. 6d. per litre (35 ounces).

Exanthems.

In a considerable number of cases, mostly I think those which had been treated by transfusion and subcutaneous injection of large quantities of salt solution, there appears an exanthem. It may be seen on the arms, chest, trunk, legs, face, alone, or in several or all of these parts. Sometimes it is very like measles, sometimes it is indistinguishable from scarlet fever. It may be regarded as a good sign in so far that when a patient has held out long enough to exhibit a rash, there is a good chance of his recovery. In the scarlatinal form, if the nail be drawn across the skin, it leaves the distinct white track so characteristic of scarlet fever. The appearance of the exanthem does not imply any rise of temperature. It may be seen with a temperature of 93° F. or 94° F.

The Typhoidal State.

A considerable number of cases get into this condition after 30 to 40 hours. The patient is drowsy and apathetic, and looks flushed, while the temperature may be exceedingly low. There is no distinct prognostic character attached to the occurrence.

The Temperature.

Almost without exception the severe cases have very low temperature from the first, and the fatal ones terminate without its rising. I saw one woman continue to live for the four days before her death with a temperature between 91° F. to 92° F. Recovery is attended by gradual rise of temperature, but cases may recover and even be discharged with temperatures still very low, for example, 95.9° F. I never saw any case here with the high præmortal temperature which is not uncommon in India.

Cholera Sicca.

The cases in which there was no diarrhœa are few. I saw one remarkable case of this type at the Seemann's Hospital—a woman who had been treated at home for three weeks. She had not suffered from any distinct symptom of cholera, and had no diarrhœa. On admission she had the typical cholera face, cold tongue, and low temperature, and anuria of two days' standing; very weak pulse and severe prostration. She died in two days, having only had a couple of slight greenish motions. I found cholera bacilli in abundance in the bowels, with the characteristic *post-mortem* appearances.

Post-Mortem Appearances.

Many of the cases ending rapidly look little changed after death; when there has been much purging the bodies look depleted. There is sometimes great wasting: one man lost 23 lbs. in five days, and still recovered. One is much struck by the muscular contractions, which occur spontaneously, and also for as long as an hour sometimes in response to external stimulation (tapping, etc.). The toes and fingers may be seen contracting, and I have even watched the forearm become partially flexed, and the knee bend after death.

On opening the chest the lungs are almost invariably found collapsed and dark coloured. Frequently infarcts are present, which I have seen from the size of a walnut to the size of a couple of shut fists. There is commonly an excess of serous fluid in the pericardium. Within the heart there are very often coagula on the cordæ, and there is a red staining of the tissues, and sometimes of the valves also. The blood does not coagulate firmly, the clots being soft, and easily broken down. On exposing the intestines they are usually found to contain a good deal of flatus, and look redder than usual. As they are drawn out, the small intestine is noticed to be particularly so, and when laid open the interior is commonly found deeply congested, with thickened velvety mucous membrane. The characteristic rice-water stools are, of course, generally present too. Perhaps the most characteristic appearances are found in the enlarged kidneys, which, when divided in the usual way, are seen to have a distinctly reddened cortical portion, while the pyramids stand out from the surrounding parts of a delicate but remarkably pink colour. The gall bladder, from which bile seems not to be discharged during the rice-water stool period, usually contains a considerable quantity of bile of a dark, sometimes almost tarry, appearance. The bladder is frequently empty.

Statistics.

The statistical returns published so far are most incomplete and unsatisfactory, the statements of one day being modified the next, and for many days subsequently. Roughly speaking, the general mortality will probably be not under 48 per 100 attacks.

Cholera Carried by Flies.

At the meeting of the Hamburg Medical Society on Wednesday, an interesting account was given of bacteriological demonstrations of the fact that the infection may be carried by flies. Nine flies were captured which had been in contact with cholera intestines in the *post-mortem* room at the Eppendorf Hospital. Each was placed in a flask containing the ordinary nutrient gelatine. In six of the nine flasks numerous colonies of comma bacilli were produced.

The Disposal of the Dead.

The task of disposing of between 9,000 and 10,000 bodies in six weeks is a stupendous one. There is a crematorium at Hamburg, but it has never been used, owing to the unwillingness o the authorities to allow strangers to be cremated in it, and the company will not accept a charter whereby they are permitted to cremate strangers. The public cemetery at Ohlsdorf is of great extent, and lies five to six miles from the town. It is, like the whole district, flat and sandy on the surface, but beneath this upper few feet of sand is heavy clay. Huge trenches were dug in this, some hundreds of feet long and some 12 to 14 wide, and about 4 to 5 feet deep. In these were placed the cholera coffins, which were subsequently covered in, not very deeply, with earth.

Germany.

[From our Berlin Correspondent.]

Rules for the Management of Sand Filter Beds.

The Imperial Board of Health has published a set of rules to be observed wherever central waterworks are in connection with sand filters. They are as follows:—1. Care must be taken that the water taken (river or lake) is protected as much as possible from fouling with human excrements; special precautions must be taken against the landing of ships anywhere near the part from which the water is drawn. 2. Since sand filters do not supply water perfectly free from germs, their power of keeping back micro-organisms (cholera bacilli included) being restricted, the demands upon the filter must not exceed a certain quantum of water. 3. The filtering speed must not exceed 100 millimetres per hour. 4. In places where so much water is used that this maximum of speed is exceeded, a remedy must at once be sought. Either the consumption of water must be limited, for which purpose the establishment of water meters in each house is recommended, or the filters must be enlarged, or new filters made. 5. When filters that have become impervious are removed, a sand stratum of more than 40 cent. thickness must remain. 6. The first water that passes through a newly-laid sand filter is rich in germs, and must not be allowed to pass into the reservoirs and pipes. 7. The efficacy of the filters must be tested by daily bacteriological examinations. If an unusual quantity or unusual kinds of micro-organisms appear in the filtrate the water must not be used, and a remedy must at once be sought. The filtrate of each filter should be examined separately.

Decrease of the Epidemic in Hamburg.

The Hamburg epidemic is drawing to a close at last. Four deaths were registered on Sunday. The schools and theatres have been reopened and the town presents its old appearance of activity and life. In the last sitting of the Bürgerschaft it was stated that the central sand-filtering works will be completed by June, 1893, so that by next summer Hamburg will be supplied with wholesome water and will no longer be obliged to make use of unfiltered river water—with a system of pipes, the receptacle for a flourishing water fauna.

Cholera in Berlin.

A few cases of Asiatic cholera have made their appearance in a workhouse in the north-east part of Berlin. How the infection has been conveyed there is as yet an unsolved problem, but every precaution has been taken to prevent its further spread.

Cholera Bacilli in the Rhine.

Professor Carl Fraenkel, of Marburg, a former assistant of Koch, has succeeded in finding cholera bacilli in the water of the Rhine-Ruhr canal at Duisburg, at a part where the cholera dejecta of a boatman had been thrown into the water. This is the only instance in which cholera bacilli have been found outside the human body and its excreta since Koch found them in an Indian tank in 1883.

Hamburg Cigars.

A large trade is done in cigars manufactured in Hamburg from imported tobacco leaves, and this trade has suffered considerably since the cholera epidemic. Careful experiments have now been made by Dr. Wernicke in the Hygienic Institute of the Berlin University, the upshot of which experiment is that there can be no fear of cholera infection by cigars, as cholera bacilli die more quickly on dry tobacco than on dry glass plates, and even on damp tobacco leaves do not multiply and soon die; tobacco smoke, too, quickly kills the bacilli.

Holland and Belgium.

During the last two days 7 cases of cholera and 1 death have occurred at Molenbeck, a suburb of Brussels. One death from Asiatic cholera occurred at Nieuwer Amstel, near Amsterdam. Nine fresh cases and 9 deaths are reported from various parts of Holland.

Hungary.

The cholera in Buda-Pesth has increased; 36 cases and 19 deaths occurred in the twenty-four hours ending on October 10th, at midnight. Seventy per cent. of the cases have originated in the parts of the town situated near the railway terminus. The water supply is obtained from the Danube. Asiatic cholera has broken out at Szegedin, and 4 cases were registered on October 9th. Three fresh cases of cholera and 1 death were reported from Cracow on October 9th, and another case at Ludwinow. Seven cases and one death have occurred at Mopolomire, in the district of Bochnia.

Russia.

Thirteen fresh cases of cholera and 5 deaths are reported from St. Petersburg on October 9th—a notable decrease. At Odessa only 7 deaths from cholera are officially reported during the last five days. There is a recrudescence of the epidemic in Saratoff, the number of fresh cases being 586 and the deaths 311. According to the Government return 26,000 deaths from cholera occurred in the whole of Russia between September 1st and 15th.

The total number of cases of cholera in the Caucasus in the months of August and September was 127,273, with 64,767 deaths. The most virulent type of the disease appeared in Baku, where 70 per cent. of those attacked died. The mildest form prevailed in Kars and the surrounding district, with 40 per cent. of deaths. The disease is still carrying off great numbers in the Government of Erivan and to the north of the mountains.

A Government report published at Charkoff reports that there have been 250,000 deaths from cholera in Russia from the outbreak of the epidemic to October 5th.

Our National Responsibility for European Cholera Epidemics.

In the current number of the *Nineteenth Century* Mr. Ernest Hart again endeavours to tear away the veil of mystery with which many writers—both scientific and unscientific—have long covered the *dira facies* of cholera. He insists on the prosaic fact that it is "a filth disease carried by dirty people to dirty places," and propagated mainly if not wholly in the epidemic form by water. This is all that the public need know about the matter, and it is more, according to this writer, than many of our so-called "authorities" on cholera—even of those who have the sanitary conscience of the Indian Government in their keeping—have yet succeeded in grasping and driving home. The source and home of cholera and its mode of diffusion are, he protests, now perfectly well known. India must accept plain facts as to water supply and drainage of soil. It is high time, he urges, that those who wield the destinies of our Indian Empire should fully recognise their tremendous responsibility in this matter. There can be no shadow of doubt that cholera is a preventable disease, and the nations which are periodically visited by the pestilence not unnaturally ask in tones of growing indignation why it is not prevented. It is not by wilfully closing its eyes to the evil, or by fatalistic resignation to what is conveniently assumed to be inevitable, or by talking of "air currents" and "pandemic waves," that India can be purged of this foul stain on its good name, and made no longer a standing menace to the health of the civilised world. This is the main burden of Mr. Hart's argument. The "endemic area" can be made as clean and wholesome as other parts by the rigorous enforcement of elementary sanitary decency, and especially by the provision of a pure water supply. Already something has been done in that direction, both at Calcutta and Bombay, one with brilliant and convincing results which he quotes. But much more still remains to be done. This "lay sermon" is one which may not be useless if it arrests the attention of all who have any part in the government of India, local or general.

Coming nearer home, Mr. Hart utters a note of warning as to the danger of our now viewing cholera with the indifference which usually follows panic. Though water is not really the only vehicle of cholera, its specific pollution is, he contends, *invariably* the *causa causans* of European epidemics of that disease, and the great distributing agency of the virus when imported into any country. This was partly proved by the history of the epidemics of 1849 and 1854, by Snow and Simon, and wholly demonstrated by Mr. Hart's investigations in 1866. Speaking of the river Lee, which, though much better filtered and much less polluted than it formerly was, is still dangerously polluted, he says: "It is not altogether reassuring to know that only a filter bed and a pump, which are not necessarily always impeccable and infallibly reliable, stand between large sections of our population and a repetition of the disasters of 1849, 1853, and 1866." Mr. Hart describes and deplores the administrative muddle in which the Local Government Board, the Metropolitan Asylums Board, the London County Council, and the numerous local sanitary boards, as it were, tumble over each other and paralyse each other's activity. The sanitary administrative world is, he contends, still out of joint, and urgently needs some one to set it right. Mr. Hart expresses his intention of endeavouring to contribute towards this most desirable end at an early date, when he proposes to deal constructively, and not merely in a critical sense, with the whole question.

Cholera, Pregnancy, and Childbirth.

In the cholera epidemic of 1866, in Paris, Horteloup had under his care at the Hôtel Dieu, 11 pregnant cholera patients. Of these, 9 aborted, 8 dying a day or two after miscarriage, and 1 died before she had time to abort. At the same epoch Potain observed two deaths of cholera patients under the same conditions at the Necker Hospital, one before and the other after abortion. At the Charité Hospital a woman, over eight months pregnant, died within twenty-four hours after being stricken with cholera. Cæsarean section was performed, but it was found that the child had died before the mother. Dr. Moutard-Martin claimed far better results, but, it would appear, without statistical evidence. In one of his cases a woman was attacked with algid cholera eight days before term. Premature labour set in, but the patient recovered. Dr. L. Galliard, of Paris, has published, in the *Gazette Hebdomadaire de Médecine*, October 1st, an interesting, but of necessity a gloomy, contribution describing his practical experience of this question this summer. It resembled that of Horteloup and Potain rather than Moutard-Martin's. The latter probably included cases of "cholerine" in his optimist relation of his own observations. Dr. Galliard had under his care in hospital 7 pregnant cholera patients. The first 2 recovered, but the attack was mild in both cases; 5 died, including one in the second stage of phthisis.

The fatal cases were (1) a multipara, aged 37, seven months pregnant, attacked August 25th, admitted August 26th, in the algid stage, fœtal movements had ceased for over a day. A few ounces of amniotic fluid escaped. At 2.20 A.M. on 27th, transfusion. Patient rallied for a few hours, but remained collapsed for over two days. Early on August 30th (6th day) the cervix was found dilated to the size of a two-franc piece. Fœtid discharge, coma, death undelivered at 7 A.M. (2) A multipara, aged 33, eight months pregnant, attacked September 4th, admitted next day, slight cyanosis. The cholera seemed mild; lactic acid treatment; fœtal heart-sounds audible till September 8th, suppression of urine, coma and death, before any sign of labour, on September 11th. (3) Primipara, aged 31, at seventh month, admitted August 31st, on the fourth day after beginning of cholera, algid stage, immediate transfusion. On September 2nd there was algidity and delirium, profuse rice water stools had been passed on the previous days after the transfusion; yet the fœtal heart sounds persisted. Cocaine, caffeine, morphine, etc., had been given. On September 3rd the heart sounds ceased; September 6th, death; no change in cervix indicating advent of labour. (4) A 3-para, aged 42, in the second stage of phthisis, six months pregnant; violent diarrhœa on August 22nd, admitted same day; fœtal heart sounds audible. On August 23rd rice water stools; lactic acid and laudanum produced favourable results; 28th, bilious vomiting, no diarrhœa; 29th, fœtal heart sounds very feeble; 31st, diarrhœa of dark motions, fœtal heart sounds suppressed; September 1st, collapse, no attempt at labour, death. (5) Primipara, aged 30, eighth month of first pregnancy; attacked July 21st, admitted on the 29th; cholera symptoms relatively mild, but the fœtus was dead. On July 31st labour pains began at 7 A.M.; cervix completely dilated at 8 A.M.; membranes broken, forceps applied; delivery of a macerated fœtus; fœtid lochia, sharp flooding, patient exhausted before labour began; transfusion at 10 A.M., rallied for a few hours, radial pulse fell; died at 5 P.M.

The transfusions in Cases 3 and 5 were made with Hayem's solution—water, 1,000 parts, sulphate of soda 10 parts, chloride of sodium 5 parts. Two litres (3½ pints) at 38° Centigrade (just over 100° F.) were injected into the internal saphenous vein.

Dr. Galliard turns attention to Cases 1 and 4, where abortion did not occur, the patients being too weak. In none was the cholera of the fulminating type. In Case 1 it was *galopante*, killing the patient in five days. In the remaining three it was of the slow type. The phthisical case lasted long and had a remarkable temperature chart, as seen in other cases of cholera in consumptives. The temperature once reached 103°.

Putting aside Case 1, Dr. Galliard compares the remaining fatal cases with other instances of cholera in non-pregnant women, and in men. As far as the cholera was concerned none of the four were so very hopeless, and one or more should have recovered. In short, pregnancy is a very grave complication. A pregnant woman is particularly unsuited to resist invasion of germs. She is equally unfit to bear an operation. Hence, even induction of premature labour means,

in Dr. Galliard's opinion, the certain death of the mother in order to give a very small chance of life to the child.

Antiseptic Treatment of Cholera.

Surgeon-Captain E. J. Erskine Risk writes to suggest the trial of naphthalin in 10 to 15 grain doses every two hours, suspended in mucilage or other vehicle. A few cases of cholera in India, in 1887, in which he used the drug recovered, but they were not sufficiently numerous to rest the merits of this drug on a statistical basis. He has found the premonitory symptoms best treated by strong acids—sulphuric or acetic—combined with opium in small doses.

THE ANNUAL MEETING OF THE ASSOCIATION AT NEWCASTLE-ON-TYNE, 1893.

A meeting of the local General Committee was held in the Council Room of the College of Medicine, Newcastle-on-Tyne, on October 6th. The President-elect, Dr. Philipson, took the chair, and Mr. Williamson, the Honorary Secretary, announced that the Archbishop of York had consented to preach the annual sermon in the cathedral. The Dean of Durham wrote expressing his desire to further the objects of the meeting, and as Warden of the University he placed the College of Science at the disposal of the Committee also, and the Castle at Durham for the convenience of visitors. A special convocation of the University will also be held for the conferring of honorary degrees, etc. A special vote of thanks was passed to the Archbishop and the Dean.

Dr. Beatley, the Honorary Treasurer, announced during the meeting that £640 had already been promised towards the expenses of the meeting.

The various subcommittees—Museum, Printing and Publishing, Entertainments, Excursions, Dinner, Soirée, Reception, and General Purposes—were then elected.

There seems a general desire on all hands to work energetically with Dr. Philipson and Mr. Williamson to make the meeting one of the most successful the Association has held.

CONGRATULATORY DINNER TO SIR WALTER FOSTER, M.P., M.D., F.R.C.P.,

Parliamentary Secretary to the Local Government Board.

The following names are to be added to the list already published of those who will be present at the dinner which is fixed on Wednesday, October 26th, at 6.45 for 7 p.m., at the Whitehall Rooms, Hôtel Métropole, Dr. Withers Moore, President of Council of the British Medical Association, in the chair. The number of those who, up to date, have expressed a desire to be present is 142.

[The tickets are 23s. each, and application should be made to the Honorary Secretary of the Dinner Committee, 429, Strand. Cheques and P.O. orders to be crossed "Union Bank of London, Argyle Street, W."]

Sir Richard Quain, President of the General Medical Council.
Sir Hugh Owen, Under Secretary of the Local Government Board.

Dr. P. S. Abraham, London	Mr. T. B. Goss, Bath
Dr. H. E. Armstrong, Newcastle	Prof. Rawdon Macnamara, Dublin
Mr. S. Barwise, Derby	Sir Robert Rawlinson, K.C.B.
Mr. H. C. Burdett, London	Surgeon-Lieutenant-Colonel J. H. Reynolds, Shorncliffe
Dr. P. W. P. Case, Croydon	
Dr. W. Douglas, Leamington	Dr. W. R. Smith, London
Mr. Francis Fowke, London	Dr. T. W. Trend, Southampton

SIR ANDREW CLARK, SIR JAMES PAGET, AND SIR GEORGE HUMPHRY ON EXPERIMENTS ON LIVING ANIMALS.

The debate on this subject at the Church Congress last week at Folkestone promises to be historic, and is likely, we think, to be the starting-point of a new departure in this matter. The violent attacks on experimental physiologists by the antivivisectionists have long been marked, as we have frequently pointed out, by bad faith, ignorance, and misstatement of the grossest and most unjustifiable kind. Professor Horsley has rendered a public service by not only repelling those attacks, but publicly challenging the veracity, good faith, and knowledge of those who make them, and the prelates and church dignitaries who patronise them. It is unfortunate that neither Sir Andrew Clark, Sir James Paget, nor Sir George Humphry were present to support their courageous and able young colleague. But their weighty letters on the subject will have had great influence in informing the public and the clerical mind, and they deserve a permanent record in these columns, where the history of the whole movement of attack and defence is chiefly to be found. Sir A. Clark telegraphed:—

"My absence arises from official engagements which cannot be set aside. My sympathies with experimental research are strong and unwavering. The law of sacrifice is the law of life, which no one can escape, and, provided it is conducted with reverence, of necessity and under supervision, I regard experimental research not as a mere privilege, but as a moral duty. My distinguished colleague, Dr. Wilks, will take my place."

Sir James Paget wrote—

"1, Harewood Place, Hanover Square, W., London,
"October 5th, 1892.

"My Lord Archbishop,—I sincerely thank you for permitting me to write to you on the question which is to be discussed at the Church Congress to-morrow, as to whether 'the interests of mankind require experiments on living animals, and, if so, to what point they are justifiable?' I think it certain that if the saving of lives, the maintenance of health, and the relief from pain may be reckoned among the interests of mankind, the opinion of the members of the medical profession and of other scientific men is on this question as nearly unanimous as is any opinion held on any subject by any large number of persons. And I think that they may fairly claim respect for their opinion, because none know so well as they do what such experiments are, and what results in scientific knowledge and in its useful applications to both men and animals have been gained by them. Especially I think that the clergy may justly be expected to place confidence in the opinion of medical men, considering how commonly they work together in their nearly allied duties with mutual trust and confidence. On the question 'to what point are' such experiments 'justifiable,' the first answer may be that in this country, with which alone, I suppose, the Congress is concerned, the conditions under which experiments on animals may be performed are determined by the Act of Parliament passed in 1876. This Act is a stringent one; it is carefully enforced, and it renders the experiments legally 'justifiable.' I believe that they would be deemed reasonably 'justifiable' by any person able and willing to judge reasonably if, instead of relying on statements which are as erroneous and exaggerated as are those by which the Church is attacked by its enemies, he would learn for himself how the experiments are done, how free from pain the greater part of them are, how slight is the distress produced by them, and what useful knowledge has by their means been attained. Whether they are also morally 'justifiable' is, I apprehend, only a part of the much larger question as to the degrees of pain which men may inflict on animals for any purpose whatever, as for the pleasures of sport, the luxuries of food, the acquirement of knowledge, or any other. This larger question is, I believe, not before the Congress, and I need not attempt to answer it; but I am sure that all the pain inflicted in experiments upon animals in this country is too small to be brought in comparison with that which is inflicted on them for the attainment of many of the common pleasures of our lives. And I would add my hope that the selection of experiments on animals as the one cause of pain to them which is appropriate for discussion in the Congress may not in any degree tend to the supposition that the Church wishes to resume the timorous or averse attitude towards science, which, as your Grace has well said, she now does not hold. Many men of science will be grateful to your Grace for the expression of your opinion on the relations between their studies and the teaching of the Church; for to many of us it has been a source of great happiness to observe the increasing evidence that natural science and religion are constantly becoming more mutually illustrative and mutually helpful.—I beg your Grace to allow me to remain very faithfully yours, "James Paget.

"Of course your Grace will use my letter in any manner that you wish."

Sir G. Humphry wrote:—

"Cambridge, October 4th.

"To his Grace the President of the Church Congress.

"My dear Lord Archbishop of Canterbury,—I would not have troubled you and the Congress with any remarks respecting vivisection had I not been requested to do so. It may have come to your Grace's knowledge that I was not in favour of the subject being brought before the Congress, and that I declined to read any paper or take part in the discussion. I felt that the expression—perhaps in strong terms of exaggerated views and apprehensions on the part of those little acquainted with the subject, which we find to be commonly done when it is brought before the public—would be likely to exercise an undue influence upon the minds of others also little conversant with it, so causing a prejudice against it, and retarding the formation of that calm, fair judgment respecting it which we may reasonably expect the good sense and good feeling of the English people will ultimately arrive at. I cannot conceive that anyone who is really acquainted with the present state of our knowledge of physiology and pathology can have a hesitation in admitting that that knowledge is, in no small degree, due to the labours of those who, more especially in France and Germany, have, carefully and in the earnest spirit of research, carried on the practice of vivisection, and that such knowledge could not in any other way have been arrived at. Further, the growing insight into that which is the most difficult, and to man the most important, of all physical problems, namely, the nature and action and the mode of combating and preventing morbid processes, is attributable chiefly to the same method of investigation. The best hopes of medicine to promote the physical and moral welfare (I say the moral as well as the physical, for the two, as is well known, are closely associated) are in the direction of preventing disease; and the power of preventing disease depends upon a knowledge of its causes. For this knowledge we are greatly indebted to experiments upon animals. As the subject is to come before the Congress, I trust that, under your Grace's superintendence, the members will give it a calm and unbiassed consideration.—I remain, my Lord Archbishop, yours truly and obediently,

"G. M. Humphry."

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A meeting of the Committee of the Association of Fellows of the Royal College of Surgeons of England was held on October 12th, 1892, at 36, Grosvenor Street; Mr. George Pollock, President, in the chair. There was a large attendance.

The minutes of the last meeting were read by the Honorary Secretary (Mr. H. Percy Dunn), and after some discussion it was agreed that they should be held over for confirmation until the next meeting, in order to allow of the entry of important letters referring to certain matters at issue between the Association and an official of the Royal College of Surgeons.

The Honorary Secretary then read the whole of the correspondence in connection with the matters above referred to, and, after a prolonged discussion, it was ultimately agreed to appoint a Subcommittee, consisting of the President (Mr. T. Holmes), Mr. John Tweedy, and the Honorary Secretary, to draft a reply to statements made by the official of the College in substantiation of allegations reflecting upon the accuracy of documents issued by the Association. A meeting of this Subcommittee was fixed for October 15th, at which meeting the draft will be prepared for presentation at the next meeting of the General Committee on October 20th.

The Honorary Secretary presented the printer's account for the issue of the further report of the Association, copies of which were forwarded to all the Fellows whose addresses were known. This account amounted to £12 8s. 6d., and was handed to the Treasurer for payment.

It was stated that, as persistent and irresponsible attacks are made upon the Association without being openly formulated, the Committee of the Association is determined to substantiate the accuracy of all its published statements, and especially the particular statements impugned by an official of the College.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 26th day of October next, at 2 o'clock in the afternoon.

Francis Fowke, *General Secretary.*

September 29th, 1892.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

South-Eastern Branch: West Kent District.—The next meeting of this District will take place on Tuesday, November 8th, at St. Bartholomew's Hospital, Chatham, A. T. Franklyn Brown, M.B., in the chair. Gentlemen desirous of reading papers or exhibiting specimens are requested to inform the Deputy Honorary Secretary of the District, E. Ground, M.D., 23, Gabriel's Hill, Maidstone, not later than October 20th. Further particulars will be duly announced.—E. Ground, Deputy Honorary Secretary.

Oxford and District Branch.—The next meeting will be held at the Radcliffe Infirmary on Friday, October 28th, at 3.15 P.M. Members are requested to send notice of papers, cases, etc., on or before October 14th to W. Lewis Morgan, Honorary Secretary, 42, Broad Street, Oxford.

Metropolitan Counties Branch: East London and South Essex District.—The first meeting of the session will be held at the Town Hall, Hackney, on Thursday, October 20th, at 8.30 P.M. The chair will be taken by Dr. Pavy, President of the Branch. Dr. Pye-Smith will read a paper on "The Rational and the Empirical Use of Drugs." Visitors will be cordially welcomed.—H. E. Powell, Honorary Secretary, Glenarm House, Upper Clapton, N.E.

Lancashire and Cheshire Branch.—The autumn meeting of this Branch will be held in the Town Hall, Preston, about the last week in November. Gentlemen wishing to read papers or communications, or show cases, are requested to write to Dr. Glascott, 23, St. John Street, Manchester, as soon as possible.—C. E. Glascott, M.D., Jas. Barr, M.D., Joint Honorary Secretaries.

Yorkshire Branch.—The autumn meeting of the members of the Yorkshire Branch will be held at Harrogate on Wednesday, November 2nd, at 4.30 P.M. Members intending to read papers are requested to communicate with the Secretary, Arthur Jackson, Wilkinson Street, Sheffield.

Northern Counties (Scotland) Branch.—The autumn meeting will be held at Forres, within the Station Hotel (Mr. Macdonald's), on Thursday, October 27th, at 11 A.M., when it is proposed to visit the Leanchoil Hospital recently opened for patients. Members desirous of reading papers or of bringing forward any question affecting the Branch are requested to give notice to the Secretary not later than October 15th.—J. W. Norris Mackay, Hon. Sec., Elgin.

North of England Branch.—The autumnal meeting will be held at the Ingham Infirmary, South Shields, on Wednesday, November 2nd, at 4 P.M. Cases of interest will be shown by the honorary staff of the infirmary, and by others. The dinner after the meeting will take place at the Royal Hotel at 6 o'clock.—G. E. Williamson, Honorary Secretary, 22, Eldon Square, Newcastle-upon-Tyne.

North of Ireland Branch.—The autumn meeting of this Branch will be held in the Museum, College Square North, Belfast, on Thursday, October 27th, at 4 P.M. Business: (1) Dr. J. Walton Browne will deliver his address as President. (2) Dr. Byers will give an account of a Successful Abdominal Section for Ruptured Tubal Gestation, and will show the Ruptured Gravid Fallopian Tube and the Fœtus removed from the abdomen; Dr. Byers will also show a Suppurating Ovarian Cystoma, successfully removed. (3) Dr. James A. Lindsay will read notes of a case of Jacksonian Epilepsy, and will make some remarks on the Symptomatology and Pathology of the affection. (4) Dr. O'Neill (Belfast) will read short notes of Four Cases of Litholapaxy; he will also show the Calculi removed, and also five Calculi which were passed with the urine of three patients soon after severe attacks of renal colic. (5) Dr. Dempsey will read notes of a case of Utero-Vesical Fistula Cured by Operation.—J. W. Byers, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The nineteenth annual general meeting of this Branch will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, October 27th, at 3.30. An address will be delivered by the President, Dr. Malet.—GEORGE REID, Honorary Secretary, Stafford.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE 109th general meeting of the Branch was held at the Royal Society's Room on August 5th, the Hon. Dr. CREED, M.L.C., President, in the Chair. There were present Drs. Thomas McSwinney, Jarvie Hood, Scot Skirving, Newmarch, Hull, Worrall, McCulloch, Todd, Martin, Shewen, Jenkins, Fiaschi, Purser, Kendall, McMurray, Foreman, Jamieson, and the Hon. Dr. Mackellar, M.L.C. Dr. and Mr. Smith were present as visitors.

New Member.—The minutes of the previous meeting having been read and confirmed, the PRESIDENT announced that Dr. McNeill, of Burwood, had been elected a member of the Association.

Communications.—Dr. NEWMARCH read notes on a case of Wolfe's Method of Transplantation of Skin, and exhibited the patient. A discussion ensued, in which Drs. SCOT SKIRVING, PURSER, and FIASCHI took part.—Dr. FOREMAN read notes on a case of Suppurating Dermoid of the Ovary, with Hysterectomy and Removal of the Vermiform Appendix, and exhibited the specimen. Drs. WORRALL and THOMAS discussed the paper.—Dr. JAMIESON read notes of a case of Poisoning by Nitro-Benzol. Drs. MACKELLAR, SMITH, MCCULLOCH, and Mr. CHARLES SMITH discussed the paper; Dr. JAMIESON replied.

Notice of Resolution.—Dr. RICHARD ARTHUR gave notice of the following resolution: "That this Association forward a resolution to the Legislative Assembly in support of the clause in the Vice Suppression Bill of 1891 which raises the age of consent in the female, and that such resolution be signed on behalf of the Association by the President and Vice-President."

BURMAH BRANCH.

THE twelfth regular meeting of this Branch was held on June 3rd, 1892.

New Member.—Mr. Robert A. Hollingsworth, L.R.C.P., L.R.C.S., was duly elected a member of the Branch.

Specimen.—Surgeon-Major O. BAKER showed a specimen of a Horseshoe Kidney, and commented on the case.

THE thirteenth meeting was held on July 1st.

New Members.—The following gentlemen were elected members:—Surgeon-Major E. P. Frenchman, L.R.C.P. & S.Edin.; Surgeon-Captain W. Molesworth, M.B., M.R.C.S., L.R.C.P.

Communications.—The HONORARY SECRETARY, on behalf of Surgeon-Captain C. L. WILLIAMS, showed a Calculus removed from beneath the Prepuce of a man, aged 50, and read notes of the case.—Mr. N. N. PARAKH showed a Chinaman with Congenital Closure of the Anterior Nares.—Surgeon-Major O. BAKER read notes on a case of Acute Exfoliative Dermatitis.—Mr. T. F. PEDLEY related a fatal case of Hydrophobia in a boy of 12 years of age.

SOUTH MIDLAND BRANCH.

THE autumnal meeting of this Branch was held at the Bute Hospital, Luton, on October 6th, under the presidency of Dr. MAGUIRE (Stony Stratford). Twenty-five members and visitors were present.

New Members.—The following gentlemen were proposed and elected members, namely: Dr. W. Bolton Tomson (Luton), of the Association and Branch; Dr. Thompson Shaw (Northampton) and Mr. John Allison (Kettering), of the Branch only.

Uterine Fibroids.—Dr. DAVID THOMSON (Luton) read a paper on Uterine Fibroids and their Treatment. After describing the different varieties and the diagnostic symptoms of each, he proceeded to estimate the comparative value of the different methods of treatment, namely, by the administration of drugs by the mouth and hypodermically, by surgical operation, and by the application of electricity. He most favoured the method of hypodermically injecting through the abdominal walls (in intramural cases) a solution of sclerotic acid in doses of one-eigthth to half a-grain every other day, beginning with the smaller dose. It reduced the tumour and checked the hæmorrhage. He did not advocate the removal of the uterine appendages. He believed uterine fibroids were very much more common than was generally supposed. In the discussion which ensued Dr. BUSZARD, Dr. JONES, Mr. SWORDER, and others took part.

Cervical Paraplegia.—Dr. BUSZARD (Northampton) read a paper on Cervical Paraplegia. After some preliminary remarks on the importance of an accurate diagnosis as leading to a correct prognosis, he related, by way of example, two or three cases of cervical paraplegia arising from pressure or other causes, pointing out the diagnostic symptoms in each, and comparing them together in minute detail.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Commencement of Medical Session.—New Medical Buildings.—Cancer Hospital.—Sewage: Pail System versus Waterclosets.

THE medical session at Owens College is now in full swing. So far as can be judged at present, the entries of former and new students seem to be well maintained. It is possible, however, that the number of new men may not exceed, or even quite reach, the number entering last year, which was exceptionally high. Probably the institution of a five years' curriculum will affect the entries both at metropolitan and provincial schools.

The new buildings of the medical school are steadily progressing under the superintendence of Mr. A. Waterhouse, R.A. The subscriptions hitherto received or promised amount to about £19,000, but, as something like £40,000 in all will be required to furnish and equip the extension, it is proposed to appeal shortly for subscriptions to the public and the profession in Manchester and the surrounding district.

From the report of the meeting of the governors of Owens College, we learn that a site has been assigned to the Cancer Hospital on the College Hospital estate. One of the large houses on the estate is being converted into a hospital, with beds for the reception of cancer patients, and we understand it will soon be ready for their reception. Applications for a site have also been received from the Southern Hospital for Diseases of Women and Children, and from the Hospital for Diseases of the Skin, but no decision with regard to these has been arrived at, as the Council is anxious, in the public interest, not to anticipate unduly any application which may still be made on behalf of the Manchester Royal Infirmary, between which and the College the Council continues to desire the establishment of relations at once satisfactory and permanent.

The question of the disposal of the sewage of Manchester has become almost a burning question. For the disposal of the refuse from the city many plans have been devised, including the establishment of "destructors" in various parts of the surrounding districts. All these have been rejected, and now it is proposed to convey the refuse by train to the Rampton Manor estate, and there dispose of it. The Corporation has applied for authority to purchase the estate for this purpose, and already an inquiry has been held by the Local Government Board. A large number of houses in Manchester are not supplied with waterclosets, but are worked on the "pail system." The Corporation propose that application be made to the Local Government Board for a provisional order in relation to the conversion of pail and other closets into waterclosets with suitable drains, and also for conferring borrowing powers on the Corporation, to enable them to raise £250,000 for carrying out this project.

NEWCASTLE-ON-TYNE.

Opening of the Winter Session of the College of Medicine.—Re-election of Dr. Arnison as Surgeon to the Infirmary.—Vacancy for the Office of Assistant-Surgeon.

THE opening of the winter session of the College of Medicine took place on October 4th, when the prizes and scholarships were presented to the successful students by the

Bishop of Durham. Dr. Philipson, the President of the College, occupied the chair, and in his opening address said he had been instructed by the Dean of Durham, the Warden of the University, to express his regret at his inability to be present, owing to ill-health; he referred to the great loss the College had sustained by the death of the late Dr. Heath, who had been connected with the College in a teaching capacity for forty-seven years. During the winter session 1891-92, 206 students attended the College, and during the summer of 1891, 190 students attended. These were the largest attendances the College had had. The Bishop of Durham delivered an eloquent address, which was most attentively listened to by the students. The Bishop expressed his pleasure at being present, because he was asked as visitor of the University and because it reminded him of his old work. He congratulated them on the noble institution they possessed, and reminded them that they were members of a University, and hoped that a residential hall would soon be provided. He spoke to the students on the vastness of the field of study which was open before them—a field of inexhaustible research; he advised them to pursue their special study, to practise it with all generous sympathy, as men who knew they were only engaged with one province out of a great realm, and to pursue it also with thoughtful tenderness, as men who would not satisfy idle curiosity by the pain of another, nor blend their pleasure or their pride with sorrow of the meanest thing that feels. He wished them all joy and blessing in the pursuit of a service than which none could be happier than the one to which they had devoted themselves.

At the infirmary, Dr. Arnison, who has served the institution faithfully and well for the past twenty-five years, has been re-elected for a further period of five years.

Mr. T. A. Dodd has resigned the office of assistant-surgeon after serving fourteen years, and there is now a vacancy for that office; several candidates are already in the field.

CORRESPONDENCE.

PRESSURE ON SPACE.

Notice to Correspondents and Authors of Communications.

In view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

FEMALE INEBRIETY.

SIR,—I trust you will forgive me saying that whatever may fall under your editorial eyes concerning the metropolis your picture of female inebriety is one that is overdrawn to a degree, against which I must enter a protest, so far as the country districts and one of our large towns of England are concerned. I have lived now in this hive of industry for 22 years, and as a medical practitioner, a hospital officer, and one of the city rulers I have been as familiar with the habits of its population as I think anyone can well be, and I say unhesitatingly that a drunken woman is a rare object, and probably an object much rarer now than 20 years ago.

I move about the country to an extent that almost equals the work of a commercial traveller, and I have no reason to think that my own city is exceptionally sober, but that drunkenness is on the decrease all over the country is a conclusion which is being more and more firmly established in my mind.

I remember our local chancellor of the exchequer entering a joyous complaint at the diminution of one very objectionable source of civic revenue, namely, the contribution to the borough fund from fines of the "drunk and disorderly." If I remember rightly the fall was from £12,000 a year to £4,000, and that in less than 10 years.

My practice lies exclusively amongst diseases of women and I am consulted about a large number of drunken women, especially, of course, amongst the middle and upper classes, and I have long since come to a conclusion, consistently supported by an ever-increasing experience, that women are not sots for the fun of the thing as men are, but that an intelligent and educated woman never becomes a drunkard but from some deep-rooted and often carefully-concealed cause.

It may be physical suffering or mental distress, but there always is a reason for it. Scores of my cases of suffering from chronic inflammatory disease of the appendages have come to me habitual drunkards or opium eaters, or both; and they have been cured of their bad habits by the same proceedings as have cured their physical sufferings. I have no less than three such lying-in convalescents at the present moment. I always break their habits suddenly and at once, greatly to their distress but much to their welfare.

The climacteric sufferings are a fertile source of drunkenness in women, but when there is no more permanent cause for the vice than this the habit is nearly always given up when the troubles are over. I am, therefore, in a position to confirm absolutely your indication as to the influence of these special causes in the production of drunkenness in women, but I would greatly emphasise the extent of that influence. I would urge that the physical condition of every habitually drunken woman should be carefully determined.

I am in politics a strong individualist, and therefore have little sympathy with that perpetual craving after grandmotherly legislation of which the Habitual Drunkards Bill is an example; and for women I am not disposed to admit its necessity. In men habitual drunkenness is a serious crime and ought to be treated as such without mercy—I am, etc.,

Birmingham, Oct. 3rd. LAWSON TAIT.

THE NOTIFICATION OF INFECTIOUS DISEASE.

SIR,—It is quite unnecessary for me to answer in detail Dr. Goodhart's letter in your last issue, or Dr. Shelly's either, as I find that in a letter from the Local Government Board to the Town Clerk of Uppingham, under date December 29th, 1890, the following rule is laid down:—"If two practitioners are in actual attendance on or are called in to visit a patient, whether at the same period or successively, and their attendance or visiting is connected with the medical treatment of the patient, both are bound to send certificates, and these must be duly paid for by the sanitary authority."

As a matter of fact, my authority every month sanctions payments to two or three medical men for certifying a single case, and this in several instances, and the Metropolitan Asylums Board refunds such payments.—I am, etc.,

W. H. CORFIELD, M.A., M.D. (Oxon.),
Medical Officer of Health for St. George's, Hanover Square.

Saville Row, W., Oct. 10th.

THE CHOLERA EPIDEMIC OF 1892 AND THE *BRITISH MEDICAL JOURNAL*.

SIR,—The crowded and replete pages of the BRITISH MEDICAL JOURNAL have presented for the last two months a vivid and marvellously complete picture (1) of the theory of the etiology of cholera as a water-caused and propagated disease; (2) of the life history of the cholera vibrio as the concurrent and causal factor in the pathology and clinical features of cholera; and (3) of the march of cholera as a "filth disease carried by dirty people to dirty places, and propagated there by dirty water," a disease not airborne nor catching, but eaten or drunk. Bear with me if through the same columns I express some philosophic doubts.

I have watched with extreme interest, as no doubt have many others, the unrolling in your columns of the tragic and well-told tale—the accumulation of detailed evidence, and the logical completeness with which by the aid of telegraph and cable the epidemic has been tracked by you and your correspondents along "its lines of human communication," its stations dated and charted in the excellent maps with which your compiler and chartographer has enriched medical literature. I acknowledge the industry with which the relevant incidents have been noted in the Far East, in Asiatic Russia, and in Europe, and I can admire the liberal enterprise and skill with which these widely scattered materials for the history of the recent epidemic of cholera have from week to week been simultaneously brought together, analysed, and marshalled in your columns. This has been, no doubt, a triumph of journalism. The telegraphic promptitude and encyclopædic completeness of condensed information are, so far as I can judge, unrivalled in epidemiological literature, so that, for the history of the 1892 epidemic, the JOURNAL will remain a *locus classicus*.

But, having made my obeisance to these qualities, I should like, with your good permission, to ask British epidemio-

logists if all this does not seem to them a little too complete and somewhat over lucid, or, if I may be pardoned the use of the expression, a little too clever. Allow me to write quite frankly on what is a very momentous question. I can quite understand, and many of us will sympathise with the triumph and satisfaction with which Mr. Ernest Hart, as the discoverer of the *vera causa* of the memorable East London epidemic of 1866 (in the broken pump and disused filter bed of the East London Waterworks, and the historic cholera patient who simultaneously fouled the River Lee) regards the history of the present Hamburg epidemic as an addition to the crowning of the edifice of cholera causation which he claims then to have accomplished.

But is the ridicule which he pours on the "telluric influences" and "the atmospheric waves" of Sir Joseph Fayrer, the moonsoon theories of Bryden, and the philosophic doubts of Klein and of Cunningham, as to the identity and causal value of the cholera bacillus, really scientific? So far the case, as I am rather sorry and surprised to see, has gone by default. The edifice reared in the JOURNAL during the last two months is abundant in detail and shapely, but are its foundations secure? Many of us were brought up in the school of Bryden and Lawson; and Klein and Cunningham and Fayrer and Macpherson are still our prophets. How do these distinguished epidemiologists regard the shattering of all other idols other than that of Aquarius? Are they only *idola specus?* The Editor of the BRITISH MEDICAL JOURNAL seems to me, when dealing with the etiology, biology, and bacteriology of cholera, to be telling a story which is so distinctly in the key of Coleridge's "Ancient Mariner," "Water, water everywhere," and "not a drop to drink." It is enthralling, dramatic, but a trifle exclusive. If Mr. Ernest Hart is right in his *Nineteenth Century* article of this month, and if the BRITISH MEDICAL JOURNAL for the last six weeks is right in its life-history of the "Vibrio Choleræ Asiaticæ," and in its details of the Hamburg epidemic, in its facts and references to the causation of the Paris, Naples, Marseilles, Spanish, and Genoa epidemics, then Indian experience and teaching have been simply misleading, and Indian bacteriology a will-o'-the-wisp. We may put by our Blue Books and maps, and set to work on waterworks and drainage. But old Indian officers will not be content altogether to believe this until "the other side" is heard. You will pardon what are, I hope, my not unphilosophic doubts; they may, perhaps, elicit evidence of value.

I write with respectful scepticism, for I am one of the admirers of the JOURNAL and of the editorial qualities of sledge-hammer vigour and of the fulness and fertility of resource and initiative which have acquired for it a position unique in periodical medical literature, while they have made the British Medical Association the most ubiquitous, sleepless, and powerful organisation yet seen in professional history. But I doubt whether the same methods are applicable to scientific research; and I am a little jealous of the *tour de force* which seeks to level the walls of the great citadel of Indian medical science—its cholera literature—by a few blasts of the editorial trumpet. I am not yet prepared to abandon the teaching of my Indian library of treatises and Blue Books on cholera, even though they be all of a sudden stigmatised as "effete," "mysterious," and "superannuated," and "things to be brushed aside."

I see that Dr. Hime, the translator and apostle of Pettenkofer, is writing to you from Hamburg. Pettenkofer, unlike Virchow and Koch, is not a convert to the water cholera theory; he apparently believes that Mr. Hart's explanation of the East London 1866 epidemic is inadequate without resort to the ground-water theory. What does Pettenkofer, who is announced to have been in Hamburg, say on this occasion? The whole question might now with advantage be discussed at one of the medical societies. I hope it may be put on the programme.—I am, etc.,

Oct. 10th. ASIATICUS.

SCHOOLBOYS' MEALS.

SIR,—I am glad to see this subject is attracting attention, and agree with "Paterfamilias" in much of what he says.

I know Epsom College well, and am much satisfied with the general tone and educational results so far as my sons are concerned. The one complaint I have heard has been in regard to the dietary, not that it is insufficient in quantity, but that there is a want of variety—vegetables are said to be practically absent, except potatoes, and they are not of the best quality, from all accounts. Beer for youths at school I decidedly object to, as it is not necessary to health, and only tends to habits better to be avoided.

My suggestions are: stop beer, and give a liberal supply of milk and vegetables of the best quality. I do not consider it necessary, except under special circumstances, that boys should have meat to breakfast; but those who like it should certainly have the chance of properly made porridge, with good milk, in addition to the ordinary tea-bread-and-butter breakfast. There is porridge, I am informed, but rarely good, and badly prepared porridge is very unpalatable. The above remarks are solely made in the best interests of the College, with the conviction that the able administrators of the institution will speedily remove all such causes of complaint.—I am, etc.,

Oct. 10th. WELL WISHER.

*** We feel assured that the authorities at Epsom are only desirous of consulting the real interests of the boys in the matter of diet as of other things, and will readily consider any proposals, and adopt such as are in their final judgment advisable. We may mention that the Treasurer, Dr. Holman, has already taken steps to put himself in friendly communication with "Paterfamilias," the author of the letter on this subject in the BRITISH MEDICAL JOURNAL of October 8th, to whom we have, at Dr. Holman's request, forwarded a communication.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

ASSESSOR FOR M.D DEGREE.—Dr. Donald MacAlister has been reappointed Assessor to the Regius Professor of Physic for the current academical year.

FELLOWSHIPS.—Mr. T. F Dufton, B.A., First Class Natural Sciences Tripos, Part I, 1887, and Part II, 1889, has been elected to a Fellowship at Trinity College; and Mr. A. Hutchinson, M.A., of Christ's College, First Class Natural Sciences Tripos, Part I, 1886, Part II, 1888, has been elected to a Fellowship in Pembroke College; in each case for distinction in Chemistry. Mr. Hutchinson is a recognised teacher of chemistry in the Medical School. Mr. W. B. Hardy, M.A., Junior Demonstrator of Physiology, has also been elected to a Fellowship at Gonville and Caius College.

EXAMINATION IN SANITARY SCIENCE FOR D.P.H.—The following candidates have satisfied the examiners in both parts of the examination:

J. Barr, M.B., C.M.Glas.; M. M. Bowlan, M.B., B.S.Durh., London; W. H. Brazil, M.D., M.R.C.S., Bolton-le-Moor; C. H. H. Cameron, L.R.C.P., M.R.C.S., Eastbourne; W. C. Downs, M.B., C.M.Glas., Uddingston; J. Elias, M.R.C.S., Glamorgan; A. G. R. Foulerton, L.R.C.P., M.R.C.S., London; J. K. Frost, M.R.C.S., Longtown; H. R. Jones, M.A., M.D.Cantab., Liverpool; M. A. Khan, L.R.C.P., M.R.C.S., London; J. Mason, L.R.C.P.E., Blyth; L. P. Mumby, M.B., M.R.C.S., London; W. Permewan, M.D., F.R.C.S., Liverpool; E. Scott, M.R.C.S., London; G. Severs, L.R.C.P., M.R.C.S., Bingley; J. Watson, M.B. Durh., F.R.C.S.E., L.R.C.P., Newbury; E. M. Wilson, L.R.C.P., M.R.C.S., London; M. G. Yunge-Bateman, M.R.C.S., Hampstead.

CONGRESS AT ROME.—The Regius Professor of Physic, Dr. D. MacAlister and Professor A. MacAlister have been nominated by the Special Board for Medicine as delegates to represent the Medical Faculty at the International Medical Congress to be held at Rome in September next.

UNIVERSITY OF EDINBURGH.

THE following gentlemen have passed the Second Professional Examination for the degrees of M.B. and C.M.:

W. H. Bryce, W. Catto, M.A., J. Cookson, A. Cowper, R. P. Dawson, T. Dewar, W. G. Donald, W. J. Garbutt, T. Gibson, J. D. Gregorson, C. W. Holme, G. Hudson, J. W. Hyslop, C. W. A. Jones, R. E. Legat, T. P. Monteath, B.A., J. L. Owen, A. P. Percival, W. Ridch, W. H. Robertson, S. Saliba, A. Selkirk, H. Steven, J. M. Sutter, R. K. Tarden, T. J. Thomson.

Mr. J. Melver has passed the first part (that is, Anatomy and Physiology) of the same examination.

The following gentlemen have passed the First Professional Examination for the Degrees of M.B. and C.M.—

W. C. Anderson, A. R. Bankart, F. M. Black, N. T. Bond, W. J. W. W. Borthwick, J. W. P. Boyd, A. Cameron, N. N. S. Carmichael, J. O. Coker, J. Cowie, V. M. Daly, R. H. Drennan, A. M. Elliot, J. R. Forster, D. Fraser, M. Gillespie, P. Grant, F. T. Griffin, F. E. Gunter, J. F. Hall, A. A. Hudson, J. E. Knox, H. Latham, A. T. Law, W. Lawton, A. W. B. Livesey, G. F. Longbotham, D. W. K. Lyall, A. M. Macdonald, J. Macfarlane, A. V. Macgregor, M. Mackay, M.A., W. C. Macknight, W. M'Lean, T. M. Martin, C. E. Maude, B.A., R. F. Michell, J. O. Morrison, A. Newell, B.A., A. A. O'Hara, J. Owen, M. Parkinson, H. J. Pechell, J. D. Pollock, W. M. Robertshaw, A. C. Stanberg, C. E. Stephens, F. W. Sydenham, J. B. Thomson, F. R. van Langenberg, A. Ward, A. J. Wheatley, C. W. Williams, G. J. Williams, J. G. Williamson.

UNIVERSITY OF GLASGOW.

For the first time in the history of the University the names of women have been posted up in the lists of candidates for professional examinations. The first women applicants for the medical degrees numbered thirteen—candidates for the first professional examination. Of these, eight have passed, all students of Queen Margaret College. At the same examination the male candidates numbered 204, of whom 104 passed, 15 passed in some subjects but not in all, and the remainder failed or withdrew. There were besides 25 candidates under the new ordinances, of whom 13 passed in two subjects, 4 in one subject, and the remainder failed or withdrew. For the second examination the entrants numbered 105, of whom 64 passed, 6 passed in some subjects, and the remainder failed or withdrew.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following gentlemen having previously passed the necessary examinations, and conformed to the by-laws and regulations, and having now attained the legal age of 25 years, were at the quarterly meeting of the Council on Thursday, October 13th, admitted Fellows of the College: W. McA. Eccles, M.B.Lond., L.R.C.P.Lond., St. Bartholomew's Hospital, diploma of Member dated February 13th, 1890; T. L. Pennell, M.B.Lond., L.R.C.P.Lond., University College Hospital, diploma of Member dated November 13th, 1890; E. T. E. Hamilton, B.Sc.Lond., L.R.C.P.Lond., Guy's Hospital, diploma of Member dated November 12th, 1891.

The following gentlemen having passed the necessary examinations, and having conformed to the by-laws and regulations, were at the same meeting admitted Members of the College: E. H. Cartwright, L.R.C.P.Lond., Oxford University and Guy's Hospital; D. N. Cooper, L.R.C.P.Lond., Madras and St. Bartholomew's Hospital; E. E. Francis, L.S.A., St. Bartholomew's Hospital.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Fellowship Examination.—Mr. Stanislaus Emil Antony Zichy-Woinarski, M.B., Bac.Surg.Univ.Melbourne, having passed the necessary examination, has been admitted a Fellow of the College.

SOCIETY OF APOTHECARIES OF LONDON.

Pass List, October, 1892. Final Examination, Part II.—The following Candidates passed in:

Anatomy and Physiology.—G. J. Branson, Queen's College, Birmingham; G. Broadbent, Yorkshire College, Leeds; C. E. R. Bucknill, Edinburgh; F. Chown, St. Mary's Hospital; U. M. Fowler, Royal Free Hospital; R. S. H. Fuhr, Belfast; A. W. Haines, Queen's College, Birmingham; T. H. Hunt, Owens College, Manchester; W. MacLellan, Edinburgh; E. L. Mitcheson, Royal Free Hospital; A. P. Murtz, King's College; H. J. Richards, St. Bartholomew's Hospital; A. T. Savage, Cambridge University; E. E. Willis, Charing Cross Hospital; L. F. F. Winslow, Charing Cross Hospital.

Anatomy.—C. Basan, Middlesex Hospital; E. C. W. Beasley, St. Mary's Hospital; H. A. Burridge, King's College; P. R. Grange, University College; W. J. Henson, Guy's Hospital; A. Hilton, Owens College, Manchester; A. R. McCullagh, Charing Cross Hospital; N. S. Monnier, St. Mary's Hospital; W. A. Montgomery, St. Thomas's Hospital; A. C. Thornton, St. Thomas's Hospital.

Physiology.—F. V. Elkington, St. Bartholomew's Hospital; A. H. Wade, St. Bartholomew's Hospital; W. H. Tomlinson, Owen's College, Manchester.

Chemistry, Materia Medica, Botany, and Pharmacy.—E. E. Evans, Royal Free Hospital; P. von Himpe, Royal Free Hospital.

Chemistry.—E. G. Adams, Royal Free Hospital; M. H. Harris, Royal Free Hospital; M. Thorne, Royal Free Hospital; C. S. Vines, Royal Free Hospital.

Materia Medica, Botany, and Pharmacy.—C. Adams, Royal Free Hospital; W. Alder, Guy's Hospital; G. T. Branson, Birmingham; A. M. Browne, Royal Free Hospital; F. Chown, St. Mary's Hospital; R. S. H. Fuhr, Belfast; A. W. Haines, Birmingham; M. K. S. Holst, Royal Free Hospital; T. H. Hunt, Manchester; E. F. Lamport, Royal Free Hospital; W. Latham, Liverpool; N. S. Monnier, St. Mary's Hospital; M. Sharp, Royal Free Hospital; W. H. Tomlinson, Owens College, Manchester; H. E. Wise, Middlesex Hospital.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL DEFENCE UNION.

A Council meeting was, by kind permission of the Council of the British Medical Association, held at 429, Strand, on September 28th, Mr. Lawson Tait in the chair. In consideration of the business arising out of the minutes, after discussion it was moved by Dr. Bridgwater, seconded by Dr. Pope, and unanimously resolved: "That after having heard the report of the solicitors of the Union, and the statement of Mr. Lawson Tait, entered upon the minutes of the last Council meeting, the following Minute (No. 339) be and is hereby confirmed: 'That after having heard the report of the solicitors to the Union and the statement of Mr. Lawson Tait, this Council believes that Mr. Tait was justified in accepting the terms of settlement (in *re* Denholme *versus* Tait) recommended by the counsel employed by the Union.'" The Secretaries reported that since the last meeting they had received seventy-four fresh applications for membership, which were accepted. One application for membership was refused.

In the case of a member who was maligned by a co-official of a workhouse, the secretaries were instructed to forward to the clerk of the guardians a copy of the letter of the traducer, which this Council was of opinion was a sufficient vindication of the character of the member.

An unqualified practitioner at Cardiff, having signed a death certificate as "L.R.C.P. and S., Edinburgh," the matter was reported to the Registrar of the Boards, who replied that the Colleges had no power to prosecute. The matter was then laid before the Registrar-General, who replied that the offence took place too long ago to allow him to undertake a prosecution. The date of the offence was December 28th, 1891. The action of the secretaries in taking these steps was approved. The secretaries reported that the Emergency Committee had taken preliminary steps to defend a member who was threatened with an action for malpraxis by a patient for having laid open some sinuses in the hand.

In a case in which a patient had repudiated the professional charges of a member on the ground of incompetency, the action of the Emergency Committee was approved, in the recommendation that it had tendered to to the member to recover the fees by the usual process, and if the defence set up constituted a libel, or made reflection upon the member, application could be made to the Union to consider steps to obtain a redress.

To counteract current systematic misrepresentation, the secretaries were instructed to make it more generally known that the London office of the Union was 64, Longridge Road, S.W. It was resolved to report to the General Medical Council, and also to his licensing College the conduct of a medical man in covering a notorious unqualified practitioner. A resolution of condolence with the widow of Mr. Alfred Leach was unanimously adopted. A Subcommittee was appointed consisting of the officers of the Union, together with Dr. Campbell Pope and Dr. Danford Thomas, with power to deal with a dispute involving a question of covering which had arisen between two medical men who were both members of the Union. The following appointments to Local Committees were made:

Daventry, Mr. Thompson Forster, Honorary Secretary.
Hertfordshire, A. T. Brett, M.D., Watford, Chairman.
" R. S. Batterbury, M.D., Beskhampstead, Hon. Sec.
" Russell Steele, M.D., Hemel Hempstead.
" S. A. Bontor, M.D., Berkhampstead. } Committee.
" C. W. Christmas, L.R.C.P., Watford.
" A. J. Hubbard, M.D., Hemel Hempstead.
Wellingborough, W. W. Clark, M.D., Honorary Secretary.
Kettering, J. W. Dryland, M.D., Honorary Secretary.
Towcester, A. P. Kingcombe, M.D., Honorary Secretary.
Northampton, A. H. Jones, M.D., Chairman; A. Milligan, M.D., Honorary Secretary; Mr. R. Green, Mr. W. Moxon, Committee.
Stamford, W. Newman, M.D., Honorary Secretary.

THE NATIONAL MEDICAL AID COMPANY, LIMITED.

"Another Medicus" writes dissenting from our views of the character of the National Medical Aid Company, Limited. We cordially agree with many of his remarks, but fail to see in them any reasons for altering our opinion. Doubtless it is often better for young and struggling practitioners to receive small and certain weekly payments, rather than run up "bad debts," and that there are people "quite unable to pay large doctor's bills;" but it does not necessarily follow that the National Medical Aid Company is the only remedy for this state of affairs; there are many other useful institutions, founded on a much better basis, that would be equally applicable and would not be open to nearly so many objections.

Our correspondent says he is as well paid as the club doctors of the locality; if this is so, we regret to hear that the club-rate has fallen so low, as hitherto we had not known of any where the payments were less than a penny per week per member, and we cannot help thinking that it is due to the National Company, and such like societies, that there has been this depreciation of the wretched pittances hitherto paid by friendly societies; if the poverty of any class of the community is such as to forbid the payments of more than one halfpenny per week for their medical attendance, this class might reasonably claim the benefit of our Poor-law institutions, and it is simply disgraceful that well-to-do people should be able to obtain qualified medical advice at such a rate, for it must not be forgotten that the above company has no wage limit, but invites all classes, whatever their social condition may be, to become members, and actually claims to give its medical officers fair remuneration for their services.

With regard to "touting," that is, house-to-house visitation by paid agents of the company to canvass for members, this is the very backbone of its existence, and we can only presume, if there is very little of this carried on in our correspondent's neighbourhood, that the organisation of the company is at present incomplete there.

In conclusion, we should like to point out to our correspondent that because he has, as yet, had no complaints from brother practitioners he must not assume that they regard this company with very friendly eyes, for we may state that we are constantly receiving letters from those parts of the country where this company is carrying on its operations, bitterly complaining of its procedure, and showing very clearly the numerous evils that it causes.

CONSULTANTS OR GENERAL PRACTITIONERS.

M.D.Lond. writes: Recently, whilst attending a lady patient, I was surprised to hear that her husband (also an old patient of mine) was being visited and treated unknown to me by a very eminent F.R.C.P.Lond., whose fee for such attendance was one guinea, being just double my own. Now I should like to know, Sir, whether this is or is not a breach of professional etiquette. I may say that the patient in question was an entire stranger to the consultant, so the excuse of acquaintanceship could not be urged in defence of what seems to me most irregular conduct. Hitherto my relation with consultants have been most cordial, and this is the first time any such event has occurred in my practice; but I am credibly informed that there are certain Fellows of the College of Physicians who will visit a patient at their own homes for half a guinea.

It must have been within the experience of most general practitioners to find themselves at some time or other in open competition with Members of the College; but surely, Sir, the time has come for some stand to be made against the house-to-house visitation of so-called consultants in the absence of the usual medical attendant.

*** In view of the honourable traditions of the Royal College of Physicians, we fain would hope that our correspondent may be in error with regard to the alleged irregular professional attendance

and acceptance of inadequate fees "by a very eminent F.R.C.P.Lond." If, however, "M.D.'s" specific allegations against him and "certain other Fellows" relative to their assumed derogatory low fees be facts, we would in the general interest of the Faculty, and the conservation of its essential dignity, impress upon him and all other practitioners who may find themselves in a like position the advisability of communicating the facts to the President or Registrar of the College.

FEES FOR WORKHOUSE LUNACY CERTIFICATES.

T. P. writes: In case no justice will make an order under Clause 285 of the Lunacy Act, 1890, an appeal can be made to Quarter Sessions under Clause 301: "Any person aggrieved by the refusal of an order by any justice or justices under this part of this Act may appeal to a court of Quarter Sessions upon giving to the justice or justices against whom the appeal is made fourteen clear days' notice of appeal."

The course of action suggested to "C.C." in the case alluded to in the British Medical Journal of October 8th is as follows: Write a strictly moderate letter to the justice who directed the examination, asking for a fee. If he does not make an order for the payment of a fee apply to three or four more justices. Needless to say it will be prudent to apply to those who are most likely to comply. If no justice makes an order the matter should be placed in the hands of a solicitor, with instructions to apply to Quarter Sessions.

*** The proper course is for "C.C." to apply to the justice who directed the examination of the lunatic to make an order on the guardians for payment of such fee as the justice thinks proper. If he refuses, any other justice having jurisdiction where the examination took place may be applied to, and asked to make such order. If no order is obtained, "C.C." can appeal to a court of Quarter Sessions, giving the justice appealed against fourteen clear days' notice of appeal. One would suppose the simpler way of the two would be to deal only with, and appeal against, the justice directing the examination.

REGISTERED PRACTITIONERS' CHARGES FOR MEDICINES.

Dr. E. R. Rentoul (Liverpool) writes: Will you please tell me in your next issue: 1. If a medical practitioner is legally entitled to charge the usual prices for medicines supplied by him to patients under his care? If so, by which Act can he so charge? 2. Is a registered practitioner legally entitled to charge for medicines which he has supplied to sick persons who are not being treated, or have not been treated, by him? 3. If the practitioner cannot charge the usual prices for the medicines (such as chemists' prices), what sum can he charge? 4. Can he be prosecuted for charging more? and, if so, under what Act can he be prosecuted?

*** 1. Yes. See Section 6 of the Medical Act, 1886; also Sections 21 and 28 of that Act, read in connection with Section 31 of the Medical Act, 1858, which was repealed by the Act of 1886. 2. We think he is so entitled to charge, provided the practitioner has a medical qualification, and not a surgical qualification only. 3. This question does not arise, having regard to reply to No. 2. 4. We are not aware of any Act rendering a medical man liable to prosecution for making an excessive charge.

MEDICAL CHARGES TO MEDICAL MEN.

A., a surgeon holding a Government appointment, is spending his leave at a certain small village, and, whilst there, his dog bites the son of a man, B. C., a local medical man, is called in by B., and on the evening of the same day A. is informed by B. of what has happened. A., of course, is very sorry, but does nothing on account of C.'s attendances. A. calls on C. the same evening and finds him "out," but leaves no card (A. leaves the village the following morning). After a lapse of some months A. revisits the village and calls on B., who hands A. a bill of C.'s for attendances on his son, and expects A. to pay it. A. takes the bill and loses it, whereat he writes to C., to let him know to what amount he is indebted to him. C. knows that A. is a surgeon holding the same diplomas as himself, but writes back to A., stating and expecting A. to settle the account. B. lives quite close to C., and the treatment was most simple. Is C. acting in accordance to the etiquette of the profession?

*** In response to our correspondent's exceptional query, in relation to which there is not, to our knowledge, any medico-ethical rule that has a direct bearing thereon, we may note that, although C., strictly speaking, is legally entitled to charge for attendance on the case in question, it would have been more in accord with the true courtesy of professional life if he had declined to make any claim for such on a brother practitioner. A. will, in our opinion, act judiciously in discharging the exacted pecuniary obligation.

SCHOOL BOARD CERTIFICATES.

J. D. W.—The School Board appears to have appointed an officer with duties of a medical character. The only point of real complaint in "J. D. W.'s" letter appears to be that Dr. McD. visited the house of a child absent from school, this child being a patient of "J. D. W.," to the parents of whom he had given a certificate excusing the child's attendance. The error seems to have been primarily with the school attendance officer, who wrongly refused to recognise "J. D. W.'s" certificate. Dr. McD. should not have visited the case, presuming the whole of the facts were brought to his notice. The Board have evidently no intention that their appointment of Dr. McD. should in any way interfere with "J. D. W.;" indeed, they are powerless in the matter.

ASSISTANTS AND FEES.

Assistant writes: I have noticed from time to time in the British Medical Journal remarks which would lead one to suppose that assistants or *locum tenentes* sometimes are under the impression that certain moneys drawn in their principal's practice belonged to them. I was always under the impression that all moneys received, no matter for what, without exception, belonged to the principal, and that without any specific agreement being entered into. I have acted as both *locum* and assistant on several occasions, and all the arrangement ever entered into between the principals and myself, so far as money was concerned, was as to the amount of salary to be paid me—for example, £80 per annum—in return for which I supposed any fees whatever earned by me belonged to my principal, those got for giving evidence at police courts, inquests, examining for life assurance, or anything out of the ordinary run of practice included.

*** There can be no doubt that all fees paid to an assistant or a *locum tenens* for professional work of any kind done by him in the course of his employment as assistant or *locum tenens* properly belong to the principal, and that the latter is entitled to no more remuneration for his services than that agreed upon at the commencement of his engagement, except by the express consent of the principal. We do not think that this has ever been seriously disputed; the only point where doubt has arisen is in those cases where an assistant or a *locum tenens* has done professional work arising during the course of his engagement, but completed after its expiration; here we are of opinion that, in the absence of express agreement, the assistant or *locum tenens* would be entitled to retain the fee arising from such work.

AN UNFOUNDED CHARGE.

The reports of an inquest recently held at Hove contain statements of a somewhat unusual character. The deceased, a widow, died—as was certified by the practitioner in attendance—from chronic Bright's disease and uræmia, and the evidence of other medical men who had seen the deceased during life or assisted at the *post-mortem* examination confirmed this as the correct diagnosis. The practitioner in question, however, had made up his mind, apparently, that his patient was being poisoned with arsenic, and had told her so, and also the trained nurse, to whom he had given instructions to search the house; and as a result of that search a bottle containing a white powder had been found in the bedroom of one of the daughters of the patient. The daughters, hearing of the rumours started, insisted upon a *post-mortem* examination, and thus finally settled the question as to the cause of death. In the end the doctor unreservedly withdrew all his allegations, but not until he had been censured for giving a certificate of death from Bright's disease if his real opinion was that the case was one of arsenical poisoning.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF: EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office orders with the notice. The first post on Thursday mornings is the latest by which advertisements can be received.

A Surgeon-Major wishes exchange home. Arrived Bombay Presidency last April. Healthy station and capital shooting.—All particulars to "Surgeon-Major," care of G. Utke, Esq., 71, Leinster Road, Rathmines, Dublin.

THE NAVY.

The following appointments have been made at the Admiralty: Henry M. Scott, to be Surgeon and Agent at Inniscrone and Pullocheny, October 5th; John J. McNulty, to be Surgeon and Agent at Dorkinore and Pullendiva, October 5th.

ARMY MEDICAL STAFF.

Under instructions from the Horse Guards, Brigade-Surgeon Lieutenant-Colonel J. R. Greenhill, now serving in Bengal, is directed to proceed to England for retirement on superannuation, leaving Bombay January 11th, 1893.

Surgeon-Major J. Stevenson, M.B., and Surgeon-Captain W. B. Leishman, M.B., who are serving in the Bengal Command, have leave of absence, the former for four months on medical certificate, the latter for six months on medical certificate.

The leave to England, granted to Surgeon-Major W. Heffernan, who is on the strength of the Bengal Establishment, is extended to October 26th.

The undermentioned officers, whose tour of foreign service will expire during trooping season 1892-93, will proceed to England by troopships, leaving Bombay on or about the dates specified, and report their arrival to the War Office:—Surgeon-Major W. L. Lane, M.B., October 8th; Surgeon-Captain S. C. Philson, October 8th; Surgeon-Captain F. A. B. Daly, M.B., December 31st; Surgeon-Captain T. H. Corkery, January 11th, 1893; Surgeon-Major G. D. Bourke, March 12th, 1893; Surgeon-Captain H. H. Brown, M.B., March 12th, 1893; Surgeon-Captain F. T. Skerrett, March 25th, 1893; Surgeon-Lieutenant-Colonel N. B. Major, April 6th, 1893; Surgeon-Captain F. S. Le Quesne, V.C., April 6th, 1893.

Surgeon-General Richard Coffin Elliot, C.B., died at Devonport on the 6th inst., aged 75. His commissions were thus dated:—Assistant Surgeon, June 7th, 1839; Surgeon, January 1st, 1853; Surgeon-Major, May 31st, 1855; Deputy Surgeon-General, October 11th, 1864; and Surgeon-General, February 28th, 1876. He retired on half pay June 28th, 1876. He served throughout the Eastern campaign of 1854-55, including the affairs

of Bulganac and M'Kenzie's Farm, battles of Alma, Balaklava, and Inkerman, siege and fall of Sebastopol; after promotion to Senior Surgeon of Royal Artillery, was appointed Superintending Surgeon of the whole of the Ordnance Corps in the Crimea (medal with four clasps, C.B., Knight of the Legion of Honour, 5th class of the Medjidie, and Turkish medal—twice mentioned in despatches). He served in India in 1857-59, and was present at the action of Pandoo Nuddee, operations before Cawnpore on November 27th, 28th, and 29th, under General Windham, battle of Cawnpore on December 6th (twice mentioned in despatches, medal).

The death is announced of Deputy-Inspector-General Brindsley Nicholson, who entered the service as Assistant-Surgeon, September 28th, 1846; became Surgeon, October 2nd, 1857; Surgeon-Major, September 15th, 1866; and Honorary Deputy-Inspector-General on his retirement on half pay, November 18th, 1871. He served as Staff Assistant-Surgeon in the Kaffir war of 1847-48; with the 60th Rifles in the Kaffir war of 1851-53 (medal); as Staff-Surgeon in the campaign of 1860 in North China, in charge of one of the two general field hospitals (medal); and in the New Zealand war in charge of the general field hospitals. Waikato and Wanganui in 1864-66 (medal). Dr. Nicholson devoted himself to the study of Elizabethan and Jacobean literature, and contributed several papers to the New Shakespeare Society.

INDIAN MEDICAL SERVICE.

Surgeon-Captain C. R. M. Green, Bengal Establishment, Officiating Resident Surgeon at Eden Hospital, is appointed to act in addition to his own duties as Health Officer of the Port of Calcutta during the absence of Dr. W. Norsyth.

Surgeon-Captain T. W. Stewart, Madras Establishment, is posted to Toungoo, Burmah, as Civil Surgeon.

Surgeon-Captain W. C. Vickers, Madras Establishment, is temporarily appointed to be Civil Surgeon of Shwebo, Burmah, in addition to his military duties, *vice* C. W. E. Foster, proceeding on leave.

Surgeon-Captain P. J. Lumsden, Bengal Establishment, Officiating Medical Officer 42nd Goorkha Rifles, is appointed to hold civil medical charge of Naga Hills District, in addition to his military duties, from August 11th.

Surgeon-Captain D. G. Marshall, Bengal Establishment, is transferred from the officiating medical charge of the Bengal Sappers and Miners to the medical charge of the 17th Bengal Cavalry, *vice* Surgeon-Major W. E. Griffith.

Surgeon-Captain C. C. Cassidy, Bengal Establishment, is appointed to the officiating medical charge of the 17th Bengal Cavalry, *vice* Surgeon-Captain D. G. Marshall.

Surgeon-Captain K. Prasad, Bengal Establishment, is appointed to the medical charge of the 10th Bengal Infantry, *vice* Surgeon-Major H. Hamilton.

Surgeon-Major W. E. Griffiths, Bengal Establishment, is transferred from the medical charge of the 17th Bengal Cavalry to the medical charge of the 19th Bengal Infantry, *vice* Surgeon-Captain H. W. G. Macleod. This transfer is made solely in the interests of the public service.

Surgeon-Captain J. S. S. Lumsden, Bengal Establishment, is transferred from the officiating medical charge of the 31st Bengal Infantry to the officiating medical charge of the 30th Bengal Infantry, *vice* Surgeon-Major C. J. McCartie.

Surgeon-Lieutenant R. K. Mitter, Madras Establishment, is directed to do duty in the Myingyan and Mandalay Districts.

Surgeon-Captain H. Herbert, Bombay Establishment, is appointed to act as Professor of Surgery and Clinical and Operative Surgery in Grant Medical College, Bombay, in addition to his present duties, from Surgeon-Major W. K. Hatch's departure on leave and pending the return to duty of Brigade-Surgeon-Lieutenant-Colonel W. Gray. Surgeon-Captain Herbert is also appointed to act as First Surgeon Jamsetjee Jejeebhoy Hospital, in addition to his present duties.

Surgeon-Major D. C. Davidson, Bombay Establishment, is appointed to act as Superintendent of Mahableshwur during the absence of Surgeon-Captain H. W. Stevenson.

Surgeon-Captain J. P. Barry, M.B., Bombay Establishment, is appointed Superintendent of Matheran on the expiration of the term of office of Surgeon-Major J. S. Wilkins, D.S.O.

Surgeon-Major R. Manser, Bombay Establishment, is appointed to act as Senior Medical Officer of the Jamsetjee Jejeebhoy Hospital.

Surgeon-Captain A. F. Sargent, Bombay Establishment, is appointed to act as Civil Surgeon of Sattara, in addition to his own duties, *vice* Surgeon-Major D. C. Davidson.

The services of Brigade-Surgeon-Lieutenant-Colonel D. E. Hughes, M.D., Bombay Establishment, are placed at the disposal of Government in the Military Department.

Surgeon-Major J. S. Wilkins, D.S.O., Bombay Establishment, is appointed to act as Civil Surgeon of Bejapore.

Surgeon-Captain J. C. Lamont, Bengal Establishment, has leave of absence for three months on private affairs; and Surgeon-Major J. E. Ferguson, M.B., Bombay Establishment, has leave for six months on medical certificate.

Surgeon-Lieutenant-Colonel F. H. Blenkinsop, Madras Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel from May 23rd. He entered the service as Assistant-Surgeon October 1st, 1868, and became Surgeon-Lieutenant-Colonel October 1st, 1888. He served with the Burmese expedition in 1885-87, and has the Frontier medal with clasp.

Surgeon-Captain J. Murray, Bengal Establishment, is appointed a Professor in Lahore Medical College from May 24th.

THE VOLUNTEERS.

Surgeon-Captain T. F. Young, 4th Lancashire Artillery, is promoted to be Surgeon-Major, October 8th.

Surgeon-Lieutenant J. Williams, 1st Flint (Buckley) Engineers, Fortress and Railway Forces, Royal Engineers, has resigned his commission, which was dated October 6th, 1888.

Surgeon-Lieutenant A. Barber, M.B., 1st Volunteer Battalion Princess of Wales's Own Yorkshire Regiment (formerly the 1st North Riding of Yorkshire), has also resigned his commission, which dated from January 8th, 1890.

Mr. Henry Temple Wightman is appointed Surgeon-Lieutenant to the 1st (Hallamshire) Volunteer Battalion York and Lancaster Regiment (late the 2nd West Riding of Yorkshire), October 8th.

Mr. John Macdonald, M.B., is appointed Surgeon-Lieutenant to the 1st (Inverness-shire Highland) Volunteer Battalion Queen's Own Cameron Highlanders (late the 1st Inverness-shire), October 8th.

CHANGES OF STATION.

The following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:

		From	To
Brig.-Surg.-Lt.-Col.	MacD. Cuffe, C.B.	Canterbury	Colchester.
,,	H. Comerford, M.D.	Curragh	Bermuda.
,,	R. C. Eaton	Fermoy	Curragh.
Surg.-Lieut.-Col.	E. J. Fairland	Bermuda	Netley.
,,	R. D. Bennett	Kilkenny	Devonport.
,,	H. Stannard	Devonport	Kilkenny.
,,	L. A. Irving	Hulme	Chester.
,,	F. E. Barrow	Cork	Fermoy.
Surg.-Major	J. Martin	Pembroke Dock	Madras.
,,	J. L. Peyton, M.B.	Enniskillen	Bengal.
,,	W. P. Feltham	Madras	Pembroke Dock.
,,	W. O. Wolseley	Chester	Hulme.
,,	J. M'M. Bolster	Aldershot	India.
,,	R. W. E. H. Nicholson	Templemore	Dublin.
,,	D. F. Franklin	Brighton	Eastbourne.
Surg.-Captain	H. K. Allport, M.D.	Alderney	Ceylon.
,,	C. J. Addison	Netley	India.
,,	H. E. R. James	Dublin	Hong Kong.
,,	W. A. Morris	Home District	Netley.
,,	S. Westcott	Netley	Hong Kong.
,,	A. Baird, M.B.	Devonport	India.
,,	A. E. Tate	Woolwich	,,
,,	G. F. Gubbin	Hounslow	Bermuda.
,,	S. F. Freyer, M.D.	Belfast	India.
,,	S. Hickson, M.B.	Longford	Templemore.
,,	H. J. Fletcher, M.B.	Morecambe	Burnley.
,,	A. E. Harris, M.D.	Limerick	Netley.
,,	C. T. Blackwell	Woolwich	Hounslow.
,,	W. H. Bean	Netley	India.
,,	S. R. Wills	Burnley	Birmingham.
,,	J. M. Nicolls, M.B.	Belfast	Enniskillen.
,,	J. H. Daly	Curragh	Dublin.
,,	C. G. Woods, M.D.	Portland	Alderney.
,,	P. J. R. Nunnerley	Salford	Hulme.
,,	M. J. Sexton, M.D.	Curragh	Templemore.
,,	H. Cocks, M.B.	Shorncliffe	Brighton.
,,	J. Wilk, M.B.	Home District	Edinburgh.
,,	T. B. Beach	Aldershot	India.
,,	J. C. Jameson, M.B.	Cork	,,
,,	W. G. Beyts	Edinburgh	Netley.
,,	H. A. Stalkartt, M.B.	Stirling	Dublin.
,,	G. J. Buchanan, M.B.	Stronsall Camp	York.

THE BLACK MOUNTAIN EXPEDITION.

The *Pioneer* states that the medical arrangements for this recent expedition were, by order, cut down to the lowest possible point, which was 6,000 men in the field but not one field hospital! In vain did the principal medical officer of the force—Surgeon-Colonel Harvey, Indian Medical Service—protest. The expedition has fortunately succeeded; but good luck cannot always be counted on. Some fine day it will fail, and how will the authors of such hazardous economy then look? Miserable enough, no doubt; but that will be poor consolation to the sufferers who find their limbs and lives staked on a mere happy-go-lucky chance.

REDUCTION OF FOREIGN TOURS.

Cotopaxi writes imploringly: Continue to agitate for the reduction of Indian tours to five years. Nothing breaks a man like seeing his wife and children daily growing more and more debilitated, while with his scanty pay he cannot give them change. With the depreciated rupee we cannot help them.

Hepatitis writes: The additional year in India will prove the last straw, as the invaliding list will show. We are all in hopes you may bring a return to five years in India and three in the colonies.

*** We sincerely trust we may.

THE DEPRECIATED RUPEE.

A Correspondent writes: You seem to hold that the rupee is not depreciated in its general purchasing power; but after inquiry from a large number of firms I find its purchasing power of commodities has diminished *pari passu* with its diminished exchange or gold value. The price of native food stuffs, and of labour has gone up proportionately with its decline in exchange value. We want our gold and silver values equalised with those at home.

*** All we ever ventured to say on the subject was, that the purchasing power of the rupee, as regards native commodities, had not declined in the same sad ratio as its exchange value; our correspondent traverses this general statement, and we will not contradict one who is on the spot. The more's the pity.

THE NEW DECORATION FOR VOLUNTEER OFFICERS.

Medical Officer of Yeomanry Cavalry.—According to Army Order 170, appended to the monthly *Army List* for September, the Volunteer Officers Decoration applies entirely to Volunteers, and has nothing to do with either Militia or Yeomanry Cavalry. The decoration confers no rank.

MEDICAL NEWS.

A sum of £141 8s. 8d. has been handed to the Committee of the Victoria Hospital for Children as the result of the recent trades, friendly, and temperance societies' demonstration.

The Emperor of Austria has conferred on Professor Billroth the decoration for Art and Science, in recognition of his labours as Professor of Surgery in the University of Vienna for the last twenty-five years.

Professor Antonio Augusto da Costa Simoes has been appointed by the King of Portugal, Rector of the University of Coimbra for a period of three years. This is the first time that a professor in the medical faculty has been appointed to the post.

Bequests.—The late Mr. William Henry Rawson, of Sowerby, Halifax, has by his will bequeathed £500 to the Halifax Infirmary, and £100 each to the Royal Albert Asylum, the Earlswood Idiot Asylum, and the Hospital for Incurables, Putney.

The following gentlemen have been placed on the Commission of the Peace:—For Galway City—Professor Pye, of Queen's College, Galway, and Dr. Nicholas Grealy. For the City of Londonderry—Dr. M. O'Kane, and Dr. F. McLaughlin.

An Honourable Testimonial.—At a reception at Belle Vue, Halifax, held by the Mayor and Mayoress, Dr. Solomon Charles Smith was presented with a solid silver afternoon tea service, with spoons and tongs to match. A replica of a portrait of Dr. Smith, which has been hung in the Public Library, was presented to Mrs. Smith.

Dr. Foltanek, who was recently appointed Professor of Children's Diseases in the University of Innsbruck, has resigned his chair on the ground that there is no clinic and no lecture room for him in the seat of learning of which it was hoped he would be an ornament. A clinical teacher without patients and a professor without a lecture room must be as near to a pure abstraction as is possible.

Professor von Bergmann.—The Czar has conferred on Professor Ernst von Bergmann, of Berlin, the Order of St. Anne, First Class. The insignia of the Order were handed by Count Murafjeff to the distinguished surgeon on the occasion of a family festivity in honour of the nuptials of his eldest daughter with an officer of the Prussian Guard. This is not the first decoration that Professor von Bergmann has received from the Russian Emperor, who fourteen years ago, when he was leaving Dorpat for Würzburg, conferred on him the Order of St. Stanislaus, First Class, in recognition of his services as surgeon-in-chief during the Russo-Turkish war.

Literary Intelligence.—*An American Textbook of Surgery* which has just been published in Philadelphia (W. B. Saunders) presents some novel features. The articles are written by well-known American surgeons, and the entire book has been submitted in proof sheets to all of the authors for mutual criticism and revision, and the final form has been given by the editors, Drs. William W. Keen and J. William White. This plan was adopted in order that the book might express the consensus of opinion of the thirteen surgeons who have joined in its preparation. The volume is copiously illustrated, and its success will, we hope, help to diminish the belief in the ominous nature of the number 13.

The West London Hospital.—The annual dinner of the staff of the West London Hospital was held on October 11th, at the Criterion Restaurant. Mr. C. B. Keetley, the senior surgeon, occupied the chair. With three exceptions, all the members of the staff were present. After the usual loyal toasts had been duly honoured, Dr. Drewitt proposed the toast of the evening, "The West London Hospital," which was responded to by the Chairman. Other toasts followed, which were of a personal and friendly character, and matters of policy were discussed in regard to the well-being of the institution and its management, which will form the subject of further inquiry at the official meetings of the Medical Council. A vote of thanks, proposed by Mr. Bruce Clarke, to the Honorary Secretary of the dinner, Mr. Percy Dunn, brought a very pleasant evening to a conclusion.

Continental Anglo-American Medical Society.—The annual dinner of the Anglo-American Continental Medical Society was held at the Grand Hotel, in Paris, on October 6th, Professor Peter occupying the chair. About forty gentlemen were present, among whom were Drs. Alan Herbert, Faure-Miller, Brandt, of Royat; St. Clair Thomson, of Florence; Gilchrist, of Nice; Cormack, of Hyères; and other well-known British "practitioners resident abroad." The dinner was a great success, and the flow of postprandial oratory was not excessive. Mr. Malcolm Morris responded to the toast of "The Guests." At the business meeting, which was held in the afternoon of the same day, several new members were elected, and the report of the Secretary showed that the Society was in a flourishing condition. Dr. Bull resigned the post of secretary, and was elected treasurer, Dr. Barnard succeeding him in the secretaryship.

Drugs in the Markets.—Within the last few days there has been considerable activity in the wholesale market for drugs and fine chemicals. Quinine and ipecacuanha, in particular, have been in greatly increased demand, and the latter in its crude and impure form has risen to 9s. per lb., a price exceeding the highest obtained for several years past. The influenza and cholera alarms are stated to be chiefly the causes of the advance. It is said, however, that apart from these exceptional influences, ipecacuanha is much more frequently prescribed as a medicinal ingredient than it used to be. This fact has directed attention to the question of supply. Formerly Brazil was the sole source, but since 1887 India and Columbia have sent small though increasing quantities. In the latter country and in Brazil the shrub from which this drug is derived grows wild in abundance, and its cultivation is exceedingly profitable.

Medical Dinner in Leeds.—The annual dinner of the medical profession in Leeds was held at the Queen's Hotel last week, after the opening of the new session of the Medical School. Mr. Mitchell Banks was the guest of the evening, and the chair was occupied by Mr. Mayo Robson. After the toast of "The Queen," the chairman, in proposing the guest of the evening, referred to Mr. Banks's well-known contributions to surgical literature, to his services as a member of the General Medical Council and of the Council of the Royal College of Surgeons, and to the position he holds in the Victoria University. Mr. Banks, in responding, spoke of his old friendships with many of the Leeds profession. Mr. Richardson proposed "The Leeds School of Medicine," which was responded to by Dr. Eddison, Mr. Teale, and Mr. Jessop, after which a number of songs, violin solos, etc., brought a very pleasant evening to a close.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Steinthal, the Nestor of the practitioners of Berlin and a former President of the Hufeland Society, aged 94; Professor Pietro Pellizzari, of Florence, the well-known authority on syphilis; Professor Eduard Ipsen, of Copenhagen, Physician in Ordinary to the Crown Prince of Denmark, aged 48; Dr. Alfred Kruse, *Privat-Docent* of Pathology and Assistant in the Pathological Institute of the University of Greifswald, aged 29; Dr. G. Adolfo Olivero, Physician to the Ospedale Civile of Genoa and Assistant in the Medical Clinic of the University of that city, aged 27; Dr. Eduard Schubert, of Frankfort-on-the-Maine, an authority on Paracelsus and the history of alchemy generally, aged 70; and Dr. K. I. Leonow, formerly Surgeon in the Russian Army (8th Uhlans, Prince of Hesse's Regiment), who was distinguished even in Russia for the extent and variety of his linguistic equipment, which included Latin, Greek, Hebrew, Arabic, Persian, and Sanscrit, besides nearly all the modern European languages, aged 63. To these names may be added that of Dr. August Müller, Professor of Oriental languages in the University of Halle, who, though not, we believe a member of the medical profession threw a good deal of light on the history of Arabian and Indian medicine. He published the following works among others: *Arabische Quellen zur Geschichte der indischen Medicin* (Arabic sources for the history of Indian medicine), *Ibn Abu Useibias's Geschichte der Aerzte* (Ibn Abu Useibias's *History of the Physicians*) text and critical excursus. Müller's edition of Useibias's *History of the Arabian Physicians* is the first that was ever printed.

MEDICAL VACANCIES.

The following vacancies are announced:

BAWNBOY UNION.—Medical Officer for Workhouse. Salary, £65 per annum, and £15 yearly as Consulting Medical Officer. Election on October 17th.

BIRMINGHAM GENERAL HOSPITAL.—Pathologist. Salary, £120 per annum. Applications to Howard J. Collins, House-Governor, by November 4th.

BIRMINGHAM GENERAL HOSPITAL.—Resident Surgeon; doubly qualified. Applications to the Secretary by November 16th.

BOROUGH OF KINGSTON-UPON-THAMES.—Medical Officer of Health. Salary, £150 per annum. Applications, endorsed "Medical Officer of Health," to Harold A. Winser, Town Clerk, Clatten House, Kingston-on-Thames, by October 22nd.

CASHEL UNION, KILPATRICK DISPENSARY.—Medical Officer. Salary, £140 per annum and fees. Applications to Mr. John Byrne, Honorary Secretary, Carrigeen, Clonoulty, Cashel. Election on October 19th.

CHARING CROSS MEDICAL SCHOOL.—Lecturer on Organic Chemistry. Remuneration a guaranteed minimum of £100 per annum. Applications to Stanley Boyd, Dean, 62 to 65, Chandos Street, Strand, by October 18th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum. Applications to the Secretary, 24, Finsbury Circus, E.C., by October 19th.

COUNTY BOROUGH OF STOCKPORT.—Medical Officer of Health for the District of the Borough, and to the Infectious Diseases Hospital, and Surgeon to the Police. Salary, £400 per annum. Applications, endorsed "Application for Appointment of Medical Officer of Health," to Walter Hyde, Town Clerk, 2, Lord Street, Stockport, by October 15th.

DEVON COUNTY LUNATIC ASYLUM.—Assistant Medical Officer; unmarried. Salary, £100 per annum, rising to £120, with board, lodging, and washing. Applications to A. E. Ward, Clerk to the Visitors, 9, Bedford Circus, Exeter, by October 28th.

HUDDERSFIELD INFIRMARY.—Honorary Physician. Applications to Mr. F. Eastwood, Honorary Secretary, by November 1st.

INVERNESS DISTRICT ASYLUM.—Medical Superintendent. Applications to Robert Davidson, Clerk to the Inverness Board of Lunacy, Queensgate Chambers, Inverness, by October 15th.

LEEDS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary to commence, £120 per annum and midwifery fees. Applications to C. H. Wilson, 8, South Parade, Leeds, by October 25th.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park Place, Cheetham Hill Road, Manchester.—House-Surgeon. Salary, £80 per annum, with apartments and board. Applications to Mr. Hubert Teague, 38, Barton Arcade, Manchester, by October 29th.

NORTH DUBLIN UNION, FINGLAS AND GLASNEVIN DISPENSARY.—Medical Officer. Salary, £170 per annum and fees. Applications to Mr. Thos. Conolly, Honorary Secretary, Fernville, Glasnevin. Election on October 31st.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Rooms, commons, and washing provided. Appointment for six months. Applications to the House-Governor by October 26th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Junior Resident Medical Officer, doubly qualified. Board and residence provided. Applications to the Secretary, C. W. Thies, by October 24th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Appointment for six months. Salary at the rate of £100 per annum, with furnished apartments and board. Applications to the Secretary by October 20th.

SHEFFIELD SCHOOL OF MEDICINE.—Tutor, to take charge of dissecting rooms and hold classes in anatomy and physiology. Salary, commencing at £100 per annum. Applications to the Secretary by by October 25th.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—Medical Officer to the Provident Dispensary attached to the Hospital; doubly qualified. Salary, £80 per annum, with board, lodging, and washing. Applications to the Honorary Secretary by October 26th.

MEDICAL APPOINTMENTS.

BROCKBANK, E. M., M.B., appointed House-Physician at Birmingham General Hospital.

BRUSH, G. C., M.B., C.M.Edin., appointed Clinical Assistant to the Shore ditch Infirmary.

BRYCE, Thomas H., M.A., M.B., F.F.P.S.G., appointed Extra-Dispensary Surgeon to the Western Infirmary, Glasgow.

CAMPBELL, W. S., M.B., C.M.Glas., appointed Medical Officer for the Crediton District and Workhouse of the Crediton Union, *vice* J. A. Edwards, M.R.C.S.Eng., resigned.

CLUCKIE, N. G., M.B., L.F.P.S.Glas., appointed Oculist to the New Public Eye Dispensary, Dumbarton.

CROSS, A. J., M.B., C.M.Edin., appointed Medical Officer for the Dalton District of the Ulverston Union, *vice* Edward Hall, F.R.C.S.Eng., deceased.

DICKSON, T. H., M.B., B.C., L.R.C.P., appointed Medical Inspector of Her Majesty's Customs, *vice* Walter Dickson, M.D., L.R.C.S.Edin., resigned.

EVERS, Charles John, M.B.Durh., M.R.C.S.Eng., appointed Medical Officer for the Faversham Port District.

FOOT, Ernest G., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the No 4 District of the Petworth Union, *vice* Samuel Rutherford, M.D., M.R.C.S.Eng., deceased.

FOXCROFT, F. W., M.B., C.M., appointed House-Physician at Birmingham General Hospital.

FRIER, Charles, M.B., C.M.Edin., appointed House-Surgeon to the Royal Surrey County Hospital, Guildford, *vice* H. P. O. Manning, L.R.C.P. Lond., M.R.C.S.Eng., resigned.

GREEN, Reginald, M.B., B.S.Durham, appointed Assistant Medical to the Gateshead Dispensary.

GULLAND, G. Lovell, M.A., M.D., F.R.C.P.Edin., appointed Assistant-Physician to the Edinburgh Royal Infirmary.

HEELAS, Walter W., M.R.C.S., L.R.C.P.Lond., appointed House-Physician to the General Lying-in Hospital, York Road, Lambeth, S.E.

HOOPER, Alfred, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Burton-on-Trent Rural Sanitary Authority.

HYATT, J. T., L.R.C.P.Edin., M.R.C.S.Eng., appointed District Medical Officer of the Shepton Mallet Union.

IRWIN, Mr. S., appointed Medical Officer for the Almondsbury District of the Thornbury Union, *vice* N. H. Lower, M.R.C.S.Eng., L.S.A., deceased.

JAMES, Alexander, M.D., F.R.C.P.Edin., appointed Ordinary Physician to the Edinburgh Royal Infirmary, *vice* D. J. Brakenridge.

JAMES, W. E., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer of Health for the Abercarn Urban Sanitary District of the Newport (Mon.) Union.

KEMPE, Arthur Wightman, M.D., M.R.C.S.Eng., reappointed Medical Officer of Health to the Exmouth Local Board.

LANCASTER, Ernest Le Cronier, B.A., M.B., B.Ch.Oxon, M.R.C.S.Eng., appointed Chloroformist and Pathologist to the Swansea Hospital.

LARKING, A. E., M.D.Durh., M.R.C.S.Eng., appointed Medical Officer for the Eighth District of the Aylesbury Union.

MACGILLIVRAY, C. Watson, M.D., F.R.C.S.Edin., appointed Ordinary Surgeon to the Edinburgh Royal Infirmary, *vice* John Duncan.

MACNAUGHTON, G. W. F., M.S.Edin., M.B.Edin., appointed Third Assistant Medical Officer at the Worcester County and City Lunatic Asylum.

MARRIOTT, Hyde, M.B., B.Sc.Lond., appointed Honorary Surgeon to the Stockport Infirmary.

NAPIER, James, appointed Public Analyst for the County of West Suffolk.

NICOLL, Jas. H., M.B., C.M.Glasg., Dispensary Surgeon, Glasgow Western Infirmary, appointed Surgeon to the Department for Diseases of the Urinary and Genito-urinary Organs in the Glasgow Central (late Anderson's College) Dispensary.

PAINE, W. H., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the West Green District of the Edmonton Union.

PARKINSON, C. H. W., M.R.C.S., D.P.H.R.C.P.Edin., appointed Medical Officer of Health to the Wimborne Local Board.

PEARCE, J. P., M.R.C.S., appointed Medical Officer of Health for the Lewes Urban Sanitary District of the Lewes Union.

STANFIELD, Wm., M.D.St.And., L.R.C.P.Edin., M.R.C.S., reappointed Medical Officer of Health for Lees, Manchester.

STEPHENS, William John, L.R.C.P.Edin., L.S.A., appointed Surgeon to the Brighton Borough Police Force, *vice* R. J. Rogers, deceased.

STOCKMAN, Ralph, M.D., F.R.C.P.Edin., F.R.S.E., appointed Assistant Physician to the Edinburgh Royal Infirmary.

STOCKWELL, F. B., M.D., M.R.C.S.Eng., appointed District Medical Officer of the Shepton Mallet Union.

THOMSON, Alexis, M.D., F.R.C.S.Edin., appointed Assistant-Surgeon to the Edinburgh Royal Infirmary.

TWEEDY, R. C., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon at Birmingham General Hospital.

VINRACE, Felix, M.D., F.R.C.S., appointed Surgical Casualty Officer at Birmingham General Hospital.

WALLACE, David, M.D.Edin., M.R.C.S.Eng., appointed Assistant-Surgeon to the Edinburgh Royal Infirmary.

WARE, H. S., B.A., M.B., B.C.Camb., L.S.A., appointed House-Physician to the City of London Hospital for Diseases of the Chest, Victoria Park, E.

YARROW, Geo. Eugene, M.D., L.R.C.P.Lond., reappointed Surgeon to the G (or Old Street) Division of the Metropolitan Police.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. W. Lang: Lachrymal Affections. Parkes Museum, 74A, Margaret Street, W., 4 P.M.—Dr. L. C. Parkes: House Drainage. 101, Great Russell Street, W.C., 8 P.M.—Dr. Galloway: Heart—Valvular Lesions.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. Jonathan Hutchinson, F.R.S.: Presidential address—On Names and Definitions in Disease.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 4 P.M.—Dr. J. H. Bridges: The Harveian Oration.

LONDON POST GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. H. Corner: Hypochondriasis. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Mr. Jonathan Hutchinson: Hybrid Forms of Skin Diseases. 101, Great Russell Street, W.C., 8 P.M.—Dr. Potter: Eclampsia.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. E. Hurry Fenwick: Two Cases of Myxœdema treated by Injections of Fresh Thyroid Juice. Dr. H. D. Rolleston: Specimens of "Fat Necrosis," associated with Disease of the Pancreas. Mr. Edgar Willett: Two Specimens of Congenital Cystic Disease of the Scrotum. Dr. Percy Kidd: Cirrhosis of the Liver from Valvular Disease of the Heart. Mr. Sydney

Jones: Unstriped Myoma from Penis. Card Specimens: Dr. Percy Kidd: Embolic Aneurysm of the Pulmonary Artery. Dr. E. C. Perry: (1) Perforating Ulcer of the Duodenum; (2) Fatal Intra-pleural Hæmorrhage in Pneumonia.

WEDNESDAY.

LONDON POST GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. Percy Kidd: Examination of the Sputum. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Quarry Silcock: Various Ophthalmoscopic Cases.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, 8 P.M.—Dr. C. E. Beevor: On Methods for Staining Medullated Nerve Fibres. Mr. G. Massee: Heterosporium Asperatum—a Parasitic Fungus. Dr. H. G. Piffard: Notes on the Use of Monochromatic Yellow Light for Photomicrography.

THURSDAY.

LONDON POST GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Beevor: Paralysis Agitans and Tremors. Hospital for Sick Children, Great Ormond Street, 4 P.M.—Mr. J. H. Morgan: Vesical Calculus and its Treatment. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Mr. Thomas Bryant: Surgical Cases in the Wards. London Throat Hospital, Great Portland Street, 8 P.M.—Dr. E. Law: Examination of the Throat and Nose.

HARVEIAN SOCIETY, Stafford Rooms, Edgware Road, 8.30 P.M.—Mr. Lawson Tait: On Peritonitis.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY, Great Northern Central Hospital, 8.30 P.M.—Sir William Savory: Symptoms in Perspective.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8.30 P.M.—Patients and card specimens at 8 P.M.—Mr. Henry Juler: Melanotic Tumour growing from the Ciliary Region. Mr. W. M. Beaumont: Neoplasm (Sarcoma) of the Iris. Mr. Hartridge: A Case of Double Neuro-retinitis following Influenza. Mr. E. Treacher Collins: On Congenital Defects of the Iris and Glaucoma. Mr. H. Work Dodd: On the Optical Conditions of Fifty persons who were free from any Ocular Distubance, and other papers.

FRIDAY.

LONDON POST GRADUATE COURSE, Bacteriological Laboratory, King's College, 11 A.M. to 1 P.M.—Professor Crookshank: Lecture—Cultivation of Bacteria. Practical Work—Cultivations. Hospital for Consumption, Brompton, 4 P.M.—Dr. Percy Kidd: Examination of the Sputum.

SATURDAY.

LONDON POST GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. Percy Smith: Melancholia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

KEEGAN.—On September 20th, at Indore, Central India, the wife of Brigade-Surgeon-Lieutenant-Colonel Keegan, F.R.C.S., Residency Surgeon, of a daughter.

MARRIAGES.

BEARDSLEY—WADDINGTON.—On October 6th, at St. Paul's Church, Grange-over-Sands, by the Rev. Canon Cooper, Richard Henry Beardsley, L.R.C.P., L.R.C.S.E., etc., to Margaret (Mrs. W. E.) Waddington.

CHAMBERS—GIBAUT.—On October 6th, at St. Mark's Church, Jersey, by the Rev. A. H. Ashwell, M.A., curate-in-charge, Henry Francis Townshend Chambers, L.R.C.S., L.R.C.P., etc., of Wareham, Dorset, to Margaret Elizabeth, only child of W. M. Gibaut, M.R.C.S., late Army Medical Department, of Oaklands Lodge, Trinity, Jersey.

ELAM—MORRISH.—On October 6th, at Christ Church, Streatham Hill, by the Rev. W. Page Roberts, M.A., minister of St. Peter's, Vere Street, assisted by the Rev. H. E. Robinson, B.A., George Elam, M.B., B.S., of 3, Upper Montague Street, Russell Square, elder son of the late Charles Elam, M.D., F.R.C.P., and of Mrs. Elam, of 75, Harley Street, to Ethel Marion, youngest daughter of the late James Morrish, of Clapham Park, and of Mrs. Morrish, of Highfield, Christ Church Road, Streatham Hill.

ORD—BILLINGS.—On October 5th, at St. John's Church, Georgetown, D.C., William Wallis Ord, M.D., M.A.Oxon, of 2, Queen Street, Mayfair, W., to Mary Clare, eldest daughter of John S. Billings, M.D., D.C.L.Oxon, of Washington, D.C., U.S.A.

VICKERY—COOK.—On October 5th, at St. Luke's, West Norwood, by the Rev. H. W. Cooper, M.A., vicar, assisted by the Rev. H. Stansfeld Prior, M.A., William Henry Vickery, F.R.C.S.Eng., of Elswick Road, Newcastle-on-Tyne, to Ada Maud, only daughter of Henry T. Cook, Millbrook, West Dulwich, S.E.

DEATHS.

FITCH.—On September 26th, at Chaddesley Corbett, near Kidderminster, Worcestershire, Eliza Esther, the wife of Frederick Fitch, M.D., in her 65th year.

HALL.—On October 1st, at St. Mark's House, Leeds, Frances Blake, wife of Frederick Hall, M.D.

LONGSTAFF.—On September 23rd, at his residence, Butterknowle, Wandsworth, George Dixon Longstaff, M.D., in his 94th year.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

A CANDIDATE asks where test solutions, test papers, and microscopic specimens, such as are used for analysis of air and water in D.P.H. examination can be got.

M.R.C.S., L.R.C.P., asks if there is any institute where a blind boy, aged 12, who is becoming liable to epileptic fits, may be admitted? He is at present in a blind asylum, and his removal therefrom will be necessary if the fits continue. The relatives could pay £20 a year for his maintenance.

SCHOOL FOR MICROCEPHALIC BOY.

ENQUIRER wishes to know of an establishment where a boy, aged 8, the subject of microcephalus, delicate and liable to fits, could be received at a moderate rate of payment, to procure such education as he is capable of acquiring. He is unmanageable at home, and not fit for ordinary school training.

ELECTRIC BATTERIES.

J.M.M. asks to be recommended a cheap and efficient battery (interrupted current) for lending to patients.

*** Our correspondent can obtain such a battery as he wants from (among others) Mr. Schott, of Great Portland Street, or from Mr. Schall, of Wigmore Street, at a price from £2 or so upwards.

ANSWERS.

A. M.—The case is undoubtedly a flagrant one, and the attention of the College might well be called to it. There is, we imagine, little doubt that they will take serious notice of the matter.

J. BAILLIE (Whitworth).—(1) The most available little book on the benefits of vaccination is *Vaccination Vindicated*, by Dr. J. C. McVail (Cassell and Co., London, 1887). (2) Mr. Ernest Hart's *Truth about Vaccination* has been for some time out of print. Our correspondent may be able to borrow a copy. A revised edition will probably be printed—in view of the frequent demands for it—after the Vaccination Commission have reported, but that is apparently a very uncertain date.

M.B.OXON., F.R.C.P.—The attention of the police authorities at Scotland Yard might be called to the handbills. If they are thought to be indecent or obscene in the meaning of the recent Act they might be stopped; or if there is any evidence of their being used for the purpose of procuring premature birth (abortion) or for any other illegal purpose, as is often the case with "uterine" and "female pills." We will bring the subject under the notice of the criminal department of Scotland Yard.

ANTISEPTIC MOUTH WASH.

DR. S. J. BAKER (Abingdon) writes: I would recommend "A Member" to try sp. rect. ʒss in a tumbler of water, either hot or cold, according to preference. It was suggested by Mr. Jonathan Hutchinson as being the most convenient and the pleasantest wash that could be used.

HOME-MADE BEERS.

H. R.—We believe that the beverage referred to is practically non-alcoholic, containing not more than ½ per cent. of alcohol. We understand that drinks with a proportion of proof spirit not exceeding 3 per cent. (=1½ per cent. of alcohol) are not charged as intoxicating by the Inland Revenue. We should prefer not to enter upon the subject of home-made beers, or to give an opinion on the recipe forwarded. The amount of alcohol developed will depend on the quantities of sugar and yeast.

INFANTILE PARALYSIS.

DR. SEPTIMUS SUNDERLAND, Physician to the Royal Hospital for Children and Women (London) writes: In answer to Mr. Legge Paulley's query as to a suitable home for a child with infantile paralysis, I can very strongly recommend "Ormeside," Llandudno, a house which Mr. Luke Freer has fitted up with every appliance for the cure of infantile paralysis, weak spine, etc., by systematic exercises, postural education, and massage. I know of no convalescent institution so homelike and comfortable, and the wonderfully recuperative powers of the dry bracing air of Llandudno has hastened the recovery of several chronic cases which I sent there last year and this.

Cheap Splints.

Mr. H. Woodcock, M.R.C.S. (Leeds) writes: In reply to "Ambulance," splints can be obtained from Nussey, of 11, Leyburn Place, Beeston Hill, Leeds, at about one-quarter the price charged by "ordinary dealers."

Anæsthesia and Suggestion in Dental Operations.

P.V.K.—Though there have been occasional large dental operations practised successfully under hypnotism, with complete anæsthesia of the patient such as that described by Dr. J. Milne Bramwell, in the *Journal* of the British Dental Association in 1890, yet, after some inquiry, we have not learnt that such a method of anæsthesia is in common use in the practice of any dentists in England.

Books on Water Testing.

Amateur.—We presume that our correspondent means a work on water analysis. Water "testing" is a term employed with regard to the application of qualitative tests to water—a proceeding the results of which, except in very experienced hands, are often exceedingly misleading. The works of Frankland (*Water Analysis*), Cornelius Fox (*Analysis of Water, Air, and Food*), and E. A. Parkes (*Practical Hygiene*) may be consulted. We may point out, however, that highly technical work of this kind should only be undertaken by those who have had special training and experience.

The Title of Doctor.

J. W. P.—This question is constantly cropping up, and seems as far as ever from practical settlement. Our correspondent does not appear to understand Mr. Hutchinson's contention, which is that the word Doctor prefixed to a medical man's name does not imply the possession of the degree of M.D., but as the dictionaries define it and as it is frequently used in common parlance, "one who undertakes the cure of diseases," "a physician," and that it is on a par with "Reverend"—one who undertakes the cure of souls. Whether Mr. Hutchinson be right or wrong is another question, but that is the basis from which he starts his argument. There is, we believe, a by-law of the London College of Physicians intimating that its Licentiates are not entitled to call themselves "Doctors" in virtue of that licence; but there are, it is stated, many hundreds who do so all over the country, and we are not aware that the London College has thought it desirable in any case practically to interfere with their so doing or to endeavour to enforce such by-law.

NOTES, LETTERS, Etc.

Correction.—In the notice of the Annual Museum published at page 744, the address of Mr. A. Fournet should have been given as 18, Bentinck Street, Welbeck Street, W.

We are much indebted to Dr. Powell, of Bristol, Dr. Horder, of Cardiff, Dr. MacVail, and Dr. R. E. Burgess, who have favoured Dr. R. Cæsar and ourselves with three copies of the *Truth about Vaccination*.

A Simple Drop Bottle.

E. J. T. writes: The drop bottle described and depicted in the British Medical Journal of October 1st by Dr. McGee is in common use in Italy, and it is a very convenient way of measuring strong medicines.

Kelly's London Medical Directory.

M.B., M.A. writes: The new departure taken by the editors and publishers of *Kelly's London Medical Directory* in prepaying the reply to their queries is a step in the right direction. They deserve the best thanks of the profession.

An Ambitious Young Man.

The *Lyon Médical* is responsible for the following professional joke: "I am ambitious," said a young man to his father. "I long for glory and success; but how am I to attain them? Shall I become a general, or a writer, or a great politician?" "Choose none of these careers, my son, find a new microbe."

Cholera and Alcohol.

The *Indian Medical Gazette* states that, owing to the priests at Astrabad having preached that cholera in that province is due to the use of alcohol, the mob attacked the liquor shops and looted the Armenian merchants, who are Russian merchants. This is a highly profitable form of anti-alcoholic zeal, but even Sir Wilfrid Lawson would doubtless take exception to such a mode of enforcing temperance principles.

The Responsibility for London Fogs.

In the *Pall Mall Gazette* of October 4th an interesting decision as to the responsibility for London fogs was recorded as having been delivered in the Spalding County Court on the previous day. The action was one against a railway company for delay in the delivery of goods. "The defence, which was successful, attributed the delay to a London fog, and the fog to 'the act of God.' The Scriptures might be quoted, no doubt, as an authority in that sense with regard to darkness in general, but we wonder what Mr. Ernest Hart and the smoke abatement people would say to it."

*** The epidemic prevalence of cholera, typhus and typhoid, of bubonic plague, and sweating sickness have been so regarded, and in many places are still spoken of in this (as we think rather impious) sense as implying a special act of Providence, and not, as the fact is, human neglect and ignorance. So also lightning from the clouds until we learned something of the nature of electricity and the use of iron rods as conductors. Drainage and legislative prevention of smoke would be equally efficacious in dissipating the darkness and preventing the frequency of fogs.

Epithelioma of the Lip in Women.

Dr. Lancaster Joyce (Medical Officer to the Falcarragh Dispensary, County Donegal) writes: Having read letters in the British Medical Journal of Dr. George G. Sinclair and Surgeon-Major J. Maitland on the above subject, I must add that in my practice of thirty-three years I have only met with one case—a woman of Tory Island, who came here to consult me in August last. I told her it was cancer, and she asked me to remove it, which I did, making the usual v-shaped incision. I had to take a large piece of the lip out, as the disease was far advanced. The wound healed by first intention. The patient told me that both her father and brother died of the same disease. She had never smoked. Epithelioma of the lower lip is very common among men in this part of county Donegal. I have never yet met with a case of it in the upper lip.

Tea and the Art of Tea-drinking.

Dr. C. d'Eyncourt Chamberlain, R.N. (Devonport) writes: With reference to Dr. Woodward's query, as far as I know, the Japanese do not make tea in the way stated in the British Medical Journal of September 10th, page 580, and my experience of tea making in Japan is moderately wide. Having spent a great deal of time there in towns, villages, and remote parts, travelling about, and not caring for "liquor," and being afraid of water, tea was my beverage, and I found the universal way of making the same was by putting very little more than a pinch of tea in a pot, pouring hot, very seldom boiling, water over it, and bringing it straight to you and pouring the beverage into a cup; so the tea, in ordinary parlance, certainly never stood for more than a minute and a half, as each pot held only a cupful, so for a second cup a fresh brew was required. Then, again, Japanese tea is decidedly different from Chinese, Indian, or Ceylon. I have tried it made after the English fashion, and it was impossible to drink it.

There is a very good article "On Cultivation of Tea and the Customs in Japan," on page 570, vol. 1886, of the *English Illustrated Magazine*. I have some scores of Japanese teapots, having made a collection while abroad, but not one of these is as described in the British Medical Journal, nor have I seen one of the kind in all my ramblings in the Land of the Rising Sun. I have one such as described from Tak-Hir, a town in the province of Hainau (China), but the ordinary Chinese teapot is somewhat like our own, of which I have several specimens. I shall be very pleased to lend Dr. Woodward any of my teapots, etc., for his lecture, should he care to have them, and I certainly think tea *à la* Japanese is by far the nicest way of making it, though the taste for the same may be an acquired one.

*** Dr. Chamberlain describes correctly the Japanese method of making tea. I have repeatedly referred to and commended it in the editorial pages of the British Medical Journal. It is, however, not so well suited for Chinese or Indian teas prepared for the European markets, which are already spoiled to a delicate palate or to one accustomed to the more delicate, less highly cured, sundried, teas, which the natives of Japan themselves drink, or the Sinshin tea, which well-to-do persons drink in China. The little Japanese teapots with porcelain strainers to which I referred, and as to which Dr. Woodward asked where they can be had, are made for the English market, and are to be had or ordered through most tea dealers, china shops, and many drapers. They enable our highly-burnt and strong-flavoured Indian, Chinese, and Ceylon teas to be rapidly infused and quickly withdrawn from the teapot and to be drunk with some satisfaction without milk or sugar—as tea ought to be drunk. Tea which requires to be drunk with milk and sugar is tea so spoilt by repeated firing and fermentation, so coarse and bitter, that it is necessary to disguise its bitterness with sugar, and to neutralise its astringency by a fluid in finely-suspended albumen, such as milk; that is to say, we first make our tea unpalatable and, semi-poisonous, and then minimise its nauseous and bad qualities by additions which drown the delicate flavour. The Japanese drink their delicate infusion of properly-prepared tea at very frequent intervals during the day. It has a delicious aroma, and is very delicate in flavour; its colour is that of very pale manzanilla sherry (of which it has something of the flavour). More water is never poured on to the leaves than suffices for the little cup or cups to be filled at the moment; and when more is wanted, the hot water is again poured on to the same leaves, which will serve for three or four successive little cups. Boiling water is avoided; it dissipates the aroma and injures the flavour of the tea; water at about 140° is used. The process of infusion lasts rarely more than a minute. The cups are not more than a third of the size of those which we use. Tea is offered to drink on all occasions in Japan: when paying or receiving a visit, when making purchases of any length in the inner room of a shop or store, at every meal, when resting on a journey at seven-mile stages. It is supplied free in the first-class railway carriages, and is brought round at the railway stations. I have often drunk the complimentary *O-cha* ten or fifteen times in the day, but never suffered indigestion or nervousness as the consequence. No one, indeed, ever spoke to me in Japan of tea drinking producing such consequences, and when I asked the question it produced much hilarity. It is very refreshing, and I fancy enabled me to bear much fatigue and incessant visits and "interviews" without exhaustion. I attribute the absence of any bad effects from so much tea drinking amongst a nation of universal and incessant tea drinkers to the rational method of preparing the tea leaf and of infusing it.—Ernest Hart.

SEA SICKNESS.

DR. HARRY R. PREECE, L.R.C.P. Edin., L.R.C.S. Edin., etc. (late Surgeon ss. *Clan MacArthur* and ss. *Clan Drummond*) writes: Having just returned from a long sea voyage, I read with great interest the papers by Dr. Grailly Hewitt on sea sickness. As surgeon on two Indian steamers, carrying a large number of passengers, I have had a slight experience of the treatment of sea sickness, and from personal observation can testify that rest in a horizontal position, with the eyes closed, is not only a preventive, but also in many cases a remedy. During a voyage from England to India you naturally encounter several periods of rough weather, the first very often close to home; for the fresh voyager has hardly time to become accustomed to the differences between life at sea and that on land, before he finds himself tossing about on the heavy swells of the Bay of Biscay, which very soon begins to take the edge off his appetite. I have in most cases found, that if a passenger making his first voyage and naturally expecting all the ills pertaining to the sea, will only keep on deck in the open air in a recumbent position and with his eyes closed, the feeling of illness will pass off. Of course some do not succeed, but the majority do. The most obstinate cases to treat are those who, in spite of all persuasion, will persist in staying in the close, confined atmosphere of their state rooms, and will allow nothing to tempt them to come on deck. I generally found that fluid nourishment was not well taken, and that the best kind of food was either a hard biscuit or some dry toast, with a little brandy and water. That is what I usually ordered, and almost always found that it was retained when liquids were rejected. Patients usually get well in a day or two, and have no recurrence; but sometimes this does occur. Whilst crossing the Indian Ocean, between Cape Guardafui and Colombo, in the south-west monsoon, several of our passengers were again sick, as the result of the very heavy sea. I have not found drugs of very much use. The most useful was carbolic acid in small doses. It seemed to act fairly well. Antipyrin has been tried, but very often is not retained. Sea sickness is undoubtedly a most harassing and distressing complication to a sea voyage, and if an absolute means of warding off its approach in all cases could be found, the greatest possible boon would be conferred, not only on all sea-going passengers, but also on the ship's medical officers.

AN IMPROVISED CATHETER.

DR. PHÉLIP has described in the *Lyon Médical* a catheter which he improvised and used with success in a case of retention of urine due to enlarged prostate in a man aged 66. Dr. Phélip, on arriving on a visit with friends in the country, was taken to see a workman who had had retention for forty hours; the bladder reached above the umbilicus; the man was in great pain, with an irregular pulse and bilious vomiting. With the best messenger no catheter could be hoped for under several hours. The situation was certainly distressing. Dr. Phélip bethought himself of the hairpin which has been found successful under similar circumstances in women, and casting about him for some substitute better adapted to the male urethra he discovered a piece of thin brass wire. This he folded in two, and pinched the two halves close together, finally bending the doubled end into a suitable curve. Well oiled, this wire was introduced without the least difficulty into the penile urethra, and with a little manipulation finally entered the prostatic portion; as soon as this point was reached urine began to flow, at first with considerable force. Two litres of urine were thus withdrawn, and the wire removed without difficulty and without any trace of blood. Subsequently the man passed urine spontaneously.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Mr. T. R. Atkinson, Sherborne; A. Ashby, M.B., Reading; Mr. H. M. Adamson, Bombay; Mr. W. Allard, Tewkesbury; Dr. G. C. Askin, Woodbridge; Professor C. Allbutt, Cambridge; A. W.; Another Paterfamilias of an Old Schoolboy; Dr. T. Broughton Addy, Pendleton. (B) T. H. Bryce, M.B., Glasgow; Mr. M. Mitchell Bird, London; Mr. J. M. Brown, Edinburgh; E. Baily, M.B., Oban; G. C. Brush, M.B., London; Dr. W. J. Briscoe, Chippenham; Messrs. Burroughs, Wellcome, and Co., London; Mr. J. Butler, Beeston; Dr. Bridges, London; A. G. Bateman, M.B., London; Mr. G. Black, Harrogate; P. Best, M.B., Louth; Mr. J. C. Blackford, Cannock; Mr. B. Burr, London; Mr. A. W. Blyth, London; Mr. W. Bishop, Canterbury; Dr. H. Barnes, Carlisle; Dr. W. Mitchell Banks, Liverpool; Dr. E. Barnes, Lyss; Mr. J. H. Bertolacci, London; J. E. Blomfield, M.B., Sevenoaks; Mr. G. F. Blake, London; Messrs. W. T. Bush and Co., London; Dr. J. Byers, Belfast; Mr. J. H. Brock, London; Lord Basing, London; Mr. L. C. 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BOOKS, ETC., RECEIVED.

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*** In forwarding books the publishers are requested to state the selling prices.

PRESIDENTIAL ADDRESS
ON
NAMES, DEFINITIONS, & CLASSIFICATIONS.

Delivered at the Opening Meeting of the Medical Society of London.

By JONATHAN HUTCHINSON, F.R.C.S., F.R.S., LL.D.,
Late President of the Royal College of Surgeons.

Gentlemen,—I propose, with your permission, to avail myself of your President's chair in order to make a few suggestions and criticisms in reference to a topic of great importance, and, at the same time, of much difficulty. I allude to the necessity, which is probably felt by most investigators, for a large reform in medical nomenclature, for better classification of disease, and, above all, for more precise definitions of the terms which we use. I can scarcely hope to escape the charge of temerity in venturing on such a theme—so wide in its bearings and so intricate in its details—but it will, I hope, be granted that the occasion is not wholly inappropriate, since I am addressing the members of the oldest medical society of our metropolis, and one which has always taken a foremost place in the advancement of clinical knowledge. It is precisely because great advance has been made in all departments of our knowledge as to the nature of disease that reforms in reference to the names which we employ have become needed. We have outgrown the nomenclature of our forefathers. It would be strange if it were not so. If the few and simple names which sufficed to express the diagnostic achievements of a century ago were sufficient for us now, the fact would imply disgrace. In every department of natural history new species have been discovered, and new names devised for them. The number of the species of flowering plants which have now been discriminated and have received distinctive names amounts, I am told, to 110,000. For the multiform manifestations of the results of the innumerable influences which combine together to evoke disease in man, our names are probably not in the proportion of 1 per cent. I am aware that there exists an intense dislike to the introduction of new names, and more especially to all attempts at new classification. To some extent this prejudice is well based; yet, having regard to the future progress of clinical knowledge, I here make my most earnest protest against the present restriction of our nomenclature and the artificiality of our classifications. They constitute, I feel sure, hindrances of the very first moment. The surgeon who confines his attention to fractures and dislocations, aneurysm, hernia, and a few other cognate subjects, may easily get along with the present system. His subjects of investigation are, to a large extent, mechanical and almost wholly and strictly local. It is not a matter of any great difficulty to name, describe, and classify them. So, too, may the physician of the older school, who is content with his phthisis, bronchitis, and pneumonia, his albuminuria, diabetes, and gout. So, too, may the specialist make himself happy in the success of his iridectomies and his cataract extractions, and take very legitimate pleasure in the accuracy with which he can rectify by lenses defects in the configuration of the eyeball.

Let us not for one moment underrate the importance of these every-day achievements, or of that common knowledge of common things which is a *sine quâ non* to all of us. Our concern is rather to assert strongly that as soon as the specialist attempts to transcend his specialism, as soon as the physician or surgeon tries to get out of routine, and makes the attempt to understand not alone some, but all the problems of pathogenesis which are brought before him, so soon will each and all find themselves cramped and hindered by our narrow and conventional systems of nomenclature and our fragmentary classifications. This is my assertion, and I make my appeal unhesitatingly to the experience of all clinical workers. I ask the neurologist whether such names as tabes dorsalis and epilepsy do not now each include a number of separate maladies which require separate grouping. I ask the physician whether he is content with the terms "diabetes" and "hysteria," whilst respecting dermatology I venture to offer my own opinion that there are at least twenty maladies classed under the name of lupus which require to be discriminated, and, putting all these aside, some five or six different types of "tuberculosis of the skin."

"Substantive Disease" and "Morbid Entity."

I trust that no one will think it necessary to remind me that there is a great difference between the names and systems of the zoologist and those of the student of disease, or, at any rate, that he will not do it in a manner to suggest that he considers the remark original. Nothing can be more obvious than that names, definitions, and classifications are far more difficult in our department of natural observation than in any other. If "species," "genus," and the like in zoology have become in the light of modern discovery words which we must understand with some mental reserve, they yet retain to a large extent their old limitary meanings, and are themselves capable of definition. In our special pursuits, however, such words have only an exceedingly restricted use. Few, indeed, are the forms of disease respecting which we can say, "This malady is *sui generis*." The clumsy but still indispensable expressions "substantive disease" and "morbid entity," employed as implying that the phenomena so denominated stand alone and complete in themselves, and are in relation with one single cause, are probably in use amongst us far oftener than sound knowledge of the facts would justify. The more we know, indeed, the less are we inclined to admit respecting any given disease that it is substantive and self-complete. For the most part in studying disease we have to deal with most complicated phenomena and with an almost inextricable interlacement of varied causation. Even in what appear to be the simplest of our problems, such, for instance, as the introduction of a specific poison into the system, we have to remember that one partner in the so-called disease is the living body of the patient, and that no two cases are exactly alike. But the fact that definitions and classifications are in the case of medical pursuits immeasurably more difficult than in most other branches of knowledge does not make them of any the less importance. An orderly arrangement of the materials before us is the first requisite to success in the pursuit of further discoveries; and just as an adequate vocabulary must of necessity precede the making of definitions, so must carefully studied definitions precede any attempt at classification which will not necessarily result in error.

Definitions and Descriptions.

Permit me here, gentlemen, *in limine*, to deprecate earnestly the suspicion of a wish to stereotype any given definitions or to fix the laws of classification. In a progressive science like ours any such aims would be absurd. All our efforts in these directions must of necessity be tentative and temporary. Not the less earnestly, however, do I make protest against that idleness of mind which is content to go on using words to which no definite meanings have ever been assigned, and to abstain from attempts at natural classification merely because they are difficult. A distinction must be drawn between a description and a definition. The former takes cognisance of the outward appearances of the disease described, and may be developed in much detail; the latter should be concise and, whilst seizing upon essential features, should exclude all that is extraneous. A good description should neglect nothing which may help to identification, whereas a definition may be very good, yet, from the fact that it concerns itself rather with abstract qualities, may give but little immediate aid towards the recognition of the thing defined. A description is a not difficult achievement to any good observer; a definition demands much thought as well as observation. A definition may often include many related objects, each of which would require a separate description. Thus, for example, it may be suggested that the definition of "keloid" should be "fibroid overgrowth of scar tissue;" but as being essentially of keloid nature we should have to describe for clinical purposes several affections, some of them subcutaneous, some extensively multiple, which offer at first sight little or no resemblance to the well-known glossy growths

which so often develop in the scars of burns. A description of these latter, whilst it would offer by far the best aid to their diagnosis, would necessarily include features such as glossiness, brightness of colour, development of spurs, etc., which are wholly absent in some of the affections referred to. Although I would gladly excuse myself, I feel that I can scarcely with credit avoid the attempt to give some illustrations of what I have been trying to urge. We will, if you please, take the names of three common diseases and try to define them, and at the same time to show how their definitions affect their position in any system of classification founded on natural affinities. Phagedæna, erysipelas, and diphtheria are words in common use, and yet I suspect that there is considerable difference of opinion as to how they should be defined and as to where the diseases which they designate should be placed.

"Phagedæna."

Respecting phagedæna, it may perhaps be said that it is not the name for a disease, but rather for a certain condition occasionally assumed by the inflammatory process. Permit me to assume, since time does not permit of our arguing the point, that between simple phagedæna, sloughing phagedæna, and hospital gangrene, there is no difference of kind, but only of degree of severity—that hospital gangrene is simply phagedæna having become epidemic in a hospital containing patients affected with wounds. Permit me to assume, also, what is exceedingly probable, that the gangrenous affections which attack the mouths and genitals of young children, and which are known as noma and cancrum oris, are really of a closely similar nature, though of a more severe type, with the phagedæna which we so often encounter in syphilis. These data being granted, we have first to note that it is undoubted that cancrum oris, noma, and syphilitic phagedæna may begin quite independently of contagion. It is therefore not a specific malady in the sense of being dependent upon the implantation of a specific virus. Next, we must record that, although these inflammations may occur to persons seemingly in robust health, they are almost invariably those who have suffered from syphilis, or, in the case of noma and its congener, recently passed through a specific fever, measles, variola, whooping-cough. With somewhat more hesitation, another assertion may be made, that the use of mercury has often preceded not only the syphilitic forms, but also those seen in children. We come, then, to the definition of phagedæna as a locally destructive form of inflammation, which attacks sores and wounds, which varies much in severity in different cases, and which occurs for the most part in those who have recently suffered from some specific disease. To this must be added the important proposition that, although capable of spontaneous origin under the conditions mentioned, it is infective to adjacent parts, and may become contagious to other patients with open wounds. We abstain from any description of a phagedænic wound, for the appearances may differ very widely in different cases. For classification purposes we have enough. Phagedæna is not to rank with the specific fevers, although it may become epidemic; it is a type form of specialised inflammation, occurring under certain known conditions of predisposition.

"Erysipelas."

The term erysipelas is suggestive of controversy. For long there have been two schools of opinion: the one regarding it as a specific fever, and classing it with the exanthems; the other ranking it only as a specialised form of inflammation. The difference is very important. I am glad to observe that the philosophic Dr. Hirsch has ranged himself with the latter and defines erysipelas as "an infective inflammation-disease of the skin or of one of the mucous membranes," etc., and speaks of "the infective fever which accompanies the local process." On the other hand, most recent English authorities prefer to regard it as an exanthem. The facts which oppose this claim appear to my mind to be definite and conclusive. When erysipelas attacks a wound, its development is always local, and the constitutional disturbance is in ratio with the extent of surface involved. It may develop without any appreciable incubation stage, and it may be cut short at any period by suitable local treatment. Its duration is not uniform, but may be indefinitely protracted. One attack does not prevent a second, but, on the contrary, predisposes to others. Thus, then, I come easily to the conclusion that erysipelas is a name for a form of inflammation presenting peculiar features, very infectious to the tissues (the lymph spaces) of the patient, easily spreading by contagion to the wounds of others, and of which one attack leaves proclivity to a second. We have to add to this, however—unless, in contradiction of all probability, we insist that medical and traumatic erysipelas are two quite different things—that it is capable of origin from exposure to cold and without either wound or contagion. Erysipelas is, it will be seen, placed, according to this definition, by the side of phagedæna, and just as it would be more correct to speak of phagedænic inflammation rather than of phagedæna, so it would be better to use the expression "erysipelatous inflammation" rather than erysipelas, since the latter is too suggestive of a substantive disease which always runs the same course and always presents the same conditions.

"Diphtheria."

Let us now see how the case stands with diphtheria. It is interesting to note that this name has been substituted for what was not improbably a far more correct one—diphtheritis. What is there to hinder us from defining this affection as a contagious inflammation of mucous surfaces, and chiefly of the throat, frequently attended by the formation of pellicles infective by continuity in the patient, and easily spreading by contagion to others? It would surely be wrong to make the formation of the diphtheritic false membrane a part of the definition, for when the disease passes by contagion through a household there are always some cases which show very little membrane, and often a few in which there is none at all. We do violence to probable truth if we deny that these latter are diphtheritic cases, for they originate from contagion from those which undoubtedly are such. The medical officers of those metropolitan asylums which receive fever and diphtheria cases always in their reports count a certain number of cases sent to them as "errors in diagnosis," and of these a considerable number are "non-specific sore throats" sent in as "diphtheria." This is surely rather hard upon those who send them. It is to make the diagnosis of a disease depend, not upon its origin, but upon the degree of severity with which it develops certain peculiar phenomena which are common, but not invariable. No man attending a number of patients with sore throats in a house with diphtheria can possibly tell which will develop extensive membranes and which may have none.

There are other important facts which ought to be taken into consideration in the definition of diphtheria. It is quite impossible to distinguish the sporadic cases of membranous croup from those of epidemic diphtheria, and admitting—as I think we must—that they are exactly the same, we are almost forced to conclude that a disease which becomes contagious may originate independently of contagion and in connection with exposure to cold and damp. In these points the facts as to diphtheria are exactly parallel with those as to erysipelas and phagedæna. All three occur sporadically and in connection with individual proclivity rather than specific influences, yet all may become contagious, prevail as epidemics, and when they do so keep close to type.

I have ventured to attempt explanations of these three words, not with any object of giving model definitions, far less with any hope that what I have expressed will satisfy others, but rather to illustrate the importance of the matter and the lines upon which I think that we ought to proceed. I have freely admitted that the construction of a good definition is a most difficult achievement. Here, if anywhere, we need the light of many minds. I am sanguine, however, that if medical writers could be induced to preface their works with concise definitions of those names of disease which they employ, it would save them from much obscurity of diction and greatly advantage their readers.

I feel sure that I shall incur criticism for not admitting to a foremost place in the definition of such affections as diphtheritic and erysipelatous inflammation, the parasitic microbes which have been demonstrated to be usually present. Whilst I fully admit the importance of the facts which have been established in respect to them, and think that it is highly probable that they do take a large share in the pro-

cess of contagion I am yet not convinced that they constitute the disease. It seems to me premature to adopt such a conclusion, and I think it safer for the present to trust to the statement of the broad clinical facts. It may be one thing that these parasites should be capable of conveying the disease, and another that it should invariably depend for its origin upon their implantation. I feel sure that truth will lose nothing in the end by a little hesitation in accepting all that seems to be true respecting these wonderful micro-organisms, and witnessing the enthusiasm of some of my friends, feel at times half inclined to exclaim with the poet:

O! your parasite
Is a most precious thing dropp'd from above,
Not bred 'mongst clods and clodpolls here on earth.
I muse the mystery was not made a science,
It is so liberally profest! Almost
All the wise world is little else in Nature
But parasites or sub-parasites.

It is not only in reference to acute inflammations of the kind just mentioned that it is desirable to be cautious how we accept the presence of a microbe as the final and sole explanation of origin. If we could do so safely it would certainly be a very great assistance to our definitions. The precise *rôle* of the bacillus in the disease leprosy is, I think, far from being as yet established, whilst it would certainly be very premature to define any one form of lupus as being the product of the bacillus of tubercle. If we did so, we should at once have on our hands a number of closely cognate maladies which could not be so explained, and which it would yet be impossible to put wholly aside. In the disease to which Hebra gave the name of rhinoscleroma the presence of a microbe has been demonstrated only in a few instances. Inasmuch as a number of others in which search has been fruitless present exactly the same clinical features, I think that the disease, which is well characterised, should take its definition independently of them. There are other maladies to which the same remark will apply.

The Invention of New Names.

It is mainly in reference to very rare maladies that the invention of new names is required. It is not to be expected that in the present day any common maladies will be discovered which our predecessors had wholly overlooked. It may be truthfully alleged, however, that the rare maladies, although rare, are for their illustrative value of extreme importance, and they ought as promptly as possible to become objects of general knowledge. It may further be asserted as regards common and well known diseases that there are a host of varieties which, were it practicable, are well worthy of distinctive recognition. The clinical investigator who sets himself resolutely to observe in detail and to classify with accuracy soon finds him at a loss for distinctive names for different groups of cases. To refuse him the privilege of a detailed nomenclature is as absurd as to insist that the ornithologist shall call all birds of prey either hawks or owls.

It becomes therefore of much importance to find out the most convenient method of giving names, what kind of names are the easiest to use and to remember and the least liable to suggest error. New names of some kind we must have; they are absolutely essential to progress. Allow me to mention, as illustrative of the difficulties which await us, a few of the new designations of disease which have come into use during the last quarter of a century. Amongst those supposed to be from Greek roots and to be more or less descriptive names we have: Acromegaly, myxœdema, mycosis fungoides, actinomycosis, xerostomia, xerodermia, and many others. Respecting them all we may object that they are intelligible only to Greek scholars, and not always to them; that to all others they are very unattractive, as, in addition to their being meaningless, they may possibly be difficult to remember and a little uncertain as to pronunciation and orthography. These, however, are minor drawbacks, the principal one being that it is impossible to condense into any Greek word, however composite, anything approaching to a correct description of a disease. Acromegaly, although one of the best, does not cover the whole ground, and suggests false limitations. Actinomycosis takes us no further than the assertion of the presence of a fungus which forms rays, although it must be admitted that so far it is very good. Mycosis fungoides is a name for a group of cases, many of which, at any rate in their early stages, do not fungate at all, and concerning which it is doubtful whether its origin is cryptogamic. Xerodermia, a name of easy etymology, has been used in connection with various adjectives in association with which it has been applied to maladies having no real relationship. One of these, xerodermia pigmentosa, or Kaposi's malady, has been found so difficult to find a classical name for that almost every author who has written on it has devised a new one.

The Use of the Discoverer's Name.

Another class of names is that in which the name of the observer is affixed to the morbid phenomena observed. Bright's disease and Addison's disease supply us with examples of the very successful, though perhaps only temporary, use of proper names in this way. Amongst more recent ones we have Charcot's joints, Paget's disease or osteitis deformans, Paget's nipple, Menière's disease, Jacksonian epilepsy, and Raynaud's disease.

Most of these have probably been given in the first instance with the express design of doing honour to the individual whose name is made use of, but I suspect that those which have come into common use have attained their popularity simply because the profession found them more convenient than any others. Such names, being meaningless so far as etymology goes, have a negative advantage over most others in that they do not mislead, and do not, either by limitation or excess, suggest anything which is false. The reader has but to make himself acquainted with the original paper in which the malady was described, and he may learn without risk of error to what cases the name ought to be applied. To this method of naming there is, however, the obvious objection that it cannot be indefinitely nor even widely adopted. Excepting in reference to discoveries of foremost rank, the profession would certainly and very properly decline to use the name of any cotemporary. Nor can such names be made use of early; we have to wait until the discovery has been ratified and acknowledged as really new by other observers before we can venture, without risk of grotesque failure, to affix the name of its discoverer to it. Nor at the best can it be considered that such names are quite consistent with the dignity of those to whom the honour is offered. They should, at any rate, be few and far between, and those whom we select for such kind of eminence should for the most part be those who have gone to their rest. Our profession is one which cannot be accused of lack of generous recognition of those who serve it, and it has plenty of other modes of expression at its command without naming diseases after living men. In saying this, however, I still wish to ask attention to the fact that such names have been found very convenient, and further, that amongst our zoological and botanical *confrères* proper names are so employed in the freest possible manner.

Rules for the Formation of New Names.

If, then, we revert to the proposition that names for new diseases or new varieties or combinations of symptoms should be selected solely with a view to the convenience of the profession, a few simple rules may, I think, be laid down. Such names should (1) be short and easily remembered; (2) they should be in the vernacular; (3) they should be available from the very beginning, and such as the observer himself may without indecorum apply; (4) they should have in themselves no meaning, the reader being left to find that out by reference to the writings of the observer who first named them.

On the Use of Patients' Pseudo-Names.

Permit me here to lighten my discourse by relating to you an anecdote. It is one which was told me by my friend Dr. Billings a few weeks ago. A non-medical member of a hospital committee, in replying to a toast, took occasion to observe that although he applauded the profession in most things, he could not help feeling that in some things it was open to a charge of self-glorification. "For instance," he went on, "if a man has an interesting and new malady, you very probably get him photographed, you take him to a society and show him, possibly you even cut a bit out of him for the microscope, and then at the end of it all you name the disease after his doctor. Now it seems to me that it would be much more fair that it should have the patient's name." When we had again become grave I told Dr. Billings that the

suggestion was no novelty, and that I had myself, though for other reasons, long been in the habit of naming diseases which were new to me after the patients who first displayed them. Thus I have often used the name "Penmann's prurigo" in print, Penmann being the pseudo-name of the lad whose portrait is given in the New Sydenham Society's *Atlas*. *Let me say however that, for obvious reasons, I never use in public the real name.* I have also long used the name of Phillip Holmes to designate a series of cases of which a boy so named was my first example. The cases of multiple ulcers in the legs of young persons, which have recently claimed much attention both in London and Paris, had for many years had a special box in my cabinet assigned to them under the homely but convenient designation of Mrs. Branford's legs. Quite recently I have learned, thanks to Dr. Colcott Fox, that Bazin had long ago named this malady "erythème induré des scrofuleux"—a name which is, I must think, open to the objection that it is somewhat misleading, since the malady has exceedingly little of the erythema character about it.

Many years ago I described a form of arthritis occurring, in the subjects of inherited gout which disorganises the last joints of all the digits, and is very often attended by attacks of recurrent iritis, which also disorganises the eyes. My first patient was a girl named Mabey. I have published her case with a portrait of her hands, and although I have done my best, I have never been able to find any name for her malady so convenient as that which it has always had in my notebooks of Mabey's disease. The joint disease is a "last-joint-arthritis," or more suitably perhaps an acro-arthritis, and the eye disease is a relapsing iritis, but apart from the fact that there are other varieties both of acro-arthritis and of recurrent iritis very different from these, how shall we hope to find a Greek word which comprises a reference to the fact of the two existing together? If, however, it were permitted to call the disease after the patient, and let the expression "Mabey's disease" comprise the totality of the symptoms which she displayed, the reader would be compelled to refer to the published record of her case, or to some abstract of it, and would not be allowed to confuse himself by trying to obtain an idea of the malady from the etymology of its inadequate designation. It is a subject upon which I have thought much, and respecting which I have some little experience, and seriously I have no better suggestion to make to the systematic case collector than that he should at any rate temporarily designate what appear to him to be novelties by the names of the patients displaying them. Probably many of us already do this in private, and the question rather is should it be permitted in print. I think that it should, and indeed I see no alternative unless the art of clinical observation is to be allowed to lag. The present plan of trying to make a small number of names suffice for a vast variety of objects, and of slavishly grouping together, because our fathers did it, under one and the same name diseases which differ widely, is one which has encumbered us too long. Our young and zealous investigators must give their minds sea-room, and seek to see things for themselves and as they really are. Probably there is no better plan in aid of exactitude in clinical observation than to take "type cases," to follow them to their end, describe them in detail, and wherever possible to illustrate them by photography or by drawings. By the side of the type case place all others which really fit with it and none else.

Anyone who will adopt this plan will, I feel sure, be astonished to find how rapidly parallel cases of what he at first thought rare and exceptional accumulate. We have but to provide centres for crystallisation, and the deposits are thrown down apace. Nor will he, I feel sure, be disappointed in the results to his own mind in the development of powers of independence in observation. We are all of us too much prone unconsciously to diagnose (that is, to name) first and to observe afterwards. We think that it is our own fault if our cases do not fit with what others have recorded, and with the orthodox nomenclature of the textbooks. In a spirit of modesty, which is most creditable but at the same time most prejudicial, we undesignedly endeavour to make them fit. I remember once being put on my guard respecting the case-notes of a certain ward clerk, and being told that he was in the habit of taking down the patient's name and age with the recorded diagnosis, and then, in the quiet of his own room, filling in all the details from a book. Now, absurd as such a plan of case-taking may seem when thus nakedly stated, I fear it is one which we all of us to some extent adopt. We do not go to our books, for it is not necessary, but we have stored in our memories certain facts in association with certain words and names which run together so easily, that it is very difficult to let the observation-faculty work uninfluenced by the shades and colours which they cast.

I have often thought that in such a subject as dermatology, for instance, it might be well for a time to throw aside all our names, and take good, well-illustrated case narratives, and sort them afresh. We should in this way escape the trammels which education has imposed, and we should see natural differences and resemblances which at present elude us. It is thus that it often happens that it is the partially ignorant man who makes a discovery which those better taught could not see. In him the observation-faculty is more free to exert itself. Perhaps there are few words to which we more habitually give a too limited meaning than to the term diagnosis. To make a diagnosis ought to mean to recognise so far as is possible the real nature of the disease in question. It is too generally used as if it meant to give a name.

CLASSIFICATION.

I have left myself but little time to deal with the last of my three topics. I will not detain you long upon it, for I know well that the very name of "classification" is a *bête noire* with many. It is supposed that the state of our knowledge does not as yet permit it. Allow me, however, to say a few short words about it. Let us remember the enormous gain to botanical science which resulted from the substitution of the natural system for that of Linnæus. Now, in our subjects we can scarcely be said to have got even so far as the latter. Diseases of the skin have, perhaps, been classified with more elaboration than any other, yet not only has no really natural grouping been attempted, but the arbitrary classes and orders which have been arranged cannot, I think, be said to afford to the student anything approaching the amount of assistance which the scheme of Linnæus, artificial as it was, undoubtedly gave to the young botanist.

I suspect that most readers of our dermatological handbooks skip the classification altogether, and as a rule it will be noticed that the author himself rarely pays much attention to it. Yet, let me ask you seriously, Is it not possible to attempt something in the way of a natural classification of skin diseases which should be of the utmost value to the student? I take dermatology as an example because I chance to be somewhat familiar with it, and because, with a self-distrust which will, I hope, not be severely blamed, I dare not enter upon matters proper to the physician's domain. What is possible in dermatology might, however, be attempted in general medicine. He who would classify with success must enter upon his task with courage. He must not be afraid of details; he must resolutely eschew all pedantry, and be determined that nothing shall induce him to put two things in the same family group unless he is sure of their relationship. He must be willing to forego the hope of completeness and think but very lightly of finality.

Under these conditions, I certainly believe that a very useful classification of skin disorders, according to natural affinities, is both desirable and possible. We could not assign at once all maladies to their proper places. But this is not requisite. What is wanted is to effect such an orderly arrangement of classes and groups that, when once the real nature of a disease is recognised, there is a place ready for its reception. I would take a hint from botanists and name the orders after their most prominent and typical examples. Thus, the disease known as psoriasis having been carefully defined, I would place with it, in a psoriasis family, all forms of skin disease which conform to similar laws. So with acne, pemphigus, and many others. Perfectly natural groups might be formed of those caused by animal parasites and of those due to cryptogamic growths. Other groups might be constituted by those due to congenital peculiarity of tissue—Kaposi's malady and the like.

In every case real affinities—in other words, relationship by sameness of cause—should be the guide in the formation of our family groups.

Gentlemen, I must conclude, and in doing so I can only hope that the topics I have been bold to bring before you have not seemed to you unsuitable for this the first meeting of a new session of the Medical Society of London.

PRESIDENTIAL ADDRESS
ON THE
EARLY SYMPTOMS OF MENTAL DISEASE AND THE PREVENTION OF INSANITY.

Delivered at the Annual Meeting of the Dorset and West Hants Branch of the British Medical Association, held at the Dorset County Asylum.

By P. W. MACDONALD, M.D.,
Medical Superintendent to the Asylum.

Mental disease is not quite so familiar a phrase as insanity, but I wish to make use of the former because it more faithfully covers the field to which I more especially desire to direct your attention. My preference for the term "mental disease" must not induce you to conclude that I necessarily always mean insanity. It may be perfectly legitimate and quite correct to speak of a case as one of mental disease without inferring or suggesting that it is also one of insanity. There is a wide gulf between the first symptoms of mental disease and actual insanity, and I hope I may not unprofitably ask you to consider a group of symptoms, or stage of mental disease, rarely seen except by the general practitioner.

As Dr. Savage says, "every perversion of nervous action, every unusual display of intellectual or moral force, is not to be regarded as a case requiring the interposition of the physician whose chief care has been for the insane." The general practitioner has, "more than most men, opportunities of seeing a wide range of mental phenomena." The slightest deviation from normal mentalisation, the expression of strange and eccentric ideas, or other offences against sentiment and society are primarily deposited with the family physician. To no other member of the profession are such opportunities afforded of studying disease in its simplest and most curable forms, of employing preventive measures, and, in this particular instance, of averting future wrecks of humanity.

The Importance of Early Recognition.

No sooner does one recall the painful incidents of an anxious case than there seems to re-echo from every quarter the regretful but familiar phrase "had I only been called earlier." Now, I much fear there is loss of time, loss of opportunity, and waste of material, because of the widely spread notion that mental disease is of a different breed from other diseases, and therefore not likely to be dealt with except under strained conditions and after consideration. All this is very humiliating, and one cannot wonder at the efforts being made to impart and infuse a better knowledge of mental disease among the general body of the profession.

However, it is no part of my duty to-day to express any opinion on this subject, but rather to exhort you to show a greater readiness and to display a stouter individual confidence in your association with cases of mental disease in their earlier stages. I am quite prepared to be told that even the family physician is not always consulted as early as he should be in such cases, but, allowing for this, the field is wide and the opportunities vast.

I would here say I leave untouched any consideration of those cases where the symptoms are patent and of sudden onset, or where the symptoms have reached the stage of full development before you are consulted.

The Nature of Early Symptoms.

In considering the early symptoms of mental disease it would be a wearisome and profitless task to attempt anything like a clinical exposition. Each form or phase of mental disease has premonitory signs and symptoms, though perhaps not always observed nor looked for. This may result from two causes. First, the reluctance of the patient or relatives to make known direct or collateral facts; and, secondly, a studied consideration on the part of the doctor not to wound feelings by pronouncing the symptoms as mental. It is of very much greater importance that the earliest symptoms should be observed, studied, and treated in certain cases than others, and for this reason: When there is a pronounced insane neurosis, or when the symptoms betoken organic disease, there is neither the same difficulty in diagnosis nor the same hope of recovery as when the symptoms are simple and possibly functional. It is often possible to trace back the symptoms to a period when no doubt surrounded the patient's mental powers, and when the subject was in full possession of social equality. I could not better illustrate the truth of this than by a short reference to two living examples from among many now in our wards.

Case I.—A. F., aged 32, married, was admitted in October, 1886. It was stated that the mental symptoms were of three months' duration. She was suffering from open maniacal perversion, with mixed sensory aphasic symptoms. On further inquiry we learned that, six years previous to this woman being considered insane, her friends were wont to be angry and annoyed with her for strange acts of conduct and mistakes in writing and calculation. She was a schoolmistress, and also managed the books of a small business. She would write absurd answers to business letters, and in her own private letters would misplace words. She was constantly "doing wrong" and making mistakes, for which supposed acts of carelessness she was frequently abused and most unkindly treated. Such were no acts of carelessness, but the early symptoms of mental disease.

Case II.—J. D., aged 42, married, was admitted in December, 1885, suffering from mania with delusions (general paralysis). We were informed that the symptoms were of twelve months' duration. This man was a small farmer, and at one time in very comfortable circumstances. Ten years previous to his admission into the asylum he rode through the harvest field wearing "white kid gloves and patent leather boots," and said to his foreman, "I am going for a ride." For these acts he was laughed at, ridiculed—in short, considered a vain fool. They were the early symptoms of mental disease.

Early Melancholic Symptoms.

When you are consulted for a general state of mental uneasiness, it is usually to be observed that the patient is overanxious, is worried and desponding, because he has convinced his own mind that business or other matters are not satisfactory. He is perfectly rational in conversation "in a way," yet his mind is not working normally. "Smalls" are "greats," and little blacks are large blacks. Should these abnormal currents of ideas be allowed to multiply and propagate, the next stage is soon reached, and he tells you that he is ruined; that his affairs are not correct or prospering, that he cannot settle to work, and so forth. And now, instead of simple mental perversion you have actual mental disease. At this stage a consultation might be suggested; but I wish you to think of the stage preceding these delusions, the period which unquestionably belongs to you, and during which wisely-directed treatment is of most avail.

Take, again, the case of the anxious mother, who, during the period of lactation, is too often unmindful of her own health, and falls into a state of despondency. Unfortunately, this condition is very frequently neglected, partly because of its simplicity, and partly by not being considered in the light of mental disease. A few days more, and this case is one of open melancholia.

Under very different conditions you meet with cases of a similar nature where domestic troubles or pecuniary losses are the immediate cause of the mental symptoms. Here again there is the initial stage, often of long duration, and during which preventive measures are of the greatest value. Allow these cases to drift a little further until the borderland of insanity is reached and their downward course is almost inevitable.

I have no doubt you will all recall numbers of such cases, and what I wish to impress upon you is the necessity and importance of employing early and preventive measures. Delay and neglect may mean disaster.

Mental Disorder Commencing at Puberty.

Then there is the case of the young girl, who, at the period of a great physiological crisis, experiences feelings and sensations at once beyond her comprehension and understanding, and which she allows to disturb her peace of mind until the current of her thoughts no longer represent the buoyancy of her girlhood.

As too often happens mothers are unmindful of the critical stage of their child's life and the general treatment is neither consoling nor refreshing. I know of no stage in woman's life when greater care or wiser counsels are needed. Neglect may mean early mental troubles or it may mean a life of incessant misery, because of the early planting of neurotic seeds. I mention this class of cases because, from time to time one sees so many young girls, whose illness dates from

the menstrual epoch, and where, I am confident, much more might be done to avert the development of mental disease; and again, because there is an increasing tendency to the development of neurotic and mental symptoms at this anxious stage of life in the present or rising generation of young women.

You are frequently consulted respecting the schoolboy or schoolgirl who suffers from intolerable headache, who cannot sleep, who cries and frets because of his or her inability to accomplish home tasks or keep an equal place with others in the class. In short, the child is absolutely miserable, and the seeds of disease are being rooted, through the misguided rules or laws of primary education, and through the failure of teachers to allow for any difference in brain power or any defect in brain development.

EARLY SYMPTOMS IN CASES EVENTUALLY LEADING TO ACTS OF VIOLENCE.

I must allude to one other class where the earliest symptoms of mental disease are specially your property, and in which class I believe are many preventable deaths. It only needs mention to save description of the number of deaths where the coroner directs the jury to find a verdict of "suicide (or as the case may be) while of unsound mind." We have not to borrow examples from other countries, nor even from other counties, for there are numbers within our own small radius in the course of the year. Signs of warning and symptoms of danger are either unheeded or disbelieved, and nothing short of an actual attempt convinces the relatives and others of the serious nature of the case.

The course of events in these cases illustrates forcibly the difference between the professional and lay methods of reasoning respecting the nature and importance of the earliest symptoms of mental disease. The profession recognise in these premonitory symptoms the precursors of disease, if not the actual symbols of disease; but the public pooh-pooh this, and only awaken to the truth when the laws of society are palpably disregarded, or when the community are startled by a daring and irresponsible attempt at self-destruction or murder. It is hard to know on whom to fix the blame in many of these sad terminations to previous useful lives, but of this I am quite certain, a great and grave duty is that of the family physician. He may with impunity refuse to sign lunacy certificates, but by no twist of the imagination can he escape from responsibility when dealing with the early symptoms of mental disease.

TREATMENT.

In considering the question of treatment, it may be laid down as a general principle that it is useless to ransack the *Pharmacopœia* or to combine reputed drugs in the hope of finding a panacea. You can at best correct system errors by therapeutics, but I know of no drug that will cure mental disease. It is not therapeusis but moral treatment that is required. One time it is healthy exercise, another recreation, another change of surroundings, another removal from all associations with relatives, another regulation of diet and hours—in short, let your prescription be moral and not therapeutical, and, at the risk of being abused and chastised, let the time-honoured battle of physic give place to preventive medicine. I may be told that you have no means of treating these symptoms other than by therapeutics; but this I cannot accept, and, as I have already said, drugs are, if not useless, of little value.

As our knowledge of the pathology of disease advances, our faith in curative measures grows less. There are a few grand examples, but do not the weight of evidence and the bent of scientific research favour the adoption of preventive, rather than curative, measures? Here are the trenchant words of Professor Clifford Allbutt: "But what need of further evidence to prove that while the advance of curative medicine is readily summed up in a few brilliant episodes, the advance of preventive medicine is along the whole line with a steady and uniform tide that knows no ebb?" Dr. Clouston says, "If the first signs that betoken danger to the mind-health were observed, and the first symptoms of disease noticed, and their true significance apprehended, everyone knows that their further onset and progress could often be arrested." All the talk and writing about the treatment of mental disease in special hospitals by an array of departmental specialists is glittering, but unsound. It is not therapeutics or special hospitals that we require, but the aid of the general practitioner, and if he could be induced to be more of a specialist in his work generally, the benefit to scientific medicine would be immense.

THE DUTY OF THE GENERAL PRACTITIONER.

The unique position of the family physician may be described as a sacred trust in regard to his patients and a solemn bond in regard to the social world. He is consulted on all matters, he is confided in, he is trusted, and his powers of influence exceed those of any other living being. I speak now generally, not caring to dwell on those instances when we are thwarted in good intentions and cruelly treated by ungrateful patients.

What above all else has delayed the recognition of insanity as a disease, and therefore the treatment of the earliest symptoms of mental disease has been public prejudice on the one side and a want of knowledge of the true significance and importance of first symptoms on the other. The one cause has been the means of fostering the shameful opinion that mental disease is a disgrace, and the other has been the instigator of classifying the early symptoms as eccentricities or foolish freaks of human nature.

I would not willingly, even in words, encroach or impose upon your sacred hours, but remembering your exceptional opportunities and your unlimited powers of influence, I am constrained to make an appeal for a better share of your working day in the cause of mental disease, and to express the hope that more attention will be paid and more consideration given to the study and treatment of the first signs of mental troubles.

I believe we are severally doing our part in the field of preventive medicine, and as regards the special department of psychology, the general practitioner would seem to stand forth as the public pillar and keystone towards the prevention of insanity.

These and similar exertions on his part will accomplish much in diffusing better and more humane ideas respecting the insane. The progress in this direction has been slow, still great advances have been made, and it is only for one reason that I allude to the subject.

SPECIAL HOSPITALS FOR INSANITY.

Attempts are being made to rivet the public mind on the feebleness and lassitude of those entrusted with the care and treatment of the insane, and we have actually been asked to believe that with special hospitals the average rate of recovery could be increased by 10 per cent., to be followed by a corresponding decrease in the number of the insane. I can only say I do not accept these views, and I attach more importance to the efforts of the family physician in the prevention and reduction of insanity than to any supposed increase in the recovery rate by means of special hospitals and therapeutics.

HOME TREATMENT.

I do not think that anyone engaged in the treatment of the insane would advise the removal of a patient to an institution if the case could be treated at home. The early symptoms can and should be treated by the family physician, but when open and pronounced there should be no delay in obtaining special treatment. Whether early or late you will fail if you rely on therapeutics.

Do not be discomforted because of the varied and varying character of the symptoms. Seldom will you find two cases alike in the initial stage. But the more closely you study the variations of normal mind, the more easily will you detect mental deviation. Guard against labelling the primary elements of mental disease as eccentricities, or painting moral insanity as hysteria.

THE OBSERVATION OF ASYLUM PRACTICE BY GENERAL PRACTITIONERS.

In no department within the whole range of medical science is there more need for the practice of specialism by the general practitioner than in the treatment of the early symptoms of mental disease. We admire, respect, and follow the teaching or consulting room opinion of ripe experience, sound learning, and wide culture, but in every branch of the profession there is a great desire for more general specialism and a great cry against the increase of special

specialism. The experience gained in the wards of any institution for the treatment of disease fosters and propagates individual and general confidence. It is one of the regrets of my life as an asylum physician that my brother practitioners so seldom evince a desire to gain knowledge in the special department of mental disease. I am confident that, if you were to visit our wards—and few there are amongst you who could do not do so several times in the course of twelve months—the gain would more than compensate you for the time and trouble.

Let it not be said that the fault is ours, for I am constantly asking individual members of the profession to visit us, and I now bid one and all an open welcome at all reasonable hours. I can assure you it will be a real pleasure to us, and no effort will be spared to make your visits profitable and interesting. I cannot do more than refer to this important subject; but I could not allow the opportunity to pass without mentioning how desirous I am that the richly-stored wards of our asylum should be utilised for the benefit of and taken advantage by the profession generally.

What is possible elsewhere is not impossible within the area of this Branch. We may lack in public distinction and repute, but not in earnestness and devotion to duty. There are as able and distinguished pillars of the profession on the roll of country practitioners as on the staffs of our large hospitals.

Post-Graduate Courses.

Though it may on the first blush sound Utopian, it is not beyond the range of practicability to organise post-graduate courses of instruction in connection with the Branches of this great Association. It only needs the co-operation of a few willing workers, preferably members from the staff of each hospital or other institution. Once set in motion the interest would steadily increase, and each little centre would vie with its neighbours in the quality and quantity of the information supplied. Speaking for my own special department, I have already said what we are prepared to do here, and, if it met with approval, we might be enabled to meet you when time and convenience would more accord with your daily labours.

And now, gentlemen, I have finished, conscious of having asked for much and of having hoped for more, but if I have touched one responsive chord my efforts will not have been in vain.

SIXTIETH ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION

Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

PSYCHOLOGY.

William Bevan Lewis, L.R.C.P., President.

THE PATHOLOGICAL ANATOMY OF ACUTE ENCEPHALITIS.

By Edwin Goodall, M.D.Lond.,
Demonstrator of Bacteriology and Pathology, Owens College, Manchester.

Dr. Goodall said that the subject with which he proposed to deal was not quite correctly indicated by the above title, which, however, appeared the most suitable to use. His inquiry was concerned rather with the connective tissue element of the cerebral cortex than with the nervous tissue proper; he had endeavoured to ascertain the morbid alterations to which that element was subject when the cortex was in a state of inflammation. Incidentally, of course, he had had occasion to notice the associated changes in the nerve elements, but as the observations made in this direction were incomplete, he proposed to deal solely with the changes undergone by the connective tissue cell, meaning by that term the cell of Deiters (spider cell). The observations, even in this special field, were in an early stage, and the results arrived at only preliminary. He had been unable to find, in the writings of those who had particularly investigated the connective tissue structure of the central nervous system, any statement or suggestion which might lead to the inference that the writer entertained the possibility of a higher function for the spider cells than that of a scaffolding or supporting structure. Rollet, indeed, in Stricker's *Manual*, spoke of the "theory which refers the rootlets of the lymphatic system to the connective tissue corpuscles;" clearly, therefore, the view that the fixed cells of the connective tissue formed an integral part of that system had been broached before the approximate date (1869) at which he wrote. From the statement of Meynert in the same work it might be inferred that he had observed the participation of the connective tissue (spider) cells of the brain in the disorders of the lymphatic system; he spoke of the alteration in form exhibited by them in conditions in which the discharge of interstitial serum into lymph channels was interfered with. These statements notwithstanding, it appeared that only recently had attention been especially drawn to the depurating ("scavenging") function of the spider cell. The alteration in form undergone by these cells under the influence of irritation and with their development were the points to which he proposed to direct attention. For the purpose of experiment he had employed rabbits. The skull was trephined, the dura mater incised, and then the cortex was punctured with a sterilised platinum needle, the irritative effect of which was enhanced on some occasions by slight to-and-fro movements of the point, also by insertion of spiritus vini gallici or cantharidin in small quantities. This procedure was sometimes replaced by another, in which cantharidin well diluted with starch powder was placed upon the pia mater. Once recovered from the shock of operation, the animals ate well, and their general condition appeared very good. In examining the inflamed tissue the fresh method was employed in every case—sections made from ether-frozen brain, anilin blue-black staining—though this was supplemented by hardening methods in some instances; in this way the spider cells could be, in most respects, best studied. At the same time, it was added that by the use of Flemming's hardening mixture and (subsequently) safranin and hæmatoxylin certain details of cell structure were brought out which were not to be seen in the anilin-stained fresh sections. The changes observed in Deiters's cells and the attendant vascular changes might be summarised as follows: Within twenty-eight hours from the time of irritation there was found great enlargement of the spider cells beneath the cortex, when the method of puncture, *plus* addition of cantharidin, was employed, and the needle had penetrated to the subcortical area. Not only were the cells much enlarged, but their nuclei and bodies were deeply stained, and their processes, including the vascular, very prominent. No spider cells were seen in the outermost layer of the cortex other than those ordinarily observed there, neither was there any proliferation of spider cells in the rest of the cortex. The vessels were moderately congested. A few leucocytes only were found extravasated. When dilute cantharidin was applied to the pia and no puncture performed, no certain increase in the size of the subcortical spider cells was observed; the Deiters's cells between pia and cortex were enlarged, but elsewhere in the cortex, in outermost layer and depth, no proliferation could be made out. Extravasated round cells were more numerous than on puncture, and vascular congestion was far more marked; a large number of tiny capillaries were present in the section, especially in the outermost layer, not to be seen in a healthy specimen. These had no cells attached to them. The changes in the subcortical spider cells, though most marked about the puncture, were also seen at some distance from it. Simple puncture without the addition of an irritant, appeared incapable of evoking the growth of spider cells in twenty-eight hours. In from three to four days from the time of irritation, whether produced by puncture *plus* brandy or cantharidin or by application of dilute cantharidin to the pia, some enlargement of the spider cells of the outermost layer of the cortex was made out; the body of the cell was more deeply stained, especially the nucleus, and the vascular process decidedly more prominent; the entire structure, in fact, was more in evidence than in the healthy state. The vascular process still had a

delicate appearance (was not appreciably thickened), but frequently it was of considerable length, affording in this regard a notable variation from the corresponding process in health. In size and appearance these spider cells were nothing like so striking as those of the subcortical area after twenty-eight hours only of stimulation. More advanced changes in respect of depth of staining and size of cell and processes were apparent in the spider cells between pia and cortex than in the cells occupying the outermost layer. No proliferation of spider cells amongst the nerve cells of the cortex (exclusive of the outermost layer) could be made out until the fifth day after operation. In sections from a brain which had been punctured simply, without application of any further irritant, spider cells, with deeply-stained bodies and well-marked processes (some of which had attachment to dilated vessels present in abundance) were found in the deeper layers of the cortex, either body or processes being in close proximity to the nerve cells. The spider cells occurred, as stated, in the deeper layers of cortex, whence they could be traced downwards into the subcortical area, where an immense growth of similar cells, with thick vascular processes, was evident. Compared with the spider cells beneath the cortex those in the outermost layer in this specimen (5 days old) were few and small, though considerably larger and more deeply stained than in a normal section. The vascular processes, too, were much more prominent though still delicate. Areas of deeply-stained neuroglia surrounded the subcortical spider cells. It was possible that if cantharidin or other like irritant had been inserted into the wound in this case proliferation of spider cells amongst the nerve cells of the cortex would have been evident earlier than the fifth day, but in these experiments when the strength of the irritant was increased by such means the animal succumbed within 48 hours. Hence this point could not be determined. In any case no proliferation of spider cells amongst nerve cells was evident within 48 hours. These results afforded some indication of the rapidity with which morbid alterations occurred in the spider cells of the outermost layer of the cortex and its nerve cell area in the subcortical region respectively in consequence of inflammation. The time during which the animal was exposed to the action of the irritant varied from one day to six days inclusive, except in one case, in which dilute cantharadin was allowed to act upon the pia mater for a space of twelve days. In regard to this case it was sufficient to say that besides the development of spider cells in the outermost layer of the cortex and subcortical area others were to be seen amongst the nerve cells in the deeper part of the cortex with processes spreading out between the cells. There was, besides, evidence of degeneration of the nerve cells. Some stress might be laid upon the observation that the morbid development of the spider cells proceeded in a particular order; the first to show signs of growth and to react more deeply to the stain were the spider cells situated beneath the cortex, next those between the pia and cortex, then those situated in the outermost layer, and, lastly, proliferation of spider cells was observed in the depths of the cortex. In other words the most prominent in health were the earliest to show morbid growth in inflammatory states. Under the influence of dilute cantharidin (applied to the pia), more rarely as a result of puncture *plus* application of brandy, large numbers of very tiny capillaries were brought into view. These could scarcely be new vessels, since in one instance they were observed in abundance and of considerable length throughout and beneath the cortex in twenty-eight hours from the application of the irritant. In this case, amongst these newly appeared vessels, no example of the connection of vessel wall and cell by a process could be found. This failure might be explained in (at least) two ways. On the theory that the spider cells in inflamed tissue and their vascular connections were formed out of leucocytes which had migrated, it might be supposed that sufficient time had not in this case been allowed for the transformation. On the view that the cells and their processes were pre-existent in the healthy tissue it might be assumed that the irritation which proved sufficient to bring the capillary into prominence was inadequate to bring out the attached cell, or (if the spider cell were regarded as a depurating agent) that the increased work which hypertrophy presumably connoted had not yet been put upon the cell. Certain arguments were then adduced to show that the numerous and large spider cells present in the specimens of inflamed brain had developed *in situ*, from pre-existent cells of similar form (though insignificant, and even sometimes invisible), and not from migrated leucocytes. In the first place (*a*) the spider-cells occurred in normal specimens of the brain of the rabbit, and in a state of recent inflammation the spider cells seemed to be merely increased in size and not in number. At a later period they were seen in increased numbers also, but it was a legitimate supposition that the increase was due to the fact that spider cells hitherto invisible had come into view in consequence of persistent irritation. (*b*) The proliferation resulting from inflammation was especially apparent in those regions in which the spider cells were best marked in healthy specimens. (*c*) Extravasated leucocytes were certainly not more numerous in these parts, nor less numerous in the depths of the cortex, where development of spider cells was tardy. (*d*) It was not compatible with the view of development from migrated leucocytes that spider cells of great size, much larger than white cells, and with well-marked vascular processes, were found in certain parts within twenty-eight hours of strong irritation. No stages of such development were to be seen, and, as a matter of fact, but few round cells were found about the vessels in this time. It was not to be supposed that they had been so quickly transformed into spider cells. (*e*) Collections of morbidly developed spider cells occurred quite apart from other collections of leucocytes, in some instances. (*f*) When a strong irritant was applied to the subcortical region the growth of spider cells was very much greater than when the same irritant was allowed to act upon the pia mater for the same time, and this in specimens examined within twenty-eight hours of the time of irritation, in which but few leucocytes were extravasated, so that the difference referred to could not be ascribed to local differences in the number of migrated cells. (*g*) The vascular processes of the hypertrophied spider cells, though much more prominent and deeply stained than the similar structures in health, were still delicate and uniform in breadth in their whole extent, exception being made for the "foot" of attachment, present normally. In the case of the subcortical spider cells, however, the vascular process was often massive, though of uniform breadth. These features—uniformity in size and delicacy (the latter often found)—were difficult to explain on the theory that the vascular processes were given off by migrated leucocytes. In regard to the ultimate fate of leucocytes extravasated in acute inflammation of the cortex, Dr. Goodall was only prepared to state that in one instance in which the cortex was examined twelve days after application of dilute cantharidin to the pia many spindle forms were seen amongst the round cells, which were extravasated in quantities about the area of irritation. It appeared as though scar tissue were in process of formation; but only one purpose of the migrated cell was here illustrated, and more extensive examination would be necessary to determine the point raised—the fate of the extravasated leucocytes. It would be difficult to deny that the white corpuscles were transformed into spider cells in inflammation if it were admitted that such cells were formed out of leucocytes in the ordinary process of development. But with what object should such transformation occur? Possibly with the object of augmenting the standing force of "scavengers;" possibly with a view to furthering the process of sclerosis (a natural term of subacute and chronic inflammations), whereby the essential elements of the cerebral cortex were destroyed and replaced by a lower grade of tissue. One or the other explanation would commend itself, according to the view held regarding the nature of the spider cell. In this connection reference might be made to the "compound inflammatory corpuscle" found in inflamed nervous tissues, which had long been regarded as originating solely by inclusion of disintegrated nerve substance in a colourless corpuscle, playing, in this instance, the *rôle* of a phagocyte. It was sometimes urged against the theory which regarded the spider cells as terminals of the lymphatic system that since these cells sprang, developmentally, from the ectoderm, they could not be regarded as forming part of a mesodermic structure. This objection was based upon an assumption yet to be found true, for at the present time the views of authorities were at variance in regard to the ecto- or mesodermic origin of the connective tissue (Deiters's) cells of

the brain. The numerous minute capillaries present in specimens taken from the cortex after three days of irritation had no spider cells attached. This certainly seemed difficult to explain on the theory that the spider cells of inflammation developed out of pre-existent cells, for presumably sufficient time for such development had been allowed in this case. The morbid appearances in cortex examined five weeks after application of dilute cantharidin to the pia were as follows: In each section there was a belt of sclerosed tissue at the part injured. This passed on either side, almost abruptly, into healthy-looking cortex (as seen by the low power). The cortex at the seat of injury was much diminished in size; here, in most affected sections, the pia was actually on a level with the lower limit of the adjoining cortex. In the sclerosed area no nerve cells were present; nothing was visible but deep-blue tissue, vessels, nuclei, and an intricate meshwork of filaments, tethering down the pia. This was continuous with a similar subcortical meshwork, and on either side were seen the processes of spider cells, between degenerate nerve-cells. The meshwork was doubtless composed of such processes. The bodies of the spider cells were small, whereas the processes were very long, especially the vascular. The bodies had probably been utilised to form the processes. No actual embracing of nerve cells by spiders was made out. The nerve cells in the vicinity of the sclerosed area were swollen, irregular, granular, or broken up into larger masses; nuclei were often seen in one cell, and partial division of the cell was noticed: the processes were absent or stunted. Around the ganglion cells deeply-stained round cells clustered in numbers.

Perception, with special reference to Colour Perception. By F. W. Edridge-Green, M.D.—When working at the subject of memory, the author had been forced to the conclusion that the seat of memory was distinct from that of perception. The act of perception was the perception of differences in a physical series, and individuals differed from each other in their capabilities of perceiving these differences. This view he had designated the theory of psycho-physical perception. The external sensory apparatus (the eye in the case of light) having limited the series, the whole impression was conveyed to the seat of memory (a coloured photograph was a good simile in the case of light), and special centres conveyed an idea of this impression to the mind. The result of this was that a physical series as it really existed, and a physical series, as it appeared to the mind, were essentially different. Thus with regard to the physical series which gives rise to impressions of light, it was not known where the series commenced or terminated, but it was known that the rays in the infra-red and ultra-violet in no way differed from those of the physical spectrum. The spectrum was an admirable instance of a portion of a physical series, the units of the series consisting of rays of light, each having a definite wave-length, which diminished gradually from the red to the violet. A psycho-physical series (that is, a physical series as it appeared to the mind) had a definite commencement, a definite termination, and consisted of certain definite units. People differed very much in the number of physical units which they put together as exactly alike. Individuals could thus be ranged in classes varying from those who could distinguish minute differences to those who could not distinguish between physical units occupying widely distant points in the physical series, as, for instance, those who could not detect any difference between the bass and treble notes. The normal sighted saw six definite colours in the spectrum. In the first degree of colour blindness only five colours or points of difference were seen; in the next degree four, then three, then two. Then a neutral band appeared between these two colours, and this increased in size in different cases until total colour blindness was reached.

Medical Examinations in Bavaria.—During the academic year 1891-92, the total number of candidates who presented themselves at the State Examinations for the licence to practise medicine in Bavaria was 632. These were distributed among the three Bavarian Universities as follows:—Munich, 213; Würzburg, 274; and Erlangen, 145. Of the 632 candidates, 442 passed, 164 being marked "sufficient," 252 "good," and 26 "very good." The number of candidates who presented themselves in 1890-91 was 716, of whom 443 passed.

OBSTETRIC MEDICINE.

Alfred Lewis Galabin, M.D., President.

ON THE DIAGNOSIS OF EARLY ECTOPIC GESTATION.

By Arthur W. Edis, M.D.Lond., F.R.C.P.,
Senior Physician to the Chelsea Hospital for Women; late Obstetric Physician to the Middlesex Hospital.

Although abdominal surgery has made wonderful progress in the last few years and has been the means of saving a large number of lives, there are yet several annually lost, it is to be feared, owing to the art of diagnosis in the many not having kept pace with the art of abdominal surgery in the few. Ectopic or extrauterine gestation is essentially one of those conditions where an early diagnosis may be synonymous with life or death. And yet when urgent symptoms of pelvic trouble arise there is still too great a conservative tendency to wait and watch, prescribe rest and opium, and see what Nature will do in place of attempting to arrive at a definite diagnosis.

Parry, in his excellent monograph on *Extrauterine Pregnancy*, states: "It is very rarely indeed that an opportunity is obtained to examine an unruptured cyst in the early stages of its development." Lawson Tait, commenting on this paragraph, says: "I doubt very much if such a case has ever occurred."

In the following paper I shall attempt to show that, although the diagnosis of early ectopic gestation is in many cases impossible, owing to the patients not presenting themselves to the notice of the practitioner sufficiently early, yet in those cases where some obscure pelvic trouble suggests to the patient the advisability of seeking professional aid a correct diagnosis is not arrived at owing to the vagueness of the symptoms and a want of appreciation on the part of the practitioner of the extreme importance of arriving at a definite conclusion as to the nature of the case.

First, let me briefly recall to your minds the ordinary symptoms met with in cases of ectopic gestation before attempting to enter upon the question of the differential diagnosis. There may or may not be symptoms of normal pregnancy; the evidence upon this point varies very much. In some cases they are quite overlooked and no suspicion of pregnancy arises. In other cases the mammary and minor symptoms and signs of pregnancy are well marked and assist materially in making out a correct diagnosis.

What generally first directs the patient's attention to her condition are the irregular gushes of blood from the vagina, ceasing and suddenly recurring without assignable cause; the more or less fixed grinding pain in one or other iliac fossa, which occasionally extends down the inner aspect of the thigh; severe paroxysmal pain in the same locality, with constitutional symptoms, soon passing off, to return in a few days with increased violence; symptoms of abortion without any appearance of the fœtus, merely expulsion of shreds of membrane, clots, or very rarely a complete cast of the uterus in the form of the decidual membrane, leading the patient—often the practitioner as well—to believe that a miscarriage has taken place.

In many cases there is generally a history of several years of unfruitful married life or of infertility following a severe miscarriage or confinement. Then a period is missed or the interval between the catamenia unduly prolonged. The usual symptoms and signs of pregnancy may be ill defined or absent, although the patient not infrequently has the conviction that pregnancy exists. If attention is directed to the case before more urgent symptoms occur and a vaginal examination be made, the uterus is generally found to be more bulky than normal and pushed over to one or other side of the pelvis by some more or less defined tumour or swelling, which is often tender on pressure. In some cases distinct pulsation can be felt in the vaginal *cul-de-sac* on the side where the swelling exists. On bimanual examination this latter feels as if it were cystic, and *ballottement* may occasionally be detected. Other symptoms are soon added in the form of irregular hæmorrhages from the vagina, with

possibly shreds or clots, and the occurrence of paroxysms of pain limited to one or other inguinal region. In some cases there is marked trouble with the bladder, irritability or want of power of retention, or, it may be, difficulty in micturition. The bowels are often very constipated, or there may be complete obstruction if the gestation be in the left tube. Another symptom which may be found if sought for is œdema of the lower extremity corresponding to the side on which the tubal gestation exists, with occasionally a feeling of numbness or aching in the groin or want of power in the leg.

After various attacks of colicky pain, with intervals of almost entire freedom, the patient between the third and twelfth week is suddenly seized with severe pain in the lower abdomen as if some irritant poison had been taken. She feels as if something had given way or been torn inside her. Fainting, collapse, with clammy perspiration, and occasionally convulsions and delirium, ensue, the symptoms being those of violent shock and of internal hæmorrhage, from which the patient may die in a few hours.

With symptoms like these mere palliative treatment in the form of rest and opium is quite inadequate. Abdominal exploration, with removal of the cyst, after ligaturing the tube on the affected side, washing out the abdominal cavity, and placing the patient under the most favourable conditions for recovery, is the only rational treatment, and should be resorted to without delay. In some cases it may be deemed advisable to wait until the patient has rallied from the shock before operating; but, as hæmorrhage is probably still going on internally, even the delay of a few hours may be fatal.

The following is a typical case of tubal gestation, where a fatal result occurred in consequence of a few days' delay in operating:—

Mrs. W., aged 32, married five years and a-half, never pregnant; consulted me in February, 1889, for metrorrhagia. The catamenia for many years past had been perfectly regular, even to the day, recurring every 28 days, and lasting 4 to 5 days until recently. The last normal period ceased on December 1st, 1888.

On January 14th, 45 days from this, she had a sudden attack of excruciating pain in the lower abdomen, more especially on the right side. She was quite collapsed at the time, and felt very weak and faint. The next day a sanguineous discharge from the vagina commenced, and continued uninterruptedly for 23 days, at which time I first saw her. She passed two clots the following day but one. Within a few days she was up and about again. On January 20th she hurried to church, and became so ill that she could not even be moved at the time. On the 21st she had a rigor, and a severe attack of pain coming on suddenly in the afternoon, accompanied by difficulty and pain on micturition and defæcation. From this date until February 6th, when I first saw her, she had several slight recurrences of pain, but was well enough to walk to my house, a distance of about a mile and a-half. The mammæ were fuller than was usual with her. There were some veins mottling the surface; the areolæ were dark and the follicles distinct. The nipple appeared moist. On examination *per vaginam* the uterus was found to be bulky, anteflexed, and pushed over to the left side by a tense cystic mass in the right *cul-de-sac*. The diagnosis that it was a case of ectopic gestation, right tubal, was given, and immediate operation advised. A consultation was held, but as there was a history of a somewhat similar attack some two years ago, it was thought better to wait and watch. This was on February 7th. On the 9th she experienced some acute pain in the lower abdomen on the right side during the night, and about midday the pain became more diffused over the abdomen, being referred to the region of the umbilicus, and vomiting occurred. I was telegraphed for during the afternoon, but was out on my rounds, and did not receive the message until later, when I at once went off, and found her in a very critical condition—pulse rapid and feeble, countenance blanched, anxious, pinched, abdomen distended, dull on percussion, tender to pressure. Arrangements for opening the abdomen were made as speedily as possible.

Operation.—8 P.M. An incision about 3 inches long was made between the umbilicus and pubes. The moment the peritoneum was cut through a gush of thin, liquid, black blood took place. The abdominal cavity was simply full of blood, mostly dark coloured and liquid, but deeper down large clots were present. The right broad ligament was at once transfixed and ligatured, and the ovary and tube removed. The abdominal cavity was washed out with relays of hot water until it returned clear. The left tube and ovary were examined and found to be normal, so were not interfered with. The operation lasted thirty-five minutes in all. A drainage tube was inserted and the abdominal wound closed. The patient was very exhausted. An enema consisting of brandy and milk was administered; brandy was also injected into the arm, and the patient surrounded by hot water bottles. She never fairly rallied from the hæmorrhage and shock, and sank about ten hours after the operation. No *post-mortem* examination was allowed.

An examination of the part removed disclosed a small rupture in the upper wall of the right Fallopian tube, which contained a fœtus at about the tenth week of development, surrounded by blood clot and a distinct placenta. The abdominal ostium of the tube was patent. The ovary was cystic, about the size of a small bantam's egg.

Let us now briefly consider what are the conditions most liable to be confounded with ectopic gestation. Of these, pelvic hæmatocele is the most frequent. But those who are most competent to judge contend that every instance of hæmatocele is one of ruptured tubal or ectopic gestation. This may be true in the main, but that effusion of blood in the pelvis occurs without any previous conception there can be no shadow of doubt. Cases of hæmatocele occur in young women where any suspicion of pregnancy cannot be entertained for a moment. The symptoms of pregnancy are entirely absent. The effusion almost invariably occurs at or about a menstrual period. There has been no previous irregularity, no mammary signs, no softening of the cervix uteri, and no history of localised pain such as usually met with in ectopic gestation. In addition to this the history of some undue exertion, or getting a chill at the time of a period, will generally be elicited. Menorrhagia is a marked symptom, but paroxysmal pain, as in tubal gestation, is rarely present.

Threatening abortion, more especially where some cystic enlargement of the ovary or tube on one or other side exists, may cause much difficulty in arriving at a correct diagnosis. There may have been more or less persistent pain due to the enlarged ovary or tube, but it is seldom of such an urgent character as that met with in early ectopic gestation.

If the case be complicated by retroversion or retroflexion of the gravid uterus the difficulty is still further increased, especially if some antecedent attack of peritonitis has caused fixation of the uterus. As this expands the adhesions become torn through, causing much pain; often leading to the supposition that tubal gestation exists. The history of localised pain, extending, it may be, over some years, will help us in arriving at a correct diagnosis. So also the history of a previous attack of peritonitis.

Twisting of the pedicle of an ovarian cyst, with strangulation and effusion of blood into the interior, is a condition not infrequently mistaken for tubal gestation. The narration of a typical case may serve to illustrate this better than mere general description.

M.B., aged 39, married nineteen years, mother of four children, youngest 5 years old; one miscarriage two years ago. Whilst at the seaside, being then in good health and unaware of the presence of any tumour, she was suddenly seized with severe pain in the abdomen, was violently sick, and felt very prostrate. It was thought to be an attack of severe colic by a medical man who saw her; he prescribed opiates and hot fomentations. She recovered from this in a few days and was able to return home some three weeks subsequently. Shortly after her return she was again seized with severe pain in the abdomen, sickness, collapse, and other urgent symptoms. On the arrival of her medical attendant he found her in great agony, pulse 160, temperature 100° F., respirations 32, lying in bed with her knees drawn up, countenance anxious, and feeling very faint and exhausted.

On examining the abdomen it was found to be distended, dull on percussion below the umbilicus and exquisitely tender to the touch; a hypodermic injection of morphine was at once given. On making a vaginal examination the uterus was found lying to the left of the mesian line, the cervix pointing to the right side. A mass was detected behind the uterus high up, and evidently connected with the tumour discovered in the right lower abdomen. The pain was somewhat paroxysmal in character, there being intervals of comparative ease, though never entirely absent. The evening temperature was 102° F. The urine had to be drawn off as she was unable to pass it. The vomiting persisted but seemed to be relieved by a mixture of bismuth, hydrocyanic acid, and citrate of potash together with ice to suck, and a mustard poultice to the epigastrium.

The urgent symptoms gradually subsided within the next few days. As it was thought at this time to be a case of extrauterine gestation, I was asked to see her. On inquiry I found the catamenia had been quite regular, rather profuse than otherwise, and there had been no intermission whatever of the periods. The mammæ were flaccid, and there was no evidence of any functional activity. There had been no morning sickness, and the patient discouraged the possibility of pregnancy existing. No fœtal or other sounds could be detected. The abdomen could now be examined without undue distress to the patient. A somewhat flaccid, circumscribed cyst was detected occupying the lower abdomen, extending nearly up to the umbilicus and more on the right side. On conjoined manipulation this could be felt dipping into the pelvis and displacing the uterus posteriorly and to the left. The cervix was fairly normal in size, not soft. The tumour was evidently separate from the uterus and seemed to be cystic. The theory of extrauterine gestation was discarded, and the opinion expressed that it was a case of an ovarian tumour, which, owing to a previous attack of peritonitis, had become adherent, and the adhesions torn through as the cyst developed, or that it had become strangulated by twisting of the pedicle.

An exploratory operation was advised, and the patient was removed to the Chelsea Hospital for Women. On opening the abdomen a dark, fleshy looking tumour, firmly adherent to the subjacent viscera, was discovered. On separating the adhesions the tumour was found to be an ovarian cyst of the right side, the pedicle being twisted so firmly as to have produced strangulation of the cyst. The interior was full of dark, semi-coagulated blood. Removal of the cyst was effected. A drainage tube was left in for twenty-four hours, the abdominal cavity being first well washed out with hot water. The patient was very collapsed after the operation, but subsequently made a good recovery, and returned home within five weeks from the operation.

In some cases where there has been previous inflammatory mischief in the pelvis, interfering with the central position of

the uterus, the diagnosis between intra- and extrauterine gestation is often one of some difficulty.

In May 1890 I was asked to see a patient, aged 24, married two years; mother of one child, aged 11 months; where the catamenia had ceased for four months, and she was evidently pregnant. The chief symptoms over and above those of ordinary pregnancy were excruciating "corkscrew" pain coming on in paroxysms, periodical losses of blood, and feeling of fulness in the left iliac fossa. On examination the uterus seemed to be pushed back into the hollow of the sacrum by a mass, the size of a large lemon, to the front and left of the uterus, clearly definable on conjoined manipulation. *Per rectum*, the uterus was apparently behind the mass, closely associated with, and not separable from it. From the nature of the case it was deemed imprudent to employ the uterine sound. After several days' constipation, and rather free action of the bowels from aperient medicine, the swelling situated in the left of the pelvis became much more central; and on subsequent examination, confirmed by consultation, the case was considered to be one of intrauterine gestation, complicated by some detachment of the membranes and emusion of blood; an early miscarriage was predicted, and emptying of the uterus advised. The patient, however, declined interference, and left for home.

Five months later she was safely delivered of triplets at full term, one at 9.30 A.M., and the two others between 12.30 P.M. and 1 P.M. They were boys, living. The placenta was single. All did well.

There was a clear history of some inflammatory mischief following her first confinement. It is probable that the uterus became pushed over to the left side, and fixed there by adhesions, which were torn through from distension of the rectum. When first seen the case looked very like one of tubal gestation on the left side. The paroxysms of excruciating pain, together with recurrent hæmorrhages, which persisted for the first five months, all seemed to favour this supposition.

Retroversion of the gravid uterus, with impaction in the pelvis at about the fourth month, occasionally gives rise to the supposition of ectopic gestation.

In these cases the symptoms of pregnancy are generally well marked. There is seldom any history of severe pain until the neck of the bladder becomes compressed and retention of urine occurs. There is generally an absence of any attacks of hæmorrhage, and on examination the enlarged uterus is more central than that of the tumour in cases of ectopic gestation.

There are many other conditions occasionally met with simulating tubal pregnancy, but time and space prevent my entering into these now.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

POISONING BY COPPER SIMULATING CHOLERA.

At 5 A.M. on October 3rd I was called to a patient suffering from severe diarrhœa, vomiting, and cramp in both legs. There was abdominal tenderness, thirst, rapid weak pulse, thin dirty watery motions, anxious expression of face, but not the bluish pinched face of cholera; the skin was cold and damp. There were two others in the house suffering from pain and vomiting only. On seeking for a cause I found all three had partaken of damson jam the evening before. On testing the jam I found copper in rather large quantity. Its presence was owing to defect in the tin plating of a copper preserving pan. The copper in this case is more easily acted upon than the ordinary copper pans.

I have drawn attention to these cases as a possible cause of diarrhœa, etc., liable to be overlooked.

Torquay. J. Bunting, M.R.C.S.

A CASE OF ACUTE ASCENDING PARALYSIS (LANDRY'S DISEASE).

The following notes on this rare disease may be of interest: H. A., aged 9, female, belonged to a "nervous" family, one child suffering from severe asthma, another from a peculiar impediment in the speech. She had always had good health.

Three weeks before her illness began she went to the seaside for a day, and spent some time "paddling" in the water. Since that time the mother thought the child had not been so well as usual, but nothing definite was noticed till July 13th, when the child was observed to walk badly. She did not complain of pain anywhere. The awkwardness in walking increased, and on July 18th the child "lost the use of her legs," and I was sent for.

I found the child unable to stand, with paralysis of the lower part of both legs. She was able to use the thigh muscles. There was no impairment of sensibility, no pain anywhere, no tenderness down the spine, and the temperature was normal.

The next day the paralysis had greatly increased, the legs were completely paralysed, the muscles were lax and showed no signs of contraction. The bowels were constipated. The sphincters were not affected. The muscles of the trunk rapidly became affected, and the child could not sit up in bed. The arms then became affected, the child was unable to hold anything in the hands, and the arms lay helpless at her side. On July 20th the child complained of great difficulty in swallowing; the breathing became shallower, and eventually almost entirely diaphragmatic. There was also increasing cyanosis.

On July 21st the temperature at 10 A.M. was 103° F., the pulse 120, and the patient continually asked in a weak voice to be propped up. At 9 P.M. the same day, the temperature had fallen to 101°; the child's voice had become stronger, and she was able to swallow without much difficulty. Power seemed to be returning in the hands and arms, which no longer lay helpless at her side, but could be moved voluntarily.

At 11 P.M. the child died suddenly from stoppage of the respiratory movements. No *post-mortem* examination could be made.

Leonard Cane, M.D., B.S.Lond.,
Senior Consulting Surgeon to Peterborough Infirmary.

DEATH UNDER ANÆSTHESIA.

Mrs. A., widow, aged about 50, who came to Canada only three weeks before, was admitted to the Guelph General Hospital on September 6th suffering from symptoms of acute intestinal obstruction. So far as could be learned from her history, there arose a strong suspicion that there had been partial obstruction for several months. The morning following her admission, her condition being critical, it was decided, after consultation with Dr. Howitt, to examine her under anæsthesia and to operate if found practicable.

A mixture of chloroform 1 part and ether 3 parts was dropped carefully on a towel over the face. During the administration some struggling occurred, but this soon passed off, and a fair degree of anæsthesia was induced. The respiration seemed quite satisfactory. After some minutes had been occupied in making examination externally and by the rectum, it was agreed that a small exploratory incision should be made. On attempting to make the incision it was found that she was partially conscious, and consequently a few drops more of the mixture were given. Suddenly respiration ceased. The pulse up to that moment was regular with fair volume. On elevating the foot of the operating table a large quantity of dark grumous fluid was ejected from the stomach. Artificial respiration was persevered with for half an hour. Brandy was administered hypodermically and all the usual efforts made to re-establish respiration. Two or three gasps at long intervals occurred, and the patient was dead.

The *post-mortem* examination disclosed a malignant growth in the sigmoid flexure of the colon as the cause of the obstruction, the lumen of the bowel being almost completely closed.

In reference to this case I deeply regret that we neglected to wash out the stomach before the anæsthetic was administered. It is true there was no food in the stomach, for none had been given for six or eight hours, and only milk in small quantities for some days. Yet I am satisfied in all cases of great tympanitic distension of the abdomen it is a wise precaution to use the stomach tube, with a view to diminish pressure from below upon the diaphragm from gas and fluids in the distended stomach.

I may say that this was the first death under anæsthesia in the fifteen years since the opening of the hospital.

Guelph, Canada. Angus Mackinnon.

ACUTE INVERSION OF THE UTERUS: *POST-PARTUM* HÆMORRHAGE: RECOVERY.

Mrs. H., about half an hour previously to my arrival, had been delivered of a living male child born at full term. A woman who had been present during the confinement stated the midwife in attendance pulled on the cord after the birth of the child for a considerable time, using great force, when

something appeared to give way, the patient immediately vomiting, and bleeding profusely from the womb.

On vaginal examination a large globular mass, to which the placenta was attached, could be felt easily, while the hand placed on the abdomen failed to detect the contracted uterus. Evidently the globular mass, which with the placenta filled up the interior of the vagina, was the inverted uterine fundus. The hæmorrhage was alarming, and the patient showed every symptom of profound collapse—a feeble, rapid pulse, nausea and vomiting, fainting, the skin was of a ghastly hue, cold and clammy to the touch. Severe abdominal pains of a dragging nature were complained of.

I immediately administered stimulants, and having taken proper antiseptic precautions, proceeded to remove the placenta, which I found to be very adherent to the fundus. With some difficulty I managed to separate it, but in spite of great care it was considerably torn on removal. The inverted uterus had now to be reduced. I first emptied the vessels by compressing with the hand in the manner recommended by Dr. Lloyd Roberts, and then applied pressure with the closed fist in the axis of the pelvis, directing the pressure rather towards one side to avoid the promontory of the sacrum, at the same time making counterpressure with the left hand on the abdominal walls. Having reinverted the uterus, I kept my right hand inside for some time, and grasped the fundus through the abdominal walls with my left in order to excite tonic contractions.

Hæmorrhage ceased. Fainting and vomiting still continued, but, by placing the feet and legs in an elevated position, these symptoms were greatly relieved. The parts were well cleansed with a solution of permanganate of potassium, and stimulants freely administered. The patient made an uninterrupted recovery, and at the end of three weeks was sufficiently well to leave her bed. The woman was aged 27. She had had four previous confinements and two miscarriages, the first between the birth of the third and the fourth children, and the last between the fourth and the present confinement. On both occasions she miscarried at the third month of pregnancy. In all her previous confinements she had been attended by medical men. When the fourth child was born the placenta was adherent, and there was some difficulty in removing it, otherwise the labours presented no complications.

Acute inversion of the uterus is a very rare occurrence. Ninety per cent. of cases occur in connection with labour, yet only 1 case is reported to have occurred out of 190,000 deliveries at the Rotunda Hospital. It was at one time thought that acute inversion was always due to traction on the cord, but we now know that this is not true, and that cases occur where the management of the third stage of labour has been properly conducted. To explain these cases we can only suppose that a portion of the fundus from some cause or another loses its tonicity and becomes invaginated, possibly assisted by intra-abdominal pressure. The uterus grasps this invaginated portion as if it were a foreign body, and is stimulated to contract; in this way the inversion is increased. On the other hand, Dr. Taylor, of New York, maintains that spontaneous active inversion of the uterus rests upon prolonged natural and energetic action of the body and fundus; the cervix, the lower part, yielding first, is thus rolled out, or everted.

It is difficult to understand how such a process as this can be very rapid. There can be no doubt in this case that traction on the cord, the placenta being adherent, started the inversion. It may be that the uterus was actually pulled inside out, or that a portion of the fundus became invaginated, and the rest of the uterus by its contractions caused the depression to become deeper and deeper, until finally the inverted portion formed a complete inversion. The cause of the adherent placenta could not be made out. There was no definite history of syphilis.

London. ALEXANDER MITCHELL, M.D.

OCCURRENCE OF A LIPOMA IN A YOUNG CHILD.

IN April of this year, whilst attending Miss M., I was asked to examine the two-year-old daughter of Mrs. B., Miss M.'s sister. The child was essentially rickety, and for this condition I prescribed; but from the mother's point of view the matter which required clearing up was the presence of a large swelling on the child's back. The tumour, which had been gradually increasing in size for upwards of a year, and had latterly taken on rapid growth, was situated a little below the angle of the left scapula, almost in the median line; in fact, slightly overlapping the spine, about the size and shape of half a cocoanut, not definitely circumscribed, soft, and semi-fluctuating. Puncture with a moderate sized aspirating needle gave no result. Operative interference was decided upon and the tumour was removed under chloroform—its removal requiring rather an elaborate dissection from the absolute deficiency of any definite boundary. The large hole left after the operation looked alarming, but healed very kindly in the course of a few days under boric acid dressings. The tumour proved to be a lipoma. I am under the impression that the occurrence of a lipoma in so very young a child is sufficiently rare to merit a report of the case.

Crewe. ALFRED ELLIS VAUGHAN, L.R.C.P.E., L.R.C.S.E.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ST. BARTHOLOMEW'S HOSPITAL, ROCHESTER.

A CASE OF BURNS FROM ELECTRICITY.

(Under the care of Mr. NANKIVELL.)

R. R., aged 24, an electric light linesman, was brought to the hospital on March 4th, 1892, suffering from severe burns produced by handling a wire carrying a high potential current. He stated that he was attending to a transformer which was not working satisfactorily. This was done in a damp cellar, and through a badly-insulated overhead conductor on the roof of the same house there was a considerable leak to earth. In trying the primary wires for loose connections without any glove on his left hand, he got a slight shock, although he was standing on a board. This was probably due to surface leakage from the wire which had been for some time in the damp cellar. In the excitement of receiving this shock, he incautiously put his left foot forward off the board on to the damp earth, and he then received through his body the full pressure of 2,400 volts, the force of which appeared to expend itself chiefly on his left hand, which held the wire. He was rendered insensible, and it is stated by some bystanders that his legs were completely drawn up to his trunk, so that all his weight came on to the wire, which then broke. In this way he was released.

On admission, he was found to be suffering from considerable nervous excitement, but was quite sensible, and gave a correct account of the accident.

His left thumb and forefinger were completely black and charred. The eschar extended on the dorsum of the hand to the end of the ulna. On the palmar surface the burn reached to the ball of the thumb and to the metacarpal joint of the forefinger. All these parts were actually burnt to the bones, and were absolutely insensible to touch. He complained of intense pain in the wrist and parts of the hand which had escaped the effects of the shock. On removal to bed, it was discovered that four toes of the left foot were burnt on the plantar surface, each eschar being about the size of a three-penny piece. Ung. boracis and cotton wool were applied to the hand and foot, and he was ordered a dose of opium. On examining the patient's boot, it was found to be without any mark whatsoever.

March 5th. He had a restless night, and complains of great pain in the arm and hand. Ordered to be kept under the influence of opium.

March 10th. There is considerable pain and swelling of the arm as far as the elbow, and the eschars on the hand do not show much tendency to separate. Ordered the warm boracic arm bath and charcoal poultices.

April 1st. The sloughs on the palm and back of the hand have separated, leaving behind them healthy granulating ulcers. The phalanges of the thumb and forefinger are bare of the soft parts, but the ligaments of the metacarpo-pha-

langeal joints do not seem inclined to give way. As the patient complained that these parts caused him much pain, ether was administered, and they were amputated. It was found necessary also to remove the head of the first metacarpal bone, as it projected some considerable way beyond the soft parts. The wounds on the toes now gradually healed, and a few days after the amputation of the fingers the patient was allowed to get up. He eventually left the hospital on May 11th, the ulcers on the hand having not completely cicatrised. They, however, did so in the course of a few weeks.

Remarks by Dr. Lewis Jones.—This case is of great interest because it shows that the human body may for a short time be the conductor of an electrical current large enough to produce intense heating effects, and that the individual may yet escape with life.[1]

Burns are not uncommonly met with in men working on electric light circuits, but usually they are produced in an indirect manner as a result of the sudden heating of some tool or instrument held in the workman's hand. If any tool which is being used in the neighbourhood of a pair of electric light wires should happen to form a bridge across them, the short circuit so produced quickly raises the tool to an intense heat, and may burn the workman severely before he has time to drop it from his hand. In such burns as these, however, the current does not pass through any part of the body of the workman. In the case here reported it is clear that the current must have passed from the line wire to the patient's hand, and from there through his body to the ground. The heating of the tissues was the direct result of the passage of the current, and was shown mainly at the points of greatest resistance, namely, at the skin of the hand and foot. There is little doubt that the patient would have been killed if the muscular contraction of his body had not raised his feet off the ground, and so broken the circuit almost immediately.

We do not know what is the least current capable of producing sufficient heat to char and destroy living tissues, and there are several unknown factors which make it difficult to estimate the current in circuit in this particular case. As the circuit between the line wire and the ground included the man's body, his boots, and the damp gutta-percha of the insulation of the wire, we may suppose that it may have been as high as 2,400 ohms, and perhaps even more. The current then can hardly have been greater than one ampère. This is quite enough to produce a good deal of heat in a conductor of high resistance. In the electrolysis of nævi with needles and a current of 0.1 ampère (100 milliampères), the skin round the needles soon becomes very considerably heated. We are also unable to say what is the smallest current that can kill. There is a general impression that 1 ampère is somewhat near to a fatal current strength, but so much depends after all upon the region of the body which is traversed by the current, and upon its concentration (the density of current) in a vital part, that a current of 1 ampère might prove more than enough to kill in one case, and in another might merely produce severe local burns. It is probable that in this case the burns were not produced by a small arc at the points of entry and exit, but that they were due to the rapid rise of temperature from the heating effects of a current concentrated at a small surface of contact, where the fingers touched the wire, and traversing a conductor of very considerable resistance, namely, the skin.

[1] Compare the case related (British Medical Journal, 1885, i, p. 531) by Sheild and Delépine, of a man killed by an electric current, and showing no local injury except a small blister upon one finger.

The right of conferring the degree of Doctor which was, as recently announced in the British Medical Journal, taken away from the University of Havana by the Spanish Government, has now been restored to it in deference to the strong protests of the teaching body and the students, notably those belonging to the Medical Faculty.

Dr. N. Grattan, F.R.C.S.Edin., of Cork, has been elected a corresponding member of the Orthopedic Section of the New York Academy of Medicine. On September 28th Dr. Grattan gave the opening lecture and demonstrated his method of operating at the clinic of Dr. Sayre, Belle Vue Hospital and Medical College.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Friday, October 14th, 1892.

Sir Dyce Duckworth, M.D., LL.D., F.R.C.P., President, in the Chair.

Intestinal Obstruction: Aortic Thrombus.—Mr. W. H. Brown (Leeds) read notes of this case. The patient was a man, aged 58, previously healthy, who was seized with sudden pain; the usual symptoms of obstruction followed, but were never severe, and entirely subsided before death, which took place seven days later, the cause of death being gangrene of both lower limbs. *Post-mortem* examination showed a band enclosing 5 feet of small intestine in a gangrenous condition, together with a clot (thrombus) in the abdominal aorta plugging the vessel from just above the bifurcation to the termination of the iliac vessels.

The President thought the thrombosis was a coincidence. The aorta was much diseased. The exact relation of the great omentum to the gangrenous intestine was a matter of importance.

In reply to Dr. Glover, Mr. Brown stated that the patient enjoyed good health up to the time of that attack. The superior and inferior mesenteric arteries were laid open for about 2 inches at the necropsy, and nothing especial was found in them. The omental adhesion acted as a band, and constricted the intestine, though it was not attached to the aorta.

Nævus of the Peritoneum.—Mr. Arbuthnot Lane read a report of the case of a boy, aged 7, who was said to have had a tumour in the right side of the abdomen at birth, which increased rapidly with the growth of the child, till it assumed a considerable size. It fluctuated in parts, was apparently situated beneath the abdominal muscles, and was not free in the abdominal cavity. The skin covering it was normal. The bulk could not be affected by pressure, nor could it be displaced from its position in the right side of the abdomen. Mr. Lane cut down on the tumour, which proved to be nævoid, containing large cysts filled with fluid blood. It extended backwards over the peritoneum, to which it was inseparably connected, and from which it apparently grew over the surface of the kidney and beneath the diaphragm over the liver, and in front to the middle line, at which limits it terminated gradually by becoming thin. It was thickest about the centre. It infiltrated somewhat the abdominal muscles which covered it. The peritoneal cavity was opened, when its inner aspect was seen to be livid, and to present rounded masses, some of which were partly pedunculated. All of the growth which could be got at was removed, only a thin layer being left on the outer surface of the peritoneum. The child became entirely collapsed from the considerable loss of blood consequent upon this part of the operation, its pulse becoming extremely feeble and about 170 a minute. This collapse was at once removed by the introduction into the circulation of a pint and a quarter of normal saline solution. The lad recovered without a bad symptom, and now presented no sign of any recurrence of the tumour.

Mr. Bland Sutton inquired if the tumour was really a nævus or a lipoma that was exceedingly vascular.

Mr. F. Eve described a somewhat similar case at the London Hospital. A girl, aged 16, had a painful tumour that involved much of the outer side of the thigh. It was supposed to be a tuberculous abscess, occupying the *cul-de-sac* of the synovial membrane of the knee-joint. Upon its being incised, there was a great gush of blood. The tumour was then found to be composed of large cysts containing blood and nævoid tissue. It extended into the muscles and into the knee-joint, involving the deeper membrane of the *cul-de-sac*. It bled so profusely that the knee-joint had to be opened, and the tumour entirely removed. It extended as high upwards as to the junction of the middle and upper thirds of the thigh. The patient recovered perfectly. He considered the tumour to be an ordinary nævus as to its structure, though it had not yet been minutely examined.

Mr. Barker asked if there was any evidence of any lymphatic structure in the growth, glandular or vascular. In a case of tumour of the thigh, which he had formerly described

in the Pathological Society's *Transactions*, the lymphatics were as much involved as the veins.

Mr. GOULD inquired how much of the peritoneum was removed.

Mr. LANE, in reply, said that the tumour was a nævus; and that it contained no sign of lymphatic structure. The operation involved the loss of much blood. The cysts projected into the abdominal cavity, and he had removed them from off the outer surface of the peritoneum without taking away any of that membrane itself.

Traumatic Aneurysm.—Mr. CLUTTON described this case. A boy, on April 29th, had been presented with a pocket knife, and on cutting some cake ran it into his abdomen. Mr. Pitts found a small punctured wound an inch and a half wide above the centre of Poupart's ligament. There was very little external bleeding, but a rounded deep-seated swelling could be felt beneath the wound. The next day emphysematous crackling could be detected for about 8 inches around the wound, but no increase of the deeper swelling. On May 4th the swelling was first felt to pulsate, and at the same time a *bruit* was heard extending from this spot down to the femoral artery. At the consultation with Drs. Pitt and Holland, of Chelmsford, on May 24th, it was agreed that there was an aneurysm of the external iliac artery above the origin of the epigastric. As there were no urgent symptoms it was thought best to wait for a few weeks, in the hope of improving the collateral circulation. On June 15th the aneurysm was exposed, and a kangaroo tendon applied to the external iliac artery immediately above the aneurysm. A similar ligature was also applied to the external iliac artery below the aneurysm, which was thus completely cut off from the circulation. The wound healed rapidly, and the case made an uninterrupted recovery. There was no return of pulsation, no sign of gangrene, and the boy was now perfectly well. A small hard lump could be felt in the position of the original aneurysm, and the pulsation of the femoral artery below Poupart's ligament was not so distinct as on the opposite side of the body.

In reply to Mr. W. H. BROWN, Mr. CLUTTON described minutely the reasons for choosing this operation.

Œsophagotomy.—Mr. FREDERIC EVE communicated a case of cicatricial stricture of the œsophagus. A girl, aged 17, came under his care in July, 1889, for stricture of the œsophagus resulting from the swallowing of some nitric acid twenty months previously. During this period she had been repeatedly treated by passage of bougies with constant recurrence of stricture. This was low down in the neck and admitted a No 11 bougie. A No. 7 Symonds's tube was passed and left in. On July 29th this was replaced by a No. 11, quite new. On July 31st the house-surgeon, in attempting to remove the tube, pulled away the thread attached to it, leaving the tube impacted in the stricture. A prolonged and unsuccessful attempt to seize the tube with forceps having been made the same afternoon, œsophagotomy was performed on the left side on August 3rd. The operation was performed as low as possible, but after incising the œsophagus it had to be drawn up with forceps before the tube could be reached and extracted. By still further drawing up the œsophagus, the narrowed part was completely divided with scissors. The wound in the gullet was closed with sutures, but the internal wound was left open. The patient made a good recovery. After November 16th, 1889, she was not seen again till November, 1891, more than two years after the operation. She had been quite well in the interval, and had no difficulty in swallowing. A No. 18 bougie passed rapidly, encountering no obstruction. The stricture was an exceedingly obstinate and resilient one before the operation, which had effected a permanent cure. The operation might be compared to external urethrotomy for stricture, but the tendency to recontraction appeared to be less in the case of the œsophagus than of the urethra. The mobility of the œsophagus in the direction of its long axis was great. This allowed of division of strictures very low in the neck, even impinging on the upper part of the thorax. In cases of stricture of the œsophagus in the neck in which gastrostomy would otherwise be indicated, œsophagotomy fulfilled the same purpose, admitted of complete cure by division of the stricture, and was less fatal. Œsophagotomy might also be sometimes indicated in less severe cases of resilient stricture which had resisted other methods of treatment.

Mr. CLUTTON thought œsophagotomy added greatly to the risk of the patient. In Mr. Eve's case instruments had been passed, whereas in his own case (a child aged 4, previously reported) he could get nothing through the stricture. He did gastrostomy after a few days, and then overcame the stricture.

Mr. MAKINS related the case of a boy under Sir W. Mac Cormac's care. An instrument, resembling a Holt's urethral dilator, was made and passed through the stricture to the stomach, and then, with this as a guide, dilators were passed and the stricture dilated. The result was most beneficial, and as far as he knew there was no subsequent contraction. This was a much less severe operation than that of opening the œsophagus from the outside.

Mr. EVE, in reply, said that Mr. Clutton's case was hardly a parallel one with that described by himself. In Mr. Clutton's case the stricture was in the thorax; in Mr. Eve's it was in the neck. The operation at the lower part of the neck would often be speculative. His was the only case he could find in which a stricture of the œsophagus had been divided and thereby cured.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, OCTOBER 18TH, 1892.

Sir GEORGE MURRAY HUMPHRY, M.D., F.R.S., President, in the Chair.

THE PRESIDENT drew attention to the objects of the Society, as stated in the first by-law, pointing out that the scope of the work proposed was not only morbid anatomy but the etiology and nature of disease.

The Effects of Fresh Thyroid Juice in Myxœdema.—Mr. HURRY FENWICK showed two female patients, and mentioned the case of a third, who had been suffering from myxœdema, and who had been treated by the injections of fresh thyroid juice. The patients exhibited had improved, and the injections were followed by a gradual increase in the daily average of urine passed. Usually there was a large increase in the urine the day following the injection; but the amount then fell, mounting again to a slightly higher level. There was often a remarkable increase of urine on excitement, such as the visiting of friends, and also during the period of menstruation, and these variations introduced fallacies into the investigation as to how far the injection acted as a diuretic. Control injections of water were without result. The thyroid juice rarely influenced healthy patients as regards the amount of urine passed. Rectal injections appeared toxic. Mr. Fenwick, after reviewing the details of the cases, was inclined to believe that the thyroid juice had feeble diuretic action, that the *rationale* of its renal action in myxœdema was the change it produced in the blood, which permitted of an easier transudation or secretion of urine from it by the kidneys. He founded the latter supposition on the very marked improvement which the injections made in the growth of the hair, the secretion of sweat, and the catamenial period. The tables of daily urine seemed to favour Mr. Fenwick's belief that congestion of the kidney arose in congestion of the pelvic viscera, such as obtained in menstruation, coition, etc. No abscess or elevation of temperature was noticed in any case.

Dr. HADDEN cited the effects on two patients under his treatment of the subcutaneous injection of thyroid juice. No changes in the secretion of the urine occurred. With regard to the excess of mucin in the tissues in myxœdema generally, he noticed that it was by no means constant, and could hardly be considered an essential part of the disease.

Dr. RUFFER observed that he had seen two cases in Paris in which myxœdema was apparently cured by similar treatment. No change in the quantity of the urine took place as a result of the injections, but in each case there was intense headache, lasting some days after each injection.

Dr. A. MORISON spoke of having seen beneficial effects arise from persistent massage, which led to increased discharge of urine.

Specimens of Fat Necrosis Associated with Disease of the Pancreas.—Dr. ROLLESTON showed specimens of fat necroses in the fat of the mesentery, great omentum, and in the appendices epiploicæ. The areas of necrosed fat were of an opaque white colour, in size they varied from a pin's head to half a split pea, in shape they were round or oval. They were not raised

above the surface and were not surrounded by an area of congestion. The contents of these opaque spots gave the reactions of fat. Microscopically the areas were composed of fat cells distended with granular material which was in places crystalline; the nuclei of the cells did not stain; these areas were immediately surrounded by normal fat cells, some of these areas of fat necrosis showed some small cell proliferation at their margin but usually on one side only and near a small vessel. The specimens were taken from two cases under Dr. Cavafy's care in St. George's Hospital. The first case was chronic, the second very acute. Case 1: A woman, aged 50, received a blow on the abdomen, which was followed at once by pain and the next day by severe vomiting, inaction of the bowels, and collapse simulating intestinal obstruction. The vomiting continued and slight diarrhœa came on. An abscess developed in the right hypochondrium 2½ weeks before death, which took place 80 days after the injury. *Post mortem.*—An abscess on the head of the pancreas and fat necrosis in the subperitoneal cavity. The liver was in a condition of fatty infiltration, but there was no necrosis of the fat globules. Case 2: Man aged 30 years. One year and a-half previously a cart passed over his abdomen. Several attacks of abdominal pain since; after dinner sudden abdominal pain, vomiting and constipation, with collapse. Laparotomy; death thirty-six hours afterwards. *Post mortem.*—Hæmorrhage around the pancreas; the source of the hæmorrhage was not manifest. Disseminated fat necrosis in the abdomen. There was no evidence of pancreatitis. In neither case was there any fat necrosis in the fat of the thighs or abdominal wall. Dr. Rolleston said there were two theories: 1. That the fat necrosis was a primary change in the fat of the fat cells, which set up a surrounding inflammation, which, becoming confluent around the pancreas, produced changes and often alternately necrosis of that organ (Langerhaus). 2. That pancreatitis, hæmorrhagic, suppurative, or gangrenous, and pancreatic hæmorrhage was the primary lesion, which by extension produced fat necrosis (Fitz). He said that neither of these hypotheses was very satisfactory, and he thought that the occurrence of fat necrosis might be explained as a trophic lesion, the result of the morbid process spreading from the pancreas to the solar plexus. This view was supported by the clinical symptoms being those of vomiting, collapse, and constipation, great disturbance of the sympathetic, and the distribution of the fat necrosis would fit in with this view.

Professor Adami could confirm Dr. Rolleston's statement that the condition met with was not necessarily associated with inflammation. He thought that the change had been progressing before the pancreatic condition arose, and that the cause of it was something behind the pancreas. A neurotrophic explanation was probably nearer the truth than the action of some ferment of the pancreas.

Dr. Hale White inquired if intestinal obstruction was present in either of the cases reported.

Dr. Rolleston said that this was not so.

Congenital Cystic Tumours of the Scrotum.—Mr. Edgar Willett showed two such tumours, which were dissected out from the scrotum. He thought their pathology must be the same as that of those they met with in the neck, and found also in the gluteal region and thigh. A French author had supposed such tumours in the scrotum to arise from a residue or inclusion of the Wolffian body.

Mr. Targett referred to a specimen in the museum of the Royal College of Surgeons, shown by Mr. Eve, who supposed the growth to have arisen in the organ of Giraldès. He thought such cystic tumours to be remains of hæmoid formations, as some of the spaces contained blood.

Mr. Bowlby had seen such cystic tumours in the scrotum and in the canal of Nuck. He did not adopt the view that such tumours arose in nævi; the cysts contained clear fluid only.

Dr. Norman Dalton, on staining cystic tumours of the neck with nitrate of silver, had been able to observe an epithelial lining to the cysts.

Cirrhosis of Liver from Valvular Disease of the Heart.—Dr. Percy Kidd showed the liver, kidneys, and pancreas from a boy who had for some years suffered from stenosis of all the cardiac orifices. All these organs were markedly cirrhotic. There was no history of alcoholism in the case. The lungs were collapsed from pleuritic effusion, and indurated.

Fibrous Plaque from Penis.—Mr. Edgar Willett showed a fibrous thickening removed from the dorsum of the penis in an old man; it was connected with the sheath, and was removed by Mr. Butlin.

Mr. Shattock showed, for Mr. Sydney Jones, a very similar specimen. It consisted of part of the fibrous investment of the corpus cavernosum, with portion of the subjacent cavernous tissue. The former was thicker than natural, the cavernous tissue much condensed by thickening of the trabeculæ, but these were of normal structure, and contained an abundance of unstriped muscular tissue. There was a small plate of gritty material in the sheath; on chemical analysis by Professor Dunstan, of St. Thomas's, it was found to be phosphate of lime and magnesia; no trace of uric acid was present, thus precluding a gouty etiology of the lesion.

Specimens Illustrating the Parasites found in Malignant Disease.—Dr. Hebb showed sections of the tissue from a case of subperitoneal fibrosis. There were large collections of giant cells present, and in these were the spheroidal bodies, many with double contour, such as had been described in carcinomata. They stained differently from the cell nuclei, and though they stained readily by Dr. Russell's method, they could be stained in many other ways.

Card Specimens.—Dr. Percy Kidd: (1) Embolic Aneurysm of the Pulmonary Artery; (2) Perforating Ulcer of the Duodenum, Fatal Intrapleural Hæmorrhage in Pneumonia.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Thursday, October 13th, 1892.

Simeon Snell, F.R.C.S.Ed., President, in the Chair.

President's Address.—The opening address of the session was delivered by the President, Mr. Snell, who alluded at the outset to the establishment of the *Sheffield Medical Journal*. He thought it an important event, not only locally, for he was pleased to say that the project had received such support, not only in the adjoining districts, but in a very much more extended area, as to make the conductors feel confident as to the future of the *Journal*. Not only would the proceedings of this Society find a place in its pages, but the same might be said of the societies of neighbouring towns. The President then proceeded to consider some of the lessons which he thought could be drawn from a glimpse at the life and work of the late Sir W. Bowman. It was his habit of exact observation that placed him early in his career among the leading histologists of the century. Reference was made to his influence on ophthalmic surgery, which had been more the result of his oral teaching than as a writer; the distinct personality of the man, his dexterity as an operator, the charm of his manner were all alluded to, but it was on his qualities as an accurate and close observer that his enduring reputation rested. This was the lesson he (the speaker) wished to enforce. The faculty of observation existed in most in a varying degree; it throve by cultivation. He alluded to Mr. Bland Sutton's definition of the habit of not seeing as intellectual blindness, and proceeded to show how the exercise of observation had led to the recognition of diseases which had passed unnoticed before our fathers, and had also been the means of differentiating between affections in which those before us had failed to detect features separating them from others from which we now knew they differed very greatly. The method of Zadig, as mentioned by Dr. Lauder Brunton, was here alluded to. From this he passed on to speak of an aspect in the work of our societies, which he thought was worth following out. He meant the after-histories of cases. The time at which a case was recorded might or might not be the most interesting or most important. He believed the Ophthalmological Society was undertaking some such work. A study of the records of the Society had shown him that he had records of the after histories of many of the cases he had at different times either related or shown before the Society. Some of these he proceeded to deal with. In 1884 he had shown a girl, aged 8, with recurrent third nerve palsy associated with migraine. He had followed the case up, and at the present time the attacks of migraine persisted and were still accompanied by the ocular palsy. At the time this case was recorded[1] there were he believed only two other cases published; since then others had been recorded, but they were still few in number.

[1] *Trans. Ophth. Society*, vol. v, p. 193.

He had had two other cases. Allusion was made to cases of Graves's disease.[2] One a young woman shown before the Society in 1884, as a monocular case, had since developed into a well marked ordinary case of the disorder. Another, a woman, aged 45, was introduced in 1886; Stellwag's and Graefe's signs were present on the right side; no exophthalmos but some enlargement of thyroid gland. The patient was recently seen, and all the symptoms had passed away. She was in excellent health. The presumption that the other symptoms of Graves's disease would develop had not been realised in this case. The tendency of clinical observation to discount the value of Graefe's sign as a symptom of this affection was discussed, and reference was made to cases from Mr. Snell's own experience as to its less importance than had been supposed. Dr. Sharkey's investigations were mentioned. Another case related was one of sarcoma of the eyeball possessing peculiarities. It had come on after sclerotomy for glaucoma after a long interval, and whilst the interior of the eyeball could be illuminated there had been no growth detected. The case was recorded in the *Transactions of the Ophthalmological Society*, vol. viii, p. 87. Subsequently, through the kindness of friends, Mr. Snell obtained records of the patient's death resulting from multiple sarcoma. Reference was then made to a series of cases of extragenital syphilis. A group of inoculations[3] caused by a suckling infant were detailed. These had up to a certain point been put on record. Mr. Snell now gave further particulars. The child who had been the cause of the inoculations had been under his care for diffuse corneitis, and he added details as to the after-histories of the other persons concerned. Another case mentioned was one of chancre[4] of the canthus (inner) shown to the Society in 1882. The later details of the case were related. Here also the child that caused the inoculation had been under Mr. Snell's treatment for specific corneitis, and she had suffered from deafness and other evidences of taint. Other cases were alluded to, all or most having been related or introduced before the Society. They included a case in which a patient sought advice for iritis, with her daughter also affected in the same way. The daughter's child had caused a chancre on the breast; other cases of chancre on the canthus, the eyelid and conjunctiva were mentioned, An interesting case of inoculation by the throat was mentioned. The man had been a glass-blower, and had been infected with several others by handing the tube to be blown through from one to the other. Remarks were made as to the lessons to be learnt from these cases. The possibility of ulcers in different parts being syphilitic chancres should be borne in mind. The cases mentioned had come under notice in the ordinary course in an ophthalmic practice; the general surgeon had the opportunity of gaining a far larger experience from a much wider class. After referring to published statistics as to the frequency of non-venereal syphilis, the President concluded by saying that he hoped he had done something to show that the after-histories of cases was one not devoid of interest, and one closely associated with the idea with which he started, namely, that for our work to be of permanent value it must be founded on close and accurate observation.

[2] *Lancet*, 1887, vol. i, p. 818.
[3] *Lancet*, 1882, vol. i, p. 522.
[4] *Trans. Ophth. Society*, vol. iii, p. 4.

THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—The French Association for the Advancement of Science held its twenty-first Congress at Pau under the presidency of M. E. Collignon. The most important paper read in the Medicine Section was one in which M. Bouchard described the treatment of Myxœdema by Injection of Thyroid Juice, which he had adopted in two cases. Among the other papers read were one by M. Chalot, of Toulouse, on the Treatment of Essential Epilepsy by Ligature of both Vertebral Arteries and Incomplete Ligature of both Common Carotids; one on the Etiology of Aortic Aneurysms, by M. Gils, of Pau; one on the Intensive Treatment of Pulmonary Phthisis by Carbonate of Guaiacol and Carbonate of Creasote, by M. Chaumier, of Toulouse; one on the Value of Conservative Operations and Typical Resection of the Knee-Joint, by Professor Ollier, of Lyons, etc.

REVIEWS.

A HANDBOOK OF HYGIENE AND SANITARY SCIENCE. By GEORGE WILSON, M.A., M.D., F.R.S.Edin., D.P.H.Camb. Seventh Edition. London: J. and A. Churchill. 1892.

As a rule a standard work which has reached a seventh edition should afford an easy task for the reviewer, but the case is somewhat altered when the author states in his preface that, besides the introduction of much new matter, almost all has been rewritten and brought up to date.

Dr. WILSON states frankly that he has availed himself freely of the works of other recent writers, named and unnamed. This accounts for the familiar ring of several passages in the newer portions of the book, not distinguished by quotation marks or references. The changes have made the new edition rather more portly than of old, but the general plan remains as before, and so do the clear type and the plain straightforward style which have done so much to add to the popularity of the work.

The strongest part of the book is undoubtedly that which is concerned with the practical side of the work of the medical officer of health. In these subjects Dr. Wilson is a past master, and his treatment of them, though brief, leaves little to be desired. After an interesting introduction comes an excellent chapter on Food, followed by three upon Air and Ventilation. A new chapter on Meteorology contains a strange error (pp. 185-6), which ought not to have escaped the proof reader. Speaking of isobars and gradients it is stated that "if the isobars run close together it shows that the gradient is high, and therefore the winds will be strong; if they are wide apart the gradient is low, and the winds will be light. *The former represents what are called cyclones or depressions, the latter anticyclones.*" If this were given as an answer to an examination question the consequences might be serious. Sunshine recorders are not mentioned among meteorological instruments.

The next three chapters treat of Water pretty fully, and the only omission that calls for note is that the discussion of the causes and treatment of the plumbo-solvent properties of certain waters is scarcely brought up to date. Dr. Wilson, like many other authorities on water analysis, is dissatisfied with Clark's soap test, and considers it of little use when the solid residue has been determined. Drainage and sewerage are clearly explained in Chapter x, and sewage disposal and purification in the next chapter, but needless obscurity is caused by an unsuccessful attempt to classify the several precipitation processes at page 348. For example, the third of the eight headings is "Salts of Iron," under which is described only "the process carried out by the Sewage Purification Company." If by this is meant the International Sewage Purification Company's process worked at Acton and elsewhere, the same method is again described in other words under the seventh heading, without any hint being given of the identity of the two. It is hardly correct to define "amines" as "ammonia compounds" (page 349). "Compound ammonias" would be nearer the mark.

Three good but short chapters on Soil, Dwellings, and Hospitals, bring us to a long and important section upon Communicable Diseases, one of the most interesting of all. Here again exception must be taken to one or two statements. Dr. Wilson says of measles (p. 452), that "the average proportion of deaths to attacks in this country is from 10 to 12 per cent." This is greatly in excess of the usual case mortality, and the estimate might be halved with advantage. Again, two pages later, we are told that 40 per cent. of attacks of scarlet fever occur between the ages of 10 and 15 years—an obvious error. Nor is it strictly accurate to say that "the mortality [from diphtheria] is greater among females than among males *at all ages*" (p. 458). The Registrar-General's reports show that in early childhood, and also after middle life, the balance turns slightly the other way. The omission of the three words which we have italicised would obviate the error. "Disinfection and Prevention" are treated of in the 16th Chapter, in a very practical way, and here Dr. Wilson has had the great advantage of the assistance of Dr. Franklin Parsons. We are, however, unable to accept the statement (p. 529) that the combustion of 1 lb. of sulphur in 1,000 cubic feet of air will

yield 11.7 per cent. of sulphurous acid, or anything like it. The question of burial *versus* cremation is summed up in favour of Mr. Seymour Haden's views, and Dr. Wilson appears to doubt the possibility of infection of soil. The chapter on Vital Statistics has been considerably reinforced. For the most part the points are clearly put, but it is occasionally difficult to catch the author's meaning; as for instance in the following sentence (p. 581): "When the population is not stationary, or in other words is increasing by excess of births over deaths, by immigration, or by both these causes, the mean duration of life has the same signification as the mean after-lifetime."

Surely there is some confusion of ideas here upon a point which many students find sufficiently complicated at best. The mean after-lifetime (or expectation of life) can be calculated for any age—and, indeed, in the next paragraph Dr. Wilson seems to limit the use of the term to ages after birth. But in every population, stationary or otherwise, the mean duration of life is synonymous with the mean after-lifetime from birth, and never with that from any other age. It would have been well, too, to explain clearly at this stage that the calculation of any of these data for a non-stationary population involves the use of a life table or of one of the approximate formulæ given later on.

The "probable duration of life" is, as the author rightly states, a test of small value; but it is a little misleading to quote examples in the present tense without any warning that they are based upon an old life table. Dr. Ogle's 1871-80 life table gives different results, as was to be expected.

The last chapter contains a brief but serviceable account of sanitary law, and a summary of the duties of medical officers of health and sanitary inspectors. It is stated without comment (p. 672) that the Notification Act of 1889 "is compulsory in London," but the real position of matters is made clear at page 683.

There seem to be few typographical errors, and the chief of them are corrected in a table of errata; but there remain two or three perversions of familiar names, such as "Airey," "Carnelly," "Miguel," and "Welspach."

Traité de Gynécologie Clinique et Opératoire. Par S. Pozzi, Professeur agrégé à la Faculté de Médecine, etc. (A Textbook of Clinical and Operative Gynæcology). Second Edition. Paris: Masson. 1892.

M. Pozzi's *Traité* is one of the most complete current works on gynæcology. In the introduction to this edition the author states that it contains numerous corrections, revisions, and additions. The first edition was big; the new issue only contains twenty-eight more pages, and the increase of bulk is mainly due to sixteen new plates. No reader will grudge space taken up by drawings and diagrams. Statistical tables have of necessity been revised, and a mass of new references added. At first sight the reader may groan at the multiplicity of papers which have appeared since 1890, when the first edition of the *Traité* was published; but the genuine worker knows that full references are an essential part of a textbook.

The author writes in a liberal spirit, fully recognising the value of work done beyond the coast and frontiers of the French Republic. Still, the *Traité* is French, and the readers of the first edition will be glad to learn M. Pozzi's opinions concerning Péan's and Segond's manner of treating pelvic suppuration. The author notes, in his introduction, that he has given his opinion on this grave question. Accordingly, we find that the chapter on "Péri-métrosalpingite" is five pages longer than in the former edition, owing to extra paragraphs on vaginal hysterectomy for pelvic abscess. He notes how a distinguished surgeon advocates it, not only when the parametrium is reduced to a spongy purulent mass, but in all cases of bilateral inflammatory lesions of the annexes. M. Pozzi considers that such a principle is an abuse of surgery. He admits that the idea of opening up an extensive chronic parametric focus is not entirely unsurgical. But when the appendages are inflamed and suppurating it is better to open the abdominal walls and detach the tubes and ovaries from their multiple adhesions, tedious though such an operation may prove. "Now this total extirpation of the focus of infection," writes M. Pozzi, "is, in my opinion, a far more certain warrant for complete and permanent cure. Therefore I hold that the indications for vaginal hysterectomy in pelvic suppuration should be considerably restricted. The operation ought to be limited to cases where extirpation of the lesions is a manifest impossibility." It must be remembered that the advocates of vaginal hysterectomy maintain that it is much less serious to leave part of the ovaries and tubes behind after removing the uterus, than to leave the uterus behind after amputating the appendages. The recent researches of Grammatikati, however, appear to show that this theory is incorrect as determined by after-histories.

NOTES ON BOOKS.

L'Origine Nerveuse des Maladies et de leur Traitement Efficace par l'Action Directe sur le Système Nerveux. (The Nervous Origin of Diseases and their Effective Treatment by Direct Action on the Nervous System.) Par Dr. John Chapman, M.R.C.P. (Paris: Asselin and Houzeau).—In this little essay Dr. Chapman restates opinions, long since advanced by him, regarding the dominant influence exercised by the vasomotor system in the causation of most varied functional troubles, and the ready control over those disorders that exists in the application of heat or cold to the spine. The experience of more than a quarter of a century convinces him that heat applied to the dorsal spine increases muscular force and mucous secretions, while it diminishes the peripheral circulation and body temperature. Precisely opposite effects are obtained by cold. He cites numerous cases showing the curative action of heat in menorrhagia, and of his spinal ice bag in dysmenorrhœa, diarrhœa, etc. Of twelve cholera patients treated by the latter method, ten recovered. An English summary of the paper is published by Messrs. J. and A. Churchill.

A Guide to the Examinations in Sanitary Science, Public Health, and State Medicine. With Examination Questions and Copious Explanatory Notes. By Herbert Jones, D.P.H.Camb. (London: Baillière, Tindall and Cox. 1892.)—Mr. Jones's little book is sadly overweighted by its title. It contains hints to candidates upon the various stages of the D.P.H. examinations, and, although rather desultory and occasionally open to much question, the suggestions are as a rule likely to be useful in their way. The greater part of the book, however, consists of a large collection of examination questions, followed by a miscellaneous assortment of tables and other condensed information taken from the various textbooks. These will answer the twofold purpose of enabling candidates to try their strength before examination and showing examiners what subjects have been worn threadbare.

Klinische Vorträge (Clinical Lectures). Von Professor G. A. Sacharjin. Heft I. (Berlin: A Hirschwald. 1892.)—These clinical lectures differ from those usually given, in that most of them are taken up with the continued description of a single case. One case recorded is an example of gastric catarrh associated with oxaluria, biliary and renal colic, and some degree of movable kidney. The patient also suffered from some reflex disturbance of the nervous system. The case is certainly looked at from every point of view; but sometimes there seems to be a tendency to push the diagnosis too far and on somewhat slender grounds. In the course of the description of treatment the author takes occasion to make an important digression into the subject of mineral waters. The waters of Ems, Carlsbad, Marienbad, Kissingen, Vichy, Contrexéville, and other springs are minutely described and their use rather rigidly pointed out. Professor Sacharjin is apparently strongly opposed to the stomach tube for purposes of diagnosis, although he is a vigorous advocate of the therapeutic value of washing out the stomach. The presence of gastric ulcer is usually looked upon as a contraindication to the use of the stomach tube, so that it is perhaps a little surprising to find that the author does not hesitate to wash out the stomach in a case (No. 2) where the existence of such an ulcer is probable. Quite apart from a thoughtful account of the use of the most noted mineral waters, the reader of these lectures will have the advantage of following a case complete in itself and described with much care by an able clinician.

The Anatomy and Diseases of the Lachrymal Passages. By W. SPENCER WATSON. (London: H. K. Lewis. 1892.)—In this small book the author lays "before the profession the results of his experience in a department of surgery which forms a connecting link between two specialties, to both of which he has given a large proportion of his professional life." The fifty-two pages which the book contains are divided into thirteen sections; two of these—that on the anatomy and functions of the lachrymal passages, and that on chronic dacryo-cystitis—fill twenty-three pages, with the result that very scant space is allowed for the subjects of the remaining eleven sections, some of which are dismissed in very few lines. The treatment of disease of the lachrymal passages is sufficiently unsatisfactory to lead surgeons to welcome the opinion of a writer who has given special attention to the subject. We think Mr. Watson's book would have proved more valuable if he had devoted a larger space to treatment. As it is, however, he describes clearly the methods he usually adopts, and the operative procedures which he employs. In the last section of the book the use of anæsthetics in cases requiring operation is discussed. The author generally finds cocaine applied locally is sufficient. If general anæsthesia is required, he recommends the use of the A.C.E. mixture.

Lectures on Alcohol. By WM. WOODWARD, M.D. (Worcester. 1892.)—This is one of a series of lectures on health delivered to the Worcester Young Men's Christian Association during the present year. The opposing views on alcohol are fully and frankly set forth, and, as in deliverances by medical men generally, the scope of the argument is strongly against dallying with intoxicants. The author inculcates the strictest moderation, with abstaining periods every now and then, to afford time for the system to clear itself from the cumulative effects of strong drinks. Taking odd glasses of beer, wine, or spirits throughout the day, drinking one variety first, and then another, and at any other time than with meals, are stated to be not moderation, which is described as the equivalent of half an ounce of alcohol daily. The many collective experiences demonstrating alcoholic interference with the capacity for muscular and brain work are forcibly put, and the reader is cautioned against the hidden perils of drinking. The lecture is couched in lucid yet attractive language, and is well fitted to enlighten the public mind. The lecturer winds up with warm commendation of milk beef-tea—that is, beef-tea prepared with milk instead of water.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

TABLOIDS OF ICHTHYOL, RESORCIN, ERGOTIN, AND FERRUGINOUS (BLAUD'S) TABLOIDS.

WE have received from Messrs. Burroughs, Wellcome, and Co., Snow Hill Buildings, E.C., samples of several additions to their list of tabloids. Ichthyol tabloids contain 2½ grains of sodium sulpho-ichthyolate, and are intended for the internal administration of this very unpleasant drug. The name ichthyol is generally applied to the ammonium combination obtained by treating the products of distillation of a bituminous quartz found in the Tyrol, which is probably the remains of decomposed animals and fish, with sulphuric acid and neutralising with ammonia. The sulpho-ichthyolate of sodium is similar to the ammonium compound, both being brownish-black substances possessed of a very disagreeable tarry odour. There is no smell of ichthyol about the tabloids; they are sugar-coated, and can be easily swallowed. In warm water the coating quickly dissolves, leaving the ichthyol as a brown mass miscible with the water upon shaking. These tabloids are certainly an advance in the pharmacy of ichthyol. Resorcin tabloids contain 3 grains of the drug; they are soluble in water, and are very convenient for the preparation of solutions for topical application or internal administration.

The tabloids of ergotin are sugar-coated, and contain 3 grains of extract of ergot. We have compared the ergotin contained in them with an extract prepared from selected ergot by the process of the *British Pharmacopœia*, and find that in every respect its characters correspond with those of the standard preparation. There is no doubt that these tabloids contain a carefully-prepared extract possessing the full therapeutic activity of the drug.

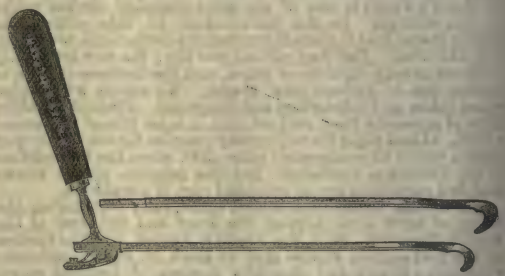
The ferruginous (Blaud's) tabloids can be relied upon for administering carbonate of iron in an unoxidised and active state. In this compressed form the conditions are most favourable for the preservation of the ingredients. Our examination of the tabloids shows that the iron is entirely in the state of proto-salt.

OXYCHLORIDE OF BISMUTH AND PEPSIN.

THE oxychloride of bismuth forms the well-known pigment "pearl-white," and under the name of "*blanc de perle*" is used for giving a white pearly gloss to the skin. It is an impalpable, neutral, non-irritating powder, and in this respect differs from the bismuthi subnitras *B.P.*, which is acid and crystalline. If the action of insoluble bismuth preparations be due to the coating they form on the irritable parts of the stomach and bowels, the oxychloride appears to be the best preparation for this purpose, for, besides being an impalpable powder, it is also a very insoluble one. Mr. A. G. Bruce, chemist, 3, Melville Terrace, Edinburgh, has introduced a mixture containing oxychloride of bismuth and pepsine—"*Mist. Bismuthi Oxychlor. c. Pepsinâ*"—a combination in use at the Edinburgh Royal Infirmary. This mixture is not unpleasant either in appearance or taste, and the oxychloride is perfectly suspended.

A NASAL SEPTUM KNIFE.

DR. G. W. MAJOR (Montreal) has introduced these knives, as illustrated, for the purpose of removing cartilaginous and bony crusts or spurs from the nasal septum. These outgrowths, for the most part, offer much less difficulty to removal by the septum knives than by either saw or drill. The operation is almost instantaneous, and under cocaine absolutely painless. The view is furthermore unobstructed



by bleeding. The hooked knife is introduced through a speculum into the nasal chamber to be operated upon, passed well behind the posterior extremity of the crust or spur, and, hugging the flattened side of the knife closely to the septum, the growth is removed with neatness and despatch. A number of blades are necessary to meet the varying conditions found in nasal deformities. The universal handle, fitted with a spring catch, will be found both strong and convenient.

PROFESSOR WALDEYER, of Berlin, celebrated the twenty-fifth anniversary of his appointment as Professor on October 13th. The *Berliner klinische Wochenschrift* says that if anatomy can now be properly studied in Berlin—which, according to our contemporary, has not always been the case—this is entirely due to the untiring energy of Professor Waldeyer and the great reforms he has introduced into the methods and appliances for teaching the subject.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE TRUE DEATH-RATES OF LONDON DISTRICTS DURING THE THIRD QUARTER OF 1892.

In the accompanying table will be found summarised the vital and mortal statistics of the forty-one sanitary districts of the metropolis, based upon the Registrar-General's returns for the third or summer quarter of this year. The mortality figures in the table relate to the deaths of persons actually belonging to the respective sanitary districts, and are the result of a complete system of distribution of the deaths occurring in the institutions of London among the various sanitary districts in which the patients had previously resided.

The 32,997 births registered in London during the three months ending September last were equal to an annual rate of 31.0 per 1,000 of the population, estimated at 4,263,294 persons in the middle of this year. In the corresponding periods of the preceding three years the birth-rate was 30.6, 30.7, and 30.6 per 1,000 respectively. The birth-rates last quarter in the various sanitary districts showed, as usual, wide variations, owing principally to the differences in the age and sex distribution of the population. In Kensington, St. James Westminster, St. George Hanover Square, Hampstead, St. Martin-in-the-Fields, London City, and Lewisham the birth-rates were considerably below the average; while in Fulham, St. Luke's, Shoreditch, Bethnal Green, Whitechapel, St. George-in-the-East, and Bermondsey the birth-rates showed a marked excess.

The 17,874 deaths of persons belonging to London registered during the quarter under notice were equal to an annual rate of 16.8 per 1,000, against 17.0, 18.9, and 17.1 in the corresponding periods of the preceding three years 1889, '90, and '91. The lowest death-rates in the various sanitary districts during last quarter were 9.1 in Hampstead, 11.1 in Lewisham (excluding Penge), 11.9 in St. George Hanover Square, 13.2 in Wandsworth and in Plumstead, 13.3 in St. James Westminster, and 13.6 in Paddington. In the other districts the rates ranged upwards to 21.4 in Limehouse, 22.1 in Rotherhithe, 22.7 in Holborn, 23.2 in Whitechapel, 24.5 in St. Luke, 25.7 in St. George-in-the-East, and 26.0 in St. Olave Southwark. During the quarter under notice 3,492 deaths were referred to the principal zymotic diseases in London; of these 1,743 resulted from diarrhœa, 574 from measles, 478 from diphtheria, 364 from scarlet fever, 204 from whooping-cough, 125 from different forms of "fever" (including 115 from enteric fever, 4 from typhus, and 6 from ill-defined forms of fever), and 4 from small-pox. These 3,492 deaths were equal to an annual rate of 3.3 per 1,000, against an average rate of 3.6 in the corresponding periods of the preceding five years 1887-91. The lowest zymotic death-rates during last quarter in the various sanitary districts were 1.0 in St. James Westminster, 1.1 in Hampstead, 1.4 in St. George Hanover Square, 1.9 in Lewisham, 2.0 in St. Martin-in-the-Fields, and 2.1 in Strand. In the other districts the zymotic death-rates ranged upwards to 4.2 in St. Luke, 4.4 in Mile End Old Town, 5.0 in Bethnal Green, in St. George-in-the-East, in Limehouse, and in Rotherhithe, and 5.3 in St. Olave Southwark.

Four deaths from small-pox of persons belonging to London were registered during the three months ending September last, of which 2 belonged to Plumstead, 1 to Mile End Old Town, and 1 to Battersea sanitary districts; 24 small-pox patients were admitted into the Metropolitan Asylum Hospitals during last quarter, and 2 remained under treatment at the end of September. Measles showed the highest proportional fatality in Bethnal Green, St. George-in-the-East, Limehouse, St. George Southwark, St. Olave Southwark, and Rotherhithe; scarlet fever in Chelsea, Bethnal Green, Whitechapel, St. George-in-the-East, Limehouse, Mile End Old Town, and Poplar; diphtheria in Hammersmith, Westminster, St. Pancras, Bethnal Green, Whitechapel, Mile End Old Town, and St. George Southwark; whooping-cough in Newington and Battersea; and diarrhœa in St. Luke, Shoreditch, St. George-in-the-East, Limehouse, St. Olave Southwark, Rotherhithe, and Greenwich.

Infant mortality in London last quarter, measured by the proportion of deaths under one year of age to registered births, was equal to 170 per 1,000, and was considerably below the mean rate in the corresponding periods of the preceding ten years. Among the various sanitary districts the rates

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Complete Distribution of Deaths occurring in Public Institutions, during the Third Quarter of 1892.

Sanitary Areas.	Estimated Population middle of 1892.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhœa.	Deaths of Children under 1 year of age to 1,000 births.
LONDON	4,263,294	32,997	17,874	31.0	16.8	3.3	3,492	4	574	364	478	204	4	115	6	1,743	170
West Districts.																	
Paddington	119,199	763	403	25.7	13.6	2.9	87	—	16	5	9	1	—	2	—	54	187
Kensington	166,721	939	574	22.6	13.8	2.6	110	—	35	11	5	3	—	3	1	52	201
Hammersmith	100,642	728	436	29.0	17.4	3.8	96	—	20	5	14	7	—	1	2	47	194
Fulham	98,195	686	402	36.2	16.4	3.5	86	—	5	3	8	6	—	—	—	64	178
Chelsea	97,300	699	363	28.8	15.0	3.1	76	—	2	14	11	2	—	1	—	46	177
St. George, Hanover Square	76,946	386	229	20.1	11.9	1.4	27	—	5	4	8	—	—	1	—	9	104
Westminster	55,203	355	270	25.8	19.6	3.7	51	—	2	5	22	3	—	1	—	18	169
St. James, Westminster ...	24,388	134	81	22.1	13.3	1.0	6	—	2	—	1	—	—	—	—	3	127
North Districts.																	
Marylebone	140,799	1,060	617	30.2	17.5	2.6	91	—	5	17	15	1	—	6	—	47	156
Hampstead	71,652	368	162	20.6	9.1	1.1	19	—	5	1	5	2	—	—	—	6	120
St. Pancras	234,207	1,803	1,019	30.9	17.5	3.2	186	—	23	22	30	11	—	8	—	92	176
Islington	324,451	2,347	1,231	29.0	15.2	2.9	233	—	23	14	40	5	—	15	1	135	164
Hackney	235,370	1,767	819	30.1	14.0	3.1	180	—	33	10	27	12	—	7	—	91	146
Central Districts.																	
St. Giles	39,071	255	181	26.2	18.6	3.1	30	—	3	1	6	—	—	2	—	18	173
St. Martin-in-the-Fields ...	14,204	73	77	20.6	21.7	2.0	7	—	1	2	2	—	—	—	—	2	151
Strand	24,256	146	126	24.1	20.8	2.1	13	—	2	1	3	—	—	3	—	4	178
Holborn	32,912	222	186	27.0	22.7	3.9	32	—	6	4	5	3	—	1	—	13	207
Clerkenwell	65,482	531	342	32.5	20.9	3.4	56	—	8	6	6	6	—	2	—	28	196
St. Luke	41,850	468	255	44.9	24.5	4.2	44	—	7	3	5	3	1	—	—	25	177
London City	36,692	170	183	18.6	20.0	2.0	18	—	2	4	5	3	—	—	—	4	171
East Districts.																	
Shoreditch	123,683	1,151	557	37.3	18.4	3.8	116	—	13	15	13	3	1	3	—	68	155
Bethnal Green	129,408	1,211	635	37.5	19.4	5.0	160	—	32	18	40	6	—	4	—	60	154
Whitechapel	74,853	717	453	38.4	23.2	4.1	77	—	15	15	20	1	—	2	—	24	206
St. George-in-the-East ...	45,343	508	291	44.9	25.7	5.0	56	—	9	8	5	1	—	3	—	30	191
Limehouse	57,480	472	307	32.9	21.4	5.0	72	—	17	14	5	8	—	1	—	29	191
Mile End Old Town	107,811	952	538	35.4	20.0	4.4	117	1	19	17	24	8	—	6	—	42	171
Poplar	167,857	1,475	814	35.3	19.5	3.9	163	—	27	24	21	7	—	6	1	77	186
South Districts.																	
St. Saviour, Southwark ...	26,973	222	139	33.0	20.7	2.8	19	—	3	4	—	—	—	—	—	12	176
St. George, Southwark ...	59,846	528	298	35.4	20.0	3.9	58	—	14	4	9	7	—	—	—	24	182
Newington	116,649	997	554	34.3	19.0	3.9	113	—	17	15	9	13	—	5	1	53	192
St. Olave, Southwark ...	12,787	112	83	35.1	26.0	5.3	17	—	9	1	—	—	—	—	—	7	277
Bermondsey	84,440	780	414	37.0	19.7	3.2	68	—	17	8	7	6	—	1	—	29	164
Rotherhithe	39,459	318	217	32.3	22.1	5.0	49	—	17	2	1	2	2	2	—	23	226
Lambeth	277,917	2,307	1,109	33.3	15.9	3.0	209	—	30	21	34	10	—	7	—	107	149
Battersea	156,313	1,293	588	33.2	15.1	3.2	123	1	9	13	14	17	—	1	—	68	165
Wandsworth	164,003	1,044	541	25.5	13.2	2.5	101	—	14	4	10	11	—	3	—	60	181
Camberwell	241,465	1,927	1,028	32.0	17.1	4.0	240	—	64	24	18	26	—	8	—	106	175
Greenwich	169,734	1,387	720	32.8	17.0	4.0	168	—	29	11	9	12	—	6	—	101	169
Lewisham	74,673	436	206	23.4	11.1	1.9	35	—	1	1	3	3	—	—	—	27	149
Woolwich	41,376	322	153	31.2	14.8	2.7	28	—	8	1	—	—	—	2	—	17	143
Plumstead	91,704	738	302	32.3	13.2	2.4	55	2	5	12	9	3	—	3	—	21	127

of infant mortality were lowest in St. George Hanover Square, St. James Westminster, Hampstead, Hackney, Woolwich, and Plumstead; while they showed the largest excess in Kensington, Hammersmith, Holborn, Clerkenwell, Whitechapel, Newington, St. Olave Southwark, and Rotherhithe.

ENGLISH URBAN MORTALITY IN THE THIRD QUARTER OF 1892. THE vital and mortal statistics of the thirty-three great English towns dealt with by the Registrar-General in his weekly returns are summarised in the accompanying table. During the three months ending September last 81,516 births were registered in these thirty-three towns, equal to an annual rate of 32.1 per 1,000 of their aggregate population, estimated at upwards of ten millions of persons in the middle of this year. In London the birth rate was equal to 31.0 per 1,000, while it averaged 32.8 in the thirty-two provincial towns, and ranged from 24.1 in Brighton, 25.6 in Halifax, and 25.7 in Huddersfield to 35.9 in West Ham, 36.8 in Burnley, 36.9 in Hull, and 37.0 in Sheffield.

During the quarter under notice 45,523 deaths were registered in the thirty-three large English towns, which corresponded to an annual rate of 17.9 per 1,000. In London the rate of mortality was equal to 17.1 per 1,000, while it averaged 18.5 in the thirty-two provincial towns, among which the death-rates ranged from 12.6 in Croydon, 14.8 in Huddersfield, 15.0 in Brighton, and 15.3 in Nottingham to 21.3 in Bolton, 22.3 in Liverpool, 23.2 in Salford, and 24.3 in Preston.

The 45,523 deaths registered in the thirty-three towns last quarter included 8,907 which were referred to the principal zymotic diseases, equal to an annual rate of 3.5 per 1,000; in London the zymotic death-rate was 3.3, while it averaged 3.7 per 1,000 in the thirty-two provincial towns, among which it ranged from 1.9 in Halifax and in Newcastle-upon-Tyne, 2.1 in Wolverhampton, 2.2 in Swansea and in Huddersfield, and 2.3 in Brighton to 4.5 in Leicester, 4.8 in Bolton, 4.9 in Sheffield, 5.8 in Salford, and 7.3 in Preston. The 8,907 deaths referred to the principal zymotic diseases included 5,018 which resulted from diarrhœa, 1,256 from measles, 757 from whooping-cough, 716 from diphtheria, 713 from scarlet fever, 425 from "fever" (principally enteric), and 22 from small-pox. The 5,018 fatal cases of diarrhœa recorded in the thirty-three towns during the quarter under notice were equal to an annual rate of 1.98 per 1,000, which was considerably below the average. In London the rate of mortality from this disease was 1.64 per 1,000, while it averaged 2.22 in the thirty-two provincial towns, among which diarrhœa showed the highest proportional fatality in Cardiff, Leicester, Bolton, Preston, Leeds, Sheffield, and Hull. The 1,256 deaths referred to measles were equal to an annual rate of 0.49 per 1,000 in London the rate of mortality from this disease was 0.54 per 1,000, while it averaged 0.46 in the thirty-two provincial towns, and was highest in West Ham, Salford, Oldham, Huddersfield, and Sunderland. The 757 fatal cases of whooping-cough were equal to an annual rate of 0.30 per 1,000; in London the death-rate from this disease was only 0.20 per 1,000, while it averaged 0.37 in the thirty-two provincial towns, among which whooping-cough showed the highest proportional fatality in Nottingham, Birkenhead, Burnley, and Preston. The 716 deaths referred to diphtheria were equal to an annual rate of 0.28 per 1,000; in London the diphtheria death-rate was as high as 0.46 per 1,000, while in the thirty-two provincial towns it averaged only 0.15 per 1,000, and was highest in West Ham, Croydon, Salford, and Halifax. The 713 fatal cases of scarlet fever were equal to an annual rate of 0.28 per 1,000; in London the death-rate from this disease was 0.34 per 1,000, while it averaged 0.24 in the thirty-two provincial towns, among which the highest death-rates from scarlet fever were recorded in Plymouth, Swansea, Salford, and Preston. The number of scarlet fever patients in the Metropolitan Asylum Hospitals, which had been 1,175 and 2,117 at the end of the preceding two quarters, had further risen to 3,407 at the end of September last; the admissions, which had been 1,327 and 2,468 in the preceding two quarters, further rose to 4,647 during the three months ending September. The 425 deaths referred to different forms of "fever" (including typhus, enteric, and simple and ill-defined forms of fever) were equal to an annual rate of 0.17 per 1,000; in London the "fever" death-rate did not exceed 0.12 per 1,000, while it averaged 0.20 in the thirty-two provincial towns, and was highest in Portsmouth, Salford, Blackburn, and Sunderland. Of the 22 fatal cases of small-pox registered during the quarter under notice in the thirty-three towns, 9 occurred in Halifax, 6 in London, 3 in Bradford, 2 in Sheffield, 1 in Leicester, and 1 in Plymouth. Twenty-four small-pox patients were admitted into the Metropolitan Asylum Hospitals during last quarter, and 2 remained under treatment at the end of September.

The rate of infant mortality in the thirty-three towns, measured by the proportion of deaths under one year of age to registered births, was equal to 186 per 1,000. In London the rate of infant mortality was 171 per 1,000, while it averaged 196 in the thirty-two provincial towns, among which it ranged from 95 in Huddersfield, 127 in Halifax, 141 in Swansea, and 148 in Croydon to 216 in Salford, 227 in Bolton, 251 in Leicester, and 311 in Preston.

The causes of 848, or 1.9 per cent., of the 45,523 deaths in the thirty-three towns during the third quarter of this year were not certified either by registered medical practitioners or by coroners. The proportion of uncertified deaths in London did not exceed 0.9 per cent., while in the thirty-two provincial towns it averaged 2.5 per cent. All the causes of death were duly certified in Croydon; in the other towns the lowest proportions of uncertified deaths were registered in Swansea, Derby, and Birkenhead, and the highest in Birmingham, Leicester, Liverpool, and Huddersfield.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,152 births and 3,382 deaths were registered during the week ending Saturday, October 15th. The annual rate of mortality in these towns, which had been 16.6 and 17.8 per 1,000 in the preceding two weeks,

Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the Third Quarter of 1892.

TOWNS.	Estimated Population middle of 1892.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœa.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
33 Towns	10,188,449	81,516	45,523	32.1	17.9	3.5	8,907	22	1,256	713	716	757	425	5,018	186	1.9
32 Provincial Towns	5,925,155	48,519	27,363	32.8	18.5	3.7	5,393	16	681	348	229	553	295	3,271	196	2.5
London	4,263,294	32,997	18,160	31.0	17.1	3.3	3,514	6	575	365	487	204	130	1,747	171	0.9
West Ham	217,113	1,943	1,007	35.9	18.6	5.0	272	—	71	18	27	14	10	132	205	3.5
Croydon	106,152	735	334	27.8	12.6	2.4	64	—	11	—	11	11	—	31	148	—
Brighton	116,424	699	434	24.1	15.0	2.3	67	—	13	1	3	2	2	46	189	2.8
Portsmouth	163,667	1,181	629	28.9	15.4	2.9	118	—	—	5	5	17	18	73	180	1.4
Plymouth	85,610	607	351	28.4	16.4	2.7	58	1	4	13	1	1	5	33	163	1.4
Bristol	223,592	1,585	900	28.4	16.1	2.6	145	—	32	13	8	14	4	74	165	2.4
Cardiff	136,181	1,209	588	35.6	17.3	4.2	144	—	1	16	10	5	11	101	191	1.7
Swansea	92,344	775	378	33.7	16.4	2.2	51	—	—	17	2	10	4	18	141	0.5
Wolverhampton	83,519	720	356	34.6	17.1	2.1	44	—	3	—	1	3	6	31	167	1.1
Birmingham	483,526	3,862	2,218	32.0	18.4	3.8	455	—	72	17	24	58	7	277	210	5.3
Norwich	102,736	795	409	31.0	16.0	2.5	65	—	—	—	4	13	3	45	213	2.4
Leicester	180,068	1,473	765	32.8	17.0	4.5	201	1	16	8	2	6	4	164	251	4.1
Nottingham	215,395	1,607	822	29.9	15.3	3.4	182	—	23	14	7	39	7	92	184	1.0
Derby	95,908	799	409	33.4	17.1	2.6	63	—	—	1	5	6	2	49	186	0.7
Birkenhead	101,264	861	448	34.1	17.7	3.1	79	—	10	2	1	21	7	38	192	0.2
Liverpool	513,790	4,426	2,853	35.0	22.3	3.8	489	—	39	45	22	36	35	312	211	4.4
Bolton	116,261	952	617	32.8	21.3	4.6	133	—	—	6	1	13	5	108	227	1.0
Manchester	519,998	4,433	2,592	34.8	20.3	3.6	457	—	63	32	23	45	30	264	188	1.9
Salford	201,058	1,790	1,165	35.7	23.2	5.8	289	—	69	25	15	28	23	129	216	2.2
Oldham	134,221	950	586	28.4	17.5	3.8	126	—	69	10	5	9	4	29	163	1.9
Burnley	90,589	831	394	36.8	17.4	2.5	56	—	—	1	—	17	6	32	178	1.0
Blackburn	122,238	995	591	32.6	19.4	3.0	90	—	3	4	—	10	14	59	213	2.5
Preston	109,038	927	660	34.1	24.3	7.3	198	—	1	23	5	39	8	122	311	2.9
Huddersfield	96,599	618	356	25.7	14.8	2.2	52	—	23	6	1	5	3	14	95	4.2
Halifax	84,097	536	324	25.6	15.5	1.9	39	9	15	1	7	3	1	3	127	3.7
Bradford	219,262	1,541	899	28.2	16.4	2.7	147	3	26	12	1	24	9	72	171	1.6
Leeds	375,540	3,251	1,737	34.7	18.6	4.3	405	—	13	22	8	28	17	317	218	1.0
Sheffield	329,585	3,043	1,727	37.0	21.0	4.9	406	3	51	18	16	21	10	288	213	2.7
Hull	204,750	1,884	959	36.9	18.8	3.9	198	—	4	7	1	28	11	147	199	2.8
Sunderland	132,839	1,143	659	34.5	19.9	4.0	134	—	40	1	2	15	20	56	202	1.1
Gateshead	88,583	700	384	31.7	17.4	3.4	75	—	6	8	1	4	4	52	189	1.8
Newcastle-on-Tyne	192,205	1,588	812	33.1	16.9	1.9	91	—	3	2	10	8	5	63	161	1.6

declined again to 17.3 during the week under notice. The rates in the several towns ranged from 8.4 in Croydon, 12.0 in Derby, 13.0 in Bolton, and 13.4 in Cardiff to 19.6 in Birkenhead, 20.2 in Liverpool, 20.9 in Blackburn, 23.3 in Salford, and 30.6 in Preston. In the thirty-two provincial towns the mean death-rate was 17.5 per 1,000, and exceeded by 0.4 the rate recorded in London, which was 17.1 per 1,000. The 3,382 deaths registered during the week under notice in the thirty-three towns included 389 which were referred to the principal zymotic diseases, against numbers declining from 991 to 505 in the preceding six weeks; of these, 123 resulted from diarrhœa, 77 from diphtheria, 59 from measles, 53 from scarlet fever, 39 from "fever" (principally enteric), 34 from whooping-cough, and 4 from small-pox. These 389 deaths were equal to an annual rate of 2.0 per 1,000; in London the zymotic death-rate was equal to 1.7, while it averaged 2.2 per 1,000 in the thirty-two provincial towns. No fatal case of any of these diseases occurred last week in Derby; in the other towns they caused the lowest death-rates in Plymouth, Wolverhampton, and Halifax, and the highest rates in Manchester, West Ham, Oldham, Salford, and Preston. Measles caused the highest proportional fatality in Bradford, Brighton, Huddersfield, Oldham, and Salford; scarlet fever in West Ham; whooping-cough in Nottingham, Birkenhead, and Preston; "fever" in Sunderland; and diarrhœa in Leeds, Manchester, Gateshead, and Preston. The 59 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 46 in London, 2 in West Ham, and 2 in Manchester. Small-pox caused 1 death in Liverpool, 1 in Manchester, 1 in Oldham, and 1 in Leeds, but not one in London or in any other of the large towns; four small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 7 in the Highgate Small-pox Hospital on Saturday last, October 15th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,795, against numbers increasing from 3,052 to 3,628 on the preceding eight Saturdays; 503 new cases were admitted during the week, against 369 and 412 in the previous two weeks. The 241 deaths from diseases of the respiratory organs in London were 32 below the average, and were equal to an annual rate of 2.9 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, October 15th, 912 births and 500 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.1 and 18.5 per 1,000 in the preceding two weeks, declined again to 18.0 during the week under notice, but was 0.7 per 1,000 above the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 12.6 in Leith and 13.4 in Dundee, and the highest rates 20.6 in Perth and 21.5 in Greenock. The 500 deaths in these towns included 75 which were referred to the principal zymotic diseases, equal to an annual rate of 2.7 per 1,000, which was 0.7 above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Leith and Edinburgh. The 247 deaths registered in Glasgow included 11 from scarlet fever, 8 from measles, and 6 from whooping-cough. Seventeen fatal cases of measles were recorded in Edinburgh and 4 in Leith. The death-rate from diseases of the respiratory organs in these towns was equal to 3.0 per 1,000, against 2.9 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, October 8th, were equal to an annual rate of 20.9 per 1,000. The lowest rates were recorded in Armagh and Dundalk, and the highest rates in Sligo and Galway. The death-rate from the principal zymotic diseases averaged 2.0 per 1,000. The 134 deaths registered in Dublin were equal to an annual rate of 20.0 per 1,000 (against 19.7 and 21.5 in the preceding two weeks), the rate during the same period being 16.4 in London and 19.9 in Edinburgh. The 134 deaths in Dublin included 12 which were referred to the principal zymotic diseases (equal to an annual rate of 1.8 per 1,000) of which 9 resulted from diarrhœa and 3 from enteric fever.

SANITARY ADMINISTRATION IN SCOTLAND.

At no time has the necessity for the reconstruction of the National Health Department of Scotland been rendered so patent as at present. The Board of Supervision is being publicly flouted by the local authorities of two considerable towns—Leith and Perth—which send their "replies" to the communications of the Board to the newspapers for publication. The representations of the Board appear to be entirely justified by the circumstances of the case, but its wisest counsels are treated with scorn.

The case of Leith appears to be particularly bad. One of the Board's inspectors recently visited the town and reported, with reference to the "inertness" of the Corporation, the lack of proper hospital accommodation, the non-adoption of the system of compulsory notification of infectious disease, failure to disinfect ships' linen before sending it ashore, the accumulation of offensive refuse in connection with the Newhaven fish trade, and other matters. The reply of the Corporation furnishes good store of almost every conceivable defect in grammatical construction for the board schools of the town. To the suggestion that they have failed to provide proper hospital accommodation, the Corporation reply with an air of having disposed of the whole matter, that they "have supplied the Board with elaborate reports" on the subject. It is admitted that a considerable part of the town is unprovided with watercloset accommodation, but, say the Corporation, the late sanitary inspector reported on the subject. Reports seem to be the Corporation's strong point. Referring to the sanitary inspectorship, the local authority "consider that they may be left to do their duty in that matter." The manner in which they have "done their duty" is subsequently revealed. They delayed to fill up the vacancy which had occurred until one of their number (whose main recommendation for the office appears to have been the somewhat doubtful one that he had been for a considerable time a member of the Corporation), had time to vacate his seat, when they appointed him sanitary inspector, without having advertised the vacancy. The question of a market-house in which the fish trade at Newhaven might be conducted under sanitary conditions is declared to be "one upon which the Board of Supervision are not in a position to express a valid opinion." "With regard to the inspection of emigrants at Leith, this has already been the subject of special reply to the Board, and the local authority adhere to their view that all reasonable and proper steps are taken by them." All this is pitiable, and in view of the probable advance of cholera next year, and in consideration of the fact that Leith is the point at which Scotland is most liable to importations of Continental diseases, it must be far from consolatory reading for the people of Scotland.

In reply to Dr. J. B. Russell's report, referred to in a recent number of the British Medical Journal, the Perth Corporation say that, "while valuing any suggestions from the Board and its Commissioners, they must be left to carry out their duties according to their own views of what is right." They are exceedingly hurt that Dr. Russell should have come down upon them at only a day's notice; if they had had a week might not they have had the town swept and garnished for his reception? They think it hard that the Commissioner should have directed attention to the fact, which is not questioned by them, that in the central district of Perth—a small country town—the mean death-rate, over a period of five years, has been as high as 29.6; they can "discover no reason for introducing the subject!" They consider it indelicate of Dr. Russell to allude to nuisances alleged to be committed by members of the Corporation. Dr. Russell has ventured to comment unfavourably upon the absence of ventilating manhole covers on the sewers, but the Corporation rests satisfied with the reflection that the subject was carefully considered twenty-five years ago. The local authority protests against the Commissioner's conclusions that the Sanitary Committee's minutes show a great want of cohesion and unanimity *apropos* to the question of the sanitary inspectorship, but Dr. Russell's conclusions are sufficiently justified by a single reference to the minutes. On March 2nd the local authority at a special meeting, in committee, considered a letter from the Board of Supervision as to the office of sanitary inspector, etc. A resolution was adopted, by 11 votes to 10, to advertise for a sanitary inspector, to devote his whole time to the duties of his office. At a meeting on March 9th this resolution was rescinded by 10 votes to 8!

It is impossible that matters should continue to proceed in this fashion. Unless sanitary administration in Scotland is to be allowed to drift into chaos, there must be a reconstruction of the Board of Supervision upon such a basis as to command universal respect, and the Board must be endowed with sufficient powers to secure that it shall not be set at naught by every self-sufficient local authority.

A SMALL-POX EPIDEMIC: CLAIMS FOR COMPENSATION.

At the monthly meeting of the Brighouse Local Board, held on September 30th, Mr. F. Laxton (Chairman) presiding, the clerk reported the receipt of claims from seventeen residents in the district, who claimed compensation for financial loss incurred through absence from work or loss of trade on account of small-pox outbreaks. The total amount of the claims was £146 18s. 11d. The chairman pointed out that the persons who were making the claims had been paid in provisions and medical attendance by the board during the time their premises were in a state of quarantine. The question was discussed, after which the following resolution was unanimously passed, and a copy of the same ordered to be forwarded to each claimant: "That the local board cannot entertain any claim for compensation for loss of wages or trade during the recent outbreak of small-pox in the district."

EXTRA PAY FOR CHOLERA DUTY.

The Fowley District Port Sanitary Authority, sitting at St. Austell, recently received from Dr. Thomas P. Tuckey his resignation of the duties of medical officer. He stated that since the outbreak of cholera on the Continent he had been required to board a great many more vessels, and, as a consequence, his private practice had been inconvenienced. The authority asked the officer to continue the office on consideration of his being paid at the rate of £25 a year extra, whilst the present regulations in regard to cholera were in force, and this he agreed to do.

FREE TRANSIT FOR WORKMEN DISPLACED BY IMPROVEMENTS.

The details of the scheme for the proposed improvement of communication between Holborn and the Strand show that the cost of carrying out this great scheme is put at £2,248,550. We have already referred in these columns to the proposals for rehousing the large numbers of working people displaced. The Council now propose that the 1,700 or 1,800 people who will have to be rehoused in some suburb should have free transit by train or tram provided for them from the place so selected to within a few hundred yards of either the northern or southern ends of the new street, for everyone having an occupation and so displaced. This free transit is to last during the time these people shall continue to occupy the new tenement to which they shall have been removed. Suitable sites are in view for those who must be rehoused within one mile of the new street in the neighbourhoods of Holborn and Clerkenwell. Parliament will be applied to next session to authorise the proposed improvement.

THE ISOLATION OF DIPHTHERIA.

Dr. T. M. Wills (Bootle) writes: Your reference to my action at our recent council meeting, in opposing a proposition to erect a pavilion for the treatment of diphtheria, being based upon erroneous statements, I wish to give the facts of the case and to explain the cause of my opposition. The fever hospital here was opened only six years ago, having been built under the supervision of the late Alderman Matthew Hill, M.D., consulting physician, according to plans approved of by the Local Government Board. The then Chairman of the Health Committee, Alderman Williams, confirms the fact, which I already understood, that complete arrangements had been made in the western pavilion for the separate treatment of cases of diphtheria; and the medical officer of health, referring to the fever hospital, in one of his annual reports says: "Bootle need not now as in former years, fear the outbreak of any epidemic." Feeling confident, therefore, that ample provision had already been made for diphtheria, I opposed the erection of a pavilion for those cases. There was no truth in the statement that

a diphtheria patient was taken into the hospital, caught the fever, and died. The chairman now admits that he made a mistake, and the resident medical officer denies that a case of diphtheria has ever been treated in the wards along with any other disease. The statement that a fever patient, while under treatment in the hospital, contracted diphtheria and died is not supported by any evidence; in fact, there is no record in the medical officer's published annual reports of any death from diphtheria having occurred in the hospital since its establishment.

*** The newspaper report certainly made it appear that the opposition was based upon quite other grounds. As the necessity for the isolation of diphtheria is apparently conceded, the difference of opinion between Dr. Wills and the medical advisers of the Health Committee would seem to turn upon the point whether the provision originally made for that purpose is suitable and still available.

FEES FOR INQUESTS IN WORKHOUSE CASES.

WORKHOUSE RESIDENT MEDICAL OFFICER writes to ask whether he is not legally entitled to a fee for evidence at a coroner's inquest; also for making a *post-mortem* examination by the coroner's order.

He states that the coroner of his district has hitherto declined to pay such fees, on the ground that giving evidence or making a *post-mortem* examination in a workhouse case is a part of the duty of the medical officer of the institution.

*** It is certainly no part of the duty of a workhouse medical officer, as such, either to give evidence at an inquest or to make a *post-mortem* examination; and we are surprised to hear of any coroner making such an excuse for not paying a medical witness. The London County Council have recently taken the opinion of Mr. Poland, Q.C., on this point; and he has advised the Council that medical officers of workhouses are entitled to fees for evidence given at inquests and for *post-mortem* examinations in workhouse cases when made by order of the coroner. The London County Council have consequently authorised the coroners of London to pay medical fees for inquests, etc., on workhouse cases. The law on the subject is the same everywhere.

NOTIFICATION OF SCARLET FEVER.

DR. J. P. ASTON (Eccleshill) writes: I notice in the BRITISH MEDICAL JOURNAL of October 8th that it is stated that a Lancashire town was first to notify scarlet fever in 1877. Permit me to state that on my recommendation as health officer, notification of scarlet fever along with the other zymotics was adopted in Eccleshill in 1875, and from the card I now enclose you will see how much ahead we still are:

ECCLESHILL SANITARY DISTRICT.

The following are the Notifiable Diseases in the District, viz:—

Rötheln,	Chicken-pox,	Scarlet fever,	Puerperal fever,
Measles,	Small-pox,	Erysipelas,	Cholera,
Mumps,	Membranous croup,	Typhus fever,	Choleraic diarrhœa
Whooping cough,	Diphtheria,	Enteric fever,	Dysentery.

The fee of 2s. 6d. is paid for each infected house or family in which the above are notified by the medical attendant.

N.B.—Please notify as a matter of courtesy, cases of phthisis, plumbism, cancer, rheumatic fever, influenza, pneumonia, and any other nuisance or condition dangerous to public health.

I notify (*a*)....., at (*b*)....., of (*c*).....
Signed .....
Address.....

(*a*) Disease or nuisance. (*b*) Name of householder. (*c*) Address.

A QUESTION FOR MEDICAL OFFICERS OF HEALTH.

M.O.H. writes: As a medical officer of health of many years' standing, I should like the opinion of some of my colleagues in the sanitary service upon a question which has caused me much trouble.

In the county in which I live, the boiling down of the carcases of horses is a frequent cause of complaint. Now this kind of industry cannot be forbidden, and the question arises as to what distance the boiling apparatus should be from the nearest dwelling?

I shall be glad to know what is done in this matter by other practitioners, and I hope to be favoured with the views of other medical officers of health, as uniformity of action is desirable.

THE COMMA BACILLUS AND THE SOIL.

SURGEON-MAJOR MURTAGH writes: With reference to your remarks in the BRITISH MEDICAL JOURNAL of October 1st on the variation of the cholera vibrio, may it not be well to inquire how far this is influenced by the state of the soil, and, consequently, of the water? Much of the soil in parts of Northern India is impregnated with alkalies, and in places nitre—some of which may have been produced by the microbe—abounds. May not nitric acid be set free by climatic, microbic, or other agency from nitrates manufactured by the vibrio, and thus a cholera visitation in a district be terminated?

*** The study of the influence of the soil on variability of any microbe is an extremely wide and difficult one, and cannot be attempted until we know more or everything about the limits of variability of a microbe when grown on artificial media or in the body. The influence of the geological surroundings on the vibrio of cholera is a subject of the greatest difficulty, as we are entirely in the dark as to the fate of vibrio after it has left the human body. Koch did find it in the water of a tank (Calcutta), but its power of survival in such a medium seems to be extremely weak. As to the second point, whether nitric acid set free by climatic, microbic, or other agency from nitrates manufactured by the vibrio may not terminate an epidemic, this is simply an assumption of no value before we know what the vibrio does set free. We presume "nitrates" in this communication should read nitrites. On such a view, why should we ever have an epidemic of cholera? Some varieties of the bacilli also do grow on acid media, so that *a priori* the nitric acid set free is no obstacle to the growth of the vibrio.

LUNACY CERTIFICATES AND MAGISTRATES.

CUNCTATOR writes: In connection with a certificate of lunacy for a pauper which I had lately sent by the relatives to a J.P., the latter called and said he wished me to accompany him to the house of the patient, and be present while he inquired into the merits of the case. I went, but demurred, as I had never been asked to do so on similar occasions by any other J.P. The reason given for this departure was that a new regulation had come out. Perhaps you will inform me whether this is the case, since I could see no advantage or fresh light thrown on the case by my conceding the point?

*** "Cunctator" does not state whether or not he acted as medical officer of the union in the case of the pauper lunatic to which he refers. "Cunctator's" method of action in the matter before he was requested to accompany the justice appears to have been informal. Had he followed the method indicated in the Lunacy Act, we are not aware of anything that would have compelled him to accompany the justice against his will.

CERTIFICATES AS TO SANITATION OF DAIRY FARMS.

A SUBSCRIBER, who holds a diploma in sanitary science but is not a medical officer of health, has been asked to inspect and certify as to the sanitary condition of a milk farm. The inspection having been made, with results satisfactory in all respects, our correspondent asks whether he is justified in reporting to that effect and in certifying "that the farm is in perfect sanitary condition and that the milk and produce are beneficial to health." Publication would in all probability follow.

*** We see no objection as long as the report and certificate deal only with the sanitary conditions. The latter part of the proposed certificate implies an accurate knowledge of many other points, including the health of the cows and of the attendants. If taken in any other sense than as applying merely to the time of inspection it would be misleading and therefore we should advise its omission.

THE D.P.H. AND THE OFFICE OF M.O.H.

A D.P.H. wishes to know whether, in appointing a medical officer of health, a rural sanitary authority are compelled to give preference to the candidate or candidates (if any) who hold a diploma in public health?

*** No, unless the population at the 1891 census exceeded 50,000.

HEALTH OFFICERS AND THEIR REPORTS.

SOUTHWICK, near Sunderland, is a local board district, with a population of rather more than 10,000. It seems, from a report in the *Sunderland Daily Echo*, that Mr. Lister, the medical officer of health, has incurred the wrath of the board by calling their attention to certain nuisances, to the prevalence of typhoid fever, and to the need for notification and detailed disinfection. It is the plain duty of the health officer to make such reports when he finds occasion to do so, and the no less plain duty of the sanitary authority to take such steps as are necessary for protecting the health of the population under their charge. What the Southwick local board seems to have done is to ignore their officer's report and advice, and content themselves with a few platitudes as to the general healthiness of their district, and much abuse of the medical officer for making what they are pleased to consider unnecessary fuss. They felt, no doubt, that the microscopic salary of £15 15s. per annum which they offer ought to have been taken as a measure of the amount of vigilance and advice in sanitary matters which they desired for their district. It is stated that Dr. Hill, the county health officer for Durham, has been equally inconsiderate, having visited the board's district, and made a report upon its sanitary condition. We are not told whether it was favourable or otherwise, but its vigorous reception sounds ominous, and possibly we may hear presently of representations made to the Local Government Board by the county council.

THE COST OF SMALL-POX.

AT the monthly meeting of the Rastrick Local Board on October 12th, the chairman stated that the recent outbreak of small-pox had involved the districts of Brighouse, Rastrick, and Clifton alone in a total expenditure of £7,233 9s. 1d., including £5,000 for hospital and refuge accommodation. This averaged £31 6s. 3½d. per case."

ANOTHER MILK TYPHOID EPIDEMIC.

AT a meeting of the Sanitary Committee of Dundee, Dr. Anderson, the medical officer of health, reported on a serious outbreak of typhoid fever. From August 20th to 24th five cases were reported, all of whom obtained their milk from one dairy. On August 26th special investigations were made without discovering the source of infection, but on August 28th the presence of typhoid fever on a dairyman's premises was conclusively proved, and the public distribution of the milk was forthwith stopped. There were only 8 cases reported when the sale of the milk was stopped, and yet there have been 43 cases of typhoid fever, 6 of whom died, amongst the persons who consumed the infected milk. During August the total number of typhoid cases reported from the whole city was 37, and 19 of these were caused by this infected milk. During September the total number reported was 45, and 24 of these were caused by this infected milk. A portion of the milk was regularly delivered for sale at a shop in the north-eastern district of the city, and amongst the persons

who obtained their milk supply at this shop there were 16 cases of typhoid fever reported between August 24th and September 21st. It is interesting to trace the rise and subsidence of this special outbreak. From August 20th to the 31st, 19 cases were reported; from September 1st to the 10th, 18 cases; between September 10th and the 27th there were 5 cases, and none since. It is another illustration of the value of compulsory notification of infectious diseases, and of the sensitiveness of milk to infection.

The Committee instructed the sanitary inspector to intimate to all dairymen and milk retailers throughout the city that the Commissioners desire that hereafter they shall give notice at the sanitary office of every case of illness occurring in the dwelling houses of other premises, whatever it might be, immediately on such illness occurring; further, the Sanitary Inspector was instructed (1) to see that all cairies and milkshops are kept and maintained in proper order and repair, and in a state of perfect cleanliness; (2) to report all cases where dairymen or milk retailers, or any of their families, sleep on the premises of the dairy or milkshop; and (3) to bring up a report specifying all wells at or near dairies or milkshops, and whether water is supplied to any dairy or milkshop from any such wells.

COMPULSORY NOTIFICATION AND THE REGISTRATION OF DISEASE.

The last Parliamentary return issued on the working of the Infectious Disease (Notification) Act of 1889 shows that upwards of 1,000 sanitary authorities have adopted the Act, the districts represented having an aggregate population of twenty-four out of the twenty-nine millions of people in England and Wales, according to the last census. The result of the freedom hitherto granted to sanitary bodies in the matter has been such as to render it almost imperative upon Parliament to enforce in the remainder of the country those benefits of which the local health authorities have not voluntarily availed themselves.

The further question arises, Cannot something be done to utilise the information by collating and widely distributing it? The present partial scheme, by which the health officers of certain districts, supplying weekly summaries of notifiable diseases to the Local Government Board, receive in return the summarised facts for all such districts, should be enlarged to cover the whole country. This could be done by the constitution of county councils as registration authorities, with power to require similar weekly summaries from all health officers within their respective counties, the compiled results being tabulated, multiple copies being obtained by some such simple process as that in use at Whitehall, and posted early each week (say Monday night) to all health officers of sanitary districts in and abutting on the several counties. Thus every health officer in England and Wales would on Tuesday in each week have reliable information as to the presence of disease in the adjoining districts; and on the usefulness of these facts it is needless to dwell.

In addition, the data for the country generally could be received from the county councils, and tabulated quarterly and annually by some properly-constituted central registration department, and treated either independently or as part of the Registrar-General's quarterly returns and yearly volumes.

INDIA AND THE COLONIES.

INDIA.

A Correction.—In a paragraph published in the British Medical Journal on May 28th, p. 1172, certain comments on the mortality among camp followers in Burmah were incorrectly attributed to Dr. Sibthorpe.

The Total Population of India.—The total population of India, according to the latest summary tables, is 287,179,715, showing an increase of 33,386,210 since 1881. The population of the Feudatory States is given at a little over 66 millions, and that of the great towns at 27½ millions. Some 244½ million persons are returned as illiterate. The lepers number about 126,000; the blind are estimated at 458,000; the deaf and dumb at 196,000; the insane at 76,000.

Public Dispensaries in India.—The proportion of public dispensaries to population in Lower Bengal is 1 to 270,000; in the North-West Provinces, 1 to 160,000; and in the Punjab, 1 to 90,000 inhabitants. The relatively large number of dispensaries in the Punjab is accounted for by the scattered distribution of the population.

The Water Supply of India: An Important New Departure.—At a provincial conference at which thirty districts of Bengal were formally represented, the following resolution was passed and presented to the Lieutenant-Governor: "Having regard to the fearful loss of life due to malarious fever and other preventable diseases, as testified by the Sanitary Commissioner of Bengal, this conference is of opinion that no further time should be lost in at once taking up this all-important question of sanitation, and that a supply of pure water and an effective drainage system represent the great sanitary needs of the province." Thereupon sir Charles Elliott called together a mixed Committee of fourteen European and native members, four of them being officers of his Government, specially qualified to deal with the questions involved, and the other ten being Hindu or Mohammedan gentlemen, selected for the experience which they had acquired as chairmen of important rural municipalities, or as large proprietors. The landowners were powerfully represented by the Rajah Peari Mohun Mukharji. The *Times* correspondent, who gives a very interesting account of the matter, states that the following resolutions were passed:—"That the Local Government be empowered to require municipalities to combine with one another and with district or local boards and cantonment authorities for the purpose of improving the water supply of the area subject to their jurisdiction; that the Local Government be empowered to require municipalities to combine with one another and with district or local boards and cantonment authorities for the purpose of improving the drainage of the area subject to their jurisdiction; that when an application is made to Government on the part of the inhabitants of any tract where malarial fever prevails or when it is notorious that there is a high rate of mortality due to the want of drainage, provision shall be made by law for ascertaining the wishes of the majority of the inhabitants or owners of property concerned, as represented by the district board, and if the majority support the scheme, the Government shall be empowered to carry out comprehensive schemes of drainage, and to raise from the area affected such funds as may be necessary for meeting the cost of such schemes." The Secretary of the Bengal Government was willing to safeguard the last resolution by providing that the population at large, who would have to contribute towards the cost, should be allowed to decide as to the necessity of the works by a general vote. But only one of the native members supported this view, and the other nine preferred to strengthen the hands of the executive Government by accepting the decision of the district board as an authoritative exponent of local opinion. It was stated that the death-rate in a well-defined area had amounted to 50 per 1,000 each year, or more than double the death-rate of similar areas under an adequate system of drainage and sanitation. Such a measure will have, if properly carried out, with a due regard to the prevention of zymotic as well as malarial disease, an even greater effect in reducing the diarrhœal and choleraic affections than malarial sickness.

NEW SOUTH WALES.

A home for male inebriates was opened at Echo Farm, Middle Harbour, near Sydney, on July 21st.

QUEENSLAND.

The Queensland Government has established a vaccine depôt at Brisbane. Several calves have been inoculated, and a supply of lymph is now available.

VICTORIA.

The Inebriate Asylum at Beaconfield, near Berwick, has been closed by the Government.

HOSPITAL AND DISPENSARY MANAGEMENT.

ROYAL ALBERT ASYLUM, CARLISLE.

At the annual meeting of the Royal Albert Asylum, Dr. Shuttleworth, the medical superintendent, made his annual report to the Central Committee. He stated that during the year there had been 69 admissions, 35 discharges, and 18 deaths. The average number resident had been 581, and the aggregate under care and training at some portion of the year 658. The death-rate had been lower than that for the period of the last report, namely, 3.1 per cent. calculated upon the average number resident, and 2.7 per cent. calculated on the aggregate number. The necessity for isolation had arisen on several occasions to prevent the spread of contagious diseases, and the asylum being full, it was difficult to find satisfactory accommodation for such emergences. A detached infectious hospital would be of great service in the administration of the asylum. The Rodgett Infirmary had been constantly occupied by an average of over 20 cases of ordinary sick patients.

THE CHOLERA.

Reports from all the centres in which cholera has been prevalent show that the decline in the epidemic is becoming weekly more pronounced. In Hamburg the decline, which was arrested at the end of last week, the number of new cases having risen from 13 to 24, has shown a further decline this week. In Buda-Pesth, also, there has been a distinct decrease in the number of new cases. From Holland a few cases continue to be reported daily, but the number for the whole country has not exceeded 9 in any one day. In Belgium the epidemic appears to be nearly extinct. In Paris, however, cases continue to occur, and there were 112 patients in the hospitals on October 15th.

GERMANY.

[From our Special Correspondent in Berlin.]

Clinical Resemblance of Cholera Asiatica and Cholera Nostras.

In last week's meeting of the Verein für Innere Medizin in Berlin, Dr. P. Guttmann, of the Moabit Hospital, reported on

the thirty cases of cholera treated in his hospital. In every case the source of infection had been traced to the water used for drinking. Fifteen cases were cured, and, of these, five had such slight symptoms that but for the bacteriological test they would never have been taken for cholera patients. On the other hand, many cases of cholera nostras observed by Guttmann were of an extremely severe type, with symptoms in every way resembling those of Asiatic cholera. Here, too, it was the bacteriological examination that fixed the diagnosis. Guttmann spoke favourably of subcutaneous injection of salt solution, which, though by no means a "cure" (Heilmittel), were useful in tiding over the dangerous stage of asphyxia. Salol and creolin had proved useless. Careful bacteriological examinations proved that recovered cases were free from bacilli between the fifth and tenth day.

FRUIT AND THE CHOLERA BACILLI.

The Imperial Cholera Commission has been carrying on experiments with a view to finding out how long cholera bacilli can live in fruit, vegetables, and various drinks. They have found that, at ordinary temperature, the bacilli die in from one to two hours in the substance of fruit, the acidity of which is more than 2 per cent. (for instance, red and white currants). In Italian peaches, sour cherries, plums, apples, and some sorts of pears, they lived from three to six hours, whilst in apricots, strawberries, gooseberries, and greengages they lived for twenty to twenty-four hours, and for several days in sweet cherries, pears, some kinds of plums, and cucumbers. On the outside of fruit and cucumber cholera bacilli live much longer, and, if the surface be damp, they will live as long as from five to seven days on currants, cherries, etc., unless exposed to direct sunlight, when they die in a few hours. Wine —claret or hock—was found to kill the bacilli in a few minutes, and cold infusions of tea and coffee, beer, and boiled milk in periods varying from one hour (for tea) to several days. On salt and smoked herring the bacilli lived almost twenty-four hours, and on fresh fish almost two days.

THE RHINE.

Examination stations have been established for the Rhine waterways at Mannheim, Ludwigshafen, and Mayence, and also at various places in the Oder district.

OLD CLOTHES.

A man and woman, who some weeks ago smuggled into Wandsbeck and there sold clothes from a cholera house in Hamburg, thereby causing the death of three persons, have been sentenced to two years' imprisonment.

BELGIUM.

On October 13th a report was laid before the Superior Council of Health by the Director of the Sanitary Service, M. Beco. Between July 21st and October 1st, 1,135 cases of cholera, with 564 deaths, have been reported to the authorities. In the port of Antwerp there were 244 cases and 89 deaths. With the exception of Antwerp, the places where the visitation has been most marked are those which communicate with our metropolis by water. In the provinces the list stands thus: (1) Antwerp, 702 cases and 326 deaths; (2) Flandre Orientale, 199 cases and 118 deaths; (3) Flandre Occidentale, 121 cases and 15 deaths; (4) Hainault, 113 cases and 54 deaths; (5) Brabant, 85 cases and 44 deaths. The provinces of Liège, of Limbourg, of Luxembourg, and Namur, further removed from the centre of contagion and possessing the purest drinking water, have been very slightly attacked. At the conclusion of his report M. Beco demanded the reform of the laws and regulations concerning sanitary measures in Belgium. The local authorities, who are free at present to take the most efficacious measures in their power to check contagion, and who too often neglect this duty, especially in the country districts, are to be compelled to act with greater energy, and will have their powers extended for the purpose. It is also deemed advisable to improve the system of disinfection and to purify the water supply, especially in the quarters of the labouring classes, who have been almost the only victims of the scourge. M. Beco's report shows the futility of restrictive measures at the frontier. A sounder legislation and the diffusion of a better understanding of the simplest rules of hygiene are far surer safeguards against the evil.

FRANKFORT-ON-THE-MAIN.

Two cases of Asiatic cholera are reported from Frankfort-on-the-Main. The sufferers who have imported the disease into the city are, as was also the case in Berlin, barge people. They come from Holland. The water of the Main is declared to be polluted.

HAMBURG.

The total registrations of cholera now amount to 17,982 cases, of which 7,598 ended fatally.

MARSEILLES.

The Advisory Committee of the Sanitary Board of Paris on October 17th heard Dr. Brouardel's report upon his recent journey to Marseilles. He declared that the cholera outbreak there was principally due to the contamination of drinking water by sewerage. Measures necessary to remove this danger had been taken, and the hope was justified that the epidemic was nearly at an end.

NOTES ON HEALTH RESORTS.

X.—EGYPT.

By F. M. SANDWITH, M.D.,

Physician to the Kasr-el-Aini Hospital, Cairo; and formerly Vice-Director of the Sanitary Department of Egypt.

CASES WHICH DERIVE BENEFIT FROM A WINTER RESIDENCE IN EGYPT.

CAIRO is rapidly growing in public favour as a winter resort, owing to the pure desert air, which acts as a tonic, the absence of rain, fog, snow, strong winds, and extreme cold; the very complete historical remains, and the modern fruits of English civilisation. The patients who may safely be recommended to winter in Egypt are the asthmatic, those troubled with incipient, quiescent, or chronic diseases of the chest, sufferers from rheumatism in all forms, and nearly every other chronic disease. Patients suffering from rheumatoid arthritis are a little better off in Egypt than in other wintering places, and this is all that can be said. A dry climate is of value to patients with kidney disease, because the skin does the greatest part of the elimination, and the renal organs get a corresponding rest.

CONTRA-INDICATIONS AND DRAWBACKS.

The cases which should not be sent to Egypt are those suffering from febrile or very advanced lung disease, those afflicted with extremely advanced disease of heart or other organ; those with a very limited supply of money, and those with chronic home sickness. There are many drawbacks to wintering on the Nile besides expense and the distance of six days from London. Insect life is very apparent in the form of flies, fleas, and mosquitos, all requiring some cleverness of management. As regards food, we have very fair mutton and beef, good poultry, excellent ducks, snipe, and quail, indifferent bread and cow's milk, perfect fresh butter, doubtful eggs, and a delicious variety of vegetables and fruit.

SEASON AND ROUTE.

Visitors are advised not to reach Egypt before November, which is one of the best months in the year. Until the railway from Port Said to Ismailia is completed, they are recommended to land by way of Alexandria, thus avoiding all risk of exposure to night air and bad trains. Patients with lung disease should not leave Egypt till the end of April, at least; and rheumatic patients should stay in Cairo till the end of May, or even later, to get the full benefit of dry heat. When Cairo becomes too hot, Ramleh—a seaside suburb of Alexandria—is recommended as a suitable place for a week or two on the way back to Europe. Intending visitors should err on the side of bringing too much, rather than too little, warm clothing; for the cold after sunset in January, especially on the Nile, is intense.

RAINFALL, TEMPERATURE, AND WINDS.

November, already praised, is a rainless month. In December the invalid will be subjected to an average maximum heat out of doors of 69° F., in January 67°, in February 68°, in March 76°, in April 84°, and in May 92°. The average minimum temperature by night out of doors does not concern the invalid, but he ought to be greatly interested in his bedroom minimum heat. In Cairo this need never fall below 68°, while in April it rises to 68°, and in May to 72°. Rain falls on an average three days in the month in Cairo between December and April, but the whole rainfall of the year is only 1¼ inch. In February there begins usually a dry, dusty, desert wind, which reaches its maximum (seven days in the month) during April. It is not unwholesome except to the temper, but it is a decided nuisance, and sometimes lasts three days at a time.

WATER SUPPLY AND SANITARY ARRANGEMENTS.

The Nile water, when carefully filtered, is excellent to drink. Ice is made from distilled water by the water company. A drainage scheme will be commenced next summer; at present the best hotels and houses frequented by the English are furnished with cemented cesspools outside the house, carefully trapped and ventilated, and emptied by an odourless pneumatic system. The mosques and bazaars are all insanitary.

Nurses and Hospitals.

Several English nurses can now be obtained in Cairo; there are also good *masseurs*, and a small English private hospital.

Helouan: the Pyramids and Luxor.

Helouan is a suburb of Cairo where rheumatic and skin patients can take sulphur baths closely resembling those of Aix-les-Bains during the winter, when it is too cold to do so in Europe. Life is very quiet, the air exhilarating, and an excellent hotel has just been opened there. At the Pyramids there are many similar attractions, but no sulphur baths. Besides the Sphinx and Pyramids themselves, there is a constant stream of pleasure-seeking visitors in addition to the searchers after health. Luxor is 450 miles south of Cairo, and can be reached by various steamers and Nile boats, while the railway line is being gradually extended to it. The climate is perfect during January and February. There is no rain; the air is almost the driest in the world, and the temperature, though cold at night, is delightful by day, being something like that of Cairo in February and March respectively. Thebes and Karnak are both within easy donkey riding distance from Luxor.

THE FIVE YEARS' CURRICULUM.

The Opinions of the Rev. Dr. Haughton, M.D. and Mr. Mitchell Banks.

We are favoured, in reply to a communication which we some time since addressed to them, with following observations from experienced members of the General Medical Council, upon the best means of utilising the extra year which has now been added to the compulsory medical curriculum. It will be seen that both Dr. Haughton and Mr. Mitchell Banks have come to very similar conclusions:

Dr. Samuel Haughton, F.R.S. (Trinity College, Dublin), writes:

Out-Patient Practice.—In my opinion the fifth year would be best spent in general and special hospital work, especially in an hospital where there is a large out-patient department, worked diligently by younger men well acquainted with the needs of medical students of to-day, and able to take advantage of their improved medical education.

The First Year.—It seems to me that the first year requires more attention than the fifth. My experience is that, from want of knowledge of mechanics, physics, chemistry, and natural history, the average medical student is quite unprepared to enter upon the purely professional part of his education, such as anatomy, physiology, and the study of the physical signs of health and disease.

The Choice of a General Practitioner.—I would not accept certificates of six months' teaching from any general practitioner who had not an establishment of at least fifty beds under his control, including fever cases and common diseases of children. I do not believe that six months under a general practitioner will ever be popular in Ireland.

Professor W. Mitchell Banks (University College, Liverpool) writes:

Special Subjects.—If the student has worked properly and has passed his earlier examinations at the appropriate periods, he should, by the end of his fourth year, have completed the necessary lectures and hospital attendance pertaining to general surgery and general medicine. I therefore think that the fifth year should be devoted as much as possible to special subjects. In every place where a medical school exists there also exist abundant facilities for the study of such special subjects. I would especially mention diseases of the eye and ear, children's diseases (as seen in a children's hospital or children's ward of a general hospital), diseases of women, skin diseases, mental diseases, typhus and typhoid fever, and hygiene. I am quite sure that in two winter terms and one summer term of three months each an industrious student could obtain a great deal of useful knowledge of these subjects. I do not mean to say that he would become an expert oculist in three months, but, at all events, he would learn to know when a dangerous state of things was impending, and would not go on blundering with a serious eye case unaided and ignorant of its real gravity until all chance of saving sight was lost. A general practitioner must have a very good knowledge of some things, and a smattering of everything else beside. I am sure that he can never be provided with more than a mere smattering, unless his curriculum is to be prolonged to seven or eight years. But that smattering may include the knowledge of certain sound broad principles which in after-life may save him from making a fool of himself and doing damage to his patient. I think that the special subjects above mentioned can and should be learnt in special hospitals, in special wards of general hospitals, or in workhouse infirmaries, and that they should be studied under trained teachers.

Foreign Study.—As to the question of the student going abroad for special work, I do not think it a wise thing. He can get more than enough of good instruction at home. His going abroad should be done after he has qualified and when he no longer has the fear of examinations hanging over his head. Besides, when a little older, he studies with discrimination and is not so likely to be led away into mere idle or pleasure-loving habits.

Pupilage.—As to the great question of whether six months of the fifth year can be best spent in pupilage, I do not think they can. Nothing is so valuable to a student as being trained in the first instance to observe methodically and then to reason logically upon what he has observed. If once he has acquired this power then he goes on teaching himself for the rest of his days. A pupil receives no such methodical training. He is occupied in "picking up" practical details which are without doubt useful but of which a knowledge can be gained at any later time. But the power of closely observing and carefully reasoning can only be learnt when a man is a student and only from persons who can observe and reason well themselves, that is to say from trained teachers.

Common Diseases and Prescribing.—The main argument for pupilage is that the student, having obtained his degree or qualification, enters into practice extremely ignorant of many common diseases, such as scarlatina, measles, whooping-cough, chicken-pox, scabies, and the other troubles which form the bulk of general practice. Moreover, he is very ignorant of the so-called art of prescribing. I am firmly of opinion that the only way he can get over this difficulty is to go as an assistant to a general practitioner after he has qualified. This is the proper time for him to pick up the details and small, though most necessary, arts of private practice, including the "bedside manner." All these things are soon learnt, and can be learnt at any time; but, to my way of thinking, any part of a five years' curriculum is far too valuable to be thrown away upon them. Every month of it can be spent in a mental training which can never be acquired at a later period. Without that special training a man never advances in after-life, but plods along by rule-of-thumb, neither improving himself nor his art. Furthermore, having, after twenty-seven years' experience, a pretty good idea of where and how a student is to learn his work, I cannot think it possible for him to get a knowledge of what are termed common diseases except by seeing them in actual practice, and the controversy hinges upon whether it is best for him to study these diseases before or after he is qualified. I know very well that doctors who want qualified assistants are indignant because the gentlemen who come to them nowadays know nothing of general practice, and are very useless until they have acquired a knowledge of it. They expect them to be of the type of the fast-disappearing unqualified assistant, who was a kind of useful helot. But this cannot be in the future. What will probably happen is this: On the one hand, the practitioner, if he takes a qualified assistant fresh from the schools, will simply have to recognise the fact that the said assistant will not be of much use to him for some months. On the other hand, the assistant will have to recognise the fact that he cannot for a while be of much good in the "business" part of his master's work, and must at first be content with mere bed and board by way of remuneration; he will have, in fact, to regard a first assistantship as merely an extension of his curriculum. I see no other way for it.

Permissive Pupilage.—With these views it may be fairly asked why I voted in the General Medical Council for allowing the student, if he wished, to spend six months out of his fifth year as a pupil. For the following reasons: (1) Because it was represented to the Council that a large body of general

practitioners was in favour of it, and I believed that the views of these gentlemen were entitled to respectful consideration, even although my inward conviction was that these same general practitioners were much more concerned for their own interest in the matter of getting useful business assistants than they were for what was actually best and most valuable for the student in the matter of education. (2) Because there are certain instances where the privilege of taking six months pupilage may be usefully employed. Take the instance of the son or near relative of a doctor in good practice, with perhaps plenty of rough, but useful, surgical work. A father or relative would be likely to take pains with the lad, and teach him well and usefully. (3) Because I felt certain that the privilege would not be extensively used. Students have a very shrewd notion of what is best for themselves, and it is a very noteworthy thing that, although the privilege of pupilage has been granted for years by the College of Surgeons, only a very few individals have availed themselves of it.

The Choice of a General Practitioner.—As to what evidence of fitness should be required from a practitioner who wishes to take pupils, I do not think there need be much trouble about that. If the six months' pupilage had been compulsory instead of optional, it would have been quite a different thing. But, believing as I do, that only a few men will elect to go as pupils, a reference probably to the *Medical Directory* would suffice to indicate the status and respectability of the practitioner. Probably the simplest way would be for the student to declare for what University or Licensing Body he wants his pupilage certificate, and the practitioner could apply to that University or Licensing Body for the requisite authority. The business would most likely be left in the hands of Deans of Faculties or Secretaries of Colleges.

LUNATIC ASYLUMS, IRELAND: ANNUAL REPORT.

Increase in Numbers.—Death-rate.—Importance of Post-mortem Investigations.—Proposed Special Arrangements for Imbecile Children and Harmless Lunatics.

THE forty-first report of the Inspectors of Lunatics in Ireland shows that of the 16,689 patients mentally affected on January 1st last, 11,734 were located in district asylums, 4,180 in workhouses, 632 in private asylums, and 143 in the Central Criminal Asylum. An increase of 438 has taken place during the year, and the number of lunatics under care has increased from 249 per 100,000 of the population in 1880 to 355 per 100,000 in 1891. Of the 11,734 under treatment in district asylums, 3,010 were admitted during the year. Of these, 2,350 were first admissions, while 660 had been under restraint previously. The discharged amounted to 1,759, of whom 1,218 had recovered, while 49 were improved, and 156 not improved, and 888 deaths took place.

The percentage proportion of deaths to the daily average number under treatment was 7.6, and the disease which proved most fatal was phthisis, accounting for 215 of the total deaths in district asylums, or a percentage of 27.2.

In 134 cases the cause of death was ascertained by *post-mortem* examination, showing an increase on the numbers in former years. As pointed out in a recent report, the importance of these investigations cannot be too strongly urged, tending as they do (1) to protect the insane, since by them any injuries inflicted during life may be discovered; (2) to safeguard the asylum staffs, preventing after-accusations of ill-treatment being brought forward; and (3) to advance our knowledge of brain disease, and afford the means to the medical officers of asylums for the study of pathology.

In consequence of the overcrowding of district asylums, the necessity for further accommodation is becoming more and more urgent. The inspectors suggest that some relief to overcrowding could be obtained by the establishment of training schools for idiotic and imbecile children. Further, the erection of succursal district asylums in each province for the reception of chronic and harmless lunatics would tend to relieve the plethora existing in district asylums, but the best procedure would be the accommodation of certain classes of the insane in disused or partially occupied workhouses, under conditions and restrictions similar to those which work so well in Scotland.

ENTRIES AT THE MEDICAL SCHOOLS AND COLLEGES.

WE are indebted to the officers of the several universities, colleges, and medical schools in England for the returns which enable us to publish the subjoined table, showing the number of undergraduates and students who have commenced the study of medicine this session.

	A.	B.	C.	D.	E.
St. Bartholomew's Hospital	112	24	0	17	136
Charing Cross Hospital	40	20	25	3	85
St. George's Hospital	30	1	0	1	31
Guy's Hospital	106	36	26	23	168
King's College	28	57	0	10	85
London Hospital	50	65	1	6	116
St. Mary's Hospital	61	36	1	7	98
Middlesex Hospital	35	43	11	3	89
St. Thomas's Hospital	71	17	0	8	88
University College	*	*	*	*	*
Westminster Hospital	12	4	0	3	16
London School of Medicine for Women	*	*	*	*	*
Cambridge University	116	—	—	—	—
Oxford University	20	—	—	23	20
University of Durham College of Medicine	121	48	1	—	170
Bristol Medical School	26	2	2	—	30
Owens College, Manchester	60	36	5	55	101
University College, Liverpool	24	6	5	26	35
Yorkshire College, Leeds	32	9	0	26	41
Mason College, Birmingham	32	42	4	13	78
Firth College, Sheffield	11	3	0	1	14
London School of Dental Surgery	—	—	—	30	—

* No return.

A. Number of students who have entered for the full curriculum.
B. Number of students who have joined for special courses.
C. Number of dental students.
D. Number of students who have joined classes for preliminary instruction.
E. Total excluding students who have joined classes for preliminary instruction.

These returns will be studied with more than usual interest because they are the first to show the influence of the addition of an extra year to the compulsory curriculum.

The total number of students who have begun medical studies in England this session is, it would appear, somewhat less than in recent years, but the diminution has not been so great as some have anticipated. There is a distinct falling off in the metropolitan schools taken as a whole, but the deficiency is not very large. It may with equal probability be attributed to the prolonged delay in coming to any definite solution of the university question, which has been due to the difficulty of satisfying all the numerous educational interests involved, a difficulty which the medical schools have, it will be admitted, done their best to smooth away.

It will be found that there is a falling off in the number of new entries for the whole curriculum at all the metropolitan medical schools, with three exceptions. These are St. Bartholomew's Hospital, which has somewhat exceeded its large total for last year; Guy's Hospital, where the steady increase observable during recent years has been more than maintained; and the London Hospital, which shows a large improvement upon the unusually low entry of last year.

The return from Cambridge University is not quite complete, and the final number will probably be slightly in excess of that of last year. The University of Durham College of Medicine (Newcastle-on-Tyne) shows a remarkable improvement. The three Colleges of the Victoria University—the Owens College, Manchester, the University College, Liverpool, and the Yorkshire College, Leeds—show a perceptible falling off.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—Sir James Paget, President, took the chair at the quarterly Court of Directors held on October 12th. Fifty-eight widows, twelve orphans, and four orphans on the Copeland Fund made applications for grants, and it was resolved that a sum of £1,256 should be distributed among them at the next court. The directors recommend that a Christmas present should be given this year to the widows and orphans in the fund, namely, £5 to each widow, £2 to each orphan, and £5 each to the four orphans on the Copeland Fund—in all £334. Four new members were elected, and the deaths of four reported. The death of a widow was announced, and three orphans had ceased to be eligible for further grants. The expenses of the quarter were £63 14s. 6d. A legacy of £20 had been received from the executors of Mr. T. G. D. Davies, a life member.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, OCTOBER 22ND, 1892.

SOME LAST WORDS OF THE ANTI-RESEARCHERS.

The anti-research controversy opened at the Church Congress and which at one time threatened to extend itself to portentous proportions happily seems now likely to come to an early conclusion; and that in the fashion which must be wholly satisfactory to the profession since physiological experiment of the kind is absolutely necessary for the progress of human knowledge and the alleviation of human suffering. Miss Cobbe has fairly turned tail and quits the field. She does so under an excuse which very well accords with the system of tactics which she has throughout adopted in this matter. For a series of years, and in a variety of publications, this lady brought a series of vile accusations against the most eminent, humane, and accomplished physicians, surgeons, and scientists of the day, having charged men of the rank, class, and character of Lister, Burdon Sanderson, Lauder Brunton, Ferrier, Horsley and their supporters and defenders Paget, Clark, Humphry, Wilks—and in fact the whole medical profession with a few insignificant exceptions she has charged; the one with performing and the other with countenancing and defending, acts which she so describes as to induce her ally in the attack—Canon Wilberforce—to describe them as "inhuman devils," and the Bishop of Manchester to characterise them as "diabolical." She now withdraws from the contest which she has provoked, because she finds it intolerable to be told, with abundant proof adduced, that her quotations are false; that she has deliberately suppressed the fact that in the very operations to which she refers morphine and chloroform were administered; and that she has repeatedly and fraudulently omitted to state that vital fact.

She withdraws behind the shield of that very lame Achilles, Dr. Berdoe. She thinks it right to have spent years in reviling, insulting, and injuring to the utmost of her power, and in calumniating with the grossest falsehoods, he acts and character of men who are justly to be counted as among the benefactors of mankind. When her falsehoods are plainly exposed and she is challenged in very distinct language to bring her statements to proof—statements which she has not attempted to prove and knows she cannot prove—to withdraw them in sackcloth and ashes, she replies through Dr. Berdoe that her feelings are too much hurt to allow her to take the only course which truth and honour and justice demand—that of humble, open, and life-long repentance and humiliation.

Among her companions in misfortune and discredit are the Bishop of Manchester and Bishop Barry; her companions in misfortune because they have been misled, and have not hesitated to join her in her abuse, upon data which they now know to be false, and which they ought of their own initiative to have ascertained to be false at least a year ago; her companions in discredit thus far, because neither has yet taken the course which might be expected from men of their high position and moral obligations. They must now be convinced of the utterly baseless fabric of Miss Cobbe's allegations; they cannot, and they have not ventured, to deny it, the proof has been, and is, abundant. They have seen her avoid the plainest issue; they have seen her shelter herself under the vain excuse that the book was written for her in great part by a literary "ghost," and that the frauds and falsehoods must therefore be imputed to the ghost, and not to her.

It is, of course, open to Miss Cobbe to throw her literary assistant into the ditch, and to take for herself the credit of all the high moral indignation with which she fills her signed preface; and thus to leave her literary assistant to bear the dishonour of having deliberately suppressed the vital fact that in the very operations which are quoted in inverted commas as evidences of horrible cruelty, the animals were under the influence of chloroform or of chloroform and morphine. It is of little avail for her to do this, because in her preface she takes upon herself the whole responsibility of asserting that in every instance cited the presence or absence of anæsthetics has been carefully noted. But even if she chooses to resort to this device, let her do so openly, honestly, and as becomes an Englishwoman. If the fault, nay, the crime, of this suppression of the truth on which such an edifice of deliberate, wholesale, and persistent calumny has been built, be not with her but wholly with her assistant, let her at least express her profound regret at the deceit which has been practised on her, and at having been led, in that case, unwittingly to have done a most cruel wrong. Thus far she has done nothing of the sort. She is a professed exponent of the laws of Veracity, with a big V, and no doubt the list of eminent persons who have been misguided by her, and induced to allow their names to be paraded as patrons of the Antivivisection Society, has relied upon her Veracity, and taken it to mean truthfulness. Let Lord Coleridge, Mr. Stansfeld, Mr. John Morley, the Bishops of Southwell, Liverpool, Wakefield, Carlisle, in addition to the Bishop of Manchester and Bishop Barry, let them one and all, come forward now and say honestly what they think of this exhibition of Unveracity. They, who are not ladies, need not shrink back because a spade is called a spade; and if this thing is, as Professor Horsley has shown it to be, a falsehood of the worst kind, they need not be deterred from expressing their opinion, even though a "Saxon monosyllable" has been used to characterise the falsehood. Truth is truth, and falsehood is falsehood, whether it be described in words of English or of Latin origin.

A word or two further is necessary as to the position in this matter of Mr. Lawson Tait and Dr. Berdoe. Mr. Lawson Tait's public appearances are superabundantly combatant on occasions, but this time at least they are sadly deficient in a

sense of humour. He avoided any discussion before the British Medical Association (of whose Council he is a member, and of whose Scientific Grants Committee he is also a member) of the resolution passed unanimously by the Nottingham meeting, at which he was present, affirming the immense value to medicine and surgery, and to the advance of knowledge of experiments on living animals; and he absented himself from the discussion at the Folkestone Church Congress. He has now come out in the *Times* with a challenge to Sir Andrew Clark, Sir James Paget, and Dr. Wilks, in which he aims at figuring as a David before a whole group of Goliaths, and challenges them to a public slinging match before an unqualified and uninformed public. Speaking of the matter wholly as the public act of a public man, it is one marked by strange witlessness and a want of good taste which must shock everyone—even those who have none. But with perfect self-possession and dignity these gentlemen have known how to shake off this little impertinence; their reply is perfect, and Mr. Lawson Tait, in a subsequent number of the *Times*, having knocked his head against it, professes to have invited them to a discussion before a medical society or audience. But such discussions he has always carefully avoided, and the letter to which they have replied does not even hint at such a proceeding. He has had opportunities in abundance at the meetings of the British Medical Association and at International Medical Congresses, and occasions innumerable of raising the question of the utility of experimental research before an instructed audience; he has never availed himself of them. These leaders of medicine are well justified now in replying to such a critic on such an occasion "*non tali hoste nec auditoribus istis.*"

As for Dr. Berdoe, we have no other words than those of pity, and of shame. Dr. Berdoe appears on his own confession to have stood sponsor for every one of the utterances in Miss Cobbe's book. He has had the opportunity—nay, he was charged with the duty—of verifying the alleged facts; his elementary duty was, under these circumstances, to compare the statements in *The Nine Circles* with the narratives which they professed to quote, and to see that they accurately and fully represented the truth. He became sponsor for a series of grave omissions which falsified the main facts. It is impossible further to hold him guiltless of being at least as disingenuous in the matter as Miss Cobbe. He, by his professional obligations, was especially bound to see that the truth, the whole truth, and nothing but the truth, was told of his professional brethren. It is a matter of profound regret that any medical man should have put himself in the painful position in which Dr. Berdoe stands.

As one of these medical gentlemen is a member of the Council of the British Medical Association and the other is a member of the British Medical Association, it especially behoves them at least to endeavour to purge themselves of their offence by some open, plain, and clear statement before their colleagues. Until they do so, they leave themselves open to the charge of being accessories to a falsehood that calumniates and insults some of the most estimable of their brethren in the Association and in the profession; and that is a very grave charge.

The annual dinner of the Richmond Hospital will take place in Dublin on Saturday, November 5th.

THE WORK OF THE LATE ADMINISTRATION AND THE NEXT.[1]

V.—Scotland.

Some Sanitary Legislation denied to Scotland.—Importance of the Local Government Act for Scotland.—Compulsory Appointment of County Council Medical Officers, with Security of Tenure.—The Scotch Public Health Bill a Quarter of a Century Old.—Very Defective Powers of Local Sanitary Authorities.—Insufficiency of the Board of Supervision as a Board of Health.—Hints for Reform.

In Scotland the greatest achievement of the late Administration was undoubtedly the passing of its Local Government Act. Scotland shared in the advantages of the Infectious Disease (Notification) Act, and considerable facilities in respect of matters of scavenging and the regulation of the construction of new buildings were conferred upon the smaller towns under the Burgh Police Act of 1892. But the northern kingdom was, curiously enough, excluded from the benefits of what the President of the Local Government Board termed the natural complement of the Notification Act—the Infectious Disease (Prevention) Act—nor did it receive anything as the equivalent of the Public Health Acts Amendment Act of 1890.

Prior to 1889 the conditions of local government in, at any rate, the more important urban districts under the Public Health Act, supplemented as it almost invariably was by local Acts, were fairly adequate. The whole system of rural administration was non-representative. The affairs of the county generally—roads, police, weights and measures, the Contagious Diseases (Animals) Acts, Food and Drugs Acts, were governed by the Commissioners of Supply, a body of country gentlemen having a certain property qualification. These matters, with the exception, perhaps, of the last, were administered with economy and efficiency. The Poor Law was and is administered by the parochial board, a practically non-representative body, which, however, discharges its Poor-law functions reasonably well. But, unfortunately, *faute de mieux*, the parochial board had grafted upon what may be termed its normal functions the duty of executing the Public Health Acts. The parish became the unit of sanitary administration, and the sanitary administration of the rural districts was, in the worst sense of the term, parochial. These boards had no competent advisers. Money was frittered away in interparochial jealousies. Villages situated partly in two parishes had separate water supplies for each parochial division. Isolation hospitals were not, because the parochial feeling was too strong to permit of interparochial combination for such a purpose. The Public Health Act was very largely a dead letter. The "parish council" has been shown to be a failure as a unit of sanitary administration, so far as Scotland is concerned. The Local Government Act for Scotland effected an entire revolution. The county council, a popularly elected body, became the supreme sanitary authority in the county; the district committee, composed mostly of members of the county council, with a representative from each parochial board, became the local authority under the Public Health Act for a group of parishes. By the timely representations of the Medical Officers' Society of Scotland and the active intervention of

[1] The articles of the series already published have appeared in the British Medical Journal of August 20th, p. 423; August 27th, p. 573; September 17th, p. 643; and October 15th, p. 856.

Mr. Ernest Hart as Chairman of the Parliamentary Bills Committee of the British Medical Association, and of Dr. Farquharson, M.P., every county council was not only permitted, as in England, but *required* to appoint a medical officer of health, dismissible only with the consent of the central authority; and this officer might also, and usually does, hold the like position in relation to the district committees, the exceptions being in the case of the large and inaccessible highland counties, in which, in whole or part, the services of the former parochial sanitary officers have been retained.

The result of all this—which is precisely what was refused by Mr. Ritchie (in spite of the same representations) in the English County Councils Bill—is that considerable strides are being made in the improvement of sanitary conditions in rural Scotland. Water supply and drainage schemes are everywhere in the air, dairy farms are being remodelled, combinations for hospital purposes are being formed, the Notification Act is being generally adopted, questions of river pollution are being seriously taken up. And the new activity in the rural districts is being reflected in the smaller urban districts, which have been stimulated into honourable emulation.

This new activity, however, is being cribbed, cabin'd, and confined for want of legislative powers which, it is to be hoped, the new administration will supply. Everything in the way of sanitary disabilities is implied in the reflection that the Scotch Public Health Act is a quarter of a century old, and that the only appreciable addition to the powers it confers has been the extension of the Infectious Disease (Notification) Act to Scotland. In 1867 it was doubtless felt that it would be wasteful and ridiculous excess to endow parochial sanitary authorities with any material powers, and, consequently, the newly-created authorities find themselves paralysed in their efforts to ameliorate the condition of their districts; they have no power to arrange for the scavenging and cleansing of villages, these having a population sometimes of 8,000 or 10,000. Their powers in respect of the prevention of the spread of infectious disease are limited; it is doubtful whether they have any powers in respect of infected milk; they have no power to interfere with the erection of houses offending in every particular against established sanitary principles; they have no power to deal with tenants who turn what were designed as "sanitary conveniencies" into sickening foci of nuisance. The threatened invasion of cholera has directed attention to a further pressing and national sanitary disability. Scotland is without powers for the formation of combined port sanitary authorities. Thus it happens that the sanitary jurisdiction over the waters of the Forth, so liable to importations of diseases prevalent on the Continent, is divided between nearly a dozen independent local authorities; and Glasgow, "the second city in the kingdom," has to rely upon the good offices of another local authority at the entrance to the Clyde for protection against seaborne infection. In short, the sanitary disabilities of Scotland are many and grievous. The remedy is obvious—a new Public Health Act.

The evolution of the new local government system in Scotland has thrown into strong relief the imperfections and anomalous constitution of the national health department. Like the Local Government Board, the Board of Supervision had its origin as the central authority for the care of the poor; and it may be said at once that its administration of the Poor Law has been altogether admirable. As time advanced, certain duties with respect to the public health became superimposed, until at the present time it is all that stands for a national health department for Scotland. The Board is composed of half-a-dozen lawyers, with two or three gentlemen nominated by the Crown. It is staffed upon the most meagre scale. There are no medical nor engineering inspectors. Gentlemen without special training and but slenderly remunerated represent the Board alike upon Poor-law and public health inquiries. There is, properly speaking, no medical or scientific staff. The highly esteemed medical officer for Edinburgh acts as consulting medical officer, with the munificent salary of £200 per annum. It need hardly be said that the Board has never done any scientific work, that much valuable material has been lost through the starved condition of the medical department. Apart from references in respect of legal questions, the Board is "impossible" as an advisatory body in sanitary matters for local authorities. When questions of sanitary engineering are forced upon it, it becomes necessary to appoint an engineer in private practice to advise the Board. When the Board is required to arbitrate upon important sanitary questions, it has to resort to the employment of a "special commissioner." In fine, the Board of Supervision as a national board of health is an anachronism. In so far as questions of public health are concerned it is without influence in the national councils.

It would be easy to sketch the constitution of a reformed board, upon which the legal profession would not be so much over-represented. Under such a board the activities of the existing lay inspectors would be confined to the superintendence of the administration of the Poor Laws. The Board would have the advice of a medical officer of position, unentangled by other engagements. A couple of medical inspectors would be required, and there would probably be a senior and junior engineering inspector, whose supervision would be security against the occurrence of such *fiascos* in the matter of water and drainage schemes as have been the discouragement of the smaller local authorities in the past. Will the administration which has come into office have courage to deal with this urgent question? May we hope to see a new Public Health Act for Scotland introduced under its auspices?

"UNSOUND MIND" VERDICTS ON SUICIDE.

Though we often read in the newspapers of juries declaring persons to have committed suicide while in a state of temporary insanity, we suspect that there are very few persons versed in history and knowing human nature who really believe that the act of suicide is in itself a proof of mental derangement. Some recent verdicts are well calculated to attract attention to this view of the subject. Few of the legislators of antiquity treated self-destruction as a crime, though of their great writers we can recall Plato, Aristotle, and Virgil, who condemned the practice in a decided manner.

The Stoics taught that under some circumstances a man had not only a right to take his life, but if he felt that existence was mere misery and without honour or profit, he was bound to avail himself of so easy an escape—*patet janua exi*.

There is a long list of suicides in ancient history, including the great names of Hannibal and Cato. Men are much

influenced in their views of suicide by their religious belief. Sakya Muni did not condemn it, and as death offers to the Buddhist the prospect of a change of being, suicide is very common among the Chinese and Japanese. The Brahminical religion encouraged some forms of voluntary death, such as suttee, and self-immolation before the car of Juggernaut. It is recorded of a Hindu grandee in the time of the Emperor Jehangir that at his death fifty of his wives allowed themselves to be burned on his funeral pyre. Nevertheless, suicide does not appear to be at present very common amongst Hindus, who are habitually timid, and often take dismal views of a future life. Self-murder is strongly forbidden in the Koran save when the faithful give their lives away in battle, hence ordinary suicide is rare in Mahomedan countries. As the Catholic Church condemns self-destruction, it is rare in strictly Catholic countries such as Spain and Southern Italy. On the other hand, the proportion of suicides to the million is much higher in Protestant countries. The Bible is held to be the religion of Protestants, and it contains no express prohibition of suicide unless we admit that the commandment, "Thou shalt not kill," is designed to forbid a man slaying himself as well as his neighbour. It is in great cities like Paris, Berlin, and Vienna that the proportion of suicides is highest. This is in part owing to the prevalence of materialistic or pessimist views.

The old laws of England were strenuous in pursuing self-murder as a crime. According to Blackstone, it was an offence against the king, who had an interest in the preservation of his subject. The suicide was buried at a cross road or in a field, and his property was declared forfeited to the Crown. Out of compassion for the relatives, who alone suffered from these laws, juries became accustomed to bring in a verdict of suicide while in a state of temporary insanity. The Act of 1882 greatly modified the severity of the old laws. The suicide may now be buried quietly in a churchyard; but a clergyman cannot be forced to attend to give religious rites. As in Scotland there never were coroners' inquests, suicides are peaceably allowed to be buried in the churchyard, and, as funerals are common without any prayer at the grave, such questions never attracted interest.

The old practice of bringing in a verdict of insanity in cases of suicide seems as prevalent as ever in England, though the excuse is not so strong. It is to be regretted that juries are thus continually seeking to evade the law by a formula which smacks strongly of affectation or paradox, and which provides a doubtful remedy for the susceptibilities of sorrowing relatives. To bring in a verdict that a man has killed himself under the weight of cruel misfortunes may be a grievous duty; but it is a poor escape wrongly to impute to him a disease which is so often hereditary. Thus, the verdict that the suicide was of unsound mind may be an injury to his descendants.

Another question which juries have to consider is that there is a considerable number of instances where men, having ruined themselves by rash speculations or extravagance, have deliberately committed suicide in order that their wives and families should reap the benefit of insurance money. With some companies policies are made void by suicide, or payment is only made when a specified time has elapsed between the act of insurance and the death. Others refuse payment to the heirs of suicides unless they are clearly proved to be insane, while others pay without question. Thus a jury bringing in a verdict of suicide while *non compos mentis* instead of *felo de se* may unconsciously assist a plot to obtain money for a man's relations by the surrender of his own life.

There is no doubt that a large proportion of those who make away with themselves have previously shown symptoms of mental aberration. From the statistics furnished by Professor Morselli in his elaborate work, *Il Suicidio*, it would appear that the proportion is about one-third; and Dr. Wynn Westcott tells us, in his book on *Suicide*, that, after careful investigation into all the cases of suicide with which he had to do as coroner, he found that in 20 per cent. only had the deceased ever exhibited symptoms of insanity obvious to the friends and relatives.

In modern times, some celebrated writers—as Voltaire, Hume, and Goethe—have defended suicide; and there are instances where men who have never shown any symptoms of insanity, have in a calm and logical frame of mind deliberately renounced the gift of life in order to escape impending misery or disgrace. Those who believe that death is a sure and thorough opiate for misery will now and then find the temptation too hard, and will seek it as the last relief from an unhappy life; but so strong is the love of life, and so indestructible is hope in the human breast, that most men, whatever their belief, will bear their burdens to the end. Hence we are convinced that suicide will never be common with any class. A man who believes that this state of existence is given him as a trial, or that his happiness in the next world will be influenced by a virtuous life, will be the last to think of shortening the period of preparation.

We are disposed to advocate the removal of all relics of futile attempts to follow accomplished suicide with legal punishment or disgrace, retaining penalties only against those who would assist in its commission. Even as the law stands, it is a scandal that juries sworn to find according to the evidence should persist in accepting suicide as in itself a proof of insanity.

THE formal installation of Professor Virchow as Rector of the University of Berlin took place on Saturday, October 15th. The subject of his inaugural address was How to Prepare for the Study of Natural Science.

M. PEYRON, Director of the Assistance Publique, has issued instructions to the authorities of all the hospitals in Paris to prepare statistics of all the accidents which have been caused by the inhalation of chloroform from April 1st, 1890, to the present time.

MR. CHRISTOPHER HEATH will devote his Bradshaw Lecture at the Royal College of Surgeons to the subject of Diseases of the Nose. We understand that it is his intention to discuss and criticise some of the newest developments of intranasal surgery. The lecture, as was announced last week, will be given on Thursday, December 1st, at 4 P.M.

WHEN Sir Joseph Lister's period of office as Professor of Clinical Surgery in King's College expired last April, he retained charge of beds, and has thus continued to place his invaluable services at the disposal of the hospital and its surgical patients. This arrangement was originally made only for one year, but it is hoped that it may be continued, and that it may be long before King's College Hospital is deprived of the services of the most illustrious member of its staff.

The autumnal general meeting of the Irish Medical Schools' and Graduates' Association will be held at the rooms of the Medical Society on November 2nd at 6 P.M. On the same evening the Association will dine at the Holborn Restaurant at 7 P.M., Dr. James N. Dick (Director-General Medical Department, R.N.), president, in the chair.

Lord Herschell, Chairman of the Royal Commission on Vaccination, will continue to hold that post; but, owing to his duties as Lord Chancellor, which recommence at the end of this month, will not be able to preside so frequently as he did in the early part of the year. His place in his absence will be taken by Sir James Paget.

We inadvertently last week spoke of Dr. Walter Dickson (who after many years of distinguished service in the Royal Navy filled the office of Medical Inspector of Her Majesty's Customs with high success) as "C.B." We hope, however, that this inadvertence will only prove to be another exemplification of Campbell's words that "coming events cast their shadows before."

The arrangements for the sixty-second session of the Harveian Society of London are now complete. The annual meeting will be held on January 18th, when the President, Dr. Cheadle, will deliver his address. The annual dinner will be held on November 22nd. The Harveian Lectures will be given by Mr. Field on December 1st, 8th, and 15th. The subject is, as already announced, the Pathology and Treatment of Suppurative Diseases of the Ear.

MEDICAL INCOMES IN GERMANY.

The following figures, revealed by the income-tax returns, show the prospects of the medical profession in Berlin in anything but a satisfactory light. There are 1,747 doctors in the city, or nearly half the profession, who make less than £150 a year. Only 250 make £400, and only 170 more than £500.

LORD TENNYSON.

It is generally stated that influenza was the immediate cause of the death of the Poet Laureate; and Dr. Dabbs informs us that for about thirty-six hours after the case began to grow rapidly alarming, the symptoms were, in his opinion, markedly those of influenza. The case however was, in its main features, one of break-up of natural powers. Only (Dr. Dabbs writes to us) the wonderful watchfulness of others had kept him alive and well so long.

THE GUILD OF ST. LUKE.

On Tuesday, October 18th, St. Luke's Da , the twenty-eighth anniversary of the Guild of St. Luke, Evangelist and Physician, was celebrated at 480 churches. At St. Paul's, in the evening, a special service was held, at which the Rev. Canon Knox Little preached. The music was given by the London Gregorian Association, and the surplus of the offertory is to be devoted to the Medical Missionary Fund.

A DISASTER WHICH REQUIRES INVESTIGATION.

We learn from authoritative sources that public feeling is greatly and justly excited by the following incidents, which are likely to be, and ought to be, the subject of further official inquiry. Although cholera was known to prevail at Barracoo, 13 miles beyond Rawal Pindi on the Kashmir road, yet two regiments of Kashmiri infantry and a battery of artillery were recently allowed to march through the different military camps between that station and the frontier in defiance of protests from local civil and military officers, who foresaw the inevitable spread of the disease. What happened? Cholera was carried along, and there died: Surgeon-Colonel Allan, Surgeon-Captains Kenny and Fowler, Majors Dimond and Cole, six European soldiers, and about the same number of civilians near the sanitarium of Murree. Who is responsible for this wholesale creation of widows and orphans? Fifty-nine of the Kashmir troops also died; there is only one European officer and a native apothecary with each of these regiments, and both discipline and sanitation, it is needless to say, are not of the highest order. We fear there was painful mismanagement in this case, and under circumstances which peculiarly and urgently demand investigation. It will be pleaded, of course, that the Kashmir troops had to be pushed through somehow before winter; but, admitting the necessity, were the medical and other protests against the certain diffusion of cholera treated with reasonable attention, and made the basis of rational precautions? We should be sorry to prejudge these questions, but according to much weighty information that has reached us the medical warnings which ought to have been regarded seem to have been set aside, with the usual calamitous results. We cannot forget that we have generals who make no secret of their being above taking medical advice. Was this disaster, as is openly stated, an outcome of that spirit?

PROFESSOR BILLROTH'S JUBILEE.

On October 8th the formal celebration of the twenty-fifth anniversary of Professor von Billroth's appointment to the Chair of Surgery in the University of Vienna, and the fortieth of his graduation as Doctor of Medicine took place with all the solemnity customary on such occasions among German-speaking people. Seventy of the most distinguished of his old pupils—among them Professor Czerny of Heidelberg, Professor Wölfler of Graz, and Professor Mikulicz of Breslau—attended, and presented him with a *Festschrift* of 600 pages, to which several of them had contributed. The proceedings terminated with a banquet, at which the toast of the evening was proposed by Professor Wölfler. On October 11th the University itself, as represented by all its chief officials and professors and all the medical societies of Vienna, joined in doing honour to the distinguished surgeon. The tide of congratulatory eloquence rolled full and free, the most notable address being one by Professor Albert, who recited Professor Billroth's surgical exploits, and generally sang his praise with almost bardic enthusiasm.

DEATH FROM CHLOROFORM.

We have been favoured by Mr. W. B. Pettitt, House Physician to the Bradford Infirmary, with the following report of a case of death under chloroform. The patient was admitted some three months ago for perineal abscess. Ether was administered the same night, and was very badly taken. The wound and perineal sinus not closing, it was decided to scrape it again, so chloroform was administered; this anæsthetic was also badly taken, the patient taking a long time (fifteen to twenty minutes) to go under, and struggling somewhat. Chloroform was again administered for a third operation, and again badly taken. A fourth operation being considered necessary, on September 23rd, at 4.30 P.M., Mr. Pettitt proceeded to administer chloroform. Mr. Pettitt administered it, according to his custom, on a coarse towel folded once, and formed into a loose cone by holding it nipped up by finger and thumb, just enough to cover the mouth and nose. The patient, as previously, began talking, then struggling, and this was followed in about ten minutes by a sudden convulsive seizure, apparently epileptiform, with marked lividity. The head, neck, and back were rigidly arched backwards, and the pulse stopped; respiration, however, continued in slow occasional sobs for fully five minutes after the heart had ceased to beat. As soon as the patient become convulsed, Mr. Pettitt lowered the head (which was lying flat on the occiput on the table), and drew the tongue well forward. Artificial respiration was at the same time begun by the surgeon (before the natural respiration had ceased). Ether was injected hypodermically over the præcordia, and brandy was adminis-

tered by the rectum. Whilst all this was being done, the abdomen was being flipped with a wet towel, and the lower thorax and diaphragm were depressed (squeezed) in conjunction with the expiration of the artificial respiration. The whole procedure was done steadily, with care and deliberation, and was kept up for a full half-hour. All efforts were unavailing, however. The *post-mortem* examination showed the heart to be flabby and uncontracted, the blood fluid watery. The lungs contained tuberculous nodules scattered throughout both organs and consolidation (grey pneumonic phthisis), with cavity in the right apex. Both kidneys contained tuberculous abscesses. The other viscera, including the brain, were normal. The chloroform was given from a graduated bottle, and 1½ drachm was used in all. The same chloroform was used shortly afterwards the same afternoon, without any bad effect.

OPPOSITION TO THE GLANDERS AND FARCY ORDER.

THE London County Council has accepted a very serious responsibility in adopting a course of action which will have the effect of rendering the recent glanders order a dead letter. At the time the Board of Agriculture was drafting the new order as to glanders it consulted the Council, and the latter pointed out the importance of the principle of compulsory notification and uniformity of application. The Council's wishes on this point were not met, and it is contended that, even if the Council goes to the expense of carrying out the new order, the expenditure may prove to be wasted, since the disease may, in the event of lax administration in other parts of the country, be reintroduced into London at any time. It would cost from £30,000 to £40,000 a year in the first few years to cope with the disease; but such expenditure would be desirable if it were pretty sure that the result of enforcing the clause would be to drive glanders and farcy right out of London. At the present time the loss to London by these diseases is set at £50,000. It is thought that the new "permissive" order is not likely to be effectual in stamping out glanders and farcy in England, for past experience shows that in dealing with contagious diseases in animals in this country permissive legislation has failed. The London County Council, with the object of obtaining the uniform administration of the law throughout the country, has determined not to enforce the new provisions of the Glanders Order, 1892. It is alleged further that the new order is unjust in compelling compensation for animals slaughtered without a contribution from money voted by Parliament. The wisdom of this determination of the Council can scarcely be doubted. Rather must it be regarded as the outcome of a far-seeing policy. With its own experience of failure of "permissive" measures and comparative success of "compulsory," it is scarcely intelligible why the Board of Agriculture should have refused to make the order compulsory and have adopted a permissive form. Glanders, though committing its greatest ravages in London, exists in many counties in England, Scotland, and Wales, and notably in those immediately surrounding the area legislated for by the London County Council. It is generally allowed by experts that, in the great majority of instances, the disease is introduced with affected horses. In a large proportion of these we believe the disease is carried from London to the country, but in a certain number there is reason to know that it is brought from the provinces to London. It is clear that it is impossible for the London County Council to make any provisions which will prevent the disease from entering its district, while, by the adoption of the Glanders Order and a large expenditure, it would minimise the dangers from exportation to other districts. The inadequacy of any enactment which will permit Essex, Hertfordshire, Middlesex, and other counties to maintain the disease within their boundaries, and propagate it externally, while London has adopted slaughter and compensation, is too manifest to require any argument. This act of the London County Council sufficiently emphasises it. The determination we regard as no indication on the part of the Council of a desire to shirk its responsibilities; rather as a sign of fitness to carry out rational measures; and we venture to hope the refusal will have the effect of accelerating the decisive action of Parliament and will be a permanent lesson to the Board of Agriculture and its advisers that local authorities may learn in principle what the Board might have culled from its experience. Science and history surely declare emphatically against such "tinkering" policy. Again, it cannot be denied that the stamping out of glanders is for the national good, and that, if compensation be adopted, it should be provided out Imperial funds. Again and again in these columns the futility of permissive enactments and the necessity for uniform action through the central authority have been indicated; and we believe that compulsory measures and uniform organisation are more likely to follow the present action of the London County Council than could accrue from its adoption of the Glanders Order, 1892, in its existing maimed form.

DEATH FROM MUSHROOMS.

MUSHROOMS have been so exceedingly abundant, in the southern counties at least, this season as to call forth the remarks from many elderly persons that they had never before seen them in such quanities. Fortunately no other fungus is so common, indeed the deleterious kinds are comparatively rare. Yet several fatal cases of poisoning from eating fungi have been recorded during the present autumn; in no case, however, have we been able to ascertain what particular kind of fungus had caused, or was supposed to have caused, the fatal result. We repeat what we have so often said before, that very few fungi are really poisonous in a young state, and even mushrooms in an advanced stage will cause irritation and diarrhœa, and may even become poisonous. Violent purging may follow the eating of mushrooms the gills of which are nearly black, though still firm and undecayed. Another thing to be considered is the cooking. There is no doubt that the more thoroughly fungi are cooked the less likely they are to produce unpleasant effects. In view of the deaths that have occurred in consequence, as has been assumed, of eating poisonous fungi, a contemporary lately suggested that even the true mushroom should be avoided, because the risk of being poisoned is too great. Considering the enormous quantities of mushrooms now consumed, both wild and cultivated, the number of casualties through mistakes is very small, and as it is clearly impossible to prevent people from eating them, it would be more to the purpose to teach the young to discriminate between the good and the bad in fungi. As a matter of fact, country-bred persons, of the labouring class especially, are able to distinguish a mushroom from a "toadstool," and they are also able to distinguish the "horse mushroom," *Agaricus arvensis*, from the more delicate *Agaricus campestris*, or true mushroom. As a rule they discard everything else in the shape of a fungus, whether it be a "toadstool," an agaric of any kind, or a "devil's snuff-box," a puffball, or *Lycoperdon*. Yet many of the species of *Agaricus* are equally as good as *A. campestris*, and the giant puffball, *Lycoperdon giganteum*, is delicious when young and solid. At the same time, we should advise all persons who have not had practical instruction in the matter to avoid any and every fungus that they are not sure about. In nine cases out of ten the only person in a country village possessing any botanical knowledge is the "doctor," but his knowledge is rarely of the practical kind. In this connection we have a few remarks to make on the kind of botanical teaching fostered by the Science and Art Department, to say nothing of the universities and medical schools. Take the examination papers of the Science and Art Department, for example, and we find not a solitary question on economic botany, the only branch of the science of real utility to the 3,000 or

more candidates that present themselves annually. They are examined in the physiology and anatomy of plants from a textbook standpoint, and are asked questions on obscure phenomena of plant life which they have no possible chance of verifying or observing, or often even of understanding; but the kind of knowledge that would be most useful, and most easily learnt from competent teachers, is wholly ignored. The teaching is commenced at the wrong end; instead of demanding a practical acquaintance with plants and their properties, questions on tissues and vital functions are given, even in the first or elementary stage. It is true that the answers are often intelligent and good, but the fact remains that few of the candidates could distinguish a lime tree from an elm, hemlock from chervil, the dropwort from a parsnip, fool's parsley from the genuine plant, or barley from rye or bearded wheat. We should much like to see the elementary stage, at least, almost limited to the discrimination of plants and their products, reserving questions on the minute structure, growth, and nutrition of plants for the advanced stage. A knowledge of the berry-yielding plants of the hedges and woods would be far more useful than the phenomena of "root-pressure," or the supposed sources of the carbon and nitrogen of plants. What is most deplorable is that few of the teachers possess sufficient knowledge of field and economic botany to teach it, so they must first be taught. But if the department insisted on real knowledge instead of book learning, it would soon be forthcoming.

MEDICAL AID ASSOCIATIONS AND "INFAMOUS CONDUCT."

Referring to the subject of medical aid associations and the letter of Dr. Leslie Phillips to the President of the General Medical Council, which we last week discussed, we have endeavoured to ascertain what would be likely to be the view of the case taken by a well-informed legal mind. So far as we can make out, Dr. Phillips is not likely to be successful in his effort to make out in law, by the circumstances stated, a case of covering. To do that the person covered must, as we last week suggested, be carrying on practice—that is, a practice which is covered by some medical practitioner. This, of course, is not the case with medical aid associations; but, on the other hand, it might be a serious question for the General Medical Council whether for a medical man to hire himself out to a medical aid association so as to enable them to make a commercial profit out of his medical practice is not unprofessional conduct on his part. It would not, we think, be difficult to show that this is a practice injurious to the public; it is and most certainly detrimental to the medical profession. It would seem to be quite within the power of the General Medical Council, if they think well, to record their opinion strongly against the practice, and even to hold it to be infamous conduct in a professional respect if it appeared to them in that light. It is, in short, we consider, a matter for consideration for the General Medical Council whether such a hiring out of himself by a medical man is not a grave dereliction of his professional duty, and that question is one which no doubt the President of the General Medical Council, having been moved to do so, will bring before the Council for their consideration at its next meeting. A medical officer of one of these medical aid associations, in a letter published elsewhere in our columns, puts in a well-stated plea on the other side from his point of view, and of course both sides of the question will have to be considered.

A MEDICAL SCHOOL FOR WALES.

At the annual meeting of the Governors of the University College of South Wales it was practically decided that a Department of Medical Sciences should be formed in connection with the College. A resolution to this effect, moved by Mr. Alfred Thomas, M.P., seconded by Dr. Sheen, and supported by Dr. Evan Jones, Dr. Taylor, and Lord Aberdare, was carried unanimously in a full meeting. It is, we understand, the intention of the governors, for the present at all events, to provide for teaching only in those subjects which will carry a student as far as the First M.B. Examination of the University of London and the earlier examinations of the other examining bodies. It is thought that students whose medical education may be commenced at Cardiff will best learn medicine, surgery, and midwifery at such large centres as London or Edinburgh. The infirmary will, however, from the first probably be able to afford instruction in dispensing and in the every-day work of a "surgery." It is hoped that the classes may be opened in October, 1893. Thanks to the liberality of Mr. Thompson, of Hampstead, and of Dr. Edwards, Dr. Price, and other members of the medical profession in South Wales, there is no financial difficulty in the way.

AMERICAN "SPECIALISTS."

Our Dublin Correspondent writes: Dublin has been favoured with a visit from a number of American "specialists," calling themselves physicians and surgeons. Having been duly advertised, they took up their quarters in lodgings in one of the squares and began to receive the visits of their patients. It was announced that three months' advice would be given without payment. To them went a representative of the *Herald* newspaper, which had previously exposed and hunted a so-called Professor Moross. The reporter was at once submitted to examination; told that he had disease of the heart, and the usual other troubles with which quacks like to deal. He paid some money on account and left. A doctor called a few days later. He was told he had thickening of the "drum," was short-sighted, and had acute laryngitis. All patients appear to have been requested to pay a deposit, and many did. But suddenly came rumours of detectives, and the distinguished practitioners have disappeared with such receipts as they have been able to draw. The exposure will be of use, no doubt, if they should visit other towns in the kingdom.

"ELECTRO-HOMŒOPATHY:" HAHNEMANN HARNESSED.

On the principle of elective affinities we are not surprised that a union has been effected between the two "'pathies" which constitute the subject of these remarks. Electropathic and homœopathic systems of treatment are so much akin, both in their origin and direction, that nothing is more natural than to find them in company. "You air my affinity!" exclaimed the Mormon lady to Artemus Ward, the genial showman, as she flung herself into his arms and protested that the Powers above had decreed their union. Thus to homœopathy comes electropathy, and avows it is her long-lost connection. Mr. Labouchere, in the pages of *Truth*, has told the story of the attachment and the celebration of the marriage of this latest fashionable pair. Mr. Knight represents the institution which in this country has been founded for making known the blessings of a new system of electro-homœopathy. Already the latest of the "medical sects" (pardon us shades of the teachers of Alexandria) has its annals and its propaganda; its insignia are a red and blue star, indicative, we presume, of the red and blue electricity with which the soap, the dentifrice and gargle, the lime hair wash, the velvet powder, and the "lactescent balsamic bath" are impregnated. No longer is the divinity of electropathy enchained in a belt or a pad, but the liberated goddess diffuses her blessings to mankind by the toilet table and the lavatory. "Sauter," says *Truth*, "appears, as far as I can make out, to have succeeded in bottling up vegetable electricity in homœopathic doses. His remedies, marvellous to relate, will cure all diseases, even those regarded as incurable." But all this cannot be done without money, and as the poor are to have the blessings of the system without money and without price (we are uncertain whether this in-

cludes the soap, the dentifrice, and the lactescent balsamic bath), the charitable are invited to send around the "snowball," so that money orders, cheques, and bank notes may pour into the treasury of the Institute of Electro-Homœopathy, and replenish its funds, which appear at present to amount to £3 4s. 1½d. Thus is Hahnemann harnessed to electricity, and thus has the latest medical discovery blessed the world from without the circle of the orthodox. As Mr. Labouchere has turned the search light of *Truth* upon the new system, its advantages will probably be completely manifested to such of the public as at present are incredulous.

SYMPTOMS IN PERSPECTIVE.

SIR WILLIAM SAVORY, Bart., opened the second session of the North London Medical and Chirurgical Society on Thursday evening by delivering an address on "Symptoms in Perspective." We regret to be unable to publish the full text, owing to the great pressure on space. Sir William Savory observed that each of the symptoms which presented themselves in any given case was to be observed not so much in its absolute value as in its relative insignificance. The true meaning of any physical sign was to be reached not by considering it alone, but by viewing it in relation to the rest, and by thus placing each in its proper relative position, and by taking measure of the proportion of each to form a mental picture of the actual state of things. Certain signs were brought into the foreground, others were put back into the distance. What the rules of perspective were to the artist, this sound judgment of the relative proportion of symptoms was in surgical diagnosis. He illustrated his meaning by referring to the importance which a practised surgeon would attach, in a case of strangulated hernia, to the two symptoms —vomiting and a tumour in the inguinal region—pointing out how he would set aside other symptoms or assurances of recent amelioration in his determination to deal promptly with the root of all the symptoms. He also insisted on the importance of observing all symptoms; signs neither usual nor prominent might materially modify, or altogether change, the view taken. The different degrees of excellence of different surgeons were marked by their ability, after observing all the facts, to assign to them their relation to each other. An inquiry might be very full and complete, and yet the result confused or obscure from an absence of all proportion. A too exclusive devotion of attention to a particular part or subject might lead to symptoms elsewhere revealed being overlooked or ignored; or, if recognised and considered, such symptoms were relegated to the background in the presence of others which pointed in the direction in which the practitioner was accustomed to look. This was one of the dangers of specialism. Exactness of observation was above all things to be sought for. Knowledge and practice were uncertain, but it was our duty to work with the view of erasing the reproach. The great progress of medicine and surgery in recent years had been by the application of more exact methods and instruments of research. Sciences more exact in themselves, such as physics and chemistry, had been brought by the advance of a sounder physiology into closer relation with medicine and surgery, while pathology, the lineal descendant of these, was springing into new and vigorous life.

A NOSOLOGICAL MEMORIA TECHNICA.

GENERAL PAOLI compared Goldsmith to the sea *qui jette des perles sans s'en apercevoir*. This delicate compliment may with equal truth be applied to Mr. Jonathan Hutchinson, who rarely delivers an address or makes even a casual speech without, as it were, throwing among his audience pearls of thought or suggestion which he draws from the inexhaustible stores of his own "gained knowledge" and experience. Among these gems of ray serene there are occasionally, as is inevitable, some which, though valuable, are yet not altogether of the first water. In this category we must place the proposal, contained in the admirable address which we publish to-day, of labelling new diseases with the name not of the discoverer, but of the person who has the misfortune to have been selected by Nature as the *anima vilis* for the exercise of her skill in the production of pathological "sports." As Mr. Hutchinson is careful to vindicate his priority in relation to this suggestion, we may take it that he makes it "half in jest and whole in earnest," to use an expressive Scotticism. As we have already hinted, the proposal does not strike us as one of the happiest efforts of Mr. Hutchinson's scientific imagination. The naming of diseases after their supposed discoverers is already a source of confusion to the earnest student, and if he has further to burden his memory with a new set of godfathers of an altogether different kind—if "Penmann's prurigo" or "Noggs's noma" is to be added to Un Tel's paralysis and Snook's sclerosis—special professors of nomenclature will be required, and a sixth year will have to be added to the medical curriculum. Again, squabbles as to priority are sure to arise, and it would hardly tend to edification to see a great profession rent asunder over the conflicting claims of Sam Brown or Jemima Jones to be considered the real and original patentee of some triumph of pathological invention. There are other objections to which we need only refer. "Mrs. Brandford's legs" need cause no scandal, but disease has no sense of propriety, and there are parts of the human form divine whose infirmities the owner—especially if a lady—might not care to have made "a fixed figure for the scorn of time" in the way proposed by Mr. Hutchinson. Apart altogether from such possible complications, however, it is obvious that patients would be likely to find the notoriety thus thrust upon them as inconvenient as Mr. Toole, when he has "only a 'our to his dinner," finds his tenancy of the birthplace of the immortal Podgers. "To be preached to death by wild curates" would, no doubt, be a distressing fate, but we are not sure that it would not be better than being hunted by eager pathologists for tags of skin, scrapings of sores, or whatever other specimens of their neighbours' anatomy they may covet. The fact insisted on by Mr. Hutchinson that the names he uses are "pseudo-names," will only make confusion worse confounded by adding the perplexities arising from a particularly mysterious *memoria technica* to the other difficulties which we have ventured to point out. In the days when the artistic arrangement of a voluminous neckcloth was the symbol of social salvation, Beau Brummel's valet was met one morning coming from his master's dressing-room with an armful of rumpled scarves. "These," he explained, "are our failures." Mr. Hutchinson is as much a prince among surgeons as Brummel was among dandies, but we fear that his latest proposal as to the nomenclature of disease must be accounted one of his "failures."

SCOTLAND.

THE meetings of the Scottish Universities Commission were resumed last week when the 131st, 132nd, and 133rd sederunts were held. No report of the business done has been made public.

THE death-rate of Edinburgh last week was 17 per 1,000, giving a total of 87, of which 30 were due to chest diseases and 22 to zymotic causes. Measles and scarlatina still prevail to an alarming extent, 53 fresh cases of the latter and 263 of the former having been reported last week.

ADMISSION OF WOMEN TO THE EDINBURGH ROYAL INFIRMARY.

THE women students of the Scottish Association for the Medical Education of Women were last week for the first time allowed admission to the clinical teaching of the Royal In-

firmary. They are not to have free access to all the wards of the hospital. A surgical ward under the charge of Mr. Cotterill and a medical ward under the charge of Dr. Byrom Bramwell are to be reserved for their use. In addition to this special cliniques will be given in Gynæcological Ward No. 28 by Dr. Halliday Croom, in the Eye Wards by Dr. Geo. Berry, in the Ear and Throat Ward by Dr. P. McBride, and in the Skin Ward by Dr. W. Allan Jamieson. In this limited way women will be eligible as dressers and clerks. It is yet hoped that arrangements may be made for allowing access to the general waiting rooms and to the pathological department. It is understood that the present arrangements stand good for one year only, being made tentatively.

ST. MUNGO'S COLLEGE.

The introductory address in the Medical Faculty of St. Mungo's College was given by Dr. C. C. McVail. We regret to be unable to publish the full text owing to the great pressure on space. It contained an extremely interesting sketch of the history of the Royal Infirmary, and, parenthetically, of the origin and development of the University of Glasgow. Three movements of world-wide influence had begun within the walls of, or in direct connection with, the University of Glasgow—the inauguration (1758) of popular scientific and technical education by Professor Anderson, founder of Anderson's College; the invention of the condensing steam engine in 1765 by Watt, the machinist of the College; and the publication of *The Wealth of Nations* by Adam Smith, its Professor of Moral Philosophy. The Royal Infirmary had also been the scene of great work done for the benefit of mankind, for within its walls Andrew Buchanan had demonstrated the causes of the coagulation of the blood, and introduced the operations of plastic surgery; Lister had inaugurated the methods of aseptic surgery, the greatest contribution by far that had been made to surgery in the nineteenth century; and Macewen had first carried out his osteotomies, his transplantations of bone, and his work on cerebral surgery.

THE WESTERN INFIRMARY, GLASGOW.

The managers of the Western Infirmary, Glasgow, have allotted two wards to Professor Macewen. They will meet on Tuesday next to appoint an additional physician. There are several candidates for the appointment, and among them is Professor M. Charteris. It certainly appears to be a most anomalous thing that the Professor of Materia Medica and Therapeutics in the University of Glasgow should not be a physician in charge of hospital beds.

THE NEW ORDINANCES AT ABERDEEN.

Several of the professors in Aberdeen University took occasion, in their introductory lectures, to make references to the new ordinances. Professor Ogston stated that they had been disappointed in their just expectations, that the University Commissioners would be able to strike a proper balance between the theoretical and practical branches, so that the graduates should not only be licensed, but qualified, to practise in the true sense of the phrase. He thought that the amount of theoretical study was out of all proportion to the practical subjects. Although far from deprecating the importance of such studies as physics, practical physiology, and practical pathology, which have been elevated into essential parts of the medical curriculum, he held that any one of the following, which have been entirely overlooked, was far more important—namely, ear diseases, gynæcological medicine and surgery, laryngeal diseases, practical surgery, diseases of children, and electrotherapeutics. He concludes his address by stating that, "Considering the important defects in the scheme of medical education that has emanated from the Commissioners, it is only just to say that they have lost the opportunity offered them of effecting a needed reform in regard to medical study; that their ordinances are in many respects unworkable and greatly defective in others, and that we are now no nearer a well-judged and comprehensive scheme of reform and improvements than we were before the appointment of the Commission." Professor Cash complained that the position of materia medica was unsatisfactory, in so far that a knowledge of pathology was imperative before a successful teaching of materia medica and therapeutics could take place. He considered that the substitution of fifty meetings, which had been included in the class of practical materia medica and pharmacy, by twenty-five in pharmacy alone, was a retrograde step. He could not look on the ordinances as final, and contended that greater justice must ultimately be done to the subject.

ANOTHER OUTBREAK OF MILK TYPHOID IN DUNDEE.

We have to record another outbreak of typhoid fever in Dundee occasioned, by the presence of typhoid fever on a dairyman's premises, and consequent introduction into the milk. Forty-three cases of typhoid fever arising from this source were reported last week to the Dundee Sanitary Committee by the medical officer, Dr. Anderson. It will be remembered that a similar outbreak was reported in the county not long ago. In 1881 cases of an epidemic arising from this cause were reported by Mr. Ernest Hart to the International Medical Congress, and tabulated analyses of the details were given. Since then many additional legislative provisions and local precautions have been adopted, but, as our columns have testified in the intervening years, with insufficient effect. Outbreaks of the kind have been noted by us in some scores within the last decade. The subject is one to which local sanitary authorities should devote constant care and vigilance.

IRELAND.

IRISH MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

A meeting of the Medico-Psychological Association will be held at Mullingar Asylum at 12 o'clock on October 27th, when the following papers will be read:—Dr. Finnegan: Dress of Asylum Patients. Dr. West: Farming in Asylums. Drs. J. N. Eustace and Parsons: Pachymeningitis Hæmorrhagica Interna. Dr. Nash: (1) Alcoholic Neuritis and Insanity; (2) Puerperal Insanity with High Fever. Dr. Ruttledge: Atrophy limited to Certain Groups of Muscles. Dr. Nolan: Syphilitic General Paralysis.

ST. VINCENT'S HOSPITAL, DUBLIN.

On October 19th the introductory address at this hospital was delivered by Dr. McHugh, one of the physicians. In the course of his observations he said that the Medical Board had decided to transfer the lectures on practice of medicine and surgery from the medical schools to the hospitals. The clinical hospitals were *primâ facie* the proper places to study medicine and surgery, and the present system of giving lectures on these subjects in the medical schools must be regarded as a usurpation of functions which do not properly belong to them. This system was seriously defective in entirely dissociating theory from practice. On the other hand, by the adoption of the course now suggested, the student would be taught to look to the hospital as the sole source of purely professional knowledge. The hospital dinner took place in the evening, Dr. Cox presiding.

CORK WATER SUPPLY.

The Cork Corporation has been considering the question of the city water supply, attention having been called to it by a resolution of the local Medical Association declaring it to be impure. The municipal health officers have reported the result of their inspection of the various points of alleged

pollution. At Carrigrohane, Inniscarra, Dripsey, Blarney, and Gurth paper mills, it is admitted that sources of pollution exist, and recommendations are made with a view to the removal of these dangers. The engineer states that the cost of bringing water from Inchigeela, which is thirty-six miles away, would be one million—an estimate which does not include the cost of the impounding reservoir. No decision has yet been come to, and it is natural that much time must elapse before a subject of such magnitude can be definitely dealt with. Meantime it must be kept in mind that the Cork water supply is bad, and that the inhabitants are exposed to serious risks. The Medical Association has done a great service in pointing out the dangers, and it deserves the thanks of the public.

A SAD AND DISGRACEFUL STORY OF THE PUBLIC SERVICE.

IN Dr. Ormsby's introductory lecture at the opening of the Dublin medical session, he made an emphatic reference to the grievances of Irish dispensary medical officers, which is a subject to be kept steadily before the public view and the official mind. He referred especially to the question of superannuation after years of toil and unrequited labour. What inducement, he asked, was there for highly qualified medical men to enter the service when they knew that, after forty or fifty years of hard and incessant work, they must depend on the whims and tempers of a set of guardians, in many cases illiterate, to grant them a small pittance by way of superannuation, to keep them in some comfort for the remaining years of their life? The present Superannuation Act has one word, "may," which in any future legislation requires to be changed into "must" or "shall." When that is done, the guardians will have no choice in the matter, as it will then be obligatory on them to grant to all worn-out officers in the Poor-law service their just and well-earned retiring allowance. The glaring case of Dr. Walsh, of Ballyshannon, aged 85, was mentioned by Dr. Ormsby. From increasing infirmities, the result of age, Dr. Walsh had to resign his dispensary, and throw himself on the mercy of the guardians, who up to the present have not granted him one penny retiring allowance. "Is this right or human in a civilised country?" Dr. Ormsby asked. "One would hardly expect the most barbarous savages to treat their dogs in a worse manner, and yet year after year this gross and scandalous system is allowed to continue, and old and worn-out dispensary medical officers are constantly to be seen at all hours of the day and night in sleet and snow, pursuing their beneficent work in miserable cabins on sides of mountains, at a time when many of their 'masters,' the guardians, are enveloped in comfort, luxury, and sleep. After a life spent in such circumstances, the doctor should not look with confidence to a pension. Some boards of guardians have given the smallest retiring allowance they could, others have persistently refused to give any at all. There is no law to compel them. The doctor must resign before his application can be considered, and therefore a number of them hold on until they die in harness. Some are now at work who are over 80 years of age. One who wished to resign struggled on, suffering from ulcer of the stomach. One day he went to attend a patient, and was found lying in a ditch by the roadside in agony. The ulcer had perforated, and he died the next day. Another was induced to resign at 77 on promise of a pension, but afterwards the pension was refused. There is no more sad or disgraceful story in any department of public service."

ENTRANCE SCHOLARSHIPS.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—An Entrance Scolarship of the value of £60 has been awarded to Mr. H. Hilton Cheesman.

UNIVERSITY COLLEGE.—The Medical Entrance Exhibitions have been awarded as follows:—Exhibition of £100 to Mr. C. Bolton, of £60 to Mr. W. R. Battye, of £40 to Mr. E. P. Chennells.

THE INCREASE OF INSANITY.

THE steady increase in the number of insane persons certified as such continues to attract public attention, and the question of providing adequate accommodation for the ever-increasing population of our lunatic asylums is a problem which is now engaging the serious consideration of the local authorities throughout the country. From far and near comes the cry, What shall we do next to meet the demand for more room for our lunatics? More recently the question has turned in the way of asking why is it that this increasing burden cannot be checked? And again, what is the cause of this continual multiplication of numbers?

We have some poor consolation in the fact that, when we look around and ascertain what is happening, not only in the three divisions of our own kingdom, but in neighbouring countries, and, indeed, throughout the civilised world, we find that the same condition of things exists. As civilisation and enlightenment advance the mentally afflicted come more and more under official ken, and are recognised, cared for, and treated. Their certification, however, which has been regarded in more recent times as humane and beneficial both to the individual and the community, results in, and is largely responsible for, the increase we have to grapple with. In the records of our institutions for the insane, public and private, and in the valuable compilations of our lunacy boards we find ratios and reasons given which go far to satisfy the minds of experts as to causation, but they are far from satisfying the pangs of the ratepayers or from reducing the monetary burdens they are called upon to bear.

Although the low death-rate and the consequently longer life of the inmates of our lunatic asylums may to some extent account for an accumulation of numbers, it is far from accounting for the steady rise in the percentage of the insane to the general population, which has risen in ten years from 28.83 to 29.88 per 10,000. The grant in aid of 4s. a head a week paid by the State to the local authorities for each inmate of an asylum has, however, been acting in the direction of clearing the weak-minded paupers out of the workhouses and sending them as certified lunatics to the asylums. In this connection may be mentioned the established fact that the number of insane in workhouses has shown a downward tendency for some time past.

Pauperism and crime are said to be diminishing; at any rate, the number of the inmates of our workhouses and prisons is decreasing, while the number of lunatics is increasing. It seems as if the "border land" mental cases among paupers and prisoners alike are now more readily recognised as insane, and are more easily certified and classified as lunatics.

There are, however, other causes to which we must look in order that we may grasp the full importance of the subject, and one of the most prominent of these is the contracting of early and unsuitable marriages. The physician to any large hospital or dispensary has continually before him the wretched specimens of humanity resulting from these ill-starred alliances—children begotten by children, stunted alike in body and in mind, and ultimately drifting to the workhouse, the gaol, and the asylum. Again, the offspring of insane parents marry and transmit to other generations the legacy of lunacy. On this point many have come to the opinion in this country that lunacy should be a bar to matrimony—that where either of the contracting parties has been known to be insane the law should "forbid the banns," and that where the lunacy of one has been kept from the knowledge of the other it should be legal cause for declaring the marriage null and void.

Intemperance, which stands well nigh at the top of the list of causes of insanity, is in many cases the effect of the mental disorder, which has hitherto existed unrecognised, and is frequently more an exciting than a predisposing cause of the outbreak which results in certification.

We have briefly mentioned some of the more weighty points connected with the causes of insanity. In their prevention lies the power to lessen the numbers to be cared for. Let us have homes for the chronic and incurable cases, with hospitals in connection with them for the recent and acute

MR. MORLEY AND THE IRISH DISPENSARY DOCTORS.

We mentioned last week that the Dublin Conference Committee, charged with the grievances of the Irish dispensary doctors, had determined to seek an interview with Mr. Morley, the Chief Secretary. The usual application was made, and the reply is as follows:

"October 12th, 1892.

"I have received your letter of 11th inst. proposing a deputation from a Committee consisting of the representatives of the Royal Colleges of Physicians and Surgeons and of other Associations relative to the position of Poor-law union officers in Ireland. As, however, the case of the officers is one which could only be dealt with by legislation, and as there would be no prospect of considering such legislation in the approaching session of Parliament, I fear that no useful object could be gained by my receiving a deputation on the subject at the present time.—Yours faithfully,

"John Morley."

We confess that we are disappointed. It did not occur to us that Mr. Morley was likely to repeat the mistakes of his predecessor, Mr. Jackson, and refuse to hear the reasonable complaints of a large body of public servants. The reason assigned for refusing to receive a deputation is as weak as Mr. Jackson's. What the stupendous questions may be which are to occupy the whole of the next session of Parliament we do not presume to know, but it is hardly reasonable to say that nothing else is to be considered but the schemes which the Cabinet may be now shaping. Private Bill legislation will go on very much as usual, the fads of members will be aired as in other sessions, but a public scandal which affects the interests and lives of a great body of medical gentlemen cannot be considered. These officers are among the most important in the country. They are entrusted with the care of the public health, and they guard the highest interests of the nation. Does Mr. Morley not think that it would be at least fair to hear what they have to say, and to attempt a removal of the grosser of the evils from which they now suffer? It appears that he does not, and that the official atmosphere has proved just as potent in killing sympathy in him as in Mr. Jackson.

We have said before that this question is not going to rest here. Whether we get this interview or not, the Bills are going before Parliament, and we shall then know what attitude will be assumed by a Government which in former years itself introduced a Bill of the same nature. If Mr. Morley desires to save time, the wiser course would be to take up the Bills himself; but discussion will certainly not be stifled in the approaching session because of his present action, which has only resulted in exciting bitter resentment.

A meeting of the Conference Committee was held on October 19th to consider Mr. Morley's reply, and it was resolved to send the correspondence to the daily newspapers.

The following resolution was also passed:

That the co-operating Associations, while expressing their great regret that the Chief Secretary has not considered it expedient to hear the facts and suggestions with reference to the position of union officers in Ireland which the Associations proposed to submit to him, cannot accept the view that there is no prospect of considering legislation on this important and urgent subject in the approaching session of Parliament.

That the Associations conceive it to be incumbent on them to submit their case to the public at large and to the judgment of the Houses of Parliament, and therefore directs this Committee of representatives of the co-operating bodies to take immediate steps to lay before the public, through the medium of the press, and before members of the House of Commons, the great necessity, in the interest of the public, of dealing with the matters of which the Associations have had occasion to complain.

A statement of the grievances complained of will be drawn up and published by the Conference Committee.

A Warning to Curators.—On the night of October 1st and 2nd a fire broke out in the Carolina Institute at Stockholm. The whole of the large collection of Swedish skulls and skeletons was destroyed, and the special collection of Lapp and Egyptian skulls arranged by Professor Retzius were greatly damaged. It was only by the most strenuous exertions on the part of the firemen that the remainder of the museum, including the valuable cabinet of embryological specimens, was saved.

CONGRATULATORY DINNER TO SIR WALTER FOSTER, M.P., M.D., F.R.C.P.,

Parliamentary Secretary to the Local Government Board.

The following names are to be added to the list already published of those who will be present at the dinner which is fixed on Wednesday, October 26th, at 6.45 for 7 P.M., at the Whitehall Rooms, Hôtel Métropole, Dr. Withers Moore, President of Council of the British Medical Association, in the chair. The number of those who, up to date, have expressed a desire to be present is 152.

[The tickets are 23s. each, and application should be made to the Honorary Secretary of the Dinner Committee, 429, Strand. Cheques and P.O. orders to be crossed "Union Bank of London, Argyle Street, W."]

The Chairman of the London County Council.

Mr. J. Wickham Barnes, London	Dr. Leslie Phillips, Birmingham
Brigade-Surgeon-Lieut.-Colonel C. McD. Cuffe, Colchester	Surgeon Lloyd Thomas, R.N., Netley
Dr. Bruce Goff, Bothwell	Dr. Urquhart, Perth
Surgeon-Colonel A. Gore, Dublin	Dr. B. Whitelegge, Wakefield
	Dr. W. T. Woodforde, Reading

THE YORK MEDICAL SOCIETY.

The York Medical Society opened its winter session on October 12th with an inaugural address by Professor Clifford Allbutt, F.R.S., which was delivered in the Yorkshire Philosophical Society's museum. A goodly audience was gathered together, many influential laymen being present as well as the members and professional visitors of the Medical Society. After formally opening the meeting the retiring President (Mr. North, M.O.H.) vacated the chair in favour of his successor (Dr. Petch), who briefly expressed his appreciation of the honour conferred upon him. A vote of thanks was then passed to the retiring President for his services to the Society, mention being made of his faithfulness in discharging his public duties as medical officer of health for York. Mr. North returned thanks, and the President then briefly introduced Professor Allbutt, who was most cordially received. He took for the title of his discourse the Relations of Medical Men to Society and their Place and Function in the body of the State. The whole address was a graceful, elegantly worded, scholarly production, admirably adapted to the subject. After a few references to his past associations with Yorkshire, Dr. Allbutt reminded his professional hearers that medical men had first of all to see that the sanctity of life was respected, and then to secure for it the greatest possible freedom; also that they were, or should be, the great conservators of the "fund of pity." He touched on the tendency of the highly technical character of medical education to lessen general culture, to isolate the profession from the common interests of the laity, and to weaken its influence on society and the larger problems of mankind. The barrister, with a more contracted education outstripped us in influence, because he touched public interests at so many more points. Moreover, our practice did not bring us into wide relationships with the public; it was mainly personal and domestic, and tended to catch the tone of the laboratory or the boudoir rather than that of the world. None the less, "we were the ministers of a new and fruitful hope," and should be "the strengtheners of the ethics of the future," despite the fact that "the natural sin of the craft" was the taking of "too carnal a view of the body." We were more and more displacing the clergy as arbiters of the many ethical questions involved in lunacy, suicide, inherited disease, marriage, and so forth. Bearing in mind the sacred oath of Hippocrates, we must fit ourselves for these semi-sacerdotal functions. We must be the priests of humanity. And for this higher part—coming and even now at hand—we must rid ourselves of provincialism in our notions, broaden our culture, and be prepared to bear our part in common burdens. Then our silent profession would find a wider voice. The thanks of the meeting were awarded to Dr.

Allbutt by acclamation. Later in the day some sixty to seventy partook of the annual banquet held at the Station Hotel; and among the guests was the senior member for the city.

INTERNATIONAL MEMORIAL TO SEMMELWEIS.

A MEETING will be held on next Monday, October 24th, at 5 P.M., in the Library of the Royal College of Physicians of London, under the presidency of Sir Andrew Clark, to consider the desirability of assistance being given by the medical profession in the United Kingdom to the erection in his native town of Buda-Pesth of an international monument to Semmelweis in recognition of his discoveries in connection with the etiology and prevention of puerperal fever. The preliminary arrangements are in the hands of a provisional committee, of which Sir Spencer Wells is Chairman, and Drs. Cullingworth and Boxall, Honorary Secretaries. All medical men interested in the matter are invited to attend the meeting. The services which Semmelweis rendered to obstetric medicine, and through it to all womankind, are almost incalculable. Statistics are eloquent, but they can only tell of the reduction of the death-rate of parturient women; they must omit the enormous saving of human suffering, mental and physical, which may be traced to the beneficent work of the "Father of Antiseptic Midwifery." At the meeting on Monday, Sir Spencer Wells, Bart., will give a brief sketch of Semmelweis's work and discoveries in connection with the etiology and prevention of puerperal fever. A general opinion was expressed in favour of inviting the profession in India and in the English-speaking colonies to co-operate with this country, and of limiting the maximum subscription to one guinea. We understand that since the last meeting the small provisional subcommittee, which was formed just prior to the vacation, has invited a considerable number of members of the profession, who are more particularly associated with obstetrics and antiseptic methods, and who are practising in different parts of the kingdom, to co-operate with them. Judging from the replies which have been already received, the project, which was notified by us in the BRITISH MEDICAL JOURNAL of July 30th, is likely to meet with general support.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 26th day of October next, at 2 o'clock in the afternoon.

The following Committees will also meet:—

Tuesday, October 25th, 1892.—3.0 P.M. Medical Charities Committee.—5.0 P.M. Arrangement Committee. *Wednesday, October 26th, 1892.*—11.30 A.M. Journal and Finance Committee.—5.0 P.M. Parliamentary Bills Committee.

FRANCIS FOWKE, *General Secretary.*

October, 1892.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will take place on Tuesday, November 8th, at St. Bartholomew's Hospital, Chatham, A. T. Franklyn Brown, M.B., in the chair. Gentlemen desirous of reading papers or exhibiting specimens are requested to inform the Deputy Honorary Secretary of the District, E. Ground, M.D., 23, Gabriel's Hill, Maidstone. Further particulars will be duly announced.—E. GROUND, Deputy Honorary Secretary.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held at the Radcliffe Infirmary on Friday, October 28th, at 3.15 P.M. Members are requested to send notice of papers, cases, etc., to W. LEWIS MORGAN, Honorary Secretary, 42, Broad Street, Oxford.

LANCASHIRE AND CHESHIRE BRANCH.—The autumn meeting of this Branch will be held in the Town Hall, Preston, about the last week in November. Gentlemen wishing to read papers or communications, or show cases, are requested to write to Dr. Glascott, 23, St. John Street, Manchester, as soon as possible.—C. E. GLASCOTT, M.D., JAS. BARR, M.D., Joint Honorary Secretaries.

YORKSHIRE BRANCH.—The autumn meeting of the members of the Yorkshire Branch will be held at Harrogate on Wednesday, November 2nd, at 4.30 P.M. Members intending to read papers are requested to communicate with the Secretary, ARTHUR JACKSON, Wilkinson Street, Sheffield.

NORTHERN COUNTIES (SCOTLAND) BRANCH.—The autumn meeting will be held at Forres, in the Station Hotel (Mr. Macdonald's), on Thursday, October 27th, at 11 A.M., when it is proposed to visit the Leanchoil Hospital recently opened for patients. Members desirous of reading papers or of bringing forward any question affecting the Branch are requested to give notice to the Secretary.—J. W. NORRIS MACKAY, Hon. Sec., Elgin.

NORTH OF ENGLAND BRANCH.—The autumnal meeting will be held at the Ingham Infirmary, South Shields, on Wednesday, November 2nd, at 4 P.M. Cases of interest will be shown by the honorary staff of the infirmary, and by others. The dinner after the meeting will take place at the Royal Hotel at 6 o'clock.—G. E. WILLIAMSON, Honorary Secretary, 22, Eldon Square, Newcastle-upon-Tyne.

NORTH OF IRELAND BRANCH.—The autumn meeting of this Branch will be held in the Museum, College Square North, Belfast, on Thursday, October 27th, at 4 P.M. Business: (1) Dr. J. Walton Browne will deliver his address as President. (2) Dr. Byers will give an account of a Successful Abdominal Section for Ruptured Tubal Gestation, and will show the Ruptured Gravid Fallopian Tube and the Fœtus removed from the abdomen; Dr. Byers will also show a Suppurating Ovarian Cystoma, successfully removed. (3) Dr. James A. Lindsay will read notes of a case of Jacksonian Epilepsy, and will make some remarks on the Symptomatology and Pathology of the affection. (4) Dr. O'Neill (Belfast) will read short notes of Four Cases of Litholapaxy; he will also show the Calculi removed, and also five Calculi which were passed with the urine of three patients soon after severe attacks of renal colic. (5) Dr. Dempsey will read notes of a case of Utero-Vesical Fistula Cured by Operation.—J. W. BYERS, Honorary Secretary, Belfast.

STAFFORDSHIRE BRANCH.—The nineteenth annual general meeting of this Branch will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, October 27th, at 3.30. An address will be delivered by the President, Dr. Malet.—GEORGE REID, Honorary Secretary, Stafford.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.—The quarterly meeting will take place at the Royal National Hospital for Consumption, Ventnor, I.W., on Thursday, October 27th, at 4 P.M.; the President, Mr. Benjamin Barrow, F.R.C.S., in the chair. Agenda: Election of Member; Next Place of Meeting; Discussion upon Influenza. Dr. Williamson: An Account of a Unique Case, with Notes of *Post-Mortem* Examination. Dr. Sinclair Coghill: Further Report of the Cases treated at the Hospital with Koch's Tuberculin. Mr. T. A. Buck: On Recent Laceration of the Perineum, and its Treatment. Mr. H. M. Wood: A Method of Treatment of Ingrowing Toe-nail. Dr. Robertson: Cases of Skin Disease. Gentlemen desirous of contributing to the proceedings by reading papers or exhibiting specimens are requested to communicate at once with the Honorary Secretary.—ROBERT ROBERTSON, M.D., Honorary Secretary, Ventnor.

STIRLING, KINROSS, AND CLACKMANNAN BRANCH.—The autumn meeting of this Branch will be held in the Green Hotel, Kinross, on Thursday, October 27th, at 4 P.M. Members desiring to show cases or specimens are requested to communicate with the Honorary Secretaries, C. J. LEWIS, M.D., Stirling; J. PEAKE, F.F.P.&S.Glasg., Falkirk.

BATH AND BRISTOL BRANCH.—A special meeting will be held at University College, Bristol, on Wednesday, October 26th, at 7.30 P.M. precisely, Mr. T. B. Goss, President. The Council recommend the following alterations in the Rules: Rule IV.—To omit the words "alternately from the Bath and the Bristol District," and to substitute the words "from the members of the Branch." Rule VII.—To omit the word "six," and to substitute the word "seven." To omit the word "and" before the word "April," and to insert after the word "April" the words "and May." To omit the words "alternately at Bath and Bristol." The following communications are expected:—Dr. P. W. Williams: The Combination of Syphilis and Tuberculosis in Laryngeal Diseases. Dr. J. M. Clarke: Two

Cases of Thoracic Aneurysm, with Specimens. Mr. W. J. Penny: Pancreatic Cyst treated by Incision and Drainage (the patient to be exhibited). Mr. G. Munro Smith: (1) Note on the Pathology of In-growing Toenail; (2) Exhibition of Cholera Germs. Mr. A. S. Walsh will exhibit the Harvard Medical and Surgical Chair.—E. Markham Skerritt and W. M. Beaumont, Honorary Secretaries, Clifton.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

The 124th meeting of this District was held at Sandwich, on September 15th, Dr. Harrisson, of Sandwich, in the chair. The occasion being one of especial interest, there was a large gathering of members. There were also present a number of professional visitors, and many ladies and gentlemen of the general public were invited to hear the addresses, which were listened to with great interest.

Appointment of Chairman for Next Meeting.—After the ordinary business of the meeting had been transacted, Mr. F. Wacher, of Canterbury, was appointed chairman of the next meeting at Canterbury in November, on the motion of Mr. Rigden, seconded by Mr. Whitehead Reid.

Trephining in the Stone Age.—A paper on this subject was read by Professor Victor Horsley, F.R.S. He said the operation of trephining, frequently practised, as it was, by savages in the present day, was also successfully executed in the Neolithic period. Photographs proving this from specimens found chiefly in France were shown, and the various methods, that is, scraping, drilling, and sawing probably employed were discussed and demonstrated to have been actually carried out. The operation was probably undertaken, in the first instance, to relieve the pain of an old contused wound of the skull, and, in the second place, to empirically relieve Jacksonian epilepsy. The sites of the operation seemed to suggest this, since almost all the openings in the known cases were aggregated over the so-called motor region. Finally, the curious fact of the portions of bone removed being regarded as of supernatural value was dwelt upon.

Visit to Richboro'.—A visit was then paid to the ancient Roman castle of Richboro', where an address on "Richboro' and its relation to other places in Gaul and Britain during the Roman Occupation," was delivered by the Rev. Canon Raven, D.D., F.S.A. He pointed out that the site of Rutupiæ was identified with Richboro' by the distances given in Antonine's *Itinerary* from Boulogne and Canterbury. Rutupiæ was, according to Lucan and Juvenal, a "household word" with the Romans, both on account of its "troubled waters" and the excellence of its oysters. The claim of Richboro' to be Cæsar's landing place was negatived on the double ground of its distance from Dover, and the absence of "open and level beach," but the landing of St. Paul, and the sailing of British bishops to the Council of Arles were matters of uncertainty. Richboro' was shown to have been one of the ports under the jurisdiction of the Count of the Saxon Shore, and a special note was made of the Second Legion, which was stationed at Rutupiæ. Reference was made to a passage in Ammianus Marcellinus, recording the distress of Britain occasioned by the ravages of barbarians in A.D. 368, when Nectaridius, Count of the Maritime District, was killed. Theodosius, father of the Emperor of the same name, landed at Richboro' and avenged the wrongs inflicted on the subjects of Rome.

Vote of Thanks.—A vote of thanks was warmly accorded to Canon Raven for his address.

The President's Hospitality.—Dr. Harrisson kept open house, and his hospitality was highly appreciated both by members and visitors.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

The autumn meeting of this Branch was held at Merthyr on October 6th, the President (Mr. J. T. Webster) entertaining the members at luncheon on arrival. Thirty-six members and visitors were present.

New Members.—Messrs. D. C. Muir, M.D., Cwmtillery; E. le C. Lancaster, M.B., Swansea; and J. L. Thomas, Cardiff, were elected members of the Association and Branch; and E. T. Cox, M.B., Tonyrefail, a member of the Branch.

Communications.—P. R. Griffiths, M.B. (Cardiff), read notes on (1) erasion of the knee-joint, with a new method of dealing with the divided patella; (2) ovariotomy—unexpected complications.

New Drugs.—A committee was formed at the Council meeting, consisting of the President, Mr. Evan Jones, Dr. Paterson, and Dr. Sheen, to consider the question of inviting members to investigate and report upon the value of new drugs.

Specimens.—Dr. Paterson (Cardiff) showed two specimens of Aneurysm of the Aorta; in one case bursting into the pulmonary artery.

Colliery Practice.—Mr. E. S. Wood (Pontypool) called attention to some points connected with colliery practice, and it was decided that he should bring the matter before the Colliery Surgeons' Association.

Dinner.—The members and friends subsequently dined together at the Castle Hotel.

DORSET AND WEST HANTS BRANCH.

The autumn meeting of this Branch was held at Sherborne on October 12th. Dr. Peter William MacDonald, President, in the chair. Twenty-nine members and visitors were present.

Election of Officers.—The following gentlemen were elected office-bearers for the ensuing year: *President:* Dr. Frederick C. G. Griffin, of Weymouth. *Vice-Presidents:* Mr. Arthur G. S. Mahomed, of Bournemouth, and Mr. Charles H. W. Parkinson, of Wimborne. *Honorary Secretaries and Treasurers:* Dr. Vawdrey Lush, of Weymouth, and Mr. Parkinson, of Wimborne.

New Member.—Dr. Peter James Duncan, of Bournemouth, was elected a member of the Branch.

Next Meeting.—It was resolved that the next meeting should be held at Weymouth.

British Medical Benevolent Fund.—A donation of five guineas was granted to the British Medical Benevolent Fund.

Sir Walter Foster.—On the proposition of Dr. Snow, seconded by Mr. Parkinson, it was resolved: "That the Dorset and West Hants of the British Medical Association desire to cordially congratulate Sir Walter Foster on his appointment to the Local Government Board."

Discussion.—A discussion on Albuminuria was opened by Dr. Dyer, and taken part in by Dr. Whittingdale, Mr. Curme, Dr. Childs, Dr. Snow, Mr. Parkinson, Mr. Marsh, Dr. Batterbury, and the President.

Communications.—Mr. Atkinson: A Case of Double Labyrinthine Deafness, with interval of three months' duration between the attacks—a doubtful sequela of influenza. Mr. Parkinson: Case of Hypospadias after Operation. Dr. Childs: On the Work of the Anæsthetics Committee of the Association. Mr. Marsh: Pregnancy in a Rudimentary Double Uterus.

Dinner.—The members and visitors dined together at the Digby Hotel.

SYDNEY AND NEW SOUTH WALES BRANCH.

The 108th general meeting of this Branch was held at Sydney on July 1st, 1892; Dr. Worral, Vice-President, in the chair. There were present Drs. Bury, Edwards, Crago, Ross, Scot-Skirving, Wm. Chisholm, A. Jarvie Hood, Arthur, Kirkland, Fiaschi, Jenkins, Clubbe, Kendall, Brady, Martin, MacSwinney. Visitors: Drs. Graham-Brown and McNeill.

New Members.—The minutes of the previous meeting having been read and confirmed, the Chairman announced the election of the following gentlemen: Drs. F. Bennet and A. K. Hoets.

Incurable Consumptives.—A letter was read from the Hon. Secretaries of the Charity Conference relative to sending incurable consumptives from England to Australia; and Dr. Jenkins proposed, and Dr. Scot Skirving seconded, the following resolution, which was carried unanimously: "That this Branch is of opinion that it is highly undesirable that patients with advanced tuberculous disease of the lungs should be sent to Australia for the following reasons: 1. Death is often accelerated by the hardship of the voyage. 2. The absence of friends and home comforts on arrival in Australia. 3. The great deficiency of hospital accommodation for such patients. 4. The climate of Australia being not suitable unless the patients have means to seek appropriate health resorts."

Proposed Licensed Plumbers' Association.—A letter from the Chairman of the Registration Committee of the proposed Licensed Plumbers' Association was read; and Dr. CRAGO proposed and Dr. WM. CHISHOLM seconded the following resolution, which was carried: "That this meeting of the members of the New South Wales Branch of the British Medical Association cordially approves of the step proposed in the preliminary circular as to the necessity for the registration of plumbers, and expresses the hope that, as the matter is one of great importance to the welfare of the community at large, speedy steps will be taken to carry it into effect."

Communications.—Dr. JENKINS read notes on a case of Aneurysm of the first and second parts of the Aortic Arch, with perforation of the Sternum and tension of the inner ends of the Clavicles and first three Ribs. The specimen was exhibited.—Dr. KENDALL exhibited a patient suffering from an affection of the knee-joint, probably a loose cartilage.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Resignation of Professor Hare.—Ashton Children's Hospital.—Bury and Rivers Pollution.—Spread of Small-Pox.

IT has been known in medical circles in Manchester for some days that Professor Arthur W. Hare had tendered his resignation of the Chair of Surgery in Owens College. It is understood that the Council of the College has accepted Professor Hare's resignation, and that the lectures on surgery will be conducted by Mr. Hare for some time. Mr. Hare was appointed to this chair only a few years ago on the resignation of Professor Lund. Speculation is necessarily rife as to what course the College will pursue in their choice of a successor to Mr. Hare.

A children's hospital, erected in the grounds of the Ashton and District Infirmary at a cost of £4,500 by Mr. James Kershaw, was handed over by the donor to the governors last week. There are two large wards with accommodation for fourteen beds each, as well as convalescent rooms, store rooms, kitchens, larder, scullery, play rooms, and provisions for three nurses.

At last a beginning has been made in the endeavour to secure a condition of comparative purity, or rather exemption from pollution, of the streams in this district. At the instance of the joint committee appointed to look after the purification of our watercourses, the Corporation of Bury was summoned for polluting the rivers Irwell and Roach by discharging into them the sewage of the town. The Corporation was fined in a small sum, but, what is of more importance, they were ordered to cease from polluting the rivers with sewage, and are allowed a year to divert the sewage from the river.

Small-pox is increasing in some of the districts around Manchester, and in the city itself one sees large placards issued by the guardians of the townships urging citizens to vaccinate and revaccinate, competent medical men being provided for the purpose.

THE MEDICAL PROFESSION IN ITALY.—According to official statistics recently published in the *Bolletino della Direzione della Sanità Publica*, the number of medical practitioners in each of the principal cities of Italy is as follows:—Turin with a population of 613,995 has 431 doctors, Genoa with 425,854 inhabitants has 240, Milan with 575,164 has 391, Venice with 149,686 has 124, Bologna with 354,584 has 215, Florence with 539,855 has 281, Rome with 507,504 has 506, Palermo with 486,448 has 316, Messina with 238,294 has 117, while Naples with a population of 678,801 rejoices in the enormous number of 1,323. It is not easy to account for this extraordinary glut of medical talent in Naples, unless it be that a proportionately strong force of scientific experts is required in that beautiful but unsavoury city to hold the fort against the powers of sanitary darkness that seek to compass its destruction. Evil-minded persons might say that the presence of so large an army of doctors gives new point to the old saying, *Vedi Napoli e poi muoja!*

CORRESPONDENCE.

PRESSURE ON SPACE.

Notice to Correspondents and Authors of Communications.

IN view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

MEDICAL AID ASSOCIATIONS.

SIR,—In an article in the BRITISH MEDICAL JOURNAL of October 15th you attack these institutions and us, their medical officers, and I trust your sense of fair play will induce you to allow us to defend ourselves and them.

I cannot admit that we are being "sweated," for, on the contrary, we have taken service with our present employers to escape the "sweating" practised on us by the private practitioners whom we formerly served. We have only two kinds of employment in which we can engage, and we choose that which is most advantageous to us—or, if you prefer the phrase, which is least disadvantageous. When it is admitted that our places could be filled at lower salaries than we are receiving, you practically say, either that our employers are generous or that they employ medical men superior to their fellows; and in either case the associations are not guilty of the offence they are charged with, for "sweaters" employ workmen of the lowest class and pay them the lowest rate of wages.

Such men are employed and such wages are paid in our profession—not by associations but, it would seem, by private practitioners. As you (twice) apply the words "very inadequate" to our salaries, and in one instance add "for the work to be done," you may be interested to hear that there is hardly a single officer in our service who has not done twice as much work for less pay when in private practice, and that some have done three times as much.

You speak of laymen who "derive considerable profits," etc., and again of "illicit gains," though if you knew much of our work you would see that there are no profits and no gains. The subscribers have frequently paid more than is required, and their committees, instead of returning this surplus, have invested it so as to ensure the monetary stability of the Association. If they did not do so, we, the medical officers, might be informed some day that as receipts had fallen off our salaries after the end of the next month would be reduced, and that if we would not accept the diminished income we could leave. We are quite satisfied that our income should be thus secured, and we do not lay claim to this money. It is very likely, as you say, that in all cases some margin would be allowed, for drugs have to be paid for somehow, and if the officer's carriage was not paid for it would be his own loss. But let us suppose that, posing as the friends (save the mark!) of the medical staff, you succeed in forcing the Association to subscribe only just the estimated expenses of the year! Influenza appears, suppose. Extra medical men have to be employed. The drug bill goes up. These expenses have to be met out of the subscriptions, and where, then, is the salary of the officer to come from? I think, Sir, if outsiders compel the associations to risk our salaries in this way, these outsiders ought to guarantee us from loss.

From the general tone of the letter on which your article is based I conclude that you consider yourselves so superior to us that, though you threaten us with the action of the General Medical Council, you would consider it an impertinence if we used threats in return. We may, however, be permitted to say that if any combination attempts to destroy the associations of working men, the working men will destroy that combination.

In conclusion, Sir, I respectfully protest against any society or individual speaking of us as being "sweated," while its action tends directly to lower our wages.—I am, etc.,

Oct. 18th. AN M.O. OF FRIENDLY SOCIETIES.

Sir,—While there may be something in Dr. Leslie Phillips's contention that the position of a medical man working for a lay association that makes pecuniary profit out of his labour is undesirable, and even perilous, I think that he obscures the issue by treating the question as one of "covering." This offence is primarily one against the public. An unqualified person is enabled personally to practise on the bodies of patients by the aid of a qualified man, who lends him his name, and takes the responsibility of death certificates and the like. The public are defrauded and the law evaded by the person "covered." Dr. Leslie Phillips cites the case of Leeson, but surely this is not in point. There it appeared from the evidence that suffering patients were invited to apply at the "institute," and were treated by unqualified "electricians," while the medical man was kept on the premises presumably to take the responsibility in case of accidents. The case dealt with by Dr. Phillips is essentially different. It is not alleged that the committees of medical aid associations personally practise on any one. The public contract for the services of a qualified man, and so far as I gather from your article they get them. But the medical charge of and responsibility for the patients and their treatment rest throughout with the medical officer. It seems to be implied that while sick clubs and friendly societies which provide, say, sick pay and burial expenses in addition to medical attendance, are legitimate, medical aid associations which only provide the latter are illegitimate. The line of distinction seems a very narrow one; for, apparently, the associations could put themselves into what Dr. Phillips would deem a legitimate position if they hired an undertaker to bury their subscribers as well as a doctor to cure them.

It may be that the General Medical Council will take up the question in what I may call the "trade interest" of the profession, and it may be that they will be right in doing so; but it is plain that they must create either a new definition of "covering," or a new professional offence, before they can bring under their ban practitioners who merely in return for a fixed income resign part of the profits of their practice to a lay body.—I am, etc.,

Oct. 18th. JUDEX.

INFANT MORTALITY.

Sir,—You were good enough to give me space in the British Medical Journal to refute the statement made by your Dublin correspondent that I was in error in saying that the infant mortality was somewhat less in Dublin than in the English towns. As you have chivalrously come to his rescue, I trust you will allow me to say a last word on the subject.

My paper was written merely with the object of showing how curious the statistics of infant mortality in Dublin were as compared with English towns. Using the statistics—quite sufficient for the purpose—for 1890 and 1891, I pointed out that, whilst the ratio of deaths of infants under 1 year to births was somewhat less than in the English towns, the percentage of total deaths which were of infants under 1 year was was very much less in Dublin than in England. Your correspondent thereupon announced that the death-rate of infants was greater in Dublin than in any town in the United Kingdom save Glasgow. You, however, show by the statistics which you quote in the Journal of October 15th that several of the limited number of towns you refer to have a higher infant mortality than either Dublin or Glasgow. Your correspondent clearly stands, on your showing, convicted of a serious error.—I am, etc.,

Dublin, Oct. 17th. C. A. Cameron.

*** We cannot see that Sir Charles Cameron's "last word" in any way modifies the extremely unpleasant facts regarding child mortality in Dublin. Sir Charles takes a different set of towns for comparison from those taken by Dr. Grimshaw in his published paper and chooses to call these the large towns. The only large towns fairly comparable with Dublin are, as we have already said, those of a similar size. It is not very profitable to discuss the question as to what constitutes a large town for special statistical comparisons. Ever since authoritative mortality statistics have been published for Ireland Dublin has been shown as possessing one of the highest death-rates among the large towns of the United Kingdom. It is upwards of twenty years since the Special Commissioner of the British Medical Journal, Mr. Bourne Baker, reported on the sanitary condition of Dublin, and showed that there was ample reason why Dublin should have a high death-rate. Happily the Dublin death-rate shows signs of diminution and the sanitary condition of the city has much improved, and we give Sir Charles Cameron much credit for his share of the work. Nevertheless, Dublin is very bad still, and will require many years of labour to bring its sanitary condition up to modern standards.

DIAGNOSIS OF SCARLET FEVER.

Sir,—I have recently had the opportunity of visiting a temporary hospital for scarlatina cases, opened on account of the inability of the Asylums Board to provide accommodation for all the cases now existing; and the ignorance and carelessness of those notifying the cases have so struck me that I am induced to publish the following, in hopes that those connected with the fever hospitals may give their experiences; for if the same state of things exists at the large hospitals as has taken place at this small one, there is but small wonder that the Asylums Board is unable to meet the demands made upon their resources, and the sooner some means are taken to check this indiscriminate notification, the better it will be for the public in general and the tone and character of the profession in particular.

During the fortnight this temporary hospital has been established, thirty-five cases have been received, each with a certificate signed by a medical man, and notifying that the patient was suffering from scarlatina; out of this number, six had nothing the matter with them at all, and the only reason one could find for their being notified was that they had some relative suffering from scarlatina; one case was suffering from mumps, one from typhoid fever, one from sore throat, and one from a rash upon buttocks, caused through neglect and want of cleanliness, making in all ten cases out of thirty-five incorrectly diagnosed.

This condition of things is, I venture to think, a very serious one, for not only does it unnecessarily crowd our hospitals—for cases once admitted have to be kept in for a few days isolated, in order to see whether they may not contract the disease through their having been admitted—but is a very great drain upon the ratepayers' pocket, not only on account of their having to be boarded and lodged, but because on each case notified a fee of 2s. 6d. has to be paid by the parish in which the case resides.—I am, etc.,

E. Climson Greenwood.

St. John's Wood Park, N.W., Oct. 10th.

SCHOOLBOYS' MEALS.

Sir,—On making inquiries regarding the diet at Epsom College, I have been able to verify the statements made in the letters already published in the British Medical Journal. The main conclusions to be drawn from these may be stated as follows: (1) The quantity is quite sufficient; (2) the quality is very inferior; (3) the selection of food stuffs is very bad; (4) the cooking is carelessly bad. Vegetables are rarely served, fruit never.

At breakfast the boys are served with tea of a very inferior nature, though fortunately very dilute, but the supply of milk is insufficient. If a boy requires eggs or other things, he must provide them, and shop eggs are sold at the College shop at 1½d. each, whilst they can be obtained in the town at twelve for a shilling. The meat is said to get worse soon after the beginning of the term; the potatoes are frequently diseased, and are often served in a sodden state. The knives, and above all the forks, are usually only half clean, and have to be finished on the table cloth. The spread of scarlet fever which is now taking place is easily explained by this latter fact.

The College possesses a large area of ground, and I would ask why this could not be tilled and tended in a great part by the boys. At one school where I was educated this system was a great success.

Such a garden should contain good useful vegetables, and a plantation of fruit trees might replace some of the ornamental trees in the grounds. Football five times a week could be reduced to twice, and three days be devoted to gardening.

Vegetables in some form or another besides potatoes should be supplied every day, and fruit when in season three times a week.

To offer boys beer or any alcoholic stimulant is the best way to develop in after-life a taste for drink. Cheap wholesome drinks can be made for dinner and supper in many ways. Grated cocoanut boiled in water and sweetened is very nice. Barley water sweetened and flavoured with a few drops of vanilla is also very pleasant, and when lemons are cheap a lemonade made like that sold at the Italian restaurants in London is very economical and nice.

With a little thought and care the boys' food might be made more healthy and pleasant, and instead of all his vital energy being used up in digesting bad food it could be diverted to his studies.

Oct. 16th. ANOTHER PATERFAMILIAS.

SIR,—As an old public schoolboy I take the liberty of addressing you on a subject which is at present being ventilated in your valuable columns. My own recollection of public school fare is very far from appetising. The food, I daresay, was wholesome enough of its kind, but vegetables and fruit were conspicuous by their absence. The chief fault, however, was that the dinner of every day of the week was the same, or nearly the same, throughout the year. The same applied to breakfast, while at tea there was simply bread and butter. A little housekeeping ingenuity, and a very small additional expenditure, would have produced a dietary more nearly fulfilling physiological indications. No doubt, however, now that this question has been touched upon, other and abler pens will keep the ball rolling until reform has been forced upon those whose interest it may not always be to effect it.

My object in addressing you is rather to call attention to a grievance of an even more serious character which formerly existed, and, I think, still exists, in many public schools. In my day there was a lesson hour before breakfast, and, to the best of my recollection, no food of any kind was obtainable before that meal. Surely this is a most serious matter for the health of growing boys. I do not myself profess to be an expert on school hygiene, but common sense—not to speak of scientific medicine, of which they can have no knowledge—should induce schoolmasters to alter the ridiculous system of having an hour's work on an empty stomach, and not uncommonly in a chilly atmosphere. I may mention that the colder the morning, the less artificial warmth did we usually find provided, probably because those in the stoking department found bed warm and cosy in cold weather.—I am, etc.,

Oct 10th. ANOTHER PATERFAMILIAS.

SIR,—On behalf of the more delicate-stomached boys who attend public schools, may I be permitted to say that the meals, especially the meat, generally given at such schools, would prove more than enough for certain boys. There are many, indeed, who would not eat as much meat in a week as they would be allowed a day; and the scarcity of vegetables, and perhaps puddings, would be sadly felt. Again, I have known a very small lunch daily, say at 11 A.M., so completely upset a stomach hitherto healthy, that periodic bilious attacks resulted, but ceased on abstention from food at the hour named.

My experience of schoolboys is that the always hungry ones are those improperly fed or over-indulged; and that those who are given beer regularly are taught a habit they never can lay aside.

Four meals a day, with a good wholesome milk pudding at dinner time, and plenty of vegetables in place of immoderate meat supply, and the last meal a light one, will be more healthy for boys than more frequent stuffing with eggs, meat, and beer.—I am, etc.,

Uley, Oct. 10th. A. CAMPBELL.

"MINERS' DISEASE."

SIR,—My attention has been directed to a statement made by Dr. Bell, of Bradford, in a paper read before the last meeting of the British Medical Association, and published in the BRITISH MEDICAL JOURNAL of October 15th. It is to the effect that in the year 1873 he had some conversation with me on the subject of miners' nystagmus, during the meeting of the British Medical Association in London that year. I never had the pleasure of Dr. Bell's acquaintance, and did not attend the meeting of the British Medical Association in that year.—I am, etc.,

Newcastle-on-Tyne, Oct. 18th. C. S. JEAFFRESON.

EPSOM COLLEGE.

SIR,—May I ask you to insert the following most gratifying correspondence between the teaching staff of Epsom College and the Council? I shall most gladly receive any contributions towards these most necessary objects: a larger charity to our pensioners, and an increase of accommodation for our pupils.—I am, etc.,

26, Gloucester Place, Portman Square, W., Oct. 11th. C. HOLMAN, M.D., Treasurer.

Bursar's Office, Epsom College, Oct. 4, 1892.

DEAR SIR,—I have to-day forwarded to the Secretary a donation which the members of the Common Room here would like to subscribe to the extension scheme fund as set forth at the Biennial Festival in April last.

Believe me, very faithfully yours,
W. DOUGLAS CROSSLEY, Bursar.

Royal Medical Benevolent College, Office, 37, Soho Square, W., Oct. 7th, 1892.

DEAR SIR,—I am instructed to inform you that the donation from the Masters of Epsom College towards the extension fund has been received by the Council with very great pleasure.

The generally improved tone of the school, the distinction gained by pupils at the universities and elsewhere, and the successes in the playing-fields all point to good work done by the staff and most loyal and hearty devotion to the best interests of the College.

Such a practical expression of confidence in the future of the school and belief in the necessity for extension by those so well qualified to know is most gratifying. The Council would assure the contributors that this question of enlarging the accommodation is constantly the subject of their thoughts, and they would express the hope that this gift, coming from such a body of men, may prove to the profession and to the public how necessary extension has become and that many may be incited to follow their example. The larger charity to the pensioners needs no demonstration. The desire of the Council has always been to feel that they were in touch with their staff. They believe that this donation in aid of their work is a proof that the Masters feel themselves to be at one with the Council in their earnest desire to make Epsom College one of the best schools in England. With hearty co-operation they hope to see the College a blessing to the children of medical men and a centre from which a first-rate education shall be offered to the public at large.

I am, dear Sir, yours faithfully,
W. D. Crossley, Esq., Bursar of Epsom College. J. BERNARD LAMB, Secretary.

THE NOTIFICATION OF INFECTIOUS DISEASE.

SIR,—Seeing the correspondence anent Dr. Goodhart's omission to report on a notification case he had been called to as consultant and the medical officer's comments thereon, a question has arisen in my mind. I am in general practice, with two qualified assistants. What course are we to take when attending an infectious case? It follows as a certainty that myself and each of my assistants will see the case at intervals. Are we each and all to report separately this case to avoid a prosecution?—I am, etc.,

London, Oct. 13th. FRANK GODFREY, L.R.C.P., etc.

CHEMISTS AS PRESCRIBERS.

SIR,—Referring to the case reported in the *Daily Telegraph*, and discussed in the BRITISH MEDICAL JOURNAL of October 8th, p. 808, I may say that I hardly ever enter a chemist's establishment without finding the officials in consultation with, and prescribing for, the public, the greater number of whom I find, in their ignorance, think that chemists are doctors, whilst others go to chemists for cheapness. Chemists sometimes do send people to a doctor if the case is beyond their experience (?), but then the doctor is one who does not prescribe his own medicines, but through that of the sender, with the result that the patient has to pay for advice which is generally charged high, and then revisit the chemist and pay him for the medicine.

To the general practitioner who prescribes his own medicines, who is always willing to take the circumstances of his client into account, and who has spent years of study, toil, energy and money in obtaining his qualifications, this piratical and criminal conduct of prescribing by chemists is especially hard, and I consider that the General Medical Council could

not be better engaged than in combating and stamping out this dangerous and illicit trading once and for all.

I am prepared to aid financially and to support energetically any movement which will stamp out the above-mentioned evil; and, if well supported by my brother practitioners, I will formulate and put into permanent execution such a scheme as will carry out what should be all our desire.—I am, etc.,

Oct. 9th. General Practitioner.

IS SOFT MUSIC A CALMATIVE IN CASES OF FEVER?

Sir,—In reference to Canon Harford's letter on the above which appeared in the British Medical Journal of September 17th, I beg leave to endorse, as far as my observation will allow, his opinions therein stated. At the beginning of last winter I asked and obtained permission of the infirmary committee here to allow of a piano being placed in the institution with a view to experimenting on the soothing and curative effect of music in disease. A number of ladies formed themselves into a choir, and selected music, instrumental and vocal, of a kind calculated to soothe the suffering. Some of the members of the choir visited the infirmary every Friday afternoon for the purpose of testing its influence in that regard. Our infirmary, however, is a general one, and for that reason I cannot speak with any certainty of the precise class of cases mentioned by Canon Harford; nevertheless, we were so satisfied with the beneficial results obtained in dealing with general cases, that we feel compelled to continue on the same lines as those followed by us last winter. The cessation, or at least diminution, of pain in many instances has been most marked. Unfortunately it was not until early spring that I thought of employing the thermometer as a test before and after the administration of music in those cases where the temperature was abnormally high, so that I must refrain from publishing the particulars until I have made a more extended trial. Suffice it to say, however, that seven out of ten noted cases were benefited in so far as a reduction of temperature was recorded. In the case of one woman suffering from peritonitis, the temperature within the hour fell from 100° to 99.2°. Later on I hope to tabulate my cases and record the result.—I am, etc.,

Helensburgh. J. Ewing Hunter, M.B. and C.M.

P.S.—We shall be grateful for any music Canon Harford may deem suitable for the purposes of trial.

MEDICO-LEGAL AND MEDICO-ETHICAL.

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

A meeting of the Council of the London and Counties Medical Protection Society was held on Tuesday, October 4th, at 4 P.M. The chair was occupied consecutively by Mr. Bruce Clarke, Dr. Balding, J.P., and Mr. Jonathan Hutchinson. Dr. Cleveland, of Maida Vale, W., and Dr. Musgrave, of Finchley Road, were duly elected Vice-Presidents of the Society. Ninety-eight new members were proposed by the secretaries and elected.

The Cornwall Division was formally recognised, and the following officers and councillors elected: *Divisional President:* Edward Sharp, J.P., M.R.C.S., Truro. *Divisional Vice-Presidents:* John King, J.P., M.R.C.S.; David Thompson, J.P., L.R.C.S. *Divisional Council:* Reginald B. Anderson, M.R.C.S.; William Fooks Thompson, M.B. *Honorary Secretary:* George Frederick Helm, M.D. (T.C.D.), Marazion.

The South London Division was recognised formally, and the following officers and councillors elected:—*Divisional President:* J. W. J. Oswald, M.D., F.R.C.S.E. *Divisional Vice-Presidents and Councillors:* J. A. Austin, M.D.; R. H. Barkwell, M.D.; Campbell Boyd, L.R.C.S.I.; John Brockwell, M.R.C.S.; E. Wolfenden Collins, M.D.; H. Nelson Hardy, F.R.C.S.E.; J. Brindley James, M.R.C.S.; Geo. David Knight, M.B.; C.M.; Ralph Leftwich, M.D.; Lewis Lewis, M.R.C.S. *Honorary Secretary:* John Henry, M.D., Lewisham, S.E.

The South-East London Division was formally recognised, and the following officers and councillors elected: *Divisional President:* Arthur Roper, M.D. *Divisional Vice-Presidents:* J. Hammersley, M.R.C.S.E.; Herbert J. Holt, M.D.; S. Blake Jolly, M.B.; W. Arbuthnot Lane, M.B., M.S.; Theo. Maxwell, M.D.; Chas. A. Mercier, M.B.; John Poland, F.R.C.S.E.; F. L. Stephenson, M.B., C.M.; M. J. Sturges, M.D. *Divisional Council:* J. E. Burroughes, M.R.C.S.E.; H. C. Burton, L.R.C.P.Lond.; Sidney Davies, M.D.; Richard Fegan, M.D.; Chas. H. Hart, L.R.C.P.I.; Walter Tothill, L.D.S.R.C.S.E. *Honorary Secretary:* S. Noy Scott, L.R.C.P. Lond., Lewisham Hill, S.E.

The Somerset Division was formally recognised, and the following officers elected: *Divisional President:* Thomas Cole, M.D., Bath. *Vice-Presidents:* Theodore Davis, M.D.; J. Farrant Fry, L.R.C.P.; Edward Liddon, M.D., J.P.; G. F. Rossiter, M.B.; J. Kent Spender, M.D.; J. Mulville Thomson, L.R.C.P.; A. Law Wade, M.D. *Honorary Secretary:* Hugh Lane, L.R.C.P., Bath.

The Northumberland Division was formally recognised, with the following officers:—*Divisional President:* Walter Ridley, M.S., F.R.C.S., Newcastle-on-Tyne. *Vice-Presidents:* R. A. Campbell, M.D.; C. L. Fraser, F.R.C.S.; J. A. Jackson, M.D.; G. R. Murray, M.B.; Augus Martin, L.R.C.P.; Frank Russell, M.B.; Auburn Wilkinson, M.D.; A. T. Wilson, M.D. *Honorary Secretary:* Francis W. Clark, L.R.C.P., Newcastle-on-Tyne.

The following additional officers and councillors of the Hammersmith and West London Division were elected:—*Divisional Vice-Presidents:* W. A. F. Bateman, M.R.C.S.; F. J. Wadd, M.B. *Divisional Councillors:* Robert Banning, M.D., J.P.; R. D. Batten, M.D., B.S.; Chas. Creed, M.R.C.S.; L. B. Diplock, L.S.A.Lond.; H. A. Smith, M.R.C.S.; A. G. Wells, M.R.C.S.; J. Ernest Pocock, M.D.

The Council authorised the renting of offices at 13, Royal Avenue, Sloane Square, on the terms submitted, with a rental of thirty guineas a year, and sanctioned the expenditure of £50 on office furniture. It was unanimously resolved that qualified and registered medical ladies be eligible as members of the Society. The secretaries reported with regard to the unjust censures of coroners' juries on medical men that, while condemnatory riders to coroners' verdicts were quite irregular, yet it appeared that such statements by coroners' juries were in law regarded as privileged, as also the publication of these in *bonâ fide* reports by newspapers. Dr. Balding thought that some legal remedy for the present undesirable state of affairs might be found. It was resolved that Dr. Balding, J.P., and Dr. Cooper Rose, barrister, be requested to confer on the subject, and to report to a subsequent meeting of Council.

OPTICIAN AND OCULIST.

A Bristol correspondent calls our attention to a circular under the above heading alleged to have been issued by a person not holding any medical or surgical qualification, and to the fact that there are several doctors' names appearing in the list of testimonials. Our correspondent inquires our opinion on this point, and also whether the advertiser calling himself an optician and oculist does not bring himself within the reach of the law by so doing.

As to the first question, the fact of the circular containing a list of names of persons stated to have given testimonials is no evidence of testimonials having actually been given, or of the gentlemen in question having allowed their names to be placed on the list. In three of the cases referred to we find that the names of the doctors are no longer in the *Medical Register*, and therefore they probably are not now living. The only person whose name appears in the *Medical Register* may not be aware of the issue of the circular in question, and our correspondent might draw his attention to the fact. As to the second question, we do not think that the advertiser brings himself within the penal provisions of the Medical Act, 1858, for the unqualified assumption of a medical title. The advertiser mentions in his circular that he may be consulted on all diseases of the eye and ear. It may be that in the course of his practice he infringes the provisions of the Apothecaries Act, 1815, and any evidence of this should be brought to the attention of the Clerk to the Society of Apothecaries, Blackfriars, London.

ADVERTISING IN CAPE COLONY.

A Colonial Member.—Wearying to our readers, and equally monotonous to the writer, as must be the continual iteration of the same advice on one and the same subject, we nevertheless feel impelled, in the general interest of the profession, to observe in response to the appeal of our Cape Town correspondent that it is degrading to the true science of medicine to solicit practice by advertisement, card, or printed circular, thereby debasing it to the level of a trade; and, further, that such a reprehensible contravention of the traditional usage of the faculty cannot fail to recoil eventually upon its abettors. Moreover, although the degree of blame attaching to the authors of the several advertisements relating to or sanctioned by Drs. Beck, Pearson, and Fismer may vary, still the same obnoxious principle pervades them.

SISTERS, COUSINS, AND AUNTS.

Justice writes: Some time ago I was called to a lady who was taken ill in church, and after her friends had been communicated with, was asked to accompany her home in a carriage, which I did, at a considerable expenditure of time during a very busy season, necessitating the missing of several visits to my other patients. I was also asked to pay her a second visit on the same day, and continued to visit her once daily for a few days, and afterwards at intervals of two or three days for a period of three weeks. She called upon me lately to report progress, and to inquire if I had any charge to make for my services. Upon my telling her I would let her have my account, she replied that she had not been in the habit of paying for medical advice. She was a visitor to this town, and an entire stranger to me, but had informed me that she had a brother who is a medical man, and I suppose it was on this account she presumed I would not make any charge for my services.

I shall be glad to hear through the columns of the British Medical Journal whether I should be justified in sending her a bill.

*** With the view to enable our correspondent to arrive at a just and independent decision on the subject of his note, we deem it best to quote the following rule from the *Code of Medical Ethics*, chap. ii, sect. 2, rule 1, which was submitted to and approved by the late Sir Thomas Watson, Sir George E. Paget, Sir R. Christison, and other eminent (living and deceased) representative practitioners, and by following the principle therein enunciated "Justice" cannot well err: "All legitimate practitioners of medicine, their wives and children, while under the paternal care, are entitled (not as a matter of right, but) by professional courtesy, to the reasonable and gratuitous services—railway and like expenses excepted—of the faculty resident in their immediate or near neighbourhood, whose assistance may be desired. In the case, also, of near relatives who are more or less dependent upon a professional brother (other than wealthy), it will likewise be well, at his re-

quest, to forego or to modify the usual fee. On the other hand, a son or a daughter altogether independent of the father, or the widow and children of a practitioner left in affluent or well-to-do circumstances, should be charged as ordinary patients, unless feelings of friendship or other special reasons render the attendant practitioner averse to professional remuneration; in such case the rule need not apply. Moreover, if a wealthy member of the faculty seeks professional advice, and courteously urges the acceptance of a fee, it should not be declined, for no pecuniary obligation ought to be imposed on the debtor which the debtee himself would not wish to incur."

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

STAFF-SURGEON W. R. WHITE, B.A., M.B., is promoted to be Fleet-Surgeon, October 2nd. He was appointed Surgeon, September 30th, 1871, and Staff-Surgeon twelve years thereafter.

The following appointments have been made at the Admiralty: D'ARCY HARVEY, Surgeon, to the *Vernon*, additional, for disposal, October 11th; CLEMENT ALSOP, Surgeon, to the *Melita*, October 11th; WILLIAM O'DONNELL, to be Surgeon and Agent at Tribune, October 13th; JOHN E. LANYAN, to be Surgeon and Agent at Portnoo, October 13th.

Deputy-Inspector-General WILLIAM NEWMAN BRAKE died at Porchester, Hampshire, on October 9th, at the age of 70. He entered as Surgeon, April 17th, 1845; became Staff-Surgeon, January 26th, 1855; Fleet, April 21st, 1867; and retired September 17th, 1878, with the rank of Deputy-Inspector-General.

ARMY MEDICAL STAFF.

SURGEON-CAPTAIN G. F. ALEXANDER, M.B., who is serving in the Bengal command, is appointed temporarily to the medical charge of Bundelcund Political Agency, from August 10th.

Surgeon-Major J. J. FALVEY, having been struck off the strength of the Bengal command, is directed to return to England, on transfer to the Home Establishment.

Surgeon-Captain J. FAYRER, M.B., serving in the Bengal command, is appointed to the civil medical charge of Muttra District, in addition to his military duties, from September 1st.

Surgeon-Lieutenant-Colonel F. LYONS, serving in the Bombay command has been transferred to the Poona District, and has been appointed to the medical charge of the station hospital at Poona.

Surgeon-Lieutenant-Colonel J. RIDDICK, on arrival from England, is appointed to the medical charge of the station hospital at Colaba, *vice* — Lyons.

Surgeon-Captain R. G. HANLEY, or arrival from England, is posted to the Bombay District for general duty.

Surgeon-Captain C. J. ADDISON, expected from England for duty in India, is posted to the Bombay command, *vice* Surgeon-Captain S. J. W. Hayman, whose tour has expired.

Surgeon-Lieutenant-Colonel J. RIDDICK, expected from England for duty in India, is posted to the Bombay command, in succession to Surgeon-Lieutenant-Colonel W. F. Burnett, whose tour of service has expired.

Brigade-Surgeon-Lieutenant-Colonel R. P. FERGUSON, who is serving in the Bombay command, is appointed an Administrative Medical Officer in the Bengal Presidency.

Surgeon-Captain J. D. MOIR has resigned his appointment as medical officer attached to the 2nd Battalion Grenadier Guards, which he accepted on March 10th last.

Surgeon-Captain R. H. FIRTH has won the Parkes Memorial Gold Medal for 1892. The same officer gained the honour in 1889, and he also won the Alexandra Medal in 1888 and 1891.

Surgeon-Captain J. E. TRASK, now serving in the Bombay Command, will proceed to Bombay to take medical charge of the 3rd Dragoon Guards during their voyage to Natal in the I.M.S. *Clive*. During the return voyage his services are available for the medical charge of the 11th Hussars. He will return from Kurrachee in the I.M.S. *Clive*.

Surgeon-Major JOHN CARLAW, M.D., Retired List, died at Sandgate on October 10th, aged 61. He joined the army April 22nd, 1858; became Surgeon-Major April 1st, 1873; and retired on half pay August 12th, 1878.

It has been decided that medical storekeepers who are military doctors shall in future undertake contracts for the supply of local military stores instead of the Commissariat Transport Department.

INDIAN MEDICAL SERVICE.

SURGEON-CAPTAIN R. BIRD, M.D., Bengal Establishment, Medical Officer 42nd Goorkha Rifles, is appointed to hold civil medical charge of Naga Hills District, in addition to his military duties, from August 30th.

Surgeon-Lieutenant-Colonel W. MCCONAGHY, M.D., Bombay Establishment, is appointed Civil Surgeon of Poona, and Surgeon-Major H. MCCALMAN, M.D., Bombay Establishment, to be Civil Surgeon of Dharwar, both being *vice* Brigade-Surgeon-Lieutenant-Colonel D. E. Hughes, M.D.

Surgeon-Lieutenant-Colonel D. E. F. HUGHES, Bombay Establishment, has been ordered to Bombay to take over the duties of Principal Medical Officer of the Bombay, Aden, and Decsa District from Surgeon-Colonel Coates, who is vacating on retirement.

Surgeon-Colonel W. E. CATES, Bombay Establishment, has retired from the service on a pension of £700 a year and an extra pension of £250 on completion of thirty-six years' service and five years as an administrative medical officer. He was appointed Assistant-Surgeon February 20th, 1856, and became Deputy-Surgeon-General (Surgeon-Colonel) September 15th, 1887.

Surgeon-Major E. CRETIN, M.B., Bengal Establishment, is appointed to officiate as Civil Surgeon of Jubbulpore, in addition to his own duties as Medical Officer 1st Bengal Infantry, *vice* Surgeon-Lieutenant-Colonel B. Franklin, granted privilege leave.

Surgeon-Lieutenant-Colonel R. T. WRIGHT, Bengal Establishment, Civil Surgeon of Shahjehanpore, is granted privilege leave for one month.

The services of Surgeon-Captain E. A. W. HALL, M.B., Bengal Establishment, Officiating Civil Surgeon of Bara Banki, are placed at the disposal of the Government of India.

Surgeon-Major F. W. WRIGHT, M.B., D.S.O., Bengal Establishment, Medical Officer 43rd Goorkha Rifles, is appointed to the charge of the civil medical duties of Manipore State, in addition to his military duties.

Surgeon-Captain R. W. S. LYONS, M.D., Bombay Establishment, is instructed to hold medical charge of Yerrowda Central Gaol, in addition to his own duties.

Surgeon-Captain B. B. GRAYFOOT, Bombay Establishment, is appointed Civil Surgeon of Rutnagherry, but is to continue to act as Secretary to the Surgeon-General with the Government of Bombay.

Surgeon-Major J. S. WILKINS, D.S.O., Bombay Establishment, received charge of Bejapore Gaol on September 22nd.

Surgeon-Captain J. L. T. JONES, M.D., Bombay Establishment, has been granted an extension of leave for seven months on private affairs.

The Secretary of State has sanctioned the grant of a good service pension to Surgeon-Major-General DE FABECK, of the Madras Establishment.

The Government of India have sanctioned the payment to officers of the Army Medical Staff and Indian Medical Service, to senior apothecaries and warrant officers of the Subordinate Medical Department, and to hospital assistants, of the horse and pony allowances respectively admissible on field service under Articles 424 K and 874, A.R.I., vol. I, Part I, and Article 34 A, Part II, of the same, from the date from which a horse or pony may be actually maintained by them after receipt of orders to hold themselves in readiness to proceed on such service.

Surgeon-General HENRY ROBERT OSWALD, M.D., late of the Madras Establishment, died at Edinburgh on October 15th, aged 65. He entered the service as Assistant-Surgeon August 24th, 1850; became Deputy-Surgeon-General August 19th, 1876; and retired August 15th, 1881, with the honorary rank of Surgeon-General.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

Stretcher Drill Instruction.—The winter work of the school began on October 3rd, when the training of regimental stretcher bearers was commenced at the headquarters of the London Scottish R. V., Victoria Street, S.W., Surgeon-Captain H. F. Stokes, L.R.B., senior medical officer instructor, giving the opening lecture, after which two strong companies were formed up for stretcher drill, representing officers, non-commissioned officers, and men of most London and several provincial corps. Under the circumstances it was at once decided to close the class and take no more members. Medical officers, however, who wish to learn the stretcher drill, will be permitted to drill with the present class if they attend regularly. The official inspection and examination will take place at the London Scottish headquarters at 8 P.M. on Monday, December 12th. Amongst those present were Major Maclure, the President of the School (who has been recommended for the volunteer decoration), Surgeon-Captains Atkinson, 2nd Cheshire Vol. R.E.; T. E. F. McGeagh, M.D., H.A.C.; R. R. Sleman, Artists' R.V.; Irwin Palmer, 3rd Middlesex V.A.; and Surgeon-Lieutenants H. Shaw, 5th Middlesex R.V.; and Lloyd Williams, 4th Middlesex R.V.

Annual Dinner.—We are asked to state that the annual dinner of the members of the School will take place at Cannon Street Hotel on Saturday, December 12th. It is expected that Major-General Lord Methuen, C.B., will be present. Tickets can be obtained of Mr. C. J. Downer, Fairfield, Willesden Park, N.W.

A GALLANT OFFICER.

WE hear that Surgeon-Captain E. O. Wight, M.S., has been recommended through the Government of Madras and the Secretary of State for India to the notice of the Royal Humane Society for having in the Chin Hills gallantly swum to the rescue of a sepoy who had been carried away by the strong current of the Kanipur river, which was in flood at the time; the man was in imminent danger of drowning. Private Halsey, of the King's Royal Rifles, who had at once gallantly swum to his assistance, but having been obliged to leave him after being pulled under several times and nearly drowned himself. Surgeon-Captain Wight, who saw the occurrence from the camp by the riverside, ran along the bank, and then swam down stream and reached the sepoy just in time, and after some difficulty, having been pulled under water by him two or three times, succeeded in getting hold of a rock with the sepoy, and dragged him out of the torrent. This is the second time recently that Surgeon-Captain Wight has been fortunate enough to save a soldier frown drowning. At Bangalore, in March, 1890, he saved a private of the 21st Hussars who, with other men of his regiment, on a field day, was swimming his horse across the Agram tank, and was nearly drowned, having lost his horse, and being in a completely exhausted state after struggling in the water with the horse before he lost him. On that occasion, Surgeon-Captain Wight jumped out of the patrol boat with jack boots and spurs on, and swam through the line of swimming, struggling horses to the rescue of the soldier, and caught him just as he was sinking for the third time. He held him up till the patrol boat could be brought to their assistance, which was impossible at first, owing to the line of horses closely following one another. He was on that occasion thanked by the General Officer Commanding the Bangalore District, and was recommended by him to the notice of the Royal Humane Society, and received their vellum certificate.

STUDY TIME AND EXAMINATIONS.

JUSTICE writes: I fully endorse your editorial remarks that it is unjust to expect men on active service in tropical climates to go through an examination as severe as if they were comfortably studying at Netley. I know a surgeon-captain who was called upon to go through the examination in a shade temperature of 100°, and practically in the face of the enemy; naturally he failed. Applications to go to Netley for study are seldom entertained. Query: Do the authorities pitch the examination so as to get rid of men after twelve years' service, and so save prospective pensions?

FIAT JUSTITIA, on the other hand, writes: I cannot endorse the assertion that the standard of examination is "too high for practical purposes," or requires special study time. The questions on medicine and surgery at the last examination were neither difficult nor "faddy," although it must be admitted the papers were somewhat lengthy for the time allowed; the questions on hygiene and the regulations were of the most elementary nature. The large proportion of rejections must either be due to injudicious methods of reading or want of application on the part of candidates, for cramming is not required. Can a single instance be adduced of anyone having yet been, or likely to be, passed over as a result of being rejected? Has anyone ever been rejected on a second trial? I know of none. It may be disheartening to be plucked, but not more so than to those who pass, yet still remain junior to and serve under those who fail. The examination must cease to have any *raison d'être* unless some system of promotion by selection be introduced after examination. We have only ourselves to thank for the "two gentlemen appointed by the Secretary of State," having agitated against our own departmental examiners.

*** We are always glad to exhibit two sides to a question, but in this instance our second correspondent has all one side to himself, for all our other correspondents on the subject advocate study time and condemn the examinations as absurdly high on professional subjects. If four out of five fail, that to us is proof of something wrong, not, surely, in the capacity and powers of application of 80 per cent. of the officers, but in the standard of the examination itself. Our correspondent practically admits that when he states the questions in medicine and surgery, although neither difficult nor faddy, were too lengthy. Just so; is it to be a race who best can write a short treatise against time? The true object of a promotion examination we take to be to ascertain whether the officer has kept up his knowledge in a reasonably practical manner, such as might be expected of any man who had been practising his profession for ten or twelve years; anything so pitched as to bar promotion to average men after so many years given to the service of the State would be a gross injustice, sure to defeat itself, as no one would take service under such unfair and hazardous conditions. Far less should it be, as our correspondent suggests, of a competitive character for promotion: that thoroughly Chinese method has not yet found favour in Europe, and is not likely to in this country, for in recent years many of our best thinkers have rather discounted the value of paper examinations in the affairs of practical life.

THE NEW TITLES.

SURGEON-LIEUTENANT-COLONEL, writing from India, says: Such is the impossible character of the new title, that medical officers themselves fight shy of them, and outsiders in despair fall back on the conventional "Mr." or "Dr." The prefix "Surgeon" should be dropped first: because, as universally admitted, it renders the title too long for general use either officially or socially; secondly, because it affords convenient excuse for those so minded, to take liberties in addressing medical officers; thirdly, junior medical officers do not like to hear their seniors addressed with a liberty which cannot be taken with combatant, pay, or commissariat officers; fourthly, it is impossible for men of the Medical Staff Corps to respect titles which they know to be universally ignored.

VETERAN OF TWENTY-ONE YEARS' SERVICE writes: I have a son who will shortly receive the title of Surgeon-Major after twelve years' service; to distinguish him from myself I mean to adopt the title of Surgeon-Lieutenant-Colonel. Am I, as a retired officer, wrong in allowing myself to be so addressed?

*** We cannot, of course, say that the "Veteran" is officially entitled to the new designation, although we do not see any terrible harm in his adopting it under the circumstances. The old race of so-called Surgeon-Majors are certainly pretty freely handicapped in a titular sense.

A CORRESPONDENT who retired with the honorary rank of Deputy-Surgeon-General says that title, except on his card, is otherwise useless, for in society he is simply dubbed "doctor," as if he never had any army career at all. The colloquial use of the new titles is impossible, and nothing but the recognised purely military titles will avail.

*** There is much truth in this.

PRIVATE MEDICAL ATTENDANCE ON SOLDIERS.

"REX" wants to know who is responsible for payment for attendance on a soldier on sick furlough, and to whom he should apply on the matter?

*** Under certain circumstances soldiers on sick furlough are entitled to medical attendance at the public expense; our correspondent should place the circumstances before the Principal Medical Officer of the district within whose jurisdiction the case falls.

SUCCESSFUL VACCINATION.—Dr. C. Booth Meller has been awarded grants for successful public vaccination in the Cowbridge District and the Bonvilstone District.—Mr. Charles J. Worts, of Fordham, public vaccinator to the Ninth District of the Lexden and Winstree Union, has received for the fourth time a grant for successful vaccination.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

MR. M. PEMBREY, M.A., Christ Church, Radcliffe Travelling Fellow, has been appointed a Demonstrator of Physiology.

Mr. P. Elford, B.A., Christ Church, has been elected to a Fellowship in Natural Science at St. John's College.

EXHIBITIONS, ETC.—An Exhibition will be awarded on December 6th at Wadham College to a candidate who will undertake to proceed to Honours in Natural Science. H. V. Shuter, of Bradford Grammar School, has been elected to a Demyship in Natural Science; and E. Anderton, of Charterhouse, to an Exhibition in Natural Science, both at Magdalen College.

UNIVERSITY OF CAMBRIDGE.

CAPE UNIVERSITY.—The Council of the Senate recommend that the University of the Cape of Good Hope should be adopted as an institution affiliated to the University of Cambridge. If this be carried Cape graduates in arts, law, and medicine will be admitted to certain privileges in proceeding to degrees in Cambridge.

DEGREE.—On October 13th:—J. Cropper, M.A., B.C., of Trinity, was admitted to the M.B. degree.

Lord Walsingham, the High Steward of the University, has expressed his wish to give annually for three years a gold medal for the best monograph or essay giving evidence of original research in any subject coming under the cognisance of the Special Board for Biology and Geology. The offer having been accepted and the regulations for the medal having been approved, the Special Board for Biology and Geology give notice that the medal is offered for competition for the second time during the ensuing academical year. The essays are to be sent to the Chairman of the Special Board (Professor Newton, Magdalene College) not later than October 1st, 1893.

UNIVERSITY OF ABERDEEN.

EXAMINERS FOR GRADUATION IN MEDICINE.—The University Court have appointed the following examiners for 1892-3:—*Anatomy:* Bertram C. A. Windle, M.D., Mason College, Birmingham. *Botany and Materia Medica:* James Galloway, M.D., London. *Chemistry and Medical Jurisprudence:* Alfred Hill, M.D., Birmingham. *National History and Institutes of Medicine:* George N. Stewart, M.D., Cambridge. *Practice of Medicine and Pathology:* Sidney Coupland, M.D., London. *Surgery and Midwifery:* George M. Edmond, M.D., Aberdeen.

UNIVERSITY OF GLASGOW.

THE following gentlemen have passed the undermentioned examinations:

First Professional Examination for the Degrees of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.).—W. Alexander, W. Allan, A. R. Anderson, J. L. Anderson, S. Anderson, W. S. Baird, R. B. Barr, T. Bell, G. A. Brown, R. Buchanan, J. Butler, H. Calderwood, M. Campbell, S. Capie, J. L. Carstairs, A. Charlton, A. A. Clark, P. S. Clark, S. D. Cowan, M.A., J. H. Douglas, J. Drummond, W. B. Edwards, J. Ferguson, M.A., J. Forster, J. Fculds, R. M. Fraser, M.A., J. Gardner, T. C. Garret, J. Gillan, M.A., J. Good, J. Gordon, J. D. Graham, J. A. Graham, W. Graham, W. M. Griffith, G. H. B. Harvie, R. Hastie, W. Hay, B.D., S. J. Hourston, A. Iredale, J. W. Jackson, J. Jubb, D. C. Kirkhope, J. Knight, W. Lawson, C. Lowson, J. H. Lyell, R. K. Miller, J. M. W. Morison, F. Mort, A. C. Muir, J. M'Clure, J. C. M'Clure, D. M'Donald, W. F. M'Ewen, W. M. M'Farlane, J. S. M'Kendrick, L. MacLachlan, M. M'Laran, W. Macleod, N. Macnair, R. M'Naught, G. M'Pherson, R. Nelson, A. R. Oliver, W. Paterson, J. A. Paton, H. C. Patrick, J. R. G. Phillips, E. J. Primrose, M.A., S. Prior, J. B. Rae, N. Robson, W. Scobie, B.D., A. Scott, P. M'K. Short, H. C. Smith, T. O. Speirs, J. Sproull, A. Stevenson, H. Stevenson, A. Stewart, A. H. Stewart, J. E. F. Stewart, J. Taylor, A. Vost, E. A. Walker, M.A., E. T. K. Walker, N. C. E. Ward, H. A. Watson, M.A., J. Weir, J. E. Wilson, F. Wolverson, A. S. Worton, R. K. Wyrtt, J. Young (Glasgow). Women Candidates: A. J. Anderson, U. Chaplin, A. L. L. Cumming, A. C. Dewar, M. C. Dewar, M. Gilchrist, M. B. Hannay, E. M. Stuart.

For the Degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.).—I. In Botany and Physics: G. J. Cole, W. G. Liston, R. Lunan, E. W. Milne, W. F. M'Indoe, D. S. Smith, W. J. A. Walker, W. Watson, E. Watt, D. J. Young. II. In Botany and Zoology: I. G. P. Alston, G. W. Coats, J. G. Green. III. In Physics: A. S. Allan, W. B. Hunter, M. Macdonald. IV. In Zoology: W. Wyper.

Second Professional Examination for the Degrees of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.).—J. Allan, T. W. Bayne, T. Black, H. A. Bödeker, J. Brownlee, M.A.; T. Campbell, H. Carmichael, A. Cochran, J. A. Cook, T. Crossan, A. W. Cunningham, H. B. Currie, R. K. Currie, D. Dinwoodie, J. Dunlop, R. Dunsmuir, F. Elliott, D. Erskine, J. Findlay, W. D. Finlay, T. J. Forbes, J. L. Forrest, R. W. Forrest, J. F. Gemmill, M.A.; C. L. S. Gibson, A. Girvan, D. Glen, W. Grove, A. F. W. Gunn, T. H. Hay, R. Howie, R. Kirk, J. Kirkwood, D. Ligat, J. D. Louttit, C. H. Lumsden, J. Mair, J. H. Martin, M.A.; W. D. Miller, R. Morton, G. Mowat, J. M'Cash, F. M'Kenna, D. Maclean, A. N. M'Lellan, A. MacLennan, J. I. Macmillan, M.A.; A. Macphail, D. M'K. M'Rae, C. Nairn, H. S. B. Nisbet, H. A. Patullo, D. E. Powell, J. Reid, H. Riddell, J. C. Robertson, M.A.; D. S. Rodger, J. Sandilands, D. S. Service, W. Shedden, H. W. Thomson, W. C. Thomson, H. K. Wallace, M. Watson.

Third Professional Examination for the Degrees of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.).—A (including Pathology): A. Abdurahman, J. E. Adam, R. Y. Aitken, R. H. Allen, D. Blair, M.A.; R. Boyd, J. P. Brown, M.A.; J. Browne, A. J. Brownlee, W. I. Buchanan, A. Cameron, H. B. Causley, J. Clark, R. Cochrane, F. Dittmar, M.A.; A. Donald, J. E. Downs, J. W. Findlay, J. D. Finlay, A. Forrest, R. S. Frew, J. Fullarton, M.A.; W. W. Fyfe, R. Grieve, M.A.; A. G. Hay, M.A.; J. Hunter, M.A., B.Sc.; G. S. Illingworth, W. L. Jones, A. J. Laird, R. R. Manners, C. S. Marshall, A. Muir, P.

M'Bryde, G. M'Callum, A. W. M'Clelland, W. A. Mackay, J. M'Kie, T. M'Nay, J. A. Naismith, A. C. Park, J. Patrick, M.A.; J. Pettigrew, W. P. Porter, A. Revie, A. S. Robertson, H. M. Robertson, E. P. Sinclair, M. A. M'I. Sinclair, E. Sugden, J. J. Urwin, F. H. Waddy, A. A. Warden, J. L. Watson, J. Y. Whyte, J. D. O. Wilson.

B (not including Pathology): K. Adamson, J. G. Anderson, T. Armstrong, J. Bain, D. Beatson, P. S. Buchanan, D. J. MacG. Campbell, A. Crawford, A. Dodds, J. F. R. Gairdner, A. F. C. Gilmour, A. T. Hill, E. M. Jenkins, J. F. Lees, W. Lowe, B. B. Morton, C. C. M'Cal, J. M'Kenna, A. G. Newell, J. H. Ormond, J. Robertson, W. S. Sinclair, F. Small, J. Thomas, J. Thomson, M.A.; J. R. Turner, R. N. White, T. B. Whitelaw, T. M'K. Wotherspoon.

ROYAL UNIVERSITY OF IRELAND.

FIRST EXAMINATION IN MEDICINE.—The Examiners have recommended that the following be adjudged to have passed the Examination:—

H. Bell, Queen's College, Belfast; H. F. Browne, Queen's College, Belfast; W. Calwell, Queen's College, Belfast; S. D. Clements, B.A., Queen's College, Galway; W. J. Cousins, Queen's College, Belfast; S. L. Cummins, Queen's College, Cork; J. Danaher, Catholic University Medical School; J. Dorgan, Queen's College, Cork; F. E. Dowling, Queen's College, Cork; D. Flask, Queen's College, Belfast; T. H. Gloster, Queen's College, Cork; E. S. Gorman, Queen's College, Belfast; T. F. Heas, Queen's College, Cork; J. F. Hunter, Queen's College, Belfast; R. J. Johnstone, Queen's College, Belfast; T. Kennedy (Belfast), Queen's College, Belfast; E. A. Kirkwood, Queen's College, Belfast; J. St. L. Kirwan, Queen's College, Galway; E. J. Liddle, Queen's College, Belfast; G. Liddle, M.B., Queen's College, Belfast; J. M. Lynch, Queen's College, Cork; J. H. McComb, Queen's College, Belfast; P. W. McHugh, Queen's College, Galway, and Catholic University Medical School; F. C. McKee, Queen's College, Belfast; T. Magner, Queen's College, Cork; W. H. W. Mewhirter, Queen's College, Belfast; A. Montgomery, Queen's College, Belfast; D. H. O'Brien, Queen's College, Cork; T. P. O'Carroll, University College, Dublin; R. Officer, Queen's College, Belfast; P. E. O'Flaherty, Queen's College, Belfast; E. F. O'Sullivan, University College, Dublin; J. Park, Queen's College, Belfast; J. Shinkwin, Queen's College, Cork; J. B. Slattery, Queen's College, Cork; R. B. Shoefall, Queen's College, Galway; W. White, Queen's College, Cork; W. J. Wilson, Queen's College, Belfast.

The following will be allowed to present themselves for Honours in the undermentioned subjects:—

Botany.—W. J. Cousins, R. J. Johnstone, E. J. Liddle, W. H. W. Mewhirter, E. F. O'Sullivan, J. Park, W. White, W. J. Wilson.

Zoology.—J. Dorgan, E. S. Gorman, R. J. Johnstone, T. Kennedy (Belfast), E. J. Liddle, J. M. Lynch, T. P. O'Carroll, J. B. Slattery, W. White.

Experimental Physics.—S. D. Clements, B.A.; T. H. Gloster, E. S. Gorman, R. J. Johnstone, T. Kennedy (Belfast), J. St. L. Kirwan, A. Montgomery, D. H. O'Brien, J. Shinkwin, W. White.

Chemistry.—E. S. Gorman, R. J. Johnstone, T. Kennedy (Belfast), D. H. O'Brien, P. E. O'Flaherty, W. White.

SECOND EXAMINATION IN MEDICINE.—The Examiners have recommended that the following be adjudged to have passed the Examination:

Upper Pass Division.—J. Booth, Queen's College, Cork; *J. A. Craig, Queen's College, Belfast; J. Dundon, Queen's College, Cork; *J. P. Frengley, Catholic University School of Medicine; G. M. Irvine, B.A., Queen's College, Belfast; *J. Roantree, Catholic University School of Medicine; *J. A. Roughan, Catholic University School of Medicine; *J. R. Thompson, B.A., Queen's College, Belfast.

Pass Division.—D. Barry, Queen's College, Cork; L. A. J. Crinion, Catholic University School of Medicine; T. Downard, B.A., Queen's College, Galway; Isabel W. Harper, Royal College of Surgeons and Royal College of Science, Dublin; T. Houston, B.A., Queen's College, Belfast; J. Huston, B.A., Queen's College, Belfast; J. H. McBurney, Queen's College, Belfast; C. McCarthy, Queen's College, Cork; W. A. McWilliam, Queen's College, Belfast; S. H. R. Montgomery, Queen's College, Belfast; M. T. Moran, Queen's College, Belfast; M. Moran, Queen's College, Galway; J. C. Nixon, Queen's College, Galway; E. O'Shaughnessy, Queen's College, Cork; J. J. O'Shea, Queen's College, Belfast; Lilian A. Powell, Queen's College, Belfast; D. S. Robinson, Queen's College, Belfast; G. Scott, Queen's College, Belfast; W. J. Stitt, Queen's College, Belfast; T. Thompson, Queen's College, Belfast; A. Trimble, Queen's College, Belfast; R. Watson, Queen's College, Belfast.

Those marked with an asterisk may present themselves for the further examination for Honours.

THIRD EXAMINATION IN MEDICINE.—The Examiners have recommended that the following be adjudged to have passed the Examination:

Upper Pass Division.—Emily E. Eberle, M.A., Royal College of Surgeons, Dublin; W. J. Forbes, Queen's Colleges, Galway and Belfast; R. J. MacKeown, Queen's College, Belfast; R. Watt, Queen's College, Belfast.

Pass Division.—J. C. Adams, Queen's College, Belfast; J. J. Ahern, Queen's College, Cork; W. T. D. Allen, Royal College of Surgeons and Catholic University School of Medicine, Dublin; C. Blue, Queen's College, Belfast; J. G. Clokey, Queen's College, Belfast; W. J. Dargan, Catholic University School of Medicine, Dublin; Mina L. Dobbie, London School of Medicine for Women; W. Farrington, Queen's College, Galway; F. Gallagher, Catholic University School of Medicine, Dublin; Jane S. Galletly, London School of Medicine for Women; G. W. Griffiths, M.A., School of Physic, Trinity College, Dublin; J. Lowry, Queen's College, Belfast; J. M'Grath, Queen's College, Belfast; T. T. M'Kendry, B.A., Queen's College, Belfast; S. M. Magowan, Queen's College, Belfast; D. C. Moore, Queen's College, Belfast; W. J. Niblock, Queen's College, Belfast; M. O'Dea, Queen's College, Galway; D. A. Porter, Queen's College, Belfast; J. H. Thompson, Queen's College, Belfast; W. D. T. Thompson, Queen's College, Belfast.

All the candidates in the Upper Pass Division may present themselves for the further examination for Honours.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

THE following gentlemen passed the Second Examination of the Board in *Anatomy and Physiology*, at a meeting of examiners on Monday, October 10th:

J. D. Amenabar, student of Owens College, Manchester; E. L. Roberts and H. R. Wilson, of University College, Liverpool; J. Boyd, of St. Mungo's College and Glasgow University; W. J. Gray, of Edinburgh University; E. T. Coady, of the Catholic University, Dublin; J. A. Hall and L. K. Thomas, of Mason College, Birmingham; S. Y. Howell, of the College of Physicians and Surgeons, New York.

Passed in Anatomy only.—H. Jackson, of Yorkshire College, Leeds, and St. Mary's Hospital; S. Crompton, W. S. Freer, and W. Sutcliffe, of Mason College, Birmingham; J. B. Chadwick, H. P. Dalley, and W. Chapman, of Owens College, Manchester; G. R. Sparrow, of University College, Liverpool; J. A. MacPhail, of McGill College, Montreal; E. J. Kennedy, of McGill College, Montreal, and Mr. Cooke's School of Anatomy and Physiology.

Passed in Physiology only.—C. H. Flory and H. A. L. Banham, of Sheffield Medical School; P. A. Chillcott, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; D. N. Maclennan, of Kingston, Canada, and Mr. Cooke's School of Anatomy and Physiology; J. Thompson, of Mason College, Birmingham; C. A. Phillips, P. Kitchen, and W. S. Dibbs, of Yorkshire College, Leeds; J. H. Wigham, of Yorkshire College, Leeds, and St. Mary's Hospital; and A. Hodge, of Owens College, Manchester.

Eleven candidates were referred in both subjects, 6 in Anatomy only, and 6 in Physiology only.

Passed in Anatomy and Physiology, on Tuesday, October 11th.—C. E. Layton and G. C. Belcher, of Mason College, Birmingham; C. G. Higgenson, of Owens College, Manchester; E. Pratt, of St. Bartholomew's Hospital; R. A. Nesham and J. R. Kingdon, of Cambridge University and St. Bartholomew's Hospital; C. B. Bakhla, of Grant Medical College, Bombay; R. F. Smallwood, of Cambridge University and G. W. Penny, of St. Thomas's Hospital.

Passed in Anatomy only.—A. Cant, of Mason College, Birmingham; M. A. Ghani, of Lahore Medical College, Punjab; F. R. Proctor-Sims and R. L. Roberts, of Guy's Hospital; G. P. U. Prior and J. R. Benson, of King's College; F. White, of St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology; F. E. H. Keogh, of St. Mary's Hospital; J. S. Hosford, G. H. Goddard, and J. Blackwood, of University College; A. B. Wright, of London Hospital; A. W. Wilson, of Melbourne University and London Hospital; A. S. Grant, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; and W. J. Hopkins, of St. Bartholomew's Hospital.

Passed in Physiology only.—H. Phillips and G. Y. Myrtle, of Yorkshire College, Leeds; A. T. Jones and H. W. Lloyd, of University College, Liverpool; W. E. Bracey, of Mason College, Birmingham; E. W. Ormerod, of Bristol Medical School and Mr. Cooke's School of Anatomy and Physiology; J. Broadbent and J. T. Barrett, of Owens College, Manchester; W. M. Coghlan, of St. Bartholomew's Hospital; W. H. Morgan, of Charing Cross Hospital and Mr. Cooke's School of Anatomy and Physiology; and T. W. Turner, of London Hospital and Mr. Cooke's School of Anatomy and Physiology.

Eight candidates were referred in both subjects, 4 in Anatomy only and 11 in Physiology only.

Passed in Anatomy and Physiology on Wednesday, October 12th.—H. J. M. Smith and J. W. Bird, of Guy's Hospital; H. S. Olliver, of Charing Cross Hospital; H. E. Gibson, of University College; R. Hughes, of St. Thomas's Hospital; C. H. Hopkins, of St. Bartholomew's Hospital; and G. C. Hancock, of Westminster Hospital and Mr. Cooke's School of Anatomy and Physiology.

Passed in Anatomy only.—W. G. Mitchell, B. F. Pendred, E. R. Thomas, and A. A. Price, of Guy's Hospital. E. T. Inkson, of University College; E. T. Clayton, of Charing Cross Hospital; and R. Armitage, of St. Bartholomew's Hospital.

Passed in Physiology only.—E. T. Lanyon and A. E. Sears, of London Hospital, and Mr. Cooke's School of Anatomy and Physiology; E. Moore, of Guy's Hospital; A. W. Hayles, of King's College; E. G. Moon and B. Pares, of St. Mary's Hospital.

Fifteen candidates were referred in both subjects, 3 in Anatomy only and 9 in Physiology only.

Passed in Physiology only, on Thursday, October 13th.—J. W. Ensor and E. H. Tipper, of Guy's Hospital; L. H. Y. Stephens, of Yorkshire College, Leeds, and Guy's Hospital: C. W. Smith, J. L. F. de Gannes, A. C. Bean, and A. E. R. Sworn, of University College; S. B. Blomfield, of Westminster Hospital, and Mr. Cooke's School of Anatomy and Physiology; J. H. de Villiers, G. W. Brown, F. E. Saunders, and P. L. Blaber, of St. Thomas's Hospital; G. Candler, of Cambridge University and St. Thomas's Hospital; T. Herbert, F. H. Bailey-King, and A. P. Birch, of Middlesex Hospital; A. W. M. Curtis, and L. Savin, of Middlesex Hospital and Mr. Cooke's School of Anatomy and Physiology; W. T. Dempster, T. H. Parker, and A. S. McSorley, of King's College; W. P. Brooks, of Charing Cross Hospital; H. H. Thomas, of Charing Cross Hospital and Mr. Cooke's School of Anatomy and Physiology; T. Hood and A. H. Beadles, of St. Bartholomew's Hospital.

Eleven candidates were referred in Physiology.

ERRATUM.—In the Edinburgh University pass list in the BRITISH MEDICAL JOURNAL of October 15th, p. 872, line 15 from bottom, for "First Professional Examination" read "*Final* Professional Examination."

SURGEON-GENERAL MEHLHAUSEN has resigned his position as Director of the Berlin Charité Hospital, which he has held for twenty years. The Emperor has conferred on him the Star of the Order of the Crown, Second Class, in recognition of his services. Dr. Mehlhausen has been succeeded by Dr. Schafer, of Brunswick, Physician in Ordinary to Prince Albrecht.

OBITUARY.

JULIUS VON BEREGSZASZI, M.D.

Many English medical men must have learnt with sorrow the death of Dr. Julius von Beregszaszi, of Vienna, which was announced in the British Medical Journal some weeks ago. He was staying at Bad Zandpoort in Holland, where had gone with his wife to spend a well-earned holiday. He was seemingly in the enjoyment of his usual health and good spirits when, shortly after his bath on the morning of August 10th, he suddenly fell down before the door of his hotel, and in a moment he was gone. The cause of death was afterwards found to be an aneurysm of the aorta.

Dr. Beregszaszi was in his 46th year, and until the moment of his death appeared to be a man of notable vitality and strength. He possessed a striking personality. Rather below the middle height, and with a broad yet wiry frame, every feature and every movement indicated life and power. He was possessed of a marvellous fund of ready humour. This quality, combined with his sympathetic nature, rendered him a favourite with students and with patients alike. His classes were greatly sought after, and were attended very largely by English and American students. His dexterity as a laryngoscopist the excellence of his teaching, his social qualities, and his remarkable command of English greatly impressed those who had the pleasure of working under his guidance. His death removed from our ranks a highly-endowed man, a loved colleague, a skilful teacher, and a trusted physician.

HUGH HUGHES, M.R.C.S.Eng., L.S.A., J.P.

We regret to have to announce the death of a well known and very popular practitioner in the Principality—Mr. Hugh Hughes, J.P., of Bethesda, North Wales.

On October 2nd the sad news that he had died suddenly at Carnarvon caused a widespread feeling of regret, both at that town and Bethesda. It appears that he had not felt quite well of late, and decided to come to Carnarvon for a fortnight's change. He spent the morning of Friday with Dr. Griffith and his family, and appeared quite healthy. On the evening of October 1st, just before retiring to bed, he observed that he felt better than he had done for days. However, on someone going into his bedroom on the next morning, shortly before 9 A.M., he was discovered to be in an unconscious state. Dr. Griffith was immediately sent for, and he arrived promptly, but life was already extinct, death being caused by syncope.

The deceased, who was aged 63, was a son of Mr. Hugh Hughes, Trefriw (quarry proprietor), and a brother of the late Dr. Hughes (Cowlyd), Llanrwst; of Dr. O. E. Hughes (Craf-nant), Trefriw; and of Dr. Hughes, of Penmaenmawr (President of the North Wales Branch of the British Medical Association). He distinguished himself as a medical student by winning several prizes. At the age of 22 he went to reside at Bethesda, where he remained for forty years. He won wide spread affection and esteem especially among the poor, who found in him a true friend, always ready to give them a helping hand. His loss will be deeply felt. He was a member of the Bethesda Commissioners for many years, and acted as chairman for a long term. He was also a magistrate for the county of Carnarvon.

CHARLES HAMILTON FASSON, M.D.

We regret to have to report the death on Saturday, October 15th, of Deputy Surgeon-General Fasson, the Medical Superintendent of the Edinburgh Royal Infirmary. His army service covered a period of twenty-seven years, during which he had considerable experience in the Indian Mutiny while yet attached to the regiment of Light Dragoons. Later he acted as registrar to the Herbert Hospital at Woolwich. In 1871 he was appointed Superintendent of the Edinburgh Royal Infirmary, which office he has held for twenty-one years. For several years he had been in somewhat delicate health, and some weeks ago he had an apoplectic seizure, from which, as was reported in the British Medical Journal, he was making a fairly satisfactory recovery. Unfortunately a relapse occurred, and he died at the age of seventy-one.

Dr. Fasson was a gentleman of the old school, courteous and amiable to the highest degree towards all with whom he was brought in contact. He has done excellent service in the hospital at a most trying transitional time. If he erred, it was on the side of gentleness and amiability. It will be difficult to find a worthy successor, the office requires so many and such complex qualities. The managers, the staff, and the public deplore his loss, and join in sympathy with those members of his family who have survived him.

MEDICAL NEWS.

The number of female medical students in France, which in 1890 was 150, is now 250.

Out of 126 consecutive deaths of animals from all causes at the Zoological Gardens, no fewer than 41, or 33½ per cent., were due to tuberculosis.

The Philadelphia College of Physicians has awarded the Alvarenza Prize, of the value of 180 dollars, to Dr. R. H. L. Bibb, of Saltillo, Mexico, for an essay on Leprosy, the result of ten years of study and observation in Mexico.

The Kershaw Hospital for Children, in connection with the Ashton and District Infirmary, was opened on October 13th. It is the outcome of an offer by Mr. James Kershaw, of Delamere Place, Ashton-under-Lyne, to give the sum of £4,000 for the erection of a children's hospital. Mr. Kershaw informed the governors, whilst the building was in progress, that he should have pleasure in furnishing it complete.

Glasgow Southern Medical Society.—The following gentlemen have been elected office-bearers for this Society. *President:* Dr. David Couper. *Vice-President:* Dr. J. K. Kelly. *Treasurer:* Dr. J. Brown. *Secretary:* Dr. A. S. Tindal. *Editorial Secretary:* Dr. C. E. Robertson. *Seal Keeper:* Dr. James Erskine. *Court Medical:* Dr. A. Miller (*Convener*), Drs. Duncan, Napier, John Glaister, and C. W. Stewart. *Governor of Victoria Infirmary:* Dr. E. M'Millan. *Extra Councillors:* Drs. Munro, Edmiston, and Jenkins.

The annual dinner of the Liverpool Medical Institution was held at the Adelphi Hotel, Liverpool, on October 13th Dr. Glynne, F.R.C.S., President, in the chair. Eighty-four members and guests sat down to dinner. After the toast of "The Queen," the Rev. John Watson, M.A., proposed "Victoria University" in a felicitous speech, and Professor Gotch F.R.S., responded. Mr. W. Steward, M.A., stipendiary magistrate of Liverpool, proposed "The Liverpool Medical Institution," the toast of the evening, which was replied to in a humorous speech by the President.

The Home for the Dying, to be known as Friedenheim, will be opened on November 7th by the Duchess of Teck, who will be accompanied by the Princess May. The origin of the home is to be traced to the action of a Scotch lady who seven years ago opened, and has since maintained with the help of a few private friends, a house containing ten beds. The demands for admission to this private home were so numerous that it was conclusively proved that a home on a larger scale would meet a sad hiatus in our provision for the dying sick. A committee was formed with Sir Robert Phayre, K.C.B., as Chairman of Council, Mr. J. H. Tritton as Treasurer, and Dr. A. T. Schofield as Chairman of the Executive Committee; and sufficient funds have been raised to take a house standing in two acres of ground opposite Swiss Cottage Station. The house will accommodate fifty patients, with a full staff of nurses and servants.

A New German Sanatorium for Chest Diseases.—On September 10th a new sanatorium for necessitous patients suffering from diseases of the lungs was opened at Falkenstein, in the presence of a large gathering of officials, hospital physicians, and philanthropists. The institution, the establishment of which is largely due to the efforts of the Frankfort Convalescents Association will be under the direction of Dr. Dettweiler, with the assistance of Dr. Engelbrecht as resident physicians. The new sanatorium was described by the *Berliner klinische Wochenschrift*, as the first institution of the kind in Germany; but Dr. A. Ladendorf, of St. Andreasberg, in the Hartz Mountains, has written to our contempo-

rary to point out that a sanatorium for sufferers from chest diseases, which is entirely supported by public charity, has been in existence in that place for a considerable time, and has already relieved 136 poor patients.

THE MICROPHONE IN DEAFNESS.—Baron Léon de Lenval of Nice offers a prize of 3,000 francs to the inventor of the best application of the principles of the microphone in the construction of a portable apparatus for the improvement of hearing in deaf patients. Instruments for competition should be sent to Professor Adam Politzer or Professor Victor B. Lang, Vienna, before December 31st, 1892. The prize will be awarded at the Fifth International Otological Congress at Florence in September, 1893. If no instrument is judged worthy of the prize, the jury reserve the right of announcing another competition, unless Baron Lenval decides to otherwise dispose of the prize. The members of the jury are Professor Adam Politzer (President) and Professor Victor v. Lang, of Vienna; Dr. Benni, Warsaw; Dr. Gelli, Paris; Professor Urban Pritchard, London; Professor St. John Roosa, New York; Professor Grazzi, Florence.

THE MEDICAL PRESS IN CUBA.—The Editor of the *Progreso Medico* of Havana suggests that the directors of all the medical journals of Cuba (nine in number) form themselves into a committee which should be charged with "the sacred duty of representing and defending the moral and material interests of the medical profession in general." Nothing, he goes on to say, that directly or indirectly concerns the profession should be considered as outside the "sphere of influence" of the committee, which should, as occasion for active interference arises, take such steps as it may judge necessary to ensure the fulfilment of its objects. The committee, *si qua fata aspera rumpat* and it succeeds in emerging into the sphere of the "conditioned," will start in life with a programme hardly less comprehensive than Don Quixote's. The experiment, if it ever comes to be actually tried, will doubtless be watched with interest. There is scarcely anything in the nature of practical reform or redress of grievances that a united press, medical or lay, could not achieve—if it could only be got to unite.

A ROYAL OCULIST.—Dr. Pierre Maurel, who has just presented to the French Government a report on special clinical teaching in Germany, gives an interesting account of the ophthalmic clinic of H.R.H. Duke Charles Theodore of Bavaria at Munich. The Prince, whose skill in the specialty which he has chosen is recognised by his professional brethren, conducts an eye hospital at Meran, where he spends the winter, and another at Tegern-See, where he passes the summer, besides the one at Munich. The hospital at Tegern-See is charmingly situated on a hill looking over the lake opposite the Bavarian Alps, has accommodation for fifty or sixty patients. Each ward contains from four to six beds. The operating room, which is designed in accordance with the most modern principles, is lighted by electricity. The Prince performs operations every morning at 6.30, and afterwards sees the patients who come to him from far and near. The only fee required is a contribution to a poor-box, which stands in the room. What doctors of less exalted rank think of the Duke's indiscriminate professional charity is not stated.

LITERARY INTELLIGENCE.—The first number of the *Sheffield Medical Journal* has just appeared, and Mr. Simeon Snell and his collaborators may be heartily congratulated on the result of their editorial labours. The number contains Mr. Snell's presidential address to the Sheffield Medico-Chirurgical Society, an abstract of which will be found in another column; a report of an unusual case of tuberculosis of the skin, by Mr. Dale James and Dr. Norman Walker; cases of myxœdema, by Dr. Dyson, Mr. Pye-Smith, and Dr. A. J. Hall; and the first of what promises to be a very interesting series of papers on Local Medical History, by Mr. Arthur Jackson. Abstracts of important contributions to periodical medical literature and reviews of books make up the rest of the journal, which altogether affords gratifying evidence of the intellectual activity of the pro ession in the chief provincial centres.—The *Medical Pioneer* is the title of a new journal which is described on the front page as the "Official Organ of the British Medical Temperance Association." The first number which is now before us is adorned with a portrait and biography of Dr. B. W. Richardson, the President of the Association, and contains, in addition to reports of the progress of the temperance movement, etc., the record of a case of myxœdema in which the thyroid gland of a live sheep was successfully ingrafted by Dr. W. J. Collins.—Another new journal of which the first number has reached us is *The Scalpel*, described as "a Monthly Magazine for Medical Students," and edited by Mr. C. W. Kirkpatrick, of the Calcutta Medical College. Our young contemporary is small in size but great in spirit, and the influence of the *genius loci* is plainly perceptible in the Oriental exuberance of the style. We hope its days may be long in the land.—Dr. R. French Stone, one of the leading practitioners of Indianapolis, is engaged in the preparation of a biography of eminent American physicians and surgeons past and present, particularly, as we gather, the latter. The book, which is to be published by the M. H. Kauffmann Medical Publishing House of Chicago, will be illustrated with portraits.—We have received the first number of *The Chicago Clinical Review*, a new monthly "journal of practical medicine and surgery," edited by Dr. G. H. Cleveland and A. I. Bouffleur, with the help of more than thirty editorial collaborators. The *Review* is well printed, and has altogether that best of "letters of introduction"—a prepossessing exterior. The literary contents are of excellent quality.—A second edition of Wundt's *Vorlesungen ueber die Menschen und Thierseele*, a work of special interest to psychologists and physiologists, will shortly be published by Leopold Voss, of Hamburg and Leipzig.—The first part of Paul Börner's *Reichs-Medicinal-Kalender* for 1893 has just been published by Georg Thieme, of Leipzig. The work, which is edited by Dr. S. Guttmann, contains memoranda of all kinds likely to be useful in medical practice, the part relating to drugs, poisons, etc., being from the pen of Professor Oscar Liebreich; that dealing with causes of death, necropsies, etc., from that of Professor Virchow, and the other part being written or compiled by equally competent authorities. Among the enormous amount of miscellaneous information given are lists of watering places and health resorts, with hints as to the special characteristics of each; lists of lunatic asylums, public and private, homes for idiots, epileptics, inebriates, etc.—Dr. C. E. Sajous, late of Philadelphia, has transferred the publishing office of his *Annual of the Medical Sciences* and the *Satellite* to Paris (28, Rue de Madrid).

MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon; doubly qualified. Salary, £150 per annum, and £30 per annum allowance for cab hire. Applications to the Secretary by November 16th.

BIRMINGHAM GENERAL HOSPITAL.—Pathologist. Salary, £120 per annum. Applications to Howard J. Collins, House-Governor, by November 4th.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Vacancy in the Medical Staff. Applications to the Medical Board, Children's Hospital, Steelhouse Lane, Birmingham, by November 8th.

BOROUGH OF KINGSTON-UPON-THAMES.—Medical Officer of Health. Salary, £150 per annum. Applications, endorsed "Medical Officer of Health," to Harold A. Winser, Town Clerk, Clatten House, Kingston-on-Thames, by October 22nd.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £120 per annum, without board or residence. Applications to F. Richardson Cross by October 30th.

CRICHTON ROYAL INSTITUTION, Dumfries.—Assistant Medical Officer; age from 25 to 28. Salary, £200 per annum, with board and residence. Applications to Dr. Rutherford, Medical Superintendent.

CHURCH OF SCOTLAND JEWISH MISSION.—Medical Missionary for Mission and Hospital at Smyrna. Salary, £300 per annum, with dwelling house. Applications to Rev. Dr. Alison, 1, South Lander Road, or John A. Trail, W.S., 17, Duke Street, Edinburgh.

DEVON COUNTY LUNATIC ASYLUM.—Assistant Medical Officer; unmarried. Salary, £100 per annum, rising to £120, with board, lodging, and washing. Applications to A. E. Ward, Clerk to the Visitors, 9, Bedford Circus, Exeter, by October 28th.

DOVER HOSPITAL.—House-Surgeon. Salary, £100 per annum, with furnished apartments, board, coals, light, and attendance. Applications to the Secretary, Mr. Edward Elwin, 13, Castle Street, Dover.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House-Physician. Board and lodging provided. Applications to the Secretary by November 16th.

GENERAL HOSPITAL, Barbadoes, West Indies.—Junior House-Surgeon. Salary, £200 per annum, and quarters. Appointment for three years. Applications to the Secretary by December 1st.

GLAMORGAN COUNTY COUNCIL.—County Medical Officer. Salary, £750, of which £150 is intended to cover all travelling, office, and laboratory expenses. Applications to T. Mansel Franklin, Clerk, Glamorgan County Offices, Cardiff, by November 21st.

HENDON LOCAL BOARD.—Medical Officer of Health for the Urban Sanitary District and the temporary Infectious Diseases Hospital. Salary as Medical Officer of Health, £125 per annum, and £35 (including the supply of medicines) for attending to patients at the Hospital. Applications, endorsed "Medical Officer of Health," to Samuel Tilley, Clerk to the Board, Local Board Office, The Burroughs, Hendon, N.W., by October 29th.

HUDDERSFIELD INFIRMARY.—Honorary Physician. Applications to Mr. F. Eastwood, Honorary Secretary, by November 1st.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, Margaret Street, Regent Street, W.—Two Visiting Physicians. Applications to W. H. Johnson, Secretary.

LEEDS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary to commence, £120 per annum and midwifery fees. Applications to C. H. Wilson, 8, South Parade, Leeds, by October 25th.

LONDON THROAT HOSPITAL, 204, Great Portland Street, W.—House-Surgeon. Appointment for six months. Honorarium at the rate of £50 per annum. Applications to the Secretary by October 27th.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park Place, Cheetham Hill Road, Manchester.—House-Surgeon. Salary, £80 per annum, with apartments and board. Applications to Mr. Hubert Teague, 38, Barton Arcade, Manchester, by October 29th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Surgeon; must be F.R.C.S.Eng. Applications to C. H. Byers, Secretary, by October 24th.

NORTH DUBLIN UNION, FINGLAS AND GLASNEVIN DISPENSARY.—Medical Officer. Salary, £170 per annum and fees. Applications to Mr. Thos. Conolly, Honorary Secretary, Fernville, Glasnevin. Election on October 31st.

NORTH WEST LONDON HOSPITAL, Kentish Town Road, N.W.—Assistant Surgeon; must be F.R.C.S.Eng. Applications to A. Craske, Secretary, by October 31st.

NORTH WEST LONDON HOSPITAL, Kentish Town Road, N.W.—Resident Medical Officer. Appointment for six months. Salary, £50. Applications to Alfred Craske, Secretary, by October 28th.

POPLAR HOSPITAL FOR ACCIDENTS, Blackwall, E.—Junior House-Surgeon. Salary, £50 per annum, with board, etc. Applications to the Secretary by October 27th.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Rooms, commons, and washing provided. Appointment for six months. Applications to the House-Governor by October 26th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Junior Resident Medical Officer, doubly qualified. Board and residence provided. Applications to the Secretary, C. W. Thies, by October 24th.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor, Isle of Wight.—Assistant Resident Medical Officer; unmarried. Salary, £70 per annum. Applications to the Board of Management at the London Office, 34, Craven Street, Charing Cross, by November 3rd.

SHEFFIELD SCHOOL OF MEDICINE.—Tutor, to take charge of dissecting rooms and hold classes in anatomy and physiology. Salary, commencing at £100 per annum. Applications to the Secretary by by October 25th.

SMEDLEY HYDROPATHIC ESTABLISHMENT, Matlock, Derbyshire.—Resident Physician. Appointment for six months. Honorarium of 20 guineas. Board and residence free. Applications to the Secretary by November 5th.

WALSALL COTTAGE HOSPITAL.—Resident Surgeon; doubly qualified. Salary, £100 per annum, with board, lodging, and washing. Applications to the Chairman of Hospital by October 22nd.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—Medical Officer to the Provident Dispensary attached to the Hospital; doubly qualified. Salary, £60 per annum, with board, lodging, and washing. Applications to the Honorary Secretary by October 26th.

MEDICAL APPOINTMENTS.

ALLAN, Francis J., M.D., D.P.H., appointed Lecturer in Sanitary Science, King's College, London.

BASSANO, T. M., M.B., C.M.Edin., L.R.C.P.&S.Edin., appointed House Surgeon to the Huntingdon County Hospital.

BODY, H. M., M.R.C.S.Eng., reappointed Medical Officer of Health for Crediton Urban Sanitary District.

BURNS, R. J., L.R.C.P.Lond., M.R.C.S., appointed Police Surgeon for the Borough of Sunderland, *vice* J. C. Wood, L.R.C.P.Edin., resigned.

BURTON, Dr., reappointed Medical Officer of Health for the Greenford Rural Sanitary Authority.

CONWAY, A., M.R.C.S., L.R.C.P., appointed Medical Officer for the King, winford No. 2 District of the Stourbridge Union, *vice* J. K. Clarke L.R.C.P., resigned.

COUPLAND, Sidney, M.D., F.R.C.P.Lond., appointed Examiner in the Practice of Medicine and Pathology at the University of Aberdeen.

CRAVEN, R. M., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health for the Westmoreland Combined Districts.

DERRY, Bartholomew G., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health for the Bodmin Urban District.

DRYLAND, Leslie W., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Northampton General Infirmary.

EDMOND, George M., M.D.Aberd., appointed Examiner in Surgery and Midwifery at the University of Aberdeen.

ELLIMAN, Arthur C., L.R.C.P.Lond., M.R.C.S., appointed House-Surgeon to the Kent and Canterbury Hospital, *vice* — Prentice, resigned.

EVANS, William, L.R.C.P.Edin., M.R.C.S., reappointed Medical Officer of Health Anglesey Rural District.

FUSSELL, Edward Francis, M.B.Aberd., M.R.C.P.Lond., reappointed Medical Officer of Health for East Sussex.

GALLOWAY, James, M.D., appointed Examiner in Botany and Materia Medica at the University of Aberdeen.

GILPIN, Frank, M.R.C.S.Eng., reappointed Medical Officer of Health to the Stratford-upon-Avon Town Council.

HILL, Alfred, M.D.Aberd., M.R.C.S., appointed Examiner in Chemistry and Medical Jurisprudence at the University of Aberdeen.

HOSKINS, E., M.R.C.S., reappointed Medical Officer for the Little Eaton Sanitary District of the Shardlow Union.

HOSKINS, William, M.B., C.M.Aberd., appointed Medical Officer for the Nazeing District of the Epping Union.

JONES, Dr., reappointed Medical Officer of Health for the Borough of Ruthin.

MARRIOTT, H., M.B., M.R.C.S., appointed Surgeon to the Stockport Infirmary.

MASON, George A., M.A., M.B., B.C.Cantab, appointed House-Physician to the Great Northern Central Hospital.

MERCER, W. B., B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., appointed House-Physician to the Royal Hospital for Diseases of the Chest, City Road, E.C.

MORSE, E., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health for Torrington.

MULLALLY, W. T., M.D., Dip.San.Science R.C.P.I., appointed Health Officer to the Council of the Shire of Ballarat, Victoria, *vice* Dr. Ick, resigned.

NORRIS, G. R., M.R.C.S.Eng., reappointed Medical Officer of the No. 2 District of the Dulverton Union.

NORTON, John, M.D., D.P.H., appointed Medical Officer of Health to St. Peter's Close, Westminster.

ORTLEPP, A. J., M.R.C.S., L.R.C.P.Lond., appointed House-Surgeon to the Female Lock Hospital, Harrow, *vice* P. J. Kingston, L.R.C.P.Lond., resigned.

PEARSE, Francis J., M.R.C.S., appointed Divisional Surgeon to the A Division of the Metropolitan Police, and Medical Officer to the United Westminster Almshouses.

PRANKERD, Herbert Peter, M.B., C.M.Edin., appointed Medical Officer for the No. 2 District of the Southampton Incorporation, *vice* Edward J. Archer, M.B., deceased.

PULLIN, T. H. S., M.D.St.And., F.R.C.S.Edin., reappointed Medical Officer of Health to the Sidmouth Local Board.

RADFORD, William J., L.R.C.P.Lond., M.R.C.S.Eng., appointed Senior House-Surgeon to the Poplar Hospital for Accidents, *vice* Hawtrey Collins, resigned.

RALPH, Hugh, M.R.C.S., L.R.C.P., appointed Junior Resident Medical Officer to the Evelina Hospital for Sick Children, Southwark Bridge Road, *vice* A. H. Cheatle, L.R.C.P.Lond., resigned.

RENNET, David, M.B., C.M., D.P.H., appointed Assistant Professor of Medical Jurisprudence in the University of Aberdeen, *vice* A. Macgregor, M.B., C.M., resigned.

ROBERTSON, J. S., M.R.C.S., appointed Medical Officer for the Bloxham Sanitary District of the Banbury Union.

SNADDEN, James, M.B., C.M.Edin., reappointed Medical Officer for the No. 4 District of the Wortley Union.

STEWART, George N., M.D., appointed Examiner in Natural History and Institutes of Medicine at the University of Aberdeen.

SWALLOW, F. McDonald, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for the Penistone Rural Sanitary District of the Penistone Union.

TROTMAN, Frank, M.B., L.R.C.P., M.R.C.S., appointed Medical Officer of the Bristol Town Council.

WACHER, Frank, M.R.C.S., reappointed Medical Officer of Health for the Canterbury Urban Sanitary District.

WILLCOCKS, Arthur Durant, M.R.C.S.Eng., appointed Medical Officer for the Taunton Union Workhouse, *vice* A. R. Iles, M.R.C.S.Eng., resigned.

WILSON, G., M.D., D.P.H., appointed Medical Officer of Health of the Meriden, Rugby, Solihull, Southam, and Warwick Unions, and the Kenilworth, Rugby, and Warwick Urban Sanitary Districts.

WINDLE, Bertram C. A., M.D., appointed Examiner in Anatomy at the University of Aberdeen.

WOOLLETT, Sidney W., M.R.C.S., appointed Medical Officer of No. 8 District of the Blything Union, *vice* Dr. Blackett, resigned.

WRIGHT, H., L.R.C.P., L.M.Edin., M.R.C.S., reappointed Medical Officer of Health for the Gainsborough Rural Sanitary District.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. A. Stanford Morton: Affections of Eyelids. Parkes Museum, 74A, Margaret Street, W., 4 P.M.—Dr. L. C. Parkes: Sanitary Appliances. 101, Great Russell Street, W.C., 8 P.M.—Dr. Galloway: Tubercle and Other Lesions.

SEMMELWEIS INTERNATIONAL MEMORIAL.—Meeting, Royal College of Physicians, 5 P.M.—Address by Sir Spencer Wells.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. G. R. Turner: On Traumatic Volvulus of the Small Intestine Treated by Abdominal Section. Mr. W. A. Meredith: On the Treatment of the Peritoneum in Abdominal Surgery.

TUESDAY.

LONDON POST GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Theo. Hyslop: Insanity of Puberty and Adolescence. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Mr. Jonathan Hutchinson: The Treatment of Syphilis. 101, Great Russell Street, W.C., 8 P.M.—Dr. Braxton Hicks: The Forceps.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Mr R J Godlee: Amputation for Diabetic Gangrene. Mr. J W. Hulke: A Case of Rupture of Hepatic Abscess into the Peritoneal Cavity.

WEDNESDAY.

LONDON POST GRADUATE COURSE, Hospital for Consumption, Brompton, 5 P.M.—Dr. Sidney Martin: Cases of Aortic Regurgitation. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. J. B. Lawford: Toxic Amblyopia.

HUNTERIAN SOCIETY, 8.30 P.M.—Special discussion on Phthisis in Relation to Life Assurance. A paper will be read by Dr. Glover Lyon; and Dr. Pye-Smith, Dr. Jas. E. Pollock, Dr. E. Symes Thompson, Dr. W. Sedgwick Saunders, Dr. Thos. B. Crosby, Dr. H. Fort, Dr. A. T. Davies and others will take part in the discussion.

THURSDAY.

LONDON POST GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Mr. Brudenell Carter: Ocular Symptoms in Nervous Diseases. Hospital for Sick Children, Great Ormond Street, 4 P.M.—Dr. Barlow: Illustrations of Nervous Disease in Children. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Dr. Wilks, F.R.S.: Medical Cases in the Wards. London Throat Hospital, Great Portland Street, 8 P.M.—Mr. George Stoker: Chronic Glandular Diseases of the Nose and Nasopharynx.

BRITISH GYNÆCOLOGICAL SOCIETY, 20, Hanover Square, 8.30 P.M.—Mr. G. A. Hawkins-Ambler: What Makes for Success in Abdominal Surgery?

FRIDAY.

LONDON POST GRADUATE COURSE, Bacteriological Laboratory, King's College, 11 A.M. to 1 P.M.—Professor Crookshank: Lecture—Anthrax. Practical Work—Gram's Method. Hospital for Consumption, Brompton, 4 P.M.—Dr. Sidney Martin: Cases of Mitral Stenosis.

CLINICAL SOCIETY OF LONDON.—Living Specimens, 8.0 P.M.:—Dr. Hadden: A Case of Rhythmical Rocking Movements in a Child. Mr. W. A. Lane: A Case of Macrochellia Treated Successfully by Electrolysis. Mr. Bland Sutton: Two Cases of Amputation of the Arm for Lymphatic Œdema. Mr. Arthur Barker: Case of Subcutaneous Suture of the Patella. Mr. Hurry Fenwick: Two Cases of Suprapubic Cystotomy illustrating new methods. Papers, 9 P.M.:—Dr. Bristowe: A Case of Sarcoma of the Skin. Mr. Arbuthnot Lane: Two Cases Illustrating an operation of Complete Erasion of the Ankle-joint.

SATURDAY.

LONDON POST GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. H. Corner: Delusional Insanity.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

FAULKNER.—On September 30th, at Cavendish Road, Southsea, Hants, the wife of Surgeon-Major Alex. S. Faulkner, F.R.C.S.Ed., Indian Medical Service, of a son.

HEWITSON.—Hetton-le-Hole, co. Durham, Park Villa, 16th inst., the wife of William Andrew Hewitson, M.R.C.S.Eng., L.R.C.P.Ed., of a son.

BRODIE.—On October 18th, at Fakenham, Norfolk, the wife of F. Carden Brodie, M.B., of a daughter.

MARRIAGES.

FOSTER—SHIPLEY.—On October 11th, at the Parish Church, Tavistock, by the Rev. W. H. David, Michael George Foster, M.A., M.B., son of Professor Michael Foster, F.R.S., of Ninewells, Great Shelford, Cambridge, to Charlotte, eldest daughter of the late General Reginald Younge Shipley, C.B., formerly of the 7th Royal Fusiliers.

CRAN—JOHNSTON.—At Post Cliffe, Peterhead, Aberdeenshire, on October 12th, by the Rev. James Aird, M.A., Minister of the Parish, assisted by the Rev. Gavin E. Argo, M.A., Kincardine, O'Neil Robert Cran, M.D., M.C., Ballater, to Elizabeth Bertram, only daughter of John Johnston.

TUCKETT—SOPER.—On October 12th, at Wanstead Church, by the Rev. R. D. Swallow, Head Master of Chigwell School, assisted by the Rev. G. B. Doughty and the Rev. L. S. Staley, Walter Reginald Tuckett, M.R.C.S., etc., of Woodford, late House-Surgeon of Maidstone Hospital, son of Wm. F. Tuckett, Esq., J.P., Bath, to Annie Jane Philpott (Nancy), eldest daughter of the late Henry Lewis Soper, Esq., of Wanstead. (No cards.)

DEATH.

CARTER.—On the 18th inst., at 70, St. Helen's Road, Hastings, Jane, the loved wife of Charles Henry Carter, F.R.C.S., etc. (formerly of Pewsey, Wilts), aged 76.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

MEMBER writes: Will Dr. William McDonald kindly state his mode of giving cream of tartar and lac sulphur in cholera?

MEMBER writes: Will Dr. Alfred Theodore Rake kindly give the formula of the saline solution for intravenous injection used at Guy's Hospital?

SYPHILIS AND DRINKING VESSELS.

W. J. H. W. asks for references to any author who gives instances in which syphilis or other contagious diseases have been contracted from infected drinking vessels, or who indicates the danger in pointed language.

*** The danger of unclean drinking vessels as media in spreading syphilis is noticed in most modern works on that subject, among others in Hutchinson's *Syphilis* and Hill and Cooper's *Syphilis and Local Contagious Disorders*.

THE CARRIAGE TAX.

D. S. MACDONALD, M.B., C.M. (Broadford, Skye) writes: Can you kindly inform me whether a medical man in a country district is liable to pay the tax of 15s. for keeping a carriage of less than four wheels?

*** No special privileges attach to medical men in country districts. They must take out licences and pay duty on any kind of carriage, as well as on manservant, etc.

MILK DIET.

TYRO writes: I have a patient whom I am anxious to keep for some time upon a purely milk diet. Unfortunately milk, whether raw, boiled, or peptonised and with or without an alkali causes acute purging, even when given in 4-ounce doses every hour, the cause of the purging being apparently gastric catarrh. Can any reader tell me what to do in the above case or refer me to any book that will do so?

NEW UNIVERSITY DEGREES.

F. W. C. asks whether a British university has the power to create new degrees after its establishment by charter independently of further powers from Parliament.

*** No general answer can be given to our correspondent's question. Everything depends on the powers given in the charter; for example, the University of London is empowered to grant the degrees of Doctor, Master, and Bachelor in "any department of knowledge whatever."

ANSWERS.

ANTISEPTIC MOUTH WASH.

MR. L. H. LISTON (Stafford) writes: The following makes an efficient, pleasant, and portable mouth wash: ℞ Thymol gr. x; sp. vini rect. 3ss; saturated solution of boracic acid 3ss. This can be carried in an ounce bottle, and about 2 drachms added to 2 ounces of water when required to be used.

NOTES, LETTERS, Etc.

ERRATUM.—In the report of the St. Bartholomew's Hospital Old Students Dinner (BRITISH MEDICAL JOURNAL, October 8th, p. 802) for Dr. H. Jones read Surgeon-Captain J. Lloyd T. Jones.

A BIOLOGICAL station has recently been established at Bergen, in Norway. It is under the direction of Dr. Brunchorst and has places for ten workers. Foreigners may be admitted on application.

Hypertrichosis.

A. N. (Glasgow) writes: I have complete success with electrolysis in obstinate cases, while epilation (as usual) only made it worse.

Health of Colombo.

Dr. V. C. J. Van Der Straaten (Liverpool) writes: Kindly permit me to contradict the statement of your Melbourne correspondent that small-pox in Colombo "is always rampant," for such is not the case, long intervals often occurring between the epidemics, and I am anxious to contradict this statement, not only for the sake of the reputation of one of the healthiest towns in the tropics, but in justice to the ably equipped staff of the Civil Medical Department.

British Medical Benevolent Fund.

Mr. Edward East, Hon. Sec. (16, Upper Berkeley Street, Portman Square, W.), writes: May I ask you kindly to say that parcels of clothing may be sent to me at the above address, as I have returned permanently to town?

Japanese Teapots with Porcelain Strainers.

Dr. W. Woodward (St. John's, Worcester) writes: I beg to thank you and several correspondents very much for kind information as to Japanese teapots with porcelain strainers. I find they are best obtained at Whiteley's, Westbourne Grove, at 4½d. upwards.

The Calumet of Peace.

The late M. Xavier Marmier has left many small annuities to buy cigars, he having noticed in his travels that poor men were always contented and free from uncharitable and wicked thoughts when smoking, however hard their circumstances. The tobacco pipe, he thought, was truly, as the Indians called it, the calumet of peace.

Medical Students in German Universities.

According to Ascherson's *Universitätskalender* the total number of medical students in the 20 universities of the German empire during the summer semester of 1892 was 8,838. These were distributed among the various universities as follows:—Berlin, 1,185; Bonn, 325; Breslau, 292; Erlangen, 424; Freiburg, 481; Giessen, 172; Göttingen, 200; Greifswald, 208; Halle, 283; Heidelberg, 278; Jena, 212; Kiel, 335; Königsberg, 255; Leipzig, 834; Marburg, 266; Munich, 1,443; Rostock, 138; Strasburg, 333; Tübingen, 230; Würzburg, 743.

Epithelioma of the Lip in Women.

Dr. Keith MacDonald (Gesto Hospital, Skye) writes: I have just had a case of epithelioma in the lower lip of a spare, delicate-looking, chicken-breasted, non-smoking woman, aged 69, which I excised on July 14th under chloroform. It was a typical case, and situated to the right of middle line, which, in my experience, is its commonest seat. I also saw a case of suspicious-looking tumour of the upper lip in a woman in a neighbouring parish some months ago, but she has not yet turned up for operation. I may remark that epithelioma of the lip is rather common in Skye. Out of a population of 17,000 inhabitants three or four cases are treated here annually, and others no doubt find their way south, or are treated at their homes. During last summer, after a succession of four cases, my hospital matron volunteered the remark that surely it was much commoner in Skye than in the city of Dundee, where she had been trained. In this connection it may not be out of place to caution young practitioners against being too clever in obtaining union by first intention in a few hours. The best results will be obtained in those cases where nothing very brilliant is done. I do not remove the needles before the fifth day, and not necessarily the whole of them even then.

Mr. A. Hope Walker (Cranleigh Village Hospital) writes: On July 20th, 1892, Mrs. H., aged 73, consulted me about her lip. I found a warty epithelioma, which had been growing for about ten weeks on the right side of the lower lip. She was admitted to the Village Hospital, and on July 22nd was placed under ether, and I removed the growth by the usual V-shaped incision. In three days all the stitches were removed, and the wound healed. The woman told me she had never smoked, but it had been her custom to hold pins in her lips while dressing. Her mother died from "cancer of the breast."

A Novel Nuisance.

The Rev. R. Morison, Minister of Kintail and Chairman of the Parochial Board, informs us that the paragraph which appeared under the above heading in the British Medical Journal of September 24th is incorrect. The matter in question was the burial of a body brought from a distance in the grounds of a convent in such manner as to endanger the purity of a supply of drinking water. Dr. Littlejohn and Dr. Bruce, of Dingwall (county medical officer), have advised that steps should be taken to prevent further interments. Mr. Morison states that there was no report by the county sanitary inspector, no mention of ghosts, nor, indeed, any such place in Kintail as "the burying ground of St. Duthus."

Insurance Companies and Medical Fees.

A General Practitioner writes: A "Scotch Member" will perhaps be pleased to hear that I for one quite approve of his action. On several occasions I have received schedules similar to that mentioned by him. When not accompanied by a fee, I wrote to the insurance office saying I should be pleased to give the desired information on the receipt of a guinea. This in the cases I allude to was promptly sent. Once or twice the form arrived with a postal order for 10s. 6d., which, however, I returned, stating my fee was a guinea. The guinea arrived in due course. If medical men will give their services gratuitously in this or in any other way, there are many of course to be found who will approve their action; but I consider it a duty one owes to one's profession to refrain from such "gratuitous work" when demanded by those who are well able to pay.

Specific Gravity of Urine in Diabetes Mellitus.

Dr. Ed. G. Gilbert (Hampstead) writes: In the British Medical Journal of September 17th there was a short paper by Sir Edward Sieveking on the specific gravity of the urine in diabetes mellitus, in which he intimated that it was not generally known that the specific gravity might be low and yet sugar present. I was much surprised at this, for it has been an experience not at all uncommon in my practice to find sugar in the urine of elderly patients of a specific gravity of from 1010 to 1015. In every case there has been reason for suspecting granular degeneration of the kidney. In an elderly or gouty person I should certainly not take a low specific gravity to be by any means sufficient evidence of the absence of sugar in the urine.

A Sequela of Influenza.

Profter writes: Having suffered from influenza, followed by pneumonia, I have been ordered to leave London, and seek "fresh fields and pastures new." A couple of years ago I could do any amount of night work, mount any number of stairs, and go out in any weather with impunity. Now I dread the sound of the night bell, I prefer my patients to be on the ground floor, and fogs are an abomination to me. I had worked up a practice bringing in about £1,200 per annum, but having a family of six children and my wife and myself to keep, have not put by anything worth speaking of. Now I should feel very grateful if some of your readers could advise me as to a locality where I could, with a capital of say £1,000, earn enough to support my wife and family? I have been told that the climate of California is splendid, and that a good living can be made there by fruit farming. If any of your readers would give me their experience of California, I should be glad or should be thankful to receive any suggestions from those who have had experience of either America or Australia as to the best means of investing my small capital, whether in fruit farming, stock raising, or in continuing to practise as a medical man?

Ad Misericordiam.

Mr. Arthur W. Webb (Perham Road, W.) writes: All readers of the *Globe* must have thoroughly appreciated your admirable article on "The License of Noise," which was reprinted in that paper on October 15th. I wish the article might appear in all the daily papers. I have been struggling for years to keep the nuisance down in this neighbourhood, but now, alas! the mandate has gone forth from the able magistrate of the West London Police-court that yelling at midnight by drunken roughs is not to be interfered with. The old theory that a magistrate must administer the law, and not make new laws, has become obsolete. What does it matter, he says, a noise at 1 o'clock in the morning, everybody is asleep? Then we have throughout the day the unclean Italian vagrant and other foreign paupers—not begging, for that is illegal, but blackmailing us, and introducing into the country dirt, and I think possibly disease. If you would take the matter up on medical grounds, and show as you do in your article of October 15th that to allow this state of things is not only foolish but dangerous to our health, it might do something. Fear of lunacy or death will, I think, impress most.

Æsculapius Lodge No. 2410.

Dr. Thomas Dutton, Secretary (Northumberland Avenue) writes: The installation meeting of this lodge was held on October 12th at the Café Royal, Regent Street, W. Brother Brindley James, P.M., W.M., presided, and there were also present, besides the officers of the lodge, Brothers the Rev. R. J. Simpson, M.A., P.M., P.G., Chap.; Ralph Gooding, M.D., P.M., P.G.D.; M. Coates, M.D., P.M.; W. Ernest Dring, P.M.; Lewis Lewis; H. G. Blackmore; Edward S. Bell, C. Luxmore Drew, M.B., N.E.; Yorke Davies. The list of visitors included many distinguished Masons and medical Masons.

After the lodge had been opened, etc., Brother Brindley James, P.M., installed Brother Deputy-Inspector-General Belgrave Ninnis, M.D., P.M., G.St.Br., as W.M. for the ensuing year in a most able and impressive manner, which evoked praise from the brethren assembled, and was creditable to so newly a consecrated lodge. The newly-installed Master then appointed the following brethren officers for the year: Brothers Brindley James, P.M., S.P.M.; F. Ernest Pocock, M.D., P.M., S.W.; Jacob Pickett, M.D., J.W.; G. Danford Thomas, M.D., Treasurer; Thomas Dutton, M.D., P.M., Secretary; G. Crawford Thomson, M.B., S.D.; Anthony Nutt, J.D.; Lennox Browne, F.R.C.S.Ed., P.M., D of C.; H. E. Ezard, M.D., Steward; Henry W. Kiallmark, P.M., Steward; Samuel Ellis, Tyler.

After the delivery of the addresses by the Installing Master, the W.M. initiated William Arbuthnot Lane, M.S.Lond., F.R.C.S.Eng., and Frank Fowler, L.R.C.P.Lond., M.R.C.S.Eng. Brother T. H. Garland Wrighton, L.D.S.Eng., P.M., was duly elected a joining member.

A very handsome Past Master's jewel was presented to Brother Brindley James for the very admirable manner in which he had carried on the work during his successful year of office. The auditors' report was read by Brother Treasurer, and unanimously adopted, and other routine business transacted, after which the lodge was closed. The usual loyal and Masonic toasts were given at the banquet which followed by the W.M. with commendable brevity, and were duly honoured, harmony prevailed, and a very pleasant reunion of the brethren took place.

The Dental Profession.

Mr. J. Mansbridge (London) writes: You were good enough to publish some correspondence relating to the dental profession in September, after the meeting of the British Dental Association in Manchester. One of the correspondents urged upon medical men the importance of preventing their patients wandering into the hands of the quack or charlatan. A case that has recently come under my care supports this proposition very strongly, and also shows how much suffering timely advice may save a too often misguided patient.

Case.—A lady consulted me who was evidently in great distress, and who looked worn out with constant pain. The history she gave was that, three days before, she had had two teeth crowned at one of the advertising establishments where this kind of operation is professed

to be done. She had suffered intense agony ever since. On removing the crown from one of the teeth, it was found that the gold cap, which had been filled with a liquid cement at the time of the operation, had been driven on to an exposed pulp. The other crowned tooth was removed entire, it having set up acute periostitis. The gold cap of this latter tooth has not been removed to show the condition beneath, as it presents a specimen of much interest as a dental curiosity, with the crown *in situ*.

Had this lady been recommended to a reputable dentist by a medical man, she would not have strayed into the hands of the advertising quack, who, while disregarding the elementary principles of dentistry, does not hesitate to take fees from patients without the least regard for their comfort.

BIOLOGICAL STATIONS.

PROFESSOR DOHERN, of Naples, the founder of the Biological Station there, which has been the model on which all those subsequently established have been organised, has recently published a list of all the biological stations now in existence throughout the world. The Mediterranean is particularly favoured in regard to the number of these biological observatories along its shores. Thus, besides the station at Naples (founded in 1870) there are others at Trieste, Villafranca, Cette, Marseilles, Banyuls-sur-Mer, and Algiers. Spain has one station at Santander. France has, besides those just mentioned on its Mediterranean seaboard, two others on the west coast (Arcachon and Concarneau) and two on the north coast (Nosioff and Wimereux). Great Britain has stations at Plymouth, Liverpool, Edinburgh, and St. Andrews. Holland has a station at Elder; Norway one at Bergen; Sweden one at Christinenberg; Denmark one at Helebaek; Russia one at Kloster Solowietzki and another at Sebastopol. In Japan there is one in connection with the University of Tokio. In North America there are stations at Newhaven, Woods Holl, and Chesapeake, and three new ones on a large scale are about to be established. Australia is not to be left behind, and biological stations will before long be opened at Melbourne, Sydney, and in New Zealand. The new German station at Heligoland will soon be ready for scientific workers.

TAPEWORM AS A COMPLICATION IN TYPHOID FEVER.

DR. WILLIAM SOLOMON ELLIOTT (Malahide, co. Dublin) writes: L. D., an officer, aged 35, contracted tapeworm in 1887 while serving in Burmah, and had been treated both at home and while abroad several times with the different vermifuges, which, however, never brought away more than portions. During the last week or ten days of October, 1889, he felt very unwell, was sleeping badly, experienced loss of appetite, and suffered from general langour and also headache. On October 31st, 1889, I found the temperature considerably elevated a typical typhoid tongue, and most of the other appearances met with in this stage of the disease. For some days the symptoms continued severe, and the temperature ranged from 103° to 104°. Comparatively soon, however, a regular morning remission set in, and general improvement began, which continued, the patient leaving his bed in four or five weeks. During part of his illness there was sharp diarrhœa, but, strange to say, no portion of the worm was ever passed, though this had been an almost daily occurrence before. Nevertheless, on the first or second day of his getting up he again passed pieces; perhaps the continued horizontal position had prevented this happening. He was scarcely, if at all, troubled by his inhabitant during the earlier part of the fever, but later on all the old well-known symptoms again showed themselves, pains in abdomen and "fluttering about the heart" being the special ones complained of. In the following March, while from home, he was put on a course of treatment with male fern and pomegranate, but without causing any portion to be passed, nor since then has he ever had ocular demonstration of its presence, though suffering from all the other symptoms for two months afterwards, and then when in Germany a rash appeared all over his body, and he says, in writing to me recently, "from that time I have never seen or heard from my friend since." Of course, the appearance of the rash and the disappearance of the worm may have been merely a coincidence, as it was nearly time for the animal to die in any case (he had had it for 3½ years).

The above case seems interesting, as being an uncommon complication of typhoid and as showing how little effect the presence of tænia appears to have in the prognosis of that disease.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) A. Ashby, M.B., Reading; A. W., M.B., M.A.; Messrs. Armour and Co., London; Dr. F. P. Atkinson, Kingston-on Thames. (B) Mr. W. Brown, Carlisle; Dr. G. P. Boddie, Edinburgh; Dr. Boxall, London; J. Bailey, M.B., Manchester; F. C. Brodie, M.B., Fakenham; Mr J. Brackston, Colwyn Bay; Dr. J. S. Bristowe, London; Mr. T. W. Bartlett, London; Professor George Buchanan, Glasgow; Mr. W. M. Birt, London; Dr. J. Babinski, Paris; Mr. C. L. Bathurst, London; Messrs. Burroughs, Wellcome, and Co., London; Mr. J. Bluett, Chesterfield H. G. Barling, M.B., Birmingham; Mr. J. Bunting, Torquay; Mr. C. F. Beadles, London; Dr. D. Burgess, Sheffield; Dr. J. H. Brown, Upper Norwood; Mr. A. E. Barber, London. (C) Mr. E. Crockett, Wolverhampton; F. R. Cross, M.B., Clifton; Mr. A. Chapman, London; Dr. W. Campbell, Liverpool; Cunctator; Mr. G. E. Coleman, Hemsworth; Dr. E. Crossman, Barton Regis; Club Doctor; M. W. Cowan, M.B., Leigh Court; Dr. W. Clibborn, Bridport; Mr. H. Collins, Birmingham. (D) Dr. T. Dutton, London; D.P.H.; Mr. L. Drage, Hatfield; Mr. A. J. Duckham, Birmingham; Dr. G. Dabbs, Shanklin; Disgusted. (E) Mr. C. J. Edwards, London; G. Eastes, M.B., London; Mr. E. East, London. (F) Mr. T. M. Franklin, Cardiff; Mr. T. E. Flitcroft, Bolton; Dr. O. Field, London; A. H. Frere, M.B., Leeds; Dr. E. L. Fox, Plymouth. (G) Mr. L. M. Griffiths, Bristol; Mr. N. H. Greenway, Birmingham; A. E. Giles, M.B., London; Mr. E. M. Grace, Thornbury; Mr. J. S. Greenwood, Ossett; Mr. W. H. Griffiths, Hinckley; Dr. Grimshaw, Dublin; Mr. Geoffrey, London; Mr. F. G. Gardner, Tewkesbury. (H) Dr. F. A. Hill, Birmingham; Mr. W. R. Huggard, Davos Platz; Mr. J. Humphrey, London; Dr. Hern, Darlington; Mr. H. Haynes, Evesham; Mr. J. Hamer, London; Messrs. J. H. Holmes and Co., London; Mr. D. Hemsley, London; Dr. L. Henry, Melbourne; Hispid. (I) Index; Mr. W. W. Ireland, Preston. (J) J. M.; Mr. J. L. T. Jones, London; Dr. H. R. Jones, Liverpool; Mr. Basil Jackson, London; J. W. R.; Mr. O. Jackson, Newcastle-on-Tyne; Mr. E. C. Johnstone, Leckhampton; Mr. J. H. James, Bombay. (K) Mr. A. G. Klugh, London; Mr. S. Knill, London. (L) Messrs. Lever Bros., London; Dr. Lush, Weymouth; Dr. C. J. Lewis, Stirling; Dr. H. A. Lawson, Poole; Mr. J. I. Lace, Frizington; Mr. J. Limont, Newcastle-on-Tyne; Lex; Dr. J. Lavis, Naples. (M) Dr. J. W. Moore, Dublin; Dr. A. C. Munro, Paisley; Member; Mr. J. Mansbridge, London; Dr. R. Metcalfe, Leyburn; Mr. H. May, Aston Manor; G. G. McVail, M.B., Glasgow; Dr. L. Moxley, Gloucester; G. B. Morgan, M.B., Sunderland; A Member of the B.M.A.; Dr. E. Morton, Folkestone; Mr. A. J. McCallum, Cardiff; A Member; Mr. A. C. Morton, North Walsham; Dr. W. T. Mullally, Ballarat; Mr. S. W. Morgan, Upper Norwood; Dr. H. McClure, Cromer. (N) Nearly 20 Years' Service; Mr. L. Newton, Huntingdon; Messrs. F. Newbery and Sons, London; Dr. C. Norman, Dublin. (O) Occasional Correspondent. (P) Dr. L. C. Parkes, London; Mr. J. Pougher, London; Mr. C. Parsons, Dover; Mr. R. Pollock, London; Mr. M. R. Philpots, Poole; Proffer; Mr. L. Phillips, London; Professor J. Penberthy, London; Mr. J. D. Phillips, Hoxne. (R) Dr. Raven, Broadstairs; Dr. M. Robinson, Dover; Dr. W. B. Ransom, London; Dr. Reunert, Hamburg. (S) Mr. A. F. Street, Westgate-on-Sea; Dr. E. M. Sympson, Lincoln; Dr. P. Stevens, London; Mr. F. M. D. Swallow, Penistone; Dr. W. J. Sinclair, Manchester; Mr. C. B. Stephens, March; Snikaka; Dr. R. Saundby, Birmingham; Mr. W. T. Smith, Kirkheaton; A. Stuart, M.B., Edinburgh; Dr. W. K. Sibley, London; Dr. T. J. Smith, London; Dr. A. W. Scott, Handsworth; A. H. Sevier, M.B., Barnard Castle; Mr. C. Stewart, London; Mr. S. Snell, Sheffield; Mr. C. R. Stokes, Tenby; Dr. Steele, London; Mr. H. Sanford, Hereford; Dr. T. Smailes, South Crosland; M. A. Shield, M.B., London; Mr. A. J. Shandon, London. (T) J. H. Targett, M.B., London; Mr. A. W. Thomas, Swaffham; T. R. B.; Tyro. (W) Mr. R. Walker, Aberdeen; Mr. W. G. G. Ward, Harrogate; A. W. Webb, M.B., London; Dr. L. B. Weatherley, Bath; Mr. J. C. Wood, Sunderland; Mr. W. H. S. Wynne, Lowestoft; Mr. W. H. Worger, Radstock. (Y) W. M. Yeoman, M.B., Stokerley; Etc.

BOOKS, ETC., RECEIVED.

The Diagnosis of Diseases of the Heart and Thoracic Aorta. By A. Ernest Sansom, M.D., F.R.C.P.Lond. London: Charles Griffin and Co., Limited. Price 28s.

Mona Maclean, Medical Student: A Novel. By Graham Travers. Vols. i, ii, and iii. Edinburgh and London: William Blackwood and Sons. 1892. Price 25s. 6d.

Somnia Medici. By John A. Goodchild. Series 1, 2, and 3. London: Kegan Paul, Trench, Trübner, and Co., Limited. 1892.

On the Chemistry and Therapeutics of Uric Acid Gravel and Gout. By Sir William Roberts, M.D., F.R.S. London: Smith, Elder, and Co. 1892.

Manual for the Volunteer Medical Service, to which are added Chapters on the Army Medical Reserve and the Yeomanry Cavalry. By Reginald Sleman, M.A. London: J. J. Keliher and Co. 1892. Price 2s.

Pathogénie et Diagnostic des Ophtalmoplégies. Par le Docteur Ch. Sauvineau. Paris: G. Steinheil. 1892.

A New Pronouncing Dictionary of Medicine. By John M. Keating, M.D., LL.D., and Henry Hamilton. Edinburgh and London: Young J. Pentland. 1892.

Disease in Children: A Manual for Students and Practitioners. By James Carmichael, M.D., F.R.C.P.Ed. Edinburgh and London: Young J. Pentland. 1892.

The Art of Massage. By A. Creighton Hale. London: The Scientific Press, Limited. 1893. Price 6s.

The Mastoid Operation, including its History, Anatomy, and Pathology. By Samuel Ellsworth, M.D. Cincinnati: Robert Clarke and Co. 1892. Price 1 dollar 25 cents.

Chemical Lecture-Experiments. By G. S. Newth, F.I.C. London: Longmans, Green, and Co. 1892. Price 10s. 6d.

Malignant Disease of the Throat and Nose. By David Newman, M.D. Edinburgh and London: Young J. Pentland. 1892.

The Physician Himself and Things that Concern His Reputation and Success. By D. W. Cathell, M.D. Tenth Edition. Philadelphia and London: The F. A. Davis Co., Publishers. 1892.

Domestic Electric Lighting, Treated from the Consumer's Point of View. By Ed. C. De Segundo., Assoc.M.Inst.C.E. London: W. Alabaster, Gatehouse, and Co. Price 1s.

Alpine Winter in its Medical Aspects. By A. Tucker Wise, M.D.Brux. L.R.C.P.Lond., M.R.C.S.Eng. Fifth Edition. London: J. and A. Churchill.

*** In forwarding books the publishers are requested to state the selling prices.

SIXTIETH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

PHARMACOLOGY AND THERAPEUTICS.

J. O. Brookhouse, M.D., President.

A DISCUSSION ON THE BEARING OF RECENT PHYSIOLOGICAL AND CHEMICAL RESEARCH ON THE QUESTION OF ANÆSTHESIA.

Introduced by DUDLEY WILMOT BUXTON, M.D., B.S., M.R.C.P.,
Anæsthetist in University College Hospital.

The subject of anæsthetics has, since their first introduction, possessed a perennial interest. Still, perhaps, at no period in the history of medicine have the mind of the profession and the attention of the public at large been more engaged by the conflicting theories and practice of anæsthesia than at the present moment. The field, which is fairly occupied by the matters we are here to discuss, is too extensive to render possible an exhaustive treatment of them, so it has been thought well to restrict our discussion to-day to the question of the physiology of anæsthesia by chloroform. If we deal with recent chemical and physiological work upon these lines, we shall find more than enough to occupy the time which is at our disposal. This question is no mere academic dispute; it is one which lies at the root of one of the most, if not the most, responsible of the duties falling to the lot of medical men; so, while dealing with its physiology as such, we must let a side light fall upon the problem of how to avoid fatalities under anæsthetics.

With this view I think we may usefully consider (1) in what ways do accidents, that is, departures from the normal procession of events under chloroform, occur, and (2) what explanations have science and experiment to offer of such occurrences?

Cases are recorded of accidents occurring:

A. Before operation has commenced; and these have been variously attributed to (1) fright; (2) reflex inhibition of the heart's action; (3) syncope brought about by direct action of chloroform itself, or of impurities therein contained; (4) interference with respiration arising from mechanical causes, for example, constricting clothes, holding of the breath, spasm of the larynx, spasm of the diaphragm and muscles of respiration.

B. During the operation; attributed to (1) shock, either simple shock; the direct effect of the operation upon an imperfectly anæsthetised person—this partakes of the character of the so-called "reflex death": or the result of surgical shock making itself felt through and over and above the narcosis, for example, such cases as recorded of shock during operations upon the anus, rectum, vagina, and such highly sensitive parts; (2) syncope; (3) failure of respiration.

According to some authorities these cases would be grouped together, for those in which syncope is reputed to be the cause of death would, by them, be classed as belonging to the same category as (3) deaths from failure of respiration, since they contend that death results from paralysis of the respiratory centre in the medulla, the syncope being, in fact, the secondary effect of a respiratory failure none the less present because not detected until complicated by the attendant and consequential heart failure.

We may note here that probably this view may have to be modified, if not abandoned, when looked at from the standpoint of recent experimental research. The view may even have to give place to a belief that deaths at present put down to failure of respiration are many of them actually due to a primary cardiac asthenia consequent upon the damaging of the heart muscle by the chloroform, so that the cessation of respiration becomes a result of the primary heart disablement, and this even when the heart's action, feeble and incoordinate, might be detected subsequent to the cessation of respiratory movements.

C. After the completion of the operation; attributed (1) to the effects incidental to the operation, hæmorrhage, manipulation of viscera, or nerves; (2) to shock, the direct effect of the anæsthetic itself. At a later stage we shall have to point out that some of the phenomena evinced by human beings in the above circumstances have apparently no counterpart in experiments upon the lower animals. This fact has led some observers to infer somewhat unguardedly that the persons recording the cases have been led into error, and that the true cause of death was other than that assigned. While holding in highest estimation the appeal to direct experiment upon the lower animals, I think we are bound to say that such evidence as this affords must be accepted with considerable caution when it becomes at variance with the observation of credible witnesses of the effects of chloroform upon human beings.

A. Deaths arising before operation. Fear of impending death is a most complex psychic emotion, which, as far as we know, cannot be found in the lower animals. I have found no evidence of its existence; a dog or a monkey will shrink from physical suffering, and may have learnt that certain manipulation implies after-pain, and will struggle to get away to avoid this, but nothing at all of the nature of "death from fright" is demonstrable in the lower animals. There seems little doubt that such deaths among human beings are the result of a reflex inhibition of the heart initiated in the brain itself. These fatalities have occurred in pre-anæsthesia days, a notable example being the one of the patient in Edinburgh who was to have had chloroform for the first time, but none being available, was about to be operated upon without it, when sudden death occurred.

Reflex inhibition of the heart's action before surgical operation must be carefully dissociated from shock, that is, stimuli conveyed afferently through sensory nerves, or the effects due to interference with the visceral plexuses.

While upon the one hand Brown-Séquard and others[1] stated that the impact of strong vapours upon the posterior pharyngeal wall caused the heart's action to be interfered with, and occasioned a fall in blood pressure, the same effects have been variously said to arise from irritation of the laryngeal mucous membrane by chloroform vapour. Other observers record the experience familiar to all who have experimented with rabbits, that as soon as chloroform is presented to their nostrils, there is at once a cessation of breathing, a voluntary suspension of respiration, and that this occurring in human beings causes a so-called laryngeal spasm, a cessation of respiration, and secondary lowering of blood pressure, and interference with the heart beat. On the other hand, Professor Ward[2] has, with Dr. Hare, traversed these statements, and has shown that if the trachea is canularised well away from the larynx and chloroform subsequently injected into it, only a temporary fall of blood pressure occurs. This being so, we can hardly believe that the direct irritation of the pharynx or larynx by chloroform vapour can do more than produce a temporary interference with circulation, although, of course, when the trachea is intact there may arise true laryngeal spasm with its accompanying dangers. The temporary closure of the airways, for example the nostril closure and obliteration of the rima glottidis, has been shown to be of the nature of a protective reflex, preventing the entrance of a too concentrated vapour.

Intimately associated with the last alleged source of danger is syncope occurring in the early stages of chloroform inhalation under circumstances when fear and operation shock may be eliminated as possible factors in causing the result. In the first place, we are familiar with deaths in human beings occurring with the most startling sudden-

[1] See Professor Rutherford. "Cause of the Retardation of the Pulse which follows Voluntary or Artificial Closure of the Nostrils," *Journ. Anat. and Physiology*, vol. vii, p. 283.
[2] *Medical News*, February 22nd, 1890.

ness, and within a few seconds or a minute or so of the commencement of inhalation. These must be due to chloroform, or some impurity which is contained in it. The anæsthetic, and not the operation, is undoubtedly the cause of these deaths.

Let us consider how physiology helps to explain such cases. If we test the effect of chloroform, applied in vapour or liquid, to the heart muscle itself, we find it rapidly loses its contractility and excitability. These results are brought about with even an extremely small quantity of chloroform perfusing the detached heart in batrachians. On the other hand, it is asserted that the amount of chloroform necessary to thus injure the heart, which enters the circulation by inhalation or intravenous injection, could never so act in the human subject, because before the drug had sufficiently accumulated in the circulation the respiratory centre would have been destroyed, and the continuance of life rendered impossible. It is this point we must now discuss. It is alleged that when the lower animals are given chloroform continuously in such a way that free dilution of air takes place,[3] "a gradual fall of blood pressure occurs; the respiration then gradually flags, and eventually ceases; while, lastly, the heart comes to a standstill." A large number of experiments were made, and it was found this procession of events took place in each case. When the kymograms are examined upon which this statement is based, we find that in some instances the interval between the cessation of respiration and the failure of the heart is extremely brief. When, however, the chloroform is at a certain point discontinued, the blood pressure may continue to fall, the declension resulting probably from the continued absorption of vapour from the air cells, but it eventually rises to the normal. There is, however, a point beyond which, if the chloroform is pushed, no rise of blood pressure occurs—indeed, it sinks uninterruptedly, and respiration cannot be restored spontaneously, even though the heart may continue to beat for an appreciable period. We may ask what is the explanation of these phenomena. The fall of blood pressure may have arisen from heart failure or from interference with the vasomotor centre. It cannot, of course, be asphyxial, as the pressure curve of asphyxia shows an initial rise, the after-drop being the result of exhaustion of the vasomotor centres. The same result is arrived at whether chloroform be inhaled or injected into the jugular vein, so that we cannot attribute it solely to any direct action upon the heart muscle. It might be assumed, however, that the vapour would, by its direct effect upon the terminal fibres of the vagi in the lungs, give rise to vasomotor changes of a reflex origin in the one case, while in the other a like result might accrue from direct action of chloroform upon the vasomotor centre.

Shore and Gaskell's experiments throw some light upon the matter here.[4] They connected two animals in such a manner that a cross circulation was established, so that one—the so-called feeder—actually carried on the entire circulation in the brain of the other, or the fed animal. If now the feeder was given chloroform by inhalation its blood pressure fell, its respiration was slowed, while in the case of the fed animal whose nervous system was also being circulated by chloroform-laden blood there occurred a rise of blood pressure, a slowing of the respiration, and a loss of sensibility. The experiment being varied and the fed animal, whose nervous system would then be protected, inhaling chloroform a marked fall of blood pressure took place. Two further points may be mentioned here to be again referred to later; they are that when the first experiment was pushed so that the brain of the fed animal became greatly affected by the chloroform-laden blood, the animal showed signs of extreme danger from respiratory paralysis even when the blood pressure remained good. On the other hand, when the fed animal was made to inhale a strong chloroform vapour the blood pressure would sink to zero and the heart's beats cease to be recorded, while the respiration was maintained.

If these experiments are to be accepted—and there seems little doubt further research will only confirm and establish them—we must regard the two vulnerable points in chloroform toxæmia to be the respiratory centre and the heart itself. Professor Wood and Dr. Hare's, and some of the experiments of the Hyderabad Commission when read by this light lend confirmatory support to these views by showing that vagal action has virtually little effect in causing death by chloroform, except when the patient is imperfectly under the influence of the narcotic. At the same time it must be admitted that these experiments are not conclusive, at least as regards the action of the vasomotor centre, for although they show that a fall of blood pressure will take place without any action of the vasomotor centre, they do not show that in the intact animal depression of the blood pressure may not occur as a result of the chloroform-laden blood entering that centre. This is borne out by Professor MacWilliam's experiments made to investigate how far the dilatation of the heart to which he has drawn attention is the result of or the cause of the fall of blood pressure.[5] MacWilliam found that a marked effect upon the heart might result before any appreciable fall of blood pressure occurred, a fact which is readily explicable when we remember that the initial effect of a small dose of chloroform is to stimulate the vasomotor centre.

Thus far then we are led to believe that chloroform exerts its action upon the respiratory centre and the heart substance. That the respiratory centre may be affected all agree, but on the other hand it is vehemently asserted that the heart is not directly affected by chloroform, or at least until after life is rendered impossible by respiratory failure.

The evidence in favour of cardiac involvement is, as far as physiological experiment upon the lower animals is concerned, complete and conclusive. We have already seen that the heart fibre, in common with other protoplasmic substances, is susceptible to chloroform, and readily loses its contractility and irritability when subjected to the influence of the drug, whether as a vapour or by perfusion. Now we must see what occurs when chloroform vapour of a low percentage, that is, below 4 per cent., is allowed to enter the lungs. Professor MacWilliam's[6] experiments have shown that from the first the heart muscle undergoes marked changes. It appears to lose, or to have temporarily suspended, its resiliency; the cavities of the heart expand, and a general acute dilatation of the organ occurs. As this takes place independently of any excessive dose of chloroform, of any possible asphyxial phenomena, and when no vasomotor changes have been brought about by the chloroform, we are forced to believe that this curious dilatation occurs as the direct effect of chloroform upon the heart muscle. Its immense clinical importance lies in the fact that although under ordinary conditions the heart muscle will, when the chloroform is withdrawn, contract and eventually regain its normal resiliency, yet this is not always the case; a point exists which appears to be attained at a different time by different hearts, and probably determinable by the vigour or want of tone of the heart muscle when the chloroform is inhaled, beyond which the heart loses its power of recovery, and death must result.

Were it necessary and did time permit, I would further quote Professor Wood, of Philadelphia, who asserts most positively that he also has seen again and again the heart fail in the lower animals while the respiration continued. Indeed, it would seem to be more consistent with our present knowledge of the physiology of the subject that many deaths under chloroform, when the patient exhibits no failure of respiration, are to be explained as resulting from the enfeebled state of the heart, which, although performing disorderly movements (delirium cordis), is yet unable to maintain sufficient circulation to nourish the nervous system, hence respiratory failure results.

It may be, I am aware, alleged by those who insist that the heart does not fail before respiration that all the experiments which tell against their views are either unreliable because carelessly performed, or else that the conclusions arrived at are not borne out by the graphic representations taken of them. Such criticism is at once disposed of by the fact that all the experiments to which I have referred were conducted by physiologists of eminence, and have been carefully repeated with corroborative results, and have been guarded by the most rigid control experiments.

[3] Hyderabad Report, p. 17; see also Exp. 168, 169, and 170.

[4] BRITISH MEDICAL JOURNAL, November 21st, 1891, p. 1089.

[5] Experimental Investigation of the Action of Chloroform and Ether, BRITISH MEDICAL JOURNAL, October 11th, 18th, and 25th, 1890.

[6] *Loc. cit.*

The physiological bearing of the effects of interference with respiration under chloroform has been so well understood and largely insisted upon for so many years that we need not devote time to it here. Suffice it to say that many of the experiments of the Hyderabad Commission show with great force that asphyxial conditions arising from holding the breath, etc., are in fact protective so long as they last, but the gasping inspiration which follows is a source of grave danger lest it lead to the ingestion of an excessive dose of chloroform. A point which to us is of importance in this connection is the double danger which occurs when the interchange of air in the lungs by ordinary respiration is interfered with; first, the danger to the heart from pressure as it lies in the rigidly fixed thorax; and, secondly, the danger arising from the want of elimination of the chloroform already in the blood, when the blood itself is growing more and more deoxygenated every second. The acme of danger seems to be reached in the case of emphysematous persons, whose barrel-shaped chests permit of regular inspirations of chloroform, but whose expirations are practically *nil*. When an apparatus for pumping in chloroform vapour is used this hazardous state of things grows worse.

There is still another, and possibly an important, factor in this problem, and it is the presence of chemical impurities in the chloroform employed. Dr. Du Bois-Reymond gave a communication before the Berlin Physiological Society and demonstrated his views. These appear to be, that while he believes chloroform commonly kills by inducing failure of respiration, it does so by virtue of impurities to be found in even the best samples of the drug. The subject is at present very incomplete, and I am myself engaged in investigating how far chloroforms reputed pure will give different physiological reactions during fractionation. Dr. Du Bois-Reymond has found no difference in the pulse curves when pure or residue chloroform was used, but the pulse rate with the impure drug was slightly more rapid. The blood pressure remained higher at the moment of failure of respiration with pure than with impure chloroform. Respiratory failure with the impure chloroform occurred more rapidly than with the pure. It would be premature to pass judgment upon a line of work which is at present most incomplete, but I may perhaps be permitted to say that Du Bois-Reymond's results appear to me to be based upon far too slight a foundation for us to build upon.

B. The deaths occurring during operations are commonly set down to shock. Here, again, experiment upon the lower animals gives a result contradictory to our clinical experience. The results of the Hyderabad Commission are worth quoting.[7]

"In order to test the alleged danger from shock during chloroform administration the Committee performed a large number of those operations which are reputed to be particularly dangerous in this connection, such as extractions of teeth, evulsion of nails, section of muscles of the eye, snipping of the skin of the anus, etc. In many cases the operation was performed when the animal was merely stupified by the chloroform and not fully insensible. In such cases a slight variation in the blood pressure would sometimes occur, such as one would expect from the irritation of a sensory nerve or from the struggling which ensued, but in no case in any stage of anæsthesia was there anything even suggestive of failure of the heart's action. In thrusting a needle into the heart there was often a momentary, but well-marked, fall of blood pressure, but even this was absent in all other injuries."

This statement is easily accepted by those who are familiar with physiological work. But I can hardly suppose that anyone who has enjoyed an extensive hospital experience would consider that what is above stated—and truly—of the lower animals applies in the same degree to human beings. Nor is it at all remarkable that animals accustomed through the very stress of their lives to severe exercise—running, jumping, fighting, etc.—should exhibit less reaction to sudden shock than man; and, again, the absolute dependence of their life upon the due performance of respiration explains the well-recognised frequency with which dogs in particular die when there is any interference with their respiration. On the other hand, the experiments of Milne Murray, performed some years ago, showed that resuscitation of rabbits can be achieved after they are practically, and to all appearances, dead if a tube be passed into the trachea and the chloroform-laden air be removed and replaced by pure air.

That syncope occurs in the lower animals when they are completely under chloroform, and so when no reflex inhibition can be supposed to act, is now completely proved by the careful work of Professors MacWilliam and Wood, as well as that of the Glasgow Committee. The attempted disproval of Professor McKendrick's experimental work by assuming that his tracings were simply those of asphyxia has been refuted by him and his coadjutors, so that we need not linger over it. The evidence of the above statements has been given so fully in the preceding part of this address that I will not repeat it.

Respiratory failure under complete anæsthesia is as real a danger in the lower animals as in man. How far the conditions of operation affect the danger is not at present clear. Posture from mechanical impediments to breathing can with difficulty be reproduced in the lower animals. Whether it is a safe proceeding to wait for evidence of respiratory failure seems answered by the evidence afforded by experimental research. Upon all hands we find antecedent vasomotor changes recognised as anticipating failure of respiration, simple failure being heralded by a "gradual but continuous fall of blood pressure," while asphyxial conditions lead to an initial increase of blood pressure. It remains to be seen how best we can recognise these warnings. In considering the careful Hyderabad experiments on artificial respiration, one cannot but be struck by the apparent capriciousness of the results arrived at. In this way, while some animals were restored after several minutes of cessation of respiration, others succumbed after a very brief period of deprivation of air. If the hearts of these animals are to have been considered only secondarily affected, no explanation seems to be at hand; but if, as appears probable, they underwent dilatation, and the movements observed in them *post mortem* were merely the ineffectual muscular writhings commonly met with under such circumstances, the discrepancy is at once explained.

C. The experimental evidence bearing upon post-operative deaths under chloroform is hardly sufficient for us to dwell upon with any profit. The fact which I hope I have made apparent in the former portions of this address—that reflex shock plays a far less prominent part with regard to the lower animals than is the case with man—would seem to indicate that they are less likely to be killed after the operation if they have lived through it. A source of danger that we are at present but little acquainted with is the somewhat rapid fatty changes in muscle which it is alleged follows the repeated use of chloroform on dogs.

What, then, are the points we have been able to bring forward? What has recent research taught concerning chloroform? I think we may summarise it thus:

1. Chloroform in anæsthetic doses, when no asphyxial conditions are present, exerts an effect directly upon the heart muscle, leading by its weakening to a simultaneous cessation of the action of heart and respiration.

2. In cases when respiration persists after apparently the heart has ceased to beat, when artificial respiration fails to restore the natural respiration, death is due to the direct toxic action of the chloroform upon the heart.

3. That the fall of blood pressure is probably due primarily to the direct action of chloroform upon the heart muscle.

4. That, even when slight blood pressure fall may be protective, it reveals a condition of the circulatory system itself a source of peril.

5. That impurities in the chloroform have some, but what effect we do not at present know.

6. That the elimination of these impurities will not necessarily remove the perils of chloroform.

7. That the experiments upon the lower animals as regards "shock" are not a reliable guide taken by themselves in studying "shock" in human beings.

In conclusion, I may say I have attempted to state fairly the evidence on all sides—to attack the subject wholly as a scientific question, and to eliminate merely personal views and references, which I submit are out of keeping with such discussions and can serve no useful end.

[7] Report of Second Hyderabad Chloroform Commission, p. 25, par. 33

The Condition of the Pupil in Anæsthesia.

Mr. Joseph White, President of the British Medical Association, drew attention to the condition of the eye during the inhalation of anæsthetics, especially when the stage of excitement was passing off—the eye rolled from side to side, the conjunctiva often became more and more feeble, and the eye at rest. The pupil invariably oscillated between dilatation and contraction, and then remained contracted, and perfect sleep occured; and if this stage were maintained, a long operation might be safely performed as a rule. If inhalation were pushed beyond this, the pupil dilated, the breathing became stertorous, relaxation of sphincters and other muscles occurred, and danger arose.

Anæsthetics in America and at Edinburgh.

Dr. Lawrence Turnbull (Philadelphia) said that after the publication of the report of the Hyderabad Chloroform Commission, Dr. J. Melvin Lamb, of the Surgeon-General's Office, Washington, had at his request employed clerks, and given his own time also, to extract from every journal, both American and European, the desired information. The results were presented before the Section of Surgery of the American Medical Association for 1890 and 1891, and published in book form. The conclusions at which Dr. Lamb and he arrived were that from ether there were fewer deaths than from chloroform, and that it was necessary to watch both the respiration and the heart. The circular letter of inquiry issued by the Anæsthetics Committee of the British Medical Association had been printed in a modified form by Dr. Turnbull, and sent out by Dr. Lamb from Washington. The replies received were few in number, and it was subsequently ascertained, through a series of personal applications made by Dr. Joseph Leidy, jun., that in few hospitals were any records kept.

Questions asked, together with Summary of Answers received.

A. Programme of records and information desired:

1. The total number of administrations of each anæsthetic from January, 1892, to May 14th, 1892, in your hospital, or under your supervision.—Ether, 1,500; chloroform, 298; A.C.E, 100.

2. The number of cases in which death has occurred during or shortly after anæsthetisation.—Chloroform, 1; ether, 3; A.C.E., 1.

3. The number of cases in which dangerous symptoms have occurred.—Ether, 2; chloroform, 9; A.C.E., 1.

B. Your opinion, formed from your own personal experience, as to:—

1. The relation of the various anæsthetics which you have used.—Opinion divided, the majority from ether, chloroform, and A.C.E. equally safe.

2. The best method and manner of administering them.—Cone, various inhalers, and napkins.

3. When to use one and when the other.—This question rarely answered. Ether in weak persons, chloroform in strong, or when brain or kidney disease exists.

4. The most effective methods of restoring patients threatened with death from anæsthetics.—Inversion, head lower than body, stimulants hypodermically; alcohol, atropine; no mention has been made of strychnine except in Dr. Leidy's return from the Pennsylvania and Johns Hopkins Hospital.

C. 1. How are students taught to administer anæsthetics, and how far are they compelled to gain a practical knowledge of administering them in the medical schools or hospitals with which you are connected?—Rarely answered; 25 per cent. are taught practically, the remainder theoretically.

Chloroform Administration in Edinburgh.

Dr. Turnbull then described observations made by him during a visit to Edinburgh. Prior to all operations in the Royal Infirmary, the heart, lungs, and kidneys are examined. In the morning before the operation, nothing is given to the patient but a cup of beef-tea. If there has been constipation, a purge is given the evening before. The chloroform is administered on a towel by a senior student, who has been under instructions for six weeks. Professor Chiene's directions to the students are as follows:—

Action of Chloroform.

Is (1) stimulant; (2) sedative.
(*a*) Abolishes sensation.
(*b*) Abolishes power of motion and reflex action.]
(*c*) Stops respiration.
(*d*) Stops heart's action.
(*e*) Kills patient.

Method of Administration.

Towel *versus* engine. Brain's *versus* valves.
(1) Give all your attention.
(2) Have your artery forceps ready.
(3) Watch the breathing.
(4) Watch patient's appearance.

How do you know when the Patient has had enough?

(*a*) Insensibility of conjunctiva.
(*b*) Muscular relaxation.
(*c*) Local insensibility of part to be operated upon.

How do you know when he Patient has had too much?

(*a*) Tongue falling back.
(*b*) Glottis closing.
(*c*) Fainting.
(*d*) Vomiting.
(*e*) Respiration and heart's action stopped.

Professor Annandale had pointed out to him two defects in Junker's regulating inhaler, modified by Krohne and Sesemann, of Edinburgh. The Professor had employed this apparatus successfully in private cases at times, but found two objections to its use. If the bottle containing chloroform was full, and pressure made suddenly on the air reservoir, pure chloroform was injected into the throat and chest of the patient. At times the valves would become charged with frozen chloroform from the great reduction of temperature. Dr. C. A. Sturrock, who administered chloroform for Professor Annandale, found that it required from seven to eight minutes to place a young person under the full influence of chloroform. The older the person the more time was required, say from fifteen to twenty minutes.

In a recent case he gave a man aged 28 six ounces of chloroform, and yet he was not fully under its influence. Dr. Sturrock also employs the open towel, and commences with about (f ʒij) from a graduated bottle. Dr. Turnbull concluded by presenting:—

A Note on the Administration of Chloroform in the Gynæcological Department of Johns Hopkins University, by Thomas S. Cullen, M.B.

The heart is examined, and, unless there is evidence of weak heart, chloroform is used. The clothing around the neck is loosened, the lips, nose, and chin anointed with vaseline, and a folded towel placed over the eyes. The cone is impregnated with chloroform and held about 8 inches above the patient's face. She is told to breathe naturally, and by the time twenty-five inspirations have been taken the cone is resting on the face or about ½-inch above it. When the vapour of chloroform is exhausted a few drops more are added. The pulse is carefully watched, with the index finger of the left hand on the temporal artery. The respiration should be watched carefully, and can be followed in the lower part of the chest or detected by the warm expiratory air felt by the hand placed over the mouth. Should the pulse show signs of weakness, 30 minims of brandy are given hypodermically, every five to fifteen minutes if necessary, always using a disinfected syringe; if little relief be afforded, $\frac{1}{30}$-gr. of strychnine or 10 min. digitalis is given with the hypodermic injection of brandy; if the pulse still be weak, chloroform is replaced by ether. [This change was made in 44 out of 187 cases operated on.] Should the breathing be laboured, the cone is removed and the angles of the jaw elevated, merely keeping the mouth open. This usually suffices, but should the difficulty still continue the tongue is gently pulled out with tongue or artery forceps. The best sign of complete relaxation is the limber condition of the arms when raised from the side. The pulse usually falls to 60 by the time the patient is thoroughly anæsthetised.

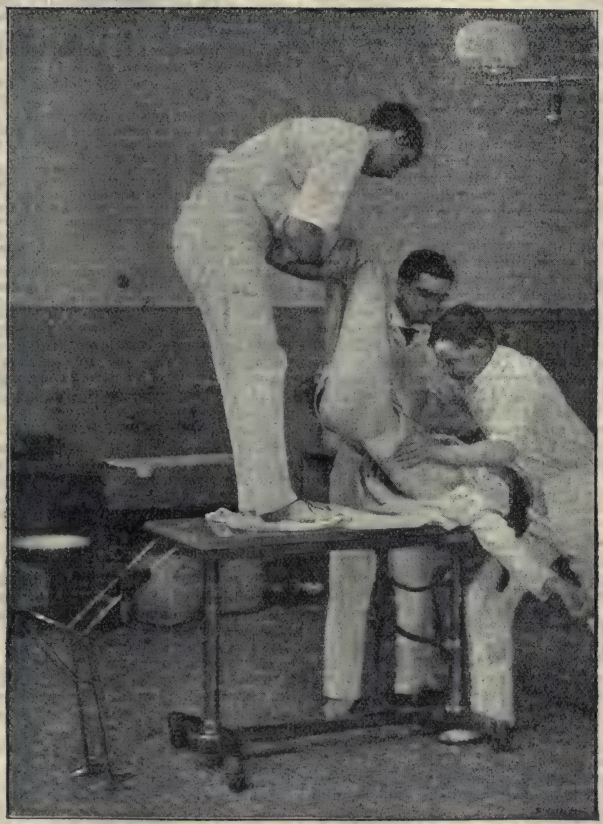
The patient being under the anæsthetic, the question arises as to how much shall be given. The object is always to keep the pupil well contracted; this rule is only deviated from in those cases where the abdominal cavity is to be irrigated with salt solution. Here about two minutes before irrigation the anæsthetic is pushed until the pupil is midway between contraction and dilatation; as soon as the solution is poured into the cavity, the pupil again contracts on account of the stimulant action. Sometimes when the pupil is midway between contraction and dilatation one may be in doubt as to whether the patient has received more than the desired amount or not enough. On ceasing the administration for a few seconds, if not enough has been given the pupils will dilate and the patient may stir; if more than desired the pupils will contract.

Methods adopted where Dangerous Symptoms have occurred in the Administration of Chloroform.

The method about to be described is original with Dr. H. A. Kelly; it has proved satisfactory in producing regular inspiration and expiration, and resuscitating all of the cases (about twelve in number) in which dangerous symptoms have been observed.

As soon as it is seen that a patient has stopped breathing and the radial pulse is either feeble, intermittent, or entirely absent, and the pupils dilated, the operation is instantly suspended, and one of the assistants jumps upon the table and stands between the patient's legs, sometimes near the knees, sometimes with his body between her feet, and with his arms under the knees elevates the body from the table so that the buttocks are raised 12 or 15 inches above its plane, while the upper part of the back and the scapular region still rest on the surface of the table (see illustration).

The head is allowed to drop slightly over the edge of the table until the chin and throat are almost on a line. The surgeon takes his position at the head of the table. The patient's head rests in the hollow of his thigh and is supported there by this and kept from dropping into a position of too great extension. The whole of the body is bared from hips to shoulders, and the surgeon proceeds to produce regular inspiration and expiration by first grasping the patient with both hands under and behind the lower thoracic (inferior costal) region. The lower chest is then pulled forward. This produces at once a suction of air into the chest. After waiting two or three seconds the movement is reversed. The surgeon uses both hands to compress the lower thoracic region and force the chest back towards the table. In addition to the advantage that this carries air into the chest and forces it out, producing rhythmic respiration under control of the surgeon, the blood in the body is carried by the posture to the thoracic and cerebral regions and currents are started by the respiratory effort to and from the heart, which cannot fail to have a value in stimulating regular action. After one, two, or three minutes of this sort of exercise the patient usually begins to make voluntary efforts at respiration, when the surgeon carefully times his own movements to act in a supplementary manner.



Dr. Kelly's Method of Resuscitation in Chloroform Asphyxia.

Education in the administration of anæsthetics as given to junior residents and nurses in the Gynæcological Department: (1) These pupils are instructed as to the difference in the methods of administering chloroform and ether, and as to the relatively greater danger of chloroform. (2) They are required carefully to observe a number of cases of anæsthesia, taking notes. (3) They are allowed to administer each anæsthetic under personal supervision of an experienced assistant. In this way they are fully instructed in methods of anæsthetisation. *Caution.* Under no circumstances is an assistant, who has been in the habit of administering ether at other clinics, allowed to undertake the use of chloroform without this previous careful instruction.

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CONTRASTS BETWEEN LABORATORY EXPERIMENTS AND CLINICAL ACCIDENTS.

Reflex Effects on the Circulation.—Dr. FREDERIC HEWITT wished particularly to lay stress upon several differences which existed between the human being and the lower animal under the influence of an anæsthetic. In the first place, reflex efforts upon the circulation, even during proper and deep anæsthesia, were certainly occasionally noticeable in man. He had seen such effects in operation in the neighbourhood of the vagus in the neck, in nephrectomy, and in other cases. The circulatory depression was liable to be more serious in the case of chloroform than in that of ether. Such cases as these were rarely if ever met with in the lower animals.

Respiratory Obstruction.—But a more important distinction between the behaviour of man and that of the lower animals was that in the former there was a distinct tendency for respiration to become obstructed. This had been pointed out by Sir Joseph Lister. Dr. Hewitt thought that this tendency for the airway of man to become obstructed at or about the larynx was not met with, at all events to anything like the same extent, in the lower mammals. Then again there were cases in which spasm of the respiratory and other muscles occurred during the use of chloroform in man. Imperfectly established anæsthesia was prone to be associated with this state. It was a well-known but curious fact that death under chloroform was more common in vigorous and muscular subjects than in feebler patients. This was probably due to the greater tendency which such subjects exhibited for respiratory spasm to occur. Extremely nervous, very muscular, and also alcoholic patients often gave trouble under chloroform from temporarily suspended breathing before deep anæsthesia was produced. He submitted that such complications during the use of chloroform in the physiological laboratory were not likely to manifest themselves. The thoracic and abdominal muscles might become fixed in a state of expiration, and resist all attempts at artificial respiration.

Syncope.—Patients with large flabby hearts as well as those with other forms of cardiac weakness were more prone than others for syncope during this respiratory arrest to take place. He asked whether similar states were ever observed during the administration of chloroform to dogs and monkeys. Then again cases were on record in which the act of vomiting had been attended by sudden syncope. Had this condition its analogue in the laboratory of the physiologist? Fright in the case of man appeared to play a part in some instances.

The Condition of the Pupil.—Dr. Hewitt urged that the usual pupil of deep chloroform anæsthesia should be termed a moderately contracted and not a perfectly contracted pupil. The latter usually corresponded to a somewhat lighter and more sleep-like anæsthesia than the former. He had found that the most common size for the pupil of deep anæsthesia was 2.5 millimetres. This pupil acted as a rule to light, and was associated with a fixed condition of the globe. A larger pupil might either mean that the patient was emerging from proper anæsthesia, or that he was becoming too profoundly narcotised.

THE IMPURITIES OF CHLOROFORM: THE REMOVAL OF CHLOROFORM VAPOUR FROM THE LUNGS.

Dr. RALPH STOCKMAN said that he had been much interested in what Dr. Dudley Buxton had said, as during the last few years he had had the opportunity of examining a number of impure specimens of chloroform, the impurities being readily detectable by smell and taste, but apparently being present in such small amount that they were not obtainable unmixed with chloroform. Such chloroform was not found to be more poisonous to animals than ordinary good specimens, and hence he had come to the conclusion that fatal results could scarcely be due to such impurities. As regards Pictet's chloroform and Du Bois-Reymond's experiments with it, he fully agreed with what Dr. Dudley Buxton stated. The dangers of chloroform narcosis must depend therefore not on the minute amount of impurities which might ordinarily be present, but on the general condition of the patient and on the administrator. The unavoidable condition of the patient doubtless accounted for many deaths. It must be remembered that the depressed condition in which the central nervous system and heart were placed by chloroform was necessarily a more or less dangerous condition, and it could scarcely be expected that surgical anæsthesia could ever be maintained with perfect safety to the patient. Dr. Stockman then referred to the advisability of injecting ether subcutaneously in chloroform accidents. In heart failure it was probably of value, but in respiratory paralysis it seemed to him that it must aggravate the condition. Lastly, he wished to draw attention to some valuable experimental work by Dr. Milne Murray, of Edinburgh, on recovery of animals apparently dead from chloroform, by passing a tube into the trachea and sucking out the chloroform vapour. He was able from his own experiments to confirm the value of this method, but was not aware that it had ever found any application in practice.

THE USE OF NITROUS OXIDE IN MINOR SURGERY, AND ITS COMBINATION WITH ETHER.

Mr. RUMBOLL, F.R.C.S.Ed. (Leeds), said that, four years ago, whilst present with a patient at a dentist's, he was surprised to see the amount of work which could be done by a dextrous operator whilst the subject was under nitrous oxide. At that time Mr. Rumboll had a patient with a tuberculous nodule in the neck over the sterno-mastoid. Knowing that she had arranged with the dentist to pay her a visit, to extract a decayed tooth under gas, he arranged to remove the nodule at the same time. Having everything ready—chloroform and ether in reserve, in case they were required—the dentist administered the gas and gave the signal to commence. Mr. Rumboll made an incision through the skin, removed the nodule, and inserted two sutures. The dentist then removed the face piece, extracted the tooth, and in about ten seconds the patient recovered consciousness. She had felt nothing, and expressed surprise at the operation being completed. Since then Mr. Rumboll had used nitrous oxide largely for the minor operations, so frequently cropping up in general practice, such as:

1. Opening a whitlow.
2. Opening abscesses in various parts of the body.
3. Evulsion of ingrowing toenail.
4. Inserting sutures for cuts, the result of accidents.

Mr. Rumboll had been able to insert seven sutures in a large flesh wound in the forearm, a medical student giving the gas. Another interesting case was that of a man suffering from three large hæmorrhoids; they were protruding beyond, and tightly constricted by the sphincter ani, giving him intense pain. He refused to have them removed or to take any anæsthetic. He was finally persuaded to have nitrous oxide, which he had previously taken for dental purposes. The gas was administered by Mr. Charteris Birch, L.D.S. (Leeds), who kept the patient in an unconscious state for nearly three minutes, whilst Mr. Rumboll dilated the external and internal sphincter muscles completely with the thumbs, and pressed up the piles well beyond the internal sphincter, where they remained. Next day the patient resumed his ordinary business, that of a commercial traveller. Another case was that of an empyema in a very delicate young lady of 24, whose respiration was much embarrassed, so that Mr. Rumboll preferred not to give chloroform. Under gas the patient remained unconscious whilst an incision was made through the chest wall into the pleural cavity and two large drainage tubes introduced. The patient recovered consciousness immediately, and was much relieved by the operation. Since then the same operation had been repeated with the same anæsthetic. He had also used nitrous oxide in the excision of tonsils, but did not advise its use in that operation, as in some cases the jactitations produced by the gas might embarrass the operator.

The Administration of Nitrous Oxide.—In the administration of gas, to ensure full and speedy anæsthesia, attention to the following details was important:

1. The face-piece must be of such a size as to fit over the mouth and nose, so as to keep out all extraneous air, especially in a man with a heavy beard and moustache.
2. It was advisable to encourage the patient to take a few long inspirations and expirations before turning on the gas.
3. The gas was best turned on, towards the end of a long expiration, as by so doing the patient drew in a large amount of gas, undiluted with air, during the next inspiration. If this precaution were not taken, and air was inspired with the gas, struggling would almost certainly ensue, the patient would require a much larger quantity of gas, and narcosis would not be so profound.
4. It would be found that the patient would go under better, and much more quickly, if the gas were given under pressure produced by pressing slightly on the distended gas bag.

The experience gained in a few cases would enable the practitioner to tell when to commence operating. When once experience was obtained, the anæsthesia might be almost indefinitely prolonged, by the occasional removal of the face-piece, thus allowing the patient a few inspirations of air, and reapplying so soon as symptoms of returning consciousness showed themselves.

Nitrous Oxide followed by Ether.—Perhaps for the general practitioner, gas would be found most useful in combination with ether. He now always preceded the administration of ether by that of gas. Out of 400 cases, he had found that not 2 per cent. struggled, and in these, he believed it was due to giving an insufficient quantity of gas. There was a total absence of excitement; gas being tasteless, the patient was spared the suffocating odour of ether. On an average, it took a few seconds over four minutes to produce complete insensibility, and as there was no struggling and sickness to prolong the anæsthesia much less ether was used. The average time for each patient was nearly uniform, and the subsequent recovery from its effects was very rapid, there being so little ether to be eliminated.

He believed that to precede the administration of ether by gas was much safer than to give ether alone, as all struggling was avoided; undoubtedly, to patients suffering from a weak heart, the violent struggling when ether was being given alone must be a source of danger. From inquiries made of a large manufacturer of gas (basing the calculation on his estimate of eight gallons of gas being used to each case), the annual consumption showed that there were four million cases of gas administrations each year in the United Kingdom. This might be taken as a fair yearly average for the last ten years; during that time the deaths attributed to the employment of gas were five in number, *i.e.*, five deaths out of forty million cases; and it was doubtful whether any one of them was due absolutely to the effects of gas alone.

Description of Gas and Ether Apparatus.—Mr. Rutterford had constructed for him an apparatus in which the valves were differently arranged to those in Clover's apparatus, and fitted more accurately. A small reservoir on the top contained the ether, which was turned on when required. The outside being made of glass, the administrator could see the quantity of ether being used, and instead of turning the inhaler round to turn on the ether, as in Clover's, a small pointer only was turned through half a circle, from right to left. The inhalation was begun with the pointer at 0; when the patient was

nearly under gas, the pointer was turned to 1, which indicated that he was inhaling one part of ether and three of gas. The pointer was then rapidly turned to No. 2, when the patient was inhaling two parts of ether and two of gas. By this time he would be unconscious; the gas bag was removed, and the ether substituted. Mr. Rumboll had found this apparatus work very well in every way, and would recommend its use. A small bag, made and sold by Mr. Rutterford at the Dental Depôt, Cookridge Street, Leeds, contained all the anæsthetist required: gas, ether, chloroform, etc.

Mr. George Rowell, F.R.C.S. (London), said he wished to call attention to one or two points. First, he wished to allude to a possible form of death under chloroform from the sudden stoppage of the administration after a little time, and before any chloroform had been absorbed into the blood. This occurrence, according to Dr. Robert Kirk, of Glasgow, might cause an equal reaction from the sudden removal of a force which was maintaining reflexly a great and profound effect upon the circulation. In spite of the absence of proof of this theory, Mr. Rowell thought it possible that primary cardiac failure might arise as Dr. Kirk had described. If incorrect, the theory ought not to be very difficult to disprove. If it was a fact that syncope could be induced in a dog by suddenly stopping the administration of chloroform after a certain number of seconds, the production or not of this condition after division of both vagi ought to clear up the matter. Whether or not syncope might occur in this way, Mr. Rowell thought the continuous and steady administration of chloroform until anæsthesia was complete was an important detail in practice. He thought that a too careful administration of chloroform had often caused dangerous symptoms, and alluded to the fact that in several cases the occurrence of one fatality from chloroform in the practice of an anæsthetist had been followed by a second. Mr. Rowell then referred to the physiological action of chloroform, and said that, from a physiological point of view, chloroform was nothing if not a cardiac poison. When a dog was asphyxiated, and the heart had stopped and the blood pressure fallen to the abscissa line, it could be readily brought round within the next minute or so by opening the left pleural cavity from the front, and pressing upon the heart with one or two fingers some 20 times, at the rate of 70 or 80 times a minute. It was not necessary to empty the heart; a slight pressure drove on some blood. This could also be done when chloroform had been given, but then it took longer for the heart to recover. He would like to see this method of restoring the heart beat tried in the next case of primary chloroform syncope after other methods had failed. He also wished to allude to the powerful effect of a hot sponge applied to the perineum in cases of circulatory failure under chloroform.

OPHTHALMOLOGY.

Priestley Smith, M.R.C.S., President.

ON ASEPTIC OPHTHALMIC SURGERY, WITH A RECORD OF 2,200 OPERATIONS.

By ADOLPH BRONNER, M.D.,

Surgeon to the Bradford Eye and Ear Hospital; Laryngologist to the Bradford Infirmary.

In speaking of antiseptic surgery, we mean the method of operating or of treating a wound in such a manner that we do not introduce any micro-organisms into the wound (aseptic surgery); and, secondly, so that we may destroy or arrest the development of any micro-organisms which may be in or near the wound at the time of operation (antiseptic surgery). It is to the former class of cases that I intend to refer to-day—that is, to operations on eyes in which there is no purulent inflammation at the time of operation.

I believe that ophthalmic surgery, especially cataract extractions and iridectomies, proves that the constitution or state of health of the patient is not at all very important for the aseptic healing of a wound. If we operate with aseptic precautions, we find that a wound of the cornea in an old and feeble person—say of 80 or 90—heals quite as aseptically—that is, with as little tendency to suppuration—as a similar wound would heal in a young and healthy person, say of 20 or 30.

During the last six years we have carried out at the Bradford Eye and Ear Hospital a system of strict aseptic precautions, and the results have been most satisfactory. The operations have been performed by my senior colleague, Dr. Bell, and myself; and I have to thank Dr. Bell for permission to make use of his cases.

During these six years, 2,200 operations have been performed, and we have not lost a single case through suppuration. Of these 2,200 cases, the eyeball was opened in 1,753 cases, and the remaining 447 were tenotomies or enucleations. Of the 1,753 cases in which the eyeball was opened, there were 390 extractions of senile cataract, 640 iridectomies, 192 linear extractions, 289 discissions of lamellar cataract or of capsule, and in 161 cases the capsule was removed by the forceps or hook.

The aseptic precautions adopted are briefly as follows: We have large well-ventilated wards reserved for aseptic cases, into which no cases of diseased lids or suppuration are ever allowed to enter. The patient is admitted two or three days before operation, and the eye washed frequently with sublimate lotion 1 in 5,000. In most cases the lotion is used at home for several weeks before admission. In this manner the conjunctiva and also the lachrymal sac are rendered thoroughly aseptic. The gown and towels used at the time of operation are kept for these cases only, and never used for septic cases. The dishes and irrigators are of glass, while those for septic cases are of pot, so that they cannot get interchanged. The cocaine, atropine, or eserine drops are made with a 1 in 5,000 solution of sublimate, and the bottles boiled when empty. The eyebrows and lids are well rubbed with the sublimate solution just before the operation, and the conjunctival sac well washed out. After, and often also during, the operation the sublimate is again used. Sponges are never used, not even for enucleations, but cotton wool dipped in the sublimate solution and well pressed out. The aseptic cases are always operated on first, and also dressed first, so that the fingers of the surgeons and nurses may be as aseptic as possible.

The instruments used for septic and aseptic cases are kept quite separate and in separate cabinets. Before use they are washed in the sublimate solution, and the forceps brushed with a clean tooth-brush.

Although with these precautions we have not lost a single case from suppuration out of the last 2,200 cases, still in some instances there is a slight redness of the wound and photophobia, often for several days. This must be due to the fact that the instruments or drops were not perfectly aseptic or that the lotion or drops set up some chemical changes in the wound. Of course I exclude those cases in which a piece of capsule or iris or conjunctiva gets into the wound. I have in numerous cases sterilised all instruments, drops, bandages, and lotion, and think that there have been fewer cases of redness and photophobia. I am now intending to use sterilised water during the operation, instead of sublimate lotion, and hope that eventually I may be able, not only to prevent any suppuration, but also any redness or photophobia.

Mr. Frank H. Hodges said that he had found perchloride of mercury solution affect both cornea and instruments injuriously. To guard against this, two or three minutes after washing the eye and lids with the mercury solution the parts should be washed freely with sterilised water alone.

Surgeon-Lieutenant-Colonel E. F. Drake-Brockman observed, with reference to the action of corrosive sublimate solution on the corneal tissue, that he had found difficulty in making the corneal section after its use. At first he had been under the impression that this was due to the change effected in the corneal tissue; but further observation confirmed the belief that the antiseptic had the property of blunting the edge of the knife, and that the difficulty of making section through the cornea was due to this. He had, therefore, for some years past abandoned the use of the perchloride solution as an antiseptic, and had used a saturated solution of boracic acid instead. He was unable at that moment to refer to statistics regarding the occurrence of septic inflammations since the adoption of antiseptic methods in operative procedure. He had employed the antiseptic method suggested by Mr. Berry some years ago, and although he had not carried out antisepticism in its entirety, he had endeavoured to secure cleanliness.

Dr. BRONNER, in reply, stated that, in order to prevent the instruments from getting rusty, he used a 1 per cent. soda solution instead of water, and, before putting in the instruments, boiled the soda solution for several minutes.

A CASE OF MYXŒDEMA TREATED WITH GREAT BENEFIT BY FEEDING WITH FRESH THYROID GLANDS.

BY HECTOR W. G. MACKENZIE, M.D.CANTAB., F.R.C.P.,

Assistant-Physician to the Brompton Hospital for Consumption and to the Royal Free Hospital; Medical Registrar to St. Thomas's Hospital.

THE accounts published recently in the BRITISH MEDICAL JOURNAL by Dr. Murray and others regarding the treatment of myxœdema by means of subcutaneous injections of an extract of the thyroid gland testify so unmistakably to the beneficial effect resulting therefrom that the method will probably receive a more extensive trial. This mode of treatment is not, however, free from objection. First, it requires the most scrupulous care in the preparation of the extract, the demand for which is never likely to be so great as to enable it to be supplied when manufactured under the ideal conditions at less than an almost prohibitive price, and few medical men have the time to devote to its preparation themselves. Secondly, the application of the remedy sometimes produces alarming immediate symptoms, such as loss of consciousness and tonic spasm; and remoter effects, such as indurated swellings and abscesses at the seat of injection, have followed the use of even the most carefully prepared extract. When it is remembered that these injections have to be personally administered for the remainder of the patient's life by the medical attendant, these risks, however slight in regard to a single application they may appear, become immensely magnified when a long series has to be taken into account.

These objections are of great moment as regards the future use of this plan of treatment, although not in the least detracting from the value and interest of the results which have so far been obtained.

The method of treatment I have been employing is altogether so very much simpler and safer, and so very easily carried out, and the results in the case in which I have tried it have been so striking and encouraging, as well as interesting, that I am induced to publish a short account of it, in order that others may have an opportunity of putting it to the test. The method consists essentially in administering by the mouth either the fresh thyroid glands themselves or a freshly-prepared extract. It is obvious that this mode of treatment can be perfectly easily carried out. No elaborate antiseptic precautions have to be taken. There is no more difficulty in getting thyroids, once it is explained what is wanted, than there is in getting kidneys. All the dangers attending hypodermic injection are avoided.

When I first started with the treatment I was sceptical as to whether any effect at all would result, and I therefore commenced by giving my patient two whole sheep's thyroids at a time. This amount, however, I consider more than is necessary or advisable, as it is apt to nauseate.

I also on two occasions gave her by the mouth some extract which had been prepared by Mr. White, of St. Thomas's Hospital. The effect on the temperature and pulse as well as on the general condition of the patient has been very striking. Under what I consider was an overdose of thyroid the pulse rate increased to 116, and the temperature on one occasion rose to 100°F., but the maintenance of a normal temperature by proper amounts can, I think, easily be effected.

Probably half a thyroid gland occasionally will prove to be sufficient. The return of perspiration and a feeling of warmth and the disappearance of all swelling from the hands and feet and its great diminution in the face are unmistakable. I have now had the patient under my care for $2\frac{1}{2}$ years and have seen her very frequently during that time. I certainly would not recognise her now as the same person.

In order that it may not be imagined that the effect could be attributed simply to residence in the hospital I shall give as briefly as possible an account of the patient up to the present time.

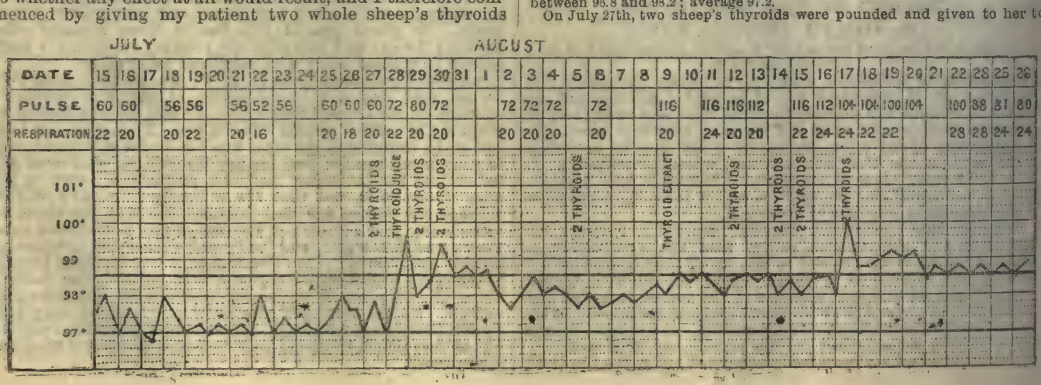
J. L. was first admitted under my care to the Royal Free Hospital in February 1890, suffering from myxœdema, and remained in the hospital for six weeks. She was then aged 37. Her history was as follows: About two years previously she began to suffer from pains in her head, giddiness, and trembling. Her face, hands, and feet became swollen, the hands so much so that her wedding ring had to be cut to prevent it from injuring her finger by its pressure. The swelling of the face was most noticeable round the eyes and lips. Her hair commenced to fall out. She lost her appetite, and the bowels became irregular. She began to feel the cold extremely, and ceased to perspire. She ceased also to menstruate. She became painfully conscious of clumsiness and slowness of movement, and seemed to lose all her strength. Her memory failed, and her speech became not only slow, but thick. She was described on admission as a stout woman, with expressionless face, very thick lips, especially the lower, broad nose, swollen eyelids, deeply wrinkled forehead, and diffusely flushed and swollen cheeks. Her skin was yellowish and waxy looking, and very dry. The hair of her head was very thin, dry, and frizzy. Her eyelashes and eyebrows were also thin. The tongue was large, pale, and flabby. Her temperature was taken regularly during her stay in the hospital, and varied between 95.8° and 98°, averaging about 97° F. Her pulse varied from 52 to 68, the average rate being 64. She was treated during this time with infusion of jaborandi, which had the effect of making her perspire freely, and produced copious salivation.

The swelling of the face diminished to a certain extent, and the patient left the hospital relieved, but with little real alteration in her appearance or sensations.

The second admission was on April 5th, 1892. Between this time and her former admission she frequently came to see me from time to time. On the whole all her symptoms had been getting worse. She had become much stouter, more clumsy, more easily tired. She was now almost bald on the top of the head. Her face was more swollen. Her skin was very dry and scaly, and, while her face was yellow and waxy looking, her body had a brownish tinge. Her lips were bluish. She complained a good deal of pains in her joints. She was treated on this occasion with perchloride of iron and massage, and left the hospital slightly relieved. Her temperature, which was again taken regularly, varied little from 97°, the highest being 97.5°, the lowest 96.6°. Her pulse varied from 42 to 64; average rate, 54. During this period, as well as during the first stay in the hospital, there was an occasional trace of albumen in the urine. She left the hospital little different from when she entered.

On July 13th she was admitted for the third time. She complained of her feet being much more swollen, and of great difficulty in walking. She was in most respects in the same condition as when she left the hospital, but her lips, which were very swollen, were bluer. Her temperature and pulse during the first fortnight, when no treatment was tried, varied between 96.8 and 98.2; average 97.2.

On July 27th, two sheep's thyroids were pounded and given to her to



eat. Next day her pulse had increased to 72. On July 28th she was given 2 drachms of a glycerine extract which had been prepared from fresh thyroids by Mr. White, the pharmaceutist to St. Thomas's Hospital. It was given at 11 P.M. At 12 her temperature was 99°; at 3 A.M., 99.4°; and at 6 A.M., 98°. She perspired profusely at 6 A.M. Next morning (the 29th) she complained of nausea, and was slightly sick. Her face was flushed, and she complained of aching pains all over. The temperature fell to 96°, but the pulse increased to 80. Two more thyroids were given on the 29th and 30th, and the temperature again rose on the 30th to 99.4°. Between July 30th and August 3rd no thyroids were given; they were then given again, and between August 3rd and August 17th twenty thyroids altogether were given, but on five occasions these were rejected by vomiting, so that it may be considered she had only ten.

The temperature from August 9th to 16th varied between 98° and 98.6°, but on the 9th the pulse rose to 116, and kept between that and 112 for the next few days. On the 17th the temperature rose to 100°; I then discontinued the thyroids. The pulse gradually diminished in frequency until, on the 26th, it was 76. The temperature hovered between 98° and 98.6°. While these changes took place in the pulse and temperature, a striking alteration was noticed in the appearance of the patient. Since I have seen her I have never known her to look as she does now. The face seems about half the size; the features have become defined and expression has returned. Her hands have become normal in size, without a trace of swelling. The skin of her hands and feet has desquamated. She has perspired freely, and has had a comfortable sensation of warmth. Altogether a very marked change for the better has taken place. The improvement is, in fact, unmistakable, and such as can only be attributed to the remedy. I may add that no diuretic action has been observed.

To sum up the effects observed in this case: (1) A marked acceleration of the pulse and rise of temperature proportional to the quantity of thyroid given, these persisting for some time after the administration is discontinued. (2) A general diminution of the swelling and amelioration of all the symptoms accompanying myxœdema.

In the administration it has been found that it is less nauseating when given with a little brandy. In another case, as I have already mentioned, I should be inclined to commence the treatment with either one thyroid every other day or half a thyroid every day. If it is found that this is well tolerated and does not produce any marked effect, the dose can be easily increased. The method is one which experience will no doubt much improve on; but it will be a great advance if further observation confirms what has been observed in this case—that a remedy, easily obtained, taken by the mouth should produce marked improvement in a disease hitherto intractable except by hypodermic and somewhat risky injections.

A CASE OF MYXŒDEMA TREATED BY TAKING EXTRACT OF THYROID BY THE MOUTH.

By E. L. FOX, M.D., M.R.C.P.,
Plymouth.

E. M., aged 49, came under my care at the Plymouth Dispensary in March last. She at that time exhibited all the typical symptoms of a well-marked case of myxœdema. I showed her at a meeting of the Plymouth Medical Society, and consent was unanimous in favour of myxœdema.

The disadvantages of having to treat cases of myxœdema by continued hypodermic injections are many and obvious. I was therefore induced to try the effect of thyroid extract when taken by the mouth. I directed the patient how to prepare a glycerine extract of half a sheep's thyroid, on much the same lines as laid down by Dr. Murray. Of the extract thus prepared she was to take half one hour before breakfast and the remainder one hour before supper, and to continue doing so twice a week.

She commenced the treatment on June 2nd. On July 11th she showed very visible signs of improvement; her facial expression was decidedly brighter, her speech was better, and she felt generally much stronger.

On September 12th the improvement had continued. The skin was soft and perspired freely: the œdema was much less. She was ordered to take half a thyroid, lightly fried and minced, to be taken with currant jelly once a week, and to continue taking the extract once a week. By mistake she took the minced gland twice a week for a fortnight; she then noticed she was getting rapidly weaker, profuse perspirations breaking out on the least exertion; she was unable to walk or stand steadily. She left off taking the gland on September 22nd and began rapidly to recover her strength.

On October 17th she considered herself well, and better than she was two years ago when the symptoms of myxœdema first began. Her condition now is in every way satisfactory. Her face has assumed its ordinary proportions, her speech is normal, the œdema has gone, and menstruation has returned.

I have reported this case, as the method of administering the remedy is simple in the extreme, and in my case, at all events, the result has been satisfactory. If I had another case to treat I should begin with small doses of the minced gland, as that seems to be more potent, gives less trouble in preparation, and is preferred by the patient.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

NOTE OF A CASE OF PROLONGED HÆMORRHAGE CAUSED BY CYSTIC OVARITIS.

There are some points about the following case which make it, I believe, of sufficient interest to record briefly; though, of course, since Mr. Lawson Tait drew attention to the subject, small cystic ovaries have been recognised as a frequent cause of metrorrhagia. In this case the patient was in about six weeks reduced to such a degree of exhaustion that operation was rendered particularly risky; she was blanched with loss of blood, which scarcely intermitted a day, and the pain she suffered was of an exhausting nature.

Mrs. E. consulted me in April, 1891. She was a pale, thin blonde, 52 years of age, whom I had treated occasionally for gall stones, perhaps three times in six years, but who had otherwise been quite healthy. She had never been pregnant, and had menstruated normally up to some eight months previously, when she became irregular, missing occasionally, till January, 1891. After that period was over she saw nothing for three months, until early in April she commenced to be unwell, and when the flow had continued some ten days sent for me to check it. The quantity was not very large, usually three or four diapers a day, but sometimes with, and at times without, exertion the discharge came much more profusely. She complained, too, of lancinating pain in the hypogastrium, not affected by pressure; but she had much pain on defæcating and on coitus. On examination I found the uterus of normal size, but retroverted. Behind it, in Douglas's pouch, was a nodular, elastic body, as large as a bantam's egg, which was exquisitely tender to pressure, and which remained *in situ* when the uterus was gently raised. Examination did not increase the hæmorrhage. I put the patient on ergot and bromide of potassium, and confined her strictly to bed.

Some weeks of this treatment had no effect on the pain or bleeding, and the patient was getting very exhausted. I feared from the great pain, the persistent hæmorrhage, the bad condition of the patient, and, more, from the rapid onset and development of these symptoms in a woman who was under the impression she had passed the climacteric that there was malignant disease of the ovary; and Dr. Braithwaite, who saw the case with me, concurred.

We agreed, however, that at least an exploratory operation was desirable at once, in the hope of finding appendages which could be removed with a prospect of relieving the patient. I therefore proceeded to operate on May 21st, at Kirkburton, assisted by Dr. J. A. Smith. I made the usual incision in the middle line 1½ inch in length, but had to enlarge it subsequently 1 inch downwards, as it was impossible to bring either ovary to the surface of the wound.

The left ovary was enlarged to the size of a small egg, and firmly adherent to the *cul-de-sac*, from which it was separated and pulled up with its tube. The Staffordshire knot was applied too low in the pelvis for the pedicle to be seen, as the parts could not be brought up without risk of tearing. I was materially helped by my assistant elevating the pelvic floor with his fingers in the vagina. This ovary contained three cysts, one of which, as large as a filbert, was filled with blood clot. The right ovary was smaller than normal, hard and leathery, and was also removed with its tube. No drainage tube was inserted. The patient made an uninterrupted recovery. The temperature never reached 38°; there was no vomiting, no flatulence which the rectum tube did not relieve, and since May 27th there has been no hæmorrhage whatever. The patient remains perfectly well, and much stronger than before the illness which brought her to me.

It is as impossible to explain the cause of these hæmorrhages which accompany cystic ovaries as it is to explain menstruation. Something that is removed in Tait's operation—for *pace* Mr. Bland Sutton, I have removed and seen removed ovaries which were completely removed without checking menstruation—is concerned in each case. Whether it is a nerve centre that exists somewhere in the parts removed, or whose influence is transmitted along these structures, either through Johnson's nerve or by the sympathetic distributed along the vessels or by some other route, we are no nearer knowing than ever. But once completely remove ovaries and tubes close up to the uterus, menstrua-

tion and hæmorrhage cease, and the flow that immediately follows the operation is, perhaps, the last manifestation of the irritability of the governing nerve (?) before it commences to atrophy.

Liverpool. GEORGE A. HAWKINS-AMBLER, F.R.C.S.E.

CASE OF CARDIAC FAILURE AND BRIGHT'S DISEASE TREATED BY OXYGEN.

THE success of the above treatment (suggested by the report of a case in the BRITISH MEDICAL JOURNAL of March 6th, 1892) in a case of cardiac failure leads me to hope that this may be worthy of record.

On September 3rd, 1892, at 7.30 P.M., I was called to Mrs. B., aged 64, who, according to the statement of the messenger, was "sinking fast." On arrival I found the patient propped up in bed, the respiration rapid and shallow, with very marked "rattle" in the throat. The facial expression was very anxious, the countenance pasty and of leaden hue, and the skin bathed in a cold and clammy sweat. The extremities were cold, the pulse too rapid to count, very small, and extremely irregular. The arteries were rigid.

Hot brandy and water was at once injected *per rectum*, but was only retained a very few minutes. Subsequent treatment consisted in the administration of brandy by the mouth, hypodermic injections of ozonic ether, and inhalation of amyl nitrite. At 7 A.M., when the patient was in a very exhausted condition, some Brin's oxygen arrived. Before commencing its inhalation respirations were 60 a minute; the pulse could not be counted, and was very irregular. In thirty minutes from beginning the inhalation of oxygen respirations had fallen to 45, the pulse was 120 and stronger, but still very irregular; the leaden hue had been exchanged for a pale, rosy tint. At this point food was administered and digitalis. In four hours another inhalation of oxygen for twenty minutes was given. This gave the patient a fresh start, the countenance becoming distinctly rosy. After a third inhalation at the end of another four hours the respirations were 40 a minute and calm; the patient slept, which she had not done for several days previously, and immediate danger was over. Examination of the urine showed one-fourth albumen and numerous granular casts. A double murmur was heard at the cardiac apex. Inhalations were continued at increasing intervals for a week, each being accompanied by a distinct advance in strength. The patient is now steadily improving, and able to leave her room.

I am glad to mention that a supply of oxygen may now be obtained at any hour of the night and on Sundays at the Works, 69, Horseferry Road, Westminster.

Highgate. AUSTIN E. REYNOLDS, M.R.C.S.etc.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

MANCHESTER ROYAL INFIRMARY.

TWO CASES OF TUMOUR OF THE BLADDER.

(Under the care of Mr. SOUTHAM.)

CASE I. *Papilloma in a Male: Suprapubic Cystotomy: Removal: Recovery.*—W. S., aged 56, was admitted on February 29th, 1892, with the following history: About twelve months previously he first noticed the presence of blood in his urine, and since that date he had suffered from frequent attacks of profuse hæmaturia, unaccompanied by any pain or difficulty in micturition. In the intervals between the attacks, which usually lasted for several days, the urine always became quite clear. Micturition had latterly become somewhat more frequent than usual, otherwise he was quite free from any evidences of irritation of the bladder, his only symptom being a painless hæmaturia.

On admission he was somewhat anæmic, but in other respects in fair health. The urine, specific gravity 1022, was alkaline, and of a brick-red colour, containing, in addition to blood, a small quantity of pus.

A few days after admission he was examined under chloroform. Nothing could be felt on rectal examination or on sounding the bladder, but, on washing out the latter with Bigelow's evacuator, a number of soft particles came away, some of which were twice the size of a pea, and to the naked eye easily recognisable as portions of a villous tumour. Microscopical examination showed them to be of the nature of papillomata.

The presence of a growth having been verified, it was resolved to remove it by suprapubic cystotomy, but as a preliminary measure, in order to correct the alkaline condition of the urine, salol was given internally (10 grains three times a day), and the bladder was washed out daily with boric lotion. The result of this treatment, combined with rest in bed, was that on the tenth day the urine had become acid, and the amount of blood had greatly diminished.

March 21st. Suprapubic cystotomy was performed in the usual way, and, on exploring the interior of the bladder with the finger, a soft pedunculated growth, the size of a pigeon's egg, was felt springing from the left side of the trigone. This was removed through the suprapubic opening by scraping through its point of attachment with the finger nail and a Volkmann's spoon. The bladder was then washed out with hot boric lotion until the bleeding, which was very slight, had quite ceased, and a tube was left in the suprapubic wound. As regards the after-course of the case, all went on very satisfactorily, the temperature never rising above 99.8°. The bladder was washed out daily with boric lotion, and the tube was removed on the third day. For the first few days the urine contained a little blood, but at the end of a week it was quite clear, and afterwards remained so. After the twenty-first day all the urine was passed by the urethra. The patient left the hospital at the end of the fifth week, the suprapubic wound being quite closed. He came afterwards on several occasions as an out-patient, and, when last seen in August, his general health was much improved, and there had been no recurrence of the hæmorrhage since the operation.

CASE II. *Multiple Papillomata in a Female: Dilatation of Urethra: Removal: Recovery.*—M. M., aged 51 years, was admitted on January 4th, 1892, with a history of hæmaturia of two years' duration. Until about six months previously the bleeding had recurred at irregular intervals, the urine between the attacks being quite clear, and micturition being unattended by pain and not increased in frequency. Latterly the bleeding had become more continuous and more profuse, blood being almost always present in the urine; she had also begun to suffer from constant acute pain in the region of the bladder, over which she had lost control, the urine continually dribbling away.

On admission the patient was very anæmic and in an extremely feeble condition. The urine contained a large quantity of blood and pus, and was ammoniacal, with a very offensive odour. To correct this condition the same treatment was adopted as in the preceding case.

January 11th. The urine having become much sweeter and almost free from blood, the urethra was rapidly dilated under chloroform until it would allow of the introduction of the finger into the bladder. On exploring its interior the base was found studded over with numerous sessile growths, the largest being about the size of a walnut, of such soft consistence that they were readily removed, as in the last case, with the finger and a Volkmann's spoon. The hæmorrhage, which was somewhat free, was arrested by washing out the bladder with hot boric lotion. Microscopical examination of the growths showed them to be papillomata.

Recovery took place without a single unfavourable symptom. On the sixth day the patient was sitting up in the ward, the urine, though still alkaline, being free from blood. At the end of three weeks she was sent to the convalescent home, being able to hold her water, which had become faintly acid, for two hours at a time.

September. She enjoys excellent health, and has regained complete control over the bladder. There has been no return of the bleeding since the operation, and she is quite free from any bladder symptoms.

REMARKS.—In the above cases there was little difficulty in diagnosing the presence of a tumour of the bladder, for in

both profuse hæmorrhage was a prominent symptom. The character of the bleeding—recurring at first at irregular intervals and unaccompanied for a considerable period by any evidences of bladder irritation—was in favour of the growths being of a simple nature—namely, papillomata—and therefore capable of removal by operation. Suprapubic cystotomy was performed in the first case, as in the male a vesical tumour is reached much more readily through an opening above the pubes than from the perineum. In the second case, where the patient was a female, complete access to the growths was obtained through the dilated urethra, their soft consistence and the fact that they were confined to the base of the bladder and therefore within reach of the finger rendering their extraction by this route an easy matter.

The removal of small portions of the tumour by washing out the bladder (as in Case 1), or by drawing off its contents when distended with urine, is a simple method which often enables the presence of a growth to be diagnosed with certainty previous to operation, and is especially useful in cases where the persistence of hæmaturia renders it somewhat difficult to make a satisfactory cystoscopic examination.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir Andrew Clark, Bart., F.R.S., President, in the Chair.

Tuesday, October 25th, 1892.

Amputation for Diabetic Gangrene.

Mr. Rickman J. Godlee gave as an excuse for bringing some rather ordinary cases before the Society that the term diabetic gangrene was made to include several different conditions now beginning to be recognised, and also that modern surgical improvements had modified the views with regard to amputation for this disease. Diabetics were more liable to gangrene when once started than others, for several reasons, but the determining causes were the same as in other forms of gangrene, and were very various; but attention was particularly drawn in this paper to three of them: (1) Inflammatory conditions; (2) arterial disease; (3) peripheral neuritis. Inflammatory conditions included carbuncles, noma vulvæ, and rapidly-spreading ulcers of the legs, as well as extensive sloughing of septic wounds. Atheroma of vessels was probably actually caused by glycosuria, and was certainly predisposed to by it. Diabetics who drank alcohol were thus especially liable to degenerative changes in their vessels. Several observations by the author and others were adduced to substantiate this position. The hope was expressed that an examination of the state of the vessels and peripheral nerves would be more carefully made during life and at *post-mortem* examinations of patients dying of this disease. It was pointed out that neither gangrene of the foot nor carbuncle occurred before early middle age, and it was hinted that this was because the arterial and nervous changes had not yet reached a very advanced condition, though it was recognised that it might depend on the well-known differences between the acute diabetes of children and young people and the more chronic disease of middle and old age. Peripheral neuritis was now generally recognised as being caused by glycosuria, and as giving rise to many neuralgic and other symptoms, which might be classified as motor, sensory, trophic, and vasomotor. The combination of sensory and trophic symptoms, sometimes called "tabetic," and giving rise to perforating ulcer of the foot, was a fruitful source of gangrene of the leg. The object of the paper was to point out that the so-called diabetic gangrene in most cases depended either chiefly on arterial disease or on peripheral neuritis; if the former, progress of the disease was rapid and the pain was great; if the latter, the pain was insignificant or absent and the progress slow. The former must be treated by amputation at or above the knee, because it had been shown that in these cases the degeneration almost always reached the knee, but very often did not extend further; the latter might either be left alone or treated by amputation close to the necrosed part. The opinions expressed in the surgical textbooks were then quoted, and some of them traversed; but it was pointed out that no amount of antiseptic treatment would prevent diabetic coma, which might follow even trivial operations. Three cases were then described to illustrate what had been said. 1. A man, aged 48, who had partaken freely of alcohol for many years. Gangrene started from a sore by the nail and proceeded rapidly on to the dorsum of the foot. A circular amputation was done above the knee, and the patient made a good recovery. The vessels from the part removed were shown, and it was seen that the degenerative changes were very far advanced and extended as high as the popliteal artery. Microscopical sections of the vessels were also shown. 2. A man, aged 61, had gangrene of the little toe, caused by a corn. A line of demarcation formed, and amputation was done through the dusky tissues close above the sphacelated part. The wound was left quite open and the patient made a good recovery. 3. A lady, aged 73, had gangrene of one toe, not very painful, and starting from a suppurating corn. The toe separated, and the wounds healed after several incisions had been made in the sole and on the dorsum of the foot. Other cases were mentioned in the course of the paper—one of a young man, aged 24, who died of coma, whose arteries were found to be extensively degenerated; another, a man, aged 30, who had been a free drinker and had very rigid arteries; and another of a girl, aged 13, who had a similar condition of arteries. In conclusion, while admitting that it would be improper to generalise from so few cases, it was maintained that, taken along with the recorded experience of others, there was strong evidence to support the propositions laid down by the author.

The President referred to the dryness of the tissues in diabetes as a possible cause both of the gangrene and of the neuritis.

Mr. Jonathan Hutchinson referred to a paper that he had read some years ago, in which he had advocated amputation above the knee, instead of below, for gangrene. He had often operated on patients with diabetes both young and old; and had not found the risks so much greater in them as was generally considered to be the case.

Mr. Golding-Bird mentioned a case of locomotor ataxy with perforating ulcers of the foot, in which he had performed a Syme's amputation; having chosen that position for the operation, as the condition was due to peripheral neuritis and not to vascular changes. The case did well; but, later, another perforating ulcer appeared just below the inner malleolus. He then destroyed the tissues with nitric acid, and the patient made a slow recovery. This case was, he thought, confirmatory of Mr. Godlee's proposition—that when gangrene was due to neuritis and not to vascular disease amputation might be performed in the near neighbourhood of the disease.

Mr. W. G. Spencer, after referring to a paper which he had recently read before the Society and which covered nearly the same ground, related the case of a man with diabetes, who was passing from 70 to 80 ounces of urine in the twenty-four hours, containing from 10 to 12 grains of sugar to the ounce, and who came under his care at the Westminster Hospital for suppuration of the olecranon fossa. Amputation was advised, but the patient refused to allow any operation. Later he became comatose, and at the request of his friends an amputation of the arm through the upper third of the humerus was performed. The stump healed satisfactorily. After the operation it was noticed that the quantity of sugar in the urine had fallen to $\frac{1}{2}$-grain to the ounce. He was being treated with opium and was on a modified diet, which was the same after as before the operation. In another case of diabetes he had seen recovery from a severe attack of erysipelas.

Mr. Harrison Cripps said that ten years ago the feeling amongst surgeons was decidedly against amputation for either diabetic or senile gangrene. Then came Mr. Jonathan Hutchinson's paper, which recommended high amputation, but now, since the principles of antiseptic surgery were thoroughly understood, even that was no longer necessary. In the last five or six years he had had to deal with four cases of diabetic gangrene. In two of them, by keeping the parts properly protected, spontaneous separation had occurred satisfactorily. In the other two, in which the gangrene was spreading, he had amputated low down just above the ankle, and both cases had healed perfectly.

Mr. MARMADUKE SHEILD had seen four cases of what might be called spontaneous whitlow in diabetic patients. Should such cases be treated without strict antiseptic precautions, serious results would be very liable to follow. In several cases of rapid necrosis of the mastoid cells he had found sugar in the urine.

Mr. TREVES had had two cases in which death rapidly followed amputation for diabetic gangrene. This had occurred four years ago, and might have been due to defective antiseptic dressings. He thought that there were some cases of diabetes in which operations, even with the strictest precautions, would turn out to be exceedingly dangerous.

Dr. DAWTREY DREWITT pointed out how exceedingly liable the subjects of diabetes were to be attacked by micro-organisms of all kinds.

Mr. RIVINGTON felt that all cases were to be judged on their own merits, but that where gangrene was affecting the life of the patient, amputation should be resorted to. He asked Mr. Treves if he had operated high up in his fatal cases, and he asked Mr. Godlee the special antiseptic methods that he had adopted, and also whether any bone had reformed in the sleeve of periosteum which he had left in one of his cases, and in the first of his cases whether he considered that the gangrene was due to the diabetes or only complicated by it.

Mr. PEARCE GOULD had recently amputated through the knee-joint for gangrene and suppuration as far as the middle of the leg in a diabetic subject. The stump healed well. Three days after the operation the sugar had almost disappeared from the urine, and since then there had only been a trace.

Dr. GEORGE HARLEY recalled the fact that it had often been noticed that when diabetic subjects were suffering from severe disease or injury the sugar disappeared from the urine, only to reappear when convalescence set in; and the PRESIDENT confirmed this as having occurred in several cases of typhoid fever that he had seen.

Mr. TREVES said that in both his cases high amputation had been performed, and that both the cases had been in the medical wards for some time previous to operation.

Mr. HARRISON CRIPPS informed Mr. Godlee that he had performed amputation in both his cases just above the ankle, and that, in the first case, the arteries were atheromatous, but that he did not know their condition in the second case.

Mr. GODLEE, in reply, said that not enough was known to make any definite statement in reference to the dryness of the tissues. The antiseptic precautions adopted were as follows: the limb was first washed with soap and water, carbolic acid solution and corrosive sublimate solution (1 in 500), as high as the buttock; hands, instruments, etc., with carbolic acid solution; and, finally, the stump with corrosive sublimate solution (1 in 500). The stump was dressed with Lister's double cyanide dressing. With reference to the question whether in his first case the gangrene was due to the diabetes, he thought that the immediate cause was atheroma of the vessels.

MEDICAL SOCIETY OF LONDON.

E. SYMES THOMPSON, M.D., F.R.C.P., in the Chair.

Monday, October 24th, 1892.

TRAUMATIC VOLVULUS OF SMALL INTESTINE.

MR. G. R. TURNER read notes of the case of a boy, aged 7, who fell some twelve feet into the mud, striking against the pole of a boat. Collapse was marked on admission to the hospital and vomiting set in. Soon after he became restless, complaining of abdominal pain and tenderness, referred chiefly to the right iliac fossa. The vomited matter became fæcal, and Mr. Turner opened the abdomen twenty-four hours after the accident. An entangled mass of intestines (ileum) could be felt to the left of the middle line, and this was unravelled, and two collapsed flattened parts, a foot and two feet in length, and separated from each other by about four feet of intervening intestine, were discovered. The collapsed gut at either end passed abruptly into the neighbouring healthy intestine. There was no tear or rent found in either mesentery or omentum, nor any sort of band. The patient made an interrupted recovery. Mr. Turner instanced the case as one of volvulus caused by the injury, and attributed the success of the treatment to the fact that the operation was performed before abdominal distension or intestinal adhesion had taken place.

After some remarks from Mr. MARMADUKE SHEILD, Dr. HAWKINS mentioned the case of a woman who died with symptoms of acute intestinal obstruction after a slight blow on the abdomen. *Post mortem* a figure-of-8 twist of the gut behind the umbilicus was found which unravelled itself as soon as it was exposed.

Mr. BOWREMAN JESSETT having made some remarks, Mr. STAVELEY related a similar accident in a child 5 years of age, in whom a slight blow on the abdomen while at play was followed by symptoms of acute intestinal obstruction and death within twenty-four hours. *Post mortem* a volvulus situated thirty inches from the pylorus was discovered.

Mr. HARRISON CRIPPS advocated an incision of sufficient length to permit of the free protrusion of the intestines, and Mr. TURNER replied.

THE TREATMENT OF THE PERITONEUM IN ABDOMINAL SURGERY.

Mr. W. A. MEREDITH said that, viewing the peritoneum in the light of a large lymph sac, it appeared that success in abdominal work might be said to depend largely upon the attainment of three main objects (1) avoidance of the introduction within the serous cavity of any septic, or potentially septic, material or fluid; (2) avoidance of the infliction of any unnecessary injury to the peritoneum, whereby its vital properties might be impaired; (3) promotion of the subsequent removal, by natural or by artificial means, of any fluid remaining in the pelvic cavity at the conclusion of the operation. Mr. Meredith gave a brief summary of the results of work during the past three years and a-half, the total of abdominal sections amounting to 201. In 18 of these, with 1 death, chiefly cases of pelvic abscess, the serous cavity proper was not invaded, but the remaining 183 operations all implicated the peritoneal sac; of this number 42, with 9 deaths, were undertaken for various diseases either unconnected with the pelvic organs, or, when so connected, of such a nature as not to admit of complete extirpation. The remaining 141 peritoneal operations for disease originating in the uterus or its appendages included 137 recoveries and but 4 deaths—a mortality of under 3 per cent.

Mr. ALBAN DORAN said the question turned on what constituted unnecessary injury to the peritoneum. It was still impossible to distinguish between the effects of damage to the peritoneum and those of damage from exposure or rough handling of the intestines. Did accumulation of flatus mean peritonitis? or did this accumulation determine peritonitis? More experience was needed before they could arrive at an opinion in respect of the use of the drainage tube. He thought that it was dangerous to remove the tube so long as the discharge was bloody. The danger of leaving clots was their organisation into membranes creating adhesions between the folds of intestines.

Mr. MARMADUKE SHEILD observed that it was sometimes difficult to prevent the peritoneum being stripped from the abdominal parietes. He himself always stitched the cut edge to the skin, so as to keep it within reach.

Mr. MALCOLM thought that if kept aseptic the peritoneum would stand any amount of handling, certainly all that was necessary. He thought opium was responsible for prolonging the intestinal paresis and thus giving rise to certain cases of peritonitis. Mr. Tait did not cure peritonitis by purgation, but he relieved the obstruction which might have caused peritonitis.

Mr. MEREDITH, in reply, said that the great thing to avoid was rough handling of the peritoneum. The advantage of flushing lay in that it enabled the peritoneal cavity to be cleared out without sponging. In tuberculosis of the peritoneum, however, rough sponging often did good, by removing the serum and altering the nutrition of the membrane.

BEQUEST.—The will of Mrs. Alice Hayes Beaumont, late of Faygate, Horsham, Sussex, was proved on September 29th. The testatrix bequeaths, after the death of her husband, £2,000 to Guy's Hospital, Southwark, to support two beds to be associated with the names of her late father, James Christmas, and her late son, John Kœnig; and she directs the portraits in oil of her said father and son to be given to and preserved by the said hospital.

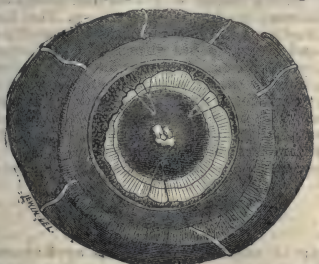
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Henry Power, F.R.C.S., President, in the Chair.

Thursday, October 20th, 1892.

On Defects of the Iris in Relation to Glaucoma.

Mr. Treacher Collins gave a lantern slide demonstration of the microscopical characters of three eyes: (1) Congenital absence of the iris and opacities in the lens; (2) congenital coloboma of the iris and lens outwards, with glaucoma; (3) traumatic aniridia and glaucoma. In the first case he found that the ciliary body ended in a rudimentary iris in its entire circumference, though clinically none could be seen. On one side of the sections a small piece of the sphincter muscle was present; on the other no such structure could be made out. The uveal pigment on the back of the iris ended in a double fold, and there were abnormal adhesions passing between the ligamentum pectinatum and the root of the iris, and remnants of the pupillary membrane were present. There was, besides other opacities in the lens, one at its anterior pole raised above the surface and evidently due to subcapsular proliferation of the lining epithelium. He thought the arrest



Anterior half of right eye of Case 1. The cornea and sclera have been peeled off, exposing a narrow rim of iris, some tags of pupillary membrane, and an anterior polar opacity of lens. (×2½.)

of development of the iris, as well as the other changes found in this eye, could be explained by the theory put forward by Manz, which attributed them to abnormal adhesion or late separation of the lens and cornea, which mechanically prevented the growth inwards of the iris. He pointed out that there was quite sufficient iris in this case to block the whole of the posterior surface of the ligamentum pectinatum should it have become pushed forwards, and that it was therefore quite possible for eyes in which no iris could be seen to become glaucomatous. In the second case the filtration area in the region of the coloboma of the iris was found more than half closed by a small process with a double layer of pigment on its posterior surface, in which the ciliary body terminated. The ciliary processes opposite the cleft in the lens were directed backwards. This he thought due to the absence of any forward traction by the fibres of the suspensory ligament, which were probably wanting in that position. In the third case there had been a wound of the cornea, through which the whole of the iris and a great portion of the lens had escaped eight and a-half months previous to excision. The eye became glaucomatous, the nerve was deeply cupped. There was a broad adhesion of the lens capsule to the corneal cicatrix. The advanced position it had thus taken up had drawn forward the ciliary processes, so that the most anterior of them were in contact with the cornea and blocked the filtration area.

Double Neuro-retinitis after Influenza.

Mr. Hartridge showed this case, and read notes thereupon. The patient, a girl, aged 16, suffered from a severe attack of influenza in May, 1891, and a less severe attack in June, 1892. The second illness was soon followed by gradual and progressive failure of vision. The acuteness is now $\frac{1}{15}$ in each eye, with correction of some astigmatism. The patient has suffered during the past six weeks from constant headache on the right side. The optic discs are white, blurred, and rather swollen; arteries slightly diminished in size, veins slightly tortuous, white lines along some of the large vessels, numerous bright scattered patches in the macular region, no hæmorrhages. There has been no evidence of renal disease; the patient is anæmic, but well nourished.

Messrs. Doyne, Hodges, and Juler referred to cases they had seen which closely resembled that shown by Mr. Hartridge, and in which there was a history of antecedent influenza.

Dr. James Taylor thought that in Mr. Hartridge's case the evidence of influenza was not very definite, and suggested that the symptoms mentioned and the ophthalmoscopic appearances might be indicative of cerebellar disease.

Mr. Richardson Cross gave a brief account of three cases of optic nerve disease, following attacks of influenza. In one the optic nerves were inflamed; in the other two they were, when seen by Mr. Cross, in an atrophic stage. All three patients were females, aged 20, 25, and 50 respectively. He felt satisfied that optic neuritis was occasionally caused by influenza.

Mr. Tweedy spoke of one of Mr. Cross's patients, whom he had also seen. He was of opinion that influenza bore a causal relation to some cases of neuritis, and not of the optic nerves alone. He had seen cases of paralytic strabismus following influenza, which he thought were caused by a neuritis of the motor branches supplying the ocular muscles.

The Optical Condition of Fifty Persons who were Free from any Ocular Disturbance.

Mr. Work Dodd presented some observations on the sight of fifty individuals who had made no complaint concerning their eyes. The principal points brought out by his investigation were as follows: The average interpupillary distance, measured with a steel metric measure, the eyes being directed to infinity, was 6.012 centimetres. The average convergence, measured from the punctum remotum by means of graduated prisms was 1.24 metre angles; and for the punctum proximum, by the ophthalmo-dynamometer of Landolt, 10.86 centimetres; the amplitude of convergence being 11.08 metre angles. The punctum proximum of accommodation ascertained by the same instrument was for the right eye 10.10 centimetres, and for the left, 10.38 centimetres; the amplitude of accommodation for the right eye, 12.53 dioptres, and for the left eye, 12.20 dioptres. The punctum proximum was nearer to the right eye in 24 cases, to the left in 15, and equal in 11. The amplitude was greater in the right eye in 28 cases, in the left eye in 17, and equal in 5. The visual acuteness and refraction, both before and after mydriasis, were obtained by means of Snellen's distant type and the ordinary trial lenses. Visual perception, before mydriasis, was more acute in the right eye in 15 cases, in the left eye in 12, and was equal in 23. After mydriasis it was more acute in the right eye in 15 cases, in the left in 14, and was equal in 21. The amount of ametropia preponderated slightly in the left eye. There was simple hypermetropia in 39 instances, and myopia in 1. Simple hypermetropic astigmatism existed in 1 case, and compound hypermetropic astigmatism in 4; 4, also, were anisometropic. The oculation was dexter in 24 cases, sinister in 15, and indifferent in 1. This last point was determined by directing the patient to fix his eyes on a distant object, and then to hold up a small key or finger ring at arm's length, so that he looked through it at the object. The ring in any case would be placed in the line of fixation of one particular eye, and the closing of that eye would make the ring appear to move quickly to that side, away from the object; while, on the other hand, the closing of the other eye would have no effect. To prevent the choice of hand exercising any influence on the experiment, the left was employed first in right-handed subjects, and *vice versâ*, but without modifying the result. The choice of eye was apparently determined by the absence of ametropia and the greater visual acuteness in one eye, more frequently the right.

Living and Card Specimens.

Mr. Power: Recurrent Spindle-celled Sarcoma of Lachrymal Gland. Mr. Juler: (1) Melanotic Tumour in Ciliary Region; (2) Retinal Hæmorrhage. Mr. Doyne: (1) Unusual Form of Keratitis; (2) Recovery from Albuminuric Retinitis of Pregnancy; (3) Atrophy of Lachrymal Gland. Mr. Morton: Drawing of Cyst of the Iris. Mr. Beaumont: Neoplasm (? Sarcoma) of Iris.

BRITISH GYNÆCOLOGICAL SOCIETY.

Heywood Smith, M.D., Vice-President, in the Chair.

Thursday, October 13th, 1892.

Mammary Sarcoma.

Mr. Bowreman Jessett showed photographs and related the notes of a case of mammary sarcoma. The tumour, which occurred in a widow, aged 48, and had been noticed for three years, was uniformly hard, the skin tightly stretched over it, and the nipple retracted. On removal it was found to weigh 10½ lbs., and measured 30 inches in circumference. The patient recovered.

Dr. C. H. F. Routh asked whether in this case there was any uterine disease, because he had several cases in view where its presence had apparently caused sympathetic irritation in the breast.

The Chairman agreed that this was sometimes the case.

Mr. Jessett said that as there were no symptoms of uterine disease he had not examined that organ. The axillary glands were not affected, and there was no recurrence after the operation.

Salpingitis following Gonorrhœa.

Dr. Heywood Smith showed the ovaries and tubes removed from a woman, aged 28. On June 28th, 1891, the tubes were much enlarged, one being thickened and the other dilated. On the left side was a small abscess, which burst during the separation of adhesions. The intestines were found to be adherent, but were separated without accident. The patient recovered. This appeared to be a case of salpingitis following gonorrhœa.

Dr. Macnaughton Jones regretted that there was an element of doubt in this case. He knew of a number of cases of tubal and ovarian disease which appeared to follow gonorrhœa.

After some remarks from Dr. C. H. Routh, Dr. Inglis Parsons said that during seven years at the Chelsea Hospital for Women, he had met with tubal or ovarian disease following attacks of gonorrhœa only very exceptionally. The appearance of the tubes in this case were certainly against the supposition of gonorrhœa; one was considerably hypertrophied and the other dilated; two conditions, either of which might occur if obstruction at the opening into the uterus took place.

Dr. Leith Napier had no doubt that gonorrhœa was a most potent factor in the causation of these diseases.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

H. W. Roberts, M.R.C.S., President, in the Chair.

Friday, October 7th, 1892.

Election of Office-Bearers.

The following gentlemen were elected officers of the Society for the session 1892-93;—*President:* George Newton Pitt, M.A., M.D.Cantab. *Vice-Presidents:* John MacGavin, L.R.C.P.Edin.; Peter Cooper, M.R.C.S. *Council:* A. Stewart Brown, F.R.C.S. Edin.; Wm. Arbuthnot Lane, M.B., B.S.Lond.; John Gordon Mainwaring, M.R.C.S.; Williams Nicholson, M.D.Edin.; Charles Jas. Parke, M.R.C.S.; F. S. Smyth, L.R.C.P.Edin.; Francis T. Tayler, M.B.Lond. *Treasurer:* Prior Purvis, M.D. Lond. *Secretary:* Ernest Clarke, M.D., B.S.Lond. *Librarian:* John MacGavin, L.R.C.P.Edin.—The usual vote of thanks was passed to the retiring officers.

President's Address.

Dr. Pitt, the new President, then took the chair, and delivered his inaugural address on "Immunity, and the Means by which it has been produced in some Diseases." The extended observations of Metschnikoff as to the part taken by phagocytes in the process were summarised, and evidence was adduced to show that cells were capable of attacking and digesting living organisms, and that the amount of local action was inversely proportional to the virulence of the disease. Some of the more striking observations of Pfeiffer, Roux, and others on the phenomena of chemotaxis were mentioned, and hence the explanation offered of the fact that the cells in many diseases were only after some days able to agglomerate and to devour organisms. The chemical products of bacterial growth, and especially the albumoses, which now offered a most fruitful field for inquiry, had been in several cases isolated, and when injected into animals had produced the symptoms of the corresponding disease. The observations of Roux, Martin, Hankin, and Ehrlich on these bodies were referred to. Metschnikoff and others had shown that various bacilli, which it was stated were killed by blood serum, could gradually be acclimatised so as to grow freely in the serum of even immune animals. The cell globulin formed when leucocytes broke up was more potent than the serum in destroying organisms. Attention had recently been directed to the fact that bacilli formed both toxic and protective bodies. Gamaleïa had extracted from cholera cultivations a body which conferred immunity, and another which caused choleraic symptoms; both classes of bodies had also been found with B. pyocyaneus and with tetanus. A. Cells might protect an animal: 1, by assimilating bacteria or their products, or both; 2, by breaking up and so liberating cell globulin which might interfere with the growth of the organisms, or diminish their virulence, or act as an antitoxin. B. Blood serum might act in any of these last three modes. It had already been proved that it acted as an antitoxin when producing immunity against tetanus, pneumonia, diphtheria, cholera, or vaccinia (Sternberg). C. An animal might be indifferent to the toxin, or after treatment might become so. D. The bacillary products and sometimes the bacilli might be rapidly excreted by the kidney and liver. Albuminuria and active excretion of poisonous products by the kidney had been shown to take place in typhoid, diphtheria, tuberculosis, hydrophobia, pneumonia, scarlatina, anthrax, glanders, cholera, and relapsing fever. The present state of knowledge indicated that immunity was mainly but not entirely due to the activity of the leucocytes and connective tissue cells.

REVIEWS.

On the Medical and Surgical Uses of Electricity. By George M. Beard, A.M., M.D., and A. D. Rockwell, A.M., M.D. New York: Wm. Wood and Co. 1891.

The production of a book upon this subject, extending to 800 large and closely-written pages, is an extreme instance of the tendency of our age to specialisation. It is also a monument of the zeal and industry of its authors, and the fact that their work has now reached the eighth edition is sufficient evidence that their labour is appreciated by a large circle of readers.

Very great praise is due to Dr. Rockwell who, since the death of his collaborator ten years ago, has conducted no fewer than six editions through the press; and we learn with pleasure on his authority that each successive edition has been exhausted more rapidly than its predecessor.

The present one has been largely rewritten, and it will certainly maintain the high reputation which the book has earned both in this country and America. It is already too well known to need a detailed description at our hands. That part of the work which deals with elementary physics is well planned. The description of batteries and apparatus is good and sufficient, and the illustrations are to a great extent free from the character of advertisements, which is often exhibited in books of this class. Large as the book is, there is throughout an evident effort at condensation, and this effort is occasionally carried too far. Thus on page 18 the attempt is made in a few words to describe a complicated type of machine with which many readers will not be familiar, and this we think is badly done. The accompanying figures are lettered and numbered, but in the type there is no reference to these marks, and it is even uncertain which machine is under consideration. To the cause mentioned here may be ascribed an occasional confusion of terms—such as "electro-positive and electro-negative," and in the use of the word "element;" terms which have to be handled with great care to avoid ambiguity.

The book is chiefly valuable as a record of careful and intelligent observation in the treatment of the most varied diseases. From this point of view it is perhaps without a rival. An occasional digression into the realms of theory is of course legitimate and indeed inevitable, and here the authors occasionally lay themselves open to criticism.

A subject of special intricacy is considered in a chapter on The Different Physiological and Therapeutical Properties of the Induced Currents of Electricity. It is from the conscientious observation of facts that we have most to hope in this direction, and there is a certain relevancy in the statement that "the reciprocal relations between the nervous system and the action of electricity are not yet sufficiently understood;" but the case to which the admission particularly applies is not happily chosen. "To offer a satisfactory explanation of the interesting fact that in external local faradisation the so-called current of tension is the most effective, while in internal local faradisation the so-called current of quantity acts most vigorously," we have but to apply the fundamental and invariable facts connected with electro-motive force and current strength, and to bear steadily in mind the distinction between these two factors. The statement has been well criticised by Dr. W. S. Hedley, and we would only remark here that in this instance, as in all others, the more complicated and obscure the relations with which we have to deal, the greater is the necessity to cling tenaciously to well-established principles of universal application. To postulate, "elective" properties is after all but to beg the question, and though the epithet may conveniently cover a provisional working hypothesis, it can have no place in a professedly scientific conception.

The disposition to remove the issue to a quite unnecessary depth of obscurity is illustrated by the remark upon the so-called continuous coil helix, an agency of accredited virtue in America, but one which, in our opinion, has no advantages over the simpler and more easily understood instruments. "The peculiarity of this combination of the coils is that the maximum power to contract the muscular tissue when the application is made through the skin is here obtained." This fact, resting as it does upon the authority of so skilled an observer, is of great importance, but it is no less important that its empirical character should be recognised, and little is gained by the proferred speculation: "Why the maximum of current strength is reached in the combination of the primary with the second and third induction coils it is difficult to say, excepting as we ascribe it to the law of harmony and polarisation that is brought about by properly conditioning the magnetic centre of the helix, the several coils composing the helix, and the battery influence acting on the coils."

What is this law of harmony and polarisation, and what hope is there of defining it? We would add, also, what need? The continuous coil helix appears to have spurred the scientist to emulate, on unequal terms, the ingenuity of the instrument maker who gave it existence. If it be admitted that here and there the authors permit themselves too great a licence of speculation, there can be no doubt that their painstaking research into the reactions of disease, and the intelligent effort they have made to elucidate the difficult problems of treatment, are worthy of all praise.

The book remains what it has always been—the highest authority on the more empirical methods of what, after all, is for the present an empirical science. The chapters upon General Electrification and upon the Electric Bath afford the greatest encouragement for the practice of electro-therapeutics, and they are conceived in a vein of independent and scientific reasoning.

The vast collection of carefully narrated cases forms a treasury from which subsequent observers will not fail to draw with advantage, since they suggest expedients which have been tried under the most varied conditions by trustworthy observers.

Practical Pathology. By G. Sims Woodhead. Third edition. Edinburgh and London; Young J. Pentland. 1892.

The merits of Dr. Woodhead's *Practical Pathology* are already so well known to the profession that but few words are required on our part to commend it anew to their attention. The present edition retains all the good features of its predecessors, with a number of additional good qualities of its own.

Great care has obviously been taken throughout in its preparation. It has been almost entirely rewritten, much of it altered and rearranged, and a great deal added. It forms now a volume of 652 pages as compared with the 484 pages of the first edition.

In the present edition the chief alterations are in the chapters dealing with methods, in which much new material has been added. There is an entirely new chapter dealing with the subject of inflammation and healing of wounds, which gives the book an additional value.

A notable feature of this work from the very first has been the great beauty of its coloured illustrations. In this respect, also, the merits of the book have suffered no abatement in the present edition. A large number of new illustrations have been added, and in every case where new ones have replaced those in the earlier editions the change is an improvement. Both author and publisher are to be specially congratulated on this portion of their work.

A careful perusal of the work shows that the whole of it has been most carefully revised, and alterations—all of them in the nature of improvements—are to be met with in nearly every chapter. The chief of these are to be found in the sections dealing with the diseases of the liver, kidney, and bones and joints, and also in that relating to the nervous system. All these subjects are dealt with in as full a manner as is compatible with the aim and scope of the work.

We can confidently recommend this work as one of the best practical treatises dealing with the subject of morbid histology that have appeared in this or any other country.

Lehrbuch der klinischen Untersuchungs-methoden für die Brust-und Unterleibs-organe mit einschluss der Laryngoscopie. Von Dr. Paul Guttmann. 8te Auflage. (Textbook of Clinical Methods of Examination of the Thoracic and Abdominal Organs, including Laryngoscopy. By Dr. Paul Guttmann. Eighth edition.) Berlin: A. Hirschwald. 1892. Pp. 512.

This well-known textbook by Dr. Guttmann has now been before the profession for more than twenty years, and has been translated into several languages. In the preface of this, the eighth German edition, the author mentions that some additions and alterations have been made, more especially in the last chapter. After a short introduction there is a valuable chapter on the general examination of the patient. Pyrexia, the various alterations in the skin—such as pallor, cyanosis, icterus, etc.—as well as dropsy and emphysema of the subcutaneous tissue, are here discussed. In the chapters on the examination of the respiratory, circulatory, and abdominal organs the facts to be observed and explained are arranged under the headings of inspection, palpation, percussion, and auscultation, a short historical sketch preceding the latter two. The examination of the larynx is described after that of the lungs, instead of at the end of the book as hitherto; the methods of investigation are first given, and then the appearances to be found in the commoner diseases of the larynx.

Under the inspection of the chest the changes in shape due to disease are carefully considered, and the subject of mensuration is dealt with. A description of the respiratory movements, with their alterations under varying morbid conditions, follows, and the chapter closes with an account of spirometry and pneumatometry.

The percussion note and its variations in disease are well described, but the value of percussion as applied to some of the abdominal organs would be somewhat overrated if it were estimated by the amount of space here allotted to it. One section under auscultation of the lungs is given to what is called "undefined breath sounds." In it are considered those varieties of breath sounds which are neither vesicular nor bronchial. It may be doubted whether this is the most satisfactory way of dealing with the subject, although it would appear to be the easiest. Murmurs in the veins and arteries are treated in detail under auscultation of the heart, and a good description of the pulse, with its variations in disease, will also be found here. In the absence of disturbed compensation in mitral disease the pulse is stated to be irregular only in cases of mitral stenosis; yet it cannot be doubted that the pulse is very frequently quite regular in the earlier stages of this affection.

Under palpation and percussion of the abdomen a description of the results of examination in cases of disease of the peritoneum is included, together with an account of the diagnosis of fluid, both free and encapsuled, in the peritoneal cavity.

The last chapter adds greatly to the value of this work. In it is described the examination of the blood, exudations and transudations, sputum, urine, stomach contents, and stools. Here recent advance in pathological chemistry and the increasing importance of bacteriological investigations in clinical work are duly reflected.

The book deals with the subjects under consideration in a very thorough and efficient manner. The physical signs produced by disease are brought into close relation with the morbid changes underlying them. The manual is in every sense very clinical and practical in character.

London Charities (Unendowed). By Robert Chignell. London: Cassell and Co. 1892.

We do not know whether the author of this little book claims to be an expert in charitable matters, or whether he would be content to be criticised as an amateur. It is, therefore, perhaps scarcely fair to point out that his account of the incomes of societies "having their headquarters" in London is of little practical value. These incomes comprise in many cases large items which are not of a charitable nature. Many charities to which he refers are partially self-supporting. Charities for the blind often include in their statements of income the money turned over in their trading operations. Again, the incomes of many of the homes include the payments made by the inmates or their families. If the expression "over seven millions of money given for special objects" is intended to imply that that amount is contributed for charitable purposes, it is misleading. We may also note that while he includes the Ventnor Hospital for Consumption, he excludes the numerous convalescent homes which exist for the benefit of London patients, some of which (for example, the Metropolitan Convalescent Institution) actually have offices in London. Again, while he religiously excludes the three hospitals generally described as "the endowed hospitals," he omits to mention that many of the institutions with which he deals are in part endowed.

Turning to his account of the hospitals, we cannot, without some statement of the way in which it has been compiled, agree that the table which he gives us "will supply at a glance a comparison of the financial management" of the ten general hospitals to which he refers. Unless he has data at his command which have hitherto been unavailable to statisticians, the relative cost for each bed in each institution cannot be laid down with any accuracy. How, for instance, has he eliminated from his calculations the cost of out-patients?

But, leaving these very difficult questions of figures, let us consider Mr. Chignell's main contention. Put shortly it is this. Vast sums are contributed annually to charitable institutions, yet there is still much distress unmet. Larger sums must, therefore, be subscribed, or else economies must be effected in their distribution. The economies suggested are the elimination of "leakage" by an improved system of audit, and the reduction of management expenses by the amalgamation of societies which have a common object. He also advocates the establishment of a central board of control with power to inspect and to audit the accounts of all the London charities.

That the public would be wise in refusing support to any institution whose accounts are not audited by a professional accountant we have no doubt, but we must not forget that no audit affords any check upon the receipts. If the benevolent are willing to put their money into street collecting boxes, how can they expect any guarantee for the ultimate destination of their subscriptions? Management expenses are no doubt often excessive, but we must never forget that efficient work generally means paid work, and ill-directed charity is worse than wasted, for it increases the number of those who seek help. If our author has made a sufficient study of the administration of relief to know that the offer of indiscriminate doles creates a demand for them, he is very unfortunate in selecting the Church Extension Association as a model of administration.

We are glad, on the other hand, to be able to agree with his condemnation of the voting system—a system which, while it entails unnecessary expense upon both the institution and the candidate, results in the admission of those who have most friends instead of those who have fewest. We are also at one with him in his objection to fictitious deficits, charity dinners, and other advertising devices; but we cannot help feeling that his position here is inconsistent with his desire to secure for the institutions the largest possible pecuniary support. The amalgamation of societies, where their objects are similar, is no doubt desirable in the abstract; but we fear that the various societies which exist to augment the stipends of curates are no more likely to merge their identity than the Church Army and the Salvation Army, or the Sunday Society and the Society for Promoting the due observance of the Lord's Day.

Mr. Chignell's Central Board is a mere skeleton; we cannot therefore dissect it. We may, however, remark that the attachment, of which he speaks, on the part of Englishmen to "action independent of Government aid," has its roots in their dislike of Government interference.

Many further instances of perversity might be pointed out. He finds fault, for instance, with the Society for the Prevention of Cruelty to Animals for not undertaking more propagandist work, while he blames the National Society for the Prevention of Cruelty to Children for expending large sums on publications, which are, of course, of a propagandist nature. Again, while he laments that the experience of the latter Society shows a "lamentable want of efficiency in our police," he is displeased with the former for not leaving prosecutions to them, and declares that he has "no faith in amateur police."

We should be less inclined to criticise this work severely if we felt that the author was alive to the social and political importance of charitable institutions and their administration. In his desire that the relief which they supply should be as extensive and as pleasant to the recipients as possible, he forgets that his line of argument would justify a return to the out-relief system as it existed under the old Poor Law.

THE HARVEIAN ORATION.

The Harveian Oration of this year reaches us in a somewhat belated fashion and when it is already familiar to most of our readers, having been widely circulated in the Press. It is somewhat out of date both in time and substance. From the published reports it will, we think, be publicly felt that the selection of the orator was unfortunate; that the oration, as might have been anticipated, is deficient in at least two respects, and that if it has any effect it would be to damp, rather than to stimulate, that enthusiastic devotion to the advancement of medical science, which the great example of Harvey is fitted to call forth.

In the first place, Dr. Bridges rather goes out of his way, as is accordant with his Comtist principles and with his past utterances, to suggest the inference that the circulation of the blood was discovered without recourse to experiments on animals. He does not allege it in so many words; indeed, he says that "Harvey employed every method of biological research, direct observation, experiment, above all the great Aristotelian method of comparison"; but he leaves his hearers with the impression that the vivisectional experiments of Harvey were of less use in working out the steps of the discovery than "in convincing others of the discovery when made." Such a view, urged with temporary vantage from the character of the office entrusted to him, is likely to be injurious to the interests of physiological science, especially at the moment experimental inquiry has had to vindicate itself from much misrepresentation and obloquy. There can be no question that Harvey performed many experiments on living animals, and that he largely depended on the evidence thereby acquired for the establishment of his theory. Anyone will be convinced of this who reads, in his immortal work, Cap. II., *Ex vivorum dissectione*, and Cap. IV., *Motus cordis*, etc., *ex vivorum dissectione*. It is not necessary to hold that the discovery of the circulation was made entirely by vivisectional experiment. Harvey was no random student; his powerful intellect collated the facts of human and com-

parative anatomy, and they fell into their places in the enunciation of his discovery; but experiment, the actual inspection of the blood flowing in the living vessel, and the careful study of the exposed pulsating heart, were not only the crucial tests to which he submitted his theory, but the chief foundations on which it rested.

The second comment is that Dr. Bridges takes an unnecessarily dispiriting, if not a hopeless, view of the future of medical science. "The history of medicine is a strange and fascinating, though sometimes a melancholy, record." We are then brought back to Hippocrates, who was guided, as Dr. Bridges says, by the two principles that diseases follow a natural sequence, and that the organism of man, however complex, is an individual whole. He then states that "the ideal perfection of medicine rests on ideal perfection in the science of human nature," and that to get near to this "unattainable" goal "the physician must be content with empirical knowledge of many facts, psychological and ethical, which, though certain as mathematics, do not admit of quantitative determination." That again is no doubt sound criticism, but it is partially false philosophy and mock science. This is not the spirit that as doctors should animate us in prosecuting medical science. The facts are that medical science is slowly but surely passing onwards just in proportion as she calls to her aids the methods of the more exact services. Dr. Bridges speaks eloquently of the great scientific renaissance which took place in the time of Harvey; there has been another renaissance during the present century. Medicine has to a greater extent fostered the sciences on which she leans, and these, in their turn, have developed the experimental method to an extent hitherto unthought of. Physiology now claims to be a branch of experimental natural science, not merely one leaning on the shoulders of anatomy, as of old, but standing on her own feet. Pathology is no longer merely morbid anatomy, nor does she rest content with the preservation of specimens in which disease has done its worst, but she also has now her experimental methods, the fruits of which we are only beginning to see in the achievements of bacteriological science. Nor is therapeutic science lagging behind. She also does not now depend on the accumulation of merely empirical knowledge gathered at the bedside, as Dr. Bridges would have us and the public believe, but she lays the foundations in a careful examination of the physiological actions of the substances used in medicine. These three branches of inquiry, not to mention others, are developing scientific medicine, and the modern physician has every reason to be hopeful of great results. Medicine will still have her problems, even after "science has fully embraced every aspect of human life," and these problems must be dealt with like those of other sciences.

It is quite true, as Dr. Bridges points out, that the phenomena dealt with by the physician or the physiologist are not always quantitative, and that we must take into account the psychological and ethical phenomena that are so intimately associated with many vital processes. But it is vain to expect, as Dr. Bridges apparently does, that the medical art will be largely advanced by the "scientific sociology" of the nineteenth and twentieth centuries. Sociological changes are rapidly taking place, and these will no doubt modify the conditions of existence. Some diseases will disappear and others may arise, but the phenomena of pneumonia, or of a slow progressive disease of the spinal cord, or those following the introduction into the body of the vibrio of cholera will, so far as can be seen, remain the same and must be dealt with in the most scientific manner possible to the physician. Our hope, then, is that the spirit of Harvey will continue to stimulate research, and that our best minds will strive to think and experiment as he did, and that we will not rest satisfied with the philosophical pessimism of the late Harveian orator, who must throughout have felt somewhat, as many of his audience certainly feel for him, like a fly in winter.

Wills and Bequests.—The will of Mr. William Wood, M.D., F.R.C.P., late of 99, Harley Street, and The Priory, Roehampton, who died on August 26th, was proved on October 3rd by Major David Edward Wood (the son), Sharon Grote Turner, and Lewis Karslake, the executors, the value of the personal estate amounting to upwards of £67,000.

THE CHOLERA.

Austria-Hungary.

Notwithstanding all precautions, the cholera has made its appearance in the vicinity of Vienna. A coachman, aged 23, residing at Floridsdorf, a village near Vienna, on the left bank of the Danube, was taken ill on October 21st, and conveyed to the Franz Joseph hospital in Vienna, where he died on October 24th. He stated that on the day he was attacked he drank some Danube water. It is also known that a girl, aged 10, living outside Vienna on the left bank of the Danube, has died from the disease. A sailor is suffering from the same epidemic at the cholera hospital, and two suspicious cases are under treatment. All these cases drank the Danube water, which has been polluted by the steamers from Buda-Pesth. At Buda-Pesth thirteen fresh cases of cholera and seventeen deaths during the twenty-four hours ending on the evening of October 23rd. Bacteriological examination has likewise proved that surfeited cases of sickness which have occurred at Semlin are undoubtedly Asiatic cholera. Between October 10th and the 24th five persons have died.

Russia.

Cholera has entirely disappeared from Astrakhan. Since the outbreak of the disease there have been 125,000 cases of cholera and 65,000 deaths in the Caucasus, nearly 31,000 cases and over 11,000 deaths in the province of Saratoff. At St. Petersburg the total figures are set down as 3,300 cases and nearly 1,150 deaths. Warsaw contributes only 20 deaths to the total number, but the disease only made its appearance there between two and three weeks since.

Holland.

Fresh cases of cholera are reported from Rotterdam and Utrecht. The weekly official return states that 21 deaths attributable to cholera occurred in Holland during the past week.

Hamburg.

The cholera still lingers in Hamburg, where the last bulletin records 9 cases and 2 deaths, 118 burials and 421 patients under treatment at the hospitals. An official estimate gives the statistics of the disease during the last nine weeks, practically since its appearance in the city, as follows: Seizures 17,989, deaths 8,261.

France.

The cholera epidemic is rapidly disappearing in Paris, where the last weekly bulletins issued on October 20th reports 17 deaths in Paris and 7 in the suburbs. There have been 54 fatal cases during the past month at Le Portel, a fishing village near Boulogne during which period there were 4 deaths from the same cause at Boulogne, 1 at Calais, and 2 at St. Omer. The presence of cholera is now officially announced at Calais and in the neighbouring village of Les Barraques. On October 24th 5 deaths occurred Marseilles, in which the sufferers presented suspicious symptoms of at cholera. M. Hubbard brought forward the question of the pollution of the Seine by sewage water in the Chamber of Deputies, and contended that the recent epidemic of cholera was caused by it. He therefore proposed the adoption of a project for cutting a sewage canal from Paris towards the departments of the Oise and Somme, where the sewage water would be employed to convert the sand-downs into good grazing land. M. Loubet, in replying, opposing the emptying of sewage water into the Seine, and demanded the construction of a sewage canal from Paris to the sea, with irrigation all along the canal.

M. Proust, in reply to M. Hubbard's assertion that epidemics were caused by pouring sewage water on land, said that in the sewage water poured on the sewage farms at Gennevilliers there were two sorts of microbes, some noxious and some innocuous. The innocuous microbes fertilised the soil, the noxious ones would cause disease if they were not killed by sun and oxygen. He produced statistics showing that around the sewage farms at Gennevilliers there were not more deaths than elsewhere during the epidemic of typhus fever in 1882, and that during the epidemic of cholera in 1884 no one in the neighbourhood died of the disease. During the recent epidemic there have been only 13 deaths at Gennevilliers. M. Proust rejected the plan of a canal carrying all the sewage water direct to the sea because the parallel currents in the English channel would throw back all the filth on to the shore and contaminate the coast for a long distance. He recommended a sewage canal in the direction of the sea with permission for the farmers along the banks to utilize the fertilising water. He also noted the decreasing virulence of cholera epidemics in France. In 1832 832 persons died of the disease in one single day; in 1849, 500; in 1865, 260; in 1866, 150; in 1884, 110; and in 1892, 36. That improvement was due, he believed, to improved sanitary arrangements. The Chamber finally adopted an order of the day, proposed by M. Trélat, "regretting that the plan for the purification of the Seine adopted 20 years ago has been only partially executed. The Chamber of Deputies invites the Government to take up the matter and propose the necessary measures." The Prime Minister accepted this resolution, which, he said, secured the prompt completion of the works now being carried out.

We are asked to state that the annual general meeting of the St. George's Hospital Graphic Society will be held on Tuesday next, November 1st, at 2.30 P.M. By permission of the Board of Governors the annual exhibition will be held in the Board Room of the hospital, and will be open immediately after the meeting. It will remain open until the end of the week. Visitors are admitted on presentation of their cards on the following Tuesday and Wednesday from 3.30 P.M. till dusk, and on the Thursday, Friday, and Saturday from 10.30 A.M. till dusk. The Society was originally started to encourage drawing, painting, photography, and the arts of representation in general amongst St. George's men, and the annual exhibition is strictly limited to the works of members.

LIST OF AUTHORS AND OTHERS WHO HAVE PRESENTED BOOKS TO THE LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Twentieth List.

Presented by the AMERICAN LARYNGOLOGICAL ASSOCIATION.

Transactions of the Association. 1888. To complete series.

Presented by the AMERICAN GYNECOLOGICAL SOCIETY.

Transactions. Vols. x and xvi. 1885 and 1891. To complete series.

Presented by the AMERICAN ORTHOPEDIC ASSOCIATION.

Transactions. Vols. i, ii, and iv. 1889, 1891.

Presented by the AMERICAN OTOLOGICAL SOCIETY.

Transactions. 1872 to 1892.

Presented by Messrs. CASSELL and CO., London.

Luff (A. P.). Manual of Chemistry. 1892.
Robson (M.). Gall Stones and their Treatment. 1892.
Treves (F.). Student's Handbook of Surgical Operations. 1892.

Presented by Dr. J. W. GOOCH, Windsor.

Abernethy. Local Diseases. 1809.
——— The Classifications of Tumours. 1804.
Baillie. Morbid Anatomy. 1812.
Bell. Surgical Observations. 1818.
Billings (A.) The Principles of Medicine. 1837.
Cheyne. On Apoplexy. 1812.
Cooper. On Diseases of the Joints. 1807.
Cooper and Travers. Surgical Essays. 1819.
Cross. Medical Sketches of Paris. 1815.
Copland's Medical Dictionary.
Cyclopædia of Medicine.
Goode's Medicine. 5 vols.
Howslip. Diseases of the Anus. 1820.
Hamilton. On Hydrophobia.
Mead's Works.
Patterson-Clark. On the Human Teeth. 1829.
Scarpa. Diseases of the Eye. 1806. And other volumes.

Presented by the GENERAL MEDICAL COUNCIL.

The Minutes of the Council, 1891.

Presented by ERNEST HART, Esq., London.

Albarran (J.). Les Tumeurs de la Vessie. 1892.
Allingham (H.). Colotomy: Inguinal, Lumbar, and Transverse. 1892.
American Gynecological Society. Transactions. Vol. xvi. 1891.
American Surgical Association. Transactions. Vol. ix. 1891.
Auvard (A.). Gynécologie, Séméiologie Génitale. 1892.
Bauduy (J. K.). Diseases of the Nervous System. 1892.
Bazy (P.). Maladies des Voies Urinaires. 1892.
Bouveret (L.) et Devic (E.). La Dyspepsie par Hypersécrétion Gastrique (Maladie de Reichmann). 1892.
British Laryngological and Rhinological Association. Transactions for 1891.
Chamier (D.). On the Lunacy Law. 1890-91-92.
Coffin (M.). Obstetric Hints. 1892.
Curgenven (J. B.). The Disinfection of Scarlet Fever. 1891.
De Schweinitz (G. E.). Diseases of the Eye: a Handbook of Ophthalmic Practice. 1892.
Ewart (W.). How to Feel the Pulse and what to Feel in it. 1892.
Farquharson (A. C.). Ptomaines and other Animal Alkaloids. 1892.
Ferdinands (J.). School Teachers' Ophthalmic Guide. 1892.
Fernandez (Dr. A. P.). Grandes Problemas. 1892.
Fowler (J. K.). Dictionary of Practical Medicine. 1890.
——— Arrested Pulmonary Tuberculosis. 1892.
Fuchs (E.). Manuel d'Ophtalmologie. 1892.
Garson (J. G.) and Read (E. H.). Notes and Queries on Anthropology. 1892.
Gartner (Aug.). Leitfaden der Hygiene. 1892.
Grainger (M. E.). Life Renewed: A Manual for Convalescents. 1891.
Hare (H. A.). System of Practical Therapeutics. 2 vols. 1892.
Hospital Surgeon, A. Golden Rules for Surgical Practice. 1892.
Hunter (Chas.). Manual for the Dental Laboratory. 1892.
Illinois State Board of Health 11th Annual Report. 1892.
International Clinics. A Quarterly of Clinical Lectures. Vol. iii. 1892.
Jessett (F. B.). Surgical and other Diseases of the Stomach and Intestines. 1892.
Johnston-Lavis (H. J.). Prescribers' Guide to the Harrogate Waters. 1892.
Landois's Physiology. By Stirling. 2 vols. 1891.
Law (H.). Differentiation in Rheumatic Diseases. 1892.
Leyden (E.) and Guttmann (S.). Die Influenza Epidemie, 1889-90. Wiesbaden. 1892.
Lusk (W. T.). Science and Art of Midwifery. 1892.
Meyer (L.). Outlines of Theoretical Chemistry. Translated by F. P. Bedson and W. C. Williams. 1892.
Middleton (G. A. T.). House Drainage. 1892.
Norstrom (G.). Massage dans les Affections du Voisinage de l'Uterus. 1892.
Ormerod (J. A.). The Diseases of the Nervous System. 1892.
Osler (W.). Principles and Practice of Medicine. 1892.
Page (R. C. M.). Textbook of Practice of Medicine. 1892.
Pearson (Karl). The New University for London. 1892.
Philip (R. W.). A Thousand Cases of Pulmonary Tuberculosis. 1892.
Quinby (H. C.). Notes on Dental Practice. 1892.
Reynolds (E.). Practical Midwifery. 1892.
Ridge (J. J.). Alcohol and Public Health. 1892.
Royal Medical Society, Edinburgh. Dissertations by Eminent Members of the. 1892.
Russell (Hon. R.). Epidemics, Plagues, and Fevers. Their Causes and Prevention. 1892.
St. Bartholomew's Hospital Reports. Vol. xxvii. 1891.
St. John Ambulance Association. Report for 1891.
Sanitary Institute Transactions. Vol. xii. 1891.
Schafer (E. A.). Essentials of Histology. 1892.
Sully (James). The Human Mind. A Textbook of Psychology. 2 vols. 1892.
Treves (Frederick). Manual of Operative Surgery. 2 vols. 1891.
United States Marine Hospital Service Report. 1891.
Walmsley (H.). Outlines of Insanity. 1892.
Whitla. Dictionary of Treatment. 1892.

Presented by Dr. HICKMAN, London.

Ellis (G. V.). Demonstrations in Anatomy. 1840.
Fox (Wilson). On Hyperpyrexia. 1871.
Sibley (S. W.). Report on the Cholera Patients at Middlesex Hosptal. 1854.
Travers (B.). Injuries of the Intestines. 1812. And other volumes (duplicates).

Presented by JOHN INCE, Esq., M.D., Swanley, Kent.

Guy's Hospital Reports. Vol. xlvii. 1890.
Transactions of British Association for the Advancement of Science. 1891.

Presented by the LONDON HOSPITAL, per G. ROBERTS, Esq.

Reports of the Hospital. 1828-1889. With one or two omissions.

Presented by the EXECUTORS of the late Deputy-Inspector General R. McCORMACK, R.N., per J. ALLEN BROWN, Esq., Ealing.

Hodgkin. Anatomy of the Serous and Mucous Membranes. 1840.
Maclachlan (D.). Diseases of Advanced Life. 1863. And other volumes (duplicates).

Presented by Dr. MOSSE, London.

Braithwaite's Retrospect. 26 volumes. 1842-1855.

Presented by the EXECUTORS of the late J. MORGAN, Esq., F.R.C.S., London.

Abercrombie. On the Brain. 1834.
Abernethy. The Surgical Works of. 1817.
Bell (Sir C.). The Hand. 1837.
Bichat. Anatomie.
Contagious Diseases Act, The. 1866.
Medico-Chirurgical Transactions. 30 vols.
Medical and Surgical History of the Army of the Crimea. 2 vols. 1858.
Pathological Society of London (Transactions). 40 vols.
Royal Sanitary Commission Report. 1869.
St. George's Hospital Reports. Vols. ix and x.
Sydenham Society Publications. 30 vols.
Vivisection (Report of the Royal Commission). 1876.

Presented by the NEW YORK PATHOLOGICAL SOCIETY.

Transactions of the Society. 1891.

Presented by the OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Transactions. Vol. vi, to complete Series.

Presented by the PHILADELPHIA COLLEGE OF PHYSICIANS.

Transactions. Vol. xiii. 1891.

Presented by the PENNSYLVANIA STATE BOARD OF HEALTH.

Reports for Years 1889 and 1890.

Presented by WALTER RIGDEN, Esq., M.R.C.S., London.

University College Hospital Reports, 1887 to 1888, to complete Series

Presented by D. M. ROSS, Esq., F.R.C.S., London.

Mosely on Tropical Diseases. 1804.
Nicholson (H. A.). Textbook of Zoology.
Oddments of Dublin Medical Journal, Journal of Mental Science, and Ophthalmic Hospital Reports, to complete Series.

Presented by ST. THOMAS'S HOSPITAL, per GEO. RENDLE, Esq.

The Hospital Reports. Vol. xx.

Presented by SIMPKIN, MARSHALL and CO., Limited, London.

Braithwaite's Retrospect of Medicine. 2 vols. 1891.

Presented by Dr. E. J. TILT, London.

Medico-Chirurgical Transactions. 1891.
Obstetrical Transactions. 1890-91.

Presented by Dr. DAWSON WILLIAMS, London.

Royal College of Physicians of London (Charter, By-laws, and Regulations). 1892.

Presented by the Authors.

Campbell (Munro), M.B. Annual Report of the Health and Sanitary Condition of Paisley. 1892.
Keen (W. W.). Amputation at the Hip-joint (Wyeth's Method). 1892.
Keen and Stewart (D. D.). Nephrotomy for Calculous Pyelitis. 1892.
——— Two Cases of Hernia treated by Laparotomy. 1892.

Kerr (Douglas). Popular Guide to the Use of the Bath Waters. 1888.
Stewart (A.). Our Temperaments. 1892.
Thorowgood (J. C.). Bronchial Asthma. 1892.

BOOKS NEEDED TO COMPLETE SERIES.

The Honorary Librarian will be glad to receive any of the following volumes needed to complete series in the Library:

Allahabad Medical Society Transactions, afterwards styled *Indian Medical Journal*. Nos. 2, 3, 7, 8, 9, 11, 21, 22, 35, 50, and since May, 1889.
American Journal of the Medical Sciences. Before vol. 31 and vols. 45 to 76.
——— Surgical Association. Transactions. Vols. 4 and 7.
Bell (Chas.). Surgical Observations. Vol. 2. 1818.
British Medical Association. South Indian Branch Transactions. Vols. 1 and 2; and part 1 of vol. 3.
Cooper (Sir Astley). Illustrations of Diseases of the Breast. Part 2. 4to, London. 1829.
Dublin Journal of the Medical Sciences. 1868-1871, inclusive.
Edinburgh Medico-Chirurgical Transactions. Vol. 8.
——— Medical Journal. Vols. 11-15, and 25-31. New Series.
——— Obstetrical Society. Transactions. Vol. 5.
Epidemiological Society of London. Transactions. Vols. 6, and since 1888.
Glasgow Medical Journal. Vols. 1-10, and since 1884.
Guy's Hospital Reports. Vols. 3 and 6, second series, 1844-1855, and vols. 2, 4, 5, 8, 11, third series.
Indian Medical Gazette. Jan., 1891.
Johns Hopkins Hospital Reports. Vol. 1.
——— Bulletin. No. 7, vol. 1.
John Hopkins University Laboratory Reports. Vols. 1, 2, 3, and Nos. 1 to 4 of vol. 4.
Journal of Anatomy and Physiology. Vols. 1-10. 1877, pts. 1 and 3; 1878; 1880, pt. 3; 1881; 1882; 1883, pt. 1; 1884, pts. 2, 3, 4; 1887, July; 1889, January, April, July; 1890, January.
Journal of Mental Science. All before 1875, January, April, July; 1879, January, July; 1880, July; 1881, January, April; 1882, July, October; 1883; 1884, January; 1886, October; 1887, April; 1888, July; 1889, April.
Journal of Physiology. Vols. 9, 10, and 12.
London Hospital. Clinical Lectures and Reports by the Medical and Surgical Staff. Vols. 1 and 2, and since Vol. 3, 1866.
——— Annual Reports, 1827, 1830, 1838, 1845, 1846, 1885, 1888.
London Medical Recorder. January, 1891.
Mead (Richd.), The Works of. Vol. 1. Edin., 1763.
Medical Officer of Privy Council. First Report of. 1858. 8vo.
Medical Society of London. Proceedings. Vols. 7, 9, 10, 12, 15.
Medico-Chirurgical Transactions. Part 2, of vol. 18, 1833.
Middlesex Hospital. Registrars' Reports. 1872 to 1874, 1877, 1882.
Ophthalmological Society of the United Kingdom. Transactions. Vol. 8.
Pennsylvania Medical Society. Transactions. Prior to vol. 14, and vols. 16 to 21.
Philadelphia College of Physicians. Transactions. Vols. 11 and 12.
Provincial Medical and Surgical Journal. 1840. First 52 numbers before October 2nd, 1841.
Ranking. Half-Yearly Abstract of the Medical Sciences. Vol. 12, 1850, and vols. 57 and 58, 1873.
Royal London Ophthalmic Hospital Reports. Part 1, vol. 6.
St. Bartholomew's Hospital Reports. 1891.
St. Bartholomew's Hospital Statistical Tables. Before 1885, and 1887, 1888.
St. Thomas's Hospital Reports. 1890-91.
Sanitary Record. 1889 and subsequent vols.
Society of Medical Officers of Health. Transactions since 1887.
University College Hospital Reports. Before 1885, and 1890-91.
Von Tröltsch. Diseases of the Ear.

THE FEDERATION OF CLINICAL INSTRUCTION AND THE NEW UNIVERSITY FOR LONDON.

Mr. J. E. Erichsen, who, as Holme Professor of Clinical Surgery in the palmy days of University College, had a very extensive experience as a teacher, has in the press a pamphlet on *Hospital Federation for Clinical Purposes*. It is an extension of part of the evidence given by him before the Royal Commission last July.

Clinical Opportunities Unrivalled but Unused.

Mr. Erichsen takes for his text the statement of the report of the first Commission, that the opportunities for clinical instruction in the metropolis are "unrivalled." The purpose of the pamphlet is to show that these opportunities are not utilised to anything like their full extent, and to suggest a remedy for this unsatisfactory state of things. In London the student is absolutely restricted to the teaching of the physicians and surgeons of the particular hospital to which, as a pupil, he has attached himself, and for which he has paid his fees. "The London student," Mr. Erichsen continues, "has a right to expect that he shall not be placed at a disadvantage by the refusal freely to open to him those vast stores of clinical observation and study that are to be found in such unequalled and profuse abundance in London, and thus be compelled either to starve his craving for knowledge if he remains here, or to satisfy it at the cost of going abroad." Mr. Erichsen then inquires whether this state of things—"so injurious to the best interests of medical education"—cannot be corrected. The value of a clinic depends upon three conditions—the amount of clinical material, the character of the cases, and the ability of the teachers.

The Amount of Clinical Material.

1. The eleven general hospitals of London, recognised as schools of clinical instruction, contain together 4,542 beds. In addition, there are the smaller general hospitals (the Great Northern, the Metropolitan, the West London, and the North-Western), which afford abundant opportunities for clinical study and the acquirement of practical experience. Further, in each case the out-patient practice must be taken into consideration in estimating the amount of clinical work done.

2. The Poor-law infirmaries in the metropolitan area contain 13,285 beds; "these are, in fact, general hospitals, and contain an immense amount of clinical material which now goes to waste." Mr. Erichsen observes that in early professional life he was a frequent visitor to the wards of the Marylebone Infirmary, then officered by Dr. Mayo, President of the Royal College of Physicians, Dr. Clendenning, and Mr. Benjamin Phillips, F.R.S. The last-named found there the material which formed the basis of his work on scrofula; and Sir Henry Thompson, when surgeon to the same infirmary, made there a series of most important observations on the diseases of the prostate.

3. The special hospitals of London are of two classes—those established by the public to fill a want in the other charitable institutions, and those "run" by special practitioners. The class first named are numerous, large, well equipped, and officered by physicians and surgeons of the highest eminence and acknowledged ability in their respective lines of practice. Mr. Erichsen selects for mention as examples of special hospitals which might be made available for clinical instruction, the following:

The Fever Hospitals, seven in number, containing 2,571 beds, often greatly increased in number in seasons of epidemic.
Hospitals for Diseases of the Chest: the Brompton Hospital, containing 321 beds, and the City of London Hospital, containing 164 beds.
The Moorfields Ophthalmic Hospital, containing 100 beds, but to be judged rather by its out-patient department.
The Cancer Hospital, containing 120 beds.
The Lock Hospital, containing 155 beds.
The Children's Hospitals, eight in number, contain an aggregate of 621 beds, and of these, two, the Hospital in Great Ormond Street, with 175 beds, and the East London, at Shadwell, with 102 beds, would be available for purposes of clinical instruction.
Hospitals for Diseases Peculiar to Women, five in number, containing 241 beds, and the eight Lying-in Hospitals.
The National Hospital for the Paralysed and Epileptic, Queen Square, containing 175 beds.
The Poplar Hospital for Accidents, with 51 beds.
The Asylums for Mental Diseases, namely, for Idiots and Imbeciles, 6,750 beds; Bethlem, and St. Luke's, 500 beds; Lunatic Asylums, 12,705.

The Character of the Cases.

In the importance of the clinical material, that is the severity, rarity, or typical character of the cases, London is as far beyond all rivals as in the mere number of patients. This is owing to the circumstances that the hospitals draw their patients from so large a population that the accommodation is limited, thus compelling a selection of cases, and that the reputation of London hospitals and their staffs lead to many serious or difficult cases being sent to London.

The Need for Organisation.

Owing to the system of isolation which at present exists, London students cannot benefit by this unrivalled material. The opportunities actually placed at the disposal of a London student may be, and often are, inferior to those which could be obtained at the great provincial hospitals, and are in no case better than those of the capitals of the great cities of the Continent of Europe, or in the United States.

A System of Federation.

A student should follow the clinical teaching of one hospital until he is qualified, but after that a federation of the general hospitals with the larger special hospitals should place at his disposal the opportunity of prosecuting his studies in London. Mr. Erichsen urges that the establishment of a teaching university, to which the medical schools

would be attached as constituent colleges, would afford a favourable opportunity for the formation of such a federation. A condition of admission as a Constituent college should be that the college became federated, so far as advanced clinical hospital instruction is concerned, with the other constituent colleges. The federated hospitals should be open to all students preparing for the M.D. degree of the new university. A special ticket might be issued by the university, for which a small fee would be charged (one guinea). A provincial student would be required either to pay an entrance fee to the university, or to become a student of one of the federated hospitals. In the case of the federated special hospitals a small fee would be charged. With regard to the infirmaries and asylums, special arrangements would have to be made for the admission of a limited number of students. Residence in an official capacity in these institutions and in the federated general hospitals might be held to count for part of the final two years of study which it is proposed to require from candidates for the M.D. degree in the new teaching university. Mr. Erichsen then proceeds to defend the proposal to insist on attendance for a period of two years at one or more of the colleges of the new university as in strict conformity with the rule of every other university in the Great Britain.

THE TITLE OF "DR." AND THE GENERAL MEDICAL COUNCIL.

THE numerous letters we continue to receive from members of the Association on the subject of medical titles demonstrates the great interest taken in it by the medical profession.

Various suggestions have been made, and opinions expressed, but until the matter has been considered by the General Medical Council, and some authoritative definition has been given as to the title which any given qualification confers, the doubts which have arisen must remain in their present unsettled and unsatisfactory position.

While the General Medical Council at the present time cannot do more than define the law, they could authoritatively indicate what would be the best remedy for the existing uncertainties, and put pressure on the Government to bring in a Bill to put an end to them. We think, therefore, all medical men who have the interest of the medical profession at heart should bring their influence to bear on the Council through their representatives, to secure a definite and satisfactory interpretation of the meaning of Section 40 of the Medical Act, 1858, so as to place the whole subject of medical titles on a clear and intelligible basis.

In no way, we may remark, is the matter of titles more unsatisfactory than in that relating to the prefix of the title of "Dr." It has so long been the custom of large numbers of the medical profession, in the belief that they were justified in so doing, to make use of this prefix, to their name-plate or card, that to discontinue its use now might be seriously detrimental to their practice, as implying in the minds of their patients the loss of some qualification which they had previously enjoyed. Is there any necessity to compel this to be done?

The question has come prominently into public notice from the fact that in the recent conviction of a registered medical practitioner for the unqualified assumption of medical titles the assumption of this title, or rather prefix, "Dr.," was, it is understood, one of the offences of which he was convicted, and in respect of which the conviction was affirmed.

It is not probable that any proceedings would ever have been taken in respect of the simple adoption of the prefix "Dr." had not other causes of complaint arisen, but this does not alter the law, which was considered in the case of Ellis *v.* Kelly decided some thirty years ago. From this we gather that the judges were of opinion that, if a registered practitioner in medicine or surgery assumes the title of "Dr.," it must be taken to mean "Doctor of Medicine." This, however, does not establish the fact that every practitioner who assumes this title actually infringes the provisions of the Medical Act, 1858, for the "wilful and false" assumption of the title has to be proved.

The proof required is quite sufficient to deter the commencement of proceedings, except in cases where other offences are involved; and no legal proceedings having been taken for so long a period prevented the true meaning of the Section in this respect from becoming known, and thus gave rise to the very frequent practice among medical men of prefixing the title of "Dr." on their name-plate.

This custom has not become of such legal effect as to give any prescriptive right; and however it may be desired not to disturb the prevalent adoption of the title, it cannot be concealed that many are perplexed and troubled by the reflection that they may become liable to a penalty for doing that which is, and has long been, a very prevalent custom largely adopted by gentlemen of undoubted respectability.

THE DISCUSSION ON ANÆSTHETICS IN THE SECTION OF PHARMACOLOGY AND THERAPEUTICS.

THE great and increasing importance of the subject of anæsthetics seems to have decided the executive of the Section to repeat a discussion which last year at Bournemouth proved to be one of the most popular features of the programme. The discussion of last year culminated, as our readers are aware, in the appointment of a Committee of members of the Association to investigate the subject from the clinical side. Dr. Dudley Buxton, at Bournemouth, dealt solely with the clinical aspect of anæsthetics; at Nottingham he took the physiological standpoint, criticising the large amount of experimental work which has been carried on throughout the last few years. The connection of these two addresses must not be lost sight of to bring out fully the value of these two discussions, which really form a continuous whole. When the clinical side was under consideration, many facts were brought forward which, if they are supported by the Committee on Anæsthetics now carrying on its work, must be accepted, but which run quite contrary to many of the strongly emphasised statements of the Hyderabad Commission and other workers who have accepted the Commission's rulings.

Dr. Dudley Buxton showed that much evidence had been brought forward which seemed to prove point by point the power chloroform possesses of acting as a protoplasm poison; next, that it could and did so act when introduced into the organism of mammals; then, that positive proof had been given that the heart itself was capable of being poisoned by chloroform; and, lastly, that this destruction of the heart took place independently of the central nervous system and respiration. Upon the other hand, the experiments of the supporters of the view that cardiac failure does not exist were shown by a comparison of the conflicting evidence to lend themselves to another view than that which had been associated with them by those in whose hands the work had grown. It is impossible for us to do more than indicate the lines of the discussion, and to express our sense of its important practical bearing. Probably much will have to be said on both sides before any definite conclusion to the controversy can be attained.

The discussion, when bearing upon the chemical side, veered rather in the direction of non-acceptance of the hypothesis that the toxic effects of chloroform are the result of impurities of the drug, for several speakers, while admitting the extreme importance of purification of the anæsthetic before use, yet thought the results were rather an intensification of "after-effects," *malaise*, headache, etc., than prejudicial to the actual life of the patient. There is much needless alarm and panic about anæsthetics, and we scarcely hope that such discussions as that which we report this week will allay rather than foment fear, for undoubtedly, as our knowledge grows more exact, and as we learn to commit the responsible duty of giving chloroform only to those who have sufficient knowledge and skill to avoid all recognised sources of danger, so will the death-rate decrease and anæsthetics lose many of their present perils.

A SUM of 9,000 roubles (£900) has been collected towards the proposed memorial to Pirogoff in St. Petersburg.

ROYAL COLLEGE OF PHYSICIANS.

The ordinary quarterly Comitia of the College was held on Thursday, October 27th, at 5 P.M.; Sir Andrew Clark, Bart., President, in the chair.

The following gentlemen were admitted Members: Henry Moore Bowman, M.D.Lond.; Perry David Goldsmith, M.D. Toronto; William Harding, M.B.Edin.; Thomas Davies Harries, F.R.C.S.; Alexander Morison, M.D.Edin.; William Halse Rivers Rivers, M.D.Lond.; Nusserwanji Fakirji Surveyor, M.A., M.D.Bombay; Ernest Wills, M.D.Lond.

The Licence of the College was granted to 128 gentlemen, of whom only ten did not present themselves under the regulations of the Conjoint Board.

A communication was received from the Colonial Office respecting the institutions recognised by the College.

Communications were received from the Royal College of Surgeons relating to matters jointly affecting the two Colleges.

A further collection of engravings as part of the bequest of the late Dr. Ditchfield was received; on the proposal of Dr. Dickinson, seconded by Dr. Priestley, the thanks of the College were unanimously returned to the executors.

The balance sheet for the year ending Michaelmas Day was presented by the Treasurer and adopted.

The quarterly report of the Finance Committee was received and adopted.

A report from the Committee of Management was adopted recommending the recognition of the Lancashire County Lunatic Asylum at Rainhill as fulfilling the requirements for the Final Examination; also the courses on Public Health at St. Bartholomew's Hospital and the Bristol Medical School, for the Diploma of Public Health; and the Durham College of Science, as fulfilling the requirements for the First Examination.

A further report from the Committee of Management was received and adopted, recommending the recognition of the University College, Bristol; the Public School of Science, Cheltenham; the School of Science and Art, Chester; and the Merchant Venturer's School, Bristol, as fulfilling the requirements for the First Examination.

A report was received from the Laboratories Committee and adopted.

Dr. Ord was re-elected a member of the Committee of Management.

Dr. Pye-Smith was re-elected a member of the Laboratories Committee.

On the motion of Dr. Allchin, seconded by Dr. Church, it was referred to the legal advisers of the College to recommend an addition to the by-laws embodying the resolution of the College passed in July, relative to the sale of practices by Fellows or Members.

The quarterly report of the Examiners for the Licence was received and adopted.

A list of books presented during the quarter was received, and the thanks of the College were returned to the donors.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Isidore Henriette, a well-known hospital physician of Brussels, and the pioneer of the speciality of children's diseases in Belgium; Dr. H. G. Clark, for some time surgeon to the Massachusetts General Hospital, and afterwards Physician to the City of Boston, and the author of writings on different epidemic diseases, notably typhus and yellow fever, aged 78; Dr. Emile Fasola, Professor of Obstetrics and Gynæcology in the Institute of Superior Studies at Florence, aged 30; Dr. Fetscherin, a distinguished Swiss alienist; Dr. Cesare Vianna, formerly Director of the San Clemente Female Lunatic Asylum at Venice, and author of various works on psychological medicine, aged 72; and Dr. John H. Douglas, formerly of New York, where he was for some time editor of the *New York Medical Journal*, aged 68. Dr. Douglas was at one time one of the leading throat specialists in New York. During General Grant's last illness he gave up his practice to attend to him, thereby losing not only his patients, but his health. By a sad coincidence he died of the same disease as his distinguished patient (cancer of the tongue and pharynx).

LUNACY IN ENGLAND.

The Forty-sixth Report of the Commissioners in Lunacy for the Year 1891.

Owing to the delay in publishing the detailed report of the Registrar-General, the total number of persons of unsound mind enumerated at the last census cannot as yet be ascertained. The Commissioners in Lunacy have, therefore, only to deal with lunatics who come under official cognisance, and their number must necessarily be far short of the actual number.

Increase of Pauper Lunatics.

Even as it is, the Commissioners show that there is an increase of 1,053 lunatics as compared with 1890. On January 1st, 1883, the total number of all reported lunatics, idiots, and persons of unsound mind in England and Wales was 76,765; on January 1st, 1892, that number had risen to 87,848, giving an increase of over 11,000 in nine years. Of these the increase is distributed as follows: Private patients, 573; pauper patients, 10,409; criminal lunatics, 11. So that practically the increase occurs almost entirely among the pauper class.

Decrease of Lunatics in Workhouses.

While the number of the insane in asylums seems to accumulate steadily, the number of lunatics in workhouses shows a further decrease of 300. At the same time the Commissioners observe that not infrequently in visiting workhouses they have to draw attention to the fact that a certain number of imbeciles, or weak-minded inmates, are not allowed to discharge themselves, but are not classed as of unsound mind. The costly proceedings under Section 24 of the Lunacy Act by magistrates and medical certificates, in the opinion of the Commissioners, tends to restrict the registration of patients in workhouses, and also sometimes promotes the removal to asylums of cases which might be adequately cared for in workhouses.

Voluntary Boarders.

For the first time the Commissioners publish the statistics of voluntary boarders. We find that on January 1st last there were 85 in registered hospitals, 17 in metropolitan and 33 in provincial licensed houses—total 135 as compared with 119 the previous year. No fewer than 243 persons voluntarily placed themselves in either private asylums or registered hospitals for treatment during the year, and, we submit, nothing can show more clearly the advance made in the public mind with regard to the benefits to be derived from the treatment obtainable in these institutions. With regard to these admissions the Commissioners draw the line at persons certifiably insane. They think if a person is certifiably insane he should not be taken in as a voluntary boarder. As a rule perhaps this restriction may answer, but there are certifiable lunatics who might wish to be under treatment who would go voluntarily without certificates and whose certification, though possible, might yet be unnecessary.

Deficient Accommodation in London.

The difficulty of finding accommodation anywhere for London patients continues to be felt, and the Commissioners remark that they cannot now report that any further action has been taken by the London County Council to make the necessary permanent provision for the insane poor beyond advertising for an estate as a site for another asylum.

Deaths by Suicide and Misadventure.

It is a matter for congratulation that in the county and borough asylums, with a total of upwards of 55,000 patients, a large proportion of whom are those whose only object in life is self-destruction, there have been only eight cases in which the unhappy inmates have succeeded in eluding the vigilance of their nurses and committing suicide, and one of these occurred while the patient was absent from the asylum on trial; of the remaining seven, four at least occurred under circumstances which reflected no blame whatever upon anyone concerned in the detention of the sufferer. Thirty patients met their death by misadventure; of this number, 8 died with broken ribs, 5 died of choking, and 5 epileptics were suffocated, 9 died of fatal injuries in other ways, 2 were drowned, and 1 died of heart disease.

The cost for maintenance was a fraction under 9s. per head per week.

The results of the year's treatment seem satisfactory; the percentage of recoveries, calculated on the number of admissions (excluding transfers and idiot establishments), was 41.04 per cent., as compared with 38.59 per cent. for 1890; and the death-rate, calculated on the average daily number resident, was 10.02 per cent., as compared with 10.14 per cent. for the previous year.

DEFICIENCY OF ACCOMMODATION FOR IDIOT CHILDREN.

Accommodation for idiot children continues to be a pressing want throughout the country, and the Commissioners keep urging the asylum authorities to consider the propriety of joining together and providing special blocks in some of the asylums for the idiot children of their districts. This is absolutely necessary, and is recognised as the only means of obtaining early and proper treatment for those unfortunate little ones, for they cannot be associated with adults without disastrous consequences.

CONGRATULATORY DINNER TO SIR WALTER FOSTER, M.P., M.D., F.R.C.P.,

Parliamentary Secretary to the Local Government Board.

THE congratulatory dinner to Sir Walter Foster on Wednesday evening passed off with brilliant success, and, as several of the speakers observed, constituted at once an important epoch and a further departure for the British Medical Association, emphasising in an unmistakable manner—which will leave a durable impression—the relation of that Association and its Parliamentary work with the progress of public health and the welfare of the State. Upwards of 150 guests, from all parts of the kingdom, took part in the dinner. And, as will be seen, the assemblage was one of a highly representative character, more so than any held in London since the last great banquet of the British Medical Association on the occasion of the annual meeting, which was honoured by the presence of the Prime Minister. Mr. Gladstone on that occasion, in eloquent words—which have only recently been reechoed and repeated throughout the country and across the Atlantic—reviewed the great progress of medicine and the profession which pursues and promotes it during the last thirty years. He then claimed and predicted for the profession a constantly-growing influence in the councils of the nation; and the members of the Association have now met to celebrate by a public act a further step towards the confirmation of that prophecy by the admission for the first time in the history of the country of a practising member of the medical profession to the Ministry. The banquet was served with unusual elegance and prepared by an accomplished *chef*. The tables were decorated with a profusion of flowers, unusual at this season. In front of Sir Walter Foster, the guest of the evening, were placed dwarf Japanese forest trees of great age, but reduced by the consummate horticultural skill of that artistic nation to proportions which enabled them to be put on the table in large flower pots, although the age of some of them was upwards of 60 years, and they showed all the gnarled characteristics of what they actually were—miniature monarchs of the forest. With them were symbolic bronzes, the stork and tortoise, lent from the Japanese garden of Mr. Ernest Hart, at Totteridge. These emblems of evergreen longevity, health, and prosperity, are the favourite decorations employed in the Far East on such occasions. The following is the list of guests present:

Dr. Alderson, London
R. Atkinson, Esq., Ripponden
Dr. P. S. Abraham, London
Dr. B. Anningson, Cambridge
W. Aston, Esq., Birmingham
D. Agar, Henley-in-Arden
Dr. H. E. Armstrong, Newcastle-on-Tyne

Dr. R. W. Batten, Gloucester
Dr. T. Bridgwater, J.P., Harrow-on-the-Hill
Dr. J. Bateman, Reading
Dr. H. Barnes, Carlisle
Dr. Bower, Bedford
Dr. J. G. Black, Harrogate
J. N. Bredin, Esq., London
Dr. J. S. Bristowe, London
H. Langley Browne, West Bromwich
Harris Butterfield, Esq., Sevenoaks
Dr. A. T. Brett, Watford
H. C. Burdett, Esq., London
Dr. R. W. Brimacombe, Bristol
Sydney Barwise, Esq., Derby
Wickham Barnes, Esq., London
H. T. Butlin, Esq., London

Sir Andrew Clark, Bart., London
P. W. Clayden, Esq., London
C. McD. Cuffe, Brig.-Surg.-Lieut.-Col., Station Hospital, Colchester
F. W. Crosse, Esq., Norwich
Dr. G. W. Crowe, Worcester
Dr. J. S. Cameron, Leeds
Andrew Clark, Esq., London
Colin Campbell, Esq., Saddleworth
Dr. J. E. Cooney, London
Dr. P. W. P. Case, Croydon
Dr. H. R. Crocker, London
Surgeon-General Cornish, London
Professor Corfield, London
Dr. Chavasse, Birmingham
Prof. E. Crookshank, Esq., London

A. E. Durham, Esq., London
Dr. T. M. Dolan, Halifax
Dr. David Drummond, Newcastle-on-Tyne
Dr. Arthur Downes, London
Dr. W. Douglas, Leamington
Dr. W. Dickson, London
W. Bowen Davies, Esq., Radnorshire
Dr. J. Langdon Down, London
Frederick Durham, Esq., London
Dr. T. J. Dyke, Merthyr Tydvil
Dr. Stretch Dowse, London
Dr. P. M. Deas, Exeter

Dr. W. A. Elliston, Ipswich
G. Eastes, Esq., London
Dr. W. T. Edwards, Cardiff
Surgeon-General Ewart, Brighton

Rt. Hon. H. H. Fowler, M.P.
Dr. E. L. Fox, Clifton
Dr. R. Fegan, Blackheath
H. Fowler, Esq., Cirencester
D. E. Flinn, Esq., Kingstown
Francis Fowke, Esq., London

T. Biddulph Goss, Esq., Bath
Dr. C. E. Glascott, Manchester
Dr. O. Grant, Inverness
Dr. J. H. Galton, Upper Norwood
Surgeon-Colonel A. Gore, Chester
Dr. Bruce Goff, Bothwell, N.B.
L. M. Griffiths, Bristol

Sir G. Murray Humphry, Cambridge
Surg-Col. J. B. Hamilton, London
Dr. F. de H. Hall, London
Ernest Hart, Esq., London
Dr. G. Henty, London
Dr. J. Herron, London
F. A. Humphrey, Esq., Brighton
J. D. Harries, Esq., Shrewsbury
J. H. Henning, Esq., Kimbolton
T. V. Hartill, Esq., Willenhall
G. F. Hodgson, Esq., Brighton
Dr. C. Holman, London
Surgeon-Major P. Hunt, London

Deputy-Surgeon-Colonel C. M. Jessop, London

Dr. J. S. Johnston, Bletchly
T. V. Jackson, Esq., Wolverhampton
E. Jones, Esq., Aberdare
T. R. Jessop, Esq., Leeds

Dr. Norman Kerr, London

Dr. W. C. Lucey, Enfield
H. R. Leech, Birmingham
Professor D. J. Leech, Manchester
Dr. S. Ligertwood, London
The Chairman of the London County Council
Jordan Lloyd, Esq.

Dr. Withers Moore, J.P., Burgess Hill
Dr. P. W. Macdonald, Dorchester
N. C. Macnamara, Esq., London
Dr. W. Mail, Kirkby Moorside
Dr. E. D. Mapother, London
W. J. Morris, Esq., Portmadoc
A. B. R. Myers, Esq., London
J. M. McCarthy, Esq, St. George's
Rawdon Macnamara, Esq., Dublin
Dr. J. Murphy, Sunderland
Surgeon-Colonel S. Maunsell, Dover
Shirley F. Murphy, Esq., London

R. H. B. Nicholson, Esq., Hull
P. W. G. Nunn, Esq., Bournemouth

Sir Hugh Owen, K.C.B., London
D. C. L. Owen, Esq., Birmingham
Dr. W. Orange, London
Dr. B. O'Connor, London
Dr. Isambard Owen, London

Dr. H. Campbell Pope, London
Dr. C. Parsons, Dover
F. M. Pope, Esq., Leicester
C. H. W. Parkinson, Esq., Wimborne Minster
Dr. G. H. Philipson, Newcastle-upon-Tyne
Dr. Leslie Phillips, Birmingham
W. J. Pilcher, Esq., Boston

Sir Richard Quain, Bart., London

Dr. G. Reid, Stafford
E. Richards, Esq., Birmingham
Dr. W. Russell, Edinburgh
Dr. J. Rolston, Devonport
Surgeon-Lieutenant-Colonel J. H. Reynolds, Shorncliffe

Dr. Brodie Sewell, London
Priestley Smith, Esq., Birmingham
E. Noble Smith, Esq., London
Dr. William R. Smith, London
Dr. A. Sheen, Cardiff
Dr. S. Sunderland, London
A. W. Scatliff, Esq., Margate
M. Smale, Esq., London
Dr. R. Saundby, Birmingham
James Startin, Esq., London
Brigade-Surgeon-Lieutenant-Col. J. B. Scott, Aldershot
Dr. W. D. Spanton, Hanley
Dr. J. F. J. Sykes, London

James Taylor, Esq., Chester
Dr. J. C. Thresh, Chelmsford
J. H. Turner, Esq., London
Lloyd Thomas, Esq., Netley
Dr. Thorne Thorne, London
Lawson Tait, Esq., Birmingham
Dr. T. W. Trend, Southampton
Dr. D. Hack Tuke, London
Dr. Thursfield, Shrewsbury
Dr. Tobin, Ilkeston

Dr. Urquhart, Perth

F. P. Wightwick, Esq., London
A. Winkfield, Esq., Oxford
C. G. Wheelhouse, Esq., Yorks
W. T. G. Woodforde, Esq., Reading
Dr. Whitelegge, Wakefield
Joseph White, Esq., Nottingham
Dr. T. Outterson Wood, London
L. Winterbotham, Esq., Bridgwater

Dr. G. E. Yarrow, London

The loyal toasts having been proposed and heartily responded to,

Dr. WITHERS MOORE, President of Council, Chairman, in proposing the toast of "The Guest of the Evening," Sir Walter Foster, M.P., M.D., F.R.C.P., said that hitherto,

while other nations of Europe had recruited their Governments from time to time from the ranks of the medical profession, in the ranks of the English Government alone had medical men been conspicuous by their absence. All honour then to the Premier for the boldness and courage that he had shown in breaking down the barrier which had hitherto seemed to have existed. (Cheers.) They were met to do honour to a worthy colleague who had been chosen by the Premier—(cheers)—not, he hoped to take the place of a leader of a forlorn hope, but of a little band of medical men who should take an active part in the beneficent Government of the country. (Cheers.) Whilst congratulating the Premier upon the step which he had taken, they also congratulated the nation upon the access to the ranks of the government of an able and wise counsellor, who had devoted his energies to the cure of disease and to those sanitary matters which were of so much importance to the general public, and also to the study of those sacred and immutable sanitary laws of Nature, the violation and neglect of which always brought with them in this world even retribution and punishment. If an example of such punishment were needed it would be found in the late dreadful epidemic with which the city of Hamburg had been visited. Whilst congratulating the nation and public generally, they might also congratulate themselves that their worthy colleague, the former President of the Council, was the man chosen to enter the ranks of the British ministry. (Cheers.) Medical men were good philanthropists and good citizens, and Sir Walter Foster was an instance of both. He had taken an active and able interest in the sanitary matters connected with his adopted town, and the experience so gained peculiarly fitted him for the post to which he had been called. He had also been an active member of the British Medical Association—(cheers)—and had worked himself up through all the grades from Secretary of the Midland Counties Branch to the Presidency of the Council of the Association, and they knew how ably he presided over their deliberations. He was also a member of the General Medical Council, and had done good work there. Whilst offering to Sir Walter Foster the congratulations of his colleagues here assembled, he must not forget to mention that a great number of gentlemen had written to express their high appreciation of that gathering and their sincere regret at being unable to be present. Amongst others, he had received a communication from the President and Council of the Irish Medical Association, congratulating Sir Walter Foster upon his acceptance of an important office, and felicitating the public and the profession upon the fact that the services of a gentleman who had shown that he possessed experience, discretion, and ability in medical affairs, and who commanded the confidence of the medical profession, had been secured for the administration of a Government department. (Cheers.) In that position Sir Walter would be able to assure his colleagues from personal experience of the singleness of purpose of the great Medical Association, which gladly placed at the service of the Government its powerful machinery as represented by its able Journal, its Parliamentary Bills Committee, and Branches scattered throughout Great Britain and its dependencies for the furthering of the well-being of their fellow-countrymen. (Cheers.)

The toast was drunk with musical honours.

Sir Walter Foster, who was received with loud cheers, said:—Mr. President, Mr. Fowler, and Gentlemen: I should have wished that there had been a little longer tuneful interlude, but it is my duty to try and find some poor words to thank you for the great honour that you have done me, and I must confess that my vocabulary is at fault. I know no words in that grand old language which we all speak which are strong enough to tell you the feelings of my heart on this occasion. That heart is full of gratitude to you for paying me a distinction which it has been the lot of few men to receive the like of, and which I value, and which my family will remember long after I have passed away. Gentlemen, words are poor symbols to speak the fulness of the heart, and I wish you to bear with me while I endeavour in poor, halting words to thank you for having paid me a compliment, which of all compliments is the most precious to me as coming from the brethren among whom I have worked the whole of my working life. (Cheers.) There are no expressions which are adequate to tell you what I feel. I cannot round off gratitude in an epigram. "In saying aught, we leave a world unsaid." But, gentlemen, from the very bottom of my heart I thank you. I also have to say that this kindly recognition on your part of the position in which I now stand is doubly dear to me on account of the spontaneous and generous way in which it was offered to me, and when I first received an intimation from the gentleman who has spent so much time and taken so much trouble in organising the banquet—I mean Mr. Ernest Hart—(cheers)—it quite took me by surprise, but it was conveyed to me in such kindly language and in such a graceful way that I felt bound to accept the honour which he offered me on your behalf, and when I remember the letter that was written to me by the gentleman who worthily presides over us to-night I have a second debt of gratitude which I wish to acknowledge. I thank you for this occasion because I have always held, and I hope to my dying day I always shall hold, that the highest praise a man can receive is the praise of the brethren among whom he has worked. (Cheers.) This evening is especially gratifying to me because I see gathered round this festive board some gentlemen who were my old teachers when I was a student in Dublin, one of whom—aye, possibly more than one—have travelled all this distance to come and be present on this occasion. I thank them for that kindly action towards myself. It is that kind of sympathy that strengthens a man in the discharge of public duty. (Cheers.) I also know that there are on this occasion gathered round this board some gentlemen near to me even at this table who were old fellow-students of mine, with whom I played my boyish freaks in the city of Dublin, with whom I learned something of the practice of medicine, which I have since endeavoured honestly to fulfil, and I know also that there are colleagues of mine here with whom I have worked in England for the last thirty years, and please God, with whom I shall work for some years to come. (Hear, hear.) I thank them all—my teachers, my fellow-students, my colleagues, and the others who were my pupils, at this board—for coming here to-night to give me the sympathy which also gives me strength. (Cheers.) Now, you are gathered here also as part of the great British Medical Association which we all represent. I owe a debt of gratitude to that Association which I cannot pay now, but which I may haply be able to pay in years to come, for there I learned my first notion of public life. (Hear, hear.) I have served, as the President has said, in nearly every office of the great Association, and I have had the honour to act as President of your Council over the organisation of some 16,000 medical practitioners, and to try and direct their counsels aright. In these functions I have had my education for public life in the State, and, therefore, I can never be sufficiently grateful to the British Medical Association. In addition to that, I want also to say that in that Medical Association I have learned some other arts. I was for a long time a member of the State Medicine Committee, and there I learned something about the State medicine which it is now my lot to help to administer. (Cheers.) That Committee of State Medicine was after all the nursing mother of sanitary science in this country, and helped to do much to place the law of public health in the position in which it stands to-day. (Hear, hear.) I was also a member of the Medical Reform Committee, and, during the many struggles that we had for medical reform for the profession at large, I learned those arts of an agitator—(laughter and cheers)—which may be useful. But, gentlemen, you are responsible for me. (Renewed laughter.) I hope whatever my action may be in the future that the responsibility will never bring you anything but good. I wish to dwell for a moment or two on a personal question, and say that to-night is to me as it were the crowning point in a great adventure. It was about the year 1878 that I read some words spoken at the distribution of prizes at a great metropolitan school by Mr. Gladstone, in which he pointed out that great social reforms were coming to this country and that he believed the increasing scientific knowledge and advancement of the medical profession destined that profession to have a far larger share in the future as the leaders of public thought. (Hear, hear.) That prediction on the part of my revered chief stirred up certain germs of desire that existed even then in my breast, that the medical profession should take a larger and increas-

ing share in the administration of the government of this country. (Hear, hear.) And I believe that that was a right desire on my part and a right ambition, because in the great problems that await us in the future I believe no men have a wider or a better culture than those men who have gone through the training of the great profession which we represent. (Cheers.) I look forward to the politics of the future doing much to relieve human misery and lessen human suffering. If I did not think politics could do that I would have no hand or share in them. (Cheers.) And because I believe they can do that in an increasing degree, I call upon you, my brethren, as I have called upon you in the past, to take your due share in the public work of this country. (Cheers.) Some of you may remember that about about ten years ago I gave an address to the Branch in Birmingham, which I entitled, "The Political Powerlessness of the Medical Profession," and I pointed out how our comparative impotence in obtaining such legislation as we desired for the benefit of our fellow creatures was in great measure produced by the fact that we were not felt as a political force in the country. I called upon you then, as a great profession, to take your due share, whether it be in boards of guardians, local boards, town councils, or Parliament, of the burden and stress of the public work of the nation. (Hear, hear.) One of the proudest things that I have to think of to-night is this, that the medical men who act on those boards of local government are not counted, as they used to be, on the fingers of two hands, but to-day by hundreds! And as you take a larger share in the public duties of the localities in which you dwell, believe me your voice will be multiplied in force in Parliament, and legislation will be more and more fashioned according to your desires and aspirations. (Cheers.) Now comes my apology. Having said that to my brethren, I was bound in honesty to try and set an example myself. Having given that utterance, amid some misgiving and some doubt, I was bound to go into public life in the city of my adoption, and I became soon afterwards a town councillor of the town of Birmingham. After that, Fortune was kind enough to send me to represent the dear old city of Chester in the Parliament of 1885, and you may remember, some of you, that in that Parliament, in 1886, we were lucky enough to obtain a Medical Amendment Act, which has given, at all events, some voice to the profession in the great Council of Medical Education. (Cheers.) After that I was for a little time, according to the exigencies of political life, out of Parliament. I believe my defeat at Chester was a blessing—not even in disguise—and that I gained more political strength out of it than if I had been successful. I have always held that disasters may be made more fruitful than successes if used aright. After that I found my way back to the House of Commons for my present constituency, and I have been sent up by some of the most earnest and devoted adherents that any member of the House of Commons ever had—a division of Derbyshire. The next step is that I have recently been called, under the chieftainship of my right hon. friend Mr. Fowler—(cheers)—who has been a personal friend to me for many years, to fill a post in Her Majesty's Government. That post is connected with a department in which the special knowledge that I have attained as a member of the profession will from time to time prove useful, and which brings me closely in contact with the solution of those great social problems which are at the root of some of our social difficulties, and the solution of which means the happiness instead of the misery of thousands of our fellow-subjects. (Cheers.) It is a great compliment to the medical profession, through me, its humble and unworthy representative, that you should have connected with the administration of the public health of this country one of your own body. I recognise that humbly, and I thank the great Prime Minister who has given us that position. (Cheers.) That position would be comparatively useless, however, if it were not backed up by keen-sighted and intelligent science on the part of the medical department of the Local Government Board. (Cheers.) I am delighted that we have at the head of that Local Government Board a member of our profession, Dr. Thorne Thorne—(cheers)—with whom I have been very closely associated during the terrible cholera crisis that has recently come upon us, and whose devotion to his duties does honour to you, and if possible still greater honour to himself. Every man, from Sir Hugh Owen—(cheers)—to the humblest official of the department, displayed in the recent crisis a devotion to duty which I say is an honour to the British nation. When I set out in 1885 on this great political journey there were not wanting many good friends who came about me and predicted difficulty, disaster, and loss. I myself had many misgivings and deep doubts, but I had also the kindly sympathy of many friends, and so I went on with the work that I thought was given me to do. One of the great heads of the profession wrote me a letter of kindly and wise warning, in which he used these words: "Medicine is a jealous mistress." I recognised that as a frailty of the feminine nature—(laughter and cheers)—but I determined to try and assuage her jealousy by an unswerving devotion to her interests, and so far I have succeeded. (Cheers.) I am very forcibly reminded of the words of the poet, who said, "Are there not two points in the adventure of the diver, one, when a beggar, he prepares to plunge; one, when a prince, he rises with his pearl?" To-night you, the representatives of the three divisions of the kingdom, have given me the pearl, the most precious of all pearls that you can give to a member of your profession—the assurance of your approbation and sympathy and support on the part of that noble profession of which you are the honoured representatives, and of which it is my greatest privilege to be a member. (Loud cheers.)

Mr. Ernest Hart, in proposing the health of Mr. Fowler, President of the Local Government Board, said he had the honour to propose the toast as the Chairman of the Parliamentary Bills Committee of the British Medical Association. (Cheers.) This was not the first time that the Association had had the satisfaction of welcoming to its public gatherings ministers of the State and leading members of the Government. (Hear, hear.) It was more than twenty years ago that the present Prime Minister at a banquet uttered the words to which Sir Walter Foster had referred, in which he did honour to the public usefulness of the medical profession, and recognised its great power and still greater future in the administration of the affairs of the State. (Cheers.) Mr. Gladstone had realised in his present ministry that which he then predicted by raising a practising member of the medical profession to a prominent position in the Government of the country. The British Medical Association had never recognised party distinctions in its public work. (Cheers.) It had aimed at great public objects which both parties in the State, and the State itself, were alike interested in promoting. (Hear, hear.) If, therefore, they recognised with the greatest satisfaction the honour of the presence of the President of the Local Government Board, it was not in any partisan sense, but because they knew that in him they had a minister of high qualifications, and one who by the part which he took in the passing of the Act of 1890, and on many other occasions, had testified his high interest in the promotion of improved public health administration and local government. It happened that within a very short time after Mr. Fowler's call to office, occasion occurred which would put to the test the ability of any minister, and in which he had shown himself well able to meet the difficult problems which he had to encounter. They knew that by his personal devotion, by his constant attention to the duties of his office, and by the cheerful activity and sympathy with which he met all the requirements of the permanent staff he had contributed eminently to the remarkable success with which that department had combated the impending danger of the past few months. (Cheers.) Mr. Ernest Hart referred to the deputation of 120 members of Parliament which he had introduced at the Poor-law Board in 1865. By the passing of what was known as the Gathorne Hardy Act the metropolitan workhouses were made the Hospitals of the State, as he had claimed in the name of the profession and the public, and the Poor-law dispensaries and workhouse infirmaries were established and the humane treatment of the sick poor was set on foot which had been so fruitful in happy results. (Cheers.) Since that occasion the British Medical Association had through its Parliamentary Bills Committee been in constant contact with the Local Government Board, and one part of its work had been to furnish the evidence which compelled the creation of the Royal Sanitary Commission, the result of which was the first Public Health Act. Since then they had had the opportunity of submitting to the

Board and to Parliament innumerable recommendations in the form of amendments to the Public Health Act, and it was no idle boast to say that almost every amendment so introduced and many which still awaited realisation had been suggested in principle and urged from the first by the committees of the Association. (Cheers.) He hoped Mr. Fowler would excuse him for saying that he was far from being yet satisfied. (Laughter.) No doubt Mr. Fowler had recognised the relative "chaos" even at the present moment of sanitary legislation, that the sanitary administration of London was still imperfect, and that the authorities were inco-ordinate and inadequate, however anxious each authority might be to do its duty. Mr. Ernest Hart proceeded to indicate some desiderata of the future, and in particular to dwell upon the inadequate resources, and scanty or ill-paid medical staff of the Department, whose emoluments and numbers were less and less regarded, while the services and work were largely increased, and they were fed with words of praise. This was probably not the fault of the Board, and in welcoming Mr. Fowler, they did so not only in recognition of his great ability and earnestness and zeal, but also in the hope that he would be instrumental in improving the position and power of that Board in promoting the organisation of all the bodies who were entrusted with the protection of the public health.

The Right Hon. H. H. Fowler, M.P., in responding, thanked the assembly for the cordial manner in which the toast had been received. The mover, following what had already fallen from the Chair, had rightly dissociated the meeting from the slightest political taint. They had recognised that night, he thought with great propriety, a department of the State with which their profession was intimately associated. It mattered little who might be for the time being the head of that department. He followed in the footsteps of one of the ablest administrators that the department had ever had; whose six years of office were distinguished by uniform ability and courtesy and by marked success. (Cheers.) He accepted the kind words which had been spoken of the Board over which he presided and of its President as kind words spoken of the institution irrespective for the time being of the individual minister who was its head. They were present to commemorate the intimate association of that Board with the medical profession. The Chairman had asked why medical men had not been previously promoted to positions in the service of the Crown, and no doubt there was considerable interest attaching to Sir Walter Foster's occupying for the first time that post in connection with the medical profession. Why were not medical men to be promoted to be ministers of the Crown? He could only say he could not tell. (Laughter.) All other classes of men had been promoted. There were lawyers *usque ad nauseam*, there was the wholesale and retail trade, men of wealth and men of poverty, and every grade of English society represented in that body of public servants to whom was entrusted the administration of the State; and it was an extraordinary thing that a noble profession like theirs should be assembled that evening to congratulate themselves that a distinguished member of their body had for the first time been called upon to serve the State in the high and honourable position which he then filled. He hoped the example set by his distinguished friend would be followed. He already saw a very wide field of usefulness for his friend Mr. Hart, who had projected a very wide scheme of future administrative reform. Mr. Hart had displayed no timidity in dealing with that most difficult department of the public service, the Treasury; he had indicated not only where efficiency might be extended, but where money might be spent. He could inform Mr. Hart that when he took his seat in the House of Commons, as he hoped he would some day—(cheers)—he would find it a path no doubt of usefulness but of considerable difficulty, and one for which he would have to fight many a long and arduous battle before he could put into practice the good suggestions he had made that evening. He was not going to tell them what the Government or the Local Government were going to. He had been amused in reading in the various organs of the press the various tasks which had been set to the President of the Local Government Board. He should require a very considerable increase both of intellectual and physical power, and a very protracted duration, he would not say of natural, but of ministerial life—(laughter)—to discharge all the tasks with which his name had been associated. With their permission, however, he would say a few words upon what the Local Government Board had done. That was not a question of controversy, speculation, or anticipation; but on that occasion addressing the representatives of the great medical profession on behalf of the Board, one half, and the most important half of whose duties was the ministry of health, it was only right that he should say a word or two upon the question. The Board was very intimately associated with the medical profession. Since he had entered office he had found that the number of medical men with whom he was officially associated was between four and five thousand, one large section of them occupying the responsible position of medical officers of health, and the other section having positions of medical officers of the administration of the Poor Law. All that, as Sir Walter Foster and Mr. Hart had told them, was the work of the last few years. There were men sitting at that table who when they commenced their professional life had no connection as medical men with the State at all. The State, within the memory of living men, did not recognise it as any part of its duty to take any care of the public health. It was now a recognised fact that the most valuable part of the property, whether of the individual or of the public was health, and that in protecting a man's life there was something besides protecting him from the burglar, the garotter, or the footpad. (Cheers.) After all the test in those things was statistical, and looking into the statistics of the question of the relation of the State to public health he recognised it as being practically the creation of the last half century. Fifty years ago the death-rate of the country was between 22 and 23 per 1,000, and it continued practically stationary until the seventies. In the seventies, as Mr. Hart had reminded them, they embarked on the most beneficial career of legislation which, after all, was in its infancy. From 1876 to 1880 the death-rate was 21 per 1,000; from 1881 to 1885 it had sunk to 19½; from 1886 to 1890 it was under 19. If in the five years from 1886 to 1890 people had died at the same rate as in the years from 1861 to 1865 the deaths would have been increased by 100,000. There had been a great reduction in the death-rate from zymotic diseases. From 1861 to 1865 the rate was 4·25 per 1,000; in the last five years it had been 2.21 per 1,000—a reduction of upwards of 50 per cent., which had arisen largely from wiser and better sanitary administration. The department over which he presided not only dealt with medical administration but with pounds, shillings, and pence. During the last twelve years it had sanctioned an expenditure of no less than 22 millions sterling for a better water-supply, and 12 millions for better sewage; and there was no part of the national obligations which had been so beneficial to the real happiness and progress of the country as the money which had been spent in this way. With regard to the late epidemic of cholera, it was no doubt a disadvantage that it had occurred at a time when there was a change in the administration of the Local Government Board. But whoever might be the President the real strain rested upon the permanent staff. It had been his duty and pleasure to work cordially with the staff, and it would be for the public hereafter to judge of what they had done. Some difference of opinion existed as to its action in regard to quarantine. So far as cholera was concerned no quarantine had been attempted in this country since 1840. We had no machinery for it, and the tendency of public opinion for some years past had been to discontinue it altogether. In that respect Sir John Simon had been their chief adviser. He had said that quarantine which was ineffectual was an irrational derangement of commerce, and that quarantine of the kind which ensured success was more easily imagined than realised. The bulk of the cholera cases coming to this country came from the northern parts of Germany, especially Hamburg. How could they stop communication with Hamburg? If traffic was to be stopped at all it must be stopped altogether. It would be useless to prevent traffic with Hamburg and eastern ports, or with Havre and southern ports, unless all communication was stopped with Germany, Holland, and Belgium, and the West of France. At the very time when they were dealing with the immigration of dirty and insanitary aliens they

found that the passenger traffic between Hamburg and the northern ports, including Harwich, was diverted by Rotterdam, Antwerp, and Ostend to Port Victoria and Dover. There could be no effectual quarantine short of stopping all communication with the Continent. Suppose there was a quarantine of four or five days, and afterwards renewed when fresh cases arrived, what would be the result? The ports would be crowded, with passengers and cargoes detained, with no power whatever to keep up an unbroken quarantine. The system of the Local Government Board was a system of medical inspection and hospital isolation. When a ship arrived it was boarded by a Custom-house officer, who detained it if he had any reason to suspect cholera. The medical officer was then called in, and, until he had examined the ship, no one was allowed to leave. If he found the ship infected he gave a certificate to that effect, and the ship was moored at an appointed place. If anyone was suffering from cholera he was, if possible, removed to a hospital; if he could not be removed he remained on board subject to the control of the medical officer. If a person was on board suffering from illness which the medical officer thought might prove to be cholera, he could be detained forty-eight hours, and then, if not suffering from cholera, he might be allowed to land, but he must give his name and address to the medical officer of health, and information had to be sent to the sanitary authority of the place where he was going. In the case of immigrants arriving in a filthy unwholesome condition they were not allowed to land without satisfying the medical officer as to their names and addresses, if he certified that the prohibition was desirable. The Board had also prohibited the importation of rags, bedding, or filthy clothing from any of the infected ports. That was the system they had adopted of medical inspection and hospital isolation; how had it stood the test? There had been in this country twenty-nine cases only of accepted cholera. Everyone of those cases was imported from abroad. Any one of those cases might, if it had been left unchecked and unwatched, have been the source of an outbreak of the epidemic. (Cheers.) There had been no case arising out of these cases. (Cheers.) Every case had been isolated, every case had run its course. Only ten had been fatal, and he believed either eighteen or nineteen had recovered. That was the test of the administration with which they had endeavoured to confront the cholera epidemic. (Cheers.) He believed it would be necessary to strengthen the medical department next year in case there was anything like a threatened epidemic; but he could assure the medical profession, to whom they were enormously indebted, for the help that had been rendered, especially by the medical officers of health, in all parts of the kingdom, that the Local Government Board would proceed on the lines on which they had hitherto travelled. He could not agree that there was any chaos of authorities at this moment. The port sanitary authorities had done their duty with remarkable ability and success—(cheers)—and he could not stand up in London without paying his tribute of appreciation to Dr. Collingridge on behalf of the City of London. (Cheers.) He thanked them for recognising the Local Government Board and its President, but they must also allow him to thank them on behalf of the permanent staff and of the permanent medical staff, for they shared in the compliment that had been paid to the Board. They had rendered that great public service which the permanent staff of the country in all the departments of the State always rendered. One of the marks distinguishing this country from almost every other country in the world was the high class of its permanent officials—men above all political interference—(hear, hear)—men who were appointed for their recognised competency, men who served with undeviating loyalty their Parliamentary chief for the time being. It was to these men, the permanent civil servants of the State, that was owing so much of the strength, the facility, and the power of the administration, which made them feel, whether Liberals or Conservatives, sure that the great vessel of the State would be rightly guided and would sail, no matter who might be the captain for the time being, under the efficient guidance of those distinguished men who were its officers, who had served it long and served it so well. (Cheers.) He could assure them that there was no department in the State which was better served than the Local Government Board, and to the staff, and not to the President or Vice-President, the thanks of the country were chiefly due for the valuable and enormous services that had been rendered. (Cheers.) He could not refrain from one word of personal gratification on being associated with Sir Walter Foster in the administration of the department—(cheers)—for it was a signal advantage to the State that at this particular crisis a distinguished physician should have been placed upon the staff. He himself had been greatly indebted to the counsel, advice, and medical support which had been given to him in his practice by having a man like their guest as the Parliamentary Secretary of the Department over which he had the honour to preside. (Cheers.)

SIR RICHARD QUAIN, Bart., M.D., F.R.S., President of the General Medical Council, proposed the toast of "The British Medical Association." In doing so he referred to what their great founder, Sir Charles Hastings, had said with regard to the Association. His words were these:—"I may be sanguine in my expectations, but I cannot help indulging the gratifying, the cheering, the delightful thought, that, if we engage in this undertaking, as we are bound to do by the obligations which our profession imposes upon us, with the zeal and alacrity of men anxious for the good of mankind, the Association must be of some use; must be a direct tendency to extend the empire of knowledge, and increase our power over disease—*Valeat quantum valere debet.*" Those words were prophetic, and they certainly had been fulfilled in the magnificent development of the British Medical Association, which by its encouragement of scientific research, by the rewards it offered, by the widespreading and powerful influence of the JOURNAL, so ably conducted by Mr. Ernest Hart, and in various other ways claimed their hearty support and best wishes.

Mr. JOSEPH WHITE, F.R.C.S., President of the British Medical Association, in responding to the toast, said he had been connected with the Association for 40 years, and year by year he had watched its increasing prosperity, power, and usefulness to the profession of which it was composed. The Association began in the little city of Worcester, and the first year it had only 310 members, but at the present time the membership was between 13,000 and 14,000.

SIR GEORGE MURRAY HUMPHRY, F.R.S., President of the Pathological Society of London, proposed the toast of "The Guests," which was responded to by

Mr. HUTTON, Chairman of the London County Council, who said it was the object of the County Council in every way to further the progress of sanitary science.

Sir HUGH OWEN, K.C.B., Permanent Secretary of the Local Government Board, who was very warmly received, said that great reform had been made of late years in the Poor-law administration and the management of workhouses, and he felt it was largely due to Mr. Ernest Hart and to the British Medical Association that these most important reforms had been carried out. The Board heartily sympathised and fully recognised the important services of the great body of Poor-law medical officers. He thanked them sincerely for the kind references which had been made with regard to the permanent staff, who heartily welcomed the accession of Sir Walter Foster as Parliamentary Secretary to the Department.

THE GLASGOW SOCIAL UNION.—The Committee of this organisation have arranged for courses of lectures relating to health being delivered during the winter in different parts of the city. The first is a series by Miss Homersham on Sick Nursing. The Union is endeavouring to persuade the School Board to open their playgrounds after school hours to all children, suggesting that the services of men, such as retired drill sergeants, might be obtained to keep order, and help to teach the children rational games. The Union meditates offering, as an experiment, to bear half the cost of such service at a few schools.

A MEDICAL MARTYR.—We regret to announce that Dr. Onanoff, assistant in Professor Lukjanoff's pathological laboratory at Warsaw, and a young scientist fast rising into fame for his work in the domain of neurology, has fallen a victim to cholera at Lentschona, in the Lublin Government, where he had volunteered for medical service on the outbreak of the epidemic.

A LEPER HOUSE, with accommodation for fifty patients, will shortly be opened at Nennal, on Lake Peipus, in Livonia.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, OCTOBER 29th, 1892.

SIR HENRY THOMPSON ON DEFECTS OF DEATH CERTIFICATION.

I.

Sir Henry Thompson has done excellent service in calling attention once more to the defects of death certification in this country, and he deserves warm thanks for so doing, even if we cannot entirely agree with him as to the superiority of the system adopted in France, or as to the remedy he proposes for the defects in the English system, which have again and again been discussed in these columns.

It is not quite clear from Sir Henry Thompson's letter to the *Times* whether he advocates the entire abolition of the present system in this country, under which causes of death are certified by medical practitioners in attendance during the last illness of the deceased persons, and the substitution of a system of certification by specially appointed experts, or whether he only advocates the appointment of these experts in order to meet the cases of what he describes as a very large class of "persons who are little cared for during life, who may have been without medical aid, or whose position and habits particularly expose them to criminal influences." It will be well, however, in the first place, to consider briefly both alternatives. If the present system should be boldly ended, the very heavy expense inevitably involved in the system it is proposed to substitute would have to be faced. Under the present system, the State, rightly or wrongly—and we think wrongly—has imposed upon the medical profession the duty of certifying the deaths of their patients, if attended during their last illness, and makes no payment for this service. It remains to be seen whether Parliament would consent to relieve the profession of this responsibility, inaugurate a new system, which must be very costly, and the superior advantages of which, in a large proportion of cases are far from obvious. It is apparently proposed by Sir Henry Thompson that special experts should be appointed to investigate the cause of every death, to take the evidence of the medical attendant, and any other evidence that might appear necessary; to order or to make a *post mortem* examination in doubtful cases; and, finally, to certify the cause of death. It is obvious that to give evidence concerning the cause of death of his patient to a medical expert would necessarily involve the expenditure of considerably more time and labour to the medical attendant than to write his own medical certificate. There is also to be considered the friction between medical practitioners and these State-paid medical experts which the proposed new system might involve. Medical practitioners could not be asked to give such evidence without being paid for it; and if a really independent investigation were to be made concerning each cause of death, the cost of certifying the more than half a million deaths that annually occur in England and Wales would undoubtedly amount to a very large sum.

If, however, Sir Henry Thompson intends to limit his proposal to a certain small proportion of cases in which the present system does not provide medical certificates, we have to consider how it could be made to apply to these exceptional cases. It may, in the first place, be pointed out that the Matilda Clover scandal was not really due to any defect in the English system of certifying causes of death any more directly than the murder of this unfortunate woman could fairly be attributed to a deficiency in the English system of jurisprudence. Matilda Clover died without medical attendance during her last illness, and therefore, in accordance with the English registration system, no one was authorised to give a legal certificate of the cause of her death. That someone was found to fill up and to give for registration purposes a false certificate, and thus commit an offence against registration law which is punishable by fine or imprisonment, cannot logically be used as evidence of defect of the present system. If this false certificate had not been given, an inquest would inevitably have been held; and without precise knowledge why the false certificate was given, it is hard to judge whether the existence in Lambeth of Sir Henry Thompson's proposed expert certifiers would have prevented the false certificate from being given.

It may be that in some cases medical practitioners, who in the interest of their clients hesitate to report a death to a coroner, would be glad to be relieved of the responsibility of certification by calling in the medical expert to certify, but it is certain that the existence of these officials would not meet all the cases Sir Henry Thompson proposes to provide for, unless the present system were ended and the French system, or at any rate some form of independent certification were substituted for it. We have pointed out that to initiate such a legal change it would be necessary to convince the Parliamentary representatives of the English taxpayers that the present economical system of certification cannot be mended before it is ended, and an obviously very costly system substituted for it. The merits of the proposed new system would, moreover, have to be most seriously and thoughtfully weighed, and we must own that many as are the advantages that might be derived from an independent system of certification compared with our present system, it would be exceedingly difficult to ensure that such a system would not intensify rather than lessen the evils now arising from careless and perfunctory certification, since the information of the certifying expert would have to be ascertained secondhand, whereas under the present system the cause of death is certified in more than 90 per cent. of the cases by the medical practitioner who has been in actual attendance during the last illness of the deceased person.

It is impossible within the limits of the present article to do more than touch upon the broad aspects of Sir Henry Thompson's proposal, and we must defer for the present again discussing the actual defects of the present system, the most important of which is that it permits registration and

burial without investigation in the case of a death concerning which no medical certificate has been produced and no inquest has been held, which is a different case from that of Matilda Clover, and is far more important in the general interest of the public and the profession.

In conclusion we would, however, point out that it would be obviously impossible to impose on medical officers of health the duty of expert certification if the cause of every death were to be independently certified, and that it is open to grave doubt whether it would even be possible or expedient to add to the already heavy and constantly-increasing duties of an efficient and conscientious medical officer of health by appointing him an expert certifier, even in exceptional cases, involving as this would increased risk of friction between those officers and medical practitioners.

THE REPORT OF THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

I.

THE Council of the College of Surgeons have circulated to their Fellows and Members the Report which is to be laid before the annual meeting on November 3rd. This has been done in compliance with a resolution which was carried at the meeting in last November: "That this meeting request the Council to allow a copy of the Report to be sent to each Fellow and Member a fortnight before the annual meeting;" and we trust that we may regard this compliance as an additional proof of the desire of the Council to meet the legitimate wishes of the body corporate and as an earnest of more rapid progress in the future towards a complete understanding between the Council and its constituency. Such an understanding is, we once more repeat, impossible so long as the Council take their stand on an assertion of the extreme rights, which they no doubt legally possess, and, as a consequence of that unfortunate legislation, insist on remaining (as they now undoubtedly are) "lords" of the magnificent "heritage" which has been placed in their charge; so long as they persist in denying to the Fellows and Members all share in the management of that institution which their own and their predecessors' contributions have chiefly founded, and which largely owes its reputation and its influence to their achievements and to their professional character and success. The BRITISH MEDICAL JOURNAL has always supported the view of the Fellows' Association that the Reports of the Council ought not merely to be laid before the annual meeting for its information, but submitted for its approbation, amendment, or rejection; and that no essential change ought to be introduced into the relations of the College to the profession, to the public, or to other institutions, without the sanction of the constituency. Whether that sanction should be conveyed by the Fellows only, as representing the whole body; or whether—and if so, how?—the Members should take part in the function, is a detail which could be settled after the principle is admitted. Pending such a reform—which would, we believe, be the commencement of an era of greatly increased usefulness and power for the College—we are glad to note any symptom of liberality and progress on the part of the Council; and have much pleasure in stating our belief that the present Report shows obvious symptoms of such progress.

Let us turn to some of the principal topics of the Report. The first item deals with by far the most important subject which can claim the attention of the profession at the present time, namely, the new curriculum of study. It cannot be without feelings of sorrow and shame that Fellows and Members of the College of Surgeons read the statement of the Report that a scheme of such vital importance was "adopted by the College," when they reflect that no opportunity has been given them for expressing any opinion on a subject so vitally important to that large proportion among them who propose that their sons shall follow their father's profession.

At the same time, we are bound to say that the Council's scheme may be considered, on the whole, a very good one. The unfortunate student cannot, of course, expect to escape a fourth examination in addition to the three previously in force, and it was probably inevitable that additions should be made to the already long list of subjects. Apart from this, the scheme seems to us a very wise one, and especially in two important particulars—namely, that at the second examination the student is called on to pass in anatomy and physiology at the same time, and at the fourth or qualifying examination medicine and surgery must also be passed together. We trust that this marks the commencement of a reform of the present system of extreme specialisation, and of the parcelling-out of the various subjects of study into separate items to be "got up," and then never again mentioned, and therefore speedily forgotten. The great defect in the present examination, and one which is extremely difficult to deal with, is the entire abandonment of physiology, and the almost entire abandonment of anatomy (except as medical and surgical anatomy), in the examinations succeeding that at the end of the second winter session. Is it too much to hope that John Hunter's College will find some way to restore physiology to its proper place in our medical examinations? Physiology is confessedly the basis on which both medicine and surgery rest, yet no mention is made of it in the three last years of the curriculum, and no regard at all is paid to it in the two highest examinations.

In the third examination we notice the introduction into the general heading of Medicine of "Forensic Medicine" and "Public Health," each of them to extend only to a range to be afterwards indicated in a schedule. Perhaps these subjects were included by implication in the present examination. At any rate, their presence is at the present day obligatory in any scheme of examination which shall even profess to be complete.

We also notice without surprise the absence from the surgical examination of any such testing in operative surgery as some of the visitors sent by the General Medical Council have recommended. Apart from the difficulty of finding subjects, such an examination is described by many to be nearly useless as a practical test of the student's knowledge of surgery, and it might if seriously insisted on be a sore trap for nervous candidates, and would greatly increase the already high percentage of rejections. We sincerely trust that the grant of this additional year of study, without any serious addition to the number of subjects, will be followed by a fall in this percentage. However strongly one may feel the necessity for keeping up a high standard of examination (and nowhere has that necessity been more conscientiously advocated

than in this Journal) no one can look without regret at the sad tale of failure and mortification implied in the tables at the end of this Report, which give the percentages of rejection in the several examinations. It will be a real boon, alike to candidates, to their parents, and to the public if the increased length of the curriculum is followed by such an improvement in the teaching of the profession that to fail in passing the successive examinations may become exceptional. And we must add that the practical good sense of the regulations here announced cannot fail to conduce to this good end.

The next topic handled in the Report is only inferior in importance and interest to the new curriculum. We mean the proposal for a "teaching university" for London. But little progress seems to have been made with this subject since July 20th, 1891, when "a meeting of the Council was held for the special purpose of considering the position of the College in relation to the Albert University" (p. 9). Our readers have doubtless followed the intricate and edious history of this proposed institution hitherto, and they will not gain much fresh information from this Report. The point on which the parties differed was that "the Royal Colleges would make it essential to their taking part in the formation of a new university that they should have the entire control of the medical curriculum and examinations for the medical degrees." Now it seems to us that if the colleges were really and substantially the representatives of the medical profession in London, nothing could be more natural than such a request; but such confidence can hardly be reposed in the College of Surgeons under a state of things which has given the College over to the irresponsible government of a few individuals of whatever rank, when the constitution of the Council is systematically censured in every general meeting of Fellows and Members which is summoned; and when the petition for a new charter was recently refused as to various important points in consequence of the opposition of a large section of the Fellows and Members.

A mortifying instance of this alienation of the general body from the Council is given in this same section of the Report in the shape of a resolution carried, though only at a small meeting, affirming that, "in view of the disabilities under which the body politic of the College labours in comparison with other similar bodies, the representation accorded to the Council in the governing body of the new university would be adequate."

We note that Mr. Hulke and Mr. Howse are nominated to represent the College, and give evidence on its behalf, before the Gresham University Commission, and we sincerely wish all possible success to that Commission in produ ng a scheme which, without cheapening the degrees, or losing sight of the practical character of the examinations, may enable English medical practitioners to place themselves on the same level in the estimation of the laity with the graduates of Scotch or foreign universities. And, at the risk of tautology, we again say that no such scheme, however liberal and wise it may look, or may really be, ought to be enacted without a distinct reference to the bulk of the "body corporate" of the College.

The number of interesting topics handled in this Report is, however, so great, that we must reserve what we have to say about the rest to our next issue.

THE CASE OF THOMAS NEILL.

The case of Thomas Neill is equally interesting from a social, a psychological, and a medico-legal point of view. From a social point of view it is interesting because the curtain rises disclosing the manner of life led by the degraded women who haunt the street, the gin palace, and the music hall.

Considered psychologically, there is a similarity between the Whitechapel murderer and Neill, but at the same time there is a distinction to be drawn between them. The Whitechapel murderer (whoever he is or was) in method was a homicidal maniac; he could get no personal advantage from his horrible outrages, save to gloat over the public excitement and the terror which his acts inspired, and to chuckle at what he might consider infinite cleverness in eluding detection. On the other hand, Neill's series of crimes appear to have been prompted by the idea that he might, by the threat of accusation, extort money out of innocent individuals.

It is almost as difficult to realise the working and reasoning of a morally defective brain like that of Neill, as to realise the mental operations of any of the lower animals. The key to the mental phenomenon is first of all a pronounced animal organisation; a reversion, it may be, to some former low class type, with its accompanying supreme indifference to human life and suffering, and an absolute disregard for truth, honesty, or virtue.

This type of being must, for the protection of society, be segregated or destroyed. Morally, without doubt, the man is insane, but he is insane in no legal sense; his own correspondence gives overwhelming evidence that he knew the consequence, and fully comprehended, the nature of his acts, and his counsel very properly saw that a plea of insanity was useless, and therefore mischievous. The chief and only valid line of defence was that of mistaken identity; to a smaller extent, some medico-legal points were relied upon. These latter points, being those which more especially concern medical readers, we will briefly notice.

Naturally enough all possible advantage was taken of the diagnosis of the death certificate given under circumstances which will require to be separately dealt with and stating that Clover died from delirium tremens and syncope. So far as the description of the symptoms can be gathered from the evidence, they strike us as typical of strychnine poisoning and in no way similar to any other form of malady whatever. This is not the first time that a practitioner has failed to diagnose a case of strychnine poisoning. There was the case of a girl that had taken a fatal dose of rat poison, and a practitioner of considerable experience treated her for hysteria, made a *post-mortem* examination and gave evidence to the effect that she died in a hysterical fit! An analysis showed that the contents of the stomach contained a fatal dose of strychnine, and the symptoms detailed at the inquest were consistent with death from poison.

In the account of a conviction of the prisoner for murder at Chicago in 1881, there is also an instance of a practitioner confusing a case of poisoning with disease. At that trial it was considered proved that "Cream," as he was then called, acting in concert with a Mrs. Stott, with whom he had criminal relations, filled capsules with strychnine, and caused these capsules to be given to Mrs. Stott's husband, who was afflicted with epilepsy; the death that followed was

ascribed to a "fit." At the earnest solicition of "Cream," or Neill, who desired a correct diagnosis for the purpose of blackmail, the body was exhumed, and 3½ grains of strychnine found therein. Epilepsy and strychnine poisoning have some points of resemblance, so that here there was some excuse.

With regard to the general question of the mistakes that are made from time to time of this kind, the public must remember that methodical clinical instruction in the action of poisons is an impossibility. The exhibition of the effects of poison on even a frog causes an outcry from a certain section of the community, hence the student has to pick up his knowledge as best he may from textbook descriptions. Further, according to modern views, a great proportion of the symptoms of disease are due to toxins, many of which in composition and effect resemble the vegetable alkaloids. Nevertheless, after making every allowance, it is clear that a certificate of death should have been refused, and that the diagnosis of alcoholic convulsions was to be deplored. The general lesson is that practitioners cannot be too careful in pronouncing an opinion in cases of sudden dangerous illness—illness which presents phenomena of a doubtful character.

A point was attempted to be made with regard to the length of time intervening before the strychnine began to act. The evidence seemed to show that the poison was given to Clover a little before 10 P.M., and at 3 A.M. she aroused the household by her screams. It is probable enough that the woman would suffer some little time in comparative silence, hence all that can be said is that the symptoms began between four and five hours after the dose. In recorded cases in which the strychnine was given in solution or as a powder, as a rule the symptoms have come on, as Dr. Stevenson in his evidence stated, within the hour. In a case recorded by Barker the symptoms commenced within three minutes, but, on the other hand, there are recorded cases in which three hours have elapsed. It must, however, be remembered that the Neill poisonings are the first series of cases in which the poison has been enclosed in capsules, which until they dissolved would prevent the action of the poison, so that previous experience of the length of time likely to intervene between the taking and the action of the poison is not applicable.

Counsel also raised the question as to the rigidity of the body after death. It was affirmed that a person poisoned by strychnine would be after death preternaturally rigid, and there was a suggestion that that rigidity would be more or less permanent. It is accepted that, as a rule, *post-mortem* rigidity after strychnine poisoning sets in rapidly; but, on the other hand, it has been known to disappear within twenty-four hours. In a great proportion of the cases recorded of death by strychnine there is no special mention of rigidity, the natural inference being that the observers noticed nothing unusual—nothing different from the majority of ordinary *post-mortem* appearances.

It is almost unnecessary to add that the objections to the scientific evidence were, on the whole, of a feeble character, and made little impression on either judge or jury. The strong points in the defence were those which dealt with a possible mistake in identity. Mr. Geoghegan might have succeeded on this line had not the prisoner been busy forming the strands of the rope on which he is to hang; his own acts, conversation, and correspondence helped to prove to the hilt that he, and he alone, had committed one of the most deliberate and wicked murders ever discovered.

Lond. Med. Journ., 1884.

A COURSE OF MALIGNITY.

The anti-research controversy, which appeared to be practically ended, has flared up again in some of the papers, revived by an offer of Sir H. Peek to act as pursebearer if Miss Cobbe will go into the witness-box to vindicate her statements, and by Bishop Barry, who surrenders somewhat ungraciously, but announces that he is going away for three months, and is of the same opinion still.

The incident of the "anti-researchers" having first fought hard to have the subject discussed at the Church Congress, and then being hoist with their own petard, is not likely ever to be forgotten, least of all by them. Miss Cobbe's character and respect for truthfulness and fair dealing has now been correctly appraised by the public. Convicted of having published falsified versions of medical and scientific facts, she retreats with discredit, and with the stigma of having refused to risk an attempt to clear herself by appearing in the witness-box, although challenged to do so, and although Mr. Francis Peek heads a subscription to enable her to do so. She does well, for, as she knows, her record throughou the whole of this agitation is calumnious, or, as Bishop Barry and Dr. Berdoe would wish us to say, her statements are unfortunately sometimes accompanied by "errors" of "omission."

The moment has now arrived when we may well consider the effect which this excited discussion has produced on the non-medical and unscientific reader. The fair-minded public has, we think, obviously come to the following conclusions, as expressed in the *Times* leading article of October 25th: First, that "vivisection is a powerful instrument for good guarded strictly against abuse;" secondly, that Miss Cobbe, Bishop Barry, Mr. Lawson Tait, and Dr. Berdoe are guilty of "culpable carelessness, indiscriminating readiness to believe anything that tells against the other side, and an astounding incapacity to appreciate either evidence or argument;" thirdly, that Mr. Horsley has, after enduring the severest provocation for years, and with a courage and vigour which will never be forgotten, crushed the argument against experiment and its rabid supporters, although he unnecessarily called a spade a spade.

It is interesting to see that there is ample evidence to show that the old opposition against vivisection, founded on profound ignorance, is practically extinct. At least, no letters of the kind that the press used to be deluged with a few years back have appeared on this occasion. For one reason of course the opportunity was not favourable. Bishops Barry and Moorhouse and Drs. Arnold and Clarke had, at the Church Congress, so thoroughly broken down that any kindly assistance subsequently lent them by injudicious friends only rubbed salt into the wounds they already endured.

But we believe that the real reason is the increasing knowledge and appreciation by the public of science and of the only means by which science is legitimately advanced The truths of science—above all, of physiological science—are so intimately worked into modern medicine and surgery that the keenest interests of the public are thereby involved, and they have in a measure learnt what experimental research has done and is doing for their health and prosperity.

According to some, however, even more information is required of the scientists, and that we may presently afford.

The Association for the Advancement of Medicine by Research, officially or through some of its Council, is occasionally asked by medical men in busy practice for the documentary evidence which is of course, for accuracy of reference, requisite to demolish the libels that are heaped upon the profession at country meetings by lecturers of the type of Dr. Berdoe; and we hold at their disposal, for loan, copies of such publications through the kindness of Mr. Stephen Paget.

Of course it is ridiculous to suppose that Miss Cobbe and the other leaders of this agitation can change their habit of mind, any more than the leopard can get rid of his spots, and therefore, for the next few years, the wearisome work of refutation must be continued until the education of the public is complete.

In speaking of Dr. Berdoe we publish elsewhere what he apparently regards as an answer to the grave charge of disingenuousness and of being accessory to the falsehoods and libels constantly heaped on his colleagues in the profession and in the Association. We cannot characterise his efforts to clear himself as anything but an unwarrantable repetition of his offence. What we expected of him was a frank admission of the gravity of the "errors" of commission and omission which he glosses over so glibly. His explanations today are not in any way an answer to the plain statements and distinct charges made against him, and we hoped for as frank an apology to the noble calling he has slandered. We can only repeat that it is a matter of the profoundest regret that a medical man should place himself in so painful and humiliating a position. An open admission and frank apology would have well become him; we still hope that he will see his way to that course, and that he will cease to advocate a cause founded on and fostered by falsehood.

We are requested to state that Mr. Lawson Tait is not a member of the Scientific Grants Committee, having ceased to be a member in August, 1891.

It is possible, but not very probable, that the legal action between the Royal College of Physicians and the General Medical Council may come on for hearing before Christmas.

The first meeting of the Epidemiological Society of London will be held on November 16th, when the President, Dr. J. F. Payne, will deliver his inaugural address on Tuberculosis as an Endemic Disease.

The Marine Department of the Board of Trade have now under consideration important alterations in the mode of examining for colour vision. The changes will involve the abandonment of the present system in favour of the improved methods recommended. Even under the present imperfect system, 27 out of 4,652 candidates for masters' or mates' certificates were rejected on account of defective colour vision.

The annual meeting in connection with the Manchester Crematorium was held on October 21st, at the Crematorium, Withington. The Duke of Westminster presided, and delivered an address, in which he urged that the disposal of the dead by cremation was demanded on grounds of economy as well as in the interests of the public health. Sir Henry Thompson, Mr. Ernest Hart, and Mr. Hanham were among the speakers, and urged the sanitary ground for cremation.

BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

We learn with great satisfaction that the promised donations to the funds of the Institute (of which Sir Joseph Lister is Chairman of Council and Sir Henry Roscoe is Treasurer) now exceed £10,000, in addition to the £20,000 conditionally promised by the Berridge Trustees. Much more than this will, however, be required to carry out the great national objects in view.

THE GENERAL MEDICAL COUNCIL.

The General Medical Council will meet on November 22nd, and the Executive Committee on the previous day. We understand that the future visitation of examinations will be one of the subjects for consideration, and that several cases of a penal character will probably be investigated. A question connected with the use of the title of Doctor of Dental Science may also be raised.

THE GLANDERS ORDER.

Although the London County Council have just decided not to enforce the provisions of the newly-issued Glanders or Farcy Order, 1892, relating to compulsory slaughter and compensation, there are some important provisions in the order which the Council will, we understand, enforce at once. The most important relate to the removal and disposal of glandered horses. At present slaughter is usually carried out on the premises of the owner, but it sometimes happens that the premises are unsuitable. Consequently, in future, the animals will be removed to the knackers' yards for slaughter. The animals will first be indelibly marked, and the hair on their manes and tails removed. Animals and carcasses will be removed in properly-constructed enclosed vans. Upon arrival at the yards they will be at once slaughtered under the supervision of the proper officer, and the carcasses destroyed in a digester. The London County Council, in the instructions they have issued to inspectors, have specially cautioned them to avoid any action with regard to slaughter which might involve the Council in liability to pay compensation.

THE MEDICAL SIDE OF THE GRESHAM UNIVERSITY.

We understand that that the evidence given by Sir Andrew Clark, as representative of the London College of Physicians, before the Gresham University Commission, while maintaining the former opposition to the admission of students of provincial medical schools to the pass degree of the new university, mainly on the ground that it was to be a specially-marked London degree, did not oppose the participation of diplomates of the Apothecaries Society in the privileges of examination and graduation on a footing similar to that of the other metropolitan medical examining bodies.

THE CRIMINAL NEILL: PLEA OF INSANITY.

It is stated in the *Times* that Messrs. Waters and Bryan, the solicitors acting on behalf of the condemned man Neill, are daily expecting affidavits from America bearing on the sanity of their client. If, as is expected, these papers show that Neill has a tendency towards insanity, efforts will at once be made towards obtaining a respite. At the same time it is improbable, even in the event of any such action being taken, that it would be successful, as the Treasury had no fewer than four eminent medical experts present during the progress of the trial, and these would have been called had the question of insanity then arisen to prove that the prisoner was of perfectly rational mind.

THE CROWN VACANCY ON THE GENERAL MEDICAL COUNCIL.

We are assured on good authority that it is expected that the vacant Crown appointment (for Scotland) on the General Medical Council, concerning which there has been much public correspondence, will be filled by Dr. McVail, of Glasgow. Dr. McVail has already on former occasions held

a seat in the Council as representative of the Glasgow Faculty of Physicians and Surgeons. The other name mentioned was that of Professor Struthers, who was for many years a respected and hard-working member of the Council, and whose nomination was sought and favoured by many members of the Council.

THE PROPOSED UNIVERSITY FOR WALES.

THE committee which, under Lord Aberdare's presidency, is engaged in drafting a charter for the proposed university for Wales, meets on October 28th at Shrewsbury. When its labours are completed it will report to the representative conference of Welsh educational authorities, at whose instance it was appointed. It is understood that the constitution likely to be recommended will be on somewhat democratic lines, and will provide for a considerable measure of public control.

ROYAL COLLEGE OF SURGEONS.

WE understand that at the forthcoming meeting of the Royal College of Surgeons, on November 3rd, a resolution to the following effect is likely to be moved by members belonging to the Association of Members of the Royal College of Surgeons: "That this meeting of the College of Surgeons of England is of opinion that the Report now submitted is ineffective and incomplete, and that, therefore, it be referred back to the Council. The meeting is further of opinion that the ancient attitude of hostility on the part of the Council to the true interests of the body corporate of the College ought to be terminated, and the repeated resolutions passed at former meetings of this College should be carried into effect."

THE REVENUE FROM PROPRIETARY DRUGS.

DURING the past year the revenue derived from the three half-penny stamp placed upon proprietary medicines amounted to £240,062, an increase of £14,361 over the sum paid in the previous twelve months. The quantity of pills, lotions, powders, and ointments represented by these figures must be something enormous. Licences for the sale of these compounds have also increased by 1,340 in England and 111 in Scotland, from which the revenue benefits to the extent of £7,188. The total income derived by the State from proprietary (so-called patent) medicines is thus £247,250.

STATE AID FOR HOSPITALS.

THE Duke of Devonshire, presiding over a meeting held at Chesterfield on October 20th, said he noticed a great and increasing tendency to throw upon public resources, mainly upon the rates, the support of many institutions supposed to be of advantage and benefit to the whole community, and he confessed it did not appear to him at first sight very clear why no such proposal had been made concerning such useful institutions as hospitals. Expenses of public education, and in some places the expenses of free libraries and providing public parks and other means of recreation for people, were provided by public resources, and it did not seem clear why an institution of undoubted utility, such as a hospital, should not also be supported from some sources. It appeared also to be a consideration of the greatest importance that different classes should be brought together in the management of an institution like that, especially when such association was for purposes of public utility and benevolence.

CYCLING FOR CHILDREN.

SOMETHING like a newspaper controversy is going on as to the question whether cycling is injurious to health. The matter was very well put by Dr. Luff in his address to the students at St. Mary's Hospital, and extensively quoted from our pages in the public press. Cycling is no exception to the golden rule of moderation in all things. It is the pace that kills, and unfortunately most cycling clubs appear to be disposed to encouraging racing unduly. This is a great mistake; it makes the mere traversing of the ground an end, whereas it ought only to be a means to an end. The safety bicycles, which are now the favourite pattern, encourage, if they do not compel, a style of riding which tends to bow the back and contract the chest. The effect on boys and youths who are not naturally well developed is undoubtedly injurious, and we should regard with some suspicion the advice given by a medical writer in the *Bicycling News*, which would encourage parents to let their children bicycle. The tricycle is much better adapted for them, and, if of proper size and properly adjusted, its use may be of benefit, if the amount of exercise is carefully regulated. Probably the best companion for a child is a middle-aged rider who traverses a moderate distance, and a moderate pace, will not indulge in trials of speed against time, and is not ashamed to dismount at a hill too steep to be ridden with comfort. The strain upon the heart on a steep incline, especially if the surface is bad, may be seriously injurious.

THE OUTBREAK OF RABIES IN SCARBOROUGH.

WE regret very much to learn that rabies has broken out in Scarborough. Unfortunately, owing to the ignorant opposition to the muzzling regulations of Mr. Chaplin, which was started and fostered by the antivivisectionists, rabies has for some time been gradually and steadily increasing, both in the metropolis and in the north. These are of course the two great centres in which the disease is always enzootic, and whence it spreads. This is more true of the south part of Yorkshire; hence it is not a little disquieting to notice that this particular outbreak is reported from the north-east coast of the county. Apart from the consideration that, had we only a Minister so really representative of the agricultural and general public interest that he would impose universal muzzling for a sufficient term, we need never have rabies in this island, it is our duty to notice one or two points in connection with the state of things at Scarborough. We learn that the dog, which was supposed to be the first case, was seen by a "dog doctor" stated to have no legal veterinary qualification, and reported by him to be suffering from "throat disease." This dog bit a valuable Bedlington terrier belonging to some ladies. Five weeks later this dog developed the characteristic signs of dumb rabies. The same person was called in. He told the ladies that the animal was suffering from "a throat disease that was killing the dogs in Scarborough," and he directed the young lady who owned it to feed the animal and to pour fluids, etc., down its throat. This she naturally, in ignorance of the real state of affairs, did for several days, with the rabid animal's saliva dropping freely on her hands. Most fortunately, as so often happens in the early stages, the animal knew her, and did not attempt to scratch her with his (paralysed) jaw. Such a case as this is suggestive of the dangers of legally unqualified veterinary practice; it is of course too not only a matter of public interest that any individual should be saved from such a horrible risk as that of rabies, but the capability of the authorities to cut short an epizootic depends so largely on their destroying the first affected animals and animals bitten by them that the inadequate protection which the law affords against unqualified practice becomes in such a case a source of great peril. We have always sympathised very heartily with our veterinary brethren in their efforts to deal with the quackery that is rife among them, and we hope that the present case will open the eyes of the public to the risks they run in their insensate consultation of "dog doctors" and others without a legal qualification.

DEATH UNDER ETHER.

ON Thursday, September 29th, a man aged about 30 was admitted to St. Mary's Hospital suffering from alveolar abscess, with extensive and deep-seated cellulitis of the neck. He had been unable to swallow food except a little milk for several days; he breathed with difficulty, and could scarcely speak. His temperature was 101.8°. It was deemed advisable to operate at once; so he was taken to the theatre, and ether was administered, as he was in a weak state, and very nervous. He took the ether badly, and when about 1 ounce had been given he began to get blue; the anæsthetic

was stopped, his tongue pulled forward, and the head turned. He got rapidly more and more blue, and ceased to breathe. Artificial respiration was performed for about twenty minutes, and hypodermic injections of brandy and strychnine were administered, and the battery applied, but all to no purpose. The heart continued to beat after the cessation of respiration. *Post-mortem* examination proved extreme congestion of the larynx and respiratory passages, as well as of the lungs, and the trachea was much constricted by a deep-seated abscess in the neck.

ENTRIES AT THE MEDICAL SCHOOLS AND COLLEGES

From the completed returns now before us it appears that we must go back to 1884 to find a year in which the number of medical students beginning their medical curriculum in London was as low as it is this year. The total number is 596.[1] The numbers for the ten years beginning 1883 are as follows:

1883	605	1888	688
1884	587	1889	620
1885	647	1890	614
1886	623	1891	662
1887	683	1892	596

Though there is a considerable diminution as compared with last year the actual falling off as compared with the two preceding years (1889, 1890) is not very great. The only safe conclusion to draw appears to be that the number of medical students who enter at the metropolitan schools has shown a tendency to decline during the last four years. As to the cause of this there is room for difference of opinion. It may be that this year the addition of the fifth year to the compulsory curriculum has tended to diminish the numbers, but the growth of the medical faculties of the extra-metropolitan universities during the last decade is the cause, there can be little doubt, why the metropolitan schools cannot do more than maintain their footing. An increasing number of students now commence their medical curriculum elsewhere, and a considerable portion of these are lost to London altogether. A larger number, probably, come up to London for clinical instruction after passing the earlier professional examinations in anatomy and physiology.

THE UNQUALIFIED ASSISTANT AGAIN.

Mr. Graham, of Kennington, whose manner of conducting his practice was so gravely reprehended by Mr. Justice Hawkins in the recent trial of Neill, and who will no doubt receive further consideration from the constituted authorities of the profession, has once more been summoned to attend a coroner's court. In the former instance his unqualified assistant, one Coppin, attended the unfortunate woman Clover, but failed to recognise that she was in the throes of strychnine poisoning. Mr. Graham did not see her till she was dead, but he nevertheless signed a death certificate, which set forth that he had attended her in her last illness, and set down her symptoms to alcoholism. This action he has publicly defended, as being justified by what he states to be the current use of the word "attended," and in accordance with the practice of other practitioners. Another unqualified assistant of his, named Piper, has been the occasion of Mr. Graham's latest appearance in the coroner's court. Here an aged patient was suddenly stricken down by apoplexy, and a messenger was despatched for a "doctor." Mr. Graham being absent from his "dispensary," Piper attended for him, and from the depositions it would appear that he allowed brandy to be administered, because "they had tried to give him some" already. Mr. Graham subsequently put in an appearance, but the patient was beyond his help, and soon afterwards died. Mr. Braxton Hicks, the coroner for Lambeth, at the inquest severely remarked on the proceeding, and commenting on the fact that this was not Mr. Graham's first appearance of the sort, added that he intended to call the attention of the General Medical Council to every case where he found that an unqualified assistant had treated patients. "Poor people do not know whether a man is qualified or not, and it is very easy to get a qualified man." Mr. Graham's answer, as before, was that the employment of unqualified assistants was the practice of the profession; it was the "recognised thing." We suspect that Mr. Graham has been but a heedless observer of the recent proceedings of the General Medical Council in respect of the "infamous" offence of "covering," or he would have hesitated to take this line of defence. He will doubtless hear more of the matter when the General Medical Council meets, but meanwhile we are sure the profession at large will endorse the coroner's views, and repudiate those put forward by Mr. Graham.

FEDERATION OF CLINICAL TEACHING IN LONDON.

Mr. Erichsen's scheme for the federation of metropolitan hospitals for clinical purposes, a brief sketch of which appears in another column, is valuable in itself, and has an added importance as coming from the President of University College. The scheme has important bearings on the nature of the new university, and is no doubt designed to meet some of the objections which have been forcibly urged before the Commission now sitting against the Gresham University scheme. One of these has been that under it no distinct provision was made for higher teaching or for the encouragement of research. Mr. Erichsen's proposal appears to amount to this, that any qualified medical man should, on payment of a fee or fees to the University, or to it and to a London school, be given a circular ticket entitling him to attend any one of a large number of metropolitan hospitals, and also, we may presume, the laboratories of their medical schools. We must confess to some doubt on this point, doubt as to Mr. Erichsen's exact meaning in the first place, and, if the above statement is a correct summary of his proposal, doubt as to its feasibility. A mere increase in the muster of clinical lectures which a student may have the right to attend will not constitute higher teaching. The lectures and the opportunities for practical clinical work must be adapted to meet his stage of education. We repeat, however, that the scheme contains a valuable suggestion, which will receive our further careful attention.

THE TREATMENT OF MYXŒDEMA.

He would have been a bold man who should have ventured to assert that the recent experimental investigation of the functions of the thyroid gland, and especially of the effect of its removal, would so soon have been applied with most striking success in the treatment of a disease than which none had shown itself more absolutely intractable to all previous forms of treatment. In his classical paper published in the British Medical Journal in January, 1892, Mr. Victor Horsley recapitulated and summed up the whole of the evidence that myxœdema is due to a loss of function of the thyroid gland. Mr. Horsley suggested that the grafting of the thyroid from a healthy sheep on to a myxœdematous patient might arrest the progress of the disease, and the experiment was tried with success. Dr. G. R. Murray, of Newcastle-on-Tyne, introduced a much simpler method of applying the treatment; at the Bournemouth meeting of the British Medical Association he related a case (published in the Journal of October 10th, 1891) in which great improvement had followed the hypodermic injection of the juice of the sheep's thyroid. This method of treatment has since been followed by him, by Dr. Claye Shaw, of the Banstead Asylum (see papers in Journal of August 27th), and at other asylums and hospitals, and in nearly every case with good results. The published portraits of one of Dr. Murray's patients

[1] The numbers at University College, London, are, for the full medical curriculum, 51; for special classes, 36; for preliminary scientific instruction, 63. At the London School of Medicine for Women the number of new students for the full curriculum is 23, for single classes 5. From additional returns supplied by the College tutors it appears that the number of medical students who have entered the University of Cambridge this term is 124. The total number of students who have entered at the London School of Dental Surgery during the year 1892 has been 42, of whom 30 entered in October.

before and after treatment, afford striking evidence of the effect of the treatment. The appearance of the patient is utterly changed. Dr. Hector Mackenzie, in a paper published elsewhere in this issue, shows that the treatment may be still further simplified, and that it is sufficient to let the patient eat the thyroid or swallow an extract made with glycerine. By an interesting coincidence we received, after Dr. Mackenzie's paper was in type, the note from Dr. E. L. Fox which is also published in this number. It will be seen that Dr. Fox has had equal success. It would seem not only that there is no doubt of the efficient action of the gland when taken by the mouth, but even that some care must be taken not to let the patient swallow too much of it, as it may produce unpleasant symptoms of weakness and faintness. At first half a thyroid every day may be required, but when recovery has become advanced the same quantity once a week, or even less often, will probably be found sufficient. Mr. E. White, Pharmaceutist to St. Thomas's Hospital, has published in the *Pharmaceutical Journal* a method of preparing the thyroid extract which he finds to be an improvement on that first described by Dr. Murray in the Journal (October 10th, 1892). The gland is rubbed up with broken glass, and a mixture of equal parts of glycerine and sterilised water added. The whole is then macerated for twenty-four hours in a stoppered jar to which a small piece of thymol has been added to prevent decomposition. It is then squeezed through a piece of muslin, and filtered through a double layer of paper under pressure equal to about 15 inches of mercury. The fluid thus prepared will keep for about seven days in a well-stoppered bottle containing a piece of thymol. If used later than this for a hypodermic injection it may cause some local disturbance. If a pressure filter is not available, twice the quantity of glycerine should be used and the fluid decanted after macerating. Fifteen minims of the filtered and double that amount of the decanted fluid is the quantity usually used.

THE LIBRARY OF THE ROYAL COLLEGE OF SURGEONS.

It should, we think, be noted to the honour and credit of the Royal College of Surgeons, that in their accounts of this year the purchase of books, etc., for the library figures to the amount of £7,662 8s. 11d.—a munificent and enlightened expenditure which is all the more noteworthy from the liberality with which access is given to the treasures of the library, the admirable order in which it is kept, and the ability and courtesy of its librarian, Mr. Bailey, whose learning and special skill are favourably noted among the guild of librarians. The Royal Medical and Chirurgical Society is equally fortunate in the custodian of its literary treasures. We may take this opportunity of recording on behalf of the Library Committee and Mr. Ernest Hart, the honorary librarian of the British Medical Association, the heartiest thanks both to Mr. Bailey, the librarian of the Royal College of Surgeons, and to Mr. MacAlister, librarian of the Royal Medical and Chirurgical Society, for constant and valuable information and aid which have greatly lightened the labour and the responsibility involved in the formation of our young but rapidly growing and already valuable and important collection of books. The popularity and usefulness of the Association library and reading room are attested not only by the considerable and still growing attendances—amounting to over 2,000 during the last year—but also by the frequent letters received expressing a strong sense of its usefulness and value to provincial members visiting London, to members of the public services, and to persons engaged in working up special points of medical inquiry. It is extremely satisfactory to add that the anticipations held out by Mr. Hart, in his letter to the Council proposing the creation of the library, have been fully realised, as to the facilities which would exist for supplying the library with current periodicals almost costlessly, and for obtaining donations of books which would largely aid the inexpensive growth of the printed book department. The current annual expenditure of the Association on the library is relatively small—at the present moment about £250 a year, including the cost of binding and the salary of the excellent assistant-librarian, Mr. Honeyman, as well as covering all outlay for purchase of books and serial publications, but exclusive of fittings. Already the library possesses a fine series of great illustrated and standard works; and the valuable new books of the last few years, as well as text-books and minor monographs, are well represented. There are few requirements of visitors which it has not been possible to meet, and a suggestion book is kept for this purpose, to which great attention is paid. The intrinsic value of the collection of books in number may be fairly stated to be enormously in excess of the very limited outlay on the purchase of books. For this brilliant result thanks are largely due to the liberality of many donors, whose gifts are announced from time to time in our columns, and to the kindness and generosity with which the friends and executors of deceased members have responded to communications made to them from time to time by the Honorary Librarian. Thus Mrs. Alfred Carpenter recently presented to the library a very valuable series of books relating to Public Health subjects, and the friends of the late Dr. Macpherson handed over to our library a well-equipped collection of balneological literature. Thanks also to the kindness of members in noting from our published list, and from time to time supplying, special desiderata in the way of scarce and missing volumes required to complete series of past transactions, reports, and official publications, this important department of the library is also becoming valuable to students, and is being steadily completed. In this relation we have to acknowledge the kindness, among others, of the Speaker of the House of Commons, who responded with great generosity to the appeal of the honorary librarian for certain series of Public Health documents, of which he had the control of a few remaining sets—otherwise hardly obtainable. There are still some special desiderata, of which we ask our members to take notice in the list of past series, and in which there are gaps not otherwise to be filled. We may mention that collections of books made in the pursuit of special studies in particular departments or forms of disease, or lines of research, have a special value, and may at any time find a suitable home and a useful destination in the library of the British Medical Association. For that library we venture to bespeak continued favour.

SMALL-POX HOSPITALS.

The county borough of Huddersfield seems to be in a dilemma as to how best to provide means of isolation for small-pox cases. The question is always a difficult one, and at Huddersfield it is further complicated by the divergent views held by the Health Committee of the Council and the Council as a body. The proposition of the former to accept tenders for the erection of a temporary small-pox hospital near the borough sewage works was outvoted at the monthly meeting of the Council, and an amendment carried to consider further the adaptability of a site at Mill Hill—already acquired by the Council, and over twelve acres in extent—for the purposes of such a hospital. No sooner, however, was the amendment carried, than it was declared to be out of order; and so the matter stands adjourned, in much the same position as three years ago. The fever hospital at Birkby, capable of accommodating seventy patients, is declared to be unsuited to the reception of small-pox, whilst the Mill Hill site is objected to on account of the neighbouring residents. Evidence has long been accumulating inculpatory of these institutions as disseminators of disease, and the Medical Department of the Local Government Board have placed on record in at least three of their annual and special reports an array of facts which place beyond doubt the potency of small-pox hospitals, as we know them, for harm to their neighbourhoods. The Hospital Commission of ten years ago ad-

vised in general terms that such institutions should be erected upon a principle that would ensure adequate treatment of all infected air before allowing its egress to the general atmosphere. Bradford has already provided a building on the lines suggested by the Commission, and Glasgow and one or two other towns have followed suit; but until something has been learned of the efficacy of the experiment, local authorities generally will naturally be slow to move. Some comprehensive Government inquiry into the whole subject seems needed. If, as an outcome, some feasible method were found fitted to general adoption, by which small-pox could be isolated with safety, a great advance would have been made. Meanwhile, there are disquieting signs from one and another locality that, as one result of the unceasing efforts to discredit vaccination, we are not to escape the disease during the coming winter.

SCOTLAND.

The statutory half-yearly meeting of the General Council of the University of Edinburgh will be held in the University Examination Hall on Friday, October 28th, at 3 P.M.

Several further meetings of the Scottish Universities Commission have been held during the past week. The meetings are all held *in camerâ*, and no report has been given to the press.

The winter session of the Edinburgh Royal Medical Society was opened on Friday last with an address by Dr. Lauder Brunton. There was a crowded house, and many of the medical professors were present.

The Glasgow medical schools opened last week. The introductory lecture at the University was given by Professor Acland; at Anderson's College by Dr. W. L. Reid; and at St. Mungo's College by Dr. McVail. Queen Margaret College, the women's department of Glasgow University, was opened a week earlier.

PROFESSOR MACEWEN'S INTRODUCTORY ADDRESS.

On October 19th Professor Macewen delivered his introductory address in the Bute Hall of Glasgow University, and was received with much enthusiasm by the students. After some words of public thanks for the evidences of kind interest in his appointment and the encouragement he had received from so many quarters, and of regret at severing his long connection with the Royal Infirmary, Dr. Macewen proceeded to speak of the heritage possessed by Glasgow University in the work of the distinguished men who had occupied her chairs, Francis Hutcheson, Adam Smith, Black, Cullen, and William and John Hunter. His brief and pointed address was brought to a close by a few sentences well worth reproduction: "A student cannot always rely upon others. They may point out the direction in which he may go, after which he must strike out for himself. He ought to go forward with simplicity of purpose and rectitude of aim, not permitting his thoughts to be stifled by antiquated notions, or trained into servile conformity to ordinary opinion. His kindling energies must not be smothered, and he must be left unfettered development. Every work completed renders the brain more capable of working; it increases and improves with each fresh application. It is no longer a labour, it becomes a pleasure and an enjoyment. The highest brain work is never paid for by a monetary return; it ought to be its own reward. In studying, our motive must be pure, our allegiance absolute, placing our hope neither in riches, place, nor fame. What D'Alembert has said of literary men seems to me to apply equally to the scientific—'Every man of science, who deserves the name, will have as watchwords, freedom, truth, and even poverty, and if he fear the last, the two former will never be made sure to him.' He ought to work without hope of reward or fear for the consequence; working not for the day that passes, but for the eternity that surrounds us."

PROFESSOR GAIRDNER ON THE FUTURE OF THERAPEUTICS.

This was the subject with which Professor Gairdner opened his class of Practice of Medicine. He shared the views of Dr. Whitla that every unprejudiced observer must see that the foundations of a scientific treatment of disease were being surely and permanently laid, but one of the greatest barriers to progress was to be found in the ever-increasing number of new drugs which poured in at a rate which prevented the thorough testing of their qualities and actions. How were they to continue to practise the art of medicine with reasonable success and safety, and how improve it, in the midst of a crowd of competing claims in the shape of new views of pharmacology, new theories of disease, and new remedies? The failure of Dr. Koch's remedy carried the lesson, once and for all, that individual effort, however elaborate and ably conducted, could not definitely fix the therapeutic status of a remedy, at least in relation to any very complex group of diseased conditions. After all was done that could be done by individual effort, it was absolutely necessary that hundreds, or perhaps thousands, of actual practitioners should contribute each a share towards the establishment of a sound and well-balanced opinion as to the action of any remedy as such. Therefore Dr. Gairdner proceeded to urge the necessity of establishing locally therapeutic committees, who would conduct the investigation and promulgation of remedies in the interests of medical science and of humanity.

INTERNATIONAL MEDICAL CONGRESS.

In accordance with the request of Professor Baccelli, of Rome, and Professor Maragliano, of Genoa, President and General Secretary of the approaching Eleventh International Medical Congress, Professor Grainger Stewart and Dr. G. A. Gibson have consented to act as Chairman and Secretary of a Scottish Committee, in order to promote the aims of the meeting, and the following gentlemen have intimated their willingness to co-operate with them: Professor McCall Anderson, Glasgow; Mr. G. A. Berry, Edinburgh; Dr. Byrom Bramwell, Edinburgh; Dr. Alexander Bruce, Edinburgh; Mr. John Duncan, Edinburgh; Dr. W. J. Fleming, Glasgow; Professor T. R. Fraser, Edinburgh; Professor W. T. Gairdner, Glasgow; Professor Hamilton, Aberdeen; Professor Hay, Aberdeen; Dr. P. McBride, Edinburgh; Professor W. Macewen, Glasgow; Sir Douglas Maclagan, Edinburgh; Dr. R. W. Philip, Edinburgh; Right Hon. J. A. Russell, Edinburgh; Dr. W. Russell, Edinburgh; Professor W. Rutherford, Edinburgh; Professor Simpson, Edinburgh; Dr. R. Stockman, Edinburgh; Dr. J. B. Tuke, Edinburgh; and Sir William Turner, Edinburgh. The members of the Committee will be happy to obtain information in regard to the best methods of travelling to and residing in Rome in order to be able to place the facts before any who propose to become members of the Congress.

NEW PAUPER HOSPITAL IN ABERDEEN.

Professor Alexander Ogston opened a new hospital at Old Machar Poorhouses on October 19th. The hospital, which cost £2,000, faces Fonthill Road, and has a frontage of 160 feet. It is to be used exclusively for the treatment of pauper patients. Professor Ogston, in the course of his speech, took occasion to remark that the building now was so perfect that there was a probability that there would be a request made to allow, to some extent, the admission of students for purposes of instruction. The presence of students would have a humanising effect on the institution. The Chairman of the Board stated that the suggestion would have their best consideration. There exists another similar institution in the

city—St. Nicholas Poorhouse—which also has a hospital of about similar size. Here already, to some extent, liberty has been granted to medical students to study the cases, and the Board of Management seem willing also to grant guarded facilities to the study of disease. It would be a distinct gain if the Aberdeen Medical School could utilise these two institutions to the full in clinical work. Both these hospitals are rich in cases of senile and nervous disease.

IRELAND.

ROYAL COLLEGE OF SURGEONS IN IRELAND: SCHOOLS OF SURGERY.

ON November 1st, at 12 o'clock, Mr. Hamilton, President of the College, will present the prizes awarded to the successful students of the previous sessions, 1891-92. On the same occasion the schools will be opened for the winter session, 1892-93.

OPENING OF THE MEDICAL SESSION IN BELFAST.

THE medical session at the Royal Hospital will be opened on November 1st, when the opening address will be delivered by Dr. Nelson, Ophthalmic Surgeon to the hospital. The only change on the staff in the course of the last year has been the retirement of the Pathologist, Dr. Burden, to whom no successor has yet been appointed. Dr. Burden's serious illness is a matter of great regret to his friends and colleagues.

INFLUENZA: EXTRA MEDICAL FEES.

THE Cork rural dispensary medical officers were recently promised £15 each for extra services during the last epidemic of influenza; but at a meeting held recently the guardians rescinded their former resolution, and decided that their medical staff should not receive any extra fees.

PROSECUTION OF QUACKS.

WILLIAM HALE, described as a doctor possessing American degrees, was charged at the Belfast Police-court with conspiracy to defraud during the past three months several people in Liverpool. It is alleged that the prisoner, in conjunction with others, styling themselves "the American Doctors," visited several large towns in the United Kingdom, and by extensive advertising of their capabilities obtained large sums of money in a fraudulent manner. After some evidence the prisoner was handed over to a Liverpool detective who held a warrant for his arrest.

ROTUNDA HOSPITAL, DUBLIN.

A WELL-INFORMED CORRESPONDENT writes: The Corporation of Dublin has, for the fourth year in succession, refused to give a grant in aid to the Rotunda Lying-in Hospital. The reason assigned is that there is not a sufficient number of Roman Catholics on the Board of Governors, and that the physicians appointed have been always Protestant. As a matter of fact, there are four Catholic gentlemen on the Board, and the charity is administered with strict impartiality. The great majority of the patients are Catholic, but the majority of the subscribers are Protestant. It is a pity that this feeling of religious bitterness should be allowed to mar in any degree the usefulness of a famous hospital, to which students from all parts of the world turn for instruction. The money granted by the Corporation is not Catholic money, but is taken from the taxes, to which all are contributors, and it does appear that they are straining their powers in refusing to this hospital the help which they give freely to others. If the majority of the subscribers are Protestant, it seems fair that the governors should be largely Protestant also; if, indeed, such a consideration as religion should be allowed to weigh at all. It is a misfortune that such a question should be raised in this connection, and very desirable that a *modus vivendi* should be arrived at.

SUPERANNUATION OF DISPENSARY MEDICAL OFFICERS.

ON October 13th the guardians of the Cork Union resolved to grant a retiring allowance to Dr. Callaghan, medical officer of the workhouse, but the Local Government Board, in a recent communication, informed the guardians that Dr. Callaghan had, it appeared, been absent from his duties for a period of nearly ten months, and as he was unable to resume work he must first formally resign his position before the guardians can vote him a retiring allowance. The point is an important one for Irish dispensary medical officers. It has been stated lately with some show of authority that formal resignation is not necessary if the medical officer has stated his intention to resign provided he receives the retiring allowances to which he may be entitled. The case of the unfortunate Dr. Walsh and his treatment by the Ballyshannon guardians must be fresh in the memories of our readers, and it cannot be denied that there are too many unions in Ireland who have similar proclivities.

GROWTH AND SANITARY DIFFICULTIES OF BELFAST.

BELFAST has, time after time, to cope with the various sanitary problems arising out of the city's rapid and uninterrupted growth. The annual increment of population to the extent of 5,000 or 6,000 people precipitates many difficulties and calls for vigilance and foresight on the part of the municipal authorities. The main drainage scheme, of which the last section is now being entered upon, was the first and not least important of sanitary improvements. The scheme for bringing an ample supply of perfectly pure water from the Mourne Mountains in lieu of the present inadequate and far from satisfactory supply has been adopted by the Water Commissioners, and will, it is to be hoped, be immediately proceeded with. Now the question of the lighting of the city is creating difficulties. The present gas works are taxed to their utmost capacity and if not speedily enlarged will soon prove inadequate. No ground in the immediate vicinity of the present works being available for extension two proposals have been considered by the City Council: (1) To take a portion of the Ormean Park for the new works, and (2) To take the grounds of Glentoran for this purpose. Much opposition is being shown in the press and among the public to this encroachment upon the breathing spaces of the city, and the question has excited so much division of opinion that the Council has decided to take a *plébiscite* on the subject. Arrangements are also being made for lighting a portion of the city with electricity.

THE LORD LIEUTENANT AND THE IRISH COLLEGE OF SURGEONS.

HIS Excellency the Lord Lieutenant was presented on October 21st with an address from the Royal College of Surgeons of Ireland. The address, which was wholly unpolitical, was read by the President of the College, Mr. Edward Hamilton. The Lord Lieutenant, in reply, expressed the strong opinion that in demanding some measure of general culture as a preliminary to the special knowledge required by members of the medical profession the College had contributed largely to maintain at its due height the standard of cultivation in the profession. All the marvels of invention and of discovery and—with the possible exception of the abolition of the slave trade—all the efforts of statesmen and public men had not contributed nearly so much to the comfort of mankind and to the diminution of misery as the advance which had been made in medical, and especially in surgical, science. Consequently, he could say with truth that there was no address which he had received with greater pleasure than that of the Royal College of Surgeons of Ireland.

THE Russian Public Health Society has decided to establish a Museum of Hygiene in St. Petersburg.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

South-Eastern Branch: West Kent District.—The next meeting of this District will be held at St. Bartholomew's Hospital, Chatham, on Tuesday, November 8th, at 4 P.M. Dr. Franklyn Brown, of Rochester, in the chair. Communications, etc.: To receive Report from Medico-Ethical Committee on the subject of Medical Tariff. Dr. Tannahill: (1) Clinical Notes on Colour Blindness; (2) On Lupus, and its Treatment by Koch's Method. Dr. J. V. Bell: A Case of Abdominal Section for Acute Intestinal Obstruction. Mr. P. Selby: On the Absorption of Pleural Effusion by Salicylate of Soda. Dr. A. Packman: Notes on a Case of Strangulated Inguinal Hernia: Operation with Radical Cure. Mr. T. F. Hugh Smith: Hydrothorax a Sequel of Influenza. The dinner will take place at the Bull Hotel, Rochester, at 6.30 P.M. Charge 6s. 6d., exclusive of wine. Gentlemen who intend to dine are particularly requested to signify their intention to the Chairman, Dr. Franklyn Brown, High Street, Rochester, not later than Monday, November 7th. All members of the South-Eastern Branch are entitled to attend this meeting, and to introduce professional friends.—E. Ground, Deputy Honorary Secretary of the District.

Lancashire and Cheshire Branch.—The autumn meeting of this Branch will be held in the Town Hall, Preston, about the last week in November. Gentlemen wishing to read papers or communications, or show cases, are requested to write to Dr. Glascott, 23, St. John Street, Manchester, as soon as possible.—C. E. Glascott, M.D., Jas. Barr, M.D., Joint Honorary Secretaries.

Yorkshire Branch.—The autumn meeting of the members of the Yorkshire Branch will be held at Harrogate on Wednesday, November 2nd, at 4.30 P.M. Members intending to read papers are requested to communicate with the Secretary, Arthur Jackson, Wilkinson Street, Sheffield.

North of England Branch.—The autumnal meeting will be held at the Ingham Infirmary, South Shields, on Wednesday, November 2nd, at 4 P.M. Cases of interest will be shown by the honorary staff of the infirmary, and by others. The dinner after the meeting will take place at the Royal Hotel at 6 o'clock.—G. E. Williamson, Honorary Secretary, 22, Eldon Square, Newcastle-upon-Tyne.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

The summer meeting of this Branch was held in the Meldrum Arms Hotel, Old Meldrum, on June 14th, at 1.30, Dr. Barclay, of Banff, President, in the chair.

Minutes of Nomination.—The minutes of the last meeting having been read and approved, Dr. J. Peters Watt, Alford House, Aberdeen, was nominated for ballot at the next meeting.

Representative Member.—Dr. Mackenzie Booth was elected Representative of the Branch on the Council of the Association for the ensuing year.

Papers.—Dr. Thomson, Huntly, communicated the notes of a case of Renal Calculus.—The President of the Branch, Dr. Barclay, of Banff, contributed a paper on Acromegaly, which will be published in full.

Excursion.—An omnibus excursion was made from Inverurie to Old Meldrum by the Hill of Barra, arriving at Old Meldrum in time for the meeting. Refreshments were served on Barra Hill at noon.

Dinner.—After the meeting, dinner was served in the Meldrum Arms Hotel, Old Meldrum, under the presidency of Dr. Barclay, Banff. There was a large attendance of members, and a photograph was taken.

The annual meeting of this Branch was held in Marischal College, Aberdeen, on October 15th, 1892.

Minutes.—The minutes of the last meeting were read and approved.

Nominations and Ballot.—Dr. James Troup, 185, King Street, Aberdeen; Dr. William Beddie, 17, Saltoun Place, Fraserburgh; Dr. J. A. R. Glennie, 50, Rosemount Place, Aberdeen; and Dr. McRae, Turriff, were nominated for ballot at the next ordinary meeting of the Branch. Dr. James Peters Watt, Alford House, Aberdeen, was balloted for and admitted an ordinary member of this Branch.

Council's Report.—The report of Council for the past year was then submitted, and ran as follows:—The Council has to record the continued success of the Branch during the past year. The numerical strength has been augmented by the admission of nine new members; the Branch now numbers 138. During the year one of its youngest members—Dr. Hutcheon—has passed away, and a few other members have changed their residence. The ordinary meetings of the year have been fairly well attended, and the communications of considerable interest. On one occasion a novel feature in the form of a limelight exhibition was introduced by Dr. McKenzie Davidson. The summer meeting, which was held at Old Meldrum, was as usual successful and well attended. On the initiative of Professor Cash, a local therapeutical committee has been formed to aid in the investigation of the action of new drugs. The question of the union of the two local Medical Societies has been under discussion, when the feeling of the Branch was unanimous in favour of the proposal. Financially the Branch holds this year a better position than before, as is shown in the treasurer's balance-sheet.

Balance-Sheet.—The Treasurer, Dr. Dalgarno, submitted the balance-sheet for 1891, which showed a balance of £33 12s. to the credit of the Branch.

Election of President-Elect.—Dr. C. O. Hill proposed Dr. Paterson, of Inverurie, as President-elect for the ensuing year, which proposal was seconded by Professor Ogston.

Election of Honorary Secretaries.—On the motion of the President, Drs. Mackenzie Booth and Thiselton Urquhart were re-elected Honorary Secretaries for the ensuing year.

Election of Honorary Treasurer.—At the same time Dr. Dalgarno was re-elected Honorary Treasurer for the ensuing year.

Council for 1892-3.—The ballot being taken, the following gentlemen were elected members of Council for the coming session:—*For Town:* Dr. Angus Fraser, Dr. Edmond, Dr. McKenzie Davidson. *For Country:* Dr. Cran (Banchory), Dr. Maver (Buxburn), Dr. Smith (Kinnairdy).

Summer Meeting, 1893.—On the motion of the President, Banchory was selected as a place for summer meeting, 1893.

Statement by Professor Cash.—Professor Cash made a statement in connection with the Central Therapeutic Committee, and proposed the continuance of the local Therapeutic Committee. This was supported by Professor Ogston, and acceded to by the meeting.

Invitation to College.—Professor Stephenson then drew attention to the various museums and laboratories of the College, to which the members were invited, and a vote of thanks to the chair concluded the meeting.

Infirmary Visit.—A visit to the new Infirmary buildings was made by several members at 11 A.M.

Visit to Marischal College.—After the meeting Professors Ogston, Cash, Stephenson, Reid, and Finlay conducted the members through the Pharmacological, Midwifery, Medicine, Anatomy, Surgery, Botany, and Pathology class-rooms, museums, and laboratories, where many interesting preparations and experiments were shown.

Annual Dinner.—The annual dinner was held in the Imperial Hotel, Stirling Street, under the presidency of Dr. Ogilvie Will.

WEST SOMERSET BRANCH.

The autumnal meeting of this Branch was held in the Council Chamber, Municipal Buildings, Taunton, on September 30th; John Currie, M.D., President, in the chair.

The late Dr. Clark.—The minutes of the last meeting having been confirmed, a letter from the widow of the late Dr. Clark, of Minehead, acknowledging the vote of sympathy passed at the last meeting, was read.

New Members.—The following gentlemen, who were already members of the Association, were elected members of the Branch: Arnold Lyndon, Wellington; James Gordon Bain, Taunton; S. W. MacIlwaine, South Petherton.

Address.—Professor Gairdner, of Glasgow, delivered an address on "The Future of Therapeutics." The address, which

occupied over an hour in its delivery, was listened to with the greatest attention.—A discussion followed, in which Dr. LAUDER BRUNTON, Dr. KENT SPENDER, and Dr. EDWARD LIDDON took part.—Professor GAIRDNER briefly replied.

Votes of Thanks.—A vote of thanks to Professor Gairdner for his address was proposed by Dr. E. LONG FOX, of Clifton, seconded by Mr. L. TOSSWILL, of Exeter, and carried by acclamation. A vote of thanks to his Worship the Mayor of Taunton, for granting the use of the Council Chamber for the meeting, was proposed by Dr. MEREDITH, of Wellington, seconded by Dr. MAURY DEAS, of Exeter, and carried.

Dinner.—The dinner was served at the Castle Hotel, at 7.30. The following is a list of the toasts: 1. "The Queen." 2. "The Bishop and Clergy," both proposed by the Chairman, Dr. CURRIE; the Rev. Prebendary ASKWITH responded to the latter. 3. "The British Medical Association," proposed by Dr. LAUDER BRUNTON, responded to by Dr. CURRIE, President of the Branch. 4. "The Guest of the Evening and Reader of the Address," proposed by Dr. WINTERBOTHAM, Bridgwater; responded to by Professor GAIRDNER. 5. "The Neighbouring Branches," proposed by Mr. W. B. COSENS, Taunton; responded to by Dr. MAURY DEAS, of Exeter, and Dr. KENT SPENDER, of Bath. 6. "The Visitors," proposed from the CHAIR, responded to by the MAYOR OF TAUNTON. An adjournment afterwards took place to the residence of the President, where a very successful meeting was brought to a close.

SPECIAL CORRESPONDENCE.

SHEFFIELD.

The Smoke Nuisance.—Death Produced by a Needle in the Gullet.—The Chesterfield Hospital and the Working Classes.

THE smoke nuisance and the means to lessen it are every now and then brought into more prominent notice. Just now several prosecutions of offenders have taken place. Penalties have been inflicted and orders have been made for the abatement of the nuisance caused by their smoky chimneys. What is needed is a systematic inspection of the principal offenders.

An inmate at the Wadsley Asylum died a few days since from a curious cause. She had been confined to bed and not taking food properly, but serious symptoms only occurred a short time before her death. These were bleeding at the mouth and nose and syncope. At the *post-mortem* examination the stomach was found to be full of blood, and in the middle of the gullet a rusty needle, rather larger than an ordinary sewing needle, was found fixed, with a little black thread and about two feet of tape wrapped round it. The needle was fixed transversely across the gullet and had apparently caused ulceration extending to the aorta. The woman was aged 60, and it is supposed that the needle had been in her gullet for two or three weeks.

VITAL STATISTICS OF JAPAN.—During the past twenty years the population of Japan has increased very rapidly; while in 1872 it was 33,110,000, in 1890 it had risen to 40,070,000, and the increase has been well maintained since then. At this rate of progress it is estimated that Japan will in about fifty years have a population of 80,000,000. A native economist, Mr. Ourakami, attributes the rapid increase of population in Japan partly to the growth of national wealth, but chiefly to the low death-rate among infants. It appears that next to France Japan has the lowest birth-rate of any known country, but this is counterbalanced by the conservation of infant life. In fact, in point of infant mortality, Japan at present stands next to England among the nations of the world. Thus while in Russia the death-rate per 1,000 among children under 5 years of age is 423, in Bavaria 405, in Austria 390, in France 341, in Prussia 335, in Japan it is 276, and in England 255. The proportion of the sexes in Japan is 100 boys to 97 girls, a difference which Mr. Ourakami explains by the smaller amount of care bestowed on female children.

THE new medical buildings of the University of Minnesota were recently opened with appropriate ceremonies. Dr. William Osler, of Baltimore, delivered an address on "Teachers and Students" on the occasion.

CORRESPONDENCE.

PRESSURE ON SPACE.

Notice to Correspondents and Authors of Communications.

IN view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

MEDICAL AID ASSOCIATIONS.

SIR,—A great deal of matter has been printed in the BRITISH MEDICAL JOURNAL relative to the above subject. I do not see that there is so very much to complain about after all, especially if you look at it in the light that I do. I happen to be so situated that I hold among other things a parish appointment—that is, parish doctor; also have three collieries and a small branch of the Medical Aid; this latter brings me in about £1 per quarter, sometimes more and sometimes less. Now the very people who pay for my attendance through the Medical Aid would get parish orders for my attendance if that Society did not exist; therefore I am the gainer by the Medical Aid, and feel glad to encourage its existence, as my Poor-law salary is so "poor." But my visit and medicine often average about 2d. or 3d., and the guardians tell me, when I ask for a rise, that if I give it up there are others ready to take it; and, further than this, the Medical Aid pay is not much worse than the pay from the collieries, and sometimes—and especially the last few months—it has been a good deal better. The pay from collieries is 1½d. and 2d. in the pound, and is regulated by the man's earnings, and the doctor has to attend the wife and husband, all the children, and occasionally a grandfather or grandmother will fall to his share of work, and now and then a grown-up daughter will come home ill from service. The "Works" doctor is supposed to attend them all, and not grumble to treat their injuries whether obtained through accident in their employment or in some drunken brawl.

Now a collier earning £2 per week—and the last few months the majority have not earned 10s. per week—with a wife and six children, would pay to his doctor 4d.; the same man paying through the Medical Aid would pay 1d. each for himself and wife, and ½d. for each child per week, making altogether 5d. in the week. I submit 5d. is better pay than 4d., and this rate of pay would naturally go on, even if the man earned only 10s. per week, as in bad times, or £2 per week, as in good times.

Oct. 22nd. SOUTH WALES BORDERER.

SIR,—Dr. Leslie Phillips's contention with regard to the above may be found to have a wider application than he anticipates. It is not easy to see in what essential particular the position of a medical officer to one of these associations differs from that of a salaried medical officer to a home-hospital, retreat, sanatorium, or private lunatic asylum under lay proprietorship. Even in the matter of advertisement the parallel may hold good.—I am, etc., Z.

SIR,—I cannot altogether agree with "M. O. of Friendly Societies" when he contrasts the position of an assistant to a private practitioner with that of a medical officer to a friendly society's medical aid association. A young man takes an assistancy not only for the salary he receives, but also for the experience he so much needs in the routine of general practice. A medical officer must not only have had some experience, but, in nineteen cases out of twenty, he must be a married man as well. He apparently takes the appointment to settle down in life, while secretly hoping something better may turn up in the near future. If he works hard the association increases, but do his emoluments increase in proportion? In a few years an assistant medical officer may be required who absorbs the greater portion of the increase in the revenue of the association, leaving the senior medical officer *in statu quo*. After a few years he may get some in-

crease of salary, but the limit is soon reached. How can he afterwards feel an interest in his work? The whole system is more or less demoralising to the medical officers.

If the promoters of medical aid associations could see their way to guarantee their medical officers a superannuation allowance at a certain age or after a certain number of years' service, I believe most of the opposition to these associations would be removed provided, of course, they were limited to *bonâ fide* members of friendly societies, and that touting was strictly prohibited. The committees could not be accused of accumulating wealth for their own purposes, and the medical officers would be induced to work on contentedly, being assured of some provision in their old age—a prospect they are not likely to feel from their present inadequate salaries.—I am, etc.,

Oct. 24th. ANOTHER M. O. OF FRIENDLY SOCIETIES.

SIR,—I think the time has come when some stand should be made against the down grade movement the profession is undergoing—the underselling, the "cutting in" (or setting up of men in opposition of established practitioners), the taking of appointments started to form a nidus of opposition to some man with pluck enough to stand up against petty tyranny, the formation of medical aid societies, etc. We have a General Medical Council, and I think if the great bulk of the profession would only realise the importance of the question raised in Dr. Leslie Phillips's appeal to the Council and back up his efforts, much might be done to check the demoralising influence of such "aids" to professional degradation.—I am, etc.,

Birmingham, Oct. 25th. WILLIAM DONOVAN, M.D.

SIR,—Will you kindly permit me, through the medium of the BRITISH MEDICAL JOURNAL, to make known to all medical practitioners that a petition to the President and members of the General Medical Council *re* "Medical Aid Associations" has been drawnup and extensively signed. If any registered medical practitioner wishes to add his name to this important document, a postcard addressed to me, with authority to add the name, will suffice. The petition reads as as follows:—

To the President and Members of the General Council of Medical Education and Registration.

This petition of us, the undersigned, duly registered medical practitioners, sheweth: That the modern system of medical practice conducted by the ostensibly philanthropic institutions designated "Medical Aid Associations" and similar bodies is degrading to the profession and injurious to the public. And your memorialists pray that your honourable Council will take this increasingly important question into your consideration, and take such steps as may appear necessary in order to bring about an amendment of the evil.

And your memorialists will ever pray, etc.

Name. *Qualification.* *Address.*

I have been asked by Dr. Leslie Phillips, Secretary to the Medical Defence Union, to undertake this important duty. I need scarcely add that the Medical Defence Union requires the hearty co-operation of every individual practitioner in its efforts to bring about an abatement of the evils of these medical aid associations, which are disgraceful alike to the public and the medical profession generally.—I am, etc., ERNEST HUGH FITZPATRICK, L.R.C.P.E., etc.

122, Mosely Road, Birmingham,
Oct. 25th.

*** We have received a large number of communications upon this subject. Pressure upon space at the present time renders the publication of the whole impossible.

SCHOOLBOYS' MEALS.

SIR,—The letters in the BRITISH MEDICAL JOURNAL of October 22nd on the above subject are particularly interesting. As one in personal touch with Epsom College, I heartily concur in the views expressed by one of your correspondents against the custom of giving beer to boys. For a case in point, here is one of my young ones. He could hardly have known the taste of beer until he went to Epsom, the home beverage at dinner being good wholesome water, but after being at Epsom a few terms he showed a decided wish for ale with his midday meal during the holidays, and looked as if he was not being fairly treated when paterfamilias remonstrated with him, saying it was not necessary and not good for him, but he always had it at school, he said.

This is not penned in any depreciating spirit. On the contrary, I am proud of the discipline and system of education carried on at Epsom; only I don't quite like the beer.

Oct. 22nd. YET ANOTHER PATER.

SIR,—It is far from my wish to call into question the honour of schoolboys, more especially of those at Epsom College, who are all sons of gentlemen, but it is universally granted that schoolboys have many imaginary grievances, and are consequently fond of grumbling. Is it not natural, therefore, that they should at times unconsciously distort and exaggerate what are really the facts of the case when expatiating on their wrongs to devoted and, in many cases, too susceptible parents? We all know that many a boy dislikes one master because he is not blessed with good looks, but worships another because he has been fortunate enough to contribute the coveted 100 to a cricket score. "W. G.," the schoolboy in *Walker, London*, is astounded that his sister should refuse the offer of marriage from a gentleman who had played in a county cricket match. Is it to be expected then that boys should be satisfied with their meals, however wholesome and sufficient? Should the dietary question really demand inquiry, ought not the prime tests to be: (1) The general health of the school; (2) the physical and intellectual successes of the boys? It must not be forgotten that Epsom College is neither a seminary for young ladies nor a private school for backward and delicate boys.

My experience of the College dates back to 1880, during which period I have had the pleasure of visiting the College on several occasions, and of dining there sometimes, but I must say that there has rarely been occasion to find fault with the quality of the food, and never with the cleanliness of the serving. Once, a few years since, during a very severe winter, the potatoes were not as good as could be desired, but that year private families suffered quite as much in this respect. May I offer a piece of advice to fathers of boys at the College: Pay the school a visit during the dinner hour, and look and taste for yourselves. If then you find anything that wants improving, write to the Council, and not under a *nom de plume* to a journal, when you will find, as I have always experienced, that your complaint will be courteously received, carefully considered, and willingly attended to, if such a course be possible and practicable.

I am probably paying too much honour to the first letter in the BRITISH MEDICAL JOURNAL of October 22nd signed "Another Paterfamilias," in alluding to the scurrilous observation as to the spread of scarlet fever. I will only observe that I have heard on good authority that the first case was undoubtedly imported into the College, and, as I heard an eminent practitioner say some years ago, "when once the fever gets into a large establishment the devil himself couldn't drive it out until it had run its course."—I am, etc.,

Oct. 23rd. VERITAS VINCIT.

SIR,—I was very pleased with your able article on schoolboys' meals, and also with the very sensible letter of "Paterfamilias" in regard to Epsom College, with whose remarks I quite agree.

I should be very glad to find the Council alter and improve the diet in the way suggested by "Paterfamilias," as I consider everything at Epsom as first-class except dietary. I do not agree with beer for young boys at school, but think they require meat or an egg for breakfast, and of course meat dinners, and if they had a glass of milk, instead of beer, for supper should think it much better.

I think these improvements might be made without very much increasing the expense, but if the Council see any difficulty, I believe many who wish their boys to be well taught and well fed would be willing to pay a little more for the extra comforts. I have a son at Epsom, and take a great interest in the school.

Oct. 18th. ANOTHER FATHER.

DEATH CERTIFICATES AND THE CAUSE OF DEATHS.

SIR,—I wish to call the attention of all medical men to the letter of Sir Henry Thompson in the *Times* of October 24th bearing upon the very important question of the giving of certificates of death. He calls attention to the "exceedingly

loose and insufficient procedure which takes the place of intelligent investigation in relation to death inquiry in this country."

That he is absolutely justified in his remarks many reported cases show, and none more so than the case of Neill, who has just been convicted for the murder of Matilda Clover. Among many other reasons why certificates of death are given in a loose fashion is, first, that little or no attention is given by the lecturers in medical schools to the law bearing upon the granting of such certificates. The Act of Parliament dealing with registration of deaths may appear to a person other than a lawyer vague and confusing. The Births and Deaths Registration Act, 1874, states that the medical man who has attended in the last illness "shall sign and give ..... a certificate stating to the best of his knowledge and belief the cause of death."

This, strictly speaking, means that no certificate should be given unless a medical practitioner has personal knowledge of the cause of death; but as the exact mode of death may be doubtful, if he is satisfied that the death has arisen as a consequence of some complaint which is likely to be mortal, he may be justified in giving a certificate to the best of his belief.

These words "knowledge and belief" allow a loophole for vague and incorrect certificates. Some medical men wishing to act *bonâ fide*, and others from doubtful motives, consider that they are entitled to give a certificate on the belief of statements made to them by friends of the deceased without having a sufficient knowledge of the immediate cause of death. Such knowledge is worse than worthless, as it is given by persons unable properly to describe the symptoms, who may be interested in withholding important facts. Again, the Registration Act allows a body to be buried simply on the information of friends and relatives, and without the production at the time of a medical certificate. Also, a body may be buried without any order or certificate, and if the person performing the burial neglects to give notice to the registrar that no order or certificate has been delivered to him, a crime may easily be hidden.

The present Registration Act requires thoroughly revising on the following lines:

1. That no body should be buried without a medical certificate having been first produced to the registrar, and his order produced to the person performing the burial.
2. That all stillbirths should be registered.

Further, the Coroners Act should be amended so as to allow, as in many Continental countries, of an expert medical man being attached to the district of each coroner, who should at the request of the coroner, make a necropsy in all cases where no medical certificate is given, in order that an inquest may be held if the coroner thinks necessary. At present the coroner can only order and pay for a necropsy on holding an inquest. This action would not deprive the coroner of his jurisdiction in cases of violence, suspicion, neglect, and other unnatural causes, where he would still be required to summon a jury and hold an inquest.

I also think registrars should be male persons, with a better knowledge than many at present seem to have, for by referring to the List of Registrars, we find them to be bootmakers, fishmongers, builders, tinmen, and of many other miscellaneous occupations where you could least expect to find such knowledge as would enable them to understand the medical terms on a certificate.—I am, etc.,

BARRISTER-AT-LAW.

October 24th.

DIAGNOSIS OF SCARLET FEVER.

SIR,—Having read the letter under the above title in the BRITISH MEDICAL JOURNAL signed "E. Climson Greenwood" with peculiar interest, I trust you will allow me to say a few words in reply.

Your correspondent writes that of thirty-five cases received into the hospital mentioned, "six had nothing the matter with them at all," and speaks of this as indiscriminate notification. Is it not possible that at the time these six cases were notified by the several medical men called in they were rightly diagnosed as "scarlatina," and very properly notified? It is by no means an uncommon occurrence for a medical practitioner to have one or two typical cases of the disease breaking out in a family, about which there can be no shadow of doubt, and perhaps one or more members of the same family with very abortive symptoms of the complaint, but which have clearly the same infectious origin, only in a milder form.

For instance, one occasionally sees such cases to which the name "scarlatina sine eruptione" has been given, where sore throat and fever are alone present, which symptoms may be of a very evanescent character. Again, where scarlet fever is raging in a family or school, we not rarely see one or more members in which the febrile symptoms are so slight—lasting perhaps only for a day or two—that by the time the case has been visited by a doctor, notified and probably removed to a hospital, the patient is apparently in good health.

Or, again, a medical man is called to examine a patient with well-marked signs of "scarlatina," and he hears, perhaps, that one or two members of the same family have a few days previously suffered with "slight sore throat" and "feverishness," but are now well, and on examination show no trace of desquamation of skin. Are we not right in attributing the sore throats and general feeling of *malaise* which attendants on patients suffering from scarlet fever sometimes experience in many cases to modified scarlatina?

I venture to suggest that these latent cases to which I have referred are a fruitful source of spreading the disease, especially in large schools, where so many young children are congregated together, and where an infected child with a "sore throat" and, may be, a slight unnoticed rash is taking its part with others in its routine school duties.

Taking into consideration our earnest endeavours as medical men to grapple with infection on its earliest manifestations, and by the immediate isolation of suspected cases reducing the chance of its spreading to a minimum, and recognising as we do the very infectious nature of the malady, I take it that a medical practitioner is only doing his duty in notifying such cases as I have mentioned, notwithstanding what may seem to be an extra drain on the ratepayers' pocket.—I am, etc.,

Aldgate, Oct. 23rd. G. W. SEQUEIRA, M.R.C.S.Eng., L.S.A.

THE FIVE YEARS' CURRICULUM.

SIR,—In the remarks on the five years' curriculum in the BRITISH MEDICAL JOURNAL of October 22nd I notice that my distinguished friend, Mr. Mitchell Banks, speaks in a strongly disparaging manner of the value of a six months' training under a general practitioner for a pupil who has finished his theoretical studies, and is preparing for his final examination.

Now I may say for myself and others who have advocated this proposal that we do not advise that every practitioner should be deemed qualified for the charge of training such students. There would be required previous proof of a sufficient field of practice, and afterwards evidence that the pupil had been properly employed in his work. I do not see any inherent difficulties in carrying out such regulations. The first might mean hospital, workhouse, or union practice; while the second might be properly tested by evidence of schedules, and, above all, the result of the final examinations. Those will be, let us hope, now that we have got a five years' course, entirely practical, and this well adapted to test the candidate's opportunities of acquiring practical knowledge. But Mr. Mitchell Banks avers that the best field for obtaining such knowledge is in the wards of a large hospital.

Let us try to test this averment by results. Having been upwards of thirty years in general practice, having been first a student, secondly an examiner, and thirdly a visitor of examinations, and, above all, having had much experience of assistants, I think I may claim to speak with some authority on the value of the present system of examinations as a test to try the question of whether a particular medical student is able to undertake practice or not.

I say then unhesitatingly that, while it succeeds in many cases, in others—I fear the majority—it fails. While I say so I am still an advocate of examinations, but I believe them still very far from being perfect. Of course perfect they never can be, but as far as they try a young man's knowledge in theory and not in practice, they fail. I value science as much as any man; so much so that I feel sorry to see a genuine scientific man degraded by having to pass examinations. The great majority of medical students merely study to pass, and by passing to gain a livelihood. "And pity 'tis, 'tis true." But even on the assumption that a minority look upon medicine

as a profession which is honourable and lucrative, and not as a branch of science, surely means should be adapted to secure that these are perforce so trained that they possess competent skill for practising the calling.

If there are to be licences to practise at all, the public has a right to demand that proper care is taken to secure that none shall pass who are incompetent. I deliberately say that many incompetent men have passed, and still most probably do pass, in spite of the most careful and conscientious examinations, and it is precisely for this reason that I insist on the value of practical training in medicine and surgery.

The ordinary student in a large hospital among a crowd of others, if he has not a decidedly scientific turn of mind, may, and does, walk the hospitals and learn very little. I did so myself. I have had many assistants really ill-trained (though I have also had many thoroughly well-trained), and I have seen quite inefficient young men passing into the profession also, alas! very ill-fitted to decide upon the issues of life or death. Many of them would in a few weeks' time have learned an immense deal of useful information, and been able to apply such knowledge, had they been acting as assistants to a conscientious master.

Again, much observation has convinced me that knowing and doing are frequently antagonistic, and that a student might so muddle his brains by the consumption of midnight oil, even to the extent of gaining a medal, and yet be perfectly unfit to put his knowledge to practice. Further, students are too often unmethodical and wayward. They do not wish to be cramped by rules as to time and order. They are exceedingly inexact and careless as to details. They know nothing of business. Are not these terrible drawbacks to true usefulness, and where can such vices be eradicated and their opposites learned except in active practice under an experienced and busy practitioner?

W. Bruce,
Direct Representative for Scotland on the General Medical Council.

Dingwall, Oct. 25th.

THE INCREASE OF INSANITY.

Sir,—The article in the British Medical Journal of October 22nd upon this subject was calculated to afford much interest to those engaged in the treatment of the insane. Little consideration is needed to convince us that the increase referred to is to be checked by legal, rather than by medical, means. The measures adopted to check the transmission of insanity can only be advised medically, whilst legally they can be enforced. What such advice is worth in the case of a contemplated marriage, based on affection, an elementary acquaintance with human nature will teach us. A legal remedy for the increase of insanity by propagation to the effect would be that the law might "forbid the banns" in case one of the contracting parties had been insane. I venture to think such a measure too severe for a preliminary one, and suggest that immunity from further attack for a certain number of years (to be decided by experts) might warrant us in giving the quondam patient a clean bill, so far as mental health was concerned. If experience showed that this modified measure failed to meet the case, then we should have more justification in enforcing the stricter course suggested in your article. This criticism, of course, leaves unimpaired the main contention—that the law should have authority in the matter. There is perhaps an even more difficult problem to decide than that just considered—namely, the course best to pursue with persons already married, who are discharged from the asylum as "cured" or "improved." The results are, of course, often deplorable. And it is a very common occurrence for such persons to be readmitted to the asylum, having meantime begotten insanity. The resources of the asylum are then employed in bringing them once more into a fit condition for discharge, and all its potentialities. I think this a humiliating reflection.

Your suggestion regarding the creation of special hospitals in connection (I presume) with the existing asylums, to be devoted to the treatment of recent and curable cases, will, I feel sure, meet with cordial welcome from all asylum physicians who have at heart the welfare of the insane, and, I would add, their own reputation. The finger of scorn has too long been pointed at alienists. At least, they should have an opportunity of trying, unhampered by the care of dements in their hundreds, all the resources of our art, all the means with which medical science has endowed us, upon recent and curable cases, in order to determine whether cure can be hastened or obtained in larger measure. We need a consensus of alienistic opinion on this matter, and it is to be hoped that your suggestive article will be the means of furnishing us with such. Already, as is well known, some of the leading and most respected superintendents of asylums are in favour of separation and special treatment of the recent and curable cases.—I am, etc.,

Oct. 24th. Alienist.

ENTRIES AT THE MEDICAL SCHOOLS.

Sir,—The remarkable increase in the number of students who have entered the Newcastle School of Medicine (Durham University) as compared with the slight increase at some and decrease at others of the London schools affords food for reflection. Why is this rush to the North? Simply because there a degree can be obtained with moderate ease. Therefore the London and large provincial schools, with their wealth of clinical material and superiority of teachers, are out of favour with the average student. Perhaps the principle of self-preservation will, after all, call forth more unanimity with regard to the formation, as speedily as possible, of a new London degree.—I am, etc.,

Oct. 24th. F.R.C.S.

MISS COBBE AND *THE NINE CIRCLES*.

Sir,—I gladly accept your invitation to explain my connection with Miss Cobbe's book, *The Nine Circles*, the proof sheets of which were sent to me for examination before the publication of the work. I did not write the book; it was compiled by my friend Mrs. G. M. Rhodes, a lady who is by no means a "ghost," as you suggest, but a very capable and vigorous literary woman, who has often assisted Miss Cobbe in her labours on behalf of the animals. So far as my investigations into Professor Horsley's charge against Miss Cobbe have carried me, I am now able to explain how the omission of the use of anæsthetics in a few cases has arisen. On p. 3 some experiments on the brains of rabbits are described from the *Journal of Physiology*, vol. xii, No. 3, 1891, p. 233. These were certainly done under an anæsthetic, but though the writer incidentally mentions "the anæsthetic," he does not in set terms say that he employed any particular drug, hence the fact escaped the compiler. But I have discovered in previous experiments of the same kind recorded in the same journal (vol. xi, 1), that the experimenter used ether. Surely this omission is not of the disgraceful character which has been attempted to be affixed to it.

Secondly, the word "English" against Kehrer's experiment on p. 18 is a misprint. On pp. 27-28 certain experiments performed by Professor Horsley are taken from the *Lancet*, December, 1886. I find no mention of anæsthetics in the original article, though I presume they were used. The source was an editorial, and was not, I imagine, Mr. Horsley's own paper, and the employment of ether or chloroform was scarcely likely to be mentioned, as the scientific results were alone the subjects of comment. But it is one thing to use ether for the initial operation (I have no means of knowing that even this was done), it is quite another to subject a donkey to the suffering described in the article for 205 days, during which time, I apprehend, no anæsthetic was administered. On p. 32 some experiments of Mr. H. D. Rolleston, B.A., are described; they purport to be taken from the *Journal of Physiology*, vol. viii, p. 235, and so they are, but at second hand, from an essay in which the question of anæsthetics did not arise. On reference to the article itself, I find that the animal was anæsthetised, but also curarised. The same explanation applies to the other English experiments on p. 33. The animal was etherised as well as curarised, but the extract was taken at second hand.

On page 51, under the heading "Creation of Disease," there is an account of an endeavour to produce cancer in certain animals. Mrs. Rhodes does not say that ether was given in the initial operation, the point was the attempt to create diseases, such as leprosy, cancer, etc.; it was not the operation of grafting the portions of tumours which was under discussion, but the attempt to induce painful diseases in which the use of anæsthetics could have availed nothing. It is most unfair to charge this omission as in the least affecting the case. On page 59 there is a report of "The Effects of the Destruction of

the Tympanic Plexus in the Dog," taken from the *Journal of Physiology* November, 1888, page 309. Mrs. Rhodes made no mention of the use of anæsthetics in this case, and the reason for the oversight is quite obvious, for it is only by turning back twenty-one pages (to page 288) that we read that the animal was anæsthetised with chloroform and then from ½ to ¾ of a grain of acetate of morphine injected hypodermically. Small as was this dose of morphine, we are informed that "in many cases it was found that the morphine alone (after the preliminary anæsthetisation with chloroform) was quite sufficient to render the animal completely unconscious, no further administration of chloroform being necessary. It is important to mention this, as by this means a considerable source of error due to variation in the amount of anæsthetic was eliminated" (p. 289). Of course this statement ought to have appeared, and it is certainly not the "anti-researchers" who would have suffered by its publication. The experiments were, however, of the class of "creation of disease," and it was the painful results, and not the operation which caused them, that Mrs. Rhodes desired to illustrate.

On p. 62, some experiments "On the Formation of Scar Tissue" are described, taken from the *Journal of Physiology*, vol. x, No. 6. Ziegler, who first performed them, does not, so far as I am aware, say anything about anæsthetising his animals, but Drs. Sherrington and Ballance, who repeated them, do say that they were "deeply anæsthetised." The reason which I presume induced Mrs. Rhodes to omit the reference to the anæsthetics was the fact that the experimenters say that the foreign bodies inserted in the animals' bellies were in some cases allowed to remain for eight days. I do not suppose it is to be understood that complete anæsthesia was maintained for so long a period. In Dr. Shore's experiments on p. 66, it should certainly have been stated that morphine and chloroform were employed. I can only account for the omission by the evident fact that the extract was taken at second hand where the question of cruelty was not in debate, but where the futility of experimenting with one substance while an animal was being poisoned by another was attempted to be shown. These six are all the omissions to mention the employment of anæsthetics which I have, up to the present, been able to discover; a more prolonged research may enable me to find a few others; but in a work of 160 pages of experiments, many of which involved very great and prolonged suffering, it seems to me disingenuous in the extreme to attempt to make out that there is no cruelty in vivisection because a number of gentlemen who take out licences to experiment without the use of anæsthetics are nevertheless always careful to say in their reports how particular they are to employ them.

Take the experiments of Dr. Cheyne described in the BRITISH MEDICAL JOURNAL of October 4th, 1882. Incisions were made in the backs of rabbits, croton oil tubes were stitched into the wounds; the wounds healed; three or four days later the tubes were burst by pressure. Swellings formed on each side, and nearly a month later the animal was killed. Your report says: "On making incisions through the skin and muscles, large abscesses containing cheesy pus were found deeply seated." Of one rabbit you say: "The skin was involved in the gangrene, and the whole became a putrid mass, full of organisms." Suppose the experimenter did employ chloroform or ether when he inserted the croton oil tubes, what of that? Such an operation was nothing to the twenty-seven days of suffering borne by the wretched animal while croton oil was burning his tissues till they became as you describe.

I certainly, in running my eye over Miss Cobbe's proofs, overlooked that passage in her preface where she is careful to say that "so far as it has been possible, the use or absence of anæsthetics has been noticed in regard to all the experiments cited in this book." As a matter of literary accuracy, still more as one of scientific precision, I deeply regret that these omissions escaped me. I have every desire to stop vivisection in this country, but I desire to do so only by fair and honourable means. I have written much on the subject, and hope to write more, and I can assure those who may differ from me—and I suppose most of your readers will do so—that nothing is further from my thoughts and from the thoughts of the highminded and honourable persons with whom I have the honour to be associated than to misrepresent the doings of the "researchers," as you call them, in the smallest degree, nor, indeed, have we the slightest interest in doing so; the simple facts are enough for our purpose.—I am, etc.,

EDWARD BERDOE, M.R.C.S., L.R.C.P.E.

Victoria Park Gate, E., Oct. 21st.

NEW NAMES FOR DISEASES.

SIR,—In Mr. Hutchinson's Address, reported in the BRITISH MEDICAL JOURNAL of October 22nd, he made the suggestion that when a new form of disease was observed, it should be distinguished, not by the name of the observer, as in the case of Bright, Ménière, and others, but by the name of the patient. To this there seems to be the fatal objection that if it should turn out that the newly described disease had been previously noticed, it would be necessary to change the name of it.

Thus Mabey's disease might become Smith's disease, or Brown's disease, and so on. I am sure my old and valued friend Mr. Hutchinson will not object to any fair criticism of his proposals.—I am, etc.,

JAMES DIXON.

Dorking, Oct. 24th.

LIGATURE OF THE ILIAC ARTERIES: A QUERY IN OPERATIVE SURGERY.

SIR,—Now that it is acknowledged on all sides that aseptic wounds of the peritoneum are safe and heal rapidly, it is worth putting the question to our leading authorities on operative surgery whether the old operations for ligature of the iliac arteries are altogether advisable. Their principal merit was the avoidance of wound of the peritoneum, their great drawback the difficulty of the operation and the extensive wound in the abdominal walls. I can conceive no advantage in extending them, except as an exercise in examination surgery. A vertical incision through the abdominal wall and peritoneum would enable an operator to make out accurately the limits of an aneurysmal tumour and the state of the vessel in its neighbourhood, or clear the diagnosis between aneurysm and tumour. Such operations are rare; but were such a case to present itself to me I should be inclined to divide the peritoneum deliberately by a vertical incision over the line of the implicated artery. It would be interesting to know the opinion of others on this point.—I am, etc.,

A. MARMADUKE SHEILD, M.B., F.R.C.S.,

Oct. 18th. Teacher of Operative Surgery at Charing Cross Hospital.

MEDICO-LEGAL AND MEDICO-ETHICAL.

HOSPITALS AND PROVIDENT DISPENSARIES.

IN reference to the comments which appeared in the BRITISH MEDICAL JOURNAL of October 8th, under this heading, page 797, we have received a copy of the rules, etc., therein alluded to, together with an explanatory letter (which but for its great length we would have published) from the Secretary of the Sunderland Provident Dispensary. So far from the class of patients to which "In Nubibus" rightly objects being admitted to its benefits, we have the assurance of the Secretary that the contrary is the fact, and that under no circumstances would the Committee grant the application for admission of any man earning from £3 to £4 a week," as alleged; and, moreover, that prior to the admission of any applicant as a member, his name, address, and occupation, is (as appears from a form enclosed to us) submitted to the respective medical officers for approval or otherwise; and if objected to the case is referred to the Committee for consideration.

With regard to the alleged annual payment of "no less a sum than £500 from the local infirmary, which is a charity," the Secretary states that, as a matter of fact, it is a payment for work done, not a gift as implied. He thus proceeds: "We have an arrangement with the Committee of the Sunderland Infirmary, whereby for the above annual sum we undertake the whole of the outdoor medical work, which includes home attendance when required, all medicines, and certain medical appliances, such as trusses, elastic stockings, etc. It is therefore, as you will see, a purely business arrangement, and one which has existed since the establishment of this institution in 1879." "In Nubibus" goes on to say "that this money is divided amongst several district doctors, enabling them to make a living for themselves."

We are informed that, as a matter of fact, the medical staff receive for their services three-fifths of the payments made by the provident members, the remaining two-fifths, together with the £500, goes into the general fund, and, at the year's end, after paying rent, salaries, drug account, and all other working expenses, the medical staff are, according to rule, entitled to at least two-thirds of the surplus, the remaining balance being carried to a reserve or contingent fund, etc.

In justice to the Sunderland Provident Dispensary and its medical

officers, we deem it only fair to give insertion at an inconvenient sacrifice of valuable space to the more salient points of the Secretary's statement.

POISONING BY NARCOTIC PROPRIETARY MEDICINES.

Dr. G. Danford Thomas, coroner for Central Middlesex, held an inquest on October 17th concerning the death of Rose Gertrude Gurney, aged 1 year and 11 months, daughter of a solicitor's clerk. The evidence showed that the child died from pleuro-pneumonia, and a medical man said that harm had been done by the mother in giving it a proprietary medicine known as "balsam of horehound," which contained opium. The coroner said that proprietary medicines ought certainly not to be taken except under medical advice. In some diseases, especially kidney disease, a very ordinary dose had been known to cause death. The jury, in returning a verdict of "Death from Natural Causes," suggested that the attention of the Pharmaceutical Society should be called to the fact that the bottle containing the medicine had not been labelled in accordance with the Poisons Act to indicate that it was a narcotic.

At Hunslet, on October 19th, Mr. J. C. Malcolm, Borough Coroner held an inquest on an infant, aged 6 days, who died from an overdose of a certain medicine. Mr. Hawkyard, surgeon, said that he was called in to see the child about 11.30 A.M. on October 15th. From its appearance it was evident that it was suffering from narcotic poisoning. It was in a state of collapse, and very blue. Witness asked the mother if she had given it anything, and she frankly admitted that she had given it some "Godfrey's cordial." That was a compound containing opium, and, in his opinion, not fit to be administered to a child of such a tender age. There was no doubt the child had died from poisoning. A Juryman: "When this medicine is sold by chemists do they give directions for its use?" Mr. Hawkyard: "I don't think they do. The cordial is not scheduled as a poison." A verdict was returned of "Death by Misadventure."

ATTENDANCE AS SUBSTITUTE.

In relation to the case which, under the above heading, appeared in the British Medical Journal of August 20th, p. 420, we have received from Dr. X., the practitioner impugned, an explanatory letter, with reference to which we would simply note that instead of requesting the father of the child in question to communicate with Dr. K. P. the facts of the case, and the alleged express wish of both parents that he should continue his attendance thereon, he (Dr. X.) himself should have done so in person or by letter, and thereby have avoided the imputation referred to. The "etiquette of the case" is as previously recorded.

PRIVATE PATIENTS AND PRIVATE HOSPITALS.

Mr. S. C. W. and Dr. F. (Sydney, N. S. W.).—We regret to be unable, from the great pressure on our space, to accede to Mr. S. C. W.'s urgent request that the lengthy correspondence which has passed between him and Dr. F., in relation to the case of Mrs. C., may be published in the British Medical Journal *in extenso*. Moreover, our correspondent informs us that the documents are to appear in the *Australian Medical Gazette*.

An impartial and critical examination of the ethical points, as presented in the correspondence, leaves little or no doubt upon our mind that Dr. F., in arranging (even under the circumstances referred to in his letter of August 8th) for the admission of Mrs. C. into the private hospital without the knowledge of Mr. W., her medical attendant, committed an error of judgment and also, however unwittingly, a breach of the well-known and essential medico-ethical rule.

It may be opportune to add, as a moral incentive to others, that we have noted with much satisfaction the reciprocally courteous and friendly tone which characterises the correspondence throughout.

A LOCUM TENENS AND SUBSEQUENT PRACTICE.

A. J. writes to inquire whether he is justified in starting practice on his own account in the village of ——, when the following facts have been duly considered: 1. For three months during spring of the present year he had charge of a practice in ——. This practice was too small to sell, and too small to clear the expenses incurred in continuing it, so it was closed. 2. During these three months he acted as *locum tenens* for a fortnight for Dr. A., and for a week in place of Dr. B. of the same village. 3. He then left this village, but returned after an interval of two months, and acted for three weeks as *locum tenens* for Dr. C., and for a week at the same time for Dr. A. He then left —— a second time, and two months have elapsed since then. Drs. A., B., and C. object to his coming to start practice amongst them.

*** Assuming, as we do, that "A.J.'s" desire to commence practice in the village in question was engendered by the local impressions and information acquired during his residence as a *locum tenens*, we feel constrained to remark that, although in the absence of any restrictive bond he would legally be entitled to do so, we are distinctly of opinion that under such circumstances he would contravene the moral rule of doing unto others as he would wish to be done by. We would, therefore, counsel him to act in accordance with the principle enunciated in the following quotation from his explanatory note: "I hope I shall be the last to disregard the golden rule of our glorious code of ethics." Need we add that to settle in a village under the exceptional circumstances above referred to, in which the three resident practitioners, feeling aggrieved at "A. J.'s" apparent breach of the confidence reposed in him as *locum tenens*, may not unnaturally be disposed to resent it by proscribing the unwelcome interloper, would, in our opinion, be very inadvisable, and tend to render his village life and work the reverse of pleasant. In his own interest, therefore, we would advise him to seek some other field for the exercise of his professional skill.

FEES FOR ASSISTANCE AT OPERATIONS.

Junius writes: I wish to know, where a medical man calls in two neighbouring practitioners to assist at an operation on a man who is very poor and unable to pay, if the medical man who summons the neighbouring practitioners should pay them out of his own pocket?

*** To enable us to form a fairly just opinion on the exceptional question submitted by "Junius," he should have furnished us with a brief statement of the attendant circumstances, as to whether the needed operation was the result of an accident to a comparative stranger admitting of no delay; or whether it occurred in the person of an old patient of whose pecuniary position and inability to pay he was more or less cognisant. In the latter event, if "Junius," in soliciting professional assistance, neglected to intimate the fact of impecuniosity to the assistant practitioners, he might, we think, not unfairly be expected to "pay them out of his own pocket" a moderate fee; in the former case, on the other hand, the charitable principle which is well known to more or less influence the medical faculty, and the ever-ready willingness of its members to render assistance in cases of suffering humanity, should prompt them under such circumstances to decline remuneration from a brother practitioner.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Examiners for the M.B. Degree:—*I. Physics:* Mr. Glazebrook, F.R.S., Trinity, and Mr. Fitzpatrick, Christ's. *Chemistry:* Professor Liveing, F.R.S., St. John's, and Mr. A. J. Hutchinson, Pembroke. *Biology:* Mr. Frank Darwin, M.B., F.R.S., Christ's, and Mr. Shipley, Christ's. *II. Anatomy:* Dr. Hill, Master of Downing, and Mr. A. Thomson, M.B., Oxford. *Physiology:* Dr. Lea, F.R.S., Caius, and Professor McKendrick, F.R.S., Glasgow. *Pharmaceutical Chemistry:* Mr. Acton, St. John's and Mr. Easterfield, Clare.

ALTERATIONS AT ADDENBROOKE'S HOSPITAL.

The use of the medical school-building has been granted for the accommodation of patients during the time that the hospital is closed for the reconstruction of its drainage, under the direction of Mr. Rogers Field. It is expected that the weeks during which the hospital is closed will fall in the Christmas Vacation. Meanwhile progress is already being made with the exterior drainage works.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

At the annual stated meeting of the Royal College of Physicians of Ireland, held on St. Luke's Day, October 18th, 1892, the following officers were elected for the ensuing year: *President:* W. G. Smith, M.D. *Vice-President:* J. W. Moore, M.D. *Censors:* J. W. Moore, M.D., C. Norman, F.R.C.P.I., J. O'Carroll, M.D., W. J. Smyly, M.D. *Additional Examiners to take the place of an Absent Censor:* Medicine—H. C. Tweedy, M.D.; Medical Jurisprudence and Hygiene—J. M. Redmond, M.D.; Midwifery—A. J. Horne, F.R.C.P.I. *Examiners for the Licence to Practise Midwifery:* A. J. Horne, F.R.C.P.I., A. V. Macan, M.B. *Examiners under the Conjoint Scheme with the R.C.S.I. (not including the above Censors who examine at the fourth professional examination):* Chemistry and Physics—H. T. Bewley, M.D., and E. Lapper, F.R.C.P.I.; Materia Medica and Pharmacy—N. M'I. Falkiner, M.B., and F. J. B. Quinlan, M.D.; Physiology—J. M. Purser, M.D.; Medicine (second and third professional examinations)—W. Beatty, M.D. and E. MacD. Cosgrave, M.D.; Hygiene and Forensic Medicine—J. Molony, F.R.C.P.I. *Membership Examiners:* Clinical Medicine—J. W. Moore, M.D., and J. O'Carroll, M.D. Pathology—H. T. Bewley and C. Norman, F.R.C.P.I.; Practice of Medicine and Principles of Public Health—J. M. Redmond, M.D., and H. C. Tweedy, M.D. *Examiners for the Conjoint Diploma in State Medicine:* State Medicine and Hygiene—F. J. B. Quinlan, M.D.; Meteorology—J. W. Moore, M.D., F.R.Met.Soc.; Chemistry—E. Lapper, F.R.C.P.I.; Engineering—A. E. Murray, C.E. *Examiners in Preliminary Education:* Science—E. MacD. Cosgrave, M.D.; Languages—H. T. Bewley, M.D. *Representatives on the Committee of Management:* J. M. Finny, M.D., T. W. Grimshaw, M.D., and C. J. Nixon, M.D. *Representative on the General Medical Council:* J. L. Atthill, M.D. *Registrar:* G. P. L'E. Nugent, M.D. *Librarian:* S. W. Wilson. The following member was elected to the Fellowship—M. F. Cox, Senior Physician St. Vincent's Hospital, Dublin.

SOCIETY OF APOTHECARIES OF LONDON.

Pass List, October, 1892. The following candidates passed in:—

Surgery.—J. B. Bate, Bristol; J. C. Bawden, Liverpool; C. H. Broadhurst, St. Mary's Hospital; R. D. Cox, St. Mary's Hospital; A. D. Davies, London Hospital; H. T. Dufton, Cambridge University and St. Bartholomew's Hospital; J. L. Iredale, Leeds, Yorkshire College; H. E. Mortis, Charing Cross Hospital; S. Wilkinson, Liverpool.

Medicine, Forensic Medicine, and Midwifery.—C. D. Cardinell, St. Bartholomew's Hospital; N. Elvington, St. George's Hospital; W. S. Mercer, Charing Cross Hospital; H. W. Oborn, St. Thomas's Hospital.

Medicine and Forensic Medicine.—C. J. Bawden, Liverpool.

Medicine and Midwifery.—H. E. Cooper, St. Bartholomew's Hospital; C. W. H. Newington, St. Bartholomew's Hospital; J. F. Stockwell, St. Mary's Hospital; E. Williams, London Hospital.

Forensic Medicine.—W. R. Clarke, Belfast.

Midwifery.—W. A. Jones, Bristol; F. Melandri, University Bologna; B. Saul, Charing Cross Hospital.

To Messrs. Bate, Broadhurst, Clarke, Iredale, Melandri, Mercer, Oborn, and Wilkinson was granted the diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL O. F. MOLLOY retires on retired pay, October 26th. He was appointed Assistant Surgeon April 1st, 1871; became Surgeon March 1st, 1873; Surgeon-Major, April 1st, 1883; and Surgeon-Lieutenant-Colonel, April 1st, 1891. He served in the Afghan War of 1878-80 (medal) and in the Egyptian War of 1882, where he was present at the Battle of Tel-el-Kebir (medal with clasp, and Khedive's star).

Surgeon-Major J. E. V. FOSS, M.D., from half-pay, is reappointed Surgeon-Major, *vice* F. H. F. MURPHY, M.D. Dr. Foss was placed on half-pay on the 12th January last on account of ill-health.

Brigade Surgeon-Lieutenant-Colonel A. F. CHURCHILL, M.D, serving in the Bengal command, is appointed to officiate as Principal Medical Officer, Rawul Pindee District, *vice* Surgeon-Colonel A. Allan, deceased.

Surgeon-Major W. M. JAMES, now at Dover, has been appointed to the King's Dragoon Guards at Windsor.

Surgeon-Lieutenant W. D. ERSKINE, M.B., has joined at Woolwich for duty. Surgeon-Lieutenant W. F. RYALL is also ordered from Aldershot to Woolwich for duty.

Surgeon-Lieutenant A. G. THOMPSON has been taken on the strength of the Chatham District.

Surgeon-Lieutenant N. TYACKE has proceeded to Maidstone for duty.

Surgeon-Lieutenant H. W. K. READ has been posted to the Western District.

INDIAN MEDICAL SERVICE.

THE retirement of Surgeon-Lieutenant-Colonel EDWARD MULVANY, Bengal Establishment, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the Queen.

Surgeon-Major G. A. CONES, Bengal Establishment, has also retired from the service, which he entered as Surgeon March 30th, 1878, his commission as Surgeon-Major dating from December 13th, 1890.

The retirement is also approved of Surgeon-Colonel W. E. CATES, of the Bombay Establishment, and which has also been already announced in the BRITISH MEDICAL JOURNAL.

The name of Surgeon-Captain ARTHUR THOMAS BROWN is struck out of the *Army List*, he having been unable to take up his appointment.

Surgeon-General HENRY MILLS CANNON, Bengal Establishment, retired, died in London on October 12th. The son of Henry Æneas Cannon, a Cheltenham physician, Dr. Cannon was a most skilful medical officer; but great as were his professional qualifications, he was not less distinguished for personal gallantry, zeal, devotion to the service, and general administrative ability. Her Majesty's Government in India conferred upon Dr. Cannon a good-service pension of £100 per annum, as a reward for distinguished and meritorious service, and in the letter intimating the distinction, referred to his conduct in the most flattering terms, and expressed the satisfaction with which the Government of India viewed Her Majesty's gracious recognition of his good services to the State. Dr. Cannon was recommended for a C.B.ship by the Government of India in April, 1878, and would have got it but, unfortunately for him, no birthday honours were gazetted in 1878, and before the next birthday he had retired, in ignorance of the rule that retired officers are barred from first appointments to the Order, though not from promotions after appointment.

The Queen has approved of the following admissions to the Indian Medical Service, dated July 27th: *Bengal*: PATRICK BALFOUR HAIG, THOMAS WILLIAM ARCHER FULLERTON, RALPH HENRY MADDOX, EDWARD VICTOR HUGGO, HARRY GEORGE MELVILLE, ARTHUR OLDHAM HUBBARD, CHARLES GEORGE ROBSON SCOTT, HERBERT ASTEN SMITH, DOUGLAS RICHARD GREEN, GEORGE M'IVER CAMPBELL SMITH, HUBERT MALINS EARLE, JOSEPH GEORGE HULBERT. *Madras*: PULTENEY CHARLES GABBETT, JOHN LEWIS MACRAE. *Bombay*: FRANCIS EDWARD SWINTON, SIDNEY HARVEY BURNETT, THOMAS JACKSON.

THE VOLUNTEERS.

MR. ALFRED HENDERSON FOWLER is appointed Surgeon-Lieutenant to the 1st Essex Artillery (Eastern Division Royal Artillery), October 22nd.

Surgeon-Lieutenant E. B. RECKITT, 1st Lincolnshire Artillery (Western Division Royal Artillery), is promoted to be Surgeon-Captain, October 22nd.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN DAVID EDGAR FLINN, F.R.C.S.I., is promoted to be Surgeon-Major, October 26th.

ARMY MEDICAL STAFF IN INDIA.

IT is stated that officers of the Army Medical Staff are in future to be detailed for general service in India, their posting and exchange to presidencies being arranged in India by the Principal Medical Officer under orders of the Commander-in-Chief. This will not, we fear, be accepted by the officers of the Medical Staff as a boon. Up to the present it has been the invariable custom to tell off medical officers to one of the three presidencies when placed under orders for India, and this system worked well both for the individual and the State. An officer knew beforehand which part of India he was to do duty in, and could make his arrangements accordingly; for instance, if ordered to the Madras Command, he would provide himself with uniform and clothing suited to a damp warm climate, whereas, if detailed for Bengal, he would take out a kit suitable to the very cold climate of Northern India during the winter months. If the officer were married this would be of even greater importance, as the outfits of his wife and children would have to be considered. Again, if an officer had previously served in the Madras or Bombay Presidencies, and had learned the language and become acquainted with the climate and the customs of the people, he would generally prefer to return there rather than to be sent to Bengal, to say nothing of his services being more valuable there.

We understand that any other class of officer—Royal Engineers, chaplains, Ordnance, Commissariat, and, of course, all regimental officers—know beforehand to which presidency they are to go, and why an exception should be made in the case of medical officers we are at a loss to understand. Presumably this has been done on the application of the Surgeon-General at Simla, but why the Director-General should have accepted such a recommendation, which will not be agreeable to his department, we are at a loss to understand. *The sooner the order is cancelled the better, we venture to think, for all concerned.*

NEW PROMOTION RULES FOR SURGEONS IN THE UNITED STATES ARMY.

THE Surgeon-General of the United States Army, Dr. Sutherland, has just issued new regulations respecting the examination of medical officers for promotion. The circular containing the present instructions is dated War Department, Washington, September 29th, 1892. In accordance with previous general orders from the Adjutant-General's office, the professional examination is preceded by a physical inspection, and the examining board is required to take into consideration the officer's record, and such evidence concerning his character as may be submitted to it. After the physical examination, the general scope of the other examinations is now ordered to be as follows:—

Professional Efficiency of Lieutenants.—(1) Hospital corps drill and the transportation of wounded; (2) hospital corps administration, including that of the company, and of hospitals, post and field; (3) army regulations in so far as they relate to the medical department, including its forms; (4) army regulations in so far as they relate to the medical officer as an officer of the army; (5) general and military hygiene, including hospital construction, drainage, sewerage, and water supplies, and the prevention of camp and epidemic diseases; (6) subjects in which the officer may have been only conditionally accepted at his examination for appointment.

Professional Efficiency of Captains.—(1) The various branches of medical science; (2) military surgery and hygiene; (3) the organisation and administration of field and general hospitals.

When the examining board reports an officer fit for promotion, the board is required to make a declaration that it finds the officer concerned has the physical, moral, and professional qualifications to perform efficiently all the duties of the grade to which he will next be eligible, and that its recommendation for the officer's promotion is based on these grounds. A series of questions is appended to the circular as a guide to members of examining boards and as an illustration of the details of the examination of a medical officer for advancement to a captaincy in the medical department. The questions are very searching, and the whole of the subjects referred to in them are essentially practical.

THE ARMY MEDICAL SERVICES: PROSPECTIVE MEASURES REQUIRED.

A CONSTANT READER suggests that a precedent for granting the new titles to retired medical officers might be found in the order declaring that retired as well as active officers are eligible for the new volunteer decoration. If an honour can thus be extended to retired volunteers, why not a title to retired regular officers?

NEARLY TWENTY YEARS' SERVICE writes: The compound titles are suitable enough for purely official and army list purposes, but are wholly absurd in what is known as "society." From this point of view it is of little moment whether the officer is surgeon-captain or surgeon and captain so long as he cannot be announced and take precedence according to his understood military title. A War Office clerk who attains the rank and title of colonel in the pay department is spoken of as colonel, but no one thinks of calling him paymaster-colonel. You have given many instances of the absurd and offensive bungling of waiters, reporters, and others in dealing with our titles, so that, for myself, I mean to sink my military position altogether in social life until real army rank and titles are granted. As to extending the new titles to medical officers liable to recall from the retired list, that could be done by a simple army order, to the effect that recall shall, *ipso facto*, involve the assumption of the new designations.

AN OCCASIONAL CORRESPONDENT writes: It is well to consider how the recent changes in title, etc., of medical officers has been appreciated, or the contrary, by other officers in different branches of the service; this will aid in deciding how far further reforms can with confidence be undertaken. Undoubtedly the compound titles have been a riddle to other officers as to how medical officers should be addressed; there are instances sufficiently amusing. On the other hand, a solution is frequently found in medical and veterinary officers being addressed by their military *confrères* simply by the military portion of their rank. But the present doubt and difficulty forms a sufficient excuse to all who want to throw ridicule on the medical officers' titles. What is the cure? Simply that officers and men of the medical department be consolidated into a corps, say "army hospital corps." How proud and particular are certain officers to put R.E and R.A. after their names, and why not "A. H. C." to the medical officer? Such letters are recognised in the army as the only means of distinguishing officers of different corps and departments. In view of the manner in which medical officers have been treated by their military *confrères* since the issue of the recent warrants, I have no hesitation in stating that I do not think there would be one iota of jealousy amongst them if purely military titles alone were conferred on medical officers. The institution of a medical corps would do away with all the paltry and absurd rules relating to messes, mixed boards, and the like. All this would not affect the relation between doctor and patients, because to the latter he would always be "doctor."

DISGUSTED writes: The following is a copy of a station order in India:

"A committee composed as under will assemble at on , and report on a site for a sanitary camp.

"President, Colonel ——

"Members, Captain ——

"The senior medical officer will attend the Committee."

Considering that the senior medical officer was a senior surgeon-

major, and the subject to be reported on a cholera camp, it must have been peculiarly gratifying to that officer to be called on to perform the flunkey duties of attending the rest of the Committee, and to be considered junior to a young army captain.

*** We are glad to have varying and different opinions of the matters treated of in our series of articles on the work of the late and the next administration. In endeavouring to extend the scope and to remove anomalies from the late Warrant, we by no means commit ourselves to the belief that it is the final or ultimate goal of the medical department; rather we view it as a phase, though a very important one, in army medical evolution. Take the compound titles; it is very easy to be merry or sad over the ignorant or intentional mistakes to which they have given rise. But have they not already broadly asserted the military position of medical officers in the face of the army and the world? Have they not to no small extent already familiarised the public with the hitherto little appreciated fact that medical are also military officers? These be no small gains in evolution. Wait a little longer; the leaven is working which will ultimately alter the great hidebound mass of military custom and tradition, and render the consolidation of the medical department into a corps a work of comparative ease. One of our correspondents recognises this, for he affirms the change could be effected now, without arousing "one iota of jealousy." We confess to be less sanguine than he, but are at the same time glad to learn that a better feeling is extending among the younger generation of army officers, and trust and believe it will in time extend to their seniors.

BRIGADE-SURGEON-LIEUTENANT-COLONEL G. W. McNALTY, ARMY MEDICAL STAFF.

We have received a pamphlet containing a "statement of the case" of the above-named officer, similar in kind and form to others with which we have been favoured from time to time, setting forth the grievances of officers retired from age or other causes. We have never known such semi-public appeals of much service to the person aggrieved however much others coming after them may have benefited. We fear this may prove of that character.

Dr. McNalty's grievance apparently dated from a stroke of good (or evil?) fortune through which he obtained special promotion to the rank of surgeon-major, over the heads of a number of seniors, for good service done in the Ashanti expedition of 1874. But when promotion after completion of twenty years' service came, these seniors one by one in turn went over his head, according to the rule in force when he received the special promotion. The aggravating part, however, was a new rule promulgated in 1876, but not made retrospective, which would have enabled him to retain the seniority conferred by the special promotion and which would now have landed him as surgeon-colonel instead of retirement.

We can well sympathise with his annoyance, but can see no help for it, unless the authorities had treated his as an exceptional case, and resorted to the always dangerous proceeding of making new rules retrospective. Dr. McNalty's grievance of being compulsorily retired six months short of thirty years' service is no fault of the regulations, but simply arises from his having entered the army six months too late in life.

There can be no question that this officer has done very good service, although not superior to many of his contemporaries, as the pamphlet might convey in describing his "practical experience of modern civilised warfare as unequalled." But while admitting his good deserts, calling for the exceptional application of regulations to his case is another matter, involving at once the probability of a dangerous precedent, and of recompensing him at the expense of his fellows.

It is, perhaps, well that "hard cases" should find ventilation, but we must say again we never knew much good from their ventilation, at all events to the aggrieved party.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

M. MONOD ON CHOLERA.

M. Monod, in referring to the review of his able work on cholera in the British Medical Journal of October 14th, states that we have fallen into an error in asserting that France has never denied that the cholera which commenced in the south of that country in 1884 was imported by means of a vessel from Tonkin, and he proceeds to recall French denials as to the importation of the disease into Toulon by means of the *Sarthe*. We made personal inquiries into this matter in 1885, when the facts were procurable; we know the denials as to the *Sarthe*; we believe they were fully justified, and we accepted them at the time without qualification. But those who denied the *Sarthe* story did not deny that the importation was derived from Tonkin, and this although they were perfectly competent to judge whether their denial could go further than it did. We believe our statement to be absolutely correct in so far as the absence of a denial by competent French experts as to the Tonkin source of the 1884 cholera is concerned. Whilst reverting to M. Monod's work, we would make good an omission in our former notice, namely, to say that this valuable volume is procurable by the public through the Librairie Delagrave, Paris.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,280 births and 3,524 deaths were registered during the week ending Saturday, October 22nd. The annual rate of mortality in these towns, which had been 17.8 and 17.3 per 1,000 in the preceding two weeks, rose again to 18.0 during the week under notice. The rates in the several towns ranged from 7.9 in Croydon, 12.4 in Birkenhead, 14.1 in Derby, and 14.9 in Halifax to 21.3 in Burnley, 21.7 in Leeds, 22.9 in Oldham, and 23.0 in Preston. In the thirty-two provincial towns the mean death-rate was 19.1 per 1,000, and exceeded by 1.4 the rate recorded in London, which was 17.7 per 1,000. The 3,524 deaths registered during the week under notice in the thirty-three towns included 387 which were referred to the principal zymotic diseases, against numbers declining from 991 to 389 in the preceding seven weeks; of these, 94 resulted from diarrhœa, 88 from measles, 68 from diphtheria, 58 from scarlet fever, 46 from "fever" (principally enteric), 29 from whooping-cough, and 4 from small-pox. These 387 deaths were equal to an annual rate of 2.0 per 1,000; in London the zymotic death-rate was equal to 1.8, while it averaged 2.1 per 1,000 in the thirty-two provincial towns, among which these diseases caused the lowest death-rates in Birkenhead, Wolverhampton, Bristol, and Blackburn, and the highest rates in Salford, Plymouth, Oldham, Sunderland, and Preston. Measles caused the highest proportional fatality in Croydon, Plymouth, Oldham, Leicester, and Salford; scarlet fever in Plymouth and Swansea; "fever" in Preston and Sunderland; and diarrhœa in Bradford, Norwich, Sunderland, and Preston. The mortality from whooping-cough showed no marked excess in any of the large towns. The 68 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 41 in London, 5 in Birmingham, 4 in West Ham, and 4 in Manchester. Small-pox caused 2 deaths in Oldham and 2 in Halifax, but not one in London or in any other of the large towns; three small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 2 in the Highgate Small-pox Hospital on Saturday last, October 22nd. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,836, against numbers increasing from 3,052 to 3,796 on the preceding nine Saturdays; 484 new cases were admitted during the week, against 369, 412, and 503 in the preceding three weeks. The 267 deaths from diseases of the respiratory organs in London were 72 below the average, and were equal to an annual rate of 3.3 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, October 22nd, 940 births and 529 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.5 and 18.0 per 1,000 in the preceding two weeks, rose again to 19.0 during the week under notice, and was 1.0 per 1,000 above the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 8.6 in Perth and 14.1 in Dundee, and the highest rates 20.4 in Aberdeen and 25.1 in Edinburgh. The 529 deaths in these towns included 87 which were referred to the principal zymotic diseases, equal to an annual rate of 3.1 per 1,000, which was 1.1 above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Aberdeen and Edinburgh. The 242 deaths registered in Glasgow included 8 from scarlet fever and 5 from whooping-cough. No fewer than 26 fatal cases of measles were recorded in Edinburgh and 10 in Aberdeen. The death-rate from diseases of the respiratory organs in these towns was equal to 3.5 per 1,000, against 3.3 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, October 15th, were equal to an annual rate of 19.2 per 1,000. The lowest rates were recorded in Kilkenny and Drogheda, and the highest rates in Armagh and Newry. The death-rate from the principal zymotic diseases averaged 1.5 per 1,000. The 139 deaths registered in Dublin were equal to an annual rate of 20.7 per 1,000 (against 21.5 and 20.0 in the preceding two weeks), the rate during the same period being 17.1 in London and 17.7 in Edinburgh. The 139 deaths in Dublin included 7 which were referred to the principal zymotic diseases (equal to an annual rate of 1.0 per 1,000) of which 4 resulted from enteric fever, and 3 from diarrhœa.

"MODEL DWELLINGS."

On October 2nd the owners of Nos. 1 and 2 blocks of Artisans' Dwellings, Sun Street, Friar Street, appeared for the fourth time at Southwark Police Court in answer to a summons issued at the instance of the Vestry of St. George-the-Martyr, Southwark, for allowing the premises to remain in such a condition as to be dangerous to health and unfit for human habitation. The Vestry asked for a closing order under Part III, Sec. 30, of the Housing of the Working Classes Act, 1890.

The Sanitary Inspector, Mr. Edwards, and the Medical Officer of Health, Dr. Fred. J. Waldo, gave evidence to the effect that the blocks were generally dilapidated, that the drinking water cisterns on the roof were uncovered and the water filthy with rank vegetation, that there was direct communication between the drain and the cisterns, and that there were defects in the drainage system. The dustbins were either absent, broken, or immovable. Dust was blown by every passing wind on to the water taps, and throughout the buildings, and into the dwelling rooms.

Dr. Charles Gaylord, Medical Officer to the Sanitary Defence Association, and other witnesses were called for the defence, but the magistrate, Mr. Fenwick, said that although there was a conflict of evidence he had from his own observation and the evidence of the witnesses for the prosecution come to the conclusion that the premises were in such a defective condition as to be injurious to health, and he must make an

order to close them. The order was, however, to remain in abeyance a fortnight to give the defendants an opportunity to execute the necessary works.

On the case again coming into court on October 13th, Dr. Waldo stated that he was substantially satisfied with the work done since the adjournment.

Mr. Fenwick, notwithstanding the arguments of counsel for the defendants, inflicted a penalty of £10 and £1 1s. costs in each case, to be levied, if necessary, by distress, and in default one month's imprisonment for each offence.

We trust this judgment will have a wholesome effect on owners of artisans' dwellings. The defects proved in the court were not so much due to errors in original construction as to negligence in maintenance. Experience has shown that it is impossible to preserve sanitary appliances of large composite dwellings efficient save by constant supervision and frequent repair. When the owners of this class of property obstinately contest the notices of a sanitary authority based on such excellent grounds it clearly proves that they have no just conception of their responsibilities and are incapable of realising the effects on their own tenants of bad sanitary conditions.

DAMAGES FROM A LANDLORD.

AT the Clerkenwell County Court last week, before Judge Eddis and a jury, Lancelot Hoskins, of 91, Corbyn Street, Upper Holloway, sued Emma Corfield, widow, of 90, Atlantic Road, Brixton, for £13 10s., damages for misrepresentation as to the sanitary condition of 91, Corbyn Street, for expenses of moving, medical bills, etc. From the plaintiff's evidence it appeared that in 1891 plaintiff became tenant of No. 91, Corbyn Street, the property of the defendant, who assured him that it was in a perfectly sanitary condition. A fortnight later he detected bad smells in the house. His wife contracted pleurisy, and a day or two later one of his children was taken ill. The child's malady was gastric derangement, caused, the doctor said, by sewage gas. Plaintiff wrote to the defendant, calling her attention to the condition of the drains, and accusing her of misrepresentation, but he received no reply to his communication. Walter Ward, sanitary inspector in the employment of the Islington Vestry, proved that he visited the house in question. In one place the pipes were 9 inches apart, and a 5-inch pipe joined a 9-inch pipe. A gutter-pipe was connected with a soil-pipe, so as to act as a ventilating shaft. The kitchen swarmed with rats, and underneath the flooring there was a quantity of sewage. There were thirteen persons residing in the house at the time, and two children belonging to one of the lodgers contracted some throat affection, and were treated at the Great Northern Hospital. It was pointed out by the judge, and also by the counsel for the defence, that, unless the statements made by the defendant to the plaintiff were dishonest, unless she, knowing that the drains were defective, said they were not, the plaintiff's case must fail. The jury, after a short consultation, found a verdict for the plaintiff for the amount claimed and costs.

CLUB PATIENTS IN FEVER HOSPITALS.

THE *Evesham Journal* reports a meeting of the joint hospital board whereat the fees payable to medical men for attending patients at the Sanatorium came under discussion. It seems that in pursuance of a general arrangement with the local practitioners, a fee of 30s. has been paid by the board for each case attended. A member of the board, whose zeal for economy was evidently tempered by very little knowledge or courtesy, had induced his colleagues to refuse payment in respect of club patients, apparently on the ground that such patients had already contracted and paid for medical attendance. As the club fees cover simply attendance at home, the medical men concerned very naturally and properly wrote declining to attend club patients gratuitously in hospital, and hence arose the debate in question. The champion of non-payment took the opportunity of making some rude observations concerning the doctors, whom he accused of being on strike, and demanding to be paid twice over for the same wrk, but the position into which he had misled the board was obviously unjust and untenable, and eventually a compromise was arranged.

ISOLATION HOSPITALS.

HOSPITALS provided in the presence of an epidemic of infectious disease seldom fulfil the permanent requirements of a sanitary district. Their erection is generally hurried, with the hope, rarely realised, of having them in readiness to receive patients at such a stage of the outbreak as shall serve to check its spread. Any old erection, be it barn, shed, or what not, is hurriedly got ready for the reception of cases, at a minimum of expense, and with a maximum amount of danger to the locality. Or some temporary structure is run up, and regardless of efficient methods of disposal of excrement and the like, cholera is taken in because some place has to be found for its isolation. Unfortunately these professedly temporary and makeshift arrangements too often stop the provision of adequate and suitable accommodation for many years, it may be until the unwisdom of delay has been proved by a renewed and costly epidemic of some infectious disease. In these circumstances the Medical Department of the Local Government Board have very opportunely reprinted the memorandum *On the Provision of Isolation Hospital Accommodation by Local Sanitary Authorities*.[1] The paper, with its appended plans, should be of immense service to those authorities that are in need of a hospital, or desire to make permanent additions to existing buildings. They may be confident of the approval of the Central Board if they adopt any of the plans given.

All local sanitary bodies will be wise if they seriously set about, either for themselves or in combination with adjacent districts, the provision of efficient means of isolation, be it for cholera or other infectious sickness. The lesson is daily being taught to one and another district, that it is a less costly proceeding to build a hospital than to await an epidemic unprepared to isolate its earliest cases. The isolation of these will often prevent epidemicity of disease with the consequent heavy charge upon the rates.

[1] Sold by Messrs. Eyre and Spottiswoode, East Harding Street, E.C. Price Twopence.

THE ORIGIN OF DIPHTHERIA.

DR. THRESH has contributed to the *Practitioner* a careful analysis of the circumstances of a localised outbreak of diphtheria at Bradwell, in Essex, in May and June last. After discussing the various alternative possibilities, he comes to the conclusion that the outbreak was probably originated by the effluvia from putrid fish.

WHOLESALE ADULTERATION.

AT West Ham, Mr. Baggallay had before him fifteen summonses against milk sellers, charging them with selling adulterated milk. The milk sold was proved on analysis to be adulterated with added water to the extent of from 5 per cent. to 28 per cent.

THE PROBABLE ISSUE OF THE ROYAL COMMISSION ON VACCINATION.

AT a meeting of the Alcester guardians and sanitary authority held on October 14th, Mr. T. Murray Browne, one of the general inspectors of the Local Government Board, said he had gone into the vaccination question, and the evidence was in favour of vaccination. At the close of the Royal Commission he thought they would find they were in about the same position as before.

FEES FOR WORKHOUSE LUNACY CERTIFICATES.

WORKHOUSE M.O. writes to complain of having been refused a fee by the guardians for certifying as to the fitness of a lunatic to remain in the workhouse, and says he is unable to see why a fee is not allowed for this duty when he receives a fee for certifying cases sent to an asylum.

*** We consider that Section 24 of the Lunacy Act of 1890 casts upon the medical officer of a workhouse the duty of certifying to the fitness of those cases which in his opinion may properly be retained there, but it makes no provision for any fee being paid to him, though it does, by Subsection 5, make it compulsory on the guardians to pay a fee to the other practitioner who also certifies in the case, but who is not the medical officer of the workhouse. It has, consequently, hitherto been held that the medical officer of a workhouse cannot claim a fee for this duty.

DIAGNOSIS OF SCARLET FEVER.

DR. ALFRED BERRILL (Woodford) writes: There is no doubt that patients who are certified to have scarlet fever are sent to a fever hospital when they are not suffering from that disease. But it appears to me that sometimes it must be most difficult for the officer attached to the fever hospital to be able to make a correct diagnosis, especially if the patient be not seen until the fourth or fifth day. The following short history may show this. A few weeks ago I was called to a child suffering from well-marked scarlet fever: typical rash, throat, and tongue; temperature 102° F. The disease ran an ordinary course, and desquamation followed. Fifteen days afterwards a second child developed a typical scarlet fever throat: dusky red fauces and red spotty appearance of soft palate; glands at angle of the jaw swollen; temperature reached 101.8° F. There was no rash to be found then or since. A third child was attacked, but with well-marked rash. Nine days afterwards the mother developed the same kind of throat, with temperature of 101.2° F., much headache, and pain in limbs, but only a few scattered and indistinct spots were discovered on the chest and abdomen. This last patient appeared fairly well on the fifth day, and it would have been difficult for any medical practitioner to have diagnosed scarlet fever. The second child, too, appeared to be in his ordinary health on the fifth day. If this case had occurred first I should probably not have been asked to see the child at all until the others developed the disease.

It occurred to me, after reading the letter in the BRITISH MEDICAL JOURNAL of October 22nd on the subject and after my own recent experience, that it was just possible that officers attached to fever hospitals might make an incorrect diagnosis as well as the general practitioner, especially when having to deal with such cases as those above related.

NOTIFICATION OR INSPECTION.

DR. F. P. ATKINSON (Surbiton) writes with reference to the statement that "neglect of the one is no reason for neglect of the other, but can only make matters worse." The neglect of notification does not appear to have done so in the case of Newton Abbot. I would say, the more the inspection the less the necessity or opportunity for notification. Notification is certainly not doing much towards stopping the present outbreak of scarlatina, and the inducement for people to submit to isolation in hospital is not, after all, so very great when one knows that the death-rate is higher there than when the cases are treated at home. The fact of there being so many cases to notify at the present time shows how wofully deficient our sanitary arrangements are. There is an instructive article on Notification in *La Semaine Médicale* of September 14th last.

*** We have not failed to comment strongly upon neglect of inspection whenever it has been brought to our notice. Dr. Atkinson seems to be under the impression that the one and only factor in all epidemic visitations is some insanitary condition of a kind which would be impossible under efficient inspection. There are many other influences at work, some of which antecedent sanitary inspection, essential as it is, would be powerless to prevent—for example, infection from lower animals, and infection spread by water, milk, school attendance and the like. When the comparison is made upon equal terms the death-rate (that is, the case-mortality) is not higher in hospital than among home cases, but rather the reverse.

OBITUARY.

GEORGE ROBINSON BARNES, M.D., L.R.C.P.Edin.

Dr. G. R. Barnes died on August 25th at the age of 60, after a long illness, causing much suffering, which he bore with exemplary patience and fortitude. He was born at Leadwell, Oxfordshire, in 1831, and was educated at Addersbury College. It was decided that he should follow his father's profession, and he was apprenticed to Dr. P. B. Ayres, Professor of Chemistry at Charing Cross Hospital. In 1847 he entered as a student at University College Hospital, and after five years of study there he passed the examination of the Society of Apothecaries. In January, 1853, he obtained the diploma of the Royal College of Surgeons. Soon after he was appointed surgeon to the *Investigator*, one of Messrs. Green's fleet, and after making two voyages in her, he went to the Crimea as one of the assistant surgeons in the Anglo-Turkish contingent. He was attached to the Engineers under Major (now General) Sir I. Stokes, K.C.B. He was, for his services in the Crimea, awarded the Turkish medal and clasp. At the end of the war he came home and settled for a time at Dunkinfield, in Cheshire, as a general practitioner, but finding the work in this mining district very laborious, he sold the practice and went to study in Paris for two years. From there he went to Edinburgh, and after two years' study at that University, he took the M.D. degree and the diploma of L.R.C.P. In the year 1867 he settled in Ewell, Surrey, and joined the late Dr. Jones, of Epsom, in partnership. Here he remained in the active pursuit of his profession until he was incapacitated by an incurable disease from further work. He was of a most kindly disposition, a good practitioner, and a kind, warm-hearted friend.

CLEMENT JAMES HAWKINS, F.R.C.S.

The death of Mr. Clement J. Hawkins, of Cheltenham, took place on October 17th, somewhat suddenly. Mr. Hawkins was born in Cheltenham seventy-eight years ago, and had spent a great part of his life there in the practice of the profession, of which he had become the acknowledged head. He was a son of the Rev. W. Hawkins, who for many years before his death, in 1848, was head master of the Cheltenham Grammar School. Clement Hawkins received his preliminary education in the old school. He qualified as M.R.C.S.Eng. in 1837; he was a favourite pupil of Mr. Charles Fowler, to whose practice he succeeded about forty years ago. Like Mr. Fowler, Mr. Hawkins took a warm interest in the Cheltenham General Hospital; for many years he acted as its senior surgeon, and subsequently, until his death, continued his connection with it as consulting surgeon. Mr. Hawkins was elected a Fellow of the Royal College of Surgeons in 1854. "Skilful in his profession, and devoted to it, he led," says the *Cheltenham Examiner*, "a quiet and retired life so far as as public affairs were concerned, but it will not be forgotten among the unostentatious service he rendered that it was upon his suggestion that the late Miss Delancey made the gift out of which has arisen the present Delancey Trust."

CONWAY EVANS, M.D.Lond.

Dr. Conway Evans, who had acted as medical officer of health for the Strand since the formation of the sanitary district, died on October 18th. Dr. Evans was the son of a Welsh minister, and received his medical education at King's College, where he was a favourite pupil of Dr. Todd. In 1855 he took the degree of M.B. in the University of London with honours, being University Scholar in Medicine. He was shortly afterwards appointed curator of the anatomical museum of King's College, and pathological registrar to King's College Hospital. Subsequently he became assistant physician, and at the time of his resignation had held office for eleven years, and was senior in that grade.

The cause of his resignation was his appointment as medical officer of health for the Strand District. During the cholera epidemic of 1866 he organised the measures taken in the Strand to limit the spread of the disease, and he subsequently received a substantial testimonial from the board.

Dr. Evans's active career was mainly spent in the discharge of his sanitary duties, but he acted also as physician to the Public Dispensary, Stanhope Street, for some twenty years, was physician to the Welsh School at Ashford, and had medical charge of the establishment of Messrs. W. H. Smith and Co. He contributed several articles to Dr. Todd's *Cyclopædia*, and made some contributions to the *Transactions of the Pathological Society*, chiefly on subjects connected with atheroma, and the effects of overstrain in producing aortic regurgitation. He practised for many years in Russell Square, but subsequently transferred his residence to the country, and confined himself more and more to his purely official duties.

ALFRED PEARL BOON, F.R.C.S.Eng., L.R.C.P.Lond.

We regret to announce the death of Mr. A. P. Boon, which took place in St. Kitts on September 14th. He had been ailing for some time, but, owing to pressure of work, had not been able to have a change or rest until a few weeks before his death. He then obtained a fortnight's leave, but instead of seeking the rest he so much needed, Mr. Boon, in company with a friend, camped out in a small island off the coast of Antigua, where he spent his time in hunting, of which he was passionately fond. The exposure and fatigue he went through brought on an attack of malarial fever, to which he eventually succumbed, in spite of the attention, skill, and care of his colleagues. He leaves a widow and four children to deplore his loss.

Mr. Boon, who was born in St. Kitts in 1850, received his education at Totteridge Park Grammar School, and, after matriculating at the London University, entered St. Mary's Hospital as a medical student. Here his career was a distinguished one. He was appointed demonstrator of anatomy and, some time after, house-surgeon to the hospital. In 1870, while still a student, young Boon gained the Sibson Clinical Prize with an essay on the "Heart Sounds of Bright's Disease." The examiners congratulated his father on the remarkable originality shown in the treatment of the subject. In 1872 Mr. Boon received the diplomas of L.R.C.P.Lond and M.R.C.S.Eng., and in 1880 he became Fellow of the latter College by examination.

Shortly after he became qualified Mr. Boon received the appointment of medical officer of St. Paul's parish, Antigua, which post he relinquished for one of a similar nature in his own native isle. Here he rapidly made a name for himself not only by his professional skill, but by his kindliness of nature and his uprightness of character. He always took an active part in everything that concerned the public good. Whatever he did he always did well. In St. Kitts he was appointed a J. P., a visiting justice of the gaol, a Water Commissioner for Sandy Point Waterworks, besides occupying several other important positions.

Mr. Boon married a daughter of the late Hon. P. Burns, Auditor-General of the Leeward Islands. To Mr. Boon is due the honour of having originated the idea of forming a Leeward Islands Branch of the British Medical Association, of which to the end of his valuable life he was an enthusiastic member. He was Island Secretary for St. Kitts, Nevis, and the success of the second annual meeting of the Branch, held in St. Kitts last February, was largely due to his zeal and energy. At the time of his death he was one of the vice-presidents of the Branch. Many there are throughout those islands who will for years to come cherish the memory of their departed friend.

ROBERT CRAN, M.D.,

Ballater.

Unmixed regret will be felt at the announcement of the sudden death of Dr. Robert Cran, Ballater, which took place after a few hours' illness, on October 23rd, at Wemyss Bay Hotel. Dr. Cran was staying at the hotel, being on his marriage tour, when the sad event took place; he had been married on October 12th.

Dr. Cran had not been in robust health since his return from Assam six years ago; and although he had a severe attack of influenza last winter, no apprehension was felt as to his condition; the story of his death thus comes to his many friends as a great surprise.

Dr. Cran was a native of Kildrummy, his father, the late Dr. Cran, having been for many years medical officer of that Aber-

deenshire parish. He graduated in medicine in the University of Aberdeen in 1876. Shortly afterwards he went to Assam, where he held the appointment of civil medical officer. His health suffered somewhat by the climate, and after a few years' service he returned to his native country invalided. At the residence of his brother, Dr. Cran, Banchory, he recovered very considerably; and four years ago he went to Ballater, where his genial, cordial manner, and his high professional skill soon won for him troops of friends and a considerable practice. He was exceedingly popular in the district. His keen temperament showed itself in his intense love of sport, and his enthusiasm in Volunteer movements. He was Captain of the local Deeside Highlanders. He was about 40 years of age.

INDIA AND THE COLONIES.

INDIA.

HOSPITALS IN MADRAS.—The Madras Government, in its review of the Annual Report for 1891 on Civil Hospitals, worked under dispensary rules, states that the increase in the number of institutions (53) and of sick treated (529,200) is satisfactory, and is evidence of a steady increasing appreciation of the benefit of a medical treatment on European methods. Of the 414 hospitals and dispensaries at work during 1891, 242 were located in buildings specially designed for them, or obtained free of rent, and 172 were in houses rented for the purpose. From a table showing the rates of dispensaries per 1,000 of population, it is seen that the provision of medical relief in the districts of North Arcot, South Arcot, Coimbatrae, Godavari, Gaujam, and Malabar, is hardly in adequate proportion to the population. This subject will be considered in the Local and Municipal Department.

BRISBANE.

THE Municipal Council has lately had under consideration a proposal to appoint a public analyst. The question was referred to a Committee, with the result that it has been decided to take no further steps in the matter at present.

HOSPITAL AND DISPENSARY MANAGEMENT.

GREENOCK EYE INFIRMARY.

SUCH is the success of the eye department of the Greenock Infirmary, that its present accommodation is not adequate to the demands made upon it, and it is proposed to erect a special hospital. During the past year 134 indoor patients were treated and 3,023 outdoor, and the financial condition is so satisfactory that a surplus of £150 was handed over to the building fund.

GLASGOW HOSPITAL SATURDAY.

AN endeavour is being made (on the recommendation of the committee charged with making the arrangements for entertaining the recent Trades Union Congress) to initiate in Glasgow a hospital saturday. This committee happily found themselves in possession of a surplus of £275, for which they had no use, and suggest the money should be applied in initiating the scheme.

GRANTS TO DUBLIN HOSPITALS.

THE Dublin Corporation has voted the following sums to City Hospitals:—Jervis Street Hospital, £450; Mercers Hospital, £300; City of Dublin Hospital, Baggot Street, £300; St. Vincent's Hospital, £400; Meath Hospital, £300; Mater Misericordiæ Hospital, £500; Sir P. Dun's Hospital, £350; Dr. Steevens's Hospital, £150; Cork Street Hospital, £300; Coombe Lying-in Hospital, £500; Hospital for Incurables, £350; Hospice for the Dying, Harold's Cross, £450; St. Mark's Ophthalmic Hospital, £150; National Eye and Ear Infirmary, Molesworth Street, £100; Children's Hospital, Temple Street, £200; Dublin Orthopædic Hospital, £100; National Orthopædic Hospital, Harcourt Street, £100.

MEDICAL AID SOCIETIES.

A MEMBER (Cardiff) writes: We have no knowledge in this town of friendly societies' medical associations, but we know something about the "National Medical Aid Company" and the "London and Manchester Industrial Assurance Company." Both these societies "tout" for clients—a highly reprehensible practice, and one which ought not for one moment to be countenanced by any respectable practitioner. The National Society, I believe, pay their doctors the munificent sum of 2s. a year for each patient. The London and Manchester are more liberal, paying nearly 4s. a year. But, Sir, the amount paid to the doctors does not matter very much *per se* as long as the objectionable practice of canvassing which exists. Let medical men combine together, and we shall soon see these objectionable tactics disappear.

A MEMORIAL to the great Swedish chemist, Scheele, will be unveiled at Stockholm on December 9th, the 150th anniversary of his birth. Professor Nordenskjöld has collected a number of Scheele's letters and manuscripts, which will shortly be published.

MEDICAL NEWS.

THE Empress Frederick has intimated her intention to contribute 50 guineas to the Morell Mackenzie Memorial Fund, which will take the form of an extension of the Throat Hospital, Golden Square, to be called "The Morell Mackenzie Wing."

THE first meeting of the Ulster Medical Society will be held on November 2nd, when the President will deliver his inaugural address. Dr. Whittaker, Medical Superintendent Officer of Health for Belfast, is the in-coming President in succession to Dr. O'Neill. Dr. Calwell has been associated with Dr. McCaw in the work of the secretaryship.

KING'S COLLEGE, LONDON.—The following entrance scholarships have been awarded: Warneford Scholarships of £75 to E. C. Plummer, C. E. Fenn, and of £50 to J. C. Briscoe; Sambrooke Exhibitions of £60 and £40 to R. W. Williams; and P. C. Coles. Clothworkers' Science Exhibitions of £60 and £40 to T. A. Watson and R. E. Shawcross; Rabbeth Scholarship of £20 to P. C. Coles.

TORQUAY MEDICAL SOCIETY.—A meeting was held at the Torbay Hospital on October 12th, Mr. Karkeek, the President, in the chair. The President gave an address on Recent Experiences in Sanitary Matters, in which he showed the advantages of early notification and isolation of infectious diseases, and the risk daily run by urban communities who obtain their milk supplies from rural districts where no practical control is exercised over such diseases. He cited cases where an ignorant and wilful peasant woman caused great mischief in a town by polluting the milk she supplied with typhoid germs. Mr. G. Young Eales, Honorary Secretary, read notes of a case of Ptyalism of Neurotic Origin, associated with bilateral deafness and dyspepsia.

PRIZE ESSAY ON RICKETS.—Dr. John Strahan, Belfast, has been awarded the Triennial Warren Prize, value 500 dollars, given by the General Hospital, Massachusetts, U.S.A., for a treatise on "Rickets." The prize was open to general competition, and the subject left to the candidate. The treatise will be published shortly. In 1886 Dr. Strahan gained the Fothergill Gold Medal of the Medical Society of London for an essay on "Typhoid Fever," and in 1889 the Jenks Memorial Prize of 250 dollars, given by the College of Physicians, Philadelphia, for an essay on "The Diagnosis and Treatment of Extra-uterine Pregnancy," for which he was also elected Corresponding Member of the College.

MANCHESTER PATHOLOGICAL SOCIETY.—At the annual meeting of this Society, held at Owens College, Dr. T. C. Railton retiring President, in the chair, the following gentlemen were elected for the session 1892-93:—*President:* J. S. Bury, M.D. *Vice-Presidents:* F. A. Southam, M.B., and W. Coates. *Treasurer:* W. Thorburn, B.S. *Secretary:* T. Harris, M.D. *Committee:* H. R. Hutton, M.B., T. W. Kelynack, M.B., W. Milligan, M.D., R. Patrick, M.D., C. E. Richmond, E. Roberts, R. B. Wild, M.D., J. B. Wolstenholme. *Auditors:* H. Lund, M.B., A. T. Wilkinson, M.D. After receiving the report of the Treasurer and Committee, a considerable portion of the evening was taken up by a discussion on certain recommendations of the committee. A number of card specimens were shown by Dr. Bury, Professor Delépine, Dr. Thomas Harris, Dr. Hutton, Dr. Martin, Mr. Roberts, and Mr. G. Wright.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.—A meeting of the Committee of the Association of Fellows of the Royal College of Surgeons of England was held on October 20th, at 36, Grosvenor Street, W., Mr. George Pollock, President, in the chair. There was a very full attendance. The minutes of the previous meeting—which had been held over for confirmation in order to allow of the entry of important letters referring to certain matters at issue between the Association and an official of the College—were read and confirmed. The Subcommittee appointed at the previous meeting to draw up a reply to the allegations made against the association presented its report. This report was carefully considered, clause by clause, by the Committee, and, subject to a few verbal alterations and additions, was unanimously agreed to. The Honorary Secretary was directed to have the amended report type-written, and to forward a copy as soon as possible to the official of the College concerned.

Nottingham Medico-Chirurgical Society.—The inaugural meeting of the session was held on Oct. 21st, Mr. R. C. Chicken, F.R.C.S., President, in the chair. Dr. P. H. Pye-Smith, F.R.S., of Guy's Hospital, delivered an address on "The Prognosis of Certain Diseases." The influences of age and sex on prognosis were considered in connection with a large number of diseases. Chronic constitutional states often had an unfavourable influence on acute disease, this being marked in the case of chronic Bright's disease and diabetes; the importance of the gouty diathesis, however, was apt to be over-rated. In conclusion, the lecturer carefully examined the prognostic import of some of the symptoms met with in the course of phthisis and typhoid fever respectively. The retarding influence of mitral stenosis or insufficiency on phthisis was fully considered. A cordial vote of thanks to Dr. Pye-Smith was passed, on the motion of Mr. Joseph White, seconded by Dr. Brookhouse.

MEDICAL VACANCIES.

The following vacancies are announced:

BALLINASLOE UNION, Lawrencetown Dispensary. Medical Officer. Salary, £127 per annum, with fees. Applications to Mr. Thomas Connolly, Honorary Secretary. Election on November 8th.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon; doubly qualified. Salary, £150 per annum, and £30 per annum allowance for cab hire. Applications to the Secretary by November 16th.

BIRMINGHAM GENERAL HOSPITAL.—Pathologist. Salary, £120 per annum. Applications to Howard J. Collins, House-Governor, by November 4th.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Vacancy in the Medical Staff. Applications to the Medical Board, Children's Hospital, Steelhouse Lane, Birmingham, by November 8th.

BOROUGH OF BOOTLE HOSPITAL FOR INFECTIOUS DISEASES.—Resident Medical Officer, unmarried. Salary, £100 per annum, with with board, washing, and apartments. Applications to the Chairman of the Health Committee, Town Hall, Bootle, by November 8th.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £120 per annum, without board or residence. Applications to F. Richardson Cross by October 30th.

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square.—Demonstrator. Honorarium £50 per annum. Applications to Morton Smale, Dean, by November 21st.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House-Physician. Board and lodging provided. Applications to the Secretary by November 16th.

GENERAL HOSPITAL, Barbadoes, West Indies.—Junior House-Surgeon. Salary, £200 per annum, and quarters. Appointment for three years. Applications to the Secretary by December 1st.

GLAMORGAN COUNTY COUNCIL.—County Medical Officer. Salary, £750, of which £150 is intended to cover all travelling, office, and laboratory expenses. Applications to T. Mansel Franklin, Clerk, Glamorgan County Offices, Cardiff, by November 21st.

HENDON LOCAL BOARD.—Medical Officer of Health for the Urban Sanitary District and the temporary Infectious Diseases Hospital. Salary as Medical Officer of Health, £125 per annum, and £35 (including the supply of medicines) for attending to patients at the Hospital. Applications, endorsed "Medical Officer of Health," to Samuel Tilley, Clerk to the Board, Local Board Office, The Burroughs, Hendon, N.W., by October 29th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon unmarried. Appointment for six months. Salary, £25, with board and residence. Applications to the Secretary by November 15th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Assistant Physician. Applications to the Secretary by November 15th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Ophthalmic Surgeon. Applications to the Secretary by November 15th.

HUDDERSFIELD INFIRMARY.—Honorary Physician. Applications to Mr. F. Eastwood, Honorary Secretary, by November 1st.

LIVERPOOL NORTHERN HOSPITAL.—Resident House-Surgeon's Assistant. Board and lodging provided. Applications to the Chairman, by November 2nd.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park Place, Cheetham Hill Road, Manchester.—House-Surgeon. Salary, £80 per annum, with apartments and board. Applications to Mr. Hubert Teague, 38, Barton Arcade, Manchester, by October 29th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Assistant Surgeon, must be F.R.C.S. Eng. Applications to Charles H. Byers, Secretary, by November 14th.

TIONAL DENTAL HOSPITAL, Great Portland Street, W.—Anæsthtist. Applications to the Secretary by November 2nd.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, 32, Soho Square, W.—Physician. Applications to the Secretary.

NORTH DUBLIN UNION, FINGLAS AND GLASNEVIN DISPENSARY.—Medical Officer. Salary, £170 per annum and fees. Applications to Mr. Thos. Conolly, Honorary Secretary, Fernville, Glasnevin. Election on October 31st.

NORTH WEST LONDON HOSPITAL, Kentish Town Road, N.W.—Assistant Surgeon; must be F.R.C.S.Eng. Applications to A. Craske, Secretary, by October 31st.

ROYAL INFIRMARY OF EDINBURGH.—Superintendent, must be member of medical profession. Salary, £500 per annum, with free house and gas. Applications to Mr. James S. Trainer, Treasurer and Clerk, by December 5th.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor, Isle of Wight.—Assistant Resident Medical Officer; unmarried. Salary, £70 per annum. Applications to the Board of Management at the London Office, 34, Craven Street, Charing Cross, by November 3rd.

SMEDLEY HYDROPATHIC ESTABLISHMENT, Matlock, Derbyshire.—Resident Physician. Appointment for six months. Honorarium of 20 guineas. Board and residence free. Applications to the Secretary by November 5th.

TAUNTON AND SOMERSET HOSPITAL.—Honorary Surgeon. Applications to J. H. Biddulph Pinchard, Secretary, 13, Hammet Street, Taunton, by November 21st.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Second Dental Surgeon. Applications to S. M. Quennell, Secretary, by November 15th.

MEDICAL APPOINTMENTS.

Brown, John, M.D., Dip.San.SciencsVic.Univ., reappointed Medical Officer of Health for the Borough of Bacup.

Carruthers, Alan E., M.A., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Sussex County Hospital.

Davies, Richard, M.B., C.M.Edin., M.R.C.S., L.R.C.P.Lond., appointed House-Surgeon to the Royal United Hospital, Bath.

Daunt, E., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the West Brigg Sanitary District of the Lincoln Union.

Foot, E. G., M.R.C.S., appointed Medical Officer for the First Sanitary Districts of the Takeham Union.

Fraser, P., M.D., B.Sc., reappointed Medical Officer of Health for the Llangefni Urban Sanitary District.

Goodman, F. G., M.D., M.Ch.Dub., appointed Medical Officer for the East Brigg Sanitary District, Public Vaccinator for the Barnetby Sanitary District, and Medical Officer for the Workhouse of the Lincoln Union.

Gow, William J., M.D.Lond., M.R.C.P., appointed Physician-Accoucheur to Out-patients at St. Mary's Hospital, London.

Holmes, Mr. Thomas, appointed Resident House-Surgeon to the Suffolk General Hospital, *vice* M. C. Moxham, L.R.C.P.Lond., resigned.

Innes, John, L.R.C.S.Edin., L.M., appointed Medical Officer for the Matlock, Bath, and Cranford Districts of the Bakewell Union.

Lyndon, Arnold, M.D.Lond., M.R.C.S., appointed Surgeon to the Wellington and District Cottage Hospital (Somerset).

Mallams, W. A., M.R.C.S., L.R.C.P., appointed House-Physician to the Sussex County Hospital.

Maynard, Edward F., M.D., C.M., appointed House-Surgeon to the Sussex County Hospital.

Morton, E. E., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of the City Road Workhouse of the Holborn Union.

Reader, J., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Alverthorpe District of the Wakefield Union.

Rennell, T. L., M.D., B.Sc., F.R.C.S., appointed to the care of the Medical Mission (Church Missionary Society) at Dera Ismael Khan, North India.

Roe, Montague Walter, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Constantine District of the Falmouth Union.

Rogers, J. F., L.R.C.P.Edin., M.R.C.S., appointed Public Vaccinator to St. Luke's, Holborn Union, *vice* G. E. Yarrow, M.D.

Rouse, Eusebius Rouse, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A.Lond., appointed 3rd Assistant Medical Officer of the London County Asylum, Colney Hatch, *vice* C. J. Ewart, M.D., appointed Senior Assistant to the Female Department.

Shaw, Hugh Grosvenor, M.R.C.S., L.R.C.P., L.M., reappointed Assistant Medical Officer to the Female Department of the London County Asylum, Colney Hatch, *vice* C. F. Beadles, appointed to the Male Department.

Slough, Albert James, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Slough Local Board.

Smith, John A., M.R.C.S., appointed Medical Officer for the Shitlington Sanitary of the Wakefield Union.

Stevens, Dr., appointed Chief Sanitary Inspector to the Camberwe Vestry.

Wawn, Edward Russell, M.R.C.S., L.R.C.P.L., appointed Certifying Factory Surgeon for the Bramley District.

Webster, A., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the First Sanitary District of the Middlesbrough Union.

Winter, Laurence Amos, M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant House-Surgeon to the Kent and Canterbury Hospital, Canterbury.

DIARY FOR NEXT WEEK.

MONDAY.

London Post Graduate Course, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. W. Lang: Conjunctival Affections. Parkes Museum, 74A, Margaret Street, W., 4 P.M.—Dr. L. C. Parkes: Disposal of Refuse and Sewage. 101, Great Russell Street, W.C., 8 P.M.—Dr. Galloway: Liver and Spleen.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Benjamin Ward Richardson, F.R.S.: On Intraorganic and Thoracic Auscultation; A New Departure in Physical Diagnosis. Mr. Alban Doran: On the Surgical Treatment of Cysts of the Vulvo-Vaginal Glands.

TUESDAY.

LONDON POST GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Percy Smith: Stupor and Dementia. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Mr. Jonathan Hutchinson: The Nature of Yaws. 101, Great Russell Street, W.C., 8 P.M.—Dr. Braxton Hicks: Pelvimetry.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. Raymond Johnson: Traumatic Dermoid Cyst of Hand. Mr. Chas. Morton: 1. Adenoma of Soft Palate: 2. Tumours resembling in Structure an ordinary Parotid Tumour, without Gland Tissue, growing in the Cheek in Front of the Masseter. Mr. H. Betham Robinson: Psorospermial Cysts from a Rabbit. Dr. F. C. Turner: Acute Emphysema of Lung, (*a*) Traumatic, (*b*) Respiratory. Card specimens:—Mr. D'Arcy Power (for Mr. G. N. Stephen): 1. Specimen of Lepra Mutilans; 2. Calculus encysted in a Child's Bladder. Dr. E. C. Perry: Secondary Sarcoma of the Small Intestine.

ZOOLOGICAL SOCIETY OF LONDON, 3, Hanover Square, W., 8.30 P.M.

WEDNESDAY.

LONDON POST GRADUATE COURSE, Hospital for Consumption, Brompton, 5 P.M.—Dr. Sidney Martin: Cases of Apical and Basal Systolic Murmurs. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. J. B. Lawford: Intraocular Tumours.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 P.M.—Specimens will be shown by Dr. Cullingworth, Dr. Galabin, Dr. Horrocks, and others. Adjourned debate on Dr. Cullingworth's paper on the Value of Abdominal Section in Certain Cases of Pelvic Peritonitis. Dr. F. J. McCann and Dr. W. A. Turner: On the Occurrence of Sugar in the Urine during the Puerperal State.

THURSDAY.

LONDON POST GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Buzzard: Cases in the Hospital. Hospital for Sick Children, Great Ormond Street, 4 P.M.—Mr. W. Arbuthnot Lane: The Treatment of Chronic Purulent Otitis and its Complications. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Mr. Jonathan Hutchinson: Surgical Cases in the Wards. London Throat Hospital, Great Portland Street, 8 P.M.—Mr. C. G. Wilkin: Nasal Polypi.

HARVEIAN SOCIETY, Stafford Rooms, Edgware Road, 8.30 P.M.—Dr. Stephen Mackenzie: Dermatitis Herpetiformis. Dr. Rayner Batten will exhibit and explain a Clinical Pulse Manometer.

FRIDAY.

LONDON POST GRADUATE COURSE, Bacteriological Laboratory, King's College, 11 A.M. to 1 P.M.—Professor Crookshank: Lecture—Tuberculosis. Practical Work—Examination of Sputum. Hospital for Consumption, Brompton, 4 P.M.—Dr. Sidney Martin: Cases of Mitral Regurgitation.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, 8.30 P.M.—Specimens, etc., at 8. Mr. R. F. Benham: Large Ovarian Cyst with Adherent Vermiform Appendix. Dr. J. Crosbie: Specimen and Notes of a Case of Ulcerative Endocarditis. Dr. Thudichum: The Origin and Treatment of Gallstones. Dr. Henry Sutherland: The Prevention of Suicide in the Insane.

SATURDAY.

LONDON POST GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. Theo. Hyslop: Climacteric and Senile Insanity.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

BICKERTON.—October 26th, at 88, Rodney Street, Liverpool, the wife of T. H. Bickerton, ophthalmic surgeon, of a son.

EVANS.—On October 20th, at Castle Hill House, Shaftesbury, the wife of C. Silvester Evans, M.A., M.B., of a daughter.

GARDNER.—On October 24th, at the Moyne, Boscombe, Bournemouth, the wife of T. Fred Gardner, L.R.C.P.Lond., M.R.C.S.Eng., of a son.

MARRIAGES.

SIMPSON—SOUTAR.—At the Waterloo Hotel, Edinburgh, on the 19th inst., by the Rev. H. L. Mackenzie, M.A., Swatow, uncle of the bridegroom, James Bertie Simpson, M.A., M.D., Golspie, to Alice Peacock, youngest daughter of the late E. K. Soutar, M.D., Golspie. No cards.

THOMSON—THORPE.—On October 20th, at Holy Trinity Church, Lenton, Nottingham, by the Rev. Canon Elsworth, vicar of East Retford, assisted by the Rev. Percy E. Smith, M.A., vicar of Lenton, Dr. Thomson, of East Retford, to Ada, eldest daughter of William Blankley Thorpe, Esq., of Lenton House, Lenton.

DEATHS.

CRAN.—At Wemyss Bay Hotel, on the 23rd inst., after a few hours' illness, Robert Cran, M.D., Ballater, Aberdeenshire.

GUNN.—On October 11th, at Flotta, Orkney, James William Mackenzie Gunn, A.M., M.B.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

ENQUIRER asks where he can find a good coloured representation of a gouty toe.

MR. PERCIVAL SMITH, M.R.C.S. (Tredegar, Mon.), asks for a formula for stimulating the growth of the hair of the scalp of a young lady after an attack of scarlet fever.

DR. C. would be very much obliged for information of any suitable institution where a young man, suffering from paralysis, could be received. His friends are not in a position to contribute much to his support.

MR. EDWIN HEGAN, M.B., B.A. (Eastleigh, Southampton) asks what is a scientific division of the body, and would like to know if there is any work on physiology which discusses the subject.

A MEMBER wishes to hear of a home where a female patient would be received on payment of 10s. a week. She is a widow, partially an invalid, but able to wait on herself.

CLUB DOCTOR asks how emplastrum belladonnæ fluidum is made; and also for a recipe for an alkaline stock mixture containing sodæ bicarb., ammon., and carminative sufficiently concentrated so that ʒj added to ʒviij water will form ʒviij mixture.

TREATMENT OF HYDROCELE.

COUNTRY MEMBER writes: Would any member kindly let me know the best injection to use after tapping hydrocele? Is tr. iodi or carbolic acid preferable, and which causes least pain? Please give formula.

HOME FOR BLIND IMBECILE BOY.

DR. FRANCIS BATEMAN (Whitchurch, Oxon) asks: Can any of your correspondents inform me of a home where a blind and imbecile child of 4 years old could be admitted for care and training? The affection followed convulsions during dentition. The child is unable to walk.

PRACTICE IN AUSTRIA.

PHYSICIAN desires information as to the conditions which will enable a registered English practitioner to practise in Austria. 1. Will he have to attend a German or Austrian university, and if so, for how long? 2. What examinations, if any, will he have to pass? 3. Must he become a naturalised Austrian citizen?

THE DISPOSAL OF SEWAGE.

D.P.H.CAMB.—The following books on the disposal of sewage will probably best meet our correspondent's want of advanced works: Baldwin Latham's *Sanitary Engineering* (Spon); Bailey Denton's *Sanitary Engineering* (Spon); Reports of Royal Commission on Pollution of Rivers (especially the Sixth Report) (Eyre and Spottiswoode); Report of Committee appointed by President of Local Government Board on Modes of Treating Town Sewage (Eyre and Spottiswoode); and Corfield's *Treatment and Utilisation of Sewage*, 3rd edition, 1887 (Macmillan).

TEMPERATURE REGULATOR.

A MEMBER wants to know where he can get a gas regulator for an incubator. He has seen a year or two back a good one, obtained from Birmingham, but has mislaid the address. It cost four or five shillings, and admitted more or less gas into the burner according to the temperature of the incubator.

*** Reichert's Regulator, price 5s. 6d., is probably the best. See that the by-pass hole is small enough. May be obtained from Messrs. Baird and Tatlock, Cross Street, Hatton Garden. Messrs. F. E. Becker, Hatton Wall, Hatton Garden, or any other of the good chemical apparatus dealers.

Dupuytren's Contraction.

Dr. P. Macleod Yearsley (London) writes: Could any of your readers kindly inform me to what extent heredity plays a part in Dupuytren's contraction? I have lately heard of a family in which all the males are affected in the following manner: The father has both hands tightly clenched, the eldest son has the little and ring fingers of both hands contracted, the second son is in the same condition, and the third and fourth sons have the little and ring fingers of both hands commencing to contract. As far as I can ascertain, there is no history of gout or rheumatism. If you can give me any information as to any hereditary tendencies of the affection I should be greatly obliged.

*** Mr. William Adams, F.R.C.S., to whom we have referred this query, is of opinion that there can be no doubt that heredity plays a very important part in Dupuytren's finger contraction, and is met with in a large proportion of cases; sometimes even in the third generation. The case mentioned by Mr. Yearsley is one of unusual severity and of great interest as showing the influence of heredity. The history as to gout and rheumatics is frequently absent. The hereditary character, however, does not interfere with the success of treatment.

The Bacteriology of Small-pox.

Variola asks: Where can I get the most recent literature on the bacteriology of small-pox and allied diseases?

*** The literature of small-pox to 1885 will be found in the *Nouveau Dictionnaire de Méd. et de Chirurgie Pratiques*, tome 38, 1885, in the articles Vaccine (by d'Espine); Variola; and in the bibliographies appended to these articles. Also see p. 34 of Flügge's *Micro-organisms*, translated by Cheyne. New Sydenham Society 1890 papers are mentioned. For the later literature, of which there is not very much, refer to Cornil and Babes's *Les Bactéries*, articles on Variole and Vaccine; Dr. Copeman's article in the British Medical Journal; and the various German Yearbooks in which the recent papers are mentioned, especially in the *Centralbl. für Bakter. und Parasitenkunde*, from 1887 onwards.

ANSWERS.

Mr. Binnie.—A person pretending to be a doctor and specialist in any department without a diploma, and acting as described, would incur the risk of a penalty of £20 for every such act.

Treatment of Cholera.

Dr. William McDonald, L.R.C.P., L.R.C.S.E. (Maryhill), writes: In answer to "Member's" query of October 22nd, I beg to state that I mix a heaped teaspoonful of cream of tartar in each quart of cold water, and let the patient drink *ad libitum*. Sooner or later, according to the severity of the case, absorption takes place, and is intimated by a feeling of heat round the epigastrium. Lac sulphur is given every half-hour in ½ drachm doses in water. Pending absorption, the cramped parts are immersed or sponged with cold water, iced if possible, and rubbed dry alternately. The cold of cholera resembles the cold of the frost-bound. Heat takes no effect; cold refreshes and restores vitality.

Superfluous Hairs.

Hirsutus.—The method of destroying hairs by electrolysis is described in all the recent works of dermatology, and the apparatus is supplied by surgical instrument makers. In the small practical manual on *Diseases of the Skin*, by Dr. Rohé, published in Philadelphia and London by Davis and Co., 1892, the method of working and the apparatus are minutely described.

The destruction of hair, if properly done, is permanent. It is not to be recommended in cases in which growth consists of a large quantity of soft, downy hairs, and should be restricted to those cases in which the deformity consists in a comparatively small number of strong, thick hairs. Successful results are not to be obtained without considerable practice, and an incautious operator may leave permanent scars which are more disfiguring than the hairs.

NOTES, LETTERS, Etc.

A. W., M.B., M.A. does not enclose his name and address.

An Antirabic Institute for Madeira.

Rabies was, it is stated, unknown in Madeira till quite recently, when a dog was found to be suffering from the disease at Funchal. How the animal contracted it does not appear, but the authorities have shown the most surprising promptitude in recognising the supposed needs of the situation by deciding forthwith on the establishment of an antirabic institute. With this view they have invited Senhor Roque da Silveira, the Director of the Veterinary Hospital at Lisbon, to go to Madeira to superintend the equipment and organisation of the new establishment.

Migration from Cholera-infested Towns.

Dr. Henry Taylor (Guildford) writes: It has often surprised me that in none of the towns ravaged by cholera during the present epidemic has the plan been tried of removing the entire population of the infected quarters, and putting them under canvas in some healthy locality. Whatever theory may be held as to the cause of cholera attaching itself with greater persistence to some spots than to others, it is an undoubted fact that the removal of all those who inhabit such spots, whether they be barracks or towns, is quickly followed by a cessation of the epidemic. The experience of Indian military authorities fully confirms this practice, and commanding officers of stations and barracks in our great dependency are strictly enjoined to take this step in the event of cholera breaking out among the troops in their command. What can be done in barracks may not be so easily effected in towns, but the difficulties in the latter case are not insuperable, and should be grappled with in so serious a crisis as a visitation of Asiatic cholera. I have a distinct recollection of the above plan being put into practice in a seaport town in the West of England during the cholera epidemic of 1848-9, and with marked success, though I cannot, after so long an interval of time, recall the name of the town. I had a personal experience of this mode of arresting the march of cholera in the epidemic of 1854, when it attacked the families of the militia staff then quartered in some tenement houses assigned them in this town. In a very short time eight persons were attacked, of whom seven died. As surgeon of the regiment, I urged the adjutant to move all the staff out of the barracks without loss of time, and to put them into tents on the Hog's Back Down near at hand. This was promptly done by that energetic officer, who had seen service in India, and from this time no fresh case of cholera appeared among the members of the staff or their families. If such success could have been attained in Hamburg and the many Russian towns lately decimated by cholera, half a million lives would have been saved.

The Glories of France.

Last week, at Domène, the monument erected in memory of Dr. Marmonier, senior, who for nearly half a century has practised medicine in that little town, was unveiled in the presence of a large number of doctors. The monument is in the form of a beautiful fountain. From the centre of the basin rises a pyramid surmounted by a bronze bust of Dr. Marmonier. Upon the principal façade is the inscription: "To Doctor Marmonier, Senior, who Revived Transfusion of the Blood. (Au Docteur Marmonier Père, Renovateur de la Transfusion du Sang.)"

After a speech given by the Mayor of Domène, Professor Grasset, of Montpellier, sketched the life of Dr. Marmonier the elder, and said that it was a great glory for the doctor whose memory the town was honouring that day to have been the first in France to have reintroduced transfusion of the blood. Speeches were then given by Dr. Turel, President of the Association of Doctors of Isère; Dr. Doyon, of Uriage; and Dr. Boffard, of Domène. If France honours her men of battle and war, she does not forget, as we do in England, the heroes of a more peaceful achievement.

Ice Creams.

It is something, says the *Daily News*, to know that street-barrow penny and halfpenny ices are not quite so mischievous as they are represented to be. Mr. Stokes, public analyst for St. Luke's, examined a dozen samples of this popular refreshment obtained in the hot weather of last summer when an outbreak of fever in an adjoining parish was suspected of being due to this cause—some were from barrows, others from Italian ice shops. "Mr. Stokes found seven of them to consist of frozen water, sugar, and starch; four contained milk, water, and sugar; and one consisted of water sugar, and lemon juice. No 'cream' ice showed the slightest trace of cream. All the samples, however, were in a sound and healthy condition, and no lead or other metal which might have been derived from the pewter freezing pot was present. It is stated that most of the samples were, for practical purposes, merely frozen paste or gruel, and quite unfit for little children of weak digestive powers; but this, as Talleyrand said of the insufferable lady, is their only fault. This experienced analyst is of opinion that the occasional illness, and sometimes death, which follows after children have eaten ices is more usually due to the sudden check given to the digestive functions by the cold material than to any poisonous or infective action." But what about the water and the filthy dens in which these ices are sometimes made, and the absorption of fever germs by the "cream"?

How to Go to Bed.

We have still something to learn in the matter of nursing, according to Dr. Richardson, who tells us in *The Asclepiad* that in hospital, as in private practice, great errors are made in the choice of bed clothing for the sick, and particularly for the sick who are suffering from febrile affections. We have got rid of the heavy curtains around the bed; of the grand accumulator of dust and other uncleanness, the tester; of the heavy vallance, which converted the under part of the bed into a close cupboard, in which all kinds of unwholesome and cumbrous articles lay concealed, including sometimes excreted matter itself; and we have banished the carpet, which often, as a hard-trodden dust-laden rag, made the floor beneath the bed persistently impure. This is all good; but the old feather beds, flock mattresses, heavy blankets, thick, impermeable, and dense counterpanes still encumber many a patient, rendering ventilation of his body as impossible as in the days of our forefathers. The art of going to bed is one which has been studied (and practised) for untold centuries. We have not advanced much on the practice of our forefathers in the West. According to Mr. Ernest Hart, and now according to Dr. Richardson, we "go to bed" in a very unwholesome and stupid fashion.

Provision Against Cholera.

Dr. James Mason (Cambois) writes: On reading Mr. Ernest Hart's very interesting and brilliant article on Cholera in the *Nineteenth Century* I feel prompted to report the humane and public-spirited action of the owners of a colliery with which I have a great deal to do in the capacity of surgeon to the workmen. Cambois is an island, or very nearly so, extending on the one hand from the river Blyth to the river Wansbeck on the other. The town of Blyth is separated from Cambois only by the breadth of the river, which is not very broad. Now although Blyth is but a small port yet by its trade (the exportation of coal) it is in constant contact, so to speak, with Hamburg. Early in the history of the present epidemic I was consulted as to what should be done to protect our tight little island. I advised the immediate circulation of a few simple instructions and the construction of a hospital capable of holding four or six beds, with a cubic space of not less than 2,000 cubic feet per bed. Within a week or ten days the hospital was ready—a large ward, a room for an attendant, and a crematorium for

the burning of excreta, etc. As yet we have had no case of cholera, but let it come when it may we have provided for its isolation and treatment in a manner worthy of emulation by not a few of the local governing bodies in this district.

A MODERN DISCIPLE OF PARACELSUS.

MY UNCLE TOBY considered that the secret of human happiness lay in the possession of a soul-satisfying hobby, the more recondite and unattractive to the eyes of the "average sensual man" the better. From the hobbyhorsical point of view, the late Dr. Edward Schubert, of Frankfort, who died on August 18th, must in this sense have been one of the happiest of men. To satisfy the vulgar needs of the body he condescended indeed to practise medicine, but in the higher spiritual sense his life was passed with the inspired quack of the fifteenth century—Paracelsus—or, to give him his full style and title, Philippus Aureolus Theophrastus Bombastes von Hohenheim, whose works he turned over with daily and nightly hand for many years. Schubert, who was known in Germany as one of the greatest living authorities on Paracelsus, collaborated with Dr. Carl Sadhoff, of Düsseldorf (another general practitioner, by the way) in a work entitled *Paracelsus-Forschungen* (Paracelsus Investigations), which was published at Frankfort in two parts in 1887-89. Schubert supplied his colleague with a vast amount of bibliographical material. He has left behind him what is believed to be the largest collection of literature relating to Paracelsus in existence, besides numerous works on pharmaceutical alchemy. This unique library, in the collection of which Dr. Schubert must have spent a considerable sum of money, will shortly be sold.

GREEK AND THE M.D. DEGREE.

M.B., C.M., writes: Under the new ordinances prepared by the Commissioners under the Universities (Scotland) Act 1889, students who commenced their studies before the date of the ordinances coming into effect may graduate under the old or new regulations. Under the old regulations it was necessary to take Greek before proceeding to the M.D. degree, but under the new regulations one may substitute a modern language such as French or German. I think this is a very great boon, as for one boy who nowadays learns Greek at school, dozens learn French and German, as being more likely to prove of ultimate use. At the present time there is a large amount of medical literature written in both these languages, and many of us like to run over to Germany or France to see the practice of these schools. But there is a great anomaly, and it seems to me a great hardship to many others who, like myself, have passed the M.B. and C.M. Unless I am misinformed, an M.B. and C.M., under the old regulations is not to be allowed to substitute French or German for Greek for his M.D. Why, I should like to know? We passed, it seems to me quite as severe, and I believe a more extensive, examination in general education than is now asked at the preliminary. We had to pass in mechanics, and also in at least two of the following subjects: Greek, French, German, higher mathematics, natural philosophy, logic, and moral philosophy. So that we had to take mechanics and one of these subjects as an extra over and above Greek, which was compulsory for the M.D. Under the new regulations mechanics is not required at all, and only one extra subject which may be Greek, or German, or French. I fail to see why one is less a student after he has taken his M.B. than before, but so the powers that be seem to make out, as we are not, I understand, to be allowed to graduate M.D. under the new regulations. Had we not passed our M.B. degree we could have graduated M.B. under the new regulations, and ultimately M.D., but because we have graduated M.B. under the old regulations we may not take our M.D under the new regulations, that is, have the right to substitute German or French for Greek if we are so minded. As well as making the M.D. more attainable for new students, and those old ones who have not graduated M.B. as yet, the old M.B. should have at least an equal privilege. Many of us have been in practice for years and would have graduated M.D. long ago had it not been for this bugbear Greek, and had we had the choice there is under the new ordinances. An appeal should be made by all M.B.'s to be granted the undoubted privilege of substituting German or French for Greek (as under the new regulations), and on passing one of these—one of the old extra subjects—and writing a thesis to be allowed to graduate M.D.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Mr. T. C. Askin, Woodbridge; Dr. Aveling, London; Another M.O. of Friendly Societies; Dr. A. E. Aust-Lawrence, Clifton. (B) Dr. Blackett, London; Mr. G. Bosson, Alford; Mr. E. W. Bannister, Barbados; Dr. J. H. Bridges, London; Mr. T. Blackstone, Colwyn Bay; Mr. F. Barrow, North Berry; Mr. J. Blamey, Penryn; Mr. A. H. Beal, London; Dr. J. Brown, Bacup; Mr. G. F. Blade, London; J. Banks, M.B., Aberdare; Dr. G. W. Balfour, Edinburgh; Dr. T. Britton, Brighouse; Dr. S. Brown, Leamington Spa. (C) Mr. S. A. Clarke, London; Professor Corfield, London; E. Campbell, M.B., London; Dr. Cooke, Cheltenham; Dr. J. W. P. Case, London; Mr. J. M. Chadwick, St. Neots; Mr. A. Carter, London; Mr. A. Collie, London; F. W. Clark, M.B., South Shields; J. M. Campbell, M.B., Caersws; Mr. B. F. C. Costelloe, London; Mr. J. Croft, London; Dr. W. G. Cresswell, Saltby; Mr. F. Cooke, Hurst. (D) Mr. A. Duckham, Birmingham; Dr. C. Dawson, Leeds; Dr. Langdon Down, London; Dr. P. Duncan, London; Dr. W. Donovan, Birmingham; Dr. T. Dutton, London; Mr. J. Dixon, Dorking; Mr. J. B. Drinkwater, Llangollen. (E) S. G. Edge, M.B., Blofield; Mr. W. P. M. Eldoway, Poole; Mr. G. Y. Eales, Torquay; Mr. J. Evans, Bristol; W. A. Elliston, M.B., Ipswich. (F) Mr. R. Fegan, London; W. E. St. L. Finny, M.B., Kingston-on-Thames; Dr. P. Fraser, Llangefni; Mr. E. H. Fitzpatrick, Birmingham; Mr. W. Ferguson, Fleetwood; J. Fraser, M.B., Edinburgh. (G) Dr. A. O. Grosvenor, London; Mr. T. B. Goss, Bath; A. M. Gunn, M.B., Shapinshay; Dr. G. M. Gould, Philadelphia, U.S.A.; Mr. T. W. N. Greene, Dublin; Dr. J. Gow, London; Mr. W. G. Gray, Holsworthy. (H) Mr. K. P. Hicks, London; Mr. E. Heaton, London; Mr. H. Himer, London; Dr. E. Haughton, Upper Norwood; Dr. F. de Havilland Hall, London; Mr. W. H. Hamer, London; Mr. W. R. Hall, London; E. Hegan, M.B., Southampton; Mr. T. Holmes, London; Mr. H. Hime, South Cove. (I) Inquirer; I.M.S. (J) Junius; J. D. M.; Dr. L. Jones, Balham; Sir G. Johnson, London. (K) T. N. Kelynack, M.B., Manchester; Mr. E. M. Knapp, Ross; Mr. B. Keane, London; J. King, M.B., Leigh; J. R. Kaye, M.B., Huddersfield. (L) Mr. H. Littlewood, Leeds; Mr. H. N. Laurence, London (M) Mr. C. A. Morton, Bristol; Messrs. Macmillan and Co., London; Mr. A. Maude, Westerham; Dr. Withers Moore, Newcastle-on-Tyne; Dr. A. McPhedran, Toronto; Mr. G. B. Millett, Penzance; Mr. S. F Murphy, London; M.O. of Medical Aid Association (Resigned); Mr. J. Menzies, Worksop; A Mourner; A Member of the B.M.A.; Dr. Macleod, London; Mr. J. Morgan, Langport; Mr. G. Mason, Blyth. (N) James Niven, M.B., Oldham; Mr. N. E. Norway, Newquay. (O) Dr. W. F. Oldham, Morecambe; Dr. I. Owen, London. (P) W. P. Palmer, M.B., Torquay; Dr. L. Phillips, Birmingham; Dr. H. G. Pope, London; Mr. T. Partridge, Stroud; Dr. L. T. Pennell, London; Mr. A. Phillipson, Newcastle-on-Tyne; Mr. J. R. Phillips, Aughnacloy; Dr. E. L. Prowde, Sunderland; Mr. B. P. Paul, London. (R) Mr. A. T. Rake, London; Dr. B. Rake, Trinidad; Dr. G. Reid, Stafford; Dr. W. J. Richardson, Ravensthorpe; Dr. Robaski, St. Petersburg; Dr. A. Ruffer, London; Dr. M. Robertson, Glasgow; A Resident Medical Officer. (S) Mr. P. Smith, Tredegar; Mr. W. Stockwell, Bath; Mr. H. Simon, Manchester; Mr. C. Stephens, Banbury; Mr. W. T. Smith, Lepton; Mr. R. Savage, London; Mr. W. A. Shillito, Sheffield; Dr. E. C. Shuttleworth, Lancaster; Dr. W. Sellers, Radcliffe; Dr. T. D. Savill, Lewes. (T) Mr. H. Taylor, Guildford; Dr. S. Taylor, Liverpool; Mr. J. Thomson, London; Dr. Thin, London; Mr. J. C. Turner, Matlock Bath; Mr. F. C. H. Turner, London; Mr. S. Travail, Truro; Mr. Lawson Tait, Birmingham; Mr. M. J. Thompson, Oldham. (U) J. W. Unsworth, M.B., Liverpool. (V) Vitalite Sock Company, Secretary of the, London. (W) Dr. W. Williams, Liverpool; Mr. R. Walker, Glendale; Mr. R. Worrall, London; H. White, M.B., Corwen; Dr. J. Williams, Delagoa Bay; Mr. L. A. Winter, Canterbury. (Y) Mr. P. M. Yearsley, London; Etc.

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*** **In forwarding books the publishers are requested to state the selling prices.**

SIXTIETH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

PATHOLOGY.

Professor Victor Horsley, M.B., F.R.C.S., F.R.S., President.

DISCUSSION ON IMMUNITY.

IMMUNITY, PHAGOCYTOSIS, AND CHEMOTAXIS.

By A. A. KANTHACK, M.B., M.R.C.P.,
John Lucas Walker Student in Pathology Cambridge University.

A.—*Does the Immunity of the Frog against Anthrax depend on Phagocytosis?*

Although to an impartial observer it would almost seem that Petruschky's experiments, performed as far back as 1888, have practically settled this question against phagocytosis, Metschnikoff and his followers even now contend that the immunity of the frog against anthrax is due to the destructive action of the phagocytes on the bacilli.

I have, therefore, repeated Petruschky's experiments, extending them in various directions where necessary, and must once more uphold the opinion expressed by him, and also held by Klein and others, that the phagocytes are not responsible for the immunity of the frog against anthrax, but that, because the frog and its tissues are resistant against anthrax, therefore the phacocytes are able to take up the bacilli without being destroyed by them.

Petruschky's experiments and his deductions from them are so well known that I need not refer to them here. Before proceeding on independent lines, it was necessary to investigate a few points partly already discussed by Petruschky and Klein, namely: (1) How soon after inoculation do the phagocytes appear in the frog? (2) Do the bacilli become attenuated or weakened in any way before phagocytosis begins? (3) Do the inoculated bacilli remain localised at the seat of infection, or do they enter the circulation, and thus become diffused?

I. *How soon after Inoculation with Anthrax do the Phagocytes appear at the Seat of Inoculation?*—Petruschky and Fischel have shown that within three hours after inoculation phagocytosis is not observed, and that even after three hours the amount of phagocytosis noticeable is extremely small; and Klein and Hamer have not seen the slightest suspicion of phagocytosis two hours after the infection. After a large series of experiments, I have come to the conclusion that phagocytosis rarely begins until four hours after inoculation. In all my experiments fresh cultures were used, never more than thirty-six hours old. (A bouillon tube was inoculated in the usual manner, and after eighteen hours poured into a Petri dish, and kept at 37° C. for further eighteen hours. In this manner the bacilli will grow luxuriantly, and develop but few spores). By means of a capillary pipette, 1 to 3 minims of this culture were introduced under the skin of the thigh or leg. As a rule, both legs and thighs were inoculated, and every hour, with a capillary pipette, a little of the lymph was removed and examined microscopically, the same part of the body never being used more than once. It was then found that the fourth hour is the usual time for phagocytosis to appear. The number of active phagocytes at this stage is, however, extremely small, and increases as time goes on. Yet after two hours already a large number of leucocytes had been attracted. These were chiefly so-called lymphocytes and eosinophile cells, which steadily refused to take up any of the bacilli. We shall revert to this point later on. The case is different when spores are injected under the skin of a frog, for then it will be seen that the ordinary leucocytes take them up rapidly soon after inoculation, though they are very slow and reluctant to take up full-grown anthrax bacilli. In fact, the spores are treated exactly like vermilion particles, being as innocuous as these while they remain spores. This by itself proves to me the difference between the commoner varieties of phagocytes and the leucocytes, and is also a confirmation of the view expressed by Klein and others that the cells refuse to touch the bacillus in its full vigour, since the true phagocyte will not take up the bacilli until several hours have passed.

II. *Do the Bacilli Become Attenuated or Weakened in Their Vitality before Phagocytosis Begins?*—Petruschky and others have shown that after a continued stay in the lymph sac of the frog anthrax bacilli are greatly impaired in their virulence. From Klein's experiments it seemed highly probable that the bacilli are already weakened within a few hours after their introduction under the skin of a frog. To decide this point frogs were inoculated under each thigh and leg, and then, after an interval of one, two, three, and five hours, a small quantity of the lymph removed with a pipette and inoculated under the skin of a mouse. My experiments show that in the majority of cases, if fresh cultures free from spores be used, an attenuation does take place within five hours. This cannot be due to an influence of the phagocytes, as at this time the amount of phagocytosis is very limited. As certain numbers of the bacilli are, however, taken up by the cells, and others, as shown by Klein, enter the general circulation, it might be objected that when inoculating the mice at the second, third, and fifth hour I used a smaller quantity of bacilli than at the first hour. To obviate this, increasingly larger quantities of lymph were used for the second, third, and fourth mice. I confess that these experiments are not absolute, but, as far as they go, they decidedly suggest that the anthrax bacilli are already weakened before phagocytosis begins; for three experiments gave the following result:—

(a) A frog was inoculated into both thighs and legs; lymph removed from one thigh an hour afterwards and inoculated into a mouse; dead after twenty-eight hours.

Twice as large a quantity removed from the other thigh after five hours and injected into a mouse; dead after seventy-two hours.

The mice inoculated after two and three hours respectively died about the same time as the first mouse.

(b) In a second series, the first three mice died within sixteen hours, and the fourth after thirty six hours.

(c) In a third series, the first three died within twenty-seven hours, and the fourth after sixty hours.

On using old cultures full of spores the mice all died about the same time (twenty-four to thirty hours). I confess that the above-mentioned results are the best that were obtained, and that in several cases there was no appreciable difference or delay. But it may in all fairness be claimed that the above experiments tend to show that the destructive action of the tissues of the frog over the anthrax bacilli makes itself felt within five hours after inoculation, or that this action precedes phagocytosis. Microscopically also signs of degeneration may already be observed in the bacilli outside the cells at this time. It might be objected that it is the presence of the frog's lymph which protects the mouse to a certain extent. Roudenko and others, however, have shown that frog's serum does not possess such protective influence as was claimed by the Japanese observers, and if this serum possessed this power, why did it not show itself before the fourth hour?

III. *Do the Inoculated Bacilli remain Localised at the Seat of Inoculation?*—Petruschky maintained that in the cold frog the anthrax bacilli do not reach the general circulation. Klein and Hamer, however, have shown that, after an injection of anthrax bacilli or their spores into the dorsal lymph sac of an ordinary frog, the microbes quickly and copiously enter the circulation, but that they are undoubtedly destroyed within the blood stream, and that this destruction begins within two hours, that is, before phagocytosis appears. It has been objected against these experiments that Klein and Hamer used excessively large quantities of bacilli. In repeating these observations smaller quantities (1 to 2 minims of a fresh bouillon culture in a Petri dish) were employed, and injected under the skin of the thigh. Invariably, by means of cover-glass specimens and cultivations, the presence of bacilli in the heart's blood could be traced after the first hour, and, as a rule, up to fourth hour, but never after five hours were allowed to elapse; after five hours then the process becomes a purely local one.

We see then that, as Klein has shown, the bacilli which find their way into the circulation disappear rapidly. Phagocytosis in the heart's blood of such frogs was never detected, though

carefully looked for. My *modus operandi* differs slightly from Klein's, inasmuch as after inoculating the frog I exposed the heart, and at hourly intervals removed a drop of blood from the ventricle, and inoculated a small test tube filled with bouillon therewith. The blood required for cover-glass preparations was obtained in the same manner. I desisted from examining the spleen of the frogs, as Klein and Hamer did in their more complete experiments. This much is certain, then, that the bacilli quickly find their way into the circulation, and also quickly disappear from the circulation, and that this disappearance is not due to phagocytosis. It may be objected (1) that though phagocytosis was never observed in the blood, it may nevertheless have occurred; or (2) that the bacilli were carried away by the blood to distant organs, where they became the prey of phagocytes; and (3) that after the fourth hour the phagocytes which appear at the seat of inoculation are sufficient to prevent more bacilli from entering the circulation.

In regard to the second point, Klein has shown that in the spleen also the bacilli rapidly disappear within the first two hours, before phagocytosis appears, while the other two objections cannot be said to weaken Klein's conclusions, and, therefore, the fact that the bacilli are rapidly destroyed in the blood stream and spleen at a time when phagocytosis is not observed must always remain a significant one.

Finally, I have repeatedly confirmed Petruschky's statement that although most bacilli are eventually taken up by the cells, yet a large number are not destroyed in this manner, but perish without the intervention of the phagocytes.

The Heated Frog.—I next proceeded to examine the state of affairs in the heated frog. The method employed was to alternately heat and cool the frog.

A frog was inoculated under the skin of the thigh in the usual manner, and at once placed in a beaker with a little water kept at 25° C. As these experiments were performed in February the change of temperature was considerable. After eighteen hours the bacilli had grown typically, and were diffused over the whole organism, as described by Petruschky. There were many leucocytes and phagocytes, and in one case an enormous number of these cells, but most of them empty, some of them, however, containing a few bacilli, as already demonstrated by Petruschky. The material for phagocytosis therefore existed, but the cells would not touch the bacilli which are now virulent for the heated frog.

The animal was now removed to 12° C. for thirty-six hours, with the result that the bacilli died rapidly. The degeneration appearances and the decrease in number were very plain after twenty-four hours' exposure to the cold; but this was not due to phagocytosis alone, for, though phagocytosis was well marked, it was by no means commensurate in amount to explain the rapid decrease in number; and many undoubtedly degenerate bacilli, staining extremely badly with methyl blue, were found outside the cells. After thirty six hours the phagocytes were as full as they could be, and there were comparatively few extracellular bacilli.

The frog was now once more heated for eighteen hours, and again the bacilli grew beautifully as before; some phagocytes contained bacilli, but most of them had refused to take up the bacilli, or, considering that eighteen hours previously they had been as full as they possibly could be, had given them up or were destroyed by them. Were they paralysed? An accident settled this point satisfactorily. The water in the beaker had not been changed, and another bacillus—an ordinary small saprophyte—had gained access to the tissues of the frog. This was a small rapidly-growing bacillus, which, however, did not interfere with the growth of the anthrax bacilli. The small bacillus was copiously taken up by the phagocytes. Thus the latter were not paralysed by the heat, but they refused to take up the virulent anthrax bacilli while they devoured the comparatively harmless impurity.

On again cooling the frog, the anthrax bacilli decreased and died as before, and were once more taken up in great masses by the cells. The other bacillus persisted, but was also taken up by phagocytes. The latter, therefore, in the cold frog have no special choice for either bacillus; in the heated frog, however, they refuse the anthrax bacilli almost entirely, the latter being very virulent to the heated animal. The conclusion to be drawn from these facts is that as soon as the anthrax bacillus becomes virulent for the frog, phagocytosis all but disappears and the affection becomes a general one; immunise the frog or make it refractory by cooling it and phagocytosis at once becomes marked and the lesion becomes a local one.

I have repeated these experiments successfully on four different occasions, and have in each instance obtained the same results, the saprophyte appearing in all cases. It is therefore absurd to say that heat paralyses the phagocytes; they will not touch the anthrax bacilli, because they themselves are not immune against these organisms; make the phagocytes resistant and they will rapidly devour the bacilli. A heated frog, on the other hand, can be rendered resistant against anthrax by keeping it at 25° C. for a week before inoculating it. It will then behave towards anthrax exactly like an ordinary or cold frog. This points to more general changes than phagocytosis as the cause of immunity. We must assume that when a frog is suddenly plunged from 12° to 25° C. grave changes in the chemistry and resistance of its tissues take place, which at first make it susceptible to anthrax, but that after a gradual acclimatisation to a warmer temperature it regains its previous resistance, the frog, as a matter of fact, being artificially converted into a summer frog, in the full possession of all its tissue properties. (It must be remembered that all my experiments were performed during the cold months in the early part of the present year.) In studying the causes of immunity much may be learned from a careful consideration of the conditions and agents which render a refractory animal susceptible, and *vice versâ*.

Lastly, to study the influence of the phagocytes, the following experiments were devised.

A frog was taken, both legs washed with corrosive sublimate solution ($\frac{1}{1000}$), then carefully washed with sterilised water. A ligature was tightly applied at the thigh, and the lower extremity amputated above the ligature, and inoculated with a drop of a fresh anthrax growth in bouillon. One limb in each instance was kept at 12° and the other at 25° C., in a moist chamber. By this means the leucocytes could be fairly well excluded, as only those which were present in the amputated leg could rush towards the seat of inoculation.

In the limbs kept at 25° C. anthrax grew beautifully, just as in the intact frog kept at the same temperature, while in those kept at 12° C. the bacillus perished. Phagocytosis was but limited in the cold limbs, though it certainly did exist, but may practically be neglected, being utterly inadequate and in some cases almost absent. Leucocytes and red corpuscles were present in both cases, and the connective tissue cells had multiplied to a certain extent, more so in the limbs kept at 12° C. These in fact were the phagocytes found.

Here then the death of the bacilli in the limbs kept at 12° C. depends on other causes than phagocytosis. Most instructive results were obtained on replacing the circulating blood by 0.75 salt solution. A frog was pithed and a cannula tied into the conus arteriosus, and the vena cava inferior cut across. Then saline solution was allowed to circulate under slight pressure. Four hours later the animal was inoculated under the skin of both thighs with a suspension in bouillon of an old agar culture, and the limbs amputated and kept cool. It was found that the anthrax bacilli had not been impaired in their growth, though a number of leucocytes which had not been washed away were present at the seat of infection, and not a few phagocytes had found their way to the bacilli. Very few of the phagocytes contained bacilli, though both phagocytes and leucocytes contained many spores. In the control limbs kept under identical conditions and inoculated in the same manner the bacilli died as usual.

From these experiments (four in number) we must conclude that by means of the saline irrigation the defensive substances of the tissues of the frog are destroyed or washed away, no resistance being now offered to the bacilli. This is all the more probable when we consider the following experiment, which was performed on two occasions. Before beginning the artificial circulation, the right thigh was ligatured in two places, and the soft tissues between the ligatures divided down to the bone, so that the saline solution did not touch this leg. It was now found that though the bacilli grew in the left limb they refused to do so in the right, which had retained all the soluble substances normally belonging to its tissues.

Finally I repeated the experiments of Klein and Coxwell with a slight modification: while the frog was under the influence of the chloroform-ether mixture the right thigh was ligatured in two places and the soft tissues between the ligatures divided. Then a small quantity of the same suspension as used above was injected under the skin of both thighs, before the frog was allowed to come round. After twenty-four hours the anthrax bacilli invariably had developed typically on the right side, in spite of the phagocytes and leucocytes present, while on the left in some cases they had been taken up by the cells, only a few extracellular bacilli being present. This result does not quite tally with Klein's, but this may be due to the fact that apparently smaller quantities of bacilli or spores were injected. We must assume that the defensive property of the tissues and their juices which had been vitiated by the anæsthetic was rapidly re-established in the limb in connection with the general circulation, while in the other limb this could not take place.

Conclusions.—These experiments therefore confirm Petruschky's and Klein's opinion, that phagocytosis is not the cause of the frog's immunity against anthrax, but that the frog is immune on account of the presence of some substance destructive to the organism in the tissues, and further that because this substance is also present in the phagocytes they share this destructive action with the rest of the tissues and their juices. Phagocytosis is therefore, as I have expressed elsewhere, a concomitant phenomenon, a consequence of the frog's immunity, but not the cause thereof. As Hankin has

always insisted on, we must in analogous cases—for we cannot generalise from anthrax to all bacillary diseases alike—ask: "What is it that makes the phagocyte itself immune?" And, further, we notice that in an immune animal the infective processes remain local, while in susceptible animals they rapidly become diffused. This localisation in the immune animal is not due to phagocytosis alone, but, as I hope to show now, to an inherent reaction of the tissues which shows itself as inflammation and suppuration.

B.—Chemotaxis and Immunity.

During these observations, attention was also paid to the so-called "chemotaxis" which at present attracts almost universal attention. The following remarks apply in the first instance to the frog and anthrax.

Why the term "chemotaxis" has ever been allowed to find its way into pathology I have always been at a loss to see. To me the old terms "diapedesis and migration of leucocytes" always seemed satisfactory and good enough. When we borrow a new term from another science, we must be certain that the *fundamentum comparationis* at least exists. When we used the terms "diapedesis and migration," we implied that the leucocytes or wandering cells travel to a certain spot; now the conception is reversed, and we assume that they are passively attracted or repelled. Chemotaxis therefore simply states an old phenomenon in a reversed order, and assumes that the cells under certain unfavourable conditions are repelled, while all we can assert is that they are not "attracted," which is quite a different thing from "being repelled."

Again, chemotaxis disregards the most important fact that many of the migrating cells have developed *in situ* by means of a formative irritation of the connective tissue cells and of the leucocytes themselves. When we use the term chemotaxis in botany, we deal with a physically and chemically stationary fluid containing a fixed number of non-proliferating, or at least practically non-proliferating, unicellular bodies, we have no vessel wall which has to be traversed: conditions altogether incomparable with those found in the animal body. There seems to me to be but little doubt that the capillary vessel wall must be affected in a particular manner to allow the leucocytes to pass, as Disselhorst and others have assumed, and that a mere attractive power from without is not sufficient to bring about diapedesis; for, among other reasons, why is it that in a vessel passing through an area under the influence of a repelling substance the leucocytes always remain in the vessel, and are not repelled through the vessel wall? It would seem to me that if the vessel wall were of no special importance, whether we have positive or negative chemotaxis, diapedesis should always occur, being in the one case towards the chemotactic centre and in the other away from it.

Chemotaxis is, therefore, an inadequate term, and to say that leucocytes and phagocytes wander to a certain place on account of a positive attractive power exercised from that spot amounts plainly to stating little more than that they get there, but cannot be an explanation why they do so. It is simply the substitution of a high-sounding and unsuitable word for the plainer English one "migration," which means as much and expresses the phenomenon much better, without assuming influences which have not been proved, but are mere hypotheses.

We have always known that a weak irritant will cause inflammation, a collection of leucocytes and other cells at a particular spot will cause diapedesis and proliferation of the tissue cells and wandering cells, while the same irritant in a relatively concentrated form will act as a protoplasma poison, paralyse the vessels, and cause death of tissues and so forth To speak in the one case of a positive chemotactic action as the explanation, and in the other of a negative one, seems to be no gain. When a hot iron is momentarily applied to a patient's back, we get all the phenomena of inflammation with migration of leucocytes, diapedesis, and so on; on applying a cautery for a prolonged time, there will be no diapedesis, no collection of leucocytes, but necrosis and death. Does the hot iron in the one case act positively chemotactic and in the other negatively so?

When I now use the term "chemotaxis" I do so because I do not wish to leave in the mind of those who differ from me any doubt as to what my meaning is, but I again repeat distinctly that I protest against the unqualified introduction of the term.

(1) According to modern thought, then, anthrax has a positive chemotactic action on the leucocytes and wandering cells of the frog. We see, however, that the frog's blood has an equally strong positive attractive power over the anthrax bacilli, for, as Klein has shown, already within ten minutes after inoculation the heart's blood of the frog contains many bacilli. This consideration, from a chemotactic point of view, must lead us into great theoretical difficulties, for here we have two solutions, each of a positive chemotactic action on the bodies contained in the other.

(2) Again, the chemotactic attraction of anthrax in the immune frog from a phagocytic standpoint can be of little use, unless it be shown that thereby actual or potential phagocytes are collected at the seat of inoculation. Now I have convinced myself that the cells attracted within the first three hours are almost exclusively so-called lymphocytes and eosinophile cells, often practically only the latter, which, so far as anthrax is concerned, are never phagocytic, while the former very rarely are so. After the third hour, and, as a rule, after the fourth hour, the phagocyte appears on the scene. But can we say that the cells appearing as late as that are attracted by chemotaxis? I have repeated the experiments of Massart and Bordet and other investigators on many occasions, using capillary tubes filled with anthrax, pyocyaneus, lactic acid, turpentine, nitrate of silver, cobra poison, and many other substances, and invariably find that the cells filling the mouth of the tube after four to six hours are almost exclusively of the eosinophile description, that is, non-phagocytic. These chemotaxis experiments were always performed on rabbits and frogs. These observations then show that chemotaxis is of no advantage whatever to phagocytosis, because phagocytes are not attracted thereby. Moreover, the great majority of phagocytes in the frog are connective tissue derivatives, in great part developed through a proliferation of the fixed and wandering connective tissue cells. Chemotaxis altogether neglects the formative stimulus. Many of the eosinophile cells also are probably developed from their parent cells after they have left the vessels, for I have found a great increase in the eosinophile cells at the seat of inoculation in the amputated leg of a frog kept at 12° C., or even after injecting anthrax bacilli into what I may call skin tubes. The latter were made by stripping the skin from the thigh of a frog and tying it at both ends. Even then the eosinophile cells were greatly increased in number. This must be due to an actual proliferation, and cannot be due to chemotaxis. The experiments of Römer, myself, and others show clearly that on injecting bacterial products into the vessels of a rabbit, or even subcutaneously, the leucocytes and eosinophile cells in the blood are greatly increased in number, and this increase is no doubt due to an actual proliferation. Without entering more fully into this question here there is no doubt that chemotaxis explains the actual phenomena very inadequately, and that thereby phagocytes, actual or potential, are certainly not brought to the seat of infection.

(3) How are we to explain that, on inoculating a frog with anthrax and heating it, no chemotaxis is, as a rule, observed, but, on removing this heated frog into the cold, phagocytes, leucocytes, and eosinophile cells at once make their appearance? It might be objected that in the heated frog the toxic substances are in too high a state of concentration, and thus act negatively, but are they not in the same state of concentration when we suddenly change the temperature from 25° C. to 12° C.?

It might also be objected that we change the plasma and tissue juices; no doubt we do, but this is the very point the true adherent to the phagocytic theory will not allow. Besides, in one case, after heating the frog, there was a large collection of phagocytes among the bacilli which had grown most profusely; most of the phagocytes, however, were empty. Thus, in the heated frog anthrax has certainly not always a negative chemotactic power.

It seems, then, that the migration of leucocytes to the seat of inoculation is due to other more complex and unintelligible causes than a mere physical attraction, and that the collection of leucocytes at this spot depends on this—whether the tissues are sufficiently resistant to react to the

bacterial irritant with inflammation, as understood by Virchow, or whether they are so little resistant that the bacterial irritant acts as a poison, and, so to speak, paralyses the tissues. When in a modern book phagocytosis has been made the corner stone and criterion of inflammation, I ask, Do not most of the phagocytes owe their very origin and appearance to inflammation? Does not inflammation begin before phagocytosis occurs? Is not the proliferation of the tissue cells and leucocytes an essential element of the inflammatory process? To speak of phagocytosis as the *primum movens* of inflammation, and to speak of positive and negative chemotaxis, seems to me to point to a misconception of the whole process of inflammation.

4. The importance of the products of inflammation in the struggle against the microbes has also generally been neglected. The most striking product of inflammation is the collection of leucocytes at the seat of lesion. The great solvent action of the leucocytes is well known, as also the destructive action of pus on various organisms, as Grawitz, Eichel, and F. W. Andrewes have shown. The solvent action does not depend on phagocytes, for on dropping small pieces of copper into the anterior chamber of a rabbit, as Leber has done, pus cells soon appear, and cause an absorption of the metal Now the pus cells in the rabbit consist almost exclusively of non-phagocytic eosinophile cells. I have repeated the experiments of Leber on several occasions, using copper, steel, brass, and silver wire, and am satisfied that the destruction of the metal depends on the action of pus and its cellular elements, that is, the eosinophile cells *par excellence*. In connection with this subject I may mention that in aseptic pus a distinct ferment has been found, and it remains to be investigated whether this ferment owes its origin to the eosinophile cells.

5. The fact that certain microbes, especially anthrax, cannot grow on human or canine pus led me to a systematic examination of pus, and I find that the pus of man, dogs, and rabbits, in its most typical condition, consists of eosinophile cells, and of practically little more than eosinophile cells, and the same applies to the cellular elements of so-called inflammatory exudation. I have followed up the relation of those cells in these animals, and also in frogs, towards anthrax bacilli, the bacillus pyocyaneus, pyogenic staphylococci and streptococci, and find that the microbes are never seen inside the eosinophile cells. It is, therefore, quite possible that the unsuitability of pus as a culture medium for certain bacteria depends on the eosinophile cells, the chief and almost sole cellular constituent of pus. I do not say that this is so, but only suggest it as a possibility.

6. These considerations further led me to a study of the relation of the eosinophile cells of the frog to anthrax and the bacillus pyocaneus, and also to phagocytosis. I find that after inoculating a frog with either of these bacilli the first cells to be "attracted" are the so-called lymphocytes and eosinophile cells, the latter, as a rule, being more numerous. The eosinophile cells increase rapidly in number, and, in many instances, but few other cells are visible besides them. They rush towards the bacilli, and may be found dispersed amongst them. The eosinophile cells continue to increase at a great rate. After a certain number of eosinophile cells have made their appearance, the phagocytes begin to show themselves (after three to four hours), and it will generally be seen that where the eosinophile cells are most active and numerous, there also phagocytosis is keenest, or that where a large cluster of eosinophile is found without phagocytes, the bacilli are greatly damaged and impaired in their growth. As long as phagocytosis lasts, the increase of eosinophile cells is marked. What we have then is this: on inoculating an ordinary frog with anthrax inflammation results, followed by formation of pus, for that is what it practically comes to. Inflammation and suppuration destroy the bacilli, and phagocytosis is a phenomenon of repair. When, however, a frog is made susceptible by heat, chloroform, or washing out, the eosinophile cells do not appear, and phagocytosis is not observed.

SUMMARY.

These and other observations have led me to the following conclusions:

1. The true pus cells are eosinophile leucocytes derived from the blood in the first instance, though probably the eosinophile cells proliferate and increase even after they have left the vessels.

2. The great majority of phagocytes which, in the frog, do not begin to show themselves until three or four hours after inoculation, are quite distinct from leucocytes, and appear much later than the latter. I fully agree with Ballance and Sherrington that these later arrivals are derived from the connective tissue. The cells attracted by so-called chemotaxis are almost exclusively eosinophile leucocytes. Phagocytosis is a process of repair, and not the *primum movens* of inflammation. Inflammation begins long before phagocytosis becomes evident. On inoculating an immune animal with a pathogenic organism, we find that the process remains local, and the first thing we observe is inflammation with diapedesis and migration of leucocytes. The latter are chiefly or almost exclusively eosinophile. The inflammation, as a rule, goes on to suppuration. The cellular elements of this pus again are chiefly eosinophile leucocytes. It is only when inflammation or suppuration has sufficiently advanced that phagocytes appear. This I find to be true for anthrax in the ordinary frog, for pyocyaneus in the immunised rabbit, and also for hog cholera, and, coming to allied forms of disease, also for rabbits accustomed to cobra poison. We see, then, that when an animal is more or less immune against an infective or toxic disease, its tissues react quickly with inflammation, accompanied by well-marked diapedesis and migration of leucocytes, and that these leucocytes are, in the first instance, of the eosinophile kind, and that a phagocytosis worthy of the name appears only when these processes are well marked.

3. As a rule, in these immune animals, the inflammation leads to the formation of pus. Thus we find that in men a subcutaneous inoculation of anthrax is followed by a pustule, in the frog it leads to the formation of pus, and similarly in the immunised rabbit an infection with pyocyaneus or hog cholera to the formation of pus at the seat of lesion. Now pus has a great destructive action, for it is able to dissolve metals and tissues, and to destroy the growth of bacilli in the body as well as in the test tube. This action of pus has been too much neglected. Metschnikoff and his followers, in studying the causes of immunity, have always judged by the local changes, and have attributed the destructive property to the phagocytes alone, and to them chemotaxis has seemed useful as a process to supply phagocytes. We have seen that by chemotaxis non-phagocytic elements (the eosinophile cells) are attracted, and that pus, almost or practically free from phagocytes, consisting almost entirely of eosinophile cells, has a great solvent action on extremely insoluble substances, and a destructive action on various organisms. We see, then, that in such local suppurative processes the microbes are in a medium destructive to them, and that the phagocytes are not necessary to their destruction. This much is certain then, that from the local changes no deduction as to the acquisition of immunity can be drawn, and what we have to explain is this, Why does, in an immunised animal, the lesion become localised, while, in a natural animal, it becomes diffuse? I offer no theory, but simply state the fact. It is only when inflammation or suppuration has localised the process that phagocytosis appears; phagocytosis does not localise the process, but simply removes what is left of the infection carriers. A rapid inflammatory response of the tissues then is the most important factor and phenomenon in the immune animal, whereby the microbes are kept from becoming diffused.

4. If we ask what is it that gives pus or inflammatory exudation this destructive power, the answer seems to be "the eosinophile cell," because pure pus consists of practically nothing but such cells, and by "chemotaxis these cells are attracted." The eosinophile cell no doubt has a special function to perform, and the phagocyte having been sufficiently studied, attention should now be directed to other cellular elements of the blood, the appearance and non-appearance of which at the seat of inoculation stands in a direct relation to the degree of immunity of the animal and also to phagocytosis. I do by no means claim that the eosinophile cell is the immunising agent: far from it. The fact is that an immune animal reacts quickly with inflammation, that this inflammation effectually localises the process and that the inflammatory

products are destructive to microbes, and that the most striking cellular elements of these products are the eosinophile cells. But these are all phenomena following immunisation; why this is so we cannot tell.

5. So far I have only discussed the changes following a subcutaneous injection in an immunised animal. But how are we to explain the disappearance of the microbes after an intravenous injection into an immunised animal? So far as I am aware and am able to judge from personal observations, phagocytosis in the blood itself is a rare phenomenon or useless or inadequate, and undoubtedly bacteria die in the blood quite apart from phagocytosis. Now, what changes take place in the blood?

a. On injecting bacterial products or small doses of bacilli (for example, pyocyaneus) we get an extremely well marked eosinophile leucocytosis.

b. On injecting lethal doses of bacteria (anthrax or pyocyaneus) these cells are not increased, but often diminished.

c. The longer an animal survives an infection, by means of subcutaneous or intravenous injection, the more marked the eosinophile leucocytosis becomes.

There is then here also a correlation between resistance and eosinophile leucocytosis. But it must not be thought that I consider the eosinophile cells to be the carriers of immunising bodies. The eosinophile leucocytosis appears only after the animal has become immune. Thus on injecting 1 cc. of pyocyaneus culture intravenously into a rabbit, it will die, the eosinophile cells decreasing in number; but on injecting the same quantity intravenously into an immunised rabbit, it will survive, and the eosinophile leucocytosis is well marked. This leucocytosis then is simply an after-phenomenon.

Now what does this leucocytosis mean? We have seen that an immunised animal when injected subcutaneously reacts promptly by inflammation, and I think this leucocytosis, produced by bacilli or their products, is equivalent to an inflammation of the blood. I am taking inflammation in Virchow's sense. We have an increase of the nutritive processes caused by chemical irritation, and characterised by a rapid and augmented metabolic activity. The eosinophile cells swell and are richer in granules, and are less stable, and at the same time we have an active proliferation. This form of leucocytosis therefore may well be considered an inflammation of the blood. But I do not wish to urge the adoption of this term, as it may lead to misunderstanding. Anyhow we see that the changes in the blood are similar to those of other inflamed tissues, except that the blood provides the pus corpuscles itself. We have no diapedesis into the lumen of the vessel, but diapedesis does take place nevertheless, eosinophile cells often being found in large number in the peritoneal fluid.

We see then that the difference between an immunised and natural animal (for the species and microbes examined) is this, that in the former the injection is promptly followed by an inflammation which is accompanied by a large accumulation of eosinophile cells, the cellular elements of pus, and we have also seen that pus has a strong solvent or destructive action on otherwise resistant bodies and certain microbes, which is as important as that of the phagocytes and exerts its influence without the latter.

I have attempted to state the facts observed by me as objectively as possible. I wish to point out that the deductions of Metschnikoff are based on observations of local changes and processes, and that it is impossible to generalise from these because his observations are incomplete and simply directed towards the study of one particular cell only, neglecting all the other elements and processes which occur at the seat of lesion. Every cell of the body has its part to play, and so far the function of the eosinophile and other leucocytes has hardly been approached, and while studying leucocytosis, chemotaxis, and suppuration or inflammation, the nature of the leucocytes involved has been too much neglected. This field is so extensive that criticism and co-operation must be welcome, and I have therefore not hesitated to bring the matter before this meeting.

On October 29th the annual dinner of the Manchester Edinburgh University Club was held in the Queen's Hotel, Manchester, under the presidency of Mr. Hardie. A goodly company of members attended.

ON THE ACQUISITION OF IMMUNITY AGAINST INFECTION.

By F. CHARLEWOOD TURNER, M.D.,
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In the recent discussion on Phagocytosis and Immunity, at the Pathological Society of London, it was notable, as remarked by the President in his closing observations, that although much was said about "phagocytosis" and other means of defence against infecting microbes, little light was thrown on the nature of individual "immunity."

I. The chief purpose of this communication is to show that the reason of this is, that questions as to the nature and relative importance of the vital actions by which organisms exposed to infection by pathogenic microbes are enabled to defend themselves against them are quite distinct from, though cognate to, the clinically important but physiologically narrower question as to how "immunity" is acquired and conferred: that "immunity" does not depend upon the acquisition of any quality (structural or molecular) by which the organism is rendered "insusceptible" to microbes previously pathogenic to it, nor upon the acquisition of any special means of defence against them, or of an increased capability of functional activity in the tissues endowed with defensive functions; but is really dependent upon a specific development in the "immune" of the primary factor in the defensive vital reaction, that is, to an increase of the vital sensitiveness of these tissues to the infective microbes and their toxines, whereby, in case of infection, a defensive reaction is *in them* more promptly brought about after the inception of the impalpable particles conveying the infection; and results in the speedy destruction of the microbes, with a correspondingly lessened demand upon, and exercise of, the defensive actions thus advantageously brought to bear upon them.

II. My other purpose is to insist, in regard to the wider physiological question, upon the importance of the reaction of the vasomotor system as a means of defence against infective microbes, both directly and indirectly.

I. *Increased Vital Sensitiveness.*

That individuals "immune" under infection by pathogenic microbes of a particular kind do not differ from others in the possession of any "protective" quality in their tissues, by which they are rendered no longer "susceptible" to the pathogenic action of the microbes appears certain from facts observed in regard to persons immune to certain kinds of contagion, and has been experimentally demonstrated in the case of animals.

The results of pathological research have thus proved that "immunity" is conferred not by any change in the "constitution of the organism, as previously supposed, but by an increased efficiency in the defensive reaction to the infecting microbes in the "immune," as compared with the non-"immune."

Again, the fact that non-"immune" individuals may successfully resist an abundant development of pathogenic microbes infesting all parts of their bodies, and causing an almost fatal disturbance of their systemic nutrition further shows that they also are provided with the means of defence necessary to cope with the infecting microbes, to an extent enabling them to successfully cope, under unfavourable conditions of severe disturbance of the systemic nutrition, with a widely-distributed and active microbic growth.

The increased efficiency of the defensive reaction in "immune" individuals cannot, in view of these facts, be attributed to the acquisition by them of any special means of defence against the microbes, possessed by them alone; but must be attributed to greater efficiency in the "immune" of the defensive vital resistance common to them and the non-"immune" alike.

As regards the question as to how far this increased efficiency of the defensive vital reaction in the "immune" is dependent upon an increase in one, or the other, of the two essential vital factors in that reaction—how far it is dependent (1) upon an increased capacity of defensive action in the elements of the tissues, and how far (2) upon an increase of their vital sensitiveness to the presence of the pathogenic microbes and their toxic products—it may be observed:—

(*a*) That, in the case of the defensive reaction to infection by the inception of impalpable particles conveying infinitesimal quantities of the microbes and of their toxins (insufficient to cause any disturbance of the system, and only leading to such disturbance after "gathering head" by unchecked extension and dissemination of the microbic growth during many days of incubation), the conditions are such that the acquisition of a sufficient increase of the sensitiveness of the tissues to the presence of the specific microbes would confer "immunity" independently of any increase of the means of defence against them (chemical or kinetic), whether concurrently present or not; and that it will do so with less and less demand for the exertion of the defensive action, in proportion to the degree of sensitiveness acquired, and greater promptness of the occurrence of the defensive reaction after the inception of the impalpable particles, by which the infecting microbes or their "resting" spores are conveyed; the demand for defensive vital action being the least possible, with reaction occurring at the moment of infection.

(*b*) That "immunity," thus acquired, would be conferred in the way most in accordance with physiological principles deduced from what is known about natural phenomena in general, being effected with a minimum expenditure of vital energy.

(*c*) That the clinical facts, indicating in the "immune" an early defensive reaction, with destruction of the microbes in a comparatively early stage of their development (if not from the moment of their inception), are in accordance with this more "physiological" interpretation of them; but afford no evidence of the acquisition by the "immune" of any increased capability of defensive action, being indeed opposed to such a supposition, though not inconsistent with it. Nor would proof of the possession by the "immune" of such an increased capacity for defensive action, if adducible, afford any evidence of its being essential to "immunity." If, on the other hand, there were proof of a relatively less capability in the "immune" in this respect, this would prove that the acquisition of "immunity" could not be dependent upon any increase of the defensive functional capacity. The remarkable fact that, with some exceptions, the serum of animals "immune" to certain pathogenic microbes has been found to afford a less unfavourable medium for the growth of those microbes than the serum of animals not "immune" in relation to them, is suggestive of the existence in the "immune" of such a lessened capacity for defensive action. The facts are indicative, at least, of a lessened activity of the defensive action of the leucocytes, etc., under conditions of freedom from disturbance by infection—a normal state of lessened preparedness against such infection, to be expected in an organism defended by a highly developed sensitiveness to the pathogenic microbes to which it is exposed, and thus capable of destroying them, when incepted, with only slight exercise of its defensive action. The facts appear anomalous on any other supposition.

(*d*) But the specific limitation of "immunity"—a fact in accordance with the "physiological" interpretation of it, as depending upon the acquisition of a special *sensitiveness* of the tissues to pathogenic microbes of a particular kind—is incompatible with the supposition that it can be dependent upon an increased capability of defensive *action* in them. For there is no direct and immediate relation between any functional action and the conditions under which it is liable to be called into play. It must result from the contact of any matter with, or under the influence of any agency upon, the tissues, to which the development of their perceptive faculty has rendered them sensitive; and in a degree depending only (*cæteris paribus*) on the degree of stimulus received, irrespective of the adaptation of the vital action to the conditions presented. The acquisition of an increased capacity of defensive functional action in the tissue elements must, therefore, so far as it goes, be equally available as an additional defence against all pathogenic microbes, to which the organism is sensitive. Nor are exceptions, real or apparent, to this specific limitation of immunity (as, for example, in case of vaccinia) opposed to the more physiological interpretation of the facts, as could be shown if time permitted.

These facts, and others, afford, I think, conclusive evidence of the dependence of "immunity" on the acquisition of an increased sensitiveness of the living elements of the organism (or some of them) to the presence of pathogenic microbes of a particular kind, as a physiological result of exercise, by, contact with them, of a defensive faculty, with which all organisms exposed to microbic infection are necessarily endowed; and show that the acquisition of "immunity" is distinct from, and secondary to, the broader question as to the nature and relative importance of the defensive vital actions brought into operation through that perceptive faculty.

II.—*The Reaction of the Vasomotor System.*

As to this question, I think that no adequate conception of the means by which the animal organism defends itself against infecting microbes can be formed without taking into due consideration the important part which the vasomotor nervous system is capable of taking in it, not only as subsidiary to the phagocytic and other defensive functions of the leucocytes and other cells, but independently of, and in addition to them. The ostensible effect of the defensive vital actions of these cells is the destruction of the infecting microbes, within the cells or in the fluids of the tissues, by a microbicidal product formed in increased amount under the stimulus of contact with the microbes and their toxins, especially where aggregated at seats of more active microbic growth. An increased afflux of blood, through sensitiveness of the vasomotor nerves to the stimulus of increased vital action, must occur, as a necessary condition of increased leucocytic activity, at all such seats of nutritive disturbance. The afflux of blood, so brought about in a manner ancillary to the increased activity of leucocytic defensive action (and multiplication), must also have a directly defensive effect, both recuperative to the tissues injuriously affected by the microbes (by removal of their toxic products, and possibly of the microbes themselves also, and by affording the tissues a more abundant nutritive supply), and prejudicial to the microbes by washing away the toxic and digestive products by which their parasitic existence is maintained.

But if the vasomotor nerves are also sensitive to the toxins, as to other recognised "irritants," and if, as in the observed reaction to such "irritants," afflux of blood to the seat of disturbance, so brought about, is the initial act in the defensive reaction against microbic infection—and there would appear to be no reason for hypothecating a difference in this respect between such reaction and reactions to noxæ of other kinds, which are open to observation—a very potent means of defence will be thus supplied; one which, if brought into operation, through a high degree of sensitiveness of the vasomotor nerves to the microbes, at the time of or shortly after the incidence of the infecting particles, would protect the organism from any disturbance therefrom, with little assistance from phagocytosis or other special defensive action; and might even alone confer complete "immunity" by washing away the toxins, and carrying the microbes also into the stream of circulating blood, to perish like the filaria embryos, with which we have been made familiar.

"*Chemotaxis.*"—I think also that such an irritational afflux is the chief agency in bringing about the collection of leucocytes which occurs at the seat of microbic as of other irritation. This has been regarded as the result of an immigration of leucocytes, attracted by the toxines there generated ("chemotaxis"). But there would appear to be no definite proof of the occurrence of a purposive locomotion of leucocytes to, or from, a seat of microbic or other disturbance to any important extent. It seems to me more reasonable to attribute the collection of leucocytes at such foci mainly to the mechanical effect of an afflux of blood (it may be with an increased proportion of colourless cells), aided by a relaxation and bulging of the capillaries of the affected tissue from loss of tonicity, causing the leucocytes to lag and become arrested in them, and subsequently extruded. The massing of leucocytes at inflammatory foci, as for example in the hepatisation of a lung in a few hours, must, I think, in greatest part result from proliferation of them there.

CONCLUSIONS.

In conclusion, I would submit that the facts here referred to, and others, show that "immunity" is not attributable to the acquisition of any special means of protection, or defence, against the particular infecting microbe, to which the individual is "immune;" nor to the acquisition of any increased

capacity of defensive action against the same; but to the acquisition of a high degree of sensitiveness of the living tissue elements to the presence of those microbes and their toxins—to the acquisition of a special development (by exercise of a special kind) of a defensive faculty of perception, with which the living elements of certain tissues, in all individuals exposed to microbic infection, are of necessity endowed—a *perceptive faculty* of the tissues, bringing into play various defensive vital actions which may be subjects of pathological or chemical research, but as to the ultimate nature of which we can get no further than the recognition of the fact of its existence, expressed in the words of a classic authority: "Natura illud, a quo damnum aliquid acceperit, semper abhorret."

Dr. Ruffer said that the mass of facts which Mr. Kanthack had brought forward with regard to phagocytosis in the frog was so great that he found it impossible to discuss them fully. With regard to the time at which phagocytosis began, he did not agree with Mr. Kanthack entirely. From his own observations he found that when saprophytic micro-organisms were injected under the skin phagocytosis might be seen in active progress in less than half an hour. He had demonstrated this process twenty-five minutes after the introduction of the bacillus pyocyaneus under a guinea-pig's skin. When introduced directly into the blood this process could be demonstrated two minutes after the introduction of the bacilli into the circulation. In a paper in the last number of the *Annales de l'Institut Pasteur* this subject was fully discussed, and the statements just made were fully corroborated. In the presence of such facts he was totally unable to accept Mr. Kanthack's conclusions.

Dr. W. B. Ransom had seen many times in actinomycotic tissues the cells to which reference had been made. They occurred in the midst of tissue which was one mass of blood corpuscles, with but very delicate strands forming capillary and venous walls, and containing a few ordinary leucocytes scattered amongst the red discs. They occurred in varying numbers as round or oval cells, which might be moderate-sized with granular protoplasm or large balloons stuffed with red blood corpuscles. They bore a close resemblance to plasma cells of molluscs. They appeared to Dr. Ransom to be in no way traceable to any tissue cells, but he had not succeeded in tracing to his own satisfaction the direct stages between them and leucocytes.

REMARKS ON VENESECTION:

WITH ILLUSTRATIVE CASES.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association held in Nottingham, July, 1892.

By SAMUEL WEST, M.D., F.R.C.P.,
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The Indications for Bleeding.—Venesection in Hæmoptysis.—In Cerebral Hæmorrhage.—In Cyanosis due to Bronchitis and Emphysema.—In Certain Cases of Dyspnœa in Heart Disease. —Dangers of Venesection in Pneumonia.

Free bleeding has gone out of fashion, and, I think, rightly, as a routine method of treatment, for it was based on an incorrect pathological theory, and found, when indiscriminately used, to be harmful. Still, the prejudice excited by its abuse has caused bleeding to be discarded when it ought to be of use. The indications for bleeding seem to be especially two, the one mainly mechanical and the other mainly physiological. In the one case, by the rapid removal of blood in sufficient quantity, mechanical relief may be given to an overdistended heart or vessels, as, when there is extreme congestion in the pulmonary circulation, or when a dilated heart is failing from over-distension. In the other the bleeding is performed in order to produce rapidly the physiological effects of loss of blood with the view of controlling, and if possible checking, a hæmorrhage which is taking place elsewhere into a vital part. Hæmorrhage, unless it comes from a very large vessel, is rarely of itself fatal. Patients die after hæmorrhage but not often of it, for as soon as a sufficient amount of blood has been lost fainting occurs, the blood pressure falls, and the blood has time to clot and seal the aperture, unless the bleeding vessel be too large. Within the skull and in the lungs death from hæmorrhage is not rare, but it is due in the former case to the effect of the hæmorrhage on the brain, and in the latter to suffocation. The danger to life in both cases is not so much from the hæmorrhage, but from the place in which the hæmorrhage occurs. If then the collapse necessary to produce the fall in blood pressure could be rapidly produced by bleeding elsewhere, the further escape of blood into the dangerous parts would be prevented. Consequently in apoplexy, and even in profuse suffocative hæmoptysis, a timely bleeding might save life, but it is the timeliness that is of the essence of the treatment, and in the nature of things appropriate cases must be of rare occurrence. Bleeding for hæmoptysis must ever remain a matter of theory rather than of practice. I have never bled for hæmoptysis myself, for I have never seen what appeared to me a suitable case, but it was an old-fashioned and recognised method of treatment. Ordinary hæmoptysis, even when profuse, does not call for bleeding, and suffocative hæmoptysis, the only form in which bleeding would fulfil the indication, is too quickly fatal, and gives no time.

In the first two cases I shall mention the bleeding was performed on account of grave cerebral symptoms. Both were of great gravity, but they came under observation very early, and I attribute the recovery in both to free timely bleeding.

Case I. *Hemiplegia with Convulsions: Venesection: Recovery.*—W. L., aged 54, a healthy-looking man, was brought into the hospital suffering with fits. He was walking in Gray's Inn Square when he was seen to fall, and almost immediately after had a fit. The fits continued, and he was taken to the hospital, and I saw him about an hour and a half from the time of his seizure. The fits continued with hardly any intermission, each fit lasting about a couple of minutes with the same interval between them. They were restricted to the left side but involved the whole side, including the face. Each fit was the same in character. First the fingers of the left hand were flexed, the thumb being over-extended, the wrist was flexed, and the arm bent so that the hand was carried over the chest. The twitchings appeared first in the hand then in the arm, next in the leg, then in the neck, and finally in the face. The face muscles were strongly contracted, and the head and eyes turned towards the left side, and the upper eyelids of both sides showed a quivering action, due to their being raised and lowered with very great rapidity. Consciousness was not entirely lost. The patient was perspiring profusely and experienced great thirst; he was able to suck small pieces of ice, and could speak a little occasionally. The pulse was 108, of high tension. There were a few scratches on the face, but no evidence of injury other than could be accounted for by the fall.

Unilateral fits of such severity and so frequently repeated pointed to a unilateral lesion, and in the absence of injury the most likely lesion at his time of life was hæmorrhage; at the same time, as there was not complete unconsciousness, the hæmorrhage could not be large. That being the probable nature of the case, the outlook seemed very grave, and there appeared little hope of giving relief except by bleeding. The general health, the fulness of the pulse, and the condition of the patient seemed to offer no contraindication. Accordingly venesection was performed and blood was drawn from the right median basilic vein to the amount of 30 ounces. As the blood flowed relief seemed to be given. The pulse tension fell and the fits became less violent and also somewhat less frequent. From this time improvement took place and the fits diminished in intensity and in frequency, until at 5.30 P.M. they ceased somewhat abruptly, and from this time did not recur. About two hours later the patient became very violent, trying to get out of bed, but using only his right arm and leg, the left being very weak and almost paralysed. An injection of morphine quieted him for the time; but another became necessary at midnight, and he did not sleep except by snatches until the morning. During the night he was able to take food, but was hardly conscious, and passed water several times involuntarily. The urine was found to contain a little albumen. For the next two days the left arm and leg remained almost paralysed, though the patient moved them a little on two occasions while vomiting.

On the fourth day after his attack the movements of the arm began to return, and by the tenth day all power seemed to have been regained, the patient rapidly convalesced, and after a little more than three weeks' stay in the hospital he was discharged practically well. The albumen in the urine was only found for two days after the fits, and was therefore probably caused by them. There was nothing in the history which threw any light on the attack, for the patient seemed to have been a healthy man in every way until the present illness. His father died at 66 of apoplexy, and his father's sister was paralysed for ten years before her death.

I believed the lesion at the time to be a hæmorrhage either into the cortical region or in the pia mater, and I certainly thought that the patient was dying at the time I saw him. Bleeding seemed to me to offer the only hope of saving his life, and I attribute his recovery to it. I have since then seen him many times, and he has remained, as far as I have heard, in good health.

Case II. *Aphasia: Convulsions: Venesection: Recovery.*—R. J., aged 42, a clerk, was brought into the hospital with uncontrollable twitching of the right side of the face. The patient, while drinking with a friend in

Holborn, was seized with twitching on the right side of the face, and shortly afterwards found that he could not speak. He went to a doctor and got some medicine, but finding that the symptoms became worse, he walked to the hospital, where he was seen about an hour after the commencement of the attack. He was then perfectly conscious, and though smelling of spirits was not intoxicated, and his friend said that he had drank only one glass of brandy. He was completely aphasic, being quite unable to answer any question, though clearly understanding its meaning and obeying orders without hesitation. In the casualty room he was twice seized with facial convulsions, of which he was quite conscious, and which he tried to control with his right hand. In these attacks the angle of the mouth was drawn over to the right side in a succession of twitches, while both eyes were closed in a similar manner. The twitchings, which lasted about thirty seconds, were followed by a period of about two minutes, during which the right side of the face was paralysed, the angle of the mouth being then slowly drawn over to the left, and the right upper eyelid drooped.

The urine was passed on request, and found to contain a cloud of albumen. A little later the convulsions were repeated, being more severe and accompanied with loud breathing, some cyanosis, and apparent loss of consciousness, though the patient did not fall from the chair in which he was sitting. In these later attacks the head turned to the right, as did also the eyes, and as the fits passed off the head and eyes slowly turned to the left. He was still unable to speak, but conscious that he could not express himself. He was led with difficulty into the courtyard on his way to the ward, and was placed in a chair, and while being carried upstairs was seized with general convulsions, which recurred three times in the course of a few minutes with increasing severity. The limbs were thrown into violent movement, while the movements on the left side were less marked. The breath during these attacks was stertorous, the face cyanosed and unconsciousness complete. Taking into consideration the plethoric condition of the patient, the high tension of the pulse and the rapid ingravescence of the symptoms, Mr. Waggett, my house-physician, whose excellent account of the case I am now giving, thought it advisable to let blood. Forty ounces were taken from the right arm. During the period which followed the bleeding, while the fits were absent the right side of the body was flaccid. Ten to fifteen minutes later, the fits recommencing, he was bled again to the extent of 25 ounces more, until faintness supervened. Three minims of croton oil were administered, and the patient was put to bed, where he lay quiet for a time disturbed only by fits of shorter duration and diminished severity. A little later he became restless and semiconscious, and a subcutaneous injection of a third of a grain of morphine was given. At 7 P.M. he was much less restless, had become conscious and was able to speak a little. Between 8 and 9 he had three more fits of the same character, the right side being thrown into violent movements, the left only to a slight extent. At 10.30 the patient was quite conscious though drowsy; the pulse rather rapid and of low tension. At 3 A.M. he had another fit, the last of the series, which had continued for the space of sixteen hours. From this time recovery was uninterrupted, except that on the two following nights the patient was slightly delirious and tried to get out of bed a few times.

On July 24th, that is, on the seventh day from the first attack, the patient complained of pain in the left frontal region, which became very severe a day or two later, and then gradually decreased, but did not entirely disappear for more than a fortnight. When the patient left the hospital a month after his attack apparently well, the grasp of the right hand was still only half that of the left, namely, 35 by the dynamometer as against 70.

The only point in the case that calls for mention is that there were the remains of a syphilitic eruption on the body, and that the trace of albumen in the urine persisted.

The patient was in comfortable circumstances, had never had any definite illness, but it transpired that he was very intemperate, and had been frequently under advice for what he called attacks of the liver. Careful inquiry failed to elicit that he had ever had anything like a fit before.

The fits were of a remarkable character, at first limited to the one side of the face, and then slowly involving a wider and wider area, and ultimately the whole right side, when they finally became general, being much more marked on the right side than on the left. These facts seemed all to point in the direction of a localised lesion on the left side of the brain—a view which gains support from the fact that as the patient recovered he suffered greatly for many days from severe pain on the left side of the head. The sudden access of the symptoms and their rapid ingravescence suggest hæmorrhage as the cause—a view which again is supported by the high tension of the pulse at the time and by the persistent trace of albumen present in the urine, pointing, it would seem, to the probability of granular kidney, though the existence of a syphilitic eruption renders it possible for the disease of the vessel to be syphilitic. A syphilitic gumma of the brain or meninges it could hardly have been, for the symptoms were transitory and distinct evidence of cerebral tumour was lacking. The conclusion drawn at the time that there was a hæmorrhage into or upon the cortex was justified by the subsequent course of the case, and I think that must be the correct diagnosis. If so, there can be little doubt that the active treatment adopted deserves the credit of having, in all probability, saved the life. This and the previous case, which in so many respects so closely resemble one another, were two of the most alarming cases of the kind that can well be met with. They seemed to be almost hopeless, and I do not hesitate to attribute their recovery entirely to the active treatment adopted. In the third case the result was not so satisfactory.

CASE III. *Unilateral Convulsions: Venesection: Death: Fracture of the Base of the Skull.*—A healthy young man, aged 34, was brought into the hospital with epileptiform convulsions. The only history obtainable was that he had been seen to fall. He was stunned at the time but recovered partly. The movements began soon after. He was brought to the hospital, and sent into the wards as a case of epilepsy. When I saw him I found him not quite unconscious, and having almost constant epileptiform fits, but limited to the right side. This pointed to a unilateral lesion, probably hæmorrhage on account of the suddenness of the symptoms. The patient being young and his vessels not obviously diseased, spontaneous rupture of an artery seemed unlikely, and the head was carefully examined for injury. Except for a few scratches on the face there was no obvious injury. All that could be found was a little blood in the left ear, which had been supposed to have got there from one of the skin scratches near, but now careful examination showed that there was a little bleeding actually from the ear itself. The diagnosis was then made of fracture of the base of the skull with rupture of an artery. As the fits were so far in excess of the pressure symptoms, the patient not being completely unconscious, it was decided to bleed him, and several ounces of blood were taken from the arm. A little improvement followed, but only for a time. Trephining was not performed, which was all that remained to do, and after a few hours the patient died comatose. On *post-mortem* examination the left side of the brain was found covered with hæmorrhage into the meshes of the pia mater, and, on dissecting the under surface, the middle cerebral artery was found slit, as the result of a fracture or crack in the base of the skull.

The seat of the hæmorrhage being what it was, it was obvious that no relief could have been given by trephining, nor even if the patient had been bled to fainting was it likely with such an injury to so large a vessel that the hæmorrhage would have been stopped. The case is useful rather as a commentary on the others.

I now pass to the second group, in which the object of the bleeding was to give relief to an over-distended heart or vessels. In the preceding cases it was necessary to enter into detail in order to give a picture of the attack, and to enable an opinion to be formed of the effects of treatment. In those that follow, the same amount of detail is not required.

CASE IV. *Bronchitis and Emphysema: Cyanosis: Venesection: Relief.*—R. W., aged 46, was a patient in the hospital suffering with extreme bronchitis and emphysema. It was a case of the ordinary kind, and there was nothing special to record except in respect of the treatment. The patient was greatly cyanosed, and suffered much from dyspnœa. The right heart had so far failed, that there was much general œdema. Dry cupping was tried without effect. The sufferings gradually became so great that it was decided to see what relief would be given by venesection. Accordingly 17½ ounces were taken from the left arm. As the blood flowed the patient expressed himself relieved, and said that the feeling of suffocation passed away. Certainly he seemed afterward to have less dyspnœa, and slept quietly for some time. Two days later, the sense of suffocation having returned, and the cyanosis being as deep as before, he was bled again at his own request, and 13 ounces removed. For the next week he was better than he had been for a long time, and the improvement continued for nearly a fortnight longer, when the cyanosis and dyspnœa returned. A third time, at his own request, but against my judgment, he was bled, but only 6 ounces were taken. He felt so strongly about the relief that the previous bleedings had given him, that he would not be denied. This time, however, the removal of blood seemed to do him little good. From this time the case ran its ordinary course; the cyanosis increased, delirium developed, and three weeks later the patient died.

In such a case it was, of course, impossible to cure or even permanently relieve the patient, but there could be no doubt of the temporary relief it gave and the good it did, as was testified by the great desire the patient showed to have the bleeding repeated. Though the operation did not save the patient's life, it at any rate made his last days more comfortable, and this is something in the later stages of such a disease.

I could give a few other instances of this kind, in which a single bleeding was performed with benefit for the time. Venesection is so obviously a rapid means of relieving a distended and failing right heart, that it would be more often practised were it not that the cause producing the distension is generally irremovable, and that the loss of blood, while giving only temporary relief, increases the cardiac feebleness to which in great part the distension is due. It is not in cases of chronic failure of the heart, whether the cause be in the lungs or heart itself, that bleeding is of service, but in those in which the failure is sudden and the symptoms acute, as in the following instances:

The first of these was a case of morbus cordis, and the bleeding was performed to relieve a sudden attack of dyspnœa with rapidly increasing cyanosis.

CASE V. *Mitral Disease: Pulmonary Infarcts: Dyspnœa: Venesection: Relief.*—G. B., aged 32, was a patient in the hospital suffering from mitral regurgitation, with great dilatation and with well-marked Cheyne-Stokes breathing. There was nothing special to note about the case that bears upon the point under consideration until about two days before the patient died, when he was attacked in the middle of the night with

sudden dyspnœa. He became rapidly cyanosed, and appeared as if likely to die. Accordingly the house physician performed venesection, and removed 8 ounces of blood from the arm. The relief was immediate, the urgent symptoms passed off, and the patient fell asleep and slept comfortably for some hours. When the patient died, two days later, the right lung was found to contain several recent infarcts, probably formed about the time of the attack of dyspnœa. The pathological condition explains the dyspnœa and accounts for the relief obtained by the bleeding.

Case vi. *Aortic Disease: Sudden Dyspnœa: Venesection: Permanent Relief.*—The most striking case of this category I published in the *Lancet* in the year 1886. The patient, a labourer, about 40 years of age, was admitted with cardiac failure. The large area of cardiac dulness and the indefinite character of the murmurs suggested the presence of a large pericardial effusion; but after a few hours' rest in the hospital it was evident that the lesion was double aortic disease with extreme dilatation. About ten hours after admission, without apparent cause, the patient having all the time been lying quietly in bed, a sudden attack of intense dyspnœa came on. I happened to be in the ward at the time, and found the patient gasping for breath and becoming more and more deeply cyanosed every minute. There was a good deal of rattling on the chest, and the sputum which was being coughed up every few seconds was blood-stained. The patient seemed to me to be suffering from an acute congestion of the lung, the result of acute failure of the heart, or perhaps he had also an infarct. At any rate, he seemed to me to be in the most imminent danger. I felt that nothing but free bleeding offered him the slightest chance of life. The sister of the ward, a woman of very long experience, said that he was dying, and would be dead before he could be bled; and so, indeed, it seemed, so rapidly was the cyanosis increasing. However, I bled him, taking away about a pint or somewhat more of blood. As the blood flowed the colour improved and the dyspnœa decreased. In an hour all urgency had passed away and the patient was asleep, and when he woke was out of danger. Examination of the chest later did not reveal anything which would suggest a large infarct, and the condition at the time of the dyspnœa may well have been simply acute congestion. From this time the patient did well, and, though he never left the hospital alive, he lived for more than three months, and until he became extremely dropsical he remained in comparative comfort and never had any similar attack of dyspnœa.

I cannot have the slightest doubt that in this case the timely bleeding saved the life, and the patient lived for three months when he would otherwise have died in an hour.

In this connection I wish to make a few remarks in reference to pneumonia. In the first place, it is generally agreed that no patient with pneumonia should be bled if it can be avoided; but, at the same time, conditions may arise in which bleeding may be really the only means of saving life, the conditions being those already referred to, namely, rapidly increasing cyanosis and failure from overdistension of the right heart. Still, such cases are at the most rare. Bleeding in pneumonia if unnecessary must be harmful, for cardiac asthenia is one of the chief dangers, and the risk of it is increased by bleeding. A vicious circle is thus established, for cardiac failure may itself produce the very symptoms regarded as indications for the bleeding, which in its turn will increase the cardiac weakness which has caused the symptoms. The question must be decided largely by the condition of the left ventricle, and it is unnecessary to say how difficult this is to determine. When the left ventricle is weak and failing, bleeding can do no good, when it is strong, bleeding may save life. Thus in pneumonia bleeding becomes a critical measure. It may save life but it may, if wrongly employed, take all chance of life away.

I should summarise my experience thus. Bleeding may save life sometimes in pneumonia, but very rarely. Most patients in whom the indications for bleeding are present die whether bled or not; and, on the other hand, I can recall several instances in which venesection was discussed and decided against, and in which a good recovery took place.

Lastly, it remains to refer to that group of cases in which the bleeding is performed with the view of removing some *materies morbi* supposed to be in the blood. In the present day it is especially the cases of uræmia which fall into this group. In the following case the diagnosis was somewhat doubtful, and the result of the bleeding unsuccessful.

Case vii. *Right-sided Convulsions: Venesection: No Relief.*—E. G., aged 61, was seen to fall in the street, and was at once brought to the hospital. She was then suffering from continuous fits, the intervals being very short between them. They commenced on the right side, and though they became general, they were most marked on that side. The patient was completely unconscious, and remained so until her death, which took place about an hour after admission, and two hours from the commencement of the attack. On admission into the hospital she was immediately bled to the extent of 24 ounces, but though the pulse tension was reduced, no effect was produced upon the fits. The *post-mortem* examination was made the next day. The head only could be hurriedly examined, but in the cursory examination possible no lesion was found, and the case was supposed to be one of uræmia.

I have bled many times for uræmia. I cannot say that I ever saw more than a temporary benefit, and often not even this. Experience leads me to the belief that for uræmia bleeding offers little if any hope. The cases I have brought forward are but few, and chiefly drawn from an extensive hospital experience of many years, though not quite all that have come under my observation. Their fewness shows what I believe—that suitable cases for bleeding are comparatively rare. So much has been said and written recently on the subject, that an impression is left upon the mind that bleeding is more commonly practised in the present day than I believe it really is and my own experience shows.

SECOND NOTE ON PARASITIC PROTOZOA IN CANCEROUS TUMOURS.

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Since the publication of the first note by Mr. J. Herbert Walker and myself on parasitic protozoa in cancerous tumours, several papers on the same subject have appeared both in England and abroad. In England, Professor S. Delépine, like several other pathologists at the discussion which took place at the Nottingham meeting, expressed his scepticism as to the parasitic nature of the bodies described by us. At the same meeting Dr. Snow agreed with Professor Delépine, whilst Dr. Russell, Professor Boyce, and others did not pledge themselves to any conclusion. On the other hand, in Germany, Sawtschenko has found parasites in cancer which resemble in all essential particulars those we described. Foà, an Italian observer, has also seen the same parasites as ourselves in carcinomatous tumours; whilst in Russia, Soudakewitch adheres to his former statements, and publishes further facts confirmatory of his and our contention. In the *Journal of Pathology*, October, 1892, Mr. Walker and I published more fully the results announced by us in July, and I take this opportunity of stating that the facts observed since the publication of our first note have confirmed us in the opinion we first expressed. To these facts I now wish to add others which appear to me important in elucidating the life-history of the parasites met with in cancer.

In our first note, as well as in our paper published in the *Journal of Pathology*, Mr. Walker and I stated that we were unable to find parasites in the nuclei of cancer cells. In this we agreed with all other observers, but since then I have seen the intranuclear stage of the parasite, and it is of these recent observations that I now wish to say a few words. I first saw this intranuclear stage of the parasite in carcinomata of the breast, and the most numerous instances of it were found in an extremely soft and fast-growing cancer removed by Mr. Christopher Heath from the breast of a middle-aged woman. Pieces of the tumour were at once plunged into each one of the following hardening reagents: (1) absolute alcohol; (2) alcohol 1 in 3; (3) 3 per cent. chromic acid solution, to which a few drops of formic acid had been added (Rabl); (4) Fol's solution; (5) Fleming's solution; and (6) 1 per cent. osmic acid solution. Of all these pieces, those fixed with Fol's solution and with 1 per cent. osmic acid revealed the presence of the intranuclear parasites best, whilst the other fixing fluids gave but poor results, even with the most varied methods of staining. In osmic acid preparations, indeed, the intranuclear parasite was well seen, even without the use of any colouring reagents, and could easily be demonstrated with hæmatoxylin, and more especially with Ehrlich's hæmatoxylin. The same result was obtained in other carcinomata fixed in the same manner.

The parasites first appear in the nucleus of the cancer cell as hard, dark-staining, small, spherical bodies, almost indistinguishable from the nucleolus of the cell. They scarcely ever occur singly, but are found in groups of two, three, or more, and I have seen over 20 of them in the same nucleus. The nucleus, when filled with these spores, appears as a hard, dark-brown mass with irregular outlines.

In a further stage the organism becomes more transparent, and still later a dainty small nucleus appears in the centre of each parasite, the surrounding capsule at the same time becoming distinct. The nucleus of the cancer cell is then often filled with these small bodies, each showing the capsule and little nucleus above mentioned, though the rays present in the fully developed organism are not often met with in the

young parasite. Not infrequently, however, one of the parasites increases at the expense of its fellows and becomes much larger than the others.

The parasite, or parasites, now gradually approach the periphery of the nucleus, and make their escape into the surrounding protoplasm. Every stage may be seen, sometimes even in the same section, from the time when the parasitic organisms are in the interior of the nucleus, passing through the stage when they are partly in and partly out of the latter, to the stage when they escape into the protoplasm of the cancer cell. At the same time the parasite gradually increases in size.

When the nucleus is absolutely crammed with parasites one side of it gives way; it bursts like any other parasitic cyst filled with spores, and its contents are discharged into the protoplasm of the cancer cell. Such a nucleus generally perishes, though this is not the case with the nuclei containing one or two parasites only. These generally appear to heal up perfectly, and present a good field for the study of a subject absolutely unexplored hitherto—namely, the process of repair of an injured cell.

I have now, therefore, seen every stage in the life-history of the protozoa of cancer, from the time when the parasite appears as a spore in the nucleus to the time when it leaves the latter as a young, fully-formed parasite. The other stages in the life-history of the parasite are still obscure, but I have hopes that this problem will now soon be solved.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

STRANGULATED INGUINAL HERNIA: OPERATION: "RECOVERY IN SPITE OF HIMSELF."

THE following case is, I think, worth recording owing to the patient's recovery after twice attempting self-destruction:—

On July 11th, 1892, a Hindu servant was admitted into the Civil Hospital suffering from left inguinal hernia. The history of the case could not be clearly made out, but it appeared that the hernia had descended three or four days previously, that the man was unable to return it, and that his bowels had not been moved since the mass descended. He complained of pain when admitted, but had not vomited.

It was proved that a large hard mass of, I thought, omentum occupied the scrotum, and there was a large amount of inflammation present. A gentle attempt was made to reduce, but without effect. He was put to bed (the foot of the bed being raised), the scrotum raised and opium given, but all attempts at reduction proved useless.

He vomited at 4 P.M. on July 13th for the first time, and I decided to operate at once. On opening the sac, a very large mass of omentum in an almost gangrenous condition was found. This I removed in five separate pieces, each being separately ligatured; there was no bleeding. A small loop of gut was found protruding through the neck of the sac, which was in an inflamed condition, and, having been freed, was reduced. The neck of the sac was ligatured with stout silk, and the wound sewn up with silver wire.

Diarrhœa supervened, but otherwise all went well until the morning of July 18th (the fifth day after operation), when the man got out of bed, removed the dressings and all the silver sutures, and left the hospital at 2 A.M. (there being no night servant available). He was found thirty-six hours afterwards, and brought back to hospital in a deplorable condition, the gut having ruptured, and fæcal matter oozing from the wound. I ordered him to bed, a special night-guard was told off, and large doses of opium were given frequently, with 2 oz. of brandy owing to extreme weakness. No bad symptoms followed, the fæcal oozing gradually grew less, and ceased on the sixth day after his return. The temperature never went beyond 100.2°, and the man said he felt better, and was greatly amused and delighted at having been out and had a good feed of "chapattis." The wound had almost healed by August 8th, when, owing to a craving for solid food, he again escaped the vigilance of the hospital attendants, and spent twelve hours in the bazaar with his previous friends, the "chapattis." No ill effects followed, and he was discharged cured on August 30th, simply wearing a pad and bandage. A week later he returned as requested for inspection, and said he had not worn the pad and bandage after the first day, that he had returned to work, felt no inconvenience, and that he was quite well in spite of the Doctor Sahib.

J. B. JAMESON,
Fort Sandeman, Beloochistan. Surgeon-Captain I.M.S.

PARTIAL DISLOCATION UPWARDS OF CUBOID.

THE patient, a young man in good health, aged 24, was running hastily downstairs with tennis-shoes on when he met with the accident. At the foot of the staircase was an unusually thick mat, and as he swung himself round to the left by grasping the banisters with his left hand he placed his right foot on the edge of this thick mat. The sole of the foot being thus only partially supported and the weight of the body being largely thrown upon it, it "turned over," and the patient, making a sudden effort to right himself, felt a sharp pain on the outside of the foot and heard a distinct "snap."

He, nevertheless, went out and walked some 30 yards, the pain at first being but slight, but as it increased at every step he returned home.

On examination shortly afterwards I found a bony prominence, about half an inch long, on the outer side of the dorsum of the foot just over the position of the cuboid, raised about a quarter of an inch above the general level to the outside but sloping inwards. On pressing just behind the fifth metatarsal bone great pain was experienced.

The patient could bear a good deal of his weight on the inner side of his foot, but could not bear the outer side to be placed firmly on the ground, and whilst voluntary inversion caused but little pain voluntary eversion was very painful; on the other hand passive eversion gave great relief, while passive inversion considerably augmented his suffering.

In view of these conditions and of the history of the case, I concluded that in the sudden violent effort which the patient had made to prevent extreme inversion, the peroneus longus, acting at an advantage from its necessarily tense condition, had pulled the outer edge of the cuboid up, rupturing or stretching the external ligamentous attachments of that bone, while the inner attachment formed a fulcrum about which it turned.

Reduction was effected without difficulty by grasping the ankle firmly with the left hand, and the metatarsus with the right, and drawing the latter forwards and inwards, the ankle being held firm, so as to enlarge the space between the os calcis and the base of the fifth metatarsal bone, pressure downwards being exerted at the same time with both thumbs placed on the bony prominence. Hot fomentations with the foot in an elevated position were persevered with for some hours to reduce pain, and then the foot was placed, by strapping and bandage, in a position of forced eversion—the only position in which the patient was easy. Curiously enough, the skin was not much discoloured over the seat of injury, but there was much ecchymosis, though no tenderness, between the first and second metatarsal bones.

The patient was able to walk without artificial aid in a month after the accident, but at the end of three months voluntary eversion still caused pain, and there was considerable thickening over the cuboid.

S. WOLFERSTAN MORGAN, M.R.C.S.ENG., L.R.C.P.LOND.
Upper Norwood.

INTESTINAL OBSTRUCTION: LAPAROTOMY: CURE.

IN connection with the case recorded by Drs. Hingston Fox and Barber as having been cured by manipulation, I may mention that of a patient under my care in the Tottenham Hospital, whose condition, as disclosed at the operation, would lend one to suppose that a cure might have resulted from manipulation, but at a risk to the patient quite out of proportion to that of abdominal section. A boy, aged 16 years, working at a rubber factory, who had suffered from attacks of diarrhœa alternating with constipation, was on September 5th seized suddenly with severe pain in the abdomen, sickness, and collapse. Dr. O. Wunderlich was called in, and diagnosed intestinal obstruction, and advised removal to hospital for operation. He was admitted on September 6th

still complaining of pain referred to the upper part of the abdomen, vomiting of watery fluid and curdled milk, and inability to pass urine. There was no fever, and no distension of the abdomen. A small quantity of fæces could be felt in the rectum. As the symptoms had somewhat abated, he was kept in bed on fluid diet, with an occasional dose of morphine to relieve pain. He continued in a variable state for ten days, some days feeling better, with little pain and no vomiting, while at others all the symptoms recurred.

On the tenth day after admission he could not retain nutrient enemata, and the vomit had become brownish though not fæcal. He had vomited one ascaris lumbricoides; emaciation was increasing, and the abdomen was slightly but evenly distended. Under chloroform I opened the abdomen in the middle line to admit two fingers. The large intestine was found empty and collapsed, and was traced upwards until a large coil was found held down by a fine whipcord-like band of tissue, one end attached to the ascending colon, the other to some part of the small intestine, a large coil of which was bound down underneath it, like a rubber tube bent on itself several times. There was no strangulation, only a compression and an acute bending of the bowel sufficient to cause obstruction. After division and removal of the band, the wound in the abdominal wall was closed with deep and superficial catgut sutures, and dressed with perchloride gauze. The operation lasted about twenty minutes, and the patient had one slight attack of vomiting.

On the day following the left parotid became swollen and painful, and the right on the next day, but there was no rise of temperature nor other unfavourable symptom. Ten days after the operation the patient was on full diet, and on October 11th he was up, eating well. There was only a small granulation at the site of the wound, and he was ready to be discharged.

Lloyd G. Smith, M.D., etc.,
Surgeon to the Tottenham Hospital.

GANGRENE OF THE FOOT FOLLOWING ERYSIPELAS OF THE HEAD AND FACE.

J. K., aged 64, an old soldier, was first seen by me on September 8th. He was then suffering from erysipelas, affecting the ear and head on the left side. On the next day the whole of the face and scalp became affected. The morning temperature was 103°; the pulse small and compressible; the tongue dry and furred; there was low muttering delirium, and he could not answer questions intelligently.

On the following day the left cheek was much swollen, and an abscess formed in the angle of the mouth. The patient had a rigor, there was great constitutional disturbance, and the high temperature continued. The treatment was stimulating from the first: Ammonia and bark, sulphate of quinine in milk, and small doses of brandy. A dressing of oxide of zinc on egg albumen was applied.

He appeared to be making a rapid recovery until the ninth day, when there was a return of the delirium, and he complained of pain in his left foot, which he said had kept him awake all night. There was a small red blush on the inner aspect of the instep, the whole of the foot was markedly cold, and there was no pulsation at the ankle.

The foot and limb were enveloped in cotton wool, small doses of opium were given frequently, and the brandy continued. The patient passed a very restless night, the delirium increased, and the pulse was small and intermittent; the foot was swollen and discoloured, and there was a large black bulla covering the sole, and another on the instep. The whole foot was soon in a state of putrefaction; the patient became unconscious, and died on the morning of the fifth day after the first appearance of the small red blush on the instep. The gangrene did not extend above the ankle, but there was no line of demarcation. He was a very temperate man, and there was no history of syphilis.

Remarks.—I believe that cases of gangrene of remote parts following erysipelas are rare. At first I thought the gangrene in this case was due to embolism, but this is generally—one would think always—of the dry variety, and much less rapid in its progress. I formed the opinion that the gangrene was caused by the weakness of the heart's action producing a slowing of the blood flow, thereby leading to the formation of thrombi, which became impregnated by the septic products from the erysipelatous inflammation in the cheek and produced death from pyæmia.

Leicester. John T. H. Davies.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

GENERAL HOSPITAL, BIRMINGHAM.

TWO CASES OF ABDOMINAL SECTION.

(Under the care of Gilbert Barling, F.R.C.S., Surgeon to the Hospital.)

Intra- and Subperitoneal Hæmorrhage following Injury at Football: Abdominal Section: Recovery.—G. D., aged 20, was admitted into the hospital on April 16th, 1892, with a history of having been "kneed" in the abdomen about 5 o'clock on that day when playing football. He continued playing until the game was ended, then became faint, and was brought to the hospital at 7.45 P.M. He was then very collapsed and cold, and was irritable on examination. Stimulants were administered by the mouth and by the rectum, with scarcely any improvement. There was occasional vomiting. At 10.30 P.M. the collapse was more profound. On examining him at this time I found no evidence of external bruising; the abdominal walls were not at all resisting. The abdomen was generally dull to percussion, and this was especially marked on the right side, where there was also distinct fulness. Urine passed about an hour after the injury was said to be free from blood. The nature of the injury, the physical signs, and the profound and persistent collapse led me to make a diagnosis of intraperitoneal hæmorrhage, with probably rupture of some viscus, and, risky as it seemed in the face of the lad's feeble condition, I decided upon an exploratory incision, as death seemed impending unless something could be done to relieve him.

He was therefore taken to the theatre, and on arriving there was pulseless at the wrist; so bad was he that I almost determined to leave him alone. However, I quickly did abdominal section in the middle line, at the usual situation; and on opening the peritoneum, several ounces of blood, not more than 10 ounces in all, ran out. Bruised omentum and intestine were seen, and a bleeding epiploic appendage was ligatured off. In addition a large retroperitoneal hæmorrhage was found surrounding the right kidney, and pushing forward the cæcum and ascending colon, until it presented in the middle line. The abdominal cavity was flushed with hot water, a glass drain inserted, and the patient put back to bed, the whole procedure occupying only about twelve minutes.

During the night several ounces of almost pure blood were removed or escaped from the tube, vomiting occurred occasionally, but the patient's condition improved from the time he left the table, and he had snatches of sleep. Feeding was practically all by the rectum for the first three days, as there was occasional vomiting, but in other respects the lad made satisfactory progress. On April 19th the blood-stained discharge was so slight that the drainage tube was removed. After that the history was one of steady progress towards recovery, but for three months after the injury there was some thickening to be felt over the region of the right kidney.

Remarks.—It is difficult to understand why the operative procedure in this case should have had such an excellent immediate effect. The quantity of blood evacuated was less than I had expected to find, and there was no ruptured viscus. In all probability the relief given was due to the irrigation with hot fluid, which stopped further bleeding both inside and outside the peritoneal cavity, whilst absorption of some of the fluid revived the patient just as a transfusion of a saline solution would have done.

Localised Suppurative Peritonitis: Drainage: Recovery.—M. H., a girl, aged 7 years, was admitted on May 3rd, 1892, under the care of Dr. Simon, by whom I was asked to see the patient. She was admitted for pain and distension of the abdomen of about a month's duration. The child had

suffered an attack of scarlet fever in October, 1891, and was not convalescent until Christmas, from that time she was not so robust as she had formerly been. Her present attack commenced a month before admission, with pain in the abdomen following a long walk, which very much exhausted her. Vomiting followed and existed for two days, and on the third day there was diarrhœa, and a temperature of 105° F. In a fortnight the child was allowed to get up. Pain in the abdomen to some extent still existed, and the bowels were constipated. In the week before coming to the hospital there was occasional vomiting, with constipation, and the pain in the abdomen was very acute.

On admission the child was very pale, wasted in appearance, the abdomen was greatly and evenly distended, and was dull all over; a fluid wave could be felt everywhere, the umbilicus was pouching out, reddened, and œdematous. The superficial veins over the abdomen and thorax were very distended. The temperature was 100.6° F.

Dr. Simon made a diagnosis of purulent peritonitis, and at his request I did abdominal section. Before incising, the bladder was emptied with a catheter. The incision was in the middle line and ended two inches above the pubes. On cutting through the deeper layers of the abdominal wall an unusual tissue was met with which looked like the walls of the bladder, and proved to be so on the introduction of a catheter, the organ being adherent to the abdominal wall. On opening the peritoneum a little higher up, a large quantity of pus was evacuated, estimated at four pints. No lesion of the intestine or other part was discovered as the starting point of the mischief. The pressure of the fluid had so displaced the cæcum and ascending colon that they could not be felt by the fingers in the right iliac fossa and loin. The abscess cavity was gently irrigated and drained. The tube was removed on the seventh day, and an uneventful recovery occurred. The cæcum and ascending colon slowly resumed the normal position. The patient was discharged on June 3rd, perfectly well, and is now in excellent health.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Sir DYCE DUCKWORTH, M.D., LL.D., F.R.C.P., President, in the Chair.

Friday, October 28th, 1892.

LIVING SPECIMENS.

MR. ARBUTHNOT LANE showed a case of Macrocheilia, treated successfully by electrolysis.—MR. BARKER exhibited a patient upon whom Subcutaneous Suture of the Patella had been performed.—MR. PAGE also showed a case of the same kind.—DR. FLETCHER LITTLE showed a case of Raynaud's Disease.—MR. BLAND SUTTON showed two cases of Amputation of the Arm for Lymphatic Œdema.—DR. ABERCROMBIE showed a case of Congenital Deficiency of part of the Chest Wall.—DR. SIDNEY PHILLIPS showed part of the Chest Wall of an Infant, suffering from a similar Congenital Deficiency, whom he had shown in the previous session. The child had died at the age of about nine weeks, of pneumonia.—MR. SPENCER showed a case of Sinus in the Loin connected with an Abscess in the Posterior Mediastinum. The pus discharged was profuse; there was, therefore, a prospect of amyloid disease; and the question was, What else could be done?

SARCOMA OF THE SKIN.

DR. BRISTOWE related the case of a young man, aged 22, who had been ill for some months, and remained under Dr. Bristowe's treatment for a month. On admission he was very much emaciated, and suffered a good deal from hectic. In the right axilla and adjacent parts of the chest and neck there was half a square foot of skin involved in the disease, presenting nodules varying in size from ¼ to 1½ inch in diameter, projecting from ¼ to ½ inch above the surface, and presenting the appearance of erythema nodosum so far as the shape was concerned. Some of the patches had degenerated into deep ulcers. New spots could be seen in the course of formation, some of which subsequently disappeared, while others broke down into excavated ulcerations. Although the nature of the growth appeared to bear the construction put upon it, it bore a certain resemblance to granuloma fungoides. Mr. Anderson and Dr. Payne, who saw the case, were of opinion that it was one of tuberculosis. When the patient died it was found, on microscopical examination, to be one of sarcoma. Nevertheless the cause of death was miliary tuberculosis of the lungs, a complication which the author thought was a mere coincidence. In reply to Dr. HADDEN, who inquired if the miliary tubercles in the lungs had been microscopically examined, and if so, whether they were found to be miliary tubercles, or nodules of sarcoma, Dr. BRISTOWE stated that he believed they had been so examined, and that the decision was that they were true miliary tubercles.

Dr. CROCKER said that sarcoma of the skin occurred in two forms; in the one the points were small and lasted for years; the other variety began with large points of lymphosarcoma, spread rapidly, and was quickly fatal. To which variety did Dr. Bristowe's case conform? He recalled a case which he considered to be one of the rapid kind, formerly shown by Mr. Swinford Edwards, from the West London Hospital, and which he had thought was not granuloma fungoides.

Dr. PRINGLE asked how the disease had spread at the margin. Sarcoma of the skin spread by subcutaneous nodules, which then broke down. This point might be useful in settling the dubious diagnosis of the case.

Dr. BRISTOWE said that, in respect of growth, the disease did spread by nodules at the margin, which were apparently not continuous with the original growth. The majority of these nodules broke down. For this reason, too, it was considered to be sarcoma. He believed the patient had already been ill five or six months before coming to the hospital, and he was there for one month before death. The disease was rather rapid. There was very little microscopical difference between the tissue of granuloma fungoides and sarcoma of the skin. He referred to another case under Dr. Payne, in which the same difficulty as to diagnosis had occurred, but which more nearly resembled a sarcomatous growth.

COMPLETE ERASION OF THE ANKLE-JOINT.

MR. ARBUTHNOT LANE described a new operation by means of which the ankle-joint could be exposed most fully, and every particle of its synovial membrane could be seen and removed if necessary. A more or less horizontal incision was made from the anterior margin of the internal malleolus, outwards, across the front of the ankle-joint, backwards immediately below the external malleolus, and inwards above the heel to a point over the tendon of the flexor longus hallucis, everything being divided down to the bone. The only structures about the ankle-joint which were not cut through were the internal lateral ligament, the tendons of the tibialis posticus, flexor longus digitorum, and the flexor longus hallucis, the posterior tibial vessels, nerve, and the superjacent connective tissue and skin. On adducting the foot, any portion of the interior of the ankle-joint was fully exposed, and the narrow prolongation of synovial membrane which ran up between the tibia and fibula could be examined and dissected out by cutting through the inferior interosseous and the anterior inferior tibio-fibular ligaments. It was, therefore, apparent that the interior of no other joint in the body could be more fully exposed and cleared of its synovial membrane. Should the disease have extended to the subastragaloid articulation, it was necessary to divide all the structures covering in this joint superiorly and externally, together with the interosseous ligament connecting these bones, and in extensive disease of the astragalus this bone might be excised with advantage. Whether the cut surfaces of the several tendons were sutured together or not seemed to affect the subsequent utility of the foot little, if at all. Some care was, however, required in putting the foot up in plaster bandages after the operation that the fibula did not drop back a little off its facet on the astragalus. The operation was illustrated by two cases.

Mr. CLUTTON quite confirmed Mr. Lane's statement as to the facility of performance of arthrectomy of the ankle, though he had done it after another method. His first case occurred six years ago, and the ankle-joint was now quite satisfactory. Altogether he had had seven cases, with six cures and one subsequent amputation. His plan was to make two incisions, each about 1½ inch long, one in front of each side of

the ankle-joint, through which he could introduce a spoon and scrape or insert a finger to examine, and even remove, the cartilage. He thought that the old dictum that the ankle-joint could not be excised was not borne out by the surgery of to-day. After erasion of the joint the child should be put up with a knee rest for some two or three years, otherwise the disease was liable to recur. Moreover, whilst the knee rest was kept on the patients came to the hospital and remained under observation, whereas, when it was given up, they drifted away. He considered that Mr. Lane's method was probably very good, though the incision of all the tendons and the subsequent suturing of them made the operation a long one. Sill, a free opening into the joint was in some cases most serviceable. Afterwards, possibly, the toes in his cases were more movable, and the bones were, perhaps, more in actual contact. He should give Mr. Lane's method a trial.

Mr. Godlee inquired if Mr. Clutton, in his method, could erase the whole of the ankle-joint without chipping off the tip of the inner malleolus. The method of Mr. Lane was severe, and might leave, he thought, some flattening of the sole.

Mr. Page said that in order to erase the joint thoroughly it was necessary to see into it so as to examine every part of the synovial membrane. From this point of view Mr. Lane's operation was satisfactory, but he believed it was equally possible to examine the joint by an anterior incision alone if it stretched from malleolus to malleolus. He had operated in this manner, removing all the disease, stitching all the tendons together, and fixing the limb in a firm casing. The patient completely recovered. In this plan the incision was much less serious than that described by Mr. Lane.

Mr. Silcock recalled a case exhibited by another surgeon two years ago. In that case the joint was erased and perfect motion was afterwards attained. It was curious to observe that when an incision was made from malleolus to malleolus, in two or three days the sensation over the dorsum of the foot might be thoroughly re-established if the parts had been well adjusted.

Mr. Gould said that Mr. Lane's operation had the merit of extreme thoroughness; but if the joint could be well dealt with without this extreme operation, that was an advantage. He inquired what was now the position of the bones in Mr. Lane's cases, and what mobility of the ankle and of the toes was enjoyed.

Mr. Lane said, in reply, that he had now lost sight of his first patient, but that when last seen the child had a good foot to walk on, although it had before the operation been so severe a case that he thought the majority of surgeons would have performed a Syme's operation. There had been abscesses all about the joint, so that it could not have been operated upon by Mr. Clutton's two lateral incisions. The child afterwards walked, though with a flat foot. In the second case there was now a good foot. The child could not at one time elevate the toes, so he had cut down on the extensor tendons, shortened them, and stitched them together again, and he believed the child would walk well. In the *post-mortem* room as well as in the operating theatre he had tried by other incisions to get at the posterior and all other parts of the joint, but only by the method he now recommended could he do it. By using that method effectually one might guarantee that after the operation there would be no tuberculous disease of the joint remaining.

PATHOLOGICAL SOCIETY OF LONDON.

Sir George Murray Humphry, F.R.S., President, in the Chair.

Tuesday, November 1st, 1892.

Traumatic Epithelial Cyst.

Mr. Raymond Johnson showed a specimen of the kind previously referred to in the Society's *Transactions* by Mr. Poland and Mr. Barker. It was removed from a boy, aged 10, and was noticed beneath a scar in the upper end of the thenar eminence. The cyst lay in the subcutaneous fat, and had no fibrous wall.

Mr. Bland Sutton referred to cases of implantation cysts, as e thought such were best termed, in sheep; the most unequivocal examples were furnished by those cysts that grew in the iris after the traumatic transplantation of corneal or conjunctival epithelium. He had seen the ingrowth of a warty tumour of an analogous kind.

Mr. Barker observed that in the case recorded by himself the epithelium of the cyst was bounded by tough fibrous tissue.

Mr. Robinson observed that two similar cases had been published by Mr. E. C. Stabb in the Society's *Transactions*.

Adenoma of Soft Palate.

Mr. Charles Morton showed a specimen which he provisionally thus classed. It consisted histologically of large cells ramifying in very delicate connective tissue, in places hyaline. There occurred also areas of imperfectly-formed gland tissue. He traced some of the cell columns into spindle-celled tissue. However, he thought that the tumour was a mixed one, partly glandular, partly of connective tissue, and that it arose from embryonic rudiments, in which sense it was congenital. He referred to cases recorded by Sir William Mac Cormac and Mr. Stephen Paget. Clinically it was interesting to notice that such tumours might present below the angle of the jaw, as in the case reported by the author.

Mr. Stephen Paget had found in specimens he had examined various elements in such palatine tumours which were slow in growth, and nearly always on the left side of the palate.

Mr. Shattock had long hesitated as to whether such tumours, and equally those of the parotid, should be classed as epithelial or of connective tissue origin. He thought that the latter was the correct view. They were cylindromata, connective tissue tumours in which tracks of hyaline degeneration had arisen. Mr. Morton's suggestion that they were composite was a way of reconciling both views, and it had an analogy in the composite structure of moles.

Parasitic Cysts in the Rabbit.

Mr. H. B. Robinson showed parts of a rabbit, among the muscles of which were many large cysts which contained a form of hydatid with many ingrowing groups of scolices. The parasite would correspond with the cystic form of tenia serrata of the dog, except that the scolex was furnished with six suckers instead of four.

Mr. Shattock inquired whether Mr. Robinson had ever come across in any authoritative works the description of any tenia with six suckers, and suggested that the specimen should be referred to a committee, which was agreed to; he thought Mr. Robinson must have misinterpreted the appearances presented by the particular scolex examined.

Traumatic Emphysema.

Dr. Charlewood Turner showed two cases of emphysema. The first was from a girl who was run over. There were emphysematous blebs along the edges of the lung. He thought the condition due to dragging open of the angle between the diaphragm and chest wall, this displacement expanding the edge of the lung. The second case was from a child whose lungs were tuberculous. Here, he thought, the cause to be the expiratory compression acting on diseased tissue, though no cough or dyspnœa had been observed during life. He did not think that expiratory strain could produce general emphysema, nor could inspiratory, unless there were some lesion of the lung tissue or blockage of bronchial tubes.

Miscellaneous Communications.

Dr. J. J. Clarke showed a specimen in which there was great stenosis, probably congenital, of the base of the infundibulum; the pulmonary valve was entirely destroyed by ulceration, and there were many ulcerating patches in the artery, the vessel being plugged with emboli. It was taken from a woman, aged 23. He also showed a specimen of typical atlo-axial disease, in which case there had been during life intense pain along the course of the great occipital nerve.

Mr. D'Arcy Power showed (for Dr. Guy Stevens) a forearm from a leper, in which the entire hand was nearly separated, an unusual circumstance, the loss being commonly confined to the fingers. He showed (also for Dr. Stevens) a vesico-urethral calculus which was too large and complex in its relations to

allow of suprapubic removal, though this operation was attempted.

Dr. PERRY showed a specimen of Secondary Carcinoma of the Small Intestine in which multiple round-celled sarcomas of discoid form grew from and projected within the intestine. They were secondary to a sarcoma of the tonsil, all of the growths in the gut were deeply ulcerated, and perforation had nearly taken place in one.

Dr. F. VOELCKER had seen secondary carcinoma of the intestine after scirrhus of the breast, which had been followed by general carcinomatosis.

Dr. ORMEROD showed a specimen of Disease of Pulmonary Valves of uncertain nature, and remarked on the difficulty sometimes presented of distinguishing between *ante-* and *post-mortem* clots.—Dr. F. VOELCKER showed a specimen of Primary Sarcinoma of the Head of the Pancreas, secondary injection of lymphatic glands; death due to embolism of the pulmonary artery from thrombus of the left iliac vein. Dr. PERRY observed that carcinoma of the pancreas was, as a rule, of long duration, and was often so confined to the pancreas as to have led the older observers to hesitate as to whether the condition should be regarded as of a malignant nature.

MEDICAL SOCIETY OF LONDON.

JONATHAN HUTCHINSON, F.R.S., President, in the Chair.

Monday, October 31st, 1892.

ON INTRAORGANIC AND THORACIC AUSCULTATION.

DR. B. W. RICHARDSON opened his paper by explaining that, whilst examining a patient supposed to be suffering from stricture of the œsophagus, the thought struck him of attaching a stethoscope to the œsophageal tube. He did so at once, and found it easy to carry out a new kind of physical examination. He learned that the œsophagus was free along its entire course, and he corrected a suspicion that there was, at one point, a slight constriction in the passage. The application of the new method did not, however, end here. When the tube had entered the stomach itself he detected a peculiar seething or sibilant sound that was new to his ear, together with a friction sound produced by contact of the tube against the walls of the stomach and a series of other sounds, probably due to the contraction of the muscular fibres of the stomach. Further, on drawing out the exploring tube until its side opening on the left side lay opposite, and in close proximity to, the heart, he heard the movements of the heart and the heart sounds much more plainly than he could hear them by the ordinary mode of auscultation. The internal sounds were slightly modified. They were not so resonant as when listened to from the outer wall of the chest; they were as loud but duller and more alike to each other in quality than one was accustomed to recognise. These original observations were followed by several others bearing on the auscultation of the lungs, trachea, and larynx by the same method. The author then took up three points: (1) The lines of inquiry in which this plan promised to be most useful practically; (2) the limitations of the plan and the objections that might be taken to it in some cases of disease; (3) the mechanical improvements by which the method might be advanced. Touching the first of these points, Dr. Richardson dealt with the important uses of the plan in the detection of œsophageal stricture, on which he dwelt at some length; next he referred to its application for the definition of diseases of the stomach, the elucidation of the character and position of thoracic aneurysms; the diagnosis of some kinds of heart disease, of friction sounds—pericardial and pleural—and explorations conducted by it in the pharynx. The limitations of the method were the objections sometimes made by patients to the passage of the exploring tube, the retching which the operation occasionally produced, and the dangers that might be induced, in exceptional instances from running a tube into the stomach. These objections were summed up in a sentence: "Whenever the practitioner feels satisfied that a tube can be passed without danger or inconvenience, then he can always carry out intrathoracic auscultation." The third and last part of the paper was devoted to considerations of a mechanical kind. Several varieties of exploring tubes were exhibited, and their relative values described and demonstrated. Up to the present a full-sized flexible tube, with one large side aperture, had succeeded best, but the author thought a water-catheter would possibly prove the most successful. He concluded by saying he specially desired not to exaggerate the value of the method he had brought forward, and hoped it would be received in the spirit in which he had presented it—as a mite contributed to the treasury of practical medicine.

Dr. ROUTH suggested that much of the inconvenience attending resort to this method of investigation might be obviated by the use of cocaine. He himself thought highly of the suggestion, and he recalled that the principle had already been applied in the diagnosis of early pregnancy by direct auscultation of the uterus.

Dr. BRAITHWAITE also made some remarks.

THE SURGICAL TREATMENT OF CYSTS OF THE VULVO-VAGINAL OR COWPER'S GLAND.

Mr. ALBAN DORAN read notes of a case of an unusually large cyst in his own practice. The patient was 48. A large swelling in the left labium had existed for several months. It caused great trouble whenever she walked or sat down. It fluctuated freely, and could be felt extending far back into the ischio-rectal fossa. He thought it advisable to remove the cyst entirely. The portion in the ischio-rectal fossa was very carefully dissected from its deep connections; four arteries were divided, and required ligature. The cavity left behind after removal of the cyst was washed out with hot water, and packed with absorbent gauze. There was much oozing for five hours, then the wound was dressed again and drained. Within a few days healing was complete. Six months later there was no trace of any fistula. The author believed that whenever practicable these cysts should be completely removed. He discussed the question as to whether they arose from Cowper's duct, Cowper's gland, or both, and referred to Huguier and Stéphanie Bonnet's researches. In many cases they arose from the gland, as their deep position proved; but even then, as in his own case, they could be extirpated. Mr. Doran briefly referred to other forms of labial cyst—hydrocele, sebaceous cyst, cysts of the labium minus, which were often pedunculated, and the large cyst described by Honing, which extended into the pelvis; but this variety arose from the vagina. Most of these forms of labial cyst were curable by partial operations. On the other hand, these proceedings were often unsatisfactory in cases of cyst of Cowper's gland. A sinus—as great a nuisance as the cyst itself—was not rarely left behind. Extirpation cured the disease altogether.

The PRESIDENT remarked on the large size and thick walls of the cyst removed by Mr. Doran, and agreed that, under the circumstances, total excision was the proper and, indeed, the only feasible, course to pursue. He himself had never had to deal with a cyst at all resembling the one operated upon by the author, and he had rarely thought it necessary to attempt total excision. In none of the cases, however, had any recurrence taken place so far as he was aware, and he could not recall any instance of sinus formation. His plan was to remove all that could be conveniently got at with the knife, and to remove as much of the rest as possible by the aid of the galvano-cautery. He pointed out that while abscesses of the gland were rare, they were not infrequently met with in an inflamed condition, especially in females recently married. Probably in these cases the cysts had been present for some time without giving rise to inconvenience until bruised.

Mr. MARMADUKE SHEILD pointed out how necessary it was in these cases, as in operations on the scrotum in the male, to pay special attention to the arrest of hæmorrhage, secondary bleeding being peculiarly liable to occur after operations in these parts. He spoke highly of the use of fused chromic acid applied pure to the interior of the cyst cavity after evacuation of the contents through an aperture in the wall. He knew of no agent which so rapidly caused exfoliation of the cyst wall.

Dr. BRAITHWAITE asked if sections had been made of the cyst walls for the microscope, and whether the contents had been thus examined.

Mr. ALBAN DORAN, in reply, urged that if total excision were the best course to adopt in the case of large cysts, it was so *a fortiori* in the case of smaller cysts, simply because the operation was so much easier in the latter. Partial opera-

tions often left a troublesome sinus, which caused more annoyance to the patient than the cyst itself. He objected to the operation being described as a minor operation in view of the difficulties which it involved.

MIDLAND MEDICAL SOCIETY.

W. F. Haslam, F.R.C.S., in the Chair.

Wednesday, October 19th, 1892.

Loss of Urinary and Rectal Control.

Dr. G. H. Melson showed a patient suffering from partial loss of urinary and rectal control, with increase of patellar and plantar reflexes, most marked on the right side, where ankle clonus was also well developed. With this was paresis of the lower extremities leading to an equine character of gait, and the patient also exhibited the signs of general incoordination. There was a well-marked history of syphilis ten years previously, and the present condition dated back altogether for eight years, many of the earlier sensory disturbances having cleared up almost completely. The case was regarded as one of syphilitic degeneration chiefly affecting the right half of the spinal cord in the lower dorsal and lumbar regions. The patient had somewhat improved under specific treatment.

Miscellaneous Communications.

The Chairman showed a large Sebaceous Horn which he had removed from the scalp of a woman aged 56. It had been growing for six years, and measured along its curves 8¼ inches, the greatest circumference was 2⅝ inches, and the weight 430 grains.—Dr. Malins showed: (1) A Fibroid Tumour occuping the body of the uterus, removed by hysterectomy on September 20th. The patient, aged 48, had had thirteen children and three miscarriages. The clamp came away on the twentieth day; the patient had no bad symptoms, and made a good recovery. (2) The Right Ovary and Fallopian Tube from a patient, aged 33, operated on at the General Hospital on October 4th. She previously had the opposite ovary and tube removed for chronic inflammation in March, 1891. There was a cyst 1 inch in diameter at the Fallopian end of the ovary, another similar one at the uterine end; the structure between was cirrhosed, dense, and white in colour. Menstruation had been regular with much pain. There had been no elevation of temperature or pulse since the operation, and the pain had quite disappeared. (3) A Unilocular Cyst of the Left Ovary. Patient aged 41, married, three children, youngest aged 13 years. The fluid measured 20 pints. The patient returned home three weeks after the operation. A similar case removed the day before was also shown.—Mr. Heaton showed an Aural Polypus which he had removed with the galvano-cautery from a patient, aged 60, in whom it had been growing for eighteen years. When removed it was larger than a Tangerine orange. Microscopically it consisted of granulation tissue undergoing cicatrisation in its interior.—Dr. Foxwell read a paper on The Climatic Treatment of Pulmonary Phthisis.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Wm. Hall, M.R.C.S., President, in the Chair.

Friday, October 14th, 1892.

President's Address.

The President delivered an opening address, his subject being a retrospect of medical life in Leeds. He referred to the commencement and early life-history of the medical school, and contrasted that time with the present.

A New Method of Treating Lupus Vulgaris.

Dr. Liddell, of Harrogate, read this paper. He said that of recent methods the salicylic plaster muslins introduced by Unna had proved the most efficacious. Occasionally, however, a skin was met with that did not tolerate them. From what he had observed of the action of carbolic acid, he was led to use it in such a case with an entirely satisfactory result. He had used it in all his cases since with a similar success. The method of using it was, he believed, new. The carbolic acid was used continuously in the form of a plaster or ointment of the strength of 1 in 20 or 1 in 15. The plaster was used to the face or other parts that could not be tightly bandaged. There was first a diminution of hyperæmia, then in about ten days the nodules were transformed into pustules; these shelled out leaving pits. The application ought to be used for a few days after the nodules were eroded. Zinc glycerine jelly might be used afterwards to promote healing. The remedy was painless, and was well adapted for the face, and especially for delicate skins. The plaster acted more vigorously and more uniformly than the ointment.

Mr. Ward referred to a case under his care in 1887, a girl, aged 17, with lupus of the nose extending on the face. There were several patches on the left upper extremity, and a big patch on the right thigh. These were all scraped thoroughly, and glycerine of carbolic acid applied. The patient developed well-marked signs of carbolic acid poisoning, and died seven days after the operation. Mr. Ward thought this was possibly due to some idiosyncrasy of the patient.—The paper was also discussed by Dr. Barrs, Dr. Eddison, Dr. Johnstone, Mr. Littlewood, Mr. Mayo, and Mr. L. Knaggs.

Miscellaneous Communications.

The following cases and specimens were shown:—Mr. Atkinson: Case of Excision of Shoulder.—Mr. E. B. Hoswell: Case of Raynaud's Disease.—Dr. Hellier: Case of Leukæmia Lymphatica.—Dr. Barrs: (1) Case of Tabetic Arthropathy. (2) Case of Athetosis.—Dr. Charles Gibson: Case of Ichthyosis.—Mr. Mayo Robson: Case of Cholecystenterostomy.—Mr. Ward: Case of Sarcoma of Temporal Bone.—Mr. Teale: Epithelioma of Penis.—Mr. Wells: Ovarian Tumour (Papillomatous).—Dr. T. Wardrop Griffith: Case of Early General Paralysis.—Mr. Littlewood: (1) Specimen and drawings of a case of Epithelioma about Ear associated with Lupus. (2) Specimen from a case of Intestinal Obstruction.

REVIEWS.

Traité de Médecine Publié sous la direction de MM. Charcot, Bouchard, Brissaud. (Treatise of Medicine published under the direction of MM. Charcot, Bouchard, and Brissaud.) Par MM. Babinski, Ballet, Brault, Chantemesse, Charrin, Chauffard, Gilbert, Guinon, Le Gendre, Marfan, Marie, Mathieu, Netter, Œttinger, André Petit, Richardière, Roger, Ruault, Thibierge, Thoinot, Fernand Widal. Tomes II et III. Paris: G. Masson. 1892.

The second volume of this great work, the general scope of which we have described in a previous review, deals with the eruptive fevers, venereal and cutaneous affections, the pathology of the blood, and poisons. The last-named section, which is by M. Richardière, is divided into two parts. The first deals with poisoning by lead, mercury, arsenic, and phosphorus, and contains short sketches of the effects of single large or repeated small doses of these substances; while not presenting any statements which appear to be open to criticism, it is not written with the authority, or apparently with the fulness of knowledge, which we have noted in most other sections. Under the head of tobacco the most important and definite disorder produced by excessive use of it—amblyopia—is passed over with a mere mention.

The articles on the eruptive fevers attain as a whole a very high standard of excellence. A courageous effort is made to assign a proper value to the epidemiological work which has been done in this country, and if—as in the question of the relation of scarlet fever epidemics to milk supply—M. Guinon fails to appreciate the relative value of the evidence for and against the theory of such dependence, it appears to be evident that his failure is due to his not having had the opportunity of studying the reports at first hand.

The articles on venereal and on cutaneous diseases are from the pen of Dr. Georges Thibierge, and are well worthy of careful perusal. The classification of cutaneous diseases which he adopts will sufficiently indicate the general point of

view from which he regards his subject. His main sections are (1) cutaneous affections produced by animal parasites; (2) those produced by parasitic fungi; (3) those produced by parasitic microbes, that is, tuberculosis, lupus, leprosy, impetigo, ecthyma; (4) cutaneous deformities—ichthyosis, nævus, and lentigo; (5) dermatoses of which the cause is complex or insufficiently determined. Unfortunately this class is very large, and contains some of those affections which are of greatest clinical importance. The conception is, however, good, and possibly at no very distant date Dr. Thibierge may find that he can materially diminish the number of cases in his fifth class.

The book also contains a most excellent article on the pathology of the blood; it is preceded by chapters on the clinical examination of the blood. The account which is given of the morphological variations in the blood in disease and the parasitic organisms appears to be very complete.

The third volume opens with a very voluminous and complete essay on diseases of the mouth and pharynx by M. A. Ruault. To the reader who is not a specialist this writer may seem to be rather disposed to magnify the importance of his subject. Not satisfied with claiming that the treatment of diseases of the pharynx is in itself important on account of the consequence which may flow from lesions of this region, he asserts that by inspection of the pharynx it is possible to diagnose certain general dyscrasic conditions. Thus he maintains not only that it is possible to diagnose diabetes from the condition and appearance of the throat, but he states that on many occasions he has been able, from the observation of a peculiar form of dry pharyngitis, to predict the appearance of Bright's disease several months before the onset of definite symptoms, and at a period when there were only vague indications of arterial sclerosis and of arterial overdistension. This is probably to claim too much, but it shows that the author is free from the most common fault of the specialist; he does not attribute the subsequent nephritis to the pharyngitis, but supposes both to be due to the same dyscrasia. M. Ruault appears to be a safe, if rather long-winded, guide, and he is thoroughly imbued with modern views as to the etiology of infectious disorders; for instance, he defines diphtheria, with refreshing frankness, as a "contagious microbic affection, characterised by the evolution on the surface of certain mucous membranes, or of the denuded skin, of an inflammation due to the growth on the affected region of a special micro-organism having the property of secreting a toxic substance, which, having been absorbed at the points where it is produced, poisons the affected organism." After such a definition the reader knows what to expect, and is saved much wearisome repetition, and much confused and confusing argument as to true croup and false croup, and as to the specificity of membranous sore throat. All such questions are brought to the touch, and decided by the conditions as to microbic development. The essay is, therefore, framed around a clear coherent theory, and gains thereby.

The article on gastric diseases is from the pen of M. Albert Mathieu. In its earlier pages a full exposition is given of the modern chemical researches which have done so much to give precision to our ideas on the subject of functional derangement of the stomach, and have already found their application in practice. The same author contributes the section on diseases of the pancreas.

Diseases of the intestine are very fully treated by M. Courtois-Suffit, who also writes on diseases of the peritoneum; both these articles are most excellent compilations, planned in an independent spirit, and written with much learning and research.

Perhaps the most important article in this volume is that by M. A. Chauffard on diseases of the liver. His discussion of two of the most difficult subjects which fall to be treated under this head—of jaundice and of cirrhosis—are particularly excellent. The first-named subject is treated under two divisions, benign and malignant jaundice; but the keynote of the article is the statement, made on an early page, that cases of jaundice, whether benign or malignant, are essentially due to toxæmia, and that their gravity is in direct relation with two factors which are associated together in varying proportions—the degree of alteration of the hepatic cell, and the degree of "renal permeability."

In an interesting historical introduction to the chapters on cirrhosis, M. Chauffard does justice to the original work of Bright, of whom indeed he speaks with some enthusiasm. As to the alleged increase of alcoholism in France, M. Chauffard expresses a very decided opinion; he has no doubt that such an increase has occurred, especially in Paris. He attributes it partly to the increase in the number of drinking shops. Cirrhosis is much more common than it was, and he suggests that, beyond the actual increase in drinking, there may be two causes at work to produce this—in the first place, the increase of adulteration; and, in the second, he thinks it probable that "in the working population degenerated by alcoholism there is a kind of alcoholic heredity, and a diminished resistance to intoxication."

In concluding this notice, we may say that these volumes on the whole fully maintain the promise of the first, and that the work, when completed, will form a worthy monument to the learning, the exactitude, and scientific acumen of the most modern school of French medicine. It should be added that the volumes can be purchased separately.

THE COLLECTED PAPERS OF SIR W. BOWMAN, BART., F.R.S. Edited for a Committee of the Bowman Testimonial Fund by J. BURDON SANDERSON, F.R.S., and J. W. HULKE, F.R.S. London: Harrison and Sons. 1892.

THESE two magnificent volumes furnish a valuable and interesting contribution to the history of physiology and ophthalmology, extending as they do over a period of fifty years from the first paper in 1833 "On Influenza," to the author's last presidential address to the Ophthalmological Society in 1883. The very titles of the papers indicate the successive steps in Bowman's career from the generalities of his first four papers, read before students' societies, to his first clinical contribution "On Diseases and Injuries of the Larynx," the cases of which are illustrated by exact notes of the *post-mortem* appearances, and by five beautiful hand-coloured drawings, now happily reproduced, and next to the most valuable and perhaps most lasting part of his scientific work "The Minute Anatomy of Voluntary Muscular Tissue" in 1841, which was the occasion of his becoming a Fellow of the Royal Society, and then to his papers on the "Structure of the Kidney," for which he received the gold medal of the Royal Society in 1842. Still occupied with minute anatomy, Bowman followed with many original articles in the *Cyclopædia of Anatomy and Physiology*, such as Mucous Membrane, Muscle, Muscular Motion; and in 1843 he was associated with Todd in bringing out the *Physiological Anatomy and Physiology of Man*. Much of the text and all the illustrations of this work were his immediate production.

But the year 1847 marks a change in his career, with the publication of his discovery of the structure and functions of the ciliary muscle of the eye, and of his "Lectures on Parts Concerned in Operations on the Eye." Henceforward his contributions deal almost exclusively with ophthalmology, and especially with its operative part, papers following each other on lachrymal obstructions, on artificial pupil, on conical cornea, on iridectomy in glaucoma, on cataract extraction, till 1867 when a period of clinical work succeeds. The papers get rarer and rarer as the pressure of an enormous private practice increases. It would exceed our heavily mortgaged space to discuss the relation of Bowman's discoveries in physiology to previous knowledge and methods, or of his earlier practice of his profession to the ophthalmoscope, and to the introduction of iridectomy for glaucoma, of which he was an ardent champion; but we must refer our readers to the volumes themselves. In conclusion we have but to remark that the type and illustrations, being exact reproductions of those of the *Transactions* of the Royal Society in which his first physiological papers appeared, are worthy of the influential committee of 446 members under whose authority the volumes appear.

COMPULSORY NOTIFICATION ON THE ENGLISH SYSTEM.—The question of the advisability of making the notification of infectious diseases compulsory has recently been discussed by the French Society of Public Medicine, and was decided in the affirmative. It is thought that the measure will now be adopted by the Legislature.

Glanders: How it Arises and Spreads: How to Prevent it: How to Stamp it Out. By Wm. Hunting, F.R.C.V.S. London: H. and W. Brown. 1892.

On the production of a third edition in popular form, the writer of this little work has brought to bear the teaching of a large practical experience and an extended knowledge of the literature of the subject. Throughout there is evidence of intimate personal acquaintance with the disease, and of an intelligent survey and elaboration of many ideas lately expressed by others; and all is so arranged as to leave no room for doubt as to what Mr. Hunting's views are. The general correctness of these views we think will be commonly accepted. There are a few points on which experts might raise questions, but, on acquiring the knowledge to be obtained from this pamphlet, the horse owner will recognise intelligent means for the prevention and eradication of glanders among his stock.

The effect of sunlight on the virus, and the value of this as a factor in disinfection is not, so far as we have seen, referred to. This is to be regretted, as its thorough appreciation by the public would be another inducement to the provision of the best condition for the preservation of the health of horses, as well as a means of destroying the virus of glanders.

The publicity which has lately been given to the prevalence of glanders increases the value of the present edition; and it will be interesting to compare the author's views as to prevention and stamping out with the provisions of the "Glanders and Farcy Order" just promulgated. Mr. Hunting says: "Compulsory slaughter and compensation every expert acknowledges would stamp out glanders;" and, in common with his professional brethren, he demands the removal of the distinction between glanders and farcy which existed in previous enactments. For this the Order of 1892 fully provides.

In favour of compensation on the score of justice and as an inducement to early notification, Mr. Hunting brings forward forcible arguments. The new Order, too, makes provision for compensation, and we believe in a manner more wide-reaching and more satisfactory than that suggested in the pamphlet, which states: "If compensation were given for all slight cases and all apparently curable cases, the owner would prefer to report at once, have the horse killed, and take his compensation." The 19th clause of the Order says: "When the horse, ass, or mule slaughtered was diseased, the compensation shall be one-half its value immediately before it became so diseased, but so that the compensation do not in any case exceed £20, and in every other case the compensation shall be the value of the horse, ass, or mule immediately before it was slaughtered."

Thus far Mr. Hunting's views as to the requisite amendment of the law are met, but the vital principles indicated with clearness and force in the pamphlet—control by a central authority and payment of compensation out of the Imperial funds—are not acted on. Our opinion on this point is in accord with that of the writer, though we perhaps cannot go so far as to say with him, "Far better let us go on as we have for twenty years, and have really effective measures in a few months' time, than accept an immediate permissive Order which must fail." Still it is true that little faith can be placed in the power of an Order which any local authority may or may not adopt to stamp out a disease which exists in twenty-eight counties in Great Britain. Under some conditions "half a loaf is better than no bread," and as glanders is most commonly met with and has its present hold in London, the London Council will, we hope, if the adjacent counties can be induced to co-operate, avail itself of the powers granted by the Order, and thus materially decrease the cases of disease if it does not stamp it out in one of its hotbeds. The little book deserves a wide circulation.

Trattato d'Igiene pubblica. Del Dr. C. Ruata. Vol. I. Città di Castello. 1892.

This is the first instalment of a work intended by the author to be not a manual, but a treatise on the principles of public health as a department of jurisprudence no less than the law of property or of Tortes. The idea is new, and worthy of further elaboration. In this volume he treats of etiology, statistics, and sanitary rights and administration. The only technical part is the chapter (a good one) on disinfection. The bulk of the work is devoted to a masterly exposition of "first principles," based on the rights of the individual to the enjoyment of health, and a liberty undiminished by the licence of others.

He exposes many prevalent fallacies and errors, statistical and social, including those of Malthus, of Letheby, and of certain anthropologists whose exaggerated conceptions of heredity would lead them to treat the family and society from the standpoint of the breeder.

He does not restrict the term "preventible" to communicable disease, but, maintaining that all disease is unnatural and avoidable, boldly declares, as Chadwick did more than sixty years ago, that death should be independent of disease, and that the words "high" and "low" mortalities are meaningless without the qualifying term "premature."

The distinguished professor of therapeutics and pharmacology, instead of "magnifying his office," looks on "curative" medicine as one of the opprobria of civilisation, and on the so-called "needs" of a population for hospital accommodation in the same light as that for prisons—a demand which ought not to exist in a normal community. He denounces the fatalism and superstition which lead the public to neglect preventive and fly to curative medicine.

It is with sincere regret that we feel compelled to express our strong disapprobation of the position he assumes with regard to vaccination. Here his enthusiasm for prevention pure and simple and against all methods of cure has got the better of his judgment and critical faculty. He ignores the recent experience of Germany, and is betrayed into the very fallacies of statistics that he knows so well how to expose in his admiration of the success that has as yet attended the Leicester system of isolation.

Further, the latest work of his own countrymen with the antitoxin of tetanus is irrefragable, and justifies the assurance that like antagonistic means may yet be discovered for other non-recurring specific diseases. While these diseases exist at all, the surest aid to their extinction would be to render every individual invulnerable; but we can never hope to abolish those the germs of which are proved to exist out of the body and to be everywhere present, in the air and soil, though preventive inoculation can be of real service only in the case of such as confer immunity against subsequent infection.

Technique Bactériologique. (Bacteriological Technology.) Par le Dr. R. Wurtz, Chef du Laboratoire de Pathologie Expérimentale à la Faculté de Médecine de Paris. Paris G. Masson. 1892.

As a concise practical handbook of the methods used in bacteriological investigation we have seen nothing better than Dr. Wurtz's small work. It gives in very clear and succinct form and with logical arrangement all the methods used in the laboratories of the Pasteur Institute. It is not necessary to indicate all that it contains; it is perhaps better to state where it differs from the majority of textbooks. It is essentially the work of a teacher, and it seems to have been the aim of the author to leave out everything that is not essential, but to include all that can in any way assist in the clear understanding of the principles and practice of bacteriological investigation. For example, instead of giving the ordinary methods of collecting blood serum, he gives the far more convenient plan of receiving into a large Ehrlenmeyer flask a quantity of blood sufficient to about a quarter fill the flask; the flask, plugged with sterilised cotton wool, is then placed in an ice safe tilted in such a manner that the blood runs to one side; after the serum has been squeezed out from the clot the flask is put in the normal position when the clot remains at the side, but the blood serum forms a clear layer on the bottom, and may be drawn off with a pipette. All the methods of staining and of making aërobic and anaërobic cultures are given as in ordinary textbooks. Several very valuable hints as to the methods of inoculation are offered; these are of a more practical character than those given elsewhere, whilst the methods of examining organisms under the

microscope—especially in an active condition—and the analysis of air, water, and earth are all taken up in turn.

The most important chapter of all, however, though its pages are few, is that devoted to the substances formed or secreted by microbes. This chapter is certainly not full, but it indicates quite sufficiently for the use of the intelligent student the methods of isolating the bases and proteids found in micro-organisms, and refers the reader to the original sources from which more extended information may be obtained. The book is handy in form, and the illustrations and printing are exceedingly well done.

NOTES ON BOOKS.

Modern Materia Medica for Pharmacists, Medical Men, and Students. By H. Helbing, F.C.S. Third enlarged edition. (London. 1892. *The British and Colonial Druggist.*)—In the space of 122 pages the author gives an account of the more important new remedies which have been introduced to the notice of the medical world during the last ten years or thereabouts. Most of them are more or less complex organic substances prepared by synthesis from simpler bodies, and already a very considerable number must be considered obsolete, or at least as having found no permanent applications in medicine. Still, a proportion of them seems to have obtained a very firm hold on professional favour. A careful and exact account is given of the chemical constitution, mode of preparation, and of the physical, chemical, and pharmaceutical properties of all these substances. In fact, the treatment of this part of the subject leaves little to be desired either in respect of fulness or accuracy. The author does not concern himself with the physiological action, but, in connection with each substance, states the class of cases in which it has been found of benefit. This part of the book appears to be a somewhat uncritical synopsis of reports which have appeared in the medical journals and elsewhere. In an appendix the author gives a very short account of a large number of substances which do not promise to be of importance, but most of which still are, or recently have been, under trial. Tables of doses, solubilities, and of melting and boiling points, complete the volume.

Du Paludisme [On Malaria]. Par le Dr. A. Laveran. *Encyclop. Scient. des Aide-Mémoires.* (Paris: Gauthier-Villars; G. Masson. 1892.)—Nobody has a better claim to be heard on the subject of malarial diseases than Dr. Laveran, for no one in this generation has made a more important contribution to their etiology and pathology than that made by him in the discovery of the hæmatozoon, which, mainly by his labours, has been proved to be intimately associated with malarial fevers. His succinct description here of the parasite under the various forms in which it is met with—for he is convinced that the hæmatozoon is always the same—will be read with interest, and his advice as to the best mode of searching for it in the blood will be of great use to those who have the opportunity of studying the subject. Much in the life-history of the parasite, especially as to its habitat outside the human body and its mode of entrance, are still obscure. On these points M. Laveran can do no more than repeat his conjecture that the mosquito may play some part as in the case of the filariæ. The book, however, small as it is, is by no means limited to this question, but contains chapters on the geographical distribution, clinical forms, pathological anatomy, diagnosis, prognosis, treatment, and prophylaxis of malarial diseases. Its concluding pages are occupied by a bibliography, which seems to be very full in its references to French and Italian literature.

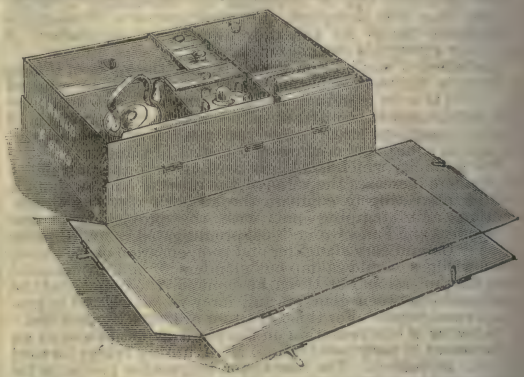
The French Association for the Advancement of Science will hold its twenty-second meeting in 1893 at Besançon, under the presidency of Professor Bouchard.

The Bradford Medical Charities.—The disposition of the purchase money paid by the Northern Counties Investment Trust, Limited, to the trustees of the East Morley and Bradford Savings Bank has been decided upon as follows: The Bradford Infirmary, £5,500; the Children's Hospital, £3,500; and the Eye and Ear Hospital, £1,500.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

POULTICE BOX.

This is a box (designed by a trained nurse, Miss Donegan) to hold all requisites for making a poultice in a sick room, with a view to ensuring heat, cleanliness, and dispatch. The box is made by Arnold and Sons, West Smithfield, London. Its dimensions are 14 inches by 10; it holds tins for linseed meal,



mustard oil, methylated spirits, matches, a spirit lamp and kettle, a space for linen; and the lid, when open, forms a tray for spreading. To those familiar with the difficulty and delay of getting together, particularly at night, all these requisites, the advantages of having them at hand in a compact form are obvious. In a case, say, of croup, a poultice could be made and applied in a few minutes.

BRAVAIS WINE.

In this very palatable and agreeable product Pedro-Ximenes sherry is substituted for Malaga, which is ordinarily used for such preparations, and which is often objectionable on account of the excessive amount of sugar which it contains. The sherry, which is a very dry sherry as sold, is still more freed from saccharine matter in the process of preparing the wine. Bravais wine contains fluid extract of kola, extract of coca, extract of guarana, besides tannate of theobromine, and caffeine. It is not claimed for it that it cures all sorts of diseases, but it is put forward as a powerful tonic and "reconstituent," likely to be especially useful in convalescence from influenza and other weakening diseases.

A DEODORISING CREAM.

We have received from the Sanitas Company, Limited, Bethnal Green, London E., a preparation of their well-known antiseptic, intended for use on the hands after surgical examinations. It is a brown, plastic, soap-like substance, which, when rubbed on the hands with water, forms an abundant lather. It is quite soluble in water, forming a slightly alkaline solution. Sanitas cream appears to be an excellent detergent antiseptic application, and is very convenient for use, as it is put up in collapsible tubes.

VITALITE BATH MAT.

This bath mat is apparently made of compressed "loofah" fibre. The advantage of this mat over similar articles is found notably in the fact that the mats are warm, dry, and comfortable; it absorbs the wet rapidly. The mats have been made in larger sizes for cots. They can be washed and disinfected. They are easily dried, and after wetting they spring up to three times their original thickness.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

RIVERS AS SOURCES OF WATER SUPPLY.

The close approach of cholera, and the facts which have already come to light as to its causation in some of the Continental towns striken by the pestilence during the present year, have not unnaturally revived the terrible memories of the effect of water-borne poison during former epidemics in this country, and given fresh publicity to the dangers inseparable from the use of a water supply liable to contamination by sewage. The increasing pollution of rivers has driven most of our large towns to seek other sources, but some continue to draw their supply from rivers which notoriously receive sewage from towns and villages higher up. It is now a matter of common knowledge not only that cholera and enteric fever can be spread by means of drinking water to which the evacuations of cholera or typhoid patients have gained access, but that the bacilli, which are generally accepted as the actual cause of the disease, can live and flourish in water, and especially in impure water. Given a case of cholera or enteric fever in one of the towns, villages, or houses draining into a river, the safety of water consumers down stream must depend upon the chapter of accidents, supplemented by such filtration as may be in operation at the waterworks, and the filtration or boiling which may be, but usually is not, practised at home. How far filtration is capable of affording an effectual barrier against the passage of every disease germ, no matter at what moment or in what numbers or condition it may arrive, is a question upon which an important inquiry now in progress may be expected to throw some light. It is at least clear that where a pure supply can be procured at moderate cost it is contrary to all hygienic principles and all common sense to rest content with one which must of necessity from time to time receive the germs of disease along with other impurities, even if the former be infallibly strained off, and the latter oxidised by filtration. The case is clearer still if the water, after undergoing the filtration upon which so much depends, occasionally presents itself to a consumer in a form which is unpleasant to smell and taste, and gives the usual analytical evidences of organic impurity. That such indications of imperfect filtration occur chiefly after floods ceases to be reassuring as an explanation, when it is remembered that is precisely at flood times that the danger of mischief is often greatest, owing to the washing down of impurities deposited in or near the stream, as witness Dr. Barry's demonstration of the havoc wrought at Middlesbrough by the water of the Tees in flood. If filtration is to be the sole line of defence against water-borne poison, it should be equal to the maximum strain which can be thrown upon it.

Strong public feeling upon this subject has been aroused at Chester. The water supply is taken from the Dee, above the city, of course, but at a point where, according to Dr. Ballard, there is danger of pollution by reflux of sewage. Apart from this, however, it is admitted on all hands that during its somewhat long course the Dee receives the crude drainage of several small towns and villages. The Water Company express regret that the river is polluted, but point with confidence to their filtration works. The Corporation, on the whole, take the same view, but, yielding to the pressure of public opinion, they have nominated representatives to serve on a joint Committee of Investigation.

The movement counts among its most active leaders the Duke of Westminster, the Bishop of Chester, and Dr. Dobie, and has the weighty support of Dr. Ballard. The local press, too, appears to be exerting its influence in the same direction, besides publishing the full and clear arguments which have been put forward by Dr. Dobie and others. It is alleged that the water, as delivered through the mains, is sometimes bad in quality. So far the arguments advanced in reply have not been convincing nor always relevant. Analyses, some of them very incomplete in the form in which they appear in the local press, have been brought forward, and the usual strained inferences have been drawn from them. The chief *raison d'être* of water analysis—the assurance that the water has or has not been polluted—is wanting, since antecedent pollution is admitted. What the analyst has to tell us in such cases is how far the filth which, in large or small quantity, has been poured into the river has become oxidised, not at its best or even at its average, but at its worst. That being ascertained, it has still to be considered whether the germs of disease, of which chemical analysis can tell us nothing at all, can get past the filters when the conditions are at their worst. Here experiment fails to guide us, except, indeed, experiments of the kind which the disciples of Miss Cobbe would have us believe to be all-sufficient, namely, experiments on the lives and health of the water consumers. It was well said by Dr. Elliott at an important public meeting of the citizens, that if the sewage daily passing into the Dee should at any moment begin to carry with it the bacilli of cholera or enteric fever, the analytical data would remain precisely the same as before, the only difference being the addition to the river water of a deadly ingredient of which chemical analysis takes no count.

From the somewhat high average death-rate of Chester, we may safely infer that there are in operation causes adverse to health, of which impure water may or may not be one. That the mortality is low in selected weeks or years is nothing to the point. An analysis of the causes of death, and of its incidence according to age, sex, occupation, and season, and still more the statistics of notified cases of enteric fever, would throw such light upon the question as is possible from this side. Doubtless all this has been done thoroughly by Dr. Kenyon, the able and experienced health officer for the city, who years ago was the first to call attention to the pollution of the Dee as affecting the water supply of Chester, but the statements before us deal only with crude death-rates, and upon these nothing stronger than hypotheses can be based.

We have already referred incidentally to Dr. Ballard's inquiry and report made a few years ago. His conclusions, in the main unfavourable to the water supply, are in themselves an irresistible argument for the action now being taken. The investigation is to be carried out by a strong and representative committee, to whom the Water Company have promised all facilities. It is stated that should the outcome be a condemnation of the present source of supply, it would be possible to substitute others without prohibitive expense.

ZYMOTIC MORTALITY IN LONDON

The diagram on page 1004 shows the prevalence of the principal zymotic diseases in London during each week of the third quarter of the current year. The fluctuations of each disease during the period under review, and its fatal prevalence as compared with that recorded in the corresponding weeks of recent years, can thus be readily seen.

Small-pox.—Six deaths from this disease were registered in London during the third quarter of this year, the average number in the corresponding periods of the preceding ten years, 1882-91, being 38. Of these 6 deaths, 4 only were of London residents, of whom 2 belonged to Plumstead, 1 to Mile End Old Town, and 1 to Battersea sanitary districts. Twenty-four small-pox patients were admitted into the Metropolitan Asylum Hospitals, and 11 into the Highgate Small-pox Hospital during the quarter, and 8 remained under treatment at the end of September.

Measles.—The fatal cases of measles, which had increased from 248 to 1,610 in the preceding four quarters, declined to 575 during the three months under notice, but exceeded by 70 the corrected average number. Among the various sanitary areas of the metropolis, the highest proportional fatality of measles was recorded in Hammersmith, Bethnal Green, St. George-in-the-East, Limehouse, St. George Southwark, St. Olave Southwark, and Rotherhithe.

Scarlet Fever.—The deaths referred to this disease, which had been 159 and 261 in the first two quarters of this year, further rose to 365 during the three months ending September last, and exceeded by 52 the average number in the corresponding periods of the preceding ten years. Among the various sanitary districts this disease showed the highest proportional fatality in Chelsea, Bethnal Green, Whitechapel, St. George-in-the-East, Limehouse, Mile End Old Town, and Poplar. The number of scarlet fever patients in the Metropolitan Asylum Hospitals, which had been 1,175 and 2,117 at the end of the preceding two quarters, had further increased to 3,407 at the end of September. The number of cases admitted to these hospitals, which had been 1,327 and 2,668 in the preceding two quarters, further rose to 4,647 during the three months ending September last.

Diphtheria.—The fatal cases of diphtheria in London, which had been 328 and 437 in the preceding two quarters, further rose to 487 during the quarter under notice, and exceeded by as many as 197 the corrected average number. Among the various sanitary districts the highest proportional fatality of diphtheria was recorded in Hammersmith, Westminster, St. Giles, Holborn, Bethnal Green, Whitechapel, Mile End Old Town, and St. George Southwark. The cases of diphtheria admitted into the Metropolitan Asylum Hospitals, which had been 440 and 538 in the first two quarters of the year, further rose to 713 last quarter, and 318 patients remained under treatment at the end of September last.

Whooping-cough.—The deaths referred to this disease, which had been 1,473 and 630 in the preceding two quarters, did not exceed 204 during the

three months under notice, and were considerably less than half the corrected average number. Among the various sanitary districts of the metropolis whooping cough was proportionally most fatal in Newington and Battersea.

Fever.—Under this heading are included deaths from typhus, typhoid fever, and simple and ill defined forms of continued fever. The deaths referred to these different forms of "fever," which had been 80 and 90 in the preceding two quarters, further rose to 130 during the quarter under notice, but were 71 below the corrected average. Of these 130 deaths from "fever," 4 were certified as typhus, 120 as enteric or typhoid fever, and 6 as simple and ill-defined fever. There was no marked excess of "fever" mortality last quarter in any of the sanitary districts of the metropolis. The Metropolitan Asylum Hospitals contained 113 enteric fever patients at the end of September last, against 206, 73, and 57 at the end of the preceding three quarters; the new cases admitted into these hospitals, which had been 112 and 116 in the previous two quarters, increased to 212 during the three months ending September last.

Diarrhœa.—The 1,747 fatal cases of diarrhœa recorded in London during the quarter under notice were 549 below the corrected average number; among the various sanitary districts of the metropolis this disease showed the highest proportional fatality in St. Luke, Shoreditch, St. George-in-the-East, Limehouse, St. Olave Southwark, Rotherhithe, and Greenwich.

In conclusion, it may be stated that the 3,514 deaths referred to the principal zymotic diseases during the third quarter of the current year were 647, or 16 per cent., below the corrected average number in the corresponding period of the preceding ten years, 1882-91. The mortality from measles, scarlet fever, and diphtheria showed an excess, while that from each of the other principal zymotic diseases was considerably below the average. Among the various sanitary districts the highest zymotic death-rates last quarter were recorded in St. Luke, Bethnal Green, St. George-in-the-East, Limehouse, Mile End Old Town, St. Olave Southwark, and Rotherhithe.

THE REGISTRAR GENERAL'S QUARTERLY RETURN.

THE Registrar-General has just issued his return relating to the births and deaths registered in England and Wales during the third or summer quarter of this year, and to the marriages in the three months ending September last. The marriage-rate was equal to 16.3 per 1,000, and with one exception exceeded the rate recorded in the corresponding quarter of any year since 1876.

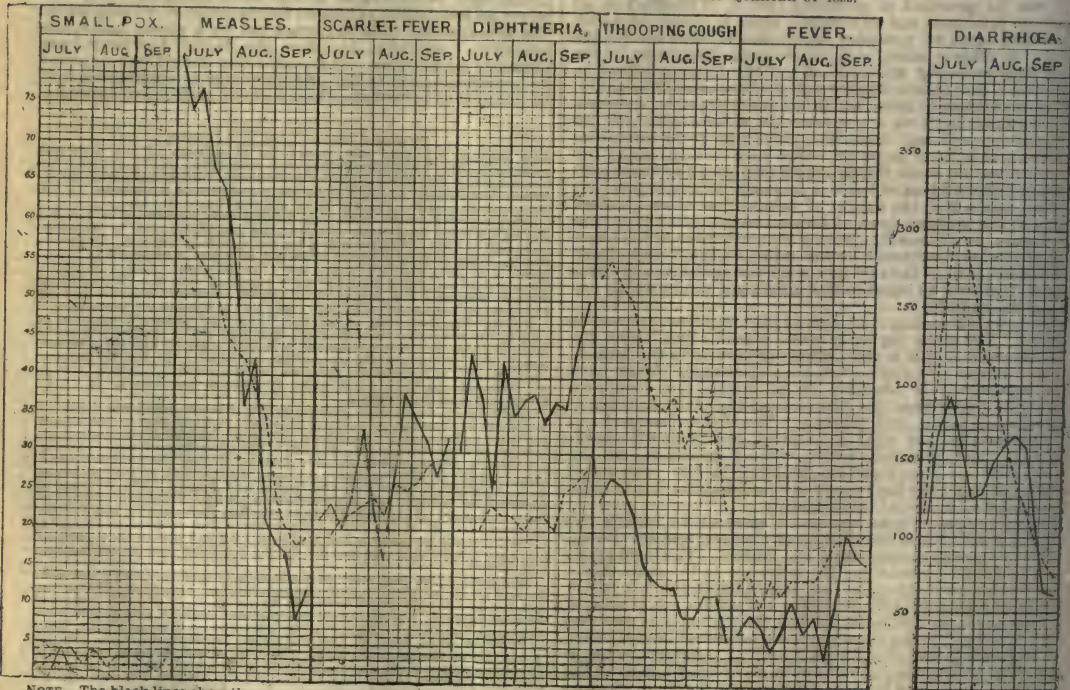
The births registered in England and Wales during the three months ending September last were 228,254, equal to an annual rate of 30.8 per 1,000 of the population, estimated by the Registrar-General to be nearly twenty-nine and a-half millions of persons. This rate exceeded that recorded in recent corresponding quarters, but was 0.9 per 1,000 below the mean rate in the third quarters of the preceding ten years. The birth-rates in the several counties during the quarter under notice ranged from 23.9 in Sussex, 24.3 in Westmoreland, and 24.7 in Rutlandshire, to 34.6 in Monmouthshire, 34.9 in Derbyshire, 35.5 in Staffordshire, and 35.7 in Durham. In thirty-three of the largest English towns the birth-rate last quarter averaged 32.1 per 1,000, and was 1.3 above the general English rate. In London the birth-rate was 31.0 per 1,000, while it averaged 32.8 in the thirty-two provincial towns, amongst which it ranged from 24.1 in Brighton, 25.6 in Halifax, and 25.7 in Huddersfield to 36.8 in Burnley, 36.9 in Hull, and 37.0 in Sheffield.

The births registered in England and Wales during the quarter under notice exceeded the deaths by 112,521; this represents the natural increase of the population during that period. It appears from returns issued by the Board of Trade that 93,145 emigrants (including 27,815 foreigners) embarked from the various ports of the United Kingdom at which emigration officers are stationed; of these 45,033 were English, 8,053 Scotch, and 12,127 Irish. The proportion of British emigrants to a million of the respective populations of the three divisions of the United Kingdom were 1,532 from England, 1,982 from Scotland, and 2,612 from Ireland. Compared with the mean proportion in the corresponding quarters of recent years, the proportion from England and from Ireland showed a decline, while that from Scotland showed an increase.

During the third quarter of 1892 the deaths of 115,733 persons were registered in England and Wales, equal to an annual rate of 15.6 per 1,000 of the estimated population. This rate was not only 1.6 per 1,000 below the mean rate in the corresponding quarters of the preceding ten years, but, with the single exception of 1888, was the lowest rate in the third quarter of any year on record. Among the urban population of the country, estimated at about nineteen millions of persons, the rate of mortality during the quarter under notice was 16.6 per 1,000; in the remaining and chiefly rural population of about ten and a-half millions the rate was 13.9 per 1,000. The urban rate was 2.0, and the rural rate 0.9 per 1,000 below the mean rates in the corresponding quarters of the preceding ten years. Among thirty-three of the largest English towns the mean death-rate was 17.9 per 1,000; in London the rate was 17.1, while in thirty-two provincial towns it averaged 18.5 per 1,000, and ranged from 12.6 in Croydon, 14.8 in Huddersfield, and 15.0 in Brighton, to 21.3 in Bolton, 22.3 in Liverpool, 23.2 in Salford, and 24.3 in Preston.

The 115,733 deaths registered in England and Wales during the three months ending September last included 9,095 which resulted from diarrhœa, 2,565 from measles, 2,017 from whooping-cough, 1,375 from scarlet

DEATHS FROM ZYMOTIC DISEASES IN LONDON DURING THE THIRD QUARTER OF 1892.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding week of the preceding ten years, 1881-90, corrected for increase of population.

fever, 1,320 from diphtheria, 1,151 from "fever" (including typhus, typhoid, and simple continued fever), and 86 from small-pox; in all, 17,609 deaths were referred to these principal zymotic diseases, equal to an annual rate of 2.4 per 1,000, against an average rate of 2.9 in the corresponding quarters of the preceding ten years. The mortality from measles and diphtheria showed an excess, while that from each of the other principal zymotic diseases was below the average. Of the 86 fatal cases of small-pox, 23 occurred in Halifax, 13 in Dewsbury, 6 in Warrington, and 6 in London.

The rate of infant mortality, or the proportion of deaths under 1 year of age to registered births, was equal to 150 per 1,000, and was 9 per 1,000 below the mean proportion in the corresponding quarters of the preceding ten years. In London the rate of infant mortality was 171 per 1,000, while it averaged 196 in the thirty-two provincial towns, among which it ranged from 95 in Huddersfield, 127 in Halifax, and 141 in Swansea to 227 in Bolton, 251 in Leicester, and 311 in Preston.

The mean temperature of the air during the quarter at the Royal Observatory, Greenwich, was 59.2°, being 0.8° below the average; it showed an excess in August, but was below the average in July and September. The rainfall amounted to 6.6 inches, being 0.7 of an inch below the average.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 5,955 births and 3,808 deaths were registered during the week ending Saturday, October 29th. The annual rate of mortality in these towns, which had been 17.3 and 18.0 per 1,000 in the preceding two weeks, further rose to 19.5 during the week under notice. The rates in the several towns ranged from 12.3 in Croydon, 13.0 in Bolton, 13.3 in Sunderland, and 15.0 in Wolverhampton to 23.8 in Huddersfield, 23.9 in Preston, 24.2 in Birkenhead, 25.2 in Hull, and 33.5 in Salford. In the thirty-two provincial towns the mean death-rate was 20.2 per 1,000, and exceeded by 1.7 the rate recorded in London, which was 18.5 per 1,000. The 3 808 deaths registered during the week under notice in the thirty-three towns included 406 which were referred to the principal zymotic diseases, against 389 and 387 in the preceding two weeks; of these, 96 resulted from measles, 82 from diphtheria, 78 from scarlet fever, 75 from diarrhœa, 37 from "fever" (principally enteric), 36 from whooping-cough, and 2 from small-pox. These 406 deaths were equal to an annual rate of 2.1 per 1,000; in London the zymotic death-rate was equal to 2.0 per 1,000, while it averaged 2.2 in the thirty-two provincial towns. No death from any of these diseases was recorded last week in Derby; in the other towns they caused the lowest death-rates in Blackburn, Sunderland, Burnley, and Sheffield, and the highest rates in Oldham, Halifax, Brighton, Hull, and Salford. Measles caused the highest proportional fatality in West Ham, Oldham, Bradford, Hull, Brighton, and Salford; scarlet fever in Salford and Plymouth; "fever" in Preston; and diarrhœa in Wolverhampton, Oldham, Bolton, Hull, and Gateshead. The mortality from whooping-cough showed no marked excess in any of the large towns. The 82 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 56 in London, 4 in Halifax, and 3 in Birmingham. Small-pox caused one death in Halifax, and one in Bradford, but not one in London or in any other of the large towns; four small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 2 in the Highgate Small-pox Hospital on Saturday last, October 29th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 4,012, against numbers increasing from 3,052 to 3,936 on the preceding ten Saturdays; 410 new cases were admitted during the week, against 503 and 484 in the preceding two weeks. The 296 deaths from diseases of the respiratory organs in London were 78 below the average, and were equal to an annual rate of 3.6 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, October 29th, 920 births and 564 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.0 and 19.0 per 1,000 in the preceding two weeks, further rose to 20.3 during the week under notice, and exceeded by 0.8 per 1,000 the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 14.1 in Dundee and 14.5 in Paisley, and the highest rates 22.3 in Greenock and 22.5 in Glasgow. The 564 deaths in these towns included 80 which were referred to the principal zymotic diseases, equal to an annual rate of 3.2 per 1,000, which was 1.1 above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Aberdeen and Edinburgh. The 289 deaths registered in Glasgow included 10 from scarlet fever, 6 from diphtheria, and 6 from measles. Twenty fatal cases of measles and 4 of diphtheria were recorded in Edinburgh, and 12 of measles in Aberdeen. The death-rate from diseases of the respiratory organs in these towns was equal to 5.0 per 1,000, against 3.6 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, October 22nd, were equal to an annual rate of 19.3 per 1,000. The lowest rates were recorded in Lisburn and Lurgan, and the highest rates in Kilkenny and Drogheda. The death-rate from the principal zymotic diseases averaged 1.1 per 1,000. The 130 deaths registered in Dublin were equal to an annual rate of 19.4 per 1,000 (against 20.0 and 20.7 in the preceding two weeks), the rate during the same period being 17.7 in London and 25.2 in Edinburgh. The 130 deaths in Dublin included 7 which were referred to the principal zymotic diseases (equal to an annual rate of 1.0 per 1,000), of which 4 resulted from diarrhœa, 2 from enteric fever, and 1 from whooping-cough.

PRESERVATIVES IN FOOD.

A new weekly paper—*Food, Drugs, and Drink*—is doing excellent work in bringing the evils of adulteration before the public at large, and in calling general attention to the pressing necessity for alterations and extensions of the existing laws on the subject. We are glad to see that the question of food "preservatives," which we have often dealt with in these columns—in reference to individual articles analysed and reported upon, as well as in discussing the general subject—is being taken up vigorously by the paper referred to, and in a manner that can be "understanded of the people." It is pointed out that dealers, for the sake of profit, make purchases when prices are low, and by the aid of chemicals make their provisions keep, with perfect indifference as to whether the proceeding is detrimental to the public or not. We have frequently had occasion to condemn the unacknowledged use of these preservative agents, notably of boric acid and borax in milk, cream, and butter, and in various meat "extracts" intended for the use of invalids. Facts which have been from time to time reported by the public analysts, but to which too little general attention has been given, are collated in a terse and telling way by the editor of the new food paper. "Milk, the food of the young, is physicked with boric acid, cream is sold all over the metropolis in jars—which are kept in the shops for many days—kept sweet also by boric acid.....Bacon is cured with borax and boric acid, sausages are pickled with it. Meat is steeped in a solution of bisulphite of lime. Fish is brought from abroad saturated with borax. Wine, badly made and ill fermented, is kept by addition of salicylic acid. Malt beverages almost invariably contain bisulphite of lime or other chemicals. In fact, from early breakfast to late supper the consumer is dosed by the tradesman with medicinal substances which should be administered only upon the prescription of a medical man."

The serious results that are likely to be produced by an extensive use of chemical preservatives in food ought, indeed, to be sufficiently obvious. Strangely enough, although in earlier days England led the way in matters relating to adulteration, many foreign States are now far ahead of us. In France, Germany, Holland, Italy, and Spain there has been legislation on this matter of preservatives, the use of which has been in the result absolutely forbidden. So long as we lag behind, the accusation that the English Legislature have never been in real earnest about the suppression of these nefarious practices will have ample justification.

JOINT HOSPITAL PROPOSALS IN YORKSHIRE.

The history of joint hospital schemes in England is not an encouraging record. The inherent weakness of many joint boards would seem to be the undue multiplicity of constituent authorities, one or more often withdrawing at a critical moment, so causing the whole matter to fall through. A conspicuous instance was that of the Keighley proposed combination not long ago; whilst only recently a scheme formulated for the provision of a hospital by Batley and seven neighbouring districts has collapsed, mainly on account of the withdrawal of some of the local boards in question. As a result, Batley is considering the question of a hospital to serve its own needs; whilst the urban districts of Liversedge, Brighlington, Gomersal, Birkenshaw, and Birstal came together still in hopes of effecting combination. The two former, however, sent representatives to the first meeting only, and the three remaining districts seem inclined to proceed to the erection of a hospital for themselves (the township of Gomersal). Geographically, the proposal is excellent, and the aggregate area is but a little over 3,000 acres. But the statement has apparently passed unchallenged that a hospital for fifty beds can be erected, inclusive of site, at a cost of £2,000. It is clear, however, that the accommodation could not be of a character in any wise suited to the permanent requirements of the locality. It would be better to spend the money in providing some fifteen beds in wards permitting the isolation of two diseases in either sex, on a site of such dimensions as would enable additions to be made. Each bed would probably entail the expenditure of upwards of £200, exclusive of cost of land, especially if an administrative block and outbuildings, capable of serving any necessary extension, were provided at the outset. What would seem to be desirable is that the districts of Gomersal township should seek to unite themselves with Batley, which town has expressed its willingness to consider the matter afresh, and, with the resulting population of upwards of 40,000 people, to proceed to the provision of a really good isolation hospital. Two of the three districts actually shut upon Batley, and in turn are adjoined by the third.

The voluntary scheme under which Skipton urban and rural sanitary authorities propose to provide a joint hospital is making satisfactory progress. The district representatives have already given approval to a draft order, and the local board of Skipton have applied to the Local Government Board for the issue of such an order setting up the Joint Hospital Board.

SANITARY MATTERS IN CORNWALL.

The sanitary committee of the Cornwall County Council are pressing forward with unabated vigour. They are proceeding against refractory and defaulting sanitary authorities in a way which will soon convince the latter of the uselessness of further shuffling and postponement. Action under the Rivers Act is being commenced against the city of Truro; and under Section 299 of the Public Health Act against the Phillock Local Board. A Local Government Board inquiry into the sanitary condition of Penrhyn has been promised at the instance of the County Council. Arrangements are being made for lectures to sanitary inspectors, and model forms of annual reports for inspectors have been drawn up by the chairman of the committee and circulated throughout the sanitary districts in the county. A similar model form, intended to be appended to the reports of medical officers of health, has also been issued.

THE DISEASED MEAT TRADE AT PRESTON.

A report of a special committee appointed to inquire into the allegations as to the town being a market for "slink" meat was recently presented to the Preston Town Council. This "Sanitary Investigation Committee" was appointed on March 31st last, and has taken a large amount of evidence. According to the report, the Committee found that "it is a fact that large quantities of bad meat are brought into Preston Market, and they are of opinion that changes are required in the sanitary arrangements of the borough. They are further of opinion that the sanitary officers have not efficiently performed their duty." It is recommended that a veterinary surgeon be called in by the meat inspector to advise in doubtful cases of unsound meat, if thought necessary by the medical officer of health, and that due effect be given to the Markets Committee's recommendation that public abattoirs be provided. Alderman Hibbert, in moving the adoption of the report, said the disclosures made to the

Committee by the witnesses were almost beyond conception. Many witnesses had testified to the extensive trade carried on in diseased meat in Preston, and the gross neglect of the sanitary officers in not preventing it. He thought it was the duty of the Council to make public all the evidence taken, and effect an adequate and sweeping reform. He concluded by moving that the evidence be printed and circulated among the members of the Council, and this motion was seconded and agreed to.

SMALL-POX IN THE NORTH.

OUR MANCHESTER CORRESPONDENT writes: The epidemic of small-pox in Manchester and Warrington so far does not seem to be abating. At Warrington alone 250 cases of small-pox have been reported during the epidemic. In hospital there are at present 140 cases, and during last week cases were reported at the rate of four or five a day.

NURSING INSTITUTIONS AND DIPHTHERIA.

DIPHTHERIA has a patient, an old lady suffering from hemiplegia, for whom a nurse was obtained from a provincial hospital. It subsequently transpired that the nurse had been in charge of a diphtheria case until the day before her arrival, and that she had undergone no quarantine, no disinfection, and had even brought with her the unwashed linen which she had worn during her former charge. She is said to have been somewhat "out of sorts" on arriving. The matron of the hospital, in reply to inquiries, admits that the linen ought not to have been brought unwashed, but implies that it is not considered necessary to require quarantine or disinfection in regard to diphtheria, there being no risk of the nurse conveying infection.

*** This is far from being the first complaint of the kind respecting one or other of the provincial nursing institutions, and particularly as regards diphtheria. Many of such institutions insist upon a period of quarantine after the nurse leaves an infectious case of any kind, and also thorough disinfection. This should be the invariable rule for the sake of the patients' safety as well as the reputation of these local centres of skilled nursing, which are doing invaluable work. The linen episode is an accident, but its occurrence betrays laxity of supervision. But, apart from this, it is not justifiable, in the light of our present knowledge, to assume that a nurse cannot carry the infection of diphtheria from patient to patient, or that she may not herself acquire diphtheria, possibly in a form so mild as to be scarcely recognisable, and yet capable of imparting infection. It is not enough that the matron, and possibly those advising her, do not share these apprehensions. The patients and their medical attendants ought to have a voice in the matter.

POSTAGE OF NOTIFICATION CERTIFICATES.

D. P. H. CANTAB. writes: A medical officer of health refuses to accept notification of infectious disease unless postage is prepaid. His sanitary authority refuse to prepay postage, and further refuse the fees on such notifications. Are they not liable for fees and postage also, especially after notice has been given to them?

*** We are not aware that the question has been raised except in the case reported in the BRITISH MEDICAL JOURNAL of October 24th, 1891, to which our correspondent refers in a footnote. In that instance the Bury county court judge seems to have held that it was not essential for the certifying practitioner to prepay postage.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

A MEETING, attended by many leading members of the profession of Derbyshire, was held at the Royal Infirmary, Derby, on October 21st, with a view to establish a division of the above Society for Derbyshire and parts adjacent. Dr. Greaves, of Derby, was called to the chair. Dr. Taylor, the honorary secretary *pro tem.*, read numerous letters from practitioners all over Derbyshire expressing their intention to support a local division if formed. Dr. Mead, of Newmarket and London, then explained the constitution and objects of the Society. The necessity of such a society having its headquarters in London and holding all council meetings there was unanimously admitted. The registration and all other preliminary expenses had been kept down to the lowest possible figure, thanks to the help of eminent men in the legal and medical professions. During the first three months of the Society's legal existence, which dated from May 1st, 1892, hundreds had joined, while at least twice as many had intimated their intention of doing so. In that very short time no doubt existed of the financial success of the Society and its ability to defend successfully any member whose case admitted of defence. Several important cases had come before their council which had been carefully considered, some satisfactorily arranged, and others were in a fair way of settlement. The divisional councils did their own work in their own way, free from vexatious restrictions, while they had advantages of a central fund, and a staff of experts to assist them in serious and difficult cases. Hitherto local societies had failed from being unable to take up such cases, or, if they did so, were overwhelmed by enormous law costs. This Society had eminent standing counsel and other advisers ready to help at a minimum of cost.

Several questions on points of detail were satisfactorily answered by Dr. Mead, and the meeting unanimously resolved to form a division for Derbyshire and parts adjacent.

On the motion of Mr. Baker, seconded by Mr. Leslie Wright, Dr. C. A. Greaves, senior physician to the infirmary, was elected president.

Dr. R. W. Gentles proposed, and Dr. C. H. Taylor seconded, the appointment of Dr. Curgenven (Derby), Dr. J. Johnstone (Belper), and Dr. Symes (Chesterfield) as vice-presidents, which was carried unanimously.

It was moved by Dr. Ashby, seconded by Dr. Greaves, and carried without division, that Mr. W. Iliffe, Dr. Forbes (Breaston), Dr. Laurie, Mr. Rice, Mr. Shark, Mr. Southam, and Dr. Vaudrey be members of the general council, further vice-presidents and members of council to be appointed at a subsequent meeting from gentlemen joining the Society.

Mr. Southam proposed, and Dr. Laurie seconded, and it was carried unanimously, that Dr. C. H. Taylor be confirmed in the appointment of honorary secretary, and thanked for the great trouble he and Dr. Greaves had already taken in the matter.

Dr. Taylor proposed, and Dr. Irwin seconded, a vote of thanks to Dr. Mead for having, at considerable personal inconvenience, attended, and for his lucid explanation of the objects, constitution, and working of the Society, and to Dr. Greaves for his help and able conduct in the chair. This was carried by acclamation.

MEDICAL DEFENCE UNION.
THE COSTS IN DENHOLME v. TAIT.

AN EARLY MEMBER OF THE MEDICAL DEFENCE UNION writes: I have been much interested in Dr. Leslie Phillips's letters respecting medical aid associations, and I believe the subject to be one of great and increasing importance to the public and more especially to the junior members of our profession. Dr. Phillips has, by the attention and prominence he has given this burning question, earned the gratitude of the profession and at the same time, I think, added very materially to the popularity and strength of the Medical Defence Union. As a member of this Union and in the interest of its soundness of action might I, through the columns of the BRITISH MEDICAL JOURNAL, ask Dr. Leslie Phillips if it be true that at the late meeting of the Council the payment of £150 was sanctioned towards its President (Mr. Lawson Tait's) costs in defending his late action? Indeed rumour has estimated these costs at £300.

Now, of course, I do not mean to imply that the President of the Union by virtue of his office is necessarily precluded from receiving the same aid in defending himself against any unjustifiable legal actions in which he may unfortunately be involved, but Mr. Lawson Tait's costs were incurred by defending an action against a charge of libelling a brother practitioner. It is said that, in the interest of the profession, Mr. Lawson Tait consented that a juror should be withdrawn, and possibly it was best that this regrettable case, where one surgeon was alleged to have attacked the reputation of another, should, unsatisfactorily as it is generally considered, so end. In Mr. Lawson Tait's social and professional position it might have been desirable, however, and more graceful that these law costs should come from his own pocket and not be drawn from the coffers of a young and struggling association which he has, up to the present, very successfully and, as had appeared, disinterestedly steered through many a difficulty, and which has become a power of usefulness, inspiring security and calmness among a large number of busy and sometimes harassed practitioners.

ADVERTISEMENTS OF DISSOLUTION OF PARTNERSHIP.

PUZZLED.—In reply to our correspondent's three distinct questions, we note that advertising in the local lay papers and issuing printed circulars notifying their individual intention to practise in F., both No. 1 and No. 2 have committed a grave breach of medical etiquette. Nor will the plea that it was done under the advice of their respective solicitors justify the proceeding; the latter, if the allegation be true, could hardly fail to know that, in so advising them, they were directly contravening the rules of the legal and an allied profession. In regard to the second question, assuming that No. 2 was induced "under false pretences" to resign (as, for certain reasons, we assume), his parochial medical office and that of parochial vaccinator, in order to accept the proffered partnership with No. 1 in a distant locality; and, further, that prior thereto he was, as the younger practitioner, kept in ignorance of the intended conditions subsequently embodied in the deed referred to, morally bound (though not legally so in the absence of his signature thereto) as he would be to quit F., we think that, under the exceptional circumstances, he should not be held morally responsible for repudiating the implied contract. With reference to the third query as to "Puzzled's" future attitude towards his medical friend, Nos. 1 and 2, we may observe that, inasmuch as they are presumed to have been guided by the ethically injudicious counsel of their solicitors, we fail to see any just cause for change.

DISPENSER AND PRACTITIONER.

M. B. A. writes: A was originally intended for the medical profession, but circumstances occurred during his studentship which prevented the continuance of his medical work, and he became a pharmaceutist. Some years ago he was appointed dispenser to a large provincial hospital, where he was not required to devote his whole time to the duties of his office; and he completed his medical studies and took his diploma. About two years ago he commenced to practise in the town, still holding his post at the hospital. Recently a representation has been made to the committee of the hospital on behalf of the other members of the profession practising in the town, to the effect that it is an injustice to them that A. should be allowed to retain his post at the hospital. Will you be good enough to state your opinion of this action on the part of A.'s professional brethren?

*** Although, without further knowledge of the circumstances attending the alleged hostile attitude of the local practitioners, we are unable to express a definite opinion on the exceptional question submitted b

"M. B. A.," we may venture to observe that, assuming his temporary inability to pursue his medical studies to have arisen from more or less impecuniosity, and that the pecuniary struggle to a greater or less extent still exists, with an honourable desire to relieve himself from outstanding obligations, we fail to recognise the justice of the recent representation to the committee of the hospital in question; if, on the other hand, the assumed monetary difficulty is non-existent, we are distinctly of opinion that, in justice to himself and with the view to uphold the dignity of the profession, he will act wisely in at once resigning his position as pharmacist and dispenser.

THE COURTESY VISIT IN RURAL DISTRICTS.

S. A.—In reply to our correspondent's query, we may note that although the rules of intraprofessional etiquette do not suggest a further distance than four miles (other than under exceptional circumstances) as the limit for the usual visit of courtesy in a rural district, the contemplated call of "S. A." upon Mr. B. at the extended distance of ten miles, with the view to offer a friendly remonstrance, would probably prove an act of real professional kindness, and not only deter him from a repetition of such an unethical procedure as that referred to, but possibly engender within a true ethical spirit.

PRIVATE PATIENTS AND PRIVATE HOSPITALS.

Dr. —— (Sydney, N.S.W.).—Our Australian correspondent will probably have noted that in our comments in the British Medical Journal in relation to the case to which he refers, we had, prior to the receipt of his communication, expressed analogous views thereon. Inasmuch as, however, we were unable, for the reasons therein assigned, to publish the correspondence which had passed between the disputants, no allusion was made to the alleged "posing of B. as a generous-hearted surgeon, who had no regard for fees;" and a like omission was made of C.'s prior and equally generous, but carefully and rightly guarded, offer by making it contingent on the opinion of the patient's medical attendant, as being the more competent judge of the pecuniary position of the husband, and his ability or otherwise to pay the fee of 100 guineas.

OBITUARY.

COMMENDATORE GREGORIO FEDELI, M.D.

It is with regret that we have to report the death of Commendatore Dr. Gregorio Fedeli. He was returning to Rome with his wife after his summer holiday, but at Genoa was seized with an attack of angina pectoris, from which he died. He was born in Rome on March 9th, 1820, and his life was one of continuous labour in the cause of humanity and for the glory of his country; for not only did he fight with disease and wield the pen, but in the early days of his manhood, after he had completed his medical education and gained his diploma, he drew the sword as a patriot and took part in the fighting under Garibaldi, which resulted eventually in the unity and independence of Italy. He published many monographs; one especially to be noted is that upon malaria and Roman fever. Among his many decorations received for his services were those of the Commendatore of the Crown of Italy, Cavaliere of the Order of St. Maurice, Knight of the Order of Carlos III of Spain, and Knight of the Portuguese Military Order of Christ. His many English and American friends will join with his countrymen in deploring his loss, for he was universally beloved and respected.

I. N. ONANOFF, M.D.

Dr. I. N. Onanoff, whose death was recorded in the British Medical Journal of October 29th, was of Armenian origin, and was born at Taganrog thirty-three years ago. After receiving a preliminary training in natural science in St. Petersburg, where he spent two years, he went to Paris, where he studied medicine and took his degree. He was for several years assistant in Professor Charcot's clinic, and it was only in the summer of the present year that he went to Warsaw, where he worked in Professor Lukjanoff's Pathological Laboratory. As soon as cholera broke out in the Lublin Government he went to Lenczo, where he worked night and day among the sufferers till he was himself struck down by the same disease, and died after a fortnight of severe illness. Dr. Onanoff had already made a name by his pathological researches, which were chiefly directed to diseases of the nerves. He had published several valuable contributions to science, chiefly in French. Among these may be mentioned his papers on Progressive Myopathy, on the Bulbo-Cavernous Reflex, on the Nature of the Neuro-Muscular Bundles, etc. He also collaborated with Dr. Blocq in the production of a work on the Diagnosis of Nerve Diseases. By the untimely death of this young Russian physician science loses a worker of the highest promise, but the medical profession is able to add another name to its ever-lengthening martyrology. Science is great, but humanity is greater, and we have no right to grieve for men like Onanoff; we should rather envy them the glorious privilege of having fallen "in battle's splendour," to use the words of Goethe, in the war against disease in which we are all engaged.

ANDREW GIBB RUSSELL, M.D.Glas.

With deep regret we record the death of Dr. Russell, J.P. of Harrogate, which took place at his residence on October 16th. Dr. Russell, though to all appearance of a robust constitution, had for some time back been in indifferent health. About a month since he was taken seriously ill, and his family and friends began to be alarmed at his condition, and in spite of most indefatigable and constant attention, the illness went on to a fatal termination. Dr. Russell was the son of the late Mr. Russell, of Crimple Farm. In his young days he showed marked aptitude for learning and study. He was educated in the Glasgow University, and soon made a reputation as an able student, taking both the M.A. and M.D. degrees during his successful curriculum. He determined to enter the Nonconformist ministry, and subsequently went to Bradford, where he laboured most successfully as a Presbyterian minister, and made his mark as an eloquent preacher. During his residence at Bradford, Dr. Russell kept himself in touch with the medical profession. Finally he decided to retire from the ministry, and about sixteen years ago he went to reside at Harrogate, where up to his demise he conducted a most successful professional practice, and had, especially, a large connection among visitors to the town. The deceased gentleman leaves a wife and two daughters to mourn his loss.

NAVAL AND MILITARY MEDICAL SERVICES.

GUNSHOT WOUNDS OF THE FACE.[1]

Dr. Ludwig Brandt, in a monograph recently published, states that the eminent von Langenbeck, a short time prior to his decease, called attention to the urgent need of making more suitable provision for the treatment of gunshot injuries of the jaws in any future war, and mentions that, so far as information on the subject has reached him, the preparations that have been made in France for the treatment of such cases, in respect to technical appliances in the authorised field hospital equipment, are in advance of those which exist in his own country. Dr. Brandt urges the great importance of the subject, as proved by the experience derived from the war of 1870-71. At the same time, he asserts it has been demonstrated by the highest competent authorities that the demands upon surgeons in the same direction in a future war will be on a far larger scale than in any previous war, not only from the increased number of wounds to be expected from the use of smokeless powder and better shooting, but also from the severity of the injuries produced by the improved firearms and projectiles.

Statistical information is then given with regard to the number of wounds of all kinds, but more particularly the number of wounds of the face, inflicted on the German troops during the war against France in 1870-71, and as the figures are derived from the official military authorities, it will be of interest to give an abstract of some of the particulars thus brought to notice. The number of officers and men of all ranks belonging to the German armies who were wounded during the war amounted to the immense total of 116,821. Of these 99,566 survived, 11,023 died in hospital, and 6,223 died on the field of battle. The wounds of those who were under hospital treatment, including the wounds of those who died in hospital, were thus distributed: Wounds of the head, 11,041; of the neck, 1,922; of the chest and back, 11,495; abdomen, 4,553; upper extremities, 33,914; and of the lower extremities, 43,952; while in 3,721 instances the situations of

[1] *Beiträge zur Behandlung der Schussverletzungen der Kiefer und deren benachbarten Weichtheile.* (Contributions to the Treatment of Gunshot Injuries of the Jawbones and Surrounding Soft Parts.) By Dr. Ludwig Brandt. Berlin: Hirschwald. 1892. Pp. 40.

the wounds have not been recorded. A noticeable fact is the unusually large proportion of wounds of the head, which nearly equal those of the chest and back together, and approach three times the number of those of the abdomen. The number given (11,041), however, includes 2,130 injuries of the face, which are generally shown separately from those of the head.

The distribution of the wounds of the face in the German armies, with their results, are shown in a separate table. Among 640 injuries of the soft parts, there were 7 deaths; among 731 of the upper maxilla, 58 deaths; 365 of the lower maxilla, 35 deaths; while 58 wounds involving both upper and lower maxillæ together led to 8 deaths. The records show 3 deaths among 164 wounds implicating the malar, nasal, or other bones of the face; but in 142 instances, including 36 deaths, the particular bones wounded are not indicated. The various arms of the service to which the wounded men belonged are shown in special columns, while other columns exhibit the projectiles or weapons by which the injuries were caused. So far as shown, the wounds by rifle bullets more than doubled the number of those caused by artillery projectiles; but the information in this respect is not of much value, as, out of 2,030 gunshot wounds of the face, in no fewer than 1,398 instances the particular projectiles by which the wounds were caused have not been recorded. Only 15 out of the 2,130 injuries of the face were sabre wounds, and no bayonet wounds appear among the number.

The author calls attention to the fact—as shown by the foregoing statistics—that in war the injuries of the jawbones occur more frequently than injuries of other bones in this region; and that many of them are of a very grave character, as, out of the 1,154 cases treated in the hospitals, 101 proved fatal, while in many of the recoveries difficulties of mastication and even of feeding, with loss of power of speech, have resulted.

Dr. Brandt concludes by discussing very fully the methods of treatment which ought to be followed in the several varieties of the wounds under notice, and describes various forms of apparatus which have been proposed for maintaining the fractured jawbones in apposition during the healing process. At the same time, he admits that no particular apparatus can be taken into the field to suit all varieties of such wounds. Appropriate materials and articles must be provided in the equipment of field hospitals, and military surgeons must be prepared to apply them to the special needs of particular injuries as occasions occur for their use.

THE NAVY.

SURGEON WILLIAM HAYES has been placed on the retired list, August 3rd. His commission was dated February 26th, 1881.

The following appointments have been made at the Admiralty: ROBLEY H. J. BROWNE, Surgeon, to the *Warspite*, October 20th; JOHN MCNICOLL to be Surgeon and Agent at Sandbanks.

Staff-Surgeon WILLIAM DICKSON SMYTH, M.D., died at St. Leonards, aged 57. He was appointed Surgeon June 10th, 1854, and Staff-Surgeon March 21st, 1864. He retired from the service April 1st, 1870.

ARMY MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL G. W. MCNALTY, M.D., F.R.C.S.I., is placed on retired pay, October 6th. His commissions are thus dated: Assistant-Surgeon, April 14th, 1863; Surgeon, March 1st, 1873; Surgeon-Major April 1st, 1874; rank of Lieutenant-Colonel April 14th, 1883; and Brigade-Surgeon-Lieutenant-Colonel, from April 11th, 1888. Dr. McNalty's distinguished career in the army is thus summarised in *Hart's Army List*:—Served with the British Ambulance, B Division, during the Franco-German war from October, 1870, to March, 1871, and was present at the siege of Paris; accompanied the 22nd Prussian Division in the operations before Chartres and Orleans, and was present at several engagements (received the thanks of General von Wittich, Commanding the Division, for attending wounded on the field, German steel war medal). Subsequently proceeded to Le Mans and Connerre (French bronze cross for succouring wounded French). Served in the Ashanti war in 1873-74; was in medical charge of the Head Quarter Staff and present at the battle of Amoaful, battle of Ordahsu, and capture of Coomassie (mentioned in despatches, promoted Surgeon-Major, medal with clasp). Was Chief Surgeon and Commissioner of the National Aid Society in the Russo-Turkish war in 1876-77, and was present at the siege of Plevna. Established the Red Cross Hospital at Bucharest (Roumanian star). Served in the Afghan war of 1878-80, and was present with the expedition into the Lughman Valley and in the engagement at Shekabad; accompanied Sir Frederick Roberts in the march to Candahar, and was present at the battle of Candahar (mentioned in despatches, medal with clasp, and bronze decoration). Served in the Egyptian war of 1882 as personal assistant to the Principal Medical Officer with the Indian Contingent, and was present at the battle of Tel-el-Kebir (medal with clasp, 4th class of the Osmanieh, and Khedive's Star).

Surgeon-Lieutenant-Colonel W. B. SLAUGHTER, on return from England, is appointed to the medical charge of the North Station Hospital, Bangalore, Madras Command.

Surgeon-Major G. W. ROBINSON, who is serving in the Madras Command in medical charge of the North Station Hospital at Bangalore, is directed to do duty in the Belgaum and Bangalore Districts.

Surgeon-Captain J. DONALDSON, who is doing duty in the Belgaum and Bangalore Districts, Madras Command, is directed to do duty in the Madras District.

Surgeon-Lieutenant-Colonel F. LYONS, M.D., serving in the Bombay Command, is transferred to the Poona District, and appointed to the medical charge of the station hospital at Poona.

Surgeon-Lieutenant-Colonel J. RIDDICK, on arrival from England, is appointed to the medical charge of the station hospital at Colaba, in the Bombay Command, *vice* Surgeon-Lieutenant-Colonel F. LYONS.

Surgeon-Captain R. G. HANLEY, on arrival from England, is posted to the Bombay District for general duty.

Surgeon-Captain C. J. ADDISON, expected from England for duty in India, is posted to the Bombay Command in succession to Surgeon Captain S. J. W. HAYMAN, tour expired.

Surgeon-Captain A. COTTELL, recently in charge of the Staff and married officers and of the Casualty and Female Hospitals at Chatham, left for duty at Gibraltar in the Peninsular and Oriental steamer *Oriental* on November 4th.

INDIAN MEDICAL SERVICE.

SURGEON-CAPTAIN A. L. DUKE, Bengal Establishment, officiating Residency Surgeon, is appointed Residency Surgeon in the Persian Gulf, from September 23rd.

Surgeon-Lieutenant-Colonels A. S. LETHBRIDGE, M.D., C.S.I., A. STEPHEN, M.B., and J. H. NEWMAN, M.D., of the Bengal Establishment, are promoted to be Brigade-Surgeon-Lieutenant-Colonels, the first-named from April 9th, the second from April 16th, and the third from June 1st. Their previous commissions, which are contemporaneous, are as follow:—Assistant-Surgeon, September 30th, 1867; Surgeon-Major, September 30th, 1879; and Surgeon-Lieutenant-Colonel, from September 30th, 1887. Brigade-Surgeon-Lieutenant-Colonel Stephen was engaged in the war in Abyssinia in 1868, receiving the medal; and Brigade-Surgeon-Lieutenant-Colonel Newman also served in the same war, obtaining the medal, and in the Afghan war in 1878-79, when he took part in the two expeditions into the Bazar Valley (medal).

Surgeon-Major R. COBB, Bengal Establishment, is appointed honorary Surgeon to the Dacca Rifle Volunteers, from September 18th.

Surgeon-Captain E. H. WRIGHT, Madras Establishment, is appointed act as civil Surgeon of Negapatam.

Brigade-Surgeon-Lieutenant-Colonel S. B. HUNT, Madras Establishment, is granted the temporary rank of Surgeon-Colonel while officiating as Principal Medical Officer of a district in the Madras Command.

Surgeon-Captain F. O'KINEALY, Bengal Establishment, has passed the examination in Hindustani by the lower standard.

Surgeon-Captain R. C. MACWATT, M.B., 6th Bengal Infantry, has leave to Kashmir for two months on medical certificate.

Surgeon-Captain J. PENNY, Madras Establishment, is appointed to the officiating medical charge of the 21st Madras Infantry (Pioneers).

Surgeon-Captain W. D. SUTHERLAND, Madras Establishment, is directed to do duty in the Madras District.

The services of Surgeon-Major F. F. MACCARTIE, M.B., Bombay Establishment, are placed at the disposal of the Government of India in the Finance and Commerce Department.

Surgeon-Major H. MCCALMAN, Bombay Establishment, received charge of Dharwar Gaol on September 29th.

Surgeon-Captain G. S. THOMSON, M.D., Bombay Establishment, is appointed to the medical charge of the 4th (1st Battalion Rifle Regiment) Bombay Infantry, *vice* Surgeon-Captain J. B. Barry, M.B., transferred to the Civil Department. Surgeon-Captain Thomson will continue to officiate in medical charge of the 14th Bombay Infantry.

Surgeon-Captain H. C. L. ARNIM, Bombay Establishment, is appointed to the medical charge of the 10th Bombay Infantry, *vice* Surgeon-Captain B. B. Grayfoot, transferred to the Civil Department.

Surgeon-Captain J. JACKSON, Bombay Establishment, is appointed to officiate in medical charge of the 10th Bombay Infantry during the absence of Surgeon-Captain Arnim on leave.

Surgeon-Captain F. P. MAYNARD, medical officer 13th Bengal Infantry, has leave of absence for six months; and Surgeon-Major J. F. TUOHY, Bengal Establishment, officiating civil surgeon of Allahabad, is allowed privilege leave for two months and twenty-three days.

THE VOLUNTEERS.

SURGEON-CAPTAIN J. E. LANE, M.D., 3rd Volunteer Battalion East Surrey Regiment (late the 5th Surrey), has resigned his commission, which was dated November 21st, 1891. He was Acting-Surgeon to the corps from March 17th, 1888.

A REPROACH TO INDIAN ADMINISTRATION.

WE learn from India that no little recrimination has taken place between Government departments, and an inquiry has been ordered over the recent disastrous and, as believed, preventable, outbreak of cholera at Murree. We would not, of course, seek to prejudge the results of this inquiry, but trust the truth may be elicited, and the blame, if any, put on the right shoulders.

The recent sudden and lamentable outbreak of the disease has once more drawn attention to the long-standing, disgraceful, and culpable sanitary condition of this, perhaps the most important of the Indian hill stations. That terrible condition was disclosed in the official sanitary report and inquiry which followed the cholera ravages of 1888, but we cannot say how far the conservancy and water supply recommendations in the report have yet been carried out. Some good may follow the recent outbreak if it wake up the authorities to more decided and less leisurely sanitary action, and so lead to the purification of this great frontier station and highway, which in its foul condition has long been a positive reproach to Indian administration.

ASSOCIATION OF MEDICAL OFFICERS OF THE MILITIA OF CANADA.

We are glad to learn that a most encouraging beginning has been made in the formation of this Association, which promises to promote, through the medical service, the general efficiency of the Canadian Militia. It was started by a circular letter, issued from Toronto in April last, which found a ready response in all parts of the Dominion, including Nova Scotia and British Columbia, so that a most successful first annual meeting was held in the Canadian Military Institute, Toronto, in June. After the adoption of a constitution and by-laws several important military medical papers were read and discussed at the meeting.

It will interest many in this country to learn that the constitution of the Association is wide and varied and aims, very properly we think, at an Imperial connection; it will undoubtedly find hearty sympathy and support in its laudable aspirations from the medical services in all parts of the empire.

The office-bearers are an honorary president, a president, vice-presidents for each province, with executive committees, treasurer, and secretaries. With head-quarters at Toronto branches may be established in each military district of the Dominion. The ordinary membership consists of active members holding commissions in the active militia of Canada, associates, medical officers of the navy, army, or auxiliary forces in any part of Her Majesty's dominions; honorary—gentlemen distinguished in civil or military hospital practice or who may signally assist the objects of the Association; and lastly members by invitation, consisting of officers of Her Majesty's forces throughout the empire or officers of foreign powers.

The objects are no less comprehensive than the constitution of the Association; first, naturally, for the development of a departmental *esprit de corps*, and the discussion of medical matters concerning the militia; secondly, for the discussion of military matters generally from a medical point of view; lastly, for the reading of papers on military medicine and surgery, hygiene, organisation, and equipment.

The Association has not come into existence without very good reasons nor before it was wanted, for the Canadian militia medical service is still in a crude regimental form without departmental unity, cohesion, or weight, and altogether may be said to be in a highly unsatisfactory state.

We gather that the medical officers suffer from ill-regulated conditions of service and want of due army status, while the field ambulance and hospital services are defective in organisation and equipment. We shall watch with interest the efforts of the Association to effect reforms in these directions, but fear it will meet with the same kind of passive resistance and active opposition as we have faced under similar circumstances at home, for we learn it is pretty certain to encounter the shallow self-sufficient Junker spirit which affects to be above medical advice, or, as they say in America, thinks it "knows it all."

If we can render any service or support in furthering the laudable endeavours of the Association we shall be most pleased to do so.

THE NEW TITLES.

A CORRESPONDENT draws our attention to an advertisement by Baillière, Tindall and Cox. of veterinary books, by Captain ——, Major ——, and Colonel ——, A.V.D. From this it is evident our friends of the army veterinary department have no scruple in using the military portions of their title only.

ARMY MEDICAL CORPS writes: Is not the fact of the new titles being colloquially ignored largely the fault of medical officers themselves and their wives not using them? How can they blame outsiders if they themselves acquiesce in the use by military medical officers of the purely civil designation of "Dr."?

SURGEON-LIEUTENANT-COLONEL writes: In your admirable leader you truly say that "the wish most near the heart of the great body of army medical officers is that the Army Medical Staff be organised as a separate corps upon the model of the Royal Engineers, and with a distinct recognised title, as a Royal Army Medical Staff." The granting of proper military titles is the most important question before us. The non-commissioned officers and men of the Medical Staff Corps feel the present state of affairs very deeply; they say they are a corps without officers. The compound titles are never employed unless in official correspondence, and none but the purely military can ever be understood or used by the public. I hope you will press these matters on the authorities.

THE DEFICIENT MEDICAL ESTABLISHMENTS IN INDIA.

SYNTAX writes: I can fully endorse the points you propose to submit to the Secretary of State for War in a Memorandum, particularly that relating to extended Indian tours. In this connection reference to the Quarterly Indian Army List for July, 1892, shows twenty-eight officers of the Medical Staff incapacitated through sickness—namely, twenty-one absent on sick certificate in England, five in India, one at sea, one in Kashmir. Now, these unfortunate men are simply prematurely broken down through prolonged tours and overwork, the latter from undermanned establishments, which is the true cause of ill health, rampant discontent, and increasing inefficiency which at present characterises the service. Men can get no leave or any relief from prolonged strain, and are thereby forced on the sick list.

*** From all we have heard we do not think out correspondent is guilty of exaggeration. The medical officers are overworked, because the establishment is undermanned. But yet, in the face of undeniable facts of the kind, it is rumoured that a certain administrative medical officer actually proposes still further to cut down the establishment in India. We can scarcely credit it; but should it unfortunately prove true, it will be our business and duty strenuously to oppose and expose the absolute insanity and cruelty of any such proposition, however it may find favour in high official quarters.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

FIRST M.B. EXAMINATION.—The examination in Human Anatomy and Human Physiology will take place on Wednesday, December 7th, at 10 A.M. Candidates must send in their names to the Secretary of the Board of Faculties on or before November 19th, together with the fee (£1 10s.).

An examination for four Scholarships and one Exhibition in Natural Science at Balliol and Trinity Colleges, and at Christ Church, will be held on November 15th. Candidates must communicate by letter with the Master of Balliol College on or before November 8th.

UNIVERSITY OF CAMBRIDGE.

EXAMINATIONS FOR M.B., ETC.—The Registrary publishes the following scheme, giving the dates of the Medical Examinations:

	Names Sent in.	Certificates Sent in.	Examination Begins.
First M.B.—			
Part I	November 23	December 1	December 6
Part II	November 23	December 3	December 8
Second M.B.—			
Part I	November 23	December 7	December 12
Part II	November 23	December 1	December 6
Third M.B.—			
Part I	November 30	December 8	December 13
Part II	November 30	December 8	December 13
M.C.	November 30	December 10	December 16

DEGREES.—At the Congregation on October 27th, the following Degrees were conferred:—*M.B. and B.C.*—A. M. Daniel, Trinity; E. Baines, Caius; S. E. Barrett, Caius.

UNIVERSITY OF EDINBURGH.

GRADUATION CEREMONIAL.—On October 27th, a special Graduation Ceremonial was held at the University of Edinburgh, when the Vice-Chancellor, Sir William Muir, presided, and conferred the degrees of M.B. and C.M. on the following fifty-five gentlemen:—W. C. Anderson, Scotland; A. R. Bankhart, Wales; F. M. Black, Scotland; N. T. Bond, England; W. J. W. W. Borthwick, Scotland; J. W. P. Boyd, Scotland; A. Cameron, Scotland; A. N. S. Carmichael, Scotland; J. O. Coker, Africa; J. Cowie, Scotland; V. M. Daly, India; R. H. Drennan, Ireland; A. M'B. Elliot, Scotland; J. R. Foster, England; D. Fraser, Wales; M. Gillespie, Scotland; T. A. Granger, Scotland; P. F. Grant, Scotland; F. T. Griffin, England; J. F. Hall, England; A. A. Hudson, England; J. E. Knox, England; H. Latham, England; A. T. Law, Scotland; W. Lawton, England; A. W. B. Livesay, England; G. F. Longbotham, England; D. W. K. Lyall, India; A. M. M'Donald, Scotland; J. MacFarlane, Scotland; A. V. M'Gregor, Scotland; M. Mackay, M.A., Scotland; W. C. Macknight, Australia; W. M'Lean, Scotland; T. M. Martin, Scotland; C. E. Maude, B.A., New Zealand; R. T. Mitchell, India; J. O. Morrison, Scotland; D. G. M. Munro, Scotland; A. Newall, B.A., Scotland; A. A. O'Hara, Australia; J. Owen, Wales; M. Parkinson, England; H. P. Pechell, England; J. D. Pollock, Scotland, W. M. Robertshaw, England; A. C. Stamberg, India; C. E. Stephens, England; J. B. Thomson, New Zealand; F. R. Van Eangenberg, Ceylon; A. Ward, England; A. J. Wheatley, England; C. W. Williams, Wales; G. J. Williams, Wales; J. G. Williamson, India. At the same time the degree of B.Sc. in Public Health was conferred on R. M. Beattie, M.B., C.M., New Zealand; and on J. D. Williams, M.B., C.M., Wales.

SECOND PROFESSIONAL EXAMINATION FOR THE DEGREES OF M.B. AND C.M.—Mr. George R. Livingston has passed in the department of anatomy of this examination.

UNIVERSITY COURT.

At the last meeting of the University Court on October 26th, there were present Principal Sir William Muir, in the Chair; the Lord Justice Clerk, Lord Stormonth Darling, Sheriff Æneas Mackay, Dr. Patrick Heron Watson, Mr. McKie, and Professors Sir William Turner, Crum Brown, and Butcher.

UNIVERSITY COMMISSION.—It was reported that a copy of an order of Her Majesty in Council, continuing the powers of the Universities Commissioners till January 1st, 1894, had been received.

SPECIAL FINANCIAL ARRANGEMENTS.—Letters from the Universities Commissioners were read, intimating that they will be prepared to provide the additional sum desired of them by the Court for carrying out the provisions of Ordinance No. 11 during session 1892-93 (under deduction of the sum applicable to the expenses of the joint board), namely, £974 6s., and that they will also be prepared to provide for the necessary expenses of the preliminary examination, which will fall to be held in the course of the current academical year, after the institution of the joint board.

APPOINTMENT OF SECRETARY.—It was agreed to appoint Professor Taylor to the office of secretary of the University Court in room of Mr. John Christison, W.S., resigned.

UNIVERSITY ASSISTANTS.—On the recommendation of the various professors, the university assistants in the several departments were appointed for the year from November 1st.

RECOGNITION OF TEACHERS.—On the recommendation of the Senatus Academicus the Court granted recognition, for purposes of graduation in medicine in the University, to the following gentlemen:—J. S. McLaren, M.B., C.M., in surgery; Dr. Peter H. McLaren, in conjunction with Dr. C. W. McGillivray, in clinical surgery; Dr. J. Hodsdon, for continuation of recognition in surgery on change of teaching rooms; Mr. C. F. Henry, in practical materia medica; Professor A. Gray, in physics; Mr. A. Johnstone, in botany; and Dr. R. F. Leith, for continuation of recognition in practical pathology on change of teaching rooms.

FINANCE REPORT.—The Reports of the Finance Committee on awards of scholarships, etc., fees to examiners, and accounts, were submitted and approved.

Meeting of General Council.

The statutory half-yearly meeting of the General Council of the University of Edinburgh was held in the Examination Hall of the University on October 29th; the Vice-Chancellor, Sir William Muir, presided. There was a small attendance. After some formal business, Mr. A. Taylor Innes submitted the Report of the Ordinances Committee. He specially reported the steps taken by the Committee, in accordance with the instructions of the last meeting of the Council, to promote a motion in the House of Commons for an address to Her Majesty to delay some of the ordinances relating to medical education. Dr. Scott Dalgleish, in seconding the adoption of this report, maintained that the speech of Professor Jebb, upon which the Government based their adverse decision to the Council's representation, did not touch the main contention of the deputation that a necessity existed for increased teaching power, that his speech was almost entirely partisan and *ex parte*, and that in reality the vote in the House of Commons was taken on a false issue. The Secretary read a communication from the University Court, declining to pay, saving to the extent of twenty guineas, the expenses of £59 15s. 2d. incurred by the Council's Committee in its deputation to London, as above noted. This was remitted to the Business Committee.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

The following gentlemen, having conformed to the by-laws and regulations, and passed the required examinations, were, at the quarterly meeting of the College, admitted Licentiates:

Alston, H., University College
Anderson, C. M., Edinburgh and Guy's
Atchley, E. G. C. F., Bristol
Atkinson, H. N. C., St. Bartholomew's
Auty, C. H., St. Bartholomew's
Badham, R. C., Sydney and London
Bailey, T. W., Westminster
*Baldwin, H. C., Leeds
Barnard, H. L., London
Beckitt, J. C., Glasgow
Bensusan, A. D., St. Thomas's
Bernard, C., Bristol
Brabant, R. H. W. H., Guy's
Bradshaw-Isherwood, P. A., St. Bartholomew's
Brasher, C. W. J., Bristol
Brisley, C. W., St. Thomas's
Bryant, H. A., Guy's
Buck, A. H., St. Bartholomew's
*Bury, R. F., St. George's
Campbell, J. A. L., Westminster
Carter, H. R., St. Mary's
Cartwright, E. H., Oxford and Guy's
Clarke, H. C. W., Manchester
Colmer, P. A., London
Cook, F. E., Liverpool
Cooper, D. N., Madras and St. Bartholomew's
Covey, W. J., University College
Cresswell, F. P. S., Guy's
Crofts, G. H., Liverpool
Crosland, G. W. K., Leeds
Dixon, T., Birmingham and St. Mary's
Duka, A. T., Camb. Univ. and St. George's
Dutton, A. S., St. Thomas's
Edwards, G. M., Cambridge and Middlesex
Elliott, H. S., St. George's
Evans, J. A., Liverpool
Fawssett, R., St. Thomas's
Fleury, C. M., Guy's
Floyd, S. G., Guy's
Foulkes, T. H., St. Bartholomew's
Fraser-Luckie, H. O'N., St. Bartholomew's
Furnivall, P., St. Bartholomew's
Gains, J. E., Leeds
Gardner, H., Charing Cross
Gilbert, C. W., London
Gillbard, R., Guy's
Goldsmith, G. H., St. George's
Goodwin, E. K., King's College
*Gover, L. D., St. Thomas's
Grace, G., Bristol
Green, S. F. St. D., St. Bartholomew's
Gregar, C. G., Guy's
Harding, H. W. L., St. Bartholomew's
Hawkins, E. J., St. Bartholomew's
Hayes, G. C., King's College and Melbourne
Henry, E., St. Bartholomew's
Hepton, J. C., Manchester & Glasgow
Heywood, T., St. Mary's
Hicks, T. W., St. Thomas's
Hine, A. E., Charing Cross
Hodgins, W. W., University College
Hollings, E. T., Leeds
Hooper, G. H. J., Charing Cross
Huntley, E., Guy's
Jago, A. F., Guy's
Jeaffreson, G. C., University College
Johnson, L. A., Leeds
Jones, G. D. E., Middlesex
Jones, G. R., Liverpool
Keele, D., University College
Kendall, N. F., St. Bartholomew's
Kendrick, H. H., London
Kingsford, B. H., St. Thomas's
Knightley, W. R., St. Bartholomew's
*Kobla, D. H., Bombay & Middlesex
Leumann, B. H. F., St. Bartholomew's
Levy, A. G., University College
Lewis, F. H., St. Bartholomew's
Lister, T. D., Guy's
Lucas, W. F., Middlesex
MacPhail, J. A., McGill College and London
Marson, F. H., Durham and Birmingham
Maw, H. T., St. Bartholomew's
Meade-King, R. L., St. Bartholomew's
Merewether, A. E., Durham and London
Minton, A. H., King's College
Nankivell, B. W., Middlesex
Newton, I., Charing Cross
*Newton, R. F. H., St. George's
*O'Ferrall, E. F., Charing Cross
Palmer, C. S., St. Bartholomew's
Paterson, H. G., Leeds
Paterson, H. J., St. Bartholomew's
Parry, T. W., Cambridge and St. George's
Perram, E. A., St. Bartholomew's
Planck, C., St. Thomas's
Quennell, A., St. Bartholomew's
Redpath, W., St. Thomas's
Roberts, H. W., St. George's
Roberts, S. J., Guy's
Robinson, F. A., Guy's
Robinson, G. B., London
Robinson, W., Middlesex
Romer, R. L., St. George's
Rooke, E. M., Guy's
Rubra, H. H., Birmingham
Scott, F. G., London
Shillitoe, A. A., St. Bartholomew's
Smith, R., Manchester
Smith, T. R. H., St. Bartholomew's
Stanton, J. W. W., London
Stokes, W., St. Thomas's
Thomas, J. M. M., Bristol
Thorne, A., St. Mary's
Tootal, J. H., St. Bartholomew's
*Turnor, E. W., St. George's
Vincent, T. S., Birmingham
*Walker, E. G. A., St. Bartholomew's
*Walker, H. E., London
Webb, C., St. George's
White, H. G., St. George's
White, W., Middlesex
Wilkes, G. A., Birmingham
Wilkinson, S., Liverpool
Williams, E. M., St. Bartholomew's
Williams, R. H., University College
Wilson, N. O., St. Bartholomew's
Woodcock, A. H., St. Thomas's
*Worrall, C. L., Middlesex.

* Candidates who have not presented themselves under the Regulations of the Examining Board.

University of Durham.

M.D. Gold Medal.—The gold medal for the best essay at the University of Durham examinations during 1891-92 for the M.D. degree has been awarded to Dr. J. F. Johns, of the London Hospital and Durham University College of Medicine.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A meeting of the Committee of the Association of Fellows of the Royal College of Surgeons was held on October 26th at 36, Grosvenor Street, W., Mr. George Pollock, President, in the chair.

The minutes of the last meeting having been read and confirmed, the Honorary Secretary reported that the "reply," which had been revised and passed at the last meeting of the Committee, had been forwarded to the official of the College concerned. It was then unanimously agreed that this "reply" should be entered on the minutes.

A letter was read from the Honorary Secretary of the Members' Association inquiring as to the action, if any, the Association of Fellows intended to take with reference to the meeting on November 3rd, and intimating a desire that the Members' Association should follow the lead of the Fellows' Association instead of taking independent action as heretofore. A prolonged discussion ensued, and it was ultimately agreed to invite the support of the Members' Association to the following resolutions: 1. "That this meeting of Fellows and Members desires to thank the Council of the College for acceding to their wishes in the matters of (*a*) the separate meetings of Fellows and Members, (*b*) the provision of a common room in the College." 2. "That this meeting of the Fellows and Members wishes again to impress upon the Council that it is absolutely essential for the welfare of the College that the Fellows and Members should be consulted before any change is made in the constitution and external relations of the College, and before the College is committed to any extraordinary expenditure on buildings or otherwise." The Honorary Secretary was instructed to forward a copy of these resolutions to the Association of Members. This concluded the business of the meeting, and the Committee adjourned.

INDIA AND THE COLONIES.

Jamaica.

Leprosy.—Dr. Donovan, the medical superintendent of the Leper's Home at Spanish Town, Jamaica, in his annual report just published, makes a strong plea for the isolation of lepers in that colony. He recommends the adoption of the Norwegian system, under which any leper not properly isolated at home can be compelled to enter a hospital. The new law suggested would forbid lepers to engage in the occupation of a baker, barber, butcher, fisherman, teacher, seamstress, tailor, washerwoman, or water carrier, or to have anything to do with the preparation of food or clothing; it would also debar them from travelling in public conveyances and from attending schools, churches, theatres, or markets. Dr. Donovan's researches strongly uphold the theory that leprosy is propagated by contagion. In the course of his report he describes a series of experiments on three patients in advanced stages of the disease (carried out with their consent), with the object of testing Dr. Koch's tuberculin treatment. The result of nine months' experience is negative. During the year Dr. Donovan has had in the home under his care 116 lepers and 24 other patients.

HOSPITAL AND DISPENSARY MANAGEMENT.

Metropolitan Lunatic Asylums.

The third annual report of the Asylums Committee of the London Council and of the Subcommittees of Banstead, Cane Hill, Colney Hatch, Claybury, and Hanwell Asylums appears on the whole to be satisfactory. The total number of deaths from general paralysis was 217. The three most potent causes of insanity—heredity, drink, and previous attacks—had last year the following percentages respectively in the two sexes at Hanwell Asylum: 27 per cent. men and 17 women, 25 and 10, 13 and 18; as against 16 and 11, 31 and 28, 17 and 18 in 1890. As regards the general health in the asylums, the record seems fairly satisfactory. All the asylums were visited by the prevailing epidemic of influenza in the early part of the year.

The total number of lunatics for which the London Council is responsible is 10,508. In view of the facts that as London grows so further provision must be made for its insane poor, and that so many patients have to be drafted into the provinces at the present time because of dearth of accommodation, a fresh asylum is to be built to house 1,000 patients. When Claybury Asylum is completed there will only be a margin of 107 beds, which is not sufficient when the rate of increase of patients is taken into account. There has been an increase of 404 patients since the issue of the Council's report in 1890. At one or two of the asylums there are still too few assistant medical officers for the proper treatment of patients and because scientific inquiry is now expected in a county asylum.

The Lunacy Commissioners desire to see clinical clerks employed in the wards, particularly at Colney Hatch; they also wish that a pathologist of experience should be appointed, who should not reside at the asylum and consequently would not be withdrawn from his fellow scientists. The conduct of the staff of attendants and nurses in all the asylums is spoken well of. At Hanwell the members of the medical staff give instruction to the attendants by means of lectures, and it is hoped in course of time to provide a pathological laboratory and museum for the medical officers. Photography is now employed at the asylums to register the appearance of patients on admission. Employment and recreation receive careful attention in all the asylums. In some there is

a dearth of newspapers and light literature. The After-Care Association still does excellent work in providing homes and procuring work for friendless women patients on discharge, and it is stated that a similar society for the assistance of men is very much needed.

The combined rate of mortality upon the total average number resident appears to be between 9 and 10 per cent. In an appendix attached to the report is a table showing the station or occupation of patients admitted during the year 1891. Labourers seem to be the most numerous patients, of whom 154 were admitted during 1891; those having no occupation produced 54 patients; clerks contributed 49, tinplate workers 30, porters 25, shoemakers 25, and painters 24. The annual cost of maintenance of the asylums is £357,464.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

Metropolitan Counties Branch: Hertfordshire District.—A meeting of the above Branch will take place at the Town Hall, St. Albans, on Friday, November 11th, at 6 P.M., Dr. Pavy, President of the Branch, in the chair. Election of officers for the year. Dr. Seymour Taylor will read a paper on Some of the Commoner Forms of Anæmia. Possibly other business. Members and their friends wishing to stay to dinner afterwards are requested to signify the same, not later than November 7th, to the Honorary Secretary, H. L. Bates, St. Albans.

South-Eastern Branch: West Kent District.—The next meeting of this District will be held at St. Bartholomew's Hospital, Chatham, on Tuesday, November 8th, at 4 P.M. Dr. Franklyn Brown, of Rochester, in the chair. Communications, etc.: To receive Report from Medico-Ethical Committee on the subject of Medical Tariff. Dr. Tannahill: (1) Clinical Notes on Colour Blindness; (2) On Lupus, and its Treatment by Koch's Method. Dr. J. V. Bell: A Case of Abdominal Section for Acute Intestinal Obstruction. Mr. P. Selby: On the Absorption of Pleural Effusion by Salicylate of Soda. Dr. A. Packman: Notes on a Case of Strangulated Inguinal Hernia: Operation with Radical Cure. Mr. T. F. Hugh Smith: Hydrothorax a Sequel of Influenza. The dinner will take place at the Bull Hotel, Rochester, at 6.30 P.M. Charge 6s. 6d., exclusive of wine. Gentlemen who intend to dine are particularly requested to signify their intention to the Chairman, Dr. Franklyn Brown, High Street, Rochester, not later than Monday, November 7th. All members of the South-Eastern Branch are entitled to attend this meeting, and to introduce professional friends.—E. Ground, Deputy Honorary Secretary of the District.

Lancashire and Cheshire Branch.—The autumn meeting of this Branch will be held in the Town Hall, Preston, about the last week in November. Gentlemen wishing to read papers or communications, or show cases, are requested to write to Dr. Glascott, 23, St. John Street, Manchester, as soon as possible.—C. E. Glascott, M.D., Jas. Barr, M.D., Joint Honorary Secretaries.

Perthshire Branch.—The winter meeting of this Branch will be held in the Station Hotel, Perth, on Friday, November 4th, at 4 P.M. Business: Election of office-bearers; report of Council; report of treasurer; report of representative members; fix place of summer meeting; the President's address; exhibition of microscopic slides illustrating recent work in cerebral pathology. A meeting of Council will be held at 3.15 P.M. After the meeting dinner will be served in the hotel, at 3s. 6d. each, in time to permit members leaving for the country by the evening trains.—A. R. Urquhart, Honorary Secretary.

South of Ireland Branch.—The annual meeting of this Branch will be held in the School of Art, Nelson Place, Cork, on Saturday, November 5th, at 4 P.M.—Phillip G. Lee, Honorary Secretary, 25, Patrick's Hill, Cork.

Erratum.—In the report of the meeting of the Dorset and West Hants Branch, in the British Medical Journal of October 22nd, p. 919, line 27, for Dr. Peter James Duncan read Dr. *Percy* James Duncan.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

The quarterly meeting of this District was held at the Royal National Hospital for Consumption, Ventnor, on October 27th, B. Barrow, F.R.C.S., President, in the chair. There was an unusually large attendance of members.

Next Meeting.—It was decided that the January meeting of the District should be held at Sandown.

Communications.—Dr. Williamson read an account of a unique case, with notes of the *post-mortem* examination. The patient had suffered from Uterine Fibroids, Pelvic Sarcoma, and Cystic Disease of Both Ovaries. A brief discussion followed.—Dr. Sinclair Coghill gave an account of the later progress of the cases treated with Tuberculin at the hospital, and presented for examination the patient in whom the disease had been most advanced and extensive at the time of inoculation. One of the ten cases had been lost sight of. Of the remaining nine, only one had manifested a tendency to further decline in health, the others all being in better health than before inoculation. Dr. Robertson mentioned that his own experience had been less favourable, but that recent experiments seemed to warrant a hope that a more reliable, beneficial product of bacillary growth than that of Koch might ultimately be discovered.—Mr. Wood read a short account of the treatment of Ingrowing Toenail by a small silver lever inserted under the edge of the nail, and showed a case of thirty years' standing which had been completely cured by use of the lever for three months. In the discussion which followed, Dr. Buck advocated the plan of cutting a nick one-eighth to one-quarter inch deep in the centre of the free edge of the nail. Mr. Green gave his experience of Martin's method of cutting away granulations and inserting a pledget of wool under the offending edge as very successful. Dr. Pletts advocated very free removal of the granulation tissue along the whole ingrowing edge of the nail. All agreed with Mr. Wood as to the importance of the manner of trimming the nail in preventing recurrence.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The first ordinary meeting of the session was held in the Library of the Medical Institute, Birmingham, on Thursday, October 13th; Dr. Wade in the chair. There were thirty-seven members present.

New Members.—The following were elected members of the Branch: Samuel Greenwood, Lozells, L.R.C.P. and S.Ed., L.S.A.; J. S. Reynolds, Wolverhampton, L.R.C.P. and S.Ed., L.F.P. and S.Glasg.

Congratulations to Sir Walter Foster.—On the motion of Dr. Wade, seconded by Dr. Thursfield, and supported by Dr. Douglas, it was unanimously resolved: "That the hearty congratulations of this Branch be and are hereby tendered to Sir Walter Foster, M.D., M.P., Secretary to the Local Government Board, upon his promotion to ministerial office, so honourable alike to himself and to the profession he worthily represents."

Papers and Cases.—Mr. Barling read a paper on the Treatment of Perforated Gastric Ulcer. In the discussion which followed, Mr. Lloyd, Dr. Deanesly, Mr. May, Dr. Taylor, Dr. Simon, and Dr. Melson took part; and Mr. Barling replied.—Mr. Haslam showed a patient upon whom he had performed Total Extirpation of an Epitheliomatous Penis by Thiersch's Method.—Mr. V. Jackson showed a specimen of Loose Cartilage successfully removed from the knee-joint of a man. It consisted of part of one of the articular cartilages which had been broken off from a bone end during an accidental sprain some few weeks before.—Mr. Barling showed a girl upon whom he had successfully operated for Perforated Gastric Ulcer; and also a patient from whom he had successfully removed Multiple Intralaryngeal Papilloma by the operation of Thyrotomy.

OXFORD AND DISTRICT BRANCH.

A general meeting of this Branch was held on October 28th at the Radcliffe Infirmary, Oxford, Dr. Bywater Ward, President, in the chair. Twenty-six members were present, and Dr. Handfield Jones was present as a visitor.

New Member.—Dr. Gardiner, of Steeple Aston, was elected a member of the Branch.

Communications.—Mr. Bloxsome read a paper on Bacteriology, and showed some beautiful microscopic specimens.—Dr. Brooks showed a specimen of Cirrhotic Liver in a Child.—Dr. Yelf read notes of a case of Pelvic Abscess and Suppurating Fibroid. Dr. Handfield Jones made remarks on the case and on the suppuration of fibroids.—Dr. Collier opened a discussion on Diphtheria and Allied Membranous Inflammations of the Throat. Dr. Pemberton, Mr. Winkfield, Mr. Bloxsome, Dr. Rice, Mr. Cheatle, and Dr. Moore took part in the discussion, which was adjourned.

Glasgow Obstetrical and Gynæcological Society.—Officers for ensuing session:—*Honorary President:* Sir Spencer Wells, Bart. *President:* Robert Pollok, M.B. *Senior Vice-President:* G. A. Turner, M.D. *Junior Vice-President:* Thos. Richmond, L.R.C.P.E. *Treasurer:* Alex. Miller, L.R.C.P.E., etc. *Secretary:* J. Nigel Stark, M.B. *Reporting Secretary:* Robert Jardine, M.D. *Pathologist:* A. Milroy, M.D. *Council:* Robert Kirk, M.D.; H. St. Clair Grey, M.D.; Malcolm Black, M.D.; E. H. L. Oliphant, M.D.; A. Richmond, M.B.; D. N. Knox, M.D.

THE CHOLERA.

THERE is but little to be said of cholera at home during October. Only one imported case has been chronicled, though several suspected vessels have come into one and another port. On October 1st the steamship *Meggie* from Nicolaieff arrived off Queenstown, bound for Cork. She reported two men having been ill with choleraic symptoms during the passage, but all were well on arrival, and later in the day the vessel was allowed to proceed to Cork. On the 3rd the steamship *Ben Alder* arrived off Gravesend from Antwerp, where she had left one case of diarrhœa. During the passage another case of diarrhœa occurred on the 1st, and the vessel was treated as suspected under the cholera regulations. On the 4th the steamship *Grebe* from Hamburg, on being boarded off Gravesend, reported a case of suspicious illness on board; and three days later the steamship *Uranus*, likewise from Hamburg, arrived in the Thames, having left a case of cholera at Cuxhaven, but with all well on board when inspected at Gravesend. An interval of nearly a fortnight elapsed before another infected vessel reached our shores, and then, curiously enough, the remaining three boats arrived on the same day, Tuesday, October 18th. One was the steamship *Tremayne* from Ibrail, a Roumanian port on the Danube, and came into Belfast Lough with a history of one of her crew dead on the 5th after a week's illness, his case being marked by choleraic symptoms. Two other sailors had been ill, but had recovered. The vessel was refused *pratique* at Algiers. The second vessel was the steamship *Ruby* which came from Narva, a Baltic port of Russia on the Gulf of Finland. She landed a cholera patient at Copenhagen on her voyage to London. The third boat was the steamship *Biofra*. She was found at the mouth of the Thames to have a case of illness on board of such a character as to leave but little doubt as to its being cholera. Dr. Collingridge removed the man, who recovered, to the port hospital. He had been living in Hamburg for some time. This is the only fresh importation of the disease during October, and it and the Lambeth case, admitted to St. Thomas's Hospital on October 2nd, and in which, as already stated, the comma bacillus was not found, constitute the total for the month. All the vessels above named were dealt with as occasion demanded in accordance with the cholera orders.—On November 1st a fireman of the steamship *Ossian*, from Odessa, who had suffered from vomiting, diarrhœa, and cramp for four days before arrival, was removed to the Sanitary Hospital at the Port of London, and the ship disinfected.

RUSSIA.

The weekly bulletin ending October 26th shows the enormous number of 1,200 cases of cholera for the seven days in the province of Kieff alone, with 468 deaths, and not one single recovery. For the same short period the other provinces still most affected were: Samara, 827 fresh cases, and 310 deaths; Tamboff, 624 cases, and 265 deaths; Lublin, 411 cases, and 194 death; Saratoff, 305 cases, and 186 deaths.

TURKEY.

Two cases of cholera were admitted on October 27th into the lazaretto at Sinope, Constantinople, the patients had come from Odessa.

GERMANY.

An official announcement declaring Hamburg free from cholera was published on November 1st.

TWENTY-FIRST REPORT OF THE LOCAL GOVERNMENT BOARD.

FOOD ADULTERATION: FAILURE TO ENFORCE PERMISSIVE PROVISIONS.

THE twenty-first report of the Local Government Board, which has just been issued, contains some facts which cannot be too widely known or too often reiterated, as to the insufficiency of the present arrangements for officially detecting and repressing the adulteration of the food, drink, and drugs of the community in this country. The Sale of Food and Drugs Acts, where they have been efficiently enforced, have had a very beneficial influence in diminishing deleterious sophistications, but year after year we are officially reminded that these Acts are, throughout a very large portion of the country, simply a dead letter. In this respect the year 1891 was very little better than its predecessors. We are informed that the Acts are absolutely ignored in one metropolitan district (St. Martin's-in-the-Fields), in four administrative counties (Hertford, West Suffolk, Montgomery, and Radnor), and in twenty-seven boroughs, including many of considerable population, such as Bury, Devonport, Great Grimsby, Great Yarmouth, West Bromwich, Tynemouth, Southport, and Rotherham; whilst in many other populous districts, such as Norwich, Northampton, Plymouth, Preston, Lincoln, Ipswich, Ashton-under-Lyne, Burnley, Worcester, Shrewsbury, and Scarborough, the number of samples analysed was quite insignificant in comparison with the population. It is indeed surprising, as the Board point out, that the local authorities in these and many other cases are content to leave the inhabitants without that protection against fraud by the sale of adulterated food which the exercise of the statutory powers conferred on local authorities would be likely to ensure. This unsatisfactory state of things is very largely due to the fact that the Acts are permissive. The earliest opportunity should therefore be taken of making it the duty of every sanitary authority to enforce the Acts properly by having a reasonable number of samples from time to time collected in their respective districts and submitted for analysis, a penalty for neglect of this duty being at the same time prescribed, as in a case of certain duties under the Public Health (London) Act of 1891.

INADEQUATE FINES.

Unfortunately much harm is done, and energetic local authorities are much discouraged, by the utter inadequacy of the fines usually inflicted by magistrates in cases of gross adulteration proved before them. In the report just issued we find that, out of 2,139 prosecutions, penalties were inflicted in 1,840 cases, whilst in 101 instances the defendants escaped with the payment of costs. An average of the penalties imposed was about £1 11s. 3d. There were only nine cases in which the maximum penalty of £20 was imposed, and in two cases the fine was £15; whilst in 1,242 cases the fine was less than £1. When the consumption of food throughout the country is considered, and the great profits of undetected adulteration are remembered, the unsatisfactory nature of the figures we have quoted is at once apparent. In the metropolis the magistrates some time ago came to an understanding on the matter of fines for adulteration, on the Home Secretary directing their attention to the point, and good results have followed. We would venture to suggest to Mr. Asquith that he should consider whether some official representation of the same kind could not usefully be made as regards the rest of the country.

SEMI-STARVATION ON CONDENSED MILK.

One simple illustration of the importance of this question is afforded by the case of condensed milk. The Local Government Board repeat their previous warning against the use of inferior brands of this article. In several cases the analyses show that inferior sorts are made from skimmed milk, and possess very slight nutritive qualities. The analyst for the Strand district reports that one sample contained only 1.50 per cent. of fat. The original milk from which it had been prepared had, therefore, been deprived of at least 80 per cent. of its fat. For infants it was recommended that the milk should be diluted with from eight to thirteen times its bulk of water. The consequence of feeding a child on such a mixture would be semi-starvation. In another case elsewhere a sample was wanting in at least 90 per cent. of its fat. No doubt plenty of condensed milk is sold which has not been tampered with in this fashion, and it is important that the public should be taught to reject that which has been deprived of nearly all nutritive value. But it is to the local sanitary authorities that the public look for real protection in this matter, and they ought not to look in vain.

THE WRONG BOTTLE.—Another of the familiar mistakes with carbolic acid is reported by the *Chemist and Druggist* at Bush Hill Park, near Enfield. A woman, desiring to give an infant a dose of some innocuous medicine, sent a girl of 11 years of age to get the bottle which contained it from the mantelshelf in her bedroom. In the twilight the child brought a bottle containing carbolic acid lotion, and the woman administered to the infant a teaspoonful of that poison, with fatal results. The bottle which contained the poison was exactly similar in size and shape to that in which the infant's medicine was kept, and the mistake was one which the coroner's jury reasonably regarded as falling short of criminal negligence.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, NOVEMBER 5th, 1892.

THE REPORT OF THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

II.

In our last issue we spoke at some length on the two subjects of greatest interest treated of by the Council of the College of Surgeons in their Report to the annual meeting. There are, however, several other topics in that Report of hardly inferior importance; and to some of these we must briefly allude. One of these is the action of Steele *v.* Savory, but this requires only slight mention at the present time. The action failed, and those who promoted and carried it on, in spite of urgent advice to the contrary, must bear the pecuniary loss, for the College Council were unwilling and possibly, in their position as trustees, unable to forego any part of the legal costs. The penalty of forfeiture of their diplomas which had been technically incurred by the one Fellow and the thirty Members who took part in the action was of course not enforced. It would indeed have been an outrage on justice and common sense if that penalty, which is with difficulty enforced in cases of the grossest dishonesty, had been insisted on as against gentlemen whose course of conduct was perfectly aboveboard and was obviously dictated by no private motives, but only by their views of what was for the interest of the College and the profession. And in quitting this subject we will merely add that we believe, as we have repeatedly urged, the progress of public opinion and proper action in Parliament will in no very long time secure for the Members of the College all the rights and privileges which this action failed to obtain.

Another topic is the last annual meeting of the Fellows and Members. Of course the resolutions carried at that meeting are carefully set forth in this Report. Of course, too, they were carried with very slight dissent, and equally of course they breathe the usual spirit of profound dissatisfaction with the present constitution of the College which is felt and expressed at every gathering of its body corporate. Equally of course, on the other side, is the further statement of the Council that the more important of them were met by a flat refusal, and another, by a statement that the resolution was laid before the Council. This resolution stated that the scheme of the five years' curriculum had "been submitted in print to the Fellows of the Royal College of Physicians without the Fellows of this College having been officially informed of the nature of the scheme," and expressed the regret of the meeting "that on so important a matter the body corporate of this College was not consulted." The consultation desired was, we need hardly say, a real consultation, in which the party consulted should have the power of objecting and making such objections effectual, not the mere mention in a Report of a scheme settled by a superior authority, which the constituency had no power to vary or to affect in any way.

Under the head of "further advantages to Fellows" is given the result of the deliberations of the Committee on that subject, which the Council appointed when the action of Steele *v.* Savory had been settled. The only advantage which, as far as we see, the Fellows have gained is that they may meet separately, but this we hold to be no small advantage, for the relations of the Fellows to the Council is far from satisfactory to a large proportion of the Fellows. The majority of the Council seem, nevertheless, to be of opinion that this proportion is not so large as it looks. An excellent opportunity, therefore, now occurs for testing this matter. If the majority of the Fellows can be shown to be contented with a system which excludes them from any authoritative voice in the management of the College, it would be an important victory for the Council.

The following sentence will, we think, be read with some amusement: "With regard to the second point—namely, a common room for the Fellows—it was found that legally there might be some difficulty in permanently assigning any part of the corporate premises to the exclusive use of any section of the corporation." And so the room is to be used by Members and Fellows alike. The Fellows probably will not grumble, and it is a point gained in principle for the Members as an inseparable part in law and equity of the body corporate, but now denied their equitable rights, privileges, and duties of the College as a corporate body; but we are now accustomed to these mysterious legal difficulties which the Council find in the way of any change, and we should be glad to study the provisions of a law which sets no obstacle in the way of the Council providing separate rooms for themselves, but sternly refuses to allow them to provide one for the Fellows.

Another subject, and one which all Members of the College will regard with much interest, is that of the finances of the College. The rich bequest of Sir Erasmus Wilson and the great success of the Conjoint Scheme have put the College in possession of a large revenue, for the proper expenditure of which the Council are, at any rate indirectly—and should be directly—responsible to the Fellows and Members. The present Report shows nothing very definite on this head. It speaks of an expenditure of £11,209 on the extension of the College premises and of the Examination Hall buildings, and of £2,000 as "extraordinary expenditure on a *conversazione*, on furniture and fittings, and on extensive alterations to the drainage of the College buildings," alterations which must be extensive indeed, as it is announced that a further payment of £1,300 will be found in this year's accounts, besides the £1,150 which figures in those of the past year. But the result of all this expenditure does not yet appear. Those who pass through Lincoln's Inn Fields, and who, like most Members of the College, are more familiar with its outside than its inside, can testify that the exterior of the College, at any rate, has not benefited by the liberality of the Council, one of the handsomest and most dignified buildings in London

having been completely ruined in its fair proportions. We trust the interior has fared better. But it seems to us anomalous and unjust that such large funds—and funds derived in so great proportion from the contributions of the Members—should be administered by persons who acknowledge no sort of responsibility to them.

No doubt part at least of this expenditure is justified by the result. One of the most gratifying and satisfactory pages in the Report is that which deals with the laboratories on the Embankment (page 21), and which states that forty-two applications were received for permission to work in these laboratories, of which thirty were approved. A list of the subjects of investigation is given, comprising some of the most important topics both in pathology and in hygiene, while the names of the authors of papers already published from this source are sufficient proof that this institution is doing good service, and is meeting what was a crying need. All due honour should be given to the united Colleges for this most important public service, and we are the first to desire to make due acknowledgment. So also of the library, of which we have already spoken with the honour and praise which it well deserves.

Another good feature of the present Report is the publication in it of a *précis* of the various lectures given at the College. This will be very useful to future students, who will see from a collection of this and future Reports where to find any particular topic, to which their studies may be directed, handled by men of authority. It would be a convenience, if not beneath the dignity of the College, if the journal or book were referred to in which any of the courses are published *in extenso*. We are glad to see amongst the names of the lecturers that of Jonathan Hutchinson, jun., working on the subject of the pathology of syphilis, which his father has done so much to elucidate.

The appendix contains a statement of the results of the examinations. We have already given expression to the sorrow which all who have had anything to do with these examinations must feel at the great number of rejections which are noted in these tables. The public must of course be protected against the admission of unworthy persons to the diploma both by a high standard of teaching and by a rigorous method of examination; but surely we may look forward in the future to an improvement in these sad records. That in the third or final examination examination 345 candidates out of 833 should be "referred" in surgery, and that the proportion in medicine should be very little lower, is surely not very creditable to the teachers and teaching of the present day and their relation to the examiners and examinations. Many, indeed, of the 314 rejected in medicine must have been the same as many of the 345 rejected in surgery, but many also were different; so that we may infer that more than half the candidates are rejected at the Colleges. And yet the great majority of the students come from London, and are under the tuition of men who make it their business to study the Conjoint examinations, and whose interest it is to send up their students properly prepared, so as to diminish to a minimum the percentage of rejections in their own school. Yet they seem unable to get the students to spend the time and attention necessary for passing what is, after all, no very formidable examination. The truth is that our system of examination has resulted in so large a proportion of rejections that it has ceased to be considered disgraceful, or, indeed, in any way remarkable, to be "plucked"—nay, as we see, it is a misfortune which befalls the actual majority of all students. We have no pretension to point out the true remedy, but surely it is a matter which demands the serious consideration of teachers and examiners. It is one on which we invite further discussion, and any communications which may throw light upon its causes or remedies.

To sum up what we have to say of this Report, we need only express our hope that its careful examination may be found to evidence a spirit of progress in the Council, and our conviction that all such evidence will be welcomed by the Fellows and Members.

THE PHYSIOLOGIST AND THE PRACTITIONER.

Those who object to experiments on living animals, or who depreciate the value of this mode of advancing physiology and pathology, surely forget how much of the every-day knowledge of the physician or surgeon has been gathered by this method. Eliminate from the knowledge of the medical practitioner all the facts thus acquired, and it will be found that the residuum is not so great as many imagine. When he listens to the cardiac sounds, who taught him the order of phenomena in the cardiac cycle? How has he come to know the cause of the first and second sounds? If he puts his finger on the pulse, and forms an opinion as to the state of the arterial tension, does he not fall back on knowledge of the hydrodynamic laws governing the circulation that has been gathered for him by the physiologist? Does not the consideration of a cough involve a knowledge of the innervation of the respiratory organs, and the delicate relations of the respiratory centre to afferent and efferent impulses and the nature of the blood circulating through it? When he is consulted about facial palsy or tic douloureux, or an impediment in deglutition or articulation, have the results of the famous researches of John Reid on the cranial nerves, more especially those on the eighth pair, no place in his mind? Is he not constantly dealing with vasomotor phenomena that have been slowly discovered from the days of Parfour du Petit down to those of Gaskell? Each case of spinal disease suggests means of inference and conclusions derived from the researches of Charles Bell, Brown-Séquard, Marshall Hall, whilst epilepsy or chorea or hemiplegia at once demands knowledge based on the work of Hitzig, Fritsch, Ferrier, and many others who have laboured on cerebral localisation. Most of the drugs the practitioner employs have had light thrown upon their action and uses by experiment. Consider, for example, how closely the use of bromide of potassium in many convulsive diseases is connected with the physiological investigations that have demonstrated its power of depressing the activity of excito-motor cells. So many similar examples come to the mind, not to speak of the marvellous results of bacteriological science, as to cause one to wonder that even one member of the medical profession should forget his indebtedness to experimental physiology. One can understand the extreme position taken by some that they would rather die than derive any benefit from knowledge gained by experiments on animals. It is a mistaken and absurd position, but it is logical, and presumably courageous. But we confess we do not understand the moral position of

one who objects to experiments on animals, and who yet, every day of his life, must needs make use of knowledge that has been thus acquired. Even less can we understand or sympathise with a few who, like the late Harveian orator, depreciate, or seem to depreciate, the experimental method in medicine. They ought to know better, and yet, by their negative attitude, they play into the hands of some of the opponents of medical science, who at least can plead the excuse of ignorance. Dr. McKendrick puts the argument of this paragraph in a striking way in the following words which we quote from his lectures at the Royal Institution: "We have hitherto studied muscular movements caused either by a direct electrical stimulus or by the action of a nerve. There are, however, rhythmic movements of muscular substance. You see here a frog's heart attached to an apparatus by which it can be fed with blood, and you see it beating with great regularity. The heart is caused to work a little manometer, and on the mercury in one limb of the manometer I have placed a little glass rod bearing a flag, so that you may see the flag moving up and down with each beat of the heart. In this way a heart can be kept alive for hours, and we can estimate the amount of work it is able to perform. This also illustrates a method by which physiologists can examine the influence of substances on the heart. Thus we might feed the heart with blood free from any poison and note how it worked. Then we might feed it from this other tube with blood containing a small percentage of the substance to be examined and again note the effect. By comparative experiments of this kind we can get valuable information of great use to the physician, and it is satisfactory to know that information thus obtained from experiments on the frog's heart has been found to agree with that got by experimenting on the hearts of warm-blooded animals. This is another example of how valuable to humanity the frog has been in the way of giving scientific information. It is not too much to say that each time your physician sees you when you are ill, he brings to the study of your case knowledge that has been gathered for him by the physiologist from the frog. As we are in the habit of commemorating by monuments the services of those who have been benefactors to humanity, I know no animal, no tiger, lion, or panther, that better deserves a bronze statue than the humble frog. Such a statue in Trafalgar Square or on the Thames Embankment would not inappropriately mark our appreciation of the services he has involuntarily rendered to humanity."

CLINICAL FEDERATION OF HOSPITALS.

We published last week the outlines of a proposal made by Mr. Erichsen for perfecting and extending the arrangements for clinical instruction in London. He proposes that all the hospitals of a certain standing in London should be federated for the purpose of affording special facilities to students who, after obtaining a registrable qualification, propose to obtain the M.D. degree of the new University. To do this he assumes that they will be required to spend two years in London, devoting their time to obtaining proficiency in clinical medicine, and the practical subjects connected with it, including practical study and work in the laboratories of physiology, pathology, bacteriology, hygiene, and forensic medicine.

The object of Mr. Erichsen is one with which we have much sympathy. We fear, however, that were the above scheme submitted to the hospitals and medical schools many objections would be raised to it. There are certain incidental points which make us doubt whether we quite understand Mr. Erichsen's views of the new University. In the first place, Mr. Erichsen apparently believes that under the five years' curriculum men will not be able to obtain their licence to practise until they are 22 years of age. But the London University M.B., which has always required five years of training, is attainable by 21, the matriculation being passed at 16. Then he speaks of the interval between the ordinary "pass" and the ultimate M.D. examination; and elsewhere we find that before any man can become free of the practice and teaching of the federated hospitals he must possess a registrable qualification. Are the "ordinary pass" and the "registrable qualification" the same thing, and is the University to give its M.D. degree to Licentiates of one or other of the Conjoint Boards upon an examination, largely practical, after two years' further study in London? If this is Mr. Erichsen's meaning, there is, we understand, very little chance of the constitution of a new University which would accept the training and examinations in Arts and Science for the diploma of a Conjoint Board as qualifying for its degree.

But points of this kind, bearing upon the nature of the new University, have no essential connection with the scheme for federating the hospitals of the constituent medical colleges for the purposes of advanced clinical teaching, which it is the object of this pamphlet to develop. Perhaps the strongest and most widely urged objection against the proposed Gresham charter was that it "did nothing for education," that it provided no new opportunities, but merely federated certain existing colleges and schools and empowered them to give degrees; that there was no provision for higher or post-graduate teaching or for the encouragement of research; that there were to be no university professors; that no university laboratories were contemplated, and even the lecturers which the University had the power to appoint were to have no status as compared with that of the teachers in the colleges.

The proposed Gresham charter, in its old form, and its supporters are now hard pressed, and doubtless the old arguments are being pushed home. It may be that Mr. Erichsen's scheme is an attempt to show that the Gresham charter might be altered to meet some of the above objections. Evidently Mr. Erichsen feels that there would be some difficulty, for he makes it essential that to be admitted to the new University a medical school shall join the "federation of hospitals for advanced clinical teaching." Having established this Federation, Mr. Erichsen supposes that men who have obtained a registrable qualification here or in the provinces (Ireland?) should obtain a circular ticket from the University, which would admit them to the wards and laboratories of any of the federated general hospitals. This ticket would cost £1 1s. to a London student; but a provincial student would have to pay a higher fee, to be determined by the Council of the University, or would have to become a London student by "joining" (expense?) a London school, after which he would have to pay the University only the guinea fee—two very different arrangements, and likely to be viewed with very different feelings by the Council of the University and the committees of the medical schools. The student thus emancipated from his own school

will go to study wherever the fame of the teachers is highest and the equipment of the laboratories is most complete.

It may be, and in fact is, asked whether the teaching staffs are to be expected to give this two years' instruction for nothing. Possibly there might be little difficulty in making adequate arrangements for clinical instruction, but laboratory instruction is a very different matter. Laboratory accommodation in each school is limited, and its amount has been adjusted to meet the probable requirements for its own students. Special laboratory provision would therefore have to be made for the federation students. We fear, however, that funds for the creation of university laboratories and university chairs will not be immediately forthcoming.

Dr. Sheard, of Toronto, has been appointed President of the Canadian Medical Association for the ensuing year; and Dr. Birkett, of Montreal, General Secretary.

The Municipal Council of Havre has decided to perpetuate the memory of Dr. Piasecki of that city, who fell a victim to professional duty during the cholera epidemic, by giving his name to a street.

The first recorded case of successful ovariotomy has occurred recently in Gibraltar at the Colonial Hospital. It was under the care of Mr. J. Errington Ker, and was one of double ovarian cyst, which weighed 32 lbs.

We are authorised to state that the Reuter's telegram from Hamburg, widely published in this country, announcing that Sir Andrew Clark had recommended a proprietary medicine known as "periodate crystals" (and alleged in that telegram to be useful in cholera), is contrary to the fact.

The Royal Commission on Vaccination held a meeting on November 2nd, Sir James Paget presiding. The Commission is now receiving mixed opinions as to the dangers and utility of vaccination. Dr. J. C. M'Vail, of Glasgow, was examined, and he gave evidence in favour of vaccination.

SCARLET FEVER AND BOOKS.

At a recent meeting of the Stafford Sanitary Authority, scarlet fever was reported to be prevalent in the neighbourhood of Colwich and Tixall, and a discretionary power was given to the medical officer of health for the destruction of the old books in Tixall School, which were believed to harbour the infection.

DEATHS UNDER CHLOROFORM.

Mr. Reynell-Bellamy, Senior House Surgeon to the Stockport Infirmary, has forwarded us the following account of a recent case of death under chloroform in that institution. The patient was admitted into the infirmary suffering from carcinoma of the rectum. He was an old man, aged 63, and much emaciated; and though the heart was rather weak, still there was no valvular disease. Both the patient and his friends were very anxious that an operation should be performed. Lumbar colotomy was proposed. The chloroform used in this case was Duncan and Flockhart's. The patient had been inhaling the chloroform for ten minutes when his breathing suddenly became very shallow, and pulse hardly perceptible. The administration of the anæsthetic was at once stopped, and artificial respiration commenced; ether was injected hypodermically, the head was lowered, the legs lifted up, and nitrite of amyl held before the nose. All, however, proved to be of no avail, though artificial respiration was kept up for half an hour. Very few deaths under anæsthetics have occurred in the Stockport Infirmary. In a previous case which happened two years ago, the anæsthetic employed was ether, and the operation was also for carcinoma of the rectum. In neither case had the operation been commenced.—Patrick Daly, aged 24, a harnessmaker, recently at Belfast was pulled between the platform and the train, and sustained a compound fracture of the elbow-joint. Amputation being found necessary, chloroform was administered, but the man is reported to have died while under the influence of the anæsthetic, we believe, in a Dublin hospital.

CORONERS' INQUESTS.

We have authority to state that the London County Council are now prepared to sanction the payment of medical officers of workhouse infirmaries for evidence given at the coroner's court and for making *post-mortem* examinations. This decision has been arrived at upon the opinion of Mr. Poland, Q.C., who has recently been consulted on the matter. It does not necessarily follow that other county councils will take the same view, as coroners generally hitherto have been guided by the case of Don Baraud *v.* Morrison, which was heard before His Honour Judge Lushington at the Croydon County Court in 1885, and decided adversely to the interests of infirmary medical officers. It is to be hoped that Mr. Poland's opinion will, however, guide coroners and county councils generally so that they may come to the same decision as that arrived at by the London County Council.

THE INTERNATIONAL MEDICAL CONGRESS AT ROME, 1893.

A meeting was held on October 27th at the University of Rome of the Committee of the International Medical Congress that is to assemble in Rome next year. Professor Baccelli presided, and he stated that the King had promised to open the Congress in person. Upon the motion of Professor Foà, it was proposed and carried unanimously that the King should be prayed to accede to the wish of the Committee and be the Honorary President of the Congress. The Secretary of the Committee, Dr. Maragliano, after speaking of the organising and financial arrangements made, stated that, agreeably to the request of American medical men, the date of the inauguration of the Congress had been fixed for September 24th, to be closed on October 1st. The Congress will hold its sittings at the new Policlinic Hospital, outside the Porta Pia. Preliminary steps are being taken for the formation of a metropolitan committee in London, under the chairmanship of Sir James Paget.

TOBACCO, SUGAR, AND TEA.

The late Dr. W. F. Cumming, Kinellan, Murray Field, has bequeathed to the managers of the Edinburgh Royal Infirmary the sum of £600 (payable on November 11th), but only on the condition of their undertaking to invest the same, and apply the annual income thereof in the purchase of snuff and tobacco for the use of such poor patients, male and female, as may be admitted into the infirmary on account of fractures, dislocations, scalds, ulcers, and other chronic maladies, and who have been addicted to the use of tobacco in any shape, and are known to be in distress from the want of it; or the managers may use such part of the income as they may think right from time to time in the purchase of tea and sugar for the use of such of those patients as may prefer tea and sugar to snuff and tobacco. Dr. Cumming gives his reasons for this unusual bequest in these terms: "In my youth I was a dresser in the infirmary of Edinburgh, and often had occasion to witness—and always the desire to relieve—the distress arising from inability on the part of the poorer patients to provide themselves with a long accustomed gratification; and having been for more than twenty years of my life a slave to the use of tobacco, I know how to feel for the suffering of those who, in addition to the irksomeness of pain and the tedium of confinement, have to endure the privation of what long habit had rendered in a great degree a necessary of life. To some the bequest will

appear whimsical and eccentric. No votary of tobacco will be of this opinion. I have no wish to teach bad habits, but it is my desire that the bequest be strictly carried into effect."

THE MURREE EPIDEMIC.

OWING to the severe outbreak of cholera in Murree, Punjab, India, this summer, to which we have already referred, the Government of India have ordered a thorough investigation to be made as to its origin. A full report of the passage of the Kashmir reliefs through the Rawal Pindi and Murree districts is to be made. The water supply of Murree is extremely bad, and it is a subject of much comment that the Indian Government spend lakhs of rupees on small expeditions like the Black Mountain, and yet can find neither money nor men to carry out the new water supply for Murree, although it was agreed that it should be executed four years ago. A good water supply at this station is most essential, as it is one of the most important to the health and life of the whole province that can be imagined, for not only the troops, but officers and their wives, go from all parts of the Punjab to Murree. Eighteen seizures and fifteen deaths occurred amongst Europeans. It is suggested that the Lieutenant-Governor of the Punjab should go to Murree every year, as was formerly the custom. The old Government House has been changed into a hotel, but there is, doubtless, another suitable house that could be used.

EPIDEMIC AT THE SCHOOL FOR SOLDIERS DAUGHTERS: A QUESTION OF RESPONSIBILITY.

WE regret to learn that a very serious outbreak of typhoid fever has occurred in the Drummond School for the Daughters of Soldiers. The institution is situated about four miles from Dublin, and contains fifty girls. A few weeks ago one child became ill, and recovered, but soon afterwards several others were attacked, and the number steadily increased to sixteen. Of these, unhappily four had died at the date of our report. The school was inspected by Sir Charles Cameron, who traced the infection to a latrine. All the patients have been removed to hospital, and the school has been entirely closed, the pupils being sent to a house taken for the purpose. Such deaths should, in our opinion, constitute a ground for coroner's inquest, with a view to determine the responsibility for what are preventable deaths, often due to culpable neglect.

"BLACK DEATH" FOLLOWING CHOLERA: ENORMOUS MORTALITY.

AN official report of the Governor-General of Turkestan, which has recently been published in St. Petersburg, states that that province has been severely visited by an epidemic of "black death," which followed on the footsteps of cholera. On September 10th (22nd) it appeared suddenly at Askabad, and in six days killed 1,303 persons in a population of 30,000. "Black Death" has long been known in Western Asia as a scourge more deadly than cholera or the plague. It comes suddenly, sweeping over a whole district like a pestilential simoom, striking down animals as well as men, and vanishes as suddenly as it came, before there is time to ascertain its nature or its mode of diffusion. The visit here referred to was no exception to this rule. After raging in Askabad for six days, the epidemic ceased, leaving no trace of its presence but the corpses of its victims. These putrefied so rapidly that no proper *post-mortem* examination could be made. The Governor-General gives some details as to the symptoms and course of the disease, which, though interesting as far as they go, do not throw much light on its pathology. The attack begins with rigors of intense severity, the patient shivering literally from head to foot; the rigors occur every five minutes for about an hour. Next an unendurable feeling of heat is complained of; the arteries become tense and the pulse more and more rapid, while the temperature steadily rises. Unfortunately no thermometric readings or other precise data are given. Neither diarrhœa nor vomiting has been observed. Convulsions alternate with syncopal attacks, and the patients suffer intense pain. Suddenly the extremities become stiff and cold, and in from ten to twenty minutes the patient sinks into a comatose condition, which speedily ends in death. Immediately after he has ceased to breathe large black bullæ form on the body, and quickly spread over its surface. Decomposition takes place in a few minutes.

DRINKING WATER ON BOARD SHIP.

THE foulness of drinking water on board ship is an undoubted source of danger and disease, and often a cause of local epidemics. The primary desideratum is to obtain water from an unquestionable source; the next is that it should not suffer contamination in its passage to the ship; and the third, that it should not be polluted in its storage on board. To fulfil this latter condition the necessity of a periodical and thorough cleansing of casks and cisterns is clearly indicated. Unfortunately, it is often difficult to fall in with a pure water source on shore, especially in warm climates; and in sailing ships without the means of condensing it is frequently necessary to be satisfied with what can be got and trust to filtration for drinking purposes, if the captain is provident enough to rate a good filter for the ship's company as well as for himself. It is possible for cholera or typhoid fever to attend the use of water from a particular tank in a ship, while nothing wrong is traceable in relation to the others. The use of condensed water, where it can be produced, has often been proved to be preferable to to the ordinary supply obtainable in even civilised ports abroad. We know the one to be quite safe, but we cannot be sure of the other. It must, however, be noted that the sea water used for distillation should be free from harbour contamination. In some parts of Malta harbour, for example, to use a nautical simile, the water is "as thick as pea soup," and condensing from it has been attended with evil results. Notwithstanding the vaunted purity of all water produced in this way, unwholesome products may and do pass over in the distillation of close harbour water. In the port of London it is, as a rule, delivered on board by a hose direct from the mains, but ships lying in the river, and in some of the docks, have to obtain it from barges. The wooden barges formerly used have now been replaced almost entirely by iron barges, which are more easily kept clean and are less liable to leakage.

THE PRACTICE OF MIDWIVES.

PROOFS are constantly recurring of the necessity for regulating the practice of midwives by legislative enactment. Three cases have recently occurred which show how reckless and ignorant some of these women are. Dr. F. H. Alderson, who objected to many points in the Midwives Bill as amended by the Parliamentary Bills Committee, has published a pamphlet on the "Danger of the Non-regulation of the Practice of Midwives," in which he relates the case of a woman who died after her confinement owing to what he believed to be the gross, if not culpable, neglect of the midwife. It is satisfactory to see that he holds and advocates that midwives "should be so educated that they might be able at least to recognise serious and grave symptoms, so as to obtain timely and efficient medical aid for their patients." At Douglas Ann Kelly, a midwife, was fined for spreading puerperal fever by attending women directly after she had lost a case from that disease, although she had been warned to desist by Dr. Friend. Another trial has taken place at Whiteinch, at which the midwife was accused of giving a poisonous dose of ergot. She acknowledged that the patient showed symptoms of premature labour, and that she administered half a teaspoonful of ergot of rye. It

is granted by all but an infinitesimal minority that midwives must continue to exist. At present they may, in this country alone, practise as they please. They may use instruments and give drugs, and cannot be punished for doing so unless someone goes to the trouble and expense of proving them guilty of malpraxis. The Midwives Bill, although capable of great improvement, did limit the action of midwives, and provided for their punishment in case they exceeded the prescribed limits. It is to be hoped the Select Committee will be reappointed, and that, after further evidence, conflicting interests may be reconciled and some legislative enactment passed so to regulate the practice of midwives as to prevent the present frequent exhibitions of ignorance and want of skill.

EARLY MARRIAGES AND INFANT MORTALITY.

Dr. Ogle, who gave evidence before the Labour Commission on early marriages and mortality among the labouring classes, stated that early marriages meant early families. This was somewhat tempered by the enormous mortality amongst the children of the working classes. To show the relation between the alcoholic habits of the parents and the mortality of the children (knowing that about 2,000 children died from suffocation in bed every year), he had taken the trouble to examine the details of this mortality, and found that three times as many children died from suffocation in bed on Saturday nights as died in that way on any other night in the week. Of the children who died in convulsions, or from unknown causes with sufficient suddenness to form the subject of coroners' inquests, from two to three times as many died on Saturday night as on any other night. At the age of 20 the chances of a man belonging to the poorer classes living five, ten, or fifteen years were exactly the same as in the case of a man belonging to the richer classes. But after that the toil and work began to tell upon the artisan, and the chances of his surviving more than fifteen years were less than among the wealthier classes. Dr. Ogle handed in a number of tables of mortality relating to different occupations, from which it appeared that clergymen had the lowest mortality of all, whilst innkeepers, earthenware makers, file makers, glaziers, cutlers and scissors makers, Cornish miners, and firemen were among those who had the highest mortality.

PHILANTHROPIC DEADHEADS.

A very vigorous and newly-launched contemporary takes up the parable against the considerable number of wealthy and prominent persons who "encourage" sanitary reform by "giving their names" to be mentioned with much honour in official positions, but leave it to smaller folk to contribute all the funds (as well as the work). It takes as an example of this common form of cheap self-glorification the list of the Mansion House Council on the Dwellings of the Poor, to which the almost unknown Mr. Berridge has bequeathed £5,000. It finds on the list of the Executive and Sanitary Committee, among others, the Lord Mayor, Sir Julian Goldsmid, Sir A. Borthwick, Sir H. S. King, M.P., Sir H. Cunninghame, Earl Compton, and others, but it looks in vain for their names in the list of subscriptions and donations. We have not verified the statement, and do not vouch for its accuracy; but we have before us a great number of other institutions and charities, in which gilded names are set out in profusion in places of honour, much to their glorification, but in which no contribution is set down to their credit. They would, no doubt, often plead that this was an understood condition on which they "allowed their names to be used." We doubt whether it is a very satisfactory plea. A correspondent recently wrote to us to call attention to the fact that the name of one very active and philanthropic lady of title appeared as patroness, vice-president, member of council, or president of upwards of forty institutions and social propaganda, to only a very small proportion of which did she contribute anything more than "her name." The managers of institutions appear, however, often to think that "title" as well as "time" is money, and that the public must be dazzled by "graces" and "countesses," M.P.'s, and bankers. It is not a very solid, honest, or satisfactory state of things. Among other things it weakens the sense of responsibility. People are often so willing to give what costs them nothing, especially when it brings them some pleasing notoriety and flatters their vanity. It is the one result of the facility with which "leading people" lend their names, as it is called, to anything describing itself as a charity, that long strings of the most exalted and prominent names may often be found heading the list of patrons and vice-presidents of the most worthless medical charities, so-called, mere little dispensing shops for the personal purposes of specialists out of luck or of indifferent professional repute. The smaller the claims of such establishments to public support the more zealously they seek the countenance of the peerage and baronetage, and the more zealously do they hunt the philanthropic personage, the fashionable beauty, and the popular actor. The famous saying of Mr. Gathorne Hardy when he first consented to the principle of common rating for London for the purposes of the sick poor, and to the establishment of the Metropolitan Asylums Board at the instance of Dr. Rogers, Dr. Anstie, and Mr. Ernest Hart (backed by an indignant public opinion in 1866) was that "sickness cannot be jobbed." It has since been constantly repeated and misused. The provision for sickness can be and is very much and very often jobbed. In the present day such an abuse has risen to a great height and urgently needs checking. One great addition to the facilities for such abuse is found in the readiness of noble and influential philanthropists and pseudo-philanthropists to lend their names to institutions as to the working and use of which they have not adequately inquired at trustworthy source, and in which they do not feel sufficiently interested to give their money.

A SILENT REVOLUTION.

An almost silent revolution, deeply affecting the public welfare, is going on in the long prevalent practice of the open sale of proprietary, or, as they are falsely called, patent medicines, containing poison, without their being labelled poison, or without the provision of the law in respect to the sale of poison being complied with. There is undoubtedly a great deal in a name. To call a secret nostrum a patent medicine is like calling a jay, a peacock; it is and always has been a complete misnomer—*lucus a non lucendo*. The whole class of pills, potions, liniments, and lozenges thus cleverly miscalled were and are not either in fact or in law patent; their composition is not specified—nay, their very existence, and the profits derived from them, commonly depend upon their ingredients, and the proportions of such ingredients, being kept secret; thus facilitating mystery and affording the opportunity to the proprietors of pushing the sale of them by whatever flowery statements and promises seem good to them. Needless to say that free and lucrative use has been made of the opportunity for imaginative magnificence in promises based upon the mysterious properties of the unknown ingredients of medicines clothed with the borrowed garb of non-existent patents. In the report on twenty-one of these improperly called "patent medicines" laid before the Treasury on November 28th, 1891, by Mr. Ernest Hart, as Chairman of the Parliamentary Bills Committee of the British Medical Association, it was pointed out that not only were these medicines in no way patent or protected, but that a considerable number of them contained poisons such as opium, belladonna, strychnine, etc., and that, in virtue of the false assumption as to the word patent, they were being sold without note or warning by unlicensed persons, without a label poison, and in open and direct contravention of the provisions laid down for the safety of the public under the Pharmacy Act. The Public Prosecutor, to whom great thanks are due, took vigorous action as soon as he had independently satisfied himself

of the accuracy of the facts stated, and the result of subsequent communications thereon by Mr. Ernest Hart to the Chairman of the Council of the Pharmaceutical Society, has been that the Council of that Society have been induced to put in force the long dormant and neglected powers which the law gives them, and that they are now carrying out the duty which it imposes on them of preventing the sale of such poisons in secret (miscalled patent) medicines, except with the legal safeguards of being duly labelled poison, and sold under the restrictions therein involved. We published the latest of these communications not long ago, from which it appears that the proprietors of various sleep-compelling, soothing, calming, anodyne, and balsamic preparations descend to the ground of legality directly the legal gun is pointed at them. They are however apparently anxious to do so without publicity, and avail themselves of the privilege which the indulgent law allows to unresisting and presumably penitent offenders willing to purge themselves of their offence by the silent handing over of a money penalty. The numerous recent prosecutions by the Society of persons offending by the illegal sale of proprietary medicines containing poison have been met by the prompt payment of fines. In such cases the facts are not reported; the law is vindicated, and the little money transaction passes without public notice. We are not quite satisfied that this is in accordance with public policy. The publicity thus avoided is valuable as a warning to the unwary devotees of these nostrums. The revolution which is in progress is silent; it will be necessary in the public interest that it be continuous and complete; and that individual submissions are the evidence of a general obedience of the law, so that secret medicines containing poison—a very numerous class—and peculiarly dangerous to infant life, shall no longer be, as they have been in so many instances for a long series of years, sold without warning that they contain poison, and under advertisements which might easily lead to quite the opposite conclusion.

THE MEAT OF TUBERCULOUS CATTLE.

The report of the Veterinary Department of the Board of Agriculture for 1891 (which is only now published) contains some interesting matter relating to this subject. The experiments of several local authorities with the meat and milk of tuberculous cattle, begun in 1890, were continued in 1891, but they were not sufficiently numerous to give confidence to the conclusions suggested by their results. In the first series of experiments some rabbits and guinea-pigs were fed on raw meat from the carcasses of tuberculous cattle, care being taken to ascertain that it did not contain tubercle bacilli, the infectivity of actual tubercle having been previously established. The meat was taken without any greater precautions than a butcher would use. Of thirteen animals fed on this meat, ten proved afterwards to be infected with tubercle. The experiment was repeated with nine guinea-pigs, all of which contracted the disease. These results are very serious, as they point to the danger of eating apparently sound meat taken from the carcasses of cattle which have tubercle in some of their organs. Worse still, further experiments showed that tuberculous meat cooked in the ordinary way infected animals fed upon it, although no infection took place when other animals were fed on similar meat cut into thin slices and thoroughly cooked. Professor Brown, the writer of the report, said that such cooking could not be applied to joints of meat without entirely destroying its flavour. It is partially reassuring to learn that the use of milk from tuberculous cows gave negative results, as was also the case in 1890, but the trials with meat tend to show the great desirability of doing all that can be done to get rid of a disease so dangerous to consumers.

PATHOLOGICAL DISPLAYS.

The annual exhibitions of specimens added to the Pathological Museum of St. Bartholomew's Hospital, which has been open for inspection during the past fortnight, is of considerable interest and reflects great credit upon the curator of the museum, Mr. Edgar Willett, and his assistant. The collection includes more than 100 spirit preparations and a large number of casts, models, drawings, and microscopic sections. To the description of each specimen a short account of the clinical features of the case from which it was derived is added together with a reference to the ward or *post-mortem* registers in which the case is more fully reported. In accordance with the plan adopted at other large museums these descriptions are inserted in interleaved volumes of the pathological catalogue, which is thus always kept up to date. Among those illustrating diseases of bone there is one specimen which is of historical as well as scientific interest—a coronal section of a femur showing a large sequestrum in the great trochanter and old disease in the neck of the bone. It was removed from a patient, aged 50, who 40 years previously had been under the care of Sir William Lawrence for disease of that hip-joint. Attention may also be drawn to a unique preparation of fusiform aneurysm affecting a persistent right aortic arch, a spontaneously cured aneurysm of the abdominal aorta, a large congenital cyst occuping the anterior part of the tongue of a child, aged 3, the origin of which is not manifest; two portions of intestine in which, as the result of a severe injury, the peritoneal and muscular coats have been torn, exposing a loop of unruptured mucous membrane; and a preparation illustrating the remote effects of renal calculus in which ulceration into the large intestine and into the lower lobe of the lung had occurred, so that there was a direct communication from the pulmonary abscess through the diaphragm and kidney into the descending colon. A novel surgical procedure is represented by an œsophageal diverticulum, which was successfully removed by operation. One specimen, described as a sarcoma of the peroneal nerve, appears to have originated in the substance of the adjacent muscles and to have invaded the nerve secondarily. The casts of deformities of the limbs are instructive, but the papier-maché mouldings included in this series, which presumably have been painted *ad naturam*, are not successful. The corresponding exhibition at Guy's Hospital, though much smaller, is by no means devoid of interest. The specimens are chiefly illustrative of diseases affecting the intestinal tract, and many of them have been selected with the view of making that section of the pathological museum fully representative. The descriptions of these preparations will be embodied in a new edition of the pathological catalogue which is in course of preparation. The abstracts of the clinical reports appended to these descriptions are models of lucidity, and materially enhance the value of the catalogue for teaching purposes.

SCOTLAND.

Dr. Cumming has bequeathed £100 to the Royal Edinburgh Hospital for Sick Children.

Dr. Samson Gemmell has been appointed physician to the Western Infirmary, Glasgow.

Dr. Edwin Fry, of Travancore, has been appointed to succeed his father-in-law, the late Dr. Lowe, as Superintendent of the Edinburgh Medical Mission and Livingstone Memorial.

Dr. David N. Knox succeeds Dr. Macewen as Professor of Clinical Surgery in St. Mungo's College, Glasgow; and Dr. Knox, who was Professor of Systematic Surgery, is succeeded by Dr. Henry E. Clark, who was Professor of Anatomy.

OUTBREAK OF TYPHUS AT LEITH.

Last week some seven or eight new cases of typhus fever are known to have occurred in Leith in addition to those already existing. Most of these were in one of the poorest and most

crowded parts of the town. How many more cases of this malady exist it is impossible to say, since no rational system of notification exists. It is stated that the infectious hospital is overflowing, that temporary premises are full, and that there are "scores of cases in private houses, not notified and quite unknown to the authorities or the public." The Scotch Board of Supervision has written to the town clerk enclosing a communication sent to that board by the Sanitary Association of Scotland. It is understood that this Association urges that the appointment of sanitary officer recently made was not thrown open to public competition, that the person appointed has had no proper training for the office, that his fitness must only come by experience yet to get, and therefore they request the board to consider the matter, and to take such action as they judge competent. The board ask the local authority whether they admit the correctness of the allegations, and whether they have any observations to make on the subject.

THE LATE DEPUTY-SURGEON-GENERAL FASSON.

At their last meeting the managers of the Edinburgh Royal Infirmary approved of a minute relative to the services as Superintendent of Deputy-Surgeon-General Fasson. The minute recorded the managers' sense of the great loss sustained by the infirmary, and mentioned that during his term of office he had had to superintend the transference of the infirmary to its new buildings, had contributed to the arrangement by which the fever wards were transferred to the city authorities, and had witnessed the entire reconstruction of the nursing department—a work in which he took a profound interest.

IRELAND.

Dr. Dill, Professor of Midwifery in Queen's College, Belfast, being unable to undertake his duties at present, owing to illness, the President and Council of the College have appointed Dr. Byers as *locum tenens*.

CHANGES IN THE CURRICULUM.

The distribution of prizes to the pupils attending the School of the College of Surgeons took place on November 1st. The President (Mr. Edward Hamilton) took occasion to refer to the proposal recently made to transfer from the professors in Dublin the teaching of medicine and surgery. The all-important question was this, Would it be for the benefit of the hospitals themselves? He thought it would not be for the benefit of the hospitals. When they entered a hospital they entered on a solemn duty, which they should discharge with all their energy and all their mind, and it was not easy for a man to discharge that duty if he were thinking of the elementary lecture he was about to deliver. Everyone who had witnessed the progress of medical education must be startled with the ceaseless change in the curriculum. The changes had recently culminated in an edict of the General Medical Council that a fifth year should be added to medical study. He proclaimed his opinion that this was a great mistake. He wished the Council had rather turned their attention to a really weak link in the system—preliminary education. He felt satisfied that the boy who had been thoroughly trained would grasp more of his medical studies in four years than he would under the present system in six years. What was wanted was a good boarding school where boys, on moderate terms, could have a training which would fit them for entering schools of surgery and medicine.

PRESENTATION TO THE ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

Dr. Samuel Gordon, of Dublin, has presented the Royal College of Physicians of Ireland with a half-length portrait of its founder, John Stearne, M.D., S.F.T.C.D. The picture, which is copied by the courtesy of the Provost from that in the possession of the University of Dublin, represents the sitter in the scarlet gown of a doctor, and in a voluminous wig of the period of Queen Anne.

CORK POOR LAW MEDICAL OFFICERS' ASSOCIATION.

The first annual meeting of this Association was held in Cork on October 14th, Dr. D. B. O'Flynn in the chair. The report stated that the Association had been formed to act independently of the Irish Medical Association, but in support of the common cause of redress of grievances. They had determined to push forward amendments to the present Medical Act, which had been in operation for forty years. The financial statement showed a balance of £14 18s. 10d. in hand. The report was adopted. Dr. Flynn and Dr. Curran were appointed delegates to the Dublin Conference. The following officers were appointed:—Chairman, Dr. Flynn; Vice-Chairman, Dr. Sandiford; Secretary, Dr. Keating; Treasurer, Dr. Crowley. The proceedings ended with a vote of thanks to the chairman.

ROYAL HOSPITAL, BELFAST: OPENING OF THE SESSION.

The session was opened on November 1st, when the inaugural address was delivered in the theatre to a very large assemblage of students by Dr. Nelson, ophthalmic surgeon to the hospital. The lecturer impressed upon his hearers that a practical knowledge of medicine and surgery was not to be gained from books or from college lectures, but only by actual observation at the bedside. The time spent in hospital would be the most fruitful in results during their after-life. In examinations they were asked to describe certain diseases, which might be done from textbooks and from memory; but in actual practice what was required was the capacity quickly and accurately to recognise the significance of a certain group of symptoms, and this could only be acquired by personal experience. Diagnosis was vitally important, as without it they could not safely move an inch in the matter of treatment, whereas once a correct diagnosis was established the principles of treatment followed naturally and obviously. He found students much too prone to give special interest and time to very rare cases, while neglecting the common cases, which would really form the bulk of their work in future practice. As illustrating the necessity for precision in diagnosis, the lecturer took the subject of conjunctivitis, pointing out that this general term conveyed hardly any practical information, whereas the distinction between simple, purulent, and lymphatic conjunctivitis at once suggested the most radical differences regarding both local and constitutional medication. Patients suffering from the various types of conjunctivitis were exhibited. The address was listened to with much attention and frequently applauded.

CORK HOSPITAL SATURDAY.

The collection last year for Hospital Saturday was considerably above what was expected, and the arrangement will be the same this year. The committee entrusted with carrying out the necessary details expect that the results on this occasion will be very satisfactory. A large number of ladies have promised to take charge of the collection tables. The city bands will parade the city, in company with the fire brigade, on the day of collection.

In Memory of Claude Bernard.—The Paris Société de Biologie is authorised to receive from MM. Berthelot, Charcot, and others a sum of 3,068 francs (about £122), subscribed for the purpose of founding a prize in memory of Claude Bernard. The prize will be awarded for original work in experimental biology.

ROYAL COLLEGE OF SURGEONS.

Meeting of Fellows and Members.

The annual meeting of the Fellows and Members of the Royal College of Surgeons was held on November 3rd in the theatre of the College, Mr. Thomas Bryant, President, in the chair.

The President said that was the ninth consecutive meeting of the Fellows and Members, and it would be gratifying if they could all come to the conclusion that the meetings had been of advantage to the College and redounded to its credit. The Report of the Council contained a complete epitome of the work done during the year. The question of the curriculum was brought forward in the previous Report. It was now in working order, having had the full consideration of the two Colleges. On the question of the new University for London there was but little to be said. It was now under the full consideration of the Commission; and when anything was referred to the Council on the subject they might, perhaps, sketch out a sort of scheme, and the Fellows and Members would probably have it laid before them. In regard to the army medical examination, the Council had done what the Government had asked, and no further communication had been received from the War Office—most of them would probably see the reason why. As to what had taken place at the last annual meeting, the Report contained the answer of the Council to the different resolutions. In regard to the case of Steele *v.* Savory, it had better be passed over in silence. The only good point about it was that the question was settled. Being settled, let them all as loyal men accept the settlement, and act accordingly. The Council had felt gratified that their hands were comparatively free, and they could consider what further advantages might be given to the Fellows, who, he hoped, would be satisfied with what had been done. The jubilee of the Fellowship was approaching, and would be a subject of congratulation. The Fellowship was a thing to be proud of. He hoped that the Fellows' dinner would be well attended. It would be held in a room that would hold 450, and he trusted that that number would attend, so that the jubilee might be celebrated with all honours. In reference to the removal of Members, it would be generally admitted that it was right to purge the College of men who were guilty of disgraceful conduct. It was often found that a quiet private letter from the President had the effect of stopping an offending Member in his objectionable proceedings. The museum was in a thoroughly satisfactory condition, but the Members were invited to point out anything in which they thought any improvement could be made. The scheme laid down a few years ago when the College came into possession of the money left by Sir Erasmus Wilson had been fully carried out, and the last cheque had been paid, and he believed that the College had its money's worth. The library was also in a satisfactory state. There had been 9,787 readers during the year. The annual expenditure and income fairly balanced each other. All the extraordinary expenses had been paid. But for the expenditure in improving the drainage (£1,300) there would have been a heavy balance on the right side. As to the laboratories on the Embankment, the Report must be satisfactory to the Fellows and Members. There had been forty-two applications for work, of which thirty had been approved. He regretted that the free lectures had not been better attended—a circumstance that was hardly creditable to the Fellows and Members. If any payment had been required, no doubt the attendance would have been larger. The Report contained an epitome of the lectures, enabling those who could not attend them to know something of the work that was being done. The Council would now be willing to receive any suggestions from the Members that they might consider advantageous to the College. A resolution had been handed in, to be moved by Mr. Lawson Tait and seconded by Mr. Nelson Hardy. The resolution was: "That this meeting of the College of Surgeons of England is of opinion that the Report now presented is ineffective and incomplete. This meeting is further of opinion that the ancient attitude of hostility on the part of the Council to the true interests of the body corporate of the College ought to terminate, and that the repeated resolutions passed at former meetings of this College should be carried into effect." There was a sting of an offensive character in the resolution, which was not quite consistent with the good feeling with which he had hoped that all met; and he would have been glad if the proposer and seconder could have seen their way to withdraw it. At any rate, as the resolution had a sting, and an offensive character about it, it would probably be possible to put it to the meeting to know whether it should be put. He should be pleased to find that the meeting said it had better not be put.

Mr. Lawson Tait: You surely cannot do that until you hear the thing argued?

The President said with regard to the second part of the resolution, the Council did not recognise an "ancient attitude of hostility."

Mr. Lawson Tait: But we do.

The President said it went on to say "the true interests of the body corporate of the College," suggesting that the Council was not acting in the true interests of the body corporate. If that was an expression of opinion the Council would take it for what it was worth and let it go. With regard to the resolution itself, he ruled that it must be considered in two parts.

Mr. Lawson Tait said it did not very much matter whether it was divided or not. He had received a letter from the Secretary stating that the resolution was to be amended in a certain way by the excision of the words "and that therefore it be referred back to the Council," and was led to believe from that letter that otherwise the resolution would be left alone. He accepted, however, the ruling. The only result would be that he would have two speeches to make instead of one. The resolution was, "That this meeting of the College of Surgeons of England is of opinion that the Report is ineffective and incomplete." He would assume that it was the words "ineffective and incomplete" which were characterised as offensive by the President. He wished the meeting to understand that he was not personally and solely responsible for the resolution. It was drawn up by a Committee—men of great experience—and he accepted it. He should be glad to know where the offence came in. It was an answer to a statement of the Council which they had heard repeated from the President's lips that the Report was a full one. Dealing with that point he referred to the statement of the scheme of examinations, and objected, as he had objected in many discussions in that room, to the scheme for a fifth year of medical education. He took his objection from the fact that the Council had excluded any consideration of the Society of Apothecaries. The scheme did nothing but add on the cost and trouble of another year of academic work to the already overburdened medical student. If there had been any attempt to give him real education, no objection could be made. For instance, the apprenticeship system had been suggested, so that the student could start the world with a knowledge of his profession, and, what was better, his business. As it was, the man at the end of five years' academic work was just where he would be at the end of four. The scheme was drawn up by academic men, who put themselves above the wants of the medical profession of the day, and he was sure that if there had only been three or four Members on the Council who were in general practice the scheme would not have been carried out. Referring to the action taken in the matter of the Albert University, he urged that the Council would have done much better if they had taken the opinion of the body corporate. As it turned out, the Albert University had become a laughing stock in the eyes of the public. He asked the Council before going in for another scheme with the University of London to let the body corporate know what was going to be done, and not leave it for the corporate body to defeat the objects which the Council with perfect honesty maintained, although most mistakenly. Referring to the statement that no further communication had been received from the War Office with reference to the army medical examinations, he said he did not think they were in the least likely to get it as long as the present Government was in power. Referring to the report of the trial of Steele *v.* Savory, he said there was an omission which, in justice to himself, ought to have been inserted. It stated that "a request was made by the plaintiffs that the Council would for-

bear to press them for the taxed costs of the defence." That request was not made by the plaintiffs. He for one had never taken any part in such request.

The PRESIDENT said the remarks in the Report referred to the case of Steele *v.* Savory, and not to that of Tait *v.* Savory.

Mr. LAWSON TAIT said there were two actions going on: one of Steele *v.* Savory in which he was one of the plaintiffs, and the other the case of Tait *v.* Savory, which was matter of rather ancient history.

The PRESIDENT said he was informed by the Secretary that Mr. Tait's name was not among the list of plaintiffs in the case of Steele *v.* Savory.

Mr. LAWSON TAIT: Why, then, have I been saddled with part of the costs?

The SECRETARY said there were four plaintiffs—Mr. Dickenson, Mr. Jabez Hogg, Mr. Ellis, and Mr. Steele.

Mr. LAWSON TAIT said it must have been known that the plaintiffs were twenty-seven in number, and that he was one of them—at any rate, he had to pay part of the costs. Passing over some other points, which he said he should have to touch upon in dealing with the second resolution, he came to the statement of receipts and expenditure. He really thought that the Council owed to the Fellows, and the Members particularly, more complete information with regard to some of the items. There were the items, for instance, for "extension of College premises," amounting to £10,209, but the information was very scanty. The Members might have been told when the disintegration of the Erasmus Wilson Fund, was to cease. It had been going on now for a number of years, and he thought it had ceased last year. It was a matter which Members felt very strongly. It did not often happen that such a windfall as £250,000 occurred to the College of Surgeons, and when it did occur a great deal of consideration was necessary as to how it might best be spent. The College of Surgeons had a sort of threefold existence. In the first place, as determined by Act of Parliament, it was the custodian of the National Museum of Anatomy, Physiology, and Pathology, and on that object any reasonable amount of money might be spent for the proper display of everything concerning those branches of science. The existence of the College of Surgeons as an educational institution was one concerning which he was in great doubt. The educational institutions throughout the country were growing in number; and the fact that they were so would explain the difficulty of attracting a very large number of people to attend lectures held at a time extremely inconvenient, and in a place which was not central. There was a reason for the College of Surgeons not succeeding as an educational institution, and he was sorry to see the slightest indication of so great an institution entering upon any effort in which it was not completely successful. If the College was an educational institution, it was necessary to know how much money was to be spent upon it, and in what direction it was to take steps, so that it should not simply be advertising work already done which would result in a fruitless expenditure of money. In that particular he claimed that the Report was ineffective. The third way in which the College must be regarded was as a licensing body. From time immemorial it had been a great manufacturing centre for licensed practitioners in medicine and surgery; and while, on the one hand, they were carrying on a gigantic expenditure in association with their own College, yet, on the other, hand they were doing their level best to get a university which would certainly cut their throats. He could not for the life of him see how the great income of the College of Surgeons which it had derived as an examining body was to be maintained if there was to be developed in that centre, in London—for it was only, after all, one centre of the kingdom—and also in Manchester, and he might add at Birmingham, a university for granting degrees; they would then have these cheap-jack shops all over the country, and every additional effort in that direction would mean a diminished income to their College. He asked the Council whether they were wise in the course of action they were pursuing. On these grounds he regarded the Report as incomplete and ineffective.

Mr. NELSON HARDY, in seconding the resolution, said that the Report of the Council should not merely be presented to the meeting, but should be open to correction or rejection if necessary, otherwise it became a mere matter of form. The Report contained matters which required correction, and the President himself had alluded to one in which an allegation was made against a member of the "Council," which, as he understood the ruling of the President, would go down to posterity, and could not by any means be corrected after its presentation to the meeting. He claimed that in every free assembly the right was always maintained of accepting, rejecting, or referring back a report, and the only place where such a right was not recognised was the Royal College of Surgeons. He also pointed out that throughout nearly the whole of the Report the words "Council" and "College" were used in such a way as to lead one very often to believe that the Council was the College, or, on the other hand, that the College was the Council. Referring to resolutions which were submitted to the Council by the annual meeting, it was stated that the "movers and seconders" had been informed that the Council could not accede to the request contained. This plan, he thought, was based on an initial mistake. The mover and seconder were nothing as compared with the Members behind them.

The PRESIDENT asked when the Council came to a resolution in answer to any requests of a meeting of this kind, to whom were they to address themselves. Should the reply be addressed to the journals as an advertisement or should it be sent in a courteous way to the mover and seconder?

Mr. NELSON HARDY thought the difficulty might have been met by calling another meeting. It seemed incredible that a body of the picked men of the profession, with one of the most popular men in the profession at their head, should during twelve months meet round the Council table, having the subjects before them which had been presented in a respectful manner by the large body of intelligent gentlemen forming the Fellows and Members of the College, and, at the end of that time, have no suggestion to offer by which the ancient feud, which they knew had existed for at least half a century between the governing body of the College and the members, might be terminated.

Mr. GEORGE BROWN agreed that the Report was in some respects ineffective and incomplete. He thought the Members were entitled to a little more information as to the attitude of the College upon the question of a university for London. The Members ought to know what kind of evidence was given before the Commission on behalf of the College, and whether the views enunciated by its delegates were in accordance with the true interests of medical education and of the public. If proper steps had been taken in the matter twelve or fourteen years ago the College would not now have been in its present precarious position in not meeting the educational requirements of the age. Students were leaving the London schools and going to small provincial towns for their education. It was all the fault of the Council, who when asked for bread only gave a stone.

Mr. CRAVEN (Hull) did not see what more the Council could do than it had done. It was admitted on all hands that no college was better managed. Nobody could deny the competency of the Council, but it appeared that they were not quite restless and revolutionary enough to satisfy all the Members.

Dr. DANFORD THOMAS wished to remind the Council that for many years resolutions had been passed by the Fellows and Members, in the hope that they would receive due consideration, and the answers received from the Council had been certainly incomplete and ineffective, and were likely to remain ineffective as far as any settlement between the body corporate and the Council was concerned. He had hoped to see a more elaborate answer than that conveyed in the few words: "that the Council cannot accede to the request." He did not know that the matter had even been seriously considered by the Council. He should be glad to know what were the reasons for the Council's refusal.

Mr. SQUARE said he wished to move as an amendment:

That the Report be referred back to the Council for reconsideration, to be brought up again at an adjourned meeting.

The PRESIDENT said he could not put such an amendment.

Surgeon-Colonel INCE proposed as an amendment:

That this meeting regards as satisfactory, and acknowledges the liberality of the Council in that respect.

Mr. SQUARE contended that this was not an amendment, but a direct negative.

Surgeon-Colonel INCE said that in that case he would not press it.

Mr. TIMOTHY HOLMES said he was glad that the resolution had been divided into two parts, because he held that the constitution of the College was not satisfactory and needed amendment; but, the constitution being as it was, he was glad to acknowledge that the Report was an exceedingly satisfactory one, giving a complete account of the proceedings of the Council during the year. He should not vote upon the resolution; he would only say that he regretted that the Report, which had been drawn up in a spirit very friendly to the Members and Fellows, should be spoken of in terms which he could not help regarding as somewhat disparaging. He refrained from voting in a way which might imply that he was satisfied with the position in which the Members and Fellows at present stood towards the Council.

The motion was then put, and was rejected by a considerable majority.

MR. LAWSON TAIT, in moving the second part of the resolution, said he admitted that the Report was more satisfactory and complete than anything of the kind that the Council had previously issued. He was willing to congratulate them on at least the appearance of giving way and doing something to meet the views of the Members and Fellows. He held, however, that the attitude of hostility was still being maintained. In regard to the action, the Council stated that "after full consideration of all the circumstances of the case, they determined to take no further action in the matter." It was a lawsuit that had been going on for three or four years, and it was initiated by the Council in what he had always regarded as an extremely injudicious letter, which appeared to mean that the Council had the power of taking the bread out of the mouths of many of the Members. Why did the Council take no further action in the matter? For himself he was quite prepared to go to the extreme length, and to receive a summons to appear before the Council to be reprimanded, or even suffer a more severe punishment. He was prepared to refuse to appear, and to send back his diplomas to the Council. The Council might have said: "This a piece of mediæval barbarism out of harmony with the end of the nineteenth century, and we will do away with the by-law." That would have been a logical proceeding. The other course would have been to expel the men who had acted as some of them had done. He wished to know whether the Council was still going to maintain its attitude of hostility. In one respect their proceedings were open to commendation. They had taken into consideration the question brought forward by the Association of Fellows, and had behaved liberally and consistently in admitting Members. They could not give a room to the Fellows without also giving it to the Members. Therefore, *cadit quæstio*, the moment it was proposed to treat the Fellows separately, he, as one of the Members, should agitate the question, so as to see how the matter really stood. With regard to the jubilee of the Fellowship, he did not see how a Fellowship, such as that instituted in 1843, was a thing to be proud of, or to have a jubilee about. When the jubilee was held, he should certainly not be there.

Dr. ALDERSON, who seconded the motion, and Mr. JOSEPH SMITH, thought it would have been a gracious act if the Council had met their opponents in a different spirit, but it should be understood that the entire costs would be paid.

Surgeon-Colonel INCE commended the report of the Council generally. The reason why the lectures were sparsely attended was, he thought, that the Members did not feel themselves at home coming to the College. He did not think the time had arrived when the great body of Members should have a voice in the management, but he hoped the Council would take into consideration some modification of the Charter. He hoped that the forthcoming jubilee would be a jubilee for everyone connected with the College, Fellows and Members alike. He urged that the resolution should be withdrawn.

The PRESIDENT, in putting the resolution, said he supposed it would be almost useless for him to say that even if there had been any feeling of hostility on the part of the Council, no such feeling now existed. The Council was not, as suggested, working against the interests of the body corporate, but was doing its very best to promote those interests.

The motion was then put and carried by 25 votes to 10.

Mr. TIMOTHY HOLMES moved:

That this meeting of Fellows and Members desires to thank the Council of the College for acceding to their wishes in the matters (*a*) of separate meetings of Fellows and Members, and (*b*) of the provision of a common room in the College.

The motion, he said, was one on which there could be no difference of opinion. Whatever they might think of the condition of the College at the present time, they could not but admit that the Council had shown that it was possible to allow separate meetings of Fellows, and on the termination of the legal proceedings, which appeared to have occupied all their attention for some time, they showed a very great readiness to meet the wishes of the Fellows in the matter of allowing such separate meetings. To those meetings they attached the very greatest importance. They had strong opinions as to the undesirability of maintaining the present constitution of the College, and the desirability of some modification of the charter. Other Fellows, however, had strong opinions the other way. They were all most anxious that the matter should be adopted by the Fellows generally, and that their opinions should be obtained in a manner more satisfactory than had been done by a paper which the Council had circulated some years since. Then, again, there were many Fellows of the College who thought, as he himself did, that the Members ought to have some share in the Government, while others were of an opposite opinion. Those were matters of the greatest importance, both to the Council and to the profession generally.

Dr. DANFORD THOMAS seconded the motion, which was adopted with only one dissentient.

The PRESIDENT wished to stated, before the next resolution was proposed, that the matter had been under the consideration of the Council on many occasions, and that a kind of undertaking had been given that in any important change in the constitution of the College they would consult the Fellows and Members. That had been stated in print some years ago.

Mr. JOSEPH SMITH said that he did not know of any such statement.

Mr. GANT said that, as he had undertaken to move the resolution, he felt it incumbent upon him to do so. The resolution was:

That this meeting of Fellows and Members wishes again to impress upon the Council that it is absolutely essential for the welfare of the College that the Fellows and Members should be consulted before any change is made in the constitution and external relations of the College, and before the College is committed to any extraordinary expenditure on buildings or otherwise.

Amongst the questions upon which he thought the Members and Fellows should be consulted were the question of a Teaching university, the combination with the Apothecaries' Company, and the action of the College of Physicians with regard to the five years curriculum. He also understood the resolution to apply to the question of any further expenditure on the buildings.

Mr. JOSEPH SMITH seconded the resolution.

Mr. LAWSON TAIT wished to know if he had rightly understood the President that an undertaking had been given that no new measure should be introduced without consulting the Members and Fellows.

The PRESIDENT said that on November 17th, 1885, an extraordinary meeting of the Council was held to consider resolutions passed at a meeting of Fellows and Members on October 29th, 1885. In the answer given by the Council it was stated, "With larger questions, which more rarely arise, such as those which concern the constitution of the College, the case would be different. On these questions the Council will always be glad to have an opportunity, so far as practicable, of consulting the Fellows and Members."

After a few further observations from Mr. LAWSON TAIT, and the PRESIDENT, the resolution was put and carried by 22 votes against 2.

On the motion of Mr. BRINDLEY JAMES, seconded by Mr. BLACK, a vote of thanks was passed to the President for his conduct in the chair.

"THE TOTAL ABOLITION AND SUPPRESSION OF VIVISECTION."

EXTRACTS FROM SPEECHES OF CANON WILBERFORCE, MR. LAWSON TAIT, AND OTHERS: A DENUNCIATION AND AN "APOLOGY" FOR THE MEDICAL PROFESSION.

ON Thursday, October 27th, there was a meeting of the Society which shortly describes itself as the "Anti-Vivisection Society," but of which the full title is "The Society for the Total Abolition and Suppression of Vivisection." There were a great many reports in the various daily papers, from which more or less inexact judgments might be formed of what was actually said and done on this occasion, but we prefer to resort to a full shorthand note of the proceedings with which we were furnished, and of the accuracy of which we have an adequate guarantee. About 350 persons were stated to have been present, of whom by far the greater proportion were ladies. The meeting was announced by a circular letter to be held "for the purpose of confirming and vindicating the principles of the Society in face of the attacks made, especially by Professor Horsley at the late Church Congress." The chair was occupied by Canon WILBERFORCE. With a good deal that was said in a general rhetorical sense we have little concern, but there were some specific statements in a speech of the Rev. President which are, in their way, not without interest to the medical profession; and there were passages in the speech of Mr. Lawson Tait which are likely to be read with rather painful surprise.

Canon WILBERFORCE, after observing that it was an occasion upon which it specially appertained to a Churchman to set a watch upon his lips, went on to observe: "If I understand rightly the object of this meeting, we have come together here that we may render our support to the real champion of our cause, Mr. Lawson Tait, that eminent physiologist of whom it is said that he is reckoned the most skilful operator in Europe. We feel towards him a sort of hero worship and sympathy. He is the "*Athanasius contra mundum*" in the great battle against vivisection." After protesting against the use of strong language, such as Mr. Horsley had used towards "women and clergymen," and admitting that "certain exceedingly regrettable inaccuracies had without doubt crept into *The Nine Circles*," he observed that this was only a small number in 160 pages of a very closely-printed argument. (There are twenty fundamental misstatements of the twenty-six cases on which the argument is based.—Ed. B. M. J.) He expressed satisfaction with the *very splendid advertisement* which the controversy had given to the book. (Laughter and cheers.) The mistakes, he said, were *not serious*, and they had not damaged the cause. Continuing, Canon Wilberforce said: "In speaking during the summer with regard to certain practices of vivisection, I used the expression 'inhuman devils.' (Loud applause.) I have been told that I made that statement in haste, therefore I take this opportunity of repeating it in composure and in leisure. (Cheers.) I require no other devil than an able, clever man, with abundance of opportunity, and with the sentiments of love and pity stamped out of him. The champions of vivisection now are very anxious to make it clearly understood that anæsthetics are always administered at the moment of the operation, and now we see for the first time that the vivisector looks upon it as the gravest possible accusation that he should perform an operation upon an animal except under the influence of anæsthetics. That is a great step gained; but our challenge is this: These atrocities are going on, and we challenge the whole profession to tell us fairly, clearly, and categorically what victories over the thousand and one ills which flesh is heir to they are able to attribute to their researches on living animals. Our opponents will not answer, and only evade the challenge."....."It has been stated in a published article that the circulation of the blood has been discovered by Harvey by means of experiments on living animals. The fact is that that discovery has been made by putting the foot of a frog under the lens of a powerful microscope (*sic*); therefore, there was no need whatever to have subjected animals to torture in order to have made that important scientific discovery. Our opponents have not been able to point to any one great discovery made by means of vivisection."

Mr. LAWSON TAIT, after a few preliminary words of satisfaction at the numbers and enthusiasm of the meeting, said people were now ceasing to believe that the members of the Society for the Total Abolition and Suppression of Vivisection were "a lot of well-meaning but extremely narrow-minded and bigoted faddists." He continued, "I regret that I have to offer to the British public an apology on behalf of my profession, and I do so with a sense of degradation which I cannot find words to express." He went on to say, "The question, as you will remember, and it will become historical after a fashion, arose in the debate at the Church Congress, and I am here to say that *I was prohibited* from being present at that Congress. I did not withdraw. There are circumstances in my own history which render it a doubtful matter whether I am a member of the Church of England. This doubt the Bishop of Dover and his fellow committeemen declined to settle authoritatively. In the last issue of the BRITISH MEDICAL JOURNAL the Editor points to the matter, and says that I absented myself from the Congress. He also says that I have never taken part in any debate in any professional society on the subject. Well, I have never heard of but one, and in that one I took a leading part. (Applause.) Then, as a matter of history, you know that I have challenged the gentlemen who pursue this method of research to defend the thesis by what the Scotch lawyers call 'descending to particulars'—(laughter)—but they will not descend to particulars." Mr. Tait declared, in continuation, that he regarded the vivisection practice as "a survival from mediæval times; like the two buttons on the back of a coat they are of no use whatever. We have now," he added, "a very much simpler method, and vivisection cannot be justified by any results that it has produced."....."I regard my calling as sacred, and anything which would put it on a level with sport would be offensive in the highest possible degree." (Cheers.) "Vivisection is a mediæval method of investigation similar to that of pressing an accused prisoner with weights to make him plead, and the conclusions arrived at are erroneous." "It is also a deliberate and infamous *suggestio falsi* to state that midwifery has gained by germ experiments anything of importance." In conclusion he observed:—"It is a disgrace that men should resort to vivisection instead of perfecting other and much more humane methods of research."

Bishop BARRY, who followed, declared that the whole of the argument turned upon the scientific utility of the process of vivisection. He regretted that in trusting, as he thought he had reason to trust, certain statements which had been made in this matter, he had been led to make assertions which he was not able thoroughly to substantiate. He hoped the Society would see that the new edition of *The Nine Circles* was thoroughly revised, for if it also should be found to contain any inaccuracies or suppressions, the Society will have received a deadly blow by having to withdraw or apologise for them. "There was not," he stated, "one in a hundred of the great medical profession who had anything to do with vivisection."

Dr. BERDOE wished to explain his action with regard to this terrible book, *The Nine Circles*. Miss Cobbe sent him the substance of the book after she had written it, asking him to revise it. The time he devoted to the book was, however, a matter of hours merely. Miss Cobbe subsequently wrote the preface, which contained the statement unfortunately which ought not to have been made. He revised *The Nine Circles* without making himself responsible for the accuracy of the quotations. He apologised to the Society for any discredit which his action in this affair might have brought upon it.

Mr. G. W. E. RUSSELL, M.P., said that the previous speakers had already pointed out the moral degradation which must result from the practice of vivisection, in which view he had entirely concurred. He added: "I can see that we are fully justified in expecting from these experiments on animals not benefit to mankind, but very serious evil."

The proceedings shortly after terminated, with one or two

speeches which have little interest with relation to the matters at issue.

*** Not very much comment is called for upon some of the above statements, which speak for themselves in a way we need not here characterise. "The hero of the meeting," to use the words of the Chairman, "was Mr. Tait, towards whom," said the Rev. Canon, "the antivivisectionists assembled felt a certain sort of hero worship. He was 'Athanasius contra mundum,' he was an eminent physiologist, and reckoned the most skilful operator in Europe." To appear as the hero worshipped by gentlemen who have indulged so publicly, so largely, and so frequently in reviling and in calumniating many of the most eminent and esteemed members of his own profession, and to accept from them their homage as the Athanasius fulminating against the medical world, would not, we apprehend, by most medical men be considered an altogether enviable position. But Mr. Tait repaid his complimenters by tacitly accepting the *rôle*, and further announcing that he appeared "to offer to the British public an apology on behalf of his profession," and that he did so with a sense of degradation which he could not find words to express. That is a form of denunciation worthy of Athanasius, and one which, coming from an eminent physiologist, will not fail to be adequately appreciated by the profession on whose behalf he volunteers to speak, but, unhappily for that profession, with this inexpressible sense of degradation.

Canon Wilberforce repeated at leisure the amiable epithet of "inhuman devils" as a term applicable to Professor Goltz in particular, and by inference also to British experimentalists, whom he did not exclude, and although he has had evidence afforded him publicly that the statement on which he based his denunciation of Goltz was altogether garbled and false, he has not withdrawn or apologised for it. Nevertheless he and other speakers treated it as evidence of the demoralisation which befalls experimental researchers that the subjects of their vilification have actively retorted after years of silent submission to gross insult and virulent abuse from the Canon, from Miss Cobbe, and others of his colleagues. Evidence has been afforded publicly that twenty out of the twenty-six cases quoted by them as cases of cruel vivisection without anæsthesia were cases in which anæsthetics had been administered; this had been so stated in the reports of them, and that statement had been omitted, notwithstanding that Miss Cobbe in her preface had personally vouched for the assertion that in every case where chloroform had been administered it had been reported accordingly in her narrative. It is, it seems, evidence of the high morality which becomes dignitaries of the Church and a writer on Veracity to falsify evidence, to exhaust the vocabulary of insult and abuse on most eminent members of a beneficent profession. But when the falsity of the evidence is exposed plainly, and they are told that the statements are falsehoods, and evidence is adduced which they now have to admit, they make it the burden of their complaint that the special privilege which they appear to claim for women and clergymen, of saying the thing which is not, repeatedly, unblushingly, and persistently, should be characterised on one occasion by a plain Saxon monosyllable. It is pitiful indeed to see men of the intellectual calibre and standing of Canon Wilberforce and Bishop Barry reduced to such shifts and expedients. In order to make a case for himself, Canon Wilberforce had to set up an altogether imaginary position. The champions of vivisection, he said, "are very anxious to have it clearly understood that anæsthetics are always administered at the moment of operation, and now we see for the first time that a vivisector looks upon it as the gravest possible accusation that he should perform an operation upon an animal except under the influence of anæsthetics." However great our respect for Canon Wilberforce's position in the Church, we are under the painful necessity of observing that it is entirely untrue that the champions of vivisection ever put forward any such statement; it has been a main part of the gravamen against Canon Wilberforce and Miss Cobbe that they have falsified the precise statement which the experimentalist makes as to the cases in which he has, or has not, found it possible to use anæsthetics. We once more directly challenge Canon Wilberforce to justify this, his new misstatement, in which he again, and in a new way, invents a calumny of a very far-reaching and serious character. He suggests that those whom he calls vivisectors have untruly caused it to be understood that an operation performed without chloroform were described otherwise than truly. Canon Wilberforce's proposition we denounce as a statement entirely without foundation. It is for him to justify it or to withdraw it with a becoming expression of regret. His next statement, that the supporters of experimental physiology have evaded the challenge to state what victories over disease have been effected by experimental research, is also contrary to fact, and Canon Wilberforce and Mr. Tait must excuse us for saying that they have long had in their own hands documentary and printed evidence thereof. Sir James Paget, Sir George Humphry, Sir H. W. Acland, Sir John Simon, Professor McKendrick, Sir Joseph Lister, Sir William Turner, Dr. Robert Macdonald—to speak only of a very few among many distinguished men—gave detailed, elaborate, and categorical evidence before a Royal Commission in 1876 on all these subjects. The evidence of Professor McKendrick and Professor Turner was peculiarly detailed, and among the documents printed was a comprehensive summary in a reprint from the statement in the British Medical Journal under the head of "What has Vivisection done for Humanity."

Canon Wilberforce and Mr. Tait will certainly not plead guilty to not having read this report. These Commissioners were no mean persons; among them were Lord Cardwell, Mr. W. E. Forster, Sir John Karslake, and Mr. Hutton, of the *Spectator*—persons certainly having no prepossession in favour of experiments on animals. Their conclusion, however, was, after hearing these categorical statements which Canon Wilberforce says physiologists and physicians have evaded making, was this: "It would require a voluminous treatise to exhibit in a consecutive statement the benefits that medicine and surgery have derived from these discoveries."

For more recent "condescension to particulars" which Mr. Tait and Canon Wilberforce complain that medical men have evaded, let us refer only to the pamphlets of which we subjoin the titles. These are accessible, it will be seen, at very popular prices—they have, in fact, been largely distributed out of funds subscribed by the profession, free of cost to all applicants—and, if the thirst for knowledge of any of those gentlemen who complain of want of information were real, the means of satisfying it has long been proffered to them.

What will be thought of Canon Wilberforce's final statement: "Our opponents have not been able to point to any one great discovery made by means of vivisection"? Has he or has he not any faith in the judgment of the distinguished laymen who constituted that Commission? How, in any case, can he reconcile it to the simplest duties of plain truthfulness to stand upon a public platform and make this unqualified statement—which is absolutely contrary to all the proved facts—to an uninformed audience, mainly composed of women? It was, of course, open to him to assert that Cardwell, Karslake, Forster, and Hutton were incapable of arriving at a just conclusion after a prolonged and most laborious sifting of all the evidence which could be produced by the opponents of vivisection. To say, however, that the representatives of medicine, surgery, and physiology had not fairly, clearly, and categorically stated the victories over the ills of the flesh which they are able to attribute to researches on living animals is, in the face of these documents and facts and of this mass of authoritative literature put forward for this express purpose, a statement as astonishing as ever issued from the lips of a man bound by his calling and by his protestations to stand there as a witness of the truth.

We are very hopeful, notwithstanding all that has occurred, that Canon Wilberforce will not avail himself of the privilege of convenient silence, but will make an answer to this our public appeal to him to state whether he has or has not cognisance of these printed, published, and widely-circulated documents, of the very kind which he describes as non-existent. What can the Canon conceive more categorical and complete, and why has he chosen to ignore and deny their existence? This remark applies equally to Mr. Tait. What does he, of all men, mean by saying that physiologists and physicians would not condescend to particulars?

As to Mr. Tait's withdrawal from the Church Congress, that is a question which he will settle with the Bishop of

Dover. He states here once more that he was "prohibited" from attending that Congress. The Bishop of Dover has denied it, and has challenged Mr. Tait to publish the correspondence. We have before us a copy of a letter from Mr. Tait to the Executive, which he concludes by stating that he would rather be excused from placing himself in a position requiring a personal explanation which would be tedious, unsatisfactory, and to him extremely disagreeable. This does not look like prohibition from attendance; and the Bishop of Dover maintains apparently that Mr. Tait chose of his own accord to absent himself for reasons which he thus indicated. This is, however, a very minor matter, and one on which we suspend judgment. Of his further statement, that the conduct of his profession in resorting to experiments is a "disgrace," and of his professed sense of degradation in voluntarily appearing before the public as their apologist, we need say nothing. The profession itself can judge of its timeliness, truth, and appropriateness, and of the fitness of the speaker to appear as their apologist to claim a vicarious degradation on their behalf.

"Report of the Royal Commission on the Practice of Subjecting Live Animals to Experiments for Scientific Purposes." London: Eyre and Spottiswoode. 1876.

"Physiological Cruelty; or, Fact *v.* Fancy. An Inquiry into the Vivisection Question." By Philanthropos. London: Tinsley Brothers.

"The Value and Necessity of Experiments for the Acquirement of Knowledge." By Samuel Wilks, M.D., F.R.S., Senior Physician to Guy's Hospital, and President of the Pathological Society. London: J. W. Kolckmann, 2, Langham Place, W. Price 3d.

"A Short Account of the Act for the Better Prevention of Cruelty to Animals." By Stephen Paget, M.A., F.R.C.S. J. W. Kolckmann.

"The Address in Surgery." By William Bowman, Hon. M.D. Dublin, Hon. LL.D. Cantab., F.R.S. J. W. Kolckmann. Price 6d.

"What has Experimental Physiology Done for the Advancement of the Practice of Surgery?" By Robert McDonnell, M.D., F.R.S., President of the Royal College of Surgeons in Ireland; one of the Surgeons to Dr. Steevens's Hospital. J. W. Kolckmann. Price 4d.

"Experiments on Life, as Fundamental to the Science of Preventive Medicine and as of Question between Man and Brute." By John Simon. J. W. Kolckmann. Price 4d.

"Vivisection: What Good has it Done?" By G. M. Humphry, M.D., F.R.S., Professor of Anatomy and Physiology at Cambridge. J. W. Kolckmann. Price 2d.

"The Action of Remedies and the Experimental Method." By Thomas R. Fraser, M.D., Professor of Materia Medica in the University of Edinburgh. J. W. Kolckmann. Price 4d.

"Experiments on Brute Animals." By John Cleland, M.D., F.R.S., Professor of Anatomy in the University of Glasgow. J. W. Kolckmann. Price 2d.

"Speech delivered in the House of Commons on the Second Reading of Mr. Reid's Bill for the Total Suppression of Scientific Experiments upon Animals." By the Right Hon. Sir Lyon Playfair, K.C.B. J. W. Kolckmann. Price 4d.

"Official Circular addressed to the German Universities by the Minister of Public Instruction, enjoining Safeguards against Abuses of Vivisection." J. W. Kolckmann. Price 4d.

THE name of Mr. Thomas Walker, M.R.C.S.Eng. and L.S.A., of Wakefield, and Oakwood Grange, Roundhay, Leeds, has been added to the Commission of the Peace for the West Riding of the County of York.

DR. J. SOUDAKEWITCH, *Privat-docent* in the University of Kieff, whose important contributions to the pathology of cancer have more than once been noticed in the BRITISH MEDICAL JOURNAL, has been appointed Professor of Pathological Anatomy in the University of Tomsk.

OXFORD UNIVERSITY.—A new Medical Society has been formed for the University and town of Oxford, to supplement the work of the Oxford Branch of the British Medical Association by more frequent meetings. At the preliminary meeting Sir Henry Acland was elected President, and Professor Burdon Sanderson and Mr. A. Winkfield Vice-Presidents. The first meeting of the new Society will be held on the evening of November 11th, when Sir James Paget will deliver an address.

THE RUSSIAN MEDICAL SOCIETY.—The Russian Medical Society entered on the fifty-eighth year of its existence on September 24th. The Society now numbers 70 honorary, 207 ordinary, and 26 corresponding members, being an increase of 7 in the membership as compared with last year. During the year seventeen meetings were held, at which thirty-five papers were read. Professor Iwanowski was elected president for the ensuing year, Dr. N. J. Ssokoloff being at the same time appointed secretary.

INTERNATIONAL MONUMENT TO SEMMELWEIS.

A PUBLIC MEETING relative to the proposed erection of a memorial to Semmelweis in his native city of Buda-Pesth was held in the library of the Royal College of Physicians on October 24th.

Dr. CULLINGWORTH, one of the honorary secretaries, read a number of letters expressing sympathy with the object of the meeting, and regretting inability to be present. These included, amongst others, messages from Sir Joseph Lister, Sir James Paget, Sir Richard Quain, Professor Simpson, President of the Royal College of Physicians of Edinburgh, and Dr. J. W. Byers of Belfast. It was stated that some sixty well-known members of the profession had already consented to support the movement.

Sir ANDREW CLARK having taken the chair, Sir SPENCER WELLS proposed the first resolution:

That the project of erecting a monument to Semmelweis by international subscription deserves the support of the medical profession of Great Britain and Ireland.

He said the work done by Semmelweis was honourable to the medical profession, not only of his own country but of all nations. All over the world the good influence he excited had been honourable to all of them, and of incalculable benefit to their patients. It was not yet fifty years since his chief work was done; yet it was partly forgotten, and had never been sufficiently known or appreciated here. In 1848 Dr. Routh read a paper at the Royal Medical and Chirurgical Society, "On the Causes of the Endemic Puerperal Fever of Vienna," in which he very clearly brought before the profession here the fact, first made known by Semmelweis, that puerperal fever was mainly due to inoculation, or to the direct application of poisonous matter to the vagina of the woman by the fingers of the professor or the students, the midwives or the nurses; and that this poison so communicated was cadaveric poison. The practical conclusions arrived at by Semmelweis were: (1) To forbid any dissecting student to attend labours, or to make vaginal examinations until twenty-four hours after handling dead tissues; and (2) to oblige all students to wash their hands in a solution of chloride of lime before and after every examination. The result of obedience to these very simple precautions was that the mortality in the students' division fell to that of the midwives division, although it had formerly been three times greater, simply because the direct inoculation of poisonous matter was prevented. The rapidity of the change was wonderful. The death-rate per cent. in 1846, which was 13¾, fell to 5½ in 1847, and to 1¼ in 1848. Sir Spencer expressed a hope that the English profession would join heartily with their brethren in Austria-Hungary in the movement. Deaths from puerperal fever were yet too frequent, both in hospital and in private practice. Surely this mortality could be diminished, and the help Semmelweis's work had given should be utilised still more than it had been, and his memory perpetuated as a benefactor of the human family.

Dr. DUKA, who seconded the resolution, gave an account of the origin of the movement. Semmelweis died in 1865, at Vienna, and was there buried. But in 1890, at the instance of his relatives, his remains were transferred to Buda-Pesth and reinterred there amid manifestations of universal sympathy and respect. After this the idea of a permanent public memorial was mooted and the professors of the university, in conjunction with certain members of the Royal Medico-Chirurgical Society of Buda-Pesth, formed a committee for the purpose. The Central Committee of the Semmelweis International Monument was constituted, with Dr. Késmárky, Professor of Gynæcology, as its President. From that body emanated the letter addressed to Sir Spencer Wells, who, with his usual kindness and devotion, aided by the *ad interim* committee, and particularly by Drs. Cullingworth and Boxall, successfully paved the way for this meeting of the profession, under the distinguished chairmanship of the President of the Royal College of Physicians. The Central Committee hoped that when the next International Congress of Hygiene met at Buda-Pesth in 1894 they would be in a position to submit to the subscribers the final plans of the undertaking. With regard to the great work Semmelweis had done, Dr Duka cited the testimony of Sir Andrew Clark and Dr. Matthews Duncan.

The former, in a letter to him (the speaker) in 1888, some time before this movement was initiated, wrote, in acknowledging his pamphlet on Semmelweis, "The story is at once interesting, instructive, and touching, and you have told it with grace and sympathy. It seems inexpressibly sad that one who rendered so great a service to mankind was not spared to find his services acknowledged and his work crowned with a great and growing success." Dr. Matthews Duncan wrote: "Thanks for your little book to the glory of Semmelweis. I have lived through it all and never doubted his great merits. It will do good to spread his name."

Dr. Routh, in supporting the resolution, said that as a pupil of Semmelweis he so fully appreciated the importance of his friend's labours, that on his return from Vienna years ago he felt bound to communicate his work to the profession of this country. He pointed out that not only was it the true spirit of science, but pity for the poor suffering women that urged Semmelweis forward in his labours. And, as a result, thousands of lives throughout the civilised world had already been saved, and many thousands more would be saved also. The opponents of his views caused him to leave Vienna pecuniarily ruined and cast down. His subsequent appointment at Pesth enabled him for a time to carry on his beneficent labours with success and triumph. But still the opposition was only the more rampant, till at last he was hounded into a madhouse, where he died. But humanity had reaped an advantage which no enemy could destroy, and to-day they were there to recognise his greatness, to witness his triumph, and to acknowledge their obligations.

Sir Andrew Clark, before putting the resolution to the meeting, dwelt on the three qualities about Semmelweis himself which had not been noted. There was, first, his scientific instinct. He made the resolution to discover the cause of childbed fever or die. He took up theory after theory; and in spite of all the difficulties in his way, he continued his work with a patience, a self-denial, and self-effacement rarely seen. There were were few such parallels in the history of science. Next, there was his tremendous moral heroism. In spite of every conceivable difficulty, in positions of misrepresentation, in spite of persecution, he continued his labours until crowned with a full clearing up of the difficulties. Lastly, there was his martyrdom. There was not such a one in history. It formed indeed a sad story, and one of the highest examples that could be presented. He (Sir Andrew) most warmly concurred in the movement, and felt constrained to do everything in his power to assist its promotion.

The resolution was carried unanimously.

Dr. Priestley moved the second resolution:

That India and the English-speaking Colonies be invited to co-operate with this country.

He said that, though Semmelweis could scarcely be said to have inaugurated the antiseptic system in midwifery, he had fully recognised the danger of carrying septic materials to the bodies of puerperal women, and had pointed the finger in the right direction. Following this course, came Lister's antiseptic and aseptic treatment of surgical cases, and its extension later into the domain of midwifery practice, under the initiative of Dr. Stadtfelt in the Copenhagen Maternity. He (the speaker) was one of those who in times now happily gone by began to fear that the maternity hospitals must be abolished. Since Semmelweis's time and the introduction of antiseptics, however, puerperal fever had been well-nigh stamped out in maternity hospitals, and he had recently calculated that 5,000 maternal lives had been saved in the maternity hospitals of this country and abroad almost entirely as the result of the use of antiseptics. The one sad thought which mixed with this triumph of modern medicine was the pathetic history of Semmelweis. One vivid source of regret was that he could never know the honour which it was now proposed to do to his memory.

Dr. Glover, in seconding the resolution, said he trusted that the great body of the profession would feel it a privilege to do some justice—however late—to one who had so reduced the anxieties of practice and raised the credit of the obstetric art.

Dr. Watt Black, President of the Obstetrical Society, proposed the third resolution:

That the maximum subscription be one guinea.

It was desired by the Provisional Committee to place the memorial to Semmelweis on as wide a basis as possible, and they therefore thought that it would be advisable to limit the subscription. Next after obstetric specialists, general practitioners, who formed the bulk of the medical profession, had the greatest interest in the discoveries of Semmelweis, and they would doubtless wish to contribute to his memorial. Many of them, however, might be deterred if they thought that large subscriptions were expected of them.

Dr. A. Wallace, in seconding this resolution, said that he considered that Dr. Glover had struck the note which had determined the Committee in making a limitation of the subscription, for it was to the rank-and-file of the profession they must appeal for this noble cause.

Mrs. Garrett Anderson proposed the fourth resolution:

That the carrying out of the above resolutions be relegated to the Provisional Committee, with power to add to their number, with Sir Spencer Wells as Chairman, Dr. Cullingworth Honorary Treasurer, and Dr. Boxall Honorary Secretary.

She said she had long regarded Semmelweis as having been one of the greatest benefactors of the human race. He had brought a great truth to light, and in doing this had built himself an everlasting name.

Dr. Graily Hewitt, in seconding the motion, said that since he first became acquainted with the labours of Semmelweis through the statements made by Dr. Routh at the London Societies, he had himself derived the greatest assistance from this knowledge. He trusted the movement for erecting a suitable monument would be warmly taken up by the medical profession and others.

A cordial vote of thanks to Sir Andrew Clark for his able conduct in the chair, proposed by Dr. Cullingworth and seconded by Dr. Hayes, terminated the proceedings.

MEDICAL AID ASSOCIATIONS.

Views of the Medical Officers.—Resolution adopted during the Nottingham Meeting.—Allocation of Profits.—Admission of All Sorts and Conditions of Men.—The Starting of an Association.—The Rates of Pay.—A Wife and Family.

We give below abstracts and extracts from a number of letters dealing with the subject of medical aid associations. We may assume that the correspondence leaves no doubt that these associations accept as members persons who could well afford to pay ordinary fees. It is further proved that the associations pay their medical officers very low salaries and work them very hard. It will be useful to have accumulated this mass of evidence in addition to that which already existed. Further evidence on these points seems hardly necessary at the present moment. It would be interesting to know what profits, as a rule, these associations make and how they are spent or invested. It might also throw light on other aspects of the case if correspondents will forward to us copies of their agreements with such societies.

A Resident Medical Officer, who speaks from several years' experience, in various capacities, of medical aid associations, questions the right of "M.O. of Friendly Societies" to speak in the name of the medical aid surgeons. He believes that the majority are in favour of such a reform as that proposed by Dr. Leslie Phillips. He adds that at a meeting of surgeons of friendly societies held at Nottingham on July 28th, the following resolution was passed unanimously:

That the General Medical Council be petitioned to express its opinion relating to censure for holding such appointments. If the General Medical Council is unable to reply definitely, this meeting respectfully suggests that the Council make inquiries into the working of these medical aid associations, whose constitution and rules vary widely.

Our correspondent urges that a main question is the propriety or otherwise of a medical aid surgeon lending himself, or rather his licences, for a stipulated remuneration to a number of committeemen (sometimes as many as forty) and other officials of the association, whereby they are enabled to earn salaries for themselves, to build and equip or purchase freehold premises; to make presentations of portraits, watches, clocks, and purses of money to their fellows; to pay their expenses for attending meetings up and down the country; in short, to expend by any and every means they please an accumulated balance formed exclusively from fees paid for medical attendance, as well as in many cases for midwifery

and vaccination. He, in common with other correspondents, complains that these "associations" admit surveyors, town councillors, members of boards of guardians, clergymen, lawyers, merchants, and shopkeepers.

Another M.O., who has resigned, adds to this list farmers, brick manufacturers, barge owners, corn merchants, and coal merchants. All are seen at the rate of 3s. to 3s. 6d. a head a year, and their children up to 14 years at the rate of 1s. 9d. each a year, subject to a deduction of 20 per cent. for collecting. He contends that it is unbecoming for any medical man to undertake with a commercial society to attend for a certain fixed salary any one who may be induced, usually by canvassing, to join the society.

A Sufferer writes that in his town a large amount of the work of the aid association is done amongst tradespeople, and that it is stated that a dentist has had his family enrolled.

W. M. also dwells on the fact that well-to-do persons and families are admitted to medical aid associations, which hold out every inducement (particularly that of very cheap medical attendance, etc.) to all persons, irrespective of position or condition, to join them and swell the number of their members in proportion to which the medical staff is not increased. The result is that in times of much illness the attendance is hurried and inefficient, and the less influential of the members are relegated to the tender mercies of an inexperienced and often unqualified junior medical officer. The evil consequences are self-evident, and he has frequently witnessed them. The working class probably as yet do not understand the injury they are suffering through these societies, any more than they realise the evil of insanitary surroundings; but nevertheless the fact remains. The remedy must be found through the medical profession, as on it depends entirely the existence of these medical aid associations; and he sincerely trusts that, in response to Dr. Leslie Phillips's memorial, the General Medical Council will (even though a few of the profession have to be sacrificed for the general good) use their power and apply the remedy. As regards cheap and independent medical attendance, the public need would be fully supplied by the formation of societies, which should throw open their medical officerships to all qualified medical men who had been practising in the district for a fixed period (or who represented a practice), and should adopt amongst their rules of membership a combination of wage limit and a sliding scale of payments.

L.R.C.P. thus describes the manner in which a medical aid association was formed in the town in which he resides: Advertisements were inserted in the local papers, and the town was canvassed from house to house, and a form left to be filled in by those wishing to join and thus avoid doctors' bills. All classes were invited to become members, but the association preferred the better class as "customers," and if they were not entitled to medical aid by reason of their position at the ordinary subscription of 4s. per annum, they were asked to subscribe an annual sum, according to their means, all going to the funds of the association. A great injustice was thereby done to the general practitioners, for out of 5,000 inhabitants, 3,000 joined the association. One medical man at a fixed salary was engaged to attend to all these members, and thus four medical men's incomes were at once seriously reduced, no real benefit being derived by anyone.

The First Surgeon to the Walsall Association (for five years) gives his experience. It was formed, he states, in 1885, with about 1,800 members, and his salary began at £180, with house free, midwifery fees at 10s. 6d. each case, vaccination fees, and fees for teeth extraction (the last two of small amount). He was promised £200 a year if he worked well with the committee, but this was deferred for a year. The association grew very rapidly, but the committee made the wholly inadequate allowance of 1s. a week for lighting and heating the surgery, waiting, and consulting rooms. From 1887 to 1889 the association numbered 4,500 members. An assistant surgeon (outdoor) was appointed to assist and dispense at £100 a year, in place of a dispenser at £60, but the committee suggested that the extra £40 a year might be saved in cab hire. At the present time our correspondent states the association has only one surgeon. He has calculated from the fifth annual report that for each member the surgeon received an average of 10¾d. a year. The adults paid 3s. 6d. and the juveniles 2s. to the association, so that the management apparently got the medical work done for one quarter's subscription, and the remainder went to swell their capital.

Somerset takes up the defence of these associations. He says that he recently purchased a practice, and received together with other club appointments, the medical officership to a medical aid society, which brings him in over £120 a year. He asks why he should be expected to throw this up; in fact, he thinks it would not be *right* (*sic*) for a married man with a family and small means to do so. He thinks that if there were no such society those patients who pay ½d. to 1d. a week would be attended as Poor-law patients.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

The quarterly meeting of the Committee of this Society was held on October 26th, the following being present: Mr. Ernest Hart (President) in the chair, Dr. de Havilland Hall (Vice-President), Dr. F. J. Allan, Dr. F. Bartlett, Mr. H. H. Clutton, Mr. F. Swinford Edwards, Dr. Charles Firth (Gravesend), Dr. M. Greenwood, Mr. L. M. Griffiths (Clifton), Dr. Alfred S. Gubb, Dr. G. F. Herman, Mr. T. Vincent Jackson (Wolverhampton), Mr. J. Brindley James, Dr. F. Robertson Mutch (Nottingham), Dr. J. Picket, Dr. W. Knowsley Sibley, Dr. Walter Smith, Mr. William J. Stephens (Brighton), Mr. Horatio P. Symonds (Oxford), Mr. Frederick Wallace, and the Secretary.

The report for the quarter showed that 49 new members had joined, as against 32 in the corresponding period of 1891. It had been deemed necessary in several cases to request the applicants to be re-examined with results which proved satisfactory alike to the candidates and the Society. After allowing for secessions and deaths, the total effective membership to the close of the quarter (September 30th) was 1,254. The income for the quarter (£4,029 7s. 8d.) was £614 in excess of the like quarter last year, while the expenditure (£861 6s. 3d.) was £506 less. There had thus been a net increase to the reserve fund of £3,168 1s. 5d., the total capital now reaching £60,069 6s. 1d., which was nearly £10,000 more than at the corresponding period last year, all of which was invested at remunerative rates of interest, with the exception of a small sum at the bankers' for current expenses. The expenditure for sickness had, as might be expected, proved to be lighter than that of the corresponding quarter of last year (which was in an epidemic period), the number of recipients having been 48 against 58 in the former period, while the actual sickness experience had been held within that estimated by the actuary.

One of the five deaths announced was that of a member who joined the Society in January, 1886, at the age of 32, paying a premium of £1 19s. 3d. per quarter for four guineas a week during sickness, and who, though possessing a perfectly clean record at the time, having been accepted by two well-known insurance companies at ordinary rates, after two years' membership developed albuminuria, which rendered him totally incapacitated from following his profession until his death in September, at the comparatively early age of 38 years. In proof of the advantage of early insurance against sickness, and of the marked benefits of membership of the Medical Sickness Society, even to the young and apparently healthy, it was stated that this gentleman, joining under promising health conditions and at an early age, had become entitled to receive £428 8s. as sick pay, or £365 2s. 11d. in excess of the premium paid; this case was, however, only typical of others of a like nature. We may add that prospectuses, forms of application, and full particulars, may be obtained on application to Mr. C. J. Drummond, Secretary, 21, Dalmore Road, West Dulwich, S.E.

A Pension Fund for Pharmacists in Russia.—At a conference of pharmacists from all parts of Russia in 1889, it was proposed that a pension fund should be established, a tax of one quarter of a kopeck being levied for the purpose on every prescription dispensed. It is expected that this or some similar scheme will shortly be adopted by the Pharmaceutical Association throughout the Russian Empire, and sanctioned by the Government.

THE WORK OF THE LATE ADMINISTRATION AND THE NEXT.[1]

VI.—The Indian Medical Service.

In reviewing the position of the Indian Medical Service, its intimate relations, many points of contact and common interest with the Medical Staff are early forced on consideration. The two services during the past thirty years have been so intermixed that much we have already written of the one applies to the other; their interests, for instance, in the broad question of army status are not merely similar, but identical. So in many others. But in former days these services were, to most intents and purposes, practically distinct, and remained so until the great Mutiny threw them largely together and broke down the barrier of isolation, which has since been lessened with each decade. We know this unavoidable mixing has been regretted by many, and even resented by some Indian medical officers, who go so far as to date the final decadence of their service from the Governor-General's orders of January, 1880, and March, 1881, which consolidated the two medical establishments into one administration, called the Medical Staff of the Army of India. Although that point of departure is memorable and important, we are far from looking on it as the necessary ruin of the Indian Service, for we think it quite possible to look back on the palmy days of the service with admiring regard, and even with a measure of regret, and yet willingly accept the inevitable. It is well in this case to recognise frankly that a new order of things had come about, which might be moulded but not resisted, and that the unavoidable march of events had sooner or later to be grappled with.

It was hardly to be expected that such far-reaching changes could be inaugurated without friction and heart-burnings between the services; which, although regrettable, should not, as the wisest contend, really alter their true position as sisters between whom honest rivalry but no irreconcilable antagonism may exist. But it is always to be feared that, even if internal differences be only passing and unreal, they may, if not speedily composed, be manipulated by adverse outside influences to the detriment of both. It is, therefore, the clear duty of all who have the true interests of the services and the reputation of medicine in India at heart, while promoting judicious reforms, to smooth away both executive and administrative differences. In these sentiments we feel confident we have the mass of both services with us; but, at the same time, we cannot shut our eyes to the existence of a, probably, small but certainly vigorous party, which, on some principle apparently of India for the Indians, advocates the practical exclusion of the sister medical staff from the country. We must at once pronounce any such programme impossible, and even if attainable altogether retrograde, and to be condemned alike on sound imperial, financial, and military considerations. The re-establishment of a local European force in India is very improbable, therefore, a large and perhaps the best part of the home army must constantly garrison the country; to divorce from it that portion of the medical staff which integrally belongs to it in favour of a local medical service would certainly be fatal to general army organisation and efficiency, and consequently an act of gross maladministration. The army and its staff exist as a whole for imperial and world-wide objects, to which India as a part (if a very big one) of the empire must needs contribute and conform. We have heard an even somewhat more grotesque proposal—to retain the medical staff for executive, but exclude it from administrative duties in India. Exclusion of any kind is, indeed, entirely out of the question, and, as the two services must coexist in India in full development, the points in dispute become resolved into equitable redistribution of executive duties, and fair apportionment of administrative functions between them that such could be adjusted on the lines of the General Orders quoted we have little doubt.

We find greater difficulty in framing a comprehensive survey of the Indian than of the home medical service; because, through great diversity of duties in the general administration of an immense country, the former have less homogeneity, and more varied interests, than the latter. But the very variety and diversity in the appointments have ever been, and we trust may continue to be, the chief attraction of Indian service, and the element which has long cast a halo of romance around it. We sincerely hope that whatever reforms the evolution of time may bring about, the Indian medical service will never lose the splendid field for distinction which it has hitherto enjoyed, and around which cluster its proudest traditions. It is, indeed, a service not merely of honourable but of venerable memories; for, in best essentials, it is older than the home service, in so far as having afforded an independent, dignified, and lucrative career at a time when army medical officers were still in an ill-paid position of mere subservience; in a freer, self-reliant life breeding qualities impossible of development in the routine existence of a British barrack; in short, it took ample advantage of great possibilities open, from which the sister service was wholly shut out. The scope afforded was not alone strictly professional, or merely military, but also scientific, economic, diplomatic, and political; of all of which it took ready advantage, and through which, in several historic instances, an important part was played in the consolidation of British influence in the East. If, with such a splendid record, there be any who would shut the door on similar future possibilities, we are not of them.

We could not here estimate or recount the part that medicine has played in building up our Eastern Empire, but we believe it to be far greater than usually supposed; suffice to say that the mere relief of physical suffering alone has brought home to multitudes of natives of every degree, a personal sense of the beneficence of our rule such as could hardly have reached them otherwise. We can well say that the Government of India owes a heavy debt of gratitude to its medical service; and if ever that authority, whether through ill-judged parsimony or worse balanced theories, ceases to attract, as heretofore, able and highly educated medical officers to its employ, it will be but evidence of that shortsighted madness which the gods are said to send upon the doomed.

It would be no easy matter in any case, and impossible within our limits, to survey comprehensively the wants and grievances of the entire Indian Medical Service; for it would involve the discussion of endless difficulties affecting individuals and appointments in every province and district of the country; we must therefore confine our remarks to the widest issues.

The administrative consolidation of the British and Indian Services was a step which events had rendered inevitable; for, as the European and native armies serving together must necessarily be mobilised as one force in war, it were worse than useless to keep up a separate and expensive dual hospital administration in peace. Under G. G. O., No. 13, of January, 1880, the Surgeon-General of Her Majesty's Forces became the absolute medical head of the armies of the three Presidencies; and it was explained that he would "ordinarily" be taken from the British Medical Department, although the Government reserved the power of appointing specially qualified officers of either service to that or any other of the administrative positions. The deputies in the military branch under the Surgeon-General were by the orders, practically taken equally from both the services.

These arrangements were soon challenged on the two points, whether the Indian service had its fair share of the deputy appointments, and whether these deputies were, by the selection of the Surgeon-General from the British service, practically cut off from that, the highest rank, to which they might legitimately aspire. The first point we will not discuss; but on the second, we would remark that, although the prudent reservation of the Government precludes the absolute, it is unlikely to prevent the actual, exclusion of the Indian deputies from promotion to the rank of Surgeon-General. But before following out this, it will be will be well to glance at the supplemental G. G. O., No. 150, of March, 1881, which practically divided the Indian service into civil and military branches, and created a Civil Administrative Medical staff. Under that order the highest medical appointment in Bengal—that of Sanitary Commissioner and Surgeon-General to the Government of India—was made civil, to be filled by selection, practically, from that branch; in Madras and Bombay, however, the surgeon-generals are less

[1] The articles of the series already published have appeared in the British Medical Journal of August 20th, p. 423; August 27th, p. 473; September 17th, p. 648; October 15th, p. 856; and October 22nd, p. 908.

purely civil. But at the same time it was laid down that he, as well as the Surgeon-Generals to the Governments of Madras and Bombay, would, in addition to the duties of civil administration, be also heads of the Indian Medical Department in their respective Presidencies.

From this it is clear these officers still retain important administrative functions extending over both the medical and subordinate medical Indian establishments, and also in a measure over the Indian deputies, which have led the latter to say very truly that they have two masters, with the likelihood of coming to grief between two stools. The order carefully explained that although the service was divided into civil and military branches, the officers "will remain military officers ... lent to the civil department, and liable to be recalled for military duty in the event of their services being required." The officers who, having mostly stuck to military duty with native troops and risen to be deputy surgeon-generals in that branch, most reasonably complain that they are grievously hit in both directions by these orders, inasmuch, being excluded "ordinarily" from promotion to the Surgeon-Generalship of H.M. Forces, they are also practically ineligible, from insufficient experience in civil employ, for the Civil Surgeon-Generalship to the Government of India. No one can deny the hardship, but where is the remedy? The question is more easily asked than answered. It has been suggested that a solution should be found in sharing the Surgeon-Generalship to the Forces between the services by substituting in the order the word "alternately" for "ordinarily." But, on broad grounds, we think this would not prove either a satisfactory or a lasting solution of the difficulty. We consider that, in view of the paramount importance of the European army in India and its complex hospital organisation, and in virtue of the direct connection and life-long training of the Medical Staff with it, an officer of that service should always fill the post of Surgeon-General to the Forces in India. Of course, such an arrangement is practically in force, but it ought to be specifically and definitely laid down, if it were for nothing more than to prevent periodic intrigue and scramble when the post falls vacant, which certainly does not conduce to the dignity or efficiency of such an important appointment. But the Indian medical officers, directly superseded or cut off from the appointment, should receive compensation not, indeed, at the expense of the Medical Staff, but within their own department. It has been suggested that such might take the form of a step in rank, with additional pension on retirement. Compensation of that kind could not, however, go on indefinitely; therefore, a more radical and permanent solution of the difficulty has still to be found.

The complete amalgamation of the two services has with that view been proposed; but, if to the extent that the officers should be fully interchangeable, then it is neither desirable nor feasible; for a fair proportion of natives must be admitted to the Indian Service, who, for obvious reasons, would be ineligible for charge of British troops. But if complete amalgamation of the services be impossible, organic unification between them could be effected by a single portal of entrance. We lately received a scheme, from a thoroughly-informed correspondent, framed with a view of securing that end and of overcoming the racial difficulty, of which the following is an outline:—Through a single portal he would give 25 per cent. of commissions to natives, who would compete for purely civil Indian appointments only; to the unified 75 per cent. Europeans he would apply the principles and method which now regulate the volunteering between the Royal and Indian Engineers. Those electing for Indian service would come under Indian Rules and pass to civil employ, although, within certain limits they might, if it suited them, exchange back to military duties. These, however, permanently allocated to civil duties, would retain their army status and be liable to recall to military service in emergency, for our correspondent, in common, we believe, with the great bulk of the service, and certainly in consonance with our own views, very strongly deprecates the complete separation of the civil and military medical branches in India.

We give this scheme for what it may be worth. It would certainly get over the dual military medical difficulty in India, with its attendant friction and supersessions, and would impart symmetry to the medical services, because the Indian would be recruited from the Home, just as the Staff Corps is from British regiments. We are well aware, however, that any such organic union with the Medical Staff as has here been sketched would be most unpopular with a large number of existing Indian medical officers, and, if tried, would probably—at first, at all events—give rise to much friction and ill-feeling.

The oft-proposed and possible substitution of station for regimental hospitals for native troops would be a change widely affecting the Indian medical service, because in any case it would mean the partial destruction of the medical charge of regiments. It has been advocated by some and strenuously opposed by others, and is a measure which should certainly not be entertained without ample previous consideration. If there were no other than financial matters involved, then it would probably be speedily carried out in the interests of an impecunious Treasury; for a similar measure applied to the European troops has effected a large saving—all, indeed, to the advantage of the Government; because, contrary to long-established and universal precedent, not an anna of the money saved has been returned, in the shape of charge pay, to the officers, who, by every usage of the service, were entitled to expect it, and in whose favour we have reason to know reservation was planned and approved by high Indian authorities. If the native hospitals are ever consolidated, we trust no such unfair parsimony as has disfigured the system in the European hospitals will be followed.

But there are other than financial questions involved, for the caste usages and prejudices of the sepoys must be considered. To meet these it has been proposed that the station hospitals should be divided into "sections." We imagine consolidated native hospitals could only be established in the larger stations, and probably could not be adopted at all on the frontier and many other places, where a regimental system would necessarily continue. Any scheme of unification would no doubt force on the question of these hospitals, which, as we have said, must be considered specially as affecting the usages and discipline of the native troops.

Perhaps nothing has so affected the attractiveness and efficiency of the service as the long-continued reduction of establishments. Ever since the palmy days of the princely old "Company" the pruning knife has been steadily at work and every change has been made the excuse or occasion for lopping off something of value. Especially have the administrative appointments been so reduced and consolidated that now only old men who haply survive can hope to reach those left. This alone has immensely reduced both active pay and retired pensions. Even the executive also, from the most senior medical officer to the junior apothecary in the subordinate department, has been so contracted that peace duties are frequently carried out with difficulty, and collapse scarcely averted on the smallest war strain. This state of matters is not merely unjust to the service, but is fraught with danger to the State. While reductions are carried out with cynical complacency, we never hear of additions, even when 10,000 Europeans are added to the garrison of India, or a whole province, like Burmah, bodily annexed. We hear that the medical arrangements in every succeeding little frontier expedition have been cut down and down until they have now reached a vanishing point. Of course this can only end some day in a catastrophe, to be followed by an outburst of public indignation. If money must be saved somehow in India, we are confident it cannot longer be at the expense of the already greatly depleted medical service.

We will say little on the very menacing question of the depreciated rupee, because the medical only suffers, in common with every other branch in India; but that, coupled with restrictions on private practice and the receipt of fees, have enormously reduced the money value of Indian service, and cannot but work mischief in lowering the standard of candidates for service in the country.

Neither has the Indian service escaped class jealousies, similar to those which have so often borne sorely on the Medical Staff. India is the very home of social caste, but, as medical officers have found, that baneful spirit—compounded of arrogance and selfishness—is not confined to the natives, but at times flares out in their own countrymen, as witness the occasion when the honorary surgeons to the Viceroy were stripped

of their distinguishing "aiguilette," in deference to the puerile susceptibilities of a handful of military officers!

There are not a few other matters connected with the Indian Medical Service on which, if it were possible, we might dilate. But we think we have said enough to convince any Secretary of State that there are grave problems connected with it which, in conjunction with the Government of India, must be worked out at no distant date.

We trust that when these problems are approached it will be in a spirit at once broad and liberal, with a determination to permit no violence, either to existing or to prospective interests, and to prevent any breaking of the splendid historic continuity of the service; for it is very certain that the medical profession at large, and the great section of public opinion which sympathises with it, would strongly resent, as they would infinitely regret, any official action which might lower the hitherto high standard and traditions of the Indian Medical Service, which have deservedly commanded admiration and respect for more than a hundred years.

SPECIAL CORRESPONDENCE.

MELBOURNE.

The Medical Bill Hung Up.—Establishment of a Cremation Society.—Proposed Branch of the British Medical Association at Ballarat.—Strychnine in Snake Bite.

The Medical Bill, to which I have occasionally alluded, and which had for one of its aims the extinction of quackery, has been shelved owing to its extreme character. Its epitaph was written by some 5,000 people, whose names inscribed on a petition formed a bulky document, wound round a wooden roller, which was presented to Parliament. These persons protested against the State patronage of any system of medicine and the legalised monopoly appertaining to it. The petitioners declared that they had abundant proofs of the superiority of other systems, and claimed the right to have full liberty of choice in all cases of disease to select the system and the exponent of that system they preferred. They also considered it just that the practitioners they employed should enjoy the same privileges as the legalised practitioners at present, and that the Medical Council should be elected by the people. The document concluded with the following prayer: "Abolish State patronage to any one system of medicine, place each system of proven medical virtue upon an equal footing of legalised privilege and recognition, and emancipate the public from the medical monopoly which is so injurious to sanitary science and so oppressively adverse to the best interests of every member of the community." We have to console ourselves with the knowledge that the Medical Act, which is still the law of the land, answers all purposes very well. The machinery is there, and only requires to be worked intelligently.

After many years of untiring work, Mr. H. K. Rusden, the Honorary Secretary of the Royal Society of Victoria, has at last succeeded in establishing the first cremation society in this colony. There was a large attendance of medical men at the inaugural meeting. The chair was taken by the President of the Royal Society (Professor W. C. Kernot, Professor of Engineering in the University). His address was both historical and scientific, and gave proper weight to the sentimental aspect of the matter. The sombreness of the subject was occasionally relieved by a few coruscations of dry humour, to which the press, in discussing the proceedings, took some slight exception. He was charged with disrespect for the dead. What I heard him say was "that there would be an objection to a cemetery 33 miles from Melbourne, inasmuch as the expense would be considerable—return tickets for the mourners and a single ticket for the corpse. He knew of a place where beer was brewed from water which percolated from a cemetery at the summit of a hill, the fine quality of which beverage was a high tribute to the excellence of the people buried on top."

Our colleagues in Ballarat are agitating and insisting that they will have a wholly separate and distinct Branch from the Melbourne or Victorian. Their numbers are necessarily few, and we in Melbourne object to such a severance, on the ground that it breaks the unity of the Association and therefore weakens its influence. All the privileges to be obtained may be as readily bestowed on a Sub-branch. It would be very deplorable to see a society in so small a community as our own split up into sections.

At the last meeting of the Royal Society, Dr. J. W. Barrett read a paper on "The Present Position of the Snakebite Controversy." He argued that before it could be asserted that a patient's death was averted by the injection of strychnine it would be necessary to ascertain the percentage of individuals who died from snake bite when other methods of treatment were adopted. In the Government returns the deaths from snake bite and insect bite were bracketed together, and for purposes of calculation the decade 1881-90 was taken. The total number of deaths for the period indicated in the colonies of Victoria, New South Wales, and Queensland, was 125, six of which, if not more, were due to the bites of other animals. Moreover, some of the deaths might have been caused by the enthusiastic administration of alcohol or some other remedy to persons bitten or supposed to have been bitten. The ratio of death from snakebite in each colony during the decade to the average population was as follows: Victoria, 1 to 25,852; New South Wales, 1 to 19,980; Queensland, 1 to 7,826; making an average of 1 to 17,886. From these figures it was concluded that snakebite was one of the most insignificant causes of death in our midst. For example, in the three years, 1887-88-89, more persons died in Victoria from hydatid disease than were killed by snakes in Australia during the decade. In 1876 Professor Halford discovered that the recovery of a dog from snakebite or snake virus injected was chiefly a matter of dosage. None of the dogs recovered when half a grain of fresh liquid poison was injected. On an average tiger snakes, 3 to 4 feet long, injected one to one and a-half a grain, a quantity believed by analogy to be barely sufficient to kill a man. One grain of tiger snake venom, if injected fairly into the skin, would be a dangerous dose; it was, however, quite possible that a snake driving its fangs through the skin found it difficult to administer the full dose. In the case of some of the Indian snakes the dose amounted at times to from 10 to 13 grains. As far as the evidence went, there was nothing to show that strychnine had any effect on the poison; on the other hand there was nothing to show that it had not.

CORRESPONDENCE.

Pressure on Space.

Notice to Correspondents and Authors of Communications.

In view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

THE INCUBATION PERIOD OF INFECTIOUS COLDS.

Sir,—Subjects of less general interest than the incubation of colds are sometimes discussed in the medical press, and since observations as to the length of this period are more likely to be made by the physician in his own proper person than in his practice, I venture to send you my own experience. Last Sunday an old member of the College (in practice in the North of England) spent one day at my lodge instead of returning to his own home, because "he had such an awful cold, which he had caught from a friend three days before it made its presence felt." In the evening we did some photomicrography together, and I wondered, as we sat nose to nose, how long it would be before the germs which he was sowing upon my mucous membrane would produce a crop. On Wednesday evening I began to exhibit symptoms of an ordinary infectious cold, which has run the usual course, producing painful inflammation of the soft palate, hard palate, upper part of the pharynx, nasal cavities, and larynx, in the order named. During the three days which the cold took to incubate, I was not, as I believe, exposed to infection from any other source.

Although colds are scourges which we bear with unresisting fortitude, more exact information with regard to the natural history of their microbes, to their germinating

period, susceptibility to destructive agencies without the body, and more especially their antipathies in the matter of circulating proteids, albumoses, alexins, or whatever else may be the diet upon which they flourish least would serve to diminish the sum of human misery.

"To take no liquid for forty-eight hours, so that the materials for flux may be minimised and the cold die from inanition," reads like a direction from a mediæval "regimen," rather than the dictum of a well known textbook in this age of institutes of preventive medicine.

Hoping that exact information with regard to the incubation period of colds may be obtained through the columns of the British Medical Journal,—I am, etc.

Downing College, Cambridge, Oct. 29th. Alex Hill.

DR. BRIDGES'S HARVEIAN ORATION.

Sir,—The lucidity and strength with which the Harveian Oration of this year is analysed and discussed in the British Medical Journal of October 29th contrasts most advantageously with the studied obscurity with which its ulterior aims were veiled in the text of the oration, and the muddle-headed praise and empty comment of which it has been the subject with many writers. Some, apparently, did not in the least understand its drift, but were content to feed "what they are pleased to call their minds" with its pretty language and abundance of literary references to philosophy and schools of learning. But those who looked below the surface saw easily the object, which was to discredit research, to proclaim the uselessness of further experimental investigation, and to announce Positivist sociology as the true cult of the physician. This has been ably analysed and satisfactorily refuted in your searching criticism, for which the Fellows of the College and the profession owe you thanks. The reporters of the press saw, many of them, more clearly than some critics—for example, than the writer in your medical contemporary, who is hopelessly lost in a cloud of verbiage—at what Dr. Bridges aimed. The blunt reporters of the daily press described the oration as one which showed that the statement that Harvey profited for his discovery by experiments on the living heart was "useful to put before the uninformed public," but exaggerated and untrue—a very pretty version of the Positivist view, and a very pretty use to which to put the temporary occupancy of the Chair of Harvey in Harvey's College.

Whoever is responsible for offering this opportunity to Dr. Bridges, which he showed no want of readiness to use, has all the more responsibility that Dr. Bridges had long since publicly and clearly declared his hostility on principle to the experimental methods. He had already shown his colours and declared his hand. He wrote in 1875 that, "in reference to these higher subjects, we may add generally that the weight attached to this form of experiment in biology is an indication of more than one erroneous tendency. It ignores the truth that really valuable knowledge of man cannot be learnt by study of him in his most isolated, but in his social existence. It is therefore a misdiversion of energies alike of biologist and of physician. It is the continuance in a time when it has ceased to be appropriate of a form of investigation which had its use under very different conditions. The result is to divert the attention of many thinkers from questions which are of sovereign importance—even for biology—and *from the settlement of which alone any true progress in biology is now to be looked for*—the questions of government, social organisation, education, and religion (!)." And, again, "as an instrument of original research, vivisection has unquestionably been useful in the past." So far he differs from Mr. Tait. "We think that, under most careful restrictions, it may, on rare occasions, be needed in the future. But results already attained in biology ought to render its employment more and more infrequent; and the important branch of inquiry, that which relates to the cerebral functions, is one in which we think other methods most applicable; the method of vivisection most uncertain and most unfruitful." And yet again, "for the purposes of scientific biology as for the purposes of the medical art, there exists, as has been pointed out, a large store of experiments in the phenomena of disease which are unfortunately too abundant. The rational use of these might, we think, in most cases, be sufficient for all our wants—not impossibly in all cases."

A very pretty programme for enunciation and amplification by a Harveian orator with the *quasi*-authority of the College of Physicians on the one annual occasion when it invites the newspaper reporter. A very comprehensive anathema of the search for more knowledge of the facts of biology, and particularly suitable to the present moment; singularly harmonious with the opinions of a College which cultivates actively laboratory research.

No one can blame Dr. Bridges for using the occasion as, like a good Comtist, he did use it. But whose discretion selected a gentleman who has a purely theoretical knowledge of physician's work and who had this avowed programme to promulgate? He must, as you suggest, have felt very much like "a fly in winter,' and rather uncomfortable at that, but he had the courage of his opinions, and was not deterred by any over-delicate sense of the fitness of time and place. The Comtists may owe him thanks, but the Fellows and Members owe none either to him or to the authorities who nominated him for the post.—I am, etc.,

Oct. 29th. An Experimentalist and Baconian.

MR. TAIT AND ANTIVIVISECTION.

Sir,—In addition to the error corrected in your last issue—to the effect that I am a member of the Scientific Grants Committee—there are several other mistakes of some importance in your leading article of October 22nd into which you have unwittingly fallen, and for the correction of which I must ask indulgence in your columns.

You say that I avoided any discussion of the resolution passed unanimously at the Nottingham meeting, "at which he was present." I was not present at the meeting in question, and, as I saw no notice of such a resolution, I had no opportunity of taking part in the discussion.

You further say that I have always carefully avoided discussions of this subject before a medical society or audience. I have never known but one such discussion, and in it I took a leading part. Your statement that I absented myself from the Church Congress is only true to the effect that I did so because I was informed that as I was not regarded as a member of the Church of England, it would be against the rule of the Congress that I should be allowed to appear on its platform.

The statements you made that I am devoid of a sense of humour, witless, wanting in good taste, etc., are all matters of opinion upon which I can quite well afford to let you have an expression.—I am, etc.,

Birmingham, Nov. 1st. Lawson Tait.

*** Notice of the resolution was printed in two places, in the agenda and programme, and distributed in the usual way. It was peculiarly unfortunate that Mr. Tait should have overlooked both the notices in the agenda and programme, and perhaps hardly less so that when the resolution and the speeches were printed in the subsequent British Medical Journal he should have omitted to have expressed to his professional brethren his opinions as to the disgrace, etc., thus brought upon the Association, as he has since done so eloquently elsewhere It was within the observation of most of the 1,200 members present at the annual meeting that Mr. Tait was present in Nottingham throughout the week and frequently took part in the proceedings. The address of Professor Woodhead, which had long been announced, bore necessarily upon the benefits which experimental research upon animals in bacteriology had conferred upon medicine and the extent to which it was hoped to advance medical knowledge. It was, therefore, all the more to be regretted that Mr. Tait, on this particular day, was absent from the platform. Mr. Tait ignores the fact that at the International Medical Congress in 1881 he had a similar opportunity. Further, at any time for the last fifteen years—at the annual general meetings of the Association, in the British Medical Journal on the publication of the reports for the sanctioning of large grants for experimental physiological research—he has had occasions manifold for raising a protest. Will Mr. Tait specify the particular discussion before a medical society or audience in which he took a leading part?

Sir,—I notice that in the report of the proceedings of a meeting of antivivisectionists, which was held at St. James's

Hall on October 27th, a prominent part was taken by Mr. Lawson Tait, who is reported *inter alia* to have denounced experiments upon living animals as useless and misleading. I have been a member of the Scientific Grants Committee of the Association for some years, and have a distinct recollection of seeing Mr. Tait at a meeting of the Committee as one of its members, and that not very long ago, and of his tacitly acquiescing, to say the least, in the appropriation of considerable sums of money for the express purpose of providing for and encouraging such experiments as those he now so strongly denounces. I do not remember a word of protest to have been raised by Mr. Tait, and the question forces itself upon one, Why is it that Mr. Tait reserves his statements and denunciations for audiences who are entirely ignorant of the questions involved?—I am, etc.,

University College, Nov. 1st. E. A. SCHÄFER.

LIGATURE OF THE ILIAC ARTERIES THROUGH THE PERITONEUM.

SIR,—In the BRITISH MEDICAL JOURNAL of October 29th Mr. Sheild asks a question in operative surgery—as to whether the time has not arrived when the old operations for ligature of the iliac arteries outside the peritoneum should be abandoned in favour of an intra- or rather transperitoneal method. It is an idea which has presented itself to other minds before, and in 1889 I acted on this belief and ligatured the common iliac artery through a median laparotomy incision for a rapidly increasing aneurysm of the external iliac. The operation was performed with ease, and the patient recovered rapidly without suffering from shock, fever, or any untoward symptom. The case was mentioned in the medical journals of June 29th, 1889 (and I think on July 6th also), but I have not found time or have been negligent in publishing the details of the case. It is, I believe, the first case in which ligature of the common iliac artery by this method has proved successful, but the experience was so favourable that I cannot conceive a case in which any other method could lay claim to greater consideration. The ghastly incisions through the parietes and the laborious stripping up of the peritoneum, which I had to recommend during the ten years I taught operative surgery in the Medical School of Guy's Hospital, inspired me with distrust and filled me with disgust. For the common and internal iliac arteries I have no doubt the old extraperitoneal method will be entirely superseded in the direction I have indicated. Exception will probably be made in favour of the old method for the external iliac, which, tied by Astley Cooper's method, is a neat and effective operation within the range of a surgeon of average skill. Soluble aseptic ligatures and antiseptic wound dressings must have credit for pushing forward the surgery of arteries both in new directions and in greater safety.—I am, etc.,

R. CLEMENT LUCAS, B.S.Lond., F.R.C.S.,
Finsbury Square, Oct. 31st. Surgeon to Guy's Hospital.

SIR,—I trust that Mr. Sheild's letter in the BRITISH MEDICAL JOURNAL of October 29th will elicit an expression of opinion from our leading authorities on operative surgery. I have recently had a case of inguinal aneurysm, in which it was my intention, after the trial and failure of compression of abdominal aorta by Lister's tourniquet, to ligature the common iliac artery by a median vertical incision through the anterior abdominal parietes and peritoneum.

Unfortunately, one afternoon the sac of the aneurysm showed signs of rupture, and I was therefore compelled to deal with the case at once in a different manner, by laying open the sac and tying the arteries communicating with it, namely, the external iliac, superficial and deep femoral, and deep circumflex iliac and epigastric, all of which came off from the sac of the aneurysm and required ligature. The aneurysm extended quite half way up the external iliac artery. Secondary gangrene of the foot and leg took place, but the patient recovered after amputation of the leg below the knee. Mr. Treves, in his *Manual of Operative Surgery*, states that "the recent tendencies of abdominal surgery render it probable that in the future the artery will be reached" by the method suggested by Mr. Sheild, but also states "that he is not aware that the operation has been carried out on the living subject."

It seems to me that the direct method in question would be much easier of performance and (considering the recent development of abdominal surgery) present no greater if so much risk, as the hitherto usual method of reaching the artery from the iliac region at a great depth behind the peritoneum.—I am, etc.,

Tunbridge Wells, Nov. 1st. J. BULKLEY FOOTNER, F.R.C.S.

CHEMISTS AS PRESCRIBERS.

SIR,—*Re* "Chemists as Prescribers" and the case discussed in the BRITISH MEDICAL JOURNAL of October 8th, and also the letter signed "General Practitioner," in the issue of October 22nd, I may say that I entirely agree with him that some definite action ought to be taken by the profession. That the evil exists to an extent not generally supposed even by members of the profession I have had, unfortunately, ample opportunity of observing, at any rate in the manufacturing districts of Lancashire. I know that in Preston, for instance, all chemists, with the exception of a very few in the main streets, follow the practice, and not long ago I saw an advertisement in a religious journal, inserted by a Preston chemist for an unqualified assistant to be "a good counter prescriber." A few years back a chemist from Preston used to visit patients in this district (a few miles from Preston) regularly, and I know of one in Southport who visits patients at their own homes as regularly as any medical man. But worse than these cases even, is one under my eyes constantly; an individual (whose father was a chemist) not qualified in any way styles himself "druggist and dry-salter," and also keeps a grocer's shop in Preston, visits this village regularly, and in addition to selling groceries, prescribes for and furnishes with medicine anyone who is credulous enough to believe in him; he also draws teeth.

That such a state of affairs is possible is, I consider, a blot on the law that allows it; highly prejudicial to the public, not to speak of the monetary loss to a profession that has in these days hard work to make a living, after having spent much time, energy, and money in attaining a position that should be at any rate moderately lucrative.

I sincerely trust some definite steps will be taken by members of the profession to endeavour to put a stop to the practice, and I am willing to do whatever lies in my power to help in any movement set afoot in the matter.—I am, etc.,

Freckleton, Lancs., Oct. 28th. BENJ. E. JONES.

NOTIFICATION OF INFECTIOUS DISEASE.

SIR,—The question raised by Dr. Godfrey can only be settled by a judge. But so far as my opinion is worth anything, it is that Dr. Godfrey and his assistants are, in effect, one "medical practitioner" and only required to give, and entitled to receive payment for, one certificate for one case. Further than this, I think that the same rule would apply in the case of two or more partners.—I am, etc.,

W. H. CORFIELD, M.A., M.D.(Oxon.).
Savile Row, W., Oct. 26th.

SIR,—The Act for the Notification of Infectious Diseases was intended that sanitary authorities should obtain early and reliable information of every case of infectious disease. This is the spirit and intention of the Act. The strict letter of the Act may be as Dr. Corfield states, and that every consultant or qualified assistant who may see a particular case is liable to a prosecution should he fail to re-notify. Dr. Godfrey will do well not to permit his qualified assistants to renotify. There is not the remotest danger that any sanitary authority would ever dream of prosecuting anyone under these circumstances. No useful purpose would be served by renotifying cases, except it would bring fees to the medical profession and arouse the just indignation of the ratepayers.—I am, etc.,

Bacup, Oct. 25th. JOHN BROWN, M.D., M.O.H.

THE DIETARY OF EPSOM COLLEGE.

SIR,—In pursuance of a resolution unanimously passed at a meeting of the Council of Epsom College on October 27th, I am instructed to request you to give insertion to the accompanying report.—I am, etc.,

Soho Square, W., Oct. 31st. J. BERNARD LAMB, Secretary.

Report of the School Committee to the Council of Epsom College.—The School Committee have been carefully considering an exhaustive report from members of the school and finance committees on the dietary supplied

to the masters, pupils, and servants of the College. A visit was recently paid without any notice being given to the College officials. The bread and butter is excellent. Good oatmeal porridge is supplied to the boys on alternate mornings. The tea is an excellent article supplied by a first-class London house. It is weighed—as is also the white sugar—and the milk measured when the tea is prepared for breakfast and tea. Unsweetened tea is supplied for those who prefer it. The diet table for fourteen consecutive days has been laid before us. The variety of the meat, and its mode of preparation, is satisfactory. The variety of vegetables is good, and the puddings daily supplied meet with our entire approval. The meat is boiled or roast, of first-class quality, and stews or curries are given so that boys may have a choice of dishes, not less than twice a week. The vegetables are good and well cooked, and comprise potatoes, cabbage, turnip-tops (carrots, turnips, and onions in the stews), lettuces, and beetroot. The puddings are given daily, and comprise raisin puddings, currant dumplings, bread and butter puddings, rice pudding with jam, and suet pudding with treacle or jam. Rhubarb is given in season, and cooked fruits as the markets permit. All these are carefully prepared, and the masters partake of them at the same table as the boys at the mid-day meal. The provision of a first-class education with a good wholesome well-varied dietary strains the pecuniary resources of the College to the utmost. But the head master has advised the Committee that a glass of milk in the early morning during the winter months would be of service. Your Committee therefore recommend that half a pint of milk be supplied to each boy before he begins work. It is computed that this will cost about £80 per annum. In considering the question of supper, no change for the present will be made. Beer has always been provided; it is good and wholesome. Luxuries we do not profess to give. The fees paid do not admit of it, and it is more than doubtful whether they are not harmful to growing lads. Delicate boys who need extra diet must pay for it as in other schools.

That the administration of the school in the past has been successful is proved—First, by the low rate of sickness, except when epidemic disease has been imported. Secondly, by the reports of the examiners of the form work, and by the successes of the boys who (going straight from the College) win distinctions at the universities, the hospitals, and elsewhere, and enter the public services. This shows that the nerve-forces of the boys are well nourished, and lastly but by no means least, the successes of the boys in the playing fields show beyond power of contradiction that their muscles are well nourished and well developed.

The authorities of the College are at all times willing to listen to any suggestions for the benefit of the pupils. It is hoped that parents will more frequently come and see how their sons are cared for. If this is impossible, written and signed communications will receive courteous attention in the future as has always been the case in the past.

J. FAYRER, Chairman.

At a special meeting of the Council held on Thursday, October 27th, 1892, the following recommendation, moved by Sir Edward Sieveking and seconded by Mr. J. Lumsden Propert, at a special meeting of the School Committee, was unanimously adopted: "That the report of the School Committee on the dietary at the College be received, adopted, and its recommendations carried into effect; and that copies be forwarded to the parents of all boys at the College and to the leading medical journals."

MONOPOLIES OF APPOINTMENTS IN SCOTLAND.

SIR,—I read in the BRITISH MEDICAL JOURNAL of October 8th an address by Dr. L. H. Ormsby, Surgeon to the Meath Hospital, in which he enumerates, amongst the grievances of the medical profession, the exclusion of Irish and Scotch diplomates from English appointments. I was pleased to learn that the Irish Medical Association, the British Medical Association, and the Irish Medical Schools' and Graduates' Association were working together against such monopolies, and had induced the Governors of the Bristol General Hospital and the East Sussex Hospital "to expunge from their by-laws the unfair and un-British-like disability."

It is to be hoped that these useful Associations will turn their attention to Scotland. How does it stand in the great medical school of Edinburgh? The University gives the degrees of M.B. and C.M., and then of M.D. The graduate gets a licence to practise anywhere save in the hospital where he has received his clinical instruction. Neither a Doctor of Medicine nor a Master of Surgery is allowed to hold the post of Physician or Surgeon in the Royal Infirmary of Edinburgh, which is in great part supported by the fees paid by the graduates when they are students. To enable him to hold a medical appointment, he must be a member of the Edinburgh College of Physicians, or for the post of surgeon a member of the Edinburgh College of Surgeons. A London or a Dublin physician elected to the Chair of Medicine in the University of Edinburgh would need to become a member of the Edinburgh College of Physicians, and pay the fees, till he could treat patients in the infirmary wards. To argue against such a piece of exclusiveness is superfluous; to state it is to condemn it. Why does the University not stand up for the rights of its graduates?—I am, etc.,

Oct. 17th. CORNELIUS.

UNQUALIFIED ASSISTANTS.

SIR,—I shall be obliged by your correcting in your next issue inaccuracies contained in a recent note on the employment of unqualified assistants. Mr. Coppin is not and never has been my assistant, but acts as such for a neighbouring practitioner, as clearly shown in the recent proceedings. My surgery is entirely under my supervision, the visiting and prescribing being done by myself, the assistant, Mr. Piper, to whom you refer in the latter part of your note, being employed to dispense, visiting only in my occasional unavoidable absence, and in the case in question responded to an urgent call, I seeing the patient immediately afterwards. It is quite untrue that brandy was suggested or given by him, but he ascertained that the relatives before his arrival had tried to administer a stimulant.—I am, etc.,

Upper Kennington Lane, Oct. 31st. ROBERT GRAHAM.

WAS PARACELSUS A QUACK?

SIR,—In the BRITISH MEDICAL JOURNAL of October 29th, p. 984, you speak of the quack Paracelsus. The name of Theophrastus von Hohenheim has become so intimately bound with the notion of quackery that the two words quack and Paracelsus generally go together, and yet I very much doubt whether there are in England half-a-dozen medical men who could say why they believe that Paracelsus was a quack; no one, I think, could prove it. Probably few men have been more unjustly treated by posterity than the great medical reformer who was born at Einsiedeln, near Zürich, in 1493. He was a man of immense learning and experience, and he devoted the best part of his life to a relentless struggle against the wrong ideas which then prevailed in medicine and chemistry. He was never tired of repeating that the only way to become an efficient medical man, a trustworthy "Arzt," was to study Nature, and to base one's opinions on personal experience. Before Bacon and Harvey were born he fought against the false doctrines of his time, and against the tendency to accept as proved any statement made by Galen or Aristotle. He had a great admiration for Hippocrates, whose *Aphorisms* he commented, but he is said to have destroyed publicly by fire the works of Galen and Avicenna. The university students were always in his favour, but the jealousy of his colleagues obliged him to abandon his professorship at Bâle, and he finally died in great misery.

Almost all we know of him is based upon the writings of bitterly jealous enemies, and no correct opinion can be formed without a careful study of his own works. They were written in quaint old German, to the unspeakable disgust of his fellow professors, who thought that their corrupt Latin better served the purpose of hiding under long names things which they did not even try to understand.

The works of Paracelsus must of course be judged by the standard of the sixteenth century. Going into details would lead me too far, but I am convinced that anyone who studies without prejudice the writings of Paracelsus will come to the conclusion that the man who dictated them was a thoroughly honest man, a profound thinker, a remarkably clever chemist, and a great medical reformer.—I am, etc.,

Harley Street, Oct. 31st. J. KESER, M.D.

HOSPITALS FOR THE INSANE.

SIR,—The concluding sentence in your article on the "Increase of Insanity," "let us have homes for the chronic and incurable cases with hospitals in connection with them for the recent and acute," seems to me to strike the key-note of a much-needed reform in our asylum system.

Looking at the subject from the point of cure rather than the prevention of insanity, thoughtful physicians cannot fail to be struck with the means at their disposal for the cure of acute cases admitted into our large county asylums. These cases are at present, for the most part, drafted into large wards with the chronic patients. The medical staff is hampered with endless details relative to the comfort and cure of the chronic class, with much official writing. The nursing staff is but limited, and the result of the whole is that the individuality of the cases is lost sight of, and they hardly receive that minute attention which they demand and ought to have. The obvious remedy, it seems to me, is to erect a hospital for the curable attached to the massive asylums now

in existence; there to have an efficient staff of resident medical officers, a vastly increased nursing staff, and means provided to give every remedy at all calculated to benefit the unfortunate sufferer a thorough trial.

One cannot say at the present juncture whether more patients would be cured or cured more quickly by these means, but surely better methods to carry out more thorough medical, hygienic, dietetic, and nursing treatment cannot be a retrograde step. On a very limited scale—limited because the means at hand are limited—certain asylums have separated their curable patients in a special ward or wards from the incurable, provided a larger staff of attendants, and, from personal experience, the writer is very far from regretting this advance.

Let "care" never be lost sight of, but let us exert every possible effort to effect a "cure."—I am, etc.,

Oct. 31st. ASYLUM PHYSICIAN.

MINERS' DISEASE (NYSTAGMUS).

SIR,—In reply to Dr. Jeaffreson's letter in the BRITISH MEDICAL JOURNAL of October 22nd, allow me to say that his perimeter was exhibited in one of the rooms of King's College, London, on August 6th, 1873, during the annual meeting of the British Medical Association. It appears that I mistook the gentleman who explained the instrument to me, and to whom I spoke about miners' nystagmus and the Durham coal fields, for Dr. Jeaffreson.

I may add that in January, 1874, I wrote to Dr. Jeaffreson respecting miners' nystagmus, expecting that it would be found among the patients of the Newcastle Eye Infirmary, if looked for; but, as I received no reply to my letter, I conclude that Dr. Jeaffreson did not first hear of the disease from me.—I am, etc.,

Bradford, Oct. 30th. J. H. BELL.

MEDICAL NEWS.

FRAU E. A. KUHN, who died recently, has bequeathed 143,040 roubles (£14,304) to the city of Moscow for the building of an annexe to the Municipal Lunatic Asylum of that city.

AN outbreak of diphtheria, which in proportion to population is said to be as severe as the cholera epidemic at Hamburg, is reported at Sagan, in Silesia. The mortality is very high.

THE Royal Medical Benevolent College has received a donation of £1,000 from a friend who does not wish his name to be known.

THE late General Doria, who was up to the time of his death a member of the Board of Management of the Chelsea Hospital for Women, has bequeathed £1,000 to its funds.

MESSRS. LONGMANS, GREEN AND CO. have in the press a new book on abdominal hernia, with numerous illustrations, by Mr. John Langton, of St. Bartholomew's Hospital.

DR. W. J. COLLINS has been nominated as a candidate for the seat on the Senate of the University of London, rendered vacant by the death of Lord Sherbrooke.

HOSPITAL SATURDAY FUND.—According to the Secretary's report, the total amount now received on behalf of this fund for the present year reaches nearly £15,000.

A SPECIAL general meeting of the Pathological Society of London will be held on November 15th, to consider certain alterations in the by-laws as to the qualifications of non-resident members, and as to composition fees.

PRESENTATION.—Dr. S. A. Clarke was, on his leaving Chard, presented with a travelling clock in leather case, bearing the inscription, "Presented to Dr. S. A. Clarke by the poor of Chard Borough, 1892."

UNIVERSITY OF BUDA-PESTH.—The number of students who have matriculated in the University of Buda-Pesth for the present winter semester is 2,772, of whom 687 belong to the medical faculty, 1,646 to that of law, 87 to that of theology, and 215 to that of philosophy, besides 137 students of pharmacy.

PROFESSOR W. VON ANREP, who was commissioned by the Russian Government to investigate the sanitary conditions at Nishni-Novgorod and elsewhere, is stated by the *St. Petersburger medicinische Wochenschrift* to have contracted cholera in the Jekaterinoslaw Government. He is now recovering.

BEQUESTS.—The late Mr. George Fowler, of Rock Ferry, Cheshire, has, among other charitable bequests, bequeathed £1,000 to the Hospital for Incurables, Manchester, and £20,000 for the establishment in the city of Liverpool of a hospital for incurables.

UNIVERSITY OF DORPAT.—One hundred new students have matriculated in the University of Dorpat, of whom 60 belong to the medical faculty. The total number of students is now 1,558, of whom 952 are students of medicine.

THE French Senate now numbers another medical practitioner among its members in the person of Dr. Le Play, who has just been elected a senator for the department of Haute Vienne.

A VERY large number of University Extension lectures will be given this winter under the auspices of Victoria University. All three colleges of the University—at Manchester, Liverpool, and Leeds—offer a great variety of subjects, literary and scientific.

AMONG the Congresses to be held in connection with the World's Fair at Chicago in 1893 there is to be one on Medicine and the Ancillary Sciences. An organising committee has been formed, with Dr. Nathan S. Davis as President, to arrange the details.

NEW INFIRMARY FOR SOUTHPORT.—The foundation stone of a new infirmary was laid at Southport on October 27th by the Mayor. The building, which will cost about £16,000, stands on five acres of ground given by the trustees of the Scarisbrick Estate.

EDINBURGH ROYAL MEDICAL SOCIETY.—At the usual weekly meeting held on October 28th, the following gentlemen were elected presidents for the ensuing year:—A. N. S. Carmichael, M.B., C.M.; J. W. Crerar, M.B., C.M.; Sim Boom King, M.B., C.M.; Harry Rainy, M.A., M.B., C.M.

THE fourth Congress of the Italian Medical Association of Hydrology and Climatology will be held at Florence on November 20th. Papers will be read by Dr. Vinaj ("A New Carbonic Acid Bath"), Dr. Canova ("Hydrotherapy in Tabes Dorsalis"), and others.

ST. GEORGE'S HOSPITAL.—The following scholarships have been awarded for the year 1892-3:—One of £145 to Mr. Henry N. Coltart; one of £50 to Mr. Frederick G. Peck; one of £50 to Mr. John B. Christian; and one of £65 (open to university men) to Mr. Edmund T. Fison and to Mr. Arthur Trethervy.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.—A quarterly meeting of this Association will be held in the hall of the Royal College of Physicians of Edinburgh on Thursday next, November 10th, at 2 P.M. A paper will be read by Dr. G. M. Robertson, on the Treatment of Acute Mania; and Dr. Turnbull will open a discussion on Asylum Dietaries. A dinner will be held afterwards in the Edinburgh Hotel.

A M. LEVY has bequeathed to the French Academy of Medicine a sum of 50,000 francs (£2,000), the interest of which is to be handed over every year to the Pasteur Institute, to be applied in the furtherance of researches on diphtheria. The capital sum will be given as a prize to the discoverer of a genuine cure for that disease.

ROYAL ACADEMY OF MEDICINE IN IRELAND.—The tenth general annual meeting of the Royal Academy of Medicine in Ireland was held on October 28th in the College of Surgeons. The officers for the ensuing session are as follows:—*President:* G. H. Kidd. *General Secretary:* William Thomson. *Secretary for Foreign Correspondence:* J. W. Moore. Medical Section—*President:* Walter G. Smith. Surgical Section—*President:* Edward Hamilton. Section of Obstetrics—*President:* A. J. Horne. Section of Pathology—*President:* C. J. Nixon. Section of Anatomy and Physiology—*President:* H. J. Broomfield. Section of State Medicine—*President:* E. M'D. Cosgrave. The report showed a balance in hand of £76 16s. 6d., after payment of all expenses for the year.

STRAMONIUM STUFFING.—The proprietor of a temperance hotel who suffered from asthma, for relief used to smoke a mixture of stramonium and belladonna, which was kept in a jar in the pantry. Recently the cook, who was preparing a goose for dinner, by mistake went to the jar and took out a large handful of the mixture and stuffed the goose with it, believing it to be sage. All who ate of it had the characteristic symptoms of stramonium poisoning—burning and dryness in the throat, dilatation of the pupils, etc. They were relieved by emetics.

UNIVERSITY OF VIENNA.—Professor Ernst Ludwig was installed as Rector of the University of Vienna on October 24th. The outgoing Rector, Professor Adolf Exner, in giving the customary account of his academic stewardship, said the number of students showed a slight decrease as compared with the previous year—6,029 as against 6,220 in the winter, and 4,919 as against 5,121 in the summer semester. The number of degrees conferred was 621 as against 674 in the previous year. After receiving the insignia of his office from the hands of his predecessor, Professor Ludwig delivered an inaugural address on "Chemistry and the Administration of Justice."

ANATOMY IN BERLIN.—The Second Anatomical Institute of the University of Berlin, the building of which was begun three years ago, is now completed, and will be opened in about six weeks. The institute, which is under the direction of Professor O. Hertwig, is situated in immediate proximity to the First Anatomical Institute, in the grounds of the Veterinary School in the Luisenstrasse. The new institute contains a lecture room with seats for 200 students, lighted by lofty side windows and fitted with the electric light. The microscope room, which can accommodate 200 workers, is a model of its kind in point of lighting, natural and artificial, and fulness of equipments. The institute also contains a library, a room for meetings and demonstrations, besides workrooms for the director and his assistants, prosectors, etc.

DISSOLUTION OF A PARIS MEDICAL SOCIETY.—The Society of Practical Medicine, which till recently figured on the roll of learned societies in Paris, has ceased to exist, having been dissolved by decree of the Prefect of Police, dated September 30th, 1892. The members of the Society, in general meeting assembled, had previously resolved to commit *hara-kiri*. Another decree of the Prefect of Police, bearing the same date, authorises the Society to rise Phœnix-like from its own ashes, under the style and title of "Société de Médecine et de Chirurgie Pratiques de Paris," which includes most of the members of the defunct Society. To the English mind the idea of a medical society existing as it were by grace of Scotland Yard would be somewhat startling; but then things with us are not ordered so logically as they are in France.

THE ANGLO-AMERICAN VIENNA MEDICAL ASSOCIATION.—The Anglo-American Vienna Medical Association fulfils a useful function towards English-speaking students who visit Vienna for purposes of study. It is difficult for a stranger to arrange his work to the best advantage without the advice of those who have already studied in Vienna for some time. The Association keeps a list of the best lodgings, and thus smooths the entry into the Viennese school, and at the fortnightly meetings the new arrival is able to make acquaintances and obtain information. The second meeting of the Association this winter was held on October 14th, when about forty members were present. Dr. Blake, the President, occupied the chair. The Rev. Francis Gordon read a most satisfactory financial report for the past year, and was able to announce that forty-three new members had joined the society. Dr. Meirowitz then read notes of a most interesting case of hysteria in Vienna, illustrating many peculiar phases of the disease at present under treatment. In the discussion which followed many of those present related personal experiences in connection with the treatment of hysteria, some of which caused considerable amusement. Several papers have been promised for the ensuing meetings, many of them of great interest. The next meeting will be occupied in discussing the merits of Berlin as a medical centre. Further information may be obtained from the Secretary of the Society, No. 12, Landesgerichtsstrasse, Vienna.

A METHOD OF HEATING AND VENTILATING RAILWAY CARRIAGES.—The usual method of warming a railway carriage in winter in this country is primitive and capable of much improvement. We are therefore glad to direct attention to the method patented by Dr. Robert Bell, and now being tried on the North British Railway. An air shaft runs under each carriage; the shaft is closed at the distal and open at the proximal end. The motion of the train forces the air down this tube; a steam pipe connected with the engine and coupled to the various carriages runs through the centre of the shaft and heats the air. This hot air is supplied to each compartment. For hot climates or for summer the same system is applicable, but, instead of steam circulating through the central pipe, brine reduced to a low temperature will be used, or the temperature of the shaft reduced by jacketing it with felt and keeping the felt moist. The evaporation will then render the air in the shaft much cooler than the outer atmosphere.

MEDICAL VACANCIES.

The following vacancies are announced:

BALLINASLOE UNION, Lawrencetown Dispensary. Medical Officer. Salary, £127 per annum, with fees. Applications to Mr. Thomas Connolly, Honorary Secretary. Election on November 8th.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon; doubly qualified. Salary, £150 per annum, and £30 per annum allowance for cab hire. Applications to the Secretary by November 16th.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Vacancy in the Medical Staff. Applications to the Medical Board. Children's Hospital, Steelhouse Lane, Birmingham, by November 8th.

BOROUGH OF BOOTLE HOSPITAL FOR INFECTIOUS DISEASES.—Resident Medical Officer, unmarried. Salary, £100 per annum, with with board, washing, and apartments. Applications to the Chairman of the Health Committee, Town Hall, Bootle, by November 8th.

CANCER HOSPITAL (FREE), Fulham Road, S.W.—House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with board and residence. Applications to the Secretary by November 18th.

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square.—Demonstrator. Honorarium £50 per annum. Applications to Morton Smale, Dean, by November 21st.

DENTAL HOSPITAL OF LONDON, AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square.—Lecturer on Dental Metallurgy. Applications to Morton Smale, Dean, by November 21st.

DOWNPATRICK UNION, Portaferry Dispensary.—Medical Officer. Salary, £115 per annum and fees. Applications to Mr. James Shanks, Honorary Secretary, Ballyfounder. Election on November 8th.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House Physician. Board and lodging provided. Applications to the Secretary by November 16th.

GENERAL HOSPITAL, Barbadoes, West Indies.—Junior House-Surgeon. Salary, £200 per annum, and quarters. Appointment for three years. Applications to the Secretary by December 1st.

GLAMORGAN COUNTY COUNCIL.—County Medical Officer. Salary, £750, of which £150 is intended to cover all travelling, office, and laboratory expenses. Applications to T. Mansel Franklin, Clerk, Glamorgan County Offices, Cardiff, by November 21st.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon unmarried. Appointment for six months. Salary, £25, with board and residence. Applications to the Secretary by November 15th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Assistant Physician. Applications to the Secretary by November 15th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Ophthalmic Surgeon. Applications to the Secretary by November 15th.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officer for the North-Eastern Hospital for Fever Patients, St Ann's Road, Stamford Hill, N.; doubly qualified. Salary, £75 per month, with board, lodging, and washing. Applications to the Medical Superintendent at the Hospital.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Assistant Physician. Application to Charles H. Byers, Secretary, by November 21st.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Assistant Surgeon, must be F.R.C.S.Eng. Applications to Charles H. Byers, Secretary, by November 14th.

MOULSFORD LUNATIC ASYLUM, near Wallingford, Berks.—Assistant Medical Officer. Salary, £140 per annum to commence, rising £10 yearly to £160. Applications to Dr. Murdoch, Medical Superintendent, by November 10th.

NEW LONDON COUNTY ASYLUM, Claybury, Woodford, Essex.—Medical Superintendent; doubly qualified. Salary, £1,000 per annum, with house, coals, lighting, milk, and vegetables. Applications on form to be obtained of Mr. R. W. Partridge, Clerk to the Asylum Committee, 21, Whitehall Place, S.W., by November 25th.

PADDINGTON INFIRMARY.—Assistant to the Medical Superintendent and Assistant Medical Officer of the Workhouse; unmarried; age between 23 and 30. Salary, £100 per annum, rising £10 annually to £120, with board, lodging, and washing. Applications to H. F. Aveling, Clerk to the Guardians, 289, Harrow Road, by November 12th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiner in Anatomy for the Second Professional Examination. Applications to the Secretary by November 24th.

ROYAL HOSPITAL FOR INCURABLES, Dublin.—Resident Medical Officer, qualified in Medicine, Surgery, and to compound medicines. Salary, £70 per annum, with board and furnished apartments. Appointment tenable for two years. Applications to Mr. Thomas Grey, Registrar. Election on November 14th.

ROYAL INFIRMARY OF EDINBURGH.—Superintendent, must be member of medical profession. Salary, £500 per annum, with free house and gas. Applications to Mr. James S. Trainer, Treasurer and Clerk, by December 5th.

ST. MUNGO'S COLLEGE, Glasgow.—Chair of Anatomy. Applications to Henry Lamond, Secretary, by December 1st.

SMEDLEY HYDROPATHIC ESTABLISHMENT, Matlock, Derbyshire.—Resident Physician. Appointment for six months. Honorarium of 20 guineas. Board and residence free. Applications to the Secretary by November 5th.

STAFFORD COUNTY ASYLUM, Stafford.—Junior Assistant Medical Officer; unmarried. Salary commencing at £100 per annum, with furnished apartments, board, and attendance. Applications to the Medical Superintendent.

TAUNTON AND SOMERSET HOSPITAL.—Honorary Surgeon. Applications to J. H. Biddulph Pinchard, Secretary, 13, Hammet Street, Taunton, by November 21st.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Second Dental Surgeon. Applications to S. M. Quennell, Secretary, by November 15th.

MEDICAL APPOINTMENTS.

ALDOUS, G. F., L.R.C.P.Lond., M.R.C.S., reappointed Medical Officer to the Plymouth Public Dispensary.

ASHE, E. Oliver, M.D.Lond., F.R.C.S.Eng., appointed Senior House-Surgeon to the Kimberley Hospital, South Africa.

BODY, H. M., M.R.C.S.Eng., reappointed Medical Officer of Health for Crediton Urban Sanitary District.

BUCHAN, W. A., M.B., C.M.Edin., reappointed Medical Officer to the Plymouth Public Dispensary.

CLARK, H. E., M.R.C.S., appoined Professor of Systematic Surgery, *vice* Professor David N. Knox.

DUKE, Allen Forrester, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Second District of the Cheltenham Union.

ELLISON, J., M.D., M.Ch.Irel., appointed Health Officer for the Shire of Numurkah, Victoria, Australia.

FORDYCE, B. E., M.B., C.M.Edin., appointed Medical Officer of the Sixth Sanitary District; also to the Workhouse; and Vaccination Officer of the Chesterton Union.

FOX, E. L., M.D., B.Ch.Camb., M.R.C.P.Lond., M.R.C.S., appointed Second Physician to the Plymouth Public Dispensary.

FROST, John Kingdon, M.R.C.S.Eng., appointed Medical Officer for the Madley District of the Abbeydore Union, *vice* E. A. G. Dowling, L.R.C.P.Lond., M.R.C.S.Eng., resigned.

GEMMELL, Samson, M.D., C.M., F.F.P.S.Glas., appointed Visiting Physician to the Western Infirmary, Glasgow.

GIBBS, S. A., M.B., C.M.Edin., appointed Honorary Surgeon to the H Battery New Zealand Regiment Artillery Volunteers.

GORNALL, J. G., M.A., M.B.Cantab., M.R.C.S., L.R.C.P., appointed Assistant Medical Officer of Health for the Borough of Warrington, and Medical Superintendent of the Hope Hospital for Small-Pox.

HARRIS, A. W., M.R.C.S., D.P.H.Eng., appointed Port Sanitary Medical Officer for Southampton.

HILLIER, T. Ernest, M.A., M.B.Cantab., M.R.C.S., L.S.A., appointed Medical Superintendent to the Infirmary and Medical Officer of the Workhouse of the parish of Paddington, *vice* T. Savill, M.D.Lond., resigned.

HODSON, Frederick, M.R.C.S.Eng., L.S.A., appointed Medical Officer of the Hornsea-with-Hornsea Burton Urban Sanitary District of the Skirlaugh Union.

HOGG, G. H., M.B., C.M.Edin., appointed Assistant House-Surgeon to Clayton Hospital, Wakefield.

HOOPER, Alfred, M.R.C.S., reappointed Medical Officer of Health for the Second Sanitary District of the Burton-on-Trent Union.

JAMIE, R. W., M.B., C.M.Edin., D.P.H.Camb., appointed Medical Officer of Health for the Coalville Urban Sanitary District of the Ashby-de-la-Zouch Union.

JOHNSTON, J., M.R.C.S.Eng., appointed Surgeon to the Maidstone Police, *vice* G. H. Furber, M.R.C.S.Eng., deceased.

JOHNSTON, T. L., L.R.C.P., L.R.C.S., L.F.P.S.G. and L.M., appointed Second Assistant Medical Officer Berkshire County Asylum.

KNOX, David N., M.A., M.B., appointed Professor of Clinical Surgery to St. Mungo's College, Glasgow, *vice* Professor William Macewen, resigned.

LEMPRIERE, C. L., M.B., C.M.Edin., appointed Honorary Medical Officer of the Melbourne Hospital for Sick Children, Victoria, Australia.

MARSDEN, Richard Walter, M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Medical Officer of the Workhouse and Receiving Wards of the Township of Manchester.

MAY, William Page, M.D., B.Sc.Lond., M.R.C.S., M.R.C.P., appointed Pathologist to the City of London Hospital for Diseases of the Chest, Victoria Park, *vice* Dr. Chaplin, promoted Assistant-Physician.

MONCKTON, William, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer to the Portishead Local Board.

OSBURN, H. B., M.R.C.S., L.R.C.P., D.P.H.Camb., appointed Medical Officer to the Parish of Bagshot, Surrey.

PAINE, William Henry, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of the West Green District of the Edmonton Union.

PORTER, C., M.D., B.Ch., B.A.O.Roy.Univ.Irel., D.P.H.Camb., M.R.C.S.Eng., appointed Medical Officer of Health, Physician to Fever Hospital, and Police Surgeon for County Borough of Stockport, *vice* Edwin Rayner, M.D.Lond., F.R.C.S., J.P., resigned.

READMAN, Thomas, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glas., appointed Medical Officer for the Oldbury Sanitary District of the Shirlaugh Union.

REED, H. A., L.R.C.P.Lond., M.R.C.S., appointed Public Vaccinator for North Carlton, Victoria, Australia.

REES, A. H., L.R.C.P.Edin., M.R.C.S., reappointed Assistant-Physician to the Plymouth Public Dispensary.

ROBERTS, Richard Pritchard, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the No. 2 Carnarvonshire District of the Bangor Union.

RYAN, C. S., M.B., C.M.Edin., appointed Honorary Medical Officer of the Melbourne Hospital for Sick Children, Victoria, Australia.

SHARMAN, Edward, L.R.C.S., L.R.C.P.Edin., appointed an additional Vaccinator for the districts of Auckland and Onehunga, New Zealand.

SMYTH, Lewis, M.D.Glas., L.R.C.P.Lond., appointed Deputy Medical Officer for the outlying portion of St. John's Parish of the Lewes Union.

SNELL, Sidney Herbert, M.B., L.R.C.P., M.R.C.S., appointed Medical Officer of the Grays Thurrow Urban Sanitary District of the Orset-Union, *vice* A. W. Stirling, M.D.Edin., resigned.

SNOWBALL, William, L.R.C.S.Edin., appointed Honorary Medical Officer of the Melbourne Hospital for Sick Children, Victoria, Australia.

STEVENSON, R. D., M.B., C.M.Glas., appointed Health Officer for the Shire of Glenlyon, Victoria, Australia.

STOCKWELL, F., M.D.Lond., M.R.C.S., appointed Medical Officer for the Seventh Sanitary District of the Shepton Mallet Union.

TILLEY, Herbert, M.D., B.S.Lond., M.R.C.S., L.R.C.P., appointed House-Surgeon to the London Throat Hospital.

WILSON, W. C., M.B., C.M.Edin., reappointed Assistant-Physician to the Plymouth Public Dispensary.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. W. Laug: Diseases of Cornea. Parkes Museum, 74A, Margaret Street, W., 4 P.M.—Dr. L. C. Parkes: Dwelling Houses. 101, Great Russell Street, W.C., 8 P.M.—Dr. Galloway: Gastro-intestinal Tract.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 8 P.M.—Papers by Mr. Storer Bennett and Mr. F. Newland-Pedley.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. Bland Sutton: Tubal moles and Tubal-abortion. Mr. Marmaduke Sheild: A Second Communication on Arterial Hæmorrhage from Ulcerating Bubo of the Groin.

TUESDAY.

LONDON POST GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. H. Corner: Puerperal and Lactational Insanity. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Dr. Payne: Eczema, its Varieties. 101, Great Russell Street, W.C., 8 P.M.—Dr. Herman: Painful Micturition in the Female.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 4 P.M.—Dr. S. J. Gee: The Bradshaw Lecture, On the Signs of Acute Peritoneal Disease.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Mr. H. G. Howse: On the Advantages of an Amputation through the Thigh, either as a Preliminary Operation to, or in some cases instead of Amputation through the Hip, where the Hip-joint is itself Diseased, and the Patient in very Bad Condition. Mr. Lawford Knaggs: Two Cases illustrating the Treatment of Advanced Hip-joint Disease by Mr. Howse's Method of Preliminary Amputation near the Knee. (Communicated by Mr. Howse.)

WEDNESDAY.

LONDON POST GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M. Dr. Pollock: Some Varieties of Phthisis. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Quarry Silcock: Glaucoma.

HUNTERIAN SOCIETY, 8.30 P.M.—Clinical evening. Dr. Patrick Manson will exhibit some Cases of Beri-beri (?). Dr. G. E. Herman will exhibit "Champetier de Ribes" Bag for Inducing Labour. Dr. Ettles (for Dr. Cotman) will show a man with Superficial Ulceration of the Popliteal Space. Mr. F. R. Humphreys will read Notes of Two Cases of Cheyne Stokes Respiration, with Recovery. Mr. J. Poland: Cured Congenital Cyst of Neck. Dr. Thos. Marshall: A Case of Local Sweating of the Face. Dr. A. T. Davies: A Case of Graves's Disease. Dr. Hingston Fox: A Case of Incomplete Graves's Disease, with Stellway's and Von Graefe's Symptoms. Dr. Arnold Chaplin: Two Cases of Fibroid Disease of the Lungs.

THURSDAY.

LONDON POST GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Tooth: The Diagnosis between Functional and Organic Disease of the Ner-

vous System. Hospital for Sick Children, Great Ormond Street, 4 P.M.—Dr. D. B. Lees: Demonstration of Medical Cases in the Wards. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Dr. Ord: Medical Cases in the Wards. London Throat Hospital, Great Portland Street, 8 P.M.—Dr. Edward Law: Demonstration of Cases.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8.30 P.M.—Patients and Card Specimens at 8 P.M. Mr. H. Work Dodd: A Case of Aniridia. Mr. Hartridge: (1) Rupture of the Choroid: (2) Patient with Aniridia. Dr. Berry: Short Notes on: (1) Conjunctivitis Set up by Flies; (2) Hyperplastic Subconjunctivitis; (3) Intraocular Therapeutics; (4) Intraocular Absorption of Iodoform. And other papers.

BRITISH GYNÆCOLOGICAL SOCIETY, 20, Hanover Square, 8.30 P.M.—Dr. Granville Bantock: Specimens: Molluscum Fibrosum; Fibroma of the Ovary; Uterine Fibromyoma. Mr. G. Burford: Specimens; Extra uterine Gestation; Large Ovarian Tumour. Dr. Inglis Parsons: Total Absorption of a Large Fibromyoma Uteri by Apostoli's Treatment.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY, Great Northern Central Hospital, 8.30 P.M.—Clinical evening. Cases shown by Dr. Lewis Jones, Dr. Gordon Brodie, Dr. F. Spicer, Dr. Malcolm, Dr. Case, and others.

FRIDAY.

LONDON POST GRADUATE COURSE, Bacteriological Laboratory, King's College, 11 A.M. to 1 P.M.—Professor Crookshank: Lecture—Actinomycosis—Practical Work Sections. Hospital for Consumption, Brompton, 4 P.M.—Dr. Symes Thompson: Catarrhal Phthisis.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. Lawford Knaggs: The Conditions seen at an Operation for Ventral Hernia 5½ Years after Laparotomy for Tuberculous Peritonitis. Dr. Handford: A Case of Hyperplastic (Obliterating) Phlebitis Affecting the Larger Veins. Mr. Donald Day (introduced by Mr. Howard Marsh); Case of Nephrolithotomy; Large Calculus. Dr. Walter Carr: A Case of Double Empyema; Simultaneous Drainage of the Pleural Cavities; Recovery.

SATURDAY.

LONDON POST GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. Percy Smith: Alcoholic Insanity.

BIRTHS, MARRIAGES, AND DEATHS.

BIRTH.

GODFREY.—On October 28th, at Bridlington Quay, Yorkshire, the wife of H. J. Clarendon Godfrey, of a daughter.

MARRIAGES.

ASHWORTH—MACKECHNIE.—On 25th October, at Christ Church, West Hartlepool, by the Rev. W. F. Cosgrove, M.A., John Jackson Ashworth, eldest son of the late Thomas Ashworth, of Pendleton, to Adela Mary, second daughter of D. Mackechnie, Esq., L.R.C.P., L.F.P. and S.G., of "Bute Cottage," West Hartlepool.

COLLYNS—ABBOT.—On October 19th, at the Parish Church of Abbot's Leigh, Robert John Collyns, L.R.C.P.Lond. and M.R.C.S.Eng., of Dulverton, to Eleanor Maud, youngest daughter of the late Henry Abbot, Esq., of "The Priory," Abbot's Leigh, Bristol.

CULHANE—DANN.—October 19th, at Lenton Parish Church, Nottingham, by the Rev. R. M. Weale, late vicar of Priors Marston, assisted by the Rev. Percy Smith, vicar, Frederick William Slater Culhane, of Hastings, to Mary Lucy (Minnie), younger daughter of Michael Dann, of Nottingham.

HEATH—WILSON.—On the 19th October at St. John's Church, Kidbrook, by the Rev. the Master of Trinity Hall, Cambridge, uncle of the bride, and the Rev. J. C. Luke, rector and rural dean, Charles Heath, F.R.C.S., of 1, Eastcombe Villas, Blackheath, to Agnes Fridzwede, daughter of Colonel Wilson, Royal Engineers (Ret.), of 100, Shooter's Hill Road, Kidbrook.

LINDESAY—DAVIS.—At Christ Church, Mhow, on the 20th September, 1892, by the Rev. G. A. Ford, chaplain, Captain Edward Lindesay, North Lancashire Regiment, son of the late Rev. Thomas Lindesay, Alla Rectory, Co. Derry, to Clara Alice Evelyn (Eva), eldest daughter of Surgeon-Colonel Davis, Army Medical Staff, P.M.O. Mhow District.

MATHESON—DAWSON.—At St. George's, Charlotte Square, Edinburgh, on Saturday, October 29th, by the Rev. Archibald Scott, D.D., Angus Matheson, M.D., North Berwick, to Helen Ramage, younger daughter of the late William Dawson, Esq., distiller, Linlithgow.

MORRICE—ELLEMENT.—On October 24th, at Wyke Regis Church, Dorset, George Gavin Morrice, M.A., M.D.Cantab, M.R.C.P., youngest son of Rev. William David Morrice, to Alice Amelia, youngest daughter of the late John Josiah Ellement.

WILLIAMS—OSBORNE.—On the 20th September, at the Cantonment Church, Rangoon, by the Rev. C. P. Cory, M.A., chaplain, Surgeon-Captain C. L. Williams, M.D., Indian Medical Service, to Charlotte A. (Lottie), third daughter of the late Richard Osborne, of Liverpool.

DEATHS.

GEORGE.—On October 27th, at Port Isaac, Cornwall, Katherine Wylie, the beloved wife of R. Julyan George, M.B., C.M. Edin., aged 26 years.

GORDON.—On October 4th, William Gordon, M.B., C.M., of Pollok Street, Glasgow, eldest son of the late Paul Gordon, Helmsdale, Sutherland.

LOWE.—On October 30th, at Burton-on-Trent, George Lowe, F.R.C.S., aged 79.

ROBERTSON.—October 23rd, at Port Said, Egypt, in his 37th year, William Smith Robertson, M.D., C.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

MEMBER writes: Will any of your readers kindly say what disinfector they would advise for a workhouse of over 600, and with more than 300 on the medical relief list. Also where the same may be obtained, together with the cost?

JUNIOR MEMBER will be grateful for suggestions for the treatment of cramp in the abdominal muscles during the later months of pregnancy. The patient, aged 37, has suffered much from the same cause during three previous pregnancies.

THE REGISTRATION STATISTICS FOR ALL ENGLAND.

DR. THOMAS PARTRIDGE (Stroud) writes: You have been good enough to give us, in the BRITISH MEDICAL JOURNAL, generally the month after each quarter day or beginning of the next month, the All England birth and death rates, that proves of use to us medical officers of health. The returns for last quarter have not yet appeared as above, that for 33 towns has. These returns are very useful, if known early as possible.

*** The Registrar-General's Quarterly Return is published just one month after the expiration of each quarter. It was issued on October 31st. Our quarterly article on the 33 large English towns, to which our correspondent refers, being deduced from a summary of returns, can be published earlier, as it is not dependent upon the prior publication of the Quarterly Return of the Registrar-General, which deals with the whole country.

CREMATION.

H. J. (North Wales) would be glad to know if he can obtain a full report of the annual meeting held at the Manchester Crematorium on October 21st, and whether a full report has appeared of the speeches of the Chairman, Sir H. Thompson, and Mr. Ernest Hart. He would also be glad to know of any books or papers on cremation which would assist him in preparing a paper on the subject for a lay literary society.

*** A very good report will be found in the *Manchester Guardian* of October 22nd. The speeches of the Duke of Westminster, the Archdeacon of Manchester, and Mr. Ernest Hart are very fully and accurately reported. The important and weighty address of Sir H. Thompson is less accurately reproduced. Materials such as H. J. requires may be obtained from Mr. Swinburne Haslam, Honorary Secretary of the Cremation Society of England, 8, New Cavendish Street, London; or Mr. Simon, Chairman of the Manchester Crematorium.

SALINE SOLUTION FOR TRANSFUSION.

DR. W. B. HOLDERNESS (Windsor) asks for a good saline solution for transfusion, the correct quantities, etc.

*** We are indebted to Mr. Alfred Theodore Rake, House Surgeon Guy's Hospital, who in reply to an inquiry has forwarded the following particulars: The saline solution which we always use at Guy's Hospital for intravenous injection is a solution of common table salt (sodium chloride, Na Cl), one drachm of the salt dissolved in one pint of water. The water should be boiled for aseptic reasons. The solution should be at a temperature of about 100° F. when it is injected. When it is necessary to cool the boiled water rapidly we add a small piece of ice. We always now keep in the wards drachm packets of common salt for cases of emergency. I may say that in our first successful case, in the middle of the night, the child being almost dead from hæmorrhage from an operation on the cleft palate, we had no convenience for weighing at

hand, so roughly took a teaspoonful of salt and dissolved it in the water (Oj). No ill results followed. I have no experience of the complicated formulæ advised in some textbooks, such as that for cholera in *Fagge*. I know from experience of more than 20 cases that the normal salt solution (5j at Oj) is very efficient. The quantity injected is determined by the condition of the patient and the pulse. When the pulse is slowed down to 70 or 80 we usually cease. We have injected 1½, 3, 4, and 6 pints with advantage.

ANSWERS.

Army Medical Corps.—Both the communications have been received.

Home for Female Patient.

W. E. L. writes: If "Member" will write to Mrs. Lane, North End House, Feistead, Essex, he will find a most comfortable home for his patient. It is a quiet country place, and the sum mentioned would be accepted, but not to include medical attendance.

Bacteriology of Small-Pox.

Messrs. Fannin and Co. (Dublin) write with reference to the reply as to recent literature on the bacteriology of small-pox and allied diseases: It may interest your correspondent to know that in Dr. Moore's *Textbook of the Eruptive and Continued Fevers*, published by us, an account of the bacteriology of small-pox will be found at page 78. The work in question also contains full information of the bacteriology of the other eruptive and continued fevers.

Books on Vaccination.

Mr. R. W. S. Bishop (Ripon).—1. We send, on loan, a copy of Mr. Ernest Hart's out-of-print pamphlet on the *Truth about Vaccination*, as requested. 2. We would recommend our correspondent to order from Messrs. Churchill Dr. E. J. Edwardes's little book, just published, *Vaccination and Small-Pox in England and other Countries*. It is a most admirable summary of facts and arguments, and should be in the hands of every practitioner and of every public vaccinator.

Concentrated Mixtures, Etc.

Kismet Effendi Hakim sends the following formulæ in answer to "Club Doctor," and offers to send further formulæ if desired. Emplastrum belladonnæ fluidum: Westcott and Martindale, in their *Extra Pharmacopœia* (which see), give collodium belladonnæ *syn.* emplastrum belladonnæ fluidum, alcoholic extract of belladonna 5, spirit of camphor 3. Dissolve and add flexible collodion to 20. Set aside and decant. Alkaline carminative mixture concentrated: ℞ Sod. bicarb gr.x (×8=gr.80); ammon. carb. gr.v (×8=gr.40); chloroformi mxl (×8=mv); ess. menth. pip. mi (×8=m8); infus. gent. (co.) conc. ad 5j (×8=3j). An ounce of the foregoing added to 3vij give an ordinary 3viij mixture. Dose 3j.

Dr. W. M. Lory (Penge) has also been good enough to send the formula for the fluid plaster.

Treatment of Hydrocele.

F.R.C.S.Eng. writes: The best injection to use is liquor iodi *B.P.*, but the treatment of hydrocele by injection is unscientific and painful, and the cure very far from certain. "Country Member" should excise the parietal part of the tunica with the strictest antiseptic precautions. A complete and practically painless cure may then be expected.

Mr. C. E. Abbott (Braintree) writes: I think "Country Member" will find the treatment recommended by Mr. Hind, F.R.C.S., Jersey, safe and sure. Briefly the directions are: first draw off the hydrocele fluid, then wash out the cavity with solution of perchloride of mercury three times the strength of liquor hydrarg. perchlor., and draw off any remaining fluid. This treatment has been safe and entirely curative in my hands. Do not use tr. iodi.

J. G. M. recommends as the best injection to use after tapping hydrocele, a solution of corrosive sublimate 1 to 1,000. Two drachms are generally sufficient; very little pain ensues, and swelling soon subsides.

NOTES, LETTERS, Etc.

The average number of prescriptions dispensed in all the pharmaceutical establishments in St. Petersburg during the last few years is 1,700,000 a-year.

Poison in the Hat.

There have been numerous cases of poisoning amongst hat makers. M. Jungfleisch traces it to the nitrate of mercury used in preparing rabbit skins for manufacturing hats. He found half a gramme of mercury in a hat in use. Retail hatters are, it is stated, not exempt from the dangers of poisoning by mercury in this way.

The Harness Belts.

Electricity has the following editorial notice: "We have found, to our deep regret, that in a number of copies returned by our newsagents a leaflet, advertising the Harness electric belt, was inserted, and we take this opportunity of stating that this has been done entirely without our knowledge. We have repeatedly expressed our unfavourable opinion on the Harness belt, and nothing could be further from our wish than to give facilities for advertising in our paper the appliances of that company."

Greek and the M.D. Degree.

Delta writes: Like "M.B., C.M.," who writes in the British Medical Journal of October 29th, I feel that the new ordinances deal very unfairly with those of us who have graduated under the old regulations, and who have still our M.D. to take. Will someone state what measures could be adopted by the general body of M.B.s for making such an appeal as "M.B., C.M." suggests?

The Report of the Council of the Royal College of Surgeons.

"M.R.C.S." writes: Your article on the Report of the Council of the Royal College of Surgeons states that each Fellow and Member will have received the Report. I have received none, and assume other Members have fared likewise, for on writing for it I was informed that it was only sent to Members who applied for it.

*** Our correspondent is quite correct. The statement in our leading article was a slip of the pen. A moment's reflection would show anyone that it would have been a senseless waste of money to send the Report broadcast to some 12,000 Members of the College, the great majority of whom would never read it.

A Company of Vagrants.

Mr. T. D. Cook (Torquay) writes: A suspicious-looking person was sentenced as a vagrant, at Torquay, to fourteen days' imprisonment, on October 28th last. He called himself an unqualified medical assistant, and went about begging from medical men. He was associated with two others, one calling himself a barber, who went begging from the hairdressers in the town. The other called himself a gentleman. This so-called unqualified assistant failed to give any satisfactory account of himself. From what could be picked up, he has been begging all over England, from the northern counties to London, and from London to Devonshire. He goes by the name of James Cutter, aged 40, tall, about 5 ft. 11 in., sallow complexion, grey eyes, arched nose, large pointed moustache, clean shaven, with a little mutton-chop whiskers, turning grey. Hair dark brown. As he has been in the habit of calling at surgeries, it is possible some medical man may require his address, which is, at the time of writing, Exeter Gaol.

Japanese Tea Drinking.

Dr. W. Woodward (St. John's, Worcester) writes: I must apologise for not having hitherto rendered my sincere thanks for your great kindness in giving and eliciting so much information as to the art of making tea, etc. It has been of very much service. Your second able article is as valuable as the first. My best thanks are also due to Dr. Chamberlain and several others. I may say that I have obtained a very nice Japanese teapot, with porcelain strainer, from Messrs. Tizan, of Fitzjohn Promenade, Finchley New Road, South Hampstead, London. Prices from 4½d. to 5s.

An Improvised Catheter.

Dr. D. G. Lewis (Northampton) writes: A basket maker came to me a few months back. He said he had struck himself with one of his tools, and then found he could not pass water. He had then passed a hairpin into the urethra, as he had been told by a fellow workman that this was the best way of drawing his water; and he now could not get the hairpin out or pass water. I could feel the hairpin (about 3 inches long) in the urethra. It had been introduced as it was, bent part foremost, and the two points were embedded in the walls of the urethra about half an inch from the meatus. I got it out with some difficulty, and the man then passed water freely and laughed at the whole affair as if it had been a joke.

Income Tax Refunded.

The Income Tax Repayment Agency (25, Colville Terrace, Powis Square, London, W.) writes: One of our clients, under our guidance, has just obtained a most signal victory over the Inland Revenue, for not only have the authorities at Somerset House virtually acknowledged that the surveyor had acted illegally, but they have consented to refund the money thus illegally extorted, although in the first instance they absolutely refused to do so. The facts are instructive. A country doctor had for some years returned his income correctly, to the best of his knowledge and belief. Last year the surveyor of taxes asked him for a three years' statement. This was given, and the consequence was that an assessment was made upon the taxpayer at a fancy figure, the surveyor deliberately taking no notice of allowable expenses. Nor was this all, for, seeing that the doctor knew nothing about income tax, he made a charge for the three previous years, and by means of alternate blandishments and threats made his victim pay tax to the amount of upwards of £10. It was only after the money had been paid that the victim came to us, and, acting upon our advice, demanded the return of the tax extorted from him. This was, of course, indignantly refused; but it was now our turn to threaten, and with good effect, for, after a fruitless attempt at a compromise, the Treasury disgorged its ill-gotten gains. This is not the first time we have made the Revenue actually refund "back duty" paid in ignorance; much oftener have we prevented such duty from being paid.

Gratitude to Science.

It is pitiable, says *England and the Colonies*, to see that the £400 required for the publication of the Macleay memorial volume in Sydney cannot be got together, £170 being all that can be raised. The late Sir William Macleay's contributions to science were considerable. It will be remembered that he bore the whole of the expense connected with the *Chevert* exploring expedition to New Guinea, and he also presented his entire collection—valued at something like £25,000—to the University of Sydney, besides giving an endowment of £6,000 to provide the salary of a curator. He founded the New South Wales Linnean Society, paid for the erection of a building for it, and endowed it with £20,000. In addition to this, he founded a Chair of Bacteriology and four scientific scholarships at the University of Sydney at a total cost of close upon £50,000. And now the gratitude of his adopted country is illustrated by the magnificent subscription of £170 towards the £400 needed for the suggested memorial volume!

Chloroform and the Heart.

Mr. George Foy, F.R.C.S. (Dublin), writes: On reading your comments in the British Medical Journal of October 29th on the anæsthetic discussions of the British Medical Association at Bournemouth and Nottingham, I thought that the very valuable discussion on chloroform held in 1863 in Richmond, Virginia, was being lost sight of. The discussion on that occasion took place at a meeting of the Association of the Surgeons of the Army and Navy of the Confederate States of

America, held in the Richmond Medical School, and reported in the *Confederate States Medical and Surgical Journal*. The discussion was on the clinical value of chloroform as an anæsthetic, and I know of no contribution to the therapeutics of anæsthetics better worth study.

Chloroform and ether were both used by those who took part in the debate; the operator in the Confederate Service used such drugs as were captured from the enemy, hence he had no choice, and he was without prejudice. Many operations were performed in field hospitals, but the majority were done in the city hospitals. How many in each it would be difficult to say; but of the enormous number of wounded brought to hospital we may form some idea from the following statistics:

Winder Hospital, Richmond, Va.: admissions from April 1st, 1862, to December 1st, 1863, 39,997. Chimborazo Hospital, Richmond, Va.: admissions from November 1st, 1861, to November 1st, 1863, 47,176. Admitted to Consolidated Hospitals from September, 1862, to December, 1863, 293,165. During the years 1861 and 1862, 848,555 field cases and 447,689 hospital cases were treated by the Confederate surgeons. With such immense experience, gathered from one end to the other of the Confederacy, the report of the Association states that: "Reports read from every battlefield in the Confederacy have served to show the innoxiousness of chloroform." And again: "But one death has been reported (up to the issuing of the report on January 1st, 1864) which could be justly ascribed to its influence."

The particulars of that death were placed on record by Surgeon E. S. Gaillard in the March number for 1864 of the *Confederate States Medical and Surgical Journal*, and it is a curious fact that in that case the attention of the anæsthetist was given to the pulse and not to the breathing. Anæsthetists who give their attention to the pulse will meet with death under chloroform. What is required is careful watching of the respiratory movements, as taught long since in Edinburgh and recently in Hyderabad. Those who give their whole attention to the respiratory movements of the patient do not meet with the fatalities and alarming conditions recorded by anæsthetists who take the condition of the pulse as their guide.

Chloroform became dangerous when the cry that it was a heart poison was raised, and it will continue to be a dangerous drug as long as the circulation is taken as a guide for its administration. Medicine now, as in the past, must be guided by clinical experience, and the anæsthetist who follows experience will fare much better than he whose practice is dependent on the effect of chloroform on protoplasm and the deductions drawn therefrom by physiologists.

LETTERS, COMMUNICATIONS, Etc., have been received from:

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THE BRADSHAW LECTURE
ON
THE SIGNS OF ACUTE PERITONEAL DISEASES.

Delivered before the Royal College of Physicians of London.

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Peritonitis is a word strictly anatomical, and relates to an affection of structure only. The structure affected is known by its ancient Greek name, peritoneum; the corresponding English term, the rim or rim of the belly, has gone out of use or is remembered by being found in old books, such, for instance, as the writings of those learned anatomists Robert Burton and Phineas Fletcher, contemporaries of Harvey.

The History of the Recognition of Peritonitis.

The peritoneal structure has functions no doubt, but they are so unimportant or so obscure, that, however much they be disordered or suspended, no signs peculiar to the consequent disease can be discerned. This is the reason why the ancients, whose nosology was founded almost wholly upon symptoms or disordered functions, knew nothing about peritonitis as a disease of the peritoneum. In other words, peritonitis was not recognised before morbid anatomy began to be studied; nay, not until morbid anatomy had been studied for many years. In Morgagni, and even in Matthew Baillie, there is little or nothing about peritonitis; indeed nothing about it under that name. Nor could anything be more natural than this state of opinion. When the abdomen was laid open in a fatal case of peritonitis, it was not the peritoneum, but the intestine, the stomach, the omentum, all highly inflamed, that caught the mind's eye of these early anatomists; nor did they inquire which portion of those viscera was inflamed first and foremost. Hence the nosologist, Sauvages, invented the terms gastritis, enteritis, mesenteritis, metritis, cystitis, to signify the inflammation of the respective organs as manifested by changes in their outer peritoneal tunic; and, from 1750 for many years onward, these words were much used, and always in the sense indicated. Sauvages invented the term peritonitis also, but he meant thereby inflammation of that part alone of the peritoneum which lines the abdominal walls and covers no viscus. No wonder that the word, while this was its meaning, was very seldom employed; no wonder that Cullen, who, in his *Nosology*, gives a place to peritonitis, excludes it from his *First Lines*, saying that the disease, when existing alone, is hardly to be recognised, and does not require any special treatment.

This state of morbid anatomy, this failure to recognise the unity of peritonitis, faithfully reflected the state of anatomy in general. The peritoneum was known as being the outer tunic of the stomach, intestines, and other abdominal viscera, but of the peritoneum as a uniform continuous structure, as a single organ, so to speak, anatomists, before the time of Bichat, had little or no notion.

The study of puerperal fever led the way to more modern opinions. That disease had been known for many centuries, but by its symptoms only; one of the best descriptions of it, written from this point of view, is to be found in the works of our distinguished Fellow, Thomas Willis. He, in all likelihood, never examined a case after death, and he therefore deemed the fever to consist wholly in an infection of the blood, not secondary to any local inflammation. It was not until the middle of the last century that it came to be known by many that the abdominal viscera, or rather their peritoneal surfaces, are inflamed in most cases of puerperal fever; and from this time onward one form at least of universal peritonitis was well known, but not known by the name of peritonitis; that term had been invented, but was never employed—a fact which is proved by a story which John Hunter used to tell in his lectures. He said: "A man whom I tapped at the hospital died the third day. I said he died of the puerperal fever. This was smiled at in the hospital, and some were pleasant in remarking on the curiosity of a man being delivered; but a few months afterwards another having the same fate I convinced them, by dissection, that he had died of suppuration of the peritoneum, which we must admit to happen in puerperal fever."

A great change of opinion, and a conversion to the modern conception of the peritoneum, is marked by the publication of Bichat's treatise on membranes in 1800. Henceforth the peritoneum is deemed by all to be not many several portions but a single whole. Discoveries are seldom made at a bound, the sunrise is foretold by the daybreak; and there were those who, before Bichat, had perceived the unity of the peritoneum; I refer especially to James Douglas and Johann Gottlieb Walter. Bichat was more than an anatomist; he was a great morbid anatomist; he had attained to modern doctrine with respect to peritonitis also. But what his early death—a death too early—suffered Bichat not to write was written by his disciple Laennec, whose *Histoires d'Inflammations du Péritoine*, published in 1803, were the first essay on peritonitis conceived in the modern spirit. And here I will bring my preliminary history of opinion to an end.

The Signs and Symptoms of Peritonitis.

It is not my intention to speak of the morbid anatomy of peritonitis, nor of its causes, a topic which is becoming more and more one of microbes and morbid poisons, for peritonitis also has entered the great class of parasitic, zymotic, and virulent diseases. The changes which peritonitis begets in the living body is my theme. I am not so vain as to suppose that I can say anything which will be new to such an audience as this; all that I can pretend to do is to recall to your memories the facts of your own experience, and to arrange, criticise, and endeavour to explain those facts. *Ament meminisse periti.*

Local Signs.

The chief local signs of acute peritonitis are three: pain, meteorism, and ileus; and to these I will, in the first place, direct your attention. But before I proceed I may remark that, with regard to the symptoms, both local and universal, of acute peritonitis, it would be possible to take the term "peritonitis" in the sense of any affection of the peritoneum, which is all that the word signifies, strictly speaking. The termination "itis" is a feminine adjectival suffix which has nothing to do with implying inflammation; peritonitis means no more than peritoneal, disease being understood. The symptoms of sudden inflammation of the peritoneum, of sudden hæmorrhage into the peritoneum, and of sudden perforation of the peritoneum, are essentially the same. However, I have not the slightest intention of using the word in any but its customary sense, and peritonitis shall mean, as it always has meant, inflammation of the peritoneum.

The Pain of Peritonitis.

Broussais speaks of pain as being the only pathognomonic sign of peritonitis. I fear it would be nearer the truth to say that there is no pathognomonic sign at all. Yet, however vague and uncertain a sign of disease pain may be, it often is, at the onset of peritonitis, our only guide to the locality of the affection, although an untrustworthy guide. The earlier physicians called the pain of peritonitis, colic; nor is it always easy, even in the present day, to distinguish colic from peritonitis. The symptoms associated with the pain do not always help. In some cases of mere colic (or intestinal pain), say lead colic, the abdomen is very tender to the touch, and the pain is not relieved, but is even increased, by firm pressure. Moreover, colic is sometimes a febrile disease; and for proof of this assertion I may again refer to lead colic; the temperature of some persons suffering from that disease will rise considerably, and remain for days above the rule of health. The colic of indigestion is sometimes indistinguishable from an attack of peritonitis, until the threatening symptoms pass away with a free action of the bowels.

The Pain of Menstruation.

But the most puzzling disorder of this kind which I have met with is the abdominal pain which sometimes accompanies the menses in young women. Pain, having all the characters

of colic, is common enough about the menstrual period, and causes no difficulty. Menstruation is not seldom a febrile process, and, when this is all, we know with what we have to do. But when abdominal pain and fever are associated, when they precede the appearance of the menses by two or three days; when the patient shivers once or twice, vomits, lies with her knees drawn up, and when her belly becomes swollen, how can we at first have any doubt that she is suffering from peritonitis? Yet no sooner do the menses occur than all these symptoms disappear, and then how can we any longer believe that her complaint has been peritonitis? Not only does colic simulate peritonitis, but the reverse also is sometimes true, that peritonitis, at the onset, cannot always be distinguished from colic. The diagnostic difficulty may be met with, for instance, in peritonitis due to sudden perforation of a hollow viscus, especially the stomach or duodenum. In such cases it often happens that the temperature of the body does not rise; and for some hours at least the pain has all the characters of colic pain, and there are no other signs distinctive.

The Pain of Colic.

But it may be that in contrasting thus the pain of peritonitis with the pain of colic we are seeking for a distinction where there is no real difference. Indeed, it is highly probable that the earlier physicians were often right, and that much of the spontaneous and paroxysmal pain of peritonitis is due to colic—that is to say, to vermicular contractions of the intestines much more powerful than usual. Surgeons tell us that when they open the abdomen in order to remove an ovary, the intestines are seen to be at first in very active movement; and that these movements may be painful is proved by what we sometimes observe in intestinal tympanites, when the peristaltic contractions of the bowels can be seen through the abdominal walls, each contraction being attended by an unnatural sensation or by actual pain. Moreover, surgeons say that they can handle, cut, and scratch the stomach or intestines of a man who is quite sensible and not cause in him any sensation of pain; but we cannot go so far as to affirm that an inflamed peritoneum may not be extremely sensitive to painful impressions.

Tenderness.

As to tenderness upon pressure of the abdomen, is it not a mistake to suppose that it is pressure upon the peritoneum alone which brings forth the pain? The skin also is tender, and is sometimes tender to the gentlest touch. In bygone days I have attempted to shave the head of a patient suffering from acute meningitis, and have been compelled to desist on account of exquisite tenderness of the scalp. No question of pressure upon the membranes of the brain can arise under such conditions. Indeed, tenderness of the skin is apt to follow great pain of any underlying part. I have already remarked that simple colic may be accompanied by great tenderness on pressure. And I commend the consideration of these facts to those who find a difficulty in believing that leeches or blisters applied to the skin can possibly affect a deeply-seated part with which the skin has no obvious connection.

Meteorism.

Leaving the topic of pain, I now pass on to the other local signs of peritonitis, namely, meteorism and ileus. The pain is in great part intestinal, meteorism and ileus are wholly such. The pain is in great part due to intestinal spasm, meteorism and ileus are due to intestinal paralysis. The hollow viscera with muscular coats are the only viscera which are directly affected by the peritoneal inflammation, and this affection takes the form of spasm or paralysis. Patients with peritonitis are often unable to pass their water, whether from paralysis of the bladder or from inability to start the reflex act may be open to question; the latter is probably the more usual cause. But about the intestinal paralysis there can be no doubt. It manifests itself in its earlier and slighter degrees by meteorism or acute flatulent distension of the bowels. I do not speak of that peritoneal meteorism which is due to the escape of air into the peritoneal cavity in consequence of rupture of some part of the alimentary canal, but of that intestinal meteorism only which is secondary to peritonitis. Intestinal paralysis is no longer a matter of inference. Abdominal section nowadays often gives surgeons the opportunity of seeing how intestines which, when first exposed, were in active movement, afterwards become exhausted, and lie limp and motionless. This intestinal paralysis is not continual or not universal, for in patients whose abdominal walls are thin, vermicular movements of the intestines, either spontaneous or produced by handling the belly, can be seen sometimes in spite of very great meteorism. But this is an exception to the rule. Usually no intestinal movements can be seen, and probably none occur, or else they are too weak to show themselves. So we may suppose that the flatulent distension is due partly to relaxation of the intestinal walls, and partly to weak peristaltic movement insufficient to pass the wind onwards, a condition closely resembling constipation. This torpid meteorism, I just remark in passing, may be attended by great and constant pain—a fact which seems to show that the pain of peritonitis is due not altogether to colic or painful intestinal contractions, but partly to the inflamed peritoneum itself. Another proof that the intestines are not so utterly paralysed as might at first seem likely, or that the large intestine at any rate escapes, is afforded by the fact that natural defæcation, or even diarrhœa, will accompany acute peritonitis. This was so in the epidemic disease which bereaved our College of a Fellow whose name no doubt remains in the memory of many here present; I refer to Dr. Francis Anstie. You will allow me briefly to repeat the story, which may not be known to all. Fifty-two girls in the Royal Patriotic School at Wandsworth were attacked within one week by a disease characterised by two main symptoms, namely, by lipothymia, with coldness and lividity of the face and limbs, and by great pain in the belly, which was tender also to the lightest touch. Four children died, and dissection of the bodies revealed peritonitis. One fatal case suffered from diarrhœa with rice-water stools, and was examined by Dr. Anstie. He pricked his finger, and died six days afterwards, poisoned, as if by a snake bite. A remarkably similar epidemic, which occurred in a charity school for girls at Edinburgh, called the Merchant's Hospital, is described by Abercrombie. Peritonitis by itself would probably always be attended by the constipation of paralysed intestine; and surgeons note great constipation in cases of peritonitis following abdominal section. When diarrhœa concurs modern doctrine would lead us to infer the coexistence of an infection of the intestinal mucous membrane, especially that of the colon.

Ileus.

A higher degree of intestinal paralysis is marked by the state called ileus, a word which has been sufficiently constant in its meaning from the earliest times. It denotes disorder of an intestinal function, namely of the peristaltic function, and implies inability on the part of the intestine to propel its contents. The kind of ileus which concerns us here is that which is due to inflammation of the intestines, or enteritis. I have already remarked that the term enteritis originally meant an inflammation of the peritoneal coat of the bowels. It was Broussais who most unwarrantably perverted the meaning of the word, and who used it to signify an inflammation of the mucous membrane of the intestines, one out of many instances showing the degree to which corruption of our technical terms has been carried. They who continue to use the word enteritis in its original sense do no worse than follow the example of Pemberton, Abercrombie, Graves, and Watson. For those who desire a name to express inflammation of the intestinal mucous membrane, the terms eso-enteritis, muco-enteritis, enteritis mucosa have been invented.

The sign of ileus is vomiting becoming fæcal. The father of physic has well described the course of events, the matters vomited being first mucous, afterwards bilious, and lastly fæcal. Until the vomit become fæcal, or at least porraceous (meaning thereby an appearance like chopped grass or spinach) it is impossible to affirm the existence of ileus. The concurrence of constipation is no help, and indeed, on the other hand, fæcal vomiting may be attended by the evacuation of small loose stools, resembling in colour and other respects the pale, uniform, pasty intestinal contents found in cases of mechanical obstruction. I need not stay to bring proof that stercoral vomit may be due to obstruction in the ileum; and thus the question, formerly so much debated,

of possible reflux through the ileo-cæcal valve, loses its interest. Nor need I discuss the mechanism of fæcal vomiting, or say more than that there is no evidence of inverted peristaltic movement of the intestines. If enemata ever become emetic, as Sydenham says they do, it can only be by absorption into the circulating blood, just as vomit may smell of turpentine after the use of that drug in a clyster.

Summary of Local Signs.

So that pain and the signs of intestinal paralysis are the only local evidences of acute peritonisis. It were much to be wished that the disease afforded physical signs, such as are usually present in chronic peritonitis. Purulent discharge from the navel in acute peritonitis (just as in the chronic disease) indicates a circumscribed peritoneal abscess; in acute peritonitis the abscess is mostly connected with disease of the appendix vermiformis. I do not know that a suppuration of the whole peritoneum over points at the navel or elsewhere; a form of disease so virulent as this kills the patient before the collection of pus has time to point. We open these local abscesses freely, and with much success: but with regard to total peritoneal suppuration, I will adopt John Hunter's words without change: "How far in such cases it might appear desirable to make an opening into the abdomen, and throw in warm water repeatedly to wash away the matter, I will not undertake at present to determine."

General Symptoms.

Fever.—Let us now pass on to consider the remote or universal effects of peritonitis. And first of fever. No symptom is more uncertain than this; the temperature being sometimes high, and reaching 105° or more; usually but moderately raised; whilst in other cases there may be no fever at all, so far at least as can be judged by a thermometer in the mouth or axilla. This apyrexia is a remarkable symptom when present, as it sometimes is, from first to last in peritonitis the most intense and fatal. We are tempted to speculate upon the cause of so strange a phenomenon; whether an ordinary febrific poison be not produced by the inflammation, or whether an extraordinary febrifuge poison be produced; at present we cannot do more than note the fact. Apyrexia sometimes becomes algidity; an important sign of the lipothymial state to which I shall soon refer.

Putridity.—More certainly due to an infection of the blood are the putrid or septhæmic symptoms which sometimes happen. When we bear in mind what Bichat pointed out, that the peritoneal cavity is a lymphatic sac, with a most extensive absorbing surface, and an extraordinary power of absorption, the wonder is that these symptoms do not occur oftener. I will illustrate this form of disease by the case of one of our students at St. Bartholomew's. He was running along the street, and got a heavy fall, which was the only discoverable cause for the acute peritonitis that occurred within forty-eight hours. Delirium and diarrhœa were associated with the abdominal pain and vomiting of the first few days. On the sixth day he complained chiefly of pain in his joints; his feet and one shoulder were swollen and excessively tender. The skin over the feet, wrists, and ankles was red in patches. His urine was highly albuminous, but no blood corpuscles or casts were found in the sediment. The diarrhœa continued; he lay in a state of typhomania—that is, of delirium with consciousness much impaired. He had a greater tendency to chills and occasional shivering than is usually met with in cases of peritonitis; the temperature varied between 102° and 105°, until a few hours before death, which occurred on the eighth day. At the *post-mortem* examination nothing was found but peritonitis and its results; its cause was not found.

Lipothymia.—I will next speak of that marked failure of the vital functions (that is to say, of the circulation, respiration, and body heat) which very often accompanies peritonitis. It is a matter for surprise and regret that we have no term in common use to express this set of symptoms. No English word being precise enough, I suggest that we resuscitate the Greek word lipothymia to denote *defectio animæ*, this failure of the vital constitution, whether it be attended or not by lipopsychia, *defectio animi*, or failure of the animal constitution marked by coma, delirium, or both. Sudden lipothymia is syncope or swooning, syncope due to injury is shock. Lipothymia is manifested by a small, weak, and sometimes irregular pulse, by weakness of the heart sounds, by shallow breathing, by lividity with pallor (deathly paleness), and by algidity or failure of the body heat, at least so far as the skin is concerned; the inner heat, as measured in the rectum, may or may not fail to a proportionate degree. In peritonitis (apart from perforation) lipothymia sometimes marks the whole course of the disease (witness the Wandsworth epidemic to which I referred a short time since), and when to lividity, coldness of skin, and a weak small pulse are added diarrhœa with watery stools and suppression of urine the resemblance to cholera is great indeed. But more frequently lipothymia occurs only towards the end of life, and then it may assume, so far as the body heat is concerned, the form of lipyria (another ancient word which might be revived with advantage), that is to say, while the skin, especially of the limbs, is quite cold, the temperature of the inward parts, as measured by a thermometer in the rectum, is much above the normal; it may be 105°—a very bad prognostic sign in all acute diseases, and a plain proof of the extreme weakness of the circulation.

Lypothymia without Pain.—Another sign which sometimes attends this final lipothymia—this mortal agony or struggle with death—a sign which has attracted the notice of physicians from the earliest times—is the disappearance of pain and suffering whilst the patient remains perfectly conscious; yet all the symptoms of vital failure persist, and he only whose attention is fixed upon the local signs to the neglect of the prognostic condition of the whole patient can be surprised by what will seem to him to be a sudden and unexpected death. 'Twere curious to inquire into the causes of this cessation of pain, whether it be due to cessation of cramp, whether an anodyne poison be produced in the course of the disease, whether the lipothymia arrest the nutrition of the nerve endings, or whether the sensorium for pain be similarly affected, but I will say no more than to remind you, Sir, that an honourable predecessor of yours in that honourable chair—Sir Henry Halford—once read before the College an essay dealing with this very topic.

Lypothymia without Abdominal Signs.—Still more remarkable, although much less common, is the case of peritonitis attacking a healthy person, lipothymia supervening in the course of a few hours from the beginning, and any local signs of abdominal disease disappearing at the same time. The patient when first seen makes little or no complaint of the abdomen; it is not swollen, and can be pressed deeply without causing pain. But the skin is cold, the heart beats very frequently, no pulse can be felt at the wrist, the respirations are very frequent, the secretion of urine is suppressed. The mind is affected little or much. The patient dies on the first or second day of illness. At the *post-mortem* examination acute peritonitis is found, but not necessarily perforation of the peritoneum or disease of any other abdominal structure

Facies.—The last sign of acute peritonitis which I shall notice is that afforded by the look and expression of the face. These signs and such as these, which constitute the prognostics so much trusted by the earlier physicians, can be learnt in no other way than by a long familiarity with disease. If I allude to the countenance which still goes by the name of "facies Hippocratica," it is only to remark that Laennec has endeavoured to walk in the footsteps of his great predecessor, and to depict an expression of face often seen in peritonitis and other severe abdominal diseases. This peculiar look, which he calls *face grippée*, is due chiefly, if not wholly, to the features being drawn upwards, so that the forehead is more or less wrinkled, and the naso-labial furrows are drawn inwards and upwards towards the root of the nose and inner canthi of the eyes. I have compared Laennec's verbal picture with the living patient, and have found it to be true to Nature—but not universally true, not present in every case of acute peritonitis. Indeed, I think that the *face grippée* denotes abdominal pain, and that it usually disappears with the pain although the disease continue. But we must admit that the local suffering and local signs of disease may be very small, and yet the onset of peritonitis be denoted by a profound change in the expression of the patient's features. Surgeons remark this change when an operation is followed by peritonitis; physicians, also, when a perforation occurs in the course of typhoid fever.

Latent Peritonitis.

Now a few words concerning latent peritonitis. I have already spoken of peritonitis which is latent in respect of its local signs only—peritonitis in which universal signs of disease, those, namely, of alarming lipothymia, predominate to the exclusion of abdominal symptoms, the patient being killed in a day or two as if by the operation of a powerful venom. But peritonitis may be altogether latent, and manifested neither by local nor by universal symptoms—a form which is deuteropathic, intercurrent in the course of other serious disease such as ascites, renal dropsy, empyema, pyæmia, or typhoid fever, the peritoneal inflammation being revealed by the *post-mortem* examination only. What surprise we may feel at this latency diminishes when we reflect that the signs of peritonitis have little or no relation to the peritoneum, but depend upon disorder of other viscera, adjacent or remote. Suppose the onset to be marked by vomiting, what is there distinctive in this? In what disease does vomiting not occur? Is not the stomach the great sympathiser with distress in any part of the body? Add some pain in the belly, and how does this help us? Possessing no direct physical signs of peritonitis, and being compelled to rely upon indirect disturbance of the functions of other viscera (for the peritoneum itself has no manifest functions), we cannot expect to discover the presence of peritonitis in cases such as these.

Types.

After analysing the symptoms of peritonitis, I might endeavour to arrange them so as to form concrete pictures of patients suffering from that disease; but I will say no more than this, that according as one or other symptom prevails, so does the appearance of cases of peritonitis differ; and the differences are so great that we have to admit divers forms or types of the disease. We cannot manage with fewer types than three, namely, peritonitis characterised by pain, or by ileus, or by lipothymia; for peritonitis discovered only after death cannot be admitted to be a form of disease as looked at from my present point of view. A given case of peritonitis is by no means necessarily constant to one type throughout; for instance, painful peritonitis may pass into ileus; and, moreover, the local and universal symptoms may be variously mixed. But the only reason I have for referring to facts so obvious is to be assisted by these types in comparing the signs of acute peritonitis with the signs of other peritoneal affections, which I will now proceed to do.

Acute Onset of Chronic Peritonitis.

Peritonitis which is essentially chronic in its course sometimes sets in suddenly, and thus resembles at first the acute disease. This is often observed in the commonest kind of chronic peritonitis, the tuberculous; when, as I suppose, a sudden infection of the peritoneum takes place. The forms assumed by this acute onset of tuberculous peritonitis are the same as those I have just discussed. That most often met with begins with pain, vomiting, and sometimes diarrhœa, and is followed in a few days by meteorism, which may become very great. Lipothymia in a high degree may attend the choleric symptoms. The least common type, which assumes the form of ileus, deserves especial notice on account of its close resemblance to mechanical obstruction of the bowels; a resemblance so close that abdominal section has been performed in such a case under the notion that the patient was suffering from a strangulated hernia.

Hæmorrhage into the Peritoneal Sac.

Hæmorrhage into the peritoneal sac is another form of peritoneal disease in which we meet with these same types. The painful form is well illustrated by the case of "a woman, aged 29, who was brought to the hospital in a most alarming condition, although her illness had not lasted longer than a few hours. She had been suddenly attacked by great pain in the lower belly, and the pain had steadily increased. She had the *facie grippée* and was deadly wan, her breathing short and frequent, interrupted by hiccough, her pulse hurried and very weak, her belly distended and tender. She died within forty-eight hours from the beginning. At the *post-mortem* examination, there were found in the peritoneal cavity nearly three pints of liquid blood which had come from one of the Fallopian tubes; no peritonitis."

How peritoneal hæmorrhage may be attended by ileus is shown by the case of a man, aged 22, who was admitted into St. Bartholomew's Hospital in an extreme state of shock following a fall off the tailboard of a van in motion. He complained of great pain at the pit of the stomach, and soon after the injury he began to vomit incessantly. On the second day the vomiting continued to be very frequent. He had a great desire to defæcate but passed nothing; his belly was very hard and tender; the urine was suppressed; his temperature was 99.6°. On the third day he was worse. Abdominal section was performed. The peritoneum was found to be full of dark liquid blood, and nothing more was discovered. On the fourth day he died; the blood came from a rent liver.

Perforation of the Peritoneum.

A much more common acute affection of the peritoneum is that which I mention in the last place—namely, perforation or rupture of the wall of a canal or cavity or hollow viscus, and escape of its irritant contents into the peritoneal sac. When we seek to classify cases of this kind, we come upon the three or four types of which I have already so often spoken—the type characterised by pain, or by ileus, or by shock, and the latent type. But before depicting them, let us ask whether peritoneal perforation yield any peculiar physical signs? None, unless peritoneal tympanites ensue; and this depends, of course, upon the perforated cavity, whether it contain air or not. In the case of peritoneal tympanites, physical examination usually affords more or less probability of the presence of air in the peritoneal sac, but seldom an absolute certainty. The distension of the belly is often very great, and greater in perforation of the intestine than of the stomach; when the distension is very great, the skin is tense and shining to a degree seldom seen in intestinal tympanites. Visible coils of intestine or vermicular movements are decisive evidence of intestinal tympanites. Absence of the liver dulness to percussion is a useful, but not altogether trustworthy, sign of peritoneal tympanites; for when the intestines are extremely distended with air, they may come to lie between the liver and abdominal wall in front, and I have known this to happen even when the liver was enlarged to twice its natural size. On the other hand, adhesion of the liver's convex surface will obviously prevent the disappearance of its percussion dulness, even though the peritoneal cavity be full of air. The signs afforded by auscultation are less important, because they are common to all great accumulations of air within the abdomen, whether contained in stomach or intestines, or free in the peritoneal cavity. The chief sign is the bell sound discovered by Laennec. In his *Auscultation Médiate* he says that by percussing lightly, and at the same time applying the stethoscope near by, we shall hear a silvery resonance; clearer, he thinks, in peritoneal than in intestinal tympanites. I cannot do more than just mention the other auscultatory signs of a large air-containing cavity, and which are sometimes present in peritoneal tympanites—namely, an amphoric quality in the respiratory sounds heard over the abdomen, metallic tinkle, and succussion splash. A valuable sign is yielded sometimes by an escape of air into the cellular membrane of the abdominal walls; this fact, also, is alluded to by Laennec ("a sort of dry crackling is felt upon pressure," he says), and is, taken together with the signs aforesaid, peculiar to peritoneal tympanites as contrasted with the intestinal. Or the subcutaneous emphysema may be still more extensive. To conclude this topic of physical signs, I will remark that, although their presence is a great help to diagnosis, their absence proves nothing. Perforation of a part of the alimentary canal (for instance, the appendix vermiformis) may occur, may be followed by acutest peritonitis, and yet may be unaccompanied by peritoneal tympanites; nothing escapes from the rupture but offensive and poisonous pus.

With respect to the symptoms of peritoneal perforation, all cases may be referred to the four types so often spoken of—those characterised by pain, or by ileus, or by shock, and those not characterised at all, the disease being latent; latent, that is to say, so far as concerns the diagnosis.

Perforation Characterised by Pain: A Historical Case.

First, of perforation characterised chiefly by pain. A lady had ailed for some time from pain in the stomach and the

side, but she seemed to be otherwise in good health. One day after dinner she complained several times of pain; she drank some succory water as a stomachic, and putting the cup down with one hand, with the other she pressed her side, and said in a voice which betokened much suffering: "Ha! what a stitch in the side; what pain; I cannot bear it." Speaking these words she flushed, and a moment afterwards turned pale, with a wan lividity which astonished everybody. She kept crying out, and begged to be carried away, for she could no longer hold up. Supported by the arms of others, she managed to walk, but with difficulty and bent double. Put to bed, she cried out more than ever that the pain in the pit of the stomach was past belief; she tossed from side to side. A physician was fetched, who pronounced her complaint to be colic, and who prescribed suitable remedies. But the pain continued; she said that her suffering was greater than could be conceived, and that she would die. All this occurred in less than half an hour. Whatever she swallowed made her retch; she brought up only a little mucus mixed with food. The efforts to vomit and the excessive pain threw her into a state of exhaustion which resembled repose; but she told the bystanders not to deceive themselves, that the pain was as great as ever, and that she had no strength left to cry out. She heard someone remark that she was easier, and she said: "That is so far from being true, that were I not a Christian I would kill myself, so great are my sufferings. It is wrong to wish evil to any," she added, "yet I would that somebody could feel for a moment what I feel, so as to know what my pain is like." Her pulse became imperceptible (*retiré*), her limbs cold; her friends anxiously asked if nothing more could be done; they suggested a score of remedies, and at last her physicians, in sheer desperation, made an attempt to bleed her, but the blood would not flow. They gave her some broth, for she had taken no food since dinner. She no sooner swallowed it than her sufferings (if not her pain) increased; she complained that her stomach was filling up. Death was painted on her face; the last struggle was short, and after two or three convulsive movements about her mouth she died, nine hours from the beginning of her illness.

Would you not suppose that I have set before you a living picture in words, taken from the pages of a modern Aretaeus or of Sir Thomas Watson? or have you already recognised that I have been reading an account of the last hours of King Charles I's daughter, Henrietta, Duchess of Orleans—an account written by one of her ladies in waiting, Madame de La Fayette, 150 years before ulcer of the stomach was discovered, so we may say, by Cruveilhier? That the patient died from perforation of such an ulcer was proved by examination *post mortem*, although her physicians did not understand what they saw, and it was left for Littré to explain the real nature of her illness. I have always thought that reports of the kind just read, drawn up at the bedside by persons of keen intelligence but with no medical knowledge, are of great value. Such reports are true to Nature, for the reporters have no preconceived notions to discolour and distort the appearances of things. Moreover, these observers see the sufferer and nothing else; but we physicians, on the other hand, in our eagerness to discover abstract signs of disease and to arrange them into that wholly artificial notion which we call the diagnosis, are apt to overlook the patient.

The Diagnosis of Perforation.

The physicians of Madame said that she was suffering from colic, and that a wretched pulse and cold limbs such as hers were common in that disease. I likewise have stood by a patient writhing under the throes consequent upon perforation of the stomach or duodenum, and have asked myself whether there was anything either in the pain or its concomitants which might not occur in intestinal colic, and have been compelled to admit that there was nothing. This difficulty in diagnosis is not to be wondered at if the pain be, as is very likely, in great part due to cramp or painful spasm of the intestines and stomach, and perhaps of the abdominal walls also. Yet our diagnosis may reach a high degree of probability under such conditions as these: The ruptured organ being more often either stomach or duodenum than any other, there may have been some forewarning symptoms of ulcer of one of those parts, the perforation occurring suddenly, so does the pain, and especially after a full meal or an effort or both. The very acid contents of the stomach poured into the peritoneal cavity are excessively irritant, and the pain is violent in proportion, being far beyond the pain whereof the sufferer has had any experience or conception. The abdominal walls are contracted, tight, and hard, and often very tender. The pain will continue without remission to the end, or will cease altogether, or will only diminish—as I said when speaking of acute peritonitis.

The associated symptoms may or may not assist the diagnosis. Vomiting—often present—is sometimes absent. Some have thought that it is absent in perforation of the stomach especially, but the exceptions to this rule, if it be a rule, are many and of both kinds, namely, rupture of stomach attended by vomiting and rupture of a part not stomach, yet unattended by vomiting. Peritoneal tympanites will ensue if gas escape into the abdominal cavity, but gas does not always escape, even when some part of the alimentary canal is ruptured. Shock attends the rupture, and usually the lipothymia persists to the end. When perforation occurs in the course of a febrile disease defervescence is often a marked sign of shock. Suppression of the secretion of urine is common, and seems to be sufficiently explained by the vomiting and the lipothymia, and their necessary consequences—defective absorption and secretion.

Perforation Characterised by Ileu

The second kind of perforation—that characterised by ileus—is less common, and occurs especially in disease of the appendix vermiformis. The discharge of virulent offensive matter into the peritoneal sac seems to stun the intestines; they neither feel nor move. A woman, aged 22, was admitted into St. Bartholomew's Hospital on March 8th. She had taken, on the 5th, jalap and castor-oil to relieve her habitual constipation. The bowels acted soon afterwards three times. Otherwise she was, so she and her friends averred, in perfect health and quite free from pain or indications of disease in the abdomen or elsewhere. Her menses, due on the 5th, did not appear. On the 6th vomiting began, and it continued at intervals up to the time of admission. The bowels had not acted. She was admitted on the evening of the 8th, and one of my surgical colleagues, who happened to be at the hospital at the time, came straight to my house and told me that a woman with obstruction of the bowels had just been sent in to be under my care, and he thought that the question of operation arose. We obtained the assistance of another surgeon, and went to see her. We found a woman with no look of suffering, with a warm skin, a temperature of 99.2° in the armpit, and with no symptoms of failure of the vital functions unless indicated by a pulse of 144, which was, however, by no means weak or small. The abdomen was fat and moderately distended, the muscles were tight, but there was no tenderness excepting about the right loin; the right iliac fossa was carefully examined, but nothing could be felt. Examinations *per vaginam*, *per anum*, and for hernia detected nothing wrong. An enema had brought away fæces. She vomited dark green liquid without smell. The urine was scanty; it contained a trace of albumen, was turbid with scaly epithelium and highly granular cylinders like renal tube casts, but there were no exudation corpuscles. The abdomen was opened; thin purulent liquid escaped, the small intestines were distended and purplish brown in colour. Examining the appendix vermiformis, we found a sloughy hole at its insertion into the cæcum, the rest of the appendix much dilated, its lining membrane ulcerated and granular throughout, the outer surface covered with lymph. She died two or three hours after the operation. Nowhere any anatomical obstruction of the bowels.

Between this form of disease and painful febrile peritonitis there are all possible varieties in respect of association of symptoms, the ileus being attended by more or less pain, tenderness, and fever. Peritoneal tympanites is often absent, any distension of the abdomen being due to acutest peritonitis, to intestinal tympanites, and inflammatory liquid effusion.

Perforation Characterised by Shock.

The third kind of perforation is characterised by shock. In some cases, particularly in rupture of the stomach or duodenum, the shock kills within a few hours, and may be justly

compared to the effect of a blow upon the pit of the stomach, though why the shock of abdominal injury should be so especially profound I will not undertake to explain. In other cases the patient lives a day or two, yet never rallies. A man, 40 years of age, who was under treatment for a chronic ulcer of the stomach, became suddenly, at 8 o'clock one morning, pale, pulseless, and delirious (lipopsychia); he had evidently undergone a great shock. Throughout the day he continued to be delirious; consciousness never fully returned. Considerable reaction took place; his skin became hot, his pulse full and frequent; he retched a little, but did not vomit. The same night he became comatose, and so died at 8 o'clock next morning. I regret being unable to say whether the urine was suppressed or not. On examining the body the ulcer was found to involve the pylorus, and to have perforated on the duodenal side thereof. The contents of the stomach were in the peritoneal cavity, but there were no signs of peritonitis, neither excessive vascularity, nor exudation of lymph. This kind of perforation closely resembles other abdominal diseases in which lipothymia predominates. You, Sir, have remarked how perforation of the duodenum will simulate Asiatic cholera in its algid stage; the physicians who attended the Duchess of Orleans came finally to the opinion that she died of cholera morbus; and Dr. Wm. Sedgwick has discussed this topic very fully with especial reference to the suppression of urine.

Latent Perforation.

Lastly, the perforation may be latent; that is to say, unattended by any symptoms adequate to the diagnosis. Not that symptoms are utterly wanting; this is seldom the case; there are more or fewer of those so often mentioned—pain, vomiting, lipothymia, and the rest—but they are rendered obscure by occurring in the course of a disease marked by no less serious disorders. The contrast between a person when in good health and when suffering from perforation of the peritoneum is great indeed; but when a patient has been exhausted by four or five weeks of severe typhoid fever, the occurrence of perforation may be a comparative trifle, so far as symptoms are concerned; a little pain in the belly, a little vomiting, attracts no attention. Or there may be no pain, no tenderness, no vomiting; nothing but a sudden defervescence. Or, again, a change in the patient's look is sometimes the chief sign. During a state of typhomania, in particular, the gravest intercurrent lesions often happen unsuspected.

But perforation, latent so far as symptoms are concerned, will sometimes yield one or more of the physical signs of peritoneal tympanites. For instance, in the later stage of typhoid fever, a rapid and great distension of the belly, such as to stretch the skin and make it shine, and attended by disappearance of the liver dulness to percussion, is a tolerably trustworthy token of intestinal perforation, and is sometimes the only token. The liver dulness may disappear before the abdomen becomes distended.

Incision for the Purpose of Diagnosis.

To conclude by referring once more to puncture of the peritoneum as a means for ascertaining the presence of inflammatory effusion. A small incision would seem to be justified by conditions such as these: First, the patient is suffering from acute peritonitis, and the indications of poisonous infection of the blood are becoming more and more marked; or next, there are reasons for believing that perforation of the peritoneum has occurred. In either case, unless we can bring relief, the patient must die. A small incision will not make him worse; nay, to drain the peritoneal cavity affords a chance of recovery; the only objection lies in the natural dislike to an operation, however small. I wish I could believe that chloroform sleep did no harm, but I fear that this drug has a depressing effect upon persons suffering from acute peritonitis. However, suppose a small incision made, and we find that the peritoneum contains pus or air, beyond simple drainage two further courses lie open to us; we may follow John Hunter's suggestion, and wash the belly out with warm water, a proceeding more serious than simple drainage, or we may enlarge the incision and search for the cause of the peritonitis, a proceeding highly dangerous, for you will, I think, agree with me when I say that operations of this kind have seldom any other effect than to hasten the patient's end. A simple puncture, if it do not save the patient's life, will at least bring the satisfaction of knowing that the nature of the disease has not been misunderstood.

PERITONITIS: ITS NATURE & PREVENTION.

Being the Main Argument of a Paper read before the Harveian Society of London.

By LAWSON TAIT, F.R.C.S.Ed., L.R.C.P.Ed.

The Functions of the Peritoneum.

The peritoneum, for many reasons which need not here be discussed, cannot be regarded as a gland nor yet a mere lymph sac, but its importance in the human economy is so great, that I am disposed to rank it almost next in order to the brain. Not only does it appear in the very earliest stages of embryonic formation, but, if we exclude gross mechanical lesion such as acute hæmorrhage, cardiac valve rupture or other failure, destructive hæmorrhage at the base of the brain, there is hardly any such rapidly and certainly fatal disease as simple inflammation of the peritoneum. Opportunities of studying the facts of the peritoneum are very common, so that our fundamental ignorance is not very creditable. The mere gross anatomy of the peritoneum is usually dismissed in textbooks by an explanation that its peculiarities are for the purpose of allowing the free movement of its involved organs, but I published a number of cases[1] in which there were such variations of the peritoneum (in one case no peritoneum at at all), that it is perfectly certain patients may live with very material modifications of this freedom of movement. This is also proved by the fact that peritoneal adhesions, even of the most intricate and extensive kind, seem to give little or no inconvenience of themselves. The peritoneum is developed very early in embryonic life, and many other very important structures are separated from it in the changes. In a certain line of development its functions seem to lie chiefly in the direction of assisting a proper ovulation, but bit by bit it comes to be apparent that all the great organs of the body, except those of the nervous system, seem to require to be involved in its folds in a very curious and singularly invariable way. This does not exclude the heart and lungs, though in the higher vertebrates these have a further and more specialised separation. It is impossible to regard such a fact as this without a suspicion being aroused that there is some definite physiological purpose to be served by its curious plications. If we contrast two such viscera as the bladder and the stomach, we find the former but slightly related to the folds of the peritoneum compared to the latter, yet the movements of distension and contraction are relatively greater in the bladder than in the stomach, therefore mere facility of movement is no explanation of the great cavities.

The bladder is very slightly an organ of secretion and absorption. It has a very scant arrangement of adenoid tissue in its walls. The stomach is essentially an organ of absorption and secretion, and quite half its bulk is gland tissue, and therefore we may find that the arrangement of the peritoneum is associated with glandular function. Certain it is that all the great organs which are regarded as having functions preparatory to and essential to the general nutrition of the body, and most of those regarded as excretory, have this curiously-involved relation to this mysterious and complex membrane, with the doubtful exception of the pancreas. Further, the membrane itself has a series of strange and invariable plications and redundances of surfaces, the omenta, mesenteries, and various appendices which, should its function be that of active secretion or absorption, clearly must be of great service. Then, finally, its surface everywhere is excessively vascular; hyperæmic, as it were, its minute anatomy shows abundant arrangement of stomata, like those on the leaves of a tree, eminently suggestive of active work of some kind. It is most profusely supplied by nerves which are not derived from the motor tract. Normally these nerves convey no sensation, and there-

[1] *Journal of Anatomy*, 1874.

fore it may be assumed that they are nerves for controlling or directing some special function.

In addition to what I have said, I have to point out that one great anatomical fact concerning the peritoneum has had, so far as I can discover, no kind of importance attached to it in its pathological consideration; in fact, it is not alluded to at all save in the anatomical textbooks. It is that all the organs actively engaged in the primary preparation of the systemic nutrients are not only enclosed in the peritoneum, but all the blood gathered from these great organs is collected by a series of minute venous radicles exposed voluminously and immediately under the peritoneal epithelium to any influences which may arise in it. In addition to this, the whole of the blood prepared in or by these organs is mixed together in the portal vein and carried into the liver, where it undergoes its final change previous to the oxidation which seems essential for tissue nutrition everywhere. In the liver there is removed from this mixture of primary digestion a substance which is returned to the intestines—bile. This interesting material has been the subject of countless researches and experiments, but we do not know yet any one satisfactorily established fact about it, save that in excess it acts as a purgative.

All the statements concerning its functions, which have been based on experiments on the lower animals, have been absolutely invalidated by the results of those cases where the operation of cholecystotomy in human beings has resulted in a permanent and complete biliary fistula. In such cases, by reason of the occlusion of the common duct, the bile has been shewn to be not in the least essential to the human economy. It does not act as a preventive of decomposition of the chyme, it is not necessary to the digestion of anything not digested without it, it is not absolutely necessary either as a laxative or the reverse; its absence does not lead to slow starvation as in dogs, for patients steadily gain weight and maintain good health when deprived entirely of their bile for years. We also know that no kind of drug seems in the human subject to excite or diminish its secretion, and its more rapid or slower flow is in no way influenced by any part of the process of normal digestion, so far as my own observations have gone. These conclusions were made and published twelve years ago, and have been amply confirmed since by Mayo Robson. The bile, in fact, would seem to be an effete material, which requires to be passed through the intestines a second time to undergo either complete and unaltered elimination, or to be subjected to some secondary change. Chemical examination of the intestinal contents seems to establish the latter of these alternatives with considerable probability. A few other facts we do know about bile with perfect certainty; for example, that a very small quantity, if dislodged upwards into the stomach, will immediately, and as long as it is there, completely arrest the function of that important organ. It is also known that certain errors of diet, as we call them, will so paralyse the pylorus, increase the quantity of bile, or in some other way put the mechanism out of gear, that bile will pass into the stomach instead of passing downwards through its ordinary duodenal route. When this happens the patient becomes bilious, as it is called. For any mild and temporary form of such condition, everybody knows that the best remedy is something like a blue pill and a black draught, in spite of Bennett's famous experiments and the wholly erroneous conclusions he drew from them.

The Causes of Peritonitis.

A consideration of all these elementary facts (elementary, though there is not one of them which in my mind does not possess transcendent importance), and many others, some to be discussed later on, and others not to be referred to for want of time, made me brush aside all the theories of peritonitis which had up to that time been fashionable. The result was that I was led entirely to oppose an acceptance of that theory which now occupies largely the professional mind: I mean of course the universal influence attributed to micro-organisms. Peritonitis is not a lesion which fits into the germ theory of disease at all, and no hypothesis based on the facts of the decomposition of dead infusions in the physiological laboratory helps me to understand the facts of peritonitis, as I have it under my eyes almost every day of my life.

Nervous Influence in Inflammation.

No theory of inflammation will ever fit the facts of the process which has not its basis in the mechanics of the tissues, and there is one element of which we have as yet far too little knowledge to enable us to solve the mystery: I mean the nervous system and its method of action in those perverted processes which we call disease. The mere difference in the process of inflammation in proportion to nerve supply is enough to suggest this, and the extreme rapidity of the process in the peritoneum must be, in its initial steps at least, due to the disproportionate supply of that class of nerves which do not govern movements, but which are nerves controlling function until they are disturbed, and then they become nerves of sensation. Of the real work and influence of these nerves we know very little, but if we look at the face of a patient, even as soon as twelve hours after the onset of acute peritonitis, even before pain has become a leading feature of the case, we shall be easily led to the conclusion that nerve disturbance is doing more to kill her than microbic invasion. As to the general influence of disturbed innervation in the inflammatory process we need only point to the familiar example of bedsores in cases of fractured spine.

Septic Peritonitis.

That there is such a thing as septic peritonitis I admit as a possible secondary result of the acute suppurative metritis of the poisoned child-bearer; and I have only to look back to our ghastly experience of the poisonous influence of the festering ovariotomy stump in the days of the clamp for a second illustration. But septic peritonitis, save where definable from evidence wholly extrinsic to the condition of the peritoneum, is an etiological entity which exists only in the mind of the pathological metaphysician. There are no symptoms, there are no physical signs, there are no *post-mortem* appearances by which peritonitis which is septic can be substantially differentiated from peritonitis which is not septic; unless we bury our heads in the sand declaring, as some germ enthusiasts do, that all peritonitis is and must be septic. But this is a vicious argument in a circle which as serious logicians we need not regard. I have also to complain that this term septic, even as generally applied, but specially as applied to peritonitis, has become a veritable shibboleth to the minds of a serious proportion of the profession. It has also become a real danger in the practice of our art, for it constantly intervenes as a real stumbling block to progress.

The Great Omentum.

One of the many curiosities and puzzles of the peritoneum is the great omentum. I am disposed to regard it as the arbiter of the intraperitoneal currents. That there is an ebb and flow in the peritoneum I am quite sure, though I have not yet unravelled the secrets of its tides. The great serous sac holds in it, like a dressing bag, a great mass of serous covered organs which may, any and all of them, secrete into its cavity, or absorb from it. Possibly they may carry out one process at one time and the other at another. The omentum, I think, does so certainly and for this reason. In a series of patients suffering from peritoneal dropsy due to the disease which we now call peritoneal papilloma, a disease of epithelial origin, sometimes malignant and sometimes not, a number of cases will be found in which the effusion may be made to come and go as the observer wishes, by merely keeping the patient in bed or out of it. In others it cannot be altered, and these are the cases in which, on exploration, it will be found the great omentum is chiefly or very largely involved. As everybody now knows, the practice of opening and cleaning out all such cases has resulted in the curing of about half the cases, and the removal of huge masses of neoplasm, all formerly regarded as cancerous, and which in all probability would have been all fatal in their issue. One incidental result has been met with in the conclusion just indicated, that the great omentum possibly has a very important function, hitherto unsuspected; in relation to this, bear in mind that the huge venous system of the omentum joins the other systems from the great digestive organs, in pouring its blood into the portal vein—a fact in itself extremely suggestive.

Washing-out v. Sponging.

I have now to unfold, with greater brevity and want of detail than the occasion deserves, the process of evolution of

my present views of peritonitis, beginning as it did in 1878, when, by the final dismissal of the clamp, we abolished for ovariotomy the extraperitoneal treatment of the pedicle. Up to that time everything was so obscured by disaster and anxiety that real light upon anything was impossible. As the mortality of ovariotomy rapidly diminished, the fear of the peritoneum disappeared, and then came the second step in the revolution, when Bantock and I simultaneously raised a protest against the tapping of ovarian tumours. For several years later, however, we still got the old tapped cases, with their formidable adhesions and other horrors, and those cases died, and died, I suspected, chiefly from the damage done to the peritoneum by the sponging necessary to cleanse it. I gave up the use of sponges as far as possible, and took to washing the cavity out by dashing in large quantities of warm water, gradually evolving the neater and more effective method by the trocar nozzle. This again brought upon me strong condemnation from various quarters, but I went steadily on as I found my cases recovering, until it became evident that practically no case was hopeless, however bad it looked, providing the bleeding was stopped and the peritoneal cavity was properly washed out and drained. When I hear some authorities say that they never wash out and never need to drain, I merely conclude that they lose cases which I save, and that they put their ill results down to the omnipotent germ.

As a part of the same argument, I have to record my observation that the opening of the abdomen in cases of ascitic effusion due to the papillomatous alteration of the peritoneal surface, the careful washing of it out and its subsequent drainage, if carefully and tenderly performed, is an operation as absolutely devoid of risk as an operation can be; yet I never trouble my head about excluding germs. I have seen very few deaths in some hundreds of cases, and not one in which the result was reasonably attributable to the operation, certainly not a single instance in which it resulted from the onset of acute peritonitis.

Nervous Origin of Peritonitis.

I therefore conclude that peritonitis, after abdominal operations and injuries, begins in a stimulus, just as in the web of the foot of the frog. I do not think that there can be a doubt that nerve injury enters largely into the explanation of this. Next comes the period of mechanical congestion and stasis, and at this point we enter upon a consideration of the clinical symptoms of peritonitis; and here let me say once for all that I absolutely exclude from my own arguments and that I will not admit for the arguments of anyone else any deductions made from observations which are not absolutely verified by some kind of intraperitoneal investigation, either *ante* or *post mortem*. The peritoneal cavity is a region in which the unexpected is so constantly turning up that nothing but actual physical experience inside it can be admitted as serious argument.

The Symptoms of Peritonitis.

The question now comes in order what are the symptoms of peritonitis? My answer is that they are very numerous, very various, and very serious, but that there are none, no not one, nor any group of them, upon which absolute reliance can be placed.

Temperature and Pulse.

Of late years we have had much reliance placed on the records of temperature and pulse for clinical purposes, and in many diseases their value is undoubted. But for peritonitis they are not only untrustworthy, but may become positively misleading. Some years ago I performed a trifling operation on the uterus. It was only the insertion of a solid piece of sulphate of zinc, and I had done it in this patient some ten or twelve times before. On the last occasion it made her ill for some days, and two of us watched her with great care. As we had a perfectly, or almost perfectly, normal temperature and pulse record, we absolutely refused to regard the ailment as serious, and we were not prepared for a quite sudden termination of the case about the tenth day. On *post-mortem* examination we found about a pint of pus in the abdomen, and I do not suppose I have ever had so damaging an experience as was then made for me by my ignorance of the fact that acute fatal peritonitis may run its course and yet the temperature never rise a full degree above normal, nor the pulse be increased beyond 90 beats in the minute. I have been more alive to the fact since; yet, on the contrary, I can show records after operations of the temperature at 106° and the pulse at 160—even at 200, where recovery took place and the question of peritonitis was never seriously entertained. Do not for a moment imagine that I recommend you to break your thermometers and discontinue your pulse glasses, but do not put exclusive faith in them.

Alteration of Face.

There are two signs so constantly present in peritonitis that I regard them always with anxiety, even though their presence is not to be taken as infallibly indicative of the inflammatory danger. I mean alteration of the patient's face and distension of the intestines.

The alteration of the patient's face is deceptive, because many fidgety people, and those who bear pain badly, will put on a face indicative of danger when there is none; and the habit many practitioners have of saving their patients pain after an operation by the administration of opiates is a source of great danger, for it masks this facial alteration at the very time when its aid is most needed. Pain, though by no means a pathognomonic sign of peritonitis, is pretty constantly and markedly present at the onset. An opiate, therefore, conceals the first and most readily appreciated indication of danger. Sometimes, however, an opiate must be given after an operation, and then I always give it by the hypodermic needle, as that avoids the constipating effect of opium by the mouth and leaves me my great means of assistance ready for use—I mean purgation. The alteration of the face I most fear is not one of pain, but of anxiety, accompanied by a tendency to chatter and ask questions. If a patient will be quiet and not talk she is pretty sure to recover. If she persistently chatters she is pretty sure to die. On relief of the symptoms, which practically means getting the bowels to act, the face becomes placid and the patient quiet.

Intestinal Distension.

The symptom which I most dread is intestinal distension, and that all my clinical aids, assistants, and nurses are constantly on the watch for. I never saw fatal peritonitis in which distension was not a prominent feature. I never said that every case of intestinal distension after an operation represented a case of peritonitis, yet this is the manufactured view which an enthusiastic young assistant surgeon of a well-known metropolitan hospital set himself as a task to combat some two years ago. But as all cases of peritonitis have that as a symptom—and an early symptom as well as a very distressing one—my rule has always been *obsta principiis*, and my empirical rule has been a most successful one. My mortality from peritonitis has dropped *pari passu* with my complete establishment of the practice of anticipating the peritonitis as soon as I see distension. According to my own rule I am, of course, not entitled to say that there was peritonitis in any of these cases, or that it was cured by purgation; but when I see cases with all the symptoms which are ever seen in peritonitis, and find the symptoms yield in those in which my purgative treatment is efficient and in time; and, on the other hand, when I see similarly affected cases in which time has been lost and purgation not effected, and see these die, and then peritonitis is found on *post-mortem* examination, I am strongly disposed, as is the fashion in medicine, to argue *post hoc ergo propter hoc*, to believe that such cases do have peritonitis, and that most of them recover. Here I may be wrong, but this I do know, that the moment we see distension we purge, and if we succeed in purging the patient recovers; if not she dies. Therefore I am content to say that at least we prevent peritonitis, and it is for that purpose that my routine treatment is directed.

The Cause of Death in Peritonitis.

At this point I am brought back to my physiological beliefs about the peritoneum, and I say at once that the cause of death in peritonitis is a disturbance of the ebb and flow of the serum stream of the peritoneum, and the disturbance of the function of the liver. In fact, the liver is the lethal organ in peritonitis.

In any ordinary bilious disturbance, say what is known as the bilious vomiting of the crapulous, the first thing which happens, if I read the phenomena aright, is an over-secretion

of bile. How this is arrived at I do not know, but there are two results from it which are invariable. The first thing is that the usual course of the bile is diverted; the pylorus seems to be temporarily paralysed; bile flows into the stomach, and thence is speedily ejected. The second result is—and sometimes the two are not concurrent, but are alternative—the bile passes downwards and excites a bilious diarrhœa.

In peritonitis the first serious symptom—the symptom which when fully established after the occurrence of distension generally means a fatal issue—is bilious vomiting. At first the character of the vomit is that of simple gastric catarrhal flow, faintly coloured with bile; this rapidly alters to such an extent as to show that more and more bile is passing into the stomach, and the quantity of the ejection rapidly increases. If a resolution of this very fatal symptom is brought about, the quantity of bile diminishes, and finally disappears. If a favourable issue is not to be the result, the vomit rapidly alters in character till the too familiar coffee-ground matter, which is due to hæmorrhagic flow from the liver, appears. All through the course of the case the general distension of the abdomen increases, till it acquires a drum-like hardness, the bowels remain obstinately quiescent, and the patient dies.

The course thus described is not one without exception in almost every particular, but it is an accurate description of the great bulk of deaths from peritonitis after operations, and the course of the cases generally dates from the first appearance of distension (towards the close of the second day) till the final issue between the close of the fourth and fifth days; and so constant has been my experience of time in this matter that for years I have regarded the fourth night as the critical time for all abdominal sections, except those involving the use of the clamp in hysterectomy, and these never can be regarded as free from the risks of peritonitis till the stump has come off and the wound nearly healed.

These critical times have an indication to me of very great importance, to which I shall again recur, and to which I give far more close heed than I do to any question of theoretical sepsis, for its practical value is far greater.

At the *post-mortem* examination of fatal cases of acute traumatic peritonitis very little variation, save in degree, can be found. The main features are the uniform occupation of the intestines by vast quantities of gas and some fæcal fluid in which there is a marked absence of bile, as shown clearly by naked-eye appearances, and proved incontestably by chemical analysis. There can be no question that a most serious disturbance is due to the misdirection of the bile current. The coats of the intestines are thickened and the muscular fibres of the intestine blurred in their outline by hæmic stasis and its resulting effusion. The stomata of the peritoneum are very prominent, and crowded with cells which appear as if they were streaming out. The stigmata are greatly exaggerated in size, and the minute blood vessels present all the characters familiar in the frog's web. If I had only a knowledge of what might happen in such structures with such alterations, but without the clue afforded by the clinical history of peritonitis, I should say that the intra-peritoneal flow must have been checked, and the muscular coats of the intestines paralysed. As to the latter, I do not think for a moment there can be a doubt that it is one of the initial processes in peritonitis, and largely accounts for the distension. That the intraperitoneal flow is checked is indicated by two things—first, that the peritoneum is dry, that is, free from effusion, just in proportion to the acuteness of the processes, till in a very chronic case, which will probably recover, you may be called upon, as I have been, to remove pints of purulent fluid from the abdomen.

The second point suggestive of this conclusion is that we might urge the increased quantity of biliary fluid thrown off by the liver as being due to the increased quantity of fluid passed into the portal circulation by the arrest of the intra-peritoneal flow. The ejection of the bile from the stomach may also possibly aid the mechanical stasis in the intestine, and its consequent distension by depriving the muscular coats of a natural stimulus to vermicular action, for that is suggested as one at least of the subsidiary functions of the bile, though it is quite certain that this action goes on without the bile in normal digestion.

Further, at *post-mortem* examinations you may find lymph and purulent effusion in the peritoneal cavity to a greater or less extent, this again varying with the time occupied by the course of the case. You rarely see much if the case has not gone over the fourth day, and you will find pints if the case has lasted a fortnight.

For a proper *post-mortem* investigation of a case of peritonitis, microscopic examination of the structure of the liver is essential. It will be found engorged and evidently suffering from great changes, its normal tissue seeming to have undergone disintegration. The exact microscopic condition, especially after the whole organ has been well washed out, is a field of inquiry which I am certain would yield results worth much closer investigation than I have been able to give it. The altered effect of the liver function upon the blood which passes into the pulmonary circulation is also a direction in which investigation has yet to be made.

Prognosis in Peritonitis.

I have now a list of considerably over three thousand consecutive abdominal sections of which the mortality is something close upon 8 per cent., and the great bulk of this mortality has been due to peritonitis. I have also been called to a large number of fatal cases of peritonitis where the causes have not been associated with my own work. A very large proportion of my own patients have, in my opinion, recovered from operations followed by traumatic peritonitis more or less severe. I should say, therefore, that it must be a long way under the mark when I express my conviction that I have seen over a thousand cases of this serious disease. If I were asked what exists in my mind as the most potent conclusion concerning it, and the most important element for the patient, I should answer "time." If the grave symptoms are all matured on the fourth day after an operation, a fatal issue is pretty certain. If they hang over till the sixth or later, the chances of the patient's recovery increases in a geometrical ratio, always excepting cases of hysterectomy, and therefore it is that I have a corollary, confirmed absolutely by empirics, that taking time by the forelock in dealing with peritonitis is everything. It is no use talking about treating peritonitis; you have not a chance as a rule; you must prevent it. Therefore, my policy is always to get control over the vermicular movements of the intestinal tubes before the mechanical stasis of the inflammatory process has rendered it impossible, and, whether my theory be correct or not, my practice has had most satisfactory results.

The Prevention of Peritonitis.

Years ago I was driven to the determination to discontinue absolutely the use of opium by the mouth after abdominal operations, for two reasons: First, its action on the intestines is most certainly to modify and even suspend vermicular movement; and secondly, it masks the real condition of the patient. One dose of morphine, given under the skin immediately after the operation, for the double purpose of relieving pain and modifying shock, is all that my patients ever get, and the great bulk of them do not get that.

Another matter regarding which my convictions were altered very early in my practice was that strange and unaccountable thirst which inevitably follows the opening of the peritoneum, even in a mere exploratory incision as much as in a protracted and severe operation. Cut down through the abdominal wall to the peritoneum, without damaging the membrane, and there is no thirst—at least, it is rarely seen, and is then very transient. But open the peritoneal cavity and you have an invariable symptom—intolerable thirst lasting for twenty-four to sixty hours. At first I thought that this was a clear natural indication that the patient should have plenty of fluids and plenty of ice. But I have long since come to regard ice as one of the things which should be banished absolutely from the sick room. It never acts in any other way than to increase thirst, and the best thing to allay thirst after an abdominal section is warm water. Gradually I found it wise to diminish the quantity of fluid after an operation to the vanishing point, and now I keep my patients for as nearly forty-eight hours as may be in absolute starvation—this being modified, of course, by age and previous exhaustion. I have, indeed, come to regard this thirst, not as an indication for the administration of

fluids, but, on the contrary, as one indication that the traumatism of the peritoneum has altered its flow and ebb in some strange way, and that the less fluid there is about the sooner will the natural rectification of the process be effected. Certain it is that since I have adopted this policy, sickness after operations—I do not mean mere anæsthetic sickness, but the dreaded sickness of the second and third day—has almost disappeared, whereas formerly it was almost a routine symptom.

Again, if sickness sets in on the third or fourth day, or at any time after, all food (and in that I include water) is absolutely stopped for 12 hours or even longer if necessary. I was driven to this by the uniform experience that all drugs generally employed for the arrest of vomiting were, under the circumstances of my practice, absolutely futile; that any food given came back only altered by biliary admixture. Further, I was influenced by the perfect certainty that nothing could possibly be digested or absorbed by the stomach so long as bile was being poured into it. Let me advise everyone dealing with abdominal operations to permit nothing vomited by the patient to be thrown away till he has seen it. This is a rule for my nurses, of which I permit no breach, for I often discover the most risky over-feeding of patients during their convalescence by zealous nurses or foolish friends. It is here that most especially is shown the great value of the treatment of such cases in a private hospital over the undisciplined conduct to which they may be subjected in a private house. The friends of patients are always the source of infinite danger and give far more trouble than the patient herself. Let me tell just one story about this out of dozens that I might give you.

CASE I.—A patient upon whom ovariotomy was performed was provided with a hearty meal of biscuits and port wine unknown to me and against my general instructions, for her misguided friends "were sure she was so weak and reduced that she never could pull through such cruel starvation." The result was of course basins full of stuff, at first a purple mixture of flour and grape juice, and then of pure bile in a stream almost continuous for twelve days. At the end of that time the wound—an exceptionally large one, for the tumour had been practically solid—was widely open, and I had fished out, bit by bit, sloughs of what seemed to be the whole of both recti muscles. When the vomiting stopped there was a sheet of peritoneum about 8 inches by 6, under which the intestines could be seen wriggling, and that was all that remained between the patient and another world. Fortunately the slender barrier held good, the wound slowly healed, and the patient ultimately recovered, but she has now an enormous intestinal protrusion.

I have therefore a belief that the starvation and withholding of fluid prevents the mechanical stasis of the circulation in the intestinal coats, which appears to me to be the initial stage of the fatal process of peritonitis, and this preventive measure I endeavour to assist by stimulating the peristaltic movement. If this mechanical stasis does occur it originates always in the transverse colon, and I cannot help seeing in this the agency of the great omentum, and therefore my first efforts are directed to this part of the canal in the form of stimulant enemata. I have tried a vast number of different kinds of enemata—some suggested by my own thought and others suggested by ingenious friends—but I have always gone back to soap and turpentine. It is the business of any nurse watching one of my abdominal sections to note every six hours a set of four conditions—the pulse, the temperature, the occurrence of distension, and the passage of flatus *per anum*. So soon as the latter is freely and naturally established our anxiety ends, though our watchfulness is unremitting. The want of such passage for twenty-four hours after an operation, especially if accompanied by the slightest suspicion of distension, is dealt with without fail by the nurse herself, on her own responsibility, by the administration of a turpentine enema, unless she has been especially warned not to give it for some special reason, such as a rent in the rectum. If the turpentine does not answer the nurse reports, and a mild saline purgative is ordered—generally a seidlitz powder—and this is repeated every four hours until it acts. If there should be any especial anxiety, such as the occurrence of vomiting or the presence of a clamp, 5 grains of calomel are given instead of the seidlitz powder.

If the distension increases we never rest till we have had the bowels moved, and then our anxiety is nearly always at at end and our efforts rewarded by recovery. But above all things there must be no time lost, and nobody who may be called into consultation by anxious friends must be permitted to write a prescription and try some favourite mixture. So soon as this is threatened I repudiate all responsibility, and retire from the case.

There is nothing in all this that I have not published years ago, but I am bound to take some trouble to repeat it on a favourable opportunity such as this, because it has been grossly misrepresented and misunderstood. I have never said that the purgative treatment will cure peritonitis, for peritonitis, once it is completely established, is a practically incurable disease, and almost uniformly fatal. But when it is completely established I do not know. Of this I am certain, granting a large number of cases going on to peritonitis, after operations or from any other cause, if you subject the patients (not the peritonitis) to the purgative treatment, the number who will go on to incurable peritonitis will be absolutely fractional compared to what will be the result if they are left alone or submitted to any other treatment which has come under my notice.

When called in to a case of well-established peritonitis I always urge a trial of this treatment, because the stage may not have passed at which it may still be effective, but the chances are that it has. I generally find that the time has been lost, and that the irresistible tendency of our profession must be to treat the prominent symptom (pain) with the only drug on which implicit reliance can be placed (opium) has put the purgative treatment beyond the reach of trial.

TIME AS AN ELEMENT IN PROGNOSIS.

I have already said that time is the most important element in a case of peritonitis from another point of view, and to that I now purpose drawing your attention. Briefly, it is my opinion that the outcome of a case of peritonitis depends far less on the severity of the symptoms than on the time over which they run. Thus symptoms may be quite parallel in two cases, and yet one will die on the fifth day and another will go on to the twelfth and get well, the symptoms lasting all the time with almost initial severity. The same thing is known about tetanus. My experience of this peculiarity of peritonitis is that it is not limited to traumatic peritonitis, but is seen in every kind, including that which we know as idiopathic peritonitis. Let me give in very brief outline a few very noteworthy experiences I have had in this particular.

CASE II.—Many years ago a young domestic servant was sent down to me from a mansion in Cornwall with an ovarian tumour, and was sent most improperly without an instruction from her mistress that the children to whom she was acting as nurse had just recovered from scarlet fever. Five days after the operation I discovered that she was desquamating, and then unearthed a clear history. By the time the discovery was made I had performed eleven more abdominal sections, and had carried the infection to every one of them; the event occurred in the days when I used complete Listerian precautions, spray and everything else. Three of my nurses were also infected, but fortunately all the fifteen cases recovered, though one of the nurses was maimed for life by a stiff ankle-joint. Only one of the twelve abdominal sections displayed anything more than the ordinary symptoms of mild scarlet fever, but that exception was a most remarkable one. She was a congenital imbecile patient who was sent to me by Dr. Connor, of the Lancaster County Asylum, with the sanction of the Commissioners in Lunacy, for the removal of a large ovarian tumour. She rapidly developed all the signs of peritonitis, and on the fourth day had profuse and irrepressible bilious vomiting, so that I fully expected her death on the fifth day. But she did not die. The symptoms went on without any kind of remission, especially the bilious vomiting, so that soon the poor creature's head had to be bolstered over a slop pan, and an excoriated tract from the angle of the mouth down the chin and some way down the neck marked for two or three weeks the acridity and continuity of the bile stream. I went to her bedside three times daily for eight weary days, fully expecting that every visit would be my last to her. On the night of the twelfth day I said to the nurse I will not come in the morning as the patient's hands were cold and her pulse imperceptible, and I felt perfectly convinced that she must die during the night. The nurse was a good Catholic, and the patient in her estimation, even as an imbecile, deserved consideration for another world. From her own *bénitier*, and with fulness and devoutness of intention, the nurse performed that rite, necessary in her belief for eternal salvation. The vomiting immediately stopped and next afternoon I found the patient actually taking food. She made an easy but somewhat protracted recovery.

In this case it would be an endless task to recite the remedial attempts which had been made. They were all futile. Enemata never extracted a cubic inch of flatus from the patient's intestine, and no kind of dietetic or therapeutic expedient could be effective owing to the persistent stream of bilious fluid ejected from the stomach. An occasional hypodermic injection of morphine eased the patient, but its depressing effect was so great and its benefit so temporary that even that was given up. What brought about the successful issue? I confess I do not know. Either it was the miraculous

effect of the religious rite, or it was lapse of time. But the cases that go on for so long as this nearly always get well. The fashionable sceptic and the scientific critic will, of course, say that this was not a case of peritonitis. But how could he get over such cases as the following, examples of which I can quote in considerable number:—

Case III.—A. B., aged 17, placed under my care by her uncle, a well-known medical man, on account of a large tumour supposed to be ovarian, but which at the operation turned out to be a huge cystic tumour of the left kidney, which I removed by abdominal section, tying the pedicle, and closing the wound. The patient was all right when I went from home on the third day, leaving her in charge of a highly valued assistant, who knew my views and loyally acted up to them. High temperature and pulse, with severe distension, displayed themselves on the morning of the fifth day, but no vomiting, purgatives and turpentine enemata were persevered with, but without effect, and when I got back on the fifteenth day after the operation I found her pinched, wasted, with high temperature records and an enormously distended abdomen. But my accustomed touch at once discovered that the distension, though it had a tympanitic note on the surface, was mainly ascitic effusion, and therefore I immediately reopened the abdomen, giving vent to about 20 pints of the most stinking pus I ever encountered. I washed well out and drained, and she made a speedy and most satisfactory recovery. She is now a well grown and perfectly healthy woman.

Will the critics refuse to accept this as a case of acute traumatic peritonitis? If not, I have of course to give up the discussion, only asserting that in my opinion it was. Why did she get well? I cannot say unless I recognise the influence of time, for my experience is that if she had matured a tablespoonful of that pus in her peritoneal cavity on the third day after her operation she would have died on the fifth; and another conclusion in my mind, as deep-rooted as the alphabet of the language I speak, is that no germ theory will explain death in the one case and recovery in the other. Nothing I know will explain the difference in the results, of which time is the only factor at present discoverable by our limited vision.

Conclusion.

The practical outcome of my empirical experience is this, that the purgative treatment of peritonitis or threatening peritonitis, or of anything which seems to be likely to turn out peritonitis, if it be promptly brought to bear on the case, will gain the all-important time, and often it gains such time as will call into action that influence which will eventually turn the scale in the favour of the patient.

INJURY TO THE PANCREAS: A CAUSE OF EFFUSIONS INTO THE LESSER PERITONEAL CAVITY.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association, held in Nottingham, July, 1892.

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In looking over recently recorded cases of pancreatic cysts which have been treated by surgical operation, three points have forced themselves upon my mind. (1) The large number which have followed abdominal injury; (2) the almost general absence from these reports of any reference to the condition of the lesser peritoneal cavity; and (3) the striking similarity between these cases, and the two cases of effusion into the lesser peritoneal sac which I am about to relate.

The main object of this paper is to call attention to the relationship which exists between injuries of the pancreas and accumulations of fluid in the lesser peritoneum, a relationship which, so far as I can ascertain, has hitherto attracted but little notice.

My attention was first called to the subject in the year 1878, when, on making a *post-mortem* examination, I was surprised to find the middle two-thirds of a gangrenous pancreas detached and free in a collection of fluid contained within the lesser peritoneum. About four years later I saw in the practice of a friend a similar case. I could find but scant reference of any kind at this time to affections either of the pancreas or the lesser peritoneum, and none whatever to the particular condition just referred to, but since then our knowledge of pancreatic disorders has been much added to, and gangrenous pancreatitis has become a well recognised, although rare, disorder. Injuries of the pancreas—uncomplicated by serious and usually fatal damage to other structures, like the liver, spleen, and stomach—are perhaps even rarer, but I have met with two cases of the kind.

Case I.—W G., aged 20, was admitted under my care into Queen's Hospital, Birmingham, on May 22nd, 1888. Shortly before admission he had been knocked down by a horse at a race meeting, and on recovering consciousness complained of being hurt in the abdomen. When brought into hospital he was much collapsed, had been sick, and was suffering severe pain in the upper part of the abdomen, but exhibited no external marks of injury. He vomited many times during the first two or three days, and in the vomit an occasional fine thread-like streak of blood was noticed. His temperature registered 100° on the day after admission, but soon became normal, and after the fifth or sixth day his symptoms had entirely gone, except for a little tenderness on pressure in the epigastric region. He left hospital at his own request on May 31st, and for a few days kept fairly well, but then began to suffer from attacks of epigastric pain, which lasted two or three days, and were sometimes accompanied by vomiting. These attacks occurred about once a week until July 27th, when, because of a more severe attack, he was admitted into the General Hospital, Birmingham, under my friend, Dr. Simon, who has kindly placed his notes of the case at my disposal. The lad had lost flesh, and was anæmic. His tongue was red and slightly coated with brownish fur. He had a fair appetite and no nausea or vomiting; the pain was not increased by food. The abdomen was tense and prominent over the epigastrium, and tender on pressure. Liver dulness normal, lower part of belly soft and free from tenderness. Pulse 100; urine 1010, alkaline, and contained phosphates, but no albumen. The pain ceased on the following day. On July 30th he had an attack of severe abdominal pain, which lasted ten hours, but on August 18th he was discharged, having made no further complaint. His temperature throughout had been subnormal, varying been between 96.8° and 98.2°.

On August 29th he had another sudden and severe attack, with vomiting, a few blood streaks being again seen in the vomit, and at night he observed a swelling in the left hypochondrium. He was readmitted to the hospital, and it was noticed "that the pain was gnawing in character, and was much easier when he sat up in bed." A tumour could be seen and felt in the epigastrium and left hypochondrium, tense and rounded, reaching from the left costal arch down to the umbilicus and into the upper part of the left lumbar region. (See Fig. 1.) It was dull on

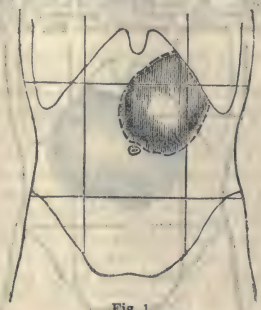


Fig. 1.

percussion and tender to pressure. Next day the tumour could not be defined, but there was increased resistance and tenderness in the umbilical region, and the painful symptoms had passed away. Two days later the pain returned; all food was withheld from the stomach, and he was nourished by peptonised enemata. Twenty-four hours later it was noted "a good night; pain gone; no tumour to be felt; stomach note over former site of tumour." Two days later he was free from pain, but the tumour could be again distinctly felt. A hypodermic needle was passed into it, and a dark-coloured fluid withdrawn. An aspirator needle was then inserted, and 29 ounces of fluid taken away. No chemical examination of this is recorded. On the following day he had more pain in the belly, and the sickness returned. Two days afterwards the tumour had filled again, and was tense and tender. The pain increased during the next twenty-four hours, and the vomiting became more frequent. On September 11th the abdomen was opened by an incision in the left hypochondrium. A cavity was found containing a further quantity of dark brown fluid. This cavity was washed out carefully, but the boy died exhausted a few hours subsequently. The temperature throughout had never been above 98.4°, and the morning preceding the operation it was 97.2°. A *post-mortem* examination was made next day by Dr. G. F. Crooke, from whose notes the following account is abstracted:

"On opening the abdomen, signs of recent peritonitis were found. Situated behind the stomach, and co-extensive with its posterior surface, was an enormous encysted hæmatoma, its lower edge reaching further than the stomach and to within 1½ inch of the transverse umbilical line. It was removable with the stomach, and was filled with 3 or 4 pints of dark blood containing old coagula: thus the comparatively empty and collapsed stomach appeared to rest posteriorly upon a large sac (the lesser peritoneal cavity), which was distended with altered blood. Regarding the structures entering into the composition of the sac walls, the folds of the lesser omentum were so altered that it was hardly possible to tell what they were, but it appeared as if the hæmorrhage might have occurred from some ruptured vein in the gastro-splenic omentum, found its way inwards, and gradually become encysted between the peritoneal coat of the stomach posteriorly and the peritoneal covering over the pancreas. No special examination of the pancreas for injury was made."

In connection with this case I wish to call attention to the following points: First, the injury to the belly and the sym-

ptoms immediately following; secondly, the onset of another set of symptoms during the second week and the rapid development of a large tumour in the, umbilical, epigastric, and left hypochondriac region, which presented varying physical signs from time to time, according to the condition of the overlying stomach; thirdly, the removal of dark fluid contents from this tumour by aspiration; and fourthly, the discovery *post mortem* that the tumour was due to a collection of fluid in the cavity of the lesser peritoneum.

CASE II.—G. D., aged 27 years, labourer, was admitted into the Birmingham Workhouse Infirmary on December 9th, 1891. On November 7th he was drinking in a public house, when a quarrel arose; he was thrown on the floor by a man, who kept him down by kneeling on his abdomen during the time a policeman was being sent for to remove him from the house. He was taken to the police station, and during the night complained of feeling ill, and was sick. Next morning a doctor was called in to see him. The patient stated he had then a swelling in his abdomen. On November 8th he was taken before the magistrates, and sent to prison for a month. The prison surgeon, Dr. Price, who was away on leave at the time of admission, writes me that: "Shortly after his reception he vomited freely, and on November 10th was admitted into the prison hospital, a provisional diagnosis of pyloric obstruction being made."

On November 27th Dr. Price saw him for the first time, and noted that "he alternately vomited and retched after food, and had rapidly emaciated. The epigastric, left hypochondriac, and upper part of umbilical regions were occupied by a large solid tumour, which did not decrease in size after vomiting. There was no material increase in size up to the date of his discharge (December 9th), although it appeared to be more tense; but he rapidly lost flesh, and became very anæmic. I thought it was a blood tumour connected with the spleen."

I am indebted to Dr. J. O. Tunstall, formerly senior resident medical officer at the Workhouse Infirmary, for the following notes made at the time of his admission on December 9th:

"Whilst in prison was sick after almost every meal; had pain in abdomen, striking through from front to back, but never very severe; had not vomited blood at any time; no trouble with bowels or bladder. He is a short well-built man. In the abdomen is a large protruding swelling, occupying nearly the whole umbilical, the lower part of the epigastric, and the left hypochondriac regions (*vide* Fig. 2), tense on palpation,

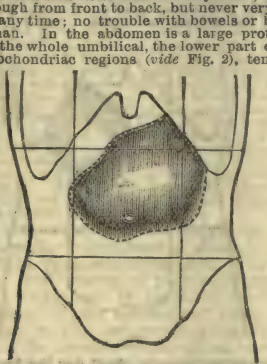


Fig. 2.

fairly well defined, dull on percussion, the dulness not continuous with that of the liver or spleen. A resonant area can be percussed out all round the swelling. There is a dull area in the back, extending from the level of the angle of the left scapula to the lowest ribs, where the breath sounds and the vocal fremitus are diminished but not absent. The apex beat is raised to the fourth left intercostal space, just internal to the nipple. Temperature, 96°; urine, acid, 1025, faint traces of albumen and phosphates."

On December 12th, Dr. Tunstall aspirated the swelling in the middle line, almost midway between the umbilicus and the ensiform cartilage, and drew off 30 ounces of dark-brown turbid fluid. The needle moved up and down synchronously with respiration. The fluid had a specific gravity of 1010, was rich in albumen, and deposited a thick layer consisting of blood cells, *débris* of cells, and linear-like crystalline bodies. A second puncture was made at a lower point, and a further small quantity of fluid withdrawn. The tumour reappeared in a few days, and he was transferred to the surgical wards. From what I had learned from my previous case I at once diagnosed the condition as an effusion into the cavity of the lesser peritoneum secondary to injury of the pancreas.

On December 18th, 1891, under chloroform, I opened the abdomen by an incision 2½ inches long in the middle line above the umbilicus. The cavity of the peritoneum was quite healthy. The greater curvature of the stomach lay across the upper end of the opening, with a red and thickened great omentum passing downwards from it; the omental vessels were abnormally large and tortuous, and were engorged with blood, the veins being as thick as penholders. A fine needle was pushed through the omentum and fluid found; the omentum was then stitched carefully to the skin, the parietal peritoneum not being included in the sutures. An opening was then made through the omentum, and 84 ounces of a brownish turbid fluid were caught in receivers. A finger passed into the opening entered a cavity situated behind the stomach, in front of the pancreas, above the colon, below the left lobe of the liver, limited to the right but passing deeply backwards to the left, beyond reach of the finger. A double rubber drain tube was inserted and the parts dressed with dry boracic dressings.

On the fourth day the edges of the wound were red and irritated by the discharge. The patient made an uninterrupted recovery, the tubes being discarded six weeks after the operation. The temperature was subnormal throughout. He grew stout and strong, and left the infirmary in absolute health a short time later.

I examined the fluid immediately after its removal, and made the following notes: Turbid; brownish pink colour; viscid; 1013; slightly alkaline; tasteless and odourless. On standing, a one-third pink flocculent precipitate goes down, and the upper layer remains turbid and of a yellow colour. On the following day Professor Allen, of the Mason College, examined the fluid, and appended is his report:

FLUID RECEIVED FROM MR. JORDAN LLOYD ON DECEMBER 21ST, 1891.

A turbid fluid of reddish-grey colour; specific gravity 1012; reaction slightly alkaline. Under microscope shows great quantity of blood corpuscles, many small crystals (probably phosphates, as being the most likely to exist in an alkaline fluid), a few globules of fat, and a few fine filaments resembling fibrin, but possibly adventitious material from the vessels used.

Proteids.—Fluid gives coagulum on boiling, which is greatly augmented on acidifying the boiling fluid. Thus there is present a small amount of albumen or globulin, and a much larger quantity of alkali-albuminate. The coagulum, after standing twelve hours, amounts to $\frac{3}{4}$, representing 1 per cent. of dry proteids. The estimate is confirmed by Esbach's method. The filtrate, after coagulation, gives a faint rose colour, with NaHO and $CuSO_4$, indicating a trace of albumose or peptone, or both, but the quantity is too small to separate them. The albumose is insufficient to give a perceptible precipitate with ferric acetate.

Sugar.—Another portion of the same filtrate gives a slight yellow colour when heated with NaHO; therefore sugar is probably present in minute quantity. (Other tests are not applicable, owing to presence of trace of proteids.)

Digestive Properties.—When mixed with an equal quantity of starch paste it converts the starch rapidly into sugar—in five or ten minutes. Fibrin left in the fluid for twenty-four hours at body temperature is not perceptibly dissolved, and the fluid scarcely shows any increase of albumose or peptone after the process; therefore trypsin is absent, or nearly so. As might be expected of a fluid containing so much alkali-albuminate, it forms an emulsion with olive oil on shaking; but its emulsive power is very weak, being only about $\frac{1}{4}$ that of a 1 per cent. solution of sodium carbonate.

Remarks.—The hypothesis that the fluid was derived from a cavity in connection with the pancreas is favoured by the presence of (1) abundant amylolytic ferment, (2) a peculiar preponderance of alkali-albuminate, and (3) traces of albumose or peptone. It is not, however, normal pancreatic juice, as shown by the absence of trypsin. If trypsin had been present the alkali-albuminate would not have remained as such, but would have been mostly converted into albumose and peptone while the fluid was still in the body. It must be remembered, too, that amylolytic ferments occur in various fluids besides the digestive juices. The emulsive action is not a special feature of pancreatic juice, but belongs to any fluid containing a fair amount of alkali-albuminate. F. J. ALLEN.

The points to which I desire to call attention here are, first, the nature of the injury received. The patient was held on the ground by a heavy man kneeling on his belly; in this position the pancreas might easily be squeezed between the knee and the body of the first lumbar vertebra upon which it lies; secondly, the early onset of frequent vomiting; thirdly, the rapid development of a large tumour in the umbilical, the epigastric and left hypochondriac regions which was looked upon as the distended sac of the lesser peritoneum before operation. Fourthly, the displacement of the heart's apex beat upwards. Fifthly, the area of dulness and impaired breath sounds in the left back. Sixthly, the removal by puncture of brownish fluid. Seventhly, the details of the operation and the verification of the diagnosis by digital exploration of the cavity. Eighthly, the perfect recovery which followed; and lastly, the examination of the fluid made by an experienced physiologist and chemist.

In connection with the above cases I should like to call attention to a paper on Cysts of the Pancreas, published by Dr. Senn in the *American Journal of the Medical Sciences*, July, 1885. He describes the case of a man, aged 19, who was admitted into hospital under his care in November, 1884. Five weeks previously he had fallen and injured his abdomen; he had lost flesh and frequently vomited. He had a tumour which occupied the whole epigastric and left hypochondriac regions, and was most prominent to the left of the mid line, about 3 inches below the xiphoid cartilage. Dulness extended from the left nipple to an inch above the umbilicus in front, and posteriorly from 8th to 12th rib on the left side. There was resonance between tumour and liver. The swelling was round and smooth; heart displaced upwards, its apex beating in 4th space. Stomach above tumour; liver normal in size; no ascites; syringe inserted into tumour moved up and down with respirations. There was a little albumen in urine. A 5-inch oblique incision was made over most prominent part of swelling; on opening peritoneal cavity omentum seen, its vessels enlarged. Omentum incised for 3 inches "slightly adherent to peritoneum and to surface of tumour." "Through

the omental incision the tumour could be seen and felt, presenting a smooth, whitish, and glistening surface." "The peritoneal covering was picked up and nipped, and a grooved director inserted into the opening made; owing to the thinness of the walls of the sac, it penetrated the interior, and fluid escaped. The interior of the cyst was explored by inserting index finger, which passed directly backward towards the tail of the pancreas. The bottom of the cavity could not be reached. The inner surface of the cyst was smooth. About 120 ounces of fluid removed, viscid and opalescent. Not examined chemically. The wound healed in a few weeks."

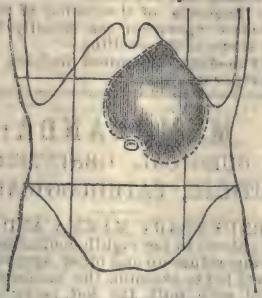


Fig. 3.—(After Senn).

The opinion that this was a cyst of the pancreas seems to have been arrived at simply because the examining finger entered a cavity behind the stomach, at the bottom of which the pancreas could be felt.

A similar case, under the care of Külenkampff, of Berlin, is is referred to in the same paper, and is worth abstracting: A man, aged 39, received several violent blows in the region of the umbilicus, which were followed by very severe hypochondriac pain. Nine or ten weeks later he had a tumour in the epigastric region, which moved with respiration. Six months after the injury median abdominal section above the umbilicus was done in two stages; the cyst was opened, and its walls stitched to the skin. About eighty ounces of fluid escaped. On digital exploration it was ascertained that the cyst was "lined with mucous membrane, and studded over with polypoid growths." No conclusion was arrived at as to the nature of the cyst until some time afterwards, when the discharge which issued from the wound was submitted to chemical analysis, and was found to give the reaction of pancreatic juice. The inference was then drawn that the tumour which had been opened was a cyst of the pancreas.

I could quote several other similar cases which have been published in the journals did time allow. I will content myself by referring briefly to an article in the Epitome of July 23rd, par. 64. There, in an abstract of a paper recently published by Krecke, on Pancreatic Cysts, the following sentences appear: "Traumatism is the only cause established with certainty, but its mode of action is not very clear." It is clear enough to understand if my view of these cysts is the correct one. Again we read: "It is a retroperitoneal fluctuating tumour coming forward generally between the stomach and transverse colon, and surrounded in a characteristic fashion by tympanitic resonance.....its contents are alkaline, dark brown in colour, and possess the digestive properties of pancreatic fluid.....wasting is very common." Exactly the characteristics of the condition met with in my two patients with peritoneal effusions.

The diagnosis of pancreatic cyst appears to me often to have been made upon insufficient evidence. The fact that a cavity within the abdomen contains pancreatic secretion is no proof whatever that the cavity is within the pancreas; it tells us nothing more than that the cavity is connected with this organ. Neither is the fact that the pancreas can be felt by an examining finger from within an intra-abdominal sac, for if the lesser peritoneal cavity is opened from below by an incision in the transverse meso-colon, a finger passed through this opening enters a large space at the back of which the pancreas is found; similarly, too, if the lesser peritoneal cavity is opened by an incision in the great omentum below the stomach. Through either opening the deepest part of this space is found to the left, and cannot be reached by the examining finger.

I believe that all the cases referred to above are of the same nature, and that the explanation I am giving of their nature is the correct one, namely, that they are fluid effusions in the lesser peritoneal sac, the result of injury to its underlying pancreas, and not cysts of the pancreas in the proper meaning of the term.

A blow in the upper part of the abdomen immediately below the liver may crush the pancreas against the first lumbar vertebra; its peritoneum covering, being thin, may be easily torn through, and bleeding will then take place into the lesser peritoneal sac. With a patient in the supine position this blood will gravitate to the deepest part of the cavity, and will be hidden behind the stomach and beneath the left concavity of the diaphragm, and may thus escape the surgeon's observation.

This blood doubtless may be absorbed if the damage to the gland is slight and none of its ducts are injured, but if a duct is torn I imagine the secretions of the gland may be poured into the cavity with the blood, and although Senn tells us that pancreatic juice is not irritating to the peritoneum I fancy that a mixture of pancreatic juice and devitalised blood clot may have a very different effect, and that chemical changes of a digestive kind may then be started which may irritate the serous lining of the sac and cause it to pour out its secretion and thus gradually distend its cavity.

Doubtless cysts may form in the pancreas just as they may in any other portion of the body, but why they should so often and so rapidly follow an injury I cannot understand. We see nothing of the kind after injuries to structures of a similar nature elsewhere.

I can find no mention in any works on abdominal tumours of that variety of tumour which depends upon effusions into the lesser peritoneum; indeed, so far as my literary investigation has gone at present, I cannot find any special reference whatever to diseases of this structure, but that the lesser may be disordered altogether apart from the greater peritoneal sac is a fact as to which there can be no doubt. Fluid collections in its cavity may occur, as the above cases show, from injury, and they may result also from several other causes. I made a *post-mortem* examination of an old woman only a few weeks ago, whose lesser peritoneal cavity was filled with bile-stained inflammatory effusion. She suffered from suppurative cholecystitis, due to gall stones, and the lower part of the cystic duct was perforated by an ulcer through the posterior layer of the gastro-hepatic omentum into the lesser peritoneal sac. Perforation of the stomach by an ulcer on its posterior wall will, if the viscus has not formed adhesions to the structures behind it, give rise to such an effusion. Perforations at the posterior part of the transverse colon, abscesses or cysts of the spleen, liver, or pancreas may similarly open into this cavity.

A few words on the anatomy of the lesser peritoneum may not be out of place here, as I venture to think its exact size, shape, and limits may not be familiar to all the members present.

In the first place, it varies considerably in size in different individuals, particularly with regard to its extension downwards between the layers of the great omentum. It is situated behind and below the whole of the stomach, the small or gastro-hepatic omentum, and the anterior layer of the great omentum. It lies in front of the whole of the pancreas, to which it is always closely adherent, and from which it is never separated by a layer of fat even in the stoutest persons. Its lower boundary forms the upper layer of the transverse mesocolon, and reaches laterally from the hepatic to the splenic flexure of the colon. Its right limit is formed by the folding of the membrane into the foramen of Winslow, and its left limit corresponds to the hilum of the spleen. Its upper limit is determined by the groove in the liver to the right of the lobus Spigelii, by the transverse fissure of the liver, and by the under surface of the diaphragm covered by the lower layer of the right lateral ligament of the liver. The under surface of the Spigelian lobe is the only part of the liver which lies bare in this cavity. When the sac is opened by a transverse incision through the great

omentum close to the lower border of the stomach, it can be seen that the deep part of the cavity is arranged in at least three distinct hollows: one to the right of the Spigelian lobe, one at the bottom of which this lobe lies, and one reaching deeply backwards to the left of the lumbar vertebra as far as the back of the abdomen opposite the lower four ribs. I have injected several bodies with plaster-of-paris with a view of determining the limits of this space, and I find that the great bulk of the injection sinks into the deepest hollow to the left of the spine, and cannot be detected by palpation from the front of the abdomen. In most cases the foramen of Winslow is patent, and as the cavity becomes filled the injection escapes through this opening into the general peritoneal cavity; but in a few specimens I have already examined this opening has been quite impervious. In a few cases, too, openings have existed in the anterior layer of the great omentum, through which the injection has made its way into the general peritoneal cavity. I need scarcely remind you that an opening made upwards through the transverse mesocolon opens the lesser peritoneal sac towards its lowest part.

Pathological distension of the lesser peritoneum gives rise to a tumour in the left hypochondriac, epigastric, and umbilical regions of a somewhat characteristic shape, but which appears to vary from time to time in form and size according to the condition of the overlying stomach, for when the viscus is full of liquid contents it increases the area of the tumour's dulness, whilst it makes its outline less definable by palpation, and if the stomach is distended with gas the dull area becomes resonant, and apparently the tumour may disappear altogether. The colon always lies below the tumour, and never in front of or above it, as is the case in kidney enlargements. The stomach is most readily distended with gas by giving a few grains of carbonate of soda and immediately afterwards a little tartaric acid, and the colon is best distended with water by injection *per rectum*. I have already said that the downward limits of this space vary in individuals according to the extent to which the two layers of the great omentum remain separate, and in such cases the sac may distend so as to occupy the loins or even to fill the whole abdominal cavity.

Pain is an uncertain symptom. It has usually been paroxysmal in character, coming on at irregular intervals and continuing for variable periods. It is referred to the epigastrium, strikes through to the back, and is sometimes aggravated by the taking of food.

Vomiting is usually met with. It varies very much as regards frequency and its relation to meals—it may be almost continuous for a long period, or it may come on at irregular intervals only.

Emaciation is a conspicuous feature, and is more than the vomiting is sufficient to explain.

Anæmia has been marked in each of my cases. It disappeared with surprising rapidity after operation in the patient who recovered.

The dulness over the left lower ribs posteriorly is an interesting sign. The cavity could easily be tapped by a needle introduced from behind, and might give rise to the belief that the fluid was in the pleural cavity.

The heart may be lifted up by the underlying tumour, so that the apex beat is raised as high as the fourth intercostal space, as was seen in my second case, and also in that recorded by Senn. This displacement might easily be wrongly attributed to the presence of fluid in the left pleura. Cardiac pulsation, too, may be transmitted to the abdominal swelling.

In both of my cases the temperatures were subnormal throughout, although in Case I *post-mortem* examination showed that some amount of general peritonitis was present.

In neither of my cases did the urine at any time contain sugar, but in both a little albumen and phosphates were present.

In closing this paper I beg to submit the following conclusions:

1. That contusions of the upper part of the abdomen may be followed by the development of a tumour in the epigastric, umbilical, and left hypochondriac regions.

2. That such tumours may be due to fluid accumulations in the lesser peritoneal cavity.

3. That when the contents of such tumours are found to have the property of rapidly converting starch into sugar, we may assume that the pancreas has been injured.

4. That many such tumours have been regarded as true retention "cysts of the pancreas," and that this opinion has been formed upon insufficient evidence.

5. That the diagnosis of distension of the lesser peritoneal cavity before operation can usually be made by the characteristic shape of the swelling.

6. That early median abdominal incision and drainage is the safe and proper treatment.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

SUPERNUMERARY MAMMA AND NIPPLE.

I ATTENDED a patient in her eighth confinement recently, and finding her temperature up and other symptoms pointing to milk fever I was led to examine the mammæ. I found them both distended with milk, the left being somewhat larger than the right. On closer inspection I found she was the subject of polymastia and polythelia (a supernumerary mamma and nipple). The position of the third breast, which is about a third smaller than the others, is immediately inferior to the left, the two nipples being in the same vertical plane. There is a distinct sulcus between the superior and inferior glands. The supernumerary nipple is perfect in form, although about a fourth smaller than the other two; and, owing to the pendulous condition of the normal superior and larger gland on the same side, it appeared at first sight like a mole on the under surface of a normal breast. It has the usual dark pigmented areola surrounding it, and when it is caught up and drawn out the lactiferous ducts can be felt running into it and milk exudes. The supernumerary gland secretes a quantity of milk proportionate to its size, and the patient says it has done so in all her seven previous pregnancies.

The subject of supernumerary mammæ is of much interest from the evolutionary point of view, as Leichenstern has pointed out, and may be taken as a fair example of retrogression to a type of a primitive ancestor.

Sydenham. F. LORIMER HART, M.B.

LEUCOCYTHÆMIA: RAPID DISAPPEARANCE OF GLANDULAR SWELLINGS: DEATH.

J. I., aged 27, a tailor, was first seen on June 7th, 1892, when he complained of great weakness, shortness of breath, and fainting attacks. In February he had influenza, and since then his health had failed, and the glands in the neck and tonsils had become enlarged. Lately he had been sleeping fifteen or sixteen hours a day. I found the man extremely breathless and anæmic. He was very deaf and spoke thickly. The tonsils were enormously enlarged, almost in contact with one another, and their opposing surfaces were ragged and ulcerated. All the cervical glands were much enlarged, separable, and freely movable. The glands in both axillæ and groins were enlarged. The spleen reached as low as the umbilicus, and the liver 3 inches below the costal margin. The pulse was 120 to 140, and all over the heart hæmic murmurs were audible. His temperature was 101°. The blood showed a great increase of white blood cells, the proportion being more than 1 white to 10 red. Numerous granular masses were present in the blood and some bright reddish-yellow bodies, which were exactly like bodies I have since seen in the urine of a girl suffering from hæmoglobinuria.

I gave 5 minims of liquor arsenicalis three times a day. On June 10th the man could hear quite easily, the tonsils were very much smaller, and the axillary glands could not be felt. The cervical glands were much smaller. The pulse was 140, and fainting attacks still occurred. On June 12th the glands in the neck were scarcely felt. The liver and spleen were much smaller. The temperature was 103°. There was great weakness and drowsiness, and vomiting and diarrhœa had set in. The arsenic was omitted. On June 13th he was semi-comatose, and on June 14th at 2 A.M. he died.

No *post-mortem* examination could be obtained. The enlargement of the lymphatic glands had entirely disappeared.

Remarks.—The rapid disappearance of the glandular swellings was remarkable. I attributed it to the liquor arsenicalis, of which he had taken one drachm in four days. It is probable he had not previously taken arsenic, as the nature of the disease apparently was not recognised at the hospital at which he had attended. When first seen on June 7th the case appeared to be hopeless, and a most unfavourable prognosis was given. The presence of the granular *débris* and reddish-yellow bodies in the blood would appear to be due to the disintegration of the red blood corpuscles into stroma and hæmoglobin globules.

Bedford. W. Gifford Nash, F.R.C.S.Eng.

SUBCUTANEOUS EMPHYSEMA IN WHOOPING-COUGH.

Some weeks ago I was called to see a child 2 years old, who had been suffering from whooping-cough. On examination I found well-marked emphysema extending over the whole of the chest, back, and sides; in fact, wherever the hand was placed there was the characteristic crackling feel of cellular tissue filled with air. The emphysema was also specially noticeable in the neck. The child died about ten days after the case came under my observation.

Reginald Norman, M.R.C.S.Eng., L.R.C.P.Ed.

Skegby, Notts.

APPARENT "RADICAL CURE" OF PROLAPSUS UTERI BY A BLACKBEE PESSARY.

A. W., aged 48, shopkeeper, with a considerable amount of stair climbing to do, suffered, more than two years ago, from almost complete prolapsus uteri; a portion of the anterior vaginal wall had passed out at the vaginal orifice, the cervix was just inside the ostium vaginæ, and the posterior fornix was considerably depressed. I had no means of ascertaining the position of the peritoneum. The usual symptoms attending prolapse were present. Menstruation was irregular at the time, and ceased entirely six months ago.

The prolapse was replaced, and a Blackbee pessary introduced, the patient having instructions to syringe with boracic acid and warm water to allay the irritation of the parts.

I was consulted eighteen months afterwards for a fœtid vaginal discharge. I removed the pessary with difficulty, and found that it had made a deep sulcus with hard edges along all its course (particularly at the angles of the posterior fornix), saving that part against the anterior vaginal wall. There was no discomfort during the eighteen months, and the functions of the bowel and bladder were not interfered with. Syringing was used for some weeks till the fœtid discharge ceased.

On examination lately nothing unnatural was to be felt, and the woman is in good health. I have used Blackbee's pessaries several times during the last two years for prolapse, but with varying success.

Longton, Staffs. C. M. Allan, M.A., M.B.

RECOVERY AFTER A LARGE DOSE OF SYRUP OF CHLORAL (*B.P.*) 3 OUNCES (=240 GRAINS).

It may be of interest to record another case of poisoning by syrup of chloral, followed by recovery after taking a large quantity of the drug.

At 9 A.M. on October 4th I was called to see a gentleman, aged 24, who was said to have taken an overdose of chloral. He did not rise at the usual time, and was found insensible. I found the patient lying on his back in bed, quite unconscious, face livid, pupils slightly dilated, and insensible to light; surface of the body cold and clammy, respiration stertorous, pulse small and quick.

I ordered hot bottles to be placed in the bed, and commenced flagellation of the chest and face with a wet towel, and applied ammonia to the nostrils. After a short time reflex movements of the limbs became apparent, and I then gave a hypodermic injection of one-tenth of a grain of apomorphine, and injected a pint of hot strong coffee into the rectum. The patient vomited almost immediately, and continued to do so at intervals for about two hours. Consciousness slowly returned, and after about two hours, during which time flagellation was steadily persevered with, he was able to answer "Yes" and "No" to questions, and to swallow a small cupful of hot coffee. He continued to improve, and by the evening he was practically all right, but was very dazed and stupid. He then admitted that, intending to destroy himself, he had obtained a bottle of syrup of chloral (*B.P.*) and, pouring half the contents into a tumbler, had taken it in sips at intervals during the night, the last time that he remembers being about midnight. The bottle, which was a six-ounce one, contained 3 ounces of syrup of chloral, so if the patient's statement be true, and I have no doubt personally of his veracity, he must have taken 240 grains of the hydrate. He had never taken the drug before.

In this case the stomach pump was not used, nor did I consider it necessary to give strychnine hypodermically, reliance being placed on the emetic effect of apomorphine and the stimulant effects of coffee and flagellation.

From Mr. Snell's case and this one it would appear that recovery is possible after much larger doses of chloral than is commonly supposed, and the reflection also occurs that the Poisons Act is inadequate to prevent the public obtaining large quantities of dangerous drugs without difficulty.

Henry N. Holburton, M.R.C.S., L.R.C.P., D.P.H.

East Molesey.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

THE INFIRMARY, BRIDGWATER.

A CASE OF CHOLERA.

(Under the care of Mr. F. J. C. Parsons, Medical Officer of Health for Bridgwater, Surgeon to the Infirmary.)

[For the following report we are indebted to Mr. Albert F. Richards, M.A., M.B., B.C.Cantab., House-Surgeon.]

P. H., aged 42, a seaman belonging to the steamship *Glenavon* arrived at Sutton Bridge, Lincolnshire, on September 24th, having started from Solomono in Russia sixteen days previously. Bergen was the only port touched at on the homeward voyage. On September 26th, in the afternoon, he started by rail from Sutton Bridge for Plymouth, where he lived. He felt then, and up to within a few minutes of his subsequent illness, in quite his usual state of health. His food throughout the day was very plain and simple, and he took nothing of an irritating nature. At 1 o'clock that night, when the train was about twenty minutes' run from Bridgwater a feeling of great weakness and prostration came over him, his head became dizzy, his sight dim, and, to use his own words, he appeared "to lose himself." Severe cramps in all his extremities and violent abdominal pains quickly followed, and then uncontrollable diarrhœa and vomiting came on. From that time he had no distinct recollection of what ensued until he found himself in the infirmary, but it may be stated that he was assisted to the offices at the station and then, after an interval of half an hour or more, conveyed to this institution. His sufferings were so great that he could not be kept quiet, and he had to be strapped down to a stretcher for the journey. Dr. Lissaman, of Bolton, happened to be travelling to Bridgwater in the same compartment of the train, and seeing the nature of the onset and severity of the symptoms, felt convinced that it was a case of cholera. He kindly accompanied the man to the infirmary. When admitted, soon after 2 A.M., he appeared to be in agonies of pain. He kept twisting and turning in all directions, and at times doubled himself up, clasping his hands across his abdomen and craning his neck forward. Vomiting of a peculiarly violent character went on almost incessantly, but as far as could be judged at that time, the diarrhœa had ceased. His extremities were cold, his face had a shrunken dusky appearance, his eyes were sunken and staring, and his pulse was small and quickened. He also complained of great thirst. He was at once isolated. All

possible precautions were then and afterwards taken to prevent the spread of infection, and I remained in attendance throughout the night. The vomiting continued, with scarcely any intermission until 4.30, and was always accompanied by violent abdominal pains. It then abated. The vomited material at first contained food *débris*, but afterwards became thin and watery and almost colourless. The thirst continued intense for some hours, all liquids given being eagerly taken, and more being begged for. The diarrhœa, whilst it lasted, must have been very severe, as his clothes were soiled right down to his boots. No attempt was made to save any of the evacuations, everything being immediately disinfected. The cramps, which were experienced chiefly in the lower extremities, continued off and on for fourteen hours, and at times were very severe. There was suppression of urine for one day, and what was first passed afterwards contained albumen, but none was found on subsequent examination. He had some slight rigors during the first few hours after admission, but these afterwards gave way to a sensation of warmth. His temperature ranged a little below the normal. Throughout the night tincture of opium and sal volatile were given at frequent intervals. Recovery was rapid after the cessation of the symptoms, weakness being the chief complaint after the cramps and thirst had passed off. About the second day there was a feeling of soreness across the back. He appeared greatly astonished at the alteration in his appearance when he saw himself in a glass the morning he was discharged. His eyes at that time still appeared sunken, with dark rings about them, and his face drawn and haggard.

Remarks by Mr. Richards.—In the British Medical Journal of October 15th is a table of cases of Asiatic cholera in the United Kingdom in 1892, with a footnote having reference to the case treated at this institution. I desire to clear up the point touched upon as to the existence of cholera at or near Solomono. According to the patient's own account, there were cases of cholera in the neighbourhood of Solomono, and more especially at Archangel, a port about seven miles higher up the river Dwina. It is a noteworthy fact that the s.s. *Glenavon*, to which he belonged, took in its water supply from the river itself. Two of the crew suffered from choleraic symptoms (cramps, diarrhœa, and vomiting) of a mild character during the homeward voyage. The symptoms in both cases came on about four or five days after leaving port, and in one lasted two days, in the other nearly a week.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir Andrew Clark, Bart., F.R.S., President, in the Chair.

Tuesday, November 8th, 1892.

Preliminary Amputation in Advanced Hip-Joint Disease.

Mr. H. G. Howse, M.S., read a paper on the Advantages of an Amputation through the Thigh, either as a preliminary operation to, or in some cases instead of, amputation through the hip, where the hip-joint was itself diseased, and the patient in very bad condition. The paper was illustrated by the case of a boy, aged 15, who, in July, 1879, had acute tuberculous osteitis of the left leg and ankle-joint, and early mischief in the left hip. He was very ill and emaciated, and had been going from bad to worse for three months. Amputation through the knee was performed on July 26th. Great improvement resulted, but suppuration in the hip necessitated excision of this joint rather later, from which he perfectly recovered. He left the hospital in June, 1880, and had remained quite well since. Much good might result in hip-disease from amputation through the thigh—(*a*) by reduction of length of lever, having its fulcrum at the hip-joint, and so favouring rest; (*b*) by removal of a mass of tissue acting chiefly as blood-consuming and very little as blood-producing tissue, thereby probably favouring the production of blood of better quality and larger amount. 1. Mechanical aids to rest were compared with Nature's efforts by spasm of muscles fixing joint. This spasm must be greater with a long than a short lever, and was probably an exhausting factor in the disease; much less would be required of the muscles controlling the hip-joint if the weight and length of the lever were lessened. In practice, after amputation above the knee, the immobility was so complete that no appliance was needed. If by this immobilisation the hip disease were not arrested excision might be successfully practised, as in the case related, the previous shortening making fixation easier; or amputation at the hip-joint might be required as in other cases, the patient's improved condition, resulting from the previous amputation and the slighter shock of the removal of a smaller mass of tissue, rendering this operation successful, when it would probably not have been so under the previous conditions. 2. It was usual to explain the improved condition after amputation by the removal of diseased tissue with cessation of processes (pyæmia, etc.) inconsistent with healthy nutrition; but the improvement after excision or arthrectomy was not so marked, though the removal of disease should be as complete in the one case as the other. The removal of so much healthy tissue, which used up instead of forming blood, was a more probable explanation. Alternative lines of treatment in the case above mentioned were reviewed. 1. When first seen, amputation at the hip would have resulted most probably fatally, or in a bad stump for an artificial leg. Excision was inadmissible with coexisting disease of the leg. 2. After amputation of the leg, amputation at the hip would have left an inferior stump. The advantages to the patient were (*a*) a stump more suitable for an artificial leg than any possible after hip amputation; (*b*) that he was alive, which with other methods would have been improbable. This principle of treatment was applicable to a considerable variety of cases, illustrated by the following list:—

Group I.—1. Knee and hip disease on different sides. Amputation of knee; great improvement in opposite hip; subsequent excision for relapse.

„ II.—2. Amputation through the knee on the same side as hip disease. Convalescence.

3. Amputation through the knee on the same side as hip disease; subsequent excision of hip. Recovery. (See paper.)

„ III.—4 and 5. Excision of hip; subsequently amputation through knee. Convalescence.

„ IV.—6. Excision of hip; subsequent amputation through knee; and then through hip. Recovery.

7. Phthisis and morbus coxæ. Amputation through the knee; and subsequently at hip. Recovery.

8. Old morbus coxæ; phthisis; lardaceous disease and rectal fistulæ. Amputation through thigh; removal of rest of femur. Improvement.

„ V.—9, 10, and 11. Excision of hip and subsequent amputation through thigh in all; amputation at hip in two. All operative procedures carried out in safety. Death in all from lardaceous or general tuberculous disease.

Mr. R. Lawford Knaggs read a paper on the same subject. He considered that Mr. Howse's method was indicated in cases of advanced hip disease when (1) excision had proved useless, or (2) when amputation at the hip would be too dangerous because of general feebleness or associated visceral disease. It offered a prospect of (*a*) retaining a portion of the limb, or (*b*) of saving a life that would be likely to be lost by other modes of treatment. Mr. Howse's method was to remove the limb by instalments. After amputation near the knee (first step) rapid improvement resulted, because (*a*) the amount of impoverished limb requiring nourishment was diminished; (*b*) there was greater freedom from pain from shortened leverage; and (*c*) as soon as the stump was healed patients were able to go out-of-doors on crutches. Finally, amputation of the shortened limb at the hip involved infinitely less risk in the improved condition than if carried out as a primary measure.

Case I.—E. M., aged 8½, was the subject of advanced hip disease with much suppuration. The liver reached to the umbilicus. The urine contained one-fifth albumen, and amputation at the hip had been twice discountenanced at consultations of the hospital staff as certain to prove fatal. After nine months as an in-patient, and when her condition was at its worst, amputation at the knee was performed on March 9th, 1888. This healed, and all her symptoms improved. The sinuses healed, and for three months the hip mischief was quiescent. It relapsed, and Furneaux Jordan's amputation was done on October 19th, and fragments of bone removed through an enlarged opening in the acetabulum. She left the hospital convalescent. In January, 1892, all sinuses had been healed for a year, and the hip disease was quite well. The liver could no longer be felt. There was a trace of albumen, and her general condition and colour were very satisfactory.

Case II.—E. B., aged 9. Progressive hip disease two and a-half years. Excision eighteen months previously. Amputation at knee March 9th, 1888. Great improvement. In August, Furneaux Jordan's amputation and removal of necrosed bone through an enlarged opening in acetabulum. Resulting sinuses and development of albuminuria. Condition in July, 1891, otherwise satisfactory.

The points of importance in these cases were:—

1. Freedom from pain after removal of leg. 2. The children, who had been bedridden a long time, were able soon to get out-of-doors and run about on crutches, and make themselves useful. 3. The improvement in the hip disease. 4. The diminished severity of the hip amputation, and the small size of the large vessels. 5. The opportunity for more complete exploration of the pelvis in consequence of diminished gravity of the amputation.

Mr. Barwell thought that in these cases a preliminary amputation at or about the knee-joint might be advantageous, (1) on the score of safety, and (2) that it would allow the latter more formidable operation of exarticulation at the hip to be the more easily performed. He considered, however, that it would be preferable to aim at endeavouring to make the mechanical details of the contrivances for keeping the limb perfect rather than to remove it by a series of operations.

Mr. Keetley stated that seven years ago he had advocated what might appear superficially to resemble Mr. Howse's method, but it really differed essentially. He then offered the following criticisms: (1) That the results as stated in the paper were not particularly good, but it must be remembered that the cases were all very bad ones; (2) that the advantage claimed on account of diminished leverage would not hold good so far as the muscles attached to the upper part of the thigh were concerned, though it was quite true for external forces; (3) that the good claimed on account of the removal of blood-destroying tissue was only hypothetical; (4) that he agreed that excision at the hip was a more formidable operation than any amputation through the thigh, and that (4) the stump left by Mr. Howse's method was superior to that left by the old operation of amputation at the hip-joint; lastly, he preferred to attack diseased tissue before removing healthy parts.

Mr. R. W. Parker described the way in which he treated such severe cases as formed the basis of Mr. Howse's paper. He did a modified Furneaux Jordan's amputation; shelled out the femur, leaving the periosteal sheath, plugged the cavity which was left, applied a bandage, and left alone for 48 to 72 hours; then removed the packing, scraped, irrigated, sewed up the stump, leaving plenty of room for free drainage. By these means a good stump was left. He mentioned that in one case thus treated a fair amount of new bone had formed within the periosteal sheath. In order to help to prevent shock as much as possible at these operations, he had substituted hot-water tins for the old-fashioned cushions of the operating table.

Mr. Edmund Owen had quite recently adopted Mr. Howse's method, and hoped at some future period to state the result.

Mr. Richard Davy agreed with Mr. Howse that it was a wise plan to subdivide one huge operation into two lesser ones.

Mr. Howse, in reply, remarked that his paper only professed to deal with almost hopeless cases of hip disease. The essence of this paper was not a question of shortening the leverage merely, or of improving the quality of the blood alone, but of a combination of these two factors. He defended his position as to the question of leverage.

Mr. Lawford Knaggs adduced the fact that out of the twelve cases brought forward, in not one instance had death occurred as the result of the operation. Had excision been performed instead the results in this respect, he thought, would not have been so favourable.

MEDICAL SOCIETY OF LONDON.

Jonathan Hutchinson, F.R.S., President, in the Chair.

Monday, November 7th, 1892.

Tubal Moles and Tubal Abortions.

Mr. J. Bland Sutton alluded to a case related by him in 1890 before the Royal Medical and Chirurgical Society in which the ovum in a tubal pregnancy had become converted into a mole (apoplectic ovum). Since then the condition had been generally admitted. He pointed out that tubal moles differ in several particulars from uterine moles, from which they can easily be distinguished. In the former the amniotic cavity occupies the centre of the mass, whereas in the latter it occupies an eccentric position, in consequence of which the thin amniotic membrane is liable to rupture, allowing of the escape of the embryo. This is one reason why the embryo often escapes discovery after operation. The presence of an embryo or even of an amniotic cavity is proof positive of the nature of the mole, but when these cannot be made out, search must be made under the microscope for chorionic villi. These are characteristic structures that admit of ready recognition, and there is no excuse for confounding them with altered blood clot. Every blood clot in the tube is not necessarily a tubal mole, for it is certain that blood clot may be present in the tube apart from pregnancy. He urged that in the interests of accuracy it is desirable to restrict the use of the term hæmatosalpinx to non-gravid Fallopian tubes distended with blood secondary to occlusion of the abdominal ostium. Passing on to the consideration of tubal abortion, he pointed out that the retention of the impregnated ovum in the tube usually determines occlusion of the abdominal ostium by the sixth, or, at the latest, by the eighth, week, unless the ovum happens to be lodged in the ampulla, when of course closure cannot take place. The process being a gradual one, so long as the ostium remains patent, the ovum may at any time be extruded through that opening into the peritoneal cavity. When this takes place the ovum is invariably in the condition of a mole, and the accident is always accompanied by hæmorrhage. To this sequence of events he applies the term tubal abortion. Hæmorrhage from a gravid tube, unaccompanied by extrusion of the embryo, constitutes "incomplete tubal abortion," and the retention of the embryo in the tube, owing to its being too large to pass through the distal orifice, is a frequent cause of recurrent hæmorrhages. He showed a specimen of ruptured tubal pregnancy to prove that the presence of an adventitious opening in the tube wall does not necessarily imply that the ovum has escaped through the aperture. The hæmorrhage in tubal abortion is usually more abundant than in cases of rupture of the tube. When a Fallopian tube becomes gravid, a decidua forms in the uterus, and this is usually discharged early in pregnancy either in fragments or *en bloc*, without producing pain. He believed that the majority of cases formerly classed as pelvic hæmatocele are really the result of the rupture or abortion of gravid Fallopian tubes.

Dr. Cullingworth said he had some considerable experience of both ruptured and unruptured tubes, and he repeated his former expression of opinion that no one was justified in diagnosing hæmatosalpinx to be due to ectopic pregnancy unless he found traces of fœtal structures. He asked Mr. Bland Sutton to say whether, after an incomplete tubal abortion, it was possible for the clot remaining to become absolutely enclosed? If so, this would introduce another difficulty in the differential diagnosis of hæmatosalpinx. He urged that the term hæmatosalpinx should not be restricted to any special class of cases in which blood had found its way into the tube; the more so, seeing that their knowledge of the subject was not as yet sufficiently advanced to enable the source of the blood to be clearly established in every case.

Dr. Horrocks said that in many cases it was virtually impossible to distinguish, even by the aid of the microscope, between chorionic villi and altered blood clot. He alluded to several cases, one of which, under Dr. Galabin, presented very serious difficulty in arriving at a diagnosis. He urged that the term hæmatosalpinx merely indicated the presence of blood in the tube, irrespective of its nature and origin, and as such was not at all incorrect or misleading. He asked Mr. Bland Sutton whether he thought the chorionic villi might go on growing after the death of the fœtus, and he referred to a case of his own in which, though neither ovum nor amnion could be distinguished, the conceptive origin of the mass proved by the presence of numerous chorionic villi.

Dr. Lewers thought that most of these cases would get well if only left alone, and he mentioned a case of ruptured tubal pregnancy in Douglas's pouch, which did well without operation.

Dr. Heywood Smith and Dr. Routh made some remarks.

Dr. Griffiths observed that though Mr. Sutton had invented the term "tubal mole," the condition to which he referred had long been recognised. He discussed certain de-

tails of the histology of the Fallopian tube, and dissented from the view that regurgitation of blood into or along the tube was at all a common cause of hæmatosalpinx or hæmatocele, though this occasionally resulted from dilatation consequent on atresia and menstrual retention. He called attention to cases in which blood exuded from the tubal mucous membrane, and asked Mr. Sutton whether in his microscopical preparations he had noted the presence of a double layer of epithelium around the chorionic villi. He himself had been unable to be sure as to this.

Mr. BLAND SUTTON, in reply, referred to the expulsion of the decidua as a valuable diagnostic sign in tubal pregnancy, commenting on the fact that Nature, with conservative routine, provided a decidua even in extrauterine gestation. His object in bringing forward the paper was to give a clear account of these tubal moles. The better these were understood the fewer would be the cases reported in which no product of conception was found. Whenever he operated in such cases he always made a search along the floor of the pelvis for the characteristic firm, hard clot, the feel of which was sufficiently distinctive without looking at it. He denied that most cases of ruptured tubal pregnancy tended towards spontaneous recovery. The appearances in cases operated on long after rupture usually showed that no progress was being effected in that direction. The case related by Dr. Lewers was probably a rupture into the broad ligament, and belonged to a class of cases which did not necessarily call for operative interference.

Dr. LEWERS pointed out that the swelling was in the median line behind the uterus, and asked how this fact could be reconciled with the assumption of its being a rupture into the broad ligament.

Mr. SUTTON explained that when a rupture took place into the broad ligament, the blood stripped up the peritoneum behind the uterus and extended right across, a fact he had often demonstrated by dissection. He regretted that teachers of eminence should show a disposition to go on using such a vague and misleading term as hæmatosalpinx, seeing that it comprised such very different etiological conditions. He hoped they would reconsider the matter with the view of adopting a better system of nomenclature. It was quite possible in some cases that the hæmorrhage which determined the formation of the tubal mole might also lead to the rupture of the tube, but he had satisfied himself that this was not always or necessarily the case. He did not think that the chorionic villi were likely to continue to grow after the death of the fœtus. He had often noticed the double epithelial layer in the walls of the villi. In conclusion, he admitted that the question was beset with difficulties, and that much still remained to be elucidated in respect of the phenomena observed.

SEQUEL OF A CASE OF REMOVAL OF THE GRACILIS FEMORIS MUSCLE.

Mr. MARMADUKE SHEILD showed a lad whose gracilis femoris muscle he had removed some years ago on account of tumour formation, thought at the time to be sarcomatous, though at present he inclined to the view that it was probably a case of congenital growth. Some nodules were also present in the rectus muscle, but the lad had grown and was at present in good health. The case was shown at the time before the Pathological Society, and the report of the Committee described the growth as a "myxofibroma." At present the patient presented a bunch of ill-defined tissue at the upper insertion of the muscle.

HARVEIAN SOCIETY OF LONDON.

W. B. CHEADLE, M.D., F.R.C.P., President, in the Chair.

Thursday, October 20th, 1892.

PERITONITIS.

MR. LAWSON TAIT read a paper on this subject which is published at p. 1046.

Mr. ALBAN DORAN agreed with Mr. Tait as to keeping the patient's stomach empty for some time after operation. On the other hand nutrient enemata should be given, except in young or very robust patients, else in trying to prevent peritonitis the surgeon might kill the patient by starvation. Free vomiting greatly exhausted the patient, who then required nourishment when the administration of food by the mouth was out of the question. He found, as did his colleagues at the Samaritan Hospital, that the routine administration of nutrient enemata, with due regard to special conditions in individual cases, proved highly beneficial. He would like to hear Mr. Tait's opinion on the question of enemata.

Mr. J. JACKSON CLARKE wished to protest strongly against the pathological opinions Mr. Tait had expressed. Mr. Tait had said that in several conditions he had tried for the first time new operative measures. These intelligent and daring experiments—vivisections some would call them—had been rewarded with success, and Mr. Clarke was glad to congratulate Mr. Tait on the result. Mr. Tait had, however, spoken with contempt of the "germ theory," and had implied that modern pathologists left out of count the biological properties of the individual, as shown in the action of nerve organs, etc., in disease. This was an error, and Mr. Clarke regretted that Mr. Tait had not had leisure to gain an understanding of recent pathology before he ventured to condemn it. It was now known, through the application of experimental methods, that suppuration was a process as definitely specific, as for instance tuberculosis, and any surgeon who failed to treat it as an infectious disease failed in his duty. Mr. Clarke thought the value of Mr. Tait's paper was diminished in that he had not attempted any clinical distinction between traumatic and suppurative cases of peritonitis.

Mr. MALCOLM said that he must, of course, accept Mr. Tait's statement that he had never advocated the view that peritonitis could be cured by purgatives, although about the year 1887 Mr. Tait had certainly used words which could be misinterpreted to that effect.[1] Mr. Tait suggested that there was an ebb and flow in the peritoneal cavity, which was connected with the excessive secretion of bile in peritonitis. With due deference to Mr. Tait's experience, Mr. Malcolm ventured to maintain that the symptoms described occurred without the existence of any peritonitis at all. He drew attention to the fact that a traumatic inflammation reached its culminating point in about three days, whereas Mr. Tait said that peritonitis, following abdominal section, did not give rise to serious symptoms until about the second day, and, when fatal, usually terminated on the fourth or fifth day. Mr. Malcolm argued that it was an obstruction or a paralysis of the bowels that caused the distension and other symptoms, and that any peritonitis found after death was secondary to this complication. Patients who were apparently moribund, with the symptoms described by Mr. Tait as those of peritonitis, might become quite convalescent in a few hours after flatus escaped from the bowel, as in an unexplained recovery quoted by Mr. Tait. When such cases were fatal it was a mistake to say they died of peritonitis.

Dr. HEYWOOD SMITH said that the profession owed a debt of gratitude to Mr. Lawson Tait for having done so much to promote the administration of purgatives in the preliminary state of peritonitis; he practised it himself, and could bear witness to its efficacy. He also quite agreed with Mr. Tait in withholding all food for the first forty-eight hours, unless in the case of weak patients, and then such food was better given in nutrient enemata. He considered the more frequent use of the drainage tube than formerly had saved many lives.

Dr. BOXALL said his experience at the General Lying-In Hospital as regards scarlatina (published in vol. xxx of the *Obstetrical Transactions*) was strictly analogous to that of Mr. Tait in operation cases. In one year 16 cases of scarlatina passed under his observation. Of this number 5 were known to have been exposed to infection prior to admission, and before the onset of labour, and 5 others fell ill with scarlatina before admission, or so soon after delivery, that though no precise exposure could be traced, infection might justly be regarded as having been also derived from some outside source. But 4 patients undoubtedly, and possibly the remaining 2, took the disease after admission. For the last thirteen years the service of the hospital had been conducted

[1] "On the slightest indication of peritonitis after an ovariotomy we give a rapidly-acting purgative, it matters not what; the patient's bowels are moved, and the peritonitis disappears".—Lawson Tait, in the BRIT. MED. JOURN., May 15th, 1886, p. 921.

upon Listerian principles, which, as they became better understood and more efficiently carried out in practice, were instrumental in reducing not only the mortality from so-called puerperal fever, but also the morbidity arising from septic processes to vanishing point. This point was reached in 1884, just at the time when these repeated introductions of scarlatina were taking place. Scarlatina spread from patient to patient, while puerperal fever as a cause both of illness and of death was eliminated. By rigid antiseptic measures in the one case the poison was not, yet in the other it was, destroyed. The precautions adopted aimed at and succeeded in destroying septic matter, which by means of the hands, etc., might otherwise be carried by direct inoculation through wounds in the genital passage; but these same antiseptic precautions were obviously insufficient, and were never intended in themselves to prevent the spread of scarlatina and other poisons, which, as generally recognised, spread through the atmosphere, and obtained entrance to the patient's system through the respiratory passages. Though scarlatina spread, septic poisons obtained no hold even in the scarlatinal cases. Though not disposed, when antiseptic precautions were omitted, to deny the possibility of direct inoculation of scarlatinal poison, either in surgical or in obstetric cases, he considered this possibility much overrated, at least in obstetric cases. The very fact that in Mr. Tait's experience some of his nurses also fell victims to the scarlatinal poison, was sufficient not only to indicate that no wound was necessary to provide a point of entry into the system, but also went to show that the scarlatinal poison, alike in the patients operated upon and in the nurses, probably obtained entry through the usual channels. For this reason he could not regard Mr. Tait's contention with regard to the worthlessness of antiseptics as in any way borne out by his own experience, in so far, at any rate, as he had founded it upon the spread of scarlatina.

Mr. Lawson Tait, in reply, said that he opposed vivisection on animals, not on any sentimental grounds, but because he held that observations on animals were not applicable to man. Like Mr. Doran, he gave nutritive enemata when there was exhaustion.

Miscellaneous Communications.

Mr. J. Jackson Clarke showed specimens from the St. Mary's Hospital collection illustrating Purulent Peritonitis from Menstrual Ovarian Hæmorrhage, from Puerperal Septic Infection, and from Perforation of the Vermiform Appendix. The latter specimen was interesting from a curious exaggeration of the normal sacculation of the colon due to long-standing constipation. Mr. Clarke also showed specimens illustrating Rupture in Tubal Pregnancy, and remarked on the certainty with which chorionic villi could be recognised in sections and in teased clot, adding that in these cases the enlarged uterus, the uterine decidua, the large corpus luteum, were sufficient data for pathological diagnosis apart from the detection of the ovum or of chorionic villi.—Mr. Lawson Tait referred to a case of sudden death from rupture of a very early Tubal Pregnancy, and expressed the opinion that the very early cases were more rapidly fatal than the later ones.

HUNTERIAN SOCIETY.

F. Gordon Brown, M.R.C.S., President, in the Chair.

Wednesday, October 26th, 1891.

Phthisis in Relation to Life Assurance.

Dr. Glover Lyon introduced a discussion on this subject in a paper based on an inquiry by himself and Mr. Manly, the actuary of the Mutual Life Office, into the mortality experience of that office. The statistics obtained were compared with the returns of mortality from phthisis by the Registrar-General, but it was admitted that the figures were not large enough to base conclusions upon. They agreed with the Registrar-General's report in showing that the period of chief mortality from phthisis extended at least to the age of 45, the rate diminishing after that. The supposed more ready inheritance of phthisis from the mother than from the father was very doubtful. In the investigation the policies of all members of the Mutual Life Office entering between 1847 and 1890 who gave a family history of consumption or consumptive diseases, were tabulated and classified, according as (1) lineal relatives were phthisical, (2) lineals and collaterals, (3) collateral relatives only. The results showed that the mortality in cases where lineals and collaterals had both been affected had been lighter than was expected, and in cases where collaterals alone had been phthisical the mortality had been so favourable that it was a question whether the fact need be regarded in estimating the life. The mother's death "in childbirth," which so often meant phthisis, had had a more fatal effect, and an advance from five to three years for this was suggested; rather less where one parent had died of "consumption." Dr. Lyon concluded his paper by submitting that it was only by the joint action of the medical officer and actuary to an insurance company that reliable data for the solution of the question could be obtained.

After some remarks from the President, Dr. Pye-Smith said drink and phthisis were the causes of the majority of premature deaths. They had to consider, first, the physique of the person; secondly, his family history. He thought the spirometer obsolete; he had found that practice in using it made great difference in the results. Experience had led him to insist on three classes only: (1) The sound lives; (2) the uninsurable; and (3) the intermediate class which had to be loaded. Where both parents, or many brothers and sisters, had died from phthisis the life should be declined, but if the man were in good health, had reached a good age, and only one parent was phthisical, he had better be admitted as first class. "Bronchitis," and even "pleurisy," should be added to the list of phthisical causes of death. People did not die of bronchitis unless they were old or phthisical. "Childbirth" also as an assigned cause of death was almost always in reality phthisis. "Accidents," again, were suspicious of phthisis; a broken leg, for example, was followed by cough and wasting, and death in a year or so.

Dr. J. E. Pollock referred to the Brompton Hospital statistics, indicating that 38 per cent. of phthisical patients showed the taint of heredity. Parental heredity was the great element, but it went back also to grandparents. Two things modified heredity—age and physical condition. As to age, they must wait until 45 to regard a man as at all safe. Physical condition was much more important. A man with large chest, weighing 11 or 12 stone, ruddy, temperate, and of a healthy occupation, but having lost one parent from phthisis, they said was not the kind of man to die of consumption, and they took him; but they declined a man of delicate build, shallow-chested, shabby and flabby-tissued, and taking no exercise. As regards loading, small extras were a mistake. He would not himself add less than 10s. per cent., for example, for a man aged 30 whose parents were phthisical. Every life had a value, even diseased lives. Mitral disease was now insurable; so were albuminuria and glycosuria under due limitations and precautions. Even phthisis, with a lung cavity, might be regarded as insurable, only they had not the knowledge to estimate its value. A case of an active clergyman with such a cavity of eighteen years' duration was alluded to. Every case must be judged on its own merits apart from rules.

Dr. Symes Thompson believed that in cases of well-defined lung disease they could make a more certain prognosis than in small manifestations of imperfect health. Statistics of his own office had shown that minor defects, such as leanness, stoutness, plethora, and corpulence, were bad in their results. He had himself been bold enough to pass, some six years ago, a case in which fibroid lung changes and a cavity existed, the whole sum insured to be paid over a small number of years. He thought it a good plan that in these damaged cases each annual payment should represent a definite proportion of the sum insured; for example, £100 each year for ten years on a policy of £1,000. The phthisical inheritance involved vulnerability to attacks, not only of phthisis, but of other diseases also. Past hæmoptysis had been shown by statistics to be a very important sign, leading to more fatal results than had been estimated.

Dr. W. Sedgwick Saunders said his own idea of the duty of a medical officer was to select good lives, and not to attempt to pass all lives. He quite agreed as to the preponderating importance of personal physique. Albuminuria and glycosuria cases required repeated careful examinations before they could be accepted. The spirometer he regarded as only

a pretty toy. The endowment plan was very useful for doubtful lives; it represented an inverted pyramid—every year the risk diminished.

Dr. A. T. DAVIES alluded to the relative positions of members in a phthisical family, advancing the view that the liability to phthisis was greater in the younger members.

Mr. H. W. MANLY, speaking from an actuarial point of view, said the object of the statistics was to ascertain whether the "rule of thumb" about phthisical heredity had a real basis of fact. They were not large enough to base definite conclusions upon, but the results were interesting. In life assurance it was imperative to classify. Climatic risks were now being included in the general class of good lives; if so, he thought that a phthisical family history might be also covered. As to loading lives, at 50 doubtful lives were surely better discarded; at 20 you could estimate the diminution of expectancy. Endowment insurances "cutting the end of a man's life off" were useful. Great care was needed in comparing statistics of different offices. When a company was young its lives were comparatively young, and had been lately examined, so the deaths were largely from zymotic and lung diseases; older companies with older lives showed a larger proportion of heart and constitutional maladies.

Dr. GLOVER LYON briefly replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

JOSEPH BELL, M.D., F.R.C.S.E., President, in the Chair.

Wednesday, November 2nd, 1892.

CHOLERA IN GERMANY.

DR. WILLIAM RUSSELL read a paper on some practical results of the investigation of cholera in Germany, in which he gave his experience, as gathered from a visit to Berlin and to Hamburg last summer. He described how in Berlin the excreta from cholera patients were most carefully and systematically examined by tube and plate cultures. In every case of true Asiatic cholera the comma bacillus was found. This bacillus apparently did not penetrate deeply into the mucous lining of the intestinal tract. The excreta were invariably alkaline in reaction. Dr. Russell seemed to imply that even in cholera nostras something extremely like the comma bacillus was at times found. It was a general experience that before the appearance of cholera in a district there occurred many cases of "cholera nostras;" so also during the prevalence of the more serious malady. The precise relation (if any) between the two forms did not seem made out. The main source of infection in cholera was the water supply, but undoubtedly the clothes of cholera patients, as well as tainted foods and fruits, were contributory. As to treatment, the injection of alkaline fluids seemed to be greatly used; but the other known lines of treatment were also tried with more or less unsatisfactory results. Dr. Russell's paper was illustrated by microscopic preparations and by some tube cultures.

A long discussion followed, the chief speakers being Drs. TROUP, J. CARMICHAEL, SEMPLE, MACKINNON, A. BRUCE, NORMAN WALKER, J. RITCHIE, and Professor STRUTHERS. Dr. Mackinnon narrated his experience of a recent cholera epidemic at Damascus. He spoke of Mecca as a great centre or focus of infection. The pilgrims brought holy and contaminated water and distributed it east and west, leading to undoubted outbreaks. In Damascus the usual way was to draw a cordon round the part of the town in which cholera broke out, but this was found to be absolutely useless. Far more important was it to attend to cleanliness in person and food, to boil or even twice boil all water used as food, to avoid even fresh fruit unless one was perfectly certain that it had never passed through the hands of infected persons, and to destroy all the clothing of those who had died of cholera.

Dr. JAMES RITCHIE proposed, and Dr. ALLAN JAMIESON seconded, a motion to the effect that in the event of an outbreak of cholera, the Public Health Department of the City be requested to provide means for bacteriological investigation in connection with every hospital in which cholera patients were to be treated.

All the speakers congratulated Dr. Russell on having initiated so interesting a discussion. Dr. RUSSELL replied and answered some questions.

PAPERS AND REPORTS.

The second paper On Arthrectomy of the Knee-Joint, by Mr. A. G. Miller, was, on account of the late hour, taken as read. Mr. MILLER, in a word or two, referred to the chief points, and showed some sections removed. Various reports for the past year were read.

ELECTION OF OFFICERS.

The following gentlemen were elected office-bearers for the ensuing year: *President:* Dr. Joseph Bell. *Vice-Presidents:* Dr. P. H. McLaren, Dr. Claud Muirhead, and Dr. Blair Cunynghame. *Councillors:* Professor Simpson, Dr. J. Batty Tuke, Dr. Semple, Mr. George A. Berry, Dr. Troup, Mr. Caird, Dr. Thom, and Dr. R. A. Lundie. *Treasurer:* Dr. Mackenzie Johnston. *Secretaries:* Dr. Wm. Russell and Mr. Hodsdon. *Editor of Transactions:* Dr. W. Craig.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

F. SWINFORD EDWARDS, F.R.C.S., President, in the Chair.

Friday, November 4th, 1892.

GALL STONES.

DR. THUDICHUM read a paper on gall stones: their origin, nature, and treatment of the diseases to which they give rise. He referred to his earlier researches, by which he had proved that gall stones were originally caused by a catarrh of the mucous epithelium and glands of the bile ducts; this led to the formation of casts of the ducts (drawings shown), and around these, after they had been shed, the gall stone matter was deposited. During the catarrh, bacteria entered the ducts from the duodenum, and caused decomposition of the bile. Foreign bodies were rarely, and the often alleged inspissation of bile never, the cause of gall stones, their real composition being a selection of the products of bile decomposition. A rational medical treatment of gall stones could only be based upon a right appreciation of the functions of the liver and bile. But little progress had been made of late years in this direction, but direct relief was now obtainable by cholecystotomy. Where the bladder was diseased, cholecystectomy should be performed, but this operation involved greater risk. Cholecysteneterostomy had its occasional advantages, but was even more risky. In the treatment of colic he advocated the use of morphine subcutaneously, of large quantities of very dilute lemonade, and of chloroform anæsthesia when collapse threatened. Gall stones might be endemic, as in lunatic asylums; thus Mr. Beadles, the assistant medical officer of Colney Hatch, had found gall stones in 36 per cent. of his *post-mortem* examinations of females. The paper was illustrated by drawings and specimens.

Dr. CAMPBELL POPE, Dr. CROMBIE, Dr. MASTERS, and Mr. BENHAM made remarks; and Dr. THUDICHUM replied.

PREVENTION OF SUICIDE IN THE INSANE.

Dr. H. SUTHERLAND read a paper on this subject. Statistics showed that only 1 case out of 222 who were suicidal on admission succeeded in committing the act. The duties of the superintendent and attendants of the suicidal insane were to keep a careful and constant watch upon all medicines, plasters, and disinfectants; to keep keys, razors, knives, forks, fire irons in places of safety; to impress upon visitors the necessity of not leaving poisonous substances about, or introducing scissors or edged tools into the asylum. Attempts at hanging might be prevented by keeping out of the wards all nails, wires, ropes, sash lines, bell pulls, tapes, and string. Patients with homicidal and suicidal delusions should not be allowed to work in the shops of the asylum where they had knives and hammers at their command. The site of the asylum should be chosen as far as possible from rivers, ponds, and railways. In the asylum itself all doors should open outwards, windows should be protected, w.c.'s should close with a ball let into the door, fireplaces must be protected by guards, taps for gas secured under lock and key, and all windows and gas jets be placed out of reach. Patients should be watched at meals to see that they ate enough and did not take food in a dangerous manner. Some curious weapons were

exhibited made by suicidal patients from pieces of crinoline steel, firewood, and string, forming a knife; and from stones tied up in a stocking, forming a hammer; and other inventions.

The President, Dr. Alexander, Mr. Atkinson, and Mr. Lloyd discussed the paper; and Dr. Sutherland replied.

Specimens.

Mr. R. F. Benham showed a large Ovarian Cyst, to which the vermiform appendix was adherent. In operating hæmorrhage from the appendix was so severe as to necessitate its ligature and removal.—Dr. Crombie exhibited the Heart from a case of ulcerative endocarditis, of which he read the notes. The patient was a young man, and an athlete, and the symptoms came on after a "sprint." The temperature was never high, neither was pericardial friction audible at any time.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Simeon Snell, F.R.C.S.Ed., President, in the Chair.

Thursday, October 27th, 1892.

Exophthalmic Goître.

Mr. Makeig Jones (Wath) showed a married woman, aged 31, with exophthalmic goître, who had consulted him four months ago for failing eyesight. He then found double optic neuritis and tremors of the right hand and arm. The right leg and left arm were now affected by tremors, and there was paralysis of the right facial and right sixth nerve. Intense paroxysmal headache, accompanied by vomiting, was complained of. There was a very tender spot in front of the left ear, and also a tender surface on the vertex. The patient was now quite blind.

Albuminuric Retinitis.

Dr. Gwynne showed a woman, aged 54, suffering from chronic Bright's disease, who for a year and a-half had well-marked albuminuric retinitis.

The President called attention to the long-continued existence of the retinal condition in this case, and spoke of the bad prognosis in chronic Bright's disease with retinitis.

Tuberculosis of the Skin.

Mr. Dale James showed the patient who was the subject of the paper on An Unusual Case of Tuberculosis of the Skin, in the *Sheffield Medical Journal*. The disease had existed for nearly five years, and had resisted very varied treatment. Since the publication of the case tubercle bacilli had been found in a nodule excised from below the knee. The case was interesting from the difficulty of diagnosis and from the rarity of this variety of lupus, of which only thirteen examples had been hitherto recorded—twelve by Leloir and one by Phillipson.

New Application for Bed Sores.

Mr. Dale James demonstrated his method of using Pick's zinc gelatine for threatened bed sores. The harder preparation was the one he preferred. It could be removed by a hot sponge, and replaced once in twenty-four hours. He believed this was a new application of Pick's preparation, and urged its use in threatened bed sores, as being superior to any of the older methods of treatment. Even when a bed sore was not apprehended the gelatine was most grateful to bedridden patients, as it relieved the pain and discomfort caused by long-continued pressure on the skin.

Cæsarean Section in Obstructed Labour.

Mr. Richard Favell related a case of obstructed labour caused by fibroids of the uterus being engaged in the pelvic canal for which Cæsarean section was performed. The patient, aged 41, had been married four years. Several times since her marriage two or three periods at a time had been missed—most probably she aborted. She had not been unwell for nine months, but did not know she was pregnant. She put down her increase in size to the growth of the fibroid tumour. On making an examination, a hard rounded swelling was found, which almost filled up the inlet of the pelvis. The mass obstructing was firmly attached to the pelvic wall and gave the impression that it sprang from the bone. The distance between the tumour and the upper part of the symphysis was about an inch and a quarter, the transverse diameter was less than three inches. The os uteri was lying above the symphysis. It was soft and dilatable. The scrotum was made out as the presenting part. Considerable pressure was made on the tumour in endeavouring to push it above the brim, but no impression could be made on it. Craniotomy being deemed out of the question, Cæsarean section was performed. There was very little hæmorrhage either from the incision in the uterus or the separation of the placenta. The uterus contracted well. There were large intramural fibroids in the fundus of the uterus and a large subperitoneal fibroid growing from the back of the uterus with a pedicle, which was bound by very strong adhesions to the back of the pelvis almost blocking up the inlet. The child was alive. The mother died thirty-six hours after operation. There was no clot in the uterus, and the wound looked healthy.

Miscellaneous Communications.

The President showed the following cases: 1. A lad, aged 19, with Extensive Destruction of the Face from Lupus. The right eye had been completely destroyed, and the left was seriously implicated. 2. A child, aged 2½ years, with a Chancre on the Left Upper Eyelid. 3. A baby with a Small Nævus of the Orbit; and a young woman with a Nævus of the Plica Semilunaris of Eyelid.—Mr. Makeig Jones showed Larvæ of a Blow Fly, which had been passed alive *per anum* by a patient. The specimens resembled the drawings in Plate xlii of Beale's *Microscope in Medicine*.—Dr. Burgess showed a Suppurating Hydatid Cyst of the Liver which had perforated the diaphragm, invaded the lung, and discharged its contents through a bronchus. The patient had been spitting fragments of bile-stained hydatid membrane for months before her death. Dr. Burgess also showed Gouty Joints, Granular Kidneys and Lungs, from a Chronic Case of Nocturnal Paroxysmal Dyspnœa.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

J. H. Bell, M.D., President, in the Chair.

Tuesday, November 1st, 1892.

Cholera.

Dr. T. W. Hime read a paper on his experiences of the Hamburg epidemic. In the affected area, with a population of about 620,000, there were about 18,000 cases in six weeks, and at the worst 1,136 in one day. All arrangements—as, for instance, in regard to disposal of the dead—were bound to break down under such pressure. The sanitary department consisted of one doctor and three clerks; they merely compiled statistics. The main streets were magnificent, but in the poorer quarters there were five-storied houses with only a rope and a ladder to ascend by; through the city were many stagnant canals—mere open sewers. The intake for domestic water, formerly above, was now well within the city; and analysis of specimens drawn from house taps, showed a composition similar to, but about six times as concentrated as, the sewage effluent of Bradford or Leeds. The barrack hospitals, containing twenty beds each, were quickly built with concreted floors and excellent top ventilation. The disease spared no class, spreading from the poorest upwards; pregnant women aborted and died. The attack was often sudden; patients would fall groaning, and be dead in as soon as eight hours; sometimes a case lasted weeks; the shrivelling, especially of the finger tips, from abstraction of fluids, was very characteristic. A cold tongue was a very serious, and anuria the worst, symptom; the cholera voice a low, hoarse whisper; the advanced cholera patient lay exhausted, with a temperature of 91° or 92° even for four or five days; as it rose, his chances increased, and, if it reached 96°, they were good. Personally, if in cholera, the author said he would like to be kept at rest, and have an intravenous injection of about a pint of normal salt solution, extending over three-quarters of an hour; and after that hot alcoholic drinks; no drugs. No characteristic lesion was found after death; the kidneys were generally livid, and the lungs collapsed and often contained infarcts. With regard to etiology, it was pointed out that cholera would regularly spare one place, as Lyons, whilst it regularly attacked others, as Paris or Marseilles. It never prevailed on impervious granite or clay, but always on porous soils, when the ground water fell. The river had been lower

this season in Hamburg than any previous record. A prevailing epidemic of cholerine was found to be true cholera by the presence of the comma bacillus; at first the cases were mild, then it flared out in intensity. The disease behaved as in a town with good water supply, spreading upwards from the poorest to the servants, and then to the upper classes. Dr. Hime exhibited a collection of pathological specimens from the Hamburg hospitals, and a selection of histological specimens illustrating cholera.

The PRESIDENT, Mr. R. H. MEADE, Surgeon ROWAN, and Drs. GOYDER, MERCER, and LODGE joined in the discussion.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

W. GOWANS, M.D. (Retiring President) in the Chair.

October Meeting.

CASES.

DR. ROBERTSON showed a man on whom he had performed Gastrostomy for long standing Œsophageal Stricture. Dr. Robertson also showed a girl operated on for Mastoid Disease. The posterior and rectal wall and outer surface of mastoid were cut away, and the skin drawn and depressed into the antrum.—Mr. BLACK showed a girl in whom he had Excised the Wrist with an excellent result.—Dr. D. DRUMMOND showed a case of Multiple Cerebro-Spinal Sclerosis, in which the symptoms showed the lesion to begin in the Brain. Dr. Drummond also showed a girl with marked Pigmentation of the Skin resulting from a five years' course of arsenic given on account of chorea.—Mr. RUTHERFORD MORISON showed a case of Syme's Repair of the Lower Lip removed for Epithelioma. Mr. Rutherford Morison also showed a man trephined for Compound and Depressed Fracture. No symptoms when seen. At operation a lock of hair found between fragments of bone. The pieces of bone were cut up, treated antiseptically, and placed in the opening, with the result that there was now no deficiency left. Mr. Rutherford Morison also showed a patient whose Perforated Vermiform Appendix he removed for recurring attacks of Perityphlitis. He had recently recovered from the third attack at the time of operation; a good recovery was made.—Dr. HUME showed a patient operated on for Suppurating Hydatid of Liver. The incision was made behind in the region of the ninth rib, the diaphragm being drawn into the opening and stitched there.

SPECIMENS, ETC.

Mr. RUTHERFORD MORISON showed Two Ovarian Tumours from patients aged 77 and 74 respectively. Five patients over 70 on whom he had operated had all recovered, so that age was not an insuperable obstacle to recovery.—Dr. DRUMMOND showed a liver containing an immense Hydatid Cyst. The patient when seen was jaundiced, and dying from peritonitis following rupture of the hydatid.—Mr. PAGE showed Gall Stones removed by Cholecystotomy; thirty-three were found in the bladder and three were removed with difficulty from the cystic duct. The patient made a good recovery and the wound closed.—Dr. MURPHY exhibited (1) Cancerous Uterus successfully removed *per vaginam*. (2) Vermiform Appendix Perforated with Two Concretions from a patient who died of Peritonitis. (3) A Cancerous Tumour of the Sigmoid Flexure which he had excised, afterwards restoring the continuity of the intestinal canal by circular enterorrhaphy. (4) A portion of Gangrenous Intussuscepted Intestine removed by Laparotomy. (5) Specimen of Perforating Gastric Ulcer from a patient who died on the eleventh day after laparotomy, washing out of the peritoneal cavity and suturing the perforation in the stomach. (6) An excellent specimen of Uterine Polypus with much dilated tubes and cystic ovaries.—Dr. ROBERTSON showed a Urethroscope.

AMERICAN JOTTINGS.—One building (the Venetian building) in Chicago is said to house over 600 doctors. Other big buildings have large numbers of medical tenants. This arrangement is very convenient for the patient, who, if he fails to find his particular oracle when he wants him, has a wide range of choice among other authorities without waste of time or money in hunting them out; it may be doubted, however, whether the arrangement is always equally satisfactory to the doctors.

REVIEWS.

TRAITEMENT DE LA PHTISIE PULMONAIRE. (Treatment of Pulmonary Phthisis.) Par le Dr. G. DAREMBERG, Correspondant de l'Académie de Médecine. Two vols. Paris: J. Rueff et Cie. 1892.

IT implies no small amount of courage and conviction at the present time to venture on the publication of a work in two volumes—small and elegantly printed though they may be—on the treatment of phthisis. Dr. DAREMBERG, however, is a firm believer in the curability of phthisis, having successfully demonstrated the fact in his own person. But it is not for the purpose of touting any new treatment that these columns have been penned. The author's object is apparently to insist on the fact that, given certain conditions, all cases of phthisis are amenable to a suitable hygienic regimen, medicinal treatment taking quite a secondary place in the method which has given such satisfactory results in his own person and in his patients. The author points out the duty of the practitioner to inform his patient of the gravity of the lesions even in their initial stages. He should be told that his malady is a serious one, and that everything must be sacrificed to bring about a cure. Nevertheless, the conviction of the perfect curability of the disease is indispensable to success, on the part both of the physician and the patient. Failing this conviction, it is idle to hope that the former will have the courage to prescribe or the latter to follow the long and tedious course which alone can enable the organism to combat the invader.

After laying down these general principles the author briefly recapitulates the various methods of treatment which, at one time or another, have held out a promise of modifying or arresting the tuberculous process. The list is a long one, and their mere enumeration is enough to infuse a large dose of scepticism into the breasts of the most sanguine. It is a raking over of the ashes of dead-and-gone methods. The author is himself evidently sceptical as to the present prospective value of immunity-conferring inoculations, and he evinces a disposition to erect into a scientific axiom the principle that immunity by inoculation cannot be hoped for in respect of diseases, one attack of which does not protect against subsequent attacks. At the same time he considers that bacteriology offers greater hope of the discovery of an immunity-conferring agent than do therapeutics of a medicinal specific.

Turning from the negative to the positive, the author devotes the second volume to the consideration of the various factors which together constitute the antituberculous regimen; of this part of the work we cannot speak too highly, in spite of the fact that the author has only attempted to coordinate principles of treatment which have long been well known to physicians. The stomach of the phthisical patient is the field of battle, as a great physician of a past generation has said, and there is no more difficult problem than to provide for the nutrition of patients whose digestion is feeble and whose powers of assimilation are notably impaired. The author does not content himself with generalisations. He gives detailed and specific directions for the alimentation and general management of the phthisical, and these are characterised by sound judgment and mature experience. The salient point of the method, however, is after all the "open air treatment," carried out in a suitable climate, and adapted to the requirements of each patient. Among the "stations" recommended are Hastings, and various towns in the Isle of Wight, where the patient (says the author) will find excellent hotels, comfortable and inexpensive boarding houses; charming environs, embosomed in delicious verdure and an agreeable climate.....of which the therapeutic value in enhanced by the most exquisite domestic cleanliness. Beautifully printed and tastefully bound, these volumes constitute a valuable addition to the literature on this subject.

THE first stone of a seaside sanatorium for scrofulous children was laid at Chipiona, near Cadiz, on October 12th. The institution owes its foundation in great measure to the philanthropic efforts of Dr. Tolosa Latour.

The Mission of the Association of the Military Surgeons of the National Guard of the United States. By N. Senn, M.D., Ph.D., of Chicago.

This pamphlet contains an address delivered at St. Louis by Dr. Senn, President of a recently formed Association for advancing the interests of the Medical Officers of the National Guard of the United States, a body composed, as we learn, of no fewer than 100,000 of the best American citizens of all classes, formed in regiments, which can be embodied and concentrated within a few days at any point of the vast territory.

Although organised as a military body, its chief function is a police maintenance of law and order, and defence of property. Dr. Senn's style is decidedly impressive, he does not hide his country's undoubted light under a bushel. The ready patriotism of the National Guard he emphasises in the laudable sentiment that "every good citizen takes a just pride and deep interest in the safety and prosperity of his country"; in their case doubly so when "it is a privilege to be a citizen of the greatest country on the face of the earth, and to belong to the most powerful and progressive nation in the world; a great nation whose beautiful flag—the star-spangled banner—is respected and admired wherever it is unfolded"; and in whose emblematic eagle, "like the king of the skies that knows no rival in his sphere, our country has outstripped the Old World in everything that pertains to the welfare of its people."

Might we hint one exception, in this whipping of creation, to wit: the medical officers of the American National Guard, who, according to the showing of this address, are far behind our Volunteer medical officers?

The American National Guard, he says, "constitute an efficient police force scattered over this vast country..... by their prompt response and action they have nipped many a serious riot in the bud and have saved millions of property from destruction;" while in recognition of such important services "the different States have made ample provision financially," to secure efficiency. But the medical service of this valuable body is nevertheless the blot on it, and far from satisfactory; the necessity is therefore clear for combined associated action to raise its status, or, as Dr. Senn puts it, for "elevating the position of the medical staff in the estimation of the line officers." Can it be possible that, even in an American democratic army, we are here shown the Old World cloven foot of military caste? We fear that is the only possible conclusion. Of 500 medical officers of the Guard, about 200 have already joined the Association, to which we cordially wish success, with the view to mutual help and improvement. The improvement desired is undoubtedly needed, for, speaking with the frankness so characteristic of his countrymen, Dr. Senn draws anything but a flattering picture of these medical officers. The evil begins in their first appointment, which, instead of being by competitive examination as in the regular army, is "virtually in the hands of the regimental commander," whose patronage is more guided by "personal friendship, political influence, and social qualifications," than by professional fitness. He complains that while all the combatant ranks profit greatly by weekly instruction and annual camp drill, so that they become "well versed in the art of war," the medical officers all the while learn nothing. Of them he says: "Few, if any, make a serious study of standard works on military surgery and hygiene .....Most of them, even if they had a desire, have no opportunity to make themselves more proficient for camp or field service.....I have often heard the complaint made that the line officers do not show proper respect for the military surgeon, and do not treat him with becoming courtesy. How could it be otherwise?.....Something must be done to raise the standard and usefulness of the medical service. I know of no way of accomplishing this object except by concerted action.....The military surgeons must educate themselves."

And so, although Dr. Senn begins in superfluous rhetoric, he ends like a practical American, in solid advice. Towards the furtherance of his excellent aspirations we would recommend to his study the rules and regulations by which our Volunteer medical officers have attained and maintained a high standard of efficiency. But the tale which he unfolds has a moral for us; it shows the identity of military human nature all the world over; it demonstrates that the arrogant spirit which military command begets crops up just as strongly in democratic as in monarchical armies; and that it has a remarkable tendency to display itself in jealousy of and discourtesy towards medical officers.

The Surgical Treatment of Neuralgia of the Fifth Nerve (Tic Douloureux). By Wm. Rose, M.B., B.S.Lond., F.R.C.S., Joint Professor of Surgery in King's College, London, and Surgeon to King's College Hospital, etc. London: Baillière, Tindall, and Cox. 1892.

This volume is made up of the three Lettsomian Lectures on the Surgical Treatment of Neuralgia of the Fifth Nerve, which were delivered early in the year by Professor Rose before the Medical Society of London, and which at the time were published in the British Medical Journal. The volume, conveniently arranged and well illustrated, contains much more than a mere summary of what has hitherto been done in the operative treatment of trigeminal neuralgia, as it gives in full detail a record of the author's able and strenuous efforts to relieve this terrible affliction. These efforts have, indeed, been made under somewhat depressing circumstances. As is shown in these lectures, a long series of carefully planned and skilfully executed operations have hitherto almost invariably resulted in dismal failure. Professor Rose, however, is sanguine in his view as to the future of this branch of surgery, and, whilst content to wait until time and extended experience have tested the value of his own method, regards the outlook as hopeful.

The first lecture, which gives a review of the clinical features and pathology of neuralgia of the fifth nerve, together with some general remarks on its surgical treatment, presents little of novelty, except some suggestive remarks on ligature of the carotid artery as a method of dealing with this affection. This, there seems some reason to think, is the least unfavourable of the methods that have hitherto been tried. Professor Rose holds that mortality attending it is a serious objection to it, but, surely, on his own showing, this operation is less fatal in cases of trigeminal neuralgia than the latest developments of nerve section.

The second lecture is devoted to a description of the various operations on the different branches of the fifth nerve. The author shows a full and practical knowledge of most of what has been done in the treatment of facial neuralgia, and explains clearly the steps of each of the numerous operations which have been devised from time to time. This section contains many instructive details of topographical anatomy, the review of the operations on each division of the fifth nerve being preceded by an anatomical sketch of the trunk under consideration.

In the concluding lecture on Removal of the Gasserian Ganglion, Professor Rose states that he was led by the more or less favourable results of removal of Meckel's ganglion to consider the practicability of this formidable undertaking. A detailed description is given of the operation, which he has now practised in five cases of intense trigeminal neuralgia. This procedure, which is extremely complex, being divided into as many as six stages, is an ingenious elaboration of the oft-modified method of Pancoast, in which the region of the foramen ovale is exposed through the pterygoid region. The results that have hitherto been obtained from the operation are fully reported in this lecture, and its nature is stated with fairness and candour. Its prospects, it must be acknowledged, are not good. It is admittedly difficult—probably one of the most difficult in surgery—and is certainly not free from risk. It still remains to be proved whether this attack on the Gasserian ganglion can ever afford more than temporary relief. It is very doubtful whether in the living subject it is possible to remove the whole of the ganglion without causing serious damage to the cavernous sinus. No surgeon, we are sure, would be justified in undertaking the operation unless he were qualified by much experience in operating and a full knowledge of anatomical detail. But whatever may be the fate of this operation, its history will always be one of interest, as showing how much has been done at the present day in improving the *technique* of surgery by a happy combination of boldness, scientific accuracy, and surgical skill.

A Treatise on the Parasites and Parasitic Diseases of the Domesticated Animals. By L. G. Neumann, Professor at the National Veterinary School of Toulouse. Translated and edited by George Fleming, C.B., LL.D., F.R.C.V.S. 800 pp., 8vo. London: Baillière, Tindall, and Cox.

There is probably no department of veterinary medicine which it has been so difficult for the English practitioner to study as that which treats of parasitic diseases. There has hitherto been no textbook in our language treating at all adequately of the domestic animals in this respect. The works of Cobbold were not broad enough in their scope, and have now by the progress of investigation become somewhat antiquated, whilst the classic treatise of Leuckart, though it may fairly be described as "encyclopædic" as far as it extends, only professes to deal with the subject as far as man is concerned, and will probably not be complete even to that extent for some years to come. With these exceptions, there has been nothing to which the student or practitioner could turn for information except the articles contained in general medical treatises, wherein this important subject has not infrequently been handled in a somewhat stepmotherly fashion. It would probably have been impossible to select a work for translation which would meet the wants of the average veterinarian better than that of Professor Neumann, which has demonstrated its claim to consideration by the fact that the first edition was exhausted in less than three years.

The work commences with an introduction treating of the phenomena of parasitism in general, the classification of parasites, and the modifications in structure and life-history induced by their habits. It is explained, in the course of this chapter, that microbes are excluded from consideration—a course which is certainly wise in view of the extensive literature which is now devoted to them. The body of the work is divided into eight books, each of which treats of the parasites of some different system of organs; thus the first treats of the "parasites of the skin," the last of those of the "genito-urinary organs." The books are subdivided into chapters, and these again into articles, varying in extent and nature of contents according to the exigencies of the case. The appearance of the different parasites at various stages of growth is succinctly but clearly described, together with the symptoms to which they give rise, the several modes of treatment, and the appropriate prophylactic measures.

The illustrations are numerous and accurate, though some of them have a rough appearance, suggesting that they are either rather coarse *clichés* or carelessly printed. In a few instances better figures might certainly have been found than those here presented.

The author's (as distinguished from the translator's) style is good, and the book throughout impresses the reader with being the work of a master of the subject. The work is carefully brought up to date, and we have noted scarcely any omissions of importance in the lists of parasites. We have therefore great pleasure in welcoming Professor Neumann's work on its appearance amongst us.

But, though grateful, we are not satisfied. The arrangement adopted does not seem to us so convenient as a zoological one would have been. The same genus or even species may affect widely different parts of the body, and hence must be described several times over or else a much more elaborate system of cross references should be provided than is given in the present work. It is impossible to find out (without perusing the whole 800 pages) what are the parasites affecting a given animal. In the horse, for example, there have been recorded about thirty entozoa; but in the index, where we should naturally look for help in this direction, we find only "horse hypoderma" and "equidæ, scabies of the." Why these two items are selected for special reference we are at a loss to conceive. The author informs us that he has reduced the zoological information to the "strictest minimum," and this is a weak point in the whole work. Not only is the information meagre, but owing to the arrangement of the work, which has already been criticised, it is cut up and distributed here and there in a manner which greatly increases the difficulty of obtaining clear ideas as to the relationships of the various parasites. It is here especially that the illustrations are not up to date, and that erroneous statements occur; witness the introduction of Van Beneden's diagram of a tapeworm segment (p. 379), which is more than thirty years old, and may be "ideal," but is certainly not "typical."

As regards the translation, we can only say that it is most unsatisfactory. It appears to have been made by what we may term the "philological" method, of which the rules are these: (1) each French word should be rendered by an English one, and, (2) if there be an English word resembling the French one, it should be used for the purpose. This always leads to a harsh, awkward style, and sometimes to expressions which can hardly be understood unless they are first rendered back into the original. Here are a few examples: "Each species [of tapeworm] has generally its particular sojourn, and its exclusive location in the same compartment." The sporozoa are "provided with a nucleus, and generally limited to the adult age by a hairless cuticle." Under the heading "Larvæ of the Œstrus gastricoles" we read: "By reason of their habitat, they constitute the œstrus gastricoles—chylivorous of Bracy-Clark—and all belong to the genus gastrophilus (Leach), the result of doubling the genus œstrus of Latreille."

This last passage also shows an imperfect acquaintance with the zoological terminology usual in this country. Reference to a textbook of zoology should have prevented the appearance of such a medley of terminations as is seen in the statement that "arthropodes" are divided into four classes, "crustacea, arachnidæ, myriapodes, and insects." "Turbellaries" is not a recognised term, and the statement that insects breathe by "a trachea" is surprising. Vigorous but inconsistent efforts have been made to anglicise specific names We venture to doubt whether "giant eustrongle" is preferable to "Eustrongylus gigas" also whether "biseriated menopon" is better than "Menopon biseriatum;" but we are rather surprised that a writer who has achieved this latter should be baffled by "Ornithobius bucephalus" and "Globocephalus longemucronatus." It is time that a vigorous protest was raised against the view that a satisfactory translation is consistent with unintelligible jargon such as the above, produced without careful attention to details.

Medical Microscopy; a Guide to the Use of the Microscope in Medical Practice. By Frank J. Wethered, M.D.Lond. With Illustrations. London: H. K. Lewis. 1892.

The work we have before us differs in many respects from any that has been published in this country, in that it goes over ground not usually touched on in such a work; it gives a much more complete account of clinical microscopical work than is usually presented to the student.

The first 150 pages are taken up with descriptions of apparatus and methods of hardening, embedding, cutting, and staining. These, without being tediously long, are sufficiently full to enable anyone acquainted with the elements of histological work to follow them very readily. Then comes a chapter on the examination of tumours, which is not very full, but will probably be sufficient for use in the ward or in the operating theatre.

Chapters on the examination of urinary deposits and on fæces are followed by another on sputum, which is an especially good one, as, in addition to the ordinary matter and illustrations, it contains drawings of various kinds of casts and of the Charcot-Leyden crystals, which are usually described but very seldom figured. Then follows an account of the examination of vomited matter and of the contents of various cavities and organs, a chapter on the examination of the blood, on cutaneous parasites, and on the rough examination of food and water. The work concludes with a short account of bacteriological methods.

The subject matter has been carefully selected, the accounts and descriptions are well written, and the illustrations are excellent and numerous. This book may be commended to the student commencing his clinical work. If he studies it carefully, and utilises to the full the methods described, he is not likely to degenerate into a rule-of-thumb practitioner.

Medico-Psychological Association of Great Britain and Ireland.—The next quarterly meeting of the Medico-Psychological Association will be held at Bethlem Hospital, London, on Thursday, November 17th, at 4 P.M.

NOTES ON BOOKS.

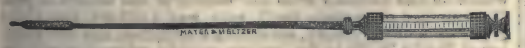
Menstruation et Fécondation: Physiologie et Pathologie [Menstruation and Impregnation: Physiology and Pathology]. Par A. Auvard, Accoucheur des Hôpitaux. (Encyclopédie scientifique des Aides-mémoires.) (Paris: Gauthier-Villars et Fils; G. Masson.)—Dr. Auvard fills 184 pages with letterpress and good diagrams illustrating the phenomena of menstruation and impregnation. We may disapprove of his deliberate advocacy of artificial impregnation, we may think that long clinical reports on sexual eccentricities might as well be omitted or condensed; still the manual is scientific in spirit and far superior to its predecessors on allied subjects. Dr. Auvard summarises the theories on menstruation in an able manner. He does not believe that the endometrium undergoes a definite change in association with menstruation. In some subjects it may be shed entire, in some not at all. He favours Becker's theory of a "menstrual pool," a sero-sanguineous effusion which appears around the ovary during the catamenia and running down the tube carries the ovum with it. As the author stigmatises other doctrines as pure fantasy we may be permitted to apply that expression to the "pool" theory. Where had Becker proof of a "pool?" Where is the evidence that the pool would flow down the tube instead of spilling over into the peritoneum? The author seems to have overlooked the discovery of His, of Leipzig, who showed that the fimbriæ of the tube are constantly spread over the lower and outer part of the ovary which hangs with its long axis almost vertical. Hence it is hard for the ovum to avoid falling into the ostium. Dr. Auvard believes that there is truth in several of the different theories on insemination, namely, capillary action, aspiration, and the individual movements of spermatozoa, all these agencies playing a share in bringing sperm cell and germ cell in contact. The chapters on menstrual irregularities are excellent. He does not, like Matthews Duncan, look upon vicarious menstruation as "a tissue of error if not of absurdity." The summary of theories and causes of impotence and sterility is ably compiled, although it includes the consideration of many subjective questions incapable of scientific proof.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

URETHRAL INJECTOR.

This instrument has been made by Messrs. Mayer and Meltzer, of Great Portland Street, at the suggestion of Mr. W. E. Burton. He has found it completely successful in the treatment of tender spots in the urethra due to previous gonorrhœal inflammation.

The apparatus consists of a small glass syringe plugging into a vulcanite stem. This stem and its cylindrical enlargement (which is pierced with numerous fine openings, carefully countersunk) is highly polished. In using the instrument he fills the syringe and tube completely with silver nitrate or other solution, and dips the end into water (grease is unnecessary and interferes with the application of watery



solutions); he introduces the tube into the urethra until it has passed, by about half an inch, the tender spot which has been previously made out, and marked with a dermograph, if necessary. Then the tube is withdrawn slowly with a screw movement, so as to turn it completely on itself two or three times before it has passed the tender spot. While thus turning the tube, enough pressure should be made on the piston to inject a few drops of the solution. The advantages claimed for this instrument over others of the same class are: (1) The greater length of the tube, which enables it to reach easily the membranous portion of the urethra if needed; (2) the length of the cylindrical enlargement, which secures a much more thorough and satisfactory medication of the tender surface. Mr. Burton states that he has never found it needful to make more than two applications. The instrument is made in three sizes, so that one can be selected sufficiently large to stretch the urethra completely—a very important point.

INTERCOLONIAL MEDICAL CONGRESS OF AUSTRALASIA.

The third session of this Congress was opened in Sydney on Monday, September 26th, in the Great Hall of the University. The roll comprised 534 ordinary members, 26 honorary members, and 43 student members. The principal office-bearers were Dr. P. Sydney Jones (President), Dr. Theo. Chambers (Treasurer), and Drs. Anderson Stuart and S. T. Knaggs (Joint General Secretaries). The opening meeting was crowded, and was attended by the Governor, the Premier, the Primate, and a large number of the principal citizens. The Governor (the Earl of Jersey) welcomed to Sydney "men of that great science to which all men some time or other turn with many feelings of hope, at other times with fear, and always with gratitude." Professor Anderson Stuart then read the report of the Executive Committee, which gave a brief summary of the steps which had been taken since the second session at Melbourne in 1889. The report was adopted on the motion of Drs. Verco, of Adelaide, and Bright, of Hobart. The Premier (Sir George R. Dibbs, K.C.M.G.) then followed up the welcome which had been given by the Governor, and he was followed by the President, who delivered his inaugural address, in which he dwelt on the advances which had been made in medical science and art during the last forty years, the period during which he had been connected with the profession. At the conclusion of these proceedings the Governor announced, amid cheers, that the Government would undertake the publication of the proceedings of the Congress. The meeting was then adjourned till the evening. In the afternoon the Mayor and Mayoress held a reception in the Town Hall.

The evening meeting was held in the Great Hall of the University, and was entirely devoted to the discussion of the manner in which the executive had been appointed, and some very plain speaking was indulged in. In order to bring the matter up it had been arranged that Dr. Tarrant should move for a committee to consider and report on a matter of procedure to regulate the preliminary steps for future meetings. Dr. Tarrant, in moving for the committee, made upon this occasion an exceedingly even and temperate address; but unfortunately those who followed him gave free expression to their feelings. It was, however, quite apparent that the discontented party were in a minority, and on a division they were hopelessly out-voted. Once this matter had been got over, nothing further occurred to mar the harmony of the session, which went on its way from day to day without a hitch. The weather on five out of the six days was perfect, so that the numerous outdoor festivities and excursions were successful.

The meetings of the Sections and Subsections were held in the various theatres of the Medical School, which, being all in one corridor, were well suited to the purpose. The papers were plentiful—over 160—and though the Sections sat usually from 10 till 1, they were unable in some instances to read more than half the papers set down.

Anæsthetics.

The use of chloroform as an anæsthetic was the main topic of the address given in the Section of Medicine by its President, Dr. James Robertson, Consulting Physician to the Melbourne Hospital. He criticised the conclusions of the Hyderabad Chloroform Commission, and, from his own experience of forty-five years, insisted on the practical importance of observing the pulse as well as the respiration. In the Section of Surgery a discussion on anæsthetics was opened by Dr. A. Shewen, of Sydney, who expressed the opinion that existing statistics were of little value. Careful clinical records of cases should be obtained, and they should be taken not by the anæsthetist, whose attention ought not to be diverted from his patient, but by a bystander. He thought both ether and chloroform possessed advantages wanting in the other, which fact should lead to the selection of one or

other in particular cases. The interest taken in the discussion was shown by the fact that eighteen speakers took part in it. Dr. Springthorpe, of Melbourne, who expressed the opinion that many fatal cases were due to faulty administration, advocated for slighter operations a mode of administration which he called "cortical anæsthesia." Other speakers urged that this degree of anæsthesia should be reserved for certain midwifery cases, and that for surgical operations the patient should be brought under the full influence of the anæsthetic. Dr. W. Gardner, of Melbourne, President of the Section, said that, as an operating surgeon, he appreciated the importance of the personal equation of the anæsthetist; with one his mind would be at rest, while with another he would be in constant anxiety.

Hydatids.

The third day's sitting of the Section of Surgery was devoted to a discussion on hydatids, the debate turning mainly on the question whether in the treatment of abdominal hydatids aspiration or the radical cure by incision were the better.

Dr. Verco read a suggestive paper on the Treatment of Hydatids of the Brain. He proved that one-third of all cases of hydatids of the brain communicated with the lateral ventricles, and as a result a large percentage of the fatal cases was due to draining the cerebro-spinal fluid, and leaving the ventricles dry. To obviate this, he suggested that in future, after emptying the cyst through a trephine hole, and washing out as usual, no drainage tube should be left, and that the flap should be closely stitched, and thus the cavity left hermetically sealed.

Dr. James Graham, of Sydney, showed a patient, a powerful, active young man, from whom, two years earlier, he had removed a hydatid of the brain 4 inches in diameter, and containing 19 ounces of fluid. Owing to optic atrophy, the patient's vision was diminished to perception of light, but he was able to earn his living as a basket maker.

Dr. Spencer, of Bathurst, made known the fact that he had treated two cases of abdominal tumours due to the bothriocephalus liguloides, of which one died and the other recovered. This is the first time that the presence of such a parasite has been recognised in Australia.

Beri-Beri.

The question whether beri-beri is endemic in Melbourne was raised by Dr. Molloy, Medical Superintendent of the Melbourne Hospital, who related an instance in which a number of Chinamen were simultaneously attacked by the disease while employed in the same workshop. In these cases there was peripheral neuritis accompanied by œdema beginning in the lower extremities, and becoming more or less general. The paper, which was read in the Section of Medicine, led to an interesting discussion, in the course of which it appeared that similar cases had been observed among Chinese in Sydney.

Treatment of Snakebite by Strychnine.

In the absence of Dr. Mueller, the author of this method in Australia, a paper on the subject by him was printed and circulated. Dr. Huxtable read a paper dealing statistically with the results obtained in cases so treated. He argued that the results of the treatment of snakebite by strychnine in all the cases of which it had been possible to obtain records to the present time showed that the death-rate among those cases was considerably in excess of that among a large number of cases treated by other methods. The facts did not warrant the administration of the drug in the large doses which had been recommended. Nevertheless for cases in which such a quantity of the poison as did not inevitably kill had been absorbed, strychnine judiciously used might cut short or relieve the most urgent symptoms, and in some cases turn the scale of life in favour of the patient. The Congress resolved to request Dr. Martin to carry out a series of investigations relative to strychnine as an antidote to snake poison.

Leprosy.

Dr. Bancroft, of Brisbane, contributed a paper on the History of Leprosy in Queensland, from which it appeared that the earliest recorded and known case occurred in 1866 in a German who had long lived in Hawaii; and Dr. Bancroft, after searching hospital records, was convinced that several undiagnosed cases in Europeans occurred later than the year named. A large party visited the leper hospital, when many of the visitors saw leprosy for the first time. The various forms of the disease were demonstrated by Dr. Ashburton Thompson. There are about twenty cases detained here, including two females and seven males, natives of Australia, of European descent, besides eleven Chinese, one Japanese, and one Kanaka. The arrangements at the Leper Hospital are very complete. Two wardsmen attend the males, two nurses the females, and in every way—by comfortable quarters on a charming site overlooking the ocean, cheerful furniture, liberal dietary and allowances of "medical comforts"—the lot of the leper is tempered.

Hysterectomy.

Dr. Thring, of Sydney, brought forward four cases of vaginal hysterectomy for cancer. All had recovered from the operation, but return had taken place within two years in two cases. Dr. Thring urged early removal. Dr. Foreman, of Sydney, showed a remarkable specimen of fibro-cystic disease of the uterus involving the whole organ, and having its lower portion extruded through the cervix. Dr. Foreman had performed total extirpation of the whole uterus by abdominal section.

Neuropathology.

In the Section of Medicine Dr. John Gibson (Windsor) read a paper on a case of muscular atrophy with unusual lesions in the cord. Sections of the cord were shown by Dr. Quaife, by means of the projecting microscope and the electric light. In the Section of Surgery Dr. F. Bird (Melbourne) related a case of injury to the median nerve due to a gunshot wound, in which restoration of function ensued after grafting a portion of the sciatic nerve of a cat. An anatomical paper was read by Professor J. T. Wilson (Sydney) on the closure of the spinal cord in the fœtal lamb, in which certain observations were adduced in support of the theory of the mode of production of the lumen of the central canal maintained by Balfour for chick embryos, and subsequently criticised adversely by other writers.

Myxœdema and Thyroid Grafting.

Dr. Lockhart Gibson, of Brisbane, read a paper on the Functions of the Thyroid Gland, with observations on a case of thyroid grafting, in which he insisted that the proof against the alleged blood-forming function of the thyroid was sufficient. The history of the patient was demonstrated by a series of photographs, showing the gradual advance of myxœdema for the first four years of life and the very marked and steady improvement following the grafting of the thyroid of a lamb, which grafting took place in the fifth year—that is, two years ago. The author also gave an account of the subsequent history of the lamb used, from which he imagined he had removed the whole gland. This animal showed no signs of cachexia eight months after the operation. It was then killed, and it was found that a small piece of the lower end of one lobe had been left; this had hypertrophied and carried on the essential function of the thyroid. Sections made from this portion remaining showed a remarkable scarcity of lymph follicular tissue, but were otherwise of normal appearance.

Vital Statistics.

Mr. T. A. Coghlan, Government statistician, submitted to the Section of Public Health a Life Table of New South Wales, which he had deduced from the results of the census of 1891. The number of persons dealt with was 1,123,954, being the population of the colony, excluding aborigines, and the number of deaths 30,834 in the twelve months preceding and the twelve months following the day of the census (March 31st, 1891), the results being adjusted according to the system devised by Mr. W. S. B. Woolhouse. Mr. Coghlan showed that the expectation at birth was: males, 49.6; females, 52.9 years; and that it was highest at age 2, when the expectations were respectively 56.37, and 58.74. These figures are much higher than those given in Dr. Ogle's table for England, a result which, as the author properly pointed out, is probably due to the more favourable conditions under which the inhabitants of a new and not yet overcrowded country are brought up.—

Dr. David Hardie, of Brisbane, Queensland, contributed a remarkable paper in which he compared the varying number of deaths from several diseases at different seasons of the year with the meteorological conditions observed at those seasons in each of eight districts into which he divided the whole colony for his purpose. A chart, which must have taken many weeks to prepare, showed in graphic form the remarkable coincidences which the author desired to point out.

Tin-Foiled Sweets.

A report on chronic lead poisoning among children, prepared by the Honorary Staff and Resident Surgeon of the Brisbane Hospital for Sick Children, was read by Dr. Jefferis Turner in the Section of Medicine. The report, which dealt with numerous cases, attributed them to the tin-foil wrapping of sweetmeats. Twelve specimens of such tin-foil were tested, and three were found to contain lead in large quantities. Two specimens of the tin-foil used in wrapping round cigarettes were also tested, and found to consist largely of lead.

Entertainments.

On Tuesday afternoon the Governor and the Countess of Jersey gave a garden party at Government House. There were from 700 to 800 present, and the weather being delightful, the party was a great success. On Wednesday afternoon, at the invitation of the Government, the members and their friends were conveyed in their steamer down the harbour to the quarantine station, where the wonderfully perfect arrangements proved most interesting, and the beauty of the site—overlooking the Pacific Ocean—made one almost long to be detained there. Excellent refreshments were provided, and again the weather was delightful, so that all returned well pleased with the outing. In the evening the President entertained about 400 at dinner in the Town Hall, among whom was the Governor. On Thursday evening the orchestral concert, to which the members were invited, proved most enjoyable. On Friday afternoon there was a harbour party to view the gardens and grounds of Gladesville Hospital for the Insane, probably the finest flower garden in Australia. Here also the park, with its herds of emus, kangaroos, and wallabys, was most interesting. As good luck would have it, the final heat of a great sculling race was witnessed from the steamers, which then proceeded to the Thomas Walker Convalescent Hospital, which is approaching completion, as a memorial to the late Thomas Walker. The fine quality of the workmanship, and the beauty of the grounds struck all with admiration, though the somewhat lavish expenditure—£1,000 per head for 75 beds—in construction made many wish they had some of the money for hospitals they could name. In the evening a *conversazione*, which was given by the members of the Congress, was held in the Great Hall of the University. Elaborate preparations had been made and the gathering proved a great success. The Great Hall was used as a museum, concert hall, and refreshment room; the grounds were illuminated, and the chemical, physical, engineering, biological, and geological laboratories, as well as the medical school, library, Nicholson Museum, and in fact all the university buildings, were thrown open, and "lecturettes" and demonstrations given and experiments conducted; about 1,400 attended. On Saturday a harbour excursion was given by the Congress to Fern Bay, where luncheon was served; afterwards the visitors proceeded by steamers to some of the more beautiful reaches of the upper harbour. In the evening Drs. Chambers, Knaggs, and McCormick entertained over 200 members at dinner at the Australia Hotel; good music was provided, instead of speeches, till midnight, when the company separated after singing "God Save the Queen."

SMALL-POX AND VACCINATION.

The information which continues to reach us from one and another place concerning the occurrence of cases of small-pox has an ugly significance at this season of the year. It is not alone in large and populous centres like Liverpool, Manchester, Huddersfield, and Halifax that the disease exists, but, in addition to the epidemic prevailing at Warrington, cases are cropping up in many towns widely scattered over the country. And with these evidences of small-pox in our midst, although London just now is free, we find from the recently issued annual volume of the Local Government Board that an ever increasingly large number of children are growing up in England unprotected by vaccination. Of those born in 1889, the year last tabulated, 74,627 remained unvaccinated when the returns were finally made up—a number representing 9.9 per cent. of the births, against 8.5 for 1888; in London the rate of default was 11.6, compared with the preceding return of 10.3; whilst in Yorkshire it was 13.0, an increase of 2.2 per cent. on the figures for the previous year. Of individual unions, Gloucester heads the list with a default of 83 per cent., followed closely by Keighley and Leicester with percentages of 81 and 80 respectively. The latter town has not been without small-pox in recent weeks, and it is notorious that with all its professed indifference to vaccination, no sooner does a case of small-pox occur than attempts are made to vaccinate or revaccinate those persons who would seem to have run the risk of infection.

In the present circumstances it is much to be regretted that the Royal Commission on Vaccination should have prolonged its sittings to such length as has now been reached. The stational vaccinations of the country are suffering, and that system of arm-to-arm vaccination which they furnish is in danger of breaking down in many parts of the kingdom; whilst people, ignorant of the injustice to their children involved in the procedure, are rushing to those "sixpenny" doctors who are content for a small fee to vaccinate imperfectly in one or two places. Such operations are likely, as time goes on, to throw more and more discredit upon vaccination, since they but partially confer upon individuals the benefits which vaccination properly performed would give. And then, again, vaccination officers everywhere are suffering from the deprivation of fees consequent upon the inaction of recalcitrant boards of guardians and the inadequacy of magistrates' fines, whilst signs are not wanting that some of the best officers, whose years have been spent in a sincere endeavour to administer the vaccination laws, will be compelled to relinquish their posts if matters long continue as at present. If these laws are to remain on our Statute Book, it is only fair to ask that their provisions should be enforced. Otherwise, there will continue to grow up in our midst thousands of unprotected persons who will swell—or shall we say cause?—the next epidemic of small-pox that visits England.

PROFITS OF MEDICAL AID ASSOCIATIONS.

In response to our invitation for information as to profits made by Medical Aid Associations, Dr. Leslie Phillips sends us the following tables:

Medical Aid Associations.

Particulars of Assets.

	Total Net Value of Assets.	Property generally Freehold.	Cash in Hand.	Furniture, Fixtures, and Instruments
Derby	£1,942	1,270	£347	£222
Northampton ...	1,775	2,718 [1]	506	100
Preston	1,280	1,101	231	138
Wolverhampton ...	886	733 [2]	69	10
Kidderminster ...	748	556	52	110
Nottingham ...	861	1,300 [3]	10	113
York	1,431	1,750 [4]	99	100

[1] Subject to mortgage of £1,600.
[2] Subject to mortgage of £200.
[3] Subject to loans of £630.
[4] Subject to loan of £575.

Fees Paid out of Income to Lay Officials (Secretary, President, Treasurer, etc.).

Wolverhampton	£100	Cambridge	£41
Derby	91	Stourport	27
York	50	Kidderminster...	43
Leicester...	52	Northampton	82

With regard to Wolverhampton, it may be remembered that the total income of the Association was £1,835; that they paid their surgeons and *locum tenens* £498; that the senior medical officer, Dr. Wallington, received in cash £250; that after going through the prodigious wear-and-tear of two epidemics of influenza he asked for some compensation, if even only to cover the cost of extra cab hire, as he was for this item alone £57 out of pocket for the year ending June 30th, 1891; that this was promptly refused; that notwithstanding this refusal the Association found they could, after paying all costs of maintenance of the business, effect a purchase of land..... (at a cost of £550?) Moreover, the committee and officials found they could also afford to remunerate their own invaluable services on a liberal scale, and £100 5s. 7d. appears in the balance-sheet as having been paid to these gentlemen.

ROYAL COLLEGE OF SURGEONS.

AN ordinary Council was held at the College on November 10th, and the minutes of the last quarterly Council were read and confirmed.

A report was read from the Committee for General Purposes, and the following regulations for the Common Room for Fellows and Members were adopted:—

1. "The Common Room is open to Fellows and Members of the College only. 2. The Common Room is open on each weekday from 11 A.M. to 5 P.M., except Saturday, when it is open from 11 A.M. to 1 P.M. It is closed during September and at such other times as the Council may direct. 3. No formal meeting of any description may be held in the Common Room. 4. Fellows and Members, writing letters at the College, may not use the College as their address. *Note.*—Fellows and Members are reminded that smoking is not permitted in any part of the College buildings."

It was further recommended that writing materials and such journals and newspapers as the Committee may from time to time determine be provided for the Common Room. It was decided that the room should be opened on December 1st, 1892.

A report was received from the Committee of Management recommending that the two Colleges should recognise the instruction in elementary science given at University College, Bristol; the Public School of Science, Cheltenham; the School of Science and Art, Chester; and the Merchant Venturers' School, Bristol, as fulfilling the requirements for Parts I and II of the First Conjoint Examination.

The PRESIDENT reported that at the meeting of Fellows and Members on November 3rd, in addition to 16 Members of Council there were present 27 Fellows and 43 Members.

The resolutions carried at the meeting and already published were read. The Council resolved that the mover and seconder of the first resolution be informed that it had been laid before the Council. This resolution was as follows:

That this meeting is of opinion that the ancient attitude of hostility on the part of the Council to the true interests of the body corporate of the College ought to terminate, and that the repeated resolutions passed at former meetings of this College should be carried into effect.

That the mover and seconder of the second resolution (see p 1023) be informed that it had been received with thanks, and that the mover and seconder of the third resolution (see p. 1023) be informed that it had been laid before the Council and that they were referred to the following extract from the minutes of the Council, dated November 17th, 1885,

With the larger questions which more rarely arise, such as those which concern the constitution of the College, the case would be different. On these questions the Council will always be glad to have an opportunity, so far as practicable, of consulting the Fellows and Members.

A letter was read from Miss Lane, thanking the Council for their vote of condolence on the death of her uncle, Mr. S. A. Lane.

It was determined that the Morton Lecture should be delivered on February 2nd, 1893, at 4 P.M., and permission was granted to Mr. James Galloway, the lecturer, to deliver it in the theatre of the Laboratories on the Embankment.

A committee, consisting of Messrs. Hulke, Harrison, and Willett, with the President and Vice-Presidents, was elected to make the necessary arrangements for the celebration of the jubilee of the Fellowship. They were authorised to add to their number other Fellows of the College not on the Council in deciding upon the arrangements for the dinner.

"DIED from exhaustion in childbirth, probably aggravated by want of skilful attention." Such was the verdict returned by a Yorkshire jury at a recent inquest, and it is especially interesting as showing that the jury fully appreciated the utterly incomplete character of the inquiry they had been compelled to assist at, and determined to make the fact patent in their verdict. The assistant (whether qualified or not does not appear in the report before us) went to attend a woman in her confinement. The labour seems to have been difficult, and instruments were used, and then, according to the testimony of the women who were present, the woman fainted and died. She had previously borne twelve children No *post-mortem* examination was made, and no medical evidence was given at the inquest. The case is one which appears to call for further investigation.

WE understand that the *post-mortem* examination of the body of the Duke of Marlborough revealed well-marked calcareous degeneration of the aorta, to which his sudden death may be attributed.

NORWICH MEDICO-CHIRUGICAL SOCIETY.—A meeting of this Society was held on November 1st, A. R. Manby, M.D., President, in the chair. Before the meeting a large number of members were entertained at luncheon by the President to meet Sir Frederic Bateman, and to congratulate him on the distinguished honour recently conferred upon him. After a retrospective address from Dr. H. McClure, Mr. Cadge read a communication from Sir Joseph Lister, and ably advocated the claims of the proposed British Institute for Preventive Medicine. It was decided to refer the matter to the Council for further consideration. Dr. Barnes (Eye) brought forward a communication from the Medical Defence Union relative to "Medical Aid Associations," with a petition to the General Medical Council. Many of those present affixed their signatures to the petition. Dr. S. J. Taylor showed a boy suffering from ectropion caused by a keloid following a burn of the face, and Mr. T. H. Morse showed two specimens of extra-uterine fœtation removed by abdominal section.

BERLIN WATER.—Our Berlin correspondent writes:—The water supplied by the Charlottenburg Waterworks gave rise to many complaints last summer on account of its appearance and disagreeable smell, due, it appears, to oxydulated iron and sulphuretted hydrogen, which the existing filters were powerless to remove, especially when fully taxed, as in summer time. The company have succeeded in remedying these defects by employing a new coke-filter in addition to the usual sand filters. The water is taken from wells twenty metres deep situated near a lake in the Grimewald (the forest that stretches from just beyond Berlin to Potsdam), and is first brought into reservoirs, from which it is pumped to sieves, and then passes through a bed of coke three metres thick, thereby losing the iron and sulphuretted hydrogen. From the bed of coke the water then passes on to the sand filters, out of which it passes "pure and clear."

LITERARY INTELLIGENCE.—The Inaugural Robert Boyle Lecture (founded by the Oxford University Junior Scientific Club), which was delivered this year for the first time by Sir Henry Acland, has lately been published (Henry Frowde). Sir Henry gives an appreciative sketch of Robert Boyle's career. The following passage is interesting: "He (Boyle) discusses the value of experiments on the living bodies of men and of animals, condemns vivisection 'that physicians had performed by leave of kings on malefactors, and scrupled not to destroy man in order to know him.' He shows how things that cannot be otherwise known may be learnt by the dissection of dogs, swine, and other live creatures, and things found that hold good in human bodies." Boyle himself, we are told, assisted in the extirpation of the spleen from a young setting dog; "yet this puppy in less than a fortnight grew not only well, but became as sportive as before." He performed many experiments similar to those of the present century, both on the nervous and the circulatory apparatus. He also knew the effect of introducing a warm solution of opium in sack into the blood vessels of a dog; "the dog soon nodding and, being very sleepy, he was whipped about the garden, and being kept awake and in motion, he not only recovered, but began to grow fat so manifestly that it was admired and very soon after stolen."—A new medical journal (*The South Russian Medical Gazeite*) has recently begun to appear at Odessa under the editorship of Drs. A. W. Korsch, O. O. Motschutkowski, M. G. Pogrebinski, N. A. Stroganoff, and M. A. Finkelstein. The new journal is the organ of the Odessa Medical Society, and the Town Council of that city has voted a yearly subvention of 2,000 roubles (£200) towards the expenses of publication.—Messrs. Kegan Paul and Co. will shortly publish a collection of the late Dr. Wooldridge's miscellaneous papers, edited by Professor Victor Horsley and Mr. Ernest Starling.—*The History of Guy's Hospital*, by Dr. Wilks and Mr. Bettany will be ready in a few days' time.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, NOVEMBER 12th, 1892.

THE LORDS' REPORT ON METROPOLITAN HOSPITALS.

The Blue Book now published as the Lords' Report contains an account of the proceedings of the Committee and several very useful appendices. We have already noticed the Report itself; but the supplemental matter, which is now printed for the first time, is possibly not the least valuable portion of the document.

Of the appendices the most important is the third. This consists of sixteen carefully compiled tables handed in by the Chairman of the Committee, containing a mass of detailed information relating to the administration of the hospitals and medical schools. It would be difficult indeed to suggest how these notes could have been made more exhaustive than they are; and the form in which they are published will enable any person interested in the subject to observe at a glance the different characteristics of each institution. There is a table relating to the provident dispensaries, there are tables relating to nursing, and there are tables in which details respecting the medical staffs and the officials and servants of each hospital are set out.

Table B, which contains "Notes on Wards, Beds, and Patients," is full of suggestive matter. Looking down the column relating to the "number of beds unoccupied for want of funds," we are glad to find that of the eleven general hospitals with schools two only have any beds empty on this account. Curiously enough both of these are endowed hospitals, and the number in each case is ninety. The voluntary institutions apparently find it a better policy to go to the public with a deficit than with empty beds. Another interesting column is that which contains the replies of the hospitals as to the cost of each occupied bed, and the method by which such cost is calculated. From these replies the impossibility of basing any comparison of the relative economies practised in the different institutions upon their published accounts is made apparent. The answer of St. Bartholomew's probably applies with more or less force to all the others:—"It is not possible to state with any exactness what is the average cost per bed, inasmuch as not only in-patients, but a very large number of out-patients also, are treated at the hospital, and no separate accounts distinguishing the cost of each of the two classes of patients are or can be kept. Medicine, dressings, and nursing appliances for both in-patients and out-patients are supplied from a common stock; the services of many medical and other officers are given to both, and both make use in common of some parts of the hospital buildings. If any estimate were formed it would necessarily be more or less speculative."

We note that where attempts have been made to form such an estimate by estimating and deducting the cost of out-patients, the calculations have been made on the most various bases. Guy's puts the cost of an out-patient at 1s., King's College Hospital at 1s. 4d., and St. Thomas's at 2s. 6d.

There is one other column to which we would direct particular attention, the column in which are detailed the arrangements made to prevent abuse of the out-patient department. The eleven hospitals all nominally possess some machinery for this purpose, but in most cases it is only when the appearance of the patient excites suspicion that any inquiry is undertaken. At London Hospital alone is any systematic attempt made to investigate the social circumstances of out-patients, and in its case only as regards patients bringing governors' letters. It is true that we find the one inquiry officer visiting the homes of 428 patients only out of 22,000 such patients; but of those 428, 53 appear to have given wrong addresses, and 38 were found not to need gratuitous treatment. In view of this evidence we cannot but wonder at the light and airy way in which the Lords dismissed the accusation brought against the out-patient department, that it has a strongly pauperising influence upon the poor. We are often told that a respectable coat is not always a sign of affluence. But the converse is equally true. Well-worn garments are not conclusive evidence that a man needs charity.

The bent of the Committee's mind is also illustrated by a fact which appears from the account of their proceedings. The draft report submitted to them contained a clause to the effect that the value of the Hospital Saturday and Sunday Funds would be greater if their investigations were more searching. This clause was struck out. There was in the original draft another paragraph, which the Lords erased, but which in our opinion ought certainly to have been retained. It ran as follows:

"Your Committee are by no means sure that the street collections by the Hospital Saturday Fund are advisable; for it enables many institutions, which it may be undesirable to support, to start street collections of their own on other days than those appointed by the Hospital Saturday Fund.

The Lords may be pleased to think that all that is needed by the hospitals is an increased subscription list; but it is possible that in their over-anxiety to encourage begging they may defeat their own ends. To offer facilities to fraud is not to promote the cause of true charity.

On the subject of the proposed registration of nurses by the British Nurses Association and of their obtaining a charter for the purpose, the Committee give an adverse opinion, concurring with that which we have already expressed.

IMPURE LONDON WATER.

Although but little in the nature of practical effect has hitherto resulted from it, some of the local authorities of London are undoubtedly to be commended for the action which they have taken with respect to the water supplies of their districts. The independent examination of samples of the water, carried out at the instance of these authorities,

has roused far more public attention than the tardy and somewhat stereotyped Reports of the Metropolis Water Examiner, or the mildly-tinted *couleur-de-rose* pronouncements which emanate at times from the water companies.

The vestries of Battersea, St. George Hanover Square, Bermondsey, St. Saviour's Southwark, Paddington, and some other districts have from time to time received reports from their public analysts, which have not only shown the waters supplied to these districts to be frequently of very inferior quality, but in some cases to be so impure as to be "unfit for drinking purposes." These bodies, no doubt, did all in their power when they addressed copies of the reports made to them to the Local Government Board, the London County Council, the Royal Commission on Water Supply, and to the members of Parliament for the divisions concerned; and it is to be regretted that, in the public interest, they could not do more. According to the Annual Report of the Battersea Vestry for the year 1891-2, it appears that, "great complaint having been made of the condition of the water supplied within the parish by the Lambeth and the Southwark and Vauxhall Water Companies, the Vestry directed that samples of the water be taken four times a year and forwarded to the public analyst for analysis," and that in May of last year the Vestry received a report to the effect that "the results of analyses indicative of organic pollution were very high, being, in the case of the of the Lambeth Company about double those which are yielded by the Thames-derived waters when in good condition," and that "the results, taken as a whole, showed that both samples were of very inferior quality, and indicated, in the opinion of the analyst, inefficient filtration and purification." The Vestry took counsel's opinion as to whether it would be competent for them to take proceedings against the companies for supplying such water. "The opinion was to the effect that the Vestry had the same right with regard to taking proceedings as any private individual would have, but no other or further rights; that as the Local Government Board declined to interfere, no legal proceedings could be taken by the Vestry *quâ* Vestry in the matter; that the Waterworks Act, 1852, imposed a penalty for neglect (among other things) of the duty of effectually filtering the water required by Section 4, and that the Metropolis Water Act, 1871, appeared to have authorised the Metropolitan Board of Works (now the London County Council) to sue for and recover this penalty."

The Vestry have expressed regret that they have no power to take legal proceedings on behalf of the ratepayers against the companies to compel them to supply pure and wholesome water, but they have presented a memorial to the Local Government Board, urging upon them the extreme desirability of taking the necessary steps so to amend the law as to enable the vestries and district boards of the metropolis to take proceedings against companies supplying insufficiently purified water. At a meeting of the Board of Works for the district of St. Saviour's Southwark, held recently, a report from the Public Analyst upon two samples of water obtained from the mains of the Southwark and Vauxhall, and the Lambeth Companies, was under consideration. The report was to the effect that both samples were decidedly impure, and required but little more pollution to necessitate their absolute condemnation as unfit for use. It was decided to send copies of the report to the Local Government Board, to each of the authorities whose districts were supplied by these companies, to the Royal Commission on Water Supply and to the London County Council.

The members of this Board appear to have been fully alive to the vital importance of the subject, and in the course of the discussion it was pointed out that the waters of these two companies had been repeatedly reported against in Battersea, and that as the question of buying out the water companies was now before the public, it was to be presumed that the companies would not spend money on their filtering beds except under compulsion.

In connection with these reports, the published letter from the Secretary of the Lambeth Company has been read with some amusement by those acquainted with the facts. The same well-worn defence, and the same old excuses, are brought out again, as if we had never heard them before, and as if their utter ineffectiveness had not been demonstrated again and again. The Secretary blandly states that his Company "had no knowledge" of the Southwark Analyst's analysis and did not know that a sample had been taken at the instance of the district board. The innocence of the directors, the secretaries, and the other officials employed by the water companies has always been highly refreshing, and were it not for the fact that precisely the same complaint was made by the Lambeth Company's Secretary when the Battersea Vestry took samples which proved to be dirty, it might be necessary to explain that it is not usual for those who suspect the character of a commodity supplied to them to inform the purveyors of the same when they propose to take samples of it. The public are then treated to the story which appears to be kept pigeonholed in the water companies' offices for use when that public become restive. The analyst to the Local Government Board, who is pompously called the Government analyst, is quoted as stating that the water delivered by the companies drawing from the Thames at Hampton was of a "high degree of organic purity in August. Be it noted that this statement, in so far as it refers to the Lambeth Company, would be founded upon one analysis only made during that month. Then we have the ancient comparison between the Company's water and that of Loch Katrine, the absurdity of which, from a scientific point of view, whatever it may be from a commercial one, has long ago been shown; and finally a lengthy quotation from the report of the analysts retained by the companies, the value of which is radically vitiated by the fact that most of the direct statements favourable to the water that are made in it are based on "average" results and "mean proportions." The straits to which the companies are put when they try to defend themselves are sufficiently indicated by the fact that the Lambeth Company falls back upon analyses of August samples in order to meet complaints based, as are those from the Southwark Board, upon analyses of samples taken on the 5th of September from the Lambeth mains in the Blackfriars Road. The defendants in this matter have, in reality, no defence, and whatever excuses may be made for them on the score of the difficulties with which they have to contend in supplying a proper drinking water ultimately derived from a sewage-polluted river, they are not entitled to maintain that the water supplied by them has been uniformly proved fit for drinking purposes, and in the light of recent facts it is quite absurd for them to adopt any such position. What is required is purity of water at every point of supply

in a system and on every day of the year; and this is a requirement which, as has been proved up to the hilt, the London water companies have egregiously failed to fulfil.

Mr. Fowler has given official intimation that paupers are to be allowed the use of tobacco and snuff.

We understand that Neill, up to the present, has made no admissions whatever concerning the murders.

Sir Walter Foster, in view of his present position in the Government, has withdrawn from his long-standing membership of the Parliamentary Bills Committee of the British Medical Association.

We have good grounds for stating that the *Times* has recently refused a four column advertisement from the Harness Electropathic Belt Establishment, of the value of £80, a course worthy of the high and honourable traditions of that journal.

There is happily no truth in the statement that the Local Government Board have any present grounds for anticipating the recurrence of another epidemic of influenza, or that they have felt called upon to consider for the public benefit any especial preventive measures in view of the imagined recrudescence.

A committee has been appointed by the Chamber of Shipping of the United Kingdom and the Shipping Federation, with the concurrence of the Board of Trade, to consider the extent to which and the conditions under which it can with advantage be varied.

The Middlemore Lectures will be delivered by Professor R. Saundby, M.D.Edin., F.R.C.P.Lond,, at the Birmingham and Midland Counties Hospital for Diseases of the Eye, on Thursdays, November 24th and December 1st, 1892, at 4.30 p.m., on "The Retinal Changes in Bright's Disease and Diabetes."

The annual dinner of the Bristol Medical School will be held at the College Green Hotel on Wednesday, November 16th, at 7 p.m., on the occasion of the formal opening of the new medical wing of University College, Bristol, by Sir Andrew Clark, Bart., M.D. Tickets (7s. 6d. each) may be obtained from the Honorary Secretary of the Dinner Committee, Vyvyan House, Clifton Park, Clifton.

The *Army Medical Department Report* for the year 1890 (vol. xxxii) hast just been issued. It contains the usual statistical particulars as to the health of troops serving in the United Kingdom, the Mediterranean stations, the colonies, and India. There are also a series of appendices, some of which are of a purely official character, but others are of more general interest. Among these may be mentioned a note on Malta fever, by Surgeon-Captain D. Bruce, and an excellent report on the progress of hygiene in 1891 by Professor J. Lane Notter.

GROCERS' SCHOLARSHIP LECTURE.

Dr. William Hunter (late Grocers' Scholar) will deliver a lecture on "The Physiology and Pathology of Blood Destruction" in the Examination Hall, Victoria Embankment, W.C., on Tuesday, November 22nd, at 4 p.m.

ENDOWMENT OF RESEARCH.

At the general monthly meeting of the Royal Institution, held on Monday, the special thanks of the members were returned to the Goldsmiths' Company for their grant of £1,000 for the continuation and development of the valuable original researches which the Society is engaged in carrying on.

STIMULANTS IN WORKHOUSES.

A meeting of the British Medical Temperance Association will be held in the rooms of the Royal Medico-Chirurgical Society on Tuesday, November 15th, 1892, at 4 p.m., at which a paper will be read by Dr. Norman Kerr on "Stimulants in Workhouses" (based on recent returns) and a discussion on "Children and Alcohol" will be opened by Dr. Heywood Smith.

THE NEW FRENCH MEDICAL LAW.

The Committee of the French Senate on the proposed law for the regulation of medical practice in France, at its last meeting on October 25th decided to support the Bill as passed by the Chamber of Deputies without introducing any modifications. The chairman, Professor Cornil, was instructed to ask that the Bill may be placed on the order of the day as soon as it is sent back to the Senate by the Government.

VIVISECTION AND THE HEALING ART.

We understand that the Association for the Advancement of Medicine by Research have this week, in response to the public appeals made by leading journals which have discussed the subject of "vivisection," arranged for the publication of a work which shall describe the leading experimental researches to which physiology, medicine, and surgery have been indebted for the means of progress in the healing art. The subject is too vast to be treated adequately by any one pen; it will therefore be dealt with in suitable subdivisions by specially competent persons in different parts of the kingdom.

THE LATE DUKE OF CLARENCE'S HOP PILLOW.

A paragraph has been widely circulated under this title stating that, at a critical moment in the late Duke of Clarence's illness, and when sleep was indispensable but unobtainable by any resource tried by the doctors, a telegram was received by the Duke of Cambridge recommending the use of a hop pillow, which he insisted on being tried, and which proved successful. There is further embroidery as to the Queen's interest in this anonymous telegram. The incident thus related is wholly fictitious. The Duke of Cambridge was not at Sandringham, and there is no recollection of a "hop pillow" (a perfectly harmless but very ineffective device) being employed, and, if it were tried, it had absolutely no effect. It would not be worth while noticing this sort of *canard* but for the elaborate attempt, of which it is a typical example, to exalt silly old women's remedies at the expense of the resources of medical knowledge and skill.

"REPRESENTATIVES OF THE MEDICAL PROFESSION."

What are the representative bodies of the medical profession? is a question which appears sometimes to perplex lay officials who are anxious to do honour to medicine. Recently the Fishmongers' Company desired to extend their well-known hospitality in an official manner to the medical profession, and among their guests were Sir James Paget, Sir Spencer Wells, Sir William Savory, Sir Joseph Fayrer, Sir Dyce Duckworth, and Mr. Bryant (the President of the Royal College of Surgeons). These are representative men, but it may be pointed out without discourtesy that they do not represent all, or indeed some of the most important, medical bodies. In the absence of names representing the General Medical Council, the British Medical Association, the medical staff of the Local Government Board, and the

great body of municipal medical experts who have a recognised organisation in the Society of Medical Officers of Health, the representation of the many public duties of the medical profession must be incomplete. The General Medical Council has eminent public duties and important statutory powers conferred upon it for the benefit, primarily, of the public. The British Medical Association represents the whole body of the profession as no other body can, and it may be claimed for it that during the last quarter of a century, by the extension of its membership, and by the public importance of the work carried on, especially through its Parliamentary Bills Committee, it has risen to an importance in the State which entitles it to expect to be recognised on public and *quasi*-public occasions when it is sought to do honour to the medical profession as a whole. We are glad to note that the Lord Mayor of London recognises this, and that the President of the Council of the British Medical Association was among the invited guests at the Mansion House Banquet on Lord Mayor's Day.

DR. STEELE, OF GUY'S HOSPITAL.

We deeply regret to announce the death of Dr. John Charles Steele, M.D.Glas., L.R.C.S.Edin., the Medical Superintendent of Guy's Hospital, on November 6th, at the age of 71. The deceased gentleman, who took his L.R.C.S. diploma at Edinburgh in 1843, and the degree of M.D. at Glasgow in 1848, was the author of "Vital Statistics of Guy's Hospital from 1854 to 1861," an "Analysis of Patients Treated at Guy's Hospital from 1861 to 1868," of "Hospital Dietaries," &c., and was Howard Medallist of the Statistical Society for 1876 for his "Essay on the Mortality of Hospitals Past and Present." Dr. Steele was a most able, judicious, and public-spirited officer, and always active in good work. He was a useful member of our editorial staff, and a frequent writer, whose friendship we greatly valued, and whose loss we deplore.

PREPARING FOR CHOLERA.

A thinly attended meeting in connection with the Royal British Nurses' Association was held in the Mansion House to enable the special committee to have a conference with the Council of the Society of Medical Officers of Health on the subject of the nursing of cholera patients. Princess Christian was among those present, and the Lord Mayor said they were much indebted to Her Royal Highness for the interest she had shown in the movement. Dr. Thorne Thorne, representing the Local Government Board, detailed the preparations already made by the public authorities. He said that not only would it be necessary to supply hospital accommodation, but nurses, and over a hundred nurses of the Association had already come forward prepared to go anywhere or do anything required by the Association. Princess Christian moved a vote of thanks to the Association of Medical Officers of Health and other medical men for the interest evinced and the assistance rendered to the movement.

MISS COBBE AND LORD TENNYSON.

In the current number of the *Zoophilist*, Miss Cobbe, true to her calling, has a notice of Lord Tennyson, with the object of parading before the public his dreadful poem called "The Children's Hospital." When this was published it naturally gave fresh offence to the profession, and its cruel imputations seriously affected some of the most kind-hearted and benevolent of our brethren. It was explained away by his friends by the fact that Tennyson was over-wrought on having depicted to him some of the experiments made on animals by continental physiologists, and they declared that he bore no ill-feeling towards the medical profession generally, nor could he, seeing that he numbered amongst his friends some of the most eminent medical men in London, some of whom had openly expressed their opinion as to the value of experimentation. They have said that he was only describing a particular wretch whom his own fancy formed. In spite of the explanation which has been often given by his true friends and admirers, Miss Cobbe quotes some of his lines where the surgeon is said to have been "happier using the knife than in trying to save the limb," and declares that Tennyson describes the typical experimental surgeon, and then she goes on in her usual damnatory prophetic spirit, aided by that inner light which she boasts, to inform the profession what its future will be. She says: "Happily the vivisectors are excluded from the ranks of the immortals, and their names, if they do not perish, will go down to posterity covered with the infamy of Herophilus of Alexandria and of Majendie." All this rubbish is wisely left unread or unnoticed by the profession, but now that attention has been called to it, it is only worth quoting in order to exonerate those who, having had these insults put upon them for so long a time, have retorted (without imprecations) in no uncertain language.

DEATHS UNDER CHLOROFORM AND A.C.E. MIXTURE.

We have received from Mr. F. G. Gardner a report of the case of death under chloroform at the Tewkesbury Hospital. From this report it appears that C.B., a strong healthy-looking man, aged 25, was admitted to the Tewkesbury Hospital on October 28th for the purpose of having some of the tendons of the wrist freed from the scar of an old wound. On the following day he was taken to the operating room and Mr. Gardner prepared to administer chloroform, after examining the chest. "The patient was rather nervous, but became composed when reasoned with. The anæsthetic was given on folded lint, pinched up in the middle to form a cone. Before any of the drug was dropped thereon the dry lint was applied to his face to accustom him to its presence. He snatched it away, held his breath, and said he could not breathe. When he became quieter I again applied the lint with a few drops of chloroform shaken from a drop bottle, increasing the amount very gradually. He held his breath at intervals, shook his head and threw his limbs about, and made several remarks. Presently his breathing became deep and regular, and just as he seemed to be going under he struggled again, but only a little. I then began to use the A.C.E. mixture, giving about 20 drops, also from a drop bottle. I applied the lint containing this and the patient took several deep regular respirations. Suddenly the breathing ceased and the face became cyanosed. Artificial respiration was at once begun. The heart had shown no sign of failure and its sounds could be detected for some time after breathing ceased. Attempts at resuscitation were continued vigorously for an hour, at first with seeming success, for the face became a more natural colour, the lips became red, and he occasionally uttered a feeble inarticulate sound; unfortunately our efforts were in the end unsuccessful. In addition to artificial respiration, ether was given hypodermically, brandy by the rectum, friction was used to the elevated lower limbs, and hot water was applied to the præcordium. The patient appears to have possessed very little self-control, for at the time of the original injury it required five persons to hold him while a few sutures were inserted. The total amount of chloroform used—in addition to the few drops of A. C. E.—was 1½ drachm. It was supplied by Gale and Co., labelled 'Chloroform. Pur.,' and had been previously used, frequently and without mishap. The *post-mortem* examination was made twenty-two hours after death. *Rigor mortis* was very well marked. The cerebral sinuses and the veins of the meninges were congested. Internally there was a slight excess of clear fluid in the lateral ventricles, but no congestion anywhere. The heart was quite healthy; the left ventricle firmly contracted and empty; the right contained fluid blood, it was full but not distended. The lungs were healthy in structure—both engorged with blood, and nearly airless; the left collapsed; the right generally adherent to the chest wall. The liver and kidneys were quite healthy. The blood was everywhere fluid."—Dr. Dudley Bux-

ton has forwarded to us a report of a case of death under chloroform at University College Hospital. J. G., a master builder, aged 59, came up from Wales, and was admitted into Mr. Christopher Heath's wards for treatment of an epitheliomatous growth involving the jaw and inside of the cheek. Beyond being a spare man, his appearance presented nothing remarkable. As an operation was deemed necessary, chloroform was administered, as, from the nature of the case, no other anæsthetic was admissible. It was administered by the open method, being dropped upon lint held some distance from the face. No fear was expressed by the patient, who took the chloroform well. Upon complete anæsthesia being attained, the patient was wheeled into the operating theatre and placed upon the table. The chloroformist, whose attention had been directed to the respiration from the commencement of inhalation, then observed the breathing to be shallower, and at once had the tongue drawn out of the mouth, and commenced artificial respiration by Howard's method of following as much as possible the natural respiratory movements. The breathing became gradually worse and worse, and, as it was accompanied by stridor, laryngotomy was performed, and the tube sucked to evacuate blood or any foreign body, as for example, portions of the growth, if such had lodged in the air passages. The heart was felt to be beating, although feebly. The patient being partially inverted, and a vein having been wounded in the operation, a good deal of hæmorrhage occurred, but was completely controlled by plugging the laryngotomy wound with a Hahn's tube. Artificial respiration was maintained for a considerable time, and oxygen introduced into the lungs, but no recovery took place. The necropsy showed no marked cardiac lesion; the aortic valves were thickened, and the myocardium fairly healthy. There were old pleuritic adhesions on both sides, a cicatrix of former trouble at the right apex, and a small quantity of fluid blood in the air passages. The arteries were, for the man's age, fairly healthy; the blood was fluid, very few clots being present. The chloroform had been used for two other similar cases immediately before this death without any untoward symptoms appearing. A sample of it was at once sent to Professor Ramsay for analysis.

SALE OF POISONS TO MEDICAL MEN.

At the evening meeting of the Pharmaceutical Society on Wednesday, November 2nd, the subject of the sale of poisons was dealt with by Mr. Carteighe under a novel aspect. After briefly pointing out that it is the duty of authorised sellers of poisons under all circumstances to exercise the utmost scrupulous care, and not to limit their precautions to the mere observance of the conditions specifically imposed by law, he proceeded to examine the practice followed in the supply of poisonous articles to medical men. An order for poison from a medical man being usually regarded, for the purposes of the Act, as a sale by wholesale, and not requiring observance of the formalities imposed upon sales of poison to the public, the question was raised: To what extent in such cases are sellers of poison justified in departing from the safeguards applied in sales of poison to the public? Having regard to the object of the Act, Mr. Carteighe holds that actual knowledge of the purchaser should always be made indispensable, whether the order for poison be verbal or written, and that it is the duty of the pharmacist to refuse to supply poison, or any potent preparation, to an unknown medical man unless he is satisfied that the intending purchaser is what he represents himself to be. In supplying poisons to a medical man who is known, Mr. Carteighe considers that a written order, stating the quantity required, should always be insisted upon, bearing also the name and address of the applicant. This should be preserved by the vendor. The article supplied should bear the poison label, the name of the poison, with the name and address of the vendor, and some entry of the transaction should be made for future reference if that should become necessary. Mr. Carteighe would not limit these precautions to the supply of "statutory poisons," but thinks that due regard for the spirit of the Pharmacy Act should induce the pharmacist to extend them to all potent articles he has to deal with. As an Act of Parliament cannot be elastic and provide for all contingencies, he holds that the educated pharmacist's own judgment and knowledge of the special conditions under which poison is required form a greater safeguard for the public than any provision that can be made in an Act of Parliament.

PROSECUTIONS BY SANITARY AUTHORITIES.

It is to be wished that some general principles could be laid down by the Local Government Board for the guidance of sanitary authorities as to legal proceedings in regard to infectious diseases, and particularly under the Notification Act. At present it seems that very different views are held upon the degree of non-compliance with the law which calls for prosecution. A woman was lately summoned by the Eton Local Board for exposing infected clothing, and was fined five shillings. The offence, according to the report in the *Windsor and Eton Express*, consisted in her going out-of-doors in the clothing in which she had been in contact with her child, who was suffering from scarlet fever. The evidence seemed to show that after due warning she deliberately disobeyed the injunctions laid upon her, and there can be no question that the public safety may be, and is almost of necessity, endangered by such conduct. The point remains, however, that risks such as this are practically inevitable in almost every case treated at home among the working class; and if the precedent created by the Eton Board is generally followed, the indirect consequences are likely to be far-reaching. Another difficulty is, of course, the enforcement of notification on the part of the householder. It is apparently customary to take no notice of omission on his part if the case is duly notified by the doctor, but some boards take a different view. Where no doctor has been called in, clearly the householder notification ought to be enforced, but the ever-ready plea of ignorance thus becomes formidable; not merely ignorance of the law, though that is often raised, but ignorance of the nature of the illness. One of the London police magistrates lately expressed the opinion that no such plea ought to be allowed, but nevertheless felt himself bound, under the existing law, to dismiss a case because certain parents "did not know" that their children were suffering from scarlet fever. The children had continued their attendance at school during the illness, and infected many of their class mates. Before long there will probably be an opportunity of amending the Act in details which experience has shown to be desirable, but meanwhile one of those simple and practical memoranda which the Local Government Board know so well how to frame, would be a great boon to perplexed local authorities. Whitehall knows, and the Local Board does not, what has been done elsewhere in regard to each doubtful point that arises.

THE SALE OF POISONS.

The action taken by the Treasury in regard to the indiscriminate sale of secret medicines containing poison has had the good effect of preparing the way towards a more efficient administration of the Pharmacy Act. No one has ventured to dispute the construction of the statute involved in Mr. Lushington's decision that the provisions of the 17th Section of the Act must be complied with in every instance of the sale of poison. If the Pharmacy Act is, as it professes to be, intended for the safety of the public, no other construction of it is possible. We learn from the *Pharmaceutical Journal* that this view is being followed up in Canada, where a similar Act is in force. A penalty has been inflicted, not only for the sale of chlorodyne without a label, but also for the sale of another preparation containing so small an amount of morphine that the magistrate was at first disposed to accept the plea that it was not dangerous. Nevertheless, the proof

that this weaker preparation had caused the death of a child showed that such a plea could not be admitted in justification of the neglect to use a "poison" label. We may, therefore, congratulate ourselves that our efforts to secure a more rational observance of the law have been so far successful. It now rests with the chemists and druggists throughout the country to support our efforts in that direction. By so doing they will not only purge themselves of the reproach that they have for years past failed to comply with the law, but they will also secure for themselves at the same time the trade advantage necessarily attaching to a conscientious fulfilment of the duty imposed upon them. To that end they should strengthen the hands of the Council of the Pharmaceutical Society, whose duty it is as their representative to enforce observance of those provisions of the Pharmacy Act by which the sale of poisons is restricted to persons legally qualified for that duty. We are in possession of evidence that these provisions are still being very extensively disregarded in practice, with the additional aggravation that secret medicines bearing the "poison" label are now being sold by unregistered persons. Whatever may be said as to the enforcement of the seventeenth section being a duty appertaining especially to the State, there cannot be any question that the restriction of the sale of poison within its proper channels is the particular function of the Pharmaceutical Society, since the power of enforcing the Act in that respect is placed exclusively in its hands. While, from the public point of view, the medical profession expects that power to be exercised in the interests of public safety, members of the Pharmaceutical Society will naturally look for its exercise in favour of their material interests. Reasonable as this may be, provided that the Society's larger and higher public duty is efficiently fulfilled, it cannot at this juncture be overlooked that the Pharmaceutical Society's public duty in regard to the sale of poison will have to be performed with greater energy than has hitherto been manifested in the regulation of the trade in poisons.

THE MANCHESTER LIFE-TABLE.

DR. TATHAM'S latest achievement is worthy of his reputation as a scientific sanitarian. It is no less than the completion and publication of a life-table for Manchester, based upon the censuses of 1881 and 1891, and the mortality during the ten years 1881-90. Nothing could be better timed, and if the results indicate undue shortening of life among the citizens of the cotton metropolis, it is all the more imperative that the facts should be known and studied without delay. For this purpose a life-table is indispensable. It has long been recognised that the death-rate of Manchester is high, notwithstanding the immigration of healthy young lives from the country, which is a well-known factor in lowering the apparent mortality of large towns. It has now, for the first time, become possible to trace in detail the incidence of death and the expectation of life for each age and each sex, and to learn at what points and to what extent the conditions in Manchester compare unfavourably with those of the country at large. At all ages under 5 years, and again at all ages over 25 years, the mortality in Manchester is greater than that shown by the English life-table of 1871-80. Owing in all probability to the fact of immigration, the two are about equal between 5 and 15 years, and the difference is in favour of Manchester from 15 to 25 years of age. The expectation of life at every age is less in Manchester; among males it is at birth 34.7 instead of 41.35; at 5 years, 45.6 instead of 50.9; at 25 years, 30.7 instead of 35.7; and at 45 years, 17.8 instead of 22.1. It may safely be anticipated that the English life-table for 1881-90 will compare even more favourably than that of 1871-80 with Dr. Tatham's statistics, allowing, of course, due weight to the patent fact that the death-rate at ages above 35 in males and above 45 in females is steadily increasing. Dr. Tatham disposes effectually of the consolatory but untenable hypothesis that the high mortality among children simply means the elimination of the unsound lives. The injurious influences maim as well as kill. Diminished power of living, he reminds us, is accompanied by diminished power of work in those who survive, and although the facts may be represented as showing that while the Manchester people lose more than half of their old age but only 13 per cent. of their maturity and only 6 per cent. of their youth, yet the conclusion is that "in Manchester men grow old sooner than in the country as a whole." What many health officers have long thought of doing Dr. Tatham has done, and done admirably. Now that such an excellent model is available we shall hope to have life-tables for the other large towns of England.

PASTEURISM IN THE FAR EAST.

DR. CALMETTE, of the Pasteur Institute at Saigon, has issued the report of his second year of work from April 1891 to May 1892. During that period 48 bitten persons were treated, of whom 24 were Europeans, 16 Annamites, 4 Malays, and 4 Chinese. In 16 of the cases rabies in the animal was proved by experiment, and in all the other cases confirmation of the virulence of the bites received was obtained before the sufferers were received patients. Of the 48 treated, 16 appeared on the 5th day after being bitten, 4 from the 10th to the 20th, 6 from the 20th to the 30th, and 1 on the 40th. In spite of the long intervals before treatment, only one person died. The treatment pursued was thoroughly in accordance with the Pasteur "intensive" method; the patient receiving each morning a hypodermic injection, in the right or left side alternately, of 1, 2, or 3 cubic centimetres of emulsion of spinal cord, in such a way that each series, of weakened and strong cord emulsion, was repeated three times. The bulk of the report is taken up with details of cases, and proof of the presence of rabies and hydrophobia throughout the Malay Peninsula, in spite of native denial. Dr. Calmette demands protective measures as the only chance of prevention, and points to the example of Australia, where strict quarantine has succeeded in preventing hydrophobia. He declares that all that is necessary throughout Tonquin is compulsory muzzling. He cites an instance, Singapore, where in 1891 many cases of hydrophobia occurred. All the stray dogs and those without masters were killed, and only those properly registered in the municipal books were allowed to go about, and then only when wearing a muzzle of satisfactory pattern. In a few months hydrophobia and rabies ceased to exist in Singapore. Dr. Calmette, who has also charge of the Vaccine Institute, states "that small-pox, which formerly made such tremendous ravages, has in a period of twelve years almost entirely disappeared, by rigid and compulsory vaccination." A correspondent who has recently passed through Saigon, writes: "A visit to the Pasteur Vaccine Institute there will reward passing travellers; one admires the public spirit of the nation displayed not only by the introduction of curative measures, as evidenced by the beautiful hospitals the French have erected, but also by the practical scientific institutes they have founded."

MEDICAL AFFAIRS IN NEW ZEALAND.

WE have received a very interesting and satisfactory letter from Mr. J. H. Murray Aynsley, M.R.C.S., L.R.C.P.Lond., Honorary Secretary of the Canterbury Branch of the New Zealand Medical Association, referring to our comments of July 2nd. Our correspondent states that the Society is satisfied that Dr. De Renzi is free from blame, and that the attendance of the reporter and the publication of the case were not due to any directions of his, direct or indirect, or done with his cognisance. That settles the matter, and in favour of Dr. De Renzi as against the complainants who wrote to us, and the intrinsic evidence which on the face of it it seemed to bear. In further reference to the general question of the practice of indirect advertisement by the publication of incidents in the practice or cases of local

medical men, and other well-known methods of direct or indirect medical advertisement, Dr. Aynsley states that the Society is wholly opposed to any such proceedings, and has communicated its strong objections, both to the profession and to the editors of papers, that the latter have for the most part declined to accept the protest as valid, and that some of the medical men equally pass it over. As to the latter, it cannot be doubted not only that they are a poor minority, but also one which will no doubt continuously lessen. Dr. Aynsley mentions, however, with reference to our article of July 2nd, and the management of the hospital and the act of one of its surgeons, that as to the advertisement in question its author, who was when it first appeared a member, was given the choice of withdrawing the advertisement or of leaving the Society; he chose the latter course. Medical affairs in New Zealand, our correspondent adds, have a much brighter side, which has not, he considers, been adequately represented in the columns of the British Medical Journal, but of which he undertakes to give us some glimpses. It would be strange indeed if, in a new and great colony such as this, already prosperously embarked on a course which must lead to a high degree of social and industrial development, the medical profession did not eagerly keep pace with the advancing science and high ethical code of the profession in the European continent. That there are difficulties inherent in the partial organisation and irregularity of development of a young community, we recognise without astonishment or blame. It is, we think, well understood by our colonial colleagues that, in applying to any particular series of ethical actions or of scientific or social discussion the same tests which we should apply in the case of older communities, there is an implied compliment, rather than an invidiously critical spirit. We desire to strengthen the hands of those who wish to see colonial communities of professional men maintain a high standard of mutual courtesy, reticent self-respect, dignified avoidance of vulgar trading and advertisement, and the gross trumpeting of alleged self-merit. Indeed, it appears to us that in communities where the means of honourable livelihood are attainable with less struggle, weary waiting, and embittering anxieties than in some of the crowded cities of the Old World, there should be a wider and stronger code of medical ethics, less strife or jealousy, and a cheerful pressing forward to a bright and brotherly future for all, which might give to us at home at once a lesson and a hope. So may it be.

THE DEGREE QUESTION IN AMERICA.

The following letter, which is published by an American contemporary, is said to have been sent to the Secretary of the Medical Faculty of the St. Louis College of Pharmacy, St. Louis, Mo., U.S.A.:

London, December 28th, 1891.

Dear Sir,—I desire much to have the Degree of Doctor of Medicine at your University, and, therefore, take the liberty of asking you if on the strength of my medical qualifications and age (50) I could graduate *in absentiâ*, and under what conditions. I, many years ago, graduated at the University of Rostock, Germany, as Doctor of Philosophy, and studied medicine at Scottish universities, and have received *full curriculum*. I have also written an original thesis and particulars of my attendance, and shall be pleased to send you my original class tickets, certificates, etc., if required. I may mention that I require the M.D. only as a medical physicist. I should be much obliged if you would kindly let me have an early answer.—I am, yours faithfully, ——————.

There is a "holy simplicity" about this request for which one is hardly prepared even in a Doctor of Philosophy of the guileless age of 50; nor do we understand why a "medical physicist" should want to hide the light of such a title under the bushel of a mere "Doctor of Medicine"—a designation which might easily lead to his being confounded with the vulgar herd of legally-qualified practitioners. A "medical physicist" should have a soul above parchment and sheepskin. Another candidate for academic honours writes from the Far West to the Ohio Medical College as follows:

Mr. Secretary, Dear Sir

I Am in Want of a Little Information i Want To no if There is Any Way for me To Get a Diploma To Practice Medicine By Attending Only One Term I Will Say That I amas Competent to Practice Medicine Now as More Than One Half of the Doctors & I Have Prescribed More or Less for 10 years as I Have Bin in The Drug Business all of My Life I am now 30 years old, and I Would Like To Graduate so I Could Go Down in The Nation and Practice as Thare is Money in it Down Thare You Let me Hear from you & Let me Know Just what it Will Cost Me & What Time it Will Take & When Your Term Commences & What Books I Will Want I Have a Frst Grad Pharmsutial Certificate in The State & Have Had for 5 Years Hoping To Hear from You in Details by Early Mail I Remaine Very Truly Your

P S if You Cant Do Any Thing for Me Please Let No What College Can if you Please & oblige

There may peradventure be persons in the "drug business" even in this fossilised country who might claim a degree in medicine on the ground of having "prescribed more or less" for years; unlike this holder of a "Frst Grad Pharmsutial Certificate," however, they are usually content to allow their virtues to be modestly hidden behind the counter. For the sake of those who seek counsel of the oracle just quoted we earnestly hope that he weighs powders more accurately than he spells.

MEDICAL DEPUTIES AND THE GUILLOTINE.

M. Galli recently supplied the *Figaro* with an analysis of the Convention which assembled in Paris just one century since and proclaimed the Republic. It contained but 24 medical men, including Marat, who had for several years given up practice. At the dissolution of the Convention 10 returned to practice, 2 had died, 2 (Levasseur and Duhem) served Napoleon as army surgeons, and 1 was guillotined (Salles) from the department of the Meurthe. Of the remainder 1 became a senator, 1 a deputy in another chamber, 2 were made magistrates, 2 court functionaries, 1 (Dr. Bergoëng) was raised to the dignity of Lord High Chancellor to Murat, King of Naples. He returned in 1815 not only to France but also to practice. The chief point of interest to the amateur historian is the low mortality (that is guillotine mortality) of the medical deputies. Of the 161 lawyers 19 or 11.8 per cent., mounted the scaffold. The journalists were but 22, including Marat, in other words 1 less than the 23 doctors, excluding that notorious personage. Yet 7 were guillotined and 1 poisoned himself after sentence, whilst 1 (Marat) was assassinated. Thus 40.9 per cent. of the journalists died by revolutionary methods. Of the 23 *bonâ fide* doctors but 1 came under the "little window" or "national razor," a mortality of 4.3 per cent. Even including Marat, the 2 victims in 23 only make 8.3 per cent. But a journalist is always in danger in times of civic strife, whilst a doctor is far less likely to excite democratic hostility.

SCOTLAND.

Applications for the Chair of Surgery in St. Mungo's College, Glasgow, rendered vacant by the appointment of Dr. Henry E. Clark to that of Systematic Surgery, will be received up to December 1st.

Dr. David Newman has been appointed to succeed Dr. Macewen in the wards of the Royal Infirmary, Glasgow, and Dr. G. S. Middleton succeeds Dr. Samson Gemmell, transferred to the Western Infirmary.

TYPHUS FEVER AT LEITH.

At least one further case of typhus fever has occurred at Leith since the date of our last report, bringing the total number up to 16 or 20. How many more cases unreported exist is not certain.

APPOINTMENT OF ASSISTANT PROFESSORS AT ABERDEEN.

The University Court not being in a position to appoint assistants till the new ordinances are received, the various professors submitted the following names, which the Senatus

approved of:—George Dean, A.M., M.B., C.M., Assistant to the Professor of Pathology; Alexander MacGregor, M.D., Practice of Medicine; R. Gordon McKerrow, A.M., M.B., C.M., Midwifery; J. Weemys Grant, M.B., C.M., Anatomy.

QUATERCENTENARY OF ABERDEEN UNIVERSITY.

At a conference which was presided over by Sir William Geddes, between the members of Senatus, University Court, and the magistrates, on the subject of the celebration of the four hundredth anniversary of the University of Aberdeen. After discussion, it was resolved that the celebration should take place in the year 1895, by which period it was hoped the New University Buildings would nearly be completed. The date of foundation of the University was February 10th, 1494-5, by Papal reckoning, so that the anniversary falls in 1895.

EDINBURGH UNIVERSITY DARWINIAN SOCIETY.

The opening address of this Society was delivered on November 1st by Professor Bayley Balfour, on "Some Botanical Problems," in which he spoke of some of the evils of despotism in science, specially referring to Linnæus's doctrine of the constancy of species which had retarded biological progress. He further alluded to our present dangers, notably the publication of immature work, perpetual destructive criticism, and too slight reference to merits in fair and honest work. He next discussed Weismann's views on heredity and environment as regards plants, and stated that the arguments good in the case of higher animals were not so in the case of higher plants. Further, the individualism characteristic of the higher animals, and for which death is the natural penalty, is not found in higher plants, and therefore there appears no reason why a tree, excluding accidents, should not live for ever. The habit of trees is essentially communal. Weismann's germ-plasm, his discussion on the transmission of character, and Nägeli's theory of idioplasm were referred to in turn.

GLASGOW WORKMEN'S DWELLINGS.

Some time ago, following on the agitation in the public mind aroused by Dr. J. B. Russell's exposures of the conditions in which the poor live, a company was formed in Glasgow to provide suitable dwellings for working people at a moderate rate. Thus was formed the Glasgow Workmen's Dwellings Company (Limited). Shares representing a capital of £40,000 have been taken up, and the dividend on the capital is limited to 5 per cent. About £8,000 has been expended in erecting in one of the oldest and most dense parts of Glasgow a block of model dwellings, which is divided into fifty-seven separate houses, seventeen of one room and forty of two rooms. The capacity of the latter is 1,800 cubic feet, and the single-roomed houses have 1,200 cubic feet of space. The apartments open from balconies overlooking a court 60 feet wide, and open at both ends. Washing houses are situated on the flat roof of the block, which also affords amply drying ground. The sanitary arrangements of the building have been most carefully attended to. The average yearly rental of a one-roomed house is £5 0s. 9d., while that for two rooms is £6 14s. 4d., the rents including water rates, grates and gasfitting being also provided, while some of the houses are provided with gasmeters on the "penny-in-the-slot" principle. The buildings are already fully occupied, and could have been let twice over. In the same building the University Settlement Association has its local habitation; and, doubtless, with its afternoon drawing-room teas, its lectures, its club for men and club for girls, and its library, it will contribute not a little to the happiness and mayhap culture of the model dwellers and their neighbours.

GLASGOW PHILOSOPHICAL SOCIETY.

The new session of the Glasgow Philosophical Society was opened on November 2nd by Professor McKendrick, the President, who made the occasion one of exceptional interest and pleasure to the Society by holding the meeting in his class room in the University, and by drawing on the resources of his laboratory, which is remarkably rich in apparatus for the purposes of experimental demonstration. He chose for his subject "Recent Notions on the Action of a Nerve," and succeeded in demonstrating to a large audience the numerous delicate experiments relating to conduction and electrical variation, etc., in a nerve, for which this subject affords such ample room. In these days, when ignorant criticism on physiological work and methods is so prominently before the public, the effect of such demonstrations on an audience composed largely of those not directly interested in, or widely acquainted with, biological work, cannot be overestimated especially when given by an authority such as Professor McKendrick. It is not by any means the first time that Dr. McKendrick, at the expenditure of no inconsiderable trouble, has made the resources of his laboratory available to a wider circle than usual, and his example might very profitably be followed by others in the various departments of experimental science.

SMALL-POX IN GLASGOW.

Small-pox seems to have obtained, in a small way, a footing in Glasgow such as it has not had for very many years. The disease was imported from Bilbao by a sailor. Before the disease was recognised he had planted the infection among the lodging-house class, among whom a succession of cases has since occurred—all mild, owing to previous effective vaccination. One case is singularly illustrative of the way in which such a disease may gain a footing. Some weeks ago, when the medical officers thought they had succeeded in laying summary hands on the disease, one of the inspectors found what seemed a case of small-pox in an unsuspected quarter of the city. He telephoned for Dr. Chalmers, who promptly proceeded to join the inspector. Meantime the patient, who did not believe he had small-pox, when the inspector left his house to telephone, got up and, with his wife, proceeded to the rooms of a doctor in the neighbourhood. Here he was speedily found sitting among a group of people waiting the doctor's arrival. The case was a mild one, but was believed to be small-pox, though the infection could not at first be traced; and was removed to Belvidere Hospital. After much vain questioning to find a clue to the infection, the patient remarked that, though he did not suppose it had anything to do with his illness, he had been feeling unwell about thirteen days before, and had visited a public dispensary, where he met a man whose hands were affected with an eruption like his. This man, whom he described, proved to be a patient then in Belvidere Hospital with small-pox. The cases of small-pox in the city were 8 a fortnight ago, and now they are 24.

IRELAND.

Hospital Saturday was held in Cork on November 5th, and a sum of £349 obtained from the street collections. This amount is, however, independent of collections from business firms and private donations.

THE ULSTER HOSPITAL FOR CHILDREN AND WOMEN.

This institution has been doing good work since its removal to new premises in Mountpottinger. All departments of the hospital have been very well maintained, and the increased attendance at the extern department shows that a large demand exists for hospital treatment in its present neighbourhood. The cost of obtaining and fitting up the new premises has been large, and a debt still remains undischarged amounting to about £1,400. To remove this liability it has been arranged to hold a bazaar in the Ulster Hall upon December 12th, 13th, and 14th.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

The annual dinner of the staff and past and present students took place in the Shelbourne Hotel on November 5th. The chair was taken by Mr. Wm. Thomson, one of the surgeons, in the unavoidable absence of the Lord Mayor. About fifty sat down. Amongst those present were Sir John Banks, K.C.B.; Dr. Walter Smith, President of the College of Physicians; Mr. Edward Hamilton, President of the College of Surgeons; Dr. Gordon; and Dr. Kidd, President of the Royal Academy of Medicine. Among the speakers were the Chairman, the Presidents of the Colleges, Dr. C. J. Nixon, Mr. Thornley Stoker, Sir John Banks, Professor Cunningham, Mr. T. Myles, Dr. Stewart Woodhouse, Rev. Dr. Maguire, and Mr. Lentaigne.

SUICIDE OF A YOUNG DOCTOR.

On Wednesday morning, November 2nd, Mr. George G. Fannin, M.B., who was a resident pupil in Steevens's Hospital, was found in his bed quite dead, and an investigation showed that he had committed suicide by dividing his femoral artery with a razor. Mr. Fannin was a young man of great promise, having taken a high position in Trinity College. He was reading for the army medical examination, and it is believed that he had overworked himself. On the day before he paid all his bills, and wrote a letter to a friend, with whom he spent the evening, telling him of his intention. Mr. Fannin came from Natal, and had pursued his undergraduate course in the University of Dublin.

ULSTER MEDICAL SOCIETY.

The opening meeting of the session was held in the Museum, Belfast, on November 2nd, when there was a large attendance of members. The outgoing President, Dr. O'Neill, introduced his successor, Dr. Whitaker, Medical Superintendent Officer of Health for Belfast, who took the chair, and delivered an able and eloquent address upon "The Progress of Sanitary Science." A cordial vote of thanks was passed to the President for his address, on the motion of Dr. McConnell, seconded by Dr. Whitla; and suitably acknowledged. A similar vote was passed to Dr. O'Neill for his services during the past year. The remainder of the evening was spent in a discussion upon the Code of Ethical Rules, which had been revised and amended by the Council of the Society and sent down to the members for consideration and approval. Considerable discussion took place regarding what constitutes "advertising," which one of the rules strongly condemns in general terms, and some difference of opinion was found to exist as to whether it was becoming for medical men to advertise a change of address or absence on holiday. One member pointed out that the highest medical authority condemned any notification of change of address except by private letter or lithographed circular. Ultimately it was thought better not to attempt any precise definition of "advertising," but to allow each case as it arose to be considered on its merits by the Council as Ethical Committee of the Society. The annual dinner of the Society will take place on the evening of November 17th, when it is expected that there will be a very numerous gathering.

CHOLERA PRECAUTIONS IN IRELAND.

The Local Government Board for Ireland have issued an appeal to all sanitary bodies in the country, urging them to utilise the coming winter months for perfecting, as far as possible, the sanitary conditions of their districts. The appeal is based on the assumption that, in accordance with past experience, the spring and summer of 1893 will witness a more widespread diffusion of cholera on the Continent than that of the past few months, and that the almost hourly communication between our ports and those of Western Europe will greatly increase the probability of importation of the disease into the United Kingdom. Despite therefore the watchfulness of the ports, the inland districts should be prepared for cases of cholera, and important matters of water supply, filth nuisances, overcrowding, and hospital provision should engage their serious attention. The circular of the Board deals at some length with the question of quarantine, treating it as impracticable in the case of our islands, placed as we are in such a position of isolation, and depending as we do so largely on the countries against which the quarantine would be levelled. The College of Physicians have issued a memorandum very similar to that of the London College, but leaving out the castor-oil and coto bark (substituting carbolic acid for corrosive sublimate), and giving the patient the choice of an alkaline or an acid treatment of the preliminary diarrhœa as he best pleases. The comparison of the two memoranda of the rival Colleges is causing great merriment—chiefly at the expense, however, of the London College.

Italian Medical Congress.—The fifth congress of the Italian Society of Medicine was held in Rome on October 26th and the three following days, under the presidency of Professor Guido Baccelli. The proceedings were opened by an inaugural address from the President, who, after congratulating the medical profession in Italy on the fact that the next International Medical Congress was to be held in their midst, said the question at present most in debate was the nature of infective diseases and the means of combating them. While more or less progress had been made in our knowledge of some of these, the posology of the infective material had yet to be determined with regard to all of them. Clinical observation and laboratory experiments must go hand in hand. Between a certain remedy and a scientific conquest suffering humanity gives the preference to the former, and medical men must always remember that the object of their researches is to be of practical use to their fellow men. *Nisi utile est quod facimus stulta est gloria.* Among the subjects discussed and the papers read, may be mentioned the following: Aërotherapeutics, by C. Forlanini; the Therapeutic Value of Transfusions of Blood, Homogeneous and Heterogeneous, by G. Rummo and F. De Grazia; Focal Changes in the Cerebellum and Curative Measures, by F. Vizioli and F. Bianchi; the Bacteriological Examination of the Blood in Clinical Practice, by Patella; Leucocytosis in Relation to the Temperature of the Body, by Rovighi; etc. We hope to publish abstracts of the more important papers in the Epitome.

Islington Medical Society.—The inaugural meeting of this Society was held on November 27th. The Honorary Secretary (Mr. H. F. Stokes) having read the minutes of the previous meeting, and having made the usual financial statement, Mr. Lockwood, of St. Bartholomew's Hospital, read a paper on the "Radical Cure of Hernia, the Selection of Suitable Cases, and the Results of the Operation." He considered no operation ought to be called a radical cure unless it enabled the patient to dispense with a truss. By open methods of operation and asepsis this could now be done in suitable cases. The operations for the cure of inguinal and femoral herniæ were described; each case was to be taken on its merits, and the operation modified to suit the circumstances of the case. It was most important to avoid interference with the scrotum, and after obliteration of the sac the inguinal canal in one case, and the femoral canal in the other, were secured with a series of buried silk sutures, which were deeply introduced with powerful blunt-pointed needles. Radical cure was called for after kelotomy. To obtain good results a proper selection of cases was imperative. The extremes of life were unfavourable; in children under 7 the tissues were delicate and difficult to operate upon satisfactorily. Finally, the recognition of the fact that in many cases of acquired hernia the local condition was only part of the disease was of the highest importance; there was a class of cases in which the tissues were generally deteriorated, with prolapse of the mesentery, of the colon, of the transverse mesocolon, and kidneys.

PARLIAMENTARY BILLS COMMITTEE.

A meeting of the Parliamentary Bills Committee was held on Wednesday, October 6th, at 5 p.m., Mr. Ernest Hart in the chair. The following gentlemen were present:—

Mr. S. H. Agar, Henley-in-Arden.
Dr. D. B. Balding, Royston.
Mr. J. Wickham Barnes, London.
Dr. Robert Barnes, Lyss.
Dr. A. G. Bateman, London.
Dr. T. Bridgwater, Harrow-on-the-Hill.
Dr. J. S. Cameron, Leeds.
Dr. G. W. Crowe, Worcester.
Mr. W. B. Davies, Llandrindod Wells.
Dr. P. M. Deas, Exeter.
Dr. Walter Dickson, Upper Norwood.
Dr. R. Esler, London.
Mr. E. H. Galton, London.
Dr. Bruce Goff, Bothwell.
Dr. Ogilvie Grant, Inverness.
Mr. J. H. Hemming, Kimbolton.
Dr. Holman, London.
Dr. D. Nicolson, Wokingham.
Mr. C. H. W. Parkinson, Wimborne Minster.
Dr. G. H. Philipson (*President Elect*), Newcastle.
Dr. George Reid, Stafford.
Mr. W. D. Spanton, Hanley.
Dr. A. R. Urquhart, Perth.
Mr. F. Wallace, London.

Letters of apology for non-attendance were read from Dr. Hugh Ker, Dr. E. M. Cooke, Dr. James Ritchie, Dr. W. G. Lowe, Dr. A. J. Harrison, Mr. Prankerd, and Dr. Rentoul.

The minutes of the last meeting were read and confirmed.

Mr. Ernest Hart vacated the chair.

The Committee proceed to Elect its Chairman for the Year.

Dr. Philipson proposed that Mr. Ernest Hart be re-appointed to the chair, which he had filled for so many years with ever-increasing honour and public usefulness.

Dr. Bridgwater said he was very happy to second the motion: all fully appreciated Mr. Ernest Hart's unwearying and invaluable services.

The resolution was carried by acclamation.

Mr. Ernest Hart, on resuming the chair, said the Committee had a very heavy year's work before them. He did not know, looking back during the last twenty years, when the work had been more onerous and so important to the Association and the public as it had been during the last year. It had involved extensive correspondence, the drafting of a mass of documents, and the consideration of many questions of large import and great delicacy. The programme which he had now to lay before the Committee was again extensive. It was uncertain how much of it could be carried into effect in the present state of public business. At any rate, he hoped the Committee would be able to further the matters which he would bring under their consideration. They could not always expect to complete work of this large character in the same year in which it was undertaken. Mr. Ernest Hart said that there were some further names of gentlemen whom he thought they would consider it desirable to associate with their work, and which had been already before the Council, and were now referred for their approval. There were the medical members of Parliament, who should, he suggested, be considered *ex-officio* members, who might be invited to their meetings and consulted on such parliamentary matters as might arise. There were two or three who were not members of the British Medical Association; but that would not lessen their usefulness to the Committee as being able to advise and assist its work in Parliament.

Dr. Balding said he begged to propose that Dr. Charles Gross, of Westbourne Grove, be added to the list of persons it was proposed to add on the Parliamentary Bills Committee.

Mr. Wickham Barnes seconded Dr. Gross's nomination.

Retirement of Sir Walter Foster.

Mr. Hart said it was with regret that he had to announce to the meeting that Sir Walter Foster, being now a member of the present Government, was, according to the usual custom, desirous of retiring from the Committee.

Dr. Philipson proposed, and Dr. Crowe seconded, the following resolution: "That Sir Walter Foster's retirement be accepted with regret, with thanks for his past services."

Irish Dispensary Medical Officers.

The Chairman said that further progress had not been considerable. A conference had been held by Mr. Thomson, who represents the Committee in Dublin, with the members of the Irish Medical Association and the Colleges of Surgeons and Physicians, and progress had been made towards drafting a Bill which would touch the whole of the grievances. Meantime an official communication was unsuccessfully addressed to Mr. Morley, asking him to receive a deputation, urgent Government business, likely to occupy Parliament, being pleaded as an excuse. After due explanation, however, he hoped Mr. Morley would be induced to look more completely into the matter.

Dr. Esler said that he had received a communication from a leading member of the Irish Poor-law Officers' Committee, which stated that they had been in communication with the Irish members of Parliament, and forty, who had answered, had promised to support a Bill. The letter expressed the great gratitude of the Irish members of the profession for the trouble which Mr. Ernest Hart had taken. He was sure it was a very good missionary work.

Army Medical Officers.

The Chairman said that to facilitate the progress of the work of the Committee he had printed in the British Medical Journal a draft memorandum on further desiderata to be submitted to the Secretary of State for War, with a request that army medical officers should send in suggestions and criticisms. He now laid the revised memorandum before the Committee, and there had been, on the whole, very little to be added to it.

Dr. Ogilvie Grant said he hoped that the Committee would get the cumbersome title Brigade-Surgeon-Lieutenant-Colonel abolished.

Dr. Bridgwater proposed the following resolution, which was passed:

That this Committee adopt the memorandum drawn by the Chairman of desiderata for the army medical services to be submitted to the Secretary of State for War, and approve of the taking of any further steps which may be deemed useful to obtain due consideration for that memorandum.

Medical Officers of Prisons.

The Chairman laid before the Committee a memorandum relating to the medical officers of prisons, which had also been printed in the Journal, for preliminary discussion.

Dr. Philipson (Newcastle) moved:

That this memorandum be now brought to the notice of Mr. Asquith and recommended to his consideration, and that any steps necessary to obtain due consideration of the memorandum be taken.

Dr. Nicolson seconded the resolution, and said that the recommendations made in the report should be vigorously brought before the notice of the Home Office with a view of getting something done in the way of improving the position of prison surgeons. It was quite capable of improvement as he knew from experience.

The Lunacy Acts Amendment Bill.

This Bill stands, it was stated, generally in the same position as last year. A report of the Lunacy Subcommittee was brought to the notice of the late Lord Chancellor, who did not see his way to amend an Act which he himself so recently framed, but received the suggestions made very favourably. Mr. Ernest Hart said he proposed to bring the matter under the notice of Lord Herschell, the present Lord Chancellor, who had assisted the Committee on other occasions, and would, no doubt, do all he could in this matter as far as other business would allow.

The memorandum submitted was approved.

Sale of Poisons and Proprietary Medicines: Patent Medicines now Labelled "Poison."

The Chairman said that the Pharmaceutical Society were not at one time of opinion that it was to the interest of the chemist and druggist that proceedings should be taken against people selling poisons and proprietary medicines containing poison but not labelled poison. He had, however, made various communications on the subject as Chairman of that Committee which had produced the desired result, and the Council of the Society had recently decided that the law should be put in force so far as they were concerned. As one successful result of the prosecution instituted in consequence of his report to the solicitors to the

reasury and the President of the Pharmaceutical Society he had the satisfaction of laying before the Committee specimens of Towle's chlorodyne, Freeman's chlorodyne, Dr. Collis Browne's chlorodyne, and Mrs. Winslow's soothing syrup, which were now, as they saw, all labelled "Poison." Mrs. Winslow's soothing syrup had for many years escaped the poison label which he had now had the satisfaction of enforcing on it. Mothers would in future be aware of its potency, as it was prominently labelled "Poison" in red letters. Another of these medicines, "Powell's balsam of aniseed," which was very extensively advertised, was now labelled "Poison." There was another, Kay's compound essence of linseed, trade mark, linseed compound, that used to have a little notice saying that it was poison in overdose, and so far was a sign, but it was now, as they saw, labelled with the proper safeguard. Mr. Ernest Hart proposed now further to communicate with the Chairman of the Pharmaceutical Society and the Public Prosecutor until he had succeeded in enforcing that every proprietary medicine containing a scheduled poison should be labelled "Poison." In a number of cases the proprietors of these medicines, or agents illegally selling them unlabelled and through grocers, when summoned, at once sent the penalty to the solicitor of the Society, and paid up, and so escaped publication. He did not know that this was at all in the public interest. The legal advisers of the Pharmaceutical Society had, he believed, advised the Council that to publish such cases where the money was paid was for some technical reason a libel. He (Mr. Ernest Hart) had, however, some doubts as to the propriety of the course pursued, and with their approval would take legal advice on that point, and should communicate further with the Council of the Pharmaceutical Society with a view to giving due publicity to such convictions.

The statement was approved, and thanks were expressed by Dr. Bridgwater, on behalf of the Committee, for the valuable results of the course taken by the Chairman.

Intimidation of Tenants.

The Chairman called attention to the article in the British Medical Journal of October 15th, 1892. The sanitary authorities of some districts had issued notices requesting that they should be informed of any sanitary defects in dwelling houses. On the other hand, some of the landlords had sent notices to the tenants stating that if any complaint was made as to the sanitary state of their houses they would be immediately turned out. Mr. Hart obtained authority for a draft Bill to be drawn by Mr. Vesey Fitzgerald on the lines set out. He stated that he was in communication with the Mansion House Council on the Dwellings of the Poor on the subject, and had been promised their co-operation.

Mortality of Factory Children.

The next subject on the agenda was the subject of excessive infant mortality of infants of women employed in factories. A paper was read on the subject by Dr. G. Reid, County Medical Officer for Stafford, at the Nottingham meeting, in which a good deal of information was presented, and as to which the Public Health Section had expressed that the Parliamentary Bills Committee would extend the inquiry and carry the matter further. Steps had already been taken by him, the Chairman said, to obtain a considerable mass of information through the kindness of medical officers. Among other things he had issued schedules, of which he laid copies on the table, to a selected body of medical officers of health. Dr. Reid had kindly undertaken, when the tabulation was completed, which Mr. Hart had already put in hand, to prepare a draft report, and he thought the subject could not be in better hands.

Dr. Reid, who was present by invitation, said his attention was called to the injurious influence on the lives of infants of the employment of married women at work which took them away from home during the day. He found that an excessive rate was recorded in the north of Staffordshire as compared with many artisan towns which corresponded in all respects as regards sanitary conditions, but differed in respect of the kind of work carried on. In towns where the nature of the work was such as to employ married women, the infant mortality was very excessive, whereas in similar towns, where the work differed and where women were no employed, the mortality was comparatively low. This observation had been verified by ten years' statistics, embracing a population of about 500,000, and it was upon this that his paper at the annual meeting of the British Medical Association at Nottingham was read, which led to the resolution which Mr. Hart had so promptly and effectively acted upon.

It was moved and carried that the Committee highly approved of the steps so promptly and actively taken and requested Dr. Reid to co-operate with the Chairman in preparing a report on this important subject.

The Case of Dr. Walters.

Mr. Ernest Hart said he would now ask Dr. Balding to bring to the notice of the Committee the resolution passed at the annual meeting at Nottingham relating to the case of Dr. Walters.

Dr. Balding (Chairman of the Poor-law Medical Officers' Association) said that the case was brought under the notice of the British Medical Association by special permission at its last meeting at Nottingham, when it was referred by resolution to the Parliamentary Bills Committee. He was afraid that since that time the aspect of the case had been somewhat altered, for he apprehended that if the Committee applied to the present Government for a reconsideration of the case, they were not at all likely to get it. It was a very serious matter indeed; for the most trivial fault this medical officer was severely censured by the Local Government Board. The fault Dr. Walters appeared to have committed in this instance was his refusal to attend a pauper patient on application without an order, and for that the guardians of the union suspended him. In answer to the application Dr. Walters told the messenger that the mother could give the child a dose of castor-oil if necessary. This was construed by the Local Government Board into prescribing medicines without knowing what the case was, and for that Dr. Walters was severely censured, which was no trivial matter when that severe censure was published in all the local papers. Dr. Balding said how the Local Government Board could pass such a censure for the most trivial offence was inexplicable. While the Local Government Board were considering the matter, it turned out that these people had no business whatever to apply for medical aid from the Poor-law medical officer, as they had a considerable sum in the savings bank, and showed receipt of £100 within the last twelve months. Dr. Walters had been simply hounded to death by the most unjust suspicions of the guardians. Was it not possible for the British Medical Association to raise its voice in protest and endeavour to do something to stop the passing of such severe censures?

It was afterwards resolved that the consideration of the case be adjourned until the next meeting of the Committee, when the subject could be put first on the agenda.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

South-Eastern Branch: East Sussex District.—A meeting of the above District will be held at the Queen's Hotel, Eastbourne, on Tuesday, November 22nd. Dr. MacQueen will preside. Meeting at 3.30 P.M.; dinner at 5.30 P.M.; charge, 6s., exclusive of wine. Mr. Marcus Gunn will read a paper on the Diagnostic Value of Certain Symptoms in Eye Disease, and Dr. Downes one on an Obscure Case of Congenital Brain Disease. Dr. Gabbett will show Microscopic Slides of Cholera, Influenza, and other Bacilli.—J. W. Batterham, Honorary Secretary, Bank House, Grand Parade, St. Leonards-on-Sea.

Lancashire and Cheshire Branch.—The intermediate meeting of this Branch will be held in the Town Hall, Preston, on Tuesday, November 29th, at 3 P.M. An interesting programme of medical and surgical communications has been prepared, and detailed information on all points concerning the meeting will be found embodied in the printed circulars which will be posted to every member next week.—C. E. Glascott, M.D., Jas. Barr, M.D., Joint Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—The annual meeting of this District, which comprises North London and North-West Districts, for the election of officers and committee, will be held at the Holborn Restaurant at 6.30 P.M. on Wednesday, November 30th. The annual dinner will take place at 7 P.M. in the Duke's Saloon. Dr. Bridgwater, J.P., Vice-President, will take the chair, supported by Dr. Cleveland and other members of the Council. Dinner ticket, 7s. 6d., exclusive of wine. All members desirous of being present will oblige by signifying their intention on or before November 28th, to GEORGE HENTY, M.D., Honorary Secretary, 302, Camden Road, N.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The second meeting of the session will be held at the Town Hall, Hackney, on Thursday, November 17th, at 8.30 P.M. The chair will be taken by Dr. C. T. Aveling, Vice-President of the District. Dr. Cullingworth will read a paper on the Axis Traction Forceps. Dr. Arthur Davies will read a paper on Myxœdema and its Treatment by Thyroid Juice Extract successfully carried out, and will show the patient. Visitors will be cordially welcomed.—H. E. POWELL, Honorary Secretary, Glenarm House, Upper Clapton, N.E.

STAFFORDSHIRE BRANCH.—The first general meeting of the present session will be held at North Staffordshire Hotel, Stoke-on-Trent, on Thursday, November 24th. The President, Dr. Malet, will take the chair at 3 o'clock.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—An ordinary general meeting of this Branch will be held at 1, Crown Street (Milne's Library), Aberdeen, on Wednesday evening, November 16th, at 8 P.M. Dr. J. C. Ogilvie Will, President, in the chair.—J. MCKENZIE BOOTH and C. THISELTON URQUHART, Joint Honorary Secretaries.

STIRLING, KINROSS, AND CLACKMANNAN BRANCH.

THE autumn meeting of this Branch was held at Kinross on October 27th, Dr. LESLIE in the chair. There were present Drs. Leslie, Peake, Strachan, Oswald, Fergusson, Skeen, Ronald, Smythe, and Lewis. Apologies for absence were read from Drs. McVail, Macpherson, Highet, Spence, and Mackintosh.

Minutes.—The minutes of last general meeting were read, and also the minutes of the joint meeting with the Edinburgh Branch at Rumbling Bridge.

Report of Special Committee.—In the absence of Dr. Macpherson, convener, the report of this committee was presented by Dr. LESLIE.—It was resolved on the motion of Dr. PEAKE, seconded by Dr. SKEEN, that the report be approved and adopted, and arrangements were made for carrying out the recommendations of the committee with the exception of revision of by-law No. 2, which was referred to the next annual general meeting.

Communications.—Dr. PEAKE, in the absence of Dr. McVail, read a paper by that gentleman on Small-Pox Inoculation. Dr. Peake drew attention to the existence of small-pox in Glasgow, and to the difficulty of recognising cases of modified small-pox.—Dr. FERGUSSON read a paper on Some Favourite Remedies of the Older Physicians, in which he quoted instances of lengthy and curious prescriptions, and described the remedies most in vogue with them. Drs. LESLIE, SMYTHE, PEAKE, and STRACHAN made remarks. — Dr. STRACHAN opened a discussion on Legal Procedure in Scotland in cases of Sudden Death, and referred to illustrative cases in which the present method of inquiry seemed to fall short of efficiency. It was asserted that in some cases no proper inquiry took place, no report being obtained from a medical man as to the cause of death. Dr. Strachan proposed the following resolution: "That in all cases in which the ordinary certificates of death cannot be fully filled up by a doctor, the procurator fiscal should be obliged by law to obtain a full report from a doctor as to the cause of death." Dr. OSWALD corroborated Dr. Strachan as to the imperfect investigation which frequently occurred in these cases, and most of the members joined in the discussion, and agreed in censure of the laxity which prevails. Dr. Strachan's motion received unanimous support, and he was requested to bring the subject before the Parliamentary Bills Committee of the Association.

New Members.—Dr. C. W. Bell, of Larbert, and Dr. J. G. Ronald, of Stenhousemuir, were elected members of the Association, and the following gentlemen were elected members of the Branch:—Dr. McVail (Glasgow), Dr. Milne (Alloa), Dr. Prangnell (Falkirk), Dr. Bell (Larbert), and Dr. J. G. Ronald (Stenhousemuir).

Dinner.—After the meeting the members dined together in the hotel, Dr. Leslie acting as Chairman.

A Correction.—With reference to certain specimens shown at a meeting of this Branch on July 9th, we are asked to substitute the following account for the one published in the BRITISH MEDICAL JOURNAL of July 16th (p. 146):—Dr. MCBRIDE (Edinburgh) showed (1) Lipoma removed from Epiglottis; (2) Fibrous Tumour removed from Nasopharynx; (3) Fibro-Mucous Polypus of same region; (4) Laryngeal Snare and Gottstein's Laryngeal Forceps; (5) A Tumour removed from the anterior portion of the right vocal cord with the snare. Reference was made to a case of small laryngeal tumour situated on one cord, which was destroyed by crushing with Gottstein's forceps. Dr. McBride never had to desist in removing a naso-pharyngeal tumour, and never resorts to crushing in this situation.

YORKSHIRE BRANCH.

A MEETING of this Branch was held at the Queen Hotel, Harrogate, on November 2nd, 1892. In the absence of the President (Mr. J. Hodgson Wright), Dr. MYRTLE took the chair.

Communications.—The following papers were read:—Dr. GIBSON: A Case of Ichthyosis.—Dr. BRAITHWAITE: On a Pecular Form of Vaginitis.—Dr. ADOLF BRONNER: On Some Common Diseases and Tumours of the Nasopharynx.—Mr. W. DALE JAMES: A Note on Bed Sore.—Dr. BARRS: A Case of Perforating Appendicitis, giving rise to Subdiaphragmatic Abscess and Empyema.—Dr. NEVILLE WILLIAMS: A Case of Dermatitis.

PROCEEDINGS OF THE COUNCIL.

AT a meeting of the Council, held in the Council Room of the Association, 429, Strand, London, on Wednesday, October 26th, 1892:

Present:

Dr. W. WITHERS MOORE, President of Council, in the chair.
Mr. JOSEPH WHITE, President.
Dr. G. H. PHILIPSON, President-elect.
Mr. H. T. BUTLIN, Treasurer.

Dr. HENRY BARNES, Carlisle.
Dr. G. B. BARRON, Southport.
Dr. F. BATEMAN, Whitchurch.
Dr. T. BRIDGWATER, Harrow-on-the-Hill.
Dr. J. S. BRISTOWE, F.R.S., London.
Dr. J. S. CAMERON, Leeds.
Mr. ANDREW CLARK, London.
Surgeon-Genl. W. R. CORNISH, F.R.C.S., London.
Dr. J. WARD COUSINS, Portsmouth.
Dr. H. R. CROCKER, London.
Dr. G. W. CROWE, Worcester.
Dr. P. M. DEAS, Exeter.
Dr. E. H. DICKINSON, Liverpool.
Dr. J. L. H. DOWN, London.
Dr. D. DRUMMOND, Newcastle-on-Tyne.
Mr. GEORGE EASTES, M.B., London.
Dr. W. T. EDWARDS, Cardiff.
Dr. W. A. ELLISTON, Ipswich.
Sir B. W. FOSTER, M.D., M.P., Birmingham.
Dr. J. H. GALTON, Upper Norwood.
Dr. BRUCE GOFF, Bothwell.
Dr. O. GRANT, Inverness.
Mr. J. D. HARRIES, Shrewsbury.
Mr. J. H. HEMMING, Kimbolton.
Mr. G. F. HODGSON, Brighton.
Dr. C. HOLMAN, London.
Mr. T. V. JACKSON, Wolverhampton.
Mr. T. R. JESSOP, Leeds.
Mr. EVAN JONES, Aberdare.
Dr. D. J. LEECH, Manchester.
Mr. JORDAN LLOYD, Birmingham.
Mr. N. C. MACNAMARA, London.
Mr. W. JONES MORRIS, Portmadoc.
Mr. R. H. B. NICHOLSON, Hull.
Mr. C. H. W. PARKINSON, Wimborne Minster.
Dr. C. PARSONS, Dover.
MR. F. M. POPE, Leicester.
Dr. W. RUSSELL, Edinburgh.
Dr. R. SAUNDBY, Birmingham.
Dr. A. SHEEN, Cardiff.
Dr. E. MARKHAM SKERRITT, Clifton.
Mr. NOBLE SMITH, London.
Mr. H. STEAR, Saffron Walden.
Mr. LAWSON TAIT, Birmingham.
Dr. J. ROBERTS THOMSON, Bournemouth.
Dr. T. W. TREND, Southampton
Dr. A. R. URQUHART, Perth.
Dr. W. F. WADE, Birmingham
Mr. F. WALLACE, London
Mr. C. G. WHEELHOUSE, Leeds.
Dr. G. E. WILLIAMSON, Newcastle-on-Tyne.
Mr. A. WINKFIELD, Oxford.

The minutes of the last meeting having been circulated, and no objection to them being received, were signed as correct.

Read letters of apology for non-attendance from Dr. Handford, Dr. Glascott, Dr. Grimshaw, and Dr. Batten, the latter

also stating that the Gloucestershire Branch was anxious to invite the Association for 1894.

Dr. Skerritt, representing the Bristol Section of the Bath and Bristol Branch, reported that Bristol was desirous of pressing the invitation of the Association to hold its meeting in that city for 1894.

Read letter from Mrs. Husband, of which the following is a copy:

The Roost, Clifton, Bristol, August 31st, 1892.

Mrs. Husband and family desire to convey to Dr. Withers Moore and the Council of the British Medical Association their great appreciation for their kind sympathy in their deep sorrow, and to thank them for the very kind way in which they have spoken of one who to the very last took such a warm interest in the Association, and whose very last work was connected with it, as Mr. Husband went to London in March, 1889, expressly to attend an important meeting of the Council when really physically unfitted for it; the effort proved too great; he came back from the meeting straight to his bed, which he never left again.

To Dr. W. Withers Moore and Members of the Council of British Medical Association.

Resolved: That the same be received and entered upon the minutes.

Read communications from the Honorary Secretary to the Medical Defence Union. Also letter from the Solicitor to the Association.

Resolved: That the matter be referred to the Journal and Finance Committee.

Read letter from the Solicitor, August 29th last, reporting the registration of the special resolution, confirmed on August 25th last.

Read letter from Dr. Rentoul, asking for particulars of payments of Journal articles.

The consideration was postponed until the minutes of the Journal and Finance Committee were read, which recommended that legal advice be taken on the subject.

Read letter from Dr. Hugh Woods.

Resolved: That the letter be referred to the Journal and Finance Committee.

Read letter from Dr. J. Fletcher Little, complaining of the want of ventilation in the main office.

The consideration of the matter of the ventilation of the main office was postponed until the minutes of the Premises and Library Committee were read, which recommended that the matter be referred to a Subcommittee to carry out.

Read letter from the Society of Arts, with accompanying letter from the American Minister, asking the Council to appoint delegates to the congresses at the forthcoming Exhibition at Chicago.

Resolved: That those members of the Council who have intimated their intention of being present at the Chicago Exhibition be appointed representatives of the Council.

Read letter from Dr. R. Scott, Ballarat, asking for the recognition of a Branch at Ballarat.

Resolved: That the Council will with pleasure recognise the formation of a Branch at Ballarat, subject to the agreement of the Council of the proposed Ballarat Branch, and the Council of the Melbourne Branch as to the respective limits of the two Branches, and also to the approval of the by-laws of the proposed Branch.

Read letters from various medical charities replying to the communication that the President of Council was instructed to make on behalf of the Council to those charities which did not admit as officers the diplomates of the Irish and Scotch corporations, namely, the Ayr County Hospital, the London Hospital, the London Lock Hospital, the Jarrow-on-Tyne Memorial Hospital, the Middlesex Hospital, the National Hospital, the Oldham Hospital, the Royal Free Hospital, and the Western General Dispensary.

Read letter from Honorary Secretary of Anæsthetics Committee applying for a grant of £50 for continuing work of Committee, and for three other grants in aid of research on the subject.

Resolved: That a further grant of £50 be made to the Anæsthetics Committee.

It was moved and seconded that the three applications for grants in aid of researches on the subject be approved and the grants made.

Whereupon an amendment was moved and seconded that the applications for grants be considered when they have come before the Council from the Scientific Grants Committee.

The amendment having been put from the Chair, the same was declared to be carried.

Resolved: That in accordance with By-law 26, Messrs. Price, Waterhouse, and Co. be reappointed public auditors for the ensuing year.

The election of 135 candidates was then considered, an objection having been taken to one candidate.

Resolved: That the remaining 134 candidates whose names appear on the circular convening the meeting be, and they are, hereby elected members of the British Medical Association.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Journal and Finance Committee contain the particulars of accounts for the quarter ending September 30th, amounting to £3,636 6s. 2d. which were approved and those remaining unpaid ordered to be paid; the auditors' report for the quarter; consideration of letter from Dr. Groves; references from Council on the expenditure on Scientific Grants, referred to a Subcommittee; and letter from Dr. Rentoul, which was referred to a Subcommittee, and also upon which legal opinion was recommended.

Resolved: That the minutes of the Medical Charities Committee of October 25th be received and approved, and the recommendations contained therein carried into effect.

The principal recommendation was to communicate to the Branches the decision of the annual meeting and request their consideration of a wage limit for the provinces.

Resolved: That the minutes of the Premises and Library Committee of October 25th be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Premises and Library Committee contain estimates for further library fittings and report of Honorary Librarian and action upon Dr. Fletcher Little's letter upon ventilation.

Resolved: That the minutes of the Inebriates Legislation Committee of October 18th be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Inebriates Legislation Committee contain application for a grant of £50 for expenses in continuing the petition to Parliament in favour of compulsory legislation.

That the annual meeting of 1893 be held on July 25th, 26th, 27th, and 28th.

Whereupon an amendment was moved and seconded that the annual meeting be held on the 1st, 2nd, 3rd, and 4th days of August next.

The amendment having been put from the chair, the same was declared to be carried.

Resolved: That there be three addresses given—Medicine, Surgery, Obstetrics and Gynæcology.

Resolved: That Dr. Drummond be requested to give the address in medicine, Dr. Hume be requested to give the address in surgery, and Dr. Cullingworth be requested to give the address in obstetrics and gynæcology.

Resolved: That the minutes of the Arrangement Committee of the 25th instant be received and approved, and the recommendations contained therein carried into effect.

Read resolutions passed in the Sections at Bournemouth, and approved at the General Meeting at Nottingham:—

In the Section of Public Medicine.—Moved by Dr. P. W. G. Nunn, seconded by Dr. Farquharson, M.P., and resolved: "That this Section, learning that public corporations and other local authorities desiring to erect crematoria are impeded or prevented from doing so by the present state of the law, request the Parliamentary Bills Committee to take that subject into consideration, and to adopt necessary measures to procure a change of the law."

In the Section of Psychology.—Moved by Dr. Savage, seconded by Dr. Fletcher Beach, and resolved: "That this meeting is of opinion that a scientific commission of inquiry should be appointed by the Government for the purpose of determining the conditions of portions of the school population, as to the average development and brain power among them, ascertaining the number of such as are imperfectly developed, their distribution, and the probable causes of such defects." A form of memorial to the Government was also adopted.

Moved by the President, seconded by Mr. Ernest Hart, and resolved: "That in the opinion of this Section, popular exhibitions of hypnotism and of persons under the influence of hypnotic suggestion should be prohibited, and that the Council of the Association be requested to make representations to the proper authorities urging the necessity of such restrictions."

Resolved: That the resolution passed in the Section of Public Medicine be referred to the Parliamentary Bills Committee.

Resolved: That the resolution passed in the Section of Psychology on Hypnotism be referred to the Parliamentary Bills Committee.

Resolved: That the motion of the Section of Psychology on imperfect brain development of children be postponed until the memorial is considered.

Dr. Galton gave notice that he would move at the next

annual meeting that by-law No. 1 of the Association be altered by omitting the words "provided that the power of such Council or Branch Council shall only be extended to the election of male persons."

Mr. Parkinson gave notice that he would move at the annual meeting the alteration of By-law 29, as follows:

The three elected members who shall have been longest in office shall retire annually, and if, owing to any two or more having been in office for the same period there shall be any doubt as to which shall retire, the matter shall be decided by (1) number of attendances and (2) ballot. All elected members who have not attended at least half the meetings of the Committee during the preceding year shall also retire. Members retiring shall be ineligible for re-election for the ensuing twelve months.

Read letters of Chairman of the Parliamentary Bills Committee.

It was moved and seconded: That the requests of the Chairman of the Parliamentary Bills Committee be approved, and the gentlemen named therein appointed members of the Parliamentary Bills Committee, and that the words be added "who may be members of this Association."

Whereupon an amendment was moved and seconded:

That the letter be referred to the Parliamentary Bills Committee, with a request that they should furnish an opinion as to the advisability of introducing members who are not members of the Association.

The amendment having been put from the chair, the same was declared to be carried.

The memorial referred to by the resolution of the Section of Psychology on Feeble-minded Children was then considered, copy of which is as follows:

Draft.]

THE MEMORIAL OF THE COUNCIL OF THE BRITISH MEDICAL ASSOCIATION TO THE GOVERNMENT CONCERNING THE APPOINTMENT OF A COMMITTEE FOR THE SCIENTIFIC INQUIRY AS TO THE CONDITION OF THE SCHOOL POPULATION.

SHEWETH that a Committee of the British Medical Association and Charity Organisation Society, having conducted an investigation by observation of 50,000 children in various schools, and presented a report to the Local Government Board (June 2nd, 1892) as to the average development and brain power among children in primary schools, request publication of this report.

To be presented to the Local Government Board.

(See resolution of Section of Psychology below.)

Resolved: That the memorial as proposed be adopted, and signed on behalf of the Council by the President of Council, and forwarded to the Local Government Board.

Read resolutions of the Section of Medicine passed at Nottingham, copies of which are as follows:

Surgeon-Colonel Harvey read a note on the Recent Epidemic of Cholera in Srinagar (Kashmir). A resolution was adopted, and directed to be forwarded to the Council of the Association, expressing the opinion that similar epidemics will occur in the future unless sanitary reforms are introduced, and strongly urging the adoption of such reforms as experience has approved.

Resolved: "That this meeting of the Section of Medicine of the British Medical Association, being of opinion that the recent great mortality from cholera in Kashmir—the details of which have been brought before it—was due to the total absence of sanitation, considers that similar epidemics are certain to recur unless sanitary reforms are introduced, and strongly urges the adoption of such reforms as experience has approved."

Resolved: "That the resolution which has just been passed be sent in the usual manner to the Council of the Association."

Resolved: That the Council forward the resolution to the Right Hon. the Secretary of State for India.

Read resolutions of the Section of Psychology held at the annual meeting at Nottingham.

SECTION OF PSYCHOLOGY.

Reports were read by Dr. Francis Warner on the Mental and Physical Condition of 50,000 Children, seen in 106 schools; and by Dr. Pope, on a Special Class in the Leicester Board School. Mr. Abel Clerk, of the Nottingham School Board, and Dr. Shuttleworth, made some observations on the subject, and the following resolution was adopted on the motion of Dr. Rayner, seconded by Dr. Murray Lindsay: "That the Section of Psychology, having heard Dr. Francis Warner's explanation of the report on the mental and physical condition of 50,000 children seen in 106 schools, as presented to the Association, beg to draw the attention of the Council to the desirability of obtaining its publication."

Resolved: That the Memorial be signed as requested.

Resolved: "That a recommendation be made to the Council that a Committee be appointed to consider the influence of influenza on the insane in asylums."

It was moved and seconded: That the recommendation of the resolution of the Section of Psychology on the subject of the influenza on the insane be carried into effect.

The motion having been put from the Chair, the same was declared to be lost.

Read resolution of the Section of Laryngology.

SECTION OF LARYNGOLOGY.

A paper on the Importance of a Systematic Course of Physical Voice Training at Schools or Colleges, especially with regard to its influence on Prevalent Throat Troubles in Public Speakers and Others, was read by Dr. Arthur Sandford; on Faults in Voice Production which Lead to Throat Disease, by Mr. Lennox Browne; on Throat Affections Peculiar to Voice Users, by Dr. John M. Hunt; and on a Frequent Cause of Irritation of the Throat in School Teachers, by Mr. Richard Ellis; Drs. Bennet and Barr made some remarks on the subject of Voice Production; and Mr. Browne and Dr. Hunt replied. The following resolutions proposed by Dr. Sandford were adopted: 1. "In consideration of the injurious influence exercised upon the vocal organ by improper use of its function, and of the insufficient attention hitherto given to the subject of systematic voice training, the members of the Section of Laryngology of this Association desire to urge upon educational governing bodies the importance of more general recognition of this subject as a distinct branch of education, especially in the case of those preparing for the career of public speakers. They would also suggest the advisability of at least an elementary knowledge of the physiology of the vocal organs and of the principles of scientific vocalisation in school teachers and others associated with the education of the young." 2. "That this resolution be forwarded to the Council for their consideration as to what steps may be desirable for the furtherance of this object."

Resolved: That the further consideration of the resolution of the Section of Laryngology be postponed until the next meeting of the Council.

SPECIAL CORRESPONDENCE.

SHEFFIELD.

The Society for the Prevention of Cruelty to Children.—Proposed Dental School.—Tip Money.

THE Society for the Prevention of Cruelty to Children has done good work in the town from time to time, and it is likely in the future to be in a position to be of still greater service, for a Sheffield gentleman has intimated his intention of erecting to the memory of his late wife a building as a shelter for waifs and strays. This will enable the Society to help on the future of the children. Mr. Bainbridge, the donor, has already purchased land from the Corporation for the objects set forth.

The Midland Branch of the British Dental Association held a very successful meeting here on October 29th. It was very well attended, but is chiefly of importance because of the suggestion that was thrown out that it would be a good thing to have a dental department in association with the Sheffield Medical School. A resolution to this effect was adopted, and the feeling was expressed and supported by medical men present that dental departments at medical institutions would be of service; there seems some reason to expect that the proposal will be acted upon.

The Duke of Portland has again this year distributed among many institutions in this neighbourhood the moneys received from visitors to Welbeck Abbey.

CORRESPONDENCE.

THE FIVE YEARS' CURRICULUM.

SIR,—When I had the honour of serving on the General Medical Council, I had many a talk with my friend, Dr. Bruce, and sundry other members who held the view that a return to the apprenticeship or pupilage system, during a student's curriculum, would be a good thing. They certainly did not bring me to their way of thinking, and I cannot hope to have converted them, which shows that there is much to be said on both sides. But, in all questions that relate to medical education, I am strongly of opinion that no man can give a really sound and valuable judgment upon them who is not actively engaged at the moment in teaching. He alone knows about the details of the subjects which students have to master, the time at their disposal, the number and severity of the examinations which they have to pass, and the average character of their intellects. Dr. Bruce is not, and never has been, a teacher, while the fact that he has been an examiner and has had much experience with assistants cannot for a moment compensate for the lack of that insight into a student's training which only a teacher can possess. I will take Dr. Bruce round the present teaching staffs of all the schools in London to-morrow, and I will engage to say that he

will be able to reckon on his fingers the number of those teachers who will maintain that a student will profit more (for his ultimate future) by seeing the work of a general practitioner for six months than he will by studying under a trained clinical teacher of experience, either in a special or a general hospital.

Dr. Bruce says that thirty years ago he walked the hospitals, and learnt very little. He has turned out such an admirable and respected doctor, that I will not for a moment inquire whose fault that was. But this certainly was not the case with myself. From Syme and Miller and Spence, from Begbie and Bennett and Gairdner and Saunders, I learnt all I know; and to learn new things every day from their lips was a delight and a privilege. A week's clinical work with any one of them compelled me to reflect more than six months of making up drugs, keeping visit books, attending natural labours, and looking after cases of measles and scarlatina could ever have done. Not for a moment do I wish to speak disparagingly of these things; nor would I have it thought that they were not sufficiently important and useful to be well worthy of learning; but I maintain that there is an immensely more important thing for a man to learn while he is yet a student—and that is to learn to think and reason about disease correctly. And it takes every day of five years to teach him this. Any portion of his curriculum is too valuable to be handed over to the acquisition of the details of what may be called the "business" part of his profession.

Again, thirty years have made a complete revolution in clinical teaching. I defy even the laziest and stupidest student nowadays to attend a series of well-organised clinics and not imbibe knowledge. If he means passing examinations, he has no choice in the present day; he *must* work. It is no use for critics to talk about examinations not being a complete test of a man's knowledge. Everybody knows that. But, as it happens, they are the best test we have, and every day they are becoming more and more practical in character.

I would have everybody remember that, although a six months' pupilage is not compulsory, the student is quite free to take it and make it count. The question will soon settle itself. If the student finds pupilage a really useful thing, and the best thing he can do in his fifth year, he will take it. My confirmed belief is that he will not do so, and I sincerely hope he will not. I have said it before, and I say it again: the English lad who comes to study medicine is the worst educated lad in all Europe, bar two—the Turk and the Spaniard. His training has been of the most unsystematic and shiftless character. Just think of the College of Preceptors having last year to reject 357 out of 491 men who went up for a very reasonable preliminary examination! The truth is the English boy is never taught to learn, and, out of his five years' curriculum, it takes about two before he gets a glimmering of how to study. When he has once acquired that art, he works well enough, for he has naturally good brains. But most sorry would I be to see six valuable months of his time, during which he can learn things which he can never learn again, spent on acquiring an inferior form of knowledge which he can obtain at any time.

In conclusion, I have such a high opinion of Dr. Bruce's great honesty in all that he says, that his kind and friendly criticism of my views is a pleasure to me.—I am, etc..

Liverpool, Nov. 2nd. W. Mitchell Banks.

LIGATURE OF THE EXTERNAL ILIAC ARTERY.

Sir,—The interesting discussion which is at present going on with reference to ligature of the iliac arteries through the peritoneum would seem to show that, as far as the common and internal iliac arteries are concerned, the old methods of reaching those vessels will probably be abandoned in favour of the more direct incisions through the peritoneum. I quite agree, however, with Mr. Clement Lucas in thinking that exception should be made in the case of the external iliac, which can be exposed with comparative ease by Astley Cooper's operation. I have at the present time under my care in the Gloucester Infirmary a man suffering from an aneurysm of the common femoral on whom I ligatured the external iliac six weeks ago. No difficulty of any sort was encountered; the wound healed by first intention, and the aneurysm has contracted until it is now hardly observable.

The chief object of this letter, however, is to add my testimony to the opinion of those surgeons who consider that there is no necessity to divide the transversalis fascia during the operation, but that it should be lifted up with the peritoneum, which it helps to protect, thus at the same time also rendering the operation both safer and simpler.

Among the various authorities on this subject whom I have recently consulted Mr. Bryant appears to be the only one who draws attention to this important detail. He says: "To divide the transversalis fascia the whole length of the wound is an unnecessary proceeding, but to deal with it as above (referring to the stripping of the fascia with the peritoneum) is an extra protection to the peritoneum and in no way renders the operation more difficult; indeed, I have been led to believe that it facilitates the operation. It certainly does this on the dead subject, and in the eight cases in which I have been called upon to perform it on the living this opinion was confirmed."

Before reading the above passage in Mr. Bryant's work on *Surgery* I had come to the same conclusion, after performing the operation on the dead body, and I carried it out in the case to which I have already referred. It seems to me that the operation is thus simplified, and is consequently easier; there is decidedly less risk of wounding the peritoneum and the latter is less likely to be torn during the process of stripping and subsequent retraction of the membrane.—I am, etc.,

Ernest D. Bower.
Surgeon and Ophthalmic Surgeon to the Gloucester General Infirmary.

Gloucester, Nov. 7th.

P.S.—Mr. Jacobson, in his work on *The Operations of Surgery*, seems to doubt the possibility of lifting up the transversalis fascia without either first dividing or tearing it. It would be interesting to know the opinion of anatomists generally on this point.

Sir,—Mr. Sheild is no doubt right in thinking that the intraperitoneal operation is in many cases to be preferred. In 1886 Dennis reported three cases in which he had tied in this way the internal iliac artery; two of the patients were cured. The arteries can—in the dead subject, at least—be more easily reached by the intra- than by the extraperitoneal method, which should, it seems to us, be reserved for the external iliac, and by no means always chosen for that.—We are, etc.,

Charles A. Ballance.
Walter Edmunds.

Harley Street, W., Nov. 9th.

Sir,—In the correspondence elicited by Mr. Sheild's letter, Mr. Bulkley Footner writes that it was his intention after the trial and failure of compression of the abdominal aorta by Lister's tourniquet—to ligature through an incision dividing the peritoneum. With the views of himself, of Mr. Sheild, and of Mr. Clement Lucas as to the mode of ligaturing I entirely agree. But why use Lister's tourniquet? The ease and safety with which the abdominal aorta can be compressed with a suitable instrument passed through a small opening in the abdominal wall was demonstrated by myself three years and a-half ago—the case was then noticed by one of your contemporaries; and my late house-surgeon, Dr. F. J. M'Cann, has shown by experiments on the dead subject that the iliac arteries can be easily controlled in the same way. It appears to me that in cases of aneurysm there is no longer any excuse for exposing the intestines to the risk of gangrene from pressure by such an instrument as Lister's tourniquet. It is, however, "Listerism" which has to a great extent brought about the changed position of things.—I am, etc.,

C. B. Keetley.

Grosvenor Square, W., Nov. 4th.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON: CONSULTANTS AND PRACTITIONERS.

Sir,—In my letter to the British Medical Journal of September 10th I endeavoured to arouse the profession to some decision upon the important question of "transfer of patients for a pecuniary consideration" by contrasting expert with ordinary practice. I suggested as a basis of goodwill between the two classes of practitioners the plan adopted by barristers and solicitors. The barrister declines to interview clients except in consultation with the solicitor.

An expert may be defined as a man holding a hospital ap-

pointment as a teacher, and therefore qualified to give expert advice to local practitioners. The general practitioner should decline to do major operations (except on emergency), and the expert to visit patients except at the request of the local practitioner. When consulted by a patient "on the quiet" he should write to the practitioner in attendance his view of the case. Neglect to do so causes much mischief and erroneous reports.

Let me give some illustrations from my own experience: I know of hospital physicians visiting day by day simple cases of fever without any reference to the accustomed practitioner—physicians, too, that have been introduced to the family by the local practitioner. I know of a local practitioner (not on my beat) doing all kinds of major operations such as abdominal section, the consulting surgeon to a teaching hospital being present as a looker-on or soporific to the friends, the senior surgeon to the same hospital doing dresser's work, and ready to "cover the retreat" in case of a fatal issue. The general practitioner, after freely handling cancerous intestines, etc., packs up his bag and rushes off to attend "her ladyship" at the birth of a son and heir!

I say "these things ought not so to be." They degrade the profession in the eyes of the public. The BRITISH MEDICAL JOURNAL, which is the mouthpiece of 16,000 practitioners, is surely the best platform for the discussion of such an important question of medical ethics and reform.—I am, etc.,

Queen's Gate, S.W., Nov. 4th. F. CHURCHILL.

WAS PARACELSUS A QUACK?

SIR,—The answer to the question propounded by Dr. Keser must depend, as is the case in most of our controversies, on a right definition of terms. That Paracelsus was a quack *formaliter*, as the schoolmen say, is tolerably certain, for although he boasts of having been the ornament of several universities, he does not seem to have ever condescended to go through the ceremony of obtaining a medical diploma. That *materialiter* he had (to use his own jargon) all the "signatures" of a quack can hardly be denied by anyone who knows anything of his life or writings. In the art of blowing his own trumpet he remains without equal, or second, even in these days, and it is no wonder if his name now survives chiefly as that of the patron saint of self-advertisers. He boasts that "the very down on his bald pate had more knowledge than all their writers, the buckle of his shoes more learning than Galen and Avicenna, and his beard more experience than all the universities." His motto was that of Danton, "*Toujours de l'audace*," and he boasted of having a panacea for all diseases. He was appointed professor of chemistry at Basel, but left that town in disgrace, and wandered about from place to place, the resentment of the inhabitants soon driving him away. In 1541 he died at Salzburg, in Bavaria, apparently of an injury received during a drinking bout.

The rehabilitation of Paracelsus which has been attempted by some modern enthusiasts is of a piece with the "whitewashing" of doubtful historical characters to which recent writers have accustomed us. Like Geber and the other alchemists, Paracelsus wraps his thoughts in a thick cloak of mysticism, which impresses those who mistake unintelligibility for depth, and is an attraction to the few who fancy they are acute enough to extract a meaning from his "gibberish." The study of writings like those of Paracelsus is, moreover, always attended with the danger that a too sympathetic reader may easily put the new wine of modern knowledge and thought into the old bottles of his author.

That Paracelsus did much in freeing the medicine of his day from the shackles of senseless tradition may be freely admitted. His ignorance of books left his eyes clear for looking at Nature face to face: and charlatan, buffoon, drunkard, and profligate as he was, he was thus able to see some things which the books of his day could never have taught him.—I am, etc.,

Nov. 6th. HISTORICUS.

SIR,—No; Paracelsus was not a quack. No one who is competent to form an opinion from a complete investigation of the circumstances connected with the life of this great discoverer in medical and chemical science would presume any longer to denounce him by such an opprobious term. Webster defines a quack as "a boastful pretender to medical skill" amongst other things. That Paracelsus was a boaster, I cannot deny; that he possessed great medical knowledge has been established to the satisfaction of those who, like Mr. Browning, have devoted long and anxious study to the history of the man. The *Encyclopædia Britannica* acknowledges that Mr. Browning's researches have established the fact that Paracelsus had hitherto been most unjustly caricatured. As it is generally understood that he died of injuries received from the servants of his professional bretheren, who were jealous of him, it is not surprising that his reputation has fared ill at the hands of those who ought to have cherished and honoured the memory of a man who did so much for our profession. We erect a monument to Semmelweis because he was a discoverer and a benefactor to humanity; the Viennese doctors, however, by their persecutions, drove him to madness. We never do value our great reformers during their lives, and we have been unduly neglectful of the claims of Paracelsus.

As I have devoted much time to the study of the history of this hero of medicine, I was glad to see Dr. Keser's letter on the subject. Paracelsus never, to my knowledge, made any experiments on animals; possibly this fact has militated against his claims to be considered a medical discoverer.—I am, etc.,

Victoria Park Gate, Nov. 5th. EDWARD BERDOE, M.R.C.S.

RESEARCHERS AND THEIR REVILERS.

SIR,—The present controversy on vivisection has turned mainly on the methods which have been adopted by its opponents in assailing those who differ from them, and it has been chiefly on these points that attention has been concentrated. Much has been said on the strong words made use of in reply to these assaults, but probably few are aware of the habitual kind of language adopted by the organ of the antivivisectionist. They could scarcely believe that such a style existed in any publication. As it is written for the public and uneducated, it contains, as might have been expected, no argument, but instead of this it pours all kinds of imprecations on the heads of its opponents. Its method is to get some friendly hand to search the pages of the medical journals to discover anyone who has made experiments, and then consign him to damnation and everlasting torment. The most vulgar imprecations, oaths, and blasphemies are put into euphemistic language, and then showered on all those who uphold experimentation. Some kind of excuse may be made for a person of the feminine gender surrounded by pet dogs, but having delivered herself of the most offensive expressions, it is amusing to see her take refuge under the garb of a lady, whose feelings are much hurt by the use of simple though strong language. It is astonishing, too, to see the names of many gentlemen and clergymen on the cover as the supporters of such a publication. It is also in the highest degree humiliating to know that there are members of our profession who not only patronise but aid and abet the editor by joining in the cry against their professional brethren. *As plain language is the order of the day, it is the saddest spectacle to see medical men doing Miss Cobbe's dirty work.*

Space will not allow me to give more than one example of the style of the *Zoophilist*. I will take that which will interest many of your readers, especially as it has personal reference to several who were at the Nottingham meeting—Miss Cobbe's comments on Mr. Hutchinson's resolution, which was to the effect that experimentations on animals were necessary and useful to mankind. This "lady" writes as follows:—

"Dr. Hutchinson, I believe, is a much respected member of the Society of Friends. Does his inner light show him (as mine shows me with no doubtful assurance) that to many publicans and sinners, many a convict in our gaols, many a ruined woman in our streets, will be meted larger measures of mercy in the world of eternal justice than the pitiless torturers like this?" She then refers to the early ages where victims were dissected alive, and then says: "Does Dr. Hutchinson approve of them or desire their repetition? Already in Germany the claims of science have risen so high that the patients in the hospitals are commonly referred to by the

medical men as 'beasts of research,' and more than a whisper has been heard that in the pursuit of knowledge, even in England, patients have been kept in extreme suffering that physicians and surgeons might better study their diseases, and subjected to frightful operations to enable their surgeons to register discoveries, even when they were the inevitable precursors of death. Is all this precisely as it should be in Dr. Hutchinson's opinion?"

The question is hideous and insulting, as it throws a doubt upon what Mr. Hutchinson's answer might be, and it is much more sad to see the names of medical men in the same pages who know that Mr. Hutchinson is not only one of our most eminent surgeons, but the kindliest and best of men.

The contributors to the journal, mostly the clergy, would not be worth notice did they not show a want of honesty in their appeals to the public under the plea of cruelty; their design really being to raise an opposition to scientific discovery. The cry of cruelty is a subterfuge. Witness Canon Wilberforce in reply to Mr. Sewell's question as to his calling vivisectors "inhuman devils." He justified the expression, and added that "the so-called cultivation of science, as it is practised by the physiological investigators, is certainly opposed to the teaching of Christianity, is based on the rankest materialism, and appeals to the lowest instincts of man;" but then the Canon seems to be possessed of the same inner light which Miss Cobbe has, and which must be a kind of inspiration, since he has declared that we have been in error for the last two centuries in believing that Harvey discovered the circulation of the blood; it was discovered by examining a frog's foot through a powerful microscope—a statement evidently derived from the writings of that eminent physiologist, Mr. Lawson Tait. I am quite sure that if your readers were aware of the falsehoods which are told, and the imprecations poured not only on experimenters but on their wives and families in private letters, they would admit that there was sufficient excuse for the plain language used by their persecuted brethren.—I am, etc.,

Grosvenor Street, W., Nov. 7th. S. Wilks.

THE REGISTRATION OF MIDWIVES.

Sir,—The annotation in the British Medical Journal of November 5th scarcely covers the ground of the midwives' registration question. The late Midwives Bill in no way limited the practice of unqualified persons; it enacted that no person should use the title of midwife unless she be registered under the Act. The College of Physicians, however, thinks that this enactment goes beyond the provisions of the Medical Act, and that the word "registered" should be used before that of midwife.

The Bill only provides limitations of practice and punishments in case of misconduct for the registered. Now it has at present to be shown that registration has lessened the practice of unqualified persons in countries where it exists. What evidence I have goes to show that it has not. Also it has not at present been shown that, in countries where registration exists, the mortality is lower than in our own.

It is no doubt possible to collect cases of bad practice amongst midwives such as quoted in your annotation. But everyone will admit, I think, that there are, there have been, and that there will be (registration or no registration) cases in which the poverty, the ignorance, or both, of the patient has prevented proper attendance at the lying-in time.

The question is, How can these cases be reduced to a minimum? The advocates of registration say that it will do so. Now I have asked Mr. Humphreys—that eminent advocate for registration—to reconcile the theory of registration with the practical question of the removal of the economic causes which he admits to be at the root of the whole matter. He has not been able to do so; perhaps some one else will. It is quite certain that a large number of trained midwives exist, and that the very poor, for whose relief registration is invoked, are unable to pay them sufficiently well to maintain them.

Now, there are a number of charities throughout the country doing good work amongst the lying-in. Some of these are worked by doctors alone, like the one with which I am connected; others where the conditions are favourable to midwives under doctors' superintendence.

Instead of crying out to Parliament, would it not be a more reasonable course for gentlemen who are so interested in this subject to try, each one in his own place, to start organisations which would meet the needs of the population? Hundreds and thousands of pounds are squandered in ostentatious charities; humble little every-day works which need this will, I am afraid, always languish. It is no doubt very magnificent, from the public point of view, to raise a cry for the registration of midwives, but I have yet to learn that there is any reason why private effort, coupled with that of the Poor-law and great hospitals, should not be quite sufficient to meet all the requirements of the population.—I am, etc.,

Hatfield, Nov. 6th. Lovell Drage.

IN DEFENCE OF MEDICAL AID SOCIETIES.

Sir,—I fear you have been misled as to the salaries of the medical officers of these institutions. Private medical practitioners may pay their assistants on the average about £140 a year or the equivalent, whereas we receive about £190.

There is no doubt that we lessen the practices of other medical men, and these (aided by a few among us, who, though they are better paid than they would be by any others, do not think it contrary to professional dignity to plot to injure their employers) are among the authors of the present attack.—I am, etc.,

Nov. 9th. An M.O. of Friendly Societies.

DIAGNOSIS OF SCARLATINA.

Sir,—Having read a letter in the British Medical Journal under this heading by Dr. G. W. Sequeira, I beg to mention some cases—eight in number—occurring in one house, as they seem to bear out in every respect his remarks on this subject. On September 29th I was called to examine G. B., who had well marked signs of scarlatina. Next day another was taken ill, and finally eight out of a family of nine were affected. When I first called I was told that ten days before C. B., a brother, had a similar eruption and sore throat, but was not ill enough to keep in bed or send for a doctor. I had him stripped and carefully examined, but failed to find any signs of desquamation. The first that did show signs of desquamation was the one who was fourth in being affected. I venture to mention these cases to show the difficulty there must always be in cases of scarlatina that are not well pronounced; and that, had not the rest of the family become affected, it would never have been known that C. B. had had scarlatina, and was spreading it far and wide.—I am, etc.,

Southsea, Nov. 3rd. Lyster Cole Baker.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

The following appointments have been made at the Admiralty: John Lyon, M.D., Fleet Surgeon, to the *Impregnable*, November 12th; Thomas E. H. Williams, Staff Surgeon, to the *Pelican*, November 12th; George F. Wales, Staff Surgeon, to the *Beagle*, November 12th; Robert Hickson, Surgeon, to the Bermuda Hospital, November 8th; John Dowson, Surgeon, to the *Pembroke*, November 8th; Bowen S. Mends, Surgeon, to the Royal Marines, Portsmouth, November 5th; Octavius S. Fisher, Surgeon, to the *Alacrity*, November 17th; John Lowney, Surgeon, to the *Redpole*, November 17th; Ernest E. P. Tindall, Surgeon, to the *Plover*, November 17th; Ernest C. Lomas, Surgeon, to the *Pigmy*, November 17th; Anthony Kidd, Surgeon, to the *Caroline*, November 17th.

ARMY MEDICAL STAFF.

Surgeon-Major-General G. L. Hinde, C.B., is placed on retired pay, October 27th. His commissions are thus dated: Assistant-Surgeon, May 15th, 1855; Surgeon, September 19th, 1868; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, April 25th, 1881; Surgeon-Colonel, April 10th, 1885; Surgeon-Major-General, January 13th, 1892. He served in the Crimea from July 30th, 1855, including the siege and fall of Sebastopol (medal, with clasp, and Turkish medal); in the Boer war of 1881; and in the Soudan campaign in 1884-85 (mentioned in despatches, C.B., medal with clasp, and Khedive's star).

Surgeon-Lieutenant-Colonel W. F. Burnett is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* G. W. McNalty, M.D., F.R.C.S.I., retired October 6th. He entered the service as Assistant-Surgeon March 31st, 1866; became Surgeon, March 1st, 1873; Surgeon-Major, March 31st, 1873; and Surgeon-Lieutenant-Colonel, from March 31st, 1886. He was in the Zulu war of 1879 (medal, with clasp); the Afghan war, from January 2nd to August 28th, 1880, the greater part of the time in medical charge of the

1st Battalion 25th Regiment (medal); and with the Nile Expedition in 1884-85 (medal, with clasp, and Khedive's star).

Surgeon-Lieutenant W. J. SMYTH, M.D., has been attached to the Grenadier Guards.

Surgeon-Captain W. H. BEAN, on arrival from England, is directed to do duty in the Madras District.

Surgeon-Captain C. J. ADDISON, on arrival from England, is directed to do general duty in the Mhow District, Bombay Command.

Surgeon-Major A. E. J. CROLY, serving in the Bombay Command, has leave of absence in extension to remain in England from September 29th to the date of his re-embarkation for duty in India.

Surgeon-Captain J. C. CULLING, serving in the Bombay Command, has leave on medical certificate in extension to remain in England from October 6th till January 5th next.

Surgeon-Captain H. C. THURSTON, serving in the Madras Command, is granted an extension of leave from October 2nd to the date of re-embarkation for duty in India.

Surgeon-Captain A. G. KAY, M.B., has been appointed to the charge of the Staff and married officers and of the Casualty and Female Hospitals at Chatham, *vice* Surgeon-Captain A. Cottell, whose term of office has expired.

Surgeon-Major A. ASBURY, who is serving in the Madras Command, is granted an extension of leave from September 29th to March 28th, 1893, in extension.

Surgeon-Major J. MARTIN, on arrival from England, is appointed to the medical charge of the Station Hospital at Poonamallee, in the Madras Command.

Surgeon-Major A. PETERKIN, who is serving in the Bombay Command, is appointed to the medical charge of the Station Hospital at Indore, *vice* Surgeon-Captain J. C. Culling.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT J. M. H. MARTIN, M.D., F.R.C.S.Eng., 1st Volunteer Battalion East Lancashire Regiment, is appointed Surgeon-Lieutenant, November 9th.

INDIAN MEDICAL SERVICE.

SURGEON-CAPTAIN W. H. GRAY, Bengal Establishment, is transferred from the officiating medical charge of the 3rd Punjab Cavalry to the medical charge of the 19th Bengal Infantry, *vice* Surgeon-Captain H. W. G. Macleod.

Surgeon-Major W. E. GRIFFITHS, Bengal Establishment, is transferred from the medical charge of the 17th Bengal Cavalry to the medical charge of the 20th Bengal Infantry, *vice* Surgeon-Major A. E. R. Stephens. (This transfer is made solely in the interests of the public service.) The appointment of Surgeon-Major Griffiths to the medical charge of the 19th Bengal Infantry, notified on August 31st, 1892, is cancelled.

Surgeon-Captain S. A. C. DALLAS, Madras Establishment, has passed the examination in Hindustani by the lower standard.

Surgeon-Lieutenant P. C. GABBETT, Madras Establishment, on arrival from England, is ordered to do duty in the Madras District.

Surgeon-Lieutenant J. M. MACRAE, Madras Establishment, on arrival from England, is ordered to do duty in the Secunderabad District.

Surgeon-Captain T. D. C. BARRY, Bombay Establishment, Chemical Analyser to Government, is allowed special leave, on urgent private affairs, for three months.

Surgeon-Captain L. F. CHILDE, M.B., Bombay Establishment, is appointed to act as Professor of Chemistry and of Medical Jurisprudence, Grant Medical College; Professor of Chemistry, Elphinstone College; and Chemical Analyser to Government.

Surgeon-Lieutenant Colonel S. M. SALAMAN, Bombay Establishment, is appointed a Commissioner of Poona Suburban Municipality, *vice* Surgeon-Lieutenant-Colonel W. McConaghy, resigned.

The services of Surgeon-Captain C. M. MOORE, Bombay Establishment, are placed at the disposal of the Government of India in the Foreign Department.

Brigade Surgeon-Lieutenant-Colonel W. GRAY, and Surgeon-Captain S. T. AVETOOM, both of the Bombay Establishment, are permitted to return to duty.

Surgeon-Major C. M. THOMPSON, M.B., Madras Establishment, is granted leave on medical certificate for a further period of two months.

Brigade-Surgeon-Lieutenant-Colonel F. H. BLENKINSOP, Madras Establishment, is permitted to return to duty.

Surgeon-Major THOMAS MACKFORD LOWNDS, M.D., retired, late of the Bombay Establishment, died at Wateringbury, Kent, on October 31st, aged 64.

Surgeon-Colonel A. H. HILSON, M.D., Bengal Establishment, Inspector-General of Civil Hospitals, Bengal, is granted three months' privilege leave from October 1st.

Brigade Surgeon-Lieutenant Colonel E. A. BIRCH, M.D., Bengal Establishment, Principal of the Medical College, Calcutta, and *ex officio* First Physician of Medical College Hospital, is appointed temporarily to officiate as Inspector-General of Civil Hospital, Bengal.

Surgeon Captain F. J. DEWES, Madras Establishment, is appointed to the officiating medical charge of the 30th (5th Burmah Battalion) Madras Infantry.

Surgeon-Major P. H. BENSON, Surgeon-Captain G. C. HALL, and Surgeon-Captain P. C. H. STRICKLAND, all of the Madras Establishment, have been permitted to return to duty.

Surgeon-Majors A. N. ROGERS-HARRISON, H. P. ESMONDE-WHITE, and L. BEECH, of the Madras Establishment, and whose commissions as Assistant-Surgeons date from October 1st, 1872, are promoted to be Surgeon-Lieutenant-Colonels from October 1st.

Surgeon-Captains J. L. VAN GEZZEL, M.B., H. N. V. HARINGTON, G. M. E. MCKEE, J. A. BURTON, and F. J. DOYLE, of the Madras Establishment, having served twelve years, are promoted to be Surgeon-Majors from October 2nd.

Surgeon-Captain A. V. ANDERSON, Bombay Establishment, is appointed Deputy Sanitary Commissioner, Western Registration District.

Surgeon-Captains A. F. FERGUSON, M.B., G. E. FOOKS, and J. W. T. ANDERSON, of the Bombay Establishment, having completed twelve years' service, are promoted to be Surgeon-Majors from October 2nd.

THE VOLUNTEERS.

SURGEON-CAPTAIN W. J. FLEETWOOD, M.D., 4th Volunteer Battalion King's Liverpool Regiment (formerly the 15th Lancashire), is promoted to be Surgeon-Major, November 5th.

Surgeon-Lieutenant R. W. LEEMING, 2nd (Westmorland) Volunteer Battalion the Border Regiment (late the 1st Westmoreland), has resigned his commission, which was dated May 24th, 1884.

THE LUSHAI OPERATIONS.

THE official correspondence respecting the Lushai field operations, in March to June last, has been published.

Satisfaction is expressed by the Government of India at the results achieved by the exertions of the officers, and of the troops and police, who took part in the operations.

Lord Roberts, Commander-in-Chief in India, concurs in the commendations bestowed by Brigadier-General Channer on Surgeon-Captains J. F. Evans, M.B., 18th Bengal Infantry, among other officers.

Colonel Rennick, who commanded at Aijal, also referred in commendatory terms to Surgeon-Captains J. F. Evans and H. B. Melville, and encloses a report from Captain Loch on the purely military operation of the Aijal column during the rising. Of the services rendered to the column (says Captain Loch) by Surgeon-Captain Evans, M.B., 18th Bengal Infantry, who acted as senior medical officer, I cannot speak too highly. By his untiring energy, in camp and on the march, and by his careful treatment of the men, he undoubtedly enabled the force to keep as efficient as it did during a most trying and unhealthy season of the year.

Brigadier-General Channer, C.B., V.C., in his report to the Adjutant-General in India, says: "As regards Surgeon-Captain J. F. Evans, M.B., 18th Bengal Infantry, I have much pleasure in reporting, for Lord Roberts's information, the unremitting care this officer displayed towards the sick of all ranks. To Surgeon-Captain Evans's energy and watchful care the 18th are indebted for a low sick report in a notoriously unhealthy part of the world. I have already myself thanked Surgeon-Captain Evans in district orders for his medical zeal and energy, and trust that Lord Roberts will feel that this officer's services are worthy of being brought to the notice of Government."

COMPULSORY RETIREMENT RULES.

A.M.S., referring to the protests and pamphlets which from time to time appear when an officer, who thinks he has claims for exceptional treatment, is compulsorily retired, observes that these rules are for the benefit of the whole service, and that exceptional extensions of service unsettle the whole department. He thinks it unfair that outside influence is sought to be enlisted and brought to bear on the Director-General in such matters, and is glad that the latter has stood firm in recent instances.

*** We concur in these statements.

LEAVE FOR STUDY.

A CORRESPONDENT says: Medical officers are very illiberally treated in this matter compared with combatants; the latter can always obtain leave for this end, even to a staff college course of two years. It is a pity young medical officers have to complain of the standard of examination; it is not too high provided reasonable opportunity of study was afforded; with opportunities refused how possibly can high results be expected?

THE MEDICAL STAFF IN INDIA.

A CORRESPONDENT maintains that, as the officers of the Medical Staff are only lent to India, exactly as the Royal Engineers are, they should be placed, as regards pay, allowances, furlough, etc., precisely on the same footing as these officers. He states that the allocation of medical officers to Presidencies at Bombay is not new, as he himself was there detailed for Peshawur in 1886, and a number of other officers were similarly scattered.

*** We have always understood that heretofore medical officers were detailed for Presidencies at home, although allocated to circles on arrival in India.

RETIRED writes on the same subject: The surgeon-generals of each Presidency must know the number of medical officers wanted in their administration, and there is therefore no reason why the director-general should not detail his officers to the different Presidencies. The new departure looks as if it was desired to set up a sort of second director-general in India; but the medical officers have quite enough masters already. While agreeing with you that medical officers should know where they are going before leaving home, I object to the argument that in this matter the interests of wives and children should be consulted. I am opposed to the encumbrance of all such in the army for officers under the rank of field officer; the earlier years of service should be passed in bachelorhood, for in such a condition only can the young officer be thoroughly trained in the ways and manners of army life.

*** We repeat we think it desirable for many reasons that medical officers should know the Presidency they are going to before leaving home, and we have as yet heard no good argument why they should in this respect be differently treated from others. They are surely knocked about enough already within the limits of a Presidency without being thrown upon the shore in India in additional uncertainty. But touching our correspondent's bold antimatrimonial sentiments, we feel on tender ground. We are well aware of the imprudence of early marriage, especially in the army, but know it is hopeless to lay down any general law on the matter, and so cannot ignore the existence of the wives and little ones of even those under the rank of field officer.

INQUIRER.—The suggestion does not appear to be one which would be likely to be adopted. The Commander-in-Chief is the representative of the whole army.

MEDICO-LEGAL AND MEDICO-ETHICAL.

VACCINATION APPEAL.

Queen's Bench Division, November 2nd, 1892.

NORTON *v.* RUTTER.

THIS was an appeal upon a case stated by justices, and it raised a point of some importance under the Vaccination Act. It appeared that in June last Mr. Norton, the respondent, a vaccination officer, summoned the appellant, Mr. John Kingsley Rutter, for omitting to have his child vaccinated, and the appellant pleaded as "a reasonable excuse" under the Act, that he believed that vaccination would be injurious to the child, and that his family had a tendency to injury from vaccination. In support of his plea the appellant proposed, amongst other things, to read extracts from the report of the proceedings of the Royal Commission appointed to inquire into the working of the Vaccination Act, but he was not allowed to do so, the justices stating that they were of opinion that the reasonable excuse referred to in the Act must have special reference to the particular case under consideration, and not to such a general belief as that vaccination was injurious. They therefore declined to hear any argument from the defendant on the plea that he believed that vaccination was injurious to the child, and fined him 6s.

Mr. Avory, who represented the respondent, argued that if properly read as a whole the case showed that the magistrates only declined to allow the appellant to give general evidence as to the injury caused by vaccination.

The Court declined, however, to adopt this view, and intimated that the appellant had a right to prove any facts supporting his belief that vaccination would injure his child. They therefore sent the case back to the magistrates to be reheard.

MEDICAL DEFENCE UNION.

AT a meeting of the Local Committee for London, held on November 8th, the Chairman (Dr. Danford Thomas) in the chair, the following resolution was proposed by Dr. Fancourt Barnes, seconded by Dr. Masters, and carried *nem. con.*: "That, in the opinion of this Committee, the best interests of the Medical Defence Union would be served if the office of President of the Union was held from time to time by a metropolitan member." Dr. S. Sunderland and the Secretaries of the Union did not vote. The Honorary Secretary (Dr. Campbell Pope) was instructed to forward the resolution to the Central Council.

FREE ATTENDANCE ON THE FAMILIES OF MEDICAL MEN.

N. writes: As a young practitioner in a seaside resort, may I ask my more experienced *confrères* the right thing—professionally speaking, and not from a legal point of view—to do in the following circumstances? (1) I am asked to see some childen visiting the town under the care of their mother, and find they have scarlet fever. After attending them for a fortnight, I accidentally discover that they are the children of a medical man. (2) I am called from dinner in a great hurry to see a child who has eaten some harmless berries, supposed by his father to be poisonous. The father asks me to see the child again in the morning. On neither occasion does he say that he is a member of the profession, nor does he call on me during his stay. Meeting him in the street some days after, he said: "I was so sorry to bring you out from your dinner on so unprofitable a visit." I find he is a naval surgeon and does not expect to be charged.

My expenses being small and my practice a fair one, I have passed over these cases and several others nearly as glaring; but I should like to know whether other medical men expect to attend the children of absolute strangers and supply them with medicines free of charge. Should not a medical man requiring assistance for his children first call on me and acquaint me with the circumstances? If he does not do so, should I not be professionally justified in charging him a fee?

*** Disappointing as it would naturally be to a young practitioner unacquainted with the immemorial custom of the faculty to discover accidentally at the last moment that the presumably paying patients on whom he was in attendance were, as the children of medical practitioners, conditionally entitled to his gratuitous services, we would, as a guide for the future, refer him to the rule published in the BRITISH MEDICAL JOURNAL of October 22nd, page 923, under the heading of "Sisters, Cousins, and Aunts." We may add that, if for any sound reason he thinks it well to demur to a like gratuitous supply of medicine, he may avoid the necessity by writing a prescription and requesting that it might be dispensed at the chemist's. Ere, however, he determines on the suggested alternative, it would be judicious to assume (mentally) for the moment a transposition of their relative positions, and be guided by the impression left upon the mind thereby. Be that what it may, we are constrained to hold that the attendant practitioner has an indisputable right to be at once informed of the patient's assumed professional claim to his gratuitous services; in default of this, if it be found to arise from intentional suppression, it may, we think, not unfairly become a question as to whether the claim should be admitted.

LICENTIATES IN PHYSIC AND THE TITLE OF SURGEON.

ALPHA.—A L.R.C.P. (Ireland), without any surgical qualification, is not strictly entitled to style himself "Surgeon," but it would be necessary to prove the "wilful and false" assumption of that title in any proceedings against him under the Medical Act of 1858. Before any step of that kind is taken it would be desirable to point out to the practitioner in a friendly way that he was assuming a title to which he had no claim. It may be that he is quite unaware that he is committing any offence against either law or etiquette in styling himself "Dr. ——, Surgeon." There may be many cases where a Licentiate in Medicine only adopts the title "Surgeon" as the popular cognomen of a general medical practitioner, and we are unaware of proceedings having been taken against a registered practitioner where that has been the only infringement of the section of the Medical Act of 1858, dealing with the unqualified assumption of medical titles. He could not, of course, recover his fees in a purely surgical case if the proper defence were raised in an action for them.

REPEATED INQUIRIES ON THE SAME SUBJECT.

DR. FRANCIS W. CLARK (South Shields) writes: As a column of small print is occupied weekly in the BRITISH MEDICAL JOURNAL by answers to the oft-repeated questions respecting the attendance upon relations of medical men, the advisability of advertising in Colonial practices and other such like medico-ethical questions, would it not be possible to print permanently under this heading a few crisp extracts from the *Code of Medical Ethics*, setting forth the main principles which should guide the medical man in his dealings with his professional brethren and with the public? In this way much valuable time, ink, paper, and postage would be saved and your subeditor relieved from the monotony of "the continual iteration of the same advice on one and the same subject." I do not think the author of that valuable little work would withhold his consent to such a reasonable proposal.

*** The special suggestion made in the above communication leads us to infer that "F.W.C." is ignorant of the fact that in 1877 the author of the work in question offered (through the medium of the then President of the Council, who was, moreover, one of the revisers of the *Code*) to present the copyright thereof to the British Medical Association for the use of and as a guide to the members, the question of its acceptance with the attendant responsibilities was discussed at two consecutive meetings of the Council, prior to which a printed copy headed "The Suggested Medico-Ethical Code of the British Medical Association," was transmitted to each member for critical examination. It is, however, we believe, a more or less open secret that owing to the position taken by two or three dissentients, who were unwilling that any responsibility should be incurred, the Council ultimately deemed it inexpedient to accept the offer. On this decision several of the revisers urged the author to publish it for the benefit of the profession at large, and in deference to their express wish it was issued in 1878, and has since passed through three editions. In view of the preceding facts we do not see how the author can in justice to himself be expected to assent to our correspondent's assumed reasonable proposal. It may be well to add that he is in error as to the *de facto* writer of the ethical comments.

UNPUNCTUAL TRAINS.

LEX being summoned to a distant consultation, owing to a delay on the line missed a connection. He arrived at his destination eight hours later than he would have done had he made the connection, and found the patient had been dead nine hours. The ticket was a through ticket, "available for day of issue only," and the time tables showed the connection. Arriving so late "Lex" does not think he can charge the family a fee for the visit, and the railway company refuse compensation, but offer to consider the propriety of repaying money out of pocket.

*** We do not think that we can do more than refer our correspondent to the case of Le Blanche *v.* London and North-Western Railway Company, L. R. 1, C. P. D. 286. The regulations of the company and the conditions referred to on the ticket would all have to be considered in order to form a definite opinion as to whether or not an action against the company would be successful. It would, perhaps, be found very difficult to prove that the company had not paid every "attention to ensure punctuality so far as practicable." If successful in an action, our correspondent ought to be able to claim expenses out of pocket, and some compensation for inconvenience and discomfort, etc. A claim for the loss of the fee as such might be considered to be too remote.

PAYMENT OF A SUBSTITUTE.

VI ET VIRTUTE.—If an account has not been agreed and a balance struck, we think that "B." should now make out an account giving particulars of the changes in respect of patients attended for "A.," and send it with a letter claiming from "A." the amount agreed to be allowed to "B." In default of payment proceedings should be taken. If the amount claimed is under £100, these could be taken in the county court. The subsequent question as to the emergency patient does not seem in any way to affect the claim.

DR. W.—The action taken in removing the patient to an asylum was certainly right, and we do not think that any importance need be attached to the *obiter dictum* of the son. In regard to the coroner, it does not appear why he did not hold an inquest; if he had done so, the result must have been satisfactory, even though he (the coroner) does not seem to know the requirements of the law in the matter of certificates of lunacy.

A SOCIETY OF HYGIENE has recently been established at Rio de Janeiro, owing in great measure to the efforts of Dr. Carlos Costa.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

APPOINTMENT OF EXAMINERS.—The following examiners have been appointed: In Physics, Mr. H. Gerrans, M.A.; in Chemistry, Mr. F. Clowes, D.Sc.(London); in Animal Morphology, Mr. W. Benham, D.Sc.(London); in Physiology, Professor Burdon Sanderson, F.R.S.; in Elementary Physics, Mr. E. H. Hayes, M.A.; in Elementary Chemistry, Mr. J. E. Marsh, M.A.; in Elementary Animal Morphology, Mr. G. C. Bourne, M.A.; in Elementary Physiology, Mr. J. Haldane, M.D.(Edinburgh).

UNIVERSITY OF CAMBRIDGE.

COUNCIL OF THE SENATE.—At the biennial election held on Monday, November 7th, Dr. A. Macalister, Professor of Anatomy, was reappointed a member of the Council of the Senate for the ensuing four years. Professor Macalister headed the poll for professors. The other members elected were the Provost of King's and the Master of St. John's, as Heads of Houses; Dr. Kirkpatrick, as Professor; Dr. Jackson, of Trinity; Dr. Keynes, of Pembroke; Mr. Scott, of St. John's; and Mr. Mollison, of Clare.

MUSEUMS SYNDICATE.—Professor A. Macalister has been appointed a member of the Museums Syndicate, in the room of Dr. Adami, appointed Professor of Pathology at Montreal.

INDIAN LANGUAGES.—Mr. E. G. Browne, M.B., of Pembroke, has been appointed an Examiner for the Indian Languages Tripos in 1893.

ENTRY OF MEDICAL STUDENTS.—Complete returns of the number of freshmen who intend to study medicine in the University have now been obtained, from which it appears that they number in all 130. This is a larger entry than in any previous year.

UNIVERSITY OF EDINBURGH.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW.—The quarterly examinations for the Triple Qualification in Edinburgh took place in October and November with the following results:

First Examination.—Of 53 candidates, the following 20 passed: A. Munro, Edinburgh; W. H. O. Garde, co. Cork; C. E. Conran, Madras; C. N. Winch, Chatham; R. K. Imeary, Durham; J. C. Glen, Middlesboro'; D. M. Atkinson, Yorkshire; G. R. Twomey, Cork; A. Whitehead, Burnley; R. R. Dobson, Glasgow; T. O'Callaghan, co. Cork; J. W. Spawforth, Winthorp; H. H. Warren, Armagh; A. H. Bell, Jamaica; C. B. Johnstone, Manchester; W. P. McGrenahan, Dublin; G. H. Pearce, Whitby; W. A. Mushet, Paris; A. B. Wilkinson, Lancashire; and E. MacCormack, Roscommon. Of 9 candidates who entered for the respective divisions, 6 passed.

Second Examination.—Of 72 candidates, the following 46 passed: J. O'L. Driscoll, Bandon; W. T. Wood, co. Cork; T. A. W. Walker, Hyderabad; G. F. Taylor, India; W. Corkey, co. Armagh; H. C. Swailes, Yorkshire; W. J. D. Preston, Rock Ferry; W. H. O. Garde, co. Cork; D. F. Blanchard, Armagh; W. M. Sheen, Gravesend; C. H. Roberts, Adelaide; L. J. Quigley, King's County; R. G. Barnes, co. Tyrone; J. J. Hayes, co. Limerick; G. E. Watson, co. Durham; W. Pearson, Manchester; A. Whitehead, Burnley; D. M. Scott, Dumfries; E. C. Moore, Portsmouth; H. Bond, Preston; J. Prichard, Carnarvon; E. MacCormack, Roscommon; A. Clark, Sheffield; W. P. McGrenahan, Tipperary; J. Elliot, Edinburgh; Beatrice Garvie, Perth; E. McGarity, Bishop Auckland; W. H. Ferrier, Edinburgh; J. J. FitzGerald, co. Cork; C. J. da Cunha, India; C. S. Langley, co. Cork; W. F. Stevenson, Strabane; E. F. Jamison, co. Down; J. McI. Kay, Castle Douglas; Martha Florence Armitage, Staffordshire; M. Stewart, Ayrshire; D. Y. Clark, Perthshire; W. H. Penrose, Cork; W. A. Deason, St. Helena; C. W. Lawson, Edinburgh; W. P. O'Connor, Cork; J. Cameron, Fife; T. French, co. Cork; W. Curtis, Hampshire; C. N. Winch, Chatham; and J. E. Foley, co. Clare. Of 41 candidates for the respective divisions, 28 passed.

Final Examination.—Of 106 candidates, the following 59 passed and were admitted L.R.C.P. & S.E., and L.F.P. & S.G.: H. Ross, Demerara; N. G. Douglas, Drewe; T. A. R. Stollmeyer, Trinidad; J. W. Stoker, Durham; G. H. K. Ross, Jamaica; J. T. Helm, Cape Colony; O. Horrocks, Manchester; S. B. Haynes, co. Cork; J. A. Leishman, India; C. E. Whitcher, London; C. E. Oakeley, Monmouth; R. W. Fell, Durham; F. B. Lewis, Kent; Rosa Elizabeth Bale, Devon; Edith Grace Collett, Madras; Lilian Trewby, London; J. Wilkie, Newburgh-on-Tay; C. G. Webster, Chandernagore; H. Robins, Jamaica; H. A. E. Noble, Durham; W. S. Harvison, New South Wales; C. A. Kalenberg, Ceylon; E. R. Pollard, Burnley; Mary Charlotte Murdoch, Elgin; A. Clark, Dorset; E. E. Cooper, Great Yarmouth; G. W. Wickham, Winchester; J. O. Bartholomeusz, Ceylon; Edith Lucy Nicholas, Middlesex; J. Cook, Castlemaine; R. Fair, co. Galway; L. C. Murphy, Melbourne; H. J. Dadysett, Bombay; F. K. Cama, Bombay; F. Brown, Govan; P. F. Evans, Cork; J. Chadwick, Burnley; A. A. Fermie, Calcutta; T. G. G. Symons, Falmouth; F. P. Hill, India; L. Burges, Banffshire; W. Beatt, Cavan; T. W. Waddell, Demerara; D. de J. White, Canada; H. L. Murray, Victoria; R. T. Clark, Cumberland; J. H. Wilson, Plymouth; H. Tatley, Liverpool; J. B. Wilson, co. Cork; J. J. C. Elmes, Limerick; R. A. Mate, Salop; J. F. O'Meara, Limerick; J. T. McArthur, co. Tyrone; A. J. McDonald, South Australia; A. G. Merson, Banffshire; T. M. Martin, Lanarkshire; W. L. Senkler, Canada; M. Jones, North Wales; and R. H. Manson, Darlington. Of 66 candidates who entered for the respective divisions, 41 passed.

THE Lord Chancellor has added to the Commission of the Peace Dr. Anstie, for the Borough of Devizes, and Dr. John Roberts and Mr. James Taylor, for the Borough of Chester.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SMALL-POX AT LEICESTER.

AFTER an almost total immunity from small-pox during several years past, Leicester has now upwards of a dozen cases in the infectious diseases hospital. The first of the present series was notified early in September, and since then dropping cases have occurred from time to time, three being reported on November 7th. Leicester is thus brought face to face with a small invasion of small-pox, which it may tax her resources to stamp out in the unprotected state of a large number of the population, owing to the neglect of vaccination. Her efforts to secure isolation of the sick are worthy of all praise, but the administration of the hospital seems to be defective if it be true, as we learn, that three scarlet-fever patients in the institution have been infected with small-pox. It must be remembered, too, that it is just at such a time as the present that small-pox hospitals have displayed prominently their potency for harm to their surroundings. No doubt Leicester will again strain every nerve, and spare no outlay or any inconvenience to the quarantined families to check the spread of the disease. Local feeling seems roused, and vaccination is being performed on a larger scale than is usual under the circumstances, though there would appear to be some little opposition to the rigorous methods of quarantine sought to be imposed on persons exposed to infection. It may be, however, that the town will be fortunate enough to escape an epidemic; but if, as is rumoured, the Royal Commission on Vaccination are about to institute inquiry into the present outbreak, they will at least learn the truth concerning the method of procedure at Leicester when small-pox appears, and the fact that despite avowed disbelief in the efficacy of vaccination, the borough has a secret faith in this prophylactic.

SOMERSET HOUSE AND THE ADULTERATION ACTS.

STATEMENTS of a rather unpleasant nature have been appearing in the press with regard to the chemical department of Somerset House, whose officers, under the Sale of Food and Drugs Act of 1875, act as referees in disputed cases of adulteration. The *Daily Chronicle* quotes "A Responsible Correspondent," who says that, "in the interests of the public, a thorough exposure of Somerset House is most desirable;" and goes on to state that two complaints which have reached the editor of that newspaper seem to bear out this expression of opinion. These complaints referred to cases in which the Somerset House officials were in disagreement with the public analysts. In the first a sample of butter had been certified by a public analyst to contain 15 per cent. of foreign fat, and the analysis was confirmed by the President of the Society of Public Analysts. But the Somerset House chemists seem to have been unable to detect the foreign fat with certainty, and contented themselves with saying that the butter was of the "poorest quality of genuine butter." To which somewhat unsatisfactory statement the analysts are reported to have replied that "butter fat is butter fat," and that it can only be rendered "poor" by the addition of foreign fat. We presume this to mean that the characters which led to the substance being described as "poor" could only have been imparted to it by admixture of foreign fat, and scientifically the contention certainly appears to be perfectly valid. To speak of a "poor fat" is, to say the least, very singular; in fact, it is an obviously incorrect expression. In the other case, a sample of milk was reported as adulterated both by the Public Analyst and by Somerset House, but in different ways and to a different extent, with the result that the summons against the seller was dismissed with costs. In reply to a protest, the Local Government Board stated that they could not interfere, so that, as the *Daily Chronicle* truly says, "between the various authorities the adulterator escapes." A new weekly paper—*Food, Drugs, and Drink*—has published a series of articles in which the acts and proceedings of the Somerset House chemists are denounced in no measured terms. Without wishing to give unqualified approval to the strong language used, and while receiving the statements made with all reserve, we cannot help thinking some of the latter to be so serious that they ought not to be passed over in silence.

Upon the authority of their own report, it is recorded that the number of reference cases under the Food and Drugs Act submitted annually to these officials amounts in the aggregate to some forty-five or fifty; it is pointed out that the experience derived from the examination of such a meagre number of samples cannot be very extensive, and in any case is not to be compared with that gained by the public analysts of England and Wales, who examine some 26,000 samples annually, and with whom it is to be noted that Somerset House has repeatedly disagreed, such disagreements being highly detrimental to the working of the Acts. It is alleged that the Somerset House chemists profess to be able to arrive at a knowledge of the composition of a sample of milk when fresh by analysing the milk when it is decomposed, whereas the impossibility of doing this has been long ago scientifically proved; and it is further asserted that a number of analyses of milk were published some years ago by the head of the department which, by the light of more modern knowledge, have been proved to be wrong, and that the erroneous standards deduced from these incorrect analyses are still employed by the officials in drawing up reports on the samples submitted to them.

But the most serious statement, and one which would seem to call for immediate explanation, is that appearing in the issue of *Food, Drugs, and Drink* for November 5th, in an article headed "The Somerset House Chemists as shopkeepers," it is stated that the Deputy Principal of the Somerset House Laboratory and one of the chemists employed therein are directly interested in one of the large metropolitan co-operative stores, the former gentleman being the Chairman of the Committee of these Stores, and the latter being the analyst to the Association.

By the 10th Section of the Act of 1875, public analysts are debarred from

having any interest whatever in the sale of food or drugs in the districts for which they act, and very properly so. Our contemporary contends (and, we think, rightly) that the position of the gentlemen referred to is invidious, and proceeds to show it to be possible that they might be called upon to deal as referees with articles in the sale of which they were themselves interested. Actual fact lends support to the contention. In a report of the Vestry of Chelsea entitled, "An Inquiry into the Accuracy in Dispensing of Medicines from Physician's Prescriptions," by Dr. Seaton and Mr. Helmer, it is shown that of 50 simple prescriptions sent to be made up by chemists and druggists, 17 exhibited errors exceeding 10 per cent. over or under the amount of the drug prescribed, and that 3 of these, made up at co-operative societies, were among the very worst. In the first of these 3, iron and ammonium citrate was dispensed 29 per cent. short in weight, in another 51 per cent. short, while the third, a lead lotion, contained 57 per cent. too much lead. Such cases are plainly cases which might be dealt with under the Acts, and might be disputed and sent to the Somerset House referees. We confine ourselves to the published facts that have come before us, and refrain from making condemnatory remarks. But public and professional interests demand full and satisfactory explanations, and it may be hoped that they will be forthcoming.

"AN IRRESPONSIBLE AND SOMEWHAT ANTIQUATED BODY."

At a recent meeting of the Inverness Town Council a resolution was unanimously adopted to the effect that a representation be made to the Government pointing out the necessity for the immediate creation of a department in connection with the Government for dealing with public health questions in Scotland and the removal of such questions from the control of the Board of Supervision. The mover of the resolution, in the course of a very vigorous speech, criticised the constitution of the Board which he characterised as "an irresponsible and somewhat antiquated body." The Council further resolved to solicit the co-operation of other local authorities in Scotland with a view to bringing pressure to bear upon the Government in connection with the matter. This is but one of many recent deliberate assaults upon the Board in the midst of much inarticulate muttering. The popular verdict in Scotland with respect to the Board, considered as a national health department, appears to be "weighed in the balance and found wanting." It is not easy to say what should come after, whether a remodelled board with a remodelled system of administration or a separate health department in direct connection with the Secretary for Scotland's office.

THE STATE OF CITY CHURCHES.

At the Consistory Court of London, held at St. Paul's Cathedral on November 4th, an application was made by Mr. Arnold Statham, for the faculty to authorise the removal of a large quantity of human remains from underneath the church of St. Mary Woolchurch Haw, Lombard Street, which were causing unwholesome effluvia. It was proved that 2,105 bodies had been buried under the church and churchyard, part of which had been taken, in 1830, for the formation of King William Street; and the rector stated that on many Sundays during divine service the congregation had been startled by hearing leaden coffins crash through wooden coffins, which had given way through corruption and decay. The church was in so pestilential a state that it was intolerable to enter it in warm weather, and the effluvium was so foul as to account for the deaths of several of the church officials; the rector himself had suffered from an affection of the throat attributable to the decomposition of the bodies. Dr. Sedgwick Saunders made a report to the Home Office, which led to an order in Council being issued dealing with the matter on sanitary grounds. It appeared that the parishioners had subscribed £700, besides which the Charity Commissioners had spent £1,200 in attempting to cement the vaults, but the smell was worse than ever. It had been found impossible hermetically to seal the vaults so as to preclude the escape of gas, and the Vestry now desired to remove the remains entirely, at a cost of £2,000. Dr. Tristram, Q.C., the Chancellor of London, made the order as prayed, giving special directions for the disposal of certain bodies, where the relatives of the deceased desired special provision for them.

SANITARY SYSTEM OF ITALY.

The *Times* correspondent at Rome, under date of October 31st, states that the report set afloat of precautionary rigours, including fumigation, on the Italian frontiers has not the slightest foundation. The statements come from sources interested in preventing foreigners from visiting Italy, and in some cases they have been effectual. Passengers other than labourers experience neither delay nor annoyance of any kind on the frontier. The Sanitary Office has instituted a system of rigorous inspection and disinfection at San Remo, which, being a resort of many consumptive patients, is considered as possibly dangerous from the retention of infection in the apartments in which consumptives have resided, and the thorough disinfection of such rooms is insisted on. The sanitary regulations in Italy are admirable, and the success in the practical application of them, considering the short time they have been in existence, is worthy of the highest commendation.

ACCOMMODATION FOR SCARLET FEVER IN LONDON.

The question of further provision for scarlet fever must be speedily decided unless we are to be content with periodical collapse on the part of the Asylums Board. What this should be must depend upon the extent to which the public will seek hospital treatment, and whatever this may ultimately be it is manifest that the present provision is very inadequate. Dr. Dudfield thinks there should be 4,300 beds for scarlet fever alone. It is impossible to estimate the number accurately, and difficult to do so approximately. It was, however, attempted during the sitting of the Royal Commission, and 1875, the year of the years 1871-80 in which scarlet fever was most prevalent, was chosen as the basis of the calculations. In that year there were 3,651 deaths, the largest number occurring in the eight weeks from the fortieth to the forty-seventh, when they amounted to 938. It was assumed that the mortality was 10 per cent., which gave 9,380 cases; that the average residence in hospital of cases which recovered would be 60 days, of cases which died, 6 days; and it was found that if two-thirds of these sought hospital treatment, 6,000 beds would be required, which, if the year 1870 had been taken, it would have been necessary to double. Let us assume that only one-third would have sought hospital treatment, 6,000 beds would have been necessary in 1870, a number which may not appear large when we reflect that in a population of 5,000,000 it would be necessary to provide 10,000 beds in order that every 1,000 might have two. The truth is that we in London do do not know what an epidemic is. The present demand for hospital treatment of scarlet fever is not due to an epidemic, but mainly to an increased appreciation of hospital treatment, to the removal of pauper formalities for admission and to notification, and whilst the facilities for admission were being increased, the accommodation was not increased in proportion.

BAD MEAT IN CAMBERWELL.

The keeper of a ham and beef shop was lately summoned at the instance of a sanitary inspector for having, on October 4th, sold meat for the food of man contrary to the provisions of Section 47 of the Public Health (London) Act, 1891. A labourer, named Painter, stated that he entered the defendant's shop on the night of October 4th to purchase a knuckle-bone of ham which he saw in the window. Tenpence was asked for it, but witness said he could only give sixpence, and defendant accepted that sum. He had it boiled, and then found it was rotten and maggoty, and took it back to the shop. The defendant would not exchange the meat, but offered to return threepence. The witness refused this, and called a police constable, who advised him to take the stuff to the Vestry Hall, Camberwell, where he saw the sanitary inspector. The latter visited the defendant's premises, where he found a quantity of other unsound meat. It was urged on behalf of the defendant that there was no guilty knowledge on his part. However, the magistrate said he looked upon the case as fully proved, and regarded the offence as a most serious one, and fined the defendant £10 and costs.

As the defendant had rendered himself liable to a penalty of £50, or, at the discretion of the Court, to imprisonment for six months with or without hard labour, he can hardly complain of the severity of the sentence; however, it is doubtless sufficiently severe to act as a warning to traders disposed to offend in a similar manner. The interesting point in this case is that the unsound meat complained of had been already sold. The Public Health Act, 1875, gave no power to examine and seize meat already sold, but under the Act of 1891 this can be done.

TYPHUS IN WIGAN.

The report which Dr. Monckton Copeman has presented to the Local Government Board on an outbreak of typhus fever in Wigan[1] is one of considerable interest and scientific value. The disease is one respecting which many medical men have little practical knowledge, and the issue of a report in which no small space is given to the clinical considerations arising out of the prevalence of typhus is deserving of the attention of the profession.

The outbreak occurred chiefly in the last four months of 1891, the number of cases from August of that year to April last having been 81, in 48 families, with 10 deaths. The whole series of cases, with two exceptions, was traceable, directly or indirectly, to one youth, who fell ill about the third week in August, but the nature of whose illness was not recognised when he was medically attended a week later. The case was certified as one of pneumonia, though later on the true nature of the disease became obvious. Much time was spent by Dr. Copeman in trying to account for this youth's infection, no previous case of typhus having been known in Wigan during a period of twenty years, and in the end it was deemed likely to have been conveyed by a navvy from Liverpool, who slept with the lad about the middle of August, and who, while not well when he arrived, became progressively worse during the next week, when he left with the intention of returning to Liverpool. Dr. Copeman could not trace his further movements.

The outbreak was limited to a portion of Wigan called Scholes, a district inhabited by a poor class of Irish extraction, and containing the worst slums of the town. Courts are numerous, many of the houses are "back-to-back," and in many instances their three rooms are grossly overcrowded, the sexes, too, being mixed promiscuously. (A number of these houses have been condemned as unfit for human habitation.) Ventilation is defective; some of the houses have unoccupied cellars, which form a receptacle for decomposing organic matter, and the inmates of the houses live in a state of filth and squalor. The bedding often swarms with vermin to such an extent as to call for its destruction when removed for purposes of disinfection. The efforts of the sanitary committee have not availed to improve the existing state of affairs. We read of privies having to be fitted with keys, and some one person held responsible for the cleanliness of the closets; and despite this precaution doors of privies have been broken down and removed, some to serve as firewood, whilst the metal pails have been taken from beneath the seats and converted into washtubs, the closets being often consequently in an extremely foul condition. The state of the unpaved yards is filthy in the extreme. Dr. Copeman can only express his surprise that people living amid such surrounding should so long have escaped illness of the zymotic type. He praises highly the excellent administration and usefulness of the Wigan isolation hospital, though he is unable to speak in like terms of the hospital belonging to the neighbouring district of Ince-in-Makerfield, where a few cases of typhus also occurred, traceable to infection from Wigan.

Dr. Copeman deals very fully with the clinical history of the cases, discussing not only those features of the disease common to typhus generally, but speaking also of the interesting and anomalous symptoms met with. In 21 cases the hair was totally lost, but in 4 all the nails were shed. Among ten charts which he gives, there are two in which the rare

[1] On an Outbreak of Typhus Fever in the Wigan and Ince-in-Makerfield Urban Sanitary Districts. Sold by Messrs. Eyre and Spottiswoode, East Harding Street, E.C, Report No. 64. Price 1s.

event of a relapse supervened after intervals of about three weeks, the patients being sisters, both recovered from the attacks. Other complications and sequelæ were also dealt with, and the treatment adopted is set out.

SMALL-POX IN THE NORTH.

THE epidemic of small-pox now prevailing at Warrington has, during the past few days, assumed alarming proportions. Upwards of 100 cases are now in hospital, and the daily notifications show that a firm footing has been obtained by the disease. Despite the precautions available for checking the spread of the epidemic, the sanitary authority are desirous of being further empowered, since all that has been attempted by way of vaccination and isolation has proved unavailing. At all events, in the town some 300 cases have now been notified since the begining of August.

SCARLET FEVER AND MEASLES IN SCOTLAND.

FIFTY-NINE fresh cases of scarlet fever, and 368 of measles, were reported last week in Edinburgh. During the same period there were 44 deaths from measles and 1 from scarlet fever. The death-rate was 25 per 1,000—an unusually high figure. Scarlet fever is at a very high level in Glasgow, the number of known cases being 1,235, an increase from 970 four weeks ago. The accommodation in the city fever hospitals is exhausted, and the Health Committee have asked, and obtained, full powers to take such steps as in the circumstances they may deem expedient.

INFECTIOUS DISEASES ACT IN SCOTLAND.

OF the landward districts of Scotland, 82 out of 108 have adopted the Infectious Diseases Notification Act, 1889. Of 197 burghs, only 63 have adopted the same Act.

EPIDEMIC OF DIPHTHERIA CAUSED BY ICE.

THE *New York Medical Journal* mentions that an outbreak of diphtheria, which recently occurred in a particular part of Washington was traced to infected ice. The body of a child that had died of diphtheria was packed in ice for two days, and when the body was placed in the coffin the undertaker threw the ice into the street opposite his shop. Three children were seen eating this ice and in eight days they all developed acute symptoms of diphtheria and died in a few hours. The total number of cases traced to this source was 32, of which 15 proved fatal.

LEAD IN AËRATED WATERS.

THE presence of lead in tartaric acid is, we read, a matter that is exciting considerable interest in the aërated water trade just now; complaint is made of the looseness of the *B.P.* test for lead. The statement that "an aqueous solution of the acid is not affected by sulphurretted hydrogen" is considered to be much too vague, for a solution of an acid undoubtedly containing lead may be made which will not be precipitated by sulphurretted hydrogen. Moreover, it is stated that it is the very vagueness of the *Pharmacopœia* which is responsible for the continuance of much plumbiferous tartaric acid in the market, and that there is need for greater precision on the point. Granted that the infinitesimal trace of lead in an acid which passes the *B.P.* test reasonably applied can do no harm to a harm to a human being, still there remains the fact that very small quantities are detected by analysis when present in aërated water manufactured with tartaric acid.

At the weekly meeting of the Bridgend Board of Guardians, held on October 29th, it was agreed to increase the salary of Dr. Thomas, Medical Officer for the Ogmore Valley District, £10 per annum.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,514 births and 3,837 deaths were registered during the week ending Saturday, November 5th. The annual rate of mortality in these towns, which had increased from 17.3 to 19.5 per 1,000 in the preceding three weeks, further rose to 19.6 during the week under notice. The rates in the several towns ranged from 12.3 in Swansea, 14.1 in Derby, 15.3 in Cardiff and in Leicester, and 15.5 in Halifax, to 25.7 in Manchester, 26.0 in Blackburn, 26.8 in Wolverhampton, 26.9 in Bolton, and 30.3 in Salford. In the thirty-two provincial towns the mean death-rate was 20.6 per 1,000, and exceeded by 2.4 the rate recorded in London, which was 18.2 per 1,000. The 3 837 deaths registered during the week under notice in the thirty-three towns included 434 which were referred to the principal zymotic diseases, against 387 and 406 in the preceding two weeks; of these, 130 resulted from measles, 78 from diarrhœa, 75 from scarlet fever, 70 from diphtheria, 46 from whooping-cough, 40 from "fever" (principally enteric), and 1 from small-pox. These 434 deaths were equal to an annual rate of 2.2 per 1,000; in London the zymotic death-rate was equal to 2.0 per 1,000, while it averaged 2.4 in the thirty-two provincial towns. No death from any of these diseases was recorded last week in Derby or in Burnley; in the other towns they caused the lowest death-rates in Halifax, Swansea, Newcastle upon-Tyne, Sunderland, and Gateshead, and the highest rates in Croydon, Brighton, Hull, and Salford. Measles caused the highest proportional fatality in Brighton, Cardiff, Oldham, West Ham, Hull, and Salford; scarlet fever in Preston and Plymouth; "fever" in Preston and Birkenhead; and diarrhœa in Blackburn, Hull, and Wolverhampton. The mortality from whooping-cough showed no marked excess in any of the large towns. The 70 deaths from diphtheria included 47 in London, 6 in Croydon, and 3 in Brighton. One fatal case of small-pox was recorded in Leeds, but not one in London or in any other of the thirty-three large towns. Four small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 1 in the Highgate Small-pox Hospital on Saturday last, November 5th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 4,067, against numbers increasing from 3,052 to 4,012 on the preceding eleven Saturdays; 462 new cases were admitted during the week, against 484 and 410 in the preceding two weeks. The 319 deaths from diseases of the respiratory organs in London were 74 below the average, and were equal to an annual rate of 3.9 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, November 5th, 855 births and 637 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.0 and 20 3 per 1,000 in the preceding two weeks, further rose to 22.9 during the week under notice, and was 3.3 per 1,000 above the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 13.8 in Paisley and 17.4 in Dundee, and the highest rates 25.3 in Leith and 26.1 in Edinburgh and in Aberdeen. The 637 deaths in these towns included 198 which were referred to the principal zymotic diseases, equal to an annual rate of 3.9 per 1,000, which was 1.7 above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Aberdeen and Leith. The 299 deaths in Glasgow included 9 from scarlet fever, 7 from measles, and 6 from diphtheria. No fewer than 34 fatal cases of measles were recorded in Edinburgh, 17 in Aberdeen, and 11 in Leith. The death-rate from diseases of the respiratory organs in these towns was equal to 5.1 per 1,000, against 3.9 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, October 29th, were equal to an annual rate of 22.8 per 1,000. The lowest rates were recorded in Lisburn and Lurgan, and the highest rates in Kilkenny and Sligo. The death-rate from the principal zymotic diseases averaged 1.1 per 1,000. The 173 deaths registered in Dublin were equal to an annual rate of 25.8 per 1,000 (against 20.7 and 19.4 in the preceding two weeks), the rate during the same period being 18.5 in London and 19.7 in Edinburgh. The 173 deaths in Dublin included 8 which were referred to the principal zymotic diseases (equal to an annual rate of 1.2 per 1,000), of which 6 resulted from enteric fever, 1 from whooping-cough, and 1 from diarrhœa.

THE INSPECTION OF SHIPPING BY MEDICAL OFFICERS OF HEALTH.

SATOYA.—A ship within the three-mile limit of the coast of Scotland is deemed, for public health purposes, to be in an equivalent position to that of a house situated within the district of the local authority *ex adverso*. Such being the case, the medical officer's duties must be held technically to extend to ships so situated, and he is not entitled to make any extra charge for boarding them. At the same time it is customary, as it is equitable, for local authorities to make some special allowance for services rendered under exceptional, and probably unanticipated, circumstances.

PREPAYMENT OF POSTAGE OF CERTIFICATES UNDER THE INFECTIOUS DISEASE NOTIFICATION ACT.

MR. A. WYNTER BLYTH (Barrister-at-Law, Professor of Hygiene College of State Medicine; Medical Officer of Health and Public Analyst, Marylebone) writes: I note that in the BRITISH MEDICAL JOURNAL of November 5th there is a question as to whether it is essential that the postage of certificates under the Notification Act be prepaid. I am of opinion that this question is definitely settled by the 26th section of the Interpretation Act, 1889 (52 and 53 Vict., c. 63), which enacts that documents generally required by statute to be served or given or sent, if sent by post, "shall be deemed to be effected by properly addressing, *prepaying*, and posting a letter containing the document."

A RECORDER AND ANTIVACCINATION.

OUR attention has been drawn to some unusually reckless and unjudicial observations by Mr. Hopwood, M.P., the Recorder of Liverpool, in encouragement of the antivaccinators. Regardless of the fact that a Royal Commission is now sitting to consider the uses of vaccination and the state of the law, he has relieved his mind by an utterance to the following effect:

"Why should doctors be allowed to set up this tyranny over fathers and mothers? They have been often in times past advocates of quackery which has been exposed. Our ancestors struggled for freedom of religion, and we should equally struggle against quackery by Act of Parliament. We have on our side many men of science, and it is not too much to prophesy that this vaccination will one day be condemned as inoculation has been. This is a battle for liberty and conscience, and parents must have restored to them the right to protect their darlings."

It is proverbially unwise to prophesy before we know, and in this case Mr. Hopwood's prediction is as ill founded as his claim to allow parents to "protect" their children by leaving them exposed to a deadly disease is paradoxical. The question of compulsion is a political question; that of protection is really not open to doubt by any persons who take the trouble to acquaint themselves with the true facts. In this matter Mr. Hopwood's opinions are anything but of judicial value, and his utterances are to be regretted.

TYPHOID FEVER IN LISBON.—An epidemic of typhoid fever of some severity is raging in certain quarters of Lisbon. The Portuguese Government has commissioned Dr. Luiz du Camara Pestana to make a bacteriological examination of the water conveyed to the city by the old aqueduct known as the Aguas Livres, and of the wells in the affected quarters, and to report on the measures necessary to be taken in regard to the water supply in the interest of public safety.

OBITUARY.

JOHN URQUHART, M.D., M.R.C.S.Eng.

With sincere regret we have to record the death of Dr. John Urquhart, at his residence, 250, Union Street, Aberdeen. He has passed away at the age of 66 years, after a long illness. Some three years ago, while a member of a deputation which went on the search for a minister to the Free South Church, he caught a chill. This was the beginning of his illness. Bright's disease developed, and for more than a year he has been confined to his room. Occasionally he was able to see old friends and leave his bed for a few hours. On October 27th his disease rapidly took a dangerous turn, and he died in a few hours.

After completing his course at King's and Marischal Colleges, Aberdeen, Dr. Urquhart proceeded to Edinburgh, where he graduated M.D., afterwards taking the diploma of M.R.C.S. For a short time he practised in Yorkshire, but soon proceeded to India. He resided in Madras, where he soon took a leading place in his profession.

In addition to holding the post of Coroner of Madras, he held the offices of Professor of Medical Jurisprudence and Lecturer in Medicine. His private practice was also large. After spending twenty-two years in India, Dr. Urquhart returned to his native city, and speedily won his way to an extensive practice. In addition to his professional skill he was dowered with the kindest and sincerest of dispositions, and by his patients, his medical brethren, as well as by all who knew him, he was valued as a man of ripe judgment and ready sympathy. Transparent and unselfish in all his ways, it would have been singular if he could have made anything but friends. For many years he was a manager of the Royal Infirmary and Lunatic Asylum, and also of the Aberdeen Dispensary. He was an active member of the Aberdeen Medico-Chirurgical Society, being at one time President, and a frequent contributor to its *Transactions*, and also to the local Branch of the British Medical Association. He was fond of music, and took a keen interest in all the local musical societies. He was an ardent temperance man, and gave his time and his money to many philanthropic movements. By his loss the medical profession in Aberdeen is the poorer in one who was intelligent, conscientious, and devoted to duty, and who through all his ways carried the white flower of a blameless life.

A large and representative gathering of the public and the medical profession followed his remains to St. Nicholas Churchyard.

JEAN ANTOINE VILLEMIN.

Professor Villemin, who died in Paris on October 6th after a long and painful illness, was one of the most distinguished of modern pathologists owing to the important light which he threw on the true nature of tuberculosis. As has been well said, Laënnec discovered the unity, Villemin the inoculability, and Koch the parasite of tuberculosis. Owing to the prevalence of views as to the non-specificity of tuberculosis for many years, the excellence and accuracy of Villemin's work never received full recognition, until the crowning discovery of Koch took the world by storm, and revealed Villemin in his true place.

Villemin was born on January 25th, 1827, at Prey in the Vosges. He studied at the Faculty of Medicine of Strassburg, where he was a pupil of Schuetzenberger. He entered the military department of the French Army in 1848, and subsequently held for several years the post of tutor in the military medical school of Strassburg. In 1853 he obtained the degree of M.D., and not long afterwards left Strassburg to become Professeur Agrégé at Val-de-Grâce. At a later date he became Professor, and retired eventually from the service with the rank of Medical Inspector General. He was elected a titular member of the Academy of Medicine in the Section of Pathology in 1874, and at the time of his death was Vice-President of the Academy.

His earliest published work has to do with the subject with which his name is identified. It was an essay published in Paris and Strassburg in 1861, on the seat, evolution, and nature of tubercle, but it appears to contain no germ of his future discovery. It was in 1865, at the meeting of the Académie de Médecine, that he read his first paper, in which he distinctly advanced the doctrine of the specificity of tubercle. The conclusions of this paper, stated in his own words, are: "Tuberculosis is a specific affection. Its cause is an inoculable agent. Inoculation can be made from it into the rabbit. Tuberculosis belongs to the class of virulent diseases and should be placed in nosological order near syphilis, but nearer to glanders." His subsequent writings could but bring fresh proofs in support of this brilliant generalisation, which had been attained at the cost of comparatively few experiments on animals and with apparatus and appliances of the most imperfect kind. Villemin's paper created a great sensation and was very hotly discussed and criticised. Villemin stood manfully to his thesis, and in 1868 he published his *Etudes sur la Tuberculose*, in which he undertook to prove by reasoning and experiment that it was a specific inoculable disease. His doctrine was not readily accepted either in France or abroad, and, as has been said, for many years was altogether rejected by the fashionable pathology of that day. In time, however, the fundamental truth and importance of his work came to be recognised, and Cohnheim was found to write of his discovery that it was one "from which, if I am not mistaken, will date in the history of tuberculosis, not only an incomparable advance, but also a complete transformation of our mode of regarding the disease."

Villemin's contributions to science were not confined to his pathological studies of tuberculosis. He published a number of papers on other subjects, the most important being devoted to the subject of scurvy. In earlier days he had collaborated with Professor Morel, of Strassburg, in the production of a treatise on human anatomy normal and pathological, which was accompanied by an atlas of original drawings, many of which were drawn from nature by Villemin himself.

EMILE LÉON POINCARÉ, M.D.,

Professor of Hygiene in the Medical Faculty of Nancy.

Professor Poincaré, of Nancy, who passed away not long ago, was born in that town in 1828. He began his medical studies in his native town, and after spending two years in the Military Hospital at Metz, went to Paris where he graduated Doctor of Medicine in 1852, the subject of his thesis being "Ophthalmia Neonatorum." On his return to Nancy he became connected with the Medical School of that place, and in 1858 he was appointed Joint Lecturer on Anatomy and Physiology. When the Strassburg Faculty of Medicine was transferred to Nancy in 1872, Poincaré was appointed Joint Professor of Physiology. In 1874 he began to lecture on hygiene, and when a Chair of Hygiene was established in 1879, he was invited to be its first occupant. This post he continued to hold till his death.

Poincaré was an indefatigable worker, and in spite of the demands on his energies entailed by a large practice, he never allowed anything to interfere with the efficient discharge of his duties as a teacher. In addition to this he found time to contribute largely to medical literature. Besides numerous papers on the pathology of general paralysis, the structure and functions of the thyroid gland, diabetes, etc., he published in 1874-76 a work in three volumes on the *Normal and Pathological Anatomy of the Nervous System*. His later literary and scientific life was given chiefly to hygiene; to this period belong two important works, *Prophylaxis and Medical Geography of the Principal Diseases within the Province of Hygiene* and a *Treatise on Industrial Hygiene*.

Professor Poincaré was a corresponding member of the Académie de Médecine. His obsequies were attended by all the members of the Nancy professional body in their academic robes; funeral orations were delivered by Professor Bernheim, Dr. Benoit, and Dr. Vallois.

The Prohibition of the Importation of Rags. — We understand that in consequence of numerous applications from commercial centres, pressing the desirability of some relaxation of the orders at present in force prohibiting the introduction of rags into England from certain countries of Europe, the Local Government Board have instituted inquiry into the subject, with the special object of learning what classes of goods, if any, now falling under the general heading of "Rags," it may be desirable and practicable to exclude from the operations of the orders.

HOSPITAL AND DISPENSARY MANAGEMENT.

HOSPITAL ACCOMMODATION IN ABERDEEN.

Dr. Robert John Garden, in his retiring address as President of the Aberdeen Medico-Chirurgical Society, on November 3rd, dealt with the subject of "Medical Charities; their Functions and Correlations." He stated that within the past twelve years there had been an immense activity in Aberdeen in the way of reforming the local charities. Apart from Poor-law organisations, they had in the city the Royal Infirmary, Children's Hospital, Dispensary, Eye Institution, and Convalescent Hospitals. It was a curious fact, he said, that during the last forty years the number of patients treated in the Royal Infirmary had not materially increased. He advocated that the excess of beds which would be likely to occur in the new infirmary should be used for the treatment of the sick poor now quartered in poorhouses, the parochial authorities being made to pay a reasonable sum for the use of the beds. He was in favour, to prevent overlapping, of all children being treated in the Children's Hospital, and not as at present, some occupying beds in the Royal Infirmary. He was in favour of payment of the hospital staff, as tuition to that body in obedience and economy. He extolled the present nursing system, which he thought, under the skilful care of Miss Lumsden, one of the best possible. The dispensary he looked on as an institution possessing the highest value for clinical teaching, in addition to its charity work. He advocated the widening of the scope of the Incurable Hospital, so that it might overtake the whole of the north of Scotland; and grant a few beds for incurable children. He advised the sale of the present Convalescent Hospital, which is only about one mile distant from the Royal Infirmary, on a not very salubrious site, and the purchase of a new site somewhere in the country. He ended his interesting address by stating that it was gratifying to think that in hospital matters they were well advanced in Aberdeen, remarking that, considering the size of the city and the present opportunities offered, there was no reason why it should not have an organised system of medical charity as perfect as it was possible for any human system to be.

THE COUNTY ASYLUM, DORCHESTER.

In connection with the annual report of this institution we have to note, what is unhappily an exception to that which maintains in the great majority of asylums, namely, a decrease in the number of the inmates, there being 8 fewer patients at the end than at the beginning of the year 1891, namely, 472 as compared with 480. The admissions were of an unfavourable type, and described by Dr. MacDonald as a long list of ruin and decay mainly composed of aged men and women, for whom he considers the asylum would seem the most suitable home. He makes some pertinent remarks with regard to the admission of young children into the wards of asylums which deserve special mention, for it is a point upon which we have frequently commented strongly. He says this juvenile class of patient is largely on the increase, and the question of making special provision for them should not be lost sight of. Though every precaution is taken to place them in wards where they will be least likely to suffer from constant association with minds degraded, it is not possible to preserve them from every evil influence, and the tender mind has a proclivity for impressive, if not always wholesome, words and expressions. With regard to causation, hereditary predisposition accounts for over 30 per cent. of the admissions. Of the discharges, 46.78 per cent. is a satisfactory recovery rate, while the mortality was 8.8 per cent. calculated on the total number of patients under treatment. A *post-mortem* examination was made upon every case. With regard to the recent lunacy legislation Dr. MacDonald says we are only just beginning to experience the full force of the absurd and endless enactments. The weekly maintenance rate is given as 8s. 9d. per head per patient.

THE WORCESTER CITY AND COUNTY ASYLUM.

As in other institutions of similar kind, the authorities of this asylum draw attention to the increasing demands upon them for accommodation for the insane poor of the county. It appears from the annual report of the Committee that, while in 1886 the total number of lunatics in the asylum was 848, this had increased in 1891 to 973. Additional buildings have therefore been decided upon for the accommodation of 140 additional male patients, and, in fact, these buildings are already in course of construction. The Commissioners in their report comment with some emphasis upon the question of the water supply, and state that the mode of providing the patients with drinking water is most unsatisfactory, and express surprise that no improvement has been effected in this direction. Among the cases admitted, 88 were stated to be suicidal, and 113 dangerous to others. Fortunately, Dr. Cook, the Medical Superintendent, is able to record that during the twelve months covered by his report no case of suicide occurred. The recovery rate among the discharged patients is satisfactory, and somewhat above the average of county asylums. The death-rate among the male patients is high compared with that among the females—namely, 10.7 per cent. and 2.9 per cent. respectively. General paralysis proved fatal in 21 cases. The weekly cost a head for the maintenance of the patients was fixed at 8s. 2d.

SOUTHERN HOSPITAL, MANCHESTER.

The twenty-sixth annual meeting of the subscribers to the Manchester Southern Hospital and Maternity Hospital was held last week. From the annual report we gather that the total number of beds is now 52, including 12 in the maternity department. The year's work cost £3,361, and the income, including the Hospital Sunday Fund, was only £2,651. There is a deficit on the year's work of £710. One of the most interesting features connected with this hospital is that it is rapidly becoming an important centre where students and young medical practitioners receive instruction in gynæcology. At present, however, the scope for such instruction is somewhat limited, owing chiefly to the want of adequate accommodation for the purpose. It is to be hoped, in the interests of the institution itself and in the interests of medical education in Manchester, the hospital will soon be transferred to a new site on the Owens College Hospital Estate. This can hardly take place until the whole question of the extension of the Royal Infirmary in Manchester is permanently settled; but events at present seem to be moving very slowly towards that end.

MEDICAL NEWS.

The University of Liége will celebrate the seventy-fifth anniversary of its foundation on November 19th.

The Royal Portsmouth Hospital has received a donation of £132 10s. 11d., the result of a festival organised by the Mayoress, and held in the Town Hall.

Mr. J. S. Edkins, M.A., M.B., Senior Demonstrator of Physiology in Owens College, Manchester, has been elected to the vacant George Henry Lewes studentship.

The next half-yearly dinner of the Aberdeen University Club, London, will be held at the Holborn Restaurant on Wednesday, November 16th, at 7.30 p.m., Professor Ferrier, M.D., LL.D., F.R.S., in the chair.

Dr. Séverin Lachapelle, Professor of Hygiene in the Medical Faculty of the Laval University (Montreal), and formerly editor of the *Union Médicale de Canada*, has been elected a Member of the Federal Parliament of Canada.

A memorial tablet has been placed on a house in Segovia, in which Dr. Eusebio Castelo y Serra, a distinguished Spanish syphilographer, who was at one time President of the Royal Spanish Academy of Medicine, was born. Dr. Castelo was the first editor of the *Siglo Medico*.

Presentation.—Dr. J. S. Y. Rogers was on November 3rd presented by the nurses and students of the Dundee Royal Infirmary with an aspirator and laryngoscope, in appreciation of the kindness and courtesy shown to them and the patients during his residence in the infirmary which he is leaving.

Dr. William W. Pearson died on November 4th, at the residence of his son in Cork, at the advanced age of 74 years, after a prolonged illness. He graduated M.D. St. Andrews in 1845, and was a member of the English College of Surgeons. The deceased was formerly dispensary medical officer of Carrigaline district.

Proposed International Presentation to M. Pasteur.—The Academy of Science has resolved to open an international subscription, with the object of presenting M. Pasteur, on the occasion of his 70th birthday, on December 27th, with a testimonial expressive of the esteem in which he is held by men of science throughout the world.

The recently elected Town Council of Aberdeen now contains two medical men. Dr. John Robertson has had a seat in the Council Chamber for the past two years, and is convener of the Public Health Committee, and has done valuable work in that capacity. Dr. A. T. G. Beveridge, who "ran" as a labour candidate, was returned at the top of the poll.

How to Prevent and Oppose Cholera.—The National Health Society, 53, Berners Street, Oxford Street, W., has published at 5s. per 100, or £1 1s. per 1,000, some excellent plain instructions for heads of families and others. They are corrected by the best authorities, and will be very useful for distribution by local authorities and medical officers of health. The memorandum is divided under the following heads:—Everyone can help; accumulations of filth; sinks and drains; water supply; houses and premises; eating and drinking; cleanliness and clothing; treatment of patient; precautions in the sick room; caution against panic.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Johann Jacob Bischoff, Professor of Obstetrics and Gynæcology in the University of Basel since 1867, where he was the first to teach these subjects practically, aged 51; Dr. Amós Calderon, Medical Director of the Baths at Cestona, a well-known watering-place in Spain, Member of the Royal Spanish Academy of Medicine, etc.; Dr. T. E. d'Odet d'Orsonnens, Professor of Clinical Midwifery in the Laval University, Montreal, and Knight of the Order of St. Gregory, aged 73; and Dr. Julio de Moura, of Petropolis, Brazil, one of the leading physicians of Brazil, and author of numerous papers on beri-beri, chyluria, pulmonary tuberculosis, etc.

Winter Travel to India and Australia.—The season for such travelling has now commenced. The P. and O. Company have just taken over from the builders their new steamer *Australia*, which was launched from the yard of Messrs. Caird and Co., of Greenock, on July 29th. The speed trials of the *Australia* fully realised all the expectations that had been formed of her, the vessel attaining a speed of nearly 19 knots an hour. She is 7,000 tons gross, is 470 feet long by 50 feet in breadth, and her engines indicate 10,000 horse power. She is most elaborately fitted up. The different saloons, library, music, drawing, and smoking rooms are ornamented by carvings by the well-known artist, Signor Cambi, of Siena, from designs by Mr. T. F. Collcutt, the architect of the Imperial Institute. This latest addition to the P. and O. Company's fleet will accommodate 413 saloon passengers, and is intended for the India, China, and Australian Mail Services. She and her sister ship, *Himalaya*, are the largest passenger steamers afloat in the Australian-Indian Service, and quite eclipse any of the steamers of the company's existing fleet, both in speed and luxurious appointments. A special feature in these ships is the large number of deck cabins and bath rooms, which are fitted with douche, spray, wave, and needle baths; these will prove a great luxury in the tropics. The *Australia* leaves for Australia on her maiden voyage on November 25th.

MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon; doubly qualified. Salary, £150 per annum, and £30 per annum allowance for cab hire. Applications to the Secretary by November 16th.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House-Surgeon to the Western Branch, unmarried, doubly qualified. Salary, £140 per annum (less board at 8s. per week), with furnished apartments, coals, gas, and attendance. Applications to the Assistant Secretary by December 15th.

BROMPTON AND KNIGHTSBRIDGE PROVIDENT DISPENSARY, 28, Fulham Road, S.W.—Medical Officer. Applications to Dr. Bland, 33, Rosary Gardens, by November 15th.

CANCER HOSPITAL (FREE), Fulham Road, S.W.—House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with board and residence. Applications to the Secretary by November 18th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician. Board, residence, and allowance for washing provided. Appointment for six months. Applications to the Secretary at the Office, 24, Finsbury Circus, E.C., by December 8th

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square.—Demonstrator. Honorarium £50 per annum. Applications to Morton Smale, Dean, by November 21st.

DENTAL HOSPITAL OF LONDON, AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square.—Lecturer on Dental Metallurgy. Applications to Morton Smale, Dean, by November 21st.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House-Physician. Board and lodging provided. Applications to the Secretary by November 16th.

GENERAL HOSPITAL, Barbadoes, West Indies.—Junior House-Surgeon. Salary, £200 per annum, and quarters. Appointment for three years. Applications to the Secretary by December 1st.

GLAMORGAN COUNTY COUNCIL.—County Medical Officer. Salary, £750, of which £150 is intended to cover all travelling, office, and laboratory expenses. Applications to T. Mansel Franklin, Clerk, Glamorgan County Offices, Cardiff, by November 21st.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon unmarried. Appointment for six months. Salary, £25, with board and residence. Applications to the Secretary by November 15th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Ophthalmic Surgeon. Applications to the Secretary by November 15th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Assistant Physician. Applications to the Secretary by November 15th.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon, doubly qualified. Salary, £70 per annum, with residence and maintenance in the house. Applications to the Chairman of the Committee by November 23rd.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Assistant Surgeon, must be F.R.C.S.Eng. Applications to Charles H. Byers, Secretary, by November 14th.

MONKSTOWN HOSPITAL, County Dublin.—Resident Medical Officer. Salary, £40 per annum, with board, apartments, gas, and coal. Applications to the Honorary Secretary by November 14th. Election on December 1st.

NEW HOSPITAL FOR WOMEN, Euston Road.—Lady as Assistant Dispenser. Salary, £25 per annum, rising to £35. Applications to M. M. Bagster, Secretary, by November 23rd.

NEW LONDON COUNTY ASYLUM, Claybury, Woodford, Essex.—Medical Superintendent; doubly qualified. Salary, £1,000 per annum, with house, coals, lighting, milk, and vegetables. Applications on form to be obtained of Mr. R. W. Partridge, Clerk to the Asylum Committee, 21, Whitehall Place, S.W., by November 25th.

NORTHERN INFIRMARY, Inverness.—House-Surgeon and Dispenser. Salary, £75 per annum, with board, etc. Applications to the Honorary Secretary, Mr. Duncan Shaw, W.S., by November 26th.

PADDINGTON INFIRMARY.—Assistant to the Medical Superintendent and Assistant Medical Officer of the Workhouse; unmarried; age between 23 and 30. Salary, £100 per annum, rising £10 annually to £120, with board, lodging, and washing. Applications to H. F. Aveling, Clerk to the Guardians, 289, Harrow Road, by November 12th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Election to the Court of Examiners. Applications to the Secretary by November 30th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiner in Anatomy for the Second Professional Examination. Applications to the Secretary by November 24th.

ROYAL HOSPITAL FOR INCURABLES, Dublin.—Resident Medical Officer, qualified in Medicine, Surgery, and to compound medicines. Salary, £70 per annum, with board and furnished apartments. Appointment tenable for two years. Applications to Mr. Thomas Grey, Registrar. Election on November 14th.

ROYAL INFIRMARY OF EDINBURGH.—Superintendent, must be member of medical profession. Salary, £500 per annum, with free house and gas. Applications to Mr. James S. Trainer, Treasurer and Clerk, by December 5th.

ST. LUKE'S HOSPITAL, London, E.C.—Clinical Assistant; appointment for six months. Board and lodging. Applications to the Secretary by November 24th.

ST. MUNGO'S COLLEGE, Glasgow.—Chair of Anatomy. Applications to Henry Lamond, Secretary, by December 1st.

SHEFFIELD GENERAL INFIRMARY.—House-Surgeon, doubly qualified. Salary, £120 per annum, with board, lodging, and washing, with a prospective advance of £10 per year for the second and third years. Applications to "Medical Staff," to the care of the Secretary, by November 19th.

SHEFFIELD GENERAL INFIRMARY.—Assistant House-Surgeon, doubly qualified. Salary, £80 per annum, with board, lodging, and washing. Applications to the "Medical Staff," to the care of the Secretary, by November 19th.

TAUNTON AND SOMERSET HOSPITAL.—Honorary Surgeon. Applications to J. H. Biddulph Pinchard, Secretary, 13, Hammet Street, Taunton, by November 21st.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Second Dental Surgeon. Applications to S. M. Quennell, Secretary, by November 15th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Assistant Physician. Applications to Charles H. Byers, Secretary, by November 28th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician; appointment for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary, by December 7th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Surgeon; appointment for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary, by December 7th.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon.—Salary, £80 per annum, with board, rooms, and washing. Applications to the Secretary by November 22nd.

MEDICAL APPOINTMENTS.

Addenbrooke, E. H., M.R.C.S., appointed Medical Officer for the Wolverley Sanitary District of the Kidderminster Union.

Ashe, E. Oliver, M.D.Lond., F.R.C.S.Eng., appointed Senior House-Surgeon to the Kimberley Hospital, South Africa.

Barnes, E., M.B., B.C.Cantab., appointed Second House-Physician to the General Infirmary, Leeds.

Black, W. G., F.R.C.S.Eng., appointed Honorary Assistant Surgeon to the Royal Infirmary, Newcastle-on-Tyne, *vice* Mr. T. A. Dodd, resigned.

Bond, C. Hubert, M.B., C.M.Edin., appointed Resident Clinical Assistant to the West Riding Asylum, Wakefield.

Britton, Thomas, M.D.St.And., M.R.C.S., D.P.H.Camb., reappointed Medical Officer of Health to the Shelf Local Board.

Campbell, James, M.B Glas., L.R.C.S.Edin., appointed Public Vaccinator for Clunes, Victoria, Australia.

Clark, F. W., L.R.C.P.Lond., M.R.C.S., appointed *pro tem.* Assistant Medical Officer of Health for the Tyne Ports.

Clarke, J. Jackson, M.B.Lond., F.R.C.S., etc., appointed Assistant Surgeon to the North-West London Hospital, Kentish Town Road.

CRAVEN, R. M., L.R.C.P.Edin., M.R.C.S., reappointed Medical Officer of Health for the Westmoreland Combined Sanitary Districts.

CROSLAND, G. W. K., M.R.C.S., L.R.C.P., appointed Fourth House-Surgeon to the General Infirmary, Leeds.

DALISON, B. E., M.B., C.M.Edin., appointed Medical Officer for the Puddletown District of the Dorchester Union.

DUFF, W. W., M.D.R.U.I., appointed Medical Officer for the Aghalee Dispensary District, *vice* Dr. Scott, resigned.

EDKINS, Mr. A. E., appointed County Analyst for Hertfordshire.

ENGLISH, T. H., L.R.C.P.Lond., M.R.C.S., L.S.A., appointed Junior House-Surgeon to the Poplar Hospital for Accidents, East India Road, E.

FIRTH, E., L.S.A., appointed Resident Obstetric Officer to the General Infirmary, Leeds.

FOOT, Ernest G., appointed Medical Officer of the Fourth District of the Petworth Union, *vice* S. Rutherford, resigned.

FOSBROKE, G. H., M.R.C.S., D.P.H.Camb., reappointed Medical Officer of Health for the Worcestershire Division of the Alcester Rural Sanitary Authority.

FRASER, D. A., M.D.Brux., M.R.C.S., reappointed Medical Officer of Health for the Borough of Totnes.

FREELAND, Reginald Stilwell, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., appointed Resident Medical Officer to the Pay Wards of Guy's Hospital.

GORNALL, J. G., M.A., M.B.Cantab., M.R.C.S., L.R.C.P., appointed Assistant Medical Officer of Health for the Borough of Warrington and Medical Superintendent of the Hope Hospital for Small-pox.

HAWORTH, John, appointed Public Analyst for Tiverton Borough.

HAYCOCK, Henry Edward, L.R.C.P.Edin., M.R.C.S., appointed Medical Officer for the Thirteenth District of the Basford Union.

HOGG, G. H., M.B., C.M.Edin., appointed Junior House-Surgeon to Clayton Hospital, Wakefield, *vice* J. A. Wait, M.B., B.C.Camb., resigned.

HUGHES, W. L., M.R.C.S., reappointed Medical Officer of Health to the Carmarthen Town Council.

JACKSON, J. J., L.R.C.P., L.M.Edin., L.R.C.S.Irel., appointed Medical Officer of Health for the Rural Sanitary District of the Wakefield Union.

JEPHCOTT, R. W., L.R.C.P., L.M., L.R.C.S.Edin., reappointed Medical Officer of Health for the Warwickshire Division of the Alcester Rural Sanitary Authority.

KEMMIS, H. M., L.R.C.P.Irel., M.R.C.S., appointed Medical Officer to the Workhouse of the Bridgwater Union.

KEMPSTER, W. H., M.D.St.And., L.R.C.P., L.M.Edin., M.R.C.S., appointed Medical Officer of Health for Battersea.

LEGGATT, Gerard S., M.R.C.S., L.S.A., appointed Medical Officer of the Outdoor Poor and the Workhouse of the Hoo Union.

MACKENZIE, J. Cumming, M.B., appointed Medical Superintendent of the Northern Counties Asylum, Inverness, *vice* Dr. Aitken, deceased.

MAYO, W. C., M.R.C.S., L.R.C.P., appointed Resident Medical Officer at the Ida Hospital of the General Infirmary, Leeds.

MOORE, A. J., M.R.C.S., reappointed Medical Officer for the St. Lawrence Sanitary District of the Reading Union.

MORTON, Edwin, M.D.Edin., reappointed Medical Officer of Health for Redditch.

PERRY, S. Herbert, M.R.C.S., L.R.C.P., appointed House Surgeon to King's College Hospital.

PHILLIPS, Mr. E. W., appointed Medical Officer for the First Western District of the Billesdon Union.

SCOTT, Bernard, M.R.C.S., appointed Surgeon to the In-patients of the Royal Victoria Hospital, Bournemouth.

SCRATCHLEY, H. W., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Third Sanitary District of the Poole Union.

SNELL, Sidney H., M.B., B.S.Lond., M.R.C.S., L.R.C.P., appointed Medica Officer for the Grays Thurrock Urban Sanitary District of the Orset Union, *vice* A. W. Stirling, M.D.Edin., resigned.

THEED, Wm. C., M.R.C.S., appointed Public Vaccinator for Allansford, Victoria, Australia.

THOMPSON, Dr., appointed Medical Officer of Earl Yarborough Lodge of Oddfellows, Newport, Isle of Wight, *vice* F. B. Tuttiet, M.R.C.S.Eng., resigned.

WALKER, H. Stanley, M.B., C.M.Edin., appointed House-Surgeon to the Dover Hospital and Dispensary.

WHITEHEAD, A. L., M.B.Lond., appointed Third House Surgeon to the General Infirmary, Leeds.

WICKHAM, Harry Townshend, M.B., C.M.Edin., appointed Medical Officer of the No. 2 District of the Newport Pagnell Union.

WILLCOCKS, Arthur Durant, M.R.C.S.Eng., L.S.A., appointed Medical Officer of the Workhouse of the Taunton Union.

YOUNG, James Martin, M.B., C.M.Aberd., appointed Ophthalmic Surgeon to the West Bromwich District Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. R. Marcus Gunn: Affections of the Crystalline Lens. Parkes Museum, 74a, Margaret Street, W., 4 P.M.—Dr. L. C. Parkes: Hospitals. 101, Great Russell Street, W.C., 8 P.M.—Dr. Galloway: Genito-Urinary Tract.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Clinical evening. The President: Specimen of Old Dislocation of Ankle. Dr. Percy Kidd: Tuberculous Ulceration of Pharynx successfully treated by Lactic Acid. Mr. Goodsall: (1) Case of Left Inguinal Colotomy for Pelvic Tumour; (2) Case of Left Inguinal Colotomy, with subsequent removal of part of the rectum with the growth, in a man, aged 70. Dr. Hadden: Case of Urticaria Pigmentosa. Mr. Harry Fenwick: "Caisson" Work in Bladder Surgery. Mr. Lockwood: Case of Radical Cure of Hernia. Mr. Turner: Bony Tumour of Pelvis associated with Rheumatoid Arthritis of the Hip. Dr. Abraham: (1) Case of Leprosy improving under Treatment; (2) Two Cases of Skin Disease. Dr. Herschell: Case of Pulsatile Tumour of the Neck. Mr. Sheild: (1) Case of Cystic Tumour of Auricle. (2) Early Case of Raynaud's Disease.

TUESDAY.

LONDON POST GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Theo. Hyslop: General Paralysis of the Insane. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Dr. Payne: Eczema, its Treatment. 101, Great Russell Street, W.C., 8 P.M.—Dr. Herman: Treatment of Bleeding Fibroids.

ZOOLOGICAL SOCIETY OF LONDON, 3, Hanover Square, W., 8.30 P.M.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Special general meeting to consider proposed alterations in by-laws. Ordinary meeting: Dr. Sherrington: Colour Granules in Cells in Cholera, etc. Mr. J. Jackson Clarke: (1) Epitheliomata on the Legs of a Hen; (2) Genito-Urinary Organs of a Pseudo-Hermaphrodite with Capillary Urethra and Symmetrically-Sacculated Bladder. Mr. C. F. Beadles: Fibroma of the Male Breast. Card Specimen—Dr. E. C. Perry: Colloid Carcinoma of the Stomach at 81.

WEDNESDAY.

LONDON POST GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. J. Mitchell Bruce: Aneurysm of the Aorta. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Stanford Morton: Retinal Affections.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, 8 P.M.

ROYAL METEOROLOGICAL SOCIETY, 25, Great George Street, Westminster, S.W., 8 P.M.

THURSDAY.

LONDON POST GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Gowers: Cases in Hospital. Hospital for Sick Children, Great Ormond Street, 4 P.M.—Dr. Montague Lubbock: Bronchitis in Children. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Mr. Timothy Holmes: Surgical Cases in the Wards. London Throat Hospital, Great Portland Street, 8 P.M.—Dr. Woakes: Some Nasal Neuroses.

HARVEIAN SOCIETY, Stafford Rooms, Edgware Road, 8.30 P.M.—Dr. Rayner Batten will exhibit and explain a Clinical Pulse Manometer. Mr. Buckston Browne: The Treatment of Impassable Stricture of the Urethra. Mr. Charles Gross: Some Obscure Head Injuries.

NEUROLOGICAL SOCIETY OF LONDON, 20, Hanover Square, 8.30 P.M.—Dr. Head: On the Distribution of Sensory Disturbances, with Special Reference to the Pain of Visceral Disease.

FRIDAY.

LONDON POST GRADUATE COURSE, Bacteriological Laboratory, King's College, 11 A.M. to 1 P.M. Professor Crookshank: Lecture—Leprosy and Glanders—Practical Work Sections. Hospital for Consumption, Brompton, 4 P.M.—Dr. J. Mitchell Bruce: The Prognosis of Heart Disease.

SATURDAY.

LONDON POST GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. H. Corner: General Paralysis of the Insane.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

DINGLEY.—On October 28th, at 11, Upper Woburn Place, the wife of Allen Dingley, F.R.C.S., of a son.

GRINDON.—On October 26th, at Olney, Bucks, the wife of J. J. Grindon, M.R.C.S., L.S.A., of a daughter.

MOSSE.—On October 8th at Mhow, Central India, the wife of Surgeon-Captain Charles G. D. Mosse, F.R.C.S.I., Army Medical Staff, of a son.

MARRIAGES.

MCNAUGHTAN—TAYLOR.—At the Catholic Apostolic Church, Catherine Street, Glasgow, on November 8th, by the Rev. Hugh Stewart, John McNaughtan, M.D. and L.R.C.S.Edin., South View, H.M. General Prison, Perth, to Janie Turnbull, younger daughter of James Taylor, Esq., Governor H.M. General Prison, Barlinnie, Glasgow. (No cards.)

WALKER—LAWRIE.—At Monte Video on October 29th, by the Rev. Samuel Handcock, chaplain to the British Legation, Herbert J. Walker, M.B., C.M.Edin., of San Jorge, Durazno, Central Uruguay, to Jessie, third daughter of the late Dr. T. Dick Lawrie, Monte Video. (By cable.)

DEATHS.

MACKENZIE.—On October 16th, at 47, Welbeck Street, John Ingleby Mackenzie, M.B.Cantab., aged 58.

MILLER.—At Rowallan, Saltcoats, Ayrshire, Hugh Miller, M.D., of Birkenhead, aged 47.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

PROFESSIONAL SECRECY.

ANXIOUS writes: Some time since I consulted an English physician—or at least a regular doctor of some sort, not a quack—for a complaint from which I was suffering. He now threatens to reveal this, together with the nature of the complaint. Am I not right in thinking that his doing so would be what is called "infamous conduct in a professional respect?" And, if so, is there not some way in which I could bring him to book without the risk of publicity, which is exactly what I wish to avoid? Kindly answer, if possible, in your next issue, as time presses.

*** If the practitioner in question is registered, our correspondent should bring the matter to the notice of the President of the General Medical Council, 299, Oxford Street, W.

TRIGGER FINGER.

B. E. F. writes: I have a patient suffering from what I believe is called "trigger finger." Upon grasping any article firmly with the right hand, the index finger becomes fixed in flexion, associated with painful muscular spasm. Reduction is readily effected by extreme flexion, with an audible snap. There is an entire absence of anything suggesting "fatigue spasm" in its causation. I should be grateful for any help to an understanding of the pathology and treatment of the condition.

ANSWERS.

JOHN H. SANDERS.—Certainly not; such work can only be satisfactorily carried on by a duly qualified medical man.

F.R.C.S.—We cannot undertake to recommend any individual practitioner.

L.S.A.—A Licentiate of the Edinburgh Royal Colleges of Physicians and Surgeons is entitled legally to practise midwifery and to recover fees.

R. E. BURGES (Chester).—1. The first set of facts, with adequate detail, should be communicated to the Clerk of the Apothecaries' Society (Mr. J. R. Upton), who would judge the fitness of the case for prosecution by the Society. 2. The second set of facts should be communicated to the Registrar of the Pharmaceutical Society of London, who are now checking, by prosecution in numerous cases, the sale of drugs (especially those of a potent character) by grocers.

J. M. C. writes, in answer to "Proffer": I should recommend him strongly to try California; he will there find a magnificent country and a lovely climate, and fruit farming both healthy and lucrative. My son, who has just arrived there, sends home a glowing account. "Proffer" will get all the information he desires, not only as to America but also as to the Colonies, if he will call upon Messrs. Scott and Jackson, 16, Cockspur Street, Charing Cross.

PROVIDENT MEDICAL DISPENSARIES.

DR. PRICE will be able to obtain some particulars of the working of provident dispensaries, properly so called, in country districts and small county towns from Mr. C. H. Warren, Secretary of the Metropolitan Provident Association, the constitution of which was approved by the late Dr. Joseph Rogers, Sir T. Spencer Wells, Mr. T. Holmes, Sir Charles Trevelyan, Mr. Bousfield, and others who have studied the subject on a basis intended to be just to the medical profession and of public utility to the provident members of the working classes.

PROBABLE RECURRENCE OF CHOLERA IN 1893.

DR. R. J. BOWER (Northwich).—1. We can state recrudescence of cholera on the Continent of Europe in the spring would accord with the history of previous epidemics, and is regarded by all competent authorities as most probable, and that the danger of its reimportation into Great Britain would recur. 2. Mr. Ernest Hart's opinions on the subject have been clearly indicated in the editorial articles in this JOURNAL, and in the address as Chairman of the National Health Society, of which a short summary was published in the BRITISH MEDICAL JOURNAL of September 3rd, page 562, and the full text printed in the *Nineteenth Century Magazine* of October last.

NOTES, LETTERS, Etc.

F.R.C.S., Harley Street, has omitted to send his name.

MICROBIC THERAPEUSIS.

THE latest attempt to apply biological chemistry in therapeutics is in the treatment of epilepsy and chorea. The observation that the fits may be temporarily suspended while the epileptic is suffering from erysipelas or suppurative inflammation led M. Lannois (*Lyon Méd.*, October 22nd, 1892) to employ the subcutaneous injection of the filtered fluid from a cultivation of staphylococcus aureus. In one case of epilepsy and in two of chorea thus treated the results were encouraging.

HYÈRES AND THE RIVIERA.

DR. CH. E. CORMACK (Hyères) writes: Judging by the numerous letters I have received lately from intending visitors to Hyères and from members of the medical profession there appears to be an impression that one result of the Queen's visit to this town at the end of last season has been to materially increase the cost of living and hotel charges. This is altogether a mistake; the charges are what they have always been, and I should be much obliged if you would kindly give these few lines a place in your next issue in the interest of Hyères. I would call attention at the same time to the fact that there is not, nor has there been, a single case of cholera along the Riviera.

THE PROTECTIVE INFLUENCE OF VACCINATION.

DR. GEORGE ROBERTSON (London, N.W.) writes: As the Royal Commission on Vaccination are now carrying out their investigations, it may not be too late to suggest, if the point has not been considered and is within the scope of their inquiries, the desirability of ascertaining the effect of acute febrile constitutional diseases on the protective influence of vaccination. My reason for bringing this forward is that during the small-pox epidemic of 1870-71 I observed that patients convalescent from an acute and prolonged attack of remittent or enteric fever could be successfully revaccinated, although the operation had been previously done at a comparatively recent period with good results. The importance of this point in determining the degree of the period of protection as bearing on the occurrence of cases where, notwithstanding good and typical marks, the patient has been proved to be imperfectly protected by a subsequent attack of small-pox, must be my apology for bringing this matter forward.

SOLITARY SIGNALMEN.

DR. W. WILBERFORCE SMITH (London) writes: That the unfailing operation of a single brain and pair of eyes should be responsible for the safety of our railway trains is surely an anomaly when viewed in the light of physiology. Possible failure under the influence of drowsiness, drink, unascertained *petit mal*, or other sudden illness, a careless mood, a new absorbing grief, or other emotion, are all obviously capable of interfering with the operation of the cerebral apparatus. Considering such possibilities, it is marvellous that railway trains are every second safely passed on by an army of signalmen. That exceptions like that at Thirsk will, under the present system, occur now and then is a physiological certainty. Against analogous possibilities of mistake our leading chemists take due precautions. Every prescriber finds the signs of checking by a second dispenser properly marked against powerful ingredients in his prescriptions; but a still graver responsibility is left to the solitary signalman possessing a brain less educated than that of the chemist, and liable to be affected by the irregular hours and temptations to drink which belong to his occupation. The occasions in life should be rare when a moment's failure will be hopelessly fatal. In the case of the signalman they are ever recurring. Have railway authorities any better objection than the necessary expense against stationing an additional signalman at every place and time in which important traffic occurs? A system of checking might be adopted which, by self-recording or other arrangements, would secure the independent operation of both men. If physiological darkness were less prevalent and less profound, if physiology obtained a fraction of the time demanded from schoolboys in exchange for a smattering of Greek and Latin, and from schoolgirls for showy "accomplishments," we should see less fanaticism about "vivisection" and less unreasonable reliance on the brain operations of the solitary signalman.

*** We believe the matter has been much considered, and the risk of errors from talking and preoccupation has been thought to outweigh the advantages of having two men to do the work of one.

AN OBSCURE CASE OF NERVOUS DISEASE.

A CORRESPONDENT writes: Former students in the university wards of the Edinburgh Royal Infirmary will hear, with a certain melancholy interest, of the death of "Bridget," who was shown, as an illustrative instance of one of the difficult forms of neurological disease, to so many successive generations of medical undergraduates, by Professor Grainger Stewart. In going upstairs to her home the other day she fell, and this apparently brought about a fatal syncope. A careful necropsy was made, the brain and spinal cord are being prepared with a view to detailed microscopic examination, and a full account of the case from the clinical and pathological sides will presently be published by Professor Stewart.

Members of the Physiological Society will remember seeing "Bridget" at their Edinburgh meeting, and so, also, will those who were present at the last Glasgow meeting of the British Medical Association. On closing her eyes, or on being put in a dark room, she was suddenly seized with hopeless disturbance of equilibration.

CHARGE OF FORGING DIPLOMAS.

LUDWIG GANTING, described as a professor of languages and music, was brought before Mr. Vaughan, at Bow Street Police Court, on November 8th, for extradition, charged on remand with having stolen the seals and forged the diplomas of the University of Berne. Detective-Sergeant Wegner stated that he had searched the prisoner's effects and found three seals, one of the Berne University, one of the Medical Faculty, and one of the Philosophical Faculty. He also found a press used for affixing seals. Among other things he found a number of diplomas, one of them bore seals which appeared to have been impressed by the mould in the prisoner's possession. A number of letters addressed to the prisoner from all parts of the country seemed to indicate that the accused had been in communication with medical gentlemen and had offered to let them have diplomas for a consideration. Mr. Vaughan, who examined one of the diplomas and said it appeared to be genuine, remanded the prisoner.

THE ACCOMPLISHMENTS OF AN ALIENIST.

SANITY writes: Those of your readers who are interested in the progress of our knowledge of insanity, and who give their attention to helping forward our too scanty knowledge of its treatment will be interested to hear of the qualifications which constitute an alienist, as formulated by those who have charge of our asylums. The particulars of an election to an appointment at one of our largest of these institutions have just been given to me. Foremost among the questions asked of candidates by the committee and the superintendent of this asylum were the following: "Are you a good cricketer?" "Do you play tennis much?" "What sort of a hand are you at billiards?" "Have you had any experience with amateur theatricals?" My informant was not questioned as to his previous experience in asylums, as to whether he had ever even been in one, or as to the amount of attention he had devoted to the study of this speciality. One can quite understand that in an asylum it is expected that the officers shall devote some of their time to the amusement of the patients; but is previous asylum experience to count for nothing? Is the difference between a man who has devoted time and attention to the study of insanity and one who has not quite quite insignificant in the routine of an asylum? Is it absolutely a fact that the most important desideratum for an alienist physician is that he should with ease be able to lay himself out as an accomplished clown for the entertainment of the lunatics under his charge?

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Dr. F. P. Atkinson, Kingston-on-Thames; Messrs. Anderson and Co., Edinburgh; Professor M. Anderson, Glasgow; Dr. E. O. Ashe, Lincoln; Dr. Arlidge, Stoke-on-Trent; Professor Annandale, Edinburgh; Another M.B. and C.M.; Alpha; A. W. B. (B) Mr. J. Brown, Pirbright; Mr. T. Blair, Leeds; Mr. Mitchell Banks, Liverpool; Messrs. Benson and Co., Wigan; Mr. L. C. Baker, Portsmouth; Mr. G. Berwith, Nice; E. C. Baber, M.B., Brighton; Dr. Fletcher Beach, Dartford; Dr. J. F. Batterham, St. Leonards; Dr. Beverley, Norwich; Dr. Bruce, Dingwall; J. Berry, M.B., London; Dr. P. M. Braidwood, London; Mr. A. E. Burges, Chester; Mr. E. Baily, Oban; Mr. A. W. Blyth, London; Mr. W. G. Black, Newcastle-on-Tyne; Mr. J. G. Bride, London; Mr. R. Boyle, London; Dr. J. W. Byers, Belfast; Mr. W. B. Burke, Wolverhampton; Dr. R. W. Burnet, London; Dr. H. Barnes, Carlisle; C. H. Bond, M.B., Wakefield. (C) Dr. Craster, Middlesboro'; Dr. Cormack, Hyères; Dr. H. Campbell, London; Church of England Temperance Society, The Secretary of the, London; Mr. J. R. R. Crindle, Middlesbrough-on-Tees; Mr. H. Cripps, London; J. M. Clarke, M.B., Clifton; Dr. T. Churchill, London; Mr. S. Cowell, London; Dr. E. J. Cave, Crewkerne; Dr. A. H. W. Clemow, London; Mr. B. F. C. Costelloe, M.P., London; Mr. A. Craske, London; Dr. M. Charteris, Glasgow; Dr. W. Collier, Oxford. (D) Dr. A. Davidson, Liverpool; D.; Dr. T. Drage, Hatfield; Diogenes; Dr. W. Downie, Glasgow; Mr. H. Donora, Tipperary. (E) Dr. W. Edmunds, London. (F) Dr. T. R. Fraser, Edinburgh; F.R.C.S.; Dr. J. Finlayson, Glasgow; Mr. G. Fleming, London; Mr. R. H. Firth, Netley; Mr. R. S. Freeland, London; W. E. L. Finny, M.B., Kingston. (G) Mr. H. G. Gardener, Tewkesbury; Dr. J. H. Gramshaw, Gravesend; Dr. C. D. Gorman, London; Mr. W. Graham, Brussels; Dr. J. Gordon, Aberdeen; Mr. P. F. Gilberts, London; Mr. S. J. Grindon, Newport; Mr. J. B. Gibson, Dorchester. (H) J. Hudson, M.B., Belmont; G. H. Hogg, M.B., Wakefield; Dr. J. B. Haycraft, London; Mr. W. W. Hall, Kilburn; H. R. Hutton, M.B., Manchester; Dr. G. Henty, London. (J) Dr. E. H. Jacob, Leeds; Mr. A. Jackson, Harrogate; Dr. W. A. Jamieson, Edinburgh; Mr. T. V. Jackson, Wolverhampton; Justitia. (K) Mr. C. R. Keetley, London; Dr. J. Kerr, Manningham; Mr. W. H. Knight, London. (L) Mr. V. Laurence, London; Dr. C. J. Lewis, Stirling; R. H. Lucy, M.B., Plymouth; Messrs. J. W. Lowson and Son, Forfor; Mr. C. B. Lockwood, London. (M) Dr. E. Mackenzie, Cheadle; Mr. J. H. Mayor, London; Dr. McBride, Edinburgh; Mr. T. E. Mayhew, London; M.D.; J. C. Mackenzie, M.B., Morpeth; F. Milner, M.B., Kingswood; Mr. R. Macquire, London; J. D. Mortimer, M.B., Cranbourne; Dr. J. A. MacWilliam, Aberdeen; Messrs. Margrave Bros., Llanelly; Dr. S. Martin, London; Mr. N. C. Macnamara, London; Dr. A. C. Munro, Paisley; Mr. M. J. Molyneux, Wimbledon; J. C. McClew, M.B., Leek; Dr. F. H. Mead, Taunton; Dr. J. A. Moore, Dublin; Messrs. S. Marshall and Co., Manchester. (O) Professor A. Ogston, Aberdeen. (P) Sir J. Paget, London; Dr. T. Partridge, Stroud; Physician; Mr. O. Pemberton, Birmingham; Dr. L. Phillips, Birmingham; Mr. J. P. Prince, Natal; Dr. R. W. Philip, Edinburgh; Dr. T. A. Palm, Wigton. (R) Mr. S. Rowland, Cambridge; Dr. D. L. Roberts, Manchester; J. Robertson, M.B., Edinburgh; F. M. Rowland, M.B., Springhill; Dr. G. Robertson, London; Mr. A. Rundle, Southsea; Dr. J. Russell, Sandhurst; Dr. G Reid, Stafford; Dr. D. Riordan, Walsall. (S) Mr. G. C. Spankie, Dundee; Mr. J. W. Stride, Brighton; Mr. A. Spencer, London; Professor F. Stewart, Edinburgh; Dr. R. Stockman, Edinburgh; Dr. W. W. Sinclair, Birmingham; Dr. T. P. A. Stuart, Sydney; Dr. S. H. Snell, Grays; The Sanitas Company, London; Mr. J. Strothard, Hull; Mr. W. R. Smith, Manchester; Dr. J. E. Squire, London; Mr. W. W. Smith. Sutton; J. B. Shaw, M.B., Sonnhalde; Sir W. Stokes, Dublin. (T) Mr. G. Templeman, London; Mr. H. Taylor, Guildford; A. Teacher; Mr. L. Tait, Birmingham; Mr. E. Templeman, Dundee; Mr. J. H. Traquair, Kingston; (U) Mr. A. R. Urquhart, Perth. (W) Mr. J. W. Walker, Wakefield; Mr. J. C. O. Will, Aberdeen; Mr. T. W. Woods, London; Mr. D. E. Wilson, London; Mr. F. C. Wood, Bristol; Mr. W. Wylie, Skipton; H. S. Walker, M.B., Spilsby; Mr. C. Wilks, London; Etc.

BOOKS, ETC., RECEIVED.

A Textbook of Elementary Biology. By H. J. Campbell. London: Swan Sonnenschein and Co. 1893.

The American Claimant. By Mark Twain. London: Chatto and Windus. 1892.

The Fate of Herbert Wayne. By E. J. Goodman. London: Chatto and Windus. 1892.

A Prodigal's Progress. By Frank Barrett. London: Chatto and Windus. 1892.

Wanted! A Detective's Strange Adventures. By Dick Donovan. London: Chatto and Windus. 1892.

Taken from the Enemy. By Henry Newholt. London: Chatto and Windus. 1892.

Corinthia Amarazion: a Novel. By Cecil Griffiths (Mrs. S. Beckett). London: Chatto and Windus. 1892.

Olga's Dream: a Nineteenth-Century Fairy Tale. By Norley Chester. London: Skeffington and Son. 1892.

Soap-Bubble Stories for Children. By Fanny Barry. London: Skeffington and Son. 1892.

The Diseases of Children, Medical and Surgical. By Henry Ashby, M.D., F.R.C.P., and G. A. Wright, B.A., M.B., etc. London: Longmans, Green, and Co. 1892. Price 24s.

Tuberculosis of Bones and Joints. By N. Senn, M.D., Ph.D. Philadelphia and London: The F. A. Davis Co. 1892.

Easy Lessons on Alcohol, and its Effects on Body and Mind. By W. Taylor. London: Church of England Temperance Society. Price 6d.

Das Gesetz der Transformation der Knochen. By Dr. Julius Wolff. Verlag von August Hirschwald. 1892.

Names and their Meaning: a Book for the Curious. By Leopold Wagner. London: T. Fisher Unwin. 1892. Price 3s. 6d.

A Treatise on Gynæcology, Clinical and Operative. By S. Pozzi, M.D. London: New Sydenham Society.

Another Brownie Book. By Palmer Cox. London: T. Fisher Unwin.

Daddy Jake, the Runaway, and Short Stories told after Dark. By "Uncle Remus," Joel Chandler Harris. London: T. Fisher Unwin.

Making a Beginning. By William J. Lacey. London: Religious Tract Society. Price 2s. 6d.

Rivers of Water in a Dry Place: or from Africander's Kraal to Khama's City. London: Religious Tract Society. Price 2s. 6d.

Young Smallshoes. By Joseph Johnson. London: Religious Tract Society. Price 1s. 6d.

Heroes of the Goodwin Sands. By Rev. Thomas Stanley Treavor, M.A. London: Religious Tract Society. Price 3s. 6d.

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SIXTIETH ANNUAL MEETING
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Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

MEDICINE.

W. Ransom, M.D., F.R.C.P., F.R.S., President.

A DISCUSSION ON PERIPHERAL NEURITIS.

INTRODUCED BY

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Dr. Bristowe said: The subject on which I have undertaken to open the discussion to-day is one of wide and growing interest, and cannot of course be exhaustively dealt with in the limited time which is now at our disposal. I shall not attempt the impossible, and will therefore content myself mainly with bringing before you (arranged more or less in natural groups) certain cases of peripheral neuritis which have been interesting or puzzling to me, and with considering the clinical lessons which they seem to teach.

Before entering into details, I propose to make a few general observations, not on account of any novelty they possess, but because their enunciation will help to define the position which I take in regard to the subject we are about to consider, and may throw a general light on some of my cases from the point of view from which I myself am disposed to regard them.

1. I think it will be admitted that there is an analogy between diseases of the nervous system and those of the circulatory organs, in the sense that in both cases we meet with inflammatory or degenerative changes sometimes limited strictly to the central organs, sometimes limited strictly to the peripheral organs, sometimes involving both, and that in both cases some such lesion (due to accidental or local conditions) may arise at some isolated spot or in some restricted area, and remain thus limited; while on the other hand (dependent, it may be, partly on anatomical, chemical, or functional peculiarities, partly on the special nature of the causative morbid poison or influence), the morbid processes may pick out, as it were, certain tracts or districts, and manifest more or less anatomical or functional symmetry of arrangement.

2. I suppose it is now generally accepted that the affections commonly included under the term "Raynaud's disease" are the result of nervous disturbance, and that in many of these cases the disturbance is connected with the presence of inflammatory or degenerative mischief in the peripheral nerves; or, in other words, that in no inconsiderable proportion cases of so-called Raynaud's disease are, in fact, cases of peripheral neuritis.

3. The causes of peripheral neuritis are as yet only imperfectly understood. As before remarked, neuritis limited to a particular spot or district may be due to some local or accidental circumstance. But all evidence seems to indicate that in most if not in all cases in which the affection is of symmetrical or general distribution its determining cause is the presence of some poison, either developed in the system or introduced from without, which exerts a specific deleterious influence on the nervous tissues. It is probable that each such poison has its preferences, and that hence (other things being equal) while one might tend to affect certain nerves or groups of nerves or certain parts of the cerebro-spinal centres in preference to others, or in greater degree than others, another might similarly tend to affect certain other nerves or groups of nerves or certain other parts of the cerebro-spinal centres, and so on.

This leads me, in the fourth place, to remark that it is owing in no small degree to this selective action of different poisons that the different varieties of neuritis, due to different causes, tend to fall into clinical groups, and that hence we are enabled, even in the present imperfect state of our knowledge, in so many cases of the disease that come under our care to determine their exact nosological positions. On the other hand, it is important to admit that such clinical groupings, suggestive and even distinctive though they often are, are not wholly trustworthy; that, owing to many circumstances which need not now be discussed, distinctive differences sometimes fail to manifest themselves, sometimes are copied or appropriated by cases which we have been apt to think have no legitimate claim to them; and that thus different varieties of neuritis, dependent on specifically different causes, are liable to ape one another and to puzzle the physician.

I will now proceed to describe and discuss briefly the cases which I have selected to bring under your notice.

A.—Alcoholic Peripheral Neuritis.

Alcoholic peripheral neuritis is doubtless that form of the disease with which most of us are best acquainted. The symptoms of typical cases are for the most part striking and characteristic, and, if there be any doubt as respects the nature of the neuritic symptoms, this is often readily removed either by the fact of a definite alcoholic history or by the association with the neuritis of cerebral or abdominal alcoholic complications. I could, of course, quote a considerable number of typical and really interesting examples of this disease, but will content myself with speaking of three cases, in one of which the symptoms were so slight that they might easily have been overlooked had they not been specially looked for, in one the course of the disease was unusually rapid, terminating in death, and in the third the symptoms were interesting from their singularity.

Case I. *Symptoms Slightly Marked.*—The first case has already been published in the British Medical Journal for April 23rd of the present year, as an illustration of the curability of ascites due to alcoholic cirrhosis of the liver. It was that of a woman, aged 44, who was twice under my care for many months between August, 1886, and January, 1890. During her first residence in hospital, which extended over nine months, she was tapped three times. she then left apparently well, and continued well for two years. On the second occasion she remained in hospital for nearly five months, and was tapped twice. Then she recovered for the second time, and she remains well. During the early part of the first illness she suffered from mental disturbance, characterised mainly by low spirits, hallucinations, and delusions, all doubtless, like the ascites, of alcoholic origin, but she had no neuritic symptoms. During the second illness her mind remained clear, but it was discovered almost by accident that she was suffering from peripheral neuritis. On admission she was very ill, and her abdomen was largely distended, and in the course of examination it was found that she had muscular hyperæsthesia in the calves of the legs with absence of knee-jerks. The legs were weak, but then she was generally weak, and there was certainly no obvious paralysis or anæsthesia. These were the first indications of the coming on of peripheral neuritis. This affection increased upon her for two or three weeks, and was characterised, as regards the upper extremities, by numbness and a sense of tingling and grittiness in the fingers and palms of the hands, with some tenderness of these parts and of the forearms, and with slight tremors, but no marked paralysis; and as regards the lower extremities, by numbness and tingling in the feet and lower parts of the legs, tenderness in the calves and feet, loss of power, which prevented her from standing and walking but not from moving her toes or feet freely while lying in bed, and abolition of knee jerks. Then improvement gradually took place; and after she had been in hospital three months having been kept in bed mainly if not solely in consequence of her abdominal symptoms—she began to get up and walk about a little. Excepting that the knee jerks had not returned, all her paralytic symptoms had disappeared at the time of her discharge. There was never any obvious wasting of muscles.

Case II. *Rapid Course.*—The second case is one I saw in consultation with Dr. Bousfield, on January 27th of the present year. The patient was a lady, aged 44, who was living apart from her husband, and who was said to have been losing appetite and getting weak and pale for several months. Her symptoms had been aggravated during the last two or three weeks, during which time she had been suffering additionally from sickness and constipation. Dr. Bousfield had been called in a week before my visit, at which time it was stated that her bowels had not been moved for a fortnight. Her constipation yielded to treatment, and her vomiting ceased.

When I saw her she complained only of being weak, and she was very weak and pale. She had no sickness now, and could take a little solid food, but her tongue was coated and dryish, and there were aphthæ along its edges and at the angles of the mouth. The heart and lungs appeared to be healthy, but the pulse was 120 to the minute. The abdomen was flaccid, and the only thing I could discover amiss in it was that the liver extended for an inch and a half below the margin of the ribs. There was a little œdema of the legs. The urine had not been examined. The case was obscure, and I arrived at no definite opinion as to its nature.

On February 9th I saw her again. After my first visit it was ascertained that her legs were weak. This weakness rapidly increased during the next few days, and other symptoms indicative of progressive nervous disorder accrued. On this occasion we saw her husband for the first time, who informed us that he had just discovered that his wife had been drinking heavily for some months past. At this time her mental condition was much impaired. She was forgetful, and it was difficult to get trustworthy or even coherent answers from her. Her hands were weak; she was scarcely capable of grasping; her fingers drooped, and the mus-

cles of the forearms were tender. The legs also were weak. She could scarcely move either the legs, the feet, or the toes, and the feet were extended and the toes pointed. There was impairment of feeling below the knees, but I am not sure that there was any tenderness. The plantar and tendon reflexes were absent. The breathing was quick and shallow, and she spoke therefore with difficulty, but there was no obvious paralysis of the intercostal muscles or diaphragm, or affection of the heart or lungs. She had control over the rectum and bladder. The abdomen was distended, and the bowels still inclined to be constipated.

She died nine or ten hours afterwards, with symptoms of collapse. At midnight the temperature was 91°, and the pulse imperceptible. The abdomen was much distended with flatus. She was treated with hypodermic injections of ether, the application of hot bricks to the extremities, and the mechanical removal of feces and flatus from the larger bowel, Dr. Bousfield was called to her again at 3 A.M., and found her dead. Before death her temperature rose to 101° or 102°.

The case which I have just narrated may admit of different interpretations. But the fact of alcoholism, though ascertained late, was perfectly clear and authentic; the vague illness which preceded her paralytic symptoms, the enlarged liver, and the mental peculiarities, were all in accordance with the alcoholic hypothesis. But, on the other hand, the diagnosis was not verified by *post-mortem* evidence. Assuming the case to have been one of alcoholic neuritis, it suggests itself as possible that her rapid, shallow breathing, her cardiac debility and collapse, may have been due to implication of the nerves distributed to the heart and lungs. I repeat that there was no definite paralysis of the respiratory muscles; but I was inclined at the time of my last visit to believe that they were generally enfeebled. I may add that I did not anticipate a fatal termination; for although I had seen many cases in which symptoms had early become urgent and threatening, it had hitherto happened to me that all such cases after a longer or shorter period of anxiety had improved.

The third case was, and still remains, under the care of my colleague, Dr. Payne at St. Thomas's Hospital.

CASE III *Alcoholic Peripheral Neuritis, with Double Facial Palsy.*—J. W., aged 32, was formerly in the Indian army. He had small-pox fifteen years ago, in 1888 enteric fever, and during the same year a hard chancre, not followed by secondary symptoms. He left the army on January 1st last, and arrived in England on February 26th; since which time he has worked as a shoemaker (a trade to which he had originally been brought up), and drank persistently and heavily. But he has had good health, and has had no kind of throat affection. He was admitted into hospital on May 21st, 1892.

The first evidence of disease appeared two or three weeks before admission, when he almost suddenly lost the power of reading the newspaper, although he could see distant objects clearly. A few days later he complained of pain between the shoulders, and about a week ago of tingling in the toes, which was followed shortly by a similar feeling in the fingers, and by impairment of articulation, and the tendency for saliva and fluids taken into the mouth to dribble from the lips.

He was a well-nourished healthy looking man, complaining mainly of inability to read, of difficulty in micturition and swallowing, and in articulation, of tingling and numbness in the hands and toes, and of weakness in the legs, which rendered walking difficult. The first thing to strike the observer was that he had general and almost complete bilateral facial paralysis. He was expressionless, he could neither frown nor wrinkle his forehead; he was unable to close his eyes or lips, to uncover his upper teeth or to smile; he could not pronounce *b*, *p*, or *m*, uttering *v* or *f* in place of them; he had difficulty in swallowing fluids, largely because they tended to accumulate in the pouches of the cheeks, and to return into the lips, and in masticating and getting rid of solids, because of their similar tendency to collect in the buccal pouches, but partly also from some defect in the act of deglutition. The movements of the tongue, palate, and fauces were apparently normal, but it was observed that the right side of the soft palate was a little higher than the other. Phonation was unaffected. He was wholly unable to read ordinary print, but the pupils were equal and acted to light and accommodation. The fundi were normal, and there was no defect whatever in the movements of the external ocular muscles. Mr. Nettleship, who examined the patient a few days later, confirmed the foregoing statements as to the eyes, and determined that the impairment of sight which could be rectified by glasses) was due to loss of power of accommodation. The muscles of the upper and lower extremities were weak; his grasp was feeble; he stood up with difficulty; he complained of tingling and numbness in hands and feet, but could feel. The knee jerks were entirely absent; the plantar reflexes perhaps exaggerated. In all other respects he appeared to be healthy. There was no impairment of special or common sensation, excepting what has been already referred to; his respiratory muscles acted normally; he had complete control over his rectum and bladder; his heart, lungs, and abdominal viscera were apparently sound; his urine was free from albumen and sugar; his mental faculties were unaffected, and his temperature was normal.

For the next three weeks the patient, on the whole, deteriorated. Impairment of feeling and tingling extended over the hands and lower parts of the forearms; the grasp of the hands became proportionately weaker, and the wrists dropped; at the same time the muscles of the forearms and hands became markedly tender. The sense of numbness gradually rose from the feet to the legs, and thence to the lower part of the trunk, before and behind; his legs grew weak, so that before long he was quite unable to stand, even with assistance; his feet became extended, and his toes flexed towards the soles, and he was unable to move either the one part or the other. At the same time he presented considerable tenderness in the muscles of the calves and front of the legs and of the feet. Moreover, on one or two occasions, on June 9th and 10th, he passed a motion without knowing it. He had at this time perfect control over his bladder, and the uncontrolled action of the bowels only took place when he was intentionally passing water, and he attributed the accident to the circumstance that the parts were insensitive, and that consequently he did not feel what was going on. The condition of his face, of his articulation, and of his mastication remained without appreciable change; but he suffered from manifest difficulty in swallowing solid food, and for some days had to discontinue its use.

Then almost imperceptibly the progress of the disease was arrested, and slow amendment began to take place. This was, perhaps, first observed in the hands and wrists, and a little later in the face. On June 23rd he complained of the spectacles which had been given him to read with, and then found that he could read without them. Later the legs showed signs of amendment, and gradually also the numbness and the muscular tenderness diminished.

I saw him on July 17th, and made the following note of his condition:—"His improvement during the last month has been very great and general. He feels well, and, but for his facial peculiarities, looks well. The seventh nerves are still weak, especially the left, and he is still unable to articulate *b*, *p*, or *m*, or to close his eyes completely; but he can knit his brows with ease, he can show his upper teeth, although somewhat imperiectly, and if he tries to smile the muscles engaged in that operation are distinctly called into play. Moreover, he can now eat and drink without difficulty, fluids no longer tending to escape again from the mouth, or solids to collect in the cheeks. He complains of numbness and tingling only in the extreme tips of the fingers and in the big toes. He can move his forearms, hands, and fingers freely, can grasp firmly, and extend the hands on the wrists and the fingers on the hands. At the same time, when he endeavours to extend hands and fingers simultaneously, the extension of the latter remains incomplete. The muscles of the hands and forearms are certainly somewhat wasted. He cannot yet stand, at any rate without support on both sides, but he moves his feet and toes much better than he did. He can now flex the feet to a right angle with the legs but not beyond, and he can move the toes pretty freely. The calf muscles are slightly, but still obviously, tender. Tendon reflexes absent. He has no difficulty in reading, and none in defæcation or micturition. Improvement is still in progress. There is no sign of disease in either the chest or the abdomen; his mental faculties remain clear, and his urine normal. He has never had any febrile rise of temperature during his residence in the hospital, and it may be added that his anæsthesia seems never to have been absolute, and that his pulse has always been rapid, usually about 120 in the minute."

The points in the above case which distinguish it from ordinary cases of alcoholic paralysis and give it special interest are the loss of accommodation in the eyes, the double facial palsy, and the difficulty of swallowing—phenomena which are more commonly, or more likely to be, met with in diphtheritic paralysis. But, as I have already stated, there was here a distinct alcoholic history, and no history whatever of any throat affection. I may add that I have already published in my book on nervous diseases the case of a woman suffering from alcoholic paralysis in whom for a time there were nystagmus, choking in the swallowing of fluids, due, as I now suspect, to impairment of feeling in the fauces, and possibly paralysis of the arytenoid muscle, and diaphragmatic paralysis with consequent rather severe dyspnœa.

B.—HYSTERICAL PERIPHERAL NEURITIS.

The cases to which I wish next to call your attention are cases of what I would venture to term hysterical peripheral neuritis. I suppose it will be admitted, at any rate I believe, that both inflammatory and degenerative changes may result from functional nervous disturbances. The first case is one that seems to me of singular interest, and I will narrate it, therefore, in some detail.

CASE IV. *Hysterical Peripheral Neuritis.*—A. S., a governess, aged 20, was admitted under my care on February 21st, 1891. Her mother, who was highly hysterical, and for some years before her death had suffered from hysterical paraplegia, died when A. was a young child. Shortly after this event her father deserted his family, and left them on the hands of his relatives. Her health, excepting in one particular, has been fairly good. When 9 years old she either hurt, or fancied she hurt, the little finger of her left hand, which became swollen and painful. The swelling and pain rapidly spread to the rest of the hand and to the wrist, which remained affected and useless for some months. Since this time she has been liable to recurrences of her malady, coming on usually twice a year, in the spring and autumn. Her attacks begin with pain referred to the outer side of the left arm just above the elbow; which, after lasting for about ten days, is followed by swelling and pain beginning in the little finger and then soon extending to the hand and forearm. The pain is sometimes of a throbbing cutting character, sometimes burning, sometimes a mere tingling. The parts are tender and stiff, and she is unable to close her fingers or bend her wrist, or indeed to make any use of the hand and forearm. The whole attack generally lasts six or seven weeks; and, although pain is often aggravated at night, she sleeps on the whole well. The bowels tend to be confined, the catamenia scanty and irregular. Her present attack began on February 16th, with pain of the usual character, and in the usual situation; and swelling and pain in the hand came on on the 19th.

She is a stout, healthy-looking girl. The left fingers and hand, and lower part of the forearm, are uniformly congested and swollen, the redness and swelling fading away gradually upwards. The parts are stiff, painful on movement, and tender. But there is no appreciable heat of surface, and the palm is moist. There are no red lines extending up the arm, and no enlarged or painful glands. In all other respects she is quite well. Pulse 84, temperature 97.4°.

During the next seventeen days the symptoms tended to increase in severity. The swelling and redness became greater, and extended over the whole forearm; the affected parts became very tender and painful, and she lost all power of voluntary movement in the fingers, which were held apart and slightly curved, and in the wrist, which was kept nearly in a straight line with the arm. Moreover she complained of pain and tenderness in the outer part of the upper arm, just above the elbow, and of pain extending thence to the shoulder, at the back of which there was an area of extreme tenderness. She could move the arm, however, at the shoulder freely. Occasionally the swollen parts became livid, and cold both to her own feelings and to touch. Sensibility was impaired, and she failed to feel warmth even when the hand was plunged into hot water. The joints themselves remained perfectly healthy.

She was treated in the first instance with arsenic, the continuous current, and the local application of belladonna and chloroform. About March 10th linseed meal poultices were ordered, in the hope that the continuous application of moisture and warmth would improve the circulation in the affected parts and remove the swelling. These had some beneficial effect; but it was found impossible to keep up a continuous high temperature by their means; and in fact although the arm looked and felt better, she complained that it was now almost continuously cold and livid. On the 14th, therefore, this treatment was discontinued, and she was sent to bed, and her arm, from the elbow downwards, was placed in a trough filled with water, which was maintained at blood heat. This treatment proved highly successful. The pain, discoloration, and swelling rapidly subsided; and on the 19th the following note was taken: "There has been continuous improvement in the condition of the hand and arm. The swelling has now completely disappeared, the pain is quite gone, even on pressure; she can move her fingers and wrist perfectly well, and can appreciate heat which previously she was quite unable to do. There is, however, some little pain about the shoulder when she moves it, but this is perhaps due to the constrained position of the arm while kept in the water-bath."

She was discharged quite well on March 22nd.

After leaving the hospital she obtained a situation as a resident governess, and for three or four months remained well. Then she caught cold, and suffered on and off from bronchitis, which, though not severe or sufficient to make her lie up, interfered to some extent with her work, and thus caused much mental worry and anxiety. Early in September her old symptoms gradually returned. Being anxious to retain her situation she tried for a time to conceal her sufferings. On September 23rd, however, she had to give up and come into the hospital again under my care. The course of events on this occasion was exactly similar to that in her previous illness, and she appeared to benefit largely by the same treatment. At any rate, her illness was of shorter duration than the other, and she was discharged well on October 7th.

She again took a place, and once more, at the end of a few months, had to leave it, having again for a week or two battled in vain with her old enemy. Possibly from not having lain up soon enough, this was a more severe attack than any she had latterly experienced. The arm became affected in its whole length, and also a considerable area, including the shoulder and the upper and back part of the same side of the chest. This latter was the region to which on former occasions she had referred a good deal of pain and tenderness; but now there was swelling and the pain and tenderness were exceedingly acute.

She was admitted on March 29th of the present year, under my colleague, Dr. Sharkey, and treated mainly as she had been treated before. But it was impossible to apply a continuous hot bath to the shoulder and back, and after a time the pain here was much relieved by the use of blisters. The most interesting circumstance on this occasion was that, when the inflammation and swelling subsided, the muscles of the forearm for the first time wasted to some extent, and the wasting was attended with slight alteration in the electrical reactions. She left on May 7th, and at the present time her arm is quite restored.

This case recalled to my mind another which had been for a short time under my care a year and a-half previously, but in which at the time I felt no particular interest, to which I am sorry to own I paid no special attention, and which, had it not been for A.'s case, I should have forgotten.

Case V. *Anæsthesia with Œdema.*—A. A., aged 18, admitted September 23rd, 1889, had been a backward child, since birth liable to rheumatism and cough. For a year past she had complained of numbness, loss of sensation, and weakness in both arms, and of pain between the shoulders. She stated that her hands had become swollen and the skin hard and thickened during the last five weeks. She has hard, solid œdema of both hands and forearms, the skin of which parts is thick, wrinkled, and harsh. This harshness extends along the outer aspect of the upper arms to within 2 inches of the shoulders. The affected parts are hard and brawny, and the backs of the hands, which are specially swollen, pit readily. The flexor surfaces are more pliable than the extensor. The fingers are swollen and hard like the rest of the hands, conical, and pointed at the tips. The nails are deformed, deeply grooved, and scaly. There is almost complete cutaneous anæsthesia over the affected areæ, but this is less marked on the flexor aspects of the forearms and fingers and in the palms than elsewhere. She moves her wrists fairly well, but she cannot close her fingers or extend her thumbs. Strength of arms fairly good. There is no affection of lower extremities, of rectum or bladder, and all her visceral organs appear to be healthy. A few days later it was noted that she had complete loss of sensation in the upper extremities, upper part of chest, and sides of neck. She left without any material change in her condition on October 9th.

Case VI. *Hysterical Peripheral Neuritis.*—Within the last few days I have seen in consultation another case which seems to me to belong to the same category. The patient was a young lady, aged 18, of a highly neurotic stock, and herself always highly neurotic, and without the faintest suspicion of addiction to alcohol, of plumbism, or of any recent acute febrile disorder. Nearly two years ago she was sent to school in Paris, and when there she became listless, weak, and anæmic, and her catamenia ceased. While in this state she had two or three fainting attacks, apparently brought on by being made to exert herself beyond her powers. Later her legs became weak, and finally she lost power in them absolutely. She was at this time seen by Professor Charcot, who regarded her case as one of hysterical paraplegia. It appears that the tendon reflexes were at that time exaggerated. She was brought back to England about a year ago, and, under appropriate treatment, soon recovered perfectly; and, although still neurotic, she has remained fairly well, at any rate without definite symptoms of disease, until a few weeks ago. During the latter period symptoms have been gradually developing, yet within the last week or two she has been able to go to parties, and to take short walks.

She is thin and somewhat pale, but certainly not definitely anæmic. She is low-spirited, and indisposed to take food, but does not suffer from nausea or uneasiness after it. She complains of numbness and tingling in the fingers, and apparently their tips are quite without feeling. She can execute all varieties of movements at the wrist and finger joints, but her grasp is extremely weak, and she has a difficulty in using her hands in writing and other delicate operations. The muscles of her forearms and hands are markedly tender, especially those of the right side, and on this side there is some tenderness in the muscles of the upper arm. Her legs are considerably œdematous from the knees downwards, and pit on pressure; and the feet (but more especially the toes) are congested, and on exposure to the air become livid. She does not seem to feel when touched with the fingers or a pin in any part of the lower extremities below the knees; but if the limbs be grasped she recognises the grasp as a sense of coldness, and when she is actually pricked with a pin she seems to feel it anywhere; knee-jerks absent. She cannot flex her feet beyond a right angle, nor can she extend her toes. The muscles of the calves and fronts of the legs and the feet are very tender. She can walk without assistance, but with difficulty. She watches her own movements, moves slowly, and with her feet wide apart, and lifts her knees unduly high, apparently in order to avoid catching her toes. When she closes her eyes her movements become wild and uncertain and she would soon fall if not protected. Her sight is apparently good, and the pupils act normally, but she does not follow well with her eyes. On following my finger to the right or left, upwards or downwards, she says she sees one finger only; but when I make her look at it directly in front she says she sees two, and apparently the eyes do not then converge. I should have regarded this as the result of mere laziness but for one fact, and that is that on one occasion, as I made her look to the extreme left the right eye after a few moments rambled back to the median position, leaving the left still looking at my finger for a second or two.

There are no other paralytic conditions present, nor any other area of anæsthesia or impairment of the special senses beyond those already described. She has complete control over the rectum and bladder. The thoracic and abdominal viscera are apparently all quite healthy, and there is no evidence of disease in the spine. The only other noticeable fact is that for some time past she has been passing very little water, often not more than a pint in twenty-four hours. But this, which is concentrated and of rather high specific gravity, contains neither sugar nor albumen.

The first of the last group of three cases seems to me to be a perfectly clear case. The neurotic family history, the recurring attacks (at any rate, simulative) of neuritis always ending in complete recovery, all point, I think, to a hysterical or neurotic cause, while the symptoms during their presence are typically those of localised peripheral neuritis. I regret that I did not pay the second case the attention it deserved. Had I seen it a few months later I should have regarded it with great interest. I think, however, it belongs to the same category as the first. The last case I have only seen once, and perhaps may never see again. But the symptoms she at present labours under are obviously those of neuritis; and looking both to her previous history and her present state I cannot but think it will be admitted that her present symptoms are also essentially hysterical.

C.—A Case of Obscure Etiology.

Had there been sufficient time at my disposal, I should have liked to bring before you several other cases or groups of cases of neuritis, including some in which the neuritis appeared to be a sequela of influenza. These latter, however, excepting in the fact of their association with influenza, present no special features; and I will content myself, therefore, in conclusion, with briefly quoting a case in which the causation of the neuritis was obscure, and is a subject for discussion.

Case VII. *Peripheral Neuritis after Poisoning by Belladonna and the Long-continued Use of Galvanism.*—Mrs. L., about 40 years of age, a delicate woman, said to be subject to rheumatism and gout and digestive troubles, early one morning in September, 1891, drank by mistake for some other medicine a quantity of a liniment containing belladonna and chloroform. She was nearly killed by it, was absolutely insensible for more than twelve hours, and was only resuscitated by the use of artificial respiration and by the subsequent application of galvanism which was continued without interruption for some seven or eight hours. She was not quite herself even the next morning; and when she came to she had some difficulty both in swallowing and in speaking quickly or pronouncing, and she had loss of power, with hyperæsthesia in both upper extremities. Subsequently well-marked peripheral neuritis of the arms developed, with impairment of sensation, dysæsthesia, loss of power and wasting of the muscles of the forearms and hands. After a few weeks she began to mend; and at the time I saw her, namely, on February 9th (that is, about five months from the beginning of her illness) she was very nearly well. At this time the right arm was generally smaller than the other, and weaker. But there were no muscles in either arm that were specially wasted, and she could execute all kinds of movements, even the most

delicate, with her fingers, hands, and arms; and she could write easily and well. She complained still of an area of impaired sensation on the back of the left hand between the metacarpal bones of the thumb and forefinger, and of a little tingling in the fingers of the right hand, with some loss of feeling behind. Moreover, both limbs were undoubtedly weak, and she could not quite close the right fore and middle fingers.

Dr. BYROM BRAMWELL expressed the pleasure with which he had listened to Dr. Bristowe's paper, containing, as it did, so much valuable and interesting clinical material. The subject of peripheral neuritis was a very large one, and of great interest. Dr. Bramwell thought that many cases of peripheral multiple neuritis might from a prognostic point of view be divided into acute or subacute, and curable and chronic, and incurable cases. The way in which some very severe cases of acute peripheral neuritis recovered was a remarkable and important feature of the disease, and contrasted remarkably with the non recovery in severe cases of poliomyelitis anterior acuta, which was occasionally closely simulated by peripheral neuritis. On the other hand, cases were not uncommon, especially in middle aged or older people, in which the symptoms commenced very gradually and insidiously, and were chiefly, for a time at least, sensory. In these, notwithstanding all treatment, the condition went on from bad to worse, and ultimately, either directly or in consequence of the development of some complication, terminated in death. Dr. Bramwell referred to this difficulty in diagnosis, more especially in some of the less well-marked cases, and in cases of peripheral neuritis associated with hysterical symptoms.

Dr. HANDFORD referred to "mixed cases" of neuritis—that is, cases owing their origin to a mixed cause, and also cases in which the symptoms of neuritis were almost inextricably mixed up with those of another, and generally pre-existing, disease. He mentioned a case of distinct neuritis, followed by muscular wasting, occurring in the middle of an attack of acute articular rheumatism, with heart affection and subacute nephritis. Syphilis and alcohol, also, often co-existed as a cause of peripheral neuritis. And in such instances the diagnosis was apt to be further complicated by the early symptoms of syphilitic spinal sclerosis (tabes dorsalis).

Mr. DAVIES PRYCE described three cases of diabetic neuritis. He pointed out that, although neuritis in diabetes had for some time been recognised clinically, pathological proof of this condition was very slight. Indeed, with the exception of a case published by himself,[1] and of the observation of Anche in 1891, and of Eichhorst in 1892, no pathological evidence of this neuritis had been forthcoming. He drew attention to those cases of diabetes with which there was associated a certain amount of ataxy, and which might be termed diabetic pseudo-tabes. Mr. Pryce's first case was one of diabetes, ataxy, and perforating ulcers of both feet in a man aged 66. His history was one of the passage of large quantities of urine, and of alcoholism. He complained of great pains in the lower extremities, together with difficulty of walking. There was loss of the knee-jerks and diminution of sensation in both feet. Death was due to diabetic coma. Extensive parenchymatous neuritis was found in the nerves of the lower extremities. There was also marked vascular disease. No tabetic change was found in the spinal cord. Mr. Pryce also related two other cases in men past the middle period of life of a similar nature, in which there was found, after death, extensive peripheral neuritis. In both these cases death was the result of gangrene of the lower extremities. The following appeared to be the chief points of note in these cases: (1) The absence of any definite paralysis; (2) the marked ataxy; (3) the prominence of trophic and vasomotor symptoms; (4) the essentially chronic course of the disease. With regard to the etiology, Mr. Pryce suggested that vascular disease and general malnutrition were probable causative factors. No definite relationship was observed between the severity of the symptoms and the amount of sugar in the urine.

Dr. HEADLEY NEALE showed a case of rheumatic neuritis which commenced in an attack of acute rheumatism more than twenty months previously. The onset was marked by sensory disturbances (tingling, etc.), followed by wasting at first of the muscles of the upper extremity, but which soon became general. He had been admitted to the Leicester Infirmary about twelve months earlier, and under tonic treatment and mild faradism the muscles gradually regained power, thus negativing a diagnosis of progressive muscular atrophy, which disease the condition most closely resembled. The patient relapsed after his discharge, and was again re-admitted, the wasting being much more marked. He had, however, regained much more power in the muscles than he had had when admitted to hospital twelve months before.

Dr. C. R. DRYSDALE (London) observed that the most common cause of multiple neuritis was to be found in alcoholism; but cases of a similar kind were found in poisoning by copper, arsenic, lead, and some other mineral and vegetable poisons; and also in some of the zymotic diseases, such as diphtheria, scarlatina, syphilis, rheumatism, and in leprosy. It was stated that alcoholic neuritis was more common in women than in men, which had not been his own experience. The changes taking place in the nerves in such neuritis were described as either interstitial or parenchymatous, the latter being the form found in peripheral neuritis. The spinal cord was usually unaffected, but the muscles of the limbs were atrophied. The patient in alcoholic peripheral neuritis first complained of tingling in the extremities or numbness, at first in the hands and feet, and then extending to the limbs, which gradually lost their power. The patient was usually apyretic, and went about his occupations for a time, until at last he took to bed. Then there was noticed a weakening of the extensors of the upper or lower extremity, the patient lying in bed with the toes pointed or exhibiting foot drop. The weakened muscles gradually atrophied, especially the anterior tibial muscles and the interossei of the hand. These muscles did not react to the interrupted current, but were variously affected by the continuous current. Anæsthesia was remarked in some instances, especially in alcoholic and syphilitic cases, but occasionally the very reverse symptom was found to exist. The muscles were tender to pressure for a lengthened period, especially those of the calf. The reflexes were absent. The limbs eventually might become contracted and adhesions might form in the joints. Alcoholic patients, as a rule, were apathetic and without appreciation of their condition. The disease might simulate locomotor ataxy when it affected the lower extremities. It might be distinguished from ataxy by the tenderness of the muscles and the dropping of the foot. In syphilitic cases there was often great anæsthesia of other parts of the body, especially seen in female patients with secondary syphilis. The main point in the treatment of alcoholic neuritis was the cutting off of the alcohol, which acted as a poison to the nerves; such patients often made a good recovery without the use of any other remedy. In syphilitic cases, iodides and the special treatment of syphilis should be made use of. In rheumatic cases salicylate of sodium was of service. The continuous current should be used for wasted muscles, and in bad cases it would sometimes be found necessary to place the patient on a water bed, and to take care lest bedsores should arise. The limbs should be flexed daily, and thus contractions might be prevented. There was no very clear treatment for the neuritis of leprosy or diphtheria. But diphtherial cases usually were benefited by rest and time.

Dr. FREDERICK TAYLOR thought that in relation to peripheral neuritis we were still in a position of waiting and recording cases. It was remarkable what a number of poisons and other morbid conditions might bring about neuritis, the nerves apparently being more susceptible than almost any other tissues to the operation of such causes. He was anxious to know from Dr. Bristowe his experience as to cases arising from cold, of which he had not seen many. One that he had published some time ago he believed was almost certainly due to exposure to cold in a severe winter, though, as a matter of scientific evidence, alcohol could not absolutely be excluded. The case differed from the more common cases of alcoholic neuritis, in the rapid onset of symptoms, in the implication of the facial muscles, and in the early commencement of recovery. Incidentally he might remark that it was very desirable that we should have some other name than "rheumatic" neuritis for cases arising from cold. "Rheumatic neuritis" was wanted for cases due to whatever was the morbid cause of acute rheumatism. No doubt recovery took place in large numbers of cases, especially where the condition was early recognised and treated, though the speaker thought that the period of illness was often longer than two or three months. With regard to Dr. Neale's case, he could not speak

[1] *Lancet*, July, 1887.

on such a short acquaintance with it; he had, however, not seen a case with such marked claw hand, and contrasted it with a case he had recorded in which the joints were fixed from long illness, the muscles partially recovering, but being incapacitated by the stiff joints. He thought that it could not be said, now that so many cases of alcoholic neuritis were seen and recorded, that the disease was much more frequent in women than in men.

Dr. Frank M. Pope had seen a case where facial symptoms predominated and knee-jerks were not abolished. It resembled very closely a case of general paralysis in the second stage without mental symptoms, but, as it eventually recurred, it was to be regarded as peripheral neuritis. He also had seen an alcoholic case in which intense peripheral neuralgia of legs and feet was the chief symptom.

Dr. F. J. Freeland inquired whether hyperæsthesia of the muscular masses was an early and fairly frequent symptom of peripheral neuritis; also the proportion of the fatal cases among alcoholic cases.

Dr. Septimus Gibbon, in answer to the preceding speaker, said he could vouch from personal experience that local neuritis was attended with most acute pain. Some ten years ago his brachial plexus and median nerve were stretched or torn by a fall from a horse; the accident was attended by acute pain for ten days. The pathology of his case was doubtless an actual inflammation or neuritis, whereas peripheral neuritis was probably always a degenerative disease. This fact was many years ago demonstrated to him by the case of a park keeper in Victoria Park, who wore a very light covert coat in intensely cold weather. This caused complete paralysis of both arms, which lasted some two months, and was removed by friction and galvanism. In this case the fibres were degenerated. The nature of this degeneration required investigation.

Dr. Walter Garstang (Blackburn) suggested that the term "peripheral neuritis" should be replaced by "centripetal neuritis." The primary and principal seat of the malady was among the finer nerve twigs; but it not seldom ascended so as to affect the nerve trunks or even their roots.

Dr. Bristowe, in reply to questions put to him in the course of discussion, and by way of commentary, made the following remarks: 1. Whether cases were to be regarded as hysterical or not depended mainly on the view taken of the nature of hysteria. His own reasons for regarding his second group of cases as hysterical were that the neurotic symptoms occurred in distinctly hysterical subjects, that (judging from the analogy of hysterical joints, and other cases which he had met with in which local inflammations appeared to be due to hysteria, and from the fact that gangrene and local inflammation might result from functional nervous disorder) there seemed to be no sufficient reason to doubt that inflammation of nerves might occur in the course of hysteria and as a part of it, and that, as we had no real knowledge of the causation of the symptoms of hysteria, it was permissible to believe that these might result from the presence of some poison in the system. 2. He agreed that cases of alcoholic neuritis and many other forms of the disease were in large proportion curable. 3. With respect to mixed neuritis, he believed, with Dr. Handford, that in many cases the neuritis was due to the concurrence of different causes; that, for example, if an alcoholic patient were exposed to cold, it was probable that the cold was more likely to cause neuritis than if the patient were not alcoholic. He believed also that it was very common for peripheral neuritis and central nervous disease to be combined either simultaneously or in sequence, and he quoted some cases in illustration. 4. He agreed with Dr. Frederick Taylor that exposure to cold was a fertile cause of neuritis, and further, he believed that in a large number of cases peripheral neuritis arose under conditions which at present were not understood. He had met with many cases in which he was quite unable to discover the cause.

Professor Stellwag von Carion, the distinguished ophthalmologist of Vienna, will celebrate his 71st birthday on January 28th, 1893. His pupils and admirers are making active preparations to make the ceremonies and festivities worthy of the occasion. The Professor has occupied the Chair of Ophthalmology in the University of Vienna since 1873.

RHEUMATIC (PERIPHERAL) NEURITIS ASSOCIATED WITH DISTINCT JOINT AFFECTION.

By Henry Handford, M.D., M.R.C.P.Lond.,
Physician to the Nottingham General Hospital.

It is the custom, especially in Germany, to call cases of peripheral neuritis which appear to be due to exposure, or to the local application of cold, rheumatic. I do not use the word in that sense, but to indicate that the neuritis was an incident in an attack of acute rheumatism, and was probably due to the same poison. Muscular wasting following nerve degeneration has been carefully investigated in chronic rheumatism, more especially in osteo-arthritis. A few cases of neuritis with muscular wasting in acute rheumatism have also been previously described. Had it not been for the distinct general joint affection it might have remained doubtful whether the whole illness was not a neuritis. For neuritis may certainly be accompanied by fever with local pain, redness, and swelling. The close relation of both gout and rheumatism to disorders of the nervous system, as was so strongly insisted upon by Addison, makes the occurrence of distinct neuritis in acute rheumatism still more interesting. No doubt many painful affections are mistaken for rheumatism, and Addison's warning is still needed: "Gentlemen, beware of rheumatism." But it is not necessary to go to the opposite extreme, and deny the rheumatic origin of many distinct attacks of peripheral neuritis.

Case.—M. W., aged 19, pupil teacher, was married two years before admission, but her husband died of phthisis in five months, and she had no children. There was no history of rheumatism in the family. Her father died of phthisis. She had an ill-defined illness three years ago, in which she lost the feeling in portions of the hands, but they completely recovered. She considered that three weeks before admission she took cold by sleeping in a damp bed. Ever since she had had fever, pain, redness and swelling of her joints, profuse sweats, pain in the loins, and frequent micturition.

On admission (April 4th, 1892) she presented the ordinary appearance of a case of subacute articular rheumatism. The temperature was 101.2° F., but under salicylates it quickly fell to the normal, with relief to the pains. All the joints of the legs and arms on both sides had been affected, but the phalangeal joints were specially enlarged. On closer examination it was found that both arms and forearms between the joints were greatly swollen and œdematous,[1] so that the nightdress had to be cut to remove the sleeves. There was a mitral systolic murmur (which remained permanently). She had some menstrual disturbance, and there was temporary retention of urine.

Three days after admission, when the pain and most of the swelling of the joints and limbs had subsided, she complained of numbness of the middle, ring, and little fingers of the right hand, and of the whole of the left. The patient stated that a few days previously the whole of the left forearm had been numb, but she had not mentioned it. On examination there was analgesia and anæsthesia over the whole of the left hand, back and front, up to 3 inches above the wrist—higher on the radial side than the ulnar. On the right side the three fingers on the ulnar side and the ulnar half of the hand up to 1½ inch above the wrist, were affected. There was no perceptible thickening of the ulnar nerve, and it would be noticed that the anæsthesia did not follow the distribution of any one nerve trunk. The knee jerks and triceps-jerks were both present, but the wrist-jerks were absent on both sides. Sensation was tested elsewhere and found normal. The skin was desquamating on both forearms. There was evidently slight subacute nephritis with abundant albumen, and a few granular casts. The albumen gradually diminished, and during the latter part of a tedious convalescence completely disappeared. There was a slight fresh rise of temperature from April 12th to 17th, accompanied by swelling of the left arm, but no joint affection.

It should be noted that, notwithstanding the cutaneous anæsthesia and analgesia, there was distinct hyperæsthesia of the sensory nerves of the affected muscles shown on grasping the muscular masses. This continued for a long time, and there was still tenderness on May 25th, when muscular wasting was first noticed in the thenar group of the left hand and the hypothenar group of the right. Both groups of affected muscles reacted to faradism, but less briskly than the unaffected muscles. To galvanism the reaction was diminished in degree, and K.C.C. was equal to A.C.C., showing slight degeneration.

By June 8th the wasting was very evident, and affected the dorsal aspect more than the palmar. Sensation remained unaltered, the movements were returning, but the patient could not play the piano. There was no affection of the nails or glossy skin. The knee-jerks continued very poor.

On July 20th she looked stout and well, muscular wasting was scarcely noticeable, and sensation was returning, but was not yet completely restored.

[1] See "Myositis and Neuritis, probably of Alcoholic Origin, accompanied by Terminal Gangrene and followed by Muscular Atrophy." By H. Handford, Clinical Society's *Transactions*, vol. 23, page 242.

Professor von Krafft-Ebing has been appointed Professor of Psychiatrics (psychological medicine) in the University of Vienna, with charge of the First Psychiatric Clinic, in succession to the late Professor Meynert.

A DISCUSSION ON THE PROGNOSIS AND TREATMENT OF ASCITES.

Introduced by W. B. CHEADLE, M.D., F.R.C.P.,

Physician to St. Mary's Hospital, London.

Dropsy of the peritoneal cavity occurs under so many different conditions, and is the result of so many different causes, that it is impossible to speak of the prognosis and treatment of the different forms under one general and all-embracing statement.

It will, I think, conduce to the more orderly and clear consideration of the subject if I confine myself in the first instance to that form of ascites which depends upon mechanical obstruction to the portal circulation, and which has its origin in changes, either in the liver itself, or in its peritoneal covering, or both, namely, hepatic ascites; taking up the consideration of the other forms later.

Hepatic Ascites.

This condition is identified chiefly with cirrhosis—interstitial fibrosis of alcoholic or syphilitic origin mostly—with more or less perihepatitis from the same cause. In a few instances the effusion is due to malignant or other growths pressing upon the portal trunk, but in the vast majority of cases of hepatic ascites, the obstruction is due to interstitial pressure on the portal twigs in the liver itself, or of inflammatory products on the portal trunk.

Cirrhotic Ascites.

Now ascites due to cirrhosis of the liver has been looked upon as a very hopeless affection. Its fatality is generally regarded as inevitable.

Murchison gives 12 cases in all; in one there was no ascites, and the final result is not given. The remaining 11 were all fatal, one only surviving so long as two years, the fluid in this instance being removed by successive tappings, and not returning after the fourth operation.

Thierfelder (*Ziemssen's Cyc.*, p. 204, vol. ix), speaking generally of cirrhosis, says: "In cases that have been accurately diagnosticated, the termination is without exception death;" and again: "The prognosis, when no doubt exists as to the nature of the disease, is absolutely unfavourable. How long life may linger in special cases can only be conjectured from the amount of physical strength still present, the condition of the digestive organs, causal complications, and the external relations of the patient. Individual patients are seen to survive the appearance of ascites under judicious nursing, care, and treatment for a year or even longer."

Dr. Bristowe, speaking of atrophic cirrhosis, which he identifies with the alcoholic form, says: "The tendency of cirrhosis is always to a fatal issue. It may certainly last for some years, but when once distinctive symptoms have showed themselves the patient's days are numbered. He may, however, then survive a year or two." (Seventh edition, p. 794.)

Fagge says the prognosis in almost all cases of ascites is unfavourable. "..... In cirrhosis of the liver especially, death occurs in the great majority of cases in from six weeks to six months after the detection of the ascites. There are, however, exceptions to this rule." And he cites one case where temporary recovery took place, followed some months later by relapse and death. He expresses the opinion that when recovery does take place from ascites, the great probability is that the effusion is due to peritonitis or perihepatitis. (*Prin. and Pract. of Med.*, 3rd edition, vol. ii, p 328.)

Dr. Roberts, however, regards it as curable (*Theory and Pract. of Med.*, 8th edition, p. 618); and Dr. Austin Flint viewed it as sometimes temporarily curable (British Medical Journal, vol. ii, 1883, p 566).

The pessimist view as to the hopelessness of hepatic ascites is quite consistent with my own experience until the last few years. Up to the year 1884 I had never seen a single case of well-marked hepatic ascites of any form, where the dropsy and emaciation were fully established, and the diagnosis clear, recover. In spite of all treatment—and I am afraid too often in consequence of treatment—they invariably went from bad to worse. I had, indeed, in rare instances, seen the dropsy removed, but never the patient cured. There is no more painful clinical picture of hopeless disease and helpless therapeutics fixed in my memory than these cases of ascites remaining unrelieved in their increasing exhaustion and distress, carried to extreme degree before tapping was resorted to as a last and probably fatal measure of palliation. And yet, although there is an almost universal consensus of authority as to the extreme intractability and fatality of cirrhotic ascites, a considerable number of cases are to be found recorded where recovery is described as taking place after repeated paracentesis and other measures. I have found thirty-six noted in various publications since Dr. Banks's case in 1859. In 1883 Dr. Austin Flint published ten cases of recovery; and, to come down to more recent times, Dr. Bristowe, in a paper read before the Medical Society, related four cases of recovery more or less complete. Of these, three were alcoholic, one syphilitic; and my own personal experience during the last eight years has compelled me to revise my former conclusions as to the intractable character of cirrhotic ascites and its inevitable fatality.

In 1884 there came under my care a case of advanced cirrhotic ascites. The abdomen was enormously distended with fluid (girth, 43½ in.). The dropsy of the extremities was extreme, and there was great emaciation. All the usual remedies—purgatives, diuretics, mercury—were tried in vain. The patient grew steadily worse, the lungs became engorged, respiration embarrassed, appetite failed, extreme weakness set in, and the last stage appeared to have been reached. Yet this patient, reduced apparently to the most hopeless condition, recovered absolutely and permanently under repeated tappings (6 abdomen, legs 10: nearly 15 gallons), and full doses of iodide of potassium; a year afterwards he was following his work as a waggoner, walking eight to ten miles a day.

The case was syphilitic, no doubt. There was a vague history of it, and I may mention, in confirmation of the diagnosis, that one testicle had been removed by a surgeon some years before for "strumous" disease, and the remaining testicle a few weeks before admission for the same supposed disease by another surgeon.

Since that time 22 other cases of cirrhotic ascites have come under my care, 23 in all. Of these, 4 have absolutely recovered; 2 were seen quite well a year afterwards, and the remaining 2 eight and five years after respectively, still quite well—one two days ago; the liver was still hard and large. In addition to these, two others recovered perfectly at the time, but were subsequently lost sight of, a third recovered to die of acute bronchitis three weeks after leaving hospital, and a fourth died whilst rapidly advancing towards recovery from intercurrent erysipelas of the head, from a chance infection; altogether 7 to 8 recoveries out of 23. There is, I think, a general consent that these patients get well now far more frequently than formerly.

Conditions under which Cure is Possible.

1. What, then, are the conditions of disease in which cure is possible? 2. Is there any change in treatment which has wrought this change in result?

1. *The Conditions of Cure.*—With regard to the first point, one fact comes out very distinctly with regard to the morbid changes in the liver itself. It is this: In all the cases which have recovered under my own observation the liver has been large and hard.[1] In no instance has more than temporary improvement taken place when the liver was contracted and small. In the 36 other cases of recovery which I have found recorded, the condition of the liver is stated in 16 instances only. It is put down as large and hard in 13, normal size in 2, "contracted" in 1. I think, therefore, it may be laid down as the first condition essential to cure that the liver must not have passed out of the earlier stage of enlargement into the later stage of contraction. From my own observation it would appear that no degree of emaciation or dropsical accumulation negatives the possibility of recovery if the liver is large, the cirrhosis hypertrophic.

The Definition of the Term "Hypertrophic Cirrhosis."

And here I would take exception to the use of this term "hypertrophic cirrhosis" as representing a separate and distinct form, and also to the term atrophic cirrhosis as used to indicate a form entirely distinct from cirrhosis with enlargement, or as synonymous with alcoholic cirrhosis—a common practice. There can, however, be no doubt that many cirrhotic livers enlarged at first became contracted later, and that in alcoholic cirrhosis the liver is not always contracted, but often enlarged for a lengthened period. Enlargement and contraction may be separate stages of the same affection. The distinction has been based upon the fact that in certain cases of cirrhosis with enlargement the growth of fibrous tissue is developed in a diffused manner in the lobule between the rows of cells rather than between the lobules or groups of lobules, and this change has been associated clinically with absence of dropsy, or small amount of it, or late appearance of it, the presence of jaundice, and occasionally the supervention of toxæmic symptoms.

[1] In one instance in a patient who died of a casual bronchitis shortly after her discharge from hospital as cured, the liver, which had been noted as somewhat enlarged during life, was found to weigh 36 ounces, but the patient was an exceptionally small woman. The fibrosis was not extreme.

The distinction between the two forms of fibrosis no doubt exists microscopically, but the connection of diffuse fibrosis absolutely with a special form of so-called hypertrophic biliary cirrhosis clinically fails. I have wearied myself in looking for these cases of biliary cirrhosis ever since Charcot's description first appeared in 1877, but I have failed to meet with a single instance. It is allowed that the changes observed in syphilitic fibrosis correspond very closely with so-called biliary hypertrophic cirrhosis, very diffuse development of embryonic tissue, with uniform enlargement of the organ, and this may or may not be associated with gummata. I believe that it will turn out on further investigation that these cases of hypertrophic cirrhosis distinguished by diffuse fibrosis are syphilitic, and that a distinct biliary cirrhosis characterised by absence of dropsy and presence of jaundice has no separate existence, or is at least extremely rare.

These supposed special features are met with now and again in the syphilitic form, and I have seen no other. One of my cases which got absolutely well on iodide of potassium and tapping was jaundiced. I have now under my care in St. Mary's Hospital a man with typical hypertrophic cirrhosis; he has jaundice—no dropsy, and an enormous hard liver. There is a distinct history of syphilis, and he is recovering rapidly under full doses of iodide of potassium. It is not to be inferred, however, that all cases of cirrhosis with enlargement are syphilitic, nor that they are as a rule unattended by ascites, nor that they are as a rule attended by jaundice. Many are of alcoholic origin, and many of syphilitic origin are attended with dropsy and have no jaundice.

Of the 24 cases under my care, the liver was very large in 12; of these, 7 were judged to be alcoholic; in 3 only was syphilis distinctly traced. In 13 out of the 36 cases of recovery recorded in which the liver was large, 6 were alcoholic, 1 only referred to syphilis. It is to be remembered, however, that there is a close social connection between alcoholism and syphilis, and in some instances probably both factors are engaged. Making all allowance for this, however, it is clear that there are a large number of cases of hypertrophic cirrhosis in which alcohol is the sole or chief exciting cause. It will be seen that it is not only the syphilitic cases which recover, as I originally believed, but the alcoholic cases also.

In 2 of my cases which recovered the habit of excessive spirit drinking was fully acknowledged. In the 36 collected cases of recovery, in addition to the 6 I mentioned with enlarged liver which were traced to alcoholism, there are 10 others referred to the same cause in which the state of the liver is not given, or 16 cases of recovery from cirrhotic ascites due to alcohol; and in my case of alcoholic cirrhotic ascites, which died by a chance bronchitis later, the liver was found to be in a condition of ordinary multilobular cirrhosis with about half the glandular structure intact. So that we must conclude, I think, that cases of hepatic ascites —whether of alcoholic or syphilitic origin—are curable in the hypertrophic stage, sometimes permanently or at least for many years.

Factors which Determine the Result in these Primâ Facie Curable Cases.

The determining factors as to recovery or death are (1) the amount of liver tissue which remains functionally effective. From the case of the woman already referred to—who recovered from cirrhotic ascites in spite of an intercurrent attack of lobar pneumonia, but died shortly after from bronchitis due to exposure in the fog of last winter—it would appear that fairly healthy life is compatible with the functional efficiency of about half the liver tissue (a rough computation of the amount of healthy tissue in the liver in this instance). Such patients are viable.

(2) The second determining factor in these cases of possible cure whilst the liver is still large is the freedom with which the portal circulation can be relieved by diversion into the œsophageal, superficial abdominal and other veins by communicating channels. Probably the chief obstacle in the way of such diversion is pressure upon the portal trunk at the portal fissure by inflammatory false membranes. In such case the relief of portal obstruction and the passage of nutrient matter from the alimentary canal into the systemic veins, through new channels running from the liver by anastomosing vessels to the abdominal veins, is seriously impeded. One of my patients (F. C.), otherwise well within the limits of recovery, died from this cause, namely, pressure of perihepatic fibrous tissue upon the portal trunk, reducing it to the calibre of a small quill.

II.—Treatment.

The next point for consideration is the treatment under which patients who formerly died so hopelessly now from time to time get well.

The objects to be sought are obvious: (1) To prevent the increase of fibrosis; (2) to remedy the atrophy and anæmia; (3) to relieve the injurious pressure of the ascitic fluid upon the abdominal and thoracic viscera.

Now, as to the means by which the first two ends are to be attained there will be, for the most part, little difference of opinion, and I may dismiss them briefly. To prevent the increase of fibrosis: Abstention from alcohol and from stimulating foods. In the syphilitic cases the administration of iodide of potassium in addition. To remedy the atrophy and anæmia: Nutritious digestible food with iron, and acid bitter tonics to aid digestion.

As to the third point, however, the means to be adopted for the removal of the fluid from the peritoneal cavity, there is no such consensus of opinion and practice. I have been looking through the textbooks and treatises on medicine, and, with the exception of that by Dr. F. Roberts, who advocates paracentesis, I find a dreary uniformity in the procedure recommended: Purgatives, diuretics; failing these, tonics or perhaps tonics are put first, to be aided by purgatives and diuretics. When all other means fail, paracentesis. This is the gist of it. It is allowed to be extremely unsatisfactory, but the routine is adhered to, and we cling to the practice sanctioned by precedent and authority, in spite of the fact that in nearly every case of recovery recorded a very different procedure has been adopted.

Purgatives.—Taking first the use of hydragogue purgatives, I say, without hesitation, that it is a most disastrous and fatal practice. It is absolutely ineffectual as a means of reducing the dropsy. It is most effectual in reducing the strength and nutrition of the patient. Patients with cirrhosis, enfeebled as they are, from difficulty of obtaining a minimum of aliment through the obstructed vessels, bear purging badly. It hurries the nutrient fluid through the alimentary canal too rapidly for absorption. The plan of giving the purgative in the early morning before food is taken mitigates, but does not neutralise, these ill effects; a large amount of nutritive material remains from previous feeding, and is drained away. Diarrhœa is only too apt to set in spontaneously, is most difficult of control, and of evil augury. Drastic purges are apt to set up uncontrollable diarrhœa; and the expression "purged to death" is not infrequently sadly appropriate to the records of cirrhotic ascites.

Diuretics.—With regard to diuretics, it may be said that when the kidneys are sound they are at all events harmless. They are, however, constantly futile. I have never yet succeeded in obtaining any material result in the removal of the fluid in dropsy of any kind by the aid of diuretics, and it is generally allowed that diuretics fail when their aid is most needed.

Cases are indeed recorded where the action of diuretics is credited with the cure of abdominal dropsy. Garrod,[2] Duffin,[3] Sieveking and Wilks,[4] have each recorded instances in which copious diuresis has followed the use of the resin of copaiba, with more or less complete disappearance of the dropsical fluid, but I have never had the like success, and there are certainly many cases in which it entirely fails. Digitalis, calomel,[5] sugar of milk in quantity; 100 grammes is stated by Dr. Germain Sée to be a most powerful diuretic,[6] and the milk treatment of dropsies in India probably owes its success in certain cases to this element.

As a matter of fact, however, when the ascites is already great, it must be confessed (as Dr. Murchison pointed out) "that diuretics are of little avail, and fail to increase the flow

[2] *Lancet*, 1869.
[3] *Lancet*, 1870.
[4] *Lancet*, 1873.
[5] Schwan, *Wien. med. Blätt.*, Sept. 4th, 1888. Strutzing, *Cent. für klin. Med.*, Sept. 8th, 1888.
[6] Sée, *Semaine Médicale*, June 12th, 1889; *Medical Annual*, 1890, p. 139.

of urine."[7] The pressure on the renal veins interferes with the circulation through the kidney, and renders diuresis impossible.

It is frequently found that while the most powerful diuretics have failed to excite the flow of urine, removal of the fluid by paracentesis is followed by a copious flow even without the aid of diuretics. In ascites, then, while purgatives are mischievous, diuretics are usually ineffectual.

Paracentesis.—The only effectual plan of removing ascitic fluid is by paracentesis. In all my cases, and in nearly every other case of successful treatment I can find recorded, repeated paracentesis has been one of the great points of treatment. And I would ask why should we nauseate and exhaust our patients with drugs, and weary ourselves in the vain attempt to remove the fluid by the round-about channel of bowel or kidney, when it can be withdrawn by a simple mechanical process, which in these days of antiseptic surgery is, I believe, absolutely devoid of risk? Surgeons lay open the abdominal cavity for small reasons without fear, while we hesitate to insert a small trocar. I presume that the reason lies in the fact that the weight of authority, as expressed in books on medicine, is against this procedure, except as a last resource.

Sir Thomas Watson spoke of it as a final resort with the faint hope of giving temporary relief. Frerichs opposed it on the ground that pressure on the vena portæ lessens the rapidity of effusion. Niemeyer says the abdomen should only be tapped when life is immediately endangered. Thierfelder says: "This operation must not be undertaken unnecessarily, but only in response to an urgent indication, as great dyspnœa, obstinate vomiting," and speaks of it only as treatment for relief of symptoms. "Tapping," he says, "invariably affords merely transitory amelioration." Murchison long approved the rule that the operation should be delayed as late as possible, that is, until respiration is seriously affected, on the ground of the loss of albumen involved. Aitken refers to tapping as "the last imperfect resource of our art." In the latest edition just published of one of the leading books on the *Principles and Practice of Medicine* (Fagge and Pye Smith) the direction is: "It should not be performed until the distress caused by the distension of the abdomen becomes insupportable" (vol. ii, p. 300). Another says: "When the abdominal distension becomes so great as to cause the patient serious suffering or distress the fluid ought to be removed by tapping. This operation is usually delayed as long as possible, and, on the whole, no doubt properly so" (Bristowe, 7th edition, p. 761). Another: "Paracentesis should be put off as long as possible, for the end of the disease often arrives soon after tapping, although in some cases ascites is cured by the operation" (Wickham Legge, in *Quain's Dictionary*).

I am convinced that this postponement of paracentesis until urgent symptoms arise is a grave error. A change in this direction has come over medical opinion during the last twenty years. In a paper in the *Practitioner* in 1872, and since in his book on *The Practice of Medicine*, Dr. Frederick Roberts first advocated repeated tapping, and published cases in support of it. In 1881 Dr. Duncan,[8] and in 1873 Dr. McCrew,[9] advocated it. In 1883 Austin Flint[10] strongly urged it, giving 10 cases of recovery under this treatment. Dr. Habershon supported it, and Dr. Murchison reconsidered the matter, and pronounced in favour of paracentesis, "when the abdomen is moderately distended by fluid." Quite recently Dr. Bristowe has sanctioned tapping from time to time without waiting for extreme distension. Textbooks, as a rule, however, still advocate the old system.

Consequences of Ascitic Pressure.—Yet look how grave the consequences of fluid pressure in the abdomen are. The diaphragm is pushed upwards so that abdominal respiration almost ceases, the lungs are imperfectly inflated; congestion, collapse, and basal bronchitis ensue. The heart is embarrassed by the upward pressure, increasing still more the impediment to the circulation already existing in the systemic and pulmonary vessels. The movements of the stomach are hampered, and the circulation in that organ, already impeded by the portal block, is made still more difficult. In the same way the spleen, the pancreas, the intestines all suffer, whilst the liver itself is injuriously affected, the pressure of fluid obstructing the portal vein, and, most important of all, preventing the dilatation of the venæ communicantes, the new channels upon which the relief of the obstruction so vitally depends.

The kidneys do not discharge into the portal system but into the vena cava, and, therefore, are not directly affected by the venous block. Their congestion in the late stage of ascites afford striking evidence of the disastrous effect of simple mechanical external pressure of fluid. When this becomes pronounced the urine becomes scanty, high coloured, albuminous. There ensues, in fact, a passive nephritis, a lessened excretion of urea, a slight uræmia, adding systemic poisoning to the other disorders.

Importance of Early Paracentesis.

I would urge, then, that the fluid which does so much harm should be removed early, before it causes serious pressure on the viscera. The functions of the various organs will be restored, and time gained for the development of the collateral circulation.

It is certain that in many of these cases enough liver tissue remains to carry on life, if only the portal circulation can be sufficiently eased, and the passage of nutriment into the systemic vessels sufficiently established by the development of the collateral channels. This is, however, a work of time. Frequently the patient is carried off before it is effected by the fatal effect of the ascitic pressure, by engorgement of lungs, by hydrothorax, by general failure from embarrassment of organic functions. To gain time is of the essence of cure. This can only be done with promptness and certainty by paracentesis, and with an amount of wear and tear infinitely less than by purging, or drugging with diuretics in the vain attempt to produce diuresis. The operation is, I repeat, perfectly free from risk if properly performed; at any rate, in the case of patients who have not reached the very last stage of exhaustion. Then, no doubt, tapping is sometimes followed by rapid sinking. I presume that this fact, and the not infrequent supervention of peritonitis in former days, led to the belief that after paracentesis the end would soon arrive, and to the counsel of delay. But there is no danger of sinking if the operation is done early; no risk of peritonitis if the trocar is aseptic. I have seen harm result from paracentesis three times; twice in the same week eight years ago, in the early days of antiseptic precautions, from peritonitis due to use of the same imperfectly purified trocar; once since from collapse in a woman utterly broken down by alcoholic excess. The great number of cases known in which tapping has been repeated without ill effect, even hundreds of times, point to the intrinsic harmlessness of the operation.

Continuous Drainage.—The removal of the fluid by continuous drainage has been practised by Dr. Caillé, of New York.[11] He gives two cases in which recovery took place at the time, the patients dying suddenly of heart failure some months later. Dr. Urso[12] gives an account of 9 cases treated in this way, but his results are not encouraging; 4 died directly from the operation; the best result obtained appears to have been a nine months' duration of life after. Dr. Elliot[13] gives 2 cases, both fatal; so that this gives far less favourable results than repeated tapping.

Iodide of Potassium.—The drug which produces the most striking results in conjunction with repeated tapping in certain cases is iodide of potassium. The beneficial effects are probably limited to syphilitic cirrhosis. Bearing in mind, however, the close social association between alcohol and syphilis, and the impossibility of making a positive diagnosis in some instances, it is right to give the iodide in all cases when the liver is large and hard. It is right to give the patient the chance. The alcoholic cases as a rule no doubt bear it badly, but if it acts unfavourably it can be omitted before material damage is done.

Mercury.—Mercury has long had a certain repute in the treatment of ascites. I have once seen the fluid entirely disappear in a case of cirrhotic ascites under the continued application of a plaster of mercurial ointment; and Murchison mentions a similar instance. Calomel alone,[14] and with digitalis,[15] blue pill, and squill and digitalis have been credited with great power in the removal of dropsies, but my experience, except in the one instance referred to, has been entirely unfavourable, even in syphilitic cases.

The Ascites of General Dropsy.

In the ascites which comes as a part of general dropsy, the accumulation of fluid is seldom so great as to require para-

[7] *Diseases of the Liver*, p. 301.
[8] BRITISH MEDICAL JOURNAL.
[9] *Dub. Med. Journ.*
[10] BRITISH MEDICAL JOURNAL, 1883
[11] *New York Medical Journal*, February 27th, 1886.
[12] *Giornale Inter. delle Sc. Med.*, 1889, p. 681.
[13] *New York Medical Journal*, 1886.
[14] Dr. Stuelzung, *Centr. für klin. Med.*, September 8th, 1888.
[15] Dr. Schwan, *Wien. med. Blätt.*, September 27th, 1888.

centesis, which in this case is palliative, not curative. But I think that the operation should be performed as soon as signs of serious pressure appear, especially in those cases of cardiac dropsy where the ascites is in excess of the general dropsy, probably owing to commencing fibrosis of the liver. The relief sometimes lasts long. I have now under my care in St. Mary's Hospital a boy, aged 13, with mitral incompetence and adherent pericardium, who has been tapped three times only in two years. For the last year the dropsy has been limited to the abdominal cavity, the general dropsy having quite disappeared. He has hepatic cirrhotic ascites secondary to cardiac disease.

Ascites due to Chronic Peritonitis.

The only ascites due to chronic peritonitis of which I have knowledge is that set up by malignant disease of the peritoneum, or tubercle.

Ascites due to Malignant Disease.

The former, of course, admits only of temporary relief, and paracentesis should be resorted to for the easing of distress only.

Ascites due to Tuberculous Disease.

In tuberculous peritonitis the accumulation is rarely great. Effusion usually appears early in the course of the disease, is moderate in quantity, and spontaneously subsides. Now and again, however, it increases steadily until paracentesis becomes necessary. I have seen the fluid finally removed by repeated tapping without relapse, but I have never seen cure follow, although recovery is by no means rare in other cases.

Continuous Drainage.—In one case, which I saw with Dr. Wilbe this year in which the fluid returned after tapping, abdominal section was performed by Mr. Willett, and continuous drainage was established. The patient, a child of 2½ years, died three weeks later. Osler[16] has compiled from various quarters a list of 97 cases of tuberculous peritonitis in which abdominal section was performed; of these 27 appear to have died either from the operation or spread of tubercle shortly after; 30 remained well at the end of the year. Of the rest the ultimate result was uncertain, but the operation is clearly admissible in appropriate cases.

Diuretin.

Professor von Schroetter (Vienna) agreed with Dr. Cheadle with regard to the uselessness and danger of purgatives, but urged that good effects could be obtained from diuretin, which he considered to be both a very effective and a perfectly safe drug. If this failed, he advised paracentesis, which should be followed by tight bandaging.

Milk Diet.

Professor Semmola (Naples) discussed the question of the curability and treatment of ascites. He was the first to advocate, fourteen years ago, at the International Congress at Amsterdam, in a communication on the Curability of Ascites in Hepatic Cirrhosis, the treatment by a milk diet. In 24 cases complete cure had resulted from rigorously following the treatment by milk. In some cases the milk diet was of no effect whatever, and the cases went on to a fatal termination; in another series of patients the ascites disappeared, the urine increased, and the gastro-intestinal symptoms passed off. Such cases were those in which there was no actual sclerosis of the tissue, but only disturbance of the hepatic circulation and inflammatory troubles commencing. The milk treatment was not a novel one, having been recommended twenty years before by a French author—Léondet—but without knowing the scientific explanation. He considered milk diet as a specific in the treatment of ascites; but milk diet was useless where there were grave mechanical disturbances of the circulation. Where there was actual cirrhosis iodide of potassium must be tried. But in another class of cases any amelioration obtained was only transitory. This was true of cases relieved by active purgation. Those cured by diuretics were few in number, because in most cases the renal circulation was itself greatly disturbed, and diuretics failed to effect any change in the renal secretion.

[16] *Johns Hopkins Hospital Reports*, vol. ii, No. 2, Baltimore, 1890.

Paracentesis.

Dr. Samuel West limited his observations to ascites as the result of cirrhosis. Alcoholic cirrhosis of the liver was generally recognised as existing in the large or hypertrophic form, as well as in the small contracted or atrophic form. As to true hypertrophic or biliary cirrhosis, Dr. West believed in its existence in this country, though, as compared with France, it was possibly much rarer. It was worth considering what real clinical evidence there was to prove what was commonly asserted as an established fact, namely, that the small contracted liver was preceded by a stage of enlargement. There was no doubt that the large cirrhotic liver could produce all the characteristic symptoms and run its usual course, even to death. Cases in which a large liver could be actually observed to grow small, and in which at death the ordinary contracted liver was found, were certainly rare. He himself had never been able to watch this occur, though he was not prepared to say that it never did happen. It was a question for clinical observation, and so far clinical evidence was not forthcoming to prove it. The objects of treatment were twofold: First, to remove the fluid, and, secondly, to prevent its reforming. The only really satisfactory way of getting rid of the fluid was by paracentesis, and this was so easy, simple, and safe an operation that it was surprising that it had not become a routine method of treatment. As to whether it was preferable to remove it quickly by a large trocar or slowly by a small so-called capillary trocar, his experience showed that rapid removal, provided pressure was maintained for a time by means of an abdominal bandage was, on the whole, most satisfactory for ordinary cases.

The Failure of Diuretics.—The so-called derivative treatment by diaphoretics, drastic purgatives, and diuretics was as ineffectual in ascites as in pleuritic or other effusions. Diuretics, by general confession, failed when they were most wanted; and there was a mechanical reason for this. The intra-abdominal pressure made itself felt upon the kidney as upon other parts of the abdomen. The urgency of the symptoms varied directly with the amount of intra-abdominal tension. Decrease in the amount of urine passed was regarded as one of the stock indications for paracentesis. This decrease was due to compression of the kidney. The intra-abdominal pressure frequently reached 10 inches of water, and might amount to much more. The capillary pressure on the kidney could only be roughly determined, but, if it was regarded as the same as that of other capillaries, it might be put down as about 30 to 40 millimetres of mercury. Now 10 inches of water is roughly equivalent to 20 millimetres of mercury, so that the blood pressure in the kidney capillaries could be reduced a-half or more. For diuretics to act the circulation must increase through the kidney, and the pressure prevented it. In this way the failure of diuretics in ascites was simply explained.

Establishment of Collateral Circulation.—The reaccumulation of fluid could only be prevented by the establishment of a collateral circulation. This was a question of time and rest—rest for weeks, perhaps three or four months, was the essential treatment, in order to facilitate the development of this collateral circulation, and in this regard the character of the patient came in for consideration. If he were patient and amenable rest might remove his symptoms, and this was all that was meant by cure. The cirrhotic tissue could not be removed by drugs any more than scar tissue on the skin or elsewhere, but the symptoms might disappear, and, if the patient did not return to his previous habit, a fairly useful life might be maintained, it might be for many years. Dr. West referred to cases of three, five, and eight years' duration. Unfortunately, with the disappearance of the symptoms, the mental stimulus of the fright was lost, and the general experience was that the patients returned to their drinking habits, and soon broke down again. To sum up: Early paracentesis, repeated if necessary, with prolonged rest in the recumbent position, tonics, and good food to support and strengthen, and, above all, entire abstinence from alcohol in every form were the essential lines of treatment, and upon these lines the most unexpected improvement or recovery not infrequently occurred; so that ascites as the result of alcoholic cirrhosis could no longer be regarded a condition without hope or remedy.

General Treatment.

Dr. Bristowe remarked that he had long taken great interest in the subject of the curability of ascites. Some twenty or twenty-five years ago he had written a paper published in the Clinical Society's *Transactions*, in which he gave cases showing the curability of these cases, and in which he pointed out that, in his opinion, active purgatives were deleterious and diuretics of doubtful efficacy, but that the best means of treatment was to keep the patient at rest, to improve the general health by tonics, etc.; to prohibit alcohol if the cause were cirrhosis, and to tap from time to time. His further experience had confirmed these views. He believed that the cure in cirrhosis was due to two causes: (1) If the cases were in an early stage, to the improvement in the condition of the liver itself; and (2) to the enlargement of anastomotic veins, by means of which the blood was shunted from the portal system, the liver remaining diseased. He did not object to, but was not an advocate of, abdominal section in cases of tuberculous peritonitis, because, according to his own experience, such cases, if treated judiciously, in large proportion recovered. At any rate, he had known of many recoveries in quite typical cases where the patient had been treated by rest, tonics, good feeding, and good air. He did not oppose paracentesis, or, where suppuration was occurring, abdominal section. In the last place, he should like to express his concurrence with Dr. West's opinion, that in a clinical sense alcoholic cirrhosis of the liver did not begin with enlargement and end in atrophy. Although he had been on the constant look-out for such cases, he never recollected to have met with one in which he had been able to trace this gradual shrinking.

Demonstration of the Collateral Circulation.

Drs. J. R. Ratcliffe and T. Stacey-Wilson contributed a paper on The Venous Anastomoses in Relation to the Relief and Cure of Ascites in Cirrhosis of the Liver, and showed specimens of 17 cases in which the anastomoses between the portal and systemic venous systems had been injected and dissected. The result showed that those channels in the region of the stomach, namely, through the coronary vein to the submucous œsophageal plexus and into the azygos and intercostals, or through the coronary or vasa brevia branches of the splenic vein to the perioesophageal plexus and so into the left inferior phrenic vein to the left suprarenal vein, were by far the most constantly dilated, and, when so, afforded by far the greatest amount of relief to the obstructed portal blood. The hæmorrhoidal route through the branches of the inferior mesenteric vein to the internal iliac vein or spermatics, was seldom much dilated, and was not of such importance as a means of relief as was generally supposed.

They differed from Dr. Bristowe's assertion that cases of ascites which had been relieved were not in all cases due to shunting the portal blood through some channel into the systemic veins, for in several such cases which had had ascites cured, they had always found large channels on injection.

They pointed out that the clinical difference between the submucous and perioesophegal routes before mentioned, was that in the former death was liable to occur from hæmatemesis, while in the latter this danger did not exist. They pointed out that the formation of these channels was the means of cure or relief of, and therefore were of opinion that the treatment of ascites in cirrhosis was early and frequent tapping together with rest, in order to allow these channels to be developed. They also agreed with Professor von Schrötter, of Vienna, as to the great importance of the tapping being followed by elastic support to the lax abdominal wall, for without this the pressure in the portal vein would be insufficient to force the blood through these channels, and consequently ascites would again rapidly develop.

Simple Ascites.

Dr. W. J. Tyson (Folkestone) observed that in the various textbooks there was an absence of a good description of those cases which for a better name might be called simple "ascites." He pointed out the objections to the use of the word ascites without an accompanying distinctive adjective designating the cause of the ascites. The class of case to which he wished to call attention was that in which no cause could be discovered to account for the ascites, and yet with ordinary treatment by diuretics and aperients, with tapping if necessary, recovery took place. Two cases lately under his care at the Victoria Hospital, Folkestone, were quoted.

Case I.—A. B., a boy, aged 16, admitted on July 6th, 1891, with a good family history, was quite well until the present illness commenced two months back with enlargement of the abdomen, which had been gradually increasing. On admission there was very considerable ascites, measuring at the umbilicus 31 inches in circumference, and between the umbilicus and ensiform cartilage 33 inches. There was no valvular disease, but the apex was beating opposite the nipple, thus being pushed up. There were signs of pleuritic effusion in both pleural cavities as far as the angle of the scapula. There was no œdema in the legs and scrotum. The urine was non albuminous, pale, with a specific gravity of 1006. The treatment adopted was the outward application of linimentum hydrargyri, and internally the patient was given tincture of digitalis with acetate of potash. He was kept in bed. After a month all the ascitic fluid had disappeared, and he was apparently quite well, and had remained so since.

Case II.—A woman, aged 29, married for six years; she had never had any children or miscarriages. Her family history was good. In 1888 she had typhoid fever, at which time the abdomen swelled, but went down again. In 1886 the "stomach" began to enlarge again, and she stated it had remained more or less swelled up to the time of her admission into Victoria Hospital on May 3rd, 1892. On admission the abdomen measured in circumference at the umbilicus 37½ inches, and was very much distended. No cardiac, lung, or kidney disease could be discovered. On account of the great distress in breathing it was necessary to use paracentesis on May 10th, when 22 pints of ascitic fluid were drawn off. After the operation the abdomen was carefully examined for any enlargement, etc., but nothing was found to account in any way for the ascites. The circumference was now 29 inches at the umbilicus, and had remained the same up to the present time. She was treated from the commencement of her stay in hospital with digitalis, iodide of potassium, and sulphate of magnesia, and Addison's pill night and morning, but with no result until after the tapping, when the urine passed rapidly and increased in quantity.

These cases were examples of a large number in which the ordinary explanations of the ascites were absent, for there was no cardiac, pulmonary, renal, nor hepatic disease present to account for the ascites. Ascitic cases due to the foregoing causes often got well. He knew of two cases of ascites, one due to kidney disease the other due to cardiac disease, in which immense distension of the abdomen existed for some weeks; in the first there had been no return of the dropsy for six years, although a large quantity of albumen was still passed; and in the second no return for a twelvemonth. In the "simple cases" the prognosis was very hopeful.

The cause of the ascites in these cases was very difficult to find; some, no doubt, were tuberculous in origin, others, perhaps, were due to that most convenient of causes—exposure to cold. The important fact was that there was a fair number of cases of ascites to which no cause could be assigned, but which got perfectly well under treatment.

Diuretics.

Dr. Mackey (Brighton) had found bitartrate of potassium effective in cirrhosis, especially in combination with iodide. Diuretin was worthy of more extended use. He had met with difficulty in the enforcement of a rigorous milk diet, owing to the objection of patients. This difficulty had also been found by Sir George Johnson. The conclusion to be drawn from Drs. Ratcliffe and Stacey-Wilson's specimens of venous anastomoses was that diuretics might be of real use, and he thought calomel should be mentioned amongst them.

Paracentesis and Total Abstinence.

Dr. C. R. Drysdale (London) said that the first essential in the treatment of alcoholic ascites was to cut off the poison which acted on the liver at once, and if possible permanently. Bitartrate of potash and digitalis had proved the most serviceable drugs in his personal experience as diuretics. When there was much fluid to be removed his practice had lately been to remove it by tapping, frequently repeated.

Clinical Society of Manchester.—The annual meeting of this Society was held on November 1st, 1892, when the following officers were elected: *President:* T. C. Railton, M.D. *Vice-Presidents:* James Holmes, M.D.; C. F. H. Kitchen. *Treasurer:* C. H. Braddon, M.D. *Librarian:* J. F. Le Page, M.D. *Committee:* W. Bain; H. W. Boddy, M.D.; E. Stanmore Bishop; S. Buckley, M.D.; J. Brassey Brierley, M.D.; H. M. Chisholm, M.D.; J. C. Eames, M.D.; J. Earle; A. Hirst, M.D.; W. E. Husband; W. Milligan, M.D.; C. G. L. Skinner, M.D.; A. Wahltuch, M.D.; R. W. Walsh; J. B. Wilkinson, M.D. *Auditors:* E. Roberts, J. Paulin. *Hon. Secretaries:* A. H. Griffith, M.D.; Herbert Lund.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

BARBARIC MIDWIFERY.

About three years ago I was called out to a sugar estate to see a coolie woman who had just given birth to her third child. I found her lying upon the earth floor, having a child attached to the everted uterus by the umbilical cord and placenta. The "midwife," an ignorant woman it need hardly be said, was pulling and twisting at the uterus, trying to remove it, thinking it was the after-birth. After having tied the cord, and peeled off the placenta from the uterus to which it was intimately adherent, and dashed the cleanest procurable warm water over the womb, I succeeded, after some difficulty, in replacing it, and got the woman to her bed and bound her up. The next morning, when I went to see my patient, she was in the yard feeding her fowls, and had no fever, pain, or after-trouble.

I write these few lines merely to prove the barbaric manner in which midwifery is sometimes practised in this colony, and to show how the natives can survive such a shock without any bad consequences whatever. Of course, as is to be expected, numbers of them suffer from subinvolution.

Charles J. Lyons,
Colonial Medical Service, British Honduras.

ACUTE HYDROCELE OF THE CORD AFTER OPERATION FOR STRANGULATED HERNIA.

W. P. had suffered from hernia for a long time. Whilst at supper on July 30th, 1892, after a severe fit of coughing, the hernia came down, and had resisted all attempts on his part at reduction, although he had on previous occasions been successful. There was much pain and incessant vomiting. I found a large scrotal hernia on the right side, tense and tender. All attempts at reduction, with and without chloroform, failed, nor were subsequent attempts more successful. No permission to operate could be obtained till thirty-six hours after descent.

With the assistance of Dr. Loubser, I operated. The stricture was within the sac, and was freely divided. The sac itself had been opened to too great an extent, and a large mass of gut was spread out on the abdomen, which was at once covered, and kept so, with cloths wrung out of hot creolin solution. The presenting surface of the gut was very vascular and dark; on the under surface were several ecchymosed spots.

Reduction was effected with much difficulty, the gut being freely handled. The wound and surrounding parts were carefully cleansed, all superabundant tissue cut away, and closed with deep and superficial sutures. No drainage tube was inserted. The wound healed by first intention. On the fifth day after operation, both temperature and pulse were normal. Bowels moved freely. On the morning of the sixth day the patient complained of pain in the right inguinal region, and a swelling was seen over the external opening of the canal, reaching down to the upper part of the scrotum. There was no impulse on coughing, and no vomiting. On the same evening the patient was seized with a "queer feeling," and pain in the umbilical region. The swelling had increased, and was tender to touch. Pulse 96, temperature normal. Under the impression that the gut had redescended, with the assistance of Dr. Loubser, I reopened the wound. The tissues were densely matted together, so as to render dissection difficult. The inguinal canal was quite free, containing no gut (at all events, none was felt), and a hypodermic needle soon revealed that the tumour was a hydrocele of the cord, which has since spontaneously disappeared. The edges of the wound were pared, and excellent union was soon obtained.

The umbilical pain disappeared after operation. It is quite possible that a portion of the gut had really descended (hence the umbilical pain and "queer feeling"), but had become reduced during manipulation. Spence mentions such a case.

Malmesbury, Cape of Good Hope. R. H. Rozenzweig, M.B.

RECOVERY OF VOICE FOURTEEN AND A-HALF YEARS AFTER ITS LOSS.

Miss C., aged now 56, lost her voice, comparatively suddenly, on March 5th, 1878, without any shock or excitement; three and a-half years later the battery was applied without result. I saw her first in September 1889, when the voice was quite absent, and the laryngoscope showed paralysis of the inter-arytenoid muscle. With the history and the absence of other signs and symptoms, it was not difficult to diagnose its functional nature, and the faradic current was applied externally. I had then no electrode suitable for intralaryngeal application. Hypnotism with suggestion, stimulating sprays, inhalations, and paints, were all applied, but to no purpose.

In October, 1891, an ovarian cyst was removed from her by Mr. Donald Day; since then she has felt stronger and better, and, two days ago, she walked into my consulting room with her voice practically completely restored, it having come back somewhat gradually, without any shock or excitement, on October 12th, 1892.

This was the thirteenth occasion on which she had lost her voice, but it had never been absent for more than a year and eight months before, and sometimes only for a few days.

This case must encourage us always to hold out hopes that, in functional aphonia, the voice will sooner or later return; as our legal friends would say, it is a valuable precedent for such an opinion.

Norwich. S. Johnson Taylor, M.B.

ON THE SPECIFIC GRAVITY OF THE URINE IN DIABETES MELLITUS.

In recent numbers of the British Medical Journal there are some communications on this subject tending to overthrow the general rule of a high specific gravity when the urine contains sugar.

When the method of the determination of the sugar is given, it is stated to be by Fehling's test, in the use of which there are certain fallacies. According to Professor Halliburton's most excellent textbook of *Chemical Pathology*, glycosuric acid gives a similar reaction as dextrose with this reagent, and many cases of so-called glycosuria after drugs are stated to be due to this body, for an account of which see page 793 of the textbook. The distinction is, of course, easily made by the fermentation test.

I have ventured to make these remarks on these communications, as it seems to me of great importance to exclude this body in making observations tending to lessen the value of the rule that diabetic urine has a high specific gravity unless albumen is present in some quantity.

Sevenoaks. James E. Blomfield, M.B.Oxon.

A VESICATING DYE.

In July last I was called to attend a healthy man of 33, who was foreman in a leather factory, and who presented the following condition: Both hands and forearms were swollen from the finger tips to the elbow. The fingers were at least one and a-half times their normal diameter. The skin, which presented a yellowish stain, was also hot and reddened, and was thickly studded with small vesicles of about the size of a pin's head. Some few of these were ruptured and were discharging serum. There was but little constitutional disturbance, and the axillary glands were not enlarged.

The history given by the patient was that he had been working for two weeks with an orange dye, which had to be dissolved and sponged on to the leather with a hand-sponge. The use of the dye is to produce a yellow-coloured leather such as is now used for shoes. At first he complained of itching in the palms; then the present condition developed. In a few days after I first saw him the vesicles became confluent. One very large blister covered the whole of the left palm. The two forearms thus presented a remarkable appearance, which resembled severe erysipelas with vesication, but without suppuration.

Another man who had been working under him presented a somewhat less extensive example of the same condition.

The cuticle desquamated over the whole affected area and the hands were well in a month from the onset.

My friend, Professor Hummel, of the Yorkshire College, has been good enough to examine some of the material used,

which is a brownish-red powder with pungent irritating odour, the composition of which probably is hexa-nitro-diphenyl-amine—a colour which has always been regarded as one which is apt to cause skin poisoning. Its sale was for some time prohibited in Germany.

Living, as we do, in Leeds, in one of the centres of the leather trade, these cases may be of interest to other practitioners in the district.

Leeds. JOHN BENJAMIN HELLIER, M.D.

LARYNGEAL PARALYSIS—A SEQUEL OF MEASLES.

IN an epidemic of measles at this place, every case of which was mild, paralysis of the intrinsic muscles of the larynx occurred as a sequel in three cases. The cases were mild, and had no respiratory complications or sequels except the laryngeal paralysis. The paralysis set in within a few days after the subsidence of the fever. The patient complained of no inconvenience except the loss of phonation. On laryngoscopic examination there was no congestion or inflammation to account for the matter. The rima glottidis remained midway between extension and contraction. Slight passive movements of the cords were visible on forcible respiration. The first case lasted about ten days (without any treatment); the second and third cases lasted about six days, treated with strychnine.

The condition is interesting as a rare sequel of measles, somewhat resembling the paralysis of diphtheria.

H. SMITH, M.D.,
Dharmsala. Surgeon-Captain I.M.S.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

CASE OF CHOLECYSTOTOMY.

(Under the care of FREDERICK PAGE, M.D.Edin., M.R.C.S., Surgeon to the Infirmary.)

[Reported by R. STERLING, M.B., B.S., House-Surgeon.]

E. S., aged 24, married, was admitted on June 9th, 1892, complaining of pain in her right side. Her present illness dated back about twelve months. She then first noticed the pain which radiated through to her back, and which became worse on sitting for any length of time. Subsequently she suffered from biliousness and frequent attacks of indigestion; these attacks continued until her confinement, nine weeks before admission. The labour was easy, the child healthy, and the patient's condition improved until five weeks after delivery, when pain again developed in her right side with increased severity.

On admission she was found to be extremely emaciated and in a weak condition. The conjunctivæ were jaundiced, but the skin and mucous membranes only slightly so. The urine contained a large quantity of bile pigment and acids. The fæces were altogether devoid of bile. Constipation was marked. The temperature varied between 97.6° and 98.8° F. On examination of the abdomen a pyriform swelling was seen extending from the ninth and tenth right costal cartilages to the right side of the umbilicus. It was dull on percussion, and the dulness was continuous with that of the liver. On palpation the swelling felt tense and cystic. The margins were rounded in outline. The attacks of pain previously described continued with increased severity, but no gall stones were found in the fæces. Jaundice became much more marked.

On June 18th the following operation was performed: An incision, 5 inches in length, was made over the swelling, external to the rectus. The distended gall bladder presented itself in the wound; it was aspirated, and 14½ ounces of bile withdrawn. The gall bladder was now opened with the usual precautions, and thirty-one gall stones extracted. On further examination three more stones were found impacted in the common bile duct; they were expressed into the gall bladder and removed. The gall stones were uniformly facetted, and of equal dimensions, measuring about ⅜ inch in diameter. The gall bladder was sutured to the abdominal wall, a drainage tube inserted, and the wound dressed antiseptically. During the first forty-eight hours after the operation the patient vomited bile-stained fluid, the pulse rose to 140, and the temperature to 100° F. The dressings were frequently soaked with bile. Nutrient enemata were administered.

By the tenth day jaundice had disappeared, the urine was free from bile, and the fæces were normal in colour. The tube was now withdrawn, though bile still escaped from the wound.

On July 16th, four weeks after the operation, the patient left the hospital, very much improved in health, but with a biliary fistula. On August 27th the fistula was closed, and her health was excellent.

THE SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.

A CASE OF CEREBELLAR TUMOUR.

(Under the care of Dr. PRANCE.)

W. W., aged 30, was admitted on September 6th, 1892, with the following history, kindly forwarded by Mr. R. Stanley Thomas, House Surgeon:

Nine weeks ago the patient sought advice about a rash he had, more or less over the whole of his body. There were raised spots, some as large as a shilling, of a bright scarlet colour, fading away to purple, and itching intensely. He also complained of an aching in his back and legs, and he was occasionally sick, bringing up large quantities of bile-stained fluid. The rash continued with more or less intensity for about three weeks, when he began to get well, and he was about to start to work again, when he complained of great pain in his head, which at times was so severe that he became quite unmanageable. His temperature went up to 103°, and remained elevated for several days. His head was shaved, an ice bag applied, and large doses of potassium bromide were given, which quieted him, and relieved his pain. He had constant vomiting. He had got very thin. Four years ago he fell from a scaffold, and cut his head; he remained unconscious for some hours, but gradually recovered, and had been apparently quite well up to present illness. His family history was good. No history of tubercle or syphilis. He was married, and had three healthy children.

On admission he lay in bed motionless, with his neck arched; his nose was cyanosed, and his extremities very cold. When spoken to, he replied after a short pause quite sensibly, and his memory was very good. He had no loss of power, and no anæsthesia. The plantar reflexes were absent; the patellar reflex very much diminished. The pupils were sluggish, and slightly dilated; there was no optic neuritis. Pulse, 80; respirations, 30; temperature, 95. Urine, acid; specific gravity, 1,020; no albumen, no sugar. The appetite was good. No cardiac or respiratory lesion existed.

September 7th. He had a bad night. Urine was withdrawn with the catheter. Headache was better. He had vomited twice; was still very cold.

September 8th. He was much weaker, and more lethargic; pulse, 66. At midday he seemed better, and was talking about his family; after this he again became drowsy, and at 4 P.M. he suddenly for one moment became flushed, and at the same moment respirations ceased, and cyanosis rapidly ensued. The heart continued to beat. Artificial respiration was at once resorted to, with the result that he regained his normal colour; but in spite of all efforts spontaneous respiration could not be reinduced; the heart got feebler and feebler, and death occurred at 5 10 P.M.

Post-mortem Examination.—The convolutions of the brain were flattened, and the vessels very empty. The meninges showed no sign of inflammation. The ventricles were distended, and contained an excessive quantity of cerebro-spinal fluid. On section the cerebrum was normal. In the left lateral hemisphere of the cerebellum was found a tumour, the outside of which was composed of brain-like material; the inside contained whey-like fluid. In front the tumour had burst, and the fluid had escaped towards the medulla.

REMARKS.—This seems to be a very rapidly-fatal case of cerebellar tumour; aimless vomiting and great emaciation being the most marked features. There was no staggering gait, nor did the patient complain of being giddy. The rupture of the tumour and escape of fluid accounts for the manner and rapidity with which death occurred, by causing pressure on medulla, which quickly paralysed the vasomotor and respiratory centres.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Sir Dyce Duckworth, M.D., LL.D., F.R.C.P., President, in the Chair.

Friday, November 11th, 1892.

Laparotomy for Tuberculous Peritonitis.

Mr. Lawford Knaggs (Leeds) described the appearances seen at an operation for ventral hernia five years and a half after laparotomy had been performed for tuberculous peritonitis. The case had been recorded in the *Clinical Society's Transactions*, vol. xxi, and at the first operation the intestines, mysentery, and parietal peritoneum were covered with myriads of pale pink gelatinous-looking tubercles, as big as hemp seeds, thickly and universally distributed. The patient, who had grown into a strong and healthy young woman, reappeared in October, 1891, with an irreducible omental hernia at the site of the abdominal incision. This was successfully operated upon in November. The sac and contained omentum presented nothing unusual in appearance. The omentum that prolapsed through the hernial aperture during the operation was quite healthy. The parietal peritoneum inside the ring felt quite smooth to the finger, and a coil of small intestine, which could be well seen through the opening, was glossy and looked like perfectly healthy bowel. No signs of tubercle, nor any evidence of the tuberculous condition that had existed five years and a half before were detected.

Mr. Howard Marsh mentioned a case of pronounced abdominal tuberculosis, with distended superficial veins, and marked ascites, in which laparotomy was performed to relieve the distension. Within five days the patient was improving, and in two months she was well, the previous distension of the veins and of the abdomen itself having quite disappeared.

Mr. Bruce Clarke referred to another case in which laparotomy and irrigation were performed for peritoneal tuberculosis with speedy and complete recovery. Ovariotomy was performed upon the same patient eighteen months subsequently, and no trace of the original tubercle could then be found.

Mr. J. Langton made some observations on the occurrence of ventral hernia after laparotomy.

Dr. Glover described the case of a boy, aged 8 or 10, who had unmistakable tubercle of the peritoneum with great distension. He had a temperature of 103° F. for weeks, and became much emaciated. Dr. Goodhart, who also saw the case, thought he could feel a mass of tubercle *per rectum*. The boy had no rigor. He subsequently quite recovered, though the belly was not opened.

Dr. Goodhart said that the interest of Mr. Knaggs's case seemed to lie in the fact that the peritoneum subsequently quite recovered, and resumed all its functions. Many years ago he had made a *post-mortem* examination for Dr. Habershon of a lady who had died of obscure brain symptoms. Dr. A. P. Stewart had attended her some thirty or forty years before for what he had considered to be tuberculous peritonitis. The necropsy revealed tuberbulous meningitis, but the peritoneum had perfectly healed, though with adhesions and a few patches of caseated tubercle. Some cases, therefore, undoubtedly recovered without surgical interference.

Mr. Howard Marsh mentioned briefly another very bad case in which laparotomy was advised and declined, and the patient recovered.

Dr. Barlow said that the cases which did best after laparotomy were those in which there was a moderate amount of fluid, whilst the adhesions were not marked, and there were not great masses of caseous material. Such cases often recovered without operative treatment. The cases for which surgical interference was required were those without fluid but with tuberculous masses, whilst, unfortunately, the results of surgical treatment were in these very cases the least good. Where there was free fluid which could be drained off, the success was most marked.

Dr. Hadden mentioned the case of a child which two months before death had been operated upon for peritonitis when the tubercles were seen by several competent observers. The child died of another disease, and at the *post-mortem* examination no trace of tubercles whatever could be found in the abdomen.

The President said that the tuberculosis which did best was that of the abdomen. In adults many such cases certainly recovered, and they were often much helped by treatment. The cases with effusion responded best to surgical treatment. The others were much more ugly cases. He thought the subject one which a committee might very usefully investigate.

Mr. Knaggs, in reply, said that bacilli had not been searched for in his case. Tubercle had been seen in his case at the first operation, and at the time of the second operation had entirely disappeared. He could find no adhesions at all. In some cases of peritonitis great benefit followed a more frequent action of the bowels.

Hyperplastic Phlebitis (? Syphilitic).

Dr. Handford (Nottingham) described the case of a man, aged 30, with intermittent albuminuria, cardiac hypertrophy, high vascular tension, general dilatation of the superficial venules, obliterative endoarteritis, and phlebitis, the latter nearly occluding the saphena and other large veins. The patient showed signs of degeneration in greyish hair, and arcus senilis. He suffered much from migraine. He had been failing for two years and lost a stone in weight. He denied having had gonorrhœa or syphilis, and there were no signs of the latter. He complained of pain in the left loin. The apex beat of the heart was heaving, and the first sound was distinctly reduplicated. The radials were thickened and the tension was very high (sphygmogram). Both internal saphena veins stood out very prominently, and to the touch resembled tendons. There were no adhesions, and the veins could be rolled quite freely under the finger, but could not be flattened. In the horizontal position it was not possible to detect any flow of blood along the lower third of the main trunk on either side; but with the patient standing there appeared to be a slight movement of blood in them. A similar condition affected the external saphena veins, most of the branches of the internal saphena, the radial, ulnar, and cephalic veins. There was no history of preceding thrombosis, or of œdema. Under the use of iodide of potassium and mercury the vascular tension fell to normal, and the induration of the veins greatly diminished, but did not disappear, while the circulation through them became much more free. The albuminuria persisted in the intermittent form.

Dr. Hadden mentioned two cases; (1) a man, aged 60, who for years had had attacks of inflammation of arteries and veins. He had blocking of all the veins of the right arm and the right brachial artery, and of cerebral arteries giving rise to hemiplegia. (2) In the other case, reported by Mr. Gould and himself, there was obliterative arteritis affecting the brachial. In none of these cases was there any hint of syphilis, nor any affection of the heart or kidney.

Dr. Morrison related particulars of a patient who in 1880 had been under Dr. Sutton, with thrombosis of one ulnar vein, and, a month afterwards, of the veins of the other arm. He developed vigorous circulation of the external vessels of the abdominal wall, due to blockage of the deep arteries. A year afterwards he began to expectorate large quantities of blood, but no source of the hæmorrhage could be discovered, except that he had a long uvula and congested pharynx. Amputation of the uvula was followed by hæmorrhage only arrested by cautery. He usually had a subnormal temperature; eventually he determinedly starved himself; shortly before death the temperature in the rectum stood at 92.5°. He had no evidence of marked kidney disease.

Dr. Handford, in reply, said that in his case there was no evidence of thrombosis throughout its course; in this it differed from the cases described by the other speakers. It seemed to be a case of arterio-capillary sclerosis; and was peculiar in that the trouble began in the small vessels and extended to the larger ones, particularly to the larger venous trunks.

Lumbar Nephrolithotomy.

Mr. Donald Day (Norwich) read notes of the case of a woman, aged 32, upon whom he had performed lumbar nephro-

lithotomy. The operation was divided into two stages, in the first of which free vent was given to the pus, and a large branch of the stone removed, and a fortnight afterwards the wound was extended, and the kidney thoroughly cleared of stone. She made a good recovery, but a sinus remained in the loin. The calculus weighed 1,331 grains, and photographs of it were exhibited.

Double Empyema.

Dr. Walter Carr read notes of a case of double empyema treated by drainage in a boy aged 7¾ years, who had been ill eighteen days. Eight ounces and a-half of pus were withdrawn from the right side by the aspirator, and as it would not escape readily from the left side, next morning a piece of the left eighth rib was excised by Mr. Naish, the house surgeon, under local anæsthesia induced by cocaine, and 7 ounces of pus escaped. A large drainage tube was inserted. The boy stood the operation well. After this his condition improved somewhat, but the temperature oscillated between 99° and 101°. Four days after the first operation a portion of the right sixth rib was removed under cocaine, 8 ounces of pus evacuated, and a large tube inserted; there was much more collapse than after the first operation. Recovery was protracted, but the left tube was finally removed in the tenth week. The right lung took longer to expand, and the tube was left out twenty-six days later. During convalescence he had an unexplained attack of hæmoglobinuria, lasting about a week. Eventually both lungs expanded completely, and the boy perfectly recovered in every respect.

Mr. L. A. Dunn mentioned a case on which he had operated two years ago. He first drained the left, and seven days afterwards the right side. The patient had done as well as if he had had only one empyema.

PATHOLOGICAL SOCIETY OF LONDON.

H. T. Butlin, F.R.C.S., in the Chair.

Tuesday, November 1st, 1892.

Proposed Alteration in the Laws.

A general meeting of the Society was held in order to consider and vote upon certain alterations in the laws proposed by the Council. A modified scale of composition fees was adopted; it was decided also that in future such members as reside within a ten mile radius of Charing Cross shall be considered as resident (in place of six miles, as before); and that non-resident members shall pay a life subscription of three guineas, instead of two as before.

Fat Necrosis.

Dr. Herbert P. Hawkins showed a recent specimen of fat necrosis in a case of peritonitis due to perforation of the gall bladder from biliary calculus. The largest masses of the fat so necrosed in the omentum measured half an inch in length; some of the appendices epiploicæ were similarly altered. Contrary to what had been hitherto recorded in such cases, there was no disease of the pancreas.

Dr. Rolleston cited the cases he had recorded lately at the Society, and restated his own theory, namely, that the necrosis was a trophic change due to lesions in the neighbourhood of the pancreas, which set up sympathetic disturbance. The view of Langerhans was that the changes in the pancreas were secondary to the suppuration arising about the necrotic tissue, the fat necrosis being the primary lesion.

Malignant Tumour of the Duodenum.

Dr. F. Voelcker showed a specimen from a man who presented very few symptoms, but in whom there was found an ulcerating soft new growth in the upper part of the jejunum which communicated with the ascending colon.

Dr. Norman Moore agreed with the speaker that the disease arose in the small intestine, and remarked, in confirmation of Dr. Voelcker's remarks, that in cases of such communication the malignant disease, as a rule, arose in the colon. He could recall two cases of such communication, in neither of which were there any intestinal symptoms.

Epithelioma on the Feet of a Hen.

Dr. J. J. Clarke exhibited this specimen as being remarkably like the general psorospermosis of skin described by Darier in the human subject. There was hyperkeratosis of the follicles of the feathers. Owing to the imperfect preservation of the material the histology could not be satisfactorily traced. In glycerine the horny substance showed bright round bodies, and similar bodies were present in the mucous layer of the epidermis. In the case described by Darier there was a coarse epitheliomatous mass about the pubes. He suggested that infection of a second fowl might be accomplished in similar circumstances by keeping the fowls tied together by the legs.

False Hermaphrodite.

Dr. J. J. Clarke also showed the genito-urinary organs in a false hermaphrodite. The urethra was of the male type, though the sex was female; but in addition to this there was a blind, short canal leading from the perineum towards the bladder, suggestive of a proper female urethra. There was, moreover, a symmetrical sacculation of the bladder, each ureter terminating in a sacculus, probably of mechanical origin, and due to obstruction to the exit of urine.

Card Specimens.

Dr. E. C. Perry: Colloid Carcinoma of Stomach.—Dr. H. D. Rolleston: (1) Epithelioma of Pharynx, followed by Secondary Growths in Liver; (2) Osteo-arthritis of Joint between the first and second pieces of the Sternum.

MEDICAL SOCIETY OF LONDON.

Clinical Evening.

Jonathan Hutchinson, F.R.S., President, in the Chair.

Monday, November 14th, 1892.

Tuberculous Ulceration of the Pharynx treated by Lactic Acid.

Dr. Percy Kidd showed a woman, aged 41, who presented a large cicatrix of the pharynx, with some small nodules over the base of the tongue. The throat trouble was subsequent to symptoms of phthisis last Christmas. It was associated with a great deal of pain, especially on swallowing. He applied cocaine, and then brushed it over first with a 50 per cent. solution of lactic acid, and then with the pure acid; and thorough cicatrisation had taken place.

The President mentioned the case of a man with serpiginous ulcers of the pharynx allied to lupus and associated with symptoms of pulmonary disease, from which he died. He also referred to a case published by Stewart some years ago.

Dr. Kidd, in reply, pointed out that chronic ulceration of the pharynx gradually extending into the larynx was strongly suggestive of tuberculosis. He was careful not to affirm that the patient was cured, though vastly improved. He had, however, seen four cases of the kind successfully treated, one by the use of lactic acid.

Left Inguinal Colotomy.

Mr. Goodsall showed two cases in which inguinal colotomy had been performed. The first patient was admitted on January 4th, with fissure. He was found to have a large tumour growing from the sacrum, mostly on the left side, and most perceptible on rectal examination. The patient was told that an operation would probably be necessary. In October the abdomen showed signs of distension, and in November inguinal colotomy was performed. In May, 1891, his weight was 10 st. 1 lb.; it was now 11 st. 2 lb., which was about his normal weight. The tumour had not undergone any enlargement of late. The second case was that of a man, aged 70, admitted early this year. Lost flesh two years. Blood in motions for two months. No previous history of illness. Growth commenced 1 inch above anus, and extended to 4 inches. In July, 1892, left inguinal colotomy was performed. Later he removed the portion of the rectum with the growth. Very little hæmorrhage. The patient left the hospital a month after the operation, and in a month he had gained over 12 lbs. in weight.

"Caisson" Working in Bladder Surgery.

Mr. E. Hurry Fenwick observed that a "caisson" in engineering work was a chamber of iron or wood which was used in the construction of subaqueous foundations, such as those required for the piers of bridges. Caissons often in the form of enormous hollow cylinders were sunk over the

sites selected for the position of the piers, until they rested upon the river bed, and sank into the softish soil by their own weight, or by ballast pressure. The upper end was above the river level. The water was pumped out until the cylinder was empty and the excavation could then be proceeded with as if on dry land. The late Mr. McGill, of Leeds, had demonstrated a median lobe of the prostate by means of a speculum. In his first case Mr. Fenwick had used a Ferguson's speculum. He passed it through the bladder wound, and sank it on to the spot where he had previously ascertained, by the electric cystoscope, that the tumour was placed. This he did without permitting the water in the bladder to escape, as he believed that it would be easier to shift the lower end of the cylinder in water, if by chance he had not dropped the cylinder on to the exact spot. The tumour also would be less liable to be scraped by such a movement, and the consequent bleeding would be avoided. By placing a Jacques's catheter into the cylinder, when it rested on the bladder, and establishing siphon action by suction from a syringe, the water was run out of the caisson and the tumour could be seen, dry and bloodless at the botton. By throwing in a beam of electric light, by means of Dr. Washington Isaac's incandescence "search lamp," it became possible to remove this growth with forceps with extreme accuracy and thoroughness (Fig. 1). Instead of Ferguson's speculum he now employed

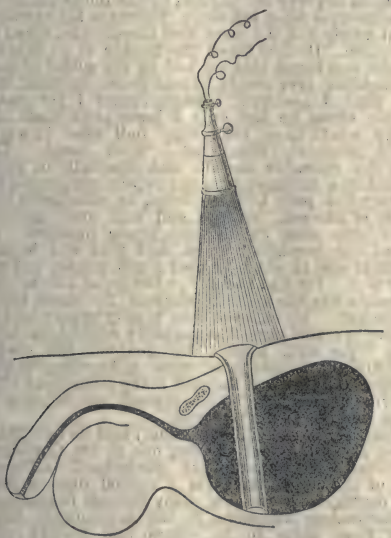


Fig. 1.

thin white porcelain cylinders of various lengths and sizes, according to the thickness of the parietes, the depth of the bladder, and the size of the area to be operated upon. The bladder incision was made just large enough to admit the cylinder. Rectal bags were not used, but the patient was nearly always placed in the "Trendelenburg position." The method had proved of especial value in the very earliest stages of benign tumours, where the growth was very small; also in removing small, sessile, secondary splashes of villous growth which were so often left behind untouched or unrecognised by the finger, after the main piece of the tumour had been wrenched or scraped off. If vesical growth was operated upon earlier (and by this method statistics of recurrence would be less humiliating) the mortality of the actual operation would diminish, and even in epitheliomatous degeneration of the mucous membrane a cure might in some instances ensue. This belief was based upon an experience of over 100 cases of tumour of the bladder. The method could be used in bladder growth, for curetting or cauterising definite catarrhal or tuberculous ulcerations, for incising the mouths of sacs of encysted stones, and for marking out the lines of enucleation of the intravesical outgrowth of the senile enlarged prostate. It was unfit for contracted bladders. It was recommended upon the following grounds:

1. Only a small incision was necessary.
2. The continual passage of fingers, forceps, curettes, and sponges through the wound and bladder incision was unnecessary, for the caisson once introduced was not removed until the stitches had to be inserted. All bruising and tearing of the bladder incision by these manipulations was thus avoided, and if cystitis were present, all chance of fouling of the perivesical tissue was minimised.
3. The growth, the whole growth, and nothing but the growth would be removed.
4. The smallest patches of primary or secondary growth could be seen and accurately treated, the caisson being shifted from place to place.
5. The base of the growth could be cauterised by means of a galvano-cautery porcelain point with safety and certainty.
6. Bleeding could easily be arrested before the patient left the table.

Radical Cure of Hernia.

Mr. Lockwood showed a patient, aged 40, who ten years ago acquired double inguinal hernia, having already one in the region of the umbilicus. The hernia on the right side was very large, and could not be kept up, so the radical operation was performed, Mr. Lockwood operating through a small incision parallel with, and above, Poupart's ligament. He subsequently performed the same operation on the left side. Both operations proved quite successful.

Mr. Sheild said he had tried every variety of ligature, but had had much difficulty with the buried sutures.

Mr. Swinford Edwards said that another reason for the high incision was the greater facility of separating the constituent parts of the cord.

Mr. Lockwood said that nothing could be better than properly-prepared silk for suture purposes. He thought that the trouble sometimes experienced was due to careless handling of the sutures after sterilisation, whereby they became contaminated.

Case of Bony Tumour of the Pelvis.

Mr. G. R. Turner showed a man, aged 38, admitted last February to the Seamen's Hospital with shortening ($1\frac{1}{2}$ inch) and eversion of the right limb, suggestive of a fracture of the neck of the femur. The shortening had been coming on for six months, and at the College, whither he was sent for clinical purposes, he was supposed to have atrophic disease or injury, of the hip-joint. Subsequently, however, the existence of a tumour was made out growing from the pelvis. In July he cut down on the tumour—the size of a Tangerine orange—and removed most of it. Close to it, lying loose in the tissues, was another bony tumour. The man recovered promptly from the operation, and the eversion had disappeared. The shortening, however, had gone on till at present it amounted to $3\frac{1}{2}$ inches. The shortening disappeared on traction. Recently a loss of patellar reflex on both sides had been made out, and he was unsteady with the eyes shut. He thought the coincidence of the tumours and the hip-joint disease was worthy of note. He took it to be a case of Charcot's joint disease.

Mr. Herbert Allingham mentioned a similar case of hip-joint disease and tabes, and, curiously enough, this patient too presented a bony growth of the pelvis.

Mr. Walsham had seen a number of these bony growths independently of hip disease or tabes.

Case of Leprosy Improving under Treatment.

Dr. Abraham showed a lad who came to England in March, 1891, suffering for a short time previously from symptoms of leprosy. He put him on chaulmoogra oil, and he was subsequently injected with Koch's tuberculin. Later this was discontinued, and the chaulmoogra oil treatment resumed. Since he was shown to the Society last year his condition had undergone considerable improvement.

The President said he could refer to several cases which had improved under arsenic together with a very nutritious diet. He attached no importance to the oil, which he never employed. He alluded sarcastically to the fact that, though suffering from a disease supposed to be highly contagious, no precautions were being taken to prevent dissemination; the lad was even allowed to go to a day school.

Dr. Patrick Heron said that it was usually understood that there was no danger of contagion unless there were sores. He mentioned that a certain proportion of cases seemed to

get almost well, but ultimately relapsed and died. He did not think that any real remedy for leprosy had yet been discovered.

The PRESIDENT said that many of his patients were covered with sores without apparently affecting the question of contagion. As to the duration of cure, he could refer to several cases in which the cure had been maintained for a great number of years.

PULSATILE TUMOUR OF THE NECK.

Dr. HERSCHELL showed a woman, aged 67, with a pulsatile tumour at the base of the neck, which appeared to be due to a fusiform enlargement of the base of the left carotid. There was a systolic *bruit* over the aortic area. The patient recently became subject to fainting fits.

The PRESIDENT disadvised operative interference in this condition, such dilatations seldom rupturing.

CYST OF THE AURICLE OF THE EAR.

Mr. MARMADUKE SHEILD showed a man presenting a cystic (?) tumour of the auricle of the ear. It had existed since 1864. He believed it to contain fatty matter.

CASE OF EARLY RAYNAUD'S (?) DISEASE.

Mr. SHEILD also showed a lad with chronic ulceration of the borders of the external ear suggestive of early Raynaud's disease, though no other symptoms were present pointing in that direction.

OBSTETRICAL SOCIETY OF LONDON.

JAMES WATT BLACK, M.D., President, in the Chair.

Wednesday, November 2nd. 1892.

SPECIMENS.

THE following specimens were shown: Dr. CULLINGWORTH: Pyosalpinx.—Dr. AUST-LAWRENCE: Ruptured Tubal Gestation.—Dr. LEITH NAPIER: Microscopic Sections from Case of Double Oöphorectomy.—Dr. GALABIN: Dermoid Cyst.

THE VALUE OF ABDOMINAL SECTION IN CERTAIN CASES OF RECURRENT PELVIC PERITONITIS: ADJOURNED DISCUSSION.

In resuming the discussion on Dr. Cullingworth's paper, Dr. GERVIS observed that operative measures were not proposed in all cases of pelvic peritonitis, but mainly in cases of recurrent peritonitis associated with "distinct swellings in the posterior quarter of the pelvis." With this he (Dr. Gervis) agreed. Many of these cases were not fatal, but in many there was risk, and in all suffering, invalidism, and disablement, for medical measures were of little avail. Proposition 6 held true of many cases of pelvic suppuration, but not infrequently cases occurred which might be opened through the vagina. As to Proposition 10, in addition to the causes of persistent pain after operation, there was neuritis from inflammatory deposits, or spread of inflammation; but the prognosis was favourable. As to the ten cases of hæmatocele alleged by Dr. Williams, he could scarcely make out five, and in these the hæmatocele did not always appear the determining cause of the operation, but abdominal section was rarely called for in cases of hæmatocele apart from suppuration. While agreeing with Dr. Williams as to operation in cases of salpingitis associated with tubercle, the diagnosis of tuberculous salpingitis was, he observed, not always easy. The occasional sequelæ of the operation, such as the persistence of a sinus or occurrence of a hernia, although undoubtedly vexatious, were hardly of sufficient importance to outweigh the great gain attained by the procedure in question.

Mr. MAYO ROBSON (Leeds) found it difficult to discuss under one heading so many different diseases, and as to the removal of ovarian and other cysts associated with pelvic inflammation, his remarks did not apply. As a general surgeon, he felt sure that it was seldom necessary to depart widely from general principles in treating localised peritonitis. They did not hesitate to open and drain an abscess in the neighbourhood of the cæcum; why not deal with a pelvic abscess on similar principles? He had four times within the last year removed the vermiform appendix for recurrent typhlitis, not only converting chronic invalids into perfectly healthy persons, but removing from them the constant menace of an attack more severe than usual which might end fatally. Why should a similar collection of pus in the Fallopian tubes not be similarly treated? If absolute rest and general treatment had failed to relieve, and if the cause were discovered to be a removable one, why should they hesitate to remove it? He would prefer not to operate in cases of hæmatocele unless suppuration were indicated. He handed round a printed record of all his hospital and private cases—65 in number—giving details, as far as possible, on Dr. Cullingworth's lines. There were two deaths referable to the operation (3 per cent.)—a mortality which should dispose of one of the arguments used by the opponents of radical treatment in these cases. He had several times opened and drained pelvic abscesses through the peritoneum, but such a procedure was not so satisfactory as removing the abscess sac, which was frequently a dilated tube. His operations were done after consultation with medical brethren and full explanation to patient and friends. Healthy organs were never removed, and if the disease was limited to one side the other appendage was not removed.

Mr. KNOWSLEY THORNTON said that he had studied Dr. Cullingworth's paper and tables carefully, and the result was that he would be entirely deterred from sanctioning or performing these operations. First there was the mortality of 18 per cent., carrying one back to the early and unsuccessful days of abdominal surgery, a mortality which could not in any way be justified by the mortality of the diseases themselves when left alone. There was the extraordinary fact that nearly half the cases were incomplete; 6 had sinuses and 4 herniæ. He had taken the trouble to go over his own casebooks, and found that he had in the whole of his practice, extending over nearly twenty years, operated 87 times in this class of case with 6 deaths (about 7 per cent.). In the whole series he had only 3 incomplete cases, and his mortality would have been only half what it was if he had not resolutely completed 3 other cases. Care in making the operation aseptic, and especially in protecting the transfixing ligatures from any septic contamination, and using very fine pure Chinese twist, he considered the chief elements of success. Sinuses and pain after operation he believed both arose chiefly from septic ligatures. He had only had one persistent sinus, and that was in an early tuberculous case in which he used much thicker silk than he ever did now. He had had one or two fæcal fistulæ, and one of his deaths was due to this misfortune; the others had healed spontaneously. He believed that if only urgent and proper cases were operated upon the mortality would never fall much below a 6 per cent. level. He doubted the wisdom or justifiability of surgical interference in hæmatocele unless it had suppurated, and he thought many collections of pus in the pelvis were much better opened *per vaginam* where drainage was not against gravity.

Mr. JOHN W. TAYLOR (Birmingham) said he heartily agreed with the general tenour of every one of Dr. Cullingworth's propositions. He found that gonorrhœal inflammatory disease of the appendages was a special disease due to a specific contagion, possessing many features in common with the inflammatory affections of the appendages, but quite distinct from them in its course and results. On the other hand, all inflammatory affections of the appendages were not gonorrhœal. The naked eye characters might be almost identical; but he believed the treatment should be radically different. If the inflammatory affection were limited to one side of the pelvis, there would be no need to remove the appendages of the opposite side. He could not agree with those speakers who urged that operative treatment should be withheld, and only used as a last resort. Acute pyosalpinx must always be dangerous, but the operative removal of the more chronic collections of pus should be almost uniformly successful.

Dr. HEYWOOD SMITH agreed with Dr. Cullingworth's sixth proposition that "it was safer to attack cases of pelvic suppuration from above than below." He questioned the accuracy of Mr. Thornton's statement that few patients died in these cases if left alone.

Dr. GRIFFITH said his experience was that it was neither easy nor common to obtain satisfactory evidence of the gonorrhœal origin of pelvic inflammations, and that most frequently the probable cause was a septic one.

Mr. SKENE KEITH drew attention to the length of time

which often elapsed before recovery was complete after these operations. At the end of six months comparatively few cases were quite well, while at the end of two years the results would be found to be very satisfactory.

Dr. Cullingworth, in reply, said that the chief value of his paper consisted in the full clinical and pathological details it contained of each of the 50 cases in the printed table. Those details were not before them yet. The paper had only been presented to the meeting in a greatly abbreviated form. It was next to impossible to give a satisfactory clinical picture of a case either in the form of a table or a summary. Pelvic peritonitis was the one condition that was common to all the cases. The object of the paper was to show that, underlying many cases of pelvic peritonitis, especially where the inflammation was recurrent, there was definite disease which could only be properly dealt with by surgical means. The fact of recurrence showed persistent irritation, and the cases presented went to prove that the source of irritation was often a deep seated suppuration, either in the tube or ovary, or in both. Cases in which there was a definite swelling in one or both sides of the pelvis were those in which alone he advocated and practised abdominal section. Amongst the 50 cases tabulated there were no fewer than 19 in which new growths were present; of these, 14 were suppurating ovarian cysts, and 5 were ovarian cysts that had become inflamed, 1 of them in consequence of intracystic hæmorrhage, and the remaining 4 owing to inflammatory diseases of neighbouring parts. Dr. Williams had spoken of ten cases of hæmatocele; this was an error, as there were not more than eight, even if a case of hæmatoma of the broad ligament were included. Not one of the eight cases was a typical hæmatocele, or was operated upon under the supposition that a hæmatocele was present. Dividing all the cases into groups of 25, the mortality was as follows: in the first group 7, in the second 2, in the third 4, in the last 0; the mortality of the first 25 must be reasonably regarded as the result of inexperience, and that of the last 75 (namely, 8 per cent.) as representing his present mortality. In connection with this question of mortality, it should be stated that of the 50 patients, 15 were so ill at the time of operation, that it was evident to all who saw them that a fatal issue was rapidly approaching. Of these 15, 4 died. Of the other 5 patients who died, 4 were totally incapacitated for work of any kind, and the fifth, though able to do light work occasionally, was laid aside by an attack of pelvic inflammation every few days. It was not the case that his later and more successful operations were undertaken for less serious conditions, or were in any degree less complicated or less difficult than his earlier ones. The few instances of herniæ and unhealed sinuses occurred in cases where, from special circumstances, collections of matter were drained instead of being extirpated. In such cases herniæ were almost inevitable. The necessity of invoking the aid of gravitation in order to obtain efficient drainage was a notion that had long since been exploded. Experience had abundantly proved that the force of intra-abdominal pressure was amply sufficient to drive all the fluid out of the abdomen as fast as it accumulated, if only a means of exit were provided. Dr. Champneys's statement that pelvic peritonitis was rarely dangerous to life was amazing. The cases described in his paper were not ordinary cases of pelvic abscess, that is, in the connective tissue. Mr. Knowsley Thornton had expressed his disbelief in the painlessness of salpingitis; he had only to read the clinical records in the paper, and he would see how invariably it happened that patients who were proved by operation to have old-standing tubal inflammation had been unconscious of any pelvic pain up to the time that secondary peritonitis occurred. The moment the inflammation spread from a mucous to a serous membrane pain became the most marked symptom.

HARVEIAN SOCIETY OF LONDON.

W. B. Cheadle, M.D., F.R.C.P., President, in the Chair.

Thursday, November 3rd, 1892.

Rodent Ulcer.

Mr. Malcolm Morris showed a case of rodent ulcer of more than twenty years' standing.

Dermatitis Herpetiformis.

Dr. Stephen Mackenzie read a paper on this subject. He said the disease had been described under various names as pemphigus pruriginosus, herpes gestationis, hydroa, etc. He adopted the name Duhring first suggested—namely, dermatitis herpetiformis—as most descriptive. It might be defined as a cutaneous neurosis characterised by the multiformity of its manifestations, which might consist of erythematous, papular, vesicular, bullous, and urticarial eruptions, appearing concurrently or consecutively, and usually attended with pigmentation of the skin. A grouping of vesicles was the most characteristic feature, and was present in most cases at some part of their course. It was usually attended with great itching and burning. It ran a chronic course, with exacerbations or relapses and intervals, and usually terminated spontaneously, but might end fatally. It was attended with some, but usually not great, disturbance of the general health. It affected both sexes, at all ages, but was most common in the middle period of life; in women it was often connected with pregnancy, but might occur independently of it. He gave reasons for not including under this name the affection that had been described by Hebra as impetigo herpetiformis, but Duhring and Jamieson regarded it as only a pustular variety of the disease. He gave notes of twelve cases of the disease observed by himself. One of the patients, a woman aged 40, with very characteristic eruption, was exhibited. He pointed out that the cases he narrated brought out the characteristic features of the disease, its polymorphic character, chronicity, and relapsing course. The vesicular and bullous varieties had, in his experience, been the most common, and in nearly all a grouping of vesicles, on the herpetic plan, had been present at some period of the disease. All parts of the body were liable to be attacked, but in most cases the palms and soles escaped. Severe burning and itching was the almost universal rule, but, in two cases had been absent. In pregnant women (herpes gestationis) it might accompany, follow, or precede pregnancy. The disease was most liable to be mistaken for vesicating and bullous erythema and pemphigus, but might be distinguished from these by its polymorphic character and severe pruritus. As regards its pathology there were no certain anatomical facts to go upon, but he thought it was either a peripheral neuritis or a functional neurosis. As regards treatment, no internal remedy exercised a certain curative influence, but arsenic sometimes succeeded, and where it failed to cure it often controlled it. Of local treatment, soothing applications failed to give more than temporary relief, and sulphur, as recommended by Duhring, was most deserving of trial. It should be used of the strength of two drachms to the ounce, and be energetically rubbed in so as to break down the vesicles, papules, and bullæ, and produce an impression on the nerve endings in the skin.

Dr. Radcliffe Crocker related his experience of this disease, and showed a number of photographs and water colour sketches illustrating its various points. In the main he agreed with Dr. Mackenzie as to the pathology and treatment of the disease.

Dr. J. J. Pringle had seen twelve indubitable cases of the disease among about 6,500 skin patients at the Middlesex Hospital in the last four years, including two examples of hydroa gestationis, which he agreed with Dr. Mackenzie in regarding as a member of the group. In private he had also seen two cases in conjunction with Mr. Malcolm Morris. The name hydroa seemed on the whole a more appropriate and less clumsy one than Duhring's designation, and ought to be adopted as a generic term. Of the hospital cases no fewer than seven were examples of the type described by Unna as hydroa puerorum, and fully accorded with his description, especially as regards the presence of pain rather than of itching, and of papulo-vesicles rather than bullæ. All had severe exacerbations every summer, bringing the disease into close relationship with Hutchinson's "summer eruptions," which ought probably to be included among the hydroa group. One case, however, occurred in a girl, aged 4 years, having made its appearance when she was 4 months old, so that the title hydroa juvenum seemed to be more appropriate than than adopted by the original describer of the type. Two cases had proved fatal; one was a lady, aged 80, who died of marasmus after being afflicted for eight months, while the other began as a hydroa gestationis, lasted seven

years, the patient finally dying of peritonitis following the perforation of the ileum, which, as well as the cæcum, presented numerous ulcers considered as internal manifestations of the disease. Throughout the case there had been indications of marked implication of the alimentary mucous membrane—dysphagia, vomiting, diarrhœa, and melæna. All the seven adults were intensely neurotic, and two of the juveniles were Hebrews. Dr. Mackenzie had with great propriety laid emphasis upon the groups of pigmentary patches and atrophic pits and scars left by previous crops of lesions, as these had often proved of material assistance in establishing the diagnosis, especially in cases where rubbing and scratching had rendered the patches eczematoid in appearance and masked the nature of the primary essential eruptive elements. Arsenic seemed to have a controlling influence on the disease in a few cases, but the measures generally found to be most efficacious were prolonged warm bathing followed by weak naphthol ointments.

Dr. SAMUEL WEST related his experience of the disease, and showed photographs and drawings from patients. In one case the disease had commenced in the hands, apparently as the result of scrubbing out some dirty vessels. Dr. West thought that it was probable that in not a few cases the origin of the disease might be traced to some septic absorption of this sort.

Dr. MACKENZIE briefly replied.

HUNTERIAN SOCIETY.

CLINICAL EVENING.

R. G. TATHAM, M.R.C.S., Vice-President, in the Chair.

Wednesday, November 9th, 1892.

BAG FOR DILATING THE CERVIX UTERI.

DR. G. E. HERMAN showed Champetier de Ribes's bag, lately invented for this purpose. It was on the principle of Barnes's bags, but was made of inelastic material—waterproofed silk. It required a single application only, and was introduced, folded up, by means of special forceps, into any cervix which would admit the finger, the forceps being then disarticulated and removed. When filled, the conical lower end closely imitated the bag of membranes. It was useful in all cases in which the cervix required to be dilated for the induction of premature labour, in placenta prævia, etc. In very contracted pelves it might be necessary to let a little of the water run out, if the fully distended bag were too large for expulsion.[1]

SUPERFICIAL POPLITEAL ULCERATION.

Dr. J. S. E. COTMAN showed a man, aged about 35, who had had a carbuncle behind the left knee last year; after this healed, ulceration commenced and gradually spread, healing in the centre, with scolloped undermined edges.

Messrs. R. G. TATHAM and J. POLAND considered it syphilitic in nature.

ONESIDED SWEATING OF THE FACE.

Dr. T. MARSHALL showed a man, aged about 45, who had been troubled with perspiration of the right half of his face and neck on excitement for about nine years, since a severe attack of typhoid fever. Concentration of thought, worry with his workmen, or stimulants, such as tea and whisky, would bring it on. He was of an excitable temperament.

Dr. HINGSTON FOX referred to cases of sweating of limited portions of the face in children of an unstable, nervous, disposition. He had shown a case of hyperidrosis of a limited area on one forearm in a hysterical girl.

Dr. COTMAN had exhibited last year a case of sweating of one-half of the face following parotid suppuration, in which he thought that there had been some blending of the fibres of the chorda tympani and auriculo-temporal nerves.

GRAVES'S DISEASE.

Dr. A. T. DAVIES exhibited a woman, aged 43, suffering from Graves's disease. The symptoms—palpitation, proptosis, goître, tremor—were all well marked, and the interest lay in its long duration—twenty-three years. It appeared to be stationary; there was some mitral insufficiency. Her twin sister was reported to have the same malady, and for a like period. Dr. Davies asked what was the usual termination of the disorder.

Messrs. F. R. HUMPHREYS, BOWKETT, and POLAND, and Drs. F. J. SMITH, JAMES GALLOWAY, HINGSTON FOX, P. ABRAHAM, and GLOVER LYON discussed the subject, and cases were alluded to in which death had occurred from heart weakness and venous congestions; others became insane, but the large majority recovered.

Mr. DENTON CARDEW had observed deaths from diabetes and from the exhausting diarrhœa which occurred in some severe cases. When cured the thickening of the thyroid and the eye conditions were usually permanent. The pulse rate became much exaggerated on excitement, and this should be allowed for on first seeing a patient.

HYPERÆMIA AND HYPERTROPHY OF ONE ARM.

Dr. GLOVER LYON showed a woman aged about 35, with extensive persistent hyperæmia and hypertrophy of the left shoulder and almost entire upper extremity. The skin was red, the colour disappearing on pressure, the bones and muscles enlarged. The patient was not left-handed, though that upper extremity was the stronger. The surface was warmer than on the other side, but often felt more chilly to the patient. There were pale patches, especially on the back of the hand. The edge of the redness resembled that of a blush, and extended over most of the pectoral region.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

HENRY POWER, F.R.C.S., President, in the Chair.

Thursday, November 10th, 1892.

CONJUNCTIVITIS SET UP BY FLIES.

DR. BERRY (Edinburgh) read brief notes of two cases—(1) An old man in whom severe inflammation of the conjunctiva, accompanied by extensive corneal ulceration, came on within twenty-four hours of his having been stung in the eye by a fly which had apparently risen from a dunghill. In addition to the local disease, there was marked general prostration, and the patient continued feeble for months afterwards. The whole course of the case seemed to indicate that the poison carried by the fly had produced the local inflammation and also some general poisoning. (2) A man, aged 20, in whom acute swelling of the right eyelid and conjunctiva came on two days after a fly had got into his eye. The inflammation soon became unmistakably diphtherial, and led to complete destruction of the cornea and very serious general symptoms. It was not certain that the diphtherial poison was introduced by the fly, yet the rapidity with which the symptoms followed the accident was thought to be at least suggestive.

HYPERPLASTIC SUBCONJUNCTIVITIS.

Dr. BERRY described shortly a group of cases under the above title. In these cases there was to be felt a hard swelling occupying the tissues below the conjunctival fold of the lower lid. This was in some associated with the irritation and discomfort common to chronic conjunctivitis. It seemed probable, from clinical experience, that the subconjunctival infiltration originated at a time when the conjunctiva was inflamed, and, for some reason, was not altogether absorbed afterwards. But an independent hyperplasia might arise in this more or less organised deposit, causing it to swell to a greater or less extent, and to be accompanied by symptoms of irritation. In fact, in pronounced cases, the conjunctivitis was very slight, although there might be chemosis, and swelling of the preauricular glands.

INTRAOCULAR INJECTION OF ANTISEPTIC SOLUTIONS.

Dr. BERRY gave an account of some of the facts elicited during experiments on rabbits, undertaken by his assistant, Dr. Chassaud, with the object of ascertaining the effect of different solutions injected into the vitreous. In some cases, before injecting the antiseptic, the vitreous was inoculated with fresh septic pus. The only substance injected after the inoculation which seemed capable of preventing purulent hyalitis was chlorine water. At the same time this injection was much better tolerated by the retina and vitreous than any other strong antiseptic solution. In two cases of purulent

[1] The bag can be obtained through Messrs. Krohne and Sesemann.

hyalitis in men, chlorine water injected into the vitreous led to immediate improvement, and the eyes were saved, although sight had been lost before the treatment was adopted.

Intraocular Absorption of Iodoform.

Dr. Berry recorded a case in which, after extraction of senile cataract, he applied iodoform freely to the wound. On examining the eye next day, the anterior chamber was found to be filled to the extent of apparently two-fifths of its capacity with iodoform, and the rest of the aqueous to be turbid. At some parts caked portions of iodoform could be seen plastered as it were upon the iris. The iodoform was gradually absorbed without causing any great irritation. In a fortnight no trace of it could be seen, and the result of the operation was good.

Discussion.

Mr. Caiger related a case observed by him at Moorfields Hospital, which was, he thought, in some respects analogous to the cases mentioned in Dr. Berry's first communication. It was that of a stableman, who was struck in the eye by a worm from the intestines of a horse. When he came to the hospital there was very marked chemosis of the conjunctiva, which gradually subsided. Mr. Caiger thought this might have been due to the introduction of some poisonous material contained in the excreta of the horse.

Mr. Lawford thought he recognised the condition described by Dr. Berry as hyperplastic conjunctivitis. He asked if Dr. Berry had met with it more commonly in old or young patients, or in connection with any dyscrasia, and also what plan of treatment he had found most suitable.

Dr. Hill Griffith (Manchester), speaking of intraocular injections, suggested that the trichloride of iodine promised to be very suitable for the purpose. It was said to be non-irritating and to become decomposed into free chlorine and iodine.

Mr. Hartridge thought that cases frequently occurred in which the injection of antiseptic and germicidal solutions into the eye seemed most desirable, and, if it were shown that this treatment could be safely adopted, it would be a decided advantage, and might save eyes which now had to be removed.

Mr. Doyne referred to one case in which he had injected boric acid solution into the anterior chamber, and in which arrest of suppuration had resulted.

In reply to these remarks, Dr. Berry said that hyperplastic subconjunctivitis was generally met with in adults; chronicity was one of its chief characteristics. He had not found treatment of much avail. In one instance in which he had given salicin, thinking the condition might be rheumatic in nature, improvement had ensued. As to intraocular injections, Dr. Berry thought it probable that a distinct advance in ocular therapeutics might be made. He pointed out that injections into the anterior chamber and into the vitreous could scarcely be compared. He had frequently used solutions of perchloride of mercury to wash out the aqueous chamber, but with the usual resulting opacity of cornea. This opacity he had noticed to occur less markedly in children than in adults.

Living and Card Specimens.

Mr. Stanford Morton: Cyst of Iris.—Mr. John Griffith: Rupture of Sclera without marked Defect of Sight.—Mr. Hartridge: (1) Multiple Ruptures of Choroid; (2) Case of Aniridia.—Mr. Work Dodd: Case of Aniridia.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Pathology.

E. H. Bennett, M.D., in the Chair.

Friday, November 4th, 1892.

Amputation and Subsequent Deligation of the Femoral Artery and Vein.

Dr. Graves read notes of this case for Mr. Wheeler. The patient was a young man under 20, who was in good health up to January, 1892, when he hurt his right knee by falling against a granite stone support. Although he suffered intense pain from the injury, he did not seek advice until April, when the injured knee-joint was circumferentially half an inch larger than his sound joint, owing to effusion; besides, there was a marked circumscribed enlargement upon the inner and upper part of the tibia, just below the articular surface. The effusion subsided under treatment, but the tibial growth rather increased, and was followed by a slight glandular enlargement, situated in and corresponding to the saphenous opening. Amputation was performed at the lower third of the thigh, and the stump healed well. The enlargement in the groin increased in size as the patient convalesced. It was removed two months ago, the femoral artery and vein being first ligatured at the distal and cardiac sides of the tumour about one inch from it at either side. The patient recovered. On examination under an anæsthetic, no enlargement in the abdominal or other regions could be detected. The tibial growth originated in the periosteum, and the glandular growth was soft where it lay under the skin, but osseous in proximity to the vessels. Dr. Graves had kindly examined the specimens. The new growth in the head of the tibia was an osteosarcoma; the gland from the groin was infiltrated with osteosarcoma. One side of the femoral vein was much thickened. Its wall was infiltrated with sarcoma cells. Probably the gland became affected from the femoral vein.

The Chairman spoke, and Dr. Graves replied.

Actinomycosis.

Dr. Scott showed a case of actinomycosis, which was found by Sir Charles Cameron in a cow slaughtered in the Dublin abattoir. It was the first case described from Ireland. He gave a summary of the history and of our present knowledge of the disease in the domestic animals and men, illustrated by microscopical sections of the Irish case, and sections of other Scotch cases sent by Professor M'Fadyean. Microphotographs of the principal features in the sections were shown by the optical lantern.

Specimens.

Dr. J. W. Moore showed a specimen of Aneurysm of the Aorta opening into the Left Lung and Pleura from a man, aged 57, who had died of hæmorrhage after a series of convulsive seizures. Dr. J. W. Moore also showed a specimen of extensive Ulceration of both Agminate and Solitary Glands of the Ileum in the case of a commercial traveller, aged 29, who died on the ninth day of enteric fever with symptoms of delirium tremens, terminated by a violent convulsive seizure. The patient had walked about until within thirty hours of his death.—Dr. M'Weeney showed the intestines from two cases of Enteric Fever, with cultivations of the Typhoid Bacillus.

MANCHESTER MEDICAL SOCIETY.

A. W. Stocks, M.R.C.S., President, in the Chair.

Wednesday, November 2nd, 1892.

Surgery of the Kidney.

Mr. T. Jones mentioned three cases of nephrolithotomy all terminating in recovery. 1. A man, aged 32, admitted into the infirmary January, 1889, with a previous history of characteristic symptoms. Nephrolithotomy was performed by oblique incision just below the last rib on the right side. The stone was readily detected, but some difficulty was experienced in its extraction, owing to its irregularity, lithotomy forceps proving ineffectual. It was finally removed between the left index finger and a Volkmann's spoon. The patient made a good recovery. For three or four days no urine came through the wound, then for a week it came in considerable quantities. Stone—an oxalate—weighed 40 grains. 2. A woman, aged 20, admitted April 2nd, 1892. An interesting point in the family history was that twenty-three years ago her mother had had a cystine calculus removed from the bladder by the late Mr. Southam. The symptoms were not well marked, and doubts were expressed as to the presence of a calculus. Urine light-brown colour, acid, specific gravity 1020, trace of albumen, deposit contained pus, uric acid and numerous cystine crystals. Nephrolithotomy, April 26th. Stone detected in pelvis of right kidney; posterior wall

scratched through, and stone extracted by means of Thompson's forceps for removing bladder growths. For ten days the patient's progress was most satisfactory; her temperature was normal, and no urine came through the wound. On May 6th, at 2.30 A.M., she had a rigor, the temperature rising to 105°, and symptoms apparently due to pyelitis followed. Ultimately she made a perfect recovery. The calculus—cystine—weighed 88 grains. 3. A man, aged 21, admitted July 21st, 1892, with symptoms of eighteen months' duration. Nephrolithotomy July 26th. Kidney easily reached and pelvis examined; stone felt. Stone also detected in substance of kidney by an acupuncture needle. Kidney excised. One stone removed from its substance, and three others from the pelvis of the organ. Calculi (uric acid) smooth, facetted. Wound healed by first intention. Urine contained blood for a few days, but was clear by July 31st. No urine escaped through wound. Temperature never above normal.

Mr. SOUTHAM mentioned two cases in which nephrotomy was performed for conditions attended with symptoms which closely resembled those of renal calculus, but in neither instance was a stone found. In one case the kidney was much contracted, with an irregularly-lobulated surface; in the other, where the symptoms developed shortly after an injury to the loin, it appeared to be in a healthy condition. In both cases exploration of the kidney was followed by a complete subsidence of all the symptoms which were complained of previously to the operation.

Mr. WHITEHEAD mentioned the particulars of his three latest cases of nephrolithotomy. Two of them made rapid and complete recoveries. The third, some weeks after returning home convalescent, had a sudden attack of pain in the region of the kidney operated upon; an abscess developed, and a sinus persisted many weeks, but eventually closed satisfactorily, and the patient had no further trouble. In commenting upon nephrolithotomy, Mr. Whitehead expressed the opinion that when a surgeon had reasonable grounds for suspecting a stone in the kidney, the only common-sense plan was to make a direct incision into the organ, and make a thorough exploration of its interior. He deprecated preliminary palpation, squeezing, and needling as generally recommended, and pointed out that no matter what the palpation, squeezing, and needling revealed, the kidney must of necessity be eventually incised, and that the only result of these useless and destructive preliminary measures was to damage the tissues of the kidney, and risk the necessity of nephrectomy. He concluded by stating that the experience of modern surgery warranted the belief that a healthy kidney in a healthy person might be incised and thoroughly explored with remarkably little, if any, danger.

Mr. G. A. WRIGHT made some remarks upon the surgical treatment of hydronephrosis.

INFLUENCE OF RENAL DISEASE ON MORTALITY OF OPERATIONS.

Dr. A. T. WILKINSON made some remarks on the bearing of renal disease upon the mortality of surgical operations. Out of the last 57 deaths after operations of all kinds at the Manchester Infirmary the kidneys were examined in 49, with the result that in 26 per cent. only were the kidneys found healthy. The diagnosis of renal disease and significance of albuminuria in surgery were discussed, attention being specially drawn to the cases of interstitial nephritis in which the albuminuria was intermittent and slight. When bladder disease prevented the exact examination of the urine for renal disease, trust was chiefly to be placed in (1) the increase of the urinary water (when under the regulated diet and temperature of hospital life), the lowered specific gravity, and the habit of nocturnal micturition; (2) the presence of left cardiac hypertrophy, etc., the sphygmogram of high tension, and the albuminuric retinitis. Cases were instanced illustrating the occurrence of these phenomena in early life, and showing their connection with the dropsy of scarlet fever in childhood to be more common than was usually held. The symptoms were present in the cases of interstitial nephritis secondary to disease of urethra, bladder, etc., but less frequently than in the purely medical form. This seemed to arise from the fact that in surgery the lesion was often unilateral, and, when bilateral, might not be complete.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

WM. HALL, M.R.C.S., President, in the Chair.

Friday, November 4th, 1892.

LARGE DOSES OF CHLORAL IN CHOREA.

Dr. BARRS read an account of five cases of chorea, so severe as to threaten life, which had been treated by large doses of chloral hydrate or chloralamide. In four of the cases the patient recovered, the choreic movements being very rapidly arrested. In the fifth case the patient succumbed to concomitant pericarditis. Dr. Barrs pointed out that chloral hydrate and all other hypnotics were useless, and probably harmful in such cases of chorea, unless given in quantities sufficient to produce continued sleep.

Dr. CHURTON said the worst cases of chorea were almost always rheumatic in origin. When there was any pyrexia he gave salicylates, also full and frequent doses of chloral and potassium bromide; and, if necessary, and especially if the patient was maniacal, he injected morphine subcutaneously and then administered chloroform for a few minutes, in order to initiate a sleep, which the morphine caused to continue.

Dr. EDDISON commented on the value of *post-mortem* examination in such cases, referring to two fatal instances in which the cause of death was pericardial effusion, and two others in which death was consequent on acute dilatation of the stomach.

The PRESIDENT, Drs. BLACK, JACOB, TREVELYAN, WARDROP GRIFFITH, and Mr. GODFREY CARTER also took part in the discussion.

MISCELLANEOUS COMMUNICATIONS.

Dr. IRVING (Huddersfield) read notes of a case of hydrophobia occurring five years after the patient had been bitten by a rabid dog, which will be published.—Mr. ATKINSON showed the following case: F. J., aged 7, had chronic retention of urine from a congenital phimosis, for which he was circumcised three years ago. He was admitted last July with incontinence, and the bladder dilated, even when empty, to an inch above the umbilicus; always drenched with urine night and day. Other treatment failing, suprapubic cystotomy was performed by Mr. Atkinson on August 11th. The bladder was drained for a month. The viscus gradually contracted to normal size, but incontinence continued. Faradism employed for a month after healing of sinus resulted in restoring complete power of retention and expulsion.

Cases and specimens were also shown.

REVIEWS.

PTOMAINES AND OTHER ANIMAL ALKALOIDS. By A. C. FARQUHARSON, M.D. Bristol: John Wright and Co. 1892.

PATHOLOGICAL, and for that matter physiological, chemistry is perhaps the most obscure branch of medical science, and, therefore, demands the greatest objectivity of observation and judgment. Preconceived ideas and dogmatic expressions of opinion must be carefully and rigorously avoided. One of the greatest difficulties in physiological and pathological chemistry is the absence of definition and the crudeness of the methods of differentiation of albuminous bodies, ferments, and toxins. As Duclaux says, these latter methods lead to the same name being given to different substances and different names to the same substances. We cannot but admire the objectivity of the French scientist, which almost amounts to scepticism, and fully endorse the warnings which reach the physiological chemist from his pen in almost every number of the *Annales de l'Institut Pasteur*.

We can hardly welcome the appearance of Dr. A. C. FARQUHARSON's little book on "ptomaines and other animal alkaloids," which profesess to be an accurate and concise summary of the subject treated. The accuracy we must unfortunately doubt, and when matters rest on an extremely debatable basis, and on the evidence of the work performed by a few specialists, and on ever conflicting opinions, brevity is not a merit, especially if at the same time it tends towards dogmatism and popularisation. The specialist will hardly require the

little summary, while those less familiar with the difficulties and methods of the study of ptomaines and toxins are likely to be misled, even if they be able to follow the author.

Dr. A. C. Farquharson includes (page 66) under ptomaines "all active, inanimate, septic, or toxic substances, resulting from processes of decomposition and disintegration in albuminous materials." This wide definition includes, of course, the so-called toxalbumins, toxoglobulins, toxopeptones, and albumoses. In the previous pages he restricts himself, however, exclusively to the consideration of the ptomaines proper, and all through the book a want of systematic definition and division is evident, so that it is difficult or impossible to follow the author. We differ from him when in Chapter I he asserts that "bodies which are in every way identical with the vegetal alkaloids are elaborated in animal tissues, excretions, secretions, etc." According to Brieger, the cadaveric ptomaines are amines, simple compounds, and apparently belong to the fatty series, while the vegetable alkaloids are far more complex, and almost without an exception contain a pyridin nucleus in their molecule. It is also highly questionable whether Gautier's leucomaines are to be included among the alkaloidal poisons. These bodies resemble kreatin and kreatinin, and are derived from these bodies by the removal or addition of one or more (CNH) groups. Especially if it be remembered that Gautier separated five assumedly distinct substances from the same mass of fresh beef, or Liebig's extract, with only ether, alcohol and water by means of crystallisation, we cannot consider his results as conclusive as Dr. A. C. Farquharson is inclined to do, and, with Duclaux, are disposed to believe that man's imagination and a bad method of work have created many new substances, and "que les espèces qu'on nous présente comme chimiques sont le plus souvent des espèces chimériques."

The historical account, when compared with the similar one in Brieger's works on ptomaines, is incomplete. The methods of preparing and extracting ptomaines are scant and too short, and given with an entire absence of criticism. The Stas-Otto and Dragendorff processes for the separation of ptomaines and toxins are altogether unsatisfactory and faulty, and as the toxalbumins are apparently included in the term ptomaines by the writer, the modern methods of Fränkel and Brieger, Martin, and others should have been discussed.

We cannot say much in favour of the clinical part of the treatise, which is extremely speculative. Auto-infection is constantly used when plainly auto-intoxication is meant. Granted that toxic substances are formed by normal tissues and processes of man, has it been shown that these substances are toxic to man himself, or that they are ever retained under physiological conditions? Dr. A. C. Farquharson assumes as "physiological" causes of auto-intoxication all kinds of circulatory and respiratory disturbances, fatigue, privation, bad hygiene, etc. Surely conditions such as these are not physiological, and their influence on the body equally not. He calls gout "a self-propagated disease" on the strength of a mere truism that "so long as the elimination of urea and uric acid is effective and adequate, the uric acid diathesis remains in abeyance."

Dr. A. C. Farquharson obviously leans towards the antiquated view "that in the case of diseases, as typhus and typhoid, the fevers of prostration, fatigue, and over-exertion, dysentery, small-pox, and erysipelas we may have presented a pathological series of ailments each depending on and representing a certain degree of self-irritation, passing gradually from a mild to a serious condition of self-developed disease." Pathological views of this nature need no comment, and will explain our utter inability to understand the author's meaning when he discusses "the effect of toxic substances developed in the body in pathological conditions." He betrays his practical inexperience of the processes of chemotaxis and phagocytosis. The "proteins" and "alexins" are not the only bacterial substances causing positive chemotaxis; many albumoses and other highly virulent poisons act in like manner. He does not distinguish between "positive" and "negative" chemotaxis, and apparently uses the term "bacilli" as a synonym of "microbe." He has entirely misunderstood the difficulty about accepting phagocytosis as the cause of immunity. The question at issue is whether phagocytosis is the cause or effect of immunity: What is it that makes the phagocyte resistant against, and destructive to, a microbe which previously resisted the phagocyte? His reason for accepting phagocytosis as the cause of immunity is delightfully *naïve*. "Surely," he says, "that theory, which interprets the phenomena of disease in terms of the units of the organism, and not of systems, or the organism as a whole, is a scientific advance worthy of acceptation" (page 96).

We agree with the writer that disease is "a gigantic chemical problem," but would add that the physiological side of the question is equally gigantic, while at the same time we feel that the chemical problem has not been in any way elucidated by his summary. We cannot enter into a discussion of the remaining sections, which, we are happy to say, are perhaps less unsatisfactory. We regret that we cannot recommend the book, as Dr. A. C. Farquharson has apparently bestowed no little time and trouble on the completion of the work, but "on n'éclaire pas la nuit par les ténèbres."

Klinische und experimentelle Studien. Aus dem Laboratorium von Professor v. Basch. Bd. II. (Clinical and Experimental Studies from Professor v. Basch's Laboratory. Vol. II.) Berlin: A. Hirschwald. 1892.

This volume forms a very valuable collection of twelve papers by workers in Professor v. Basch's laboratory. The clinical element is not very strong, though no doubt important conclusions for bedside workers may be deduced from the experimental work described. By far the greater number of the papers relate to the physiology or pathology of the circulatory system; and the numerous tracings given testify to the value of the graphic method in such investigations. Drs. Berggrün, Kornfeld, Grossmann, and Kauders figure prominently as authors.

A few points that have specially caught our attention may be mentioned. The first of these is that the importance of recording venous as well as arterial pressure seems to be appreciated in the laboratory of Professor v. Basch. Among other questions in this relation of which a solution was attempted are: Why does the venous pressure rise when the pneumogastric nerve is stimulated? and the conditions of venous pressure in failure of the left heart. The general conclusion drawn is that in failure of the left ventricle blood pressure falls both in arteries and veins. A rise of venous pressure simultaneously with a fall of arterial pressure only occurs when the right ventricle fails also. Thus, during vagus stimulation we find this failure of the right ventricle; there is consequent overfilling of the right auricle and the blood is dammed back in the systemic veins.

The influence of alcohol on the circulation—a subject attacked by Dr. Gutnikow—will doubtless interest many readers. Dr. Gutnikow thus summarises his conclusions: (1) Alcohol causes a fall of arterial pressure by lessening the excitability of the vasomotor centre; (2) it favours the work of the heart; and (3) it leaves the vagus nerves completely intact.

Among the few papers not relating to the problems of the circulation we may mention in conclusion one by Drs. Katz and Berggrün on fat absorption. This is especially important in view of Munk's recent work on the same subject. The present investigators find that a concentrated proteid diet increases the fat taken up by the lymph stream, and that only the habitual use of fat increases the amount of that substance in the body juices.

Les Tumeurs de la Vessie (Tumours of the Bladder). Par Dr. J. Albarran. Paris: Steinheil. 1892.

Professor Guyon's pupils have done much to enrich the literature of urinary surgery, for their energies and labour have been skilfully and wisely directed into difficult channels by their teacher and friend. One of the best productions of the Necker school for some years past is now before the profession in the shape of a very able and well written monograph on tumours of the urinary bladder by Dr. Albarran, *chef de clinique* to Professor Guyon. It is evidently the

work of a surgeon who has carefully weighed a very considerable experience of this particular branch of surgery, and the writer proves himself to be possessed of scientific accuracy and strict impartiality. The volume, which contains 500 pages of clear type, is beautifully illustrated with coloured pictures and woodcuts, and in addition is adorned by nine phototypes of exceptional accuracy and great beauty. The macroscopy of 88 tumours, which the author has examined, is very carefully worked out, and the result given in detail. It is noticeable that the conclusions tally very closely with the result of investigations on "contact carcinoma," "position of vesical tumours," "proportion of carcinomata to benign types," "sarcomata," etc., which were placed before the Pathological Society of London in 1888.[1] The effects of nutritive, mechanical, and infective lesions are exceptionally well described. The author does not advance any new views in the chapter on causation, but is especially careful to elaborate the theory of irritation, and to draw attention to the occasional co-existence of psorosperms in tumours of the bladder. There are here and there a few mistakes in the body of the book which may have arisen in the transcription of foreign literature, but they are trifling. Thus, on page 55, Professor Keyes, of New York, is represented as operating *thrice* upon one patient, and only discovering at the third attempt that the hæmaturia arose from a villous surface. The real fact is that Keyes only performed the third and final operation, the previous two having been unsuccessfully performed in Albany and the Bellevue Hospital. The main value of the work lies in an accurate exposition of the symptomatology and treatment. The onset symptom of cancer of the bladder is stated to be the appearance of blood in 70 per cent., a fact which has already been insisted upon in England in opposition to the views enunciated by Sir Henry Thompson.[2]

The value of the Nitze method of electric illumination is fully endorsed. It has been used at the Necker Hospital since its introduction, but during the last two years a special department has greatly developed its use.[3] Some tumours previously unsuspected are noted as having been discovered by its means. Dr. Albarran reflects the general feeling that, though the diagnostic powers of the cystoscope are great, yet its recent modification by Dr. Nitze into an operating instrument is of doubtful value.[4]

The Trendelenburg position is strongly advocated, but not the transverse incision recommended by that surgeon. Poirier's tubes modified by Guyon are the drains chiefly used. Dr. Albarran has, however, carried out experiments upon dogs in order to test whether he could leave for the first two or three days after an operation a permanent catheter in each ureter. He is sanguine of the practical result of the method, but has as yet only had one case in which he has been able to use it; this was in a female with tuberculous bladder, and the result was satisfactory.

The suprapubic route is the favourite method of attack, and the results of operative interference, based upon the collection of cases from various clinics and the literature, are as follows:

Benign polypi removed suprapubically without resection of the bladder wall: 48 were operated upon, with 3 deaths and 9 recurrences. Cancers, treated in the same way: 97 were operated upon; 43 died, 31 recurred, and 23 are reported as cured. Removal, with resection of the wall—benign tumours: 3 cases, all cured. Cancers: 16 cases, with 8 deaths, 5 cures, and 3 recurrences.

Before accepting the reports of cures after removal of cancer, even with the resection of the wall, we must possess ourselves of a true account of the after-history. This unfortunately is not obtainable in the greater number of cases.

NOTES ON BOOKS.

Sea Sickness: Cause, Treatment, and Prevention; and Voyaging for Health. By Thomas Dutton, M.D.Univ.Durh. (London: Kempton. 1892.)—This book appears to be written for the lay, not for the medical, public. Trusting to mere experience as a ship surgeon in the observation and treatment of sea sickness, the author asserts that bromide of ammonium is "the most useful drug we possess in sea sickness, and when taken under proper conditions was, he considered, a real specific." These conditions are, that for a fortnight before starting on a sea journey, a pill composed of resina podophylli, euonymin, pepsin, and extr. hyoscyami (dose not given) should be taken every night; and three days before going on board a draught containing amm. bromid., sp. amm. arom. sp. chloroform. The dosé of amm. bromid. is not stated, but the instructions are to increase it if sickness occurs, and to reduce it if the sickness stops, until only 5 grains are taken. The value of several other specifics against sea sickness—chloral hydrate, nepenthe, nitrite of amyl, cocaine, etc.—is discussed and dismissed in a few words; but Dr. Dutton seems to know nothing of the use of the hypodermic injection of minute doses of atropine as a prophylactic against sea sickness. Some slight information is given about various health resorts.

La Pratique de l'Antisepsie dans les Maladies Contagieuses. (The Employment of Antisepsis in Contagious Diseases.) Par C. Burlureaux. (Paris: Baillière et Fils. 1892.)—In this work the contagious diseases are divided into classes according to their supposed capability of being dealt with by chemicals of various kinds. In the first two groups are placed diseases against which local medication is efficacious; in a third, those which, although local at first, soon became general, and in which, therefore, local measures are less efficacious; a fourth in which local measures are of no avail, and so forth. The whole subject is treated in a highly theoretical manner, but although the various theories do not command a ready assent, nevertheless the work is one which can be read with much interest and instruction. We note that injections of sulphate of quinine are recommended for blennorrhœa, and energetic local antisepsis for furunculus. This last plan, which is quite in accordance with experience, gives excellent results. For the treatment of tetanus the latest antidote of Tizzoni and Cattani is not mentioned. Especial attention has, however, been paid to the treatment of tubercle by injections of creasote. This remedy is enthusiastically recommended. A glowing account is given of the healing of tuberculous glands, lungs, testicles, and eruptions. It seems, indeed, as though the results were too good to be true. It is not easy to understand how any remedy can cause the absorption of a caseous lymphatic gland. Nevertheless, the remedy seems, on the author's showing, well worthy of a trial. It is evident that that the word "antisepsie," which is now in the title of this work, is decidedly misleading, and ought to have been replaced by the word "therapeusis."

The Early History of Instrumental Precision in Medicine. By S. Weir Mitchell, M.D., LL.D., Harvard. (New Haven: Tattle, Morehouse, and Taylor. 1892.)—This little pamphlet contains the presidential address delivered before the second Congress of American Physicians and Surgeons in September, 1891. It has evidently been a labour of love, and one of no ordinary difficulty. A man must be an enthusiast indeed who will wade through Italian treatises of the sixteenth century with the object of elucidating the structure of such quaint old instruments as the pulsilogium of Sanctorius and the speculum calendarium of Flood. These are the instruments which the author considers to have been the forerunners of the watch and thermometer as used in modern practice. The address, showing as it does the early attempts to reduce medicine to an exact science, and giving historical condemnation to the practice of excessive empiricism, will be read with advantage. The author notes the natural yearning for mental pictures of rhythmic or recurrent operations, and reproduces three of Foquet's curious diagrams of various pulse curves as they appeared to his mental vision in 1768; and then very rightly condemns the practice of trusting implicitly to the mechanical indications of instruments, however accurate. The early history of the thermometer will always be an interesting chapter in the book of science, and our best thanks are due to the author for the conscientious way in which he has investigated the subject.

[1] British Medical Journal, February, 1888.
[2] British Medical Journal, 1890, vol. ii, p. 895.
[3] Mr. Ernest Hart has recently given a full account of this new department, British Medical Journal, 1892, Necker Hospital, vol. i, p. 572.
[4] British Medical Journal Epitome, para. 5, January 9th, 1892.

ON THE SPREAD OF DIPHTHERIA.

I.

The increase of diphtheria during the last few months is a very grave matter. The increase has been greatest in London, but is to be noted also in other large towns.

Diphtheria stands conspicuous amongst air-current specific fevers as the one infection which has hitherto eluded nearly all attempts to stay it as a cause of sickness and death. Although many deaths that ought properly to be certified as due to diphtheria are registered under other names, yet the total annual deaths admittedly due to that cause in England and Wales now number between 5,000 and 6,000, as opposed to some 2,000 to 3,000 twenty years ago. The disease is also increasing as a cause of death in our large towns, and our present system of compulsory notification shows that in July last, a month when diphtheria is presumed to be at or near its lowest, no fewer than 774 attacks of the disease were recognised as occurring in the metropolis.

The number of deaths attributed to this cause in the third quarter of the present year was 487, and in the thirty-two chief provincial towns it was 229. In the corresponding period of last year the numbers were 330 in London and 124 in the provincial towns; in the fourth quarter of 1891 the numbers were 365 and 176 respectively; in the first quarter of 1891 328 and 189, and in the second quarter 437 and 188. Since the beginning of the present quarter the weekly returns show a slight decrease, but the numbers are still high, averaging nearly 50 a week in London alone.

This maintained excess of attack and of death from diphtheria is the more serious because its cause is by no means free from obscurity, and so far as we do understand it, it is one which is not easy of remedy. Some years ago diphtheria, which had been classed as one of the "filth diseases," was regarded as being generally due to faulty sanitary circumstances, and it was quite sufficient for the ordinary observer to discover in connection with each case of the disease some drain defect or other like condition, in order to justify him in setting that down as the cause of the attack. But evidence has been steadily accumulating to show that, whatever the influence of faulty sanitation in diphtheria, it is one that can in no way explain the growth of this disease in this country. In his Milroy Lectures of 1891, Dr. Thorne Thorne showed that during the past twenty years the rate of mortality from diphtheria had nearly doubled in England and Wales, that it had more than doubled in a number of large towns, and that it had all but quadrupled in the metropolis. And it was pointed out that this steady increase in fatality had taken place concurrently with sustained sanitary improvements and a system of health administration which had been the envy of other nations, and that the immense improvements effected had, as a matter of fact, led to very substantial diminution in general mortality, and, above all, that the mortality from the continued fevers, which are known to respond best to efficient sanitary administration, had during the same period been reduced by more than one-half. Faulty water supplies, sewers, and drains cannot, therefore, be accepted as affording any satisfactory explanation of the increase in diphtheria to which we refer, and it becomes more than probable that such influence as some of these conditions may have in conducing to diphtheria is limited to the circumstance that they tend to induce a form of sore throat which fits the fauces to serve as a suitable soil and breeding ground for the diphtheria organism. This organism is much more widely diffused than is sometimes apprehended, by reason of the multitude of mild diphtheria attacks which exist, and which are only recognised in their true character on such occasions as they are found to be closely identified with some severe or fatal attack exhibiting obvious and unquestionable signs of the disease in its more typical forms.

Whilst we would wish to avoid laying it down that the means by which diphtheria is caused and spread are but few, we cannot but feel that they mainly lie within a fairly limited compass, and that a clear recognition of the more common channels by which the disease becomes diffused is of especial importance in so far as prevention is concerned. For practical purposes we may, for the moment, pass by views such as those which have been held as to the development, out of the ordinary infectious household sore throat, of a more virulent form of throat disease having greater specificity and power of infection. For preventive purposes such throats may be classed as amongst the milder attacks of diphtheria which are so common.

So far as origin is concerned, there is a steadily increasing amount of evidence to lead us to believe that in the case of diphtheria this may ultimately come to be assigned in the main to the lower animals; and the researches of Mr. W. H. Power and Dr. Klein, now confirmed by others, go to show that one of the greatest dangers lies in the existence of a kindred infectious disease amongst milch cows, which is communicated to the human subject as the result of the consumption of the milk of these animals. Again and again have diphtheria outbreaks been traced to the use of milk from certain cowsheds; this has occurred under circumstances which eliminate the chance of any human infection having had access to the milk; whilst, on the other hand, movements of diseased cows and other processes, varying the circumstances in which the animals have been placed, have in turn been followed by variations in the incidence of the diphtheria according as different bodies of persons have come within the influence of the changes in distribution of the suspected milk. If, therefore, we would eliminate diphtheria from its place amongst the most fatal of our specific diseases, our attention must of necessity be turned to the health of the cows whence our milk is derived.

But given diphtheria, however mild in form—or given, as some would prefer to put it, a diphtheritic form of sore throat—one of the most potent means for its diffusion lies in that which has been termed "school influence." The age incidence of diphtheria corresponds, unfortunately, with the age for attendance at elementary schools; the circumstances involved in school attendance are precisely such as go to favour the spread of an infectious disease; and the special characteristics of diphtheria, involving as they do the passage of exhaled air over the diseased surface, tend in a special manner to load the air that is inhaled with the specific poison of the disease. So also the necessary vocal practices followed out in our infant schools, where the scholars are of the age which provides the largest number of diphtheria victims, and where aggregation on floor area in classes is often very close, tend to increase the danger. But this is not all. Whatever may be said as to the development of new specific properties out of a throat affection not originally possessing such properties, there can be but little doubt that the various conditions of elementary school attendance, which are classed under the term "school influence," conduce to the production of a specially virulent form of diphtheria amongst those who are exposed to this influence, and that this grave form of the disease is the outcome of attacks so trivial that they have passed unobserved, even after every care has been taken to detect them and to eliminate those suffering from them from all school aggregations. We therefore get a second indication as to the lines which our measures of prevention should follow in the experience which has been attained as regards school influence. And it is worthy of note that our diphtheria mortality—which has increased instead of abating, as the result of the large public and private sanitary measures that have been adopted—has exhibited this increase synchronously with the success which, under our elementary education legislation, has attended the exposure of children to this so-called school influence.

But, apart from any questions of animal origin and of distribution of the infection through the agency of milk or other like vehicles, we also know that in diphtheria we have a disease which is intensely infective from person to person; that children between the ages of 3 years and 12 years run

exceptional risk as the result of exposure to personal infection; and that attacks of the disease so mild as to suggest an absence of risk often exhibit their truly specific character, both by the sequelæ with which they themselves are followed and by serving as the parent attacks for succeeding ones of a virulent and fatal type in other individuals.

Consideration of the various conditions by which the spread of this disease takes place from one to another, whether directly or indirectly, will afford a third series of suggestions which may be expected to aid in the prevention of diphtheria. We have, thus far, only professed to deal with the most prominent causes of diphtheria production and spread, but the causes referred to must be regarded as not only the main ones but also as those which are most amenable to preventive action. We propose, therefore, in recurring to this subject, to indicate some of the principal measures of prevention which may be expected to limit the diffusion and fatality of this serious disease, in so far as it is brought about by the conditions to which we have referred.

THE WORK OF THE LATE ADMINISTRATION AND THE NEXT.[1]

VII.—THE ARMY MEDICAL RESERVES.

IT is an administrative truism requiring little demonstration that no peace establishment of the Army Medical Department can be kept up of a strength which will fully meet the demands of a modern campaign on a large scale. This fact, now so clear and universally acknowledged, was, indeed, becoming apparent long ago, and was one of the grounds which led, under the Warrant of 1879, to the formation of a reserve, through the earlier retirement of medical officers, coupled with liability of recall to service in emergency up to 55 years of age. Under this most wise provision a substantial, highly efficient, and experienced reserve of some 150 army medical officers has already been formed, which, being entirely within call, cannot but prove of ready advantage in emergency by releasing the younger active list from home duties for service with army corps in the field. So undoubted are the reality and value of this reserve that to stunt it by checking or discouraging voluntary retirement after twenty years' service would, we are convinced, be a wholly retrograde policy, and prove a serious blunder in the stress of our first military emergency. We are confident that the keenest economist, when fully in possession of facts, would be fain to admit that no reserve can possibly be so good as this, and that earlier retired pay is money well spent in building up a body so thoroughly efficient and reliable—two qualities essential in any reserve worth the name. Yet, notwithstanding its incontestable advantage and value to the army, for some inscrutable reason it was the official cue during the late controversy to treat it with studied neglect, and silently bury it in the non-effective list. From this strange official conduct the public at large, and even ill-informed members of Parliament, were led to believe and act as if the medical retired list was wholly non-effective—a total and serious misapprehension which we protested against at the time. It was during the curious and temporary eclipse of the retired reserve that, in February, 1888, another was created, by Warrant, entitled "The Establishment of Army Medical Reserve of Officers," composed of the semi-civilian officers already in organic connection with the auxiliary forces. We directed full attention to the provision and aims of that Warrant at the time of its promulgation, and now propose to review them again after four years' experience.

Whatever may have been the influences, motives, or objects underlying the inception of the Warrant, they were instinctively regarded by army medical officers as boding no good to themselves and the regular service, and we must allow they had grounds for such suspicions. It was noticed as significant that the new reserve was officially heralded as if no prior retired reserve at all existed; this, it was possible, foreshadowed an intention of extinguishing the latter by cancelling the earlier retirement provision of the Warrant of 1879, in deference to the ill-considered outcry of certain economists against the non-effective vote. Also, there were certain clauses and instructions, somewhat obtrusively set forth, relating to the employment of the new reservists on so-called "contract rates" with troops at home, which looked as if it were proposed to cut down the Medical Staff still further, and so consign its remaining members to unlimited and merciless foreign service. We sincerely hoped at the time that, at least for the fair fame of those responsible for medical administration, no such ill-judged and concealed schemes could be in the background; but if they ever existed, as was feared in well-informed quarters, such was the storm of destructive criticism, chiefly in these columns, aroused by the suspicion of them, that their authors never allowed them to come to the front, while their discomfiture was complete on many of the volunteer medical officers declaring they would never lend themselves to projects jeopardising the regular Army Medical Service.

The apprehension of evil designs on the department was scouted by some, yet received a measure of corroboration when the evidence of the Camperdown Commission was published. In it were revealed false economists apparently indifferent to efficiency, provided they could compass some poor temporary savings in the Estimates; also a military party so determined to prevent medical officers from having any reasonable military status that, rather than grant such, they would assist at the crippling of the department. But it was part of the good work of this Commission, which, we think, has hardly received due appreciation, not only to expose but to discredit these parties, to overrule their evidence and to set it aside.

Although the Warrant was launched with considerable official acclaim, it did not glide into smooth waters or at once attract many recruits; but they gradually came in, and have now for some time reached a somewhat stationary total of about 150 out of about 1,000 available officers. The arguments for and against this reserve are still much the same as four years ago, and can be concentrated into such answers as may be given to one comprehensive question—Who and what are the members of the reserve; can they in reason be expected to fulfil the serious duties undertaken, or which in the stress of emergency may be imposed on them?

We consider it is not an exaggeration to say that according as that question is fully and honestly answered, so will the reserve be declared valuable or worthless, reliable or only make-believe. We approach the subject dispassionately, and with respect for members of the reserve, who join it doubtless at inconvenience and expense to themselves. But while eliminating all personal elements from the discussion, we claim freedom in the interests of the army and the State, and we consider it a duty to point out to those in authority wherein we think this auxiliary medical reserve scheme, as we shall call it, is defective. We even aspire to enlighten a new House of Commons on it, because, judging from experience, we anticipate and fear that when the next fit of economy seizes that august assembly there may not be wanting confiding but ill-informed members who will invoke this auxiliary medical reserve in justification of proposed further reductions of an already undermanned regular medical service.

It is the first essential of any reserve that its *personnel* be trained, and readily available to meet the duties required of it. Now, setting aside the "contract rates" instructions, the object of the auxiliary medical reserve, as stated in the warrant, is that it "shall be liable to be called to army service at home in times of great national emergency to take the place of such of the medical staff of the army as may be withdrawn for active service." But the officers who are expected to do that are not any new or unattached body, but merely certain of the existing medical officers of the militia, yeomanry, and volunteers, placed in a separate nominal list; for it is expressly laid down: "The acceptance of appointments in the Army Medical Reserve will in no way modify the position of medical officers in the regiments or corps of the auxiliary forces to which they belong."

It is apparent that these two illogical instructions largely contradict and cancel each other, and also betray the inherent military weakness of the scheme; for how can the self-same

[1] The articles of the series already published have appeared in the BRITISH MEDICAL JOURNAL of August 20th, p. 423; August 27th, p. 473; September 17th, p. 648; October 15th, p. 856; October 22nd, p. 903; and November 5th, p. 1029.

men, in great national emergency, be at once active in the auxiliary and reserve in the regular forces? It is a double and incompatible function; we assume, of course, that in great national emergency the auxiliary forces will be embodied at once; and if so, what will be the position of the doubly "called out" reservists? We therefore cannot regard the reserve as any real addition to our medical strength, but rather a mere paper manipulation, in which all the officers are counted twice, and some, as the militiamen, even three times, in different departments of the *Army List*.

By no shuffling and transposition of names can any *bonâ fide* reserve be thus formed; and such an obvious truth could hardly have escaped the notice of the authors of the scheme, unless, indeed, because they were the while looking too intently on the puerile "contract rates" clauses. Perhaps the great national emergency they professed to have in view was only a factitious military one to be brought about through unwisely-reduced army establishments. It is, therefore, apparent that the services of the reserve remain as before pledged to their corps in all genuine emergencies; but there is a further question whether they be not also heavily mortgaged in civil life against all military service whatever; for, with few exceptions, the members of the reserve, liable to be "called out" at any time, are gentlemen deeply committed in private practice, while many hold important local appointments such as officers of health, physicians and surgeons to hospitals, dispensaries, police, etc. It is hard to imagine such ties being easily or cheerfully severed in a moment at the behest of the War Office. No doubt the gentlemen themselves may retort on their critics that they are the best judges of their private affairs; but that assertion alone hardly gives the nation the required assurance that their civil and military engagements are really compatible. It is true the matter of compatibility between such engagements applies to almost every member of the volunteer army, but with peculiar and double force to the medical members. We have no doubt our volunteers would turn out to a man in actual danger, but only at the cost of serious dislocation in the affairs of civil life. Our medical reservists cannot but feel this deeply and especially; they may have all the will in the world to meet their military engagements, but find absolute inability to do so when the pinch actually comes. We imagine that resignation would not then be possible, as, assuredly, it would not be the becoming alternative; for the War Office is doubtless armed with compulsory powers over volunteers which it would not be slow, as in duty bound, to use. It would be well if these considerations were more squarely looked in the face. The Army Order 27 of 1889 by which the reservists were relieved of the danger of being called up except "as fixed by statute," and were promised such local duties as would not interfere with their civil engagements, does not mend matters, but brings into clear light the fact that the reserve can be employed under very limited and exceptional circumstances.

We once more revert to the primary thesis, medical reserves are required; the retired reserve is admirable so far as it goes, but is not sufficient; the auxiliary reserve is not on a satisfactory footing. What, therefore, should be done? We cannot attempt to solve this problem in detail, but can indicate the spirit and conditions in which, as it seems to us, it should be approached.

There are at least two principles or conditions on which the value of all military reserves turn. The one is that the proper function of a reserve is to supplement or augment an active force in war, but in no way to supplant or supersede it in peace; the next is that reserves must be ready trained, unattached, and easily mobilised when wanted. Applying these conditions to medical reserves, in what direction do they guide us? The first is that the reserve must not be played off against the active force; the War Minister must firmly keep up the active strength of the Medical Staff sufficient for two army corps, in all the first lines of assistance in the field. He must positively refuse to listen to the insidious suggestions of pseudo economists, with which he is certain to be plied, that there will be no danger or difficulty in eking out an attenuated medical staff by resort to a cheap reserve. From the day he may listen and be led to act on such disastrous advice we may be certain that army medical inefficiency and unpreparedness will follow. The second is that the retired army medical is the only part of our reserves which at present meets conditions for sudden emergency, which the auxiliary does not and cannot as at present constituted. The former, therefore, should be fully fostered and the latter judiciously reconstituted.

In future reorganisation we would suggest that the War Office should take the medical profession more into its confidence; it would make better progress, frame better instructions, and avoid the misunderstandings and distrust which the sudden promulgation of ill-digested warrants is apt to produce. But preliminary to the formation of any auxiliary reserve, the volunteer medical service should be entirely recast and organised within itself for brigade, divisional, and army corps duties on a war footing. When this is done it will then appear whether, at its present strength, it can spare any medical officers at all for regular reserve duties. We have said nothing of reserves of men, which are needed just as much as reserves of officers; but are glad to learn that solid progress has been made in the First Class Army Reserve of the Medical Staff Corps and the affiliated Militia Reserve of the corps.

Finally, as suggested by Mr. John Furley, a good deal might be said to urge the Secretary of State for War to consider how far and how best our army medical reserves might be strengthened, by entering into an arrangement with and scheduling both the *matériel* and *personnel* of the various ambulance and Red Cross Societies scattered throughout the kingdom.

MEDICAL AID ASSOCIATIONS.

The meeting of the General Medical Council commences on Tuesday next, and in view of the memorial as to Medical Aid Associations to be then presented, we have received from Dr. Leslie Phillips the following remarks, which deal with most of the points raised during the recent correspondence. We append also two statements showing the nature of the agreements made, and extracts from certain further letters received.

"Farming."

Dr Leslie Phillips writes:

The word "infamous" seems an unnecessarily hard one when applied to professionally discreditable conduct, but unfortunately it is the word used in Section 29 of the Medical Act, and so we must, however unwilling, use it when speaking of the penal powers of the General Medical Council. It is entirely without moment whether the particular matter under discussion is declared to be "covering" or whether a special word, such as "farming," be used to designate the existing complained-of condition of affairs. The analogy with covering would appear, however, to be strengthened by the fact that bonds not to practise are commonly entered into between the qualified employed and the unqualified employers. This bondage can only imply possible competition in practice for gain, and I am told by high legal authority that this constitutes "covering."

The Analogy of Assistants False.

With regard to the special pleading that because a medical principal makes profit out of his practice, although he employs an assistant, therefore it is equally allowable for laymen to make such profits, and that it is improper to call such profits "illicit gains," surely this is a question governed by the privilege attached to a licence to practise medicine. This privilege belongs to the licence, and without the licence the privilege does not exist. An undertaker needs no such special licence to follow his occupation; and such a well-defined distinction cannot be called narrow. A qualified man may legally carry on practice with a view to profit making; he may invest his capital in such an undertaking, or by his skill and industry create both capital and revenue, and for the purpose of carrying on such practice he, like a solicitor, may engage such assistance as necessity may demand, at the current market price. This price he does not and cannot control; it must be and ever will be determined by ordinary laws of supply and demand. But is it right and proper for a body of unqualified persons to do these things? And, if so, wherein is the value of a qualification? If such proceedings are legitimate a fine field for investment of capital is open, and an op-

portunity is presented which we may be perfectly certain will not be neglected by the mercantile community.

COMBINATION NOT CO-OPERATION.

It has been said—why may not the public co-operate and secure medical advice at co-operative prices? Let us examine this question, and let us not confuse co-operation with combination. Co-operation signifies, etymologically, conjoint labour. The only indispensable labourer in a medical aid association is the doctor. Those who do not labour or contribute to the earning have no claim to share in the result of another's industry, and to call such a sharing co-operation is a contradiction in terms. Co-operation seeks to make and to retain wealth by taking into partnership those who by their labour create it. In medical aid associations there are no such labourers other than the doctor. In a co-operative store the proprietors use their own capital, and the interest on this is saved to them instead of being taken by the middleman. Medical Aids create a middleman. What is the economic position of a medical man? His labour is indirectly productive by preserving or restoring the health, and consequent power of work, of the productive workers. There can only be co-operation in this sphere of usefulness by a combination of medical labourers working together, so that all may share in the result of their industry in proportion to the amount contributed. There can be no co-operation proper between one medical man and a large number of laymen, although there can be a combination on the part of a number of laymen to transfer to their own pockets what fairly and justly is earned by, and belongs to, the medical worker. To regard such a combination as co-operation is, however, altogether fallacious. An author upon this subject says: "Co-operation touches no man's fortune. It seeks no plunder, it causes no disturbance in society, it subverts no order, it has its hand in no man's pocket."

Let us see how this fits medical aid associations. Now, in these businesses a profit may be made in two ways—(1) the direct trade profit on the conduct of the business, and (2) the indirect, but not the less real, "saving" profit accruing to the individual member. This indirect profit is to be estimated by the money saved in fees as the result of the combination. For example, a man who does not deny his ability to pay the ordinary and fair charges of his medical adviser joins a medical aid association. For an annual payment of 3s. 6d. he receives what formerly cost him £10. He is pecuniarily benefited to the extent of £9 16s. 6d. a year. Is this co-operation? Is it not rather an improper combination? Are medical men to be blamed for protesting against what is, having regard to the above considerations, clearly a dodge to deprive the profession of its just earnings, although it is effected under the cloak of a combination, or association, miscalled co-operative? A builder and contractor recently said: "What I formerly paid my doctor for one visit now pays my medical bill for a whole year." This kind of thing is going on to a perfectly incredible extent. It is not denied that it is so. On the contrary it is admitted, and it is openly claimed that the proceeding is legitimate. Here is an imaginary parallel in the law. There are one hundred wealthy men each of whom pays to his respective solicitor charges for conveyancing amounting to £100 a year. They combine, they engage a solicitor as their wage-paid controlled servant, and pay him a salary of £300 a year. Each of the one hundred wealthy men contributes £3. What is the result of this pretty combination? The laymen save in the aggregate £9,700. In other words they have transferred to their own pockets £9,700 which properly belongs to the legal profession. The profession is poorer by so much, while those who could well afford to pay, and for whom that amount of work has been done, have by their illicit and indefensible combination become so much the richer. The solicitor has been underpaid, having regard to the value and amount of work done. Shall we call this co-operation? No; it is an illicit combination to enjoy the benefits of a licence not possessed, and would not be tolerated for a single day.

FRIENDLY SOCIETIES.

To raise any question of friendly societies is quite beside the mark. The medical profession is certainly not less philanthropic than other classes, and the present discussion does not in any way touch upon such schemes of thrift.

THE CHANGE IN THE OBJECTS OF THE ASSOCIATIONS.

One of the chief abuses complained of is the departure from their original intention of these associations. Let me once more tell the tale of Stourport, for it demonstrates this combination on the part of the public to take from the doctors their legitimate remuneration. The population of Stourport is 3,504. The total number of members of the medical aid association is 3,117. That the scheme has little of the friendly societies element in it is shown by the fact that the club members number 591; while the public members amount to 2,526. In other words, after providing for the medical wants of the members of the friendly societies, 2,526 persons have combined to transfer to their own pockets (by saving) what fairly and honestly belongs to the medical profession, and who are these 2,526 persons? In the association there are or have been all the dissenting ministers, one solicitor, four members of the local board; nine-tenths of the publicans and hotel keepers; 50 per cent. of the tradesmen, several having their villa residences outside the town; all the coal merchants; many owners of house property; most of the farmers, and some estate owners. In Luton Friendly Societies' Medical Institute the club members contribute £322, while the public members contribute £512. In Kidderminster Medical Aid Association there are 2,272 club members, and 2,367 public members. These three examples demonstrate a grave abuse of medical aid associations. They have developed from amalgamated clubs to immense private practices, the profits of which either directly or indirectly pass into the pockets of the unlicensed laity, instead of into the pockets of the licensed practitioners who earn them.

SUMMARY.

The abuses of these institutions can only be practically remedied by the action or initiative of the General Medical Council. The abuses are (1) public members, (2) profit making, (3) compulsory covenanting not to practise, (4) fee sharing, (5) touting and advertising.

AGREEMENTS.

Mr. Frederic C. Wood, L.S.A., who was resident medical officer to the Nottingham Friendly Societies' Medical Aid Institution for over two years, has sent us the agreement with him. By this agreement, which was terminable by one month's notice by either party, the committee undertook to provide a suitable residence, find coal and gas, pay rates and taxes, and pay a salary of £160 a year. The medical officer undertook not to be absent without leave, and to provide a substitute if given leave; he undertook not to join or become in any way connected with any other friendly or benevolent society during the continuance of the agreement, and after the termination of the agreement not to reside, open a surgery, or become assistant to any medical man within half a mile of the surgery of the institution, under a penalty of £50. The duties of the medical officer were defined in a paragraph which set out that he should reside at the premises provided by the committee, "and shall perform the duties of his office under the direction and control of the said committee, and shall be subject to and act in compliance with the rules of the said medical institution, which said rules, so far as they are applicable to the medical officer, shall be deemed to be incorporated with and form part of the terms and conditions of this agreement. (3) The said Frederic Charles Wood shall use his best care and diligence in discharge of his duties, and do his utmost to increase the success and prosperity of the institution. He shall direct any dispenser and advise with any other medical officer or assistant-surgeon who may be in the employ of the said medical institution, and shall also keep such books and records of the business of his department, and shall make such returns as may be required at such time and in such manner as the said committee shall direct."

Dr. D. Riordan has forwarded us a copy of an agreement with the trustees of the Walsall Amalgamated Friendly Societies' Medical Aid Association. Under it the salary of the medical officer was to be £180 a year, with necessary cab hire, unfurnished house (eight rooms, exclusive of those required by the association), coach house and stable, free of rent, rates and taxes. The medical officer undertook not to practise within five miles of Walsall for a period of three

years after leaving the association. The following clauses defined his duties:—

The medical officer is to examine all candidates for admission into the amalgamated societies and give all certificates then required; he shall also sign all certificates of members when declaring on or off the funds or while receiving relief.

The medical officer will be allowed to attend members' wives at their confinements and shall charge the said member 10s. 6d. for each case; a fee for vaccination is also provided for in the rules.

The medical officer will not be allowed to engage in any private practice whatever, but be required to give his exclusive services to the members of the association and their families according to the rules.

The medical officer will have to see patients at the dispensary from 6.30 to 10.30 A.M. and from 6 to 8 P.M. daily except on Sundays, when the hours will be from 9 to 10 A.M. only.

When any member is taken suddenly ill or is physically unable to attend at the dispensary the medical officer, on receiving notice that his services are required, shall attend such member, if he reside within three miles of the registered office of the association.

Reform Needed from Without.

"Hopeful," who is a surgeon to a Medical Aid Association, conducted by "a fairly reasonable set of workmen," hopes that medical men not connected with such associations will make themselves acquainted with the real facts, and help to bring about a reform. He believes that most of the surgeons are "creatures of circumstance," not "blacklegs." Wholesale druggists, he suggests, ought to cease to supply scheduled poisons to unqualified persons without observing the forms which a retail chemist must follow. In the association which he serves there is a rather large number of well-to-do members, but they joined when in less affluent circumstances, and the clubs have no power to turn them out; and "Hopeful" frankly admits that he cultivates them with ulterior views to private practice.

"A Mourner" says that in his locality the National Medical Aid Company, Limited, employs a tout, but its medical officer also touts. At one time he issued circulars. The fees charged are one halfpenny a week for persons under 14, and one penny for those over. Few houses are exempt from a call from the tout. Our correspondent thinks that it would be well to form a list of names of medical men who aid and abet such methods of obtaining practice.

Overwork and Underpay.

"Alpha" recalls that in 1880 he addressed a letter to the British Medical Journal on the subject. He was junior medical officer to a medical aid association, which had almost exactly one fourth of the population of a northern city on its books. He was paid £150 a year, and his senior £200. The yearly subscription averaged 8s. for a man and his wife, and 1s. for each child; every female dependent in her parents' house was charged as a child, but lads over 18 were reckoned as men. The maximum midwifery fee was 10s. 6d., of which 2s. 6d. was paid to the association; vaccination free. There were three sittings at the dispensary daily, each medical officer sitting once and twice on alternate days. Visits had to be paid at a distance of six miles. The work night and day averaged eighteen hours out of the twenty-four. He broke down in eight months; his senior held out a little longer, and was then, he believes, taken to a lunatic asylum.

THE OXFORD MEDICAL SOCIETY.

Addresses by Sir James Paget and Professor Burdon Sanderson.

The first meeting of the newly-formed Oxford Medical Society was held on November 11th, under the presidency of Sir Henry Acland, who in a brief address recalled the fact that a small medical society had been formed in Oxford some fifty years ago, but had languished. He prophesied a more assured career for the new Society under modern conditions of medical life in Oxford.

Sir James Paget delivered an address, in which he dwelt on the value of such a Society in encouraging the common work and mutual help of those who were engaged, some in the practice and some in the scientific study of medicine. Practice and scientific study were sometimes regarded as wide apart, and in fact almost incompatible; their methods were distinguished by different terms—in medical science, "the process of experiment;" and in practice, "empirical," a word which had been degraded to the worst meaning. Yet the method of acquiring knowledge by experience did lead to a knowledge of real facts. If they could not be founded on first principles, that was a defect of science at least as much as of practice. There should be a clear consciousness that each method of work was essential to the progress of the other; that science could not make its whole progress unless helped by the facts discerned in practice, and that practice could not advance to greater certainty except by the help of science laying bare its defects and helping to their remedy. Practitioners would work more generally as men of science through the increase in the teaching of science in the medical schools and universities. Already it might be noticed that the works published by practitioners displayed a more definite clearness of scientific observation, and a wider range of knowledge brought to bear upon facts. A vast increase in this direction might be looked for. As years went on, those who had been educated in science would carry the spirit of science into their ordinary practice. The practitioner would then be able to fulfil his duty to his patients much better; he would know how to look carefully, definitely, and determinately into every particular, and might be able to turn some of the results of the scientific man to immediate utility. To attain this the two must be given opportunities for frequent converse and consultation, such opportunities as would be afforded by the Oxford Medical Society. It might be asked what was there remaining of which men in practice should be carefully observant; but the range of our ignorance of pathological processes far surpassed the range of our knowledge, and the future would show that there were within the range of our ignorance facts which were really within our grasp. The whole history of science showed that amongst the greatest discoveries had been those which when made were seen to be so clearly based upon obvious things that each man might say that had he been a little more observant he might have been the discoverer.

Professor Burdon Sanderson said that the new Society did not intend to interfere with the Oxford Branch of the British Medical Association; the object of its founders was the advancement of scientific study, and to draw closer the bonds of union between the medical profession in Oxford with the scientific work of the University which bore immediately upon medicine. The University had witnessed in the most unmistakable way its interest in medicine, and had welcomed the medical student. The University also had provided for medical studies a building which when finished would be equal in completeness—would probably surpass—any similar institution in the United Kingdom. As soon as they were able to establish the systematic study of pathology from the scientific side, it might be hoped that the school would exercise a most beneficial influence on the medical profession.

MEDICAL MAYORS.

The number of medical men who have this year been elected mayors of the boroughs in which they reside appears to be somewhat in excess of that which has been customary in recent years. Members of the medical profession are competent to render important services to the cause of good municipal government, and in various directions and in many towns and cities they are rendering such services. It is pleasant to see the character and importance of these services recognised by election to the highest municipal honours. We may anticipate that in the future the number of the members of the medical profession who will take part in the labours and share the rewards of municipal government will increase. We give below a few biographical details of mayors elected this month.

Dr. Joseph Ewart, of Brighton, took the degree of M.D St And. in 1853, the diploma of M R.C.S. in the same year, and that of L K.C.P.Lond. in 1876. He was twenty-five years in the Indian Medical Service, and retired in 1879. Dr. Ewart was formerly Professor of Physiology, Professor of Medicine, Principal of the Calcutta Medical College, Surgeon to the European General Hospital, Presidency Surgeon to the Municipal Commissioner, and President of the Bengal Social Science Association, Calcutta. He settled at Brighton about 1879, and entered the Town Council in 1884. He was appointed an alderman in 1890, elected Mayor for 1891-92, and re-elected for 1892-93. Dr. Ewart is a Justice of the Peace for Sussex and Cumberland, and Chairman of the Electric Light Committee of the Brighton Corporation.

Dr. Croucher, elected Mayor of Hastings, was educated at the London Hospital, and obtained the diplomas of M R C S Eng. in 1857, M.D.St And., L.M.Eng. in 1858. He practised in East London till 1865, when he removed to Upper Norwood, where he stayed till 1868, going then to Hastings. He was an alderman of Hastings from 1874 to 1880, Chairman of the Sanitary Committee of the Hastings Town Council from 1876 to 1880, fourteen years Vice-President of the Sanitary Aid Association, and a Justice of the Peace for the borough in 1885.

Dr. William James Clegg, who has occupied the Mayoral chair for Bacup on two previous occasions, was unanimously re elected for the third time. He studied at Edinburgh and Paris, and took the degree of M D St.And. in 1854. Dr. Clegg is a certifying factory surgeon, Poor-law medical officer, and vaccination officer of the Rochdale Union.

Dr. William Robinson Hill, who has been in practice at Lymington for thirty years, was elected Mayor of the extended borough in 1891, and unanimously re-elected Mayor this year. He received his professional education at Edinburgh University, and was twice elected President of the Royal Medical Society. He was House-Physician at the Royal Infirmary under Dr. Warburton Begbie, and House-Surgeon under Dr. Gillespie, and afterwards Resident Physician's Assistant at the Brompton

Consumption Hospital. Dr. Hill pursued his medical study after graduating at the Berlin University and in Paris hospitals.

Dr. John Michael Nicholls, Mayor of St. Ives, received the diploma of M.R.C.S.Eng. in 1880, and that of L.R.C.P.Lond. in 1882. He is Surgeon to the St. Ives Harbour Works, Honorary Medical Officer for St. Ives Urban District, Certifying Factory Surgeon, and surgeon to the Foresters and other friendly societies.

Dr. George Wright Hutchinson, elected Mayor of Chipping Norton, obtained the degree of M.D. Aberd. in 1872, and the M.R.C.P.Edin. in 1878. He is a member of the Council of the University of Aberdeen, and Medical Officer and Public Vaccinator for the First District and Workhouse of the Chipping Norton Union.

Mr. J. M. Hughes, of Ruthin, who obtained the degree of M.B., C.M. Edin. in 1868, is a member of the General Council of the University of Edinburgh, and Medical Officer of Health for the Ruthin Rural District.

Dr. John F. Atkinson, of Saffron Walden, has been re-elected Mayor for that town. Dr. Atkinson is M.D.Glasg., L.R.C.P.Lond., and L.R.C.S.Edin., and Surgeon to the Saffron Walden Hospital.

Mr. William Hodgson, of Crewe, is L.R.C.P.I., L.M., & L.F.P.S.Glasg.

THE CHOLERA.

RUSSIA.

CHOLERA is by no means extinct in Russia yet, despite the absence of frequent bulletins. From a recent compilation of the data for the two months, August 13th to October 12th, it appears that 198,999 deaths occurred from cholera, 23,248 in provincial capital cities and 175,751 in the Governmental districts. In St. Petersburg city there were 1,109 deaths, and in the whole province 1,385 deaths. In the provinces of Douschneres, 18,290; Saratov, 17,951; Terck, 14,067; Samara, 13,103; and Kouban, 11,825 deaths; whilst ten other provinces had upwards of five thousand deaths each, and twenty-one additional provinces upwards of a thousand each. In the week ended November 3rd there were 7,169 cases and 3,071 deaths; Kieff city had 157 cases, 46 fatal; and the province 2,171 cases, 786 fatal; Tamboff province had 647 cases, 275 fatal; St. Petersburg city, 17 cases, 12 fatal. In the latter city a few deaths still occur daily. The provinces of Bessarabia, Jitomir, Kursk, Lublin, Radomsk, Samara, Saratov, and Simbiosk had each of them upwards of one hundred deaths in the week.

It appears, writes the Odessa Correspondent of the *Daily News*, to be so generally accepted among the chief medical authorities in Russia that the country is to be afflicted with a virulent recrudescence of the cholera epidemic in the spring, that already comprehensive measures are being adopted. The Red Cross Society is enrolling the names of an extraordinary number of volunteer nurses, whilst the Russian Government is offering fairly attractive stipends to the senior class medical students in the university centres who are willing to hold themselves in readiness to proceed to any government whither they may be ordered. To the town and city doctors, whose distribution in the provinces in case of need may be made partially compulsory, the Government also offers rewards, and pledges itself to grant substantial pensions to the wives and families of officers and assistants who may succumb to the disease.

HOLLAND.

Cholera is still spreading in small groupings of cases and deaths. There have been 225 deaths since the epidemic began up to the end of last week.

FRANCE.

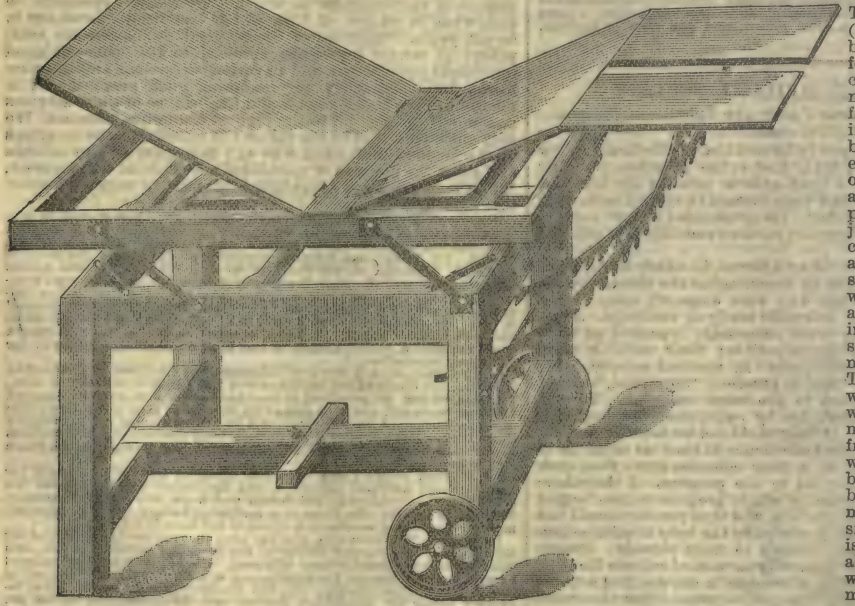
In the Department of Finistère, Quimper and Lorient have had a few cases, with some deaths. The former town is locally held to have had the disease introduced into its Insane Asylum from Paris. Some dozen cases have occurred in each place, with 3 and 9 deaths respectively. In Northern France cholera has appeared at quite a number of towns, the cases, however, being so far limited in number. Thus, Etaples, Courteville, Calais, Arras, Boulogne, Barraques, and Avion have been infected, whilst Liége and its province have also had cases, and one has occurred at Lyons.

AUSTRIA-HUNGARY.

At Buda-Pesth there were 75 cases and 32 deaths in the week ended November 12th. Cholera is reported to be spreading in Western and Southern Hungary. At Aradacz, a small place of 1,500 people, some 60 cases were recorded on the two concluding days of last week.

INSTRUCTION IN THE DIAGNOSIS OF CHOLERA.—The Medical Faculty of the University of Harvard has decided to institute practical courses of instruction for medical practitioners in the bacteriological diagnosis of Asiatic cholera. This is an example which not unprofitably might be imitated nearer home.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.



HOSPITAL OPERATING TABLE.

THE inventor and maker (Alfred Carter, 47, Holborn Viaduct, E.C.) claims for this table many special features. The top may be raised vertically, from 35 inches to 44 inches high, which will be found a very convenient arrangement to the operator. It can also be adjusted to any required position. All the adjustments, with the exception of the leg rests, are made by powerful screws, and the table will be found to be firm, and free from shakiness in all positions. The slope of the leg rests is made by racks, as shown. The foot end is fitted with india-rubber tyred wheels, so that the table may be moved easily from place to place, and, when necessary, can be brought to the patient's bedside, rendering removal unnecessary. The simplicity of the mechanism and the absence of all complications in the working parts are very much to be commended.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, NOVEMBER 19th, 1892.

SIR HENRY THOMPSON ON DEFECTS OF DEATH CERTIFICATION.

II.

The useful discussion of the defects of the English system of death certification, due to Sir Henry Thompson's letter to the *Times* of October 24th, while it cannot be said to have been conclusive as to the asserted superiority of the French system, has, at any rate to some extent, indicated the direction in which a remedy should be sought. We would, however, in the first place point out the desirability, if not the necessity, for keeping the certification of the fact of death distinct from the certification of the cause of death. The certification of the fact of death has never been, under the English registration system, held to be an essential part of the duty imposed upon a registered medical practitioner, which is to certify the cause of the death of his patient. Although the form for the medical certificate provides for and invites the insertion of the date of death, it is not unusual for the practitioner to insert the words "as I am informed" between the words "who died," and the supposed date of death. The reason for this is obvious. The certifying practitioner may have seen his patient *in articulo mortis*, and yet a special visit would be necessary to enable him to certify the fact of death by viewing the body.

It cannot be too clearly insisted upon that the only information which the medical practitioner is called upon to certify is the cause of death to the best of his knowledge and belief, and the fact that he was in attendance during the last illness of the deceased. All the other particulars, the name, age, date of death, etc., of the deceased are merely inserted in the form for the purpose of identification, since all those facts are entered in the register on the authority of the ordinary informant of the death, generally a relation of the deceased person. It is undoubtedly possible under the present system, as Mr. F. W. Lowndes pointed out in his recent letter to the *Times*, "for an unscrupulous or designing person to procure the registration of the death of an individual who is in a state of rude health." Given, however, the "unscrupulous or designing person," Mr. Lowndes does not explain how the proposed verification is to foil the attempt to pass off the dead body of one person as that of another person whose death it is desired to register for the perpetration of a fraud upon an insurance company. Such frauds, against which insurance companies are well able, with due care, to protect themselves, are of merely secondary importance compared with the false certification of a cause of death, which is a direct source of danger to life if not an incentive to murder.

The case of the ill-fated Matilda Clover, which gave rise to Sir Henry Thompson's letter, was clearly a case of false certification, which could not have occurred if the certifying practitioner had observed the notice, printed in capital letters, on each book of forms issued by the Registrar-General. "N.B.—No medical practitioner is justified in giving a certificate unless he was in attendance upon the deceased during the last illness."

We doubt the possibility of devising any system which would be proof against occasional disregard of law and injunction. We may, however, now proceed to notice one or two suggestions that have been made with reference to the more obvious defects of our English system. In a letter published in the British Medical Journal of October 29th, "Barrister-at-Law" points out that "the Registration Act allows a body to be buried simply on the information of friends or relations, and without the production of a medical certificate." There can be no two opinions as to this constituting a grave defect of our system. It is obvious, however, that until the Coroner's Act is so amended as to direct that inquiry should be made into all cases of death concerning which no medical certificate is forthcoming, it would be futile to amend the Registration Act, as suggested by "Barrister-at-Law," and enact that "no body should be buried without a medical certificate having been first produced to the registrar."

As to the amendment of the Coroner's Act, we entirely endorse "Barrister-at-Law's" suggestion, which has, however, frequently been made before in these columns and elsewhere, that an expert medical officer should be appointed in each coroner's district to make, by direction of the coroner, inquiry as to uncertified causes of death, and, if considered necessary, to make a necropsy. At present, it is a fact that a coroner can only order and pay for a necropsy on holding an inquest, whereas it is not unreasonable to assume that a necropsy would, in not a few cases, if made by an independent expert, obviate the necessity for an inquest. If this assumption is well founded, the cost involved by the appointment of these medical experts would be lessened by the reduction in the number and cost of inquests. That the appointment of such experts would be costly, however, it is useless to doubt, since a large proportion of causes of death are uncertified because, from the nature of the country, medical attendance is not readily accessible, and in such districts (especially in the mountainous districts of Wales) these officers would have to travel great distances unless their number was considerable. At the same time, if non-certification of the cause of death were to lead to inquiry and investigation, the proportion of uncertified causes of death would rapidly decline, more especially in the large towns and mining districts, where unqualified practitioners are most numerous.

This proposed amendment of the Coroner's Act would at once strike a fatal blow at unqualified practice, which is pernicious alike to the best interests of the public and of the profession. The connection between unqualified medical practice and this defect in the English system of the registration of causes of death is indeed more direct than is generally understood. Our attention was called a few months

ago to the advertisement in a local newspaper of a practitioner who styled himself "Qualified Botanic Physician," residing in the neighbourhood of Manchester, which contained these words: "I beg to inform the public that in case of death under my treatment a certificate, duly signed by me as a qualified medical botanist, will be accepted by the registrar, according to Act of Parliament." This statement is, it is needless to say, distinctly false in suggestion, since no medical certificate, unless given by a registered medical practitioner, who certifies that he has been in attendance during the last illness of the deceased, is accepted as a certificate by the registrar.

It is, however, unfortunately true that so long as no provision is made for inquiry and investigation concerning uncertified causes of death the registrar is bound to register such deaths, even should he inform the local coroner of the fact, and to accept the statement, even of a medical botanist, as the best available information as to the cause of death, which is entered in the register as "uncertified" on the authority of the ordinary informant of the death. It is impossible to overestimate the risk and danger arising from this defect of our system of death certification, which would at once be held in check and controlled by the appointment of a medical expert in each coroner's district, part of whose duty would be to inquire and report to the coroner concerning uncertified causes of death.

MODEL (?) DWELLINGS.

The future of the metropolis is clear, so far as the residential centre is concerned; the ordinary house will slowly but surely disappear; flats for the wealthy, barrack-like blocks for the artisan; long, uninteresting streets, darkened by the shadow of colossal hives of brick; stair above stair, floor above floor, packed like herrings in their boxes, in which will each night lie down many millions of human units.

The causes which tend to produce this picture are obvious enough. The vastness of the overbuilt area, and the consequent waste of time in getting from periphery to centre, create a want of accommodation in the vicinity of either the business or the pleasure portion, added to which the land rises and rises in value; the temptation is irresistible for the builder to push along the line of least resistance, in this case upwards—skywards.

Attempts to compare the crowding of different cities by ratios per acre—London 900, Berlin 1,000, Vienna 3,000, Philadelphia 17,000—are in modern times useless; for, owing to this upward building, it may happen, so far as cubic space and elbow room, that the citizen of the town with 6,000 to the acre has an advantage over the citizen of the 1,000 per acre city. Even as regards health, it is capable of demonstration that, given certain essential conditions, it is possible to house an enormous quantity of persons in big blocks in a manner compatible with all the requirements of advanced applied sanitary science.

If, on the other hand, the conditions alluded to are not observed, a population equal in point of numbers to a small town suffers injury: an injury seldom confined to themselves. Mr. Wynter Blyth has in a recent report pointed out that many artisans' blocks of dwellings are being built vicious in original design, faulty in detail, of bad materials, of bad workmanship, and possessing even improper arrangements for drainage.

The Metropolitan Building Acts, and the model by-laws of the Local Government Board, have been mainly framed from the point of view of the ordinary house. Proper attention has been given to the thickness and the strength of walls, to precautions against fire, to the line of frontage, and to drainage. But the new order of things requires some special statutory provisions, for it is evident that all existing regulations may be strictly observed and yet the results be entirely unsatisfactory.

We would wish no better illustration of our remarks than that afforded by proceedings in the Southwark Police Court recently. Two blocks of dwellings erected on a site cleared in Gun Street, Friar Street, under Cross's Act, the erection, according to the evidence, being under the superintendence of the architect of the Metropolitan Board of Works, have actually been ordered to be closed by the magistrate. Model artisans' dwellings shut up by a "closing order"! The evidence of the sanitary officers was to the effect that the places were dilapidated, the dust shoots badly constructed, the cisterns filthy, the soil and ventilation pipes defective and stinking.

It would not be difficult to give a long list of defects to be found in so-called model artisans' dwellings. First, with regard to design: We know of a block in which a covered portico darkens all the rooms on the ground floor to such an extent that it is only during the brightest part of the day that a newspaper can be read at the farther side of the rooms without artificial light. In another instance the passages are absolutely destitute of windows, so that even in the daytime strangers grope their way fearfully along the gloomy corridors. A striking instance of bad design was given by Mr. Wynter Blyth in the report alluded to. In this case lobbies leading to the closet had been fitted up as pantries—an ingenious attempt to impregnate the food with the germs of diarrhœa or other diseases; in this particular instance the owner had to spend a large sum of money in constructing about fifty new pantries, all of which would have been saved had an efficient health officer in the first place criticised the plan. Another crying defect is the construction of a large brick chamber in the basement to receive the household refuse. From every floor runs a straight flue, the several entrances to which are supposed to be closed by an iron door, but as a fact the iron door or flap seldom, if ever, fits perfectly. This flue most effectually conveys the odour from putrefying animal and vegetable matter through the building. "Dust-hole" gases are, so to speak, laid on like water and gas. Scamping is general; soil pipes carried inside instead of out, dirt instead of mortar, defective pargeting of flues so that the gases of combustion filter through the walls, defects in the party walls themselves, and errors in the plan of the drainage.

The magnitude of the evil and the future results are both sufficient reasons for the suggestion of a remedy, and it appears to us that there should be some efficient official sanction given to plans before any block is built. The design should be first passed by the local medical officer of health, the local sanitary officers should have the general supervision of the structure during erection, and before the block is occupied the medical officer of health should give his certificate that the block is in all respects fit for occupation. This is, we believe, a simple remedy; it would not interfere with the existing duties of district or local surveyors, but it would

introduce the element of applied preventive medicine, in this case so essential.

In any statutory provision of the kind there must of course be added a power of appeal. Officers vary in ability and in judgment; care must be taken that a lawful and in itself commendable industry is not fettered by regulations of an arbitrary character, or an owner worried by the fads of an eccentric or ignorant health officer. Some simple means of appeal would prevent these evils. London and all big cities are in the course of years built and rebuilt. The golden moment for permanently improving sanitary condition is at the time of reconstruction. It is mournful to see on every hand the legacies of the jerry builder, of the incompetent architect, and of the speculator left to ourselves and posterity, who have to remedy the evils produced by ignorance or greed by drafts falling too often on the purses of the whole community.

The county of Surrey has been divided into three districts for coroners' purposes, the districts being named Kingston, Reigate, and Guildford.

SANITARY SCIENCE AND BACTERIOLOGY.

The Research Scholarship, value £100, offered by the College of State Medicine to the candidate "best qualified to carry out original researches by the use of bacteriological and chemical methods," has been awarded to Dr. Robert Dempster, M.B., C.M.Edin.

A CAT CURE.

Cats are being extensively used in New Zealand for the destruction of rabbits. The owners of one estate are so pleased with the efficacy of the new "cure" that they have given an order for 500 cats. It is not, however, understood that the antivivisectionists see any reason to interfere, seeing that only a money profit, and not the increase of knowledge or the relief of suffering, is in view.

THE PRESIDENT'S APPEAL.

It is questionable whether much practical result will follow upon the appeal of the President of the Local Government Board to the boards of guardians. It would be interesting to learn how far the similarly worded appeal of 1886 met with response. The matter looks well on paper, but the problem of finding and distributing work to the deserving poor, whose desire it is to avoid seeking parish relief, is one of great difficulty. Still, we hope the letter will not have been circulated in vain.

KISSING THE BOOK.

Dr. W. B. Gordon Hogg, the newly appointed coroner for the Western Division of Middlesex, at the first inquest held by him, caused the jury to be sworn without the formality of kissing the book, each person raising his right hand while the oath was being administered. A recent alteration in the law permits the oath to be administered in this manner, and it is to be hoped that we shall soon hear the last of the unseemly practice of "kissing the book," which is certainly not free from danger of conveying infection, and, in any case, is an uncleanly practice.

EXPERIMENTS ON ANIMALS.

The *Times* of October 25th publishes an able statement of some of the leading results of experiments on living animals in furthering the progress of the institutes of medicine and of the art of healing. A further article appeared on November 10th, by way of a crushing rejoinder to Mr. Lawson Tait's objections. We commend these articles to the perusal of our readers. The question has been so much overlaid with abuse and misrepresentation by the opponents of experimental research that it would be of much public service that these articles should be reprinted and made cheaply and easily accessible to all in a permanent form.

HYGIENIC DRINKS.

The financial scheme of the French Government has been shattered by the Chamber, which has decided on remitting the whole (instead of half) of the duty on hygienic drinks. This makes a deficit of 88 millions of francs, which some propose to meet by increasing the other spirit duties, and others by income tax. What are hygienic drinks? Soda water and seltzer water, which are untaxed in this country, are sold at railway bars and refreshment bars generally at 4d. to 6d. a glass, while beer is sold at a third of the price. There is great cause of complaint in this.

SMALL-POX AND THE VACCINATION COMMISSION.

We call the attention of the Vaccination Commissioners to the fact that the outbreak of small-pox at Warrington has assumed alarming proportions. Seventy new cases have been reported this week, making the total number over 300. There are 150 patients in the hospital. Of 22 deaths the medical officer states that 9 were unvaccinated, 1 was vaccinated after infection, 9 were very imperfectly vaccinated, and 3 fairly well vaccinated; and of these 1 was known to be a person of intemperate habits, and 1 died from complication subsequent to small-pox. Not one, he adds, had been revaccinated, and not one could be actually called a vaccinated person.

THE INSTITUTE OF PREVENTIVE MEDICINE.

Dr. Armand Ruffer, Honorary Secretary of the Council of the Institute of Preventive Medicine, attended last week a meeting of the Oldham Medical Society, held at the request of Sir Joseph Lister, and made a statement of its objects and an appeal to medical men for their moral support and for assistance in obtaining subscriptions among their wealthy and enlightened patients. Thirty-two thousand pounds have been subscribed for this institution; £20,000 from the Berridge Trust (conditional upon £40,000 being subscribed elsewhere) and £12,000 from private sources, including £1,000 each from Lord Derby, Lord Rothschild, and the Duke of Westminster, and £2,000 from Mr. Mond. A further £28,000 are needed before a beginning can be made. The following resolution was carried unanimously: "The medical men of Oldham heartily approve of the establishment of this Institute of Preventive Medicine, and intends to use all means in their power to further its success." We learn that £50 was subscribed in the room.

THE "MEDICAL REGISTER."

The Registrar of the General Medical Council requests us to call attention to an advertisement which is published in the advertisement pages, stating that: (1) Every registered practitioner should be careful to send to the Branch registrar by whom he was originally registered immediate notice of any change in his address, in order that such change may be duly inserted in the *Medical Register*, and also to answer at once any letter of inquiry that may be sent to him in regard thereto. (2) It is important for every registered practitioner to remember that, if the above request be not complied with, such practitioner is, by Section 14 of the Medical Act (1858) liable to have his name erased from the *Medical Register*, and in consequence, by Sections 31 to 39 of the said Act, to lose the right to hold certain appointments, to sign valid certificates, or to recover in any court of law charges for professional aid, advice, and visits, and the cost of any medicines or other medical or surgical appliances rendered or supplied by him to his patients. (3) Any medical practi-

tioner whose name has been removed from the *Medical Register*, pursuant to the provisions of the above-cited Section 14 of the Medical Act should, if he desires to be restored to the *Register*, immediately apply to the Branch registrar by whom he was originally registered. (4) Notice should also be sent to the same Branch registrar of any addition to his qualifications that a registered practitioner may wish to have inserted in the *Medical Register*.

THE SENATE OF THE UNIVERSITY OF LONDON.

THE two medical candidates in the field for the vacancy on the Senate of the University of London are Mr. H. G. Howse, of Guy's Hospital, and Dr. W. J. Collins. Mr. Howse will have, we believe, the votes of a large proportion of the medical graduates, but will require all the support that can be given to him, since Dr. Collins will doubtless have a considerable following among those graduates who formed the successful opposition to the Senate's scheme for so reforming the University as to place its medical degrees within the reach of the general body of London students. The election will take place at a special meeting of Convocation on January 17th. There is at present but one surgeon (Sir James Paget, who as Vice-Chancellor cannot take an active part in debate) on the Senate; consequently the election of Mr. Howse, who has had a long experience of teaching and examining in both anatomy and surgery, will add greatly to the strength of the Senate. Mr. Howse is not only a distinguished graduate of the University, but he has twice been an examiner in it, and has sat on the Annual Committee for seventeen years.

THE MEDICAL SCHOOL OF ST. THOMAS'S HOSPITAL.

THE governors of St. Thomas's Hospital have applied, through counsel, to Mr. Justice Kekewich, for permission to sell out Consols to enable them to raise £16,000 for the purpose of erecting two large additional wings to the present medical school, in view of the increasing requirements of medical education. The object is to provide new laboratories for pathology and biology, and better accommodation for the students' club. St. Thomas's was the first medical school which instituted a students' club, and it is now found necessary to place the club on a better footing. It is proposed also to provide a gymnasium, which is a very desirable addition to the equipment of a medical school. The amount of money to be raised for the purposes mentioned, although contributed by the governors, is not a gift, but a loan to the medical school. The medical school is determined to increase to the utmost the efficiency of its appliances, and has to incur a large sacrifice of revenue. The plans of the new buildings are not quite completed.

THE COMING SESSION OF THE GENERAL MEDICAL COUNCIL.

THE meeting of the General Medical Council, which commences on Tuesday next, may not improbably turn out to be one of the most interesting which has been held for some time. One of the earliest matters to be discussed will doubtless be the communication with regard to medical aid associations from the Secretary (Dr. Leslie Phillips) of the Medical Defence Union. It would be improper to attempt to forecast the course which the General Medical Council may take on this question, the bearings of which have been very clearly brought out by the articles and letters published recently in our columns and by the communications on another page. The power to determine whether a particular course of conduct is "infamous conduct in any professional respect," to use the technical phrase employed in the Medical Act, rests wholly with the General Medical Council, and the law courts would, we believe, hold that there was no appeal from their decision on this point. A considerable mass of evidence has been adduced to show that the growth of these medical aid associations is injurious to the best interests alike of the profession and of the public, and if the character of the evidence is found on investigation to warrant the Council in taking action, we anticipate that no hesitation will be shown in making the influence of the Council felt, and that the precedent created when the practice of "covering" was under discussion will be followed. The other business before the Council will include several disciplinary cases, and it may be anticipated that documents as to the practice of foreign medical men in the United Kingdom will be laid before it. A meeting of the Education Committee will be held on Wednesday, and a report will, it is understood, be presented by that Committee, which may lead to some discussion.

SMALL-POX IN LEICESTER.

IT is announced that three fresh cases of small-pox have been developed in the borough. The patients are all adults, and it is believed that the infection had in each case been conveyed through contact with some of those previously stricken with the disease. One of the patients has been engaged in laundry work in connection with the hospital, a second had previously declined to go to quarantine, and the third case is believed to be traceable to one of the lodging houses whence a patient had some time ago been removed. Altogether fourteen small-pox patients are now in the hospital, and an unusually large number of persons are kept in quarantine. The iron building obtained for the service of the nursing staff in the small-pox ward is being rapidly prepared for use, and the Committee have under consideration the necessity of still further adding to the accommodation for those in quarantine. We have already stated that the Royal Commission on Vaccination are about to send down a representative to inquire into the circumstances of the spread of the disease at the hospital. The number of smallpox cases in Leicester on November 8th was fourteen. The hospital is likely to be supplemented by additional structures for quarantine purposes. A new infectious hospital is in view, which is to cost not less than £55,000. There is a difficulty in finding a suitable site.

PROFESSOR VERNEUIL'S FAREWELL LECTURE.

ON Saturday, October 29th, M. Verneuil, whose impending resignation of the Chair of Surgery in the Paris Medical Faculty was announced some time ago in the BRITISH MEDICAL JOURNAL, delivered his farewell lecture in the large amphitheatre of the Ecole de Médecine, in the presence of a crowded audience of students, practitioners, and professorial colleagues. M. Verneuil had always expressed his intention of "stepping down, not falling, from his Chair," and he has kept his word to the regret not only of the students, eager still to sit at the feet of such a Gamaliel, but of all interested in the teaching of surgery. M. Verneuil's valedictory address was made the occasion of a demonstration such as few teachers are ever privileged to receive. The feeling of the audience was eloquently expressed by Professor Brouardel, Dean of the Paris Medical Faculty, who thanked M. Verneuil in the name of the faculty and of the medical profession for the innumerable sound and fruitful ideas which he had sown in the minds of all who had come under the influence of his teaching, and for the splendid example of every professional virtue and excellence which, as the acknowledged representative of French surgery, he had given them all during the past thirty years.

AUSTRALIA FOR THE CONSUMPTIVE.

OF the advantages for consumptives of many Australian health resorts there can be no question. The medical men of Sydney have again called attention to the folly of sending pulmonary cases to Australia in a routine and inconsiderate fashion. The climate of the Australian continent is very variable in its different parts; that of Sydney is damp and depressing, and the heat in summer is well nigh unbearable.

Melbourne is subject to most violent and sudden changes of temperature; and Hobart also in a less degree. Some parts of the interior, especially along the Murray river, are well suited to a certain small class of consumptives; although the summer heat is great, the climate is fairly equable, and the dryness of the atmosphere is very advantageous to the phthisical. But this up-country life is only suited to the young and vigorous, with a good reserve of physical force, and not without some financial resource also, for lodgings are rough, food badly and hastily cooked, and house rent very high. Still a winter on the Murray will prove attractive and health-restoring to the well-to-do and fairly vigorous *poitrinaire*, but not to the advanced consumptive. Mount Lofty in South Australia and Mount Macedon in Victoria are also places of resort that can be recommended, where there are some chances of meeting with the comforts of civilisation. Medical men in England have not yet emancipated themselves from the old routine prescription for consumption, namely, a "sea voyage," fraught, as it so often is when inconsiderately prescribed, with suffering and death; and as a sea voyage must end somewhere, Australia is sometimes prescribed in the same routine fashion.

NOT EXTINCT.

In these days of big medical schools and searching scientific examinations, the old "apprentice" is well-nigh forgotten. Those, however, who are well acquainted with medical schools know that the apprentice is not extinct. A reference to the *Medical Students' Register* of 1891 will give us instructive information on this matter. Let us turn to the "List of Places of Medical Study whereat Students were registered as having commenced Medical Study in 1891," a list which includes the number of students registered at each place of study. The number registered at each school does not indicate the total number of first year's students at that place of study, as many are registered prior to entering. The special point of interest, however, is that the list includes "Pupilage with a Registered Practitioner." The entire number of students in the list is 2,405. The total number of students under pupilage is 335, or 13 per cent. But under "England" we find 272 private pupils, more than four-fifths of the entire 335; the total of English school and pupilage students is 1,271, so that over 21 per cent. began study as pupils. Indeed, the figures "272" for pupilage are higher than the figures against any school or university—the highest number at a university being 115 (Cambridge), and at a hospital school 101 (Guy's). In other parts of the empire it is otherwise. Under "Scotland" we find 8 students in private pupilage, out of a total of 638, or 1.2 per cent. In "Ireland" there are 54 pupils out of 376, or over 14 per cent. Lastly, there is only one private pupil in the "Indian, Colonial, and Foreign" list, which includes 70 students, the percentage being 1.4. Thus pupilage is by no means extinct in England and Ireland, and this is hardly a matter for regret. Many wish to see a yet larger percentage in future years; they will see that, as the student has to make his bread by the exercise of his profession, it is not at hospitals, but in pupilage, that he learns how his profession is exercised in every-day practice.

SLEEPING ACCOMMODATION FOR SERVANTS.

Public attention has been directed by Mr. Wynter Blyth, medical officer of health for Marylebone, to the sleeping accommodation provided for domestic servants; a particularly bad instance, in which the three servants of a household in a fashionable quarter were domiciled in dark unventilated holes in the basement, has evoked a number of communications, some of which give similar examples. It is indeed a fact in the experience of most persons that, particularly in private hotels, in boarding houses, in coffee houses, and occasionally in the mansions of the wealthy in the metropolis, there are to be found instances in which some of the servants are compelled to sleep in such places as "under the kitchen dresser," in "the pantry, or else in rooms which come under the definition of "underground rooms," according to the Public Health (London) Act, and, which therefore, if legally occupied, should conform in structural detail to the rules set forth in Sections 96 to 98. There are two aspects of this question—the one as regards the health of the domestic, the other the health of the household generally. The daily work of most domestics is mainly carried on in the basement; they are the first to experience any defects in drainage, and they are the first to inhale the more impure ground air forced into the house by the several causes of alternations of temperature, of pressure, and of flooding of the subsoil, aided in places by the confinement of the ground air, in other directions by impermeable outside wood or asphalte paving; hence the metropolitan health officer finds a greater amount of diphtheria and typhoid among the domestic than among other classes of corresponding age periods. Whatever foul gases are breathed during the day from sink or gully or dust-bin, given a slumber of seven or eight hours in pure air, the bad effects are, to a considerable extent, neutralised; but if the basement air is to be breathed both night and day, the standard of the health of servants must not be expected to exceed the health of the members of those very poor families who inhabit cellars. With regard to the effect on the health of the other denizens, the fact that, at the time when meals are being prepared in the kitchen, the smell more or less invades the rest of the house, is good evidence that a large portion of the air breathed by a household is derived from the basement, and if at night the kitchens or pantries or passages are used as dormitories, the sleeping population will most decidedly breathe air already more or less contaminated. Gross impurity in the air of kitchens and larders also tends to produce those mysterious toxic changes in food stored in the larder or left in the kitchen, the effect of which is diarrhœa or symptoms of irritant poisoning. We trust the public generally will direct their attention to the matter of sleeping accommodation for servants; it is one which a local authority, unless by a method of inspection of an inquisitorial and objectionable character, can only partially and in isolated instances remedy.

A "HOSPITAL MANNER."

Mr. Hutchinson's remarks at University College Hospital on the danger of students acquiring what he describes as "a hospital manner" are worthy to be taken to heart by every medical student and even by some who have passed out of their studentship and continue to be engaged in hospital work. Mr. Hutchinson belongs to another but a kindred profession to ours, and no doubt his observations, which relate to a defect belonging to the least estimable side of imperfect human nature, are applicable to all who are engaged in the administration of relief, lay or medical, to the poor in hospitals, infirmaries, and workhouses. Some very picturesque sketches which have lately appeared do justice to the humours of the out-patient room, and the specially trying characteristics of the hospital "repeater," who is "death on drugs;" to the argumentative prejudiced and litigious *habitué* of the waiting room whose invincible prejudice and impudent dictation are more than sufficiently irritating to the mildest temper and the most considerate faculty of compassion. Besides these there are the drunken, the quarrelsome, the self-important, the half-imbecile, and neglectful types which abound in the out-patient department. But *noblesse oblige*. The house-surgeon, the dresser, nay the porter are bound to hold in mind the duties of ministration, the traditions of what we may be permitted still to call the Æsculapian priesthood; the responsibility of a public function performed in trust for those who have given—often out of their poverty as much as out of their abundance—in the sacred name of charity. These are all considerations which bind the medical student, dresser, and hospital officer to cultivate in hospital a feeling and therefore to express it by a manner

which is precisely the opposite of that to which Mr. Hutchinson obviously refers. That objectionable manner is thus discussed in language which we by no means endorse—nay, against the general application of which we warmly protest—by a general practitioner of great accomplishment and humanity. He writes, in comment upon Mr. Hutchinson's remarks: "The average young fellow who has just passed his 'final' and has become 'H. S.,' or who has achieved some other hospital honour, is very prone to behave as if the inferior race of mortals which knows not medicine, and that of the very newest sort, were beneath consideration. His condescension towards the general public is perhaps a little less offensive than his scarcely concealed contempt for the 'outside G. P.' who got his qualification in the dark ages, that is to say, ten years before his own time. He affects gold-rimmed glasses, not that he is myopic, but because they add dignity to his appearance; his voice, which in his early days was natural and pleasant, is toned down to an affected and deliberate monotone suggestive of self-importance and conscious superiority. When he addresses an out-patient he may be heard to say to a shivering young woman who is deliberating whether she shall or shall not consent to have her finger amputated: 'Now then, when you have made up what you are pleased to term your mind, I will remove your finger,' or to a mother who has been endeavouring to coax her unruly three-year-old to go a little nearer to the doctor: 'Now, woman, bring that animal here!' I do not say that such expressions as these are the rule amongst young medical men at hospitals, but Mr. Hutchinson's entreaty that they should behave to hospital patients as they must behave in private practice was certainly neither superfluous or groundless." Now this is, we believe, rather an effort to bring forcibly under notice a possible, but an altogether exceptional, being than a portrait from the life. Any who should unite the worst qualities of a prig and a barbarian, as here delineated, would soon find himself tabooed by his fellows and so sharply dealt with by his seniors that he must either amend his ways or depart. Of right, there should not be any shade of distinction between the considerateness of manner and thoughtful courtesy with which the private patient is treated and that shown to the hospital patient; or if indeed there be any difference either in thought or in the manner which reflects the mind it should be, and as far as we have observed commonly is, in favour of the hospital or pauper patient, who is the more helpless and the more to be pitied. But there are, no doubt, exceptions, and there are occasional grounds of complaint of roughness of manner and unkindness in dealing with the hospital and workhouse patient. And it is because of these exceptions, of their inherent wrongfulness, of their discordance with professional tradition, and of the reflected discredit which they sometimes inflict upon a humane and dutiful profession that Mr. Hutchinson spoke and that we think it well to echo, emphasise, and comment upon his words.

SANITATION IN NICE.

With reference to reports which have appeared as to the prevalence of an epidemic of typhoid fever in Nice Dr. Sturge has sent us the result of inquiries made by him on the spot. Official information was placed freely at his disposal by the Bureau d'Hygiène, through its President, Dr. Balestre, and the Secretary. It appears that the long hot period, from June to September, is always accompanied by an increase in the number of cases of typhoid fever. This year has been no exception, and the number of deaths has been in excess of the average. In June the number of deaths from gastro-intestinal diseases was 27, the average of the previous three years being 19; in July, 31, the average being 32; in August, 37, the average being 46; in September, 69, the average being 33. These figures include deaths attributed to gastro-enteritis, gastritis, mucous fever, and other ill-defined causes, so that they somewhat exaggerate the number of deaths actually produced by typhoid fever. The main portion of the unusual number of deaths in September occurred in the first twenty days of that month; since then there has been a marked diminution. It is believed that the epidemic is at an end. Dr. Sturge adds: "The normal population of Nice, without counting the foreign colony, is about 100,000. The total deaths from intestinal diseases for the four summer months were 164, or at the rate of nearly 5 per 1,000 per annum, the rate for September alone being 8.28 per 1,000 per annum." The annual outbreak of typhoid fever is believed to be due to the extensive use of well water by the inhabitants of the poorer quarters of the town. These quarters are riddled with wells, and though the municipality has erected free public standpipes, there is an unfortunate prejudice among the working classes against the "eau de robinet" and in favour of the "bonne eau" of their own wells. A map prepared by Dr. Balestre shows a remarkable correspondence between the sites of these wells and the cases of typhoid fever. The authority has recently closed all the public wells, but French law does not give them any power to order private wells to be closed. That nothing is to be feared by people coming to Nice to live in the better quarters of the town may, Dr. Sturge thinks, be proved by his own experience. Notwithstanding that typhoid fever, as in all other towns of its size, is never absent from Nice, and that there is a marked increase towards the end of every summer, he has seen in eleven years of busy practice only 16 cases of typhoid fever, of which 9 were imported from other towns, that is to say, the patient was ill on arriving, or became so within a week of arrival. Of the 7 cases arising in Nice itself, 2 of the patients belonged to the poorer classes who inhabited rooms in houses without "company's water." The company's water is derived from two supplies (1) the "Eau de Ste Thécle," for drinking and house purposes; (2) the "Eau de la Vésubro," for watering the streets, flushing the sewers, and working the lifts. The former is good, the latter not so good—not good enough for drinking. It has been recently asserted that this summer the Eau de Ste Thécle has been suppressed, and the Eau de la Vésubro supplied in its stead. To this statement Dr. Sturge is in a position to give the most emphatic denial, on the authority of Dr. Balestre. In the earlier part of the year we commented upon a report made by Dr. Wendt for the New York *Medical Record* on the sanitation of Nice, in which he said that of the five springs which made up the Source de Ste Thécle the four chief ones were very good, but that the fifth, called "La Comtesse," was not up to the proper standard. The use of this suspected source has been discontinued for several months. Dr. Wendt also animadverted upon the fact that the sewer which runs below the Boulevard Gambetta was allowed to flow over the shore, and that washerwomen could be seen washing their clothes in its water. This is no longer the case. The sewer has been completely canalised and carried out to sea in iron pipes to a depth of fifty feet beneath the sea level. The only other remaining sewer not already dealt with in this way has also this summer been carried out to sea in pipes. The municipality, Dr. Sturge adds, are working with a will to improve matters. Much has already been done, and much is at this present moment being done, but it must necessarily take several years before the old system can be entirely done away with, and new and more perfect systems substituted.

CHOLERA AND THE COMMA VIBRIO.

We publish in another column an account of an address recently delivered by the veteran Professor von Pettenkofer, which was received with great enthusiasm by the Munich Medical Society, before which it was delivered. With Professor Pettenkofer's most important practical conclusion, namely, that each place must be made cholera-proof by sanitation, there will be general agreement; but on some other points—as, for instance, the evidence from epidemiology,

still more than from bacteriology, as to the agency of water in the dissemination of cholera—he appears to ignore a great mass of facts which have been accumulated during recent years. The courage of the veteran professor in making himself the subject of an experiment certainly not free from danger, and which did result in the production of symptoms calculated to alarm many persons of less robust faith, will be generally admired; the experiment, however, cannot be accepted as conclusive, the more that in the case of Professor Emmerich, who also partook of cultivations of the cholera vibrio, the symptoms of intestinal disorder produced were of a still more severe character.

SCOTLAND.

PUBLIC HEALTH OF EDINBURGH.

The epidemic of scarlet fever in Edinburgh shows signs of diminishing, whilst that of measles is on the increase, but the type of the latter malady is becoming more benignant. In view of the prevalence of small-pox in Glasgow and in Lancashire, the public health authorities in Edinburgh are making preparations in view of a possible outbreak in Edinburgh by equipping a temporary hospital. This has become necessary because the City or Fever Hospital already is filled to its utmost capacity with 321 patients. So far as reports from that quarter are trustworthy, it would appear that no further case of typhus fever has occurred in Leith.

THE UNCERTAINTIES OF MEDICINE.

The second meeting of the Anderson's College, Glasgow, Medico-Chirurgical Society, was held in the college buildings on November 12th, when Professor A. M. Buchanan, M.A., M.D., delivered his inaugural address as Honorary President. The subject was Medical Science, its Uncertainties and how to Overcome Them. There was a large audience, and they listened to this scientific oration with great interest. In treating of his subject he urged upon his audience the importance of close attention to facts, their proper association, and correct generalisation. The meeting terminated with a hearty vote of thanks and cheers for the Honorary President.

NEW FEVER HOSPITAL FOR LEITH.

Final arrangements have been made for the construction of a fever hospital for Leith. The Board of Supervision has set forth two objections to the scheme: first, the fact that the proposed new hospital is to be distant two miles from the centre of the town; and, secondly, that the hospital drains should not be connected with the town drains. The first objection, the Board say, can be got over by establishing telephonic communication between the hospital and the Public Health Department, where information could be got as to the condition of the patients. With regard to the second objection, the Public Health Committee are considering the propriety of taking the drainage directly to the sea, which can probably be done at an additional cost of £150.

IRELAND.

Mr. F. T. Heuston has been elected to the Council of the College of Surgeons in room of Mr. J. K. Barton, resigned.

The Princess Victoria of Teck has written to say that she wishes to become patroness of the Clarence Ward in the Mayo Infirmary, and has sent her picture to be placed in the ward.

CORK HOSPITAL SATURDAY.

Besides the street collections, an additional method was adopted to aid the movement—namely, by sending out collecting sheets to the different city establishments—with a most satisfactory result. The collection from all sources realised close on £800, £100 more than in 1891.

CASTLEREAGH DISPENSARY.

At a special meeting of the Castlereagh Dispensary Committee, held on November 10th, the committee arrived at the conclusion that it was absolutely necessary that additional medical aid should be supplied without delay, and made the following recommendations: (1) That the additional medical officer be appointed at a salary of, say, £100 a year; and (2) that the committee urge upon the Local Government Board that they do not desire to interfere with the present position or emoluments of Dr. Croker.

IRISH DISPENSARY DOCTORS.

A committee has been engaged in revising the Superannuation and Redress Bills, which it is proposed to introduce into Parliament during the next session. A general meeting of the Irish Medical Association will be held in the College of Surgeons on Wednesday, November 23rd, when the proposed Bills will be submitted for approval.

MR. JOHN KELLOCK BARTON.

We regret to learn that Mr. John K. Barton has been advised to winter in the South of France, owing to the state of his health. Mr. Barton is Senior Surgeon to the Adelaide Hospital, and an ex-President of the College of Surgeons. Two weeks ago he resigned his seat on the Council of the Royal College of Surgeons, No one holds a higher place in the esteem of his brethren, and the announcement of his illness causes much regret. It is sincerely hoped that he may return in good health.

BELFAST ROYAL HOSPITAL AND THE WORKING CLASSES.

Four years ago the working men of Belfast formed a committee with the view of increasing the contributions of the artisan classes to the Royal Hospital, and of stimulating their interest in that institution. This committee has just issued a report of their labours which is in many ways satisfactory. The report states that the committee have made it their business to get thoroughly and minutely informed concerning the management of the hospital, and that every facility has been afforded to them by the superintendent, matron, and other officials. They have been permitted to appoint one of their number to act as orderly, whose duty it has been to visit the hospital at all reasonable hours, make inquiries, and report to the committee. These reports have been satisfactory, and all complaints have been fully investigated. The contributions of the working classes to the hospital, which were £1,563 in 1888, have risen to £2 177 in 1892, and it is expected that this latter amount will soon be largely augmented. The committee point out that whereas over 90 per cent. of the patients treated in the hospital belong to the working classes, they contribute only about one-fourth of the funds required for its support. They rejoice at the increased interest felt in the prosperity of the institution, but regret that in many cases, both among the artisan classes, managers, and overlookers, much indifference exists. They remind their fellow workmen that the hospital exists mainly for their advantage, and that if its operations should be limited for want of adequate financial support, they themselves would be the chief sufferers.

FEVER IN CORK.

Typhus fever prevails somewhat extensively in the northern part of the city. All necessary precautions are being taken by the sanitary committee. Strange to say, the southern portion of the city is free from the outbreak.

HOSPITAL SUNDAY IN DUBLIN.

THE annual Sunday collection for the hospitals of Dublin was made on Sunday last in the churches of all the Protestant denominations in the Dublin diocese. In this way £68,965 has been contributed in past years, and it is believed that the average of £4,000 will be at least reached this year. Only about 10 per cent. of the total required for the participating hospitals is secured in this way. It is unfortunate that the collection is entirely onesided. No Roman Catholic hospital receives anything because no Roman Catholic congregation contributes anything. But the money goes to hospitals in which 90 per cent. of the patients are Roman Catholic so that the generous purpose of the givers is achieved.

PROFESSOR VON PETTENKOFER ON CHOLERA.

WE are are indebted to the courtesy of Dr. B. Spatz, editor of the *Münchener medicinische Wochenschrift*, for advance proofs of an address on Cholera with Reference to the Last Epidemic at Hamburg, delivered by the veteran hygienist and epidemiologist Professor Max von Pettenkofer, on November 12th, before the Munich Medical Society.

THE CHOLERA EQUATION.

He said that the only question now appeared to be how the comma bacillus was to be destroyed, or at any rate prevented from multiplying. He recalled that many years ago he said that the etiology of cholera was an equation with three unknown quantities, namely, x, a specific germ, disseminated by human intercourse; y, a factor dependent on place and time, which he called "local disposition;" and z, the individual predisposition.

The simplicity of Koch's theory commended it to those who only looked at the individual patient, and not at the course of a long series of epidemics. Places as well as persons often enjoyed immunity, and places which suffered at one time remained free at another, even when two of the factors x and z were present. The determination of y was not so easy as that of the others, and the speaker could only say that the nature and degree of moisture of the soil had an important influence. The constant occurrence of the comma bacillus in the excreta of cholera patients indicated that the microbe had something to do with the process, but it was still open to question whether it alone was the cause of the disease.

PERSONAL EXPERIMENTS WITH THE COMMA VIBRIO.

Professor von Pettenkofer had made some experiments on himself with bacilli obtained from Hamburg. Several of his pupils offered themselves as subjects in his place, but acting on the principle *Fiat experimentum in corpore vili*, he thought he himself—74 years old, glycosuric, without a tooth in his head, and with other infirmities of age—was the fittest person to run whatever risk there might be in the experiment. From pure agar cultures of the comma bacillus made by Professor Gaffky, a bouillon culture was prepared in the ordinary way by Drs. Pfeiffer and Eisenlohr. Gruber having shown that fresh cultures are more active than those which had been kept for some days, Professor von Pettenkofer chose one which had not been quite twenty-four hours in the incubator. A plate culture of this showed that one cubic centimetre even of a thousandth dilution contained numberless comma bacilli, far more than could possibly be conveyed by a man's hand to his mouth. As Koch has shown that the gastric juice was capable of killing even a large number of comma bacilli, Professor von Pettenkofer was careful to take his dose of microbes two hours and a quarter after a light breakfast, when, according to a calculation made by von Voit, there could not have been so much as 100 cubic centimetres of gastric juice with 0.3 per cent. of hydrochloric acid in his stomach. In order to neutralise even this small amount of acid, however, he took 1 gramme of bicarbonate of soda dissolved in 100 cubic centimetres of Munich conduit water. He then measured out one cubic centimetre of the fresh culture, swallowed it at a draught, and washed out the glass with 50 cubic centimetres of water, which he also swallowed, so as to ensure the ingestion of as many bacilli as possible. This was on October 7th. His temperature was then 36.7° C.; his pulse 86. On October 9th severe colicky pains and moderate diarrhœa came on, and did not entirely cease till October 15th. During that time the urine was normal in amount, and contained no albumen. He took no medicine whatever during the attack, but took his customary food with good appetite, and pursued his usual avocations without any interruption, feeling perfectly well except for the symptoms mentioned. While the diarrhœa lasted the stools were examined bacteriologically by Drs. Pfeiffer and Eisenlohr, who found them swarming with comma bacilli. Professor von Pettenkofer asks rhetorically how many *milliards* of these microbes there must have been in his intestines during these eight days, and yet he had no symptoms of Asiatic cholera. He thinks, however, that his experiment might have had a fatal result if it had been carried out in Hamburg, where not only x but y was present in full force. An exactly similar experiment was made on himself by Professor Emmerich on October 17th, with much the same result, except that the colic and diarrhœa were much more severe; otherwise he felt perfectly well.

CONCLUSIONS.

According to Professor von Pettenkofer, these experiments show conclusively that the comma bacillus during its sojourn in the intestine does not produce the specific poison which causes Asiatic cholera, and they agree with the results obtained by Bouchard, who was able to induce the symptoms of cholera in rabbits by giving them the excreta (alvine or urinary) of human cholera patients, but not by giving them pure cultures of comma bacilli or their metabolic products. Anticipating the possible objection that both he and Emmerich had suffered from an attack of genuine cholera, though very slight, he brings witnesses to the contrary in the persons of the well-known physicians Professor Bauer and Dr. von Ziemssen, both of whom have had considerable experience of cholera. Professor von Pettenkofer, while not denying that the comma bacillus has some etiological importance, says he cannot believe it is the x which, without the assistance of y, can cause epidemics of cholera. He reiterated his well-known views on the influence of the soil, especially in connection with the rainfall. His practical teaching may be summarised in the formula that it is the y, that is, the local physical and sanitary conditions, that must be attended to; each place must, in short, be made cholera-proof by sanitation.

UNIVERSITY COLLEGE, BRISTOL.

OPENING OF THE NEW MEDICAL BUILDINGS.

THE new buildings of the Bristol Medical School, which were formally opened on Wednesday last, November 16th, form a part of the complete scheme for the Bristol University College, and replace the inadequate brick building originally designed for temporary purposes, which stands in the college grounds. This is now incorporated at the rear of the structure just completed, which fronts the main road, forming a wing of the future main front.

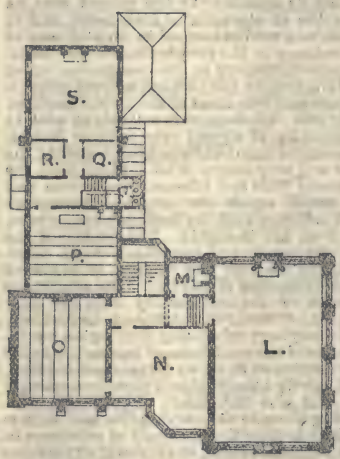
The space provided in the new building is on two main floors, with a basement. On the ground floor to the spectator's right are a large museum (50 by 30), with a preparation room in connection therewith, a medical tutor's room, cloakrooms, etc.; whilst on the left are a meeting room for the Faculty and a students' room. At the rear is a covered passage giving access to the original schools above mentioned, and to the new lavatories and offices, which are very complete, and planned and fitted on the best sanitary principles.

On the first floor is a handsome library (50 by 30), with large traceried windows of leaded glass, and an open timber hammer-beam roof, also a physical laboratory and lecture theatre in connection therewith fitted for upwards of forty students. There is also a professor's room. The whole of the buildings are warmed with hot water, lit with gas, and ventilated by hot air, inlets being provided for fresh air in connection with





GROUND PLAN.



FIRST FLOOR PLAN.

NEW MEDICAL WING, UNIVERSITY COLLEGE, BRISTOL.

A, Museum.
B, Laboratory.
C, Cloak Room.
D, Medical Tutor's Room.
E, Faculty Room.
F, Students' Room.
G, Lecture Room.
H, Anteroom.
I, Lecture Room.
J, Anteroom.
K, Latrines.
L, Library
M, Lecturer's Room.
N, Physiology Laboratory
O, " Theatre.
P, Anatomy Theatre.
Q, Prosector's Room.
R, " "
S, Dissecting Room.
T, Lavatory and W.C.

the radiating coils. Architecturally the building is English in character, being designed in the style and spirit of the Tudor period, but free from mediævalisms and all that would militate against modern requirements and ideas of health and comfort.

The cost of the building, including the furnishing, is upwards of £7,000, a great portion of which has been defrayed by the subscriptions of the representatives of the medical profession in Bristol and Clifton, and other donors. The architect of the building is Mr. Frederick Bligh Bond, of Bristol.

The formal opening of the new buildings was performed by Sir Andrew Clark. There was a large gathering of the leading medical men of the city and neighbouring towns. Dr. Percival, Head Master of Rugby, presided.

Sir Andrew Clark, who was warmly cheered, said the occasion which had brought them together was, viewed critically and justly, one of supreme importance to the ancient and illustrious city of Bristol; and they all joined cordially in the expression of the hope that the movement about to be crowned that day might contribute in manifold and in great ways to the life and work, the illumination, and the service of the generation which was to follow the present. To those accustomed to look only upon the surface of things, this language would appear exaggerated and unnatural. But to those who penetrated below the surface, who could discern the courses which human thought was pursuing, and the relations which it was establishing between things hitherto far apart and unconnected, who understood that it was only through living ideas that all abiding and fruitful actions were determined, and who measured value of actions not by immediate material results, but by eventual moral issues, this language would not seem strong enough. They had met to inaugurate the re-opening of the Medical School of Bristol—begun by the doctors, carried on by the people, incorporated by the College, and now crowned, or about to be crowned as its medical faculty; they celebrated its second birth and prayed that its second life might be a life of strength, of usefulness, and of honour. The existence of a medical school in Bristol was of infinitely greater importance to the people than to the medical profession, and the participation in the reorganisation of the medical school of the people, the College, and the municipality, revived that high and true ideal of the civic life which regarded it as a family life. Of the agents actively at work in evolving the just prosperity of a great city such as Bristol, the two chief were the moral agent and the health agent; the moral agent—the true and only source of all abiding good, the neglected remedy of social evils and labours, disaffection and unreason; and the health agent—the physical framework which penetrated and influenced all the best that was in man, and all that issued from his thoughts. The health of the individual sensibly influenced, and sometimes even determined and regulated, the amount and quality of his work and the character and influences of his life. The conditions necessary to the health of the community were not only numerous, but complex, difficult of fulfilment, imperfectly known, and constantly varying; advancing civilisation but increasing the complexities of the conditions of human life, and if human life was to be continued in all its fulness and fruition, they must acquire not merely a knowledge of those increasingly complex conditions, but also the power of fulfilling, controlling, and readjusting them to the varying life and service of mankind. From time to time the problems of existence in fresh conditions must be reconsidered, and renewed endeavours must be made to discover and set forth the most favouring conditions for birth and growth, for education and development, for work and play, for the maintenance of health and resistance to disease, for adjustment to environment and the evolution of fresh capacities and functions for the prolongation of life, and the further physical, mental, and moral development of the race. The investigation of all such subjects and the proper methods of dealing with them came within the domain of medicine. In a medical school they had a centre of medical and general knowledge, and collected together within it a body of highly educated and selected men, who were striving to discover, teach, and otherwise communicate all that was truest, best, and most useful in the knowledge of the time, and to find out for it the widest and most fruitful applications to the practical business of life. The city of Bristol could not have a great medical school, and he presumed it would have none but a great medical school, in the midst of it without deriving many and great advantages from its operations and their collateral influences. They would bring to their city the latest and the best knowledge in practical medicine and surgery, and in the department of public health. They would command the highest and best assistance for the working of their medical charities, and they would be able to procure for themselves and for their families the most experienced and the most skilful service that the age could produce. That was a commercial city, and the continuous and advancing prosperity of such a community depended in a large measure upon the extent to which scientific principles and knowledge could be applied to the manufacturing processes that went on therein. Attached to the medical school were teachers of chemistry and physics, and it was to the observations and discoveries of such teachers that they owed many of the recent improvements of processes in the arts and manufactures and most of the economies which had reduced so greatly the cost of producing manufactured articles. It was mainly to the teachers of general science in medical schools that they must look for further progress in that direction, and for relief from some of the increasing difficulties of labour-world disaffection and unreason. Bristol was happy in having a medical school which had a justly high reputation, which had produced many distinguished men, which had at various times made substantial additions to their knowledge, which had done admirable work in the relief of suffering, in the cure of disease, and in the improvement of surgical processes, which had educated many successful practitioners in medicine, and which now possessed a teaching staff second to none in the kingdom—a staff which was not only sustaining but extending the ancient name and fame of the Bristol Medical School. And now, the old school being no longer equal to the educational requirements of the time, and the new school having been built, fitted with all necessary appliances and furnished with educational instruments, and to a certain extent complete, they were about to enter into the possession. In design, in construction, arrangement, and fittings the new school was worthy of the highest praise, and might be said to be second to no other provincial school. But it had one defect, and it was so serious a one that unless it were repaired the school could neither adequately discharge its functions nor take rank with any leading medical college. The school had no State licence for experimental research, and as far as he could learn it had no intention to apply for one. He knew, no one knew better, that many estimable and exemplary people, moved by the tenderest feelings and actuated by the highest motives, refused, on the ground that experimental research was both unnecessary and cruel, not only to sanction such a method of inquiry, but to hold any relations with institutions in which it was sanctioned. He had the profoundest sympathy with such persons. He honoured their feelings and respected their motives, but firmly convinced that they had been prejudiced and misinformed he strongly dissented from a judgment founded on inaccurate statements and erroneous considerations. The law of vicarous sacrifice was a law of the physical, mental, moral, and spiritual life, and no living sentient being could escape from its operation. It was plainly the appointment of God, and if one animal might not be used in the service of another and higher animal, God was neither just nor loving. Experiments performed upon animals with due care for a high purpose, in a reverent spirit, and with results in good transcending any suffering inflicted were not cruel. Cruelty lay in the wanton infliction of suffering, and in the performance of experiments for a low end, or carelessly designed, or barren in results of good justifying the suffering (if any) which had been inflicted. It was folly now to argue the question whether experimental research had contributed to the advancement of theoretical and practical knowledge, for it was certain that no substantial advance had been made in physiological knowledge, and none in the departments of midwifery, surgery, and medicine, without the assistance of this method of research. Had they the right to cause other creatures to suffer in their service? The right

had always been, and everywhere assumed and practised. They inflicted suffering upon animals for their convenience and use, for pleasures, and for the gratification of vanity; and in the pursuit of the balance of power in Europe they had sacrificed the lives of hecatombs of men and ruined the happiness of countless families. Why, then, might they not experiment on animals for the relief of human suffering and for the advancement of knowledge, which was the natural revelation of God? By experimental research surgeons had been able to arrest or cure diseases, and Koch discovered in the presence and action of the tuberculous bacillus the true cause of tuberculous or consumptive disease. This discovery had not only thrown a flood of light upon the natural history of consumption, but had enabled them to discover its presence when otherwise unsuspected, and to bring about a successful revolution in the treatment of surgical tuberculosis. Furthermore, there were just reasons for expecting that the continuance of this experimental research would lead to the discovery of means for the prevention and, perhaps, even the cure of pulmonary consumption, which destroyed so many of the fairest and best of their race. By experimental research they had discovered the condition for using with efficiency and safety almost all the stronger and most useful drugs, and by experiments upon animals they had discovered the nature and relations of infectious diseases, and they had learned how in some measure to prevent the development and to control the spread of fevers, cholera, and anthrax. And yet with all these services before them they could not scratch the neck of a rabbit for the advancement of knowledge without becoming legal criminals. Knowledge could be advanced now only by experiment, and if experiment were to be suppressed, and if consistently the use of knowledge acquired in this manner were to be rejected, then it was certain that the art of preventing and of curing the diseases of beasts and men would decay, that physical and mental degeneration would follow, and that science in England would become the contempt and pity of the world. The medical school having been now built, fitted, and finished, the question naturally and properly arose, How was that admirable but costly building to be maintained in efficient working order? Some people would reply the building was a doctor's business, why don't the doctors maintain it? But in answer to this he would say that the school was more for the advantage of the public than of the profession, and he held that the public was bound in honour to pay for what was consecrated to its service; and, in the second place, the doctors—speaking quite frankly—were much too poor to be called upon in a business of that kind to add to the list of their gratuitous services even to pay for services which they rendered to others. Doctors gave more to the public and received less in return than the members of any other profession; and, furthermore, the work which they did was done at a cost of self-sacrifice which rendered their lives the shortest of members of any other profession. Strictly speaking, men would ask why the medical school should not be self-supporting. Well, he did not doubt—indeed, he knew—that some great metropolitan schools might be proved not only self-supporting, but even moderately remunerative; but he had the gravest doubts if any provincial medical school was ever, from a strictly business point of view, self-supporting. He even doubted whether it was desirable that it should be so, having due regard to its efficiency, place, and influence, and it seemed to him, as it had seemed to others ages ago, that the character and importance of its functions made it a just exception to ordinary business rules. The Bristol Medical School could not be made self-supporting, and he should suspect its efficiency and dignity if it were so. The medical faculty could not and ought not to support it, the College could not and ought not to support it, and he saw nothing for it but that the people of Bristol should accept the family idea of the civic life, and that they should make the maintenance of that medical school, in all its fulness and efficiency, their common duty and constant interest. They had not only a good medical school, but, with the exception of one defect, which he hoped would soon be made good, there were moral interests which would not be repressed and could not be ignored. The maintenance of the school, as he viewed it, with all its high traditions, the beneficent work, its roll of distinguished men, and its splendid promise of future usefulness and honour, came within the scope of righteousness. If they believed, as he did, that the moral idea preceded and determined every true and abiding prosperity, they would regard the maintenance of that school as one of the paramount duties of their citizenship.

Sir Andrew Clark was heartily thanked for his address.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

South-Eastern Branch: East Sussex District.—A meeting of the above District will be held at the Queen's Hotel, Eastbourne, on Tuesday, November 22nd. Dr. MacQueen will preside. Meeting at 3.30 P.M.; dinner at 5.30 P.M.; charge, 6s., exclusive of wine. Mr. Marcus Gunn will read a paper on the Diagnostic Value of Certain Symptoms in Eye Disease, and Dr. Downes one on an Obscure Case of Congenital Brain Disease. Dr. Gabbett will show Microscopic Slides of Cholera, Influenza, and other Bacilli.—J. W. Batterham, Honorary Secretary, Bank House, Grand Parade, St. Leonards-on-Sea.

South-Eastern Branch: East Kent District.—The next meeting will be held at the Kent and Canterbury Hospital on Thursday, November 24th, at 2.45 P.M., Mr. F. Wacher in the chair. The Chairman invites members to luncheon from 1 to 2 o'clock at his residence, Monastery House, and will be glad to receive acceptances by November 22nd. Agenda:—Dr. Halstead: Diarrhœa of Bottle-fed Infants. Mr. S. Wacher: Some Cases of Peculiarity of Speech; subjects will be exhibited. Dr. Thomas Eastes: Post-nasal Adenoid Growths. Tea and coffee will be served after the meeting at the Chairman's residence. All members of the South-Eastern Branch are entitled to attend these meetings and to introduce professional friends.—Thomas F. Raven, Honorary Secretary, Barfield House, Broadstairs.

Lancashire and Cheshire Branch.—The intermediate meeting of this Branch will be held in the Town Hall, Preston, on Tuesday, November 29th, at 3 P.M. An interesting programme of medical and surgical communications has been prepared, and detailed information on all points concerning the meeting will be found embodied in the printed circulars which will be posted to every member next week.—C. E. Glascott, M.D., Jas. Barr, M.D., Joint Honorary Secretaries.

Metropolitan Counties Branch: North London District.—The annual meeting of this District, which comprises North London and North West Districts, for the election of officers and committee, will be held at the Holborn Restaurant at 6.30 P.M. on Wednesday, November 30th. The annual dinner will take place at 7 P.M. in the Duke's Saloon. Dr. Bridgwater, J.P., Vice-President, will take the chair, supported by Dr. Cleveland and other members of the Council. Dinner ticket, 7s. 6d., exclusive of wine. All members desirous of being present will oblige by signifying their intention on or before November 28th, to George Henty, M.D., Honorary Secretary, 302, Camden Road, N.

Metropolitan Counties Branch: South London District.—The next meeting will be held, by kind permission of the Treasurer, in the Court Room of Guy's Hospital, at 8.30 P.M., on Thursday, November 24th, Dr. Pavy, President of the Branch, in the chair. An address on The Prognosis in Cases of Ascites will be given by Dr. W. Hale White. Cases of clinical interest from the wards of the hospital will be shown, commencing at 8 P.M. Agenda:—Motion proposed by Dr. R. J. W. Oswald: "That, in view of the success of previous afternoon meetings, one be held in the afternoon before the next evening meeting." All practitioners, whether members of the Association or not, will be heartily welcomed.—H. Betham Robinson, Honorary Secretary, St. Thomas's Hospital, S.E.

Staffordshire Branch.—The first general meeting of the present session will be held at North Staffordshire Hotel, Stoke-on-Trent, on Thursday, November 24th. The President, Dr. Malet, will take the chair at 3 o'clock.

SYDNEY AND NEW SOUTH WALES BRANCH.

The 110th general meeting of this Branch was held at Sydney on September 2nd, the Hon. Dr. Creed, M.L.C., President, in the chair. There were present Drs. Hull, Furnival, McCulloch, Fiaschi, Wm. Chisholm, Rennie, Crago, McMurray, McSwinney, Cohen, Garrett, Megginson, G. A. Marshall, Martin, West, Shand, Arthur, Jarvie Hood, Lloyd, Shewin,

Worrall, Jamieson, Clay, Thos. Dixon, Edwards, Clubbe, Douglas, with Dr. Langhorn as a visitor.

Communications.—The minutes of the previous meeting having been read and confirmed, Dr. E. J. JENKINS read notes on a case of Raynaud's disease, and exhibited the patient. A discussion ensued, in which Drs. RENNIE, ARTHUR, MCCULLOCH took part.—Dr. JENKINS read notes of a case of Simulated Diabetes. Dr. Jenkins also exhibited a specimen of Gumma of the Brain.—Dr. CRAGO read notes of a case of Ptomaine Poisoning, on which remarks were made by the PRESIDENT, Dr. SHAND, Dr. W. CHISHOLM, and Dr. RENNIE.—Dr. CRAGO read notes of an obscure case of Apex Pneumonia, which was discussed by Drs. RENNIE and ARTHUR.

Proposed Resolution.—Dr. R. ARTHUR moved:—"That this Association forward a resolution to the Legislative Assembly in support of the clause in the Vice Suppression Bill of 1891, which raises the age of consent in the female, and that such resolution be signed on behalf of the Association by the President and the Vice-President." The discussion was adjourned on the motion of Dr. EDWARDS.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE second ordinary meeting of the Birmingham and Midland Counties Branch was held in the Library of the Birmingham Medical Institute on November 10th; the PRESIDENT (Dr. Holmes Joy) took the chair, and there were thirty-seven members present.

New Members.—The minutes of the last meeting having been read and signed, the following members of the Association were elected members of the Branch: T. H. Keough, Shifnal; J. R. Fuller and G. W. Richardson, Birmingham; and Dr. F. M. Haig, Coventry.

Communications.—Dr. CARTER read a paper on the Treatment of Chorea. In the discussion which followed the PRESIDENT, Dr. SIMON, Dr. UNDERHILL, and Dr. LYCETT took part; Dr. CARTER replied.—Mr. B. MAY showed a man upon whom he had successfully performed Gastro-enterostomy for Pyloric Obstruction.—Mr. HASLAM showed a man from whom he had successfully removed the entire tongue for Epithelioma, after preliminary ligature of the lingual arteries.—Mr. BLAKENEY showed a man with symmetrical swellings over each tuber ischii, which he considered to be deposits of Urate of Soda.—Mr. BARLING showed a man whom he had successfully trephined for local Epileptiform Seizures, due to extradural tuberculous deposit over the left motor area.—Mr. LANGLEY BROWNE showed a large Multilocular Ovarian Cyst, which he had successfully removed from a woman aged 25. The case was complicated by a twisted pedicle, and by rupture of a pedicle vein into the peritoneal cavity, with serious blood loss.—Mr. JONES (Coleshill) showed three large Gall Stones, which had been discharged through an opening in the abdominal parietes of a woman nearly 90 years of age.—Mr. JORDAN LLOYD showed the sac of a large hernia, removed together with the cord and testicle in an operation for Radical Cure of Hernia. The patient made a good recovery.

BORDER COUNTIES BRANCH.

THE autumn meeting of this Branch was held at Galashiels on October 14th; Dr. SOMERVILLE, of Galashiels, in the chair. Twenty members and visitors were present.

Communications.—Dr. NORMAN WALKER, of Edinburgh, showed a section of Scalp with Ringworm and the Bacillus of Soft Chancre under the microscope. Dr. Norman Walker also read a paper on the Uses and Abuses of Soaps in Skin Diseases. He showed a large selection of the most popular over-fatty soaps, all of which turned red litmus intensely blue. When superfatted soaps were used the alkali set free by the water combined partly with the superfat and partly with the natural fatty matter of the skin. Therefore, if alkalies were injurious to the skin, over-fatty soaps were only relatively less injurious than neutral or alkaline ones, and must not be considered harmless. As a medium for applying drugs to the skin he believed the over-fatty soaps to have some advantages. The froth which was left after the soap proper had broken up was practically an ointment, and the surface having been thoroughly cleaned by the action of the alkali, set free by the breaking up of the soap, was more readily accessible to any drug which had been incorporated with the soap. In replying on the discussion, Dr. Norman Walker agreed with those members who considered that water was frequently an aggravation, if not the cause, of skin disease. He believed that the greater purity of soaps might have something to do with the diminution in the amount of eczema, which one member stated was quite distinct.—Dr. THOMAS, of Selkirk, read a paper on a case of Popliteal Embolism, and showed the parts removed.—Dr. MURRAY, of Galashiels, showed a case of Ununited Fracture of the Femur in an old man, and detailed the history.

Medical Evidence in Cases of Sudden Death.—Dr. CALVERT, of Melrose, made a communication upon a medico-legal subject. This was followed by a long discussion, and finally the following resolution was adopted by a majority: "That in the case of unseen and sudden deaths a *post-mortem* examination should be made and medical evidence as to the cause of death should be placed in the hands of the procurator-fiscal."

Dinner.—About twenty members and visitors dined together after the meeting; among the guests of the President being the Rev. Mr. Spence, Free Church minister, and the Provosts of Galashiels and Selkirk.

PERTHSHIRE BRANCH.

THE annual meeting of this Branch was held at Perth on November 4th.

Election of Officers.—The minutes of the last meeting having been read, approved, and signed, the following gentlemen were elected office-bearers for the ensuing year: *President:* Dr. A. Thom, Crieff. *Vice-President:* Dr. McNaughtan, Perth. *Secretary:* Dr. Urquhart, Perth. *Treasurer:* Dr. A. J. Campbell, Perth. *Council:* Drs. McCullum, Holmes Morrison, Ferguson, J. Simpson, and Niven.

Summer Meeting.—The report of Council was read and approved, and the summer meeting was appointed to be held at Crieff on the first Friday of June.

Presidential Address.—Dr. THOM delivered his Presidential address, taking as his subject Membranous Croup and Laryngeal Diphtheria.—Dr. FERGUSON moved a vote of thanks to Dr. Thom for his able address, which was carried by acclamation.—An interesting discussion followed.

Cerebral Pathology.—Dr. URQUHART showed microscopic slides illustrative of recent work in cerebral pathology. These slides were sent by the courtesy of Drs. Bevan Lewis, Goodall, and J. C. Mackenzie, and the thanks of the Branch were accorded to these gentlemen.

Dinner.—The members dined in the hotel after the meeting.

STAFFORDSHIRE BRANCH.

THE annual general meeting of the present session (the nineteenth) of this Branch was held at Wolverhampton on October 27th; Dr. CLARK, President, in the chair. Twenty members were present.

Installation of New President.—The PRESIDENT introduced his successor, Dr. MALET (Wolverhampton), who took the chair, and, after some formal business had been transacted, read an address on "Neuroses."

Election of Officers.—After a vote of thanks to the President had been passed for his address, the various officers were appointed for the year.

Next Annual Meeting.—It was decided that the next annual meeting of the Branch should be held at Lichfield, and Mr. H. M. Morgan, of that town, was unanimously elected President-elect.

New Member.—Mr. H. R. Spackman (Wolverhampton) was elected a member of the Branch.

NORTH OF IRELAND BRANCH.

THE autumn meeting of the North of Ireland Branch was held at Belfast on October 27th. There was a very large attendance of members.

Presidential Address.—Dr. J. WALTON BROWNE, the new President, took the chair and delivered an address on Mastoid Disease and Cerebral Surgery, illustrated by clinical cases, specimens, and diagrams.—A hearty vote of thanks was passed to the President for his address.

Communications.—Dr. BYERS gave an account of a successful Abdominal Section for Ruptured Tubal Gestation, and showed the Gravid Fallopian Tube Cyst and the Fœtus removed from

the abdomen. Dr. J. J. Austin, under whose care the patient had been, supplied notes of the clinical history.—Dr. Byers showed a Suppurating Dermoid Cyst of the Ovary successfully removed.—Dr. J. A. Lindsay read notes of a case of Jacksonian Epilepsy, and gave an account of the symptomatology and pathology of the affection, showing a case to illustrate the condition.—Dr. H. O'Neill (Belfast) read notes of four cases of Litholapaxy—two urethral and two perineal—which he performed. He showed the Calculi removed, which weighed respectively 2,272, 281, 77, and 25 grains. He also showed five small Calculi passed with the urine of three patients soon after severe attacks of renal colic. Dr. O'Neill also gave a demonstration of the method of using the Electric Cystoscope for the examination of the bladder for calculus, and showed some new forms of Lithotrites and apparatus used in performing urethral and perineal Litholapaxy.

New Members.—The following gentlemen were elected members of the Branch: Dr. J. C. Davidson, Royal Hospital, Belfast, and Dr. Fraser, Connswater, Belfast.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

A meeting of this District was held at St. Bartholomew's Hospital, Rochester, on November 8th, Dr. Franklyn Brown in the chair.

Next Meeting.—It was resolved that the next meeting be held at Maidstone at the end of January or beginning of February, and that Mr. M. A. Adams be requested to preside on the occasion.

Resignation of Secretary.—The resignation of A. W. Nankivell, F.R.C.S., owing to impaired health, was tendered and accepted with extreme regret, and votes of condolence and thanks for the valuable services he has rendered as Honorary Secretary of the District for the last ten years were passed unanimously.

Election of New Secretary.—Dr. E. Ground, of Maidstone, was elected Honorary Secretary for the ensuing year.

Medical Tariff, etc.—Dr. J. V. Bell proposed that the adoption of the Manchester medical tariff to the town of Rochester, Maidstone, and Gravesend be considered at the next meeting at Maidstone, and Mr. H. T. Sells proposed that the question of a Medical Aid Association be considered at the same time. This was agreed to.

Communications.—Mr. P. Selby read a paper on the Absorption of Pleural Effusions by Salicylate of Soda, in which he contended that all cases of pleurisy which were not of tuberculous origin were rheumatic, and therefore amenable to treatment by salicylate of soda. This led to considerable discussion.—Dr. J. V. Bell read notes of a case of Abdominal Section for Acute Intestinal Obstruction.—Dr. A. Packman gave an account of a case of Strangulated Inguinal Hernia, and operation with radical cure.—Mr. T. Hugh Smith read a paper on Hydrothorax as a Sequel of Influenza. In the discussion which followed the importance of early surgical interference in cases of intestinal obstruction from strangulation was especially dwelt upon.

Dinner.—Eleven members and visitors subsequently dined at the Bull Hotel.

BATH AND BRISTOL BRANCH.

A special meeting of this Branch was held in the Library of the Medical Wing of University College, Bristol, on Wednesday, October 26th, Mr. T. B. Goss, President, in the chair. There were also present fifty-two members and two visitors.

Alteration in Rules.—Mr. Cross proposed, and Dr. Marshall seconded, certain alterations in the rules, to the effect that the President should be chosen from the members of the Branch without restriction as to section, and an additional ordinary meeting should be held in May. After a discussion in which Drs. Spender, Long Fox, Harrison, Fyffe, Williams, Parker, and Markham Skerritt and Messrs. Beaumont, Dobson, Lane, Bush, and King took part, the resolutions were carried.

Communications.—The following communications were made: Dr. P. W. Williams read a paper on the Combination of Syphilis and Tuberculosis in Laryngeal Disease, on which Mr. Cross, Dr. Shingleton Smith, Mr. Lane, and Mr. Ewens made observations.—Dr. Michell Clarke narrated two cases of Thoracic Amnion, and exhibited the specimens.—Mr. W. J. Penny exhibited a patient upon whom he had successfully operated for Pancreatic Cyst, and gave an account of the case. Dr. Markham Skerritt and Messrs. Greig Smith, Dobson, and Morton took part in the discussion which followed.—Mr. Munro Smith exhibited cultures of the Cholera Bacillus.

METROPOLITAN COUNTIES BRANCH: HERTFORDSHIRE DISTRICT.

A meeting of the above district was held at St. Albans on November 11th, Dr. Parry, President of the Branch, in the chair.

Election of Officers.—The officers and committee for the district were chosen.

Anæmia.—Dr. Seymour Taylor read a paper on Some Forms of Anæmia. He discussed leucocythæmia, chlorosis, Hodgkin's disease, lymphadenoma, and pernicious anæmia. Leucocythæmia he regarded as secondary to splenic enlargement, ague being in most cases the starting point. Chlorosis was a primary blood disorder. He was therefore inclined to accede to the old theory that chlorosis was in a great measure due to want of performance of one of the natural functions of women. At the same time he agreed with Sir Andrew Clark that constipation was a distinctly aggravating causal condition. Attention was drawn to the association of chlorosis with gastric ulcer. Hodgkin's disease he looked upon as a form of malignant new growth due to the effects of irritation, especially brought on by dental caries, chronic disease of buccal mucous membranes, or suppurating conditions of scalp, of middle ear, etc. It was not truly heterologous, but a connecting link between the benign hyperplasias and malignant tumours, especially the sarcomata. Pernicious anæmia was a true blood disease, connected on the one hand with chlorosis, and on the other hand with both forms of leukæmia. Dr. Taylor suggested that by our modes of life, our dietary, and our occupations we might have produced and cultivated some of these varieties. As regards treatment, rest in bed and a rigid simple dietary were essentials. In leucocythæmia arsenic was the remedy. It might be given in increasing doses till mxxx could be tolerated. In chlorosis the first step was purgation. Iron was useless until the bowels and stomach were in order. In Hodgkin's disease iodide of potassium should be given to correct any disorder of mucous membranes; then arsenic should be given by the mouth or injected into the indurated glands. If medicinal remedies failed to reduce glandular enlargement, surgical aid should be called in. This should not be delayed until the disease was far advanced.—Dr. Jennings said the reason why Dr. Taylor had not mentioned transfusion among his therapeutic resources, he took to be that by the older methods it was impracticable to transfuse blood in its entirety without risk of vitiating its corpuscles, of injecting coagula or air into the veins. Dr. Jennings then showed diagrams of the transfusion apparatus which he had invented some years ago, and by which he now claimed, as the result of conclusive experience, that blood mixed with a certain proportion of saline fluid could be safely transfused, unaccompanied by the dangers already alluded to. The quantity of blood transfused need only be limited by the amount the giver could spare—say 10, 15, or 20 ounces—and its loss to the giver could be recouped by the substitution of saline fluid. This plan would be found curative in a good many cases of anæmia which were unamenable to drugs and to dietetic treatment.

NOTES FROM NEW ZEALAND.

Medical Practitioners and Friendly Societies.—The Dunedin Medical School.—A Register of Nurses.—Annual Meeting of the New Zealand Medical Association.

Mr. J. Murray-Ainsley (Christchurch) writes: There has been a little trouble with the friendly societies here. Medical men in private practice are elected as medical officers to the clubs, each club usually having two surgeons. The fee is £1 per member per annum, including dispensing. A conference of the friendly societies was held last year, and a deputation from it was sent to wait on the Medical Society

to discuss a proposal to reduce the fee to 17s. 6d. The delegates were received but could bring forward no valid argument. It appeared that they had mismanaged their affairs, and preferred trying to get the money required out of their surgeons to making a call on the lodge members. The Medical Society refused their request, but made an offer to take 14s. per member exclusive of dispensing. The lodges then made another effort, and offered 12s. per member for attendance only, threatening that if this offer was not accepted medical men would be imported to take sole charge of the clubs. This demand was at once refused. At present, owing to the action of the Medical Society, one of the most influential has seceded from the conference, and has publicly expressed its satisfaction with the present arrangement, while other lodges have expressed their disapproval of the proposal to import medical men.

At the New Zealand Medical Congress, held in Wellington this year, the Canterbury Branch of the New Zealand Association brought forward a motion to the effect that there was not sufficient clinical material available for tuition to justify the granting of medical degrees in New Zealand. The motion was rejected, but during the debate it was pointed out that the Dunedin Medical School had no voice in the appointment of the medical staff to the Dunedin Hospital, and, therefore, it might happen that no one of the teachers might be elected on the hospital staff.

In conjunction with the St. John Ambulance Association, a Register for Nurses has been established and a set of rules for the nurses drawn up; a register was much needed and it seems to be working satisfactorily.

At the annual meeting of the New Zealand Association, Dr. Thomas, the retiring president, delivered an interesting address dwelling on the progress made during the year, and advocating the formation of a pathological museum. The following officers were elected for 1892: *President*, Dr. T. O. Guthrie; *Treasurer*, Dr. F. Jennings; *Honorary Secretary*, Mr. Murray-Ainsley. Thirteen new members have been elected during the year. We have, however, to regret the deaths of Dr. Turnbull, Dr. Preston, an old and highly respected member, and Drs. Smith and Stacpoole. At the annual meeting four subjects were set down for discussion during the year. The first of these, Influenza, was introduced by Dr. Jennings, and an animated discussion ensued. Among the papers read last year was one by Dr. Jennings on Some Modern Treatments of Phthisis. The author thought Liebreich's treatment promised to be the most successful, and he had obtained good results in cases he had treated by this method. A number of other interesting papers were read.

CORRESPONDENCE.

THE HARVEIAN ORATION.

SIR,—The "Baconian and Experimentalist" who in the BRITISH MEDICAL JOURNAL of November 5th takes the College of Physicians to task for allowing me to deliver their annual discourse on Harvey, has fallen into one or two misconceptions, which I should like, with your permission, to rectify.

He speaks of my "studied obscurity" in terms which imply that I endeavoured to hoodwink my hearers into listening patiently to opinions which otherwise they would have regarded with aversion. Now no man can complain of being regarded as obscure. He might as well complain of other people finding his handwriting unintelligible. They, not he, are the best judges of that. But to accuse me of "studied" obscurity is to impute a motive, and that is notoriously a dangerous thing to do. A Baconian should not deal with such "occult quantities" as motives without being very sure of his ground. The fact is that I tried, not to be obscure, but to be clear; but I suppose, time being short, with the result that often happens. *Brevis esse laboro: obscurus fio.* I tried to express my view that in Harvey's discovery of the circulation, comparison of dead structure played a larger part than experimentation on living structure. I may be wrong in this view, but I hold it, and am prepared with my reasons for it. The study of the methods by which good men have arrived at their discoveries is a branch of science which is beginning to attract students in many parts of Europe. It is possibly destined hereafter to throw much light on the functions of the brain, which I suppose to be not conclusively settled by the experiments of Hitzig and Ferrier. Yet "Baconian" would, on this subject, silence the expression of views before a learned society with which he does not happen to concur. Bacon the judge might have written thus, but not Bacon the philosopher.

Your correspondent has a full right to speak of me as a Comtist, and to quote expressions from a paper signed by me (it was written by my co-signatory) seventeen years ago. The general conclusions of that paper I accept still, though I should now qualify its language and practical application on several points. Life implies change; not arbitrary change, but continuous adjustment to environment; and in this sense I claim to be still alive, as I doubt not "Baconian" is. My acceptance of Comte's principles and methods does not pledge me to all his results. I claim to be as Baconian as your correspondent; possibly (but this I should know if he had given his name) even more than he, for I accept that part of Bacon's programme[1] which deals with the application of the positive method to social and moral facts. It is because of Comte's efforts to carry out this programme that G. H. Lewes spoke of him as the Bacon of the nineteenth century.

Your correspondent is not accurate in speaking of my knowledge of medicine as merely theoretical. I was on the medical staff of a general hospital for some years before and after my election to the Fellowship of the College of Physicians. For more than twenty years I have been engaged in matters relating to the hygiene of hospitals and schools, which, I think, is recognised as a not unimportant branch of medicine. In connection with this work I freely acknowledge my debt to the researches on disinfection conducted by Koch and his colleagues in the German Public Health Department, the practical application of which in this country I believe myself to have been among the first to recommend when dealing with the disinfection of clothing at the small pox ships at Dartford. I am perfectly aware, of course, that these researches involved the sacrifice of a certain number of animals, but this does not prevent me from maintaining, as Sir Charles Bell maintained, the necessity for ethical control of some kind over experiments on animals; and, until such control be more firmly established throughout Europe than it is at present, I see no alternative but the continuance of the present Act of Parliament—I am, etc.,

Notting Hill, W., Nov. 12th. J. W. BRIDGES.

*** "Baconian" informs us: That his complaint was that Dr. Bridges spoke, not "before a learned society" where a discussion might take place, but *ex cathedrâ* as the mouthpiece of Harvey's college, from the chair of Harvey the experimenter, to discredit Harvey's experiments, and to represent them as only fit to impress the vulgar. Those who are proposing to abolish the "present Act of Parliament" are the antiresearchers, who have seized upon Dr. Bridges's remarks as a ground for abolishing research and suppressing experiments. Now, for the first time, Dr. Bridges states that he has altered his opinions and would wish to qualify his language. Why, then, not repair some of the injury he has inflicted on science and on humanity by now publicly stating this change of opinion and the qualifications which he would wish to make?

CLIFTON LUNACY CASE.

(MASON *v.* MARSHALL AND SHAW.)

SIR,—Upwards of four years ago you were kind enough to open your columns for a subscription list towards defraying the expenses of Dr. Shaw and myself in defending the lunacy certificate action brought against us by Miss Mason. The result of the trial your readers may remember was a verdict, with costs, in our favour. At the time there appeared to be no probability of our obtaining costs; recently, however, they have been recovered, with the result that we have now a balance in our favour. My own legal expenses came to £304 13s. 6d., the taxed costs now recovered to £221 19s. 7d., thereby reducing my legal expenses to £83 13s. 11d. From the treasurer (Dr. E. Long Fox) of the fund contributed by the medical profession I received £155 2s. 9d., which places a balance of £71 8s. 10d. at my disposal.

[1] *Novum Organum*, I, 127.

I have been anxiously considering how best to apply this surplus amount in a way likely to prove most in accordance with the feelings and wishes of the donors to the fund, and after consultation with Dr. Fox as their official representative, and with other friends, have decided to send a contribution of £100 to the library of the Bristol Medical School. I trust that this will meet with the approval of those of my professional brethren who showed me so much sympathy, and gave such practical assistance at a time of great anxiety. The recollection of this sympathy and kindness remains gratefully and indelibly fixed in my memory, while the worries and vexations attendant on the trial are forgotten. Thanking you, Sir, for your support, I am, etc.,

Clifton, Nov. 14th. HENRY MARSHALL.

EXAMINERS AND EXAMINEES.

SIR,—In your leader last week you invite discussion on the high proportion of rejections at the various examinations. As a hospital physician and one of the teachers with some years' experience in coaching, I should like to be allowed to air my views. There are three sides to the question—(1) the students, (2) the examinations, and (3) the examiners; and I would make a few remarks on each.

1. With regard to the students, it must be admitted that many present themselves for examination who ought to have no chance of getting through, they do their work at the hospital with just sufficient steadiness to compel the authorities to "sign them up," they then go up "on the chance," some get through, those who do not, however, richly deserve their fate, and the class, as a whole, requires no further comment. But it is well known to every teacher that many of their pupils are referred whose knowledge is quite sufficient to enable them to pass, and it is this statement which requires investigation. Many of the rejected are very nervous in the examination, they lose their heads, and then they simply forget temporarily all they know, and must of course inevitably fail unless the examiner is acute enough to see through the cause of the miserable display and make allowances for it. Such cases are by no means infrequent, and the only remedy seems to be the allowance of greater weight to the marks for the paper. Another class of men come to grief through want of comprehension of the exact meaning of questions put by the examiner. The remedy for this lies with the examiners, who ought to take care to make their questions as self-evident as possible.

2. The examinations.—(*a*) The paper: Few of us would, I think, care to suggest any alteration in the paper questions. With few exceptions they are practical, to the point, and fairly easy of satisfactory answer, provided that a man has been properly taught to think out a scheme of answer. (*b*) It is in the *viva voce* part that the great trouble comes. The examiner has a certain train of thought in his mind, and asks a question. If the answer, though correct in its way, does not follow that train of thought, the candidate suffers in the examiner's estimation. An illustration occurs to me in the last examination. E.: What does that jaundice make you think of? C.: The liver. E.: What else? C.: Bile. E.: What else? The candidate could not catch the train of thought, and replied: I don't know. The examiner then said: Why, the bile ducts, of course. I am bound to admit that candidate was allowed to pass, but it was chiefly because he did not allow this method of questioning to unnerve him. The examiner does not make sufficient allowance for the mental state produced in a candidate by inability to answer a question thus put; distress and nervousnnss very readily supervene, and rejection easily follows. The remedy for this again lies, I think, in the hands of the examiners, who might have said in the example given: "Yes, quite right; and what structure or part of the liver?" This would have given the candidate, whatever his nervous temperament, some confidence. In general, I would say let an examiner accept the train of thought in the candidate's mind and travel with him instead of *vice versâ*, and let him say outright, "Yes, quite right" if the answer be a possibly correct one instead of the correct one. (*c*) Diagnosis of clinical cases: Some examiners require too exact a diagnosis. I remember one of my pupils, a nervous man, shown a case of cerebellar tumour. He diagnosed correctly enough "a tumour of the brain," but the examiner wanted its locality exactly. Unable to determine it and worried by persistent questions the pupil lost his head, became nervous, and naturally could give no answers to further questions, and was referred on his cases. (*d*) Relative value of paper and *viva voce*: I would venture to suggest that the marks on the paper should count at least twice those for the *viva voce*. This would entail no hardship on non-nervous men, and would give confidence to a nervous one, if conscious of having done a correct paper; I use the word correct instead of good, as I think correctness of fact should be allowed much greater weight than that given to finished state and neat arrangement. (*e*) Let the questions *viva voce* involve no theoretical considerations about which authorities are at loggerheads; at any rate, if such be allowed, let the examiner receive from a candidate (who is not in a position to criticise theories) the theory of any well-known authority, even if in flat contradiction to his own view.

3. The examiners—usually, I must admit, the most courteous of men—but cases do occur in which the examiners lose their tempers, and act in a manner calculated to turn the head of the most robust candidate. A kind and encouraging manner costs nothing, but is of incalculable value to the examinees.

I fear, Sir, my letter is already too long, but I hope to draw forth other opinions and criticisms.—I am, etc.,

Nov. 8th. A TEACHER.

MR. TAIT AND ANTIVIVISECTION.

SIR,—It is perfectly true, as Dr. Schäfer says, that he saw me at one meeting of the Scientific Grants Committee, but that one meeting was quite enough for me, and I resigned immediately after. I was put upon that Committee at the suggestion of some experienced members of the Council as a means of checking what they regarded as errors in the Committee's method of working. I sat silent at my first and only attendance in order to learn what I could, and I came to various conclusions, one of which I have just made effective, inasmuch as a committee of inquiry has been appointed, of which I am a member.

Upon one point you ask for specific information, and I am delighted to give it to you. The only meeting of a medical society at which I ever knew the question of vivisection to be debated was a meeting of the Birmingham and Midland Counties Branch held on February 9th, 1882, reported in the JOURNAL,[1] and in that debate I took a leading part. On page 677 of the same volume of the JOURNAL you will find a report of a meeting of the Birmingham Philosophical Society, at which I read a paper on "The Uselessness of Experiments on Animals as an Instrument of Scientific Research." Although the society was not strictly a medical one, in the discussion which followed the chief debaters were leading medical men and professors in the Medical School. The debate on this paper is reported to the extent of a column and three-quarters in the JOURNAL of May 6th, 1882.

Dr. Schäfer asks why it is that I reserve my statements and denunciations for audiences who are entirely ignorant of the questions involved. The answer to this is that Dr. Schäfer assumes an ignorance which I do not find. For the most pitiful aspect of the whole thing to me is to find men like Dr. Schäfer beaten on their own ground by the arguments of laymen. But my answer will go further, and is to the effect that the secretaries of the Medical Society of London have asked me to read a paper to that body, and I have offered to give my views on "The Part Played in the Developmental History of Medicine and Surgery by Experiments on Living Animals." If they will permit me to address them on this subject, I am sure to have from the members of that Society a patient and courteous hearing. In the discussion there will be a total absence of the Horsley *v.* Cobbe style of language, and if from the arguments used I find my conclusions are shaken, I shall frankly own my errors and recant. But let me say that the personal dust you raise is not argument.—I am, etc.,

Birmingham, Nov. 8th. LAWSON TAIT.

*** Mr. Lawson Tait was delicate enough not to confide to the Scientific Grants Committee the reason which he now alleges for having become a member of it, and for having

[1] BRITISH MEDICAL JOURNAL, 1882, i, page 286, and report on page 481.

sat silent during the discussion as to the appropriation of funds for a large number of experimental researches. The inquiry to which he now refers is one, we have ascertained, as to the advisability of carrying out a recommendation of the Committee for the establishment of a third scholarship, to which has been added, at Mr. Tait's request, an inquiry into expenditure. There is here no question of principle disclosed. Should the Medical Society of London receive the paper offered by Mr. Tait, it will be interesting to observe whether Mr. Tait, who complains of Mr. Horsley's style of argument, will, before the Medical Society, continue to make use of the style he himself recently employed on the public platform.

ON THE INCUBATION PERIOD OF INFECTIOUS COLDS.

SIR,—Doubtless Dr. Hill's graphic letter on the above subject has been read with interest and sympathy by many fellow-sufferers. As many of the latter are busy men, and can ill brook a week's inconvenience and *malaise*—of frequent occurrence—they will welcome any reliable specific which bacteriology or any other branch of medical art may afford. These sufferers will warmly second Dr. Hill's plea for a search for and research into the properties of a possible microbe. Every three or four months, on an average, I am attacked by the symptoms Dr. Hill describes without, so far as I am aware, exposing myself to chill; while, on the other hand, frequently I have been able to trace a connection with an infected person. The incubation period is about three days; the temperature rises slightly from the first, and reaches a maximum of about 102° on the second day; the lassitude and the mental and bodily enfeeblement last from a week to ten days, and are quite comparable to the like effects left by true influenza.

I have tried without benefit many published recipes of medical men on the question "How to abort a common cold." I have tried these candidly in an earnest desire to get cured, and if I could have afforded a "Carbolic Smoke Ball" I daresay I should have had faith enough to give it a trial. I have examined my blood and nasal secretion by various staining methods for bacilli without any definite result. These, if found, could of course tell one nothing without futher cultivation and isolation experiments.

That these troublesome attacks are caused by a living contagium, and not by "draughts," "chills," etc., is now the opinion of many competent authorities. The possibility of there being a period of immunity of short duration, even in susceptible individuals, is an aspect of the case worthy of attention, and one which, if the malady can be proved to be of microbic origin, may have some secret to unfold as to the general nature of that mysterious quality—immunity.

Catarrh is common, and is borne, as Dr. Hill says, with "unresisting fortitude." Notwithstanding these two facts, I hope some bacteriologist with time and opportunity will take the matter up, believing—not simply from a selfish point of view—there may be some features of this "common" complaint which will repay investigation.—I am, etc.,

Nottingham, Nov. 8th. CHAS. H. CATTLE, M.D., M.R.C.P.

CAN ENEMATA BE VOMITED?

SIR,—Dr. Samuel Gee, in his very interesting and able Bradshaw Lecture, writes: "If enemata ever become emetic, as Sydenham says they do, it can only be by absorption into the circulating blood, just as vomit may smell of turpentine after the use of that drug in a clyster." Will you give me space to relate very briefly a case which convinced me that an enema may be vomited? When I came first to this city I was administrator of anæsthetics at the General Hospital, and on one occasion a very emaciated youth had his thigh amputated at the hip-joint for disease. The operation was rather long, and he had been vomiting for some time, bringing up bile stained mucus, as in those days patients under ether anæsthesia did in considerable quantities. After disarticulation had been performed, the operating surgeon ordered a large nutrient enema of hot milk and brandy to be administered. This was done at once, the final stages of operation being suspended for the purpose. Anæsthesia was kept up, and the act of vomiting continued, but now the patient began to throw up uncurdled milk, which could only have been the enema just administered; at least I can believe no other explanation.—I am, etc.,

Birmingham, Nov. 12th. ROBERT SAUNDBY.

REGISTRATION OF MIDWIVES.

SIR,—It is satisfactory to notice that since the sitting of the Select Committee on the Registration of Midwives, many difficult questions connected with it have been dealt with in a less personal and partisan manner. The free ventilation of the subject has shown those on both sides how wide a question they have to deal with, and how difficult it is to arrive at facts, and derive from them reasonable deductions.

Dr. Drage is quite right when he says that "the late Midwives Bill in no way limited the practice of unqualified persons." No Bill could be passed which would prevent a woman, if she chose, having an unqualified neighbour to attend her during labour. Any woman may now legally do any obstetric operation, as may any man do any surgical operation. Malpraxis must be proved against them before the law can interfere. The object of the Bill was not to force women to employ only those who had been instructed and registered, but to enable anyone who wished for information to know, by referring to an authoritative list, who had received instruction and who had not.

Again I agree with Dr. Drage that the question is how can the cases of bad practice among midwives be reduced to a minimum? Doubtless much might be done in the way he indicates by charity and the Poor-law, but a distinction should always be drawn between poor and pauper women, and every endeavour should be used to prevent the former class falling into the latter. The self respect of a woman is preserved if she can pay for her confinement without external aid. If she cannot afford to pay a doctor, and can sufficiently remunerate a midwife, the right of choosing either should be granted. As I have often stated I would, if it were possible, have every labour attended by a doctor, but this from many causes cannot be, the economic one being perhaps the most urgent. All the while there is a demand for midwives this class of woman will and must exist. We can do no more than endeavour to produce a competent supply. Figures are I know deceptive, but it is granted on all sides that many women are throughout the year losing their lives and receiving injuries in consequence of the incompetence of women acting as midwives; and I agree with Mr. George Brown, who said to the members of the Select Committee: "If there were only one death in four days through inefficient practitioners of midwifery you should stop it, and the sooner it is stopped the better."

After a careful examination of witnesses on both sides, the Select Committee appointed to consider the question of the compulsory registration of midwives agreed "that some legislative provision for improvement and regulation is desirable." Surely there must be some method of carrying this out which would meet with the support of the majority of the profession. All that is wanted is that midwives should be instructed and their practice regulated; and that the poor should be able, by the publication of an authoritative list, to know who had been sufficiently taught to enable them to attend ordinary labours with comparative safety.—I am, etc.,

Upper Wimpole Street, W., Nov. 14th. JAMES H. AVELING.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED: SOUTH-WEST LONDON DIVISION.

THE first meeting of the members of the South-West London Division was held (by permission of Dr. Keen) at 211, King's Road, Chelsea, on November 9th. Dr. Matthew Baines was elected to the chair. The chairman then called upon Dr. George Mead to explain the constitution and motives of the London and Counties Medical Protection Society, Limited. Dr. George Mead, having briefly sketched the history of the Society, its aims and administration, replied to various questions asked by the members present. It was then proposed by Dr. Keen and seconded by Dr. McCaskie that: "The South-West London Division of the London and Counties Medical Protection Society, Limited, be hereby constituted." This was carried unanimously. The following officers of the division were then duly elected:—President: Matthew Baines, M.D. Lond., M.R.C.S., South Kensington. Vice-Presidents: Norman McCaskie, M.D., C.M., South Kensington; William Keen, M.D., M.R.C.S., Chelsea; C. H. Gage-Brown, M.D., M.R.C.S.; Chelsea; E. Seton Pattison, L.R.C.P., M.R.C.S., Fulham. Members of Council: South Kensington—George Coates, M.A.,

M. . M.R.C.S.; H. D. Waugh, M.D., B.Sc., M.R.C.S. Chelsea—J. Foste Palmer, L.R.C.P., M.R.C.S. Westminster—H. Des Vœux, M.D., M.R.C.S. St. James's—L. Vernon Jones, M.B., B.Ch., B.A.O. Hon. Secretary: Alex. G. R. Foulerton, L.R.C.P., M.R.C.S., D.P.H.Camb., 122, Brompton Road, S.W.

It was decided that the council should have power to add to their number two vice-presidents and six additional members of council. Votes of thanks to Drs. Matthew Baines Mead, and Keen having been passed unanimously and duly acknowledged, the meeting then terminated.

A meeting has been held at Park House, Croydon (Dr. Duncan in the chair), to establish a branch of this society for Croydon and the neighbouring places. Dr. Mead, at the request of the Chairman, explained the constitution and objects of the Society, and answered several questions on points of detail. The meeting unanimously resolved to form a division for Croydon, and the surrounding places. Dr. Duncan was elected President; Drs. Philpot, Richardson, Rosser, Parsons, Smith, and Thompson, Vice Presidents. A council was formed, consisting of Drs. Beard, Cooper, Drew, Ormerod, Vincent, Wayte, and Webster. Dr. Whishaw was elected Honorary Secretary.

MEDICAL DEFENCE UNION, LIMITED.

A Council meeting was held at the Medical Institute, Birmingham, on November 7th. Detail business was dealt with, and among other things the action of the secretaries were approved in reporting a medical man to the General Medical Council for covering. The solicitors were instructed to bring an action on account of a surgeon improperly dismissed from an appointment, and also to watch an inquiry by the Local Government Board on behalf of a member. The action of the Emergency Committee was endorsed in having instructed the solicitors to act on behalf of Dr. Armstrong, of Newcastle-on-Tyne, in dealing with a matter in which certain libellous misstatements had been circulated by another medical man.

SOCIETY OF APOTHECARIES v. JONES.

Queen's Bench Division.

(Before Baron Pollock and Mr. Justice Hawkins.)

The Society of Apothecaries, the plaintiffs, brought three actions in the Derby County Court against the defendant, Joues, an unqualified person, and now appealed against the decision at the trial. The proceedings were taken under the Society's Act, passed in 1815. In one action the county court judge gave judgment for the plaintiffs for a penalty of £20, but entered judgment for the defendant in regard to the other two actions, holding that only one offence had been committed; all the attendances upon the three patients taking place upon one day, although upon separate occasions. Mr. Houghton appeared for the plaintiffs, while defendant was unrepresented. The Court held that the Act was directed against a habitual practice, and not against isolated acts, and therefore dismissed the appeal with costs.

LIABILITY FOR INSANITARY HOUSES.

The case of Ross *v.* De Saumarez was heard in the City of London Court, before Mr. Commissioner Kerr, on November 11th. The action was brought by Mr. Patrick Ross, of Leadenhall Street, to recover £37 16s., three weeks' rent for a furnished house known as Tully Allen, Ascot, which was let by him to Dowager Lady de Saumarez. The defence was that when the defendant and her family and servants took possession of the house a very bad smell pervaded the whole place. The servants were taken ill, and the Hon. Eleanor de Saumarez also suffered from the effects of the overpowering smells, which arose from two cesspools at the bottom of the garden. Lady de Saumarez, after being in the house for several days, was compelled to leave, it was said, and she went to stay at an hotel. She raised a counter claim for medical attendance to her servants and for the trouble she had been put to. After hearing the evidence which was called on both sides, Mr. Commissioner Kerr said no doubt the plaintiff acted *bonâ fide* when he made the assertion that the house was all right, but that did not exempt him from his responsibility. The house was insanitary, and he must find for the defendant on the claim, and for £5 4s. on the counter claim. He allowed the defendants the costs of the action.

CONTRADICTING A SLANDER.

Antiquarian writes: A "dispensary" circulating handbills has been opened near my house. Some medical men have told the people that I am "covering" an unqualified man in it; in consequence of which I have lost one patient to my knowledge, if not more. I have no connection with the dispensary, and I never have had. I have no unqualified assistant, and the dispensary was for some time in working before I became aware of the fact. Am I doing anything illegal by putting a notice in the local papers stating that I am in no way connected with the dispensary? I have no other means of contradicting the slander.

*** Although a short paragraph in the local papers notifying (if such be really necessary, which we very much question) "Antiquarian's" non-association, past and present, with the dispensary referred to would not, to quote his own words, "be illegal," its composition would require thoughtful care and revision, lest, though legally unobjectionable, it be so worded as to contravene the rules laid down in the ethical code, and subject the practitioner to professional criticism.

COTTAGE HOSPITALS AND VENEREAL DISEASES.

M. J. M writes that he sent a case of rheumatism (gonorrhœal) to a cottage hospital. The patient, a young man, was alone, and "M. J. M." in his certificate, did not state the origin of the case, but wrote "rheumatism." The young man was discharged next day, on the ground that the admission of cases of gonorrhœa was contrary to the rules of the hospital. "M. J. M." received a letter from the visiting surgeon, informing him of the discharge of the patient.

*** Commendable as was the special object in sending the patient to the cottage hospital, the question naturally arises as to whether our correspondent was cognisant of the rule rendering such cases inadmissible. If he were, we cannot regard the remonstrance of the acting surgeon as unreasonable. Even if, on the other hand, "M. J. M." unwittingly erred, he will, in our opinion, act wisely in allowing the trivial incident to pass unnoticed. The matter of payment by the patient is beside the question, which is simply one relating to the established rules of the institution.

THE BRUSSELS M.D. AND THE TITLE OF DR.

L.R.C.P.Lond.—We are of opinion that the holder of a Brussels M.D. Degree (duly entered in the *Medical Register*) is legally entitled to describe himself as "Dr." on his card and door plate, and, being registered in respect of other qualifications, we think that he would be so entitled to describe himself if the Brussels M.D. were not actually entered, but was capable of being entered, in the *Medical Register*; that is, if the degree had been obtained prior to the coming into operation of the Medical Act, 1886.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

The following appointments have been made at the Admiralty: Ernest E. Bray, Surgeon, to the *Mercury*, undated; Edward G. Swan, Surgeon, to the *Archer*, November 17th; Frederick W. Parker, Surgeon, to the *Cambridge*, November 17th; Ernest A. Shaw, M.B., Surgeon, to the *Hearty*, November 17th; William R. M. Young, Surgeon, to the *Wildfire*, for Sheerness Dockyard, November 17th.

ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel J. R. Murray, M.D., F.R.C.S. Edin., is placed on retired pay, October 31st. His commissions are thus dated: Assistant-Surgeon, June 15th, 1861; Surgeon, March 1st, 1873; Surgeon-Major, November 29th, 1875; rank of Lieutenant-Colonel, June 15th, 1881; and Brigade-Surgeon Lieutenant-Colonel, from April 1st, 1889. He served in the New Zealand war in 1860-61, and was present at the actions of Pataelakaurie, Mahoeten, and Matarikorike (medal).

Brigade Surgeon-Lieutenant-Colonel C. F. Churchill, M.B., having reported his return from six months' general leave to England, is directed to resume the charge of the Allahabad Station Hospital, Bengal Command, *vice* Surgeon-Major E. A. Mapleton, who will do duty at the Station Hospital until further orders.

Surgeon-Major J. G. Macneece and Surgeon-Captain C. S. Robinson, who are serving in the Bengal Command, have leave of absence for six months on medical certificate.

Brigade Surgeon-Lieutenant-Colonel R. P. Ferguson, having been appointed an Administrative Medical Officer in the Bengal Command, is directed to proceed to Allahabad, to take over the charge of that district.

INDIAN MEDICAL SERVICE.

Surgeon-Captain G. T. Mould, Bengal Establishment, is appointed from the Officiating to the Medical Charge of the 1st Bengal Cavalry, with effect from August 4th, *vice* Surgeon-Lieutenant-Colonel J. E. C. Ferris.

Surgeon-Captain G. S. Cardew, M.B., who is serving in the Bengal Command, at the examination held in July last, qualified in Military Law.

Surgeon-Captain C. M. Moore, M.D., Bombay Establishment, is appointed to officiate as Medical Officer of the 2nd Central Indian Horse and of Western Malwa Political Agency.

Surgeon-Major H. P. Yeld, Bengal Establishment, Deputy Assay Master, Bombay, is appointed to officiate as Assay Master, Bombay.

Surgeon-Major F. F. MacCartie, M.B., Bombay Establishment, is appointed to officiate as Deputy Assay Master, Bombay.

Surgeon-Captain A. H. Nott, Officiating 2nd Resident Surgeon of the Presidency General Hospital, Calcutta, is appointed to act as Civil Surgeon of Beerbhoom.

Surgeon-Major G. A. Emerson, M.B., Bengal Establishment, Officiating Superintendent of the Central Prison and District Gaol, Benares, is appointed to the civil medical charge of Bara Banki District.

Surgeon Captain W. Yost, Bengal Establishment, Officiating Civil Surgeon of Azimghur, is appointed to be in visiting medical charge of Jounpore District, in addition to his other duties.

Surgeon Captain W Deane, Bengal Establishment, on return from furlough, is posted to the civil medical charge of Bahraich District.

Surgeon-Captain J. J. Pratt, Bengal Establishment, in civil medical charge of Fyzabad District, is transferred to the civil medical charge of Gonda District.

Surgeon-Major M. S. Eyre, Madras Establishment, is appointed to be Civil Surgeon of Pakokku, Burmah, in addition to his military duties.

Surgeon-Lieutenant R. K Mitter, Madras Establishment, is placed in charge of the civil hospital at the Shore, Mandalay, *vice* Surgeon-Captain C. H. Lee Palk, transferred.

Surgeon-Major W. G. King, M.B., Madras Establishment, is appointed to the officiating medical charge of the Madras Infantry Depôt at Pallaveram.

Surgeon-Captain W. G. Pridmore, Madras Establishment, is appointed to the officiating medical charge of the 7th Madras Infantry.

Surgeon Major J. J. Moran, M.D., Madras Establishment, is appointed to the officiating medical charge of the 15th Madras Infantry.

Surgeon-Captain J P. Barry, M.B., Bombay Establishment, received charge of the office of Superintendent of Matheran on September 30th.

The services of Surgeon-Captain A. V. Anderson, M.B., Bombay Establishment, are placed at the disposal of Government for employment in the Civil Department.

Brigade-Surgeon-Lieutenant-Colonel G. Thomson, M.B., Bengal Establishment, is appointed Principal Medical Officer Peshawur District, *vice* Brigade-Surgeon-Lieutenant-Colonel F. H. Welch, Army Medical Staff, recalled to England.

Surgeon-Captain C. C. MANIFOLD, Bengal Establishment, medical officer 23rd Bengal Infantry, has leave of absence for two months on medical certificate.

Surgeon-Major B. DOYLE, Bengal Establishment, is posted to Ferozepore, where he joined on October 8th.

Surgeon Captain J. CRIMMIN, V.C., Bombay Establishment, is appointed to act as Health Officer of the Port of Bombay, *vice* Surgeon-Major F. F. MacCartie, M.B., and took over charge on October 19th.

Surgeon-Captain B. D. BASU, Bombay Establishment, is transferred from general duty in the Sind District, to general duty in the Bombay, Deesa, and Aden Districts.

THE VOLUNTEERS.

SURGEON-CAPTAIN B. J. GUILLEMARD, M.D., 2nd Hampshire Artillery (Southern Division Royal Artillery), has resigned his commission, which was dated August 16th, 1890.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month :

		From	To
Surg.-Colonel	P. B. Smith, M.D.	Woolwich	Netley.
,,	C. H. Y. Godwin	Netley	Bengal.
,,	R. P. Ferguson	Bombay	,,
Brig.-Srg.-Lt.-Col.	C. A. Maunsell, M.D.	—	Cork.
Surg.-Lieut.-Col.	A. W. Duke, M.D.	Gibraltar	Canterbury.
,,	W. Finlay	Home District	Hounslow.
Surg.-Major	J. E. V. Foss	Half Pay	Birr.
,,	C. M. James	Dover	Windsor.
Surg.-Captain	A. B. Cottell	Chatham	Gibraltar.
,,	A. G. Kav, M.B.	Canterbury	Chatham.
,,	F. J. Lambkin	Shorncliffe	Jamaica.
,,	R. P. Bond	Chatham	Barbadoes.
,,	E. H. Lynden-Bell, M.B.	Eastbourne	Bermuda.
,,	S. Hickson, M.B.	Templemore	Dublin.
,,	P. J. R. Nunnerley	Hulme	Salford.
,,	H. T. Baylor	Kilkenny	Cork.
,,	J. Will, M.B.	—	Piershill.
,,	R. J. Windle, M.B.	Altcar	Chester.
,,	E. A. Burnside	Home District	Edinburgh.
Surg.-Lieut.	H. A. Stalkartt, M.B.	Dublin	Curragh.
,,	J. G. McNaught, M.B.	Aldershot	,,
,,	T. McDermott, M.B.	,,	Belfast.
,,	E. W. Slayter, M.B.	,,	York.
,,	H. S. Thurston	,,	Home District.
,,	L. P. More, M.B.	,,	Netley.
,,	C. O'C. Hodgens	,,	Dublin.
,,	W. P. Ryall	,,	Woolwich.
,,	T. P. Jones, M.B.	,,	Cork.
,,	G. S. Walker, M.B.	,,	,,
,,	W. J. Smyth, M.D.	,,	Home District.
,,	W. D. Erskine, M.B.	,,	Woolwich.
,,	A. G. Thompson, M.B.	,,	Chatham.
,,	A. J. Chambers	,,	Dover.
,,	G. A. Moore, M.B.	,,	Cork.
,,	R. C. Lewis	,,	Dover.
,,	H. W. H. O'Reilly, M.B.	,,	Cork.
,,	N. Marder	,,	,,
,,	E. H. Condon, M.B.	,,	Curragh.
,,	G. S. Mansfield, M.B.	,,	Colchester.
,,	F. G. Faichnie	,,	,,
,,	R. W. K. Read	,,	Devonport.
Quartermaster	G. J. Lane	Netley	Portsmouth.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

WE are asked to state that the annual dinner of the staff and members of the school will take place at Cannon Street Hotel at 7 P.M. on Saturday, December 10th. Major Andrew Maclure, the president, will be in the chair, and will be supported by Surgeon-Captain H. F. Stokes, senior medical officer instructor. Among those who have accepted invitations to be present are Lord Sandhurst, Under-Secretary of State for War, who will present the prizes on this occasion; Surgeon-Colonel Hamilton, M.D., Principal Medical Officer Home District; Deputy-Surgeon-General Don Home District Recruiting Staff; Mr. Ernest Hart; Mr. Reginald Brade, War Office; Mr. W. H. Easterbrook, Secretary of the Chancery of the Order of St. John of Jerusalem; Colonel du Plat Taylor, C.B., commanding 24th Middlesex (Post Office) Corps; Colonel Cholmondeley, commanding London Rifle Brigade; and Colonel W. E. Nicol, commanding London Scottish Rifle Volunteers. Full dress will be worn by all ranks. Members of the school can obtain tickets by making early application to Mr. C. J. Downer, Fairfield, Willesden Park, N.W.

THE VOLUNTEER OFFICERS' DECORATION.

THE *London Gazette* of Tuesday last contains the announcement that the Queen has been pleased to confer the Volunteer Officers' Decoration upon the undermentioned officers of the Volunteer force, among others, who have been duly recommended for the same under the terms of the Royal Warrant, dated July 25th, 1892:—Surgeon-Lieutenant-Colonel Thomas Henry Moxon, 1st Norfolk Artillery Volunteers (Eastern Division Royal Artillery); Brigade-Surgeon-Lieutenant-Colonel Stephen Moulton Hopson, 3rd Volunteer Battalion the Norfolk Regiment; Brigade-Surgeon-Lieutenant-Colonel George Sampson Elliston, 1st Volunteer Battalion the Suffolk Regiment; Surgeon and Honorary Surgeon-Major John William Harper, retired, 2nd Volunteer Battalion the Suffolk Regiment; Surgeon-Major Daniel Bailey Balding, 1st (Hertfordshire) Volunteer Battalion the Bedfordshire Regiment; Surgeon-Major (ranking as Lieutenant-Colonel) Alfred Thomas Brett, M.D., retired, 2nd (Hertfordshire) Volunteer Battalion the Bedfordshire Regiment; Honorary Assistant-Surgeon William Gimson Gimson, M.D., retired, 2nd Volunteer Battalion the Essex Regiment; Surgeon and Honorary Surgeon-Major Theophilus William Trend, M.D., retired, 2nd Volunteer Battalion the Hampshire Regiment; Brigade-Surgeon-Lieutenant-Colonel Henry Robert Smith and Surgeon and Honorary Surgeon-Major John Robert Kealy, M.D., retired, 3rd Volunteer Battalion the Hampshire Regiment; Brigade Surgeon-Lieutenant-Colonel Frederick Fawson Lee, M.B., 1st Wiltshire Rifle Volunteer Corps.

GOOD SERVICE PENSION.

ON the recommendation of the Government of India, Her Majesty's Government has conferred a good-service pension on Surgeon-Major-General WILLIAM FREDERICK DE FABECK, M.D., Indian Medical Service, Surgeon-General with the Government of Madras.

THE CHIN LUSHAI EXPEDITION.

THE reports on the operations carried out in the Chin Hills and on the north-east frontier of Burmah in 1891-92 are published in the *Gazette of India*. The Government of India concur in the approval expressed by Lord Roberts, Commander-in-Chief in India, as to the manner in which the operations were carried through by the officers and men engaged in them.

Major-General R. C. Stewart, C.B., the officer in command, speaks with warm commendation of the services, among others, of Surgeon-Captain C. L. Williams, of the Madras Establishment, and of Surgeon-Captain J. S. Green, Army Medical Staff.

RETIREMENT AFTER TWENTY YEARS' SERVICE.

WEST AFRICA writes: How will service on the West Coast of Africa be affected by the new regulation requiring promotion to Surgeon-Lieutenant-Colonel before retirement? Service there has always counted double towards retirement, although not towards promotion. This is an important matter for those who have served or are about to serve on the West Coast.

*** We cannot pretend to give any authoritative interpretation of the regulations, which rests with the War Office. Although there certainly would seem some element of doubt in the late Warrant concerning the exact bearing of promotion and retirement after twenty years' service, we have not heard of anyone refused promotion or retirement at that period. Our correspondent may rest assured that faith will not be broken over the conditions of West African service in any case.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

PROFESSOR ODLING, F.R.S., has been elected a Member of the Hebdomadal Council.

BIOLOGICAL STUDENTSHIP.—The Oxford Biological Studentship at Naples is now vacant. Candidates, who must be graduates of the University, should send in their names to Professor Burdon Sanderson before November 30th.

UNIVERSITY OF CAMBRIDGE

NATURAL SCIENCES TRIPOS.—Dr. Alex Hill, University Lecturer in Advanced Anatomy, has been appointed Chairman of the Examiners for the Natural Sciences Tripos in 1893.

THE STUDENTSHIP IN PATHOLOGY.—At a meeting of the Managers of the John Lucas Walker Fund, which was held on November 7th, the following resolution was passed: "That the managers of the John Lucas Walker Fund express to Dr. A. A. Kanthack (St. John's College) their complete approval of the manner in which he has conducted his work as John Lucas Walker Student, and their high appreciation of the valuable researches which he has carried on during his tenure of the studentship." Dr. Kanthack vacated the studentship at the end of September last, when he proceeded to Liverpool to take up the duties of the appointment which had been conferred upon him by the University College there. At a meeting of the Managers of the Fund on November 7th, two John Lucas Walker Students in Pathology were appointed, in accordance with the terms, Art. 23, of the scheme and regulations of the John Lucas Walker Studentship. (*Reporter*, March 1st, 1887.) The new students are Dr. Lorrain-Smith and Dr. F. F. Wesbrook. Dr. Lorrain-Smith holds the degree of Doctor of Medicine of the University of Edinburgh, has worked in the Physiological Laboratory of the University of Oxford, where he is at present acting as demonstrator, and has also worked in the Pathological Laboratory of the University of Strasburg. Dr. F. F. Wesbrook is a graduate in arts and medicine of the University of Manitoba (where he at present holds the position of Professor of Pathology), and has already worked in the Pathological Laboratory here. The Professor of Pathology informed the Managers that, besides the above-mentioned gentlemen, there were among the six candidates others of very exceptional ability, which made the selection a task of no little difficulty. It may be added that in the five years since the studentship has been established the three successive holders have been enabled by means of the Fund to carry on important pathological researches, and also that material help has been afforded towards similar researches by others than the John Lucas Walker students, for instance to those of Mr. E. Hankin and Dr. H. D. Rolleston.

STATE MEDICINE.—The Syndicate report that the arrangement has worked well by which two examinations are held in the year for the Diploma in Public Health. The number of candidates last year was 64, of whom 35 received diplomas. The increased expenditure on the examinations has led the Syndicate to raise the fee from four guineas to five guineas for each part of the examination. The increased fee will come into operation in April, 1893.

DEGREES.—The following were admitted to the Degree of M.D. at the congregation on November 10th: Charles Scott Sherrington, M.A., M.B., of Caius College, Lecturer in Physiology at St. Thomas's Hospital; Arthur

Gerald Welsford, M.B., B.A., of Caius College, late House Surgeon at the London Hospital.

Scholarships in Natural Science.—In December, 1892 and January, 1893, scholarships and exhibitions in Natural Science will be competed for at the following colleges by students not yet in residence: Peterhouse: Value £30 to £40; subjects, Chemistry and Physics; examination December 6th. Clare: Value £30 to £40; subject, Natural Sciences; examination January 10th, 1893. Gonville and Caius: Value £80 to £40, and various exhibitions, also Tancred Medical Studentships of £100; subject, Natural Sciences; examination December 7th. King's: Value of scholarships, £80; minor scholarships, £70 to £50; exhibitions, £60 to £40; subject, Natural Sciences; examination December 8th. Queens': Scholarships, £80 to £30; exhibitions of £20; subject, Natural Sciences; examination January 5th, 1893. Trinity Hall: A scholarship of £50 in Natural Science; examination December 8th. Jesus: Value £80 to £40; subject, Natural Sciences; examination December 13th. Christ's: Maximum value £80; subject, Natural Sciences: examination December 13th. St. John's: Foundation scholarships of £80, £70, and £50, minor scholarships of £50, and various exhibitions of £40 and under; subjects, Chemistry, Physics, Botany, Zoology, Geology, Anatomy, and Physiology; examination December 13th. Trinity: Major scholarships of £80, minor scholarships and exhibitions of £75 and £50, and sizarships of £100 for those needing special assistance; subject, Natural Sciences; examination December 8th. Emmanuel: Scholarships of £80 to £50, exhibitions and sizarships; subject, Natural Sciences; examination December 13th. Sidney sussex: Scholarships of £70 and £40, various exhibitions and sizarships; subject, Natural Sciences; examination December 13th. Applications, with certificates of character and of date of birth, to be made to the tutors of the several colleges at least a week before the examination in each case. Successful candidates commence residence in October, 1893.

UNIVERSITY OF GLASGOW.

List of Degrees Conferred on November 10th, 1892.

Doctors of Medicine (M.D.).—H. L. G. Leask, M.B., C.M.; J. Rowat, M.B., C.M.; J. C. Syson, M.B., C.M..

Doctor of Medicine, M.D. (Old Regulations).—D. M'Neill, L.F.P.S.G.

Bachelors of Medicine and Masters in Surgery (M.B. and C.M.).—J. W. M. Buick, A. G. Burrell, W. Cassels, R. R. Coyle, F. Gracie, C. Highet, A. Kelso, W. A. Kirkwood, W. M'Call, A. Robertson, M.A., J. A. Robertson, A. M. Roy, J. B. Stevens, C. Stewart, G. N. Turner.

ROYAL UNIVERSITY OF IRELAND.

Medical Degrees Examination.—The Examiners have recommended that the undermentioned be adjudged to have passed the examination:

Upper Pass Division.—J. Lynass, Queen's College, Belfast; W. A. Rountree, Queen's College, Cork. The above candidates may present themselves for the Further Examination for Honours.

Pass Division.—J. F. Barrett, Catholic University School of Medicine; F. Brannan, Catholic University School of Medicine; F. H. Clements, Queen's College, Galway; P. Dee, Queen's College, Cork; H. J. Dickey, Queen's College, Belfast; V. G. L. Fielden, Queen's College, Belfast; M. Ledwith, B.A., Catholic University School of Medicine; H. C. Mooney, Catholic University School of Medicine; A. Moss, Queen's College, Belfast; P. J. O'Brien, Queen's College, Cork; D. O'Callaghan, B.A., Queen's College, Cork; J. O'Donnell, Catholic University School of Medicine; D. O'Driscoll, Queen's College, Cork; T. B. Pedlow, B.A., Queen's College, Belfast; J. M. Richey, Queen's College, Cork; L. F. Rowan, B.A., Catholic University School of Medicine; D. J. Ryan, Catholic University School of Medicine; H. Sands, Royal College of Surgeons, Ireland; J. A. Scott, Queen's College, Belfast; J. Scott, B.A., Queen's College, Belfast; W. Scott, Queen's College, Cork; E. S. Topping, Queen's College, Belfast; E. T. Vint, Queen's College, Belfast; J. J. Yorke, B.A., Catholic University School of Medicine.

Diploma in Mental Diseases.—J. Mills, M.B., Richmond Lunatic Asylum; W. C. Sullivan, M.B., Richmond Lunatic Asylum.

On Friday, October 28th, the following degrees and diplomas in the Faculty of Medicine were conferred in the presence of the Senate, by Dr. Moffett, President of Queen's College, Galway, acting as Pro-Vice-Chancellor of the University.

M.A.O. Degree.—C. J. O'L. Maguire, M.D.

B.A.O. Degree.—J. C. Burkitt, M.D.

Diploma in Mental Diseases.—J. Mills, M.B.; W. C. Sullivan, M.B.

M.B., B.Ch., and B.A.O. Degrees.—J. Lynass, W. A. Rountree, J. F. Barrett, F. Brannan, F. H. Clements, P. Dee, H. J. Dickey, V. G. L. Fielden, M. Ledwith, B.A.; H. C. Mooney, A. Moss, P. J. O'Brien, D. O'Callaghan, B.A.; J. O'Donnell, D. O'Driscoll, T. B. Pedlow, B.A.; J. M. Richey, L. F. Rowan, B.A.; D. J. Ryan, H. Sands, J. A. Scott, J. Scott, B.A.; W. Scott, E. S. Topping, E. T. Vint, J. J. Yorke, B.A.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF IRELAND.

The following pass lists at the examinations held in October, 1892, under the Conjoint Scheme, have been published:—

First Professional Examination.—W. Carroll, T. P. Cormack, E. Corsellis, F. Dudley, L. E. Fannin, A. Gill, J. J. Gill, W. W. Glenny, G. Hungerford, H. R. Loverock, V. A. Magee, J. D. Murdoch, C. J. D. Odevaine.

Second Professional Examination.—U. J. Burke, T. Cairns, G. E. Caithness, E. A. Charlres, R. Coffey, E. P. Coogan, B. Coyle, C. J. Fallon, L. A. Hare, R. Hassard, E. J. K. Hogan, T. J. Jordan, H. T. J. Kennedy, W. P. E. V. Marriott, J. G. Morgan, J. J. M'Donogh, C. J. O'Gorman, H. S. Roberts, W. Ryan, J. Sheridan, J. F. Smyth, S. Stewart, W. Stratton, J. H. Walsh, J. S. Watson, M. A. Wilme.

Third Professional Examination.—J. W. Burne, E. Cairns, J. Campbell, P. J. D. Coen, T. C. Cummins, J. E. Dobbs, T. Fagan, W. B. Felton, R. C. Fisher, J. Fleming, G. L. Freeman, C. Kapp, J. P. Martin, D. Molyneux, J. A. Morgan, T. M. Morton, F. Nolans, J. J. O'Donnell, C. Skelly, E. W. Smith.

Fourth, or Final, Professional Examination.—W. H. Anderson, M. Brick, A. C. Callaghan, C. R. Chichester, J. Crumley, H. G. Falkner, G. A. Fleming, A. A. Hargrave, R. H. H. Hayden, M. C. A. Jordan, F. A. Madden, P. F. Monaghan, A. C. M'Cutcheon, W. H. Parr, C. M. Richards, J. Robinson, F. Warren, S. W. Wilson, and T. F. Wyse. Passed Group A Medium: A. Banks, J. W. Burne, J. C. Callanan, T. C. Cummins, W. H. Langley, F. W. Perry, J. J. Rogers, and A. H. White. Passed Group B, Surgery, etc.: A. Banks, T. C. Cummins, J. V. Griffin, W. H. Langley, E. C. Murphy, J. T. B. O'Brien, F. W. Perry, R. R. Smith, J. A. Smullan, and W. A. E. Wills. Passed Group C, Midwifery, etc.: J. W. Burne, F. C. A. Bushsman, E. C. Murphy, H. J. M'Cormick, J. T. B. O'Brien, F. J. Rogers, and R. R. Smith.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following gentlemen, having passed the necessary Examinations, and having conformed to the By laws and Regulations, were, at the Ordinary Meeting of the Council on November 10th, admitted Members of the College, namely:

Alldridge, W. E., L.S.A.
Alston, H., L.R.C.P.Lond.
Anderson, C. M., L.R.C.P.Lond.
Atchley, E. G. C. F., L.R.C.P.Lond.
Atkinson, H. N. C., L.R.C.P.Lond.
Auty, C. H., L.R.C.P.Lond.
Badham, R. C., L.R.C.P.Lond.
Bailey, T. W., L.R.C.P.Lond.
Baldwin, H. C., L.S.A.
Barnard, H. L., L.R.C.P.Lond.
Beckitt, J. C., L.R.C.P.Lond.
Bensusan, A. D., L.R.C.P.Lond.
Bernard, C., L.R.C.P.Lond.
Brabant, R. H. W. H., L.R.C.P.Lond.
Bradshaw-isherwood, P. A., L.R.C.P. Lond.
Brasher, C. W. J., L.R.C.P.Lond.
Brisley, C. W., L.R.C.P.Lond.
Bryant, H. A., L.R.C.P.Lond.
Buck, A. H., L.R.C.P.Lond.
Bury, R. F., L.R.C.P.Lond.
Campbell, J. A. L., L.R.C.P.Lond.
Carter, H. R., L.R.C.P.Lond.
Clarke, H. C. W., L.R.C.P.Lond.
Colmer, P. A., L.R.C.P.Lond.
Cook, F. E., L.R.C.P.Lond.
Covey, W. J., L.R.C.P.Lond.
Cresswell, F. P. S., L.R.C.P.Lond.
Crofts, G. H., L.R.C.P.Lond.
Crosland, G. W. K., L.R.C.P.Lond.
Dixon, T., L.R.C.P.Lond.
Duka, A. T., L.R.C.P.Lond.
Dutton, A. S., L.R.C.P.Lond.
Edwards, G. M., L.R.C.P.Lond.
Elliott, H. S., L.R.C.P.Lond.
Evans, J. A., L.R.C.P.Lond.
Fawsett, R., L.R.C.P.Lond.
Fleury, C. M., L.R.C.P.Lond.
Floyd, S. G., L.R.C.P.Lond.
Foulkes, T. H., L.R.C.P.Lond.
Fraser-Luckie, H. O'N., L.R.C.P. Lond.
Furnivall, P., L.R.C.P.Lond.
Gaines, J. E., L.R.C.P.Lond.
Gardner, H., L.R.C.P.Lond.
Gilbert, C. W., L.R.C.P.Lond.
Gillbard, R., L.R.C.P.Lond.
Goldsmith, G. H., L.R.C.P.Lond.
Goodwin, E. K., L.R.C.P.Lond.
Gover, L. D., L.R.C.P.Lond.
Grace, G., L.R.C.P.Lond.
Green, S. F St. D., L.R.C.P.Lond.
Gregar, C. G., L.R.C.P.Lond.
Harding, H. W. L., L.R.C.P.Lond.
Hawkins, E. J., L.R.C.P.Lond.
Hayes, G. C., L.R.C.P.Lond.
Henry, E., L.R.C.P.Lond.
Hepton, J. C., L.R.C.P.Lond.
Heywood, T., L.R.C.P.Lond.
Hicks, T. W., L.R.C.P.Lond.
Hine, A. E., L.R.C.P.Lond.
Hodgins, W. W., L.R.C.P.Lond.
Hollings, E. T., L.R.C.P.Lond.
Holt, H. M., L.S.A.
Hooper, G. H. J., L.R.C.P.Lond.
Howell, S. Y., M.D. New York
Huntley, E., L.R.C.P.Lond.
Jago, A. T., L.R.C.P.Lond.
Jeaffreson G. C., L.R.C.P.Lond.
Johnson, L. A., L.R.C.P.Lond.
Jones, G. D. E., L.R.C.P.Lond.
Jones, G. R., L.R.C.P.Lond.
Keele, D., L.R.C.P.Lond.
Kendall, L. F., L.R.C.P.Lond.
Kendrick, H. H., L.R.C.P.Lond.
Kingsford, B. H., L.R.C.P.Lond.
Knightley, W. R., L.R.C.P.Lond.
Leumann, B. H. F., L.R.C.P.Lond.
Levy, A. G., L.R.C.P.Lond.
Lewis, F. H., L.R.C.P.Lond.
Lister, T. D., L.R.C.P Lond.
Lockhart, A., M.B Kingston, Canada.
Lucas, W. F., L.R.C.P.Lond.
MacPhail, J. A., L.R.C.P Lond.
Marson, F. H., L.R.C.P.Lond.
Maw, H. T., L.R.C.P Lond.
Meade-King, R. L., L.R.C.P Lond.
Merewether, A. E., L.R.C.P.Lond.
Minton, H. A., L.R.C.P.Lond.
Nankivell, B. W., L.R.C.P.Lond.
Newton, I., L.R.C.P.Lond.
Newton, R. F. H., L.R.C.P. Lond.
Palmer, C. S., L.R.C.P.Lond.
Parry, T. W., L.R.C.P.Lond.
Paterson, H. J., L.R.C.P.Lond.
Paterson, H. G., L.R.C.P.Lond.
Perram, E. A., L.R.C.P.Lond.
Planck, C., L.R.C.P.Lond.
Preston, F. H., L.S.A.
Quennell, A., L.R.C.P.Lond.
Redpath, W., L.R.C.P.Lond.
Roberts, H. W., L.R.C.P Lond.
Roberts, S. J., L.R.C.P.Lond.
Robinson, F. A., L.R.C.P.Lond.
Robinson, G. B., L.R.C.P.Lond.
Robinson, W., L.R.C.P.Lond.
Romer, R. L., L.R.C.P.Lond.
Rooke, R. M., L.R.C.P Lond.
Rubra, H. H., L.R.C.P.Lond.
Rudall, J. F., M.B. Melbourne.
Scott, F. G., L.R.C.P.Lond.
Shillitoe, A. A., L.R.C.P Lond.
Smith, R., L.R.C.P.Lond.
Smith, T. R. H., L.R.C.P. Lond.
Stanton, J. W. W., L.R.C.P.Lond.
Stokes, W., L.R.C.P.Lond.
Syme, A. E., L.S.A.
Thomas, J. M. M., L.R.C.P.Lond.
Thorne, A., L.R.C.P.Lond.
Tootal, J. H., L.R.C.P Lond.
Vincent, T. S., L.R.C.P.Lond.
Webb, C., L.R.C.P.Lond.
Webb, J. R., M.B. Melbourne.
White, H. G., L.R.C.P.Lond.
White, W., L.R.C.P.Lond.
Wilkes, G. A., L.R.C.P.Lond.
Wilkinson, S., L.R.C.P.Lond.
Williams, E. M., L.R.C.P.Lond.
Williams, R. H., L.R.C.P.Lond.
Wilson, N. O., L.R.C.P.Lond.
Wood, I., M.B. Kingston, Canada.
Woodcock, A. H., L.R.C.P.Lond.
Zichy-Woinarski, S. E. A., M.D. Melbourne.

The following gentlemen passed the First Professional Examination in Anatomy and Physiology, for the diploma of Fellow, at a meeting of the Board of Examiners on Monday, November 14th:

T. Wilson, M.R.C.S.Eng., student of University College and Mason College, Birmingham; E. T. Collins, M.R.C.S.Eng., of Cambridge and Edinburgh Universities and Mason College, Birmingham; J. H. Crawford, of Edinburgh University Extra Mural School; P. R. Cooper, of Owens College and Royal Infirmary, Manchester; J. W. Haines and E. G. B. Adams, of St. Bartholomew's Hospital.

Ten candidates were referred back to their professional studies for six months.

Passed on Tuesday, November 15th:

H. E. Counsell, M.R.C.S.Eng., and C. Pollard, M.R.C.S.Eng., students of Guy's Hospital; C. E. Baker, M.R.C.S.Eng., of Cambridge and St. Bartholomew's Hospital; G. O. Rigby, of Melbourne University and University College, Liverpool; C. H. J. Lockyer, of Charing Cross Hospital; F. C. Bottomley, of Cambridge University and St. George's Hospital.

Nine candidates were referred back to their professional studies for six months.

Passed on Wednesday, November 16th:

D. Crawford, of Berlin and Edinburgh Universities and University College, and R. W. Michell, of Cambridge University and St. Bartholomew's Hospital.

Ten candidates were referred back to their professional studies for six months.

Of the 43 candidates who presented themselves for this examination 14 passed and 29 were referred.

The following are the arrangements for the Final Examination for the diploma of Fellow, for which 34 candidates have entered their names: Monday, November 21st: 1.30 P.M. to 5.30 P.M., written examination. Tuesday, November 22nd: 2.15 P.M. to about 5.30 P.M., clinical examination (*viva voce* and written examination). Wednesday, November 23rd: 1.30 P.M. to about 5 P.M., operations. Thursday, November 24th: 2 P.M. to 3.45 P.M., Surgical Anatomy. Friday, November 25th: 5 P.M. to 8.30 P.M., Pathology. The examination on Monday, Tuesday, Wednesday, and Thursday will be held at the Examination Hall; on Friday the examination will be held at the Royal College of Surgeons. Candidates will be required to attend on each of the above days.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

At the monthly meeting of the President and Fellows, held on Friday, November 4th, 1892, the following Licentiates in Medicine were duly admitted to the Membership of the College under By-Laws XVII. and XXVI.:

L. A. Irving, T. C. Kirby, W. B. Mackay.

The President admitted to the Licences in Medicine and Midwifery the following candidates who have been successful at the October Final Professional Examination under the Conjoint Scheme with the Royal College of Surgeons in Ireland:

W. H. Anderson, M. Brick, A. C. Callaghan, C. R. Chichester, J. Crumley, J. H. Elmes, H. G. Falkner, G. A. Fleming, A. A. Hargrave, R. H. H. Hayden, M. C. D. Jordan, F. A. Madden, P. F. Monahan, A. C. M'Cutcheon, W. H. Parr, C. M. Richards, J. Robinson, F. Warren, S. W. Wilson, T. F. Wyse.

The President also admitted to the Licence in Medicine, on Tuesday, October 31st, the following Registered Medical Practitioner, who had been successful at a special examination: L. Farndon, L.S.A. Lond., M.D. New York.

ERRATUM.—The pass list on page 1088 of the BRITISH MEDICAL JOURNAL of November 12th was, by a printer's error, ascribed to the University of Edinburgh; it was, of course, that of the Conjoint Board in Scotland.

OBITUARY.

ROBERT ZACCHEUS PITTS, M.R.C.S.Eng.

THE death is announced, at the age of 42, of Mr. Robert Zaccheus Pitts, of Chelmsford, from an attack of enteric fever, on November 9th. The deceased came of a Norwich family, and received his training at the Middlesex Hospital, taking the diploma of M.R.C.S.Eng. in 1872. He held the appointment of Medical Officer and Public Vaccinator for the Third District of the Chelmsford Union. He was formerly House-Surgeon to the West Herts Infirmary, and House-Physician to Middlesex Hospital. Mr. Pitts leaves a widow and four children.

MARY MACGEORGE, L.R.C.P.I.

AMONG the passengers of the illfated ship Roumania, which was wrecked on the Portuguese coast on October 27th, was Mary MacGeorge, L.R.C.P.I., daughter of Mr. E. G. MacGeorge, J.P., of Newry. More than 12 years since the late Miss MacGeorge directed her attention to the claims of the Zenana Mission, and ultimately entered the London School of Medicine for Women with the determination of qualifying for the medical profession. She proved a persevering student. She obtained, in 1885, the Diploma in Obstetrics and the Licence of the Royal College of Physicians, Ireland. The deceased lady was on her way back to India, having been home to Newry for a holiday. Her sweetness of character, ability, and earnestness of purpose made for her a host of affectionate friends.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Antonio Garcia Cabrera, Professor of Descriptive Anatomy in the University of Granada; Dr. Louis Kersandt, Privy Councillor, a permanent official of the Berlin Cultusministerium, and for many years President of the German Medical Examinations Committee; and Dr. Leopold Loewenherz, Director of the Imperial Physico-Technical Institute at Berlin, to whose efforts the recent official introduction of the Centigrade scale in medical thermometers in Germany is mainly due, aged 45.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE DIFFUSION OF SMALL-POX IN THE PROVINCES.

SMALL-POX continues to spread in all directions, news daily coming to hand of one and another town freshly invaded. Just now Warrington is undoubtedly most heavily hit, some 400 cases having been notified in the course of the prevailing epidemic, with 28 deaths to the end of last week. Unfortunately for the town, the local vaccination arrangements do not appear to have been attended with the success that we could have wished, but the weekly attendances now to be granted for vaccination and revaccination will doubtless ensure better results. It is to the efficacy of these, and to immediate vaccination of persons specially exposed to infection, that Warrington must look for any diminution of the scourge that has befallen her. It certainly seems as though the hospital, situated as it is, and full to excess as are its wards just now with small-pox patients in all stages of the malady, were spreading the disease in the neighbourhood; it would be a miracle if it were not so. The local proposal to send patients to a hospital to be erected further afield is worthy of all support. It is to be hoped that the authorities will have profited by the visit paid to Warrington by Mr. T. W. Thompson, one of the medical inspectors of the Local Government Board, who spent the greater part of Friday and part of Saturday last in the town. At Leicester matters do not improve. The fact that the local press are extremely reticent on the subject of the small-pox outbreak does not tend to allay anxiety. The best part of a dozen cases occurred last week, and the quarantine system, of which great things were expected, has broken down. An infected lodging-house, wherein a large number of men were congregated, has distributed its inmates in various directions over the town, and we may expect to hear of further cases of the disease in consequence. Already we learn of small-pox in Rusden, supposed to have been introduced from Leicester, with 6 resulting cases; and occurring, as they have, in an antivaccination centre, it will be fortunate if they do not lead to further spread, especially as they are among a gang of navvies. There does not appear to be any largely-organised system of general vaccination at Leicester, and it really looks as though we were going to witness the oft-prophesied penalty of past neglect enforced upon the town this year. Dr. Coupland is inquiring into the circumstances of the outbreak on behalf of the Royal Commission on Vaccination, and he will doubtless place on record a complete history of the epidemic. It ought to be interesting reading. Liverpool is suffering under small-pox, and Manchester also is not without the disease. Situated as these cities are in relation to Warrington, it will be matter for congratulation if they escape lightly. St. Helens (Lancashire), Bolton, and Oldham are other near towns having small-pox. In the West Riding of Yorkshire there were 141 cases last month in twenty-nine separate sanitary areas, including 38 in the five county boroughs. Lymm, near Warrington, and having close relations with that town, is now suffering from small-pox. The urban sanitary authority have made temporary provision for the isolation of the sufferers in three cottages.

PUBLIC HEALTH IN EGYPT.

AT this season of the year when so many people are contemplating a trip to Egypt, the following notes regarding public health in that country will be found of interest.

During the three weeks ending October 13th the death-rate in Cairo and the principal towns of Lower Egypt was returned at 39.0 and 41.7 per 1,000 respectively, the average for the corresponding period of the six preceding years having been 42.2 and 42.7. The total number of deaths registered in the towns furnishing reports was 1,984; but among these no fewer than 1,257, or over 63 per cent. occurred in children under 5 years of age. The rates appear high, but it must be remembered that they are calculated on a population generally believed to be much underestimated; and even so, the mortality among adults is very low.

On October 13th there were remaining under treatment 11

cases of small-pox, 4 of "fevers," and 4 of measles in the whole country; but these figures refer to the native population only, as the Egyptian Government cannot unfortunately enforce notification among foreigners.

The Nile attained its greatest elevation at Rodah on October 7th, when the Nilometer marked 20.63 metres; a height which has only of late years been equalled in 1887, when the maximum was about the same. The temperature of Cairo at the date of the last report was 24.2° C.; equal to about 75° F.; and the relative humidity amounted to 57.2, while at Wady Halfa it was only 32.1.

There seems to be no doubt that the efforts of the Sanitary Department—limited as they are by insufficient funds—have recently exercised a beneficial influence on the general health; and it is much to be desired that more ample means should be placed at the disposal of the directors, in order that fair play may be afforded to the magnificent climate of the country we are protecting.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,375 births and 3,817 deaths were registered during the week ending Saturday, November 12th. The annual rate of mortality in these towns, which had increased from 17.3 to 19.6 per 1,000 in the preceding four weeks, declined again to 19.5 during the week under notice. The rates in the several towns ranged from 13.0 in Leicester, 13.1 in Wolverhampton, 15.2 in Norwich, and 16.1 in Derby, to 25.1 in Bolton, 26.7 in Hull, 28.0 in Salford, and 29.6 in Preston. In the thirty-two provincial towns the mean death-rate was 20.1 per 1,000, and exceeded by 1.3 the rate recorded in London, which was 18.8 per 1,000. The 3,817 deaths registered during the week under notice in the thirty-three towns included 434 which were referred to the principal zymotic diseases, against numbers increasing from 387 to 434 in the preceding three weeks; 139 resulted from measles, 81 from diphtheria, 74 from scarlet fever, 55 from whooping-cough, 46 from diarrhœa, 34 from "fever" (principally enteric), and 5 from small-pox. These 434 deaths were equal to an annual rate of 2.2 per 1,000; in London the zymotic death-rate was equal to 1.8, while it averaged 2.6 per 1,000 in the thirty-two provincial towns, among which these diseases caused the lowest death-rates in Derby, Halifax, Norwich, Liverpool, Newcastle upon-Tyne, and Swansea, and the highest rates in Plymouth, Hull, Croydon, Preston, and Salford. Measles caused the highest proportional fatality in West Ham, Oldham, Brighton, Croydon, Portsmouth, Hull, and Salford; scarlet fever in Croydon, Cardiff, Plymouth, Salford, and Preston; whooping-cough in Croydon Salford, and Preston; "fever" in Portsmouth, Birkenhead, and Wolverhampton; and diarrhœa in Leicester and Oldham. The 81 deaths from diphtheria included 51 in London, 4 in Sheffield, 3 in Cardiff, 3 in Manchester, and 3 in Leeds. Three fatal cases of small pox were recorded in Sheffield, 1 in Huddersfield, and 1 in Halifax, but not one in London or in any other of the thirty-three large towns. Three small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 2 in the Highgate Small-pox Hospital on Saturday last, November 12th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 4,063, against numbers steadily increasing from 3,052 to 4,067 on the preceding twelve Saturdays; 403 new cases were admitted during the week, against 410 and 462 in the preceding two weeks. The 357 deaths from diseases of the respiratory organs in London were 39 below the average, and were equal to an annual rate of 4.4 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, November 12th, 913 births and 574 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 19.0 to 22.9 per 1,000 in the preceding three weeks, declined to 20.6 during the week under notice, but exceeded by 1.1 per 1,000 the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 14.5 in Paisley and 14.9 in Greenock, and the highest rates 22.4 in Glasgow and 26.0 in Leith. The 574 deaths in these towns included 110 which were referred to the principal zymotic diseases, equal to an annual rate of 4.0 per 1,000, which was 1.8 per 1,000 above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Aberdeen and Leith. The 288 deaths in Glasgow included 1 from small-pox, 14 from scarlet fever, 8 from whooping-cough, 7 from measles, and 3 from "fever." Twenty-three fatal cases of measles were recorded in Edinburgh, 19 in Aberdeen, and 11 in Leith. The death-rate from diseases of the respiratory organs in these towns was equal to 5.1 per 1,000, against 4.4 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, November 5th, were equal to an annual rate of 25.8 per 1,000. The lowest rates were recorded in Lisburn and Dundalk, and the highest rates in Wexford and Drogheda. The death-rate from the principal zymotic diseases averaged 1.5 per 1,000. The 191 deaths registered in Dublin were equal to an annual rate of 28.5 per 1,000 (against 19.4 and 25.8 in the preceding two weeks), the rate during the same period being 18.2 in London and 26.2 in Edinburgh. The 191 deaths in Dublin included 13 which were referred to the principal zymotic diseases (equal to an annual rate of 1.9 per 1,000), of which 9 resulted from enteric fever, 3 from scarlet fever, and 1 from typhus.

SALARY OF MEDICAL OFFICER OF HEALTH.

At the last meeting of the Panteg Local Board, attention was called to the fact that the medical officer's duties had increased since the adoption by the Board of the Food and Drugs Act, and proposed that his salary be increased to £35 for one year, and that the Local Government Board be asked to sanction the same. This was seconded and carried.

HOW NOT TO MAKE AN APPOINTMENT.

At the last meeting of the Kingston Town Council, one of the items on the agenda was the appointment of a medical officer of health for the borough at a salary of £150 a year. There were thirty-five applicants, three of whom were requested by the committee of selection to be in attendance at the council meeting. The subject was introduced by a stormy discussion as to the comparative merits of the selected and certain of the rejected candidates, and by one vote only a proposition to alter the committee's list was lost. The three candidates were interviewed, not at any great length apparently, and then another wrangle took place, ending in a resolution to make no appointment at all for the present. If it pleases the civic fathers of Kingston to conduct their general business in this odd fashion, so be it, but here the result of their caprice has been to cast an undeserved slight upon at least three professional men, selected by a responsible committee as the most suitable out of thirty-five candidates, all of whom presumably were duly qualified for the appointment.

HOSPITAL ACCOMMODATION IN THE LAKE DISTRICT.

The sanitary areas of the Cumberland Lake District are extremely badly off in the matter of hospitals for the isolation of the infectious sick, and recent procedures of two of the towns, Grasmere and Ambleside are far from creditable. Each of these places has had in contemplation the purchase of one of the wooden erections which served for the housing of the workmen employed on the Manchester water scheme. Grasmere, however, seems to have been shamed out of the proposal two or three months back, though nothing has since been done in the matter; and it even seems as if a hut might yet be requisitioned, since Ambleside, only two or three miles away, is evidently bent on proceeding to the adoption of the hut scheme; yet but a short time ago Ambleside had in view the construction of a hospital fitted to the permanent needs of the town, and if it is thought that the present retrograde movement is likely to lead to the fulfilment of the promise held out when the former proposal was on foot, we are afraid that we cannot share any such sanguine expectations. The idea of a temporary wooden hospital at the commencement of an English winter in the north is against all preconceived notions of the fitness of things. It is not likely to meet the public taste, whereas a well administered and properly equipped institution would soon become appreciated, and exercise a beneficial influence on local rates in the event of a threatened epidemic. We trust these towns will reconsider the matter, and provide jointly a hospital worthy of the name.

SCARLET FEVER AT LEICESTER.

Leicester is in the unhappy position of having the hospital full of scarlet fever patients just at the time when small-pox has also occurred. The Town Council have had to apply to the guardians to lend them in their extremity some accommodation to serve as observation wards for suspicious cases of illness which may or may not prove to be scarlet fever. This accommodation the guardians have placed at the disposal of the Sanitary Committee in the shape of two rooms attached to their Poor law establishment, but in so doing they have been unmindful of the fact that charity should begin at home, and an application by one of the medical officers for similar provision in respect of pauper cases has been ignored. It may be that the Local Government Board will have something to say in the matter. Meantime, pending the erection of additional hospital accommodation, patients are being refused admission to the existing buildings, and the system of quarantine has broken down. It is difficult to see how it could well be maintained. The moment such a system attains large proportions it is almost certain to fail.

SCARLATINA AND DIPHTHERIA AT HARROW WEALD.

In consequence of the recent prevalence of scarlatina and diphtheria in the Harrow Weald division of the Hendon Union, and with a view of learning the facts as to the sanitary condition of the rural sanitary district generally, the Local Government Board have determined to make inquiry by one of their medical inspectors into the circumstances in which infectious disease has prevailed, and into the sanitary administration of the district. The engagements of the Medical Department, however, preclude the immediate allotment of the duty to any one of the staff.

METROPOLITAN POOR LAW INSTITUTIONS.

Some of our metropolitan poor-law institutions have recently been gaining an unenviable notoriety in respect both of their internal management and of their sanitary circumstances, and however highly coloured may be the pictures which have been drawn of the state of things existing in certain of these establishments, there would seem at least to be a modicum of truth in the allegations. We find from the most recent official documents on the subject that in the whole of England and Wales 94 officers belonging to workhouses and their attached infirmaries, asylums, and schools, either resigned, voluntarily or by enforcement, or were dismissed on account of irregularities during 1891, three being medical officers, 5 masters, and 49 nurses. But the nature of the offences is not stated, neither does the share of London in the matter appear. The Local Government Board, however, draw attention to the special improvement in the nursing arrangements in the metropolis, whilst stating on the other hand that they have decided as a general rule to withhold sanction in London to the appointment of nurses under the age of 21 years. This, of course, is as it should be, but it points to the unsuitability of accepted candidates in the past. Not one word, however, is said of any gross mismanagement, and all that appears concerning the condition of buildings points to improvements effected or in contemplation by various boards of guardians. The alleged facts would therefore inferentially seem to relate to periods subsequent to March last, to which month the official report is brought down. But in any case the public should not be left in doubt as to the truth in this matter. Doubtless some of our London Poor-law establishments are models for the world to copy, but if there be other of

them which leave much to be desired the matter calls for Government intervention with the view of remedying anything like harsh treatment of inmates or internal conditions prejudicial to the comfort and necessary attention to which the pauper sick are entitled. Adequate State inspection of Poor-law institutions should remove grounds for any of the sensational accounts which have lately been circulated. The public are not likely to be reassured by anything short of an impartial inquiry into these *ex parte* statements, but will go upon the assumption that where there is much smoke there is sure to be some fire.

BURIAL REFORM.

AT the monthly meeting of the Funeral Reform Association it was stated that the Duke of Westminster would head the deputation which Mr. Asquith had promised to receive early in the new year. It was resolved to make the memorial to the Government, now being promoted by the society, include appeals for (*a*) a grant of money to some competent scientific society for the purpose of making an exhaustive inquiry into the effects of the earth-to-earth burial upon the soil around, the water springs below, and the air above; (*b*) the more careful certification of the cause of death in every case; (*c*) an investigation into the condition of metropolitan cemeteries with a view to providing modes of burial other than in vaults and already overcrowded pits; and (*d*) the appointment of a Minister of Health.

THE WATER WE DRINK.

AT the meeting of the St. Saviour's Board of Works on November 9th a report from the medical officer, Dr. R. Bodmer, on the water supply was received. The report stated that samples of water taken from the mains of the Southwark and Vauxhall and the Lambeth Water Companies on October 17th had been analysed. On comparison with analysis made on September 5th, there was a trifling improvement in the Southwark and Vauxhall Company's sample, but the Lambeth sample was almost identical with the sample taken in September of the same company's water. He was of opinion that both samples were still of unsatisfactory purity. On the motion of Mr. Blachford, it was resolved to address a letter to the County Council asking them to insert a clause in their next Parliamentary Bill authorising them to appoint inspectors to inspect regularly water companies' filter beds and works, and also all water courses running into the river above the intake of the water companies.

THE INSANE IN IRISH WORKHOUSES.

PAUPER lunatics and imbeciles resident in the various workhouses throughout Ireland numbered 4,180 on the last day of 1891, being an increase of 219. In a previous report the Inspectors of Asylums called attention to the legal status of the insane in workhouses and to the difficulties which they and the Local Government Board experience in insisting on adequate provision being made for their care and treatment by Boards of Guardians. The recent Committee on Lunacy Administration reported that the condition of lunatics in most workhouses is unsatisfactory, and the inspectors made the following suggestions for the consideration of the Local Government Board and the Boards of Guardians:—1. That in all cases paid officers should be made responsible for the care and treatment of lunatic inmates. 2. That mechanical restraint should never be used except by the recorded direction of the medical officer in whose charge strait-waistcoats and other instruments of restraint should be kept. 3. That as far as possible, separate day-room and dormitory accommodation should be provided. 4. That every effort should be made to find employment for such insane patients as are able to work. 5. That idiot cells should be disused.

In 1891 there were 6,243 idiots and imbeciles in Ireland, a number equal to a ratio of 1 in 754 of the population, of whom no fewer than 4,077 are at large, many leading wandering lives, exposed to actual privation. The inspectors suggest that a grant should be obtained for the establishment and maintenance of one or more national training schools, where these imbeciles would receive such training and education as their condition permits, and where they would be removed from the cruelty and neglect which they so often experience elsewhere.

CREMATION IN PARIS.

THE Prefect of the Seine has submitted to the Paris Municipal Council the plan of a columbarium which it is proposed to erect in connection with the crematory in la Père la Chaise cemetery. The guiding idea has been to group all the buildings, etc., required for cremation together, so as to form a special necropolis reserved for incinerations. The estimated cost of the new columbarium is 634,000 francs (£27,360). At present spaces in the columbarium are only leased for five years; under the new scheme freeholds may be purchased for 350 francs (£14).

SMALL-POX has broken out at Burton-on-Trent. The disease is believed to have been brought from Leicester.

PREVENTION OF TUBERCULOSIS AMONG CATTLE.

A BILL for the prevention of tuberculosis among cattle has passed its first reading in the Danish Folkething, and has been referred to a committee. The Bill provides for the allocation of a sum of 50,000 kroner yearly to defray the expenses of experiments with tuberculin.

DEATH CERTIFICATES.

DR. A. W. LOVERIDGE, M.R.C.S., L.S.A. (Newport, Mon.), writes: It has struck me that a good deal of the misunderstanding with regard to the giving of death certificates, which has arisen during a recent trial, might easily be avoided by adding the word "alive" to the present form, after the sentence "that I last saw (him or her)." This would prevent anyone so inclined from shielding himself behind the pretext that he was uncertain as to the real meaning of "that I last saw." Of course, to the bulk of men, this is understood to have but one meaning; but I simply throw this out as a suggestion.

MEDICAL NEWS.

THE POET WHITTIER.—The late John G. Whittier, the poet, left a considerable portion of his savings to various hospitals in the United States.

SUCCESSFUL VACCINATION.—Mr. David John Jones, Medical Officer and Public Vaccinator for the Penderyn District of the Merthyr Tydvil Union, has been awarded the Government grant for successful vaccination.

THE Berlin Town Council has under consideration the plans of a fourth municipal hospital, which it is proposed to erect in the north of the city. The new hospital will contain accommodation for 800 patients.

DR. JOHN FERGUSON, of Toronto, has been appointed a member of the Canadian Senate, and, according to the *Canadian Practitioner*, he is likely some day to be the leader of the Conservative party in that august body.

THE DENTAL HOSPITAL OF LONDON.—The annual dinner of the staff and past and present students will be held on Saturday, December 3rd, at the Café Royal, Regent Street, under the presidency of Sir Richard Quain, Bart. Gentlemen either now or formerly connected with the hospital or medical school, who may through inadvertence not have received special notice, and who desire to be present, are requested to communicate to the Dean at the Hospital.

WE understand that the opening of the new Clarence Memorial Wing of St. Mary's Hospital by His Royal Highness the Prince of Wales will take place on December 17th, and not December 14th as announced. The Duke of York, who is President of the Hospital, will formally request the Prince of Wales to lay the stone; and Her Royal Highness the Duchess of Fife will receive purses of £5 and upwards. About £20,000 has been subscribed up to the present time for the Clarence Wing.

BELFAST BRANCH OF THE ROYAL MEDICAL BENEVOLENT FUND OF IRELAND.—This body held its quarterly meeting recently, at which a letter was read from Dr. Burden, the Honorary Secretary, giving in his resignation in consequence of serious illness. A resolution of sympathy with Dr. Burden and family was unanimously passed, and cordial reference was made to the valuable services rendered to the Society by Dr. Burden during his tenure of the office of Secretary. Dr. McCaw was appointed Honorary Secretary, *pro tem.*

EDINBURGH OBSTETRICAL SOCIETY.—The following gentlemen have been elected office-bearers for the ensuing session: *President:* Professor A. R. Simpson. *Vice-Presidents (Senior):* Dr. A. H. F. Barbour; *(Junior):* Dr. A. Ballantyne. *Treasurer:* Dr. William Craig. *Secretaries:* Dr. N. T. Brewis, Dr. J. W. Ballantyne. *Librarian:* Dr. Milne Murray. *Members of Council:* Dr. Haultain, Dr. Foulis, Dr. Berry Hart, Dr. Halliday Croom, Dr. Playfair, Dr. John Thomson, Dr. Duddingston Wilson, Dr. E. H. L. Oliphant.

MEDICAL COMPETITION.—The *Ashton-under-Lyne Reporter* has the following paragraph:—"The spirit of keen competition seems to have at last permeated the medical profession in Dukinfield. A week or two ago Dr. Baxendell and Dr. Clarke opened dispensaries in different parts of the town at a charge of one penny per member. Now we hear that Dr. Booth and Dr. Park have entered into competition, and commenced dispensaries (in one case next to an establishment run by Drs. Baxendell and Clarke) at the small fee of a half-penny per week membership.

SUICIDE.—An inquest was held by the borough coroner at Croydon on the body of Dr. Benvenuto Harris, of 28, York Street, Portman Square. Dr. Harris went to Croydon on November 11th, and occupied a bed at the County Temperance Hotel, West Croydon, and next morning was found dying from morphine poisoning. Previous to injecting he poison he had written letters to the coroner, his landlady and others stating that it was his intention to commit suicide. Dr. Harris was formerly at Scarborough, and was called in by Dr. Heron in the Ruby Russell case. A verdict of suicide whilst of unsound mind was returned.

Bacteriological Institute in New York.—The cornerstone of the New York Bacteriological Institute was recently laid by Mayor Grant. The new institution, which is to take the place of the Pasteur Institute, which had to be closed owing to want of funds, will be under the direction of Dr. Paul Gibier, who conducted the Pasteur Institute for a considerable time at his own expense.

British Gynæcological Society.—At a meeting of this Society held on October 27th (Dr. James Murphy, vice-president, occupying the chair), Mr. Hawkins-Ambler read a paper on Success in Abdominal Surgery; Dr. Inglis Parsons, Dr. Heywood Smith, Dr. Batchelor (New Zealand), Mr. Reeves, and Dr. James Murphy took part in the discussion which ensued.

Italian Pædiatric Congress.—A Congress on Children's Diseases was held at Naples on October 20th and the three following days, under the presidency of Professor N. Fede. Among the papers read were the following: Sterilised Milk, by Dr. Solaro, of Naples; Scrofulosis and Tuberculosis, by Dr. T. De Bonis, of Naples; the Transmissibility of Tuberculosis by Lactation, by Professor Fede; Infective Broncho-Pneumonia of Intestinal Origin in Infants, by Dr. G. Guaita, of Milan, etc.

Presentation.—Dr. Bernard J. Guillemard having been obliged on account of ill-health to leave Southsea for the warmer climate of South Africa, has been presented by his friends and patients with a purse containing £175, together with an address engrossed on vellum, expressing their esteem and regard for him and regret at his departure, and the hope that he may be completely restored to health and strength.

Disinfection in Paris.—According to the report presented to the Seine Sanitary Council by Dr. Dujardin-Beaumetz, 1,720 visits of disinfection were made by the municipal disinfecting service in August; during September, 2,996; up to October 13th, 1,397. M. Dujardin-Beaumetz states that disinfection is most frequently demanded for diphtheria and tuberculosis. The city of Paris on an average has made daily 15 or 20 visits of disinfection for tuberculosis.

A case, in which the payment of an account due to Dr. Nockolds, of Cowes, was disputed, on the ground, as appears from the evidence of the defendant, that the treatment was unskilful, was recently decided by the County Court Judge in favour of the plaintiff. After hearing the evidence of Dr. Rich, Medical Officer of the Ryde Infirmary, under whose treatment the patient had subsequently come, the judge said that he could come to no other conclusion than that the plaintiff had treated the child properly.

The "American Doctor."—At the Liverpool Police Court, on November 11th, William F. Hale, described as an American doctor, was charged on remand with conspiring with another man, named Miller, to obtain money by false pretences. They took apartments, and advertised that a staff of American and German doctors were located in Liverpool, and would advise free of charge. On patients calling, however, money was obtained from them on various pretexts, and medicine was given them. Several witnesses deposed to having been treated by the prisoner, and paying him money, in one case as much as £12. The prisoner was committed for trial.

Improvised Catheters.—Dr. R. C. Kirkpatrick, of Montreal, writing to the *Lyon Médical*, *apropos* of the catheter improvised by Dr. Phélip, as mentioned in the British Medical Journal of October 15th (p. 880), relates the following case. A friend of his was called into a woman who had been suffering from retention of urine for some hours. He had no catheter with him, and apparently the axiom quoted by Dr. Hingston, in the address in Surgery at the Nottingham meeting—that "wherever there is a woman there is a hairpin"—for once did not hold good. The resourceful practitioner, however, found a piece of maccaroni, which did just as well. The editor of our French contemporary mentions a case in which a goosequill was used under similar circumstances with an equally successful result.

The Jonson Memorial Fund.—At a meeting of the Committee of the Jonson Memorial Fund, held at Sir James Paget's house on November 3rd, the bust of the late Dr. G. C. Jonson was exhibited, and was much admired, the likeness being thought an especially happy one. It was unanimously resolved: "That the bust of the late Dr. G. C. Jonson be sent to the next exhibition of the Royal Academy, in accordance with the wish of Mr. P. Brock, R.A., the sculptor, and afterwards be placed in the Schoolroom of Epsom College." By the kind permission of Mr. Brock, the bust will be on view to subscribers any day—Saturday and Sunday excepted—at his studio, 30, Osnaburgh Street, Regent's Park, before being sent to the Royal Academy.

Proposed Monument to Villemin.—A committee has been formed for the erection of a monument to the late Professor Villemin, a sketch of whose scientific work was given in the British Medical Journal of November 12th. The members of the Committee are MM. Kelsch, Boucher, and Liétard, of Plombières; Gurgon, of Remiremont; Pommageot, of Barres; Fournier and Lardiers, of Rambervilliers; with Medical Inspector-General L. Colin as President. The Paris faculty, and in fact representatives of official and professional medicine generally, are conspicuous by their absence. Villemin, though a scientific worker of the first order, whose merits were recognised throughout the medical world, and not least in Germany, was all his life an "outsider" from the point of view of the ruling academic caste in France, and his light was hidden under a bushel till it was uncovered by foreigners.

A Society for the Prevention of Tuberculosis.—The "Pennsylvania Society for the Prevention of Tuberculosis," is the title of an association recently formed at Philadelphia, with the object of carrying on a crusade against what is perhaps the greatest scourge of civilised life. The Society proposes to educate the public mind by the questionable method of circulating gratuitous tracts. The first of these, entitled "How to Avoid Contracting Tuberculosis," has already been issued; in it great stress, as was to be expected, is laid on the contagious nature of the disease. The objects of the Society are beyond all praise, and we wish it every success in its philanthropic efforts. It seems to us, however, that lectures adapted to a popular audience would probably be more effective than the distribution of tracts, which are very likely to be declined as literature of the "obscene advertisement" order, and which, even when accepted, are in ninety-nine cases out of a hundred simply thrown away unread.

Alcohol for Paupers and Children.—At the meeting of the British Medical Temperance Association, held on November 15th, Dr. Norman Kerr read a paper on some recent returns of the consumption of alcohol in workhouses. A decided decrease in the amount was shown as compared with former returns. In twenty years the reduction had been nearly 60 per cent., being fairly spread over all parts of the kingdom. The results had been most satisfactory, the health of the inmates had improved, the discipline was better, and the comfort and happiness of the inmates increased. There are many workhouses in which no intoxicants at all were given, either to the healthy or sick, unless in special cases, but the discrepancy between different unions was surprising. Dr. Heywood Smith then introduced a discussion on children and alcohol. He suggested that medical men should assist to procure the enactment of the Bill to prohibit the entry of children under sixteen into public-houses, either for themselves or for others, and that a leaflet should be prepared to instruct parents as to the injurious effects of supplying intoxicating liquors to children. A committee was appointed to prepare such a leaflet. It was also resolved to support the proposal to prohibit the sale or delivery of intoxicating liquors to children under sixteen years of age as a matter of extreme national importance. It was also proposed by Dr. Norman Kerr, and seconded by Dr. Morton, that the School Boards of the United Kingdom should be memorialised to provide for scientific teaching on the action of alcohol as has been provided in various communities. This was carried unanimously.

Irish Medical Schools' and Graduates' Association.—The autumnal general meeting of this Association took place at 11, Chandos Street on November 2nd. The President, Dr. J. N. Dick, C.B., R.N., Medical Director-General of the Navy, took the chair, and there were present, amongst others, Sir

Thos. Crawford, K.C.B., Dr. Macnaughton Jones, Dr. Gilbert Smith, Dr. Mapother, Dr. P. S. Abraham, Deputy-Inspector-General, MacClinton, R.N., Surgeon-Major Carte (Grenadier Guards), Dr. Lough, Dr. Hartt, Dr. Stewart, Dr. Ffolliott, Dr. Cagney (Honorary Secretary). The following resolution was unanimously passed:—"That this meeting records its satisfaction with the recommendation of the Select Committee of the House of Lords to the effect that the governing bodies of the metropolitan hospitals would do well to consider the advisability of opening their honorary staff appointments to other diplomates than those to whom they are now restricted." On the motion of Dr. Gilbart Smith, it was decided to approach the medical staff of the metropolitan hospitals, and to urge them to withdraw the invidious restrictions. A highly successful dinner took place the same evening at the Holborn Restaurant.

AMERICAN JOTTINGS.—An American judge lately refused to grant a temporary injunction restraining the city of Lowell from erecting a crematory for the destruction of refuse, on the ground that such a structure could not be adjudged a nuisance till it had proved itself to be one.—The Board of Health of Savannah, Georgia, has taken a new departure in the selection of a port medical officer. A competitive examination of the candidates for the post was held, the questions asked having reference to quarantine and other matters with which it is necessary that a port medical officer should be conversant. We presume the result of the examination illustrated the survival of the fittest, but as nothing is said as to the election of an officer, it is equally open to any one to infer that all the candidates thus weighed in the balance were found wanting.—It was recently decided in a Detroit court that the ownership of a prescription vests in the patient, and not in the druggist who dispenses it. A large body of evidence was got together to show that druggists everywhere (in the United States) regard prescriptions as their rightful property, but was not admitted by the court.—The City Council of New Orleans has under consideration the expediency of passing an ordinance making the registration and weekly examination of prostitutes compulsory.—The Legislature of the State of Ohio has enacted a law enjoining that physical culture, including calisthenics, is in future to form part of the system of instruction given in the common schools of cities of the first and second class, and in all educational institutions supported wholly or in part by the State.

MEDICAL VACANCIES.

The following vacancies are announced:

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House-Surgeon to the Western Branch, unmarried, doubly qualified. Salary, £140 per annum (less board at 8s. per week), with furnished apartments, coals, gas, and attendance. Applications to the Assistant Secretary by December 15th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician. Board, residence, and allowance for washing provided. Appointment for six months. Applications to the Secretary at the Office, 24, Finsbury Circus, E.C., by December 8th

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square.—Demonstrator. Honorarium £50 per annum. Applications to Morton Smale, Dean, by November 21st.

DENTAL HOSPITAL OF LONDON, AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square.—Lecturer on Dental Metallurgy. Applications to Morton Smale, Dean, by November 21st.

DEVON AND EXETER HOSPITAL, Exeter.—Assistant House-Surgeon; doubly qualified; unmarried. Salary, £40 per annum, with board and lodging. Applications to G. A. Townsend, Secretary, by November 26th.

ENNISCORTHY UNION.—Medical Officer to Oulart Dispensary. Salary, £125 per annum, and fees. Applications to Mr. Laurence Kelly, Honorary Secretary, Castle Ellis, Ballaghkeene. Election on November 29th.

ENNISKILLEN UNION.—Medical Officer to Holywell Dispensary. Salary, £135 per annum, and fees. Applications to Mr Phibbs Nixon, Honorary Secretary, Thornhill House, Gortahill. Election on November 26th.

GENERAL HOSPITAL, Barbadoes, West Indies.—Junior House-Surgeon. Salary, £200 per annum, and quarters. Appointment for three years. Applications to the Secretary by December 1st.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer; doubly qualified. Salary, £30 per annum. Applications to the Chairman of the Medical Board by November 30th.

GLAMORGAN COUNTY COUNCIL.—County Medical Officer. Salary, £750, of which £150 is intended to cover all travelling, office, and laboratory expenses. Applications to T. Mansel Franklin, Clerk, Glamorgan County Offices, Cardiff, by November 21st.

GREAT WESTERN DISPENSARY, Marylebone Road, N.W.—Junior House-Surgeon; unmarried. Salary, £50 per annum, with board and apartments. Applications to the Honorary Secretary.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon, doubly qualified. Salary, £70 per annum, with residence and maintenance in the house. Applications to the Chairman of the Committee by November 23rd.

LONDON THROAT HOSPITAL, 204, Great Portland Street, W.—Pathologist. Applications to Edward Low, Secretary to the Medical Committee, by December 2nd.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Assistant Physician. Applications to Charles H. Byers, Secretary, by November 28th.

MONKSTOWN HOSPITAL, County Dublin.—Resident Medical Officer. Salary, £40 per annum, with board, apartments, gas, and coal. Applications to the Honorary Secretary by November 14th. Election on December 1st.

NEW HOSPITAL FOR WOMEN, Euston Road.—Lady as Assistant Dispenser. Salary, £25 per annum, rising to £35. Applications to M. M. Bagster, Secretary, by November 23rd.

NEW LONDON COUNTY ASYLUM, Claybury, Woodford, Essex.—Medical Superintendent; doubly qualified. Salary, £1,000 per annum, with house, coals, lighting, milk, and vegetables. Applications on form to be obtained of Mr. R. W. Partridge, Clerk to the Asylum Committee, 21, Whitehall Place, S.W., by November 25th.

NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY, Athol Street, Douglas, Isle of Man.—Resident House-Surgeon; doubly qualified; unmarried. Salary, £100 per annum, with apartments, gas, coal, and laundry free. Applications to F. Browne, Honorary Secretary, by December 3rd.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, N.E.—Junior House-Surgeon; doubly qualified. Salary, £30 per annum. Applications to Alfred Nixon, Secretary, 27, Clement's Lane, E.C., by December 9th.

NORTHERN INFIRMARY, Inverness.—House-Surgeon and Dispenser. Salary, £75 per annum, with board, etc. Applications to the Honorary Secretary, Mr. Duncan Shaw, W.S., by November 26th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Election to the Court of Examiners. Applications to the Secretary by November 30th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiner in Anatomy for the Second Professional Examination. Applications to the Secretary by November 24th.

ROYAL INFIRMARY OF EDINBURGH.—Superintendent, must be member of medical profession. Salary, £500 per annum, with free house and gas. Applications to Mr. James S. Trainer, Treasurer and Clerk, by December 5th.

ST. LUKE'S HOSPITAL, London, E.C.—Clinical Assistant; appointment for six months. Board and lodging. Applications to the Secretary by November 24th.

ST. MUNGO'S COLLEGE, Glasgow.—Chair of Anatomy. Applications to Henry Lamond, Secretary, by December 1st.

STRAND DISTRICT OF THE CITY OF LONDON.—Medical Officer of Health; not more than 45 years of age. Salary, £400 per annum. Applications, marked outside "Medical Officer's Appointment," to be sent to the Offices of the Board, 5, Tavistock Street, Strand, W.C., by November 26th.

SHEFFIELD GENERAL INFIRMARY.—House-Surgeon, doubly qualified. Salary, £120 per annum, with board, lodging, and washing, with a prospective advance of £10 per year for the second and third years. Applications to "Medical Staff," to the care of the Secretary, by November 19th.

SHEFFIELD GENERAL INFIRMARY.—Assistant House-Surgeon, doubly qualified. Salary, £80 per annum, with board, lodging, and washing. Applications to the "Medical Staff," to the care of the Secretary, by November 19th.

TAUNTON AND SOMERSET HOSPITAL.—Honorary Surgeon. Applications to J. H. Biddulph Pinchard, Secretary, 13, Hammet Street, Taunton, by November 21st.

VICTORIA HOSPITAL, Burnley.—Honorary Ophthalmic and Aural Surgeon. Applications, endorsed "Ophthalmic," to the Honorary Secretary, Joshua Rawlinson, J.P., by December 6th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician; appointment for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary, by December 7th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Surgeon; appointment for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary, by December 7th.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon.—Salary, £60 per annum, with board, rooms, and washing. Applications to the Secretary by November 22nd.

MEDICAL APPOINTMENTS.

ADAMS, E. W., M.R.C.S., L.R.C.P., appointed House-Accoucheur to King's College Hospital.

ADAMS, W. F., M.R.C.S., L.R.C.P., appointed House-Surgeon to King's College Hospital.

ADDENBROOKE, E. H., M.R.C.S.Eng., L.S.A., appointed Medical and Vaccination Officer of the Wolverley District of the Kidderminster Union.

ARNISON, W. C., M.D.Durh., M.R.C.S., reappointed Honorary Surgeon to the Newcastle-on-Tyne Royal Infirmary.

COOKE, William H., M.R.C.S., L.R.C.P., L.S.A., appointed Senior House-Physician to St. George's Hospital.

DENT, Louis W., L.R.C.P.Lond., M.R.C.S., appointed Deputy Medical Officer for Ewell.

ELLIOTT, C. N., B.A.T.C.D., M.B., appointed Medical Officer of Health for the Oundle Union Rural Sanitary Authority.

HAYES, W. A., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the No. 2 Division of the Colne Union.

HEDGES, John A., M.R.C.S.Eng., L.S.A., appointed Medical Officer of Health for Leighton Buzzard.

HIGGENS, O. E., M.A., M.B., M.R.C.S., L.R.C.P., appointed Medical Officer to the Hastings and St. Leonards Provident Dispensary.

JÄGER, H. J., M.R.C.S., L.R.C.P., appointed Ophthalmic Clinical Assistant to King's College Hospital.

JOHNSTON, E. Cooks, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Leckhampton Local Board.

MACDONNELL, Lucius G. A., B.A. M.B., B.Ch., B.A.O. Univ. Dubl., appointed Surgeon to Aramac Hospital, Central Queensland, *vice* H. J. Hewer, M.B., resigned.

MCGACHEN, F. W. D., L.F.P.S.Glas., L.S.A., D.P.H., appointed Medical Officer to the Union House and Public Vaccinator to the Town of Rugby, *vice* E. S. Angove, L.R.C.P.Edin., resigned.

MCMICHAEL, A. W., L.R.C.P.Lond., M.R.C.S., appointed Resident Medical and Surgical Officer of the Jaffray Suburban Branch of the General Hospital, Gravelly Hill, Birmingham.

MARTIN, John, M.D.St.And., F.R.C.S., L.R.C.P.Edin., appointed Honorary Surgeon to the Huddersfield Infirmary.

MARTIN, T. Berkeley, L.R.C.P., L.R.C.S., L.S.A., appointed Medical Officer to the Bishop Wearmouth West District of the Sunderland Union, *vice* R. J. Burns, L.R.C.P., resigned.

MATHIESON, George, M.B., C.M.Glasg., appointed Junior Resident Medical Officer to the County Asylum, Stafford.

MIDDLETON, G. S., M.D Aberd., appointed Physician to the Royal Infirmary, Glasgow, *vice* Samson Gemmell, M.D.

MILLS, John, M.B., appointed House-Surgeon to the National Eye and Ear Infirmary, Dublin, *vice* Dr. O'Sullivan, resigned.

MONAGHAN, T. J., L.R.C.P., L.R.C.S.Edin., D.P.H., appointed Medical Officer of Health to the Accrington Town Council.

MORTON, E., M.D.Edin., reappointed Medical Officer of Health for Redditch.

NEWMAN, David, M.D Glasg., appointed Surgeon to the Royal Infirmary Glasgow, *vice* William Macewen, M.D.

OLDMAN, C. E., M.D.Camb., M.R.C.S., appointed Medical Officer of Health to the Godstone Rural Sanitary District.

PARTINGTON, William, M.B Glasg., appointed Medical Officer of Health for the Tunstall Urban Sanitary Authority.

PERRY, S. Herbert, M.R.C.S., L.R.C.P., appointed House-Surgeon to King's College Hospital.

POCKLINGTON, E., M.R.C.S., reappointed Medical Officer of Health for Wimbledon.

PRICHARD, Richard, M.D Glasg., reappointed Medical Officer of Health for the Cardiff Rural Sanitary District.

PRITCHARD, E. L., M.B Lond., M.R.C.S., L.R.C.P., appointed House Surgeon to King's College Hospital.

ROBINSON, Frederick W., M.D., C.M.Aberd., M.R.C.S.Eng., appointed Honorary Surgeon to the Huddersfield Infirmary.

ROMER, Leslie R., M.R.C.S., L.R.C.P., L.S.A., appointed House-Physician to St. George's Hospital.

SANDERSON, Charles, L.R.C.P.Edin., L.F.P.S.Glasg., reappointed Medical Officer of Health for Hastings.

SHORTRIDGE, Thomas W., M.D.Brux., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health to the Honiton Town Council.

SMITH, T. W., L.S.A., appointed Assistant House-Accoucheur to King's College Hospital.

SMITH, William R., M.B.Lond., M.R.C.S., L.R.C.P., L.S.A., appointed House-Physician to King's College Hospital.

STEARN, F. C., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Cottage Hospital, Walsall.

TIDSWELL, Thomas Harrison, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health for Morecambe.

WARNER, T., M.R.C.S., L.R.C.P., appointed Assistant House-Physician to King's College Hospital.

WILSON, A. C. I., L.R.C.P.Edin., M.R.C.S., reappointed Medical Officer of Health to the Thurlstone Local Board.

WRIGHT, Edward, M.B., C.M.Edin., appointed Honorary Surgeon to the Huddersfield Infirmary.

YOUNG, Charles Wheeler Forrest, M.D.Lond., M.R.C.S.Eng., D.P.H.Camb., appointed additional Assistant Medical Officer of Health to the London County Council.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. W. Lang: Diseases of Iris. Parkes Museum, 74A, Margaret Street, W., 4 P.M.—Dr. L. C. Parkes: Communicable Diseases. 101, Great Russell Street, W.C., 8 P.M.—Dr. Galloway: Nervous System.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. W. B. Hadden: Syphilis and Nervous Disease in Children.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Percy Smith: Insanity with Syphilis. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Dr. Payne: Pityriasis Rubra and General Dermatitis. 101, Great Russell Street, W.C., 8 P.M.—Dr. Dakin: Preservation of Perineum.

HARVEIAN SOCIETY OF LONDON.—Dinner at Café Royal 7.30 P.M.

GROCERS' SCHOLARSHIP LECTURE (at the Examination Hall, 4 P.M.).—Dr. William Hunter on the Physiology and Pathology of Blood Destruction.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Mr. J. W. Hulke: A Case of Hepatic Abscess which burst into the Peritoneal Sac treated by Incision and Flushing; Recovery. Mr. Edmund Owen: The Radical Treatment of Severe Talipes Equino-varus in Children.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. C. Y. Biss: Pulmonary Emphysema. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Stanford Morton: Ocular Paralyses.

HUNTERIAN SOCIETY, 8.30 P.M.—Dr. Stephen Mackenzie: Urticaria. Dr. G. Newton Pitt: The Value of Venesection in the Treatment of Thoracic Aneurysm.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Mr. Victor Horsley: Surgical Treatment of Nervous Diseases. Hospital for Sick Children, Great Ormond Street, 4 P.M.—Dr. Colman: Pathological Demonstration on Tuberculosis. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Mr. John Hopkins: Cases in the Wards. London Throat Hospital, Great Portland Street, 8 P.M.—Mr. W. R. H. Stewart: The Causation of Diseases of the Ear.

BIRMINGHAM AND MIDLAND COUNTIES HOSPITAL FOR DISEASES OF THE EYE, 4.30 P.M.—Dr. Robert Saundby: The Middlemore Lectures on the Retinal Changes in Bright's Disease and Diabetes. Lecture I.

BRITISH GYNÆCOLOGICAL SOCIETY, 20, Hanover Square, 8.30 P.M.—Mr. H. Reeves: Specimens. Dr. Inglis Parsons: Total Absorption of a large Fibroma of the Uterus by Apostoli's Treatment. Dr. F. C. Batchelor: Cystic Formations of the Broad Ligaments; Diagnosis and Treatment.

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 11 A.M. to 1 P.M.—Professor Crookshank: Lecture—Erysipelas and Suppuration. Practical Work—Streptococci. Hospital for Consumption, Brompton, 4 P.M.—Dr. C. Y. Biss: Hæmoptysis.

CLINICAL SOCIETY OF LONDON.—Living Specimens at 8 P.M. Dr. Hadden: Two Cases of Rhythmical Rocking Movements in Children. Mr. Storer Bennett: A Case of Extensive Fracture of the Upper Jaw. Dr. F. R. Walters: A Case of Pernicious Anæmia. Dr. Pitt and Mr. Lane: A Case of Cranial Cyst. Papers at 9 P.M. Mr. Hulke: A Case of Pancreatic Cyst: Exploratory Laparotomy; Enucleation Impracticable; Death from Shock. Dr. Roper and Dr. W. A. Lane: A Case of Excision of a Cancerous Stricture of the Small Intestine from a Case of Complete Obstruction of Seventeen Days' Duration. Dr. James Calvert: A Case of Subacute Œdema of Lung occurring above a Diminishing Pleural Effusion.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. Theo. Hyslop: Insanity with Organic Brain Disease.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

BRETT.—On September 24th, at Melbourne, Australia, the wife of J. Talbot Brett, L.R.C.P.L., M.R.C.S.E., of a daughter.

MARRIAGES.

JONES—EVANS.—At the Parish Church, Dowlais, on November 2nd, by the Rev. W. R. Thomas, M.A.Oxon., Vicar of Abersychan, assisted by the Rev. Le M. Williams, Rector of Dowlais, Samuel Cromwell Jones, M.D., B.S.Lond., of Merthyr, to Elizabeth Gwenllian, eldest daughter of John Evans, Esq., Iscoed, Merthyr.

RICE—HANNAY.—On November 15th, at All Saints Church, Leamington Spa, by the Rev. C. H. Rice, B.D., Rector of Chesan and Rural Dean, assisted by the Rev. W. O. Furneaux, M.A., Vicar of Leamington, and the Rev. A. Nicholson, LL.D., Bernard Rice, M.D.Lond., of 5, Clarence Terrace, Leamington, son of the late Bernard Rice, M.B.Lond., of Stratford-on-Avon, to Lilian Hyde (Zelly), third daughter of W. Hannay, Esq., of Leamington Spa.

DEATH.

BROADWAY.—On November 3rd, at 61, Kennington Park Road, Sigismund Alexander William Edward Broadway, M.R.C.S.Eng., L.R.C.P.Lond., only son of the late James Broadway, of Cairo, Egypt, aged 28.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

MEMBER writes: Can any reader recommend a work on stammering?

P. N. asks what Steele's modification of Barnes's bags is.

N. EKUD.—Such a myth is really refreshingly mediæval.

DR. G. WASHINGTON ISAAC (75, Gower Street, W.C.) asks where a gentleman, aged 41, impecunious, suffering with spinal caries and discharging sinuses in back and groin, can be received.

J. H. writes: A lady patient of mine, who has cancer of breast unsuitable for operation, is anxious to secure admission into one of the cancer hospitals. She would like to have a sitting room, not necessarily private, attached. Which is the most suitable place, also charges of same?

ENQUIRER asks to be recommended a book of lectures on nursing suitable for a course of six lectures to women. Also where to obtain large diagrams of the circulation of the blood, etc., in connection with such a course.

H. M. asks what are the most recent works on the diseases of the spleen, together with treatment, both surgical and medical.

*** We know of no recent work treating specially of diseases of the spleen. The following references will serve to put our correspondent in the way of the study of the literature of the subject which he appears to contemplate:—Leddenhose (G.): *Die chirurgischen Erk ankungen der Bauchdecken und die chirurgischen Krankheiten der Milz.* Stuttgart, 1890. F. Enke.—Fassina (D.): *Des Abscès de la Rate dans les Maladies Infectieuses et particulièrement dans la Malaria.* 1889. Paris.—Laine (H.): *Contribution à l'Etude der Kystes Hydatiques de la Rate.* Paris, 1889.—Mayer (V.): *Ueber Leukämie.* Stuttgart, 1889.—Schömann: *Ueber Leukämie.* Greifswald, 1887.—Barbrock (W.): *Ueber Pseudoleukämie.* Kiel, 1890.—Lembke (E.): *Zur Kenntniss der Wirkungsweise*, etc. Karlsruhe, 1890.—Leyden (Hans): *Beitrag zur Lehre von der acuten Leukämie.* Berlin, 1890.—Cutter (E. F.): "Diseases of the Spleen," *Cycl. Pract. Med.* (Ziemssen). New York, 1881.

A DAILY RAILWAY JOURNEY.

ENQUIRER asks if travelling daily to Brighton is injurious to health. He has heard that it is.

CONCERNING MELBOURNE.

F.R.C.S. (Isle of Man) asks for any information concerning Melbourne and the surrounding country. The best time of the year to go out there? If there is much difficulty in getting an appointment as assistant, etc.? and would one be likely to be kept waiting long for such a post? Are the charges for board and apartments much higher there than they are in England? Are there any means of getting an appointment before going out there?

INSTITUTIONS FOR EPILEPTICS.

M.B., M.A. asks if there are any institutions where epileptic patients are received and taken charge of, upon payment of so much a quarter.

*** The epileptic could be received as a voluntary boarder into any private asylum or lunatic hospital, or there is the Hospital for Epilepsy, Portland Terrace, Regent's Park, N.W., where he might be taken if the mental symptoms are not too pronounced.

ANSWERS.

THE TITLE OF DR.

DR. C. H. SPURWAY (Rome) writes: As to the title of "Dr." in Italy, it is applied generally to all medical men, whether they are "Dottori in Medicina," or "Medici-Chirurgi," or even "Chirurgi" only.

TREATMENT OF HYDROCELE.

DR. J. GRANT BRIDE (Chandos Street, W.) recommends, after the fluid has ceased to flow, that red oxide of mercury, gr. iv or v, should be introduced on the narrow end of a small director. The sac will, of course, refill to its utmost capacity, but in a few days there will be signs of abatement, and the clearing up will go on rapidly, so that in about a fortnight the patient will be fit to walk about, wearing a suspensory arrangement of some kind.

THE TREATMENT OF SYPHILIS BY INJECTIONS OF SERUM.

J. R.—Only two observers—Tommasoli and Sattori—have as yet tried this method of treatment. The data are somewhat meagre, but it would appear that, although neither author has as yet applied the treatment to a case of tertiary syphilis, it is likely to prove equally efficacious in such a case. The serum must be prepared with every precaution necessary to secure the asepticity of all vessels and instruments employed. The blood must be allowed to flow direct from a divided vessel into a flask which has been previously sterilised by heat, care also having been taken to render the surrounding parts of the animal as aseptic as possible. The flask is about half filled, then plugged with cotton wool, and placed in a cool place in order to allow the serum to separate from the clot. For this purpose it is more convenient to stand the flask in a slanting position, as this facilitates the subsequent withdrawal of the serum. The dose at first should be about 2 or 3 c.c., but may afterwards be raised to 6 c.c., and should be repeated with frequency proportional to the tolerance of the patient. A daily use is not recommended. Severe disturbance may generally be put down to septicity of the serum employed, and this can always be avoided.

NOTES, LETTERS, Etc.

MR. ERICHSEN'S pamphlet *On Hospital Federation for Clinical Purposes*, to which we have already referred at length, has been published by Mr. H. K. Lewis, price 1s.

ERRATUM.—The name of Dr. Henry Barnes, of Carlisle, was accidentally omitted from the list of those attending the Parliamentary Bills Committee, in the BRITISH MEDICAL JOURNAL of November 12th. It was Dr. Barnes, and not Dr. Bridgwater, who proposed the vote of thanks to the Chairman with regard to the course taken by him to restrict the sale of proprietary medicines containing poisons.

POLYMASTIA AND EVOLUTION.

DR. A. H. F. CAMERON (Worcester) writes: I have read Dr. Lorimer Hart's note on Polymastia, and am perplexed to know what he means by stating that such cases are "a fair example of retrogression to a type of a primitive ancestor." Some years ago I brought the subject before the profession, in the columns of the *Journal of Anatomy and Physiology*, and gave Professor Leichenstein's figures and results, but I must confess I see no relation to the doctrine of evolution in the matter.

GRATUITOUS LECTURES: THE ST. JOHN AMBULANCE CLASS.

STAFFORDSHIRE.—We think it palpably unjust that when the County Councils have made grants, as in Staffordshire, for the St. John Ambulance classes, as part of a technical education, and a fee is charged to members for attendance, the surgical lecturers should be called to give their services gratuitously. In all other classes under the auspices of the County Council the lecturers are paid. By accepting such posts gratuitously under these circumstances the lecturers would only add to the appetite for gratuitous service from the medical profession, which seems to grow inordinately. We may add that the National Health Society, 43, Berners Street, always has paid its lecturers a fee of £1 1s. and expenses for first aid lecturers; and the County lecturers are usually paid on an adequate and sometimes a liberal scale.

GREEK AND THE M.D. DEGREE.

ANOTHER M.B. C.M. writes: In my opinion, the best way to proceed to obtain fair play would be to let those graduates to whom Greek bars the way to the M.D. degree each send their name to "M.B., C.M.," and "Pella," and then arrange for a petition to be to the University authorities, pointing out the anomaly and injustice, and praying for redress. Let the petition be presented by a deputation or by the member of Parliament for the University. I feel sure, if courteously requested, Sir Charles Pearson would consent to oblige us.

SIMULTANEOUS FIBROID AND CANCEROUS DISEASE OF UTERUS.

MR. CECIL F. BEADLES (Colney Hatch Asylum) writes: Before reading EPITOME of November 5th, par. 392, I certainly had no idea that the simultaneous existence of fibroid and carcinoma of the uterus was so rare as stated, for I remembered having myself seen the condition. However, in 19 cases of carcinoma uteri of which I have *post-mortem* notes I find only one recorded case. In this there was carcinoma of the cervix and a small fibroid in the upper part of the body of the uterus. Recently I have come across a similar case in the *post-mortem* reports of this asylum which occurred some years back. To me the only strange point is that this combination has not more frequently been noted, seeing how commonly small fibromata are found by accident in the uterus after death.

The Medical Profession in the United States.

Dr. Millard has recently stated that, of 130 medical schools in the United States, less than a dozen are endowed. The number of practitioners is greatly in excess of the requirements of the population. In the decade ending with 1890, 115,355 students matriculated in the medical colleges of the United States, and 39,946 graduated—an average of practically 4,000 yearly, which, in Dr. Millard's opinion, is more than double the number there is really room for. He estimates the proportion of medical men to population in the United States as 1 in 600.

Baby-Farming in Australia.

The sensation caused in Sydney by the Macdonald Town baby-farming case has, we read, been greatly increased by another discovery at Redfern, the most important suburb of the city. The finding of the bodies of seven infants buried in the yard of a house at Macdonald Town, occupied by a couple named Makin, led to a search being made at another house formerly occupied by them at Redfern, with the result that four more bodies in an advanced state of decomposition have been discovered. Makin and his wife have both been arrested on the charge of causing the deaths of babies entrusted to their care, and inquests are now being held both at Macdonald Town and Redfern.

The Accomplishments of an Alienist.

Insanity writes: In addition to the communication of your correspondent "Sanity," allow me to record my own experience. When I entered on my duty as assistant medical officer to a county asylum, one of the first questions asked me by the medical superintendent was, "Can you sing?" On another occasion I was a candidate for a similar post in another county asylum, and was informed that the medical superintendent wanted "a man to take a leading part in music and athletics." I was not appointed. I have heard of many similar cases.

"Sanity" would be less surprised than he seems to be did he know what the status of assistants to asylums really is. Briefly expressed it is this. The law does not recognise their existence, and they are practically outside the pale of the profession. If these unfortunate men dared to speak much would have been heard about their lot before now. As it is, something will have to be said by someone, and that soon.

Dr. Percy J. Baily (Hanwell) writes: "Sanity" speaks of certain "accomplishments" as "the qualifications which constitute an alienist, as formulated by those who have charge of our asylums." It would have been more logical, perhaps, if he had said one of our asylums. Will he not give us the name of this assistant medical officer's "Elysium?" He says it is "one of our largest" asylums. Why does it so bashfully hide itself away?

To those going to the Colonies, India, or America.

H. B. (St. Thomas's Hospital) writes: Some six months ago I had determined to start practice in one of the Colonies, and I spent much time in finding out which I considered the most favourable one to settle in. I have, however, since that, owing to change of circumstances, decided to remain in London. In my search for the most suitable colony to start for I consulted every possible source of information, namely, Government offices, Colonial newspapers, directories, and emigration handbooks, and also obtained verbal information from many who had resided in the Colonies. As the result of my inquiry may interest some of your readers who are placed as I was, I send the following for their benefit. I. That Australia "up country" offers the best chance, as (1) population is English, (2) climate good, (3) field of action very large, (4) constant growth of fresh towns. II. That for those who do not object to club practice New Zealand is next best. The majority of the colonists here are Scotch, who have a partiality for their own countrymen. There are plenty of doctors in big towns. III. The United States is a good place for those who have some capital at command. Living is rather expensive, but the fees are good. As a rule, "up country" is best, but for first-rate men the towns would present openings in the way of hospital appointments, etc. IV. South Africa is, I find, much overdone, the doctors being almost as thick in proportion as in London. Here, it must be remembered, the white population is comparatively small, and Kaffirs and Zulus are not "pay patients," but attend the hospitals. The climate is good. V. In India there is some opening in the large towns for first-rate men and those who hold the diploma of D P.H. Many of the appointments are held by army men, but as they are now more open to competition well-qualified men with D P.H. would stand a good chance. From what I hear, "quacks" are very numerous in all the Colonies.

Local Lectures on Vaccination.

Dr. R. W. Snowden Bishop (Ripon) writes to express thanks for the loan of *The Truth about Vaccination* by Mr. Ernest Hart, and he hopes that the reprint will soon be available.[1] He says, too: "Dr. Edwardes's little book is really admirable—clear and brief." The effect of the lecture given by him was convincing, and a motion, seconded by an anti-vaccinationist, carried unanimously in favour of the principle of vaccination.

Supposed Discovery of the Male of Filaria Medinensis.

In the recently issued "Scientific Memoirs by Medical Officers of the Army of India, Part VII.," there is a contribution on the life history of filaria medinensis by Surgeon R. H. Charles, I.M.S., in which he claims to have discovered the long sought for male. We have carefully read this paper, and examined the drawings given in illustration of the text, but in neither can we find such sufficient evidence, as helminthologists will undoubtedly demand, for the validity of so important a claim. Dr. Charles states that he found in the subperitoneal tissues of a dissecting room subject certain nematode worms, which we agree with him in regarding as specimens of immature filariæ medinensis. He says, "On examining two . . . . . I was struck by seeing something growing from the side of each of them. This 'something' I found to be a round worm with the characters of that to which it was attached. On drawing upon it with a forceps I found, to my astonishment, that it was possible to pull it out of the body of the larger worm from a small opening near its middle. . . . . I did not completely pull it out; and only withdrew it about 1 cm." He is of opinion that this "something" was the male dracunculus in copulation, and he elaborates, on this assumption as a basis, a life history of the parasite. Before subscribing to Dr. Charles's views, we should like to see a more detailed account of the structure of this "something," which he says is the male dracunculus. We would point out that such a method of copulation as he describes is at variance with what is supposed to obtain in the case of the nematodes. With them coitus is supposed to be effected by the male applying the cloaca to the vagina of the female, retaining her in position by the aid of the spicules with which he is provided; not by inserting the tail into the vagina. Dr. Charles gives no account of the head, tail, testicle, alimentary canal, spicules, papillæ, or any of those features characteristic of the male nematodes. Until these are fully supplied we suspect that helminthologists will be inclined to regard Dr. Charles's supposed male filaria medinensis as being probably a hernia of the uterus or alimentary canal of the female to which it was attached, the result of some slight injury of the musculo-cutaneous wall of the parasite. It is quite possible, however, that Dr. Charles is right in his views; but in bringing them forward the least he could have done, in justice to himself and in the cause of science, was to use every means in his power to justify the position he assumes, and to make it unassailable. It is not too late yet if he has the interesting specimens he so meagrely describes in his possession.

[1] It will probably be desirable to await the completion of the Report of the Royal Commission on Vaccination.

Epithelioma of the Lip in Women.

Mr Isaac Banks, M.B. (Aberdare), writes: A few weeks ago I removed an epithelioma from the upper lip of a woman, aged 42. The teeth in contact with the growth were perfect; she did not smoke. She states that about six years ago she received an injury to her eye, after which a small sore came on her lower eyelid, which lasted six months. When this healed a wart appeared on her upper lip; in a short time it turned into a sore, and had been increasing in size until I saw her. It was very tender to the touch, indurated, and bled very easily. Microscopical examination proved its cancerous nature. I removed it by the ordinary **V**-shaped incision.

Dr. Keith Macdonald still recommends the use of needles. This year I have operated on four cases of epithelioma of the lip, and on two cases of hare-lip; one of the latter was a double one, in which there was a good deal of tension and not much tissue to spare. In all cases I used silver wire and horsehair sutures, introduced with great facility by a handled, full-curved, recto-vaginal fistula needle. I removed all sutures on the fourth day, and every case was perfectly satisfactory. In cases where there is much tension I place the sutures very close together, so as to have the drag more evenly divided; whereas, if needles are used where tension is great, a slough at the point of entrance and exit of needles, leaving a permanent mark, is apt to form.

Antivivisection and Research Controversy.

J. D. M. writes: Antivivisectionist to Experimental Researcher: I say, why will you play the base part of submitting those poor innocent animals to the cruelty of testing the action of your new fangled drugs when there are so many human beings upon whom you can carry out your researches without violating our feelings? Researcher: Well, you see, I have still a little mercy and fellow feeling left, and I am inclined to think the human being is worth a hundred rabbits. Chorus of Antivivisectionists: Preposterous.

"For the purposes of scientific biology, as for the purposes of the medical art, there exists, as has been pointed out, a large store of experiments in the phenomena of disease which are unfortunately too abundant. The rational use of these might, we think, in most cases be sufficient for all our wants, not impossibly in all cases" (Harveian Oration). Now, whether this be interpreted as suggestive of widespread experiment on human beings or not, the bungling of ignorance so amply implied would be, and indeed practically is, inevitable. Now the divines, the ladies, and, strange to say, the medical men who ignore the very large amount of human suffering either so induced or unmitigated by it, should be told that it is the humane and laudable object of the "researcher" to minimise this suffering by substituting a rational treatment for a venal quackery. Objection has been raised to the, so-called, cruelty of inducing specific disease in the lower animals, presumably for the mere pleasure of witnessing the result. It is, however, in this way alone, without still further experimenting upon man, that we can arrive at the distinctiveness of true causes and how they are to be distinguished from simple concomitants. It is very well to say that the bacillus of tuberculosis is the specific cause of that condition, but unless the disease were capable of being reproduced by inoculation with pure cultivations of that form no scientific affirmation could be made in relation to it as a true cause and not merely a concomitant. Whether Miss Cobbe apprehends this necessity or not, she seems to fear the frightful alternative noticed above. "Already," she says, "in Germany the claims of science have risen so high that the patients in the hospitals are commonly referred to by the medical men as 'beasts of research,'" and it is rather humiliating to the English profession to know that "more than a whisper has been heard that in the pursuit of knowledge, even in England, patients have been kept in extreme suffering that physicians and surgeons might better study their diseases, and subjected to frightful operations to enable their surgeons to register discoveries, even when they were the inevitable precursors of death"—a charge too dreadful to contemplate, but it is unblushingly made in the *Zoophilist*. If Miss Cobbe really believes this, she ought to give up the contest, cry *peccavi*, and charter a cargo of rabbits out of the proceeds of the *Zoophilist* from the overstocked farms of Australia. This would indeed be philanthropy *versus* zoophily in a duplex sense.

A Diseased Shaving Brush.

Trichorrhexis nodosa is a singular and rare disease of the hair, "characterised by each hair dilating at intervals and breaking at these enlarged points. The dilated node consists of separated cortical fibres, which look very much like the splitting and enlargement of a cane when broken across, and the air which enters between the fibres makes

them appear white by reflected light. They have thus a superficial resemblance to the ova of pediculi. It is almost always confined to the beard, and is non contagious and non-parasitic."[1] Dr. M. P. Ravenel,[2] of Charleston, who is himself a sufferer from the disorder, recently discovered that many of the hairs in his shaving brush presented the same appearance as the hairs of his beard and moustache. Stelwagon, who examined the brush, confirmed this opinion; and in a second case which had been under the care of Guiteras the hair brush and tooth brush were found in the same condition. Ravenel's tooth brush was also affected. The hair of the brushes was different in the two shaving brushes; in one it was what is called in the shops "badger hair," the other was some coarser hair resembling hog bristles, while the tooth brushes were made of still another kind of hair. All this is thought to make it very probable that the hair of the brushes was infected from the user's hair. A further communication on this curious subject is promised, and meanwhile Dr. Ravenel is anxious that the shaving and tooth brushes used by other sufferers may be examined and the results made known.

VENESECTION IN APOPLEXY.

DR. R. D. PATTERSON (Caledon, co. Tyrone) writes: On the evening of October 25th I received an urgent message to visit Mrs. G., who, I found, had been seized with cerebral apoplexy of a severe character. In consequence of the profound coma and muscular twitchings around the mouth, I looked upon the case as almost hopeless, and, without any hesitation, gave an unfavourable prognosis. However, I lost no time in applying the usual routine treatment in such attacks, namely, sinapisms to nape of neck and calves of legs, after being kept in a mustard bath. I placed 10 grains of calomel on the dorsum of the tongue, drained the bladder, applied ammon. sesquicarb. to the nostrils, etc. This treatment was persevered in for at least an hour, but, as there was no signs of improvement, I felt sure she would never regain consciousness unless something further were done to relieve the circulation, and venesection naturally suggested itself to me. I stated my conviction to the friends, and got their sanction. I accordingly opened the cephalic vein in the left arm, and depleted the patient to the extent of 10 ounces, and in less than half an hour was gratified to see evidence of returning consciousness—blowing of cheeks less pronounced, patient taking notice of, and seemingly recognising, those around her, and raising her hand to her head as if in pain, and before I left she was able to answer "Yes" to my inquiry if she felt better. Next day improvement was maintained. The muscular twitchings were now a prominent feature, especially when attempting to answer questions or swallowing liquids. I again drew off the urine, and relieved the bowels by a soap-and-water enema. An ice-cap was applied, which gave great relief to the headache. The following day we ventured to remove the patient to her own home, which was done without causing any unfavourable change. Since then the progress of the case has been most satisfactory, so much so that on my last visit (six days after the attack) she was practically convalescent, without any sequelæ, and expressed herself as feeling better than she had done for years, her friends stating at the same time that she looked better than they had seen her for a long time.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Mr. J. M. Aynsley, Christchurch, N.Z.; Dr. F. H. Atkinson, Kingston-on-Thames; Mr. W. C. Amery, Birmingham; Aliquis. (B) Mr. A. W. Blyth, London; Dr. A. T. Brand, Driffield; Mr. G. Brown, Macclesfield; Mr. R. Bert, Louth; Mr. R. P. Bishop, Kirkby; Mr. R. Brimscombe, Bristol; Dr. H. Barnes, Carlisle; Dr. R. Bell, Glasgow; Dr. R. Botton, Bangor; Mr. R. J. Brown, Norwich; Dr. J. M. Barnett, Belfast; Mr. W. T. Bush, Oxford; Mr. F. C. Brett, Bridlington; Mr. J. Brown, Pirbright; Mr. C. E. F. Mouat Biggs, Cheltenham; Dr. Broadbent, London; E. C. Baber, M.B., Brighton; Dr. J. M. Booth, Aberdeen; Dr. R. Boxall, London; Mr. C. Beadles, Colney Hatch; Mr. W. H. Blenkarne, Leicester; Mr. A. H. Beal, London; Mr. G. F. Bergin, Clifton; P. J. Baily, M.B., London. (C) Dr. C. H. Cattle, Nottingham; Mr. Henry E. Clark, Glasgow; Mr. W. H. Cooke, London; Dr. Collie, Bournemouth; Dr. Collier, Oxford; Dr. J. S. Collaghan, Colyton; C. J.; Mr. J. Couldrey, Doncaster; Mr. H. Collier, London; Dr. J. Campbell, Belfast; Mr. J. Chestnutt, Howden; Dr. A. R. Croucher, St. Leonard's-on-Sea. (D) Mr. S. Dowie, Cloughton; Mr. B. Duke, London; Mr. D. Duncan, London; Rev. J. R. Diggle, London. (E) Mr. James Edward, London; Dr. J. Ewart, Brighton. (F) Dr. T. R. Fraser, Edinburgh; F.R.C.S.; Dr. H. Fox, London; Mr. P. F. Frankland, Dundee; Dr. Field, London. (G) Messrs. L. Greiner and Co., London; Mr. F. Goodwin, Plymouth; Dr. M. Greenwood, London; Dr. Greene, Southsea; Mr. J. Glover, Woodgate. (H) Dr. De Havilland Hall, London; Mr. T. F. Hopgood, Sunderland; Dr. L. Henry, Melbourne; Mr. T. G. Horder, Cardiff; Mr. Nelson Hardy, London; Jo Hodgson, M.B., Oldham; Dr. J. Highet, Workington; Mr. Harold, London; Mr. G. M. Hogg, Stockton-on-Tees; Mr. A. T. Hale, Sheffield. (I) Mr. J. H. Isaac, London; Insanity; Dr. C. R. Illingworth, Accrington; Inquirer. (J) J.; Mr. F. Johnson, Dover; Mr. N. M. Jones, London; Dr. J. F. Jenkins, Michigan; Messrs. Johnson Son and Ellis, London. (K) Dr. G. R. Kealy, Gosport; Dr. J. Keating, Ballinastig. (L) Mr. W. Lees, Chester; J. Lloyd, M.B., Birmingham; Mr. R. C. Lucas, London; Mr. F. Lankester, London; Mr. A. Loveridge, Newport. (M) M.D. London; Mr. J. Mackenzie, Edinburgh; Dr. C. Mercier, Southend; Dr. L. Marshall, Nottingham; Dr. Manson, London; Mr. McMichael, Birmingham; A Member; M.O.H.; Dr. J. Martin, Huddersfield; L. Macdonald, M.B., Arianie; Dr. H. Marshall, Clifton; Mr. G. F. Mullar, Southampton; Mr. F. W. McGachen, Rugby; Dr. J. D. Macdonald, London; Mr. J. Morton, London; Dr. J. Murphy, Sunderland. (O) Dr. W. M. Ord, London. (P) Mr. A. E. Price, London; Mr. R. D. Patterson, Caledon; Dr. L. Phillips, Birmingham; Dr. C. H. Phillips, Hanley; Perplexed; Sir J. Paget, London; Mr. Prideaux, Wellington; Mr. C. F. Pickering, Clifton; Mr. G. H. Parry, Docking; Dr. W. R. Parker, Kendal; Dr. J. Parsons, London. (R) Dr. W. Robertson, Newcastle-on-Tyne. (S) Messrs. Slinger and Son, York; Dr. Seaton, London; Mr. T. H. Smith, Farningham; Mr. Morton Smale, London; Dr. R. Saundby, Birmingham; Mr. R. R. Sleman, London; Mr. A. Stuart, Melbourne; Dr. S. W. Smith, Cheltenham; Dr. J. K. Spender, Bath; Dr. Sykes, Gosport; Dr. Stockman, Edinburgh. (T) Dr. S. J. Taylor, Norwich; Dr. W. B. Thorne, London. (U) University of Glasgow, The Secretary of the. (W) Dr. T. B. Whitton, Keepton; Mr. W. H. Warner, London; Mr. W. S. Wilding, Hindley; Mr. F. M. Wallace, Bexhill; Dr. Wheaton, London; W. L. O. Williams, M.B., Bryngwyddfair; Dr. W. Hale White, London; E. T. Wilson, M.B., Cheltenham; Mr. M. Wood, Dingwall; R. R. Whishaw, M.B., Croydon; Etc.

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[1] Pye-Smith in Fagge's *Medicine*.

[2] *Med. News*, October 29th, 1892.

BOOKS, ETC., RECEIVED.

Henriette Ronner: the Painter of Cat Life and Cat Character. By M. H. Spielmann. London: Cassell and Co.

The Magazine of Art. London; Cassell and Co.

Researches in Female Pelvic Anatomy. By J. Clarence Webster, B.A. M.D., etc. London: Young J. Pentland. 1892.

Tubo-Peritoneal Ectopic Gestation. By J. Clarence Webster. London: Young J. Pentland.

Umsturz der Harvey'schen Lehre vom Blutkreislaufe und Erklärung der natürlichen Blutbewegung. Von Dr. F. Jezek. Leipzig: Peter Hobbing. 1892.

The Love Song of Barbara. By Charles Joseph Whitby. London: Elliot Stock. 1892.

The Official Report of the Church Congress held at Folkestone on October 4th, 5th, 6th, and 7th. 1892. Edited by the Rev. C. Dunkley. London: Bemrose and Sons, Limited. 1892.

Outlines of Organic Chemistry. By Clement J. Leaper, T.C.S. London: Iliffe and Son. 1892. Price, 2s.

The Value of Hypnotism in Chronic Alcoholism. By Charles Lloyd Tuckey, M.D. London: J. and A. Churchill. 1892. Price, 1s.

Antiseptic Dry-air Treatment of Consumption; a Practical Treatise dealing with the Origin of Consumption; how it can be Prevented and Successfully Treated by Rational and Safe Means. By John J. Hartnett, M.D. London: J. and A. Churchill. 1892. Price, 3s. 6d.

Guide to the Science of Photo-Micrography. By Edward C. Bousfield. London: J. and A. Churchill. 1892. Price, 6s.

Fairway Island. By Horace Hutchinson. London: Cassell and Co., Limited.

La Pathologie des Emotions, Études Physiologiques et Cliniques. Paris: Ancienne Librairie Germer. Baillière et Cie. Felix Alcan, Éditeur. 1892. Prix, 12 francs.

The World of Romance: a Treasury of Tales, Legends, and Traditions. London: Cassell and Co., Limited.

Historic Houses of the United Kingdom; Description, Historical, Pictorial. London: Cassell and Co., Limited.

Textbook of the Embryology of Man and Mammals. By Dr. Oscar Hertwig. Translated from the German by Edward L. Mark, Ph.D. London: Swan Sonnenschein and Co. 1892.

The Nationalisation of Health. By Havelock Ellis. London: T. Fisher Unwin.

The Transactions of the Edinburgh Obstetrical Society, Vol. xvii. Oliver and Boyd. Edinburgh. 1892.

Diseases of the Kidneys and Bladder: a Textbook for Students of Medicine. By W. F. McNutt, M.D., M.R.C.S. Edin. Philadelphia: J. B. Lippincott and Company. 1893.

Walks in Holland, Cycling, Boating, by Rail, and on Foot. By Percy Lindley. 125, Fleet Street, and 61, Regent Street, and all booksellers. Price, 6d.

Holidays in North Germany and Scandinavia. By Percy Lindley, 125, Fleet Street, and 61, Regent Street, and all booksellers.

New Holidays in Essex, with Rail and Walking Routes; Boating, Fishing, and Shooting Notes. By Percy Lindley, 125, Fleet Street, and 61, Regent Street, and all booksellers. Price, 6d.

Walks in the Ardeanes, with Boating, Fishing, Cycling, and Shooting Notes. By Percy Lindley, 125, Fleet Street, and 61, Regent Street, and all booksellers. Price, 6d.

The Great Eastern Railway Company's Tourist Guide to the Continent. Published for the Great Eastern Railway Company at 125, Fleet Street, and 61, Regent Street, London. Price, 6d.

*** In forwarding books the publishers are requested to state the selling prices.

SIXTIETH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

PHARMACOLOGY AND THERAPEUTICS.

J. O. Brookhouse, M.D., President.

THE CARDIAC TONICS,

Being a discussion opened by W. H. BROADBENT, M.D., F.R.C.P.,

Physician in Ordinary to the Prince of Wales; Physician to St. Mary's Hospital.

The Group of Cardiac Tonics.

The group of substances which form the class of cardiac tonics possesses special interest, since these remedies not only render important service in the treatment of disease, but furnish one of the best illustrations of the relation between physiological and therapeutical action. The chief members of the group are digitalis, strophanthus, convallaria, caffein and its congeners, and spartein. Digitalis, the longest and best known, and hitherto the most important of them, will be taken as the representative of the class, and to it will apply the general observations which will constitute the chief part of my contribution to this discussion.

Their Physiological Action.

The physiological action is a stimulation of the muscular fibres of the entire cardio-vascular system, giving rise, on the one hand, to more deliberate and powerful action of the heart, and on the other to tonic contraction of the arterioles and capillaries. After death from the poisonous effect of digitalis, the arterioles are narrowed to an impervious thread, and the ventricles of the heart are found firmly contracted upon themselves, and empty. The drug appears to act directly upon the muscular structures, and not through an intermediate influence upon nerves; we have not, therefore, in considering the effects upon the heart, to discuss the question whether they are produced by inhibition of the sympathetic or stimulation of the vagus.

Their Therapeutic Action.

There are various ways in which the physiological action thus briefly sketched may come to the aid of the circulation when the transit of blood through the heart is hampered by valvular or other disease. Besides the more complete expulsion of their contents by the energetic contraction of the ventricles, which will help to fill the arterial side of the circulatory system, there will be improved suction action during diastole, which will tend to withdraw from the veins the blood which has been dammed back and remains stagnating in the liver and abdominal venous plexuses. Another effect is that not only are the force and effectiveness of the systole increased, but the general vigour of the heart is renewed, through the increased physiological rest resulting from the relative prolongation of the diastolic period, which gives opportunity for nutritive repair of the cardiac muscular fibres and for the reaccumulation of energy expended in the systole.

The primary effect of the tonic contraction of the arterioles will be to increase the resistance in the peripheral circulation thus throwing more work upon the heart, and it is conceivable that the arterio-capillary contraction may, under certain conditions, more than neutralise the increased force of the ventricular systole, as, for example, when the cardiac muscular fibres have undergone serious degeneration, and, as a matter of observation, this is found sometimes to be the case. For the most part, however, the disease, and especially valvular disease, which has given rise to the necessity for cardiac tonics, will have brought about considerable hypertrophy of the muscular walls of the heart without any corresponding hypertrophy of the muscular walls of the vessels. The balance of advantage, therefore, when the contractile energy of both heart and vessels is increased, is largely on the side of the heart, its muscular fibres having greatly increased in number and size.

It might seem, again, that the contraction of the arterioles would more or less intercept the *vis a tergo* in the veins which is already lacking, as is often manifested by the presence of œdema. If, however, we bear in mind that the contraction affects not only the arterioles but the capillaries also, it will be evident that the narrowing of these channels will give rise to increased rapidity of the current of blood within them which will carry to the venules the propulsive force communicated by the heart better than a sluggish and irregular movement through a network of flaccid and dilated and bulging capillaries. This more rapid onward flow of the blood will again favour the taking up of fluid effused into the intertextural spaces.

It would seem that the effects just enumerated ought to be of equal service in all forms of heart disease, excepting structural degeneration of the walls, and certainly in all forms of valvular disease. As a matter of observation, however, such is not found to be the case. In one valvular disease, mitral incompetence, all observers agree that digitalis is of the greatest possible service; in another, mitral stenosis, there is almost equal concurrence of opinion that this remedy is not of the same benefit, and, indeed, that it is capable of doing harm and of aggravating the bad effects of the disease. In aortic incompetence opinions are divided, some maintaining that the cardiac tonics in general and digitalis in particular are injurious, others that they are helpful. The same may be said of aortic stenosis.

It appears to me that an explanation of this difference, if it can be arrived at, will make our comprehension of the beneficial effect more clear and render our employment of these remedies more precise.

The question of the effects of digitalis is often argued on theoretical grounds, but it must be pointed out that it is upon experience and not upon theoretical considerations that the conclusion just stated as to the difference in its remedial influence is based. Long before the physiological action of digitalis was ascertained it had been noted that this remedy was not always beneficial in its action, and was sometimes obviously injurious, and much was said by old writers as to intolerance of the drug and especially as to its cumulative effects.

When mitral stenosis was not distinguished from incompetence of this valve the varying effects of digitalis must have been most perplexing and, indeed, incomprehensible.

Mode of Action of Cardiac Tonics in Mitral Regurgitation.

Mitral regurgitation being the disease in which the action of the cardiac tonics is almost always beneficial, a study of the conditions presented may enable us to arrive at some comprehension of the way in which the good effects are brought about.

What takes place in mitral regurgitation is as follows:—The regurgitation into the left auricle dilates this cavity (there may be some hypertrophy of its muscular walls, but no compensatory influence of any consequence is gained thereby), and at the same time drives back the blood which is flowing towards the left auricle and ventricle by the pulmonary veins. The obstruction in the pulmonary veins necessarily gives rise to resistance to the onward flow through the capillaries, to overcome which increased pressure is required in the pulmonary artery, and therefore greater driving power on the part of the right ventricle. From this results hypertrophy of the right ventricle, which is the great compensating agency by which the leakage of the mitral valve is more or less perfectly neutralised. If the blood pressure in the pulmonary veins could be maintained at such a point as to be greater than the pressure in the aorta, there would be no reflux into the auricle during the contraction of the ventricle, even were the mitral valve completely destroyed, but, however powerful the action of the right ventricle, this can never be absolutely the case; the walls of the pulmonary capillaries and veins and of the left auricle are too weak to resist such a distending force, and moreover the suction action of the left ventricle

will always temporarily reduce the pressure in the left auricle.

Another change in the heart resulting from mitral regurgitation must be noticed. This is a dilatation of the left ventricle, produced by distension of this cavity during the defenceless diastolic period, by the high pressure in the pulmonary veins and left auricle. It involves some consecutive hypertrophy of the ventricular walls.

These familiar and elementary explanations are enumerated in order once more to emphasise the fact that the work of compensation for mitral regurgitation falls upon the right ventricle, and that when systemic venous stasis and other late effects of mitral regurgitation show themselves, it is because the right ventricle is beaten by the resistance in the pulmonary circuit, and can no longer keep up adequate pressure in the left auricle.

Applying now our knowledge of the physiological effects of digitalis, we shall see that the favourable results of its administration are due almost entirely to reinforcement of the right ventricle. On the left side of the heart and in the systemic circulation there will be produced a certain degree of arterio-capillary contraction, with slight increase in the peripheral resistance and in the intermediate arterial tension, and a more deliberate and energetic action of the left ventricle in systole, which makes room for a large volume of blood in diastole, while the elastic rebound at the end of systole exercises a better suction action on the contents of the distended left auricle. The hypertrophy of the ventricular walls, which will more than neutralise the increase of resistance in the peripheral circulation, and the greater capacity of the cavity would, in the absence of regurgitation into the auricle, result in the projection of a larger charge into the arteries at each systole. The effect of this is undoubtedly good, but the regurgitation is a set off against it, and this will be increased with the increase of resistance in the arterial system. So far, however, as these good effects on the left ventricle and systemic circulation are concerned, they would be much more conspicuous in aortic regurgitation than in mitral regurgitation, since the ventricle is stronger and its capacity larger, and yet we do not find that digitalis is more useful in this affection, but very often the contrary.

Looking now at the effects upon the right side of the heart and the pulmonary circuit, there may or may not be contraction of the arterioles and capillaries in the lungs with increase of resistance. This could, however, in any case only be slight, while the ventricular walls being greatly hypertrophied, increase of vigour in their contraction will at once raise the blood pressure in the entire pulmonary circulation and in the left auricle. Improved pressure in the left auricle, as has been seen, will at once fill the left ventricle better during diastole, will resist reflux through the mitral orifice, and will increase the amount of blood thrown into the aorta.

It is here that the beneficial influence of digitalis really comes in. As has been before stated, the neutralisation of the effects of mitral regurgitation is almost entirely the work of the right ventricle, and it is by increasing the efficiency of its compensatory action that digitalis is of service. Additional evidence of this is, on the one hand, the fact that relief of over-distension of the right side of the heart by venesection or leeches and purgation is an important corroborative measure, in many cases absolutely essential to the result, and, on the other hand, that digitalis fails when the right ventricle is seriously degenerated or hampered by pericardial adhesions.

Among the conspicuous favourable results of the administration of digitalis is diminished irregularity of the pulse. This is entirely due to the higher blood pressure in the left auricle, and the more regular supply of blood to the ventricle. Mitral incompetence is the one among the valvular affections which is specially liable to give rise to irregularity of the pulse. This will be understood from the following considerations. The left auricle is exposed to the respiratory variations of pressure, which its thin walls resist only imperfectly. When, therefore, these variations are exaggerated, as when the breath is held or when there is dyspnœa from bronchitis or asthma, the amount of blood carried on into the left ventricle will vary, and the pulse will be more or less irregular.

During inspiration the negative pressure will tend to keep the auricle dilated, and to prevent it from contracting properly, so that the ventricle will not have a full charge of blood, and its systole will be brief and abortive. During expiration the auricle will be compressed, and its contained blood will be forced on into the ventricle with opposite consequences. In mitral regurgitation a further effect will be that the negative pressure of inspiration will encourage the reflux into the auricle, while the positive pressure of expiration will oppose it. In this way—the ventricle sometimes being imperfectly, at other times perfectly, filled, sometimes sending back more, sometimes less, of its contents into the auricle—we have ample explanation of irregularity of the pulse. Now the lower the internal blood pressure in the auricle and pulmonary veins, the greater will be the effect of variations of external pressure, and the higher the pressure within the auricle the more independent it will be of pressure from without. It will be seen, therefore, how digitalis steadies the action of the heart, and renders the pulse more regular.

Effects of Digitalis in Mitral Stenosis.

Examining now the effects of digitalis in mitral stenosis, we may perhaps see why they are less certainly favourable, and sometimes clearly unfavourable. In an uncomplicated case the left ventricle is neither dilated nor hypertrophied, and the arteries generally are already small and contracted. No obvious advantage can be seen in further contraction of the arterioles, and, in point of fact, the symptoms are somewhat relieved by causing them to dilate. No great improvement in the output of blood, again, is to be gained by more vigorous contraction of the walls of the left ventricle, as they are not specially strong, and the cavity is small. But it would seem that increased vigour in the contraction of the right ventricle should have the same good effect here as in mitral regurgitation, and some beneficial influence is indeed very commonly observed at first. The conditions, however, are different. In mitral regurgitation the increased amount of blood driven into the pulmonary artery antagonises the reflux into the auricle, and finds its way more and more easily into the left ventricle, whereas it cannot be forced through a constricted mitral orifice beyond a certain rate of speed, and if the ventricle is stimulated to contract more than is required for this, it encounters an insuperable obstruction, and becomes embarrassed in its action. A common result is irregularity in the beats, accompanied by a sense of precordial oppression, and not infrequently the heart beats are in couples, the first of which alone reaches the wrist, the second having no aortic second sound.

In many cases of advanced mitral stenosis, the coupled beats can be produced at will by giving digitalis. The second of the two beats is evidently a supplementary systole of the right ventricle. There is a right ventricle impulse felt over the lower left costal cartilages, while the apex beat is scarcely, or not at all, perceptible; at the second of the coupled beats both right ventricle sounds are heard, while the aortic second sound is absent, and, if there is a systolic mitral murmur as well as the presystolic, it is audible only with the first of the two beats.

Digitalis in Aortic Regurgitation.

In aortic regurgitation failure of compensation is manifested in two distinct ways, and there are two different modes of death. In one the effect is defective propulsion of blood into the arterial system, manifested by faintness, giddiness, and sudden weakness of the legs, sometimes by anginoid pain; death is by syncope. In the other there is obstructive backworking through the lungs and right heart, giving rise to venous obstruction and dropsy, exactly as in mitral insufficiency. There are, in effect, aortic physical signs with mitral symptoms.

We have in this, it appears to me, an explanation of the different views as to the influence of digitalis in aortic insufficiency. When the tendency indicated by the symptoms is defective propulsion with failure of arterial blood supply to the brain, the effects are uncertain and even doubtful. While sometimes apparently beneficial for a while, a frequent result is the production of irregularity of the pulse with aggravation of the symptoms, and occasionally of vomiting attended with rapidly-increasing weakness of the heart's action. Cases are met with, indeed, in which there is grave

reason to suspect that it has precipitated a sudden fatal termination.

When, on the other hand, the symptoms are due to secondary dilatation of the left ventricle not adequately neutralised by hypertrophy, with or without mitral regurgitation, and to the effects of this upon the pulmonary circulation and right ventricle, we have exactly the same opportunity for the beneficial influence of digitalis in reinforcing the right side of the heart, and the same favourable results as in mitral regurgitation. The effects, indeed, are sometimes much more striking, and the removal of dropsical effusion more rapid. I have observed, however, that not uncommonly patients suffering from serious aortic insufficiency, after recovering from the mitral symptoms, die suddenly from failure of the left ventricle, and this whether the digitalis has been continued or left off, and sometimes before the patient has begun to get up and move about.

There has recently been a very interesting discussion[1] as to the effects of digitalis in aortic incompetence, turning mainly on theoretical considerations relating to the prolongation of the diastole and the increased regurgitation which this will permit. The question must be determined entirely by the experience of competent observers, but it is always a good thing to have a clear and accurate idea of what is taking place; and this, according to my apprehension, will be as follows: At the end of systole, the first part of the diastole is not a mere passive filling of the ventricle by blood entering from the auricle (and in the case under consideration from the aorta), but a sharp rebound from extreme contraction, constituting a sudden active dilatation, which sucks in the blood. In the normal heart this is an important part of the cardiac rhythm, and it is still more important when the ventricle is enormously dilated and hypertrophied, as it is in aortic incompetence. The blood thus entering the ventricle by its own suction action will constitute its main charge, and a much larger proportion of it will rush in through the large auriculo-ventricular opening than through the comparatively small chink left between the damaged semilunar valves, even if the pressure in the aorta is high. The main charge of the ventricle is thus obtained from the auricle. During the remainder of the diastole some additional blood enters the ventricular cavity and distends it, and now the regurgitant stream from the aorta comes into competition with the onward flow from the auricle, and the relative pressure on the two sides will be an important factor in the determination of the proportion which will enter from the auricle and aorta respectively. The size of the two openings will be another factor, and a third will be the amount of blood which the ventricle is prepared to receive; the estimation thus becomes extremely complex. If we suppose the ventricle to be absolutely full and incapable of further distension, not only will the inflow from the auricle be stopped, but, the pressure in the aorta being higher, the current will actually be reversed unless this is prevented by closure of the mitral valve. If, on the other hand, the ventricle can accept a considerable further amount of blood, a certain proportion of it will obtain admission from the auricle, as the whole cannot force its way in from the aorta through the much smaller orifice in the time allowed. So many of the factors of the problem being unknown, it is obvious that it cannot be resolved on theoretical grounds.

Digitalis in Aortic Stenosis.

Aortic stenosis is a more serious condition than is generally supposed, if we take only cases in which the obstruction is real, and do not consider every systolic aortic murmur to indicate narrowing of the orifice. Like aortic regurgitation it leads up to a fatal termination in two ways—directly by limiting the supply of arterial blood, and indirectly by giving rise to back pressure in the pulmonic and venous circulation through the intervention of dilatation of the left ventricle. It is when symptoms arise from the latter that digitalis is useful. This drug is even less competent to overcome the direct effects of obstruction than of regurgitation, and the left ventricle may be injured if stimulated to drive its contents through a narrowed orifice. More relief is often obtained by relaxing the arterioles by means of nitroglycerine, deducting thus the arterio-capillary resistance from the total work with which the heart has to contend.

[1] British Medical Journal, 1892, vol. i, pp. 542, 705, 835, 935, 991, 1182, 1330.

Digitalis Contraindicated by Fatty Degeneration of the Heart.

No good results are to be expected from digitalis when once the diagnosis of fatty degeneration has been satisfactorily made, and there can be nothing but risk in giving it.

Digitalis in Dilatation of the Heart.

All observers must have been struck by the uncertainty and apparent capriciousness of the action of digitalis in this condition. Primary dilatation of the left ventricle almost presupposes the existence of high arterial tension under which the ventricle has given way. To increase this by exciting the arterioles and capillaries to contract, which is one of the effects of digitalis, is to add to the work thrown upon the heart, and although its muscular fibres are also stimulated to more energetic contraction, it is not certain that they are in a condition to respond. When, however, the balance of advantage is in favour of the ventricle, it will empty itself more completely; this will make room for a larger charge, and its suction action, previously very imperfect, will also be more efficient, so that the general result on the circulation will be favourable. If, on the other hand, the ventricular walls are too weak or too thin to contend with the increased resistance, the symptoms will be aggravated. Here, as in valvular disease, much will depend on the reinforcement of the compensatory action of the right ventricle. The numerous unknown elements here set forth will fully account for the uncertainty as to the action of digitalis in dilatation of the heart. Mercurial aperients are of special service as part of the treatment of dilatation, both in unloading the liver and right heart, and in lowering the arterial tension.

Adherent Pericardium.

One more condition remains to be noticed as influencing the results to be obtained from the administration of digitalis; this is adherent pericardium. It not very infrequently happens that a very moderate affection of the mitral valve, unimportant in itself, is attended by the premature development of symptoms, and that the cause is pericardial adhesion. The right ventricle is prevented thereby from coming to the aid of the left. The left ventricle can cope with the additional work imposed by obliteration of the pericardial sac, but the right ventricle, having only thin muscular walls, has difficulty in dragging the pericardium with it in its systole, and its diastolic rebound is probably even more seriously hindered. Fibroid change, invading its muscular substance from the adhesions, often implicates an appreciable proportion of its thickness. It cannot in consequence respond by hypertrophy to the call for more powerful contraction to meet the increased pressure in the pulmonary circulation in mitral insufficiency or narrowing, so that compensation very quickly fails. Sudden death, which is extremely rare in uncomplicated mitral disease, may occur when the pericardium is adherent. Just then as pericardial adhesions precipitate the supervention of symptoms, they interfere with the beneficial effects of digitalis.

Other Indications for Cardiac Tonics.

It is to be understood that the occasion for the employment of the special cardiac tonics is the appearance of symptoms indicating embarrassment of the circulation, and the absence, or inadequacy, or breaking down of compensation. No practice could be worse than to look upon a valvular murmur as the signal for giving digitalis.

Typhoid Fever.—It is not only in heart disease that these remedies are useful. Digitalis is sometimes of the greatest possible service in the late stages of typhoid fever, when the heart's action is extremely weak and frequent, and the pulse tension very low; when, that is, the pulse is what is called "running," the beats being almost indistinguishable. It will often steady and strengthen the heart and improve the tone of the pulse. In pneumonia, again, it may occasionally be useful.

Failure in Graves's Disease, Tachycardia, etc.—Nothing, on the other hand, is more remarkable than the failure of digitalis to control the frequency of the heart's action in Graves's disease, in tachycardia, and in some forms of palpitation, or to correct the irregularity of the pulse when this is due to reflex disturbance, or in those not uncommon

cases in which, without any apparent cause or any obvious effect on the health, the action of the heart is habitually and persistently irregular for years. No satisfactory explanation of this has been given.

Strophanthus.

Digitalis, as the best known and, so far, the most trustworthy of the cardiac tonics, has been taken in the preceding remarks as the representative of the class. Strophanthus, which comes next to it in importance, is said, while stimulating the cardiac muscular fibres, to have less effect on the arterioles. This which we have on the unimpeachable authority of Professor Fraser, ought to give this drug an advantage over digitalis in many cases, and undoubtedly it has from time to time proved to be of great service after digitalis had apparently failed. It has not, however, in my experience been so generally useful and trustworthy as digitalis, and I have not been able to formulate any specific indications for its employment in preference to digitalis. This may, perhaps, be due to the fact ascertained by Dr. Adami that many of the preparations of strophanthus are inert, or nearly so.

Citrate of Caffeine.

Citrate of caffeine has been stated to increase the amount of solids in the urine; while digitalis increases the flow of water. This would indicate a tremendous influence on the metabolism of the glands and tissues, and I cannot say that my observation of its effects has been confirmatory of such a view. I have, however, frequently found that the administration of caffeine simultaneously with digitalis will give favourable results, which are not to be obtained by increasing the dose of digitalis.

Spartein.

Spartein, again, finds its best opportunity when given in combination with digitalis or other remedies of the same class, when it will induce an amount of diuresis not otherwise obtainable.

Convallaria.

Convallaria has been supposed to exercise a special influence on nervous palpitation, and even on tachycardia, and my experience lends some support to the view. It has not otherwise appeared to be of any particular service.

Strophanthus: Oxyspartein: Rest: Massage: the Ergostat.

Dr. Lauder Brunton said that Dr. Broadbent had pointed out that digitalis and other cardiac tonics increased contraction both of heart and vessels. The contraction of vessels was sometimes too great for the heart to overcome, and cardiac tonics might therefore be injurious. In such cases the addition of substances such as nitrites, which dilated the vessels, were useful as adjuncts to cardiac tonics. Strophanthus, which acted more on the heart than the vessels, might be useful, and oxyspartein, which appeared to stimulate the heart and hardly to affect the vessels, might possibly be even more useful. In cases of chronic alcoholism digitalis seemed sometimes to have little or no effect in slowing the heart. This supported the evidence of physiological experiments to the effect that digitalis slowed the heart, not by its action on the muscular fibre only, but also by its action on the cardiac nerves. In severe cases absolute rest was most advantageous. The rest should be in bed, and the patient should not rise for any purpose whatever, and if the bedpan could not be used the commode should be raised to a level with the bed by a platform. Massage was of the utmost value, and graduated exercise might be given by means of Gärtner's ergostat. This was an adaptation of the prison crank, and the amount of work could be exactly graduated. Elimination by mercurials and jalap powder was also of very great service.

The Value of Adjuvants.

Dr. Clifford Allbutt observed that Dr. Lauder Brunton had extended the discussion to adjuvants, such as deobstruent remedies—massage and the like. These remedies contributed to the effect of cardiac tonics by clearing up the arrears produced by the long-standing defects of a weak heart. By the use of cardiac tonics a potential restoration of equilibrium might be attainable, but had no good chance until the back reckonings were cleared up. Gastric congestion, hepatic fulness, retained waste in the muscles, stagnant venous cavities, and the like must be set straight. Blue pill, massage, graduated exercise, and the like were essential factors in the treatment even of those heart diseases in which digitalis was also most appropriate. Dr. Allbutt concluded by referring to a few cases illustrating the value of deobstruent and mechanical treatment. He added, however, that mechanical treatment required the closest watchfulness on the part of the physician.

Rest.

Professor Ebstein distinguished between the cardiac tonics which acted slowly or rapidly. Remedies which regulated the cardiac functions, as well as the excitants, should not be used unless the patients could be kept in perfect quiet.

Adonidine: Digitalis in Aortic Regurgitation.

Dr. Oliver (Newcastle) said that it was not because a patient had either mitral or aortic regurgitation that he applied for medical advice; it was because compensation had broken down. The left ventricle became dilated, and there was a call for administration of cardiac tonics. Dr. Oliver then alluded to the good effects of adonidine in cases of traumatic aortic regurgitation. He quite agreed with Dr. Brunton as to the inefficacy of digitalis in the dilated heart of alcoholic subjects. These were cases for strychnine or nux vomica. As to the advisability of giving digitalis in aortic regurgitation, Dr. Oliver said that in and around Newcastle there was a large artisan class population, many of whom worked hard and drank hard, and observation had led him to believe in the good effects of digitalis in aortic regurgitation. He had not met with a case of aortic regurgitation, carefully chosen and treated by digitalis, presenting unfavourable and alarming symptoms. The danger of aortic regurgitation lay in its accompanying low arterial tension, and that, with the rapidity of the heart's action and ineffectiveness of systole, digitalis greatly slowed the heart's action, raised the arterial pressure, and flushed the coronary arteries, thereby improving the nutrition of the heart and removing the waste products from the myocardium. Many of the alarming symptoms attributed to digitalis were due to the consequences of the disease itself and the effect of the accumulated waste products upon the myocardium. That, with the dilated condition of the right ventricle, explained sudden death in heart disease. Dr. Oliver believed in the good results of the employment of small doses of pil. hydrarg. coloc. frequently repeated, every day or every second day. Digitalis did not act well in the later stages of heart disease. What was required was to eliminate by bowels and kidneys the waste products that were accumulating in the blood and paralysing the walls of the heart or poisoning nerve ganglia.

Digitalis and Strophanthus: Aortic Regurgitation.

Dr. Lindsay (Belfast) had tried digitalis and strophanthus largely, convallaria and caffeine much less frequently, casca and spartein not at all. He regarded digitalis as much the most valuable of the group, and strophanthus sometimes a useful alternative to it. He had seen benefit from caffeine. The chief successes of digitalis were in mitral regurgitation; it was almost useless in mitral obstruction; aortic cases constituted the debatable area. Pure aortic obstruction sufficient to cause symptoms was, he thought, a rare condition; on the other hand, aortic regurgitation had been very frequent in his hospital experience. Belladonna was often of service in such cases. Digitalis sometimes was of great service, and sometimes as signally failed. He had found great difficulty in distinguishing the cases of aortic regurgitation in which benefit might be expected from digitalis. He had generally found it to fail if the chief symptoms complained of were præcordial oppression, giddiness, and slight dyspnœa; where pulmonary congestion and dropsy were present benefit might be expected.

The Value of Small Doses of Digitalis.

Dr. Stockman (Edinburgh) wished to draw attention to certain points in the action of digitalis in health and in cardiac disease. After poisoning a dog with digitalis its heart was found in diastole; if small enough doses were given this was not an exception, but invariable. The first effect of digitalis was to prolong the diastole, and during this stage the heart chambers were better filled, but the blood pressure was only slightly raised, or possibly not at all. In cardiac

failure the symptoms which distressed the patient were chiefly dyspnœa and dropsy, both of these being due to insufficient filling of the arteries and overfilling of the veins. If this was put right by any means the patient was relieved Rest sufficed often, and therefore the blood pressure did not necessarily require to be raised, but only a redistribution of the blood effected. Dr. Broadbent had insisted almost on the fact that digitalis increased the propulsive power of the heart, but it must be remembered that the left auricle shared in the slowing, and therefore got more time to propel its contents into the ventricle, and thus assist in restoring the balance of the blood distribution. In any form of valvular lesion when the blood was not properly distributed, digitalis would thus do good if not given in too large doses. The bad results often obtained were probably frequently due to excessive doses.

Rest.

Dr. A. J. Harrison made a few remarks on the value of absolute rest in cardiac diseases, and especially in aortic regurgitation. By rest he meant absolute rest in bed for a period of six months. A case was related in which a girl with very marked aortic disease (double) was very much benefited by this plan.

Digitalis in Aortic Regurgitation.

Dr. Handford referred to the ill effects of digitalis in aortic regurgitation as not uncommon in his experience, especially in cases due to arterial sclerosis and not to valvulitis, and attributed it chiefly to the action of digitalis in contracting the small arteries and raising the vascular tension. In mitral stenosis the action of digitalis in producing allorrhythmia was so common as to be of much diagnostic value. In anæmia dilatation of the right heart was extremely common, and when not recognised and properly treated might lead to permanent cardiac disease. Digitalis was of the greatest possible value when combined with iron, especially in anæmic patients, who could not be confined to bed.

Dr. Broadbent, in reply, observed that Dr. Brunton, Dr. Clifford Allbutt, and other speakers had extended the area of the discussion to methods of treatment beyond the terms of the reference, or he should have been equally emphatic with them as to the necessity for rest when compensation had broken down—the greatest of cardiac tonics, indeed, was rest. He should also have dwelt upon the importance of mercurial aperients, which did much more than clear away arrears. A calomel and colocynth pill was often a necessary preliminary to the administration of digitalis, which without it would fail to make any impression on the stagnating circulation. It at the same time unloaded the abdominal veins and right heart, and increased the metabolic action of the liver cells, thus relieving the blood of impurities. He had no objection in principle to the Oertel system of graduated exercise, and had always protested against the idea that patients suffering from all forms of heart disease and in all degrees should be condemned to live on one floor and to abstain from walking up hill. The special value of the Oertel system would be in the numerous cases of imaginary heart disease. Such patients would not find the ergostat so dull as Dr. Clifford Allbutt thought; watching the movement of the needle on the disc which recorded the number of evolutions of the handle might be to them a matter of the most absorbing interest. Dr. Brunton, in criticising the view that digitalis acted directly on the muscular fibres, seemed to consider that intracardiac and intra-arterial high pressure went together, and had the same effect on the frequency of the heart's action. This was by no means the case, as was seen in the effects of exercise, when the pulse became very frequent; the intracardiac pressure was high from the rapid arrival of the blood from the veins in consequence of compression by muscular action, while the arterial tension was extremely low. Resistance in the peripheral circulation, or high arterial tension on the other hand, was shown by Marey to slow the action of the heart. Dr. Oliver had said that numbers of men who pursued laborious occupations, and were usually "nippers," came under his observation suffering from aortic incompetence, and that they were invariably benefited by digitalis, especially when strychnine was combined with it; but under these conditions, long before the regurgitation had become so considerable as to become dangerous in itself, or to be attended with symptoms of its own, it would give rise to dilatation of the left ventricle, with secondary backworking upon the right heart and systemic veins. The symptoms of which these patients complained were due to this condition, which was exactly that in which digitalis was useful. When aortic incompetence was advanced, and its characteristic indications present, the administration of digitalis might be attended with danger. Not infrequently remedies having an opposite effect, such as nitroglycerine, were more useful, the relief to the heart afforded by diminution of the resistance in the arterioles and capillaries being of greater service than increase in the vigour of the cardiac systole, and in some cases, especially when anginoid pain was one of the symptoms, the tolerance of nitroglycerine was very remarkable, and enormous doses were taken for a long time.

THE POSITION OF MATERIA MEDICA IN THE CURRICULUM OF STUDY.

A Portion of an Introductory Lecture.

By THOMAS R. FRASER, M.D.,

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Medicine as a practical Art may truly be said to consist of only two branches—the knowledge of Diseases and the knowledge of their Cure. This knowledge has a wide foundation. It rests on the sciences of botany, zoology, chemistry and physics; of anatomy and physiology; and of pathology, medical, surgical, and obstetrical. Notwithstanding the elevation thus reached, if we regard it merely as a practical art—that art to which you intend to dedicate your lives—then I say that medicine consists of only two branches of learning: one devoted to the knowledge of diseases, the other to the knowlege of remedies. The former teaches how to recognise diseases, to trace their causes and effects, to anticipate their results: the latter how to recognise and administer remedies, how to ascertain their actions, how to apply these actions to the cure of diseases.

Prescientific Medicine.

Accordingly, in ancient times, when medicine had not yet reached the dignity of a scientific profession, but was an art only, it actually did consist of nothing else than these two departments—called the Practice of Physic, and the Materia Medica. Anatomy was all but unknown, chemistry was unborn; physiology was confined to a few crude conjectures about living functions, none of them more resembling the doctrines of the present day than the notion of the Greeks that the blood swayed backwards and forwards in the veins "like the tide of Euripus between Attica and Eubœa;" pathology, like chemistry, had no existence, even in name; and as for the sciences of zoology and botany, the little known of them was merely some elementary facts comprised in one department of materia medica, that of the natural history of medicinal substances.

The Dawn of Scientific Therapeutics.

The first of the now extant writers on diseases, and the first author on remedies, represented in their works the whole range of the medical knowledge of two thousand years ago; and for many years afterwards their successors did little else than reproduce and variously dress up the observations and doctrines of the famous physicians of Cos and Anazarba. By-and-by, the cultivators of materia medica freed themselves from the trammels of the Greek school. To this result much was contributed by the discoveries of the alchemists and their immediate successors. More attention came to be paid to the physiological action of remedies—to those actions which occur in a state of health as contrasted with a state of disease. At the same time, advantage was taken of the advancements that were being made in natural science, especially in chemistry and botany, to improve the description and definition of the articles of the materia medica. The scope of the subject, however, was not altered, or its boundaries narrowed.

In this University, the first professor of the subject, Dr. Alston, in his teaching, between the years 1738 and 1760,

methodically discussed the natural history of medicines, and their action in health and in disease, with the diseases in which they are used. His successors—Dr. John Hope, Dr. Francis Home, Dr. James Home, Dr. Andrew Duncan, and Sir Robert Christison—assigned the same latitude to the subject as it had received under the first occupant of the chair, but also added to it diet in its applications to disease, and the therapeutic effects of electricity, galvanism, and mineral waters. Indeed, the only curtailment that occurred during these eleven decades of the existence of the chair was when Dr. Cullen, in the session of 1761-2, delivered a course of lectures on materia medica, in the interval between the death of Dr. Alston and the assumption of duty by his successor, Dr. Hope. It is not without interest to note that Dr. Cullen almost entirely restricted his teaching to general and special therapeutics, and made only brief and meagre reference to the physical properties of remedies.

Scope and Nature of Materia Medica.

I need scarcely tell you, therefore, that from the earliest times materia medica has signified the knowledge of healing materials and remedies, the knowledge of all means and circumstances directly or indirectly useful towards the cure of diseases. In the words of my immediate predecessor, Sir Robert Christison, "A complete course of materia medica should treat of (1) medicines properly so-called, (2) imponderable remedies or qualities of matter, such as heat, cold, electricity, and galvanism; (3) diet, or food and drink, as medicinal agents." Among these several departments, the one which, from its special importance and great extent must engross the largest share of attention, is that of medicines properly so-called. Consideration must be given to their chemical, physical, and botanical characters, as well as to their physiological properties and effects and uses in disease. While, in former times, the state of advancement of the various sciences upon which the description and appreciation of the characters and properties of medicines are dependent gave a prominence to the chemical, physical and botanical characters, the present state of science no longer renders it necessary to maintain this ascendancy.

Pathology, after a long and no doubt unavoidably restricted attention to the gross lesions produced by disease, to the modifications of structure caused by abnormal action, or to what may be termed pathological anatomy, has now advanced far into the much more valuable investigation of the changes in normal action leading to or causing these gross changes, or producing the conditions which constitute disease. Many important facts have been established in this branch of pathology, which is now recognised as pathological physiology. The symptoms of several diseases, for example, have been shown to depend on perverted actions of definite portions of the nervous system, or on chemical changes in constituents of the body, or on the introduction of hurtful substances, which have themselves been isolated and identified.

Physiology has in each of these and in many other advancements of pathology acted as an indispensable pioneer, establishing by investigation the normal action and the normal composition of the structures of the body. The problems placed before the physician in each case of disease to which he is required to apply remedies are now, therefore, in many instances more definite and even more simple than they formerly were. Intelligent limitations have taken the place of superstitious or uninformed exaggeration of the curative power of medicines; and it has become apparent that, in order to treat the abnormal conditions with success, knowledge must be possessed of not only the pathological conditions, but also of the exact changes in structure or in composition which the remedial substances are capable of producing.

Pharmacology the Foundation of Therapeutics.

A relatively new department—that of pharmacology—has accordingly been added to materia medica. It constitutes the foundation of therapeutics, or the application of remedies to disease; and as this application constitutes our main work as physicians or practitioners of medicine, the department of pharmacognosy (which deals with the physical characters of remedies), and that of pharmacy (which deals with the forms in which they are administered), must, in a sense, occupy subordinate positions. Let me add that this subordination, however, is only a relative one. Having regard to the ultimate object of medical study, a knowledge of the physical, sensible, and chemical properties of medicinal substances and of pharmacy is of great practical value. Without it much of the advantage to be gained from the study of pharmacology and therapeutics will be rendered unavailable and useless, for the actual administration of remedies is necessarily based on knowledge of the former as well as of the latter.

Order and Method of Studying the Action of Drugs.

The subject of materia medica, in so far as it is limited to medicines ordinarily so-called, includes all of these departments; but while the study of the chemical and other physical characters of medicines and of pharmacy should be engaged in at an early part of the curriculum, the study of pharmacology and therapeutics is impossible until a knowledge of physiology and pathology has already been acquired.

This subdivision of the subject into two great groups—the physical and the biological—and the placing of the instruction in the former at an earlier period than that of the latter, would prove of much advantage to the student. He would find it a more easy matter to acquire a knowledge of physical and chemical characteristics and of pharmaceutical processes soon after he had studied botany and chemistry, and while the facts he had acquired of these subjects were yet vividly present in his recollection, rather than many months after the examinations in botany and chemistry had been passed. He would also be in a position to derive more benefit from, and to pursue with greater interest, his studies in systematic and clinical surgery, as he would possess some real knowledge of the remedies constantly being brought under his notice, whose names even he might otherwise never before have heard.

The advantages would prove equally great were the departments of pharmacology and therapeutics placed in a later part of the curriculum. As I have already pointed out, the former is founded upon physiology, and the latter upon pathology; and as the separation of their consideration is highly inexpedient, if, indeed, it be not impossible, they cannot intelligently be studied until both physiology and pathology have been mastered. At a later part of the curriculum, further, some knowledge would have been acquired of the actual diseases which are treated by medicinal substances, and accordingly there would be avoided the perplexities and embarrassments which, in the entire absence of this knowledge, constantly arise from unavoidable references to diseases.

Pharmacology Inseparable from Therapeutics.

I have referred to the inseparable union that exists between pharmacology and therapeutics, and perhaps some expansion of this statement may be required in addressing an audience for the most part composed of those who now, for the first time, are invited to consider the meaning of these terms. As the object of pharmacological study and investigation is to obtain such knowledge as will enable us, by means of the physiological (or pharmacological) action of remedies, to restore to a standard of normal health the deviations from that standard produced by diseased or pathological processes, it would be highly inconvenient, and would increase greatly the difficulties of accomplishing this object, were the study and teaching of the actions to be disassociated from their applications. The inconveniences of this disassociation become at once apparent when we realise that it would compel us, as students of materia medica, to ignore such remedial effects as that of salicin in rheumatic fever, of arsenic in chorea, of chrysophanic acid in psoriasis, of iron in anæmia, or of iodide of potassium in aneurysm; and to ignore also, if not actually the doses of remedies, at any rate the variations in doses necessary to produce different effects in disease and necessary for different diseases. It is, however, impossible to effect this disassociation, for our knowledge of the action of remedies is not only derived from their effects in normal states of the body, but also from their effects in diseased or pathological states, or, in other words, from their therapeu-

tical effects. No description, for example, would be complete of the action of acetanilide, exalgine, phenacetine, or phenazone which omitted their analgesic or pain-subduing effects; but this is a purely therapeutic action, not due to any narcotic or anæsthetic pharmacological action, and pain is a manifestation of diseased or pathological processes. No description would be complete of the action of digitalis, or squill, or strophanthus from which the diuretic action of these substances was omitted; but this action is manifested only in disease, and its demonstration rests upon clinical experience alone. No description would be complete of the action of quinine, which did not include its action in reducing abnormally high temperature; but this action is displayed only in fever, and as fever is a pathological condition, the antipyretic action of quinine is necessarily a therapeutical one.

The New Ordinances as to Examinations in Materia Medica, Pharmacology, and Therapeutics.

Influenced by such considerations as I have now brought before you, the Faculty of Medicine and the University Court adopted the recommendations that an examination on pharmacy, and on the chemical, botanical, and physical characters of medicinal substances should be taken either along with the examination on the subjects of anatomy and physiology, or at any earlier period of examination subsequent to the first professional examination; and that the examination on pharmacology and therapeutics should be taken at the end of the fourth winter of the new five years' curriculum, and after the examination on anatomy, physiology, and pathology had been passed. These recommendations are in harmony with the expressed opinions of my predecessor in this chair (Sir Robert Christison), of the General Medical Council, of the Scottish Universities Commission of 1876, and of the great majority of the teachers of materia medica in Great Britain, and they are supported by the arrangements now existing in the schemes of examination of English universities, and of the Conjoint Boards of the Royal Colleges of England and of Scotland. They have been represented to the present Scottish Universities Commission in the form of two proposals:

1. To allow an examination on pharmacy and on the botanical and physical properties of medicinal substances to be taken as soon after the first professional examination as the candidate desires; and 2, so to arrange the examination in pharmacology and therapeutics as to ensure that the candidate has obtained a sufficient knowledge of physiology before he studies the modifications of physiological conditions produced by medicinal substances, and a sufficient knowledge of pathological processes before the means for restoring them to a normal condition by medicines is required to be considered.

Although the essential parts of these proposals were apparently received with approval by the Commission, for they were reproduced (with at least one bewildering exception) in the first issued medical ordinances, I regret to state that in the final ordinances the Commission has departed from this position, and has instead adopted an extraordinary and, in some respects, an unintelligible one. The Commission has ordained that the most unnecessary burden should continue to be imposed upon a candidate—of either maintaining at an examination standard for two years after the examinations in chemistry and botany have been passed, and when studies of a totally different kind are occupying his attention, a knowledge of such of the details of these sciences as is required for even the most elementary study of pharmacy and of the distinguishing physical characters of medicinal substances; or of again laboriously acquiring this knowledge. The Commission has also ordained that candidates shall not be examined in pathology until after they have passed an examination on the therapeutic applications of medicines, which implies that, in the opinion of the Commission, the modifications of function or of composition by which abnormal or diseased processes and conditions are to be restored to normality by medicinal agencies, are to be studied before any knowledge has been obtained of the abnormal or pathological processes themselves.

In order, apparently, that there should be no ambiguity in regard to this extraordinary conception of the relationship between therapeutics and pathology, a most significant word has been introduced into the new ordinance. In the previous ordinance, that under which your studies are being conducted, our subject is termed Materia Medica only. Lest any doubt, however, should exist that materia medica includes therapeutics—although, as I have explained, the history and the very nature of the subject leave no room for doubt—the Commission in the new ordinance has actually changed the designation to that of Materia Medica *and* Therapeutics. There will, therefore, be no escape from the irrational position of the candidate being examined on the treatment of disease by medicinal substances before knowledge has been acquired of the diseases to be treated, and, consequently, of the teaching and study of this treatment preceding the possession of this knowledge.

This dilemma will occur not only with medicines proper, but also with such therapeutic agencies as electricity, galvanism, foods, mineral waters, and climate; for they, obviously, can be considered here only as means for treating disease. In former years, not only did the simultaneous study of Pathology and Materia Medica and the earlier acquaintance with disease otherwise necessitated by a four years' curriculum greatly lessen the dilemma with regard to medicines proper, but it was largely avoided in the case of the above therapeutic agencies, by postponing their consideration to as late a period of the session as possible, when considerable progress had already been made by the student in his pathological studies. In the future, this will be impossible, and the acquirement of knowledge of the therapeutic uses of remedies will then become a mere unintelligent exercise of memory.

You are, gentlemen, to be congratulated that, in so far as your studies in this room are concerned, the new ordinance of the Commission does not apply to you, while I for my part look forward with some anxiety to the time when it may be necessary for me thus "to make bricks without straw." I do not forget that any scheme involving new conditions is produced under difficulties, that the statement of defects, even when uncompromising, is often the surest means for effecting their removal, and that the interests of science and of education are those which will ultimately prevail in our University.

THE PHYSIOLOGY AND PATHOLOGY OF BLOOD DESTRUCTION.

Being the Grocers' Scholarship Lectures delivered at the Examination Hall, Victoria Embankment.

By WILLIAM HUNTER, M.D.,

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Lecture I.—Introduction.

The subject of blood destruction has hitherto received little attention at the hands of physiologists and pathologists. Blood formation seems to have monopolised the attention of physiologists to the almost entire exclusion of the processes which the necessity for a renewed formation of blood (hæmogenesis) implies—namely, a previous destruction (hæmolysis).

So much is this the case, that while the literature on the former subject is voluminous, references to blood destruction as a normal process are of the scantiest. No paper has hitherto dealt with the subject in any systematic way. This circumstance, while lending additional interest to the subject, render more difficult the present task, which is to embody within the compass of one lecture the results of investigations relative to the subject that I have now carried on for several years. I had occasion to touch briefly on the subject in the Arris and Gale Lectures of 1889, and in an investigation into the "Pathology of Pernicious Anæmia," published by me in 1888; but I could not at that time give it the full consideration it deserved.

Although too well aware that many points have still been left untouched by my observations, I am in hopes that the present contribution to the subject may serve at least to point out in what directions information is still required, while at the same time it may afford a fresh point of departure to future workers.

Definition of Blood Destruction.

That the blood is subject to changes necessitating from time to time renewal of its plasma, and of its corpuscles, there is every reason, from analogy with other tissues, to believe. The first question which naturally arises is, Why dignify by a special name a process in the blood which, in the case of other tissues, we are content to let pass without special notice? We do not feel called upon to speak of muscle destruction, or of glandular destruction—why then speak of blood destruction? In answer, we may ask in return, Why speak of blood formation any more than we speak of muscle or gland formation? The reason in both cases is, I think, obvious—namely, that the mystery which still shrouds the origin and fate of the blood naturally excites inquiry; and the activity of the other tissues is so bound up with the condition of the blood that it is a matter of paramount importance to learn everything we can regarding its life history, its mode of origin, the changes that occur in it, and even its manner of death. The slightest deviation from the normal at any period may carry with it results out of all proportion to the apparent magnitude of the change itself. It will be one of the objects of this lecture to show how true this statement is as regards those series of changes by which the blood in health is affected more or less injuriously, and how an increase in these changes may be, and in some cases is, responsible for some of the most severe forms of anæmia and blood disease.

I.—EVIDENCES OF BLOOD DESTRUCTION.

The evidence we possess that a destruction of blood is a normal physiological process is scanty and vague. It differs according as it is the plasma or the corpuscles that are specially considered. And here let me say that I regard the blood as a highly-organised tissue—one to which I would assuredly apply the term "living" did I not fear to be asked to define what life is. This view is no mere opinion, to be accepted or rejected according to the individual standpoint from which the study of the blood is approached. It is a cardinal point in the consideration of the physiology and pathology of the blood. The relations of the various parts of the blood—the plasma and the white corpuscles and the red corpuscles—to each other and to certain cells whence they derive their origin, are, if anatomically less close, nevertheless, both chemically and physiologically, no less intimate than those of the cells and matrix of any other tissues. They are mutually dependent on each other; no change occurs in the one without being attended by change of some kind in the other. No study of the behaviour of the blood under different circumstances can, therefore, in my opinion, be complete which does not have regard to this important mutual interdependence of its various elements. Hence, if in the course of this study I appear to dwell too exclusively on the behaviour of one element of the blood to the neglect of others, I should like it to be understood that this is done for some particular reason. If, for example, I speak more of the red corpuscles than of the white, it is not because I consider the changes in them to be the more important, but solely because the changes in the blood of which I speak are more easily studied in them than in the white corpuscles or plasma. And so, if I speak much of pigment and its character, distribution, formation, and ultimate fate, it is not because of the importance of pigment as such, or of the lesser importance of other morphological products of this destruction. On the contrary, most of the changes I describe I shall have to refer back to the action of the white corpuscles or their congeners. My sole reason for dwelling so much on the red corpuscles will be that the points I desire to elucidate regarding the ultimate fate and mode of destruction of blood I have found could best be elucidated by a study of the red corpuscles and of their chief constituent hæmoglobin. In the case of the plasma and white corpuscles, the evidence of blood destruction that we possess, although not unimportant, is comparatively slight.

The case is different with the red corpuscles. Their chief constituent hæmoglobin is not disposed of in the same easy way, leaving little or no trace behind, as are the albuminous constituents of the plasma or the white corpuscles. One organ—the liver—has as one of its special functions the excretion of various pigments derivatives of effete hæmoglobin.

Evidences of Hæmolysis derived from a Study of Pigment.

It is from a study of these pigments, excreted either in the form of biliary or urinary, or stored up as blood pigments, that important evidence regarding a destruction of blood as one of the normal processes in the blood is derived.

Bile Pigment.

As regards bile pigment, the evidence is of two kinds: that pointing to hæmoglobin as its source, and that pointing to the liver as the seat of its formation. It has now been fully established that the crystalline pigment (hæmatoidin) so frequently found in old extravasations of blood is chemically identical with bilirubin, the chief pigment of the bile; and further, that some of the pigments which give rise to the discolorations of bruises are indistinguishable in character and reaction from bilirubin and biliverdin. Under certain conditions, therefore, such as those above referred to, the hæmoglobin of the blood undergoes changes leading to a formation of pigments closely resembling, if not identicalwith, the chief pigments of the bile.

The genetic relationship between hæmoglobin and bile pigment becomes even clearer when we consider the close connection between increased destruction of hæmoglobin and increased formation of bile pigment. When hæmoglobin is injected into or set free within the blood an increased excretion of bile pigment in the bile ensues. Attempts have even been made to show—hitherto, it is true, with but partial success—that this increased excretion of bile pigment is proportionate to the quantity of hæmoglobin set free. It cannot be doubted, therefore, that hæmoglobin is an important source of the bile pigments daily excreted.

If it can be shown that hæmoglobin is the chief source of the bile pigments—still more, the only source—the conclusion would follow that a certain amount of hæmoglobin is daily broken up to form the bile pigments that are daily excreted.

Blood Pigment.

The characters and the appearances of blood pigment are well known. It differs from the pigment previously spoken of in two respects; first, that it is usually found in an amorphous or granular form, and, secondly, that it contains all the iron of the original hæmoglobin molecule.

Method of Testing for Iron in Blood Pigment.—The first circumstance enables it to be recognised by means of the microscope; while the second also conduces to its easy recognition and detection, since by suitable micro-chemical methods the iron it contains can be made to give characteristic colour reactions. For the iron present is not intimately bound up as it is in hæmoglobin, in which condition it is unaffected by such reagents, but it is free in the form either of its ferrous or ferric salts, or of both, and most probably as an albuminate. In this form it gives all the reactions of free iron—is blackened by sulphide of ammonium, and gives a well-marked reaction (Prussian blue) with ferrocyanide of potassium and dilute hydrochloric acid.

The former I find most useful for fresh tissues, the latter for tissues after hardening. In applying the latter, my practice has been to place the section of tissue to be examined for a minute or two in a dilute solution of ferrocyanide of some 8 per cent., and afterwards transfer it for another minute or two to a dilute solution (about 2 per cent.) of hydrochloric acid. It is, I think, a matter of importance that the acid solution should be weak, and that the tissues should not be allowed to lie too long in contact with it. The reason for this is that most of the tissues of the body contain a certain percentage of iron as a normal constituent. In most cases this iron is not free, and will not give any reaction with the agent above mentioned. If, however, allowed to lie a certain length of time in contact with strong acid solution, tissues which in the first instance gave no Prussian blue reaction, may then be found to give it. In my observations it is not this latter, and as I think, more fallacious reaction I have sought to develop, and which you will see developed in the various sections I shall presently show you, but the earlier almost immediate reaction developed by the aid of a weak acid solution.

Scope of the Investigation.

Although the origin of blood pigment from hæmaglobin is so obvious as to be beyond all dispute, the interest connected with it and its genesis is by no means thereby exhausted. On the contrary, around the apparently simple question of its mode of origin from hæmoglobin there raged at one time a sharp controversy, taken part in by three of the most distinguished pathologists of the century, to wit—Henle, Virchow, and Kölliker. We shall presently see how many points of interest it still offers to the investigator.

Since blood pigment, wherever found, denotes death of red corpuscles, the first point is to ascertain in what situations and under what conditions it is normally to be found. Such an inquiry may seem at first sight a wide one, but when we

eliminate all those conditions in which the pigment is obviously derived from extravasated blood, the scope of the inquiry is much limited. Extensive, however, it still remains; for any conclusions as to its significance must be based upon a comparative study carried out in a large number of animals belonging to widely different classes of the animal kingdom.

Such has been the scope of the present inquiry. My observations have been made on animals representative of the different groups of the vertebrata, on rabbits and guinea-pigs, dogs and cats, ducks and pigeons, and on frogs, as representative of the classes of herbivora, carnivora, birds, and cold-blooded animals respectively. It was well that the basis of observation was thus extended, for I found that conclusions drawn from a study of one class of animals had to be materially modified in the light of observations on others. In no case, however, was the information thus gained more definite in its character or wider in extent than was afforded by a minute study of the character and distribution of the pigment found in man under different conditions of health and disease.

Pigment derived from Extravasated Blood.

In the course of this study I shall have to speak of the presence of pigment in the liver and spleen, and the peculiar significance to be attached to it. I wish it to be understood at the outset that it is not the pigment of extravasation or chronic congestion that I refer to, but to pigment arising independently altogether of either of these conditions, and distinguishable from such either by its situation or its character, or by both.

Situations in which Blood Pigment is Found.

The organs in which, according to my observations, blood pigment is to be found, independently of these conditions, are the liver, spleen, and the red bone marrow, occasionally also the kidney.

Liver.

Within the liver blood pigment is found in two situations, namely, the capillaries and the liver cells. As not only its characters but also the conditions under which it is met with differ in the two cases, it is necessary to consider these situations separately.

Within the Capillaries.

In birds irregular masses of pigment are frequently met with distributed quite irregularly throughout the liver tissue. The relation of this pigment to the capillaries or cells of the liver cannot, in the case of larger groups, easily be made out, since they are frequently surrounded by groups of proliferating active tissue cells. They resemble somewhat the large heaps of pigment so frequently found in the livers of frogs. Careful examination reveals that while the smaller heaps lie quite irregularly within the lobule, the larger ones have a relation to the portal vessels, the small cell growths surrounding them being derived, in fact, from a proliferation of the cells of the sheath of these vessels. Throughout the capillaries of the liver particles similar in character to the individual particles of the larger groups are to be seen lying enclosed within cells. These particles vary much in size; the larger of them are oval, and resemble both in size and shape the original red corpuscles from which they have been derived. Their long diameter is greater than the breadth of the capillary in which they lie, and here and there, at the bifurcation of a capillary, they can be seen to become arrested. By the continual arrest of smaller particles behind the point of obstruction the larger heaps are formed. The irregularity in the distribution of these heaps is thus, I think, accounted for, their exact site being determined solely and, so to speak, accidentally by the arrest of the first pigment particle. In birds, therefore, the volume and shape of the red corpuscle are according to my observations, one of the factors in bringing about the presence of particles in the capillaries of the liver. The same explanation applies to the case of frogs. In mammals the average diameter of red corpuscles is 7 to 8 micromillimetres, in birds 15 to 18, and in frogs 15 to 58. With such large corpuscles and correspondingly large particles of pigment it is not surprising that, as is the case, the liver of birds and frogs is so constantly the seat of large deposit of pigment.

In mammals the presence of pigment within the capillaries is altogether less frequent. In young mammals it is, according to my experience, the exception to find it even in the smallest amount. Even when present it is never in such amount as in the case of the pigeon, nor does it ever lead to the formation of such heaps of pigment as I have just been describing. In aged animals, on the other hand, it is not uncommon to find a pigment lying here and there within the capillaries. It is not free, but is enclosed within the leucocytes and endothelial cells of the capillaries. The size of the granules varies much, the largest of them approaching in size that of a red corpuscle. In many cases part of the pigment appears to be diffused throughout the protoplasm of the cell.

According to my observations, age is the most important factor in determining both the presence and the amount of pigment to be found in the liver capillaries of mammals. It tends to increase in amount with age. When met with, therefore, in old animals, it does not necessarily imply disease. It may have a purely physiological significance.

According to Quincke, whose teaching has hitherto been generally accepted, the increase in the amount of pigment in this situation is an indication of an increased destruction of red corpuscles. I will presently show that, on the contrary, such increase, when associated with old age, may be, and frequently is, a sign of lessened destruction of the blood.

Such a significance, however, it does not always have. Its presence may also point to an increased destruction. This is most strikingly and typically exemplified in pernicious anæmia and in malaria. It was a study of the former disease that first led me to investigate the whole subject of blood destruction. In it, as I have elsewhere shown, a great part of the pigment generally lies within the liver cells. Some of it, however, also lies within the leucocytes within the capillaries. The proportion of pigment in these two situations varies in different cases. In some little or none is to be found in the capillaries, while it is abundant in the liver cells. In others, again, it is abundant in both situations; while, lastly—the third group with which my cases furnish me with one example—it is more abundant in the capillaries than in the liver cells. The pigment lies within cells, either leucocytes or cells of kindred nature; occasionally, also, it may be found within the endothelial cells of the capillaries. Even more striking than in this disease is the presence of pigment in this situation in malaria.

I have found experimentally that an increase of the pigment in this situation can be induced in animals by the injection of certain substances that destroy the blood.

Conclusions.—The conclusions, then, with regard to pigment in this situation are: (1) The amount varies much in different animals and under different conditions. While in birds or animals lower in the vertebrate scale, its presence—sometimes in large amount—is the rule, in mammals, on the other hand, without being absolutely exceptional, it is nevertheless far from common. (2) It is usually distinguished by the large and varying size of its individual particles—a feature best seen in the liver of malaria and in birds; at least, this is true in health. (3) The chief factors influencing its presence and its amount are (*a*) size and shape of the animal's red corpuscles, influencing, as this does to some extent, first, the mode of death, and, secondly, the size and shape of the animal's pigment particles. The larger the animal's corpuscles the more likely is pigment to be found there. It is hence more common in birds than in mammals. (*b*) The age of the animal, amount of pigment tending to increase with age. In young mammals its presence is an exception. (*c*) Abstention from food and exercise. Sparing diet with confinement tends, I find, to increase it. Thus my observations show that livers of pigeons shut up for several months contain more than those of birds not so confined. (4) A considerable increase may occur in pathological conditions as the result of disease, or be induced experimentally by the action of certain agents which destroy the blood. Such an increase, however, is not constant even in the same animal.

Within the Liver Cells.

The second situation in which blood pigment may be found apart from extravasation or congestion is the liver cell. The frequency with which it is met here in health, and its amount, differ in birds and mammals respectively. In the former it

is usually found, sometimes in very large amount. In mammals, on the other hand, it is sometimes completely absent, and when present is generally in small amount. The pigment presents certain peculiarities in respect of the size of its granules, which serve to distinguish it from that found in the capillaries of the liver in health. Its granules, namely, are uniformly small, while in the capillaries they are much larger and of varying size. These differences are best seen in birds, where the pigment particles within the capillaries corresponding with the larger size of the animal's red corpuscles, are particularly large.

The conditions under which pigment appears in this situation also differ from those seen in the case of the capillaries. Neither its amount nor the character of its granules is in the slightest degree affected by such factors as size and shape of the red corpuscles, old age, abstention from food and exercise, all of which we saw influenced the amount of pigment within the capillaries. On the contrary, the small uniform size of the granules is as striking in birds whose corpuscles are large, as in mammals where they are small. Similarly it is not necessarily increased in old and inactive animals. It is indeed more likely to be found in young and active animals, and, as Brunton and Delépine have shown, is in some cases specially abundant during digestion.

The only respect, indeed, in which the conditions are the same is, as I find, that in both cases a large increase in the amount of this pigment may take place in disease, or be induced experimentally by the action of agents which destroy the blood. Even here, however, there is a difference; for the increase which may take place under such circumstances within the liver cells is not only more frequently met with (for example, pernicious anæmia), but is, with few exceptions, much greater than anything ever observed in the capillaries. One of the exceptions is malaria, where large quantities of pigment may be found in the capillaries. Even in malaria, however, the liver cells sometimes also contain a large quantity of pigment.

[Sections of liver from the pigeon, duck, cases of pernicious anæmia and malaria in man, and from the dog, rabbit, and pigeon, after hæmolysis experimentally induced, were shown, which illustrated the character and distribution of the pigment in that situation.]

The meaning of the differences in the two cases we shall presently see to be that whatever favours the slow and gradual death of the red corpuscle, or its death as a whole, favours the presence of pigment within the capillaries to the exclusion of the liver cells; whereas, whatever favours its more rapid destruction and its complete disintegration favours more its presence within the liver cell, although not there exclusively.

The Spleen.

The spleen is a favourite seat of pigment accumulation, apart from extravasation or congestion. The amount varies very much, not only in different classes of animals, but also in different animals of the same class. The condition which most affects it in health is age. It is, according to my observations, remarkable chiefly for its absence in the spleens of young mammals, while it tends to increase as the animal grows older. In aged inactive animals—for example, the dog—it may be found in very great abundance.

Contrary to what one might expect I find the variations in its amount in disease less striking than those observed in the case of the liver. With the exception, perhaps, of malaria and allied conditions there are few conditions in which an increase at all comparable with that which we have seen in the liver in pernicious anæmia takes place.

Very large increase, however, I have succeeded in producing experimentally in animals, and in no way more markedly than by transfusion. An increase I have also produced by the action of hæmolytic agents, but this increase is less constant in its occurrence, and sometimes, for reasons presently to be seen, is entirely absent.

The character of the pigment is not always the same, being sometimes in the form of large irregular clumps and granules of varying size; sometimes more universally diffuse and in smaller particles. These differences—here as in the liver—point to differences in the conditions which have given rise to it.

Red Marrow.

A third seat in which a certain, though usually very small, amount of pigment may be found in health is in the large marrow cells of red bone marrow. The chemical characters of the granules are indefinite. In health they frequently fail to give any reaction of iron. The amount, however, is much increased in old age, and it then gives very definite reactions. It is increased after transfusion of blood, and frequently, although not constantly, after a destruction of blood experimentally produced. The conditions that favour its presence are, on the whole, the same as in the case of the spleen, as the experiments quoted (twenty in number) show.

Kidney.

Another organ in which pigment is found, although very exceptionally apart from extravasation or congestion, is the kidney. It is in the form of minute granules of uniform size, occupying the cells of certain of the convoluted tubules, and of certain parts of Henle's tubules. The only condition in which I have found this pigment is pernicious anæmia, and its characters I have described elsewhere.[1]

Blood Pigment as an Indication of Hæmolysis.

What significance are we to attach to the pigment present in these situations under these different conditions? I have described the results of my observations with regard to the characters and distribution of this pigment, because it is by a study of these points that certain conclusions of some importance in this relation are led up to. It has hitherto been usual to regard blood pigment (always, of course, apart from extravasation or congestion) as an indication of some previous destruction of blood, its amount as an indication of the amount of that destruction. From the foregoing study I conclude that this is very far from being the case. On the contrary, blood pigment has in this relation, in my opinion, a very varying significance according to its precise characters and situation. Its presence, even in large amount, may denote, not a greater, but a lessened hæmolysis; while, conversely, its absence is not only compatible with, but may actually point to a greater and more extensive hæmolysis. Such is, at least, the result of my observations.

The explanation of this apparent paradox is that I find—and it was the study of the characters of blood pigment that led me to find—that there are two processes in the blood entirely distinct in their nature, both of which may lead to a formation of blood pigment; one invariably doing so, the other occasionally and not necessarily. The first is marked by a slow decay of the red corpuscle, and its death and inclusion as a whole within the body of active cells such as those of spleen or marrow, or the leucocytes of the blood. The peculiar feature of this process is that the whole of the hæmoglobin is converted into blood pigment, and moreover is invariably so converted.

It is the pigment so formed that is distinguished by the large and varying size of its particles, and it is this pigment that we find within the capillaries of the liver—never within the liver cells. The process which gives rise to this form of pigment is a comparatively slow and gradual one. So far as it is so it may conveniently be termed chronic. The death of a red corpuscle in this way in the circulating blood implies an absence of changes in the surrounding plasma. In fact, both plasma and leucocytes, the other constituents of the blood, take no part in bringing it about. Their *rôle* is purely passive. Hence this mode of death of the red corpuscles may conveniently be termed either chronic—viewed in relation to its slowness—or passive, viewed in relation to the *rôle* of the blood as a whole.

The other process is of a different nature; it is marked at the very outset by a liberation of the hæmoglobin from the red corpuscles, either alone or, as I think very frequently occurs, still in combination with part of the stroma of the corpuscle. The hæmoglobin thus escaped into the plasma of blood or spleen may be taken up by active cells just as we saw was invariably the case with the other process. Such is not, however, its usual fate. That is to pass into the liver cell and be there broken up; the chief results of this being the formation of bile pigments, and the excretion of a certain small amount of free iron in the bile.

[1] *Practitioner*, 1889.

Formation of blood pigment need not, in my opinion, necessarily attend this destruction of hæmoglobin within the liver cells. I have time after time satisfied myself that a rapid formation of bile pigments may be going on without any trace of blood pigment being present in the liver cells.

The peculiar feature of this process, then, as distinguished from the one just described, is that formation of blood pigments need not necessarily attend the destruction of the hæmoglobin, and that if this does occur, as we have seen from the presence of pigment within the liver cells it undoubtedly does, only a part of the hæmoglobin may be thus transformed, the remainder being broken up in other ways. It is the pigment so formed from free hæmoglobin that is distinguished by the smaller and more uniform size of its granules.

A change in the red corpuscles, attended by a liberation of its hæmoglobin, is altogether more rapidly brought about than a slow gradual decay. Moreover, it implies some activity on the part of plasma or leucocytes. Hence, to this process the terms "acute" or "active" destruction of red corpuscles may be applied, according as we view the change in relation to its rapidity or to the *rôle* of the blood as a whole in bringing it about.

It is clear then that blood pigment must have a very varying significance as an indication of hæmolytic change. (By hæmolysis we naturally mean those changes by which the blood, as a whole, is affected injuriously, and not one particular element of it).

For the process that leads to the formation of most blood pigment—namely, slow death of the red corpuscle—affects only the red corpuscle, and implies, indeed, an absence of change in the plasma. Such a process cannot be termed "hæmolysis." The other process is the only one, therefore, which we can rightly term "hæmolytic," in so far as it is marked by changes, not in the red corpuscles only, but, as we shall afterwards see, also in plasma and leucocytes. And yet it is this process which we have seen favours the disposal of hæmoglobin in ways which may leave no trace of blood pigment behind. The conclusion then is: hæmolysis is a process which may be unattended by the formation of any blood pigment; and hence it follows that the absence of such pigment in health, as is the case in young mammals, may be and, as I will now proceed to show, is quite compatible with the occurrence of a very considerable daily hæmolysis.

Bile Pigment as an Indication of Hæmolysis.

Having arrived at the conclusion that, probably in health, and certainly in disease, a destruction of blood takes place, the question naturally arises, What is the extent of this destruction in health? We have seen how close is the relation between hæmoglobin and bile pigment; and this may be regarded as affording at least presumptive evidence in favour of a certain daily destruction of hæmoglobin. Such evidence is, however, no more than presumptive, for we have seen that in the slow death of red corpuscles a certain amount of hæmoglobin becomes effete; and yet this slow death is by no means an evidence of hæmolysis. If bile pigment can be formed from such effete hæmoglobin, it is clear, then, that bile pigment as an evidence of hæmolysis loses much of, if not all, its value.

As I have shown, a large body of evidence points to the liver as the seat of conversion of hæmoglobin into bile pigments. The matter at issue thus resolves itself into a consideration of the relative importance of pigment cells within the capillaries of the liver and the liver cells themselves as seats of formation of bile pigments. For it is the capillaries that are, according to my observations, exclusively the seat of blood pigment formed in the above way—namely, from a slow destruction of red corpuscles.

It may appear at first sight a matter of little moment where within the liver this change takes place, whether through the agency of leucocytes in the capillaries or of the liver cells themselves. I cannot so regard it. On the contrary, nothing has impressed me so much in the course of these studies of the liver as the necessity for distinguishing sharply between leucocytes and liver cells—between processes carried on in the capillaries exclusively by leucocytes and endothelial cells, and processes carried on within the liver cell itself. Carmine or ultramarine blue injected into the circulation is arrested to a very large extent by the liver, but only by its cells of leucocyte and endothelial nature. The liver cells take no part whatever in this process. Such a function of the liver, valuable as it is, cannot be put on a level with one carried out by the liver cells—for example, the glycogenic.

If, then, the formation of bile pigment can be effected equally well by leucocyte or liver cell, and probably chiefly by the former, as Minkowski and Naunyn maintain, the process would cease, in my opinion, to be a truly hepatic one, and no forcible reason could be adduced why it should not take place in other organs equally rich in leucocytes and endothelial cells, in the spleen, for example, where, however, these two observers admit that no evidence of such a formation can be found.

When we pass from these general considerations to the facts, we find they are as follows. It cannot, in my opinion, be doubted that a certain power is possessed by cells of leucocyte and connective tissue nature of forming pigments apparently identical with bile pigment from effete hæmoglobin (Langhans, Cordua, Quincke). Moreover, a pigment, apparently biliverdin, has been found (Minkowski and Naunyn) in the large pigment cells of the liver of the goose—an observation from which its authors conclude, apparently justifiably, that a formation of bile pigments goes on within these cells.

While admitting the accuracy of both these facts, I nevertheless cannot admit that such a method of bile-pigment formation is even a common—still less the usual—one, and for three reasons. First, that in a large number of animals I have failed to find any pigment cells in the capillaries of the liver. Their presence, especially in young mammals, is, as I have said, the exception. Secondly, the experiments I now quote show that a very large formation of bile pigments may be induced in mammals without the appearance of a single pigment cell in the capillaries, but with, on the contrary, the appearance of blood pigment within the liver cells—a situation in which, as I have shown, it can only be derived from free hæmoglobin. Lastly, as the experiment I now quote shows, a very large increase in the pigment cells may be brought about unattended by any increased formation of bile pigments.

It is therefore within the liver cells themselves, and not in the capillaries that, according to my observations, hæmoglobin is transformed into bile pigments. And this conclusion carries with it the further one, that whatever hæmoglobin is daily broken up to form the bile pigments must have escaped from the red corpuscle into the plasma, and thence passed into the liver cell. In other words, some degree of active hæmolysis is an event of every-day occurrence.

LIGATURE OF THE ILIAC ARTERIES THROUGH THE PERITONEUM.

By W. MITCHELL BANKS, M.D., F.R.C.S.,
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In the British Medical Journal of October 29th, Mr. Marmaduke Sheild started a very interesting question as to the propriety of ligaturing the iliac arteries through the peritoneum in view of the great safety with which laparotomy can now be performed. It very commonly happens that, unknown to each other, the same idea occurs to several people, who either partially or completely carry it into practice; but naturally it is not until the details of several cases are collected and collated that a definite conclusion can be arrived at. Mr. Sheild's letter is obviously eliciting the necessary experience, as evidenced by Mr. Clement Lucas's communication, in which he reminds us of his successful case of ligature of the common iliac through the peritoneum for aneurysm of the external iliac artery done three years and a half ago. Again, Messrs. Ballance and Edmunds have brought to our recollection three cases of ligature of the internal iliac artery performed by Dennis, of New York, so far back as 1886, and described by Jacobson in his *Operative Surgery*. I am glad to be able to contribute a case to the general tale of experience.

My patient was a farm labourer, aged 62, sent to me in Sep-

tember of this year by Dr. Laing, of Burscough. He was a fairly healthy-looking man of spare frame, who had never had an illness in his life, and whose family history presented nothing remarkable. Some weeks before his admission, while engaged in ditching, he felt pain and a feeling of beating in the right groin. This occurred after midday, but he continued to work for the remainder of the day, getting relief from the pain and beating by occasionally resting. On reaching his home at night he examined his right groin, and found a lump there about the size of a small nut; he also noticed that the lump throbbed. He struggled to keep at his work for about a fortnight, the pain meantime becoming much worse, and the swelling daily increasing in size. At the end of that time he was compelled to give up work, and remained at home resting. Finally, he consulted Dr. Laing, who sent him into the Liverpool Royal Infirmary. A large pulsating tumour as big as the fist occupied the upper part of the right triangle of Scarpa, pushing its way upwards beneath Poupart's ligament. The pulsation was expansile, and there was a distinct *bruit*. The general signs left no doubt that the tumour was aneurysmal.

On September 20th the abdominal cavity was opened by an incision about 3 inches in length along the right linea semilunaris. The cæcum and small intestines came into view, and were held apart by the hands of an assistant. My finger immediately detected the position of the external iliac artery. The peritoneum over it was raised and slit up for about ¾ of an inch, and the artery came clearly into view. It was exposed high up in its course, and seemed perfectly healthy. It was tied with catgut, which had been soaked in carbolised oil, with just the exact amount of pressure necessary to stop all pulsation in the aneurysm, and no more. No attempt at tight ligaturing with the object of dividing the internal coat was made. The peritoneal incision was stitched up with a fine bit of catgut, so as to make the artery and ligature once more extraperitoneal. The abdominal wound was closed with fishing gut and dressed with cyanide gauze. The patient's recovery was uninterruptedly successful except for one incident. On the eleventh day after the operation my house-surgeon was hastily summoned to him at 8 A.M., and found that he had suddenly experienced acute pain of a stabbing nature in the precordial region, while his breathing had become painful and difficult. His face was deeply cyanosed, and he was in a state of great collapse. Ether and brandy were administered, and after about twenty minutes he rallied. I imagine that a piece of clot had become detached from the neighbourhood of the ligature, and by its lodgment in the circulatory round had caused the sudden and alarming symptoms mentioned. No investigation of the chest was made for the simple reason that, while it might satisfy curiosity, it could do no real good to the patient, whose best chance of recovery consisted in absolute repose. This was the only drawback. The limb, which had been wrapped up in cotton wadding, remained warm all the time. The temperature never rose a single degree. The pain disappeared and the appetite returned. For some time the aneurysm contained fluid at one part, evidently blood serum, but this became absorbed and only a hard swelling remained, steadily contracting in size. He left the infirmary on November 1st, 1892, the forty-second day after the operation, in good general health, and asserting that he could walk as well as ever.

About this aneurysm and its cure there is nothing of any special interest, because ligature of the external iliac is always a very successful operation. But the idea of tying an iliac artery through the peritoneum had many times occurred to me, and I thought this a fair and proper case to try it in, for the reason that the aneurysm pushed well up beneath Poupart's ligament, and I could not make out with any certainty whether the vessel in its immediate vicinity was healthy or whether it was thinned and dilated. It was obvious that the artery being once exposed through the peritoneum, I could select any point of it for ligature, going as high up as I chose till I came on sound vessel. As it happened, I struck the artery high up, and found it quite healthy. Nothing could have been simpler than the operation; nothing more satisfactory than the cure.

I have tied the external iliac artery twice previously by the ordinary method; once for the cure of aneurysm, and once in the hope of retarding the growth of a pulsating tumour of the iliac bone. It is true that it is a sufficiently easy operation, but I think the operation through the peritoneum easier still. As for ligature of the common and internal iliac arteries, in future these will always be tied through the peritoneum; and the next editions of works on operative surgery will be able to dispense with operose descriptions of the old, dangerous, and difficult methods of reaching them. As Mr. Keetley most justly observes, it is Listerism that has enabled us to reach this pitch. For ligature of the external iliac artery the ordinary operation is so safe and simple, that it will probably be retained in all cases where the aneurysm is low down, and where there is a good probability of sound vessel being found immediately above Poupart's ligament. This is reasonabe, because a patient may quite well recover from the ordinary operation, even when it has been clumsily done, or when the wound has become septic; but if by evil chance an abdominal wound becomes septic it is quite a different matter. Because laparotomy has succeeded *à merveille*, that is no reason why we should do it recklessly. But where the aneurysm is high, and there is a doubt as to the soundness of the artery near it, as in my case, then I think it will be the most judicious thing to ligature the vessel through the peritoneum.

Mr. Footner's case of iliac aneurysm, which burst just as he was going to tie the common iliac through the peritoneum, is most interesting. I may be prejudiced, but since catgut ligatures and surgical cleanliness became understood, I have never seen compression of arteries for the cure of aneurysm do anything which well-conducted ligature could not do more easily, more quickly, and more safely. Moreover, it has seemed to me that where compression has been tried and failed, subsequent ligature has never had the same fair play as if it had been done at first. I have never yet seen anything but absolute and satisfactory cure after tying the femoral for popliteal aneurysm, for instance, until I have come to regard it as one of the safest and easiest operations in all surgery. What better is desired? The only cases where I have seen trouble has been where flexion has been tried and failed; so that I am sure Mr. Footner will agree with me that if he chances on another iliac aneurysm he will promptly tie the common iliac through the peritoneum, and not waste any time over aortic compression.

Some fifteen years ago a man came into the infirmary under my care in a dreadful state of pain and distress generally. He had been out of work, and half starved. He had noticed a swelling in the left side of his abdomen for some time. In urgent search of employment he had performed a very long journey on foot, and reached Liverpool just in time to crawl exhausted into hospital. The swelling had increased rapidly, and was daily growing bigger. It was made out to be an aneurysm occupying the left iliac region, reaching to the middle line in front and to the umbilicus above. It was impossible to say where it sprang from, but as the man evidently had only a very short time to live it was necessary to act promptly. I opened the abdomen in the middle line, which was thought rather an adventurous proceeding in those days, with the intention of tying the common iliac or the aorta itself if I got a chance. But it was found impossible to do anything. The aneurysm overlapped the left common iliac and the lower portion of the aorta, so that neither of them could be reached. It was a gigantic thing, and had been leaking for some time at the back, tearing up the tissues behind the peritoneum in all directions. I shut the wound up, when I found the case hopeless, and the patient lived for a few days, which was all that we expected him to do under any circumstances. So that what was done did no real harm, and showed us that we had omitted no reasonable chance of cure.

CONGENITAL SYPHILIS AS A CAUSE OF NERVOUS DISEASES IN CHILDREN.[1]

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SCANTY as are the records of morbid anatomy, there is, nevertheless, reason to believe that "nearly every variety of nervous affection of acquired syphilis has its parallel among con-

[1] Read before the Medical Society of London, November 21st, 1892.

genital examples."[2] But the question arises whether congenital syphilis is an important agent in the causation of such nervous disorders as infantile hemiplegia, cervical opisthotonos, and the clinical conditions which are due to sclerosis of the convolutions.

Hemiplegia.—Infantile hemiplegia is conveniently classified on clinical grounds into cases (*a*) having an acute onset, (*b*) having no definite onset. Many of the latter are, no doubt, due to meningeal hæmorrhage occurring during labour; but this cause cannot always be invoked. In fifteen cases of this class I found evidence of congenital syphilis in the family or personal history in four or five instances, without any history of difficult labour. Hemiplegia with acute onset is particularly common under the age of 3 years, and although a certain number follow the acute specific fevers, the greater proportion arise without apparent cause. Embolism at this period of life may be practically excluded. There is reason to think that the lesion is usually either thrombosis or hæmorrhage, so the inquiry resolves itself into the causation of arterial degeneration in young children. Pathological investigations on the condition of the vessels in inherited syphilis are not numerous, but sufficient evidence has accumulated to show that arterial disease is not so uncommon as was formerly supposed.[3] I have lately found marked arterial changes in an infant, aged 6 weeks, in whom there was advanced cirrhosis of the liver, with unmistakable evidences of congenital syphilis.

There is considerable divergence of opinion among purely clinical observers as to the influence of congenital syphilis as a cause of infantile hemiplegia. Osler[4] ascribed only one case out of 120 to syphilis; but it must be remembered that many of his observations were made years after the attack, when the evidences of syphilis were not readily to be made out. Abercrombie, whose investigations were made soon after the attack, ascribed 4 at least to syphilis, probably 6, out of a series of 50 cases;[5] 2 cases only out of 83 analysed by Sachs and Peterson were ascribed to inherited syphilis.[6] Marie, Fournier, Henoch, and Hutchinson evidently consider infantile hemiplegia as being rarely syphilitic. Clinical observations at hospitals devoted to children's diseases appear to indicate that syphilis may have a more important etiological share than is generally allowed. Out of 25 cases of hemiplegia with acute onset, I found no history bearing on syphilis in 9; in 3 instances special inquiries were not made on this point; in 5 there was a suspicion of syphilis, and in 6 the evidence was stronger; in 2 cases the children were certainly syphilitic.

Case I.—In a child, aged 9 years, there was ulceration of the palate and caries of the nasal bones, as well as iritis and keratitis. The patient had been taking mercury for three months, when epileptiform attacks occurred. At the end of six months, in spite of treatment by mercury, hemiplegia supervened and the child subsequently became idiotic.

Case II.—A boy, aged 10 years; hemiplegia had occurred when he was 1 year and 9 months old. He had interstitial keratitis and extensive choroidal atrophy.

Case III.—Syphilis was suspected in a child, aged 14 months, who had two distinct attacks of hemiplegia.

Case IV.—In another case, an idiotic child, probably syphilitic, was attacked suddenly with hemiplegia.

Case V.—In another patient, hemiplegia occurred at the age of 7 years, and after the lapse of five years the limbs on the opposite side gradually became rigid, possibly from chronic meningitis or sclerosis of the convolutions.

Cerebral Sclerosis.—There is good evidence that sclerosis of the cerebral convolutions is sometimes due to inherited syphilis. In one case, in which there was slowly increasing rigidity of the arms and legs, with mental impairment, in a child aged 2 years, I found marked sclerosis of the convolutions. In the notes it was simply stated that the child had suffered from snuffles and a rash on the buttocks in babyhood, but I found afterwards that the father had been under the treatment of one of my colleagues for syphilis before the birth of the child.

Disseminated Sclerosis.—Dr. Moncorvo has brought forward some evidence that disseminated sclerosis in the child may be syphilitic. In a case of this kind occurring in a boy, aged 8 years, a brother was brought to me with a typical syphilide. In two other cases of this disease I had reason to suspect syphilis.

Idiocy.—The etiology of idiocy is too large a question for discussion now, but I may briefly say that some non-congenital cases are indisputably of syphilitic origin. It is difficult, however, to determine the relative frequency of this cause. Sclerosis of the convolutions or extensive chronic meningitis is sometimes the underlying condition, and the mental defect may or may not be associated with rigidity of the extremities.

Convulsions.—It is important to bear in mind that convulsions may indicate actual structural changes in the brain. Infantile eclampsia may be almost the sole indication of syphilis affecting the higher nervous centres, and it is a clinical fact that seizures of this kind will sometimes yield to mercury, when bromide of potassium and all other remedies have failed.

Cervical Opisthotonos.—In this condition the head is strongly retracted, and attempts to put it forward give rise to pain. The fontanelle is often bulged, and the sutures may widen out. Hydrocephalus, indeed, often supervenes. Paralysis of the cranial nerves and optic neuritis are not generally present. The active symptoms, with partial or even complete remissions, may last for months. Sometimes death ensues at a comparatively early period, sometimes the patient lives to be hydrocephalic, sometimes recovery takes place. This condition is due to simple (non-tuberculous) meningitis, chiefly at the base, more especially affecting the membranes between the medulla and cerebellum. Sometimes there is spinal meningitis, particularly on the posterior surface. Cervical opisthotonos is sometimes associated with clear evidences of congenital syphilis and a causal connection may reasonably be assumed, at any rate in some cases. The frequent coincidence of the two states can scarcely be fortuitous. It is curious, however, that mercury will sometimes be of little use in such cases.

THE TREATMENT OF SO-CALLED IMPASSABLE URETHRAL STRICTURE.[1]

By G. BUCKSTON BROWNE, M.R.C.S.

So-called "impassable urethral strictures" or "difficult strictures" may be defined as cases in which no instrument can be passed in the usual way into the bladder. In many of them the greater part of the urine is passed through perineal fistulæ, and in some perhaps no urine has been passed through the external meatus for years. Such cases mean great discomfort, suffering, and distress to the patient, and frequently great trouble and anxiety to the surgeon. Happily patients so afflicted are not met with now as often as they were formerly, for the art of surgery is much more widely spread than it used to be, and urethral stricture is well and successfully treated in its earlier stages in all the large centres of civilisation. At the same time, severe cases still occasionally come to us for treatment from remote parts of the world, and even here in London the dread of surgical interference is so great in some minds that patients do not apply for aid until their condition is extremely deplorable. It is to the treatment of these cases that I wish to draw attention, for after an experience of many years I am convinced that very frequently the mode of giving relief is unnecessarily severe, tedious, and dangerous, and that if we apply a few plain surgical principles we shall be able materially to simplify our methods to the great advantage of suffering patients.

Many surgeons, on taking charge of a difficult case of stricture, will often spend weeks in groping through all the dark places of the perineum with instruments introduced through the penis, until by skill or by chance some fine instrument is passed into the bladder; it is then tied in, and worn for some time, or it is used as a guide, and a larger instrument is screwed on, and with more or less success is passed in. Other

[2] Syphilitic (Hereditary) Disease of the Nervous System, by Dr. Barlow and Dr. Judson Bury: *Dictionary of Psychological Medicine*, edited by Dr. Hack Tuke, vol. ii, p. 1259.

[3] See article already quoted by Dr. Barlow and Dr. Judson Bury; also cases by Dr. Barlow, and by Drs. Turner and Sutton, in Vol. xxviii *Trans. Path. Soc.*

[4] The Cerebral Palsies of Young Children.

[5] Clinical Lecture on Hemiplegia in Children, British Medical Journal, June 18th, 1887.

[6] A Study of Cerebral Palsies of Early Life, based upon an Analysis of 140 Cases, *Journal of Nervous and Mental Disease*, May, 1890.

[1] Read before the Harveian Society of London, November 17th, 1892.

surgeons will at once proceed to more heroic measures; the patient is tied up in the lateral lithotomy position, the urethra is opened from the perineum, and search is made for the opening of the stricture. This may or may not be found, but a way is cut into the urethra beyond the stricture. Such patients are, of course, exposed to all the risks attendant upon an opened perineum. With regard to filiform guides, there are many objections to be urged against their use; but the chief are that they are often misleading and that frequently they break. This latter accident is not an imaginary one. I here exhibit one of these guides, which I recovered from a patient's bladder, where it had lain for many months, having been left there after an unsuccessful operation, and which had caused the patient during the period of its residence the greatest misery. I look upon operations which consist in opening the perineum in order to search for the orifice of the stricture as unnecessary, for surely if an instrument can be passed by looking it can be passed by feeling, and, if so, the instrument may just as well be passed through the penis and directed through the stricture by the sense of touch, and the patient spared all the risks of a perineal incision. These risks are very real ones; for a perineal incision into the urethra is a dangerous wound. There is always the possibility of hæmorrhage, and I would emphatically point out that such wounds do not always heal. Almost every year I meet with cases of unhealed perineal incisions into the urethra, and it cannot be denied that the suffering caused by such a fistulous opening is very great. In men of refinement such a condition is often wellnigh intolerable, and renders life in many cases not worth living. I lay stress upon this matter because the condition referred to has been made light of by some, but it is only a very few years ago that a gentleman so afflicted, failing to obtain relief after several attempts to close the wound had been made without success, committed suicide by shooting himself through the head. The object of this paper is to attempt to prove that the worst cases of urethral stricture can be treated *tout d'un coup*, that is, all at one operation, and put at once into a satisfactory state without any painful preliminary instrumental treatment and without any perineal incision, and only detained in bed for some less time than a fortnight.

We are indebted to Syme, the Napoleon of surgery, as Mr. Mitchell Banks calls him, for the invaluable dictum that if urine comes out from a bladder through a urethra, a surgeon should be able to press an instrument through that urethra into the bladder. But may we not go still farther and say that in all cases of urethral stricture, whether urine issues or does not issue from the external meatus during an act of micturition, a surgeon with skill and patience should be able to pass an instrument through the stricture and into the bladder? Secondly, may it not be asserted that when once an instrument has been fairly passed into the bladder, it may at once be withdrawn, and replaced by one a size larger, by a surgeon who has confidence in himself; and, thirdly, may not all strictures be in this way dilated up to No. 6 or 7 English, and when once so dilated may not Civiale's urethrotome be introduced and the stricture or strictures cut, so that 15 or 16 or 17 be at once passed fairly into the bladder?

Personally, I answer these three questions in the affirmative. So far I have never failed to carry out successfully the procedure about to be described. This procedure is not a brilliant operation; it cannot be undertaken in a crowded operating theatre, but must be carried out in the tranquillity of a ward or of a private bedroom, and the surgeon must have arranged to have practically unlimited time at his disposal. It is no use undertaking a bad case of stricture if pressed for time, or if harassed by frequent calls and messages, and therefore the evening is often the time most suited in every way for the undertaking.

The instruments required are very simple. Some blunt-ended English gum bougies, varying in size from No. 3 to 10, a foot-rule marked in inches, a Civiale's urethrotome, also accurately marked in inches, a No. 11 or 12 soft gum catheter mounted on a stylet for tying in at the close of the operation, and, finally, a complete set of well-burnished steel sounds. These sounds are far preferable to silver catheters, which, when small, easily bend, and so destroy all accuracy of manipulation. The sounds are each two sizes larger in the shaft than at the point, the smallest being No. 2 in the shaft and less than No. 1 at the point (marked 0—2), the next being 3 in the shaft and 1 at the point (marked 1—3), and so on up to the largest, No. 17 (marked 15—17).

The night before the operation some aperient medicine should be administered, and an hour or two before the operation the patient should have a hot sitz bath and an enema of warm water, in order thoroughly to clear the rectum. He should be directed not to pass water for at least an hour before the appointed time, for it is desirable that there should be some urine in the bladder. If an operating table is not available, the bed should be made firm and level by placing the leaf of a table on a board under the mattress. Each leg is wrapt up separately in a small blanket, and a third blanket is placed across the body. The perineum and pubes are thus left exposed. The patient is then completely anæsthetised. The anæsthesia must be complete, for the urethral reflexes are the last to be anæsthetically abolished, and the success of the operation depends upon the patient being absolutely quiet. One or two of the blunt ended soft bougies are now introduced into the urethra, and the exact distance of the stricture—or in cases of multiple stricture, of the anterior stricture—from the external meatus is accurately ascertained and measured. A careful attempt is now made to pass the smallest of the steel sounds or dilators through the stricture. This will probably not be possible in severe cases unless the surgeon stands on the patient's left, or sits down on the bed on that side, and guides the point of the instrument with his left forefinger in the rectum. The finger in the rectum gives great security, and by its aid the operator is able to keep the dilator correctly in the middle line, and he will at once know if his instrument passes out of the urethra and into the tissues in front of the rectum. No force must be used, but steady search must be made for the orifice of the stricture, and firm but gentle pressure exerted when it is found. Indeed, the surgeon must steal in "little by little," as Ambroise Paré says, referring to another subject, "and must not break suddenly into the field of Nature." The operator will, after a little while, find the stricture yield under his hand, his instrument will advance a little, and he will be gratified and feel safe and successful if he becomes aware that the end of the sound is firmly grasped by the stricture. There must now on no account be any hurry. If the instrument is so tightly grasped that it feels almost immovable, by waiting the grasp will be found to relax and the dilator can be pressed a little further. When fairly through the stricture, even if the sound cannot be carried into the bladder, it may be withdrawn, and the next sized one introduced; this will dilate still more and sound after sound may be passed till No. 6 or No. 7 has been put well through the stricture. If a No. 4 or No. 5 is now used it will only be lightly held by the dilated stricture and its point can be manipulated and directed carefully into the bladder. The sound is known to be in the bladder by the shaft being absolutely in the middle line and the point felt to be free in a cavity, for owing to the fact that there is urine there, there is room for the play of the point in the bladder. When once a sound has been fairly passed into the bladder and at least a No. 6 or No. 7 put well into the stricture, the urethrotome may be employed. Its successful introduction is not always an easy matter. Leaving the No. 7 sound lying in the urethra the operator should now change sides, and, standing on the patient's right, he takes out the sound and at once slips in the urethrotome. I frequently shake it in rather than pass it. This instrument should pass with ease into the bladder. If it does not something is wrong, and the knife must not be used till the urethrotome is fairly placed. Perhaps a sound or two may have to be passed again before the straight urethrotome can be introduced without let or hindrance into the bladder. When in proper position it is carefully withdrawn until the bulb is an inch beyond where the stricture is known to be, the blade is then protruded and a free incision is made from behind forwards for a good inch in the floor of the stricture. The blade is then sheathed and the instrument withdrawn. Full sized sounds are then passed, probably Nos. 13, 14, 15, 16, and 17 in succession, and then the soft catheter, mounted on a stylet, curved so as exactly to correspond with the curve of the sounds, is passed in, the stylet removed, and the catheter tied in. The urine which is in the bladder will issue by the catheter and so show that all is right. Should there be any

doubt about the catheter being in the bladder it should be withdrawn and on no account should any water be injected through it.

This is a brief description of the steps of the operation I recommend for the immediate and complete relief of bad cases of stricture, but of course for such a variable form of disease all kinds of modifications are frequently necessary. I would lay great stress upon the importance of not being in a hurry to pass small instruments into the bladder; they may be satisfactorily through the stricture, but may be arrested beyond by reason of their very smallness, for although it is certain that on the bladder side of the stricture the urethra is roomy enough, still its walls are sure to be irregular owing to rupture or to fistulous openings, and in these the fine point of a small sound will easily become caught. It is well, therefore, to dilate the stricture gradually with sound after sound, and then taking a smaller one, which will be loosely held by the stricture, pass it carefully into the bladder. In some cases, owing to the fixation of parts by infiltration of tissues, no rigid instrument can be passed into the bladder. In such cases the stricture should be divided; and in a few days, after the parts have drained, and the urine come by the urethra, an instrument can be passed properly into the bladder. It is, however, impossible, in a short paper like this, to go fully into every complication and difficulty. I am content to submit the principles of the procedure for consideration.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

ON THE DIAGNOSIS OF EARLY ECTOPIC GESTATION.

The following case serves to illustrate Dr. Edis's paper in the British Medical Journal of October 22nd, and brings out very prominently the important point in the diagnosis of this dangerous condition, namely, sudden attacks of severe pain, recurring at intervals.

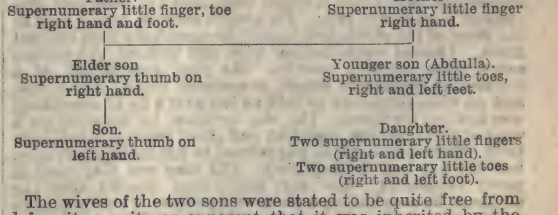
Mrs. G., aged 26, had one child only, seven years ago; her periods were regular up to July 18th, 1892; this was a normal period, and ended on July 24th. No period occurred in August, but she had the ordinary symptoms of early pregnancy. There was no period in September, but she was seized suddenly with a very severe attack of abdominal pain on September 10th, which lasted two hours and a-half; there was no discharge of blood from the vagina. She had severe pain again on September 20th, lasting two days; it was distinctly paroxysmal in character, but there was no discharge of blood. She had pain again on September 24th, lasting ten hours, but no discharge of blood. Pain recurred on September 26th, accompanied by a slight discharge of blood, and on September 27th she passed a membranous-looking clot. After this the pain, which had continued from the morning of September 26th, was easier. On October 1st she had another very severe attack of pain, which continued until October 4th, when I saw her for the first time. I found her very pale; there was a marked line of resistance in the right groin, and a swelling in front and to the right of the uterus. My diagnosis, founded on the history and the local examination, was ruptured tubal gestation sac, and I advised immediate operation. For this purpose she was taken to the Bristol General Hospital on October 5th. She had another severe pain on October 6th, and on October 7th I opened the abdomen, and found a large amount of fluid and clotted blood and a ruptured right Fallopian tube, which gave distinct evidence of pregnancy. I washed out the abdomen, tied and removed the damaged tube, inserted a glass drainage tube, and finished the operation. The patient is now (October 24th) practically well except for some inflammatory trouble on the right side of the pelvis.

I have now operated on six cases of ectopic gestation, with four recoveries, and in all of them the first symptom was pain and not hæmorrhage, and in most of the cases the pain recurred several times before the hæmorrhage set in. My impression is that this latter symptom, coincident with the shedding of the lining of the uterus, does not, as a rule, appear while the ovum is still capable of developing, but does come on very soon after its death. Dr. Edis has done good service in bringing the subject forward in such a practical paper. I would only add a short sentence with which I concluded my paper in the *Bristol Medico-Chirurgical Journal* of June, 1892:—"The whole diagnosis may be summed up in a few words. When a previously healthy woman misses one or more periods and is taken with acute abdominal pain and fainting, and these symptoms recur at short intervals, and the vaginal examination reveals a periuterine hæmatocele either extending or not up into the abdomen, it is imperative to open that abdomen without delay."

A. E. Aust-Lawrence, M.D.,
Clifton, Bristol. Physician-Accoucheur Bristol General Hospital.

REMARKABLE CASES OF POLYDACTYLISM.

A Mohammedan servant, recently in my employment, one day complained to me about his right foot. I found that he had a supernumerary toe—quite distint and separate—growing out from the outer border of his right foot at the root of the little toe. This supernumerary little toe was attached by dense fibrous tissue, but contained what appeared to be a nodule of bone, upon the extremity of which a healthy nail was supported. He informed me that he had been born with another similar supernumerary toe on the opposite side—but when a child it was removed on account of injury. This statement was probably true, there being a scar in the situation. This man was about 40 years of age, and presented no other abnormality. He informed me that his daughter had four supernumerary digits, that is, two little fingers and two little toes on both hands and feet, springing from the bases of the digits; also that his nephew, a little boy of 1 year old, had a supernumerary thumb on the left hand; these two children I saw subsequently, and can vouch for the veracity of his statements. Further, he told me that his father and mother both were born with similar deformities, namely, the father had a supernumerary little toe and finger on the right hand and foot respectively; that his mother also had one supernumerary little finger on the right hand, growing from the base of the natural one, but quite separate; and finally that his elder brother had a supernumerary thumb on the right hand. This was the father of the child above mentioned who had a supernumerary thumb on the hand also, but on the opposite side to that of his father; this was a distinct thumb provided with a nail and not a bifid digit. There do not appear to have been any instances of any other abnormalities having occurred—not even webbed fingers. Therefore we have instances of this kind of congenital deformity occurring in three successive generations, and affecting the same fingers and toes all through, as will be seen at a glance by the diagram below:



The wives of the two sons were stated to be quite free from deformity; so it was apparent that it was inherited by the children from the male side. Unfortunately the man has been lost sight of now, otherwise it would have been interesting to go more into this case and gain some more information. I read with interest the article and case bearing on this same subject, in the British Medical Journal of September 17th, by Dr. Mill, and it is not my intention to refute the somewhat ingenious theory advanced by him as to the cause of these deformities, nor do I intend to advance one of my own, but I certainly think with him that "maternal impression," so called, may be put out of the question; but should the theory of "dichotomy of the cells of the ova" be

true, is there any reason why children should not be born with duplicity, and in some cases multiplicity of limbs?

H. E. Drake-Brockman, F.R.C.S.E.,
Mirzapore, N.W.P. Surgeon-Captain, I.M.S.

POISONING BY PRUSSIC ACID.

The following account of the after-death appearances in a recent case of suicide by prussic acid may interest your readers as showing some variation from the descriptions given in textbooks on poisons.

The body was first seen by me about five or six hours after death. It was that of a short stout man, aged 54, lying on his back in bed with the bedclothes drawn up to his chin. The face was pale and composed as in sleep, with the eyelids closed. On these being raised the eyes looked bright, and the pupils were only moderately dilated, giving the appearance of life. The lips were closed, with no froth about them; the jaws were firmly clenched, and the gums were remarkably white. On the bedclothes being turned down, the arms were seen lying close to the sides, and one leg crossed easily over the other. The trunk was quite warm, and there was no rigidity of the limbs. There were already many livid spots on the neck and arms; and the fingers, which were not flexed, and the nails were of a deep violet colour, as were also the more dependent parts of the body. There was no perceptible odour of prussic acid anywhere, but a small empty phial labelled "Hydrocyanic Acid," and with the cork in it, was found on a chest of drawers in the room, and in one corner nearest the foot of the bed lay the fragments of a broken tumbler, one of which still held a few drops of a clear colourless liquid smelling of the poison. The necropsy was made some hours later, and when the chest and abdomen were opened these cavities exhaled a vapour smelling strongly of prussic acid. There were no unusual appearances, except some venous congestion, in the organs examined. The stomach was removed for the purpose of an analysis of its contents, and when laid open showed but slight vascularity. It contained only a few ounces of a thickish dark-brown liquid, which furnished abundant proof of the presence of prussic acid on the application of the ordinary tests.

Guildford. Henry Taylor.

TWO CASES OF FOREIGN BODY IN LUNG.

Case I. *Pipe-stem.*—A man, in attempting to drive round a sharp corner in April, 1891, was thrown from his trap. At the time of the accident he was smoking a pipe. After the accident he was picked up insensible and found to have sustained a somewhat severe wound of the face. The pipe he had been smoking was searched for, but only part of it was found, and it was seen that a portion of the vulcanite stem was broken off. The patient was conveyed home and medically attended, having had in the meantime a sharp hæmorrhage, presumably from the lungs. In due time he was able to resume his duties, but at times complained of pain and discomfort in the right lung. He always pointed to one spot in the front of the chest, and fancied he must have been bruised there. Careful examination with and without the stethoscope gave negative results. He also complained of a distressing spasmodic cough, sometimes lasting two hours, and on these occasions he said he felt as if a fly or something was tickling his throat. On one occasion he coughed up a plug of tough mucus, roundish and about one and a-half inch long. This circumstance was related to his medical advisers, but did not lead to anything. His case was diagnosed as gouty bronchitis. One day, nearly nine months after the accident, he coughed up a piece of pipe-stem, which proved to be the piece broken of the pipe at the time of the accident.

Case II. *Mutton Bone.*—This second case occurred in the practice of Dr. George Hunter of Edinburgh. He has kindly written to me, and I cannot do better than quote his words. "Mr. J. M., while partaking rather heartily of mutton broth, felt something suddenly 'go the wrong way,' which caused some choky cough, but, as nothing was seen, the incident, trivial in itself, passed by, and received little further attention. Some time subsequently he began to cough, and a patch of dulness, with increased fremitus, followed by moist sounds, was detected in one interscapular region. There was also hæmoptysis of considerable amount during the course of the illness. Forgetting, or perhaps laying but little stress on the choking incident, which I think was mentioned to me, I began to fear that my patient was suffering from a pneumonic patch of tuberculous origin, when one day the symptoms resolved themselves by the appearance of a piece of mutton bone in the expectoration, which proved to be the *fons et origo mali*. I never published the case." Mr. J. M. tells me he retained the bone in his lung one year.

These two cases, I think, seem to point to non-interference in the way of tracheotomy, etc., where foreign bodies are taken into the lungs; in each case the substance inhaled was large, jagged, and caused distressing symptoms. Both patients are alive and in good health.

Harston, Cambs. W. J. Midelton, M.R.C.S.Eng., etc.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

BRISTOL CHILDREN'S HOSPITAL.

TWO CASES OF PRIMARY NECROSIS OF THE PUBES.

(Reported by C. A. Morton, F.R.C.S., Surgical Registrar and Pathologist.)

Necrosis of the pelvic bones in association with advanced disease of the hip-joint is not uncommon, but in one of these cases the hip-joint was normal, and in the other the disease in the pubes was primary, and the hip-joint disease occurred later, probably from pus finding its way into the joint. Primary necrosis of the pubes is not described in surgical textbooks, hence it seems desirable to record the following cases.

Case I. *Primary Necrosis of Pubes with Secondary Arthritis of Hip.* (Under the care of Mr. J. Ewens, Surgeon to the hospital.)—A baby, aged 11 months, was admitted on March 23rd, with a large swelling in the left thigh, which had been first noticed a week before, but the baby had seemed to suffer great pain on movement for a longer period. There was no history of any injury, and no tuberculous family history.

On examination under chloroform two fluctuating swellings were discovered in the upper part of the left thigh, one below the outer half of Poupart's ligament, external to the vessels, the other behind and below the trochanter, with fluctuation between them. Rotation in the hip was free and unaccompanied by grating. No swelling was felt in the iliac fossa, though thorough examination was possible from the complete relaxation of the abdominal muscles. There was no excurvation of the spine. An incision was made just behind the trochanter, and several ounces of pus were evacuated. The head of the femur was out of the acetabulum, but the only roughness on it was where the ligamentum teres had been attached. The upper end of the femur was lying in an enormous abscess cavity which seemed to pass up over the pubes. In it was discovered a small sequestrum.

The abscess cavity discharged profusely, but the temperature, which was 102° before the abscess was opened, remained normal until April 5th, when it rose to nearly 102°, and remained between 102° and 104° for two days. At this time dulness, feeble breath sounds, and small *râles* after coughing, were found over the back of the right lung. The infant was very anæmic, with numerous petechiæ, and enlarged spleen and liver. The temperature again went up to 103° on April 13th, and remained between 102° and 103°, until the child's death on April 21st. The condition of the right lung remained unchanged, and more marked purpuric condition came on, and with the extreme feebleness there was possibly unconsciousness towards the end, but no convulsions or vomiting. The condition of anæmia was extreme.

Post-mortem Examination.—The horizontal ramus of the pubes was much thickened, and contained a carious cavity from which the sequestrum removed at the time of the operation had come, as it was the only carious cavity found. This was the centre of an enormous abscess cavity, which extended into the psoas sheath for a short distance above Poupart's ligament, and had caused destructive disease in the hip-joint

in the same way that a psoas abscess surrounding the joint, due to spinal disease, will sometimes do. The articular surface of the head was denuded of cartilage, and slightly roughened in parts; but even with the joint freely exposed grating could not be felt on rotating the head in the acetabulum, though the cartilage there over a small area was also in process of destruction. There was no disease in the head of the femur, and the disease of the articular surfaces was such as a secondary arthritis from contact with the abscess cavity might have produced. The advanced bone disease was not in connection with the joint, and was certainly of longer duration than the joint changes. The inner surface of the obturator and pubic regions was much thickened by dense tissue. The whole brain—vertex and base, and both surfaces of the cerebellum—was covered with a thick layer of lymph. The amount of effused lymph was equal on the two sides, and was not more marked over either temporo-sphenoidal lobe than elsewhere. The interior of the brain was normal. There was no meningitis of the velum interpositum. The bone over the left middle ear had a greenish appearance. The middle ear and mastoid antrum on both sides were full of pus. The membranes were not perforated, and there was no pus in either external auditory canal. There was no caries of the bone. In the right pleura was a flattened cavity, with thick walls of soft purulent lymph containing half an ounce of pus. The walls were nearly a quarter of an inch thick. This cavity extended over the lower two-thirds of the lung behind to the roughened pleura of which, and to the costal pleura, it was loosely adherent. The lung was only collapsed at the posterior margin of the lower lobe; there were no tubercles. The left lung had one small patch of recent lymph on the pleura near the base behind. There was no fluid in the pleura, and the lung was normal. The bronchial glands were not enlarged; there were no petechiæ on the pleura or pericardium; the heart was normal, the liver rather large, and the spleen very large and firm; the kidneys were very pale, but showed no other change.

Case II. *Necrosis of the Pubes without Disease in the Hip-Joint.* (Under the care of Mr. J. Dacre, Surgeon to the Hospital.)—F. M., aged 5 years, was admitted on April 24th, 1891, with the following history: A week before admission a swelling was observed on the inner side of the left thigh near the groin, which had rapidly increased in size. Excision of the elbow had been performed in the hospital in 1889; at that time he had a mastoid abscess. Since then he had had occasional discharge from the ear, and the elbow was not quite sound. No family history was obtainable.

There was a large fluctuating swelling on the inner and posterior aspect of the thigh, just below the perineum, not tender, and without redness of the skin. The impulse of fluctuation did not reach the psoas region, nor was there any fulness in the iliac fossa. There were no signs of spinal disease. The limb was kept slightly flexed at the hip, and there was a certain limitation of movement in the joint, but no tenderness. The limbs measured almost exactly the same, and there was no thickening about the trochanter. There was fibrous union, with free movement in the elbow, but a small scabbed sinus was present on the posterior aspect.

On May 4th some of the pus was evacuated. On June 2nd the abscess, which was increasing in size, was opened and drained, and some sequestra were removed from the pubes.

On July 23rd the sinus was explored with the finger, under chloroform, and it was discovered that the body of the pubes had come away as a sequestrum, leaving a rough surface where it was attached to the ischium above the hip. The large abscess cavity burrowed in various directions. At this time there was a hectic temperature reaching 100° or 101°.

The child became more emaciated and anæmic, the temperature went up to 102° and 103° at night, and another abscess formed below the trochanter. The liver did not enlarge, and the urine kept free from albumen. She died on February 20th, 1892.

Post-mortem Examination.—On opening the abdomen a good deal of thickening was apparent about the inside of the pubes and acetabulum. The left broad ligament was adherent to it, but the sigmoid flexure was not. The left side of the bladder was somewhat adherent. On cutting through the fascia covering the inner surface of the pubes an abscess was discovered extending into the ischio-rectal fossa. The upper part of the thigh was riddled with sinuses, leading to extensive disease of the pubes. The horizontal ramus had come away as a sequestrum during life, and the descending ramus was carious and loose on the ischium. The intra-pelvic abscess communicated freely with the extrapelvic one around the pubes, into which all the sinuses opened. The hip-joint was carefully examined, and found perfectly normal. The pus in one of the sinuses, winding round the femur, had eaten out a deep grove in the bone. All the organs were healthy; there were no signs of amyloid disease or of tubercle. There was fibrous ankylosis of the elbow, but some superficial erosion of the lower end of the humerus and stump of the radius persisted.

Remarks.—The question of diagnosis in the first case was of some interest. There was a large abscess presenting behind the trochanter, where an abscess from hip disease or a psoas abscess which had tracked round to the back of the thigh in the course of the internal circumflex artery may present. The absence of any excavation of the spine or any swelling in the iliac fossa seemed to negative the idea of spinal disease. On opening the abscess and exploring with the finger the hip-joint was found opened, but without extensive destruction of the articular surface. The presence of the sequestrum pointed to some further bone mischief, and the way the finger passed up in the direction of the psoas over the pubes still suggested the possibility of psoas abscess. The exact nature of the disease could only be definitively settled at the *post-mortem* examination. It was a good example of psoas abscess, due to bone disease other than spinal caries.

In the second case the child had a large chronic abscess in the thigh, the cause of which could not be discovered until it was opened and explored; there were no symptoms pointing to the bone disease. It is interesting that in neither case was there any tuberculosis of internal organs. That the hip-joint should have been unaffected in the second case with such extensive and protracted disease around it is remarkable.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir Andrew Clark, Bart., F.R.S., President, in the Chair.

Tuesday, November 22nd, 1892.

Hepatic Abscess: Rupture into the Peritoneum: Incision: Flushing: Recovery.

Mr. J. W. Hulke narrated a case under the care of Dr. J. L. Paul and himself, in which a large liver abscess (which three months previously had emptied through the lung) burst into the peritoneal sac—an accident marked by extreme collapse. On the second day after this event the peritoneal sac was opened, a very large quantity of pus evacuated, and the sac flushed out. Upon this the patient's desperate condition rapidly improved, and he recovered, so that for several months he was able to resume his occupation. His recovery was, however, still incomplete, an abscess having again collected and been opened in July last. The case was reported as it afforded an encouragement to the practice of promptly opening the peritoneal sac, and flushing it out under like circumstances of the escape into it of the contents of an abscess.

Dr. George Harley commented on the rarity of hepatic abscess bursting into the peritoneal sac. Their common course was to work towards the convexity of the liver, and thus they lay in the neighbourhood of the pleura, into which rupture was of commoner occurrence. This was often considered to be the safest termination, but in his opinion rupture into the intestine was safer still. Many which presented in this direction probably escaped recognition. It was possible for an abscess to burst three or four times through the lung, and then through the intestine, and he quoted an instance of this. He had known of cases where abscess had recurred even after thorough drainage.

Mr. Godlee referred to the difficulty which existed in many cases in distinguishing the origin of the pus; the extent of the dulness upwards into the chest was no criterion whether it was connected with the lung or the liver. He related a case

in which the dulness extended to the third rib, which was treated as an empyema, though it turned out to be an hepatic hydatid.

Mr. BARKER said that he usually used fluid for flushing the peritoneum at a temperature of from 105° to 110° F. The flushing often temporarily improved the patient's condition, though a depression was apt to follow if it was continued too long. He was at present using boiled sterilised water, believing that it gave better results than water mixed with germicides. The heat of the fluid acted efficiently in checking oozing.

The PRESIDENT related a case which went to show that abscess of the liver might exist without very material elevation of temperature, and without enlargement of the liver. He used a long and moderately small trocar, puncturing from the side, and found about twelve ounces of pus; later when the patient was again ill, a surgeon, tapping from the front with a shorter trocar, failed to hit the collection of pus, which was demonstrated *post mortem* to lie in the substance of the right lobe of the liver.

Mr. HULKE, in reply, said he had not taken the temperature of the water he used, which was as hot as he could comfortably bear his hand in. He was inclined to advocate the use of a saline solution for flushing, in that it might tend to check osmosis, and consequent damage to the peritoneal endothelium.

THE RADICAL TREATMENT OF SEVERE TALIPES EQUINO-VARUS.

Mr. EDMUND OWEN said that the "orthodox" treatment of severe club foot by subcutaneous division of the tibial tendons and of the plantar fascia, and subsequently of the tendon of Achilles, left much to be desired. The tendon of Achilles should in all cases of congenital talipes be the first to be divided. In not a few cases of slight equino-varus its subcutaneous section sufficed in the way of actual operation, and in severe cases the amount of the inversion of the sole could be correctly estimated only after its section. Though subcutaneous surgery in general had played a useful part, it was more or less of an anachronism. It had been entirely superseded in the operative treatment of reducible inguinal hernia, and greatly to the advantage of ruptured persons; but subcutaneous operations were still generally performed for the cure of congenital club foot. Operating thus, comparatively in anatomical darkness, the surgeon could not know for certain what structures he was dividing, nor could he be sure of severing certain important bands, deeply placed in the sole perhaps, which chiefly prevented his obtaining the perfect and easy rectification of the foot. Moreover, in a severe case of congenital club foot, the skin itself offered a most serious impediment to a correction of the deformity. The operation recommended for adoption in severe cases of club foot was that introduced by Dr. A. M. Phelps, of New York. It consisted in dividing every resisting structure which was encountered by a free vertical incision passing from the dorsum of the foot into the depths of the sole over the head of the astragalus, the tendon of Achilles having been first cut. The improved position of the foot was thus obtained by lengthening the inner border of the foot, rather than by shortening the external border, as was usually accomplished in tarsectomy. By this incision the astragalo-scaphoid joint was separated and the space intervening between the bones was duly filled up with granulation tissue, which was eventually converted into a strong and trustworthy cicatricial band between the anterior and posterior segments of the foot. The treatment of the foot subsequent to the operation was simple and satisfactory, and relapse was far less likely to occur than after the old method of operating. Mr. Owen had for several years been carrying out this open method of treatment, and in a considerable number of severe cases of congenital talipes; he expressed himself as highly pleased with it. Dr. Phelps informed him that he had now carried it out in 200 cases with no fatal result, and with but a very small proportion of relapses.

Mr. ADAMS regretted to hear the open method advocated to supersede subcutaneous puncture, which latter was safe, in that entrance of air was prevented, while the structures to be divided could be readily found. He held, contrary to the author, that the tendo Achillis should be divided last.

Mr. BRODHURST was likewise surprised to hear the open method advocated. He maintained that the skin ought not to be divided, as it did not interfere with the reduction of the deformity, and he had never met with a case in which the bones were so misshapen that it was necessary to operate on them. After having criticised adversely a paper by Mr. Syme, of Melbourne, he held that the operation proposed by the author was unnecessary.

Mr. HULKE had seen a certain number of cases in which the bony framework of the foot was so deformed that something more than subcutaneous division of tendons and ligaments was necessary; something, in fact, more of the nature of the radical method advocated by the author.

Mr. OWEN, in reply, said that subcutaneous surgery had had its day, and it left a great deal to be desired. He had seen many relapses, even after treatment by Mr. Adams himself. He objected to Scarpa's shoe, which was vastly inferior to plaster-of-Paris.

MEDICAL SOCIETY OF LONDON.

D. H. GOODSALL, F.R.C.S., Vice-President, in the Chair.

Monday, November 21st, 1892.

NERVOUS DISEASE DUE TO CONGENITAL SYPHILIS.

DR. HADDEN read the paper which is published at page 1164.

Dr. ALTHAUS had never seen hemiplegia in a child without evident traces of hereditary syphilis—rarely from acquired syphilis. The association of epilepsy with syphilis was very important. In the treatment of these cases mercury should be associated with iodide of potassium.

Mr. SHEILD said that the deafness met with in these children was more often nervous than due to suppuration of the middle ear.

Dr. LEES did not think syphilis was a common cause of infantile hemiplegia or of posterior basic meningitis. He and Dr. Barlow had seen together a great many cases of the latter—over a hundred, with at least thirty necropsies. In very few was there reason to suspect syphilis. Even if it existed, it must not necessarily be assumed to be the cause. A child who developed posterior basic meningitis during convalescence from an attack of broncho-pneumonia was twice rescued from her comatose condition by paracentesis of the tympanic membrane. Since then she had been quite well. There were unquestionable evidences of syphilis, but he looked upon it as a mere coincidence, in view of her recovery after paracentesis. Many of these cases did better on mercury and iodide than on any other drug, but that could not be accepted as conclusive evidence of syphilis. He remarked on the absence of any mention of gummata, and described two cases.

Dr. BARLOW could recall six cases of hemiplegia in which there was reason to accept the syphilitic origin. In two of these a necropsy was made. In one case, a child aged 9, very extensive disease of the arteries of the circle of Willis, with marked sclerosis of both hemispheres, was found. The ultimate prognosis in the majority of cases was very bad. Many more observations were needed to throw light on the isolated cases of hemiplegia. He recalled a case he had shown before the International Congress in 1881 to prove the proneness to double hemiplegia in children with syphilitic nervous disease.

Dr. WALTER CARR had seen six *post-mortem* examinations on cases of posterior basic meningitis, yet he found in none any evidence of congenital syphilis. He pointed out that congenital syphilis was so common that allowance must be made for its existence in a certain proportion of cases of whatever disease might be under investigation.

Dr. WHEATON thought the cases in which repeated convulsions were followed by hemiplegia were probably due to insular cerebral sclerosis. Gumma of the brain was very uncommon in children, ostitis of the skull being a more frequent cause of cerebral symptoms.

Dr. HADDEN replied.

BRITISH GYNÆCOLOGICAL SOCIETY.

FANCOURT BARNES, M.D., Vice-President, in the Chair.

Thursday, November 10th, 1892.

OVARIAN AND UTERINE TUMOURS.

DR. GRANVILLE BANTOCK showed the following specimens: (1) Fibroma of the ovary, weighing over 2 lbs.; the micro-

scopical examination by Dr. Rutherfoord showed that it was a true fibroma. (2) Four large fibrocystic tumours of the uterus, removed on account of pain; one case presented at the operation unusual adhesions, and there was severe hæmorrhage, the patient dying of shock soon after. (3) A large fibroma molluscum of the broad ligament.

Remarks were made by Dr. Leith Napier, Mr. Burford, and Mr. Reeves; and Dr. Bantock replied.

Extra-Uterine Gestation.

Mr. Burford showed a specimen of extra-uterine gestation, with the placenta retained in the Fallopian tube, the tear in which had healed without placental detachment. Abdominal section was performed, and a fœtus of the twenty-second week was found in the peritoneal cavity in an adventitious sac composed of intestinal walls agglutinated with lymph. On the left Fallopian tube a globular swelling was discovered. It was found to contain the placenta, in a soft but undegenerated condition. There was no mark of rupture in the tube, and no evidence of hæmorrhage or exudation into the peritoneal cavity. The patient (aged 25) made an excellent recovery. This case appeared to be a typical example of tubal abortion as described by Mr. Bland Sutton.

Remarks were made by Mr. Reeves and Dr. Leith Napier.

Large Ovarian Cyst.

Mr. Burford also showed an enormous ovarian cyst which contained 75 pints of fluid and 6 lbs. of solid matter, removed from a lady, aged 55. As it was found impossible to separate the pedicle from the uterus, hysterectomy was performed at the same time by the extraperitoneal method. The patient recovered.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Simeon Snell, F.R.C.S.Ed., President, in the Chair.

Thursday, November 10th, 1892.

A New Ophthalmoscope.

The President exhibited his new ophthalmoscope.

Anæsthetics.

Dr. Porter read a paper on anæsthetics. He deprecated giving ether too rapidly as likely to favour excitement and struggling. In using Clover's inhaler he always allowed from 4 to 6 minutes for the induction of complete anæsthesia. He contended that the objections to the use of ether were in many instances not sustained in practice. Dealing with the relative mortality from chloroform and ether he submitted that the mortality from chloroform was increasing. In reference to this increase three questions might be asked: Was the chloroform now used inferior to that formerly in use? Had the method of administering it altered? Was it possible that a greater number of individuals were now liable to be injuriously affected by it than was the case 40 years ago? The conclusions of the Hyderabad Commission and the experiments of Drs. Gaskell, L. Shore and MacWilliam were referred to, and reasons were given for thinking that circumstances might have contributed to render chloroform less safe in the aggregate than it was 40 years ago.

Dr. Cleaver read a paper on the Advantages of Chloroform as an Anæsthetic. He stated that, after twenty-eight years' experience, during which he must have given chloroform many thousands of times, he had only come across one death, and that was due to the carelessness of a student. He (Dr. Cleaver) never attended to anything outside the respiration, and left the pulse entirely alone. He was satisfied that carelessness on the part of the administrator accounted for a large proportion of deaths under chloroform, and of the remainder fright was responsible for a large number. If chloroform was to be employed, let it be given in the right way.

Mr. W. F. Favell urged the necessity of systematic practical instruction in giving anæsthetics.

Mr. Garrard (Rotherham) had used anæsthetics largely for twenty years, both in hospital and private practice. He had used chloroform four or five times as frequently as ether, and had never had the misfortune to meet with a death. He thought that the General Medical Council should demand evidence of efficiency in giving anæsthetics.

Mr. Coombe expressed a general preference for ether to chloroform. He attended to the pupil as well as to the respiration during chloroform anæsthesia. He pointed out how easy it was to extrude and open the glottis by pressing behind the lower jaw.

Mr. Chicken, President of the Nottingham Medico-Chirurgical Society, said that, in the absence of special complications, he preferred to operate on a patient under chloroform rather than ether. There was less hæmorrhage and less vascular excitement. He had had twenty-five years' surgical experience and had never seen a fatal case from any anæsthetic. He asked the advocates of chloroform, before condemning ether, to be sure that their sample was thoroughly good, as otherwise they might ascribe to ether generally ill effects which only resulted from the use of an impurity.

Dr. Sinclair White, Mr. Frank Harrison, Dr. Keeling, and the President also joined in the discussion, which was adjourned till next meeting.

MANCHESTER MEDICAL SOCIETY.

F. W. Jordan, L.R.C.P., M.R.C.S., Vice-President, in the Chair.

Wednesday, November 16th, 1892.

Excision of the Auditory Ossicles in Middle Ear Disease.

Dr. Milligan made some observations upon the operation of excision of the auditory ossicles in cases of chronic suppurative middle ear disease. The operation was performed for two reasons: (1) To rid the middle ear of any existing focus of disease and to secure thorough drainage. (2) To improve the condition of the hearing power. The anatomy of the middle ear was briefly sketched and the *modus operandi* of the operation described. In order to illuminate the field of operation, which was always very small, the light might be taken from an electric forehead lamp or from a limelight apparatus. A case was shown in which the operation had been performed with marked relief to the patient.

Intestinal Concretion of Peculiar Character.

The Chairman read notes of this case. A gentleman, stout and leading a sedentary life, had a severe attack of peritonitis, localised in the vicinity of the hepatic flexure of the colon, in the spring of 1890. In August, 1891, it was discovered that his abdomen was greatly enlarged, owing to a tumour which extended from the costal margin on the right side about opposite the seventh rib. A little lower a distinct edge was felt, which descended vertically, and then curved round below the umbilicus and over to its left, about an inch from that point, and then upwards. There was dulness all over the tumour, which was close to the abdominal parietes; it felt quite solid, and moved with respiration. In a few days the tumour appeared to be bulging in the centre and was painful. His bowels were always constipated. In October the patient was seized with acute abdominal pain, which lasted some hours. During its continuance he vomited a large quantity of dark-coloured material, which the doctor who attended him said was bile. After this the pain subsided. He had jaundice for a few days. In March, 1892, he suffered from disordered liver, and with one of his evacuations he passed a large concretion. At the present time his liver was still enlarged, but not to the same extent as before. The concretion weighed 6 drachms; it was 1¾ inch long by 1¼ inch broad; it was cylindrical in shape and irregular, as if it had been subject to pressure while in a soft state, and pointed at one end; the other end was blunt and evidently broken off from another piece, and had a conchoidal fracture. The stone was dark in colour and had a fæcal odour when wetted, and was coated in patches with cholesterine. On section the concretion was seen to be made up of a large gall stone, having a thin coating of cholesterine stained brown. The structure was such as to make it evident that this gall stone had been in close proximity with another one, end to end, and that the two had become fused together by further deposition of biliary matter. The connecting material was in layers, and formed the thickest part (centre) of the united calculi; after the union deposit of biliary matter had taken place uniformly over the entire mass. With regard to the tumour, the history of the case, the probabilities, the general shape of it, the absence of jaundice, and the continual presence of bile in the stools pointed to a distended

gall bladder. Mr. Jordan's reasons for dissenting from this view were the solid feel of the tumour (which might be due to a gall bladder with thickened walls), the sharp lower edge, and its close proximity to the abdominal parietes.

Papillomata of the Larynx.

Dr. Moritz showed twin sisters, aged 20, who were both affected with papillomata of the larynx. The theory which had been advanced that papillomata of the larynx might be caused by the inhalation of amniotic fluid mixed with gonorrhœal discharges during birth found in these cases no support, as the mother gave no history of fluor albus and the patients had no ophthalmia neonatorum. One of the patients began to suffer from hoarseness when 2 years old. In her case the larynx was found almost filled up with papillomata, springing from the right vocal cord, the right ventricle, and ventricular band. The other patient commenced to suffer from hoarseness when 18 years old. In her case also the right vocal cord was affected, presenting several papillomatous excrescences on its upper surface and along its free margin. Dr. Moritz showed the growths, which he had removed with a forceps of his own. The patients had now fully recovered their voices, though in one of them a small papilloma had recurred.

CLINICAL SOCIETY OF MANCHESTER.

T. C. Railton, M.D., M.R.C.P., President, in the Chair.

Tuesday, November 15th, 1892.

Spastic Paralysis.

Dr. Hutton exhibited a group of cases illustrating some of the various forms of spastic paralysis. He pointed out how frequently spastic paralysis occurred in children who at birth or in very early infancy had suffered from partial asphyxia. He inclined to the view that the brain injury was secondary in most cases. As causes producing partial asphyxia with intense cerebral congestion and hæmorrhage he mentioned: (1) tedious and difficult labour, (2) epileptiform convulsions, and (3) severe whooping-cough. Attention was also called to the frequency of arrest of mental development in the more severe cases.

Trephining for Compound Fracture.

Dr. Tytler showed three cases in which he had trephined for compound depressed fracture. In all three the portions of skull removed by the trephine were replaced. The results obtained were excellent.

Obstetrical Infantile Paralysis.

Dr. Williamson showed a patient, aged 13, whose right arm had been paralysed since birth. The arm was semi-flexed at the elbow, the forearm supinated, the hand strongly adducted to the ulnar side, the thumb strongly adducted. The muscles supplied by the posterior cord of the brachial plexus and by the median nerve were paralysed, whilst those supplied by the other nerves from the outer and inner cords of the plexus were spared. The labour had been very difficult, and next day it was noticed that the right arm was motionless and that there was an oval swelling in the neck (posterior triangle). This swelling disappeared in a few weeks.

Miscellaneous Communications.

Dr. J. P. Williams mentioned a case of Hæmatoma following labour.—Mr. E. Stanmore Bishop mentioned a case of Cystocele treated by Stoltz's operation, and reviewed the various operations performed for that condition.

MANCHESTER PATHOLOGICAL SOCIETY.

Judson S. Bury, M.D., President, in the Chair.

Wednesday, November 9th, 1892.

Melanotic Sarcoma.

Mr. W. Coats showed a woman, aged 23, with multiple melanotic sarcomatous growths. On November 9th, 1891, a pigmented wart, which had existed for eight years, was freely removed with the adjacent skin from the back of her right wrist. Microscopic examination of sections through the centre of the wart showed early sarcomatous infiltration. At the present time secondary growth could be detected in the right axilla, in the liver, in the abdominal glands, and in the skin of the left buttock, where it was deeply pigmented.

Fibroid Phthisis.

Dr. Nathan Raw exhibited preparations and drawings of a lung the seat of extensive pulmonary fibrosis, which had broken down in parts to form distinct cavities. The specimens were from a syphilitic subject.

Cast of Urinary Bladder.

Mr. F. A. Southam showed a complete cast of the bladder from a case of exfoliating cystitis, passed *per urethram* by a female. For some weeks previously she had suffered from a severe attack of cystitis, apparently due to the irritation caused by wearing a pessary. After the expulsion of the cast the symptoms gradually subsided.

Thoracic Aneurysm.

Dr. E. S. Reynolds showed a large aneurysm involving the whole of the thoracic aorta, and containing 3 lbs. weight of clot in its sac. The patient, a man, aged 39, had never presented any characteristic symptoms of aneurysm.

Card Specimens.

Card specimens were also shown by Dr. Ashby, Dr. Harris, Dr. Kelynack, Dr. Lea, and Dr. Williamson.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Pathological and Clinical Section.

Robert Saundby, M.D.Edin., F.R.C.P.Lond., in the Chair.

Friday, October 28th, 1892.

Ataxic Arthropathy.

Dr. Carter showed a man, aged 50, suffering from ataxic arthropathy. About six weeks ago the right hip suddenly began to swell, the swelling at first involving the whole thigh. Concurrently he had become progressively lame, the limb had shortened by 1½-inch, and loud grating on movement had developed in the right hip and knee-joints. The man had suffered for some months from lightning pains, the pupils exhibited the Argyll-Robertson phenomenon, the knee-jerks were absent, and there was marked unsteadiness on standing with the feet close together and the eyes shut. There was no optic atrophy, no loss of sensation, no loss of muscular sense, and no ataxy in walking. Family history unimportant. No personal history of syphilis.

Ophthalmoplegia with General Motor Paresis in Young Women.

Dr. Suckling showed a woman, aged 21, who had been ill for nearly three years with extreme general weakness. She could not get up from the sitting position except by placing her hands on the chair. When standing there was well-marked lordosis. The gait, lordosis, and mode of rising were suggestive of pseudo-hypertrophic paralysis; but the muscles, though well developed, were not enlarged, nor was there any atrophy. The muscles responded normally to faradism. The hands and feet were blue and cold, but there was no disturbance of sensation anywhere. She had had several suffocative attacks, suggestive of weakness of the abductor muscles of the glottis, but she could not bear any examination of the throat even after the application of cocaine. There was at present no stridor and no aphonia. Speech was at times indistinct, and the tongue felt heavy and weak. Mastication was also feeble, and food collected between the gums and the cheeks. There was considerable ptosis on both sides, and the range of movement of the eyes was deficient in all directions, but especially upwards and to the right. Nystagmus was present when the eyes were directed to either side. Diplopia was present at times. The pupils were equal, of normal size, and responded sluggishly to light, but not to accommodation. There was no sign or history of syphilis, diphtheria, or rheumatism. The urine was healthy; defæcation and micturition were unaffected. The reflexes, including the knee and plantar reflexes, were normal, and there was no ankle clonus. There was a marked neuropathic family history

The exciting cause seemed to have been excess of physical work, for from the age of 15 up to the onset of her illness she served behind a bar for many hours daily. Dr. Suckling did not consider the case to be one of hysteria, but to be probably of the nature of an exhaustion paralysis. He related another case of the same kind, and suggested that they might prove to be a distinct type of disease.

Fibroid Lung.

Dr. Foxwell showed the lung of a matchet (bill-hook) grinder who had died of acute pneumonia. For two years before his death he had suffered from cough, expectoration, night sweats, anorexia, and emaciation. *Post mortem* the whole of the upper and half the lower lobe of the right lung were in a condition of acute fibrinous pneumonia. In addition to this, the same area of lung had much dense interstitial fibrosis uniformly distributed, the fibrous tissue occupying more space than the deeply-pigmented parenchyma. There were two small cavities, full of fluid, and a pea-sized caseous nodule at the apex. The apex of the left lung had a similar cavity. No bacilli were found in two or three sections of lung examined.

Miscellaneous Communications.

Mr. Barling showed a greatly Hypertrophied Synovial Fringe removed from the knee-joint of a middle-aged woman, in whom it had produced Hey's internal derangement. A good recovery followed, with a freely movable knee.—Mr. Marsh showed a Kidney taken *post mortem* from a man, aged 65, who was admitted into Queen's Hospital with phlegmonous periproctitis. Nearly the whole of the cortical part of the left kidney was studded with irregular areas of infarction. The pelvis and ureter were healthy, as was also the right kidney.

SOUTHERN BRANCH: SOUTH EAST HANTS DISTRICT OF THE BRITISH MEDICAL ASSOCIATION.

Dr. Kealy in the Chair.

Thursday, November 17th, 1892.

Foreign Body in the Air Passages.

Mr. Rundle reported two cases. (1) An infant, aged 9 months, was admitted to the Portsmouth Hospital suffering from much difficulty of breathing and collapse of the right lung. It had been sucking a fowl bone, but it could not be made out that any portion of the bone was missing. Tracheotomy was performed, but no foreign body was found. The child died eight hours afterwards, and *post mortem* a piece of bone was found lying laterally immediately below the larynx. Probably it had been coughed up there from the right bronchus. (2) A woman swallowed a cherry stone. Tracheotomy was performed, and the stone brought up. Mr. Rundle considered that in such cases it was wise to operate at once.

Cystoma with Hæmatocele of the Broad Ligament.

Dr. Bishop read notes of this case. A single woman, aged 33, with a history of abdominal swelling of eighteen months' duration, was found to have a large indistinctly fluctuating abdominal tumour. She developed signs of acute peritonitis, and some fluid withdrawn with a hypodermic syringe was found deeply blood-stained and gave the reactions of blood. Abdominal section was performed by Dr. Ward Cousins, and about 10 pints of deeply blood stained fluid were withdrawn from the cyst. The pedicle of the cyst and broad ligament were infiltrated with extensive recent blood clot. A glass drainage tube was inserted for thirty-six hours, and the patient made a good recovery without complications.

Dr. Ward Cousins said the hæmorrhage must have been caused by the rupture of a vessel in the substance of the broad ligament. There was no hæmorrhage into the peritoneal cavity.

Hydatid Disease of the Liver.

Dr. James Watson stated that in June, 1891, a child, aged 13, with an enormous liver, was admitted under his care into the Royal Portsmouth Hospital. The tumour appeared to fill both sides of the chest posteriorly. Aspiration revealed the presence of several cysts, but no hooklets were discovered. Abdominal section was performed by Dr. Ward Cousins. The liver was secured to the parietes by ten sutures, and one pint and a-half of bile-stained fluid was withdrawn from it. The opening was then freely dilated, and the cavity washed out and drained. After a few days the fistula was again dilated, and during the operation the whole sac was removed. The patient made a slow recovery.

Dr. Ward Cousins said it was fortunate that under chloroform vomiting occurred in this case, for the act greatly assisted the complete removal of the cyst, which had become detached and was lying loose in the cavity.

Specimens.

Dr. C. C. Claremont exhibited a specimen of apparently simple Ulceration of the Œsophagus from a woman, aged 54. The floor of the ulcer was free from either granulation or slough. Microscopic examination showed no evidence of new growth and the medical history none of syphilis.

Mr. Rundle showed (1) a Calculus removed from a boy, aged 3 years, by suprapubic lithotomy. The bladder wound was not sutured. Urine was passed entirely by urethra on the seventh day. (2) The Leg of a man, aged 63, removed at knee-joint for a large Fungating Epithelioma of Heel, which had invaded the os calcis. The man made a good recovery. (3) A specimen of Gunshot Fracture of Skull, with Bullet, which was found in the body of the sphenoid bone.—Dr. Ward Cousins exhibited (1) a Vesical Calculus 6¼ ounces in weight, removed by lateral lithotomy. (2) A piece of Gangrenous Intestine, the result of intussusception. The patient recovered.—Mr. Frederick Morley exhibited a Fœtus, together with the Uterus and Appendages removed from a woman who died suddenly at the fourth month of tubal pregnancy.—Dr. Ward Cousins exhibited a new Crusher adapted for Lithotrity in the Female.

REVIEWS.

The Structure and Functions of the Brain and Spinal Cord. By Victor Horsley, F.R.S., F.R.C.S., B.S. London: Charles Griffin and Co. 1892.

This volume contains the subject matter of a course of lectures delivered by the author at the Royal Institution in 1891 in his capacity of Fullerian Lecturer. It is to be followed by two others—the subsequent courses of the Fullerian Lectures—during the coming year. These volumes are to deal with the structure and functions of the great brain, and to conclude with some of the recent results of research in physiological psychology.

There is no branch of natural science in which a greater amount of work has been done, or which has received attention from a larger or more qualified body of investigators, from the time of Aristotle to the present day, than that branch of physiology which deals with the functions of the central nervous system. It is true that a large number of facts have been accumulated, and an immense amount of more or less exact anatomical minutiæ described; but these facts are isolated, and their connection with the observed structure is obscure, and for the most part matter of conjecture. Wide-reaching generalisations, such as it is the aim of science to enunciate, do not exist. Hence, when even such a distinguished scientist as the author of these lectures attempts to weave into a connected story a selection even of the more important facts, and to present the whole in a readable form, free from controversial points or unnecessary technicalities, and embodying just sufficient speculation to bind the whole together, he is met with almost insuperable difficulties, and gives large opportunity for criticism. But it is not our intention to pick to pieces the ideas of the author, but to commend the book to all classes of students alike, as being almost the only lucid account extant embodying the latest researches and their conclusions.

The subject is introduced by a historical summary of abandoned ideas and conceptions. Commencing as far back as history records with what seem now to us the crude, though ingenious and exquisitely detailed, ideas of Plato, the author

surveys in some detail the rise and progress of knowledge in this perplexing subject. Having told the story of man's efforts to generalise, Mr. Horsley reviews the comparative constitution of the nervous system as met with in the animal kingdom, and traces the growth of specialisation in Nature. From protozoa to man the growing complexity of nervous organisation is closely followed. Mention is made and figures given to illustrate the classical experiments of Romanes and Ewart on co-ordination among sea-urchins, and the histology of lower forms is briefly described. This comparative introduction serves a twofold purpose. Not only does it familiarise the reader with the fundamental properties of nervous tissue, but it also serves to impress the idea of phylogenetic increase in complexity—a point of far greater importance to the general reader.

We now pass at once, in Lecture IV, to the consideration of the vertebrate spinal cord and ganglia. The consideration of this structure and its functions, which it is the aim of the book to elucidate, is continued to the end of the volume. Here the author, relying on the knowledge imparted to his readers in the preceding chapters, becomes more free in his explanations and to the scientific reader far easier to follow, but still the subject is approached from the simplest and most elementary standpoint. Yet the author introduces his readers to some of the latest researches and discoveries, and he does so without in the least breaking the thread of his story or even letting his readers know that they are being led into realms of speculation of which they, at the commencement of the book, did not even know the existence. And herein lies part of the author's power as a lecturer.

The volume concludes with a short mention of the afferent channels existing in the mammalian spinal cord—a subject which he has himself investigated. We heartily commend the book to all readers. The appearance of the concluding volumes, if they prove of the same high merit as the one before us, will form a most welcome addition to the literature on this subject.

HISTORY OF GUY'S HOSPITAL. By G. T. BETTANY, M.A., and SAMUEL WILKS, M.D., F.R.S. London: Ward, Lock, Bowden and Co. 1892.

THE important position which large hospitals and their attendant medical schools hold in the economy of a nation has been long recognised; and while the story of the foundation and subsequent growth of these institutions cannot fail to instruct the student of history, to those who have the privilege of regarding themselves as *alumni* such an account must be specially welcome. Though Guy's Hospital is by no means the oldest of the metropolitan hospitals (it was founded in 1725) it has attained a world-wide reputation, and during an existence of little more than a century and a-half has had connected with it many of the foremost men of science whose names are imperishably written in the annals of medicine.

The volume before us comprises an exhaustive account of the life of Thomas Guy, the founder of the hospital, and biographical sketches of all the physicians and surgeons who have been attached to the medical staff of the hospital, together with a short account of the development of its medical school. The life of the founder was written by the late Mr. G. T. BETTANY, whose "Eminent Doctors" and other contributions to the biographical literature of the medical profession are well known. As stated in the preface, this biography has entailed a large amount of literary research, and the life of Thomas Guy now stands forth almost in the light of a revelation. For before Mr. Bettany commenced his investigations there was little more known of the founder than that he was "a bookseller of not over-scrupulous honesty, who, to appease his conscience, built a hospital," and any conception of his character was derived from the stories of Nichols and others. But the result of Mr. Bettany's labour is to throw a new light upon his life, and by an appeal to the facts of contemporary history to justify the belief that Thomas Guy was an industrious, shrewd, and successful man of business, and, above all, the greatest philanthropist of his time. His early generosity, his numerous gifts to Tamworth—the town which he represented in Parliament—his benefactions to St. Thomas's and Christ's Hospitals, his bequests to even distant relations, and finally his munificent endowment of the hospital which bears his name, are evidence sufficient to refute the charge of meanness which has been brought against him. It is probably unknown to many that Guy was a publisher as well as a bookseller, and for many years he carried on, in conjunction with his friend Peter Parker, the printing of the University of Oxford—a business which ultimately involved them in troublesome and protracted struggles with the Stationers' Company. Among his numerous publications there is one of special interest, being probably the only work Guy published on a medical subject, namely, Dr. John Freind's *Emmenologia*. In the Howley Library, Canterbury, there is a collection of successive editions of Howell's *Familiar Letters*, which was made by Mr. Harrison, the treasurer of Guy's Hospital for more than fifty years, who took great interest in the books published by Thomas Guy. The fourth and two subsequent editions of the *Familiar Letters* were published by him.

The lives of the physicians and surgeons attached to the hospital during the last century are also from the pen of Mr. Bettany. The most eminent of these were the scholarly Dr. Jurin, Dr. William Saunders (the founder of the medical school at Guy's), Mr. Samuel Sharp, and Mr. Joseph Warner. Some of the memoirs, also, of those who lived at the beginning of the present century have been compiled from Mr. Bettany's writings; but all the later biographies are from the hand of Dr. WILKS, and the fact that the individuals of whom he writes were personally known to him renders his part of the work exceptionally interesting. His descriptions and characters are vividly drawn, and the sketches, being freely interspersed with anecdotes, are very readable. It is enough to mention the names of a few of the brilliant teachers upon whom the fame of Guy's Hospital rests—the names of Babington and Bright and Addison, of Astley Cooper and Aston Key—to show the substance of this portion of the book. Where all are well done it is hard to make distinctions, but, perhaps, in the life of Thomas Addison the biographer seems most in sympathy with his subject. From his long connection with Guy's, Dr. Wilks is naturally conversant with the gradual development of its school and with the many changes which have taken place in the character of medical education during the last fifty years. In the account of the school it is pointed out that the first series of lectures in London on diseases of the teeth was delivered at Guy's Hospital, and that it was the first of the general hospitals to establish within its walls a special eye infirmary for the reception of in-patients.

In perusing this volume we are impressed with the number of learned societies, in the foundation of which many of those whose lives are here pourtrayed have been more or less directly concerned. When the Royal Medical and Chirurgical Society was inaugurated, Dr. Saunders was the first president, and four other Guy's men had seats in the Council. The Pathological Society was founded by Dr. Edward Bentley, of Guy's; the Geological Society by Dr. William Babington; and the first president of the Epidemiological Society was Dr. Babington, jun. Similarly, Dr. Hodgkin was instrumental in founding the Aborigines and Ethnological Societies.

In conclusion, we would say that this *History of Guy's Hospital* is worthy of careful reading, and will be valued by all who take an interest in the history of their profession. The book is well got up, and contains several illustrations which have been reproduced from old prints of the hospital and its neighbourhood.

VACCINATION AND SMALL-POX. By E. J. EDWARDES, M.D. Lond. London: J. and A. Churchill. 1892.

THIS is an excellent little manual, sold at a shilling, which will be of great service to those who have not time to wade through Blue Books. The principal object of the author is to show that revaccination is the necessary complement of vaccination, and that, if the former be efficiently carried out, small-pox epidemics would disappear. Dr. EDWARDES considers the evidence that vaccination protects from small-pox, and the objections to that evidence, and furnishes conclusive answers to these. In a compilation where there is so much that is good it is difficult to choose, but in Chapter IV, where Dr. Edwardes deals with the subject from a logical point of view the evidence is very striking. It appears from Dr. Gayton's statistics, based upon 10,000 cases, that the mortality from small-pox falls as the efficiency of the vaccination rises. Some of the figures are very telling. For example,

in the age period 10 to 15, mortality from small-pox in persons with "good marks" is 1.1 per cent.; in those with "imperfect marks," 3.4 per cent.; whilst in the unvaccinated it rises to 23.3; and in the age period 15 to 20, the corresponding figures are about 2.6 and 4.2. Other evidence is of an equally striking kind. Dr. Collie, for instance, relates that of 110 persons who were employed in the Homerton Fever Hospital in attendance on small-pox during the epidemic of 1871 all but two were revaccinated, and "all but these two escaped small-pox." In the epidemic of 1876-7 the experience was of the same kind. All the revaccinated attendants escaped small-pox, whilst the only one who had not been revaccinated took it and died. So in the epidemic of 1881 of 90 nurses and other attendants employed on the *Atlas* small-pox ship "the only person who contracted small-pox was a housemaid who had not been revaccinated." Eulenberg and Körösi give similar instances, and one came under the notice of the writer. The revaccination of a scrubber in a temporary small-pox hospital had been omitted. She took small-pox and died, whilst the other attendants escaped. What is the answer of the antivaccinationists to these facts?

Dr. Edwardes considers and effectually disposes of the risks attending vaccination, and gives conclusive evidence of the need for compulsory revaccination. His opponents will find him difficult to deal with, but his account of Keller's statistics will be bitter reading for them. The once famous statistics are not only shown to be thoroughly unsound in principle, "but worse remains behind. Herr Körösi, in 1887, went over the whole ground again, and found that Keller directly falsified the returns originally supplied to him by the railway surgeons." The pamphlet is full of most valuable statistics, and will well repay perusal.

The Treatment of Disease by the Prolonged Application of Currents of Electricity of Low Power. Being an extract from the latest edition of *Massage, Electricity, and Allied Methods of Treatment*. By Herbert Tibbits, M.D. London: The Medical Battery Company, Limited.

In this pamphlet (p. 5) Dr. Tibbits informs the public that "regarded from a strictly scientific point of view the electropathic appliances manufactured by the Electropathic and Zander Institute, who are manufacturers of Mr. C. B. Harness's various patents, 52, Oxford Street, London, are preferable to any others." He states in the same paragraph that "these appliances are scientifically constructed, perfectly manufactured," etc. He thus lends the weight of such authority as he may possess to Mr. Harness's pamphlet on Mild Galvanic Currents.

On page 6 he states that either quantity or intensity can be obtained with Harness's electropathic belts. It is utterly impossible to arrange Harness's discs upon a belt "in intensity," that is to say in such a manner as to give an electromotive force greater than that due to a single pair of discs. We have seen Harness's belts and descriptions of belts supposed to be arranged in this way, and the arrangement has always consisted simply of a number of discs, alternately of zinc and tinned copper, connected together by the cord of wire and string usually employed. Such an arrangement could not under any circumstances produce a greater electromotive force than that due to one pair of discs, and even if the discs were properly connected they would, if attached to the same belt, be immersed in the same electrolyte, and, therefore, the electromotive force could not be increased beyond that due to a single couple.

We should be sorry to have to say that Dr. Tibbits desires intentionally to mislead the public into a belief in these appliances. We prefer to say that his statement betrays an ignorance of electrical science which unfits him for a judge.

"With the above apparatus," he says, referring to a series of Harness's belts enumerated on the preceding page, "I conducted the following experiments:—

"1. Slightly moistened, all the above gave considerable deflections of a milliampère galvanometer.

"2. When worn upon the body, and set in action by the natural perspiration, the wires from the poles being connected with a galvanometer, gave deflections.

"3. The apparatus being worn upon the body, the positive pole was connected with Lord Kelvin's reflecting galvanometer, and a platinum needle, insulated to within $\frac{1}{16}$ of an inch of its point, and also connected with the galvanometer, was inserted $\frac{3}{8}$ of an inch perpendicularly through the skin, and 1 inch from the negative pole, the distance between the two poles being 6 inches, and the intervening skin being thoroughly dry and powdered with starch powder, so as to render it as much of an insulator as possible. The beam of light at once travelled several degrees. The needle was then reinserted exactly midway between the two poles, and a smaller deflection was obtained.

"These experiments prove conclusively that a current of electricity penetrated the skin and influenced the subjacent tissues."

The first two experiments show that there was a current through the moist flannel when the discs were connected by an external wire, which we may point out, is not usually supplied with the belt. This result was to be expected, but it certainly gives no ground whatever for the conclusions drawn by Dr. Tibbits. With regard to Experiment 3, the results were in accordance with the hypothesis that a current due to the action of the belt "penetrated the skin, and influenced the subjacent tissues," as asserted by Dr. Tibbits.

We must, however, point out that: (1) A single experiment of this kind proves nothing, as it would require a series of experiments both with and without the belt to eliminate all the disturbing causes which would be present. (2) Powdering the skin with starch would merely cover up the moisture, and would be quite ineffective in preventing a flow across its surface, just as the insulating covering upon a telegraph or electric light cable does not prevent the wire from transmitting the current.

Report on Mr. C. B. Harness's Electropathic Belts, and the Electropathic and Zander Institute. By Arthur Harries, M.D., etc. London: The Medical Battery Company, Limited.

On the first four pages of this pamphlet we find illustrated descriptions of the various types of Harness electropathic belts, the different types consisting of arrangements of discs in various patterns upon the material of the belt. On the first page is shown a so-called intensity arrangement, in which each group is composed of discs, alternately of zinc and tinned copper, all in metallic connection, and from which it would therefore be impossible to get a higher electromotive force than that due to one pair. The mere illustration and description of this arrangement without comment shows conclusively that the author is either incompetent for the task which he has undertaken or is foisting irrelevant technicalities upon the public.

After this description of the belts the author proceeds to test them. The so-called tests consist simply in folding the belts so that discs of opposite metals may be opposed, separating them by means of flannel saturated either with salt water or human perspiration, and attaching the zinc and copper respectively to the terminals of a galvanometer. Any beginner in electricity knows that under such circumstances a current would be produced, and it is perfectly possible, by connecting together a sufficient number of copper discs on the one hand, and of zinc discs on the other, or, more simply, by using a single pair of large plates, to obtain a current considerably greater than 50 milliampères, the maximum stated to have been obtained by the author. The current, after making contact, would, however, very rapidly fall to an extremely low value, owing to polarisation. This is not mentioned by the author, though he can hardly have failed to observe it.

It is in this manner that Mr. Harness purports to test his belts for the benefit of those who are credulous enough to purchase them for the cure of their ailments, and the misleading nature of the test has already been pointed out. Dr. Harries ought not to be ignorant of it. A good deal of stress is laid upon the fact that the author repeated all his experiments with each of two galvanometers. They are not always in very close agreement, and in one case (page 5) according to one galvanometer the current obtained was $\frac{1}{2}$-milliampère, while according to the other instrument it was only $\frac{1}{200}$-milliampère. Experiments made and recorded in this manner—even if they had any bearing upon the effect of the belts when worn upon the body, as is

claimed for them—could not be treated as serious tests.

On pages 13 and 15 the author describes some attempts which he made to determine the resistances of tap water, human perspiration, and a saturated solution of salt and water. The attempts were made by sending currents from varying numbers of cells, supposed to be of known electromotive force, through tubes of the solution and through films on the surface of mackintosh cloth. He naturally found that with a given number of cells the smallest galvanometer reading was obtained with the tap water, owing to its relatively high resistance. Nevertheless, he states at the end of his description that "for the purposes of these tests the relative resistance of tap water may be neglected."

The author found when attempting to measure the resistance of a column of salt and water by sending a current through it from forty cells in series, that some trouble arose "from electrolytic decomposition," as he observes, but it does not seem to have occurred to him that polarisation effects would vitiate the whole of his results, and he appears to have no glimmering of the fact that the resistance of an electrolyte cannot be determined by simply dividing the electromotive force of the battery by the current. He has not even determined the electromotive force at the ends of the column correctly, as his assumption that it is equal to that of the battery on open circuit would only be true if the cells had no internal resistance. Under these circumstances his results would not even be rough approximations to the true values. The author compares the resistance of the films on mackintosh with that of the body in such a manner as to suggest, though the suggestion is nowhere definitely stated, that the resistance of the portion of the body between two discs on opposite sides of it would be less than that of the inch or two of moist skin separating two adjacent discs, and that the greater portion of the current would therefore pass through the body instead of across the skin.

It seems hardly necessary to point out that no conclusion as to the resistance of moist skin can be drawn from that of moist mackintosh, even if the latter were properly determined.

In his final conclusions the author gives all the smaller currents in microampères, or millionths of an ampère, making them appear to the uninitiated much larger than if stated in milliampères, as is usually done. Even then he only gets 194 microampères, or about ⅕ milliampère, as the maximum current obtainable through the body when the belt is folded over as described and the discs pressed together, and then the battery so formed connected in series with the body. As before explained, this would soon fall off enormously from the effects of polarisation.

The author states further on that 750 microampères, namely, ¾ milliampère, were obtained through the body when the belt was worn in the ordinary manner. This result, however, is only obtained as an inference from the absurd determinations and assumptions previously criticised.

The pamphlet is prefaced by a highly eulogistic letter to the directors of the Medical Battery Company.

ANLEITENDE VORLESUNGEN FÜR DEN OPERATIONS-CURSUS AN DER LEICHE. [Explanatory Lectures to the Course of Operations on the Dead Body.] Von Prof. E. VON BERGMANN und Dr. H. ROCHS. Zweite erweiterte Auflage. Pp. 256. Berlin: Hirschwald.

IN a small compass this book gives the necessary information for performing operations upon the dead body. It begins with ligature of arteries, and proceeds with tracheotomy, amputations, excision of the joints and bones, and genito-urinary and rectal operations. It is to be noted that nothing is said about the subcutaneous surgery of the tendons, fasciæ, or bones. Also, in England, where the supply of material for operative surgery is so thoroughly inadequate, the above order of procedure would be inconvenient. The excisions are better performed before the amputations. In other respects this small work is satisfactory and reliable, although the directions exceed what is customary in English surgery. For instance, ligature of the axillary artery is said to call for particular attention, because it is of importance in respect to amputation of the breast. When we turn to amputation of the breast we find ligature of the axillary artery again brought to the front, and clearing of the axillary vein mentioned as quite an ordinary part of the operation. Perhaps the title gives a clue to these heroic measures. For excision of the upper jaw two incisions are given, neither of which possesses the merits of that which is usually practised, which, besides giving excellent room, follows the natural furrows of the face; the other steps of the operation are well described. This book is illustrated with a number of figures which, although inartistic, serve the purpose for which they are intended.

NOTES ON BOOKS.

The Mastoid Operation. By SAMUEL ELLSWORTH ALLEN, M.D. (Cincinnati: Robert Clarke and Co. 1892.)—This little book gives first a full historical account of this operation from the earliest times to 1891; secondly, the leading points in the surgical anatomy of the mastoid region; and, lastly, a sketch of the various pathological states requiring opening of the mastoid antrum, and the rules for performing the operation. The interest of the book undoubtedly culminates in the description of Schwartze's modification of Stacke's operation, by which the meatus, tympanum, and antrum are all laid bare into one large cavity. Needless to say that as the author is a disciple of Schwartze he is a strong advocate for the chisel, and rejects entirely drills for opening the antrum. It is a pity that he uses a good many uncouth words, such as "infero-medially," "hyperostotic," "postero-laterally," which, together with a somewhat stiff style, render the work less easy reading than it might be. It is illustrated by very good plates, and is valuable as giving an account of the surgery of the mastoid up to date, at least as it is practised in Professor Schwartze's clinic at Halle.

Chemistry, Inorganic: Catechism Series. (Edinburgh: E. and S. Livingstone.)—This is the kind of work which is called into existence as the direct result of the mechanical manner in which examinations are at present conducted. It will doubtless prove useful for the narrow purpose for which it is intended, but it is to be hoped that in the near future a more enlightened system of testing the knowledge of candidates will stop the production of "cram" books of this character. It is at least gratifying to note that no chemist has associated his name with this work.

Fever Nursing. By MARY HARRIS. (London: The Record Press, Limited. 1892.)—The writer of this booklet has had full opportunities of qualifying herself for teaching fever nursing, as she has been Matron of the Carlisle Fever Hospital and a Sister in the Leeds Borough Hospital. Miss Harris remarks with much truth that the nursing of infectious diseases is now rarely taught in general hospitals, and the strict isolation of such patients in separate hospitals renders a simple manual like this an important part of the equipment of the private nurse. The matter is divided into chapters dealing with each special form of fever. The directions given are clear, concise, and practical. More stress might have been laid on the importance of careful maintenance of a constant temperature and confinement to one room until all desquamation in scarlet fever has ended. The average patient is too impatient of that enforced seclusion, and yet experience has shown that troublesome sequelæ may be due to hurried convalescence. The same remark applies to measles. In both these complaints it is wise to err on the side of too much watchfulness. The chapter on typhoid fever is excellent. One paragraph, that on the use of the cold bath in hyperpyrexia, savours of want of caution; it would be well to warn the nurse never to give the bath except in the presence of the medical attendant, even though ordered by him. As an alternative disinfectant in the vessels charcoal might have been suggested, as there is unhappily a danger of a strong liquid disinfectant being upset in the bed, to the damage of the patient's skin. This little manual is deserving of the attention of all who may be called to nurse infectious complaints.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

AUTUMN SESSION, 1892.

SIR RICHARD QUAIN, Bart., President, in the Chair.

Tuesday, November 22nd.

NEW MEMBER.

On the President taking the chair the official notification of the appointment of Mr. D. C. McVail, M.B., as Crown nominee for Scotland, *vice* the late Sir George Macleod, for five years from October, 1892, was received and ordered to be entered on the minutes. Dr. McVail was then introduced by Dr. Heron Watson.

PRESIDENT'S ADDRESS.

After a sympathetic reference to the death of Sir George Macleod, and a welcome addressed to his successor, Dr. McVail, the President proceeded: I am anxious, as no doubt you are all likewise, that we should proceed at once to the discharge of the important duties assigned to us by law. Let me say that we must never forget what these duties are. They are, in the first instance, the promotion and advancement of medical education, so as to ensure for the public competent and well-qualified practitioners; and, in the second place, to take care that the *Medical Register* is not stained by retaining on its pages the names of those who conduct is such as to render them unworthy to remain members of the medical profession. These, with the preparation of the national *Pharmacopœia*, are our duties. I mention them thus specially because demands are constantly made upon the Council to undertake other duties, which are not in accordance with those assigned to us by law, and with which we can have no relation. With reference to the several occurrences which we have to note since the last meeting of the Council, I have to mention that, in accordance with the resolution passed on May 25th last, I caused a statement to be prepared by the Solicitor to the Council, with reference to the conditions under which foreign medical practitioners are allowed to practise in this country, with a view to procuring, if possible, a reciprocity of privileges for English practitioners desirous of practising amongst their own people abroad. This statement was submitted to the Lord President of the Council, who communicated it to the Foreign Secretary, with a request that it should be forwarded to the several foreign Governments. It will be seen in the programme as printed that attention was specially given to the subject by the English ambassadors in France, in Italy, and in Switzerland. The result seems to indicate that, though there will be greater restrictions than hitherto on the practice of English medical men in France, still these restrictions may not prove very oppressive. In the kingdom of Italy it may be said that there is no restriction on English practitioners. In Switzerland, English practitioners, to whom is especially due the recognition of the health resorts in Switzerland, are debarred by the action of their medical colleagues in that country from attending on patients whom they send to those almost inaccessible mountain regions, from which, in case of difficulty or danger, escape is nearly impossible, and where most of all they would need the special care of their best friends, their English physicians. It would really be well that we should bear these facts in mind in reference to Switzerland, and consider whether we should not send our patients to other lands, where they can obtain all essential climatic advantages, still enjoying the privilege of being attended by medical men of their own country; or might we not recommend voyages by sea, for which great facilities are now offered, and which in many instances possess advantages over those Swiss mountain valleys, where the climate is often unsuitable and even hurtful in certain forms of disease? Nay, may we not frequently regard some of our own winter resorts with more favour? The President stated that the Home Office and the Metropolitan Police had directed that reports of convictions for felony or misdemeanour of medical and dental practitioners should be communicated to the Council. Visitation and inspection of examinations had been made in the case of the Irish universities and the Scottish corporations. The case of the Royal College of Physicians of London *v.* the General Medical Council had been transferred, together with some other cases, from the court in which it was entered originally (that of Mr. Justice Kekewich) to that of Mr. Justice Romer, which will probably derange the anticipation that the case might be heard before Christmas. He then referred to the memorial presented to the Council in reference to "Medical Aid Associations." The question must be viewed both in its moral and in its legal position, and the Council would probably think it right to appoint the Committee which had been recommended by the Executive Committee to inquire into the whole facts of the case. The President then mentioned the dental business which would come before the Council. In conclusion, he expressed the opinion that year by year the duties devolving on the Council become more and more definite, more and more important, and lead to more decided practical results.

A vote of thanks to the President for his address was agreed to on the motion of Sir JOHN SIMON seconded by Sir WALTER FOSTER.

ARMY MEDICAL DEPARTMENT REPORT.

The usual tables showing the results of competition for commissions on the medical staff of the army were received and entered in the minutes. It appeared that the Director-General of the Army Medical Department had informed the Registrar that four candidates were deficient in spelling, and the Registrar informed the Council that, of these four students, one had passed the Matriculation Examination of the Royal University of Ireland, one the examination of the College of Preceptors, and two the Preliminary Examination of the Royal College of Surgeons in Ireland; and, on the motion of Sir WALTER FOSTER, it was resolved:

That the attention of the Royal University of Ireland, the College of Preceptors, and the Royal College of Surgeons in Ireland be called to the facts set forth in the statement of the Registrar in the preceding clause.

A vote of thanks was then recorded to the Director-General of the Army Medical Department for furnishing these returns, and especially the information relating to the deficiencies in orthography.

MEDICAL AID ASSOCIATIONS.

Documents bearing on medical aid associations emanating from the Medical Defence Union, were ordered to be received and entered on the minutes. A like course was adopted in respect of communications on this subject from the Gloucester Friendly Societies' Medical Association.

In respect of the matter of medical aid associations, Mr. WHEELHOUSE, on behalf of the Executive Committee, asked the Council to appoint a committee to inquire into the matter and to report next session, the committee to consist of Dr. Glover (Chairman), Mr. Wheelhouse, Mr. Teale, Dr. Leech, Dr. Bruce, and Dr. MacAlister. He urged that the appointment of a committee would safeguard the Council against hasty and ill-considered legislation on a very important subject.

Dr. HAUGHTON congratulated himself on the fact that there was no Irishman on the committee. The disgraceful practice of "sweating" medical men fortunately did not exist on the other side of St. George's Channel. He felt very strongly on the subject and was prepared to support a motion declaring such conduct to be "infamous in a professional respect."

The PRESIDENT said the matter must needs be referred to a committee, and he deprecated any discussion on the point at present.

Sir JOHN SIMON cautioned the Council against exceeding their statutory duties, and urged the committee, when appointed, to decide whether any question of principle was really involved.

Dr. GLOVER asked that the committee might be authorised to obtain the services of the Council's solicitor should they be required.

Sir WM. TURNER asked if by being authorised to take evidence the committee would be entitled to call persons before it.

Dr. GLOVER said he quite anticipated that they would be entitled to examine individuals.

Sir WM. TURNER warned the Council of the difficulties of approaching a subject of such far-reaching economic importance. It was essential that the Council should form an independent opinion on the evidence and not merely accept the

views of the committee. He pointed out that the cost of obtaining, recording, and printing the evidence would be very great.

Dr. GLOVER thought the expense of taking oral evidence was one that the Council ought readily and cheerfully to assume. He could not imagine a more worthy employment of their surplus funds. He agreed that members of Council should have the fullest opportunity of examining the *ipsissima verba* of the evidence received.

Sir WALTER FOSTER regretted that the financial question should have been raised in respect of a matter which interested so nearly the bulk of the profession—the very men, in fact, who furnished the funds of the Council. The matter should be gone into very thoroughly by the committee. If the reporting and printing of evidence cost even £1,000 he thought they could not better employ the money of the men who contributed the funds. He would not hamper the committee in any way, technical or financial.

Sir JOHN SIMON had grave doubts as to the desirability of a committee at all. He thought it was a matter better suited for inquiry at the hands of the British Medical Association than of the General Medical Council.

Dr. ATTHILL denied that the Council's funds came from the profession. It was by the parents that the first registration fees were paid. He asked whether the Council was prepared to pay the expenses of witnesses.

Dr. HERON WATSON asked if the committee were going to be paid while sitting; if so, that would add considerably to the expense of the proceedings, the more so as it would be necessary to pay at any rate the travelling expenses of witnesses. He objected to the Irish or Scottish Branch Councils having to bear any portion of the expense.

Dr. GLOVER remarked that Scotland and Ireland were said to be free from the system said to be objectionable, but they would have to inquire into the source from which the medical men concerned obtained their diplomas. He asked the Council not to prejudge any part of the question. As to the expense, he thought most of the medical witnesses would be prepared to attend at their own expense, and probably also the officers of the friendly societies.

Sir WM. TURNER suggested the introduction of a proviso limiting the expenditure.

Sir DYCE DUCKWORTH asked what the expense was likely to be.

Mr. MACNAMARA said the principle of "sweating" itself required to be attacked and considered. As to the existence of the practice he felt there was no room for doubt.

Mr. WHEELHOUSE said they would have to determine where the line should be drawn—what associations of medical and non-medical men were permissible and what were not. He thought that they might admit written evidence subject to the necessity of further examination of the witnesses if thought proper. He certainly had not supposed that the committee would be paid, nor did the appointment of the committee appear likely to entail expenditure of any very large sum. He referred to the statement that this kind of work led to grave deterioration in the methods of practice, and urged that, if that were so, they owed protection to the public.

Sir DYCE DUCKWORTH suggested the insertion of the words "all items of expenditure to be previously submitted to the Finance Committee."

Mr. B. CARTER thought it would be better to fix a maximum sum, say £50; such sum not to be exceeded without the sanction of the Finance Committee.

Mr. MACNAMARA protested against provincial members of the committee being obliged to pay their own travelling expenses.

After some further discussion, Sir DYCE DUCKWORTH modified his proposal as follows, "but that the committee do not incur expenditure exceeding £100 without the previous sanction of the Finance Committee;" these words to be added to the original motion.

Sir WALTER FOSTER said that he would not object to the addition, but he thought it was not showing much confidence in the discretion of the committee.

The words were therefore added to the original motion, and on this being put to the vote it was carried *nem. con.*

The PRESIDENT elicited from the Council that no objection was made to the payment of the travelling and hotel expenses of provincial members of the committee, according to the precedent of the *Pharmacopœia* Committee, and that the services of the Council's solicitor were at the disposal of the committee.

CERTIFICATES IN MIDWIFERY.

A memorial from Dr. Rentoul was brought forward with regard to the action of registered medical practitioners who have formed schools of midwifery and examining bodies granting diplomas for the practice of midwifery, and praying that the General Medical Council would consider the making of a rule restraining such action on the part of these practitioners, as being contrary to the Medical Acts. The memorial itself, with a statement in support of it, extended, it was stated, to the length of twenty-three folio pages of close typewriting.

Mr. WHEELHOUSE moved that the memorial, but not the accompanying statement, be received and entered on the minutes. He, however, pointed out that the Council were concerned exclusively with seeing that the holders of these certificates did not obtain entrance to the *Medical Register*. He thought that, in the case of the Obstetrical Society, if the certificate simply declared the candidates approved to be competent obstetrical nurses, the objection would subside of itself.

The PRESIDENT pointed out that such certificates had no legal status. They were merely the expression of a pious opinion on the part of those who granted them.

The memorial was then ordered to be received and entered on the minutes, together with a copy of the form of certificate granted by the Obstetrical Society, if it could be obtained.

RESTORATION OF NAME.

The next matter to come on was the report of the Executive Committee, recommending that the name of Mr. David Hyman Dyte be restored to the *Register*. This gentleman's name, it will be remembered, was removed in March of the present year for a contravention of the Council's resolutions in respect of "covering."

Strangers were ordered to withdraw while the Council deliberated. On their readmission it was announced by the PRESIDENT that the recommendation of the Committee in respect of Mr. Dyte had not been acceded to.

FOREIGN MEDICAL PRACTICE IN THE UNITED KINGDOM.

Last session the Council passed the following resolution:—

That, with reference to the communication from the Lord President of the Privy Council, in regard to medical practice in France (see *Minutes*, vol. xxix., p. 52), the Council authorises the President to have enclosed, in any reply to the Lord President, a statement prepared by the solicitor respecting the terms on which foreign medical men are admitted to practice in the country, with a request that a statement may be forwarded to the proper ministerial authority in each foreign country, in order that these authorities may have before them a permanent record of these conditions.

The correspondence that ensued thereupon was ordered to be received and entered on the minutes. The correspondence comprised a letter from the Registrar to the Clerk of the Privy Council, enclosing "a memorandum, prepared by direction of the General Medical Council, showing the conditions under which foreign medical practitioners are allowed to practise medicine in England, for submission to foreign Governments, with a view to induce them to reconsider the regulations by which English qualified practitioners are, in effect, excluded from practising medicine on the Continent," together with replies from Her Majesty's representatives at Paris, Berne, and Rome in answer thereto.

With respect to the practice of medicine in Switzerland, the British representative wrote:—

Although I shall lose no opportunity of urging on the Federal Government the justice of granting to British medical men in Switzerland the same privileges that Swiss practitioners enjoy in Great Britain, I cannot hold out to your lordship much hope of my being able to obtain a relaxation of the present rule, which renders it incumbent on British medical men who are desirous of practising in this country to obtain the Federal diploma by passing the regular medical examination. However well disposed the Federal Government may be to act in a liberal spirit and to conclude an arrangement of reciprocity, the Swiss Medical Board, which has a decisive voice in such matters, remains firm in its opposition to any idea of reciprocity arrangements with foreign countries.

As regards Italy, the statement was as follows:

The Sanitary Law of December 22nd, 1888, and the Law of November 13th, 1859, on Public Education, both of which are in force, prescribe that foreign doctors and surgeons may exercise their profession provided that they are furnished with a professional qualification (*abilitazione*) granted by one of the Royal Universities.

However, foreign doctors and surgeons can practise, without complying with this condition, when they are summoned from outside the kingdom to attend special cases, and so can foreign doctors and surgeons who in Italy practise among foreigners alone.

Mr. Teale moved that copies of these documents be forwarded to the various medical authorities and to the Press, and this was agreed to.

Personation at an Examination.

A communication was read from the University of Glasgow, calling attention to the fact that a certain Edward Roberts, of the Grammar School, Menai Bridge, had been guilty of inducing someone to personate him at the examination in general education held for that University at the University College, Bangor.

The document was ordered to be received and entered upon the minutes.

The University of Bombay.

A report by the Executive Committee was then brought forward, this being submitted in accordance with the subjoined resolution, passed by the General Medical Council on May 18th, 1887 (*Minutes*, Vol. xxiv, p. 270, Clause 2):

That the Executive Committee be empowered to take the necessary steps for carrying into effect the clauses of the Medical Act (1886) relating to the registration of the diplomas of colonial and foreign practitioners; and that the Committee report to the Council from time to time their proceedings thereon.

The Executive Committee report that an Order in Council applying Part II of the Medical Act (1886) to India having been received from the Privy Council Office, they have considered an application from the University of Bombay requesting the recognition of the Degrees in Medicine and Surgery of that University, and their registration in the *Colonial Register*, under Section 13 of the Medical Act (1886), and on November 21st, 1892, passed the following resolution:

1. That this application be acceded to so far as appertains to graduates of the University of Bombay who commenced the study of medicine prior to January 1st, 1892, but that the Executive Committee would call the attention of the University of Bombay to the recent regulations of the General Medical Council, which require that candidates who commence the study of medicine after the above date should be engaged in professional study for five years. 2. That the recognition of these Degrees of the University of Bombay be reported to the General Medical Council.

Dr. Haughton objected to any resolution which would have the effect of recognising the diplomas of the University of Bombay. He thought that the method of adjudging the results of examination, as set forth in the documents before them, was objectionable. He did not approve of any hard and fast system of numerical marking in examinations. Moreover, the minimum percentage of marks required by the University in certain subjects was, in his opinion, too low.

The Registrar pointed out that it was a duty relegated to the Executive Committee to "carry into effect the clauses of the Medical Act (1886) relating to the registration of the diplomas of colonial and foreign practitioners," it being incumbent on them only to report to the Council from time to time.

The report was then received, and ordered to be entered on the Minutes.

Covering by Dentists.

The next item of business was the report by the Council's solicitor in regard to a statement submitted to the Executive Committee by the British Dental Association, and referred to the solicitor by the following resolution:—

That the statement of the British Dental Association concerning cases of "covering" in the practice of dentists be referred to the solicitor, with a request that, after communicating with the Dental Association, he will report to the Executive Committee in November, advising the Council as to the course to be adopted. (*Minutes*, vol. xxix, p. 101.)

London, W.C., July 19th, 1892.

Gentlemen,—In accordance with the minute of the General Medical Council dated 23rd May, 1892, I have been in communication with the British Dental Association, and I have now the honour to send in my report on their statement.

That statement mentions fourteen cases of "covering" by dentists of such a character as would, if proved against a medical practitioner involve the removal of his name from the *Register*.

It seems to me to be as much the duty of the Council to protect the public in the matter of dentistry as to protect it in the matter of medical practice.

The Executive Committee will, however, recollect with what care the Council proceeded in the case of medical practitioners. What years of warning it gave them; how it promulgated a minute upon the subject, and took the utmost pains to convey that minute to every medical practitioner; and how several cases were tried, and the practitioners warned before any name was taken off the *Medical Register* for the offence of covering.

I would advise the Council to issue a similar warning to dentists, and to cause such warning to be conveyed to every dentist on the *Register*, through the British Dental Association, who have undertaken to promulgate the warning amongst all the dentists whose names appear on the *Register*. They add that they shall be prepared to undertake such duty to the satisfaction of the General Medical Council.

Looking to the position of a very large number of dentists, and to the mode in which they have been in the habit of practising, I think that covering in their case should be dealt with even more cautiously, if possible, than it was dealt with in the case of practitioners on the *General Medical Register*.

I have the honour to be, gentlemen,
Your very faithful servant,
To the Executive Committee. Fredk. Willis Fareer.

In regard to this subject the Executive Committee, on November 21st, 1892, passed the following resolution:

That the solicitor's report be submitted to the General Medical Council, and that the solicitor be directed to prepare a draft warning to registered dentists against the employment of unqualified assistants, analogous to that given to registered medical practitioners on April 21st, 1883.

Sir Walter Foster proposed that the report be adopted, and that the solicitor be directed to prepare the draft warning as above, the same to be submitted to the Council during the present session.

This was seconded and carried *nem. con.*

Amendment of Standing Orders.

The attention of the Council was called to an anomaly created by the restoration of a certain Mr. Gunn to the *Register*. On receiving the intimation that the name had been removed from the *Register*, the Royal College of Physicians of Edinburgh had withdrawn his diploma, without, however, intimating the fact to the Registrar of the General Medical Council.

It was pointed out that this would affect the correctness of the entry of Mr. Gunn's restoration to the *Register* only in so far as the diploma held from that College was concerned, seeing that in an opinion given by Mr. Muir Mackenzie in January, 1881, in the case of Mr. Robson, it was stated that in the event of one only of the Colleges restoring his diploma or granting him a new diploma or licence in lieu of that which was cancelled, the General Medical Council could, notwithstanding, restore his name to the *Medical Register*. To avoid, however, any recurrence of such a difficulty, the Executive Committee recommends that the Standing Orders should be amended as follows:

1. Chapter xiv, Clause 17, to read as follows:

The General Registrar shall, upon the removal of any name from the *Register*, pursuant to the provisions of the preceding clauses, or of those of Sections 28 or 29 of the Medical Act, 1858, forthwith send notice of such removal to the practitioner, and such notice shall be sent by a letter addressed to the last known address, or to the registered address, of the practitioner. The General Registrar shall also send, within three clear days, intimation of any such removal to the Dean or Secretary of the body or bodies from which the said practitioner had received his qualification or qualifications, and in the case of any of the licensing bodies removing the name of any Fellow, Member, or Licentiate from their roll, the Dean or Secretary of such licensing body shall be requested to forward, within three clear days, to the General Registrar, intimation of the removal of any Fellow, Member, or Licentiate.

2. To erase (c) of Appendix to Cap. xiv.

3. Clause 2 of Chapter xvi to be amended so as to read as follows:

Where the name of a registered medical practitioner has been erased from the *Register* under the 28th or 29th Section of the Medical Act, 1858, any application by the practitioner for the restoration of his name to the *Register* shall be referred by the Registrar to the Executive Committee, who shall report to the General Medical Council. In all cases the Executive Committee shall put themselves in communication with the qualifying body or bodies that granted the applicants original qualification or qualifications before reporting on the case.

The report was ordered to be received and entered on the minutes.

Sir William Turner, in reply to some remarks by Dr. Glover, observed that in the case of a practitioner with a single diploma the Executive Committee thought they could not recommend the restoration of his name to the *Register* unless the licensing body had restored to him his one diploma. He was of opinion that by cancelling the diploma of a man who had only one diploma the licensing body might effectually prevent his restoration to the *Register*.

Dr. Glover pointed out that, though the Council erased names from the *Register* on the understanding that they would be restored in a year or two, the action of the licensing bodies might render that course impossible.

Mr. B. Carter believed that the Act of Parliament which conferred on the Society of Apothecaries the right to withdraw a licence under certain specified conditions did not authorise the conferring of another diploma or licence without fresh examination.

Sir Walter Foster pointed out that the Council had to do

with bodies of very varied nature, and, virtually, by certain of them cancelling their licence on the Council removing a name from the *Register* the Council lost the power of restoring the name to the *Register*. He admitted that he was very confused in reference to the position of the Council in this respect.

Dr. Batty Tuke also found difficulty in understanding the position of the Council.

Dr. Atthill said the question had arisen on more than one occasion at the College of Physicians of Ireland, and counsel's opinion was to the effect that, once a diploma or licence was cancelled, the College could not restore it except after examination under the present regulations of the Council in respect of the curriculum.

The Registrar read an opinion by Mr. Muir Mackenzie on the case of Mr. Robson on the following questions: (1) If both the licensing bodies restored the diploma or licence, or granted others in lieu thereof, could the Council restore the name to the *Register*? and (2) should only one college so do, could the Council still restore the name and qualifications to the *Register*? Mr. Mackenzie answered both the questions in the affirmative.

Sir Wm. Turner said that, rightly or wrongly, the Council had over and over again restored names to the *Register* under these circumstances without question. The motion under discussion would not in the least bind the Council to any particular policy in the future.

Mr. Macnamara said he should point out to his College the fact that it was preferable to suspend a diploma rather than to cancel it, thus rendering the act irrevocable. He thought it was regrettable that all bodies had not this power of suspension, for this would obviate the difficulty.

After some further discussion, on the motion of Dr. Heron Watson, the report, with certain suggested verbal amendments, was ultimately referred back to the Executive Committee for further consideration and report during the present session.

The Council then adjourned.

Sir Richard Quain in the Chair.

Wednesday, November 23rd.

Medical Aid Associations.

The first business on the programme was to receive and enter on the minutes various communications bearing on the question of Medical Aid Associations, comprising a statement, in reply to the memorial of the Medical Defence Union, from the Wolverhampton Friendly Societies' Medical Association, with a copy of their balance sheet, a report of the Committee of Management to the annual general meeting of delegates, January, 1892, and a report by the medical officers of that institution to the managers; also a memorial from Mr. Wm. Barclay Livermore, of Northampton, on the same subject. From the balance sheet attached to this communication from the Wolverhampton Association it appears that "the net worth of Association funds and effects, after twelve years' working, and including one quarter's subscription from 11,094 paid in advance," was £886 7s. 7d., and that the medical officers received the whole of the vaccination fees, and, until recently, the whole of the midwifery fees (10s. 6d.), and now receive 10s. out of the 15s. charged.

Report of Visitor and Inspector.

Dr. Haughton brought forward a motion asking that the reply of the medical examiners of the University of Dublin to the report of the visitor and inspector of the Council should be considered during the present session. In a humorous speech he deprecated the plan of condemning persons first and then trying them afterwards.

Sir Walter Foster seconded the motion.

Dr. Heron Watson doubted whether the Council were in a position to comply with Dr. Haughton's request before the documents were formally laid before them.

The further discussion was postponed to make way for the penal cases.

Case of William Maunsell Collins.

Mr. Farrer, the Council's Solicitor, read the charge against William Maunsell Collins, namely: "That he was, on June 27th, 1892, convicted of having feloniously forged a promissory note for £1,500 with intent to defraud."

Mr. C. F. Gill appeared as counsel on his behalf, and pointed out that, under Section xxviii of the Medical Act, the question of the erasure of the name from the *Register* was within the discretion of the Council, each case to be considered on its merits. He asked the Council to confine their attention to evidence taken on oath. The crime of forgery varied very greatly in gravity—from one in which the circumstances might make it a comparatively venial offence, to another, in which it would be properly punished by penal servitude for life. He admitted the fact of the conviction, but he urged that, according to the evidence, the offence was committed under such pressure as would induce a certain disturbance of mental equilibrium. He pointed out that the prosecutor himself took this view of the matter, and the Court had come to the conclusion that it was not a case in which a sentence should now be passed, and, as a matter of fact, no sentence was passed. He solicited from the Council the indulgence that had been extended to the defendant by another tribunal. He urged that to debar him from following the practice of his profession would be an unnecessary punishment. He read a letter from Dr. Collins in answer to the summons of the Council, embodying a statement of the facts of the case. In reply to Mr. Macnamara, he said the only public appointment held by Mr. Collins was as medical examiner to an assurance company.

Strangers were then directed to withdraw while the Council deliberated. On their readmission, the President, addressing himself to Mr. Collins, informed him that the Council had decided to order his name to be erased from the *Register*.

False Certificates of Death and the Registrar-General.

Mr. Farrer stated to the Council that a number of other complaints had been received mostly bearing on false certificates of death. He opined that it should be left to the Registrar-General to protect his returns, and that it was not incumbent on the Council to take primary action in such cases. He proposed to draft a letter to the Registrar-General pointing out the view of the Council and offering to join in any representations which it might be thought desirable to make to the Government on the subject of the inadequacies in the registration laws.

Sir Wm. Turner said that two letters had been received by the Scottish Branch Council from the Registrar-General for Scotland on this subject, and they were to meet on the following day to consider them. He asked that the draft letter of Mr. Farrar should be communicated to them for their guidance.

The President observed that in some of these cases the Registrar-General would not seem to have done his duty in prosecuting those who had issued false certificates of death.

Mr. Farrer pointed out that the inaction of the Registrar-General might be due to special circumstances, of which the Council were not cognisant, that official being in a much better position to judge whether a prosecution was likely to succeed.

The solicitor's proposal to draft a letter to the Registrar-General was approved.

Case of Stephen Francis Smith.

Mr. Farrer read the charge against Mr. Stephen Francis Smith—namely, that he had been convicted of issuing a false death certificate in July, 1892. A second count bore on the charge of "habitually covering" an unqualified practitioner, C. A. Smith, and signing medical certificates in cases attended by the said C. A. Smith, and not seen by himself.

The defendant was present, and was accompanied by his legal adviser and Mr. Schulte Young as counsel.

Dr. Bateman, on behalf of the Medical Defence Union, read a statement embodying the evidence given at the police-court in this case. He pointed out that the house at which the branch practice was carried on was rated in the name of the unqualified assistant, and not in the name of his alleged principal. The local registrar had had his suspicions excited, and scrutinised all certificates bearing the name of Smith. This led to the certificate in this particular instance being referred to the coroner, and, on further inquiry, to the Registrar-

General. Dr. Bateman read a letter from the registrar of births, deaths, and marriages for Holloway calling the attention of the Union to the case. He urged that in view of the evidence the case was one that merited the consideration of the Council with a view to punishment. He pointed out that the doorplate bore the title Mr. Smith, "Surgeon," whereas he was a Licentiate of the Society of Apothecaries.

In reply to Mr. Muir Mackenzie, Dr. Bateman said he had been reading from a printed copy of *verbatim* shorthand notes taken at the trial.

Mr. Young, for the defendant, said that some of the facts mentioned went back four years, that is to say, before the defendant took the practice. Mr. Young then examined Mr. Smith, the defendant. He had been in practice in Seven Sisters Road since June, 1889, it being a fresh practice. Eighteen months later he became assistant to his father. His days of consultation at Seven Sisters Road were Tuesday, Wednesday, and Friday. He assisted his father every afternoon and the other nights in the week. He did this to get an introduction to his father's practice. The assistant was a man of 50. He had been assistant to a neighbouring medical man (the defendant's uncle) for ten years, and always bore a good character. In reference to the statement that the assistant had been called in on account of his having already attended the case, he admitted that this was so. The first visit was on July 25th, and again on the 26th. He himself was at a midwifery case, and received a telegram from his assistant on the 26th, asking him to see the patient. He replied, directing him to call in Mr. Herring, a neighbouring practitioner. He went straight from the midwifery case to the patient's house, knowing nothing of her death. There had never been any difficulty in respect of his certificates of death before. The assistant was ten years with his uncle, who died in 1889—the year in which he himself commenced practice. The Mr. Charles Albert Smith was his uncle.

Mr. William Robert Smith, M.R.C.P. and S.Canada, and L.S.A.Lond., the father of the defendant, examined by Mr. Young, said he had a surgery at Stratford. His son assisted him most of the time—every afternoon and three evenings a week. This arrangement had obtained since the beginning of 1891. His son attended to his own practice three evenings a week. Since his son's assistant had left him matters had gone on as before. The assistant's assistance did not amount to much. He himself did mostly a consulting practice, taking no midwifery. He anticipated handing his practice over to his son. He himself was a registered medical practitioner.

Dr. Cameron pointed out that there was only one William Robert Smith on the *Register*, whose description did not apply to the witness.

The Registrar said that the name had been removed under the corrective clause of the Medical Act, Mr. Smith not having replied to letters of inquiry addressed to his registered address. Neither letter was returned. The name would be restored on a formal application.

Mr. George Herring, examined by Mr. Young, said he was a registered practitioner. He said he had been called by Mr. C. A. Smith, the assistant, to see a patient on July 26th. He found her very ill. He had never been called in before to attend a patient for Mr. Smith. He would not have objected to signing the certificate himself. Asked what was the disease, he said there was some affection of the throat, which had been poulticed. The Smiths were old friends of his.

In answer to Dr. Bateman, whether he would sign a certificate of death in a case seen by him only once, the patient being in an unconscious condition, and having been attended by an unqualified assistant, he answered in the affirmative.

In reply to Sir William Turner, the defendant said the name of the unqualified assistant did not in any way appear in connection with the practice, either on the house or on the accounts.

In reply to Dr. MacAlister, he admitted that the assistant's name appeared in the local directory as living at the surgery; but it was quite unknown to himself and his father until their attention had been called thereto. He lived at the surgery himself, as well as his assistant.

Mr. Muir Mackenzie pointed out that it had been given in evidence that several patients knew as "Dr. Smith" only the unqualified assistant.

Mr. Young pointed out that in taking over the practice of his uncle, he was probably well advised in taking on his uncle's assistant, seeing that as he had gained the confidence of many of the patients he would take them with him.

Defendant denied that he stood in the position of lodger to the unqualified assistant; but admitted that he rented two rooms from the latter for professional purposes. The rates on the house were at present paid by his uncle.

Mr. B. Carter pointed out that the defendant said he "lived" at Seven Sisters road, and slept "occasionally" at Woodford, whereas it was sworn in evidence that as a matter of fact he usually slept at Woodford, and only exceptionally at Seven Sisters Road.

Defendant explained that circumstances had changed since that arrangement obtained. It took him from door to door from half an hour to an hour. He did not go to Woodford more than once a week now. The evening work was at Stratford. During the evenings he was engaged at Woodford the unqualified assistant would probably attend to any cases. He only had about two midwifery cases a year, the engagements being possibly made with the assistant.

Asked to explain how it was that some patients took the unqualified assistant to be "Dr. Smith," and had not even seen him (the defendant), he said that it was quite true: some of the patients preferred the assistant, and would not see him (the defendant). It was put to him that patients really had no choice in the matter; that they, or some of them, were not even aware of his (the defendant's) existence.

Dr. MacAlister elicited the reply that there was no partnership between himself and the assistant. He paid him a salary, £150 a year, the receipts being about £400.

Requested to explain his signing the certificate, he said he considered it was incumbent on him to do so, the death having occurred in his practice. The cause of death was "inflammation of the throat and old age." He admitted that there might be patients attended by his assistant of whom he knew nothing. He was not aware of the Council's rule with respect to "covering." The question of the propriety of his signing the certificate involved a long argument which it would take persons with lots of brains to understand.

Mr. S. Young then addressed the Council on the defendant's behalf. He admitted that the act of signing the certificate of death in respect of a patient he had not seen during life was not to be commended nor even defended. He urged that the defendant had signed the certificate for no interested motive. He had nothing to gain by it. He did not even do it to cover an unqualified assistant, seeing that Dr. Herring had seen the patient during life, and had declared his willingness to certify. If the Council disapproved of unqualified assistants altogether let them say so, and let every practitioner be fully warned. He did not say that the case was not one which merited to be inquired into by the Council, but he deplored the virulent persecution of which the Smith family was the object at the hands of the Medical Defence Union. It was a question of professional life and death to Mr. Smith, and he asked the Council not to expunge the name of a highly respectable practitioner.

In response to a question to Sir John Simon, he denied that it was defendant's practice to allow the assistant to take exclusive charge of cases.

Strangers having withdrawn, the Council proceeded to deliberate. On their readmission the President announced to Mr. Smith that the Council had decided not to order his name to be removed from the *Register*, but cautioned him to be very prudent in future in his conduct as regards unqualified assistants, and especially in the giving of death certificates.

Mr. Smith intimated that he did not intend in future to keep an unqualified assistant, and promised to observe the recommendation of the Council in respect of death certificates.

The Council then adjourned.

Sir Richard Quain in the Chair.

Thursday, November 24th.

On the minutes the President mentioned that surprise had been expressed to him by several members that, in the few observations made by him yesterday in his official capacity

to Mr. Smith he had not embodied a censure in respect of his conduct. He pointed out that the Council might erase a name from the *Register* or dismiss with a caution, but was not entitled to censure.

Report of Visitor and Inspector.

Mr. Macnamara resumed the discussion on Dr. Haughton's motion to discuss the report of the visitor and inspector in connection with the reply of the medical examiners of the University of Dublin. He urged that these documents should be discussed forthwith while the matter was fresh in their minds.

Sir William Turner objected to the reply being discussed, it not having come formally before the Council.

Sir Walter Foster trusted that a means would be found to take the report and reply into consideration during the next session at the latest.

Dr. Batty Tuke brought forward an amendment, which after some discussion was modified, and then read as follows:—

That the Examination Committee be requested to report on the reports of the inspectors and visitors of examinations from time to time as they are received.

Mr. Teale submitted the following:

That so many of the reports of the inspectors and visitors, with the answers of the bodies affected, received before the May meeting, be reported upon by the Examination Committee, and be thereupon considered by the Council.

This meant that there must be a report next May on the bodies visited this year.

Dr. Haughton made some remarks in support of the immediate discussion. He pointed out that the inspector's report contained some valuable and acceptable suggestions, and it seemed absurd to postpone their adoption for two years.

Dr. Tuke's amendment was then put to the vote, the President pointing out that the vote would really settle the question whether the Examination Committee were to report on each report as it was received. The amendment was negatived.

Mr. Teale then brought forward his amendment, as above, and this was carried.

It was subsequently proposed as a substantive motion, when Dr. MacAlister proposed as an amendment:

That the reports of the inspectors and visitors.....be referred as they come in to the Examination Committee; and that the Committee be requested to report on all reports and replies received up to March, 1893, at the next May meeting.

Dr. MacAlister's modification was adopted, and was passed in lieu of the original motion.

Increased Direct Representation.

Sir Walter Foster then moved:

That, in the opinion of this Council, the number of direct representatives on the General Medical Council should be increased, in order to give the registered practitioners resident in England and Wales a representation on the Council in proportion to their numbers, as compared with the representation given to the practitioners resident in Scotland and in Ireland.

In reply to Sir Walter Foster, the Registrar said that no petitions had come to hand in reference to this subject.

Sir Walter Foster was disappointed to receive this information; but the apparent indifference of the profession was not, he believed, due to any diminution in the interest felt in the motion which he had brought forward. On the last occasion the motion had been qualified as an electioneering manœuvre; but that could not be said on the present occasion. He alluded to the diminution in the number of voters who had returned their voting papers at the last election as an unsatisfactory feature, the responsibility for which fell largely on the Council, which was unable to induce the profession to take any interest in its proceedings. At the election of 1886, 74.1 per cent. of the voting papers were returned, whereas on the last occasion only 63.3 per cent. were filled up and sent in. The proportion of non-voters was unworthy of an educated profession, for it was larger than would obtain in any manufacturing district on a question of general interest. In Ireland matters were even worse, for only 41 per cent. of the papers were returned. The present resolution was different from that of last year. On the present occasion he had placed the whole argument upon a numerical basis, that is to say, the disproportion of the representation of Ireland and Scotland as compared with England and Wales. In England and Wales there were 19,319 practitioners, giving, for 3 representatives, 1 for every 6,439. Dr. Kidd, however, represented 2,445, and the Scotch representative 2,350. On a similar basis England and Wales ought to have 7, if not 8, representatives on the Council. He maintained that the necessary reform could be carried out without any fresh legislation by applying to the Privy Council to add to the number of English representatives. If they refused this concession, it would be open to the profession to approach Parliament on the subject or go direct to the Privy Council; and either course would place the Council in an awkward position. He warned the Council that it was not safe to go on hardening their hearts, and he hoped the Council would see its way to support the reform sketched out by him.

Mr. Teale asked whether a corresponding increase in the number of Crown members for England was also asked for.

Dr. Atthill could not see what was the "heartless injustice" of which the Council was guilty towards the profession.

Dr. Glover supported the motion on the main ground of "injustice to England." Every successive year brought up a number of questions deeply affecting general practitioners. Under these circumstances, it would be but justice to accede to Sir Walter Foster's request.

Sir John Simon said he did not envy the position of the direct representatives if it were one of their duties annually to bring forward such a motion. It was based on a numerical hypothesis. He criticised the Medical Act of 1886, and said that an Act that admitted existing but not future foreign medical titles could not be quoted as a piece of serious legislation. So far as numerical value was concerned, the various universities varied very greatly between themselves. In any case, the present size of the Council was an undoubted disadvantage. It would have been far better to reduce the number to eighteen than to have increased it, yet now it was proposed to add still further to the number. Would it not be better to proceed by a reduction in Scotland and Ireland? He regretted that the time of the Council should have been taken up in such idle discussion.

Dr. Pettigrew resented this motion being brought forward annually.

Dr. Wilks said Sir W. Foster's bases were altogether wrong. The Council was in no sense the "governing body of the profession." He moved "the previous question," and this was carried by 16 to 8.

On the demand of Sir Walter Foster, the names of those voting for and against the motion respectively were taken down, and will appear in the minutes.

Duration of Punishment.

Mr. Bryant brought forward a motion providing that no application for restoration from a person whose name had been erased under a penal clause should be entertained under two years. He said he had been induced to bring forward this motion in order that it might be understood by the profession that the Council was serious in the matter.

The President said the solicitor had characterised the motion as a proposal to condemn persons beforehand.

Dr. Moore deprecated any attempt to tie the hands of the Council in such a matter. Every case should be considered on its merits.

Sir Walter Foster appealed to Mr. Bryant to withdraw his motion, on the ground that otherwise many minor offenders would escape, on its being represented that condemnation would entail a minimum punishment of two years.

Dr. Haughton agreed with Sir Walter Foster, but he thought no application for restoration should be entertained under a year.

Dr. Kidd, Dr. Atthill, and other members took this view of the question, that the hands of the Council should not be tied. Dr. Atthill said he was prepared to introduce an amendment to the effect that the Council should at the time of removal express an opinion as to the length of time that should elapse before any application for restoration be entertained.

Mr. Bryant, with the permission of the Council, then withdrew his motion.

(The remainder of Thursday's proceedings will be published next week.)

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, NOVEMBER 26TH, 1892.

EDUCATION AND RESEARCH.

Professor Virchow's recent rectorial address to the University of Berlin will appeal to a far wider audience than that great University, and has a weight deriving not only from the importance of the subject discussed, but also from the position and great endowments of its author, whose attainments as a pathologist are equalled by his wide philosophical culture and his rich experience of life.

After touching upon the value of such annual occasions, when we examine ourselves, sum up our gains, prove our methods, and glance into the future, the Rector went on to say that the vast changes in the sphere of learning during the last half century had amounted to a revolution. Our older methods have been found wanting and are largely broken down, and the position both of school and of university teaching must be conceived afresh. This no man can do from the universal point of view; no man is a "Träger alles Wissens"; we must, therefore, all contribute, each from our own standpoint.

The conflicts between students and authorities in Germany, deplorable as at one time they were, have happily ended in securing freedom of teaching and freedom of learning, teacher and scholar having each his own independence and responsibility. The student who comes up from school to university is tempted by this absence of restraint to self-indulgence or pleasure, but if by these seductions he wastes even the first term, he may find it impossible to recover the lost ground; and if at the end of his university career he has not reached an average place in his education, he will probably be a bungler for the rest of his life, as the opportunity for "freedom of learning" will probably never return.

Out of the practice of this "freedom of learning" comes delight in learning, and this will decide for him between the various kinds of learning; a university uses no compulsion, and unhappily of late years the influence of teachers can be but little upon individuals, but is exercised upon the students in the mass. It is said that there is thus some falling off in the forming of students. In medicine especially is this true, wherein a student comes strange to an oppressive fulness of new ideas and new subjects of study, and is soon disheartened if the groundwork has not been well laid at the beginning.

What is to be done, asks Virchow, under this overwhelming progress of knowledge, time remaining the same or even growing less, so that both teachers and scholars are overweighted? So large a question could not be fully dealt with in an address, but certain aspects of it were considered. In the first place, the Rector appealed to the higher schools to kindle the "love of learning" rather than stuff their scholars with much information of a positive and detailed kind. Moreover, he called upon them to send up scholars *competent for independent study*, young men able to pursue their own course of work, not leaning upon others, not needing special stimulants at the hands of their teachers.

In detail, of course, each faculty must indicate its own requirements, but if love of study and self-help be previously brought out, the development of the student will be continuous. "Every normal child loves learning," has joy in new objects and in new uses for its organs, special senses, and reason, and whatever the variety of inherited talent this disposition should increase with its years. Two dangers, however, beset it—the danger of crushing this love, as too often it is crushed, by unfit or dull methods of teaching, and the danger lest thirst for knowledge degenerate into mere desultory curiosity. Against the latter tendency the historical method is the best preservative.

In the next place Virchow appealed to the higher schools to weigh well their duties in respect of the two classical languages which hitherto have enjoyed the "lion's share" of the curriculum. Latin is inherited by our grammar schools from the time when it served the precious purpose of welding all Western thinkers together; now "national tongues have come into their natural rights," and we have succeeded to and sanctioned a state of "Babylonian confusion of tongues." The welding function of Latin is therefore ended, and, on the other hand, the works of Latin writers are seen to be far inferior to those of the Greeks, who were the fecund sources of thought and form. "Homer, Aristotle, and Plato are in our day the masters of the nations." So by culture and custom Latin must recede, and its grammar, to which its methods have largely fallen, will not much longer discourage the youthful mind. Medicine indeed alone of all the faculties has an unbroken tradition of 2,000 years from the Greek, but even to it Hippocrates and Galen are no longer of use, and Greek is seen rather to have its place in the spheres of philosophy and poetry.

For modern teaching, mathematics, philosophy, and natural science are the prime methods—"the golden triad" upon which progress rests. From them we shall derive that large wisdom which the Ionian Greeks taught us to desire. In the schools, therefore, youths must be led to study the principles of astronomy and biology in their simpler aspects, for astronomy is the pattern of mathematics and physics, and in chemistry they must learn the art of experiment. Yet weight and measure are not all. How shall he, whether theologian, jurist, physician, or schoolmaster, consider psychology who has not learned the forms of thought? If philosophy cannot be taught in schools, they must teach "respect for philosophy." Finally, the Rector pointed out the farther difficulty that universities stand now in mid fight between the claims of the higher education on one side and of technical training on the other. Experience has not yet taught us to decide between these rival claims, and teachers vacillate. No compromise is as yet in sight.

It must be admitted that mere special training can be given without that larger development of the whole man at which universities aim. For such specialist studies technical

schools and seminaries suffice. A university is not a mere aggregation of technical schools; it aims at an interpenetration of all faculties, at general conceptions. Unhappily, from the lack of preliminary training in the higher schools, university teachers have their time wasted in foundation work. Now, if a university is to hold its proper place, it must be not only an institute of learning, but also an institute of research, and the former cannot exist without the latter. University teachers should therefore have more time at their disposal than other teachers, and should not, because of the deficiencies of the schools, have this time occupied in elementary instruction. The university must be an association of leading thinkers and investigators in free co-operation, and their students must come to them with a love of learning and with their faculties trained to the independent pursuit of it.

At this moment, when the establishment of a new and great university is under consideration, and when public school teaching is chaotic and unfruitful, we have felt it to be our duty, even at some length, to set forth these wise words of one of the leading thinkers of our profession.

THE INDIAN MEDICAL SERVICE.

OMINOUS indications of discontent and alarm from the officers of the medical service of India have been in the air for some time past. In the hope that there was no solid foundation for the fears and misgivings prevailing throughout the service in the three Presidencies, and sincerely anxious to avoid even the appearance of exciting discontent in the ranks of this important branch of the public service, and groundlessly unsettling the minds of young men in the schools preparing for a career in the famous medical service of India, we have kept silence. The time has now come when we feel that it is our duty to speak out, and in justice to the profession, to intending candidates, and, we must add, to the authorities charged with the government of India in that country and at home, to sound a note of warning. We do not dwell on the fact that the medical service of India, in common with all servants of the Crown in that country, from the Viceroy downwards, is paid in the depreciated rupee, rapidly sinking to the value of one shilling. The suffering this entails is common to all. Intending candidates know that while the purchasing power of the rupee in India has not lessened to the extent indicated above, when turned into gold for a family remittance or any other purpose, it means one shilling, or one and (perhaps) two pence farthing.

We all know that the State suffers financial loss, as well as its servants, by the depreciation of the rupee, and can understand the anxiety of its responsible officers to cut down expenditure as far as can be done without impairing efficiency. What we complain of is that the shears of retrenchment are being unsparingly used, as is invariably the case, on the weakest and worst represented branch of the public service.

We take, by way of example, the treatment meted out to the medical officers acting as superintendents of prisons in India. Our readers may not be aware that the term "superintendent," in a great many cases, does not mean merely the medical charge of the prison and its inmates; the surgeon is, in fact, often governor as well as doctor of the gaol. In him is vested the power of punishment; he is not only responsible for the security, internal economy, manufactures carried on by the prisoners, feeding, finance, but has also to do the work of a sheriff or his deputy, to see that executions are carried out according to law. Up to the issue of the order for the reduction of salaries, to be presently referred to, the medical officer received consolidated pay, that is, he was paid for his administrative as well as his medical duties. Without warning, five of the civil surgeons in the Punjab, superintending first-class gaols, have had their pay reduced to the extent of 600 rupees, and two, superintending second-class gaols, 300 rupees per annum. The excuse put forward for this reduction is that the number of prisoners is "about to be reduced" by drafting them into other prisons, which cannot be built for at least five years.

It is needless to repeat what has so often been pointed out in the BRITISH MEDICAL JOURNAL, that hitherto the medical service of India has commanded the best men in the market, notwithstanding the fact that those entering it have to spend their whole service in that country, with all its risks to life and health (at Murree, recently, three of them died in three days from cholera), and, on account of the extent to which the service has been cut down, with few chances of privilege leave or furlough. We venture to ask those who are the advisers of the Secretary of State for India, how long they expect that men of the class whose services India has hitherto commanded will become candidates for commissions under the unjust and impolitic treatment they have to look forward to? We venture to answer our own question—Not long.

POLLUTION OF RIVERS BY TRADE EFFLUENTS.

MR. FOWLER, the President of the Local Government Board, seems to have given a rather chilly reception to the petition for a new Royal Commission upon the pollution of rivers, urged by a deputation representing all the county authorities in the West Riding of Yorkshire. If the arguments put forward by the representatives of two and a-half millions of people, most of them suffering from the proximity of some of the foulest streams in the kingdom, were unavailing, there is little hope of a more favourable hearing upon other occasions. And yet the case is a strong one, so far as utility and expediency go, however much the Government may dislike the responsibility of a new and possibly costly inquiry. It is work that is proper for a Royal Commission; that was established by the previous Royal Commissions on the same subject. The last of these ended its labours 20 years ago, when chemistry and industrial science generally were in a very different stage from that of to-day. The Rivers Act of 1876 is a complete failure, that Mr. Fowler frankly admits, and further legislation is necessary. Before that can come about further inquiry on a national scale must be made in order to find out what has been done and what can be done, as a clue to what can be enforced. Not all trades are limited to one district. Breweries, paper works, and tanneries are found all over the kingdom, and it is clear that the inquiry and its outcome in compulsory purification of effluents must not be limited to one region only.

It is absurd to suppose that any county authority, or group of county authorities, will bear the whole burden and cost of a national inquiry, leaving their inactive neighbours to reap the results without sharing in the labour. It is evident, too, that any research limited to a portion of the country would be incomplete and inconclusive, and the en-

forcement of a purely local standard might involve injustice to one or other local industry as compared with the same industry in other districts. Lastly, the conclusions arrived at by local effort on the part of those who might become prosecutors would differ enormously in weight from the conclusions of a Royal Commission, even assuming them to be identical. They would simply be the views of the prosecution, to be proved afresh by evidence in each case, and not the decisive verdict of an impartial Commission. What a Royal Commission could do is something very different from, and a most necessary addition to, the utmost that local efforts can fairly or even possibly be expected to accomplish. The plea that a long and costly investigation would ensue is only another way of putting the fact that it is too big an undertaking for any other machinery than a Commission, and its inevitable length is assuredly no good reason for delay in beginning. Mr. Fowler seemed to think that the same work could be better done by a combination of the great local authorities, county councils, and county boroughs in each industrial field; forgetting that comparatively few have shown any disposition to move at all, most of them being only too ready to follow the example set by so high an authority as the Local Government Board, and transfer to other shoulders responsibilities which involve expense and trouble.

Sir Richard Owen relapsed last Saturday, but has rallied again, and is now taking nourishment well.

Dr. Whiting, who attended the late Lord Tennyson for many years when the poet laureate was at Blackdown, died suddenly on Monday from apoplexy, at the age of 63.

Dr. William Hunter's second Grocers' Lecture on the Physiology of Blood Destruction will be delivered at the Examination Hall on the Embankment on Tuesday next at 4 P.M.

A public meeting of those friends of Dr. Joseph Groves, B.A., M.B., who are in sympathy with him, will be held in the Borough Hall, Newport, I.W., on Wednesday, November 13th, at 4 P.M., to consider steps to be taken towards helping him to defray the legal expenses incurred in his recent lawsuit. The chair will be taken by Professor Morley, at 4 P.M. precisely.

The Council of the Metropolitan Counties Branch has called a meeting of the Branch for Thursday, December 8th, that the members may have an opportunity of expressing a collective opinion upon the two leading medical questions to which the attention of the Legislature will be asked in the coming session—the provision of facilities for London students to graduate in medicine, and the Midwives Bill.

THE VACCINATION COMMISSION.

The Royal Commission upon Vaccination held another meeting on November 23rd, and, in the absence of Lord Herschell, Sir James Paget took the chair. Dr. McVail, of Glasgow, attended before the Commission, and gave evidence at considerable length in favour of vaccination, quoting from statistical returns to show the value of inoculation as a preventive of small-pox. The Commission afterwards adjourned till Wednesday, November 30th. It is arranged that an *interim* report shall be submitted to Parliament shortly.

THE ROYAL SOCIETY.

The Royal Society has this year awarded the Copley Medal to Professor Rudolph Virchow, For. Mem. R.S., for his investigations in pathology, pathological anatomy, and prehistoric archæology. A Royal Medal has been awarded to Mr. John Newport Langley, F.R.S., for his researches on secreting glands and the nervous system. The Darwin Medal has been awarded to Sir Joseph Dalton Hooker, M.D., F.R.S., for his important contribution to the progress of systematic botany, as evidenced by his *Genera Plantarum* and *Flora Indica*, but more especially on account of his intimate association with Mr. Darwin in the studies preliminary to the origin of species. Three out of six medals are thus allotted to biologists.

PREVENTIVE INOCULATION FOR CHOLERA.

M. Haffkine, of the Pasteur Institute, whose method of preventive inoculation against cholera is so full of promise and has received much preliminary confirmation by experiments in Europe, is about to proceed to India to endeavour to apply his method to practical use in the saving of life in the regions of endemic cholera in British India and possibly in Siam. M. Haffkine has been in London during the week, and has submitted the objects of his mission to Lord Kimberley and the heads of the British Medical Department, by whom he has been kindly received.

INFECTIOUS HOSPITAL ACCOMMODATION IN LONDON.

At a meeting of the Metropolitan Branch of the Incorporated Society of Medical Officers of Health, held on November 17th, it was resolved, on the motion of Drs. T. Orme Dudfield and J. S. Bristowe, "That, in the opinion of this meeting of metropolitan medical officers of health, the permanent hospital accommodation of London for infectious diseases is insufficient, and in the interests of the public health should be increased forthwith; and that copies of the above resolution be forwarded to the Metropolitan Asylums Board, the Local Government Board, and the London County Council."

COWS' MILK AND TUBERCULOSIS OF CHILDREN.

The County Council of London does well to solicit the attention of the Board of Agriculture to the desirability of requiring the notification of cases of diseased udder of milch cows, and of taking the means of preventing the use of their milk. Such milk is, there is great reason to believe, one source of the prevalence of tuberculosis among the children in this country. According to Mr. Ernest Hart's inquiries in Japan, where children are suckled for the first three years by the mother, the infant mortality is the lowest in the world; and we learn from Dr. Ashmead that tuberculous affections, so common in this country and in Europe, do not prevail there, although tuberculosis in adults is, for many reasons, far from uncommon.

NEW LEGISLATION FOR HABITUAL DRUNKARDS.

From the course of the inquiry and character of the evidence taken by the Committee on Habitual Drunkenness now sitting at the Home Office, there is little doubt as to the conclusion at which they will arrive, and as to the character of their report. It is understood that they are likely to report in the direction urged by the senior metropolitan magistrates who have been examined before them, and of the scientific evidence; that is to say, in favour of the extension of the power of detention of habitual drunkards in places connected with the prisons, where curative treatment and restraint may be carried out under supervision and in virtue of powers to be given to the police magistrates. Meantime cases continue to occur in which the necessity for such provision is made very evident, and

the absence of such power is regretted. At the Battersea Police-court, this week, Mary Ann Bennett, aged 24, who was just out of gaol, was convicted for drunkenness for the fiftieth time. Mr. Plowden, the magistrate, observed: "Until some law is passed to enable magistrates to deal differently and more effectively with habitual drunkards, women of your class will go on getting drunk again and again. The law is perfectly powerless to bring about any reformation. I can only sentence you to one month's imprisonment. It will do you no good—not the slightest."

THE RUGBY RUN.

THE Rugby school will not suffer, and the interests of the boys will certainly benefit, by the discussion of the rigour of the Rugby runs. The whole subject is one well deserving of very thorough and impartial discussion by the only really competent authorities—the medical officers of the public schools. Their position in the matter is a little delicate, for, as salaried officers of the schools, they must tread cautiously and in accord with the masters. But why should the whole subject not be referred to their Association by the masters of Rugby and other public schools? Between athletic training and games and enforced competitive running there is a very grave difference. No one of medical experience can doubt the dangers of these runs for many boys, and the abuse to which the practice is liable. We have reason to think that a good deal of evidence to this effect would be forthcoming from medical sources.

INTERNATIONAL MEDICAL CONGRESS, ROME, 1893.

THE following is the list of the English Committee formed to further the success of the above Congress:—Sir James Paget, Bart.; Sir Andrew Clark, Bart.; Sir Joseph Lister, Bart.; Mr. Thomas Bryant; Sir Dyce Duckworth; Mr. Hutchinson; Sir George Humphry; Sir W. Mac Cormac; Sir Henry Acland, Bart.; Professor Clifford Allbutt; Sir R. Quain, Bart.; Mr. J. N. Dick, C.B.; Sir W. A. Mackinnon, K.C.B.; Sir Joseph Fayrer, K.C.S.I.; Dr. Taylor; Dr. G. H. Philipson; Dr. W. Withers Moore; Sir W. Turner; Professor Michael Foster; Dr. J. Watt Black; Mr. H. Power; Mr. Shirley Murphy; Mr. Gordon Brown; Dr. Cheadle; Dr. Saundby; Dr. Dreschfeld; Mr. Mitchell Banks; Mr. Teale; Mr. W. F. Favell; Dr. E. Long Fox; Mr. G. H. Makins, Honorary Secretary.

THE ISAZAI EXPEDITION.

WE desire to call public attention to the fact—which we derive from many and most trustworthy sources—that the lives of the officers and men of the recent expedition have been most seriously imperilled and its chances of success endangered by an ill-judged attempt to send it forward without suitable medical provision. Proceeding apparently on the assumption that the expedition would be a mere demonstration lasting only a few days, the first proposed medical arrangements were of an inconceivably primitive kind. There were to be no field hospitals; the sick to be treated regimentally from the small pannier equipment carried with corps, any balance of such stores to be available for the formation of a scratch base hospital if required; no arrangement for transporting sick or wounded to the rear; medical officers ten or a dozen short of proper complement. The dangerous inadequacy of these provisions called forth vigorous protests, which, after some hesitation, led to the concession of a field hospital and a half (instead of three), and three medical officers (instead of six). But even these were sanctioned too late, and, having failed to overtake the column which had already started, the result was that the expedition was without field hospital for nine of the fourteen days it lasted. The key-note of the preparations for the expedition at head quarters appears to have been to anticipate immunity from fighting and sickness. Fortunately one of these frail chances was realised through the enemy refusing to fight; but the other was less accommodating, for cholera and general sickness did not fail to attack. Of the former, we learn, there were over 40 cases, and of the latter at one time nearly 540, which it is apparent could not well be sheltered or isolated in the accommodation afforded by 150 field hospital beds. But supposing the original arrangements had been persisted in and not even the modicum of field hospitals allowed, and imagine a "big fight" to boot—what then? As the *Pioneer* remarks, that "had better not be thought of." No one expects omniscience from those who plan such expeditions, but reasonable forethought based on experience is looked for. Why these risks? The public want to know why the carefully-elaborated medical regulations—the fruit of bitter experience—for even the smallest force are thus lightly set aside? and on whom rests the responsibility for such departure from sound administration? We shall probably find this out when Parliament meets.

PREPARATIONS FOR CHOLERA.

WITH a view to obtaining precise information as to the means available in London for dealing with an outbreak of cholera the London County Council are sending to all the various sanitary authorities within the metropolis a request for information as to the state of preparedness of each district. Another important step the Council are taking in this matter is that of obtaining next session a short Act to make the Council a sanitary authority for the purposes of the Act of Parliament of 1883 relating to cholera and epidemic diseases, and providing that the order of the Local Government Board should be made upon the Council with the obligation upon the latter body to carry out the orders, either by directing the vestries, etc., or, in their default, at the Council's discretion, with further power to the Council when acting in default to charge the amount to the particular vestry or to the county rate in cases where it seems fair the whole community should bear the cost. Under the Public Health Act, 1891, the Council has power to act in default of any vestry, but in order to prevent cholera, etc., it is most important that it should be possible to take action without waiting until "default" is made. It is desirable that further powers in this matter should be conferred on the Council, for we cannot afford to wait until sanitary legislation is further perfected by the establishment of district councils.

THE MAGAZINE RIFLE AND WOUNDS INFLICTED BY IT.

A STATEMENT is being made with an air of authority that experiments have been recently carried out to ascertain the penetrating power of the magazine rifle, and that they have shown that the small bullet fired from it will "either kill a man outright, or inflict a wound which, if not mortal, will be readily cured." We fear that there is no range or distance at which a general statement of this kind will be found to hold good when the day of practical trial comes. At nearly all distances within the range of the rifle there will be some clean perforating flesh wounds, which will admit of being easily cured; and others in which the nature of the injuries inflicted will cause the wounds to be directly mortal. But at all ranges, near and distant, trials have sufficiently shown that under certain conditions bones will not be simply perforated but will be shattered; and that in some of these cases, under proper care and judicious surgical treatment, operative or otherwise, hope may be entertained of the patients' eventual safety; while in other cases, from accidents of position of the men and a variety of other circumstances, wounds will be inflicted attended with such complications (although shattering of bone and penetration of cavities may not have taken place) that cures can only be hoped for after the endurance of much protracted suffering on the part of the patients, and the utmost skill and attention on the part of the surgeons. To lay down a doctrine, as if based on sufficient authority, that "within a certain zone of fire sharp, clear, perforated wounds result, while beyond that zone a terrible destruction of bone

and tissues follows," is misleading, and the assertion is certainly not borne out by a full investigation of the subject. There are no such limitations in actual practice.

ARSENIC AS A PROPHYLACTIC.

Dr. C. F. Bryan, in his address as President of the Leicester Medical Society, stated that he had been led by a paragraph in the *Practitioner*, some ten years ago, to the effect that persons taking arsenic were insusceptible to vaccination, to try the drug as a prophylactic in scarlet fever. He believes that an epidemic was checked in the Leicester Workhouse in 1882, and mentioned that a year later, in a family in which one child had severe scarlatina, he put the other two children on arsenic, and they did not take the disease, though they continued to be about the patient until her death three weeks later. In another family a boy, aged 7, had scarlet fever, but the four other children, whose ages ranged from 3 to 11, did not contract the disease, and the mother, who aborted during her attendance on the child, did not suffer. He also advanced some evidence suggesting the value of arsenic as a prophylactic against diphtheria and influenza. He gives gr. $\frac{1}{50}$ of arsenious acid in pill, or mij of liquor arsenicalis, in mixture three times a day for the first week, and afterwards twice a day.

INCREASED CONSUMPTION OF ALCOHOL IN FRANCE.

During the last forty years the consumption of alcoholic drinks in France has, according to some startling figures recently published in the *Bulletin de Statistique*, increased threefold. In 1850 the rate of consumption was about $1\frac{1}{2}$ litre per head; in 1869 it had risen to $2\frac{1}{2}$; and now it is $4\frac{1}{2}$, or a little more than $7\frac{1}{2}$ pints. The rate of increase has been particularly rapid since 1888. The drink shops have multiplied at a corresponding rate, especially during the last fifteen or twenty years. In 1869 there were in the whole of France 365,878 establishments licensed for the sale of intoxicating drink; that number has now grown to over 448,000, which is at the rate of one drink shop per 87 inhabitants. The nature of the beverages used has also changed considerably for the worse, for whereas hardly anything but wine used to be drunk, now brandy, absinthe, gin, etc., are largely consumed, with results which have been only too truly depicted by M. Zola in *L'Assommoir* and others of his works.

THE PROTECTION OF INFANTS.

At the Congress on Children's Diseases recently held at Naples, Drs. Blasi and Massini called attention to the high death-rate among infants in Italy. They estimated that of every million of children born in that country no fewer than 420,000 died before the age of 10. There are at present two societies for the protection of infants in Italy, but it was stated that neither of them had the means or the organisation necessary for the purpose. Drs. Blasi and Massini called on their countrymen and countrywomen to "come to the assistance of ill-treated childhood by the institution of vigilance associations and a hygienic propaganda" supported by legal action. Such a society, they said, should be national in its scope and organisation, but should have its centre in Rome. Ladies should be invited to take an active part in the work of the society, serving on its committees and becoming members of its council; and it was desirable that the co-operation of the medical profession should be secured. The Congress unanimously passed a resolution to the effect that it was desirable that a "Society for the Protection of Neglected Infants" should be formed. Dr. Borrelli called attention to the many defects in the existing asylums for nurslings, especially in Naples, and proposed that they should be abolished and the infants put out at nurse in the country. Dr. Franco said it was not only in the poorest classes but often also among the well-to-do that infants needed protection. He said the proposal of Drs. Blasi and Massini could not fail to be fruitful. Dr. G. Cerio dwelt on the numerous dangers and drawbacks of wet nursing as at present carried on in Naples, and proposed the establishment of an institution where women wishing to act as nurses could be medically examined and, if found fit for the purpose, registered, so that people might always know where to find a healthy wet nurse. In speaking of the artificial feeding of infants, he strongly condemned the apathy of the authorities as to the hygienic supervision of the milk supply, and referred with some indignation to the "primitive if not barbarous" custom which prevails in Naples of leading cows about the streets and milking them at people's doors as required.

BACTERIOLOGY AT KING'S COLLEGE.

In a report presented to the Council of King's College the Dean of the Medical Department and the Principal of the College draw attention to work that has been done in bacteriology since the course of instruction was founded in 1886. From the fact that a department for research work was instituted shortly afterwards and that this and the course of instruction were not merely for students of the College, a large number of graduates in medicine wishing to make a special study of this branch of pathology, public health, and sanitation have availed themselves of the opportunities thus afforded. The number of students, qualified and unqualified, who have entered the laboratory for instruction or research under Professor Crookshank during the six years that he has been lecturing is 419. Amongst these are general practitioners from all parts of the country, army and navy surgeons, medical officers of health, analysts, biologists, veterinary surgeons, and veterinary and medical students. A number of original researches have been and are still being conducted, and the entry for the present winter session is 40. The laboratory evidently meets a distinct requirement, and is meeting with the success that it deserves.

OUTDOOR FACTORY WORK.

One of the American States has recently passed one of the most extraordinary laws which even that great country of social and legislative experiment has ever placed upon the statute book. It is shortly this: That every poor tailor or stitcher who takes a garment home to his dwelling for the purpose of making has to hand it back with a label "tenement made," and the retailer has also to place it in his shop window with the same depreciatory brand. In this country an attempt is now being made to regulate the conditions of home work, on somewhat different lines. An important official circular is under the consideration of sanitary authorities, in which they are requested to obtain from the wholesale man or manufacturer the addresses of any workpeople who do work outside his factory. These addresses obtained, it will be the duty of the sanitary officers to pay a domiciliary visit and to have the particular home put in a sanitary condition. It certainly strikes us that this method—namely, not attempting practically to forbid home work, but to see that, if people work at home, the work be performed in well-ventilated and well-drained houses—is a more sound and statesmanlike measure than the attempt to brand goods with a defamatory label. If this is carried out thoroughly, it will enormously increase the inspecting staff of local authorities and the responsibility of the health officer. We trust that in common justice the stipends of these officers will also be proportionately increased.

KISSING THE BOOK.

As some doubt appears to exist as to the mode in which the oath may now be administered, we reproduce the clause of the Oaths Act of 1888 dealing with the point. "If any person to whom an oath is administered desires to swear with uplifted hand, in the form and manner in which an oath is

usually administered in Scotland, he shall be permitted so to do, and the oath shall be administered to him in such form and manner without further question." The slowness with which a knowledge of this provision has spread is really remarkable. A correspondent informs us that in the country district in which he resides none of the solicitors were aware of it on a recent occasion when he objected to being sworn by kissing the book. A correspondence has taken place in the *St. James's Gazette* since the publication of the paragraph in the British Medical Journal last week which shows that the general public take a considerable interest in the subject, and resort to various devices to avoid the actual contact of the lips with the book. The provision of the law quoted above substitutes a seemly and impressive act for a dirty and sometimes dangerous piece of superstition. If every medical man during the next few months, who is called upon to take the oath, were to request to be sworn according to the provisions of 51 and 52 Victoria, cap. 46, the "kissing of the book" would probably disappear.

COUNTY MEDICAL OFFICERS.

Up to the present time seven provincial county councils have appointed medical officers of health to give their whole attention to county duties. An eighth (Glamorgan) is now following suit, and at least one more (Wiltshire) is seriously considering the matter. It is not necessary to go further afield than Surrey in order to find evidence of the valuable work which can be done by an experienced county officer, and which in his absence will not be done at all. In the busy manufacturing districts of the North, where county councils have been more prompt than their Southern brethren in taking advantage of their sanitary powers, abundant examples are available. Few, except Cornwall, have made much progress in this direction without the assistance of a medical officer, having time and opportunity for making local inquiries and taking the initiative where necessary. Several county councils have adopted an unsatisfactory compromise, in securing the services of a medical officer of health (usually, but not always, one holding office within the county) to summarise and comment upon the annual reports received from the health officers of the several districts. This is doubtless a valuable piece of work, but in itself does not carry sanitation far forward. Cheshire is the latest addition to this half-and-half group of county councils, who neither neglect sanitary work altogether nor take it up in earnest. They will require their medical officer to summarise the local reports of course, to advise the county council upon sanitary matters, and to attend all meetings of the Public Health Committee. For these services they offer £100 per annum. The meagreness of this salary may probably be taken as an indication of the small amount of sanitary work which is intended to be attempted, and of the still smaller amount with which the medical officer is to be troubled. Four counties which touch Cheshire have followed a different policy, and could, if consulted, have given to the Cheshire Public Health Committee a more worthy idea of the work which ought to lie before them.

A ROYAL ACADEMY OF MEDICINE OF ENGLAND.

The dinner of the Harveian Society on Tuesday evening, under the presidency of Dr. Cheadle, was attended by Sir George Humphry, Sir Dyce Duckworth, Dr. Dickinson, Mr. Bryant, and Mr. Timothy Holmes representing the greater London societies; Mr. Ernest Hart, Mr. Power, Dr. Buzzard, the ex-presidents of the Society; and there was also a brilliant attendance of members. Mr. Malcolm Morris, in proposing "The Sister Societies," availed himself of the opportunity to start anew the topic of their union to form a Royal Academy of Medicine, with autonomous sections, each cultivating its own department. Renewed after so many years the proposal had all its old attractiveness and something of the character of freshness. He dwelt effectively upon the waste of power, the waste of time consequent upon the diffusion of the energies of so many different societies over nearly the whole field of medicine and surgery, of the impatience with which, for example, a party of abdominal surgeons would listen to a preliminary dermatological dissertation; and upon the advantages in this respect of more concentration and better organisation. The subject proved fascinating, and relieved the platitudinous dreariness which often marks the delivery of a succession of merely complimentary toasts. Sir George Humphry replied cautiously. He admitted the trouble of the prolific growth of separate societies. There were six in London, and in the British Medical Journal of that week he had counted reports of ten societies and three Branches of the British Medical Association. This he spoke as a diligent but despairing reader, though evidently regardless of the despair of editor and subeditors in excising, condensing, and cutting down and passing over the ever-accumulating mass of reports. A thousand candles, however, gave a light more diffused, more variously coloured perhaps, and serving a greater variety of purposes than a thousand candle-lamp; and independence, autonomy, and emulation had their own advantages. Professor Clifford Allbutt thought an organic unity not incompatible with variety of function and federated autonomy, as in the British Medical Association. Mr. Holmes, referring to the original proposals of Mr. Charles Hawkins, and the reports of former committees appointed for the purpose, and the favourable discussion in the journals and the societies, thought that such an academy would have greater force and influence, and greater dignity and usefulness than any individual society could have; and while allowing scope for divergence of thought, it would prevent alienation of interests. On the whole, the current of opinion ran in the direction of what we should like to call academic organisation of the leading societies. The term amalgamation, sometimes used in this relation, is misleading, and a mistake in nomenclature is, in such a delicate matter, likely to be prejudicial. The societies should not be willing, and need not be required, to lose their identity; but a Royal Academy of Medicine of England, with medical, chirurgical, pathological, obstetrical, ophthalmological sections might be a body economical of existing effort, and productive of powers yet undeveloped. The friendly discussion of the topic by men who may to-morrow be called upon to consider it officially gave liveliness and interest to what may prove to be a memorable dinner of the very active though sexagenarian Society which bears worthily so great a name.

DEATH UNDER CHLOROFORM.

Mr. F. Mortimer Rowland, M.B., Resident Medical Officer at the City Infirmary, Birmingham, has forwarded us the following report of a case of death under chloroform in that institution: M. S., aged 57, was admitted on November 9th, under Dr. Carter, suffering from ascites, which was thought to be complicated by a tumour (? cystic) in the right pelvic region, for which it was decided to operate. For this purpose, she was transferred to Mr. Jordan Lloyd; and on November 12th, the heart having been found to be apparently healthy, chloroform was administered on a piece of folded lint. Chloroform was given in preference to ether because of an asserted liability to pulmonary trouble. The patient took the anæsthetic perfectly well, and was in no way excited, respiration continuing evenly and deeply, and at normal rapidity up to the time when the skin incision had been made, when quite suddenly, and without warning, she became livid, made a few shallow gasps, and breathing ceased. The heart was examined instantly, and no sounds could be detected. The pupils were not dilated, being about a line in diameter. The tongue was well forward between the teeth during the administration. The head was lowered over the end of the table, and artificial respiration, both by Sylvester's

and Howard's methods commenced, but no air could be made either to enter or leave the chest. Insufflation of the lungs was tried without effect, tracheotomy was then performed and insufflation again attempted, though again without effect. Heart puncture made within a few minutes of the onset of alarming symptoms showed the cardiac muscle to be absolutely inactive. Chloroform from the same bottle had been administered the day previously, and was given to another case immediately afterwards without any disturbing effect. The amount administered in this case was not measured accurately, but could not have exceeded half an ounce, and the patient was completely, but not deeply, under when alarming symptoms arose. It is thought that respiration and circulation ceased simultaneously, but that the symptoms were due to respiratory cessation, aided by the upward displacement of the diaphragm from the abdominal fluid. At the *post-mortem* examination the cardiac condition was not such as could be recognised by auscultation, there being no valvular lesions, nor was the condition of the muscle such as could have affected the duration and tone of the first sound. Dr. Rowland calls particular attention to the following: (1) The normal size of the pupils; (2) the position of the tongue; (3) the sudden development of the condition; (4) the lividity of the face throughout in the entire absence of obvious signs of laboured breathing; (5) the early arrest of the heart's action as discovered by auscultation and puncture; (6) the complete failure from the first to make air either enter or leave the chest by any artificial means.

GUY'S HOSPITAL CLUBS' UNION.

In the summer of 1891 a scheme for the amalgamation of the various clubs and societies connected with the medical school of Guy's Hospital was brought forward. It was considered that the interests of the institutions thus combined would be furthered, and that the collecting of subscriptions to the individual clubs would be simplified by the payment of an annual sum, or a composition fee, to a union in return for the privilege of membership of all its constituent institutions. The scheme was adopted, and received the patronage of a large number of the governors and the President and Treasurer of the hospital. The management of the union was vested in a council composed of an equal number of members of the medical staff and representatives of the students, and Mr. Arthur E. Durham was elected the first president. The success which attended the formation of this union enabled the council, with the generous help of the governors and medical staff, to purchase a field nine acres in extent near Honor Oak Park station, available for the practice of the various sports and games, as well as for the matches of the athletic clubs. The field can be reached in twenty minutes from the hospital. A considerable sum of money has been spent in levelling and draining the land, and in laying down a cricket pitch, tennis courts, etc. In the opinion of competent critics this cricket ground, which will be used next year, rivals, if indeed it is not superior to, anything in the neighbourhood of London. During the present session many of the football matches will take place there, and there is sufficient room for Rugby Union and Association football ground. A large and attractive red brick pavilion is being built, and will be ready for occupation after Christmas. In the pavilion are a members' club room and three sets of dressing rooms and lavatories. Hot water will be laid on to the lavatories, and adjoining the members' dressing room is a bath room fitted with shower baths. House accommodation is also arranged for the ground man, who is a professional cricketer. Every well-established club and society in the hospital has joined the union, and, with very few exceptions, all the students have become members. Further, within a few months of the formation of the union, more than 370 old Guy's men had paid the composition fee and had been enrolled as life members. Though schemes on somewhat the same lines have been introduced at other institutions, it cannot be said that at the present time any of these have met with unqualified success. The progress of this association, therefore, will be watched with interest; but we cannot doubt that, possessed of such exceptional attractions, and supported by the enthusiasm and *esprit de corps* for which Guy's is justly famous, the future of the Clubs' Union is assured.

MEDICAL EDUCATION OF CHINESE STUDENTS.

The College of Medicine for Chinese at Hong Kong was established in 1887, and the first students have recently received, at the hands of the Governor, licences to practise medicine, surgery, and midwifery, which they had earned by passing with diligence through a curriculum of five years, and undergoing examination. The Dean, Dr. J. Cantlie, in an address delivered on the occasion, stated that the course of study followed was exactly similar to that laid down in Great Britain, with this difference, that the Chinese College had from the first required a curriculum of five years. While scientific studies had not been neglected—and Dr. Cantlie mentioned especially the self-sacrificing labours of the teachers of chemistry (Mr. W. S. Crow, and subsequently Mr. Watson), and of the teacher of botany (Mr. Charles Ford, F.L.S.)—much time had been given to practical work in the wards and dispensary of the Alice Memorial Hospital, so that the licentiates had attained a degree of proficiency in minor operations, in dentistry, in ophthalmology, and in dispensing unusual among newly qualified medical students. The outlook for the future of the new licentiates in their own country was hopeful. The movement had the strong support of Li Hung Chang, and by his influence a graduate of the College of Medicine at Tientsin held an official position in the palace of the Emperor of China. Dr. Cantlie referred to the difficulties which the College had had to encounter, some of which were not yet overcome completely. The Hon. E. R. Belilios had offered to erect college buildings on a magnificent site if the Government would endow the College with a sum equivalent to the value of his gift—forty thousand dollars. Dr. Cantlie concluded by making a strong appeal to the Government for the desired assistance. Dr. Cantlie has played a very patriotic and able part in this important work: he omits to refer to his own labours, but he has been for some years the life and soul of what promises to be a most valuable step towards the introduction of European medical knowledge in this vast population, at present in truly barbaric ignorance on this head, and greatly in need of enlightenment and help. No movement can well be more deserving of active and liberal aid from the Government.

SCOTLAND.

Dr. J. Thomson West has been appointed non-resident physician in the Hospital for Sick Children, Aberdeen.

ROYAL PHYSICAL SOCIETY OF EDINBURGH.

At the opening meeting of the 122nd session of the Royal Physical Society, Professor H. Alleyne Nicholson presided, and Dr. Johnson Symington gave an address on the Cerebral Convolutions of the Primates, and expressed strong dissent from the views of the antivivisectionists when they asserted that nothing was gained to human physiology by investigations on the brain of monkeys. The cerebral convolutions of the higher apes differed only in detail from those of man.

A HIGH PLACE OR A HIGH RATE.

Apropos of the statement made at the conference between the Leith Local Authority and the Board of Supervision to the effect that Leith stood high in the health list of the principal towns of Scotland, we have a curious side-light from last

week's death-roll, which gives Leith a mortality of 50, equivalent to a death-rate of 37 per 1,000, while Edinburgh has a mortality of 103, equivalent to a death-rate of 20 per 1,000. Of these deaths in Leith, one was due to typhus fever and one to diphtheria.

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.

THE annual meeting of the Medico-Chirurgical Society was held in the hall of the Society on November 17th; Dr. Robert J. Garden in the chair. The various reports of the Society were read; they showed that the membership and the financial state of the Society were in a high degree satisfactory. At no former time has the Society been stronger in membership. The following office-bearers were elected for the year: Dr. Angus Fraser, President; Dr. William Stephenson, Vice-President; Dr. George M. Edmond, Secretary; Dr. George Ferdinands, Recording Secretary; Dr. John Gordon, Treasurer; Dr. George Rose, Librarian; Council: Drs. R. J. Garden, James Rodger, James J. Y. Dalgarno, J. Theodore Cash, David W. Finlay. The Strachan Medical Bursary, the gift of the late Mr. Alexander Strachan, of Moreseat, and which is under the control of the Society, has been competed for and awarded by the examiners to Mr. Adam Alexander.

THE JOHN COLVIN MEMORIAL.

AN Aberdeen correspondent writes: A large and enthusiastic gathering was held in the Graduation Hall of Marischal College, Aberdeen, to celebrate the unveiling of the portrait of the genial and humorous old Sacrist of King's and Marischal Colleges. A willing response from nearly every quarter of the globe came to the appeal for funds to carry out the scheme. The portrait, which is an admirable likeness, is by Mr. A. S. Reid, A.R.S.A., and represents "John" standing with mace and the academic gown in which he appeared on all state occasions of the University. The reception of the old veteran when he rose to give his heartfelt thanks for the honour he had received was one of unbounded enthusiasm, the whole company rising and cheering vociferously. For fifty years he has guided the exits of many generations of graduates from both colleges; and in many lands kindly memories of the pawky wit of "John" will bubble up when the talk is of old times and old classes.

GLASGOW UNIVERSITY AND THE NEW REGULATIONS.

THE new regulations seem to have had some effect in deterring students from entering the University. It is, however, difficult yet to say whether the effect is likely to be considerable or not. The total number of matriculated students of medicine in the University is 626, 37 less than last year. So far as can be definitely stated, the decrease is mainly among first year students. The total matriculation in the whole University is 1,877, or 73 less than last year. The preliminary examinations have ceased to indicate whether there is likely to be more or fewer students, many students passing now directly from the school to the University by means of the leaving certificate.

IRELAND.

IRISH DISPENSARY DOCTORS.

OUR Dublin correspondent telegraphs: A special general meeting of the Irish Medical Association was held in the College of Surgeons on Thursday, November 24th, to consider the Bills which it is proposed to introduce in the approaching session of Parliament for the redress of some of the grievances of the Irish dispensary doctors. Dr. David Jacob, of Maryborough, occupied the chair, and there was a considerable attendance of country members. After discussion, during which several amendments were approved of, the Bills were adopted. One Bill deals with the subject of superannuation, and the other with the definition of a "poor person," the issue and cancelling of dockets, leave of absence, and the certifying of lunatics.

TYPHOID FEVER.

IN connection with the outbreak of typhoid fever in the Drummond School for the Daughters of Soldiers at Dublin, it is announced that a number of boys in the Hibernian Military School have been stricken down with a form of continued fever. Of the girls four have died, and twenty-five have been attacked in a school numbering about sixty. The school for boys corresponds to that at Chelsea, and is situated in the Phœnix Park, about half a mile from the Drummond School, which is on the lower ground in the village of Chapelizod. For about twenty years the sewage from the boys' school has been delivered by troughs upon the surface of an enclosed grass space, immediately below the institution, and at times, although purifying means have been employed, the odour has been most disagreeable. Sir Charles Cameron has inspected the institutions, and will make a report to the military authorities.

ULSTER MEDICAL SOCIETY.

THE annual dinner of this society, held on November 17th in Thompson's Restaurant, Belfast, was attended by fifty-nine gentlemen, and proved a highly successful and enjoyable reunion. The chair was occupied by the President of the Society, Dr. Whitaker, Medical Officer of Health for Belfast, who had on his right Sir Daniel Dixon, Lord Mayor of Belfast, and on his left Dr. Hamilton, President of the Queen's College. Amongst the other guests were Surgeon-Colonel Preston, Brig.-Surg.-Lt.-Col. Howard, Dr. Walton Browne (President of the North of Ireland Branch of the British Medical Association), and Professor S. Dill, M.A. After the usual loyal and patriotic toasts and the toast of "The City of Belfast," Dr. McFarlan proposed the toast of "The Queen's College and Belfast Medical School," alluding especially to the present efficient state of the Queen's College and the rapid growth of specialisation in medical practice in Belfast. President Hamilton, in responding, expressed the great pleasure with which he was at present acting upon a committee charged with the duty of securing a suitable central site for a new hospital to replace the Royal Hospital. Mr. Fagan also responded. Dr. Dempsey proposed the toast of "The British Medical Association and North of Ireland Branch," which was warmly received, Dr. Walton Browne and Dr. Byers responding. Dr. Lindsay, in proposing the toast of "Our Guests," welcomed the distinguished representatives of the public services, and alluding to the presence of several eminent scholars, expressed the hope that the day was far distant when the ancient alliance of medical science and liberal culture would be dissolved. Surgeon-Colonel Preston and Professor S. Dill, M.A., responded. The last toast was "The Ulster Medical Society," proposed by President Hamilton and responded to by Dr. Whitaker and Dr. McCaw. The latter alluded in sympathetic terms to the absence through illness of two ex-presidents of the Society—Dr. Dill and Dr. Burden. He stated that the Society was in a highly flourishing condition, its membership having attained the highest point yet recorded. In the course of the evening some admirable songs and quartets were rendered by Drs. Mackenzie, McCaw, Leslie, Mackisack, Lewers, and Brig.-Surg.-Lieut.-Col. Howard.

DEATH IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently passed away is Dr. F. A. De Andrade Pimentel de Mello, Professor of Forensic Medicine in the University of Coimbra, Councillor of the King of Portugal, Grand Cross of the Order of Isabella the Catholic, aged 57.

VARIOLO-VACCINE IN INDIA.

SURGEON-MAJOR KING, who bears a good record for work in the Sanitary Department, and who holds the Aberdeen Diploma in Public Health, was in November 1890 placed on special duty by the Madras Government, to carry out a series of investigations as to the best methods of preserving vaccine lymph for use in remote parts of the country where it was impracticable to establish vaccine depôts, and where fresh lymph from the calf could not be employed. Dr. King appears to have brought a good deal of energy and enthusiasm to bear on his new duties, and after many experiments with different materials, he found that by mixing fresh lymph in certain proportions with anhydrated lanolin, he could supply his vaccinators with a preparation which retained its efficiency in all seasons and climates for a period of from forty to sixty days. In due course Dr. King's reports and experiments were submitted to the Madras Government, and orders passed thereon, in which Dr. King was complimented and thanked for his services. In the course of these experiments on the vitality of the vaccine virus, it occurred to Dr. King to repeat the experiments of Ceely, Badcock, and others, and to see if he could establish a more genuine lymph by passing small-pox virus through the calf. In his first experiment he found, by careful watching, that vesicles arose distinct from the places of inoculation, and from them he collected lymph and vaccinated a second calf, and so on to the seventh calf, when finding that lymph in these successive generations was in no respect different from ordinary calf lymph, he caused to be vaccinated two children with some lymph from the seventh calf, and called on the operator to make careful observation and report of the cases. The whole record of the experiments on lanolin paste, and of this successful conversion of small-pox into vaccine, was submitted to the South Indian Branch of the British Medical Association, and published in the *Proceedings* of the Branch for 1891. The lymph thus produced was so good, that Dr. King, who was at that time in charge of the vaccination department, determined to use it in preference to the stock then in use, and gradually brought it into use in all the depôts throughout the country.

Although the Madras Government had been apprised of these experiments, and approved of Dr. King's labours, they seem to have been afflicted later in the year with qualms whether the vaccination with a lymph derived from small-pox was a safe proceeding, and accordingly they found fault with Dr. King for commencing an important experiment without special sanction, refused to listen to his explanation, which was supported by the head of his department, and finally relegated him to military duty as a punishment. The Madras Government declared that Dr. King had been "guilty of a grave breach of professional ethics," as also "an equally grave breach of trust towards the Government." These are both serious charges against a professional man in a military service, and it seems to us that the Madras civil authorities would have acted with greater wisdom if they had preferred these charges before a military court of inquiry or court-martial, rather than have taken upon themselves the double position of accusers and of judge.

The Surgeon-General at the head of the civil department saw no great fault in his subordinate beyond "error of judgment" due to Dr. King's "great zeal and enthusiasm in the work in which he was employed." Zeal and enthusiasm would appear to be out of place in the medical department of Madras.

It so happens that the same so-called experiment, which has been frequently successful in England, and which Dr. King performed in Madras, and for which he is now suffering loss of appointment and reduction of pay, was carried out successfully on a large scale in another part of India two years before Dr. King undertook his, and, furthermore, is recorded in one of the Indian Government annual reports. Similarly, not long ago, in a third province of India, successful results, witnessed by some of the leading medical men in India, were obtained by methods identical with those successfully employed by the same medical man some years previously in England, and identical with those which Dr. King followed in Madras.

Apart, then, from Dr. King's work in Madras, it turns out that in two other provinces in India there has been obtained for the vaccination departments by the same methods as those adopted by Dr. King an excellent and benign vaccine lymph, which differs from the old and frequently deteriorated lymph in being superior in quality and in constantly furnishing splendid typical vaccine vesicles.

As to the epidemic which the Madras Government feared, events have shown that it, like many other fantasies begotten of a perturbed brain and lack of knowledge, has no real existence. Nearly 400,000 persons, including 4,000 soldiers, have been vaccinated with Dr. King's lymph, and not a single case of small-pox has occurred, or is likely to occur, so long as this lymph, which is the best preventive of small-pox, is in use.

The case, however, has a wider interest than any petty differences of opinion between the Madras executive council and one of its medical officials. It was shown by Dr. King that among the many thousands vaccinated with the new lymph, not a single instance was brought to notice of any untoward effect. Amongst the number were some 4,000 cases of Sepoys and followers of the native army, in whom the vaccination results were sure to be carefully watched. As a matter of fact, Dr. King succeeded in producing a true Jennerian vaccine by transmitting small-pox virus through a succession of bovine subjects. That he has done this seems to be more a matter for congratulation on the part of the Local Government than rebuke. Dr. King has appealed to the Government of India against the decision of the Madras Government in his case. It is interesting that the experiments of Dr. King in regard to variolo-vaccine should be amply corroborated by the more recent researches of Dr. Hime, of Bradford, and of C. Haccius, of Geneva, to say nothing of the work of Drs. Voight, of Hamburg, and Fischer, of Carlsruhe. All these authorities have demonstrated the feasibility of variolating the calf, and producing a general infection of the animal, and the production of a genuine vaccine lymph. The earlier experiments of Ceely and Badcock are confirmed, and the conclusions of Chauveau and the Lyons Commission are apparently shown to have been formed on insufficient grounds. There seems to be quite enough evidence to shown that Chauveau and his followers did not arrive at the whole truth when they denied the possibility of the conversion of variola into vaccine by bovine transmission. The Royal Commission on Vaccination might do a wise thing in summoning Dr. King before them, and hearing from his own mouth the details of his important but "unsanctioned" experiment. They have had before them evidence *ad nauseam* as to what vaccine lymph is not; it might be worth while to place upon the minutes of evidence the history of a great experiment showing exactly what it is, and what our forefathers believed and proved it to be, namely, small pox modified by transmission through the cow in such manner as to cease to reproduce anything but vaccinia, and in that form to render human beings immune against the graver malady.

Sufficient has been said to vindicate Dr. King's work and to show that the Madras and Indian Governments have been badly advised—who the advisers were that led them into this deplorable mistake does not concern us. Whoever they were, it reflects small credit upon them. That Surgeon-Major King should be the victim of this ignorance indicates something wrong somewhere, or that the sanitary and scientific acquirements of the advisers to the Indian Government are not such as might have been expected.

Numerous are the medical men in the Indian Service who have distinguished themselves by their professional work and their services to Government, and among that number few deserve a more worthy place for his eminently useful services to Government than Surgeon-Major W. G. King.

His method of preserving lymph with lanolin is destined to effect a great change in the system of vaccination in India, because it renders practicable the more extended use of calf vaccination, which was previously hampered by the difficulty of preserving the lymph.

The facts of the case as they stand show that, instead of Dr. King deserving to be so unjustly treated by the Madras Government, he ought to have been rewarded for his zeal and good services. And even if it be the case, as expressed in an Indian medical contemporary, that exact scientific investigations appear to be held in low esteem by the Indian Govern-

ment, yet justice at least demands that Surgeon-Major King should not suffer for a mistake on the part of the Madras Government.

THOUGHTS FOR ANTIVIVISECTORS.

The man who says he would rather endure suffering or death than profit by knowledge gained by experiment upon animals is either a Buddhist or a hypocrite. He must neither have eaten a mutton chop nor ox flesh; he must decline the service of geldings; he must make war upon the spaying of sows (an exquisitely painful operation), upon the castration of bulls, horses, and boars; he must forswear capons; must prosecute the midnight trapper of rabbits; must abjure all forms of "sport"; grouse, partridge, and pheasant shooting, salmon and trout fishing, must be to him *anathema*; pigeon shooting he must visit with heavy punishment. These are all forms of habitual and daily infliction of agonising, enduring, and mortal pain upon highly organised and sentient creatures for the purposes of pleasing the palate, suiting the convenience, or increasing the money gains of those who practise and those who permit and profit by them.

How many are there among the most rabid denouncers of experimental research who do not countenance and profit by one or other of these practices? Two wrongs, it is said, do not make one right. But if the claim of the animal creation to immunity from pain be not admitted by the daily practice of mankind to be superior to the claims of human convenience, appetite, and money-getting, on what ground can it be held superior to the claims of the alleviation of suffering and the progress of the knowledge on which is based the art of healing? If bacilli may be cultivated for the purpose of exterminating rats, mice, and rabbits by special forms of disease—experiments which three Governments are carrying out on a large scale for the pecuniary interests of the farmer—why not for the treatment of consumption and for the prevention of cholera?

A proper field for the merciful energies of those who are humanely desirous of minimising to the utmost the pain now daily and hourly inflicted upon animals for the service and convenience of man would be the prevention of unnecessary pain—which is cruelty—in the operations of the farmyard and the household. There is no reason, except economy of money, why gelding, castration, and spaying should not be performed under the influence of local or general anæsthetics. There are certain horribly cruel, torturing, and slowly-acting poisons now most extensively used to get rid of vertebrate "vermin," which might and ought to be prohibited—among them phosphorus and arsenic, now used habitually and wholesale.

The castration of tom-cats and the gelding of horses might very well be forbidden. Bull-meat is as tender and nutritious as ox-meat. Even the meat of the Chillingham wild bull, *experto crede*, is highly nutritious, tender, and of excellent savour. There is here, therefore, no question of necessity, but only of convenience. The omnibus horses of Paris include a large number of stallions; and I have ridden a Spanish stallion day after day for weeks and found it alike docile and intelligent, spirited and enduring.

There is no practice fraught with the infliction of more hideous and enduring torture than the exploitation of a rabbit-warren by trapping. Dr. Burdon Sanderson, in his evidence before the Royal Commission, said that "if you go into a rabbit-warren at night you will always find (as I have had the opportunity of ascertaining very lately) that many of the rabbits are not killed by the snare, and they consequently remain in agonies for a long time; but there is no doubt that the torture which is inflicted by the snare is not nearly so great as the torture which is inflicted by the trap, which is used even more largely. Not long ago I was in Scotland—in Ross-shire—and there happened to be near the house where I was staying a rabbit-warren, and I had the opportunity of inquiring into the matter. On that warren some 3,000 rabbits are killed in the year, and I learned from various persons that as you passed the warren you could hear during the night the cries of the animals."

Ernest Hart.

MEDICAL PRACTITIONERS IN MEDIÆVAL PARIS.

It is pleasant and not altogether unprofitable, in these days of storm and stress, to step out of the tumult of the struggle for existence for a moment, and look backwards at the good old times when doctors were few and patients—at least *in posse*—were many, and when neither friendly societies nor out-patient departments had arisen to vex the souls of overcrowded practitioners. It is like stepping into St. Paul's out of the roar and bustle of Cheapside to take up a book like that recently published by M. Alfred Franklin,[1] who, while giving a most interesting account of the details of private life in the French capital in the olden time, seems to have a special predilection for all that concerns the mediæval Parisian doctor. His English contemporaries for the present *caret vate sacro*, but the medical profession more than any other thinks nothing human or medical foreign to itself, and our readers will probably be almost as much interested to learn something of these old brethren of the craft, as though they had had the privilege of being Englishmen.

It appears that in the thirteenth and fourteenth centuries the profession was not at all overcrowded in Paris, for in 1292 there were only six legitimate ("serious" is M. Franklin's expression, and we thank him for teaching us that word) practitioners in Paris, while more than a century later, in 1395, the number had only risen to thirty-two. What the population of Paris was during that period it is impossible to say with any approach to certainty. According to one computation, the city had in 1,292 just 215,861 inhabitants; another historical authority proves to his own satisfaction that in 1313 the population could not have exceeded 49,110. Whether this startling decrease is to be explained by the raging of plague, famine, and sudden death during the score or so of years between these two dates, or whether there is some error in the calculations (for even statisticians are to some extent human), we cannot take upon ourselves to decide. Even on the lowest estimate, however, Paris can hardly be said to have had its full complement of orthodox professors of the healing art. Unlicensed practitioners, it is needless to say, were as plentiful as blackberries; from official records M. Franklin is able to give the names and addresses of thirty-eight *mires* and *migresses* (quacks, masculine and feminine) who practised on the limbs and lives of His Most Christian Majesty's lieges in 1292. One of these, a bonesetter named Lorenz, who had his brass plate, or its thirteenth century equivalent, in the Rue aux Provoires (now Rue des Prouvaires) made a "professional" income of 50 livres, which M. Franklin estimates at about 13,000 francs, or £520 of modern currency. Many a member of that self-confident fraternity at the present day—even if he be not of those whose lives are cast in the pleasant places of the West End—would turn up his nose at Maitre Lorenz's comparatively humble income, but his earnings were very large for his day. Even as late as the end of last century, there was plenty of elbow room in the medical profession in the French capital, authentic records showing that while in 1791 the population was 593,070, there were in 1789 only 172 practitioners of medicine.

[1] *La Vie Privée d'Autrefois*, Paris, Plon, 1892.

Comparing these figures with those for 1891, it will be seen that while the population during the intervening 100 years rose to 3,141,595, that is to say increased fivefold, the number of doctors increased to 2,200, or 12 times the number practising in 1791. These statistics, taken in combination with similar returns in other countries, seem to show that Mr. Gladstone was fully justified in speaking of medicine as the profession of the future. If doctors continue to increase and multiply as they are now doing we are within measurable distance of a time when the profession will be reduced to a condition similar to that of the inhabitants of the famous island where the natives earn a scanty subsistence by taking in each other's washing.

M. Franklin has also something to say on the question of titles. He points out that the title of "doctor" is not met with earlier than the fifteenth century, up to that time the recognised title was that of "Master in Medicine" and "Master Regent" in the case of academic teachers.

With regard to inaugural theses, M. Franklin states that the first mention of them occurs in 1395, though it was not till February 17th, 1589, that a thesis was printed for the first time. The titles of these old dissertations are often interesting as reflecting the form and movement of the medicine of the time. Thus we found such questions discussed as Is the Necessity of Death Innate (1572)? Is Air more necessary than Food and Drink (1589)? Should a Lovesick Girl be Bled (1639)? In 1576 a precursor of Mr. Romanes debated whether the fœtus resembled the father more than the mother; in 1622 a thesis was presented on the superior wholesomeness of water as compared with wine; and in 1643, by way probably of re-establishing the equilibrium of opinion, one bearing the unedifying title Is it Wholesome to get Drunk once a month? A bold bad man in 1646 argued that woman was an imperfect work of Nature. Canon Harford and the St. Cecilia Guild will be interested to hear that the question, Is Music Efficacious in Diseases? was propounded in 1624. Is Libertinism a Cause of Baldness? is a question asked in 1662, which it may be hoped for the credit of a considerable proportion of the *jeunesse dorée* of the present day, was answered in the negative. Such a title as Ought Literary Men to Marry (1745)? shows that Mr. Andrew Lang was not the first to discuss this interesting question. The history of medicine, or at any rate of the revolution of medical opinion, in the course of the last three or four centuries, might almost be written from the titles of the inaugural dissertations presented during the period.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A meeting of the committee of the Association of Fellows of the Royal College of Surgeons was held on November 16th, at 36, Grosvenor Street, W., Mr. George Pollock, President, in the chair. At a previous meeting held on November 9th, called for the purpose of considering a reply which had been received from an official of the College with reference to the points at issue between himself and the committee of the Association, a long discussion ensued with reference to the action which should be taken, and, after various resolutions had been suggested, it was ultimately agreed to appoint a subcommittee to draft a report in the form of a reply. It was decided that the subcommittee should meet on the 14th, and submit its report to the adjourned meeting of the committee held on the 16th.

The committee then adjourned, and met again at Mr. Pollock's residence at the date agreed upon. The reply drafted by the subcommittee was presented; it was considered clause by clause, amended, and passed. The Honorary Secretary (Mr. H. Percy Dunn) was instructed to have the letter type-written, to sign it, and despatch it in due course. He also laid upon the table the letter forwarded to Mr. Holmes by the Secretary of the College in acknowledgment, with thanks, of the first resolution brought forward on behalf of the Association at the annual general meeting of the College on November 3rd. The Honorary Secretary was instructed to call a meeting of the committee immediately on the receipt of an answer from the official referred to above. This concluded the business of the meeting, and the committee adjourned.

THE BRISTOL MEDICAL SCHOOL.

At the dinner which was held after the opening of the University College Medical School buildings, Sir Andrew Clark, Bart., presided over an assembly of upwards of 160 persons, including the whole of the Medical Faculty, the Mayor, the Dean of Bristol, Rev. Dr. Percival, Rev. H. Glazebrook, the local member, and other persons of note interested in the town and College.

Sir Andrew Clark delivered speeches of great animation and eloquence in proposing the leading toasts, laying stress, in proposing "The Church," on the ethical justifications of experiments on living animals, of which he had spoken earlier in the day.

The Dean of Bristol (Dr. Pigou), in replying, accepted the views propounded by Sir Andrew Clark, and said that they were consonant with Christian ethics. He blushed for the cloth in reading some of the language used by Church dignitaries at the recent Congress in attacking medical men, who had so many claims upon the respect and esteem of the clergy.

Among other speeches of more general medical interest, of which, however, we are able only to give very brief abstracts, were the following:

Mr. Richardson Cross proposed "Our Members of Parliament." We do not, he said, as a profession claim to be political, and we have but very rarely asked for any favours from the State. Content to work modestly and quietly without State aid and with but little public recognition, the knowledge upon which our art is founded has slowly but surely grown. Our work is the treatment of disease, curative and preventive. The absurd nostrums by which in days gone by cures were attempted without proper appreciation of etiology or of the natural course of the malady still lurk among us in the quack medicines so freely advertised. The prescription, often an unimportant item in the physician's interview, is generously lent by the patient to friends for whom it was not written. Our President of to-night has been eminent among modern physicians in emphasising that health is modified by the details of everyday life. While the sick man will try any remedy, the healthy one is with difficulty persuaded that prevention is better than cure, and to enforce this principle the co-operation of the State has been invoked. It is medical knowledge that has made sanitary legislation possible, and medical men may take credit for the initiation of the Public Health Acts and for their good administration throughout the country under the Local Government Board. The medical profession and the Houses of Parliament are combined in improving the health and in saving the lives of the community.

Dr. Markham Skerritt, in responding for the Bristol Medical School, said: We of the medical school are in a complacent mood this evening. For after many years of wandering we have reached at length the promised land. Some of our old students present to-night will well remember our sojourn in the wilderness of the Old Park. When it was then my duty to set forth in attractive terms the great advantages that we offered to students, it was the fear of my life that some too wary parent might ask to see the home of our distinguished school. And when after our affiliation with the College we did emerge into a more favoured region we still abode in tents, and our temporary tabernacle was once described by Sir Lyon Playfair as a "barn-like structure." And now at length after many years of hope deferred, when many a time we have been ready to envy the blessedness of the man that expected nothing, we have to-day arrived in a land of plenty. This is the last time that this toast will be honoured. I am the last man to respond for the Bristol Medical School. You already know that an agreement has been come to whereby the Bristol Medical School will become the Faculty of Medicine of University College, Bristol. On our part we look forward with great satisfaction to the era which

is about to begin, and if anything could add to the confidence with which we regard our future governing body it would be the marked consideration with which the Council of the College have met us in the negotiations for incorporation and the very cordial help that we have received from them in the erection of the building which has been opened to-day by our honoured Chairman. We believe that there is still truth in the old saying that "unity is strength;" we believe that both the College and the Medical School will be the stronger for the union which is announced to-day.

Mr. GREIG SMITH proposed the toast of "Bristol Students, Past and Present." He congratulated them on their justly-earned reputation for sound practical knowledge, ascribing this to the thorough manner in which they had to work up their abundant clinical material. Humorously referring to the clinical methods in vogue at schools where only a fraction of a patient could be given to each student, he pointed out the advantages such a school as Bristol afforded in view of the fifth or clinical year of study.

SURGEON-MAJOR PECK, in reply, spoke in the highest terms of the value of the practical knowledge he had acquired in Bristol in helping him to deal, without advice or assistance, with difficult surgical cases in India. He thanked Sir Andrew Clark and Mr. Ernest Hart for their efforts to better the conditions of the Government Medical Services.

Mr. N. C. DOBSON said: I have to propose "The Press," and couple with it the name of Mr. Ernest Hart. To his genius and industry is due the position which the BRITISH MEDICAL JOURNAL occupies as one of the foremost medical journals, as an exponent of scientific and practical medicine in its widest sense. Under his fostering care this great journal has become the scientific, the literary, the financial success which we all acknowledge it to be. Its weekly issue exceeds 17,000 copies, and I think you will agree with me it is no feeble "heart" that controls this great circulation. I am speaking of matters which are the common observation of the whole medical profession; but it may not be so widely known that we here in the West of England are particularly indebted to Mr. Hart; because it is chiefly by his instrumentality and his intervention with the Council of the British Medical Association that we had a large and generous donation of gifts to our local library, which will soon, I hope, find a home in the new building opened to-day.

Mr. ERNEST HART, in reply, said: If I had to make a confession of my own faults, it would be a very long confession; and perhaps for that reason, and perhaps for others, I shall omit that confession. I once tried to establish "a confessional" in our own JOURNAL, believing that it would be sometimes useful for men (under pseudonyms) to recount their medical mishaps and mistakes, but that confessional failed, because I found many willing to acknowledge the sins of others, while very few were willing to speak of their own, even when their names were withheld. I shall only, on behalf of the press, venture to confess that in perhaps two respects the press of England—which rises above the press of the world in so many other ways—fails. It is eminently, wholly, and sadly unscientific. It is, with a few distinguished exceptions, prominent among which is the London *Times*, ignorant of, and generally adverse to, biological scientific interests. It follows readily in the train of the worst charlatans and impostors in medical science. There is one other sin with which the press of Great Britain—and that press almost alone in Europe—is open to be charged: the habitual offence of the sale of its advertisement columns to the quack, the charlatan, and the impostor. No other press in Europe admits such advertisements as are common in the advertisement columns of nearly all our papers, and especially of the religious papers. It is a stain upon the fair fame of the British press, and one to which public attention cannot be too strongly directed.

A BILL is now before the French Chamber of Deputies which provides that no woman is to be allowed to work in a factory or workshop, or in the fields as an agricultural labourer, within four weeks of her confinement. In case of need, an allowance of one franc a day will be made during this period. Of this allowance, one-half will be provided by the State, and the other half by the department.

SMALL-POX IN GREAT BRITAIN.

LONDON.

LONDON is again affected by small-pox after a period of quiescence of the disease. In the week ending November 5th, one case was notified; in the week succeeding, the number was five, and last week nearly a dozen cases of small-pox were reported from Islington, where some seven have occurred in one house.

WARRINGTON.

At Warrington the occurrence of over 70 cases during the week ending November 12th created quite a panic; and this alarming increase, coupled with pulpit exhortations, has led to a rush for vaccination and revaccination. The town had previously displayed great indifference, and following as it did on almost empty vaccination stations, the rush told severely upon local resources of lymph. Many people at the outset had to leave the stations as they came, so great was the demand made by those desirous of revaccination. But the movement may mean the arrest of the epidemic. The guardians have provided three attendances weekly, and a house-to-house visitation has been decided on. The Town Council have opened several stations for the daily gratuitous performance of revaccination with calf lymph by local medical men. The legality of this last step may be open to question, but no one will doubt the soundness of the measure. Provided the lymph be fairly fresh, and the operations well performed, great success should attend this praiseworthy effort to arrest the progress of the disease. The Town Council, too, are alive to the necessity for the provision of additional isolation accommodation. Not only has the existing space been seriously overcrowded, but patients have had to be isolated in their own homes on account of lack of public means. Now, however, two iron buildings are to be erected a mile and more from the town, and it is hoped that this step will enable the Council to have room for 200 additional patients in another week or ten days. The cases notified last week showed a considerable decrease on the former number, numbering some 30, that is, less than half. Nearly 40 deaths thus far have been registered. Many of the patients it is stated remain in their own homes, and large placards printed in red ink "small-pox in this house" are posted on the doors.

LANCASHIRE AND THE MIDLANDS.

At St. Helens, Lancashire, half-a-dozen cases of small-pox occurred at the end of October, and were followed a fortnight later by 9 more, all having been removed to hospital, whilst additional temporary accommodation has been got ready in case of need. At Lymm it has been proposed to aggregate all cases in temporary structures, the cottages first secured for purposes of isolation having been deemed hazardous to the surrounding dwellings if small-pox were to be retained in them. One death has occurred among upwards of a dozen cases. Other places near Warrington having small-pox are Manchester, Salford, Eaton, in Cheshire, Blackburn, Rotherham, Newton-in-Mackerfield, and Bolton. In Manchester 8 cases occurred in the week ending November 12th; in Salford 1 case. At Leicester, in the week just mentioned, not one case was admitted by the officials, but cases developed at Coventry and Thame in tramps who had come from that borough. The occurrence of a recent case of the disease has called for a second visit to the borough by Dr. Coupland on behalf of the Royal Commission on Vaccination. In addition to the death at Lymm, there was one death in the week ending November 12th at both Halifax and Huddersfield, and 3 deaths at Sheffield. During last week 2 deaths were registered in Leeds, and 1 each in Leicester and Sheffield. The occurrence of several cases at Burton-on-Trent has led to a resolve to erect an infectious diseases hospital.

LEEDS.

Our Leeds Correspondent writes: The unsatisfactory position of Leeds in regard to infectious diseases is shown by the weekly report of the medical officer of health (Dr. Cameron). On November 12th there were 29 cases of small-pox in hospital. On November 19th the number had increased to 42. (The total number of infectious cases in hospital on Saturday was 159, showing an increase of 14 over the week ending November 12th.) Since these figures were issued another case of small-pox has occurred, bringing the number of pa-

tients now in hospital up to 43. This patient had been under observation for some time in the fever hospital at Burmantofts, but developed well-marked symptoms of small-pox. Owing to the fact that notification of small-pox is not compulsory in Leeds, difficulty is sometimes met with in ascertaining the existence of cases, but we understand that most medical practitioners in the town report their cases to the sanitary authority at an early date.

LIVERPOOL.

Our Liverpool Correspondent writes: The Hospital Committee of the City Council has passed a resolution in favour of adding two new blocks to the small-pox hospital at Parkhill, and has made application to the select vestry to receive cases of typhoid fever into the workhouse hospital. The rarity of cases of small-pox has led to the Parkhill Hospital being used for the reception of scarlatina patients; but the occurrence of some cases of the former disease in the town has lately necessitated the restoration of the hospital to its original use, while the scarlatina cases have to be sent to the city hospitals in Grafton Street and Netherfield Road. It is hoped to relieve the congestion of the latter institutions by sending typhoid cases, as being but little infectious, to the workhouse hospital. According to the latest report to hand, there were 41 cases of small-pox in the hospital and 3 suspected of the disease. The outbreak is confined almost entirely to tramps and frequenters of lodging-houses, who infest the roads in the south during the summer, and in winter make their way up to the manufacturing districts, subsisting in the most miserable manner. The disease seems to have been introduced by way of Warrington. At the last meeting of the Health Committee it was agreed that the medical officer of health should write to the select vestry and similar bodies with a view to making arrangements for the revaccination of the people.

Last week half-a-dozen cases of small-pox were notified throughout Liverpool, making close upon fifty during the past six or seven weeks. A few cases have occurred at Birkenhead, though none were notified last week. But the guardians are doing the right thing in setting up attendances for the gratuitous revaccination of all who choose to profit by their offer. It is much more to the point to set about public vaccination before rather than during a prevalence of small-pox. Liverpool, the cases being largely in tramps, and Birkenhead has close relations with both places. It is proposed to continue public vaccination at Otley during the remaining weeks of the year, on account of small-pox there.

GLASGOW.

Our Glasgow Correspondent writes: Small-pox has now occurred in all parts of the city of Glasgow. In the exercise of the power conferred upon them by the 57th Section of the Public Health (Scotland) Act, the Glasgow Police Commissioners, as local authority, have sanctioned the issue by the medical officer of health of a circular letter to all practitioners, warning them of the almost unrecognisable form which the disease may assume in vaccinated persons, and requesting their co-operation in urging revaccination on all above 10.

The Commissioners are willing to pay a fee of 1s. 6d. for each person so vaccinated who cannot afford to pay for it. The following public announcement is being extensively placarded in Glasgow: The Glasgow Police Commissioners desire to inform the public that cases of small-pox have appeared in every district of the city. The Commissioners believe that if they could secure that no person in the city remained unvaccinated, and that every person above 10 years of age had been revaccinated, an epidemic of small-pox within their jurisdiction would be impossible. They therefore urge all citizens to see to the protection of themselves and their dependents in this way. The Commissioners desire the attention of such as are unable to pay for vaccination to the following arrangements:—Free vaccination of infants may be obtained on certain days and hours at specified places. Parents are advised not to wait until the expiry of the six months allowed. Free vaccination may be obtained by attending at these places on the days and hours specified. Medical practitioners have been authorised to revaccinate on behalf of the Commissioners persons unable to pay a private fee.

THE CHOLERA.

RUSSIA.

THERE has been a recrudescence of cholera at St. Petersburg during the past fortnight, 66 cases having been notified, with 29 deaths, in the two weeks ended midday on November 17th. The authorities in the city have resolved to issue directions regarding the measures to be adopted next year in the event of a fresh visitation of the disease. Increased prevalence of cholera has also been manifesting itself in the provinces of Kieff, Baku, and Bessarabia; and whilst in the Caucasus and Southern Russia generally the disease has almost disappeared, it is spreading in the south-west with increased mortality. In the whole empire there were 5,632 cases, and 2,555 deaths in the week ended November 10th, against 7,169 and 3,071 respectively in the week preceding. In Kieff province the cases numbered 1020, and the deaths 316; in the province of Baku, 691 cases, 436 deaths; in the province of Podolia, 561 cases, 207 deaths; and in the province of Bessarabia, 453 cases and 199 deaths.

AUSTRIA.

In Buda-Pesth 40 cases and 12 deaths occurred in the week ending November 19th, in addition to some cases in the provinces.

FRANCE.

Dunkirk has had several deaths during the past fortnight; and Ville Vaude, in the Seine-et-Marne, has had one of its institutions invaded, 5 cases having occurred. Bourbourg and Capella have had several fresh cases.

HOLLAND.

In the week ended November 5th there were 32 deaths from cholera in Holland, 22 in the succeeding week, and 14 last week. Cases still crop up at Kralingen, Brada, Weesp, Utrecht, Bodengraven, and other places.

BELGIUM.

Brussels has suffered a recrudescence of cholera, 10 cases having been notified last Sunday, 5 proving fatal within twenty-four hours. Bruges has been again attacked, 7 cases occurring on November 20th in one street, and 8 on Monday, with 13 deaths, all in the poorer quarters of the town. Ghlin and Cuasmes have had many cases, and some deaths; whilst several fresh attacks have been notified at Jemappes. The Belgian Government have, however, withdrawn all preventive measures from the frontier. During the period July 30th to October 12th there were 1,207 cases and 626 deaths in the whole of Belgium, the greater number having been in the province of Antwerp—namely, 715 cases and 338 deaths. In this province the respective figures for September were 485 and 221, against the month's totals of 776 and 432 in the whole country.

GERMANY.

Hamburg has been declared free from cholera, but sporadic cases still occur from time to time.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH.—The intermediate meeting of this Branch will be held in the Town Hall, Preston, on Tuesday, November 29th, at 3 P.M. An interesting programme of medical and surgical communications has been prepared, and detailed information on all points concerning the meeting will be found embodied in the printed circulars which will be posted to every member next week.—C. E. GLASCOTT, M.D., JAS. BARR, M.D., Joint Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—The annual meeting of this District, which comprises North London and North-West Districts, for the election of officers and committee, will be held at the Holborn Restaurant at 6.30 P.M. on Wednesday, November 30th. The annual dinner will take place at 7 P.M. in the Duke's Saloon. Dr. Bridgwater, J.P., Vice-President, will take the chair, supported by Dr. Cleveland and other members of the Council. Dinner ticket, 7s. 6d., exclusive of wine. All members desirous of being present will oblige by signifying their intention on or before November 28th, to GEORGE HENTY, M.D., Honorary Secretary, 302, Camden Road, N.

BATH AND BRISTOL BRANCH.—The second ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Wednesday evening, November 30th, at 7.30 o'clock, Mr. T. B. Goss, President, in the chair. The following communications are expected:—Preston King, M.D.: On Consanguineous Marriage. Mr. T. Pagan Lowe: Case of Myxœdema; marked Improvement after Six Weeks' Treatment by Injections of Thyroid Emulsion, illustrated by Photographs. T. Wilson Smith, M.D.: Notes upon a case of Intermittent Albuminuria. F. Watson Williams, M.D.: Case of Subglottic Growth in the Larynx. Mr. Hugh Lane: Notes of a case of Chronic Rheumatic Arthritis.—W. M. BEAUMONT, E. MARKHAM SKERRITT, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH.—A special general meeting of this Branch will be held on Thursday, December 8th, in the theatre of the Museum of Practical Geology, Jermyn Street. Dr. Pavy, President, will take the chair at 8 P.M. Business:—1. A University for London. 2. The Midwives Bill.—ANDREW CLARK, ISAMBARD OWEN, Honorary Secretaries.

A CORRECTION.—In the report of the meeting of the West Kent District of the South-Eastern Branch which was published in the BRITISH MEDICAL JOURNAL of November 19th, the resolution proposed by Mr. Sells referred to "medical aid associations," not to "a medical aid association" as there stated.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

AN ordinary general meeting of the Branch was held in Aberdeen on November 16th.

New Members.—The minutes of the last meeting having been read and approved, Dr. Levack, Great Western Road, Aberdeen, was nominated for ballot at the next meeting of the Branch. Dr. J. A. R. Glennie, Rosemount Place, Aberdeen; Dr. McRae, Turriff; Dr. Troup, Old Aberdeen; and Dr. Beddie, 17, Saltoun Place, Fraserburgh, were balloted for and admitted members of the Branch.

The late Dr. Urquhart.—A letter of thanks from Dr. Thiselton Urquhart to the members of the Branch for the cross of flowers sent as a tribute at his father's funeral, was read, and the Secretary was instructed to convey a message of condolence from the Branch to Dr. Urquhart's family.

Communications.—Dr. SCOTT RIDDELL related a case of compound fracture of the clavicle in which a very successful result had been obtained by a plastic operation after the fragments had been sutured with wire. The patient was exhibited. Dr. Riddell also read notes of a case of vesical calculus in which, while attempting to crush by means of a lithotrite, the blades of the instrument got jammed by a fragment of the stone. Dr. Riddell then performed suprapubic lithotomy, and removed a very hard mulberry calculus of oxalate of lime, which was shown. The patient made a good recovery.

Photographs of Deceased Members.—On behalf of Professor OGSTON, Mr. DE LESSERT proposed that an enlarged photograph of the late Dr. Urquhart should be procured by the Branch, and placed in the Medico-Chirurgical Society's rooms. After some discussion it was remitted to the Secretary to communicate with the Medico-Chirurgical Society as to the advisability of joint action in the matter; further, to consider whether the photographs of other deceased members (as Professor Smith-Shand, a former President of the Branch) should be obtained at the same time.

THE GLOUCESTERSHIRE BRANCH.

THE first meeting of the session was held on November 15th, at Gloucester; Mr. E. D. BOWER, President, in the chair. More than twenty-five members were present.

Presidential Address.—The minutes of the last meeting having been read and confirmed, the PRESIDENT delivered an address on the Progress of Ophthalmic Surgery during the last ten years. Special reference was made to the subjects of retinoscopy, cocaine, the treatment of immature cataract, evisceration and excision of the eyeball, the treatment of panophthalmitis, the after-treatment of cases of cataract extraction, etc. He advocated the institution of an examination in ophthalmology by the Ophthalmological Society similar to the one in mental diseases now conducted by the Psychological Society, or in public health and preventive medicine by the various examining bodies. A certificate given by such a society would have a distinct value in the filling up of hospital appointments; for if it was considered essential for a condidate applying for the post of medical officer of health to produce evidence of special knowledge, it should be equally necessary in the case of those whose duty it was to perform delicate operations upon the human eye. The address concluded with some general remarks and practical suggestions as the future meetings of the Branch. A vote of thanks to the President for his address was passed unanimously.

Supper.—The supper took place afterwards at the New Inn Hotel, when twenty members sat down.

SUCCESSFUL VACCINATION.—Dr. David J. Jones, Public Vaccinator of the Penderyn District of the Merthyr Tydvil Union, has received a Government grant for successful vaccination.

SPECIAL CORRESPONDENCE.

PARIS.

Grave Charges against Hospital Staffs.—Disturbance among Medical Students in Paris and Toulouse.—A Syndicate of Nurses.—Bristles as Vehicles of Malignant Pustule.—Accidental Belladonna Poisoning in a Prison.—General News.

AT a recent meeting of the Municipal Council, M. Charles Lament called attention to what he considers serious defects in the direction of the Paris hospitals. He says the subordinate officials were drunken while the superior officers shirked their work. The officers attached to the hospitals had not during the cholera epidemic curtailed their autumn holidays. M. Charles Péan spoke in the same sense, and M. Dubois said a cholera patient had been placed in a general ward and had transmitted his disease to some of the other patients. He also alleged that at the Hôtel Dieu the cholera ward is close to the maternity ward. M. Peyrin is rarely or never blamed by the Municipal Council, the Prefect of the Seine constantly. M. Peyrin did not seem to appreciate the change.

Last Saturday the Hôtel de Ville (the Paris Guildhall) was invaded by 300 medical students. They had just left the Assistance Publique, where a competitive examination for hospital dressers (*externes*) ought to have been held, but as soon as the examiners appeared the students made a noise, broke the windows, and turned out the gas, then made for the Hôtel de Ville, shouting: "Down with Peyrin! Down with Strauss!" This violent behaviour was intended to express their dissatisfaction with M. Peyrin because he has struck off from the list of hospital dressers a M. Salmon who kept on his hat and continued smoking in a hospital ward when M. Strauss, a municipal councillor, and the director of the hospital were visiting the wards. When remonstrated with he answered rudely. The 300 students went, after their visit to the Hôtel de Ville, to the Medical Faculty and held a meeting. M. Brouardel, the Dean, told them to be calm, and promised to investigate the matter and, if he saw reason, intercede for M. Salmon. M. Peyrin has already agreed to allow M. Salmon to resume his duties as dresser on New Year's Day. The students of the Toulouse Medical Faculty have made a violent demonstration against the Dean. Seven were arrested but were afterwards set free.

The hospital nurses have organised a syndicate, but have requested that their names shall not be made known, fearing the anger of the Assistance Publique. A nurse present stated that there are 6,000 nurses of different grades employed in the hospitals and asylums of the Seine department. They work from fifteen to sixteen hours a day. Nurses earn £1 a month, matrons 43 francs, sub-matrons 33 francs, certificated nurses 38 francs, but for reasons of economy, these are rarely chosen. A considerable section of these nurses, in order to earn their living, are obliged to seek work among the general public. Agencies exist for this purpose which make the nurses pay so heavy a commission that their wages are greatly reduced. The syndicate is formed to remedy these evils.

A brushmaker at Lille received some bristles from Persia; one of the workpeople who manipulated them fell suddenly ill, and died within twenty-four hours. This death was followed by four others. All five presented the same symptoms. A pustule appeared resembling the malignant pustule of charbon. The Sanitary Commission of the Lille Faculty of Medicine is investigating the affair.

Dr. Lesage, after investigating at the prison of Beauvais during some days the cause of the prisoners complaining of feeling ill, asked to taste the extract of walnut leaves mixed with the prisoners' drinking water. A few minutes afterwards he exhibited symptoms of belladonna poisoning. Inquiry revealed the fact that, owing to the mistake of a chemist's assistant, the prison had been supplied with extract of belladonna instead of extract of walnut. The chemist has been sentenced to six days' imprisonment and a fine of 100 francs.

The *Figaro* has opened a fund for sending tobacco and comforts to the wounded at Dahomey; 1,900 francs have been collected, of which 800 francs were contributed by MM. Rothschild.

During last year 308,625 kilos of fish unfit for human food have been seized at Paris Central Market.

LIVERPOOL.

Treatment of Myxœdema by Thyroid Extract.—Professor Gotch on Recent Advances in our Knowledge of the Spinal Cord.—Medical Alderman.

At a recent meeting of the Medical Institution, Dr. Alex. Barron, Professor of Pathology in University College, showed a patient, a woman of middle age, whom he had treated for myxœdema by hypodermic injections of fresh extract of the sheep's thyroid gland, with marked success. A photograph taken before the treatment was begun showed unmistakably that the disease had existed to a pronounced degree. When the patient was exhibited at the meeting no traces of the previous condition could be seen, and the change in her appearance was most noticeable both to herself and to her friends. (The case will shortly be published in the British Medical Journal.)

At the last meeting of the Microscopical and Pathological Section of the Institution, Professor Gotch, F.R.S., gave a most interesting summary of the more recent researches into the anatomy and physiology of the spinal cord, illustrated by a number of beautiful limelight representations of sections of the cord. He also exhibited Lippman's electrometer, an instrument by which feeble currents in the cord are readily detected, and which was used by Professor Gotch and Dr. Mott in their researches on the paths of sensory conduction. The chief interest of Professor Gotch's address centred in his exposition of the paths of sensory conduction, which are now known to lie on the same side of the cord as the nerves by which they arrive. Professor Gotch's account of the experiments by which he has succeeded in establishing this important generalisation was listened to with much interest.

In the list of newly-elected aldermen for the city of Liverpool appears the name of Dr. John Bligh.

Pressure on Space.

Notice to Correspondents and Authors of Communications.

In view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

CORRESPONDENCE.

BLISTERS IN THE TREATMENT OF DIPHTHERIAL PARALYSIS.

Sir,—Some years ago I recorded five cases of diphtheritic paralysis treated by the application of blisters to the back. I cannot reasonably ask you to reprint them, but anyone referring to them will find that the results were remarkable, especially in respect to the speediness of the cure.

In the various references to this subject, which you have published in the course of the last few months, I find no mention of this method of treatment. Nor is it alluded to in any treatise on nervous diseases which has come under my notice. I therefore ask those who may be interested in the subject to consider the statements made in the British Medical Journal of 1875, vol. ii., pp. 448 5.—I am, etc.,

Birmingham, Nov. 21st. W. F. Wade, F.R.C.P.

THE FIVE YEARS' CURRICULUM.

Sir,—The importance of the question: How is the medical student to be best prepared for his future life work? is my excuse for again referring to the subject of "The Five Years' Curriculum;" and I hope you will grant me a little of your valuable space for replying to Dr. Mitchell Banks's letter in the British Medical Journal of November 12th.

If you are good enough to insert this, I shall be glad of the opportunity of rectifying an omission in my last letter. It is that I ought to have put on record how much of the success of the struggle for a more lengthened course of study is due to my friend Dr. Banks. If not the most astute and persistent, he was undoubtedly the most eloquent advocate of the good cause in the Council; and the result, which some of us hardly dared to hope for, was largely due to his unwearied and unbounded enthusiasm. Justly, then, is he entitled to give his opinion as to how the time so gained is to be apportioned; and I for one only wish to see every moment of it given over to strict clinical work such as only can be secured under trained teachers. I am not quite so ignorant of the difficulties of teaching under limited conditions as to time as Dr. Banks would make me out to be. I heartily desire to see the course of study prolonged, and I do not despair of the five years by-and-by becoming a six years' curriculum. Where we essentially differ is, I opine, as to the means of putting knowledge into the heads of those who have no real wish to acquire it. I quite grant—and I am glad to have the opportunity of saying so most unreservedly—that the quality of hospital teaching is immensely improved within the last thirty years, and in so far as there is room for and opportunity is taken to make it more personal the necessity for the training by way of pupilage is lessened. But I have no hesitation in asserting again, from my own observation, that hospital training fails where the need for training is greatest. The really good student can look after himself. For him it is a delight and pleasure to listen to such teachers as my friend Dr. Banks says every man must listen to if he wishes to pass. I say he does not. Surely the teachers cannot be called to give evidence on this point. Students could tell if they would. Failing them, we must fall back on the complete product. What is it—the kind of men I speak of? A thing of patches and shreds ill assorted in the hands of some crammer, and something in the way of a finished article which we may well feel ashamed to palm off as worthy of respect on a too credulous public!

Sir, I write strongly on this point because I feel strongly. If the profession is to rise in the estimation of the public, the portals must be narrowed, and the evidence of capability for entering a highly honourable and terribly responsible profession must be made more and more stringent. The neophyte must not only know, he must be able to put his knowledge into practice before he is let loose to command the issues of life or death. And I hold there is no plan surer to bring about this condition of things than to set the learner to try to do the work for himself, as is the almost invariable rule in every other line of life under proper and responsible supervision.—I am, etc.,

W. Bruce,
Direct Representative for Scotland on the General Medical Council.

Dingwall, Nov. 14th.

LIGATURE OF THE ILIAC ARTERIES THROUGH THE PERITONEUM.

Sir,—Mr. Keetley, referring to my letter in the British Medical Journal of November 5th, asks the question, "Why apply Lister's tourniquet?"

The reason I did so was because I wanted to try compression of the abdominal aorta, and I was unacquainted with any better means of doing so. I was of course sensible of a certain amount of risk incurred thereby. But I thought this treatment ought to be tried before subjecting the patient to the grave operation of ligature of the common iliac artery. Ligature of the external iliac was inapplicable. The patient was prepared by a suitable diet, etc., so that the intestines should not be distended. The tourniquet was applied under the influence of chloroform on two occasions, for periods of 63 minutes and 90 minutes respectively. No inconvenience whatever resulted; but the pulsation of the aneurysm (a rapidly-growing one of only four months' apparent duration) was not much influenced, nor did the aneurysm become much consolidated.

It is my misfortune that Mr. Keetley's case has escaped my notice, so that I am ignorant of his method, and therefore unable to compare it with pressure by means of a tourniquet. But as compression of a large main artery like the abdominal aorta can only be exercised for a limited period, and as one could hardly hope to cure the aneurysm at one comparatively short sitting, is it not a question whether it would be advis

able to make an incision through the abdominal walls on each occasion when compression was going to be exercised?

When applying the tourniquet I was much struck by the relatively slight amount of pressure required to control the aorta, and this although the patient was a remarkably muscular and deep-chested individual. With digital pressure it was almost impossible to control the vessel at all. The tourniquet was applied about 1 inch above the bifurcation. There was not the slightest œdema of the legs after either application, or any pain.

One cannot argue from a single case, but this one *primâ facie* goes to show that if it is desired to apply compression to the lower end of the abdominal aorta, Lister's tourniquet affords a safe and convenient method.—I am, etc.,

J. Bulkley Footner, F.R.C.S.

Tunbridge Wells, Nov. 14th.

GYNOCARDATE OF MAGNESIA IN LEPROSY.

Sir,—Will you allow me to add to your report of the above case, shown by me at the Medical Society, that the patient has been regularly taking, in increasing doses, for about six months past, gynocardate of magnesia in place of chaulmoogra oil? This drug agrees with the boy better than the oil, and since he has been taking it the improvement in his condition has been more marked than before. During the time he has been under my care he has taken considerable quantities of cod-liver oil, and the erythematous and discoloured patches on the skin have been rubbed with chaulmoogra ointment, and more recently treated by the application of chrysarobin plaster.

I am not at present prepared to ascribe the amelioration of his symptoms to any particular item of the treatment employed—whether to the course of tuberculin, to which I submitted him last year, to the chaulmoogra oil, the gynocardic acid, the external applications, etc., his food, change of climate, or the excellent hygienic conditions under which we have kept him. Probably Mr. Hutchinson is right in putting down some, at any rate, of the improvement to these latter. I was led to try the gynocardic treatment from what I had seen and heard of its good results at the Hôpital St. Louis in Paris.

With regard to allowing this lad to go about freely, I believe with Mr. Hutchinson that there is practically no danger of his infecting others. Many of those who have studied the subject agree that if leprosy be contagious it can only be so to a comparatively small extent. The evidence on this point, in this country at least, is very definite, for, with the exception of Dr. Hawtrey Benson's Dublin case, we are able to find not one instance of even probable contagion in the British Islands; although, as we are all aware, we always have with us, and with no special isolation, a certain number of imported cases. We should not, however, shut our eyes to the fact that in leprous countries there is some evidence—scanty though it may be at present—of the comunication of the disease by infected persons. I am, indeed, inclined to think that the truth about leprosy lies somewhere between the two extreme views. Leprosy is not so easily inoculable as tuberculosis, but when it does pass from one person to another the germ may gain entrance in just as many ways, and through the same channels as the germ of tuberculosis.—I am, etc.,

Phin. S. Abraham.

Henrietta Street, Cavendish Square, W., Nov. 19th.

THE TREATMENT OF PERITONITIS.

Sir,—In the Bradshaw Lecture Dr. Gee hesitates to recommend opening the abdomen and washing it out in total peritoneal suppuration. If he refers to the British Medical Journal of April 4th, 1891, he will find notes of a case in which I removed a gallon of pus from a patient suffering from puerperal peritonitis. The patient is now in robust health. On November 2nd I was asked by Dr. Norie, of Millfield, to see a child, aged 5 years, who had been suffering from the symptoms of tuberculous peritonitis for four years. The abdomen was enormously distended by fluid. I made a small median exploratory incision and removed 30 ounces of pus, washed out the abdomen with warm boracic lotion, and I heard to-day from Dr. Norie that the patient is now practically well. As Mr. Lawson Tait points out, the most important element in the prognosis of peritonitis is "time," and my own experience is that where patients survive for a few days and fluid forms, be it either serous or purulent, they may be successfully washed out and drained.

Further, it is not my experience that washing out the abdomen is, as Dr. Gee asserts, a proceeding more dangerous than drainage.—I am, etc.,

Sunderland, Nov. 12th. James Murphy.

Sir,—The plan you occasionally adopt of giving a number of articles on the same subject in the same issue of the British Medical Journal is an extremely good one, and its value is singularly apparent in your issue of November 12th, when so much space is devoted to peritonitis, and we have the advantage of seeing how this disease is looked at by a physician on the one side, and a surgeon on the other. There are singularly few discrepancies to be found in the facts stated, and only one serious difference in the conclusions arrived at.

On two matters of fact I wish to record that my experience differs entirely from that recorded by Dr. Gee at second hand, for he explicitly states that the observations are not his own. The first is that "Surgeons tell us that when they open the abdomen in order to remove an ovary, the intestines are seen to be at first in very active movement." This is certainly not the case in my own operations, for a view of the peristaltic movements of the intestines in abdominal section has been very rare. The second is that "Surgeons say that they can handle, cut, and scratch the stomach or intestines of a man who is quite sensible, and not cause him any sensation of pain." This again is wholly inconsistent with my own experience that the slightest touch by the finger, or sponge, or instrument applied to almost any part of the peritoneum, in a patient who is not only not sensible, but who is partially, or even almost completely anæsthetised in the sense that he is only just beginning "to come out" of the chloroform, at once gives rise to movements of the abdominal wall and limbs which indicate pain. I have very rarely been obliged to put my fingers in the peritoneum of a patient not under an anæsthetic, but these few experiences resulted in such agony to the patients that it became evident that modern abdominal surgery without anæsthetics would be an absolute impossibility. All these cases were instances of serious and sudden hæmorrhage, where to have waited for unconsciousness would have been to have waited too long. The agonising pain of hæmorrhage into the peritoneum, an experiment tried very often by Nature herself, as quoted by Dr. Gee, is quite confirmatory of the facts as I have seen them. However, these are both points of much interest upon which the attested experience of other surgeons ought to be given.

On one point I entirely agree with Dr. Gee, though hardly for the same reason, when he says, "I wish I could believe that chloroform sleep did no harm." There can be no doubt that it does; and, if we could operate on semi-moribund patients without it, our results would be better. More especially disastrous is a second administration upon the same patient within a brief period, say on the same day, even when required for a proceeding otherwise trifling. When driven to this I accept the necessity with the greatest apprehension.

On one matter, in conclusion, I would respectfully submit to Dr. Gee, and those placed as he is, that such a view as expressed in the words "the only objection lies in the natural dislike to an operation, however small." Why should there be any objection, and why should it be natural? We might just as reasonably object to the therapeutic proceedings of the physician, and delay them until they are useless, because of the natural dislike to take physic! Surely no one will argue nowadays that if there is pus in the peritoneal cavity it should not be subjected to the ordinary surgical rule for its removal; and I submit further that such "a natural objection," expressed by an authority like Dr. Gee, is just the stumbling block in the way of real progress which brings about the "too late" cases, and these unjustly bring discredit on the surgeon, and are the opprobrium of his art.—I am, etc.,

Birmingham, Nov. 15th. Lawson Tait.

CAN ENEMATA BE VOMITED?

Sir,—*Apropos* of this subject, the following titbit may be interesting to some of your readers. It is given by the authors of *The Compleat Practice of Physick*, Lond., 1665, p. 285. "Matthew de Gradi reports of a girl, 12 years old, who in this disease (iliack passion) for three days together did not only vomit up Dung and Clysters, but also a long Suppository, a short time after it was administered to her; and when another Suppository was tyed to her Thigh, that was presently broken off, and vomited up with a piece of the Thred at it; and when, Thirdly, a Suppository was tyed with four strong Threds as before; that also was broken off, and vomited up with part of the Threds; and at length when the Mother, as desired by the Physitian to administer another, it was drawn upward with so much violence, that she was constrained suddenly to draw it out least it should be again vomited up." Lind, in his *De Scriptis Medicis*, says that Johannes Matthæus de Gradibus died in 1460.—I am, etc.,

James H. Aveling.

Upper Wimpole Street, W., Nov. 21st.

TRADUCING THE PROFESSION.

Sir,—In addressing a meeting of working men last night in Battersea, Mr. Berdoe, in addition to repeating the misstatements he has previously scattered broadcast without justification or apology, deliberately informed his artisan audience that "they, their wives and children, were subjected in our hospitals to operations which were not performed on a lady who rode in her carriage." This outrageous allegation I challenged. Of course, no answer was forthcoming. As a member of the Association, I beg leave to protest against this traducer of his profession remaining any longer in our fellowship of medical practitioners.—I am, etc.,

Cavendish Square, W., Nov. 23rd. Victor Horsley.

AN APOLOGY SUGGESTED.

Sir,—Mr. Lawson Tait is reported as having recently, on a public platform, announced his "inexpressible sense of degradation at appearing there on behalf of the medical profession," and as an apologist for their misdeeds; as having declared their conduct in respect to experimental physiology as "disgraceful;" and as having denounced the "infamy" of certain professional brethren (and those not the least eminent) in ascribing considerable obstetric progress to the physiological study of asepsy. Ought he, or ought he not to be admitted to professional comity, such as he is claiming at the hands of the Medical Society with these words upon his lips, and until he has apologised for this abuse and these insults to his profession and its leaders, as publicly as he has reviled them? I put the question to him as well as to the Fellows of the Society, and to the Members of the Branch of which he is at present one of the official representatives on the Council of the British Medical Association.—I am, etc.,

Nov. 22nd. Medicus.

THE MEDICAL DEFENCE UNION.

Sir,—I was much interested in seeing the point raised, in the British Medical Journal of November 5th, with reference to the costs of the trial in the case of Denholme *v.* Tait.

I was wishful to join the Medical Defence Union, when I was accidentally confronted by a letter from Dr. Leslie Philips to Dr. Denholme, in which he writes:—"The Council of the Medical Defence Union have adopted the action of the Emergency Committee, who instructed Messrs. Johnson and Co. to defend, without calling on Mr. Tait for any details. They had already decided not to call on Dr. Denholme for any details before deciding on their action."

I do not wish to reopen the whole question as to whether the letter written by Mr. Tait was a justifiable one or not; although I think it would be of value if the whole medico-ethical aspect of the case could be discussed fully when any feeling evoked has fully subsided, but I wish to point out that the action of the Medical Defence Union to decide upon such an important matter, without the fullest and freest inquiry into both sides, was hardly calculated to inspire confidence in either its wisdom or its impartiality. *Prima facie*, one would have thought a medical defence union would be for the purpose of defending a general practitioner when attacked, even when the attack was made by a president of the union, although the fact that the practitioner was not a member of the union would have probably prevented any action in this case. It is true Mr. Tait said he cast no imputation, but the effect of his language could only be to seriously shake the confidence of his unfortunate patient's friends in their regular practitioner, and although there might have been only carelessness and no intentional injury on Mr. Tait's part, and although the general practitioner might have been badly advised in appealing to the law courts when he received no explanation, modification, or withdrawal of language, yet the fact that the Defence Union took no pains to find out the whole matter is such a serious reflection that it calls for some declaration of policy which shall more efficiently guard the interests of general practitioners as well as consultants, should they be unfortunate enough to be placed in emergencies of a like kind.—I am, etc., M.D.London.

HOSPITAL FOR MENTAL DISEASES OF ASYLUMS.

Sir,—I am sure that all asylums physicians will heartily agree with your proposition, referring to the advantage to be gained by the attachment of hospitals for the acute and recoverable insane to the existing county asylums; and, in addition, I would earnestly suggest the complete abolition of the term "lunatic asylum," and its alteration into "hospital for mental diseases," since all asylum physicians could bring forward many cases to show that it is only the name which keeps patients away from treatment in the early and more curable stages of their mental disease.

There are also many reasons for believing that in the case of counties requiring extension of provision for their insane, it should be seriously considered whether it would not be both cheaper and better to add a chronic "asylum" block to their workhouse rather than to their existing asylum, improve the diet of the inmates of this block, add a small staff, and put a resident house surgeon in charge. This post would always be filled by younger men, who could remain for six months or so. The staff of the existing asylum (now become a "hospital for mental diseases") would require to be correspondingly increased. On account of the removal of some working patients this, however, is necessary in any case if progress in the treatment of the insane is to occur. I feel sure that this plan has cheapness to recommend it, and would greatly relieve the overburdened asylum physician, giving him more time for observation and treatment of the acute and curable cases.—I am, etc.,

Nov. 7th. An Alienist Physician.

NAVAL AND MILITARY MEDICAL SERVICES.

NAVAL MEDICAL SERVICE.

The following gentlemen, who competed at the examination held on November 7th and following days at Examination Hall, Victoria Embankment, for appointment as Surgeon in the Royal Navy, have been successful:

	Marks.		Marks.
H. S. Archdale	2,841	C. L. W. Bunton, M.B.	2,446
F. H. A. Clayton, M.B.	2,813	F. D. Lumley	2,396
R. J. Fyffe	2,652	E. T. Meagher	2,302
P. Lord, M.B.	2,577	H. E. Tomlinson	2,220
F. J. A. Dalton	2,515	A. S. G. Bell	2,218
P. M. May	2,468	B. B. Gilpin	2,133

THE NAVY.

The following appointments have been made at the Admiralty: Charles Strickland, Surgeon, to the *Excellent*, November 12th; George T. Bishop, Surgeon, to the *Excellent*, November 16th; Joseph R. Macdonnell, M.D., Surgeon, to the *President*, additional, December 1st; Horace N. Browne, Staff-Surgeon, to the *Phœbe*, December 1st; Thomas M. Sibbald, Staff-Surgeon, to the *Vivid*, additional, November 1st.

ARMY MEDICAL STAFF.

Surgeon-Colonel P. B. Smith, M.D., is promoted to be Surgeon-Major-General, *vice* G. L. Hinde, C.B., retired, October 27th. He entered the service as Assistant-Surgeon September 15th, 1857; became Surgeon December 2nd, 1871; Surgeon-Major March 1st, 1873; Brigade-Surgeon May 7th, 1882; and Surgeon-Colonel from November 17th, 1886. He is in the 59th year of his age, but has no war record in the *Army Lists*.

Brigade-Surgeon-Lieutenant-Colonel A. F. Churchill, M.B., is promoted to be Surgeon-Colonel, *vice* P. B. Smith, M.D., October 27th. His

previous commissions are thus dated:—Assistant-Surgeon March 31st, 1862; Surgeon March 1st, 1873; Surgeon-Major April 28th, 1876; rank of Lieutenant-Colonel March 31st, 1882; and Brigade-Surgeon-Lieutenant-Colonel from June 21st, 1887. He served during the Nile Expedition in 1884-85 in charge of the hospital at Wady Halfa, and has the Egyptian medal with clasp and the Khedive's star.

Surgeon-Lieutenant-Colonel JAMES WILLIAMSON, M.B., F.R.C.P.I., is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* A. F. Churchill, M.B., October 27th. Brigade-Surgeon-Lieutenant-Colonel Williamson was appointed Assistant-Surgeon October 2nd, 1866; Surgeon March 1st, 1873; Surgeon-Major October 2nd, 1878; and Surgeon-Lieutenant-Colonel from October 2nd, 1886. He was engaged in the Ashanti war in 1873-74, receiving the medal granted for that campaign.

Surgeon-Lieutenant-Colonel W. H. STEELE, M.D., F.R.C.S.I., is also promoted to be Brigade-Surgeon-Lieutenant-Colonel from October 31st, *vice* J. R. Murray, M.D., F.R.C.P.Edin., retired. Dr. Steele's commissions are contemporaneous with those of Brigade-Surgeon-Lieutenant-Colonel Williamson. During the war in Abyssinia in 1867-68. Brigade-Surgeon-Lieutenant-Colonel Steele was with the 33rd Regiment (medal), and during the Ashanti war in 1873-74 he served on board Her Majesty's hospital ship *Victor Emanuel* (medal).

Surgeon-Major A. W. CARLETON, who is serving in the Madras command, is granted an extension of leave, from October 9th to the date of his re-embarkation for duty in Madras.

Surgeon-Captain J. W. COCKERILL, who is on the strength of the Madras command, is granted an extension of leave, from October 8th to the date of his re-embarkation for duty in India.

Surgeon-Captain W. H. BEAN, who is doing duty in the Madras District, is appointed to the medical charge of the station hospital at Cannanore, Madras command.

Surgeon-Lieutenant H. P. JOHNSON has assumed medical charge of women and children, Marlborough Lines, Aldershot.

Surgeon-Captain T. B. A. TUCKEY has assumed medical charge of the Royal Horse Artillery and Royal Artillery, Wellington Lines, Aldershot.

INDIAN MEDICAL SERVICE.

THE promotion of Surgeon-Lieutenant-Colonels A. S. LETHBRIDGE, M.D., A. STEPHEN, and J. H. TWEEDY, M.D., of the Bengal Establishment, to be Brigade-Surgeon-Lieutenant-Colonels, and which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the Queen.

Surgeon-Lieutenant-Colonel F. H. BLENKINSOP, Madras Establishment, is also promoted to be Brigade Surgeon-Lieutenant-Colonel from May 23rd last. He entered the service as Assistant-Surgeon, October 1st, 1868, and served with the Burmese Expedition in 1885-87, receiving the Frontier medal with clasp.

Brigade-Surgeon-Lieutenant-Colonel D. E. HUGHES, M.D., Bombay Establishment, is promoted to be Surgeon-Colonel, September 15th. His first appointment dates from March 31st, 1866.

Surgeon-Lieutenant-Colonel J. F. KEITH, M.D., Bombay Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel, September 15th. He was appointed Assistant-Surgeon, September 30th, 1867, and served in the war in Abyssinia in 1868 as Assistant-Surgeon attached to the General Hospital at Zoulla (medal); in the Afghan war in 1880, when he was present at the battle of Candahar (mentioned in despatches, medal with clasp); and with the Burmese Expedition in 1886-88 (medal with two clasps).

Surgeon-Colonel J. C. MORICE, Bengal Establishment, has retired from the service, October 24th. He was appointed Assistant Surgeon, October 8th, 1856, and attained the rank of Surgeon-Colonel from October 24th, 1887. He served in the Indian Mutiny campaign in 1857-59, and was present at the relief of Lucknow, in the engagements at Cawnpore, Seraighat, and Kalee Nuddee, at the capture of Futtehghur, the siege and capture of Lucknow, and at the capture of Bareilly (medal with two clasps, and a year's service); in the Hazara campaign in 1868, being present in the operations on the Black Mountain (medal with clasp); and in the Soudan campaign in 1885 (mentioned in despatches, medal with clasp, and Khedive's Star.)

Surgeon-Major G. PRICE, Bengal Establishment, Civil Surgeon of Burdwan, is appointed Civil Surgeon of Bhangulpore.

Surgeon-Lieutenant Colonel C. J. W. MEADOWS, Bengal Establishment, Civil Surgeon of Moorshedabad, is appointed Civil Surgeon of Burdwan.

Surgeon-Major R. MACRAE, Bengal Establishment, Civil Surgeon of Shahabad, is appointed to act as Civil Surgeon of Nuddea, during the absence of Surgeon-Major J. Clarke.

The services of Surgeon-Major D. S. E. BAIN, Madras Establishment, are placed at the disposal of the Government of India for employment in Coorg.

The services of Surgeon-Captain E. P. YOUNGERMAN, Madras Establishment, are replaced at the disposal of the Military Department, from November 1st.

Surgeon-Captain E. A. W. HALL, Bengal Establishment, received charge of Sarun Gaol on October 8th.

Surgeon Captain T. E. DYSON, M.B., Bombay Establishment, received charge of the office of Deputy Sanitary Commissioner, Gujerat Registration District, on October 22nd.

Surgeon-Captain S. M. SALAMAN, M.D., Bombay Establishment, received charge of Yerrowda Central Gaol on October 13th

Surgeon-Major G. BOMFORD, M.D., Bengal Establishment, Secretary to the Surgeon-General with the Government of India, is granted three months' privilege leave from November 23rd.

Surgeon-Captain J. T. W. LESLIE, M.B., Bengal Establishment, officiating Chemical Examiner and Professor of Chemistry, Calcutta Medical College, is appointed to officiate as Secretary to the Surgeon-General, *vice* Bomford.

Surgeon-Major G. S. A. RANKING, M.D., Bengal Establishment, officiating Secretary to the Board of Examiners, Calcutta, is appointed to officiate as Chemical Examiner and Professor of Chemistry, Calcutta Medical College, *vice* Leslie.

Surgeon-Lieutenant F. E. SWINTON is brought on the strength of the Bombay command from October 31st, the date of his arrival at Bombay.

An examination of candidates for admission to the Indian Medical Service will begin on February 6th in London. There are fifteen vacancies. All necessary information can be had gratis by application at the India Office.

It is announced from India that surgeon-captains and surgeon-lieutenants who may be detailed for duty by rail in medical charge of detached parties of British troops will in future receive a daily allowance of 3 rupees, as is allowed to captains and subalterns of British troops.

THE VOLUNTEERS.

ROBERT MITCHELL, M.D., is appointed Surgeon-Lieutenant to the 1st Volunteer Battalion Lancashire Fusiliers (late the 8th Lancashire), November 19th.

Surgeon-Major JOHN DUNLOP, M.D, 3rd Lanarkshire, is promoted to be Surgeon-Lieutenant-Colonel, November 19th.

Surgeon-Captain and Honorary Surgeon-Major J. A. WATSON, from the Volunteer Medical Staff Corps (London Companies), is appointed Surgeon-Captain to the 7th Middlesex (London Scottish), November 19th.

Acting-Chaplain the Rev. JAMES WILSON, M.A., has resigned his appointment in the Volunteer Medical Staff Corps, Norwich Company.

THE VOLUNTEER OFFICERS' DECORATION.

THE *London Gazette* of November 22nd contained the following additional list of volunteer officers upon whom the Queen has been pleased to confer the Volunteer Officers' Decoration, they having been duly recommended for the same under the terms of the Royal Warrant, dated July 25th, 1892:—Surgeon-Lieutenant-Colonel James Rodger, M.D., 1st Aberdeenshire Artillery Volunteers; Surgeon-Lieutenant-Colonel William Hunter, 1st Argyll and Bute Artillery Volunteers; Surgeon-Lieutenant-Colonel Robert Blane Erskine, M.D., 1st Ayrshire and Galloway Artillery Volunteers; Surgeon-Lieutenant-Colonel George Banks, M.D., 1st Caithness Artillery Volunteers; Surgeon-Major (ranking as Lieutenant-Colonel) T. H. Rutherford, M.D., retired, 1st Caithness Artillery Volunteers; Surgeon and Honorary Surgeon-Major George Burn, M.D., retired, 1st Caithness Artillery Volunteers; Surgeon-Lieutenant-Colonel Alexander Sclanders, M.D., The Highland Artillery Volunteers; Surgeon-Major George Ritchie Mather, M.D., 1st Lanarkshire Artillery Volunteers; Surgeon-Major James Provan, M.D., 1st Lanarkshire Artillery Volunteers; Surgeon-Major J. S. Cumming, M.D., 1st Lanarkshire Artillery Volunteers; Surgeon-Major (ranking as Lieutenant-Colonel) James Carmichael, M.D., retired, 1st Mid Lothian Artillery Volunteers: Surgeon-Lieutenant-Colonel William Aitchison Wilson, M.D., 1st Renfrew and Dumbarton Artillery Volunteers; Surgeon-Lieutenant-Colonel J. W. Taylor, M.D., 1st Renfrew and Dumbarton Artillery Volunteers; Brigade-Surgeon-Lieutenant-Colonel Patrick Kynoch, retired, late 1st Roxburgh (Border) Mounted Rifles; Brigade-Surgeon-Lieutenant-Colonel Sir Douglas Maclagan, Kt., M.D., the Queen's Rifle Volunteer Brigade the Royal Scots (Lothian Regiment); Surgeon-Lieutenant-Colonel Patrick H. Watson, the Queen's Rifle Volunteer Brigade the Royal Scots (Lothian Regiment); Surgeon-Major (ranking as Lieutenant-Colonel) Alexander Gordon Miller, retired, the Queen's Rifle Volunteer Brigade the Royal Scots (Lothian Regiment; Surgeon and Honorary Surgeon-Major Robert James Blair Cunynghame, M.D., retired, the Queen's Rifle Volunteer Brigade the Royal Scots (Lothian Regiment); Surgeon and Honorary Surgeon-Major John Henderson, M.D., retired, 5th Volunteer Battalion the Royal Scots (Lothian Regiment); Surgeon-Major Alexander Ballantyne, M.D, 6th Volunteer Battalion the Royal Scots (Lothian Regiment); Surgeon-Captain John Liddie Crombie, M.D., 7th Volunteer Battalion the Royal Scots (Lothian Regiment); Surgeon-Lieutenant-Colonel Andrew Gilmour, 8th Volunteer Battalion the Royal Scots (Lothian Regiment); Surgeon-Lieutenant-Colonel James M'Alister, 1st Volunteer Battalion the Royal Scots Fusiliers; Surgeon-Major (ranking as Lieutenant-Colonel) Archibald Blair, retired, 1st Volunteer Battalion the Royal Scots Fusiliers; Surgeon-Major Robert Girvan, 2nd Volunteer Battalion the Royal Scots Fusiliers; Surgeon-Lieutenant-Colonel Walter Lorraine, M.D., Galloway Rifle Volunteer Corps; Surgeon and Honorary Surgeon-Major William Johnstone Carlyle, M.D., retired, 3rd (Dumfries) Volunteer Battalion the King's Own Scottish Borderers; Surgeon-Lieutenant-Colonel Bruce Goff, M.D., 2nd Volunteer Battalion the Cameronians (Scottish Rifles); Surgeon-Major (ranking as Lieutenant-Colonel) James Loudon, M.D., retired, 2nd Volunteer Battalion the Cameronians (Scottish Rifles): Brigade-Surgeon-Lieutenant-Colonel James Dunlop, M.D., 3rd Lanarkshire Rifle Volunteer Corps; Surgeon-Lieutenant-Colonel John Dunlop, M.D., 3rd Lanarkshire Rifle Volunteer Corps; Brigade-Surgeon-Lieutenant-Colonel John Mackie, jun., M.D., 2nd (Angus) Volunteer Battalion the Black Watch (Royal Highlanders); Surgeon-Lieutenant-Colonel William Fettes Murray, M.D., 2nd (Angus) Volunteer Battalion the Black Watch (Royal Highlanders); Surgeon-Lieutenant-Colonel James Keith Anderson, M.D., 2nd (Angus) Volunteer Battalion the Black Watch (Royal Highlanders); Surgeon-Lieutenant-Colonel George Paton Alexander, 2nd (Angus) Volunteer Battalion the Black Watch (Royal Highlanders); Surgeon-Major (ranking as Lieutenant-Colonel) Samuel Lawrence, M.D., retired, 2nd (Angus) Volunteer Battalion the Black Watch (Royal Highlanders); Surgeon-Lieutenant-Colonel John Ewan Brodie, M.D., 3rd (the Blythswood) Volunteer Battalion the Highland Light Infantry; Surgeon-Lieutenant-Colonel John Linsay, 9th Lanarkshire Rifle Volunteer Corps; Surgeon-Major (ranking as Lieutenant-Colonel) Thomas Drysdale Buchanan, M.D., retired, 5th (Glasgow Highland) Volunteer Battalion the Highland Light Infantry; Surgeon-Lieutenant-Colonel Alexander Robertson Mackenzie, M.D., 1st (Ross Highland) Volunteer Battalion Seaforth Highlanders (Ross-shire Buffs, the Duke of Albany's); Brigade-Surgeon-Lieutenant-Colonel Angus Fraser, M.D, 1st Volunteer Battalion the Gordon Highlanders: Surgeon-Captain William Mortimer, 2nd Volunteer Battalion the Gordon Highlanders); Surgeon-Major William Patterson, 4th Volunteer Battalion the Gordon Highlanders; Surgeon-Lieutenant-Colonel William Robert Dinguid, 8th Volunteer Battalion the Gordon Highlanders; Surgeon and Surgeon-Major William Johnston Marshall, M.D., retired, 1st (Renfrewshire) Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders; Surgeon-Major Michael Benny, M.D., 4th (Stirlingshire) Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders); Surgeon and Honorary Surgeon-Major William Johnstone, M.D., retired, 4th (Stirlingshire) Volunteer Battalion Princess Louise's (Argyll and

Sutherland Highlanders); Surgeon and Honorary Surgeon-Major John Reid, retired, 5th Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders); Surgeon-Lieutenant-Colonel Peter France Robertson, M.D., 1st Dumbartonshire Rifle Volunteer Corps.

THE MEDICAL SERVICES IN INDIA.

We continue to receive lengthy communications on various matters connected with this important subject, the broader bearings of which we reviewed in late editorial articles.

Everything points to the conclusion that the conditions of Indian service are yearly becoming harder, less attractive, and less remunerative to medical officers. The Indian newspapers abound in complaints, and a correspondent sends us cuttings from some of them, one of which is ominously headed "The Dearth of Doctors." India never had a superfluity of them, and whoever else can be reduced, it is certainly not them. Nevertheless, for years the pruning knife has been steadily at work, not only on the *personnel* of medical establishments, but on the allowances, which can alone redeem the drawbacks of service in the country. As an instance of this a correspondent states that the superintending civil surgeons of gaols in the Punjaub have lately been docked Rs.50 per mensem on the prospective plea that their establishments will be reduced in size some time in the future when large central gaols shall be built and in use. It would be time enough, one would think, to effect pay reductions simultaneously with the actual decrease in the charges. Such is the arbitrary nature of these reductions that a correspondent affirms, "the Government of India thinks nothing of getting officials under a distinct promise, and immediately afterwards sweep away all the favourable conditions by a G.O.C.C.;" and he instances a late order, whereby the conditions relating to good service pensions are materially altered for those who entered the service since 1881; that is, taking ten years' retrospective effect. The Indian, like any civilised Government, have a perfect right, in the interests of economy and good administration, to revise conditions of service; but only, first, by scrupulous regard to existing rights and contracts; and, secondly, by wise and statesmanlike anticipations for the future. If either of these are violated, nothing but harm can result. The reduced establishment of medical officers is already entailing heavy burdens on juniors in the shape of frequent and sudden moves, with attendant expense, but without compensation. We fear the onerous and uncertain conditions of Indian service are already showing themselves in the depreciation both of number and quality in the candidates for admission; and we also fear they will sooner or later react on the Medical Staff. Indeed, one of our correspondents roundly asserts that the Indian Medical Service is kept up not on existing merits, but on its old happy traditions; and he begs intending candidates to note the fact.

We would intreat the Secretary of State for India not to allow the well-earned prestige of the Indian Medical Service to be undermined; for such assuredly would bring about a very evil result in the general administration of the country.

SURGEON-MAJOR-GENERALS AND COMPULSORY RETIREMENT.

According to the terms of the Royal Warrant of 1879 Surgeon-Major-Generals are compelled to retire at the age of 60. This regulation is on the whole for the good of the service at large as well as for that of the Medical Department. Under special circumstances, as, for instance, in the case of a principal medical officer in the field, the strictness of the rule may be relaxed, and accordingly a further Warrant was issued some three years ago giving power to retain the services of such officers till they had reached the age of 62, if such extension appeared to be necessary. Since power was given to extend the period of service nearly every surgeon-major-general has desired such an extension, but although some of the applications have received most influential support only one, we believe, fifteen even partially successful. We now learn that the Lieutenant-General Commanding at Aldershot has sent in a strongly-worded communication to the War Office recommending the Principal Medical Officer of that division for a retention of his appointment beyond the age of 60, on the ground that the camp is under reconstruction and that the introduction of a new sewage system renders the retention of his services most desirable. Surgeon-Major-General Faught is no doubt an officer with a distinguished record, but as to his special sanitary distinction, it may be remembered that we found it our duty about a year ago to call attention to the insanitary state of the North Camp and the miserable inadequacy of its hospital provision. We are quite willing to believe, however, that his case is one which comes within the terms of the Royal Warrant, but while his retention of the post of Principal Medical Officer at Aldershot may be for the good of the service, it may be pointed out that it will involve a distinct hardship to an equally-distinguished officer, Surgeon-Colonel Wade, who should, in due course, have succeeded him. That officer is now, we understand, on his way home from India, "on promotion," to take up the appointment which should be vacated by Surgeon-Major-General Faught next month. If the latter officer's service is extended Surgeon-Colonel Wade will have to wait for his promotion, will lose some £400 a year while so waiting, and will, meanwhile, be sent to some less-important administrative post, from which he will afterwards have to be moved when Surgeon-Major-General Faught finally retires. At the same time the Senior Surgeon-Colonel and the Senior Brigade-Surgeon-Lieutenant-Colonel also lose promotion, and are mulcted in the sum of £200 and £150 a year respectively. It is obvious that such a system of blockage must not only entail a good deal of hardship on the officers whose promotion is obstructed, but must cause considerable dislocation in the administrative ranks of the Army Medical Department. Granting the principle that such extensions of service are desirable under special circumstances the evils to which we have called attention may easily be avoided by the simple process of seconding the officer whose services are retained. The army and the public will thus continue to enjoy all the benefit of his talents and experience and he will no longer be placed in the invidious position of blocking the stream of promotion. We commend this suggestion to the attention of the Secretary of State for War.

THE MEMORANDUM.

Surgeon-Major writes: The able Chairman of the Parliamentary Bills Committee of the British Medical Association, has done much in securing for the Medical Staff substantive rank; but the titles remain difficult and impracticable. The Army Veterinary Department are adopting the simple nomenclature which has been laid open to them by the action of our profession, and although not officially recognised, that department finds the new titles convenient, and almost absolutely necessary. Why then should medical officers, who command their own corps as well as men of all other corps in hospital, be not granted at once official sanction for the use of the simple military titles. Will the present Secretary of State for War move in this matter? Regarding the present mode of detailing medical officers for India, I went out to that country under similar circumstances, and have a vivid recollection of how awkward and humiliated all the medical officers on board felt at not being able to inform kind inquirers as to which Presidency—much less station—they were going to; every other human being on board, officers, ladies, planters, etc., knew their destination, but the medical officers could only say theirs lay in some spot between the Himalayas, Ceylon, or Mandalay. We confidently hope the Director-General will take the detailing of medical officers for Presidencies into his own hands, so that they may be able to make reasonable preparation for a long tour of service, and not appear the hopeless castaways they present when on board the transports.

INVIDIOUS DISTINCTIONS.

T. J. I. writes: The Engineers and medical officers have equally substantive army rank. Why is the invidious distinction made as regards medical officers of placing their profession before their rank, and not after it like the Engineers? This equally applies to the Army Service Corps, who likewise have their rank placed before their duties of supply. Captain, R.E.; Captain, Army Service Corps; Surgeon-Captain, Royal Medical Corps. Why the above invidious distinction, seeing that the officers of all three departments have equally substantive army rank and the composite duties to perform?

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE LIBERTY OF THE SUBJECT AND LORD HALSBURY'S ACT.

The death of a medical man at Peckham is reported in the daily papers which brings into prominence the provisions of the new Lunacy Act for safeguarding the liberty of the subject. It appears that, "from information received," the relieving officer, acting under the powers conferred by Section 13 of the Lunacy Act, 1890, laid an information on oath before the police magistrate that a Dr. Murray was an insane man, and the magistrate signed an order for two medical men to examine the alleged lunatic. On their arrival, however, they found the patient defunct, and ultimately it was certified that the cause of death was sudden shock from over-excitement. The facts—from the newspaper reports—seem to be that the relieving officer had received information the deceased intended to commit suicide; that he proceeded to the house and saw him; that Dr. Murray retired to his room ostensibly to wash his hands, and locked himself in. When the door was burst open he was found lying on the bed, apparently in a fit, with a loaded revolver in his hand; and he shortly afterwards expired. The coroner seemed somewhat surprised to find the Lunacy Act gave anyone the power to swear an information, and that a relieving officer, on the information of a stranger, "could arrest, at ten minutes' notice, any person he thought fit," and he added: "If this state of things were allowed to exist there would be no liberty of the subject."

*** There can be no doubt about the Act, for Clause 2 of Section 13 states any such justice, upon the information on oath of any person whatsoever, that a person not a pauper is deemed to be a lunatic, may order him to be visited by two medical practitioners, who shall examine him scientifically as to his mental state. The relieving officer appears to have conformed to the provisions of the Act. He merely requires to have knowledge that a person, not a pauper, is deemed to be a lunatic to swear the information and obtain an order from a magistrate to have him examined.

ASSUMPTION OF THE TITLE OF M.D.

A Member.—The only way (if remonstrance fails) of preventing the unqualified use by any one of the title of M.D. is by taking proceedings under the provisions of the Medical Act, 1858 (see Section 40). Perhaps, however, if the attention of the person complained of is drawn to the fact that he was rendering himself liable to a penalty he might discontinue the use of the title, and thus render any proceedings unnecessary. The proceedings in question have to be taken in manner prescribed by the Act, 11 and 12 Vic., cap. 43, namely, by making application to the justices for a summons. It will be observed that the wilful as well as the false assumption has to be proved.

Factory Legislation in France.—The new French law relative to the employment of children and women in factories, etc., which was promulgated on November 2nd, prohibits the employment of children in workshops, factories, mines, quarries, etc., unless they have received a certificate of physical fitness for the work from a medical man authorised to grant such certificates. The inspectors of labour can always demand to have children in such establishments under the age of 16 medically examined, to determine whether the work they are called on to do is beyond their strength.

OBITUARY.

JOHN CHARLES STEELE, M.D., F.P.S.GLASG.

THE *Guy's Hospital Gazette* publishes an excellent portrait of the late Dr. Steele and also gives a few biographical particulars.

John Charles Steele was born in the neighbourhood of Brechin, in Forfarshire, and received his medical education at Edinburgh and Glasgow. He took the diploma of L.R.C.S.Edinburgh in 1843, and the degree of M.D. at Glasgow in 1848. In the latter city he held the post of Medical Superintendent at the Royal Infirmary until he was appointed Resident Medical Superintendent of Guy's Hospital on September 7th, 1853. He was the first to bear the title of superintendent, his predecessor, Mr. Browell, having been called steward. During the long period of nearly 40 years that he lived within the walls of Guy's Hospital he occupied a house in the front quadrangle. Originally his offices were where the dressers' common rooms are now, and they led into the out-patient department, which occupied the position of the present surgery and adjacent end of the accident ward. When Hunt's house was built the apothecary's shop was moved there, and the superintendent's offices were transferred to their present site.

Dr. Steele was well known to all who take an interest in the welfare of hospitals and similar institutions by his numerous and able contributions to the literature of the subject. Amongst these may be mentioned "Vital Statistics of Guy's Hospital, from 1854 to 1861;" "Analysis of Patients Treated at Guy's Hospital, from 1861 to 1868;" "Hospital Dietaries," 1873; "Essay on the Mortality of Hospitals Past and Present," which gained the Howard Medal awarded by the Statistical Society in 1876; and as recently as 1891 he wrote valuable papers on the "Charitable Aspects of Medical Relief." In the Royal National Pension Fund for Nurses he always took a keen interest, and did much to excite the same interest in others, and to further the claims of the Association among the nursing staff of Guy's Hospital. He was also an active member of the Council of the Parkes Museum during the early days of that institution, before it was merged in the Sanitary Institute.

His death was painfully sudden. After a few days' illness, with symptoms of intestinal obstruction, it was decided to perform an operation, and while under the influence of an anæsthetic he sank immediately after the operation had been begun. He died on November 6th at the age of 71. One who had known him for many years writes:—

"He died in harness, leaving a record so honourable that it falls to the lot of few men to equal much less to surpass it. Ever ready to do service in the cause of a friend, his kind-heartedness, his geniality, his shrewd common sense and enduring perseverance made him a power for good in the hospital world."

There is a melancholy interest in the fact that during his recent summer holiday he had visited all his old friends and the scenes of his youth in Scotland, and his account of his experiences, and of the changes which had occurred in his native place during his long absence, were most entertaining.

On Thursday, November 10th, a funeral service was held in the chapel of Guy's Hospital, and was attended by the whole of the hospital and school staff, together with many old friends, past and present students of the hospital, and members of the nursing staff. The interment took place at Norwood Cemetery.

GEORGE ROSS, A.M., M.D.

DR. ROSS, who died at Montreal on November 8th, was Vice-Dean and Professor of the Practice of Medicine in the Faculty of Medicine, McGill University. Dr. Ross was well known throughout the Dominion of Canada as a consultant, and had a great reputation as a clinical teacher. He was an acute diagnostician and a clear and forcible speaker. He commenced as a teacher of clinical medicine at the Montreal General Hospital more than twenty years ago, and held the chair for over fifteen years, attracting large classes of students from all parts of Canada and the United States. He held many important offices: he was President of the Canadian Medical Association, President of the Medico-Chirurgical Society of Montreal, Governor of the College of Physicians and Surgeons of the Province of Quebec, etc. Dr. Ross was not a prolific writer. His article on the "Paralysis of Typhoid Fever," read before the Society of American Physicians, and his monograph on "Aneurysm," which appeared in the *Reference Handbook of the Medical Sciences*, were valuable contributions to those subjects. He contributed many articles to the various societies with which he was connected, most of them appearing in the *Montreal Medical Journal*, of which he was editor-in-chief. At the time of his death he was only 47 years of age.

THOMAS WILTSHIRE, L.R.C.P.EDIN., L.F.P.S.GLASG.

MR. WILTSHIRE passed away at Tunbridge Wells on November 2nd. The deceased gentleman took the diplomas of L.R.C.P.Edin. and L.F.P.S.Glasg. in 1865, and for a period of twenty-eight years had a large practice in the North of England, succeeding Mr. Tinsley, of Sheffield. Being of a retiring nature, he never courted any public medical appointments. During the winter of 1891 he suffered severely from an attack of influenza and never really recovered. A few months ago symptoms of renal trouble presented themselves, and ever since he has been under medical care. He never made any enemies, and was highly respected by the members of his profession.

HENRY MOON, M.R.C.S.ENG., L.D.S.

IT is with much regret that we have to record the death of Mr. Henry Moon, late Dental Surgeon at Guy's Hospital, at the age of 47. He was born at Tottenham, where his father carried on a large general practice. He was always of delicate constitution. He entered at Guy's Hospital, and passed the usual examination; but general practice was considered too severe for his powers, consequently he studied dentistry. In a few years he became Vice-President of the Odontological Society, Dental Surgeon to the Dental Hospital, and on the retirement of Mr. Salter he was appointed Dental Surgeon to Guy's Hospital, and Lecturer on Dental Surgery. He contributed to the Reports of the Odontological Society and the Journal of the British Dental Association, and wrote the article on Dental Surgery in Bryant's *Surgery*. Four years ago his health began to fail, and after much urging he went to New Zealand, where he improved, but returned to England a year since for family reasons. But his health again gave way, and he died near Egham on November 14th. He was of gentle, kindly manner, most conscientious and generous, thoroughly reliable, and none of his friends wondered that he succeeded in private practice as rapidly as he did in his public position.

MICHAEL FOX, L.A.H., L.M.

WE deeply regret to announce the death of this gentleman, which occurred at Claycross, Chesterfield, on November 6th, from enteritis. The deceased was well known amongst the teachers and students of Dublin, with whom he was an especial favourite. He practised in his native town (Longford) for some time, and while there he gained the admiration of numerous friends and clients. But through ill health he was obliged to relinquish his practice and to travel. He took voyages to India, Australia, and to North and South America. Believing he had sufficiently recovered he again settled down to practise, but it proved too much for his delicate constitution. He was only 33 years of age and the youngest of three brothers belonging to the medical profession.

MISS ROYCE, L.S.A., a well-known philanthropic lady, who for 25 years had been one of the most active workers in Leicester, where she had large classes of young men, over whom she exercised the most salutary influence, died recently. She was a guardian of the poor, and was highly esteemed in her native town.

DEATHS IN THE PROFESSION ABROAD.—Dr. Flechsig, of Bad Elster, in Saxony, a well-known balneologist, aged 75. A telegram from Copenhagen announces the death of Dr. Axel Iversen, Professor of Surgery at the Communal Hospital.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,057 births and 3,632 deaths were registered during the week ending Saturday, November 19th. The annual rate of mortality in these towns, which had been 19.6 and 19.5 per 1,000 in the preceding two weeks, further declined to 18.6 during the week under notice. The rates in the several towns ranged from 12.4 in Halifax, 13.1 in Wolverhampton, 13.3 in Croydon, and 14.1 in Derby, to 22.4 in Brighton, 22.5 in Preston, 23.6 in Burnley, 25.1 in Bolton, and 25.7 in Salford. In the thirty-two provincial towns the mean death-rate was 18.7 per 1,000, and slightly exceeded the rate recorded in London, which was 18.4 per 1,000. The 3,632 deaths registered during the week under notice in the thirty-three towns included 392 which were referred to the principal zymotic diseases, against 434 in each of the preceding two weeks; of these, 137 resulted from measles, 61 from scarlet fever, 53 from diarrhœa, 51 from whooping-cough, 47 from diphtheria, 39 from "fever" (principally enteric), and 4 from small-pox. These 392 deaths were equal to an annual rate of 2.9 per 1,000; in London the zymotic death-rate was equal to 1.7 per 1,000, while it averaged 2.3 in the thirty-two provincial towns. No death from any of these diseases was recorded last week in Norwich; in the other towns they caused the lowest death-rates in Derby, Wolverhampton, Burnley, and Liverpool, and the highest rates in Croydon, Hull, Brighton, and Salford. Measles caused the highest proportional fatality in West Ham, Croydon, Brighton, Cardiff, Salford, Oldham, and Hull; scarlet fever in Plymouth, Swansea, and Newcastle-upon-Tyne; whooping-cough in Swansea and Salford; "fever" in Preston, Halifax, and Sunderland; and diarrhœa in Plymouth, Blackburn, and Gateshead. The 47 deaths from diphtheria included 29 in London, 3 in Birmingham, 2 in West Ham, and 2 in Brighton. Two fatal cases of small-pox were recorded in Leeds, 1 in Sheffield, and 1 in Leicester. Fifteen small-pox patients were under treatment in the Metropolitan Asylums Hospitals, and 2 in the Highgate Small-pox Hospital on Saturday last, November 19th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 4,045, against 4,067 and 4,063 on the preceding two Saturdays; 404 new cases were admitted during the week, against 462 and 403 in the preceding two weeks. The 340 deaths from diseases of the respiratory organs in London were 80 below the average, and were equal to an annual rate of 4.2 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, November 19th, 934 births and 598 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22.9 and 20.6 per 1,000 in the preceding two weeks, rose again to 21.5 during the week under notice, and exceeded by 2.9 per 1,000 the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 17.1 in Dundee and 18.2 in Greenock, and the highest rates 24.1 in Perth and 37.2 in Leith. The 598 deaths in these towns included 127 which were referred to the principal zymotic diseases, equal to an annual rate of 4.6 per 1,000, which was 2.6 per 1,000 above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Aberdeen, Edinburgh, and Leith. The 275 deaths in Glasgow included 3 from small-pox, 16 from measles, 14 from scarlet fever, 3 from diphtheria, and 7 from "fever." Twenty-three fatal cases of measles were recorded in Edinburgh, 15 in Leith, 14 in Glasgow, and 5 in Aberdeen. The death-rate from diseases of the respiratory organs in these towns was equal to 4.9 per 1,000, against 4.2 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, November 12th, were equal to an annual rate of 22.9 per 1,000. The lowest rates were recorded in Lisburn and Armagh, and the highest rates in Belfast and Lurgan. The death-rate from the principal zymotic diseases averaged 1.8 per 1,000. The 160 deaths registered in Dublin were equal to an annual rate of 23.9 per 1,000 (against 28.5 and 23.9 in the preceding two weeks), the rate during the same period being 18.8 in London and 20.9 in Edinburgh. The 160 deaths in Dublin included 9 which were referred to the principal zymotic diseases (equal to an annual rate of 1.3 per 1,000), of which 5 resulted from different forms of "fever," 2 from measles, and 2 from diarrhœa.

WORKHOUSE BEER.

No inconsiderable amount of local popular criticism has been evoked by what appears to be an extravagant expenditure on intoxicating liquors in the Kidderminster workhouse. The total alcoholic Poor-law disbursement has, in England and Wales, been reduced during the past twenty years more than one-half, yet the Kidderminster corresponding charge was £20 more in 1891 than it was in 1871. This special item is, according to the latest parliamentary return, twice as high per inmate at Kidderminster as it is at the adjacent workhouse of Tenbury, more than twice as high as at Evesham, more than thrice as high as at King's Norton, 87 times as high as at Aston, and nearly 100 times as high as at Dudley. We are glad to observe, from a statement to the guardians by the medical officer, that he is not responsible for this lavish outlay. He calls attention to the fact that at present three patients were receiving brandy and seventeen beer on his direct orders, and that the cost for alcoholic drinks directly ordered by him did not exceed £30 during the year. As the total intoxicant expenditure was £240, he was thus immediately accountable for only one-eighth. The medical officer has actually reduced the spirits bill nearly one-half, and the wine account to less than one-seventh of what it was six years ago. We presume that the medical officer could not well avoid legalising this large non-medical consumption of beer by his signature, and that on the guardians devolves the responsibility for so questionable and excessive a supply of beer. If the excess arises from giving drink as a reward for work done, this is clearly in contravention of the instructions of the Poor-law Board. A representation of the facts to that Board would, we are confident, lead to an improvement in the existing state of matters. As at the workhouse in question the average daily number of inmates in 1891 was 332, the rate per inmate was almost 14s. 6d., the corresponding average in provincial workhouses generally being 3s. 7d. Since the preceding lines were written, we are gratified to observe, from the report of a recent meeting of the guardians, that a resolution was passed by the board recommending stricter control over the issue of beer, the purchase of beer instead of brewing it upon the premises, which appears to have been the case, and an optional money or milk allowance to officials in lieu of the daily ration of two pints. The resolution further expressed the desire of the guardians to co-operate with the medical officer in reducing the consumption of beer, having due regard to his care of the sick and infirm.

FROM HARMFUL TO USEFUL.

The report of Mr. Fletcher, the chief Government inspector of alkali works, in respect of 1891, points to a great decrease in the proportion of noxious vapours discharged from such works. The average amount of hydrochloric acid emanating from the chimneys is now less than half the maximum allowed by statute. Moreover, the waste products that used to form offensive nuisances are now utilised so as to profit the manufacturer and relieve the neighbourhood of the works. Again, "a foul discharge from gasworks, so evil-smelling that there was great difficulty in disposing of it so as not to cause nuisance, is now the chief source of that sulphate of ammonia for which there has long been an enormous demand among the cultivators of beetroot used for sugar-making on the Continent, and which is now becoming popular among our farmers." The report also tells of the extraction of sulphur from alkali waste. Enormous quantities of this waste are now desulphurised with profit; the sulphur is of great purity, and much nuisance is prevented. The sulphur is taking well in the home markets, and is also being exported; and though fresh waste only can yet be utilised, hopes are entertained that the immense old deposits may in time prove useful in like manner.

MOTES AND BEAMS.

In view of the expected outbreak of cholera next summer, the inhabitants of Thorpe St. Andrew, in vestry assembled, have come to the conclusion that their health is endangered by the proximity of a loop of the river, and have requested the Norwich Corporation to take immediate steps to have it cleansed. Very likely this demand was necessary and reasonable enough, but the *Norfolk Weekly Standard* has taken the unusual trouble to inquire into the other sanitary circumstances of the village, apart from river conditions, and has made out a pretty strong indictment against its sanitary rulers, more especially in regard to water supply and drainage. It is stated that much of the laundry work of Norwich is carried on at Thorpe, and that there is some local prevalence of diphtheria. Now that city and village have pointed out each other's shortcomings in candid neighbourly fashion, each will no doubt put into practice the promptitude which it preaches. Certainly bad drainage and water supply will do far more than a dirty river to encourage cholera.

SEWAGE AND SEWER AIR.

The London Council have engaged an expert to make observations with a view to ascertaining the effects produced by organisms on sewage, and whether the conditions of the air in a small experimental sewer with the intermittent flows of sewage are similar to those found to exist in large sewers, also as to the condition of sewer air in stagnant sewers and at the pumping stations and other places where abnormal conditions exist.

ISOLATION AFTER SCARLET FEVER.

G. P.—Accepting the statement of facts as being complete and accurate, B was not justified in interfering with the management of the case. The duration is not mentioned, but it is unsafe to discharge a patient as free from infection before the desquamation is completed.

PAYMENT TO MEDICAL MEN FOR NOTIFICATION.

At the meeting of the Public Health Committee of the Edinburgh Town Council on November 22nd, the convener intimated that the sum of £600 inserted in the estimate of the expenditure for the current year for fees to medical men for reporting cases of infectious disease had been wholly expended in consequence of an unusually large number intimated, and looking to the likelihood of a continuance of the outbreak for some time the Committee felt that the smallest sum they could ask the Council to vote meantime was £500.

FULHAM MEDICAL OFFICER.

At a fully attended meeting of the Fulham Vestry on November 22nd a resolution was adopted calling for the resignation of the medical officer within a month from that date unless the Local Government Board ordered a public inquiry to take place with reference to certain matters connected with his department.

A LIBERAL SALARY.

Dr. Clark, of Glasgow, is the County of Lanark analyst, and he has the large salary of £5 a year.

DANISH RAGS.

The Local Government Board have issued an order revoking the prohibition put in force by the order of October 14th against the importation from Denmark of rags, bedding, and disused and filthy clothing.

NOTIFICATION OF CASES SEEN AFTER DEATH.

DR. CECIL H. PIGGOTT.—The wording of the Act seems to point only to diagnosis made during life, and probably the other contingency was not thought of. We think, therefore, that, strictly speaking, the certificate was not legally necessary, and that a fee could not legally be claimed. Nevertheless, it appears to be an attempt to comply with the spirit of the Act, by giving the earliest possible information of the diagnosis, and it might be well to accept it as such.

NEGLECTED SEWAGE WORKS.

A CORRESPONDENT asks what can be done to enforce attention to an intolerable nuisance caused by neglect and mismanagement of sewage tanks at Barton-under-Needwood, near Burton-on-Trent. Repeated complaint has been made to the sanitary authority, but in vain.

*** The usual course is to appeal to the Local Government Board; but if we are right in supposing that the village in question is in Staffordshire, it would be well to call the attention of the county medical officer (Dr. Reid, Stafford) to the facts.

COMBINATION OF APPOINTMENTS.

MEMBER wishes to know if it is desirable and proper for one medical man in practice to hold the following appointments at the same time:—(1) registrar of births and deaths, (2) district medical officer and (3) public vaccinator, (4) medical officer of health? It seems to him that it is unfair to the other medical men in the district and dangerous to the public welfare, as it is obvious it gives too much power to one man.

*** The suggestion of unfairness and giving undue power to one man is quite unfounded. The medical officer of health's official need of the statistics which the registrar compiles, and the latter occasionally goes astray for want of medical knowledge, but the Registrarship is very rarely held by a medical man. That the public vaccinator should be a district medical officer is usual and proper, but the Local Government Board often raise objection to the district medical officer being also medical officer of health.

PENSIONS TO POOR-LAW MEDICAL OFFICERS.

UNION MEDICAL OFFICER writes to ask if the same rule applies to England as Ireland with regard to a union surgeon signifying his intention to resign in order to obtain a pension. He says surely it is sufficiently hard for pensions to be made permissive only, without an officer being compelled to resign before he has obtained his pension.

*** In England no pension can be granted to a Poor-law medical officer till after resignation of appointment, or till formal notice of intended resignation has been given.

NOTIFICATION OF SYSTEMATIC INSPECTION.

DR. F. P. ATKINSON (Surbiton) writes: I am glad to have an opportunity afforded me of replying to your arguments.

First, I do not deny that your question the advantage of sanitary inspection, but that you do not urge it to be carried out in so systematic a manner as you do notification. This you virtually admit to be correct, when you say you comment upon neglect of inspection, whenever it is brought to your notice. Sir Charles Cameron, at the last Sanitary Congress held at Dublin, said: "There are hundreds of towns and villages in these islands which are still unprovided with proper arrangements for drainage and filth disposal, and which are dependent on scanty supplies of water, often of bad or inferior quality." If this be really the case, why should we wait to get this state of affairs altered till you have the opportunity of commenting strongly upon them? For all insanitary areas are starting points of disease both for men and beasts, and unless there is some regular and systematic inspection, years must elapse before these can be put into a proper state, though notification may be fairly well carried out. Notification at the present time may in certain instances be the means of limiting the extent of a particular outbreak, but if the primary cause is allowed to remain, another will occur sooner or later, when the conditions are again favourable. Mr. Fowler, President of the Local Government Board, at the dinner given to Sir Walter Foster on October 26th, said improved sanitary conditions had materially reduced the death-rate of the country, and deaths from zymotic disease had in the last five years declined 50 per cent. I cannot find that he gave much credit for the altered state of things to notification. Dr. Duddield, the Medical Officer of Health for Kensington said, a short time back, he thought provision should be made in London for not less than 5,000 beds for the isolation of scarlatina and diphtheria, leaving out of account those which would be required for enteric fever, typhus, etc. Later on, when cases of measles, whooping-cough, etc., have to be notified and isolated, it is difficult to say how many will be required. Dr. Bristowe, who is no believer in the great results to be obtained from notification, thinks that in course of time the public will demand a repeal of the present Acts, on account of the expense connected with their operation, and he is certainly no mean authority. You wind up your comments with the statement that the death-rate (that is the case mortality) in scarlatina is not higher in hospital than among home cases. This is nothing more than an assertion, because it is impossible to know that the cases treated at home are not equally severe with those taken into hospital; besides this, a large number of persons entirely escape notification, so that the home death-rate per case must be much lower than it appears in the returns. Then there is another point which ought not to be lost sight of, the worst cases are not necessarily the ones to be taken into hospital, but those more especially that are not able to be thoroughly isolated at home.

*** Dr. Atkinson's reply scarcely attempts to meet the points advanced in the note to which he refers,[1] except one. As regards case mortality among hospital and home patients respectively, he stated in his former letter that "one knows that the death-rate is higher there (that is in hospital) than when the cases are treated at home." Of this theory he offers no proof, and indeed now appears disposed to argue that proof either way is impossible, and therefore that any contradiction of his own dictum is "mere assertion." Nevertheless there are means of comparing the results of the two lines of treatment, and the results are not confirmatory of Dr. Atkinson's paradoxical theory.

[1] BRITISH MEDICAL JOURNAL, October 29th, p. 978.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

DEPARTMENT OF BOTANY.—MR. F. Darwin, M.A., M.B., of Christ's College, has been appointed Deputy Professor of Botany for Professor Babington, of St. John's, who is at present incapacitated from lecturing by reason of severe illness.

UNIVERSITY OF EDINBURGH.

UNIVERSITY COURT.

ADDITIONAL EXAMINERS.—At the meeting of the Court last week the Court determined to advertise for additional examiners in anatomy, chemistry, and laboratory work for the First B.Sc. Examination in Public Health, Midwifery, Practice of Physic, and Botany.

CLASS RETURNS.—The class returns of the University professors and recognised medical lecturers for 1891-92 were remitted to a committee for consideration and report.

FEES FOR PROFESSIONAL EXAMINATIONS.—The Court resolved that the fees for the professional examinations for the degrees of M.B. and Ch.B. under the new ordinance in medicine shall be apportioned as follows: The fee for the First Division to £6 6s. Candidates who avail themselves of the option to appear in any two subjects to pay £3 3s. for the first two, and the same fee for the second two. The fee for the Second Division to be £6 6s. Candidates who avail themselves of the option to defer the examination in materia medica and therapeutics to pay £4 4s. for the first stage and £2 2s. for the second stage. The fee for the Third Division to be £4 4s., and for the Fourth and Final Division £6 6s. Candidates who fail to pass either in the whole or in one or more of the subjects in any division of the examination to pay £1 1s. for each subject in which they have failed before they can be readmitted to examination in that subject. Candidates who, under the proviso in Sect. XI of the Medical Ordinance, are exempted from the First Division are still required to pay the fee belonging to that division before they can be admitted to the degrees of Bachelor of Medicine and Bachelor of Surgery.

REPORTS.—The names of the members of a joint board of examiners were submitted. Copies of reports by committees of the General Council of the University were submitted.

STUDENTS' REPRESENTATIVE COUNCIL.—The following gentlemen were last week elected representatives of the Medical Faculty on the Students' Representative Council:—First year: A. G. Allen, C. L. Chiene, J. Prentice, M.A., and J. G. Ross. Second year: W. E. Gibbons, G. Henderson, H. Cardale, A. Steele, C. M'Laurin, E. Arkwright, J. O. Cuthbertson, and D. Waterston. Third year: H. H. Balfour, J. R. Muir, J. A. Laing, G. F. H. Cunningham, J. D. C. Howden, H. J. F. Simson, D. M. Hutton, and H. O. Hobson. Fourth year: W. J. Garbutt, R. W. Briggs, J. G. Walker, R. H. Makgill, T. A. Glover, C. J. R. M'Fadden, G. R. Ruston-Harrison, and A. P. Steavenson. Fifth year: A. A. Scot-Skirving, J. G. Cattanach, A. M. Easterbrook, S. J. Aarons, O. H. Isard, E. M. Skeete, C. St. C. Thom, and R. Hutchison. At the first meeting, held on November 19th, the following office-bearers were appointed for the ensuing year:—*Presidents*: A. A. Scot-Skirving; D. Milne Watson, M.A.; C. R. Gillies-Smith, M.A. *Secretaries and Treasurers*: R. D. Melville; J. Y. Simpson. *Executive Committee*: *Divinity*, C. E. Stuart, M.A. *Law*, H. W. Gibson, M.A., LL.B.; F. J. Thomson, M.A. *Medicine*, J. G. Walker; S. J. Aarons; J. A. Laing; L. G. Irvine, M.A., M.B. *Arts*, J. Gregory Nicolson; A. J. Herbertson; M. Campbell.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, November, 1892. The following candidates passed in:

Surgery.—C. K. Batchelor, Queen's College, Birmingham; W. E. Barker, Owens College, Manchester; S. A. Clarke, Middlesex Hospital; H. E. Cooper, St. Thomas's Hospital; H. S. Elliott, St. George's Hospital; N. Elrington, St. George's Hospital; V. P. Foote, Charing Cross Hospital; W. E. Gibbs, Durham; F. G. Hargraves, London Hospital; C. S. Lewis, St. George's Hospital; O. H. A. Maggs, Charing Cross Hospital; A. Marshall, St. Thomas's Hospital; G. H. Nowell, Cambridge University and Westminster Hospital; M. Richards, London Hospital; E. Smallwood, Liverpool.

Medicine, Forensic Medicine, and Midwifery.—A. Baldwin, Edinburgh; H. A. Beetham, Yorkshire College, Leeds; F. G. Dorey, Yorkshire College, Leeds; R. Herd, Cambridge University and Manchester; G. C. Jeaffreson, University College; E. G. G. Little, St. George's Hospital; G. Martyn, King's College; G. H. Nowell, Cambridge University and Westminster Hospital; A. B. S. Stewart, Yorkshire College, Leeds; A. T. Todd White, Guy's Hospital; G. W. Wickham, St. Bartholomew's Hospital; S. Wimbush, St. Bartholomew's Hospital.

Medicine and Forensic Medicine.—B. E. Church, St. Bartholomew's Hospital.

Forensic Medicine and Midwifery.—H. W. Joyce, King's College; H. E. Mortis, Charing Cross Hospital.

Forensic Medicine.—F. A. P. Arnold, London Hospital; A. H. Hardcastle, Yorkshire College, Leeds; W. E. S. Jones, Guy's Hospital.

Midwifery.—J. E. Bailey, University College; W. Handcock, Yorkshire College, Leeds; J. J. Powell, Cambridge University and St. Thomas's Hospital; A. L. Roper, Cambridge University and Guy's Hospital; J. D. Willis, Owens College, Manchester.

To Messrs. Arnold, Bailey, Baldwin, Batchellor, Dorey, Elliott, Elrington, Foote, Handcock, Hargraves, Jeaffreson, Lewis, Maggs, Mortis, Nowell, Powell, Richards, Wickham, Wimbush, and Willis was granted the diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

DENTAL EXAMINATION.—The following gentlemen having passed the necessary examination have been admitted Licentiates in Dental Surgery of the College:

E. Catt (Scarborough) and L. B. Eskell (Bath).

INDIA AND THE COLONIES.

CAPE OF GOOD HOPE.

REGISTRATION WITHOUT DIPLOMA.—Dr. C. Lawrence Herman, President of the Cape of Good Hope Branch of the British Medical Association, has addressed a letter to the Colonial Secretary protesting against the action of the Government in placing upon the *Medical Register* the names of several other persons under the clause in the Medical Act giving the Colonial Secretary power to register the names of persons engaged in the practice of medicine for twenty years. This clause, it is stated, was inserted to meet the case of two gentlemen who had petitioned against the Bill of 1891; it was hoped that the cases would not be made a precedent, and it is felt that the action of the Colonial Secretary is contrary to the promise made to deputations while the Bill was under discussion. The continued exercise of powers under the Section referred to must lead to there being placed on the *Register* persons of whose training and skill there is no guarantee, and of whose capabilities and qualifications the Government is not a satisfactory judge. It is pointed out that the same clause gave power to place on the *Dental Register* persons who could show that they had been practising dentistry for three years, but that the power has not been exercised. It is pointed out, further, that the provision of this special power is not extended to chemists. The following resolution was unanimously adopted at a recent meeting of the Cape of Good Hope Branch of the British Medical Association: "That this Association records its earnest and final protest against the placing of the names of certain unqualified persons upon the roll of medical practitioners, and that steps be taken to bring the action of the Government in this matter to the notice of the public and the profession in this country and in England." No such power as that conferred on the Colonial Secretary by the recent Cape Colony Act exists, or ever has existed, in Great Britain, where the preparation and custody of the *Medical Register* was from the first confided by the Legislature to the General Medical Council, by whom alone the regulations as to requirements from candidates have been administered.

CEYLON.

THE TREATMENT OF ANCHYLOSTOMIASIS.—Dr. Kynsey, Principal Civil Medical Officer, Ceylon, has issued recently a short but very useful memorandum on the subject of anchylostomiasis—so prevalent in that island—in which, after briefly describing the symptoms of this very grave helminthiasis and the life-history of the parasite, he indicates the best means of bringing about its expulsion, remedying its defects, and, also, of securing a reliable prophylaxis. He describes the treatment by thymol. The plan he advocates is, after mild purgation, to administer 30 grains of powdered thymol rubbed up with an equal quantity of sugar of milk, and shaken up in water; the dose should be repeated two hours afterwards, the first dose being given in the early morning on an empty stomach. If eight days afterwards the stools are still found to contain ova, the medicine must be repeated. Extract of male fern may be used much in the same way in one or two drachm doses. We may remark that thymol may be given in much larger doses than those recommended by Dr. Kynsey. As he points out, it must not be given in a solution, for, if absorbed in any considerable quantity, it is highly toxic. Although thymol has been in use as an anthelmintic for a good many years, and has over and over again been proved to be specially serviceable in anchylostomiasis, strange to say there is no mention of it in this connection in most of our English works on therapeutics and materia medica. We trust systematic writers will take note of this, and that the English reader who turns to their pages for assistance when brought face to face with anchylostomiasis in tropical countries will not turn to their future editions in vain. Dr. Kynsey remarks: "It has been erroneously asserted lately in India that the larvæ (of the anchylostoma) become sexually mature, and are capable of reproducing themselves indefinitely in the free state." We presume this remark refers to Giles's recent and very elaborate work on the anchylostoma in Assam, and that Dr. Kynsey does not accept that observer's views regarding the possibility of the existence of a rhabditis stage of this parasite. Giles, however, has made out a strong case, and, although the matter cannot be considered as quite settled, something more than simple denial is required to upset the position this very able observer has taken up.

MEDICAL PRACTITIONERS IN ITALY.—From the official return of the Director-General of Direct Taxes in Italy it appears that the medical profession occupies the lowest position of all the professions in point of income. The notaries come first, advocates next, engineers and architects are a good third, and last of all come, *longo intervallo*, the doctors, with an average of professional earnings of little more than half that of the notaries.

HOSPITAL AND DISPENSARY MANAGEMENT.

APPLICATION FOR A CHARTER FOR THE ROYAL BRITISH NURSES' ASSOCIATION.

THE Privy Council sat on November 21st to hear the petition for the grant of a charter for the incorporation of the Royal British Nurses' Association. Their lordships present were Lord Hobhouse, Lord Oxenbridge, the Marquis of Ripon, and Lord Hannen. Lord Sandhurst was also present, but took no part in the proceedings. The petition was presented by Her Royal Highness Helena, Princess Christian of Schleswig-Holstein, as President of the Royal British Nurses' Association, for a grant of a charter of incorporation to the petitioner and the members of the said association, under the title of "The Royal British Nurses' Association,"

For the petitioners there appeared Sir H. Davey, Mr. Muir Mackenzie, and the Hon. W. H. Cross.

There was a petition also presented in opposition by the Council of the Nightingale Fund, and like petitions were presented from the following hospitals: St. Thomas's, the London, Westminster, King's College, St. Mary's, Charing Cross, the Seamen's (Greenwich), and Guy's; also the following infirmaries: St. Maryiebone, Paddington, St. Pancras, and Whitechapel. Like petitions were also presented from Edinburgh, Glasgow, Dublin, Leeds, Liverpool, Manchester, Bristol, and other provincial towns, as well as by the Army Medical Department, and from many smaller general hospitals and special hospitals both in London and the country. Like petitions were also presented by the Metropolitan Nursing Association, by the East London Nursing Society, the Liverpool Nursing Society, and many other institutions in London, the provinces, Scotland, and Ireland for providing trained nurses for the sick poor.

There appeared for the petitioners, against the granting of the charter Sir R. Webster and Mr. L. S. Bristowe.

The Council Chamber was crowded with ladies and gentlemen interested in the matter before the Council.

Sir H. Davey opened the case for the petitioners. He said the Royal British Nurses' Association was formed about four years ago for the following objects: (1) To protect the public, the medical profession, and trained nurses by establishing a system of registration for trained nurses, similar to that which had been established by Parliament for medical men; (2) to form and maintain schemes for the benefit of nurses in the practice of their profession, and in times of adversity, sickness, and old age; and (3) other objects beneficial to the profession of trained nurses and those who require their services.

Sir R. Webster addressed the Council on behalf of those who opposed the granting of the charter. He said he appeared on behalf of a large and influential section. The vast majority of those interested for years in the training of nurses, and the nurses themselves, were opposed to the granting of the charter, especially with regard to the provisions as to a register. He had a large body of medical men who were utterly opposed to the registration. Out of all the metropolitan medical schools only two supported the scheme, and nine-tenths of the hospital training schools were opposed to the proposal.

The Council adjourned to November 28th.

GLAMORGAN COUNTY LUNATIC ASYLUM.

THIS large institution at the close of the year 1891 contained 970 patients, compared with 940 at the end of the previous year. The total number under treatment during the twelve months covered by the annual report was 1,248. The total number of cases discharged or died was 278, while the admissions numbered 308, which is the largest number that has been admitted in any one year direct from the unions since the asylum was opened. In this asylum, as in so many others, want of increased accommodation occupies a prominent place in the report, and tenders will shortly be invited to carry out plans which will provide space for 104 patients, together with additional workshops, etc.

Among the numerous admissions mentioned above we should mention that no fewer than 103 seemed to have had as a predisposing cause an inherited tendency, while 53 were suffering from general paralysis. The usual ratio of general paralytics to other admissions is 9 per cent., whereas during the past year at Glamorgan it was 17.2 per cent. The recovery rate was 30 per cent. Among the recoveries were a husband and wife who were admitted within a few days of each other, and were discharged well three months later.

Dr. Pringle points out that the ratio of lunatics in Glamorgan to the population is only 1 in 535, whilst England and Wales has 1 in 383. If, therefore, the ratio of lunatics to the population of Glamorgan was up to the average of England and Wales, it would mean an annual expenditure of £16,000 a year.

With regard to the new Lunacy Act, Dr. Pringle states that he has no hesitation in saying that, as a working measure to protect the insane or promote their recovery, he looks upon it as a failure, and he adds: "I believe I am correct in saying that in the framing of this Act experience and knowledge were regarded as disqualifications, and the counsel of those best able to give it was ignored." Dr. Pringle is not alone in that opinion.

JAMES MURRAY'S ROYAL ASYLUM, PERTH.

THE total number of patients under treatment during the year ending March 31st last was 147, and the average daily number on the books was 107. In addition to these, 4 men and 3 women reside voluntarily in the institution, and at the close of the year 10 were at Kincarrothie, a branch establishment. The general condition of the patients admitted—numbering 41—was favourable compared with late years, and the recovery rate was a little higher, namely, 36.59 per cent., calculated upon the total number of admissions. The death-rate was high, being 12.84, calculated on the average number resident; but this high mortality was not the result of imperfect hygienic conditions, but of the character of the cases

under treatment. There were 10 actively suicidal cases under care, and these are the cases which test the vigilance of the officials; it is even easier, says Dr. Urquhart, "to bear with the abuse of an actively insane (maniacal) patient than to keep up constant warfare with the destroying angel of dementia." He also makes some pertinent remarks upon the home treatment of insanity—not of the ancient type, the unintelligent imprisonment of a lunatic in the least desirable room of the house, but the rational adoption of means that have been approved in the best hospital experience. And he advocates the plan of a central hospital with succursal houses. "Our experience," he remarks, "has been all in favour of this principle"—a practical principle which cannot be too strongly insisted upon, and which is in complete accord with our repeatedly expressed opinion that our public institutions should be made homes for the chronic and incurable cases, with hospitals for the recent, acute, and curable in connection with them, and not separated from them as some theorists have suggested. It is well that such institutions as this over which Dr. Urquhart so ably presides should lead the way in developing this principle.

MEDICAL NEWS.

On November 19th the Duchess of Teck opened a bazaar at Enfield in aid of the funds of the Enfield Cottage Hospital.

The Royal Microscopical Society will hold a *conversazione* in the banquetting saloon of the St. James's Hall Restaurant on Wednesday, November 30th, at 8 P.M.

University of Coimbra.—The total number of students in the Medical Faculty of the University of Coimbra entered for the present academic year is 141. Of these, 42 are first year, 17 second, 27 third, 25 fourth, and 30 fifth year students.

Prince Henry of Battenberg has promised to preside at the forty-eighth anniversary dinner of the German Hospital, which will take place at the Hôtel Métropole on Wednesday, May 10th, 1893.

Dr. Lawrence, of Chepstow, has upon the recommendation of the Lord Lieutenant, his Grace the Duke of Beaufort, been placed by the Lord Chancellor on the Commission of the Peace for the county of Monmouth.

The dinner of the Past and Present Students of the National Dental Hospital and College will be held to-day (Friday) in the Royal Venetian Chamber of the Holborn Restaurant, at 6.30 for 7 o'clock; Sir James Crichton-Browne, M.D., F.R.S. in the chair.

Professor Ernst Ludwig, Rector Magnificus of the University of Vienna, has been created a life member of the Austrian House of Lords, in the room of the late Professor Brücke, the distinguished physiologist. Dr. Ludwig is Professor of Chemistry in the Medical Faculty of the University.

The Prussian Government has decided to make the use of the Centigrade thermometer general throughout Prussia, where the Reaumur scale is still employed in some places. No further Reaumur thermometers are to be issued to public officials.

The German Emperor has sent a bronze bust of himself, with a congratulatory telegram, to Professor von Helmholtz, on the occasion of the fiftieth anniversary of the eminent scientist's graduation as Doctor of Medicine, which fell on November 2nd.

The death is announced of Dr. Gilpin, medical officer of health to the Stratford-on-Avon Corporation, and also medical officer to the rural sanitary authority, who died from an attack of typhoid fever contracted in the discharge of his duties. Dr. Gilpin was 27 years of age, and had held the appointment only two years.

Miss Maida Sturge, M.B.Lond., has been appointed one of the assistant resident medical officers at the Fever Hospital, Stamford Hill, under the Metropolitan Asylums Board. Miss Sturge is one of the most distinguished students of the London School of Medicine for Women, having been awarded the Helen Prideaux prize last June.

Great Northern Hospital, Holloway Road.—It is intended to hold a festival dinner early in next spring in aid of the funds for the completion of the buildings. The Duke of York has consented to preside on the occasion. The cost of the extensions, with furniture and fittings, will be at least £27,000, towards which sum only £8,000 has been promised or received.

The Treatment of Inebriety in Russia.—The local authorities at St. Petersburg have under consideration a proposal for the establishment of a sanatorium for inebriates in that city. The Odessa Society for the Suppression of Drunkenness is also engaged in the preparation of a similar scheme.

Leprosy in Russia.—It appears that leprosy is more widespread in Courland, one of the Baltic provinces of Russia, than official statistics previously published had led people to believe. According to these, the number of lepers in that province was 40 in 1886, 57 in 1887, and 41 in 1888. In 1889 a thorough search was made by order of the Governor, with the result that 87 lepers (44 males and 43 females) were discovered. In 1891 a further search led to the discovery of several additional cases. The disease appears to be practically confined to the districts adjoining the coast, the other parts of Courland being almost entirely free. On the initiative of the medical men of the affected districts steps have been taken to establish a lazaretto, and a society for the suppression of leprosy has been founded.

Shorthand Writing.—Mr. T. A. Reed, the well-known shorthand writer (who has acted in that capacity for the British Medical Journal for very many years) was on November 24th presented by his brother phonographers throughout the country with a testimonial on the occasion of his shorthand jubilee, 50 years having elapsed since he first as a lad began the study of his art, in which he has gained a world-wide reputation. The presentation, which was made at the Memorial Hall by Mr. Isaac Pitman, the venerable inventor of the art, consisted of an illuminated address and a purse of 200 guineas. A number of letters were received, including one from the Earl of Albemarle, congratulating Mr. Reed on the occasion and expressing high admiration of his personal and professional qualities, and several addresses were delivered to the same effect. The medical profession was represented by Dr. W. R. Gowers, Dr. Gray (of Oxford), and Dr. Norman Kerr, themselves accomplished phonographers.

Alcoholism and Insanity in Chili.—Dr. Becca, of Santiago (Chili), has recently called attention in the *Revista Medica de Chile* to the increase of insanity due to alcoholism in that country, especially among the "proletarian" class. Of 328 men admitted to the "Manicomio," or public lunatic asylum, of Santiago in 1890, in 187, or 57 per cent., the mental disorder was directly traceable to the abuse of alcohol, and in many others there was reason to suspect that drink was a more or less important etiological factor. In 1891, the number of admissions was 355 (227 men and 128 women). Among these the insanity was due to alcoholism in 154, or 43.5 per cent.; of the 154, 135 were men and 19 women. Taking the men alone the percentage of alcoholic cases was 59.5, showing an increase of 2.5 as compared with the previous year. Dr. Becca states that the dates of admission show that times of public excitement or festivity—patriotic festivals, *noche buena* (Christmas Eve), the New Year, Easter, etc.—have a powerful influence in determining the onset of insanity, largely owing, as he believes, to the drunkenness which prevails on such occasions.

Literary Intelligence.—Professor August Hirsch, of Berlin, has completed the *History of the Medical Sciences*, on which he has been engaged for several years past, and the work is now in the press. It will form part of the series entitled, *History of the Sciences in Germany*, which is to appear under the editorship of a historical committee appointed by the Munich Medical Academy. Professor Virchow had originally undertaken to write the history of medicine in recent years for this series.—The first Russian medical journal came into existence just a century ago. This periodical, which bore the title of *St. Petersburger medicinische Zeitschrift*, had but a short life, the first number having appeared on November 2nd, 1792, and the last on July 1st, 1793.—Dr. Leonzio Capparelli, of Naples, a well-known physician and writer on medical subjects, who died in March last, published some years ago before his death a novel entitled *Dr. Pietri*, which attracted a great deal of attention in Italy and evoked a chorus of praise from the critics. Dr. Capparelli's daughter has found among her father's papers the manuscript of a novel entitled *In Illo Tempore*, which will shortly be published at Florence. The period of the story is the time when King Bomba held sway at Naples.

PLYMOUTH MEDICAL SOCIETY.—The annual meeting took place on November 16th, Mr. Leah (Stonehouse), the retiring President, taking the chair. The following office-bearers were elected: *President:* Thos. Leah, M.R.C.S., Stonehouse. *Honorary Treasurer:* J. Elliot Square, F.R.C.S. *Honorary Librarian:* C. E. Russel Rendle, M.R.C.S. *Honorary Secretary:* R. H. Lucy, F.R.C.S. *Library Committee:* The President, Honorary Treasurer, Librarian, and Secretary, *ex officio*, and Messrs. R. Rendle and Woollcombe. *New Members:* Messrs. J. H. S. May, G. F. Aldous, R. S. Thomas (Plymouth), J. H. Gough (Horrabridge), R. B. Mole (Callington). It was decided to admit members residing beyond five miles from Plymouth on payment of the annual subscription only. Twenty-three members and four guests subsequently dined together. The Society has acquired a library and a reading room of its own in Athenæum Chambers, George Street, in which during the winter session fortnightly meetings will be held, alternately "clinical" and for papers with discussion thereon.

MEDICAL VACANCIES.

The following vacancies are announced:

BANBURY FRIENDLY SOCIETIES MEDICAL ASSOCIATION.—Surgeon. Salary, £200 per annum and widwifery fees, residence, and rates and taxes paid. Applications to Henry R. Webb, 7, New Land, Banbury, by December 1st.

BIRMINGHAM AND MIDLAND EYE HOSPITAL, Church Street, Birmingham.—Assistant House-Surgeon. Salary, £50 per annum, with apartments and board. Applications to the Chairman of the Medical Board by December 8th.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House-Surgeon to the Western Branch, unmarried, doubly qualified. Salary, £140 per annum (less board at 8s. per week), with furnished apartments, coals, gas, and attendance. Applications to the Assistant Secretary by December 15th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician. Board, residence, and allowance for washing provided. Appointment for six months. Applications to the Secretary at the Office, 24, Finsbury Circus, E.C., by December 8th.

DEVON AND EXETER HOSPITAL, Exeter.—Assistant House-Surgeon; doubly qualified; unmarried. Salary, £40 per annum, with board and lodging. Applications to G. A. Townsend, Secretary, by November 26th.

ENNISCORTHY UNION.—Medical Officer to Oulart Dispensary. Salary, £125 per annum, and fees. Applications to Mr. Laurence Kelly, Honorary Secretary, Castle Ellis, Ballaghkeene. Election on November 29th.

ENNISKILLEN UNION.—Medical Officer to Holywell Dispensary. Salary, £135 per annum, and fees. Applications to Mr. Phibbs Nixon, Honorary Secretary, Thornhill House, Gortahill. Election on November 26th.

FARRINGDON GENERAL DISPENSARY, Bartlett's Buildings, Holborn Circus, E.C.—Resident Medical Officer. Salary, £100 per annum, with apartments and attendance. Applications to W. K. Taunton, Honorary Secretary, by December 5th.

GENERAL HOSPITAL, Barbadoes, West Indies.—Junior House-Surgeon. Salary, £200 per annum, and quarters. Appointment for three years. Applications to the Secretary by December 1st.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer; doubly qualified. Salary, £80 per annum. Applications to the Chairman of the Medical Board by November 30th.

GLASGOW POLICE COMMISSIONERS.—Physician Superintendent at the Hospital, Belvidere, not over 40 years of age. Salary, £400 per annum, with house accommodation, board, and attendance. Applications to J. Lang, Clerk to the Commissioners, City Chambers, Glasgow, by November 26th.

HUDDERSFIELD INFIRMARY.—Senior House-Surgeon, doubly qualified. Salary, £80 per annum, rising £10 yearly to £100, with board, lodging, and washing. Applications to Joseph Bate, Secretary, by December 2nd.

LONDON THROAT HOSPITAL, 204, Great Portland Street, W.—Pathologist. Applications to Edward Low, Secretary to the Medical Committee, by December 2nd.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Assistant Physician. Applications to Charles H. Byers, Secretary, by November 28th.

MIDDLESEX HOSPITAL, W.—Clinical Assistant to the Out-door Department for Diseases of the Skin. Applications on forms to be obtained of F. Clare Melhado, Secretary-Superintendent, to be sent in by December 2nd.

MONKSTOWN HOSPITAL, County Dublin.—Resident Medical Officer. Salary, £40 per annum, with board, apartments, gas, and coal. Applications to the Honorary secretary by November 14th. Election on December 1st.

NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY, Athol Street, Douglas, Isle of Man.—Resident House-Surgeon; doubly qualified; unmarried. Salary, £100 per annum, with apartments, gas, coal, and laundry free. Applications to F. Browne, Honorary Secretary, by December 3rd.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, N.E.—Junior House-Surgeon; doubly qualified. Salary, £60 per annum. Applications to Alfred Nixon, Secretary, 27, Clement's Lane, E.C., by December 9th.

NORTHERN INFIRMARY, Inverness.—House-Surgeon and Dispenser. Salary, £75 per annum, with board, etc. Applications to the Honorary Secretary, Mr. Duncan Shaw, W.S., by November 26th.

NORTHUMBERLAND COUNTY LUNATIC ASYLUM, Morpeth.—Assistant Medical Officer; unmarried. Salary, £120 per annum, increasing £10 yearly to £150, with furnished apartments, and board and lodging. Applications to Dr. McDowall at the Asylum by December 15th.

PARISH OF BIRMINGHAM WORKHOUSE INFIRMARY.—Assistant Surgical Officer. Salary, £100 per annum, with furnished apartments, rations, coals, gas, and attendance. Applications (on printed form to be obtained from the Clerk) to W. Bowen, Clerk to the Guardians, Parish Offices, Edmund Street, Birmingham, by November 30th.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer. Appointment for four months. Salary at the rate of £30 per annum, with board and residence. Applications to the Secretary by December 2nd.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Election to the Court of Examiners. Applications to the Secretary by November 30th.

ROYAL INFIRMARY OF EDINBURGH.—Superintendent, must be member of medical profession. Salary, £500 per annum, with free house and gas. Applications to Mr. James S. Trainer, Treasurer and Clerk, by December 5th.

ST. MUNGO'S COLLEGE, Glasgow.—Chair of Anatomy. Applications to Henry Lamond, Secretary, by December 1st.

SAMARITAN HOSPITAL FOR DISEASES OF WOMEN, Lisburn Road, Belfast.—Two Honorary Attending Physicians. Applications to the Secretaries by December 5th.

STRAND DISTRICT OF THE CITY OF LONDON.—Medical Officer of Health; not more than 45 years of age. Salary, £400 per annum. Applications, marked outside "Medical Officer's Appointment," to be sent to the Offices of the Board, 5, Tavistock Street, Strand, W.C., by November 26th.

VICTORIA HOSPITAL, Burnley.—Honorary Ophthalmic and Aural Surgeon. Applications, endorsed "Ophthalmic," to the Honorary Secretary, Joshua Rawlinson, J.P., by December 6th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician; appointment for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary, by December 7th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Surgeon; appointment for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary, by December 7th.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard Street, Soho.—Resident Medical Officer. Appointment for one year. Applications to J. J. Johnson, Secretary, by December 15th.

MEDICAL APPOINTMENTS.

ATKEY, P. J., L.R.C.P., M.R.C.S., reappointed House-Surgeon to St. Thomas's Hospital.

ATKINSON, J., M.B., C.M., appointed Assistant Resident Medical Officer to the North-West London Hospital.

BAILEY, S. H., M.D. M.B., C.M., L.S.A., appointed Medical Officer to No. 5 District of Nottingham Union, *vice* E. C. Buckoll, M.R.C.S.Eng.

BANKS, A., L.R.C.P., M.R.C.S., reappointed House-Surgeon to St. Thomas's Hospital.

BARTON, Wm. E., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Wyeside Sanitary District of the Weobley Union.

BURDEN, H., L.R.C.P., M.R.C.S., reappointed House-Surgeon to St. Thomas's Hospital.

BURR, Wm. Talbot, M.B., M.Ch. T.C.D., appointed Medical Officer and Public Vaccinator for the Gamlingay District of the Caxton and Arrington Union.

BURTON, R. G., M.D., L.R.C.S.Edin., appointed Medical Officer of Health for the Rural Sanitary District of the Brentford Union.

CHAPMAN, Charles W., M.R.C.P., appointed Physician to the National Hospital for Diseases of the Heart and Paralysis.

COOPER, H. J., M.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., appointe Clinical Assistant in the Skin Department, St. Thomas's Hospital.

CORT, J. G. D., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Office and Public Vaccinator of the No. 2 District of the Blackburn Union.

DALBY, A. W., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for the Frome Rural and Urban Sanitary Districts.

DALZELL, A., L.R.C.P., M.R.C.S., reappointed Non-Resident House Physician to St. Thomas's Hospital.

DARRELL, H. W., M.D.Toronto, C.M., L.R.C.P.Lond., appointed Medical Officer for the Third Sanitary District of the Biofield Union.

DIXON, C. J. W., M.B., C.M.Edin., appointed Assistant Resident Medical Officer at the Royal National Hospital for Consumption and Diseases of the Chest, Veninor.

DORMAN, M. R. P., M.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., reappointed Clinical Assistant in the Throat Department, St. Thomas's Hospital.

DUMMERE, H. H., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Fourth Sanitary District of the Bromley Union.

ELLIS, R. K., M.B., B.Ch.Oxon., appointed Junior Obstetric House-Physician to St. Thomas's Hospital.

FISHER, J. H., L.R.C.P., M.R.C.S., reappointed House-Surgeon to St Thomas's Hospital.

FISHER, J., B.A., M.B., B.C.Cantab., reappointed Senior Ophthalmic House Surgeon to St. Thomas's Hospital.

FREDERICK, H. J., L.S.A., reappointed Clinical Assistant in the Ear Department, St. Thomas's Hospital.

HAINWORTH, E. M., B.Sc.Lond., L.R.C.P., M.R.C.S., appointed Non-Resident House-Physician to St. Thomas's Hospital.

HAMPER, C. Norman, M.B., C.M.Edin., appointed Resident Medical Officer to the North-West London Hospital, *vice* Charles D. Sutherland, resigned.

HARDWICK, E. W., M.B., appointed Medical Officer for the No. 2 District of the Stourbridge Union.

HEATON, George, M.A., M.B.Oxon., F.R.C.S., appointed Visiting-Surgeon to the Birmingham and Midland Counties Hospital for Sick Children.

HICKS, T. W., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Throat Department, St. Thomas's Hospital.

ISAACS, E. P., L.R.C.P., M.R.C.S., appointed Junior Ophthalmic House-Surgeon to St. Thomas's Hospital.

JAFFÉ, C. S., L.R.C.P., M.R.C.S., appointed Resident House-Physician to St. Thomas's Hospital.

LEWIS, Cyril, M.B., C.M.Edin., appointed Resident Medical Officer of the Royal National Hospital, Ventnor, *vice* Hubert M. Wood, M.R.C.S., L.R.C.P., resigned.

MCKELVIE, R., M.D., L.R.C.P.S.Edin., appointed Medical Officer for the Workhouse and the Second Sanitary District of the Blofield Union.

MASON, Wm., L.R.C.P., L.M., L.R.C.S.Edin., appointed Medical Officer of Health for the St. Austell Rural and Urban Sanitary District.

MORTLOCK, Ambrose W., M.B., M.S.Edin., appointed Medical Officer for the Second Sanitary Division of the Greystoke District of the Penrith Union.

PETHICK, Charles Stuart, M.B.Cantab., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Woolton District of the Prescot Union.

PHILLIPS, E. V., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the First Western District of the Billesdon Union.

PRICE, A. E., L.R.C.P., M.R.C.S., reappointed Clinical Assistant in the Ear Department, St. Thomas's Hospital.

PURVIS, W. P., B.Sc.Lond., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

STROVER, H. C., L.S.A.Lond., L.A.H.Dub., appointed Medical Officer of the Sandy Sanitary District of the Biggleswade Union.

STURGE, Maida, M.B.Lond., appointed Resident Medical Officer to the New Fever Hospital, Stamford Hill, under the Metropolitan Asylums Board.

TAYLOR, Daniel M., M.A., M.B., C.M.Glasg., appointed Deputy Coroner for the North Riding of Yorkshire.

THOMAS, E. C., M.B., C.M.Edin., appointed Medical Officer for Llanbyther District of the Lampeter Union.

THOMSON, Andrew, M.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Parish of Inveresk, *vice* A. M. Sanderson, L.R.C.S.Edin., deceased.

TOWNSLEY, J., M.B., C.M.Edin., appointed Medical Officer to the Ardsley Local Board.

WAINWRIGHT, W. L., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

WALLACE, C. S., L.R.C.P., M.R.C.S., appointed Senior Obstetric House-Physician to St. Thomas's Hospital.

WATKINS-PITCHFORD, W., L.R.C.P., M.R.C.S., reappointed Resident House-Physician to St. Thomas's Hospital.

WELLS, E. N. K., M.B., C.M.Edin., appointed Medical Officer for the No. 3 District of the Romsey Union.

WICKHAM, H. T., M.B., C.M.Edin., appointed Medical Officer for the No. 2 District of the Newport Pagnell Union.

WOODCOCK, A. H., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Skin Department, St. Thomas's Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. A. S. Morton: Ocular Injuries. Parkes Museum, 74a, Margaret Street, W., 4 P.M.—Dr. L. C. Parkes: Foods and Dietaries. 101, Great Russell Street, W.C., 8 P.M.—Dr. Galloway: Cardio-Vascular System.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. W. Collier (Oxford): Athletic Exercises as a Cause of Disease of the Heart and Aorta. Mr. Herbert Allingham: Piles: the Importance of Recognising the Varieties as determining the Selection of Treatment.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. H. Corner: Moral Insanity. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Dr. Payne: Pemphigus, and allied Diseases. 101, Great Russell Street, W.C., 8 P.M.—Dr. Amand Routh: Post-partum Hæmorrhage.

GROCERS' SCHOLARSHIP LECTURE (at the Examination Hall, 4 P.M.).—Dr. William Hunter: On the Physiology and Pathology of Blood Destruction.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. C. Y. Biss: Demonstration of Cases of Special Interest. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Quarry Silcock: Progressive Myopia.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Taylor: Pathological Specimens. Hospital for Sick Children, Great Ormond Street, 4 P.M.—Mr. F. W. Wagstaffe: Pathological Demonstration on Diseases of Bone. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Mr. John Hopkins: Cases in the Wards. London Throat Hospital, Great Portland Street, 8 P.M.—Mr. George Stoker: Impaired Movements of the Vocal Cords.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Mr. Christopher Heath: The Bradshaw Lecture on Diseases of the Nose.

BIRMINGHAM AND MIDLAND COUNTIES HOSPITAL FOR DISEASES OF THE EYE, 4.30 P.M.—Dr. Robert Saundby: The Middlemore Lectures on the Retinal Changes in Bright's Disease and Diabetes. Lecture II.

HARVEIAN SOCIETY OF LONDON, 8.30 P.M.—Mr. Field: The Harveian Lectures: Pathology and Treatment of Suppurative Diseases of the Ear. Lecture I

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 11 A.M. to 1 P.M.—Professor Crookshank: Lecture—Typhoid Fever, Diphtheria, Rabies, and Tetanus. Practical Work—Sections and Cultivations. Hospital for Consumption, Brompton, 4 P.M.—Dr. C. Y. Biss: Demonstration of Cases of Special Interest.

WEST KENT MEDICO-CHIRURGICAL SOCIETY, Royal Kent Dispensary, 8 P.M.—Clinical Evening.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, 8.30 P.M.—Clinical meeting. Dr. Rayner Batten will demonstrate a Clinical Pulse Manometer at 8 P.M. Mr. Swinford Edwards: A Case of Amputation at Hip joint for Osteo-sarcoma of Femur. Mr. R. Lake: A Case of Cholesteatomata of Mastoid Antrum. Mr. William Steer: (1) Case of Friedreich's Disease; (2) Case of Progressive Muscular Atrophy of Youth; (3) Case of Myxœdema (male). Dr. Abraham: Case of Probable Syphilide of Face. Mr. Keetley: Case of Subcutaneous Suture of Patella and Excision of Bronchocele. Mr. Bruce Clarke: A Case of Nephrorrhaphy. Mr. A. D. Humphry: Cases of Inguinal Hernia with Undescended Testis, and of Radical Cure of Femoral Hernia in a Girl aged 10.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. Percy Smith: Lunacy Law.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

AMBLER.—On November 17th, at Ampthill, the wife of Richard Ambler, L.R.C.P. and S.Edin., of a daughter.

PARSLOE.—On November 2nd. at Davona House, Ivydale Road, S.E., the wife of H. Heath Parsloe, M.R.C.S., of a son.

SYMES.—On November 21st, at Claremont House, Saltram Crescent, Maida Hill, the wife of William Legge Symes, M.R.C.S., of a daughter.

TWEEDY.—On November 17th, at 100, Harley Street, W., the wife of John Tweedy, of a daughter.

MARRIAGES.

BARBER–GIBBES.—On November 16th, at Kurrachee, H. R. C. Barber, B.A., M.B., B.C.Cantab., Surgeon-Captain Indian Medical Service, eldest son of the Rev. Henry Barber, of Ravenstone, Leicestershire, to Edith Mary (Donnie), third daughter of F. R. Gibbes, Esq., M.R.C.S.E., of Harewood, St. Leonard's-on-Sea, and late of Anerley, S.E. (By cablegraph.)

COULTON—COUCH.—On November 22nd, at the Church of St. John, Bromley, Kent, John J. Coulton, L.R.C.P., M.R.C.S., to Jane Le Mosley Couch (Sister Mellish, London Hospital).

ROBERTSON—DOXFORD.—At Christ Church, Sunderland, on November 19th, by the Rev. Canon Scott-Moncrieff, Andrew Robertson, M.A., M.B., and C.M., son of the late Rev. Gilbert Robertson, M.A., of Newcastle-on-Tyne, to Margaret Emily, eldest daughter of Alfred Doxford, Esq., Thornhill Gardens, Sunderland. No cards.

WHITAKER—GARNEYS.—November 19th, at St. Mary's Church, Bungay, by the Rev. T. K. Weatherhead, vicar, George Herbert Whitaker, M.R.C.S.Eng., L.S.A., of Avona House, Bungay, third son of Joseph Whitaker, F.S.A., of White Lodge, Enfield, Middlesex, to Gertrude, third daughter of the late Thomas Garneys, M.R.C.S., L.S.A., of Trinity Street House, Bungay.

DEATH.

WILTSHIRE.—On November 2nd, at Winkleigh, Tunbridge Wells, Thomas Wiltshire, surgeon, aged 56.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30 *Operation Days.*—M. Th., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, Tu. Th., 2.30; Ear, M. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, Tu., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, W., 8.45; females, Th., 8.45. *Operation Day.*—Tu., 2.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Th. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), Tu., 4, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th., 1.30; S., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

L.R.C.P. (Bournemouth) asks for any information about Bakersfield, California, or neighbourhood: (1) As regard to medical prospects. (2) And more especially as to the prospects of fruit culture pure and simple.

A MEMBER asks if there is an English translation published yet of Hertwig's *Embryology*; and also asks to be recommended a simple elementary book on embryology, which a beginner could understand without a teacher.

DR. O'FLYNN asks: What fee is paid to a registrar of births and deaths in England? The fee paid to a registrar in Ireland is 1s. for each entry in the register.

*** A fee of 1s. is payable for the examination of an entry in the Register; but if a certified copy is required a further sum of 2s. 7d. is payable.

IRRITABLE URETHRAL CARUNCLE.

J. F. D. asks if there is a milder way of treating irritable urethral caruncle than by either scissors, galvanic cautery, or nitric acid? The patient stands pain very badly, and "J. F. D." would prefer not to use any chloroform.

PERSISTENT HICCOUGH.

R. B. would feel grateful for a suggestion which would ensure relief in a case of persistent and exhausting hiccough. The patient is a lady, aged 48, who has been ill for upwards of nine months. She has suffered from extensive pulsation of the abdominal aorta—just below the diaphragm—emesis for a long time, general wasting, and diminution in power over left side, but unmistakable improvement in all these particulars has recently gradually occurred. Most ordinary remedies have been tried—sinapisms over epigastrium and hypodermic injections of morphine modify but do not remove the hiccough.

SCHOOL LETTERS AND SCARLET FEVER.

PATER asks: Is it usual, is it wise, to allow boys isolated in the sanitorium of a public school, after scarlet fever to write letters, either home or to friends, even with a parent's consent?

*** With regard to the former part of this query, we believe that the practice here described is not usual. So far as medical officers of schools are responsible for the framing and carrying out of the sanitary regulations, we do not suppose that they would stultify themselves by sanctioning a needless indulgence directly opposed to the principles of sanitary science. As to the wisdom, there are cases on record of school boys, convalescent from scarlatina, enclosing in a letter which they desired to have sent home almost perfect desquamative casts of a whole hand, as interesting personal memorials likely to be tenderly appreciated by the various members of the family circle; and although a correspondence thus illustrated is probably far from "usual," few would pretend that its encouragement is either desirable or "wise." But apart from such exceptional instances, it is agreed that the same suspicion which justly attaches to the clothes worn and the books handled by a scarlatina patient is equally deserved by the letters which he writes. The parents' "consent"—whatever that may be worth—is scarcely germane to the question, for the simple and sufficient reason that the parents of the patient are not the only or the most important persons concerned. A hygienically heretical father may scout the idea of infection, but he has no right to impose his exceptional views upon other people who would thus be exposed—unknowingly or against their will—to the risk in which they believe, and from which the are

reasonably anxious to shield both themselves and their families. A foolish mother may more than "consent" to take the risk involved in receiving and opening such correspondence, but this is only a very cheap and selfish form of pseudo-self-denial, for such a woman altogether overlooks the fact that she is but the last link in a chain which includes, *inter alios*, servants, postmen (who are apt to be fathers of families themselves), clerks, and other post-office officials. The plea is sometimes raised that such letters can be "disinfected." It cannot be said that this is impossible, but, as a matter of routine procedure, it is impracticable; and it is assuredly something more than unwise to sanction, even as an exception, that which is in itself not necessary, seeing that—save as a rare exception—the practice must inevitably degenerate into a delusive and dangerous failure. The *technique* of disinfection (a purifying process which deserves no such title if it be not absolutely effective in result) in such cases is not such as can be safely left to the routine manipulation of a nurse or matron. The well-known *Code of Rules for the Prevention of Infectious and Contagious Diseases in Schools*, issued by the Medical Officers of Schools Association, does indeed contain a statement to the effect that "Letters, if allowed at all, coming out of the infectious wards, should be thoroughly disinfected before they are posted." But we understand that this was accepted only as possibly permissible in the case of some of the milder and more easily dealt with infectious ailments (such as measles, for example), and that it was not intended to apply to scarlatina. It is, moreover, a significant fact that the managers of all the large public libraries in the United States have, after prolonged experience and careful consideration of the question, arrived at the conclusion that the only practicable—and the cheapest—way of disinfecting such books, papers, and pamphlets as have been exposed to the contagium of infectious disease is to cremate them. If a scarlatina patient be dangerously ill, he ought not to be allowed to write at all; if he be not dangerously ill, his parents need be in less anxiety as to his welfare; in either case, the medical officer's report as to his actual condition—faithfully conveyed in writing by his master—will be at once more accurate and more valuable than anything which he could write himself, and harmless into the bargain. Under such circumstances, is it not foolish, as Dr. Clement Dukes has written, to try how near we can approach our finger to the flame without being burnt? It is the ragged edges and the loose ends of the precautions supposed to be observed in such cases, the little oversights, the apparently trivial sins of omission with reference to such matters as slippers, caps, gloves, books, and the like, conjoined with the robustness and long-lived vitality of its poison, which make it so difficult to eradicate this disease, and which have induced experienced medical officers of health to state that it is impossible to affirm that any district is at any time absolutely free from scarlatina. A well-managed school may attain nearest to the assertion of a clean bill of health in this respect; for—more effectually than other communities—it can safeguard the inlets of its population. But while a school justly claims the right to protect itself against the introduction of infectious illness from each one of its pupils' homes, it is equally bound to protect all those homes against the extension to them of any such dangers as may exist within itself. Our readers will have but one answer to "Pater's" question; they will sincerely hope that the practice which by implication he condemns is not "usual," and they will emphatically deny that it is "wise."

ANSWERS.

M.D. recommends "J. H." to communicate with Dr. J. R. Philpots, of Moorcroft, Parkstone, Dorsetshire.

FEMUR should apply to a solicitor, or to the Stamp Office, Somerset House.

ALPHA (Edinburgh) cannot obtain the B.Sc. in Public Health elsewhere; but as soon as he obtains a registrable qualification he can proceed with his practical work in Public Health, and read for one of the open examinations for the D.P.H. diploma, particulars of which will be found in the Educational Number of the BRITISH MEDICAL JOURNAL, September 3rd, pages 547 to 553.

STAMMERING.

C. R. writes: "Member" will find two papers by Dr. H. Gutzmann, of Berlin, and Mr. E. J. Seltman, of London, giving the newest views of the treatment of stammering in *Papers on Physical Education*, by various writers, published by George Bell and Sons, York Street, W.C.

NOTES, LETTERS, Etc.

THE VALUE OF A TOE.

A WORKMAN employed by a dredging company in New Jersey, who had three of his toes cut off by one of the machines, sued the company for compensation, placing the damages at 10,000 dollars. The jury awarded him 1,260 dollars, thus assessing the value of each toe at 420 dollars (£84).

[1] BRITISH MEDICAL JOURNAL, November 19th, 1892, p. 1150.

THE FOREIGN METHODS OF DEALING WITH MEDICAL IMPOSTURE.

FAITH-CURERS and quacks generally do not enjoy abroad the happy immunity from the attentions of the police and the public facilities for imposture which are accorded to them here. A correspondent writes to us from Milan: In a modest house outside the Porta Vittoria lived a certain old man, aged 60, called Angelo Grassi, who had enjoyed for some time past a great reputation for sanctity, and turned his celebrity to account by "curing"—after making a good collection—all the sick who presented themselves. Grassi received them in a little apartment full of altars and images, and lit up with holy candles. Here he treated the suffering, touching them on the head, while with an inspired look he chanted psalms to obtain their cure from God. If the suffering was due to some disease, Grassi performed his exorcisms after making over the diseased part certain cabalistic signs. The other morning Grassi's rooms were crowded with people waiting to be examined, while others had to stand outside. Suddenly two individuals unceremoniously pushed their way through the crowd. Grassi was holding up the diseased leg of a poor wretch and making signs over it with a coin, while rolling up his eyes as if in prayer. The two individuals—policemen in plain clothes—immediately demanded what he was doing. Grassi replied that he had special powers of curing people, and that he exercised these powers because he had a fervid faith in God! The police arrested him, and at the same time seized a capacious strong box crammed with coppers, secured to the wall under an altar, and destined for the collections made from his credulous clients.

Mr. G. Balfour Marshall, M.B., C.M., writes to us from Berlin that a certain Mrs. Anna Ruppert, who has already so largely advertised her quack skin tonic in this country, lately opened rooms for consultation in the fashionable street Unter den Linden, Berlin, with the usual pomp and ceremony. Her opening day was marked by a veritable blowing of trumpets, as she had a small orchestra to discourse music to the fashionable assemblage of Berlin ladies who had come to hear her lecture. As a contrast to the impunity with which quacks dispense their drugs with us, I send you the following translation of an advertisement which appears in this week's *Berliner klinische Wochenschrift*, and no doubt in others.

Notice.

As a cure against the most varied skin diseases, a Mrs. Anna Ruppert recommends her skin tonic in the daily newspapers. This secret medicine consists of a solution of corrosive sublimate in water, with the addition of some glycerine, and it is slightly perfumed. It is sold in bottles containing about 3vj for the sum of eleven shillings, while the real value of the bottle contents is about three farthings (*fünf pfennige*). The above advertisement is hereby given in order to warn the public.—DER POLIZEI-PRASIDENT.

BANANAS AND MILK.

MR. E. S. PAGE (Solihull, Warwickshire) writes that he is informed by a clergyman who has just returned from Madeira that the medical men resident there make it a point to caution all new comers not to partake of the banana, or bread fruit, within two hours of taking milk, as an inevitable result would be an attack of dysentery of a formidable or fatal character. Mr. Page asks if this is so, and whether the same caution would be necessary in a minor degree in this country. On referring this question to Dr. Patrick Manson, he observes that if the consumption of the banana within two hours of taking milk is followed in Madeira by dysentery there must be something peculiar about the fruit in that island. In China nothing of this sort has been noted, and, in fact, the chronic dysenteries and diarrhœas so common in that country, are often treated with great success by a diet of milk and bananas which are sometimes taken together in the way we take strawberries and cream in England. Young children constantly get bananas at mealtime, and along with milk. He has no experience to quote about bread fruit, but he has never heard until now that it is incompatible with the use of milk. In this country he has frequently ordered banana with milk to dysenterics, but never found their troubles aggravated thereby.

ATTEMPTED SUICIDE BY OPIUM: RECOVERY.

MR. JAMES RANKIN, L.F.P.S.G., L.M. (Kilmarnock) writes: M. F., aged 45 a miner, who had been drinking heavily for some time previously, was apprehended on a charge of wife assault on June 21st, 1892, and locked into prison. On being visited about half an hour afterwards by the police constable, he seemed in a drowsy state. The constable informed the inspector that there was something wrong with the prisoner, when on being questioned the accused admitted he had swallowed a quantity of solid opium for the purpose of taking his own life. The opium had been swallowed immediately before he had been apprehended. His statement was verified by inquiry at the druggist's who had sold him the poison (80 grains). On making this discovery the inspector sent for me, and I found the man completely under the influence of the drug. The pupil was pin-point, and as about three hours had elapsed from the time the poison had been swallowed till it was discovered there was no use attempting the stomach pump. I administered an emetic composed of equal parts of vin. ant. tart. and vin. ipecac., and gave him large quantities of tea, coffee, and gruel. Great difficulty was at first experienced in getting the patient to vomit; but afterwards the emetics acted more powerfully. He was kept moving on during the whole night, but so drowsy was he that he was actually sleeping on his feet. About midnight, eight hours after having swallowed the poison, the galvanic battery was applied with marked benefit. The symptoms previous to this had assumed an alarming character. During the night the thirst was intense, and he drank enormous quantities of water. He seemed always much relieved after vomiting. He was kept moving on his feet for eighteen hours before he was out of danger. Too much praise cannot be awarded to the police constable, and the praiseworthy efforts put forth by the inspector. If it had not been for the activity and intelligence shown by the constable, in all probability the man would have been found dead in his cell next morning. The amount of opium swallowed was equal to about 5 ounces of laudanum, which was an alarming dose to a person not accustomed to the use of the drug.

CONCERNING MELBOURNE.

DR. HORACE P. GODFREY, M.B., B.S., late Resident Medical Officer, Melbourne Hospital, writes: In answer to query by F.R.C.S. (Isle of Man) in the BRITISH MEDICAL JOURNAL of November 19th, I can inform him—(1) That Melbourne is a thickly-populated city with nearly 300,000 inhabitants, numerous suburbs, several general hospitals and special hospitals of all kinds, but that it is already very much overcrowded with medical men. (2) That very few medical men have assistants, and that he would very likely have to wait a long time for such an appointment. (3) That all the hospital appointments in Melbourne and most of those in the country towns are filled by local graduates and are always over applied for. (4) That it is very unlikely that he would get an appointment before going out unless with the aid of some influence in the colonies to arrange things for him. (5) That the best openings for any medical man going out to any of the colonies are in the country towns, and they must be prepared to do without society, be capable of "roughing it," and of hard work.

FUNERAL HONOURS FOR NURSES DYING AT THE POST OF DUTY.

THE Paris Municipal Council has passed a resolution that nurses, male or female, in the hospitals who die of disease contracted in the performance of their duties shall be buried in ground which shall be assigned to them in perpetuity. This decision is made retrospective so as to include the six hospital nurses who died of cholera during the recent epidemic. A resolution was also passed that when a nurse dies under such circumstances the fact must be notified to the Municipal Council, which will send delegates to represent it at the funeral.

THE TITLE OF "DR."

DR. WM. DONOVAN (Birmingham) writes: This question, like "the poor," is never out of sight and hearing. I take it, Sir, the great bulk of the profession desire that there should be a final settlement. For my own part I hope the Medical Council will see its way to confirm the opinion I have expressed for years, "that every legally-qualified physician and surgeon is entitled to use the prefix of 'Dr.'" At the same time I hope the question of foreign degrees will be put on a more definite base. It is well known that the great mass of those open to men, without residence, are no degrees at all and confer no status in the countries in which they are granted, while all respectable "home grown" qualifications which deserve respect and consideration are compelled to take a back seat. Foreign degrees, over which the General Medical Council possess no jurisdiction, are permitted to be flaunted in the face of the profession and even entered on the *Register*. This may be free trade in degrees, but I think, Sir, I may say it is a little too free for us.

DR. SPENCER T. SMYTH (Southampton) writes: In the BRITISH MEDICAL JOURNAL of November 19th I perceive the title of doctor in Italy is applied generally to all medical men, whether belonging to a university or not. In this country very many men are now styling themselves as such, although it does seem, according to legal interpretation, they are not entitled to do so. For the sake of settling this *quæstio vexata* I would suggest that all legally-qualified practitioners (those with a full qualification to engage in medicine, surgery, and midwifery) should be addressed as doctors, the public always doing so, with the distinction that graduates of regular constituted universities should, in addition, affix the letters M.D. or M.B., as the case may be, after their names upon door plates and cards. This would enable the public at large to discriminate at once between the two grades of doctors now in vogue. By this method an amicable settlement would be made without having recourse to legal proceedings. The subject, sooner or later, must engage the attention of the General Medical Council; matters, as regards titles, cannot remain much longer unsettled, which, perhaps, in many instances might place practitioners in a false position. A man who styles himself in the medical profession doctor must surely signify he is M.D. of some legally-constituted university, according to the present law.

TREATMENT OF SEVERE HIP-JOINT DISEASE.

MR. C. B. KEETLEY (Grosvenor Street) writes, with reference to the recent discussion at the Royal Medical and Chirurgical Society[1]: The procedure described by me in the *Annals of Surgery* of December, 1885, consisted in excising the hip on one day, and amputating above or at the knee forty-eight hours afterwards, scraping out any diseased medulla. This method was intended to cause less shock, and to give a stump capable of working usefully an artificial limb, which no amputation at the hip-joint, either subperiosteal or otherwise, does. It may be compared and contrasted with Mr. Howse's plan, which is to try successively, and at intervals of months, more or less, (1) amputation at the knee, (2) excision of the hip, and (3) exarticulation at the hip, omitting No. 2 in cases not thought adapted for it.

THE TELEPHONE CLERK SUPPRESSED.

IF we are to believe the American technical papers, a telephonic company of New York has succeeded in dispensing with the services of the irrepressible young woman telephone clerk of the central office, replacing her and putting the subscribers into communication with one another by means of an ingenious little apparatus. These machines, which only measure about 4 by 4 by 5½ inches, put the subscriber in communication with the person desired by means of five keys placed upon a part of his telephone, which correspond respectively to the units, tens, hundreds, and thousands of the numbers of the subscribers. For example, when it is desired to telephone to the subscriber No. 131, the unit note is struck once, the tens note three times, and the hundreds once, whereupon the instrument of the central office establishes the communication between the two subscribers. The fifth key puts everything back into its former position when the telephonic communication is finished. If this system works well it will lead to the suppression of one of the great objections to the telephone. At present the tediousness is so great that many medical men are discarding their telephones in favour of "boy messengers."

[1] BRITISH MEDICAL JOURNAL, November 12th, 1892, p. 1057.

"SIXPENNY DOCTORS" AND VACCINATION.

DR. C. R. ILLINGWORTH (Accrington) writes: In your editorial upon "Small-pox and Vaccination" in the BRITISH MEDICAL JOURNAL of November 19th, you write as if "Sixpenny Doctors" were the only wrong-doers in regard to imperfect vaccination; whereas I know it to be the general practice in Lancashire; and believe it to be the same all over the kingdom. It has been observed that "honesty is the best policy;" but the action of the Local Government Board, or rather the inaction, makes the triumph of dishonesty easy. No man can have been made aware of the results of the Sheffield inquiry, or of the statistics of the London Small-pox Hospital, without realising the importance of securing at least four separate good-sized vesicles; and as there are few or none who are not thus aware, there are large numbers of medical men who wrongly think it no dishonesty to put only one mark on confiding people's children in order to secure the half-crown, shilling, or even sixpence, which should have become part of the quarterly salary of some struggling public vaccinator. The Board could easily alter this scandalous state of affairs if they would.

*** We fear that there is but too much truth in our correspondent's assertion. The increasing licence in respect of vaccination which is being taken pending the report of the Royal Commission has increased the demands by parents for a vaccination according to their own standard of efficiency; and great pressure is being exercised on many medical practitioners to comply with this lower standard, rather than to leave children altogether unvaccinated. The future results of this practice are likely to be very serious by swelling the number of attacks and deaths from post-vaccinal small-pox; and every effort should be made to check it. But we do not quite understand how the Local Government Board could easily effect the desired change. We receive complaints that the awards bestowed by that Board on public vaccinators are more than ever stringent in so far as the demand for four well-foveated scars are concerned, and this even where a sufficient area is obtained with a smaller number of scars. The Central authority are powerless as regards any but public vaccinators; over others no power could be obtained except as the result of new legislation, which is, of course, out of question, pending the sittings of the Commission. But perhaps Dr. Illingworth would indicate his precise meaning on this point.

SANITARY WORK FOR THE UNEMPLOYED.

DR. WILLIAM R. PARKER (Kendal), writes: While the non-professional public are discussing the various means of providing work for the thousands of unemployed during the coming winter, could you not contribute a useful hint by pointing out how enormous an amount of urgently needed and profitable labour might be set on foot by the various local authorities throughout the kingdom undertaking some useful sanitary reforms? Many of our towns and boroughs still have a very unsatisfactory water supply, the public apparently not realising the contamination of river water by the sewage, factory refuse, farmyard refuse, and graveyard filth that find their way into our streams. Many towns have a very imperfect system of sewerage. Many still tolerate vast accumulations of decomposing filth lying for months at a time in middens in close proximity to dwelling-houses. And many still have specially insanitary quarters, where most of the dwelling-houses are barely fit for human habitation. Sanitary reform would lead to a vast increase of employment; and the cost would probably be largely repaid by diminished sickness, diminished loss of work and wages, diminished poverty, misery, and death.

POUR ENCOURAGER LES AUTRES.

A GERMAN EMPEROR (old style) once declared he was "above grammar." The military spirit, which is so rampant in Germany at the present day, sometimes finds expression in ways that might lead one to suppose that the German officer considers himself above humanity. The revelations of the cruelties practised on recruits, which not long ago called forth a public reprimand from the commander of a German army corps, have not been forgotten. That, however, which in a general of royal birth is but a choleric word, appears to be fiat blasphemy in a doctor, as Dr. Fränkel, of Weimar, recently found to his cost. That gentleman ventured to comment somewhat adversely on the conduct of a German officer who made his men take long marches during the great heats last summer, with the result that many had to go on the sick list, and one died. The indignant officer brought an action against his critic, and the judges marked their sense of the doctor's presumption by fining him £7. This decision can hardly fail to encourage our German brethren to fulfil their mission as the representatives and guardians of public humanity.

PYROSIS.

DR. W. DUNCAN LAWRIE (Cirencester) writes: As far as I can understand, the general idea is that the fluid which is poured out into the mouth during an attack of pyrosis is brought up from the stomach, or at least from some part of the œsophagus. It has for some time occurred to me that the fluid so poured out has never been in the stomach or œsophagus, but is secreted during the attack directly into the mouth by the salivary glands. Being a victim to pyrosis myself I seized the first opportunity of proving this, and found, on applying my tongue below the opening of Stenson's duct, on each side a copious discharge of fluid streaming down with a strongly alkaline taste. This was associated with a sense of constriction in the epigastrium. I would suggest the following explanation of the phenomena:—1. That, owing to the presence of hurtful substances in the stomach, either introduced with the food or caused by its decomposition in the stomach, the automatic motor ganglia in the gastric walls have their function disordered, with the result that there is a spasm of some of the bundles of muscular fibres, and, consequently, upon this a reflex stimulation of the salivary glands similar to the condition that precedes the act of vomiting; or

(2) that the hurtful substances cause an exaggeration of the normal physiological process by which the partially digested food is passed on into the duodenum during gastric digestion—in fact, that vomiting is produced not through the cardiac orifice and up the œsophagus, but through the pylorus and into the duodenum, the gastric walls being spasmodically contracted, and the pyloric sphincter more or less relaxed. Such a condition would be as likely to cause a reflex stimulation of the salivary glands as the ordinary process of vomiting.

A MEDICAL CLUB.

MEDICAL men have not been found to favour "medical clubs" in this country, at least when undiluted by extra-professional elements. It is now some years ago since the last attempt of this kind—the "Galen"—we believe, came to an untimely end. A similar experiment is now being made in New York. A medical club, with the quaint title of "Circle of Willis," was opened in that city on October 6th. The opening address of welcome was delivered by Dr. Frank A. M'Guire, the presiding member, officially styled the Grand Chief Demonstrator. A model of the real "Circle of Willis" was presented by Dr. Irving Haynes, Demonstrator of Anatomy in the University Medical College; this was framed and hung in a prominent position on the wall, as representing, we presume, the arms of the club. Another touch of local colour was given by the presentation, by Dr. N. E. Bull, President of the Society of Medical Jurisprudence and State Medicine, of an original copy of the *Anatomy* of Dr. Thomas Willis, published more than 200 years ago. There was a good deal of inaugural speechifying, tempered with recitations, singing, and refreshments. We echo the hope expressed by the *New York Medical Record* that "the 'Circle of Willis' will always maintain its proper circulatory equilibrium, that no stray embolus, intrusive thrombus, or escaping clot may disturb the harmony of its tributary resources."

THE ACCOMPLISHMENTS OF AN ALIENIST.

MR. W. F. FARQUHARSON, M.B. (Cumberland and Westmorland Asylum), writes: I have read the letter of "Sanity" in the BRITISH MEDICAL JOURNAL of November 12th, and think his statements are too vague and and his conclusions hasty and wide of the mark. Other things being equal, it is quite natural that an asylum committee or superintendent should select as assistant medical officer a man who can take part in the amusements provided for the patients; but it is absurd to say that athletic or musical accomplishments form the sole qualifications looked for in candidates for asylum appointments. Probably the questions "Sanity" refers to were asked after due examination of the candidate's medical qualifications, and with the amiable intention of letting down gently an otherwise ineligible candidate. I have also read the letter of "Insanity." For my own part, I have held posts in two public asylums, and know that when appointed my medical qualifications and experience were duly considered on each occasion; no questions were put to me about my musical or athletic powers. I have never found my position such as is described by your anonymous correspondents; and I believe that the status of asylum medical officers is as high as that of any branch of the profession.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Mr. C. Adams, Edinburgh; Messrs. Allen and Hanburys, London; Mr. A. M. Anderson, Dundee; Dr. J. H. Aveling, London; Alpha; A. V. C.; Dr. Phineas Abraham, London; Mr. C. E. Abbott, Braintree. (B) Dr. Fletcher Beach, Dartford; Dr. E. H. Bennett, London; A. Barron, M.B., Liverpool; Dr. R. D. Batten, London; Mr. E. Brock, Maidstone; Dr. J. M. Booth, Aberdeen; Mr. A. H. Beal, London; Mr. J. Buckenham, Cambridge; Dr. J. L. Brunton, London; J. H. Baily, M.B., Birkenhead; W. L. Burr, M.B., Cambridge; Mr. J. Beard, Edinburgh; Dr. J. M. Bennett, Liverpool; Mr. J. P. Bush, Clifton. (C) Mr. J. Cameron, Dunbar; Dr. J. Ward Cousins, Portsmouth; Mr. R. Clark, Wakefield; Dr. C. J. Cullingworth, London; C. R.; Mr. E. H. Carter, Chelmsford; Mr. C. Coombs, Castle Cary; Mr. E. T. Cowen, London. (D) Dr. W. Donovan, Birmingham; Mr. T. Dutton, London; Dr. S. R. Dwyer, Wandsworth; Dr. P. Dunn, London; Dr. J. Dangall, Glasgow; J. W. Dixon, M.B., Ventnor. (E) G. Eastes, M.B., London; Etiquette; Mr. S. Evans, Birmingham; Messrs. Evans and Co., London. (F) Dr. D. Ferrier, London; Mr. T. Fennell, Knutsford; Messrs. S. Fitton and Son, London; Dr. Forrest, Acklington; W. F. Farquharson, M.B., Garlands; Dr. J. Farrar, Gainsborough. (G) Mr. P. F. Gilbert, London; Mr. F. R. Gibbs, Hastings; Dr. H. R. Greene, Southsea; Mr. W. Gardner, Melbourne; Mr. E. Grim, Putney. (H) Mr. F. L. Hart, Sydenham; G. Heaton, M.B., Birmingham; Mr. G. A. Hawkins-Ambler, Liverpool; Mr. A. G. Hays, Glasgow; Mr. N. Hyatt, Shepton Malet; Mr. J. Hutchinson, London; H. P. H.; Dr. M. Handfield-Jones, London; Dr. J. Harker, Carnforth; Mr. J. W. Hayward, Whitstable; T. E. Hill, M.B., Durham; A. D. Hughes, M.B., Littleport; Mr. Swinburne Hanham, London. (I) Inquirer. (J) Dr. J. H. Jackson, London; Dr. J. R. Jenkins, Ruthin; Dr. Jennings, London; Mr. W. Johnston, Murtle; J. F. D. (K) Dr. J. Keay, Polton; Mr. E. M. Keely, Nottingham; T. N. Kelynack, M.B., Manchester. (L) L.R.C.P.; L.R.C.P., Bournemouth; Dr. Lawrence, Chepstow; Cyril Lewes, M.B., Ventnor; Mr. A. P. Lloydes, New Cross; H. Lund, M.B., Manchester; Dr. E. Lymes, Coventry; R. H. Lucy, M.B., Plymouth; Dr. A. P. Luff, London. (M) M.B. University of Edinburgh; Mr. C. H. Mayhew, Dover; Dr. J. Meredith, Wellington; Mr. N. C. Macnamara, London; Dr. N. Markham, Thurso; Mr. G. H. Makins, London; Dr. Mouncey, Earlestown; Dr. A. Mumford, Chorlton-cum-Hardy; Messrs. Maw, Son and Thompson, London; Mr. F. Marsh, Birmingham; M.D.; Mr. G. Mitchinson, Lincoln; J. Mason, M.B., Rathmines; Dr. H. G. Molony, Ballingarry; M.R.C.S.; M.R.C.S.Eng.; M.B., Southport. (N) Neurasthenia. (O) Professor Odling, Oxford; E. A. Opie, M.B., Worthing; Optimist. (P) Mr. P. Paul, London; Mr. F. W. Pilkington, Oxford; Dr. C. Y. Pearson, Cork; Mr. J. R. Philpots, Parkstone; Mr. E. Panter, Plymouth; Mr. P. Parsons, London; Dr. J. J. Pringle, London. (Q) Sir Richard Quain, London. (R) Mr. S. D. Rowland, Cambridge; Royal College of Surgeons in Ireland, Registrar of, Dublin; Mr. T. F. Roger, Southampton; Mr. T. M. Rowland, Birmingham. (S) Mr. H. P. Symonds, Oxford; Dr. J. C. Sangor, Lewes; Professor J. B. Sanderson, Oxford; Mr. R. J. Sprakeling, Bootle; Mr. G. Sharp, Ashton; Mr. J. G. Smith, Bristol; Mr. S. T. Smith, Southampton; Mr. F. J. Shepherd, Montreal; Dr. H. R. Spencer, London; Mr. W. J. Smith, London; Mr. H. T. Sells, Northfleet; Surgeon-Major A. M. S.; Surgeon-Captain A. M. S.; Senex; Mr. P. A. Steedman, Edinburgh. (T) Dr. Hack Tuke, Leicester; Dr. W. R. Thomas, Bournemouth; Mr. G. Tunzelman, London; Mr. S. Thomson, Florence; Dr. C. L. Tuckey, London; Mr. E. W. Torster, Darlington; T. E. J.; Mr. H. N. Taylor, Cambridge; Transactions. (W) Mr. G. E. Walker, Chatham; Mr. E. R. Williams, Carmarthen; Mr. G. H. Whitaker, Bungay; Mr. J. W. Williams, Liverpool; Dr. W. F. Wade, Birmingham; Mr. T. Webster, Bristol; Dr. S. Wilks, London. (Y) Mr. M. W. Young, Portsmouth.

BOOKS, ETC., RECEIVED.

Our Sick and How to Take Care of Them. By Florence Stacpoole. London: Cassell and Co., Limited. Price, 1s.

Advice to Women on the Care of the Health Before, During, and After Confinement. By Florence Stacpoole. London: Cassell and Co., Limited. Price, 1s.

The Gold Medal Book of Objects and A. B. C. London: Dean and Son. Price, 1s.; or mounted on linen, 2s.

The Animal Toy Book. London: Dean and Son. Price, 1s.; or mounted on linen, 2s.

Ten Little Nigger Boys. London: Dean and Son. Price, 1s.; or mounted on linen, 2s.

Old Mother Hubbard of 1793. (The pictures are exact reproductions of an original edition in the possession of the publishers published 100 years ago.) Old Mother Hubbard of To-day. London: Dean and Son. Price, 1s.; or mounted on linen, 2s.

Little One's Own Wonderland. London: Dean and Son.

A Visit to the Country, with Surprise Model Pictures. London: Dean and Son.

The Happy Day Painting Book. London: Dean and Son. Price, 6d.

Surprise Model Picture Book. London: Dean and Son.

Cinderella. London: Dean and Son. Price, 3d.

A Visit to the Zoo. London: Dean and Son. Price, 3d.

Visit to the Farm. London: Dean and Son. Price, 3d.

Little Red Riding Hood. London: Dean and Son. Price, 3d.

Little One's Own; Special Christmas Part. Edited by Mrs. Jack Johnson. London: Dean and Son. Price, 1s.

Birds and Beasts from Field and Wood. London: Dean and Son. Price, 6d.; or mounted on linen, 1s.

One, Two, Three. London: Dean and Son. Price, 6d.; or mounted on linen, 1s.

Chirurgische Technik. Erganzungsband zum Handbuch der kriegschirurgischen Technik. Enthaltend die übrigen Operationen. Von Dr. Esmarch und Dr. E. Kowalzig. London: Dulau and Co.

The Pharmacy and Poison Laws of the United Kingdom: their History and Interpretation; with a brief account of the Pharmacy Laws in force in Australasia, Canada, and Cape Colony. London: Office of *The Chemist and Druggist*. Price, 2s. 6d.

An Elementary Textbook of Hygiene; adapted to the requirements of the Science and Art and Certificate Examinations. By H. Rowland Wakefield. London: Blackie and Son. 1892. Price, 2s.

Grania: the Story of an Island. By the Hon. Emily Lawless. London; Smith, Elder and Co.

Hours in a Library. By Leslie Stephen. London: Smith, Elder and Co.

Man and the Glacial Period. By G. Frederick Wright, D.D., LL.D., F.G.S.A. London: Kegan Paul, Trench, Trübner and Co.

How to Pack, How to Dress, How to Keep Well on a Winter Tour in India. By the Hon. Mrs. Neville Lyttelton. London: Edward Stanford. 1892. Price, 1s.

Mother and Child. Part I—Mother. By E. P. Davis, A.M., M.D. Part II—Child. By John M. Keating, M.D., LL.D. Philadelphia: J. B. Lippincott Company. 1893.

Nomenclatura Morborum Auris et Nomenclatura Morborum Nasi Naso-pharyngis. Boston. 1892.

Transactions of the American Otological Society, Twenty-fifth Annual Meeting, Fort Griswold House, New London, Conn., July 19th, 1892. Published by the Society: Mercury Publishing Company, New Bedford, Mass. 1892.

Original Investigations of Cattle Diseases in Nebraska. By Frank S. Billings. Lincoln, Nebraska: State Journal Company. 1892.

Aeltere und neuere Entwickelungs-Theorien. Rede gehalten zur Feier des Stiftungstages der militärärztlichen Bildungsanstalten, am August, 1892.

*** In forwarding books the publishers are requested to state the selling prices.

OBSERVATIONS ON

SUBMAXILLARY CANCER

AND ITS TREATMENT.

By ALEXANDER OGSTON, C.M.,

Regius Professor of Surgery in the University of Aberdeen.

During the past eight years I have chanced to meet with an unusual number of cases of cancerous disease in the submaxillary region, and have found a plan of treating them so successful that I think it worthy of the attention of operating surgeons.

The Submaxillary Lymphatic Glands.

Cancer of the tongue or lips, if laterally situated, usually spreads to the absorbent gland that lies in the submaxillary region, imbedded in the submaxillary salivary gland, about an inch and a quarter in front the angle of the jaw, and of an inch below the base. (See Fig. 2 A.) In this situation recurrence of cancer is also usual after it has been removed by operation from the lips or tongue. (Central cancer of the lip generally extends to, or recurs in, the sublingual glands, just behind the symphysis of the jaw, but this condition does not belong to the class of cases here dealt with.) The appearance of the disease in the submaxillary region shows itself by a fulness, due to an egg-shaped tumour, increasing in size from that of a small hazel nut to that of a plum. It is at first movable, and its mobility and shape can best be made out by the surgeon putting the thumb of his hand which belongs to the opposite side from the disease down into the floor of the patient's mouth between tongue and jaw, and the fingers of that hand externally over the submaxillary region, when by this double palpation the condition can be accurately made out.

As the disease progresses the gland enlarges in all directions, but chiefly upwards towards the base of the jaw, which it approaches so closely that by the time it has reached the size of a large cherry it is so intimately connected with the jaw that, though it may be movable upon it, it cannot be completely removed by operation unless a piece of the jaw be taken too. The gland speedily becomes adherent, and the disease then invades the jaw, eroding and extending into it, and this may occur even where independent mobility of the two structures seems present to a certain degree. The progress of the disease in the gland is not a very rapid one, and the mischief remains for many months isolated there, presenting, if properly dealt with, a condition favourable to a complete removal and permanent cure. Eventually, however, it extends backwards, and appears next in the glands over the carotids, just in front of the sterno-mastoid, and vertically below the angle of the jaw. When it reaches this situation operation is very seldom successful in curing the disease.

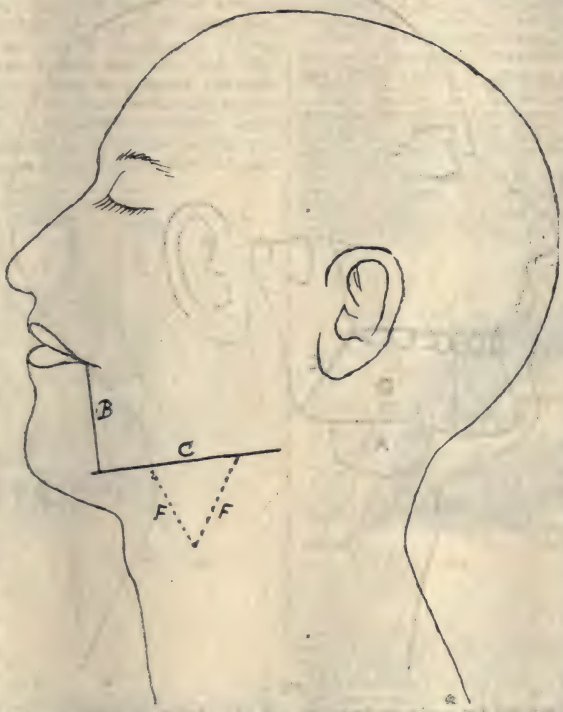


Fig. 1.

In the face and neck, as in other situations, cancerous disease almost always spares the lymphatic vessels by which it is conducted from its superficial site of origin into the nearest absorbent glands; and it is so rarely that the absorbents passing between the lip margin and the submaxillary gland are involved that they may practically be neglected in treating submaxillary cancer by operation.

The removal of such disease in the submaxillary glands by dissection is an operation of great difficulty, and almost always imperfect, so that recurrence is speedily seen. Scraping out is still more certain to end in failure. The results I have witnessed in my own practice and that of other surgeons from these proceedings have been highly unsatisfactory, and usually the disease has seemed rather to be accelerated than retarded by them.

Method of Operating.

The following method of operative removal has yielded me results that are greatly superior. It may either be used, as I shall describe it, where the removal of the local focus on lip or tongue has already yielded a local cure, or it may be conjoined with the removal of the local disease where it still exists.

After shaving the chin and cheek, administering an anæsthetic, and completing the ordinary preliminaries, an assistant, standing behind the patient and fixing his head, compresses the facial artery in the usual manner against the base of the jaw. The operator carries a scalpel incision downwards from the angle of the mouth to the base of the jaw (Fig. 1 B), dividing all the soft parts down to the bone. This incision lies anterior to the disease in the gland. From its lower extremity a second incision is carried backwards to the angle of the jaw (Fig. 1 C) parallel to and just above its base, dividing again all the soft parts, including the facial artery, down to the bone, above the compressing finger of the assistant. This incision lies above the disease. The thumb or forefinger of the operator's left hand is now placed in the mouth, and lifts the soft parts of the cheeks outwards, while the scalpel, carried close to the jaw, severs them from the bone as far back as its angle, so as to leave the outer surface of its body bare.

In the somewhat rare event of the disease having originated on the inner surface of the cheek, it can at this stage be freely dissected off the inner surface of this cheek flap. The arteries are then tied or secured by forceps.

At this stage the patient usually requires a fresh administration of the anæsthetic, which has been suspended since the first incision was commenced.

Exploration between the thumb inside and the index finger below the jaw now enables the operator to gauge the extent of the disease and the distance to which its connection with the jaw extends backwards and forwards. Corresponding with this an incision is now made completely through the jaw well in front of the disease by an amputation saw, which works better and more quickly than any other. The incision is usually vertical, as shown at D, Fig. 2, and falls about the

situation of the first or second bicuspid, which may be extracted before the saw is applied. The incision may sometimes be advantageously directed somewhat obliquely downwards and forwards, so as to save more of the alveolar edge, and the teeth, if present, may be extracted from its line. It is not, however, absolutely necessary to extract the teeth, and frequently it seems better to leave them, as what remains of them heals in and may be of service. A second incision through the jaw is next similarly sawn well behind the disease. Its general form is that shown at B, Fig. 2, and severs the body from the ramus by an oblique cut. But its precise situation will vary according to the extent of the disease. The inferior dental artery generally gives no trouble, but if it bleeds from the inferior dental canal it is most easily controlled by inserting into the bony canal the end of a wooden lucifer match trimmed to a point by a scalpel and dipped in oil of turpentine to disinfect it, the projecting part being cut off flush with the surface of the bone. This securing of the artery may be done either now or later.

Usually a fresh administration of chloroform is required at this period, and during its administration the skin flap may be replaced over a small sponge which is held compressed by it against the jaw so as to control bleeding.

The next stage of the operation consists in dissecting down the loose part of the jaw along with the disease and the parts lying over the digastric triangle, severing them from the side of the tongue, the digastricus, mylohyoid, and hyoglossus muscles. If the side of the tongue be involved, its disease is removed in a mass along with them.

It may be remarked that, as the disease in the submaxillary gland has usually not extended to the skin, it is not necessary to make any cutaneous incisions below the level of the base of the jaw. But if the disease should have involved the skin, a couple of converging incisions, such as those marked by the dotted lines in Fig. 1, F F, may now be made in it by a scalpel or sharp-pointed scissors, care being taken to keep well free of the limits of the disease; or a vertical incision may in every case, be made downwards from C, if required for space or drainage.

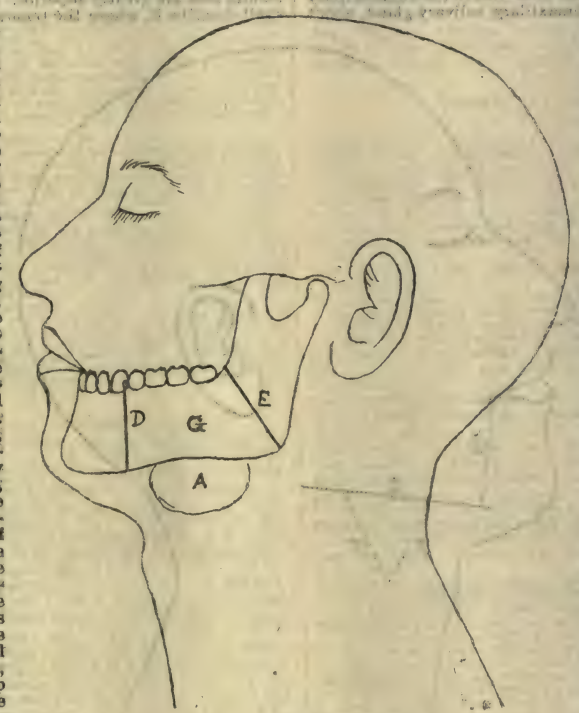


Fig. 2.

The most advantageous way to separate the disease from the side of the tongue and the digastric triangle is the following: The loose portion of the jaw, marked G, is seized by the left hand and doubled downwards, exposing the floor of the mouth. The mucous membrane covering this is divided by a sharp-pointed scissors from the one point of section of the jaw to the other. The left hand, grasping the jaw and embracing the disease so as to recognise its limits by the feel, now draws these outwards and doubles them down towards the neck, while the scissors severs the soft parts between them and the tongue and hyoid bone. While cutting in this manner the facial artery is divided, but so tense are the parts that it does not usually bleed, but appears as a gaping tube, and is secured in a Péan's forceps. It is well, however, to have a stout pile or other forceps ready to seize it in case of its giving rise to troublesome hæmorrhage. There is usually little or no hæmorrhage in this part of the operation, but if any occur, the bleeding points are temporarily seized by Péan's forceps and subsequently tied. The scissors cuts soon free the jaw and diseased parts so that they can be drawn more away from the tongue, and the remaining attachments to the skin, etc., are cut through in the same way until the disease and jaw come away together in the operator's left hand. The Péan's forceps are next taken up and the points secured by them tied with strong antiseptic silk.

If the part removed be now washed and examined it will be seen whether the whole of the disease has been removed, and if this prove not to have been the case the portion left can be easily dissected off, so free is the access obtained in this operation. More of the jaw may also be sawn off if required.

The wound is closed by passing harelip sutures through its vertical portion, B, and the anterior and posterior ends of its horizontal part may be secured by continuous catgut suture. The middle is best left open for drainage, and gives egress to the end of a strip of iodoform gauze, which is packed between tongue and skin to serve as a capillary drain and prevent the fœtor that otherwise occurs in mouth operations. The gauze is drawn out on the second day or later.

RESULTS.

From the first the patient can swallow liquid nourishment, and soon takes it freely, though some of it escapes at the drainage aperture. The divided ends of the jaw soon fall together, and the cavity of the wound shrinks and cicatrises rapidly. The chin falls a little to the operated side, but the resulting deformity is slight and not very noticeable. The recovery is usually rapid.

In this manner I have operated upon 29 cases, the earliest having been performed on November 13th, 1884. Only one case died; the others all recovered, and were dismissed apparently cured. Owing to the difficulty of tracing hospital patients I am unable to say in how many of these the disease subsequently reappeared, but I believe a large proportion have remained permanently cured. I have heard of recurrence in, I think, 5 only, although it is almost certain that more than this number have not been permanently cured.

The good results seem to be attributable to the free drainage and the accessibility of the wound, which lessens the immediate mortality, and to the completeness with which the disease can be removed, which diminishes the chances of its recurrence.

DR. FLETCHER BEACH, for seventeen years medical superintendent of the Clapton and Darenth Schools for Imbecile Children of the Metropolitan Asylums Board, has resigned. It is understood that he proposes to enter consulting practice, and to establish a home for backward, feebleminded, and epileptic children of the upper classes, matters in which Dr. Beach has a large experience and a well-earned reputation.

HYPNOTISM, ANIMAL MAGNETISM, AND HYSTERIA.

Abstract of an Address delivered at the Sheffield Philosophical Institute.

By ERNEST HART.

The Magnet in Medicine.

The remarkable properties of the natural magnet, its capacity for action without contact, and the respective attracting and repelling powers of its two poles, have greatly impressed the imagination of mankind from a very early date; and, as Richer,[1] Binet, and Féré have pointed out, the assumption that the magnet possessed some mysterious influence on the body, capable of being turned to account in the cure of disease, was prevalent in the Middle Ages. Magnetic rings were worn to cure nervous diseases, and the electrotherapeutic frauds, follies, and delusions which are so rampant in the present day can boast a very ancient history of trickery, credulity, and folly. Electric rings, belts, and boxes were hung round the body in the time of Cædon. Paracelsus characteristically taught "that the human body was endowed with a double magnetism—that one portion attracted to itself the planets, and was nourished by them, whence came wisdom, thought, and



Fig. 1.

senses; that the other portion attracted to itself the elements, and disintegrated them, whence came flesh and blood; that the attractive and hidden virtue of man resembles that of amber and of the magnet; that by this virtue the magnetic virtue of healthy persons attracts the enfeebled magnetism of those who are sick."

Mesmer and His Dupes.

Mesmer, who gives his name to the practice called mesmerism, did not think it enough to use talismans and magic boxes, but introduced contact and passes with the hand by which to communicate what he called the magnetic virtue due to animal magnetism. He declared that by this method "the physician may judge with certainty of the origin, nature, and progress of diseases, however complicated they may be; he may hinder their development and accomplish their cure without exposing the patient to dangerous and troublesome consequences, irrespective of age, temperament, and sex. Even women in a state of pregnancy and during parturition may reap the same advantage."

I have already spoken elsewhere[2] of the immense popularity which his practices achieved, of his mesmeric *baquets* or troughs filled with bottles of water and iron filings, around which stood rows of patients holding iron rods which issued from the trough, tied to each other by cords and joining hands. Perfect silence was maintained, soft music was heard, and remarkable effects were obtained. Some patients were convulsed, and had to be taken away to a padded room, against the walls of which they might knock their heads without injury; others were thrown into a state of semi-stupor, or, in the language of to-day, into a hypnotic state, in which they were submissive to the master, and from which his voice or look could arouse them. Some patients became affectionate, and embraced each other; others fell into fits of immoderate laughter, shrieking, or tears. The convulsive agitation frequently lasted for hours, and, in the language of an eye witness (Bailly), these symptoms were preceded or followed by a state of langour or dreaminess, by a species of depression, and even by stupor. I quote from Binet and Féré the following graphic account of the proceedings:

Mesmer, wearing a coat of lilac silk, walked up and down amid this palpitating crowd in company with Deslon and his associates, whom he chose for their youth and comeliness. Mesmer carried a long iron wand, with which he touched the bodies of the patients, and especially the diseased parts. Often laying aside the wand, he magnetised the patients with his eyes, fixing his gaze on theirs, or applying his hands to the hypochondriac region and to the lower part of the abdomen. This application was often continued for hours, and at other times the master made use of passes. He began by placing himself *en rapport* with his subject. Seated opposite to him, foot against foot, knee against knee, he laid his fingers on the hypochondriac region, and moved them to and fro, lightly touching the ribs. Magnetisation with strong currents was



Fig. 2.

substituted for these manipulations when more energetic results were to be produced. The master, erecting his fingers in a pyramidal form, passed his hands all over the patient's body, beginning with the head, and going down over the shoulders to the feet. He then returned again to the head, both back and front, to the belly and the back; he renewed the process again and again, until the magnetised person was saturated with the healing fluid, and was transported with pain or pleasure, both sensations being equally salutary.[3] Young women were so much gratified by the "crisis" that they begged to be thrown into it anew; they followed Mesmer through the hall, and confessed that it was impossible not to be warmly attached to the person of the magnetiser.

The "Possessed" and the "Demoniacs."

The inference drawn by eye witnesses and by the subjects of these practices was that "it is impossible not to admit from all these results that some great force acts upon and masters the patient, and that this force appears to reside in the magnetiser." Now these conditions and practices will, no doubt, at once be seen to have a very close resemblance and an obvious relation to what may be read in the records of possessed persons—or "demoniacs" as they were called in the Middle Ages—who play so prominent a part in certain phases of history, and in scenes which have been depicted by

[1] Richer, *Bulletin de la Société de Biologie*, May 30th, 1884. Paul Richer, in the *Nouvelle Revue*, August 1st, 1882. Binet and Féré, *Animal Magnetism*, 1888.

[2] *Nineteenth Century*, 1891.

[3] Louis Figuier, *Histoire du Merveilleux*, vol. ii, p. 20. Paris: 1860.

some of the great masters of Italy, Flanders, and France, from the fifteenth to the seventeenth centuries. Their pictures of striking and historic scenes of this kind represent phenomena which are testified to by a mass of the most undoubted evidence. It is not the facts of which we need entertain any doubt; it is only of the interpretation that we shall be able to afford a more modern version. I may say at once that I am indebted to the extreme kindness of Professor Charcot, of Paris, for the opportunity of presenting lantern copies of the great pictures of the "possessed" undergoing exorcism by St. Francis, St. Philip, Neri, and other ecclesiastics. They are manifestly hysterics, hystero-epileptics, and persons under the influence of contagious suggestions. [These illustrations are not reproduced here.[4]] I need not say that to Professor Charcot and his pupils—prominent among whom are Richer, Babinsky, Bourneville, and Féré—we are indebted for a long series of masterly, laborious, and original researches on the subject of hypnotism, its near relative hysteria, and the whole chain of conditions which belong to the family of hypnotism. His luminous researches are epoch-making in this department of knowledge, and his extensive collection of photographic reproductions of hypnotic and hypno-hysteric patients is replete with treasures on which he has generously allowed me to draw freely.

THE KEY TO THE PHENOMENA SUBJECTIVE AND RESIDENT IN THE PATIENT.

It will, no doubt, readily occur to the minds of those who are at all versed in the scenes now witnessed from time to



Fig. 3.

time that the occurrences, so vividly produced on these canvasses and those alive, described among the patients of Mesmer under the influence of holding the iron rods attached to his bottles and iron filings are from time to time now reproduced in these our modern days on the platform of the hypnotist and the faith-curer and the pilgrim to Lourdes. But as we are less apt to speak now of demoniacs and possessed, these appearances are usually characterised by words selected from a pseudo-scientific and not from the theological vocabulary. I may say at once that I am leading you up to the demonstration that the conditions induced, whether of convulsion, cataleptic immobility, langour, submissiveness, trance, or acceptance of suggestion and command, may be shown to be due to a nervous condition or mental state arising in the individual subject, either from physical or mental excitation; and, further, that such conditions, by whatever distinctive names their varieties may be called, are not and never were due to any healing power or to fluid or magnetic influence or mesmeric or hypnotic power resident in the operator. It is a common delusion that the mesmerist or hypnotiser counts for anything in the experiment. The operator, whether priest, physician, charlatan, self-deluded enthusiast, or conscious impostor, is not the source of any occult influence, does not possess any mysterious power.

[4] See Richer's *Les Démoniaques dans l'Art*.

and plays only a very secondary and insignificant part in the chain of phenomena observed. There are at the present time many individuals who claim for themselves, and some who make a living by so doing, a peculiar property or power as potent mesmerisers, hypnotisers, magnetisers, or electro-biologists. One even often hears it said in society (for I am sorry to say that these mischievous practices and pranks are sometimes made a society game) that such a person is a clever hypnotist or has great mesmeric or healing power. I hope to be able to prove what I firmly hold, both from my own personal experience and experiment, as I have already related in the *Nineteenth Century*, that there is no such thing as a potent mesmeric influence, no such power resident in any one person more than another; that a glass of water, a tree, a stick, a penny-post letter, or a limelight can mesmerise as effectually as can anyone. A clever hyp-



Fig. 4.

notiser means only a person who is acquainted with the physical or mental tricks by which the hypnotic condition is produced, or sometimes an unconscious impostor who is unaware of the very trifling part for which he is cast in the play, and who supposes himself really to possess a mysterious power, which in fact he does not possess at all, or which, to speak more accurately, is equally possessed by every stock or stone.

HYPNOTISM AND HYSTERA CONDITIONS OF DISTURBED EQUILIBRIUM.

The condition of hypnotism, mesmerism, etc., is a mental condition—a condition of disturbed equilibrium of the nervous system and brain apparatus of the person operated on. With that key to unlock this curious cabinet of mysteries, delusions, and veritable phenomena, you will be able the more easily to follow me in the panorama of patients and conditions, hypnotic and pseudo-hypnotic, which I unroll before you. My words may be all the fewer because the pro-

fusion of illustrations which I am enabled to put before you will appeal to the intelligence, through the eyes, as powerfully as spoken words could through the auditory sense. [Only a small proportion of these are reproduced here.] First of all, then, I want to take you with me to the wards of the Salpêtrière Hospital, and to show you a series of patients in whom are present all the conditions you are accustomed to hear spoken of as conditions due to the mysterious power of the hypnotiser or the mesmerist, and perhaps to associate with the exercise of some mysterious influence by that sinister personage, by his command of the imaginary fluid, magnetic, electric, or telepathic, supposed to issue from his finger ends, or to emanate from his body. These phenomena are the induction of sleep, or partial sleep, of cataleptic lethargy, of the loss or temporary abolition of ordinary sensation, the incapacity for feeling pain on being pricked or cut, the loss of taste so that neither pepper, salt, nor any nauseous substance produces any impression on the palate, or that any one substance may, at the suggestion of the operator, be mistaken for any other, as paraffin for champagne, salt for sugar, cayenne pepper for sweetmeats.

The Identity of Phenomena in Hysteria and Hypnotic Suggestion.

Here are a series of sun pictures of patients of the Salpêtrière who are the subjects of severe forms of hysteria.



Fig. 5.

Everyone knows something about hysteria. Everyone is acquainted with that ordinary form of hysteria which is characterised frequently by what is known as an hysterical fit, and is accompanied by temporary convulsions, often not distinguishable from epileptic convulsions, except that the patient, although unconscious, may generally be trusted not to hurt herself, or himself. Hysterical patients rarely or never bite their tongue, while epileptics generally do, but they go through violent contortions, show evidences of various uncontrolled emotion, and the fit, whether lasting for a short or a long time, commonly ends in languor, or a long sleep and perhaps a flood of tears. Here already you see some resemblance to the hypnotic state and to the condition of those convulsionists and demoniacs of whom we have seen the pictorial representation. Medical men know, however, and many others have become acquainted incidentally with the fact, that these attacks, when of a severe character, or in highly nervous and unstable individuals, may go much further, and I will show you some striking examples which reproduce most of the phenomena characteristic of the extreme degrees of hypnotisation and suggestibility without the employment of any hypnotic influences, and arising only out of the disturbed equilibrium of the nervous system of the patient herself or himself. You will notice that I say herself or himself because hysteria, even in its most highly-developed eccentric and extreme forms, is by no means the exclusive privilege of the female sex, although it is their more general possession.

Self-suggested Emotions and Attitudes of Hysterics.

The first lantern photograph shown was a hysterical patient who had fallen spontaneously into profound slumber; the second, an hysterical patient, was seized with a fit of continuous and uncontrolled yawning—uncontrollable by herself; for if you tell her peremptorily to shut her mouth and keep it shut, and if she thinks you are a person having command, she will keep it shut so firmly that no one else can open it; or if you order her to keep it open she will keep it at this extraordinary wide gape for an indefinite length of time. The third showed the same person in various phases of hysterical yawning. The fourth showed another patient who is being put to sleep by holding a little stick or a finger before her eyes; strapping a spoon in front of them, making her look at a penny in the palm of her hand, or half-a-dozen other expedients, will have the same effect. The fifth (Fig. 1) shows the same person in a state of what in this case you will observe is not hysterical lethargy spontaneously arising in a hysterical patient, but hypnotic lethargy artificially induced. The sixth (Fig. 2), a photograph of a



Fig. 6.

female hysteric seized with an attack in which her body is arched in a tetanic spasm, unconscious, and the whole weight of the body in this violently constrained position supported for a length of time by the head and heels. In Fig. 3 we return to artificially induced hypnotic condition. It shows you our hypnotic subject whom we had sent to sleep in Fig. 1. She will stay in that position, into which she can be thrown artificially by a strong light or a loud sound, or by being made to stare at any fixed object, for an almost indefinite length of time. If you attach the most delicate form of register to her uplifted arm you will find that there is no tremor or unconscious muscular movement, which is not the case with an impostor or with anyone voluntarily assuming this posture for any length of time; nay more, in another photograph projected on the screen may be seen this same woman in a double condition; by closing the eyelid and shutting off the exciting influence of the sudden impulse of light which has thrown her into the cataleptic condition, the one-half of her body and of her nervous system is restored to the state of lethargy, while the other half remains firmly fixed and contracted in the state of immobile catalepsy in which you just saw the whole of her body.

To these let me add some of the emotional phases and phenomena of hysteria. Fig 4 is a characteristic picture

of hysterical delirium; Fig. 5 of a hysterical patient who in the course of her attack is under the influence of pleasing impressions; Fig. 6, the same patient under a similar self-suggested emotion of anger; Fig. 7 shows a hysterical patient who is subject to strong religious impressions, and in one of the periods of her attack falls into the attitude of crucifixion.

SIMILAR CONDITIONS INDUCED IN HYPNOTICS BY SUGGESTION, AUTO-SUGGESTION, AND PHYSICAL IMPRESSIONS.

I will now take you back to the artificially-induced hypnotic state. I will show you our hypnotic patient, who, being hypnotised, is subject to the influence of impulses conveyed to her mind either by the voice of the operator or, as I am about to show you, by self-generated influence in the brain; due to such simple conditions as the position of her muscles and the nature of the attitude in which you put her. You have already seen her in the attitude of fixed and what is called "cataleptic" immobility; but if now you raise her hands into the attitude of astonishment (Fig. 8), note the change of expression in the face, indicating that the change of muscular attitude and the influence of the associated muscular action, related habitually to the emotion of astonishment, have produced that emotion in her mind and is strikingly depicted in her face. In Fig. 9 her fists have been doubled and she has been put into a fighting attitude; we now put her hands (Fig. 10) into the



Fig. 7.

attitude in which women, and especially French women, are in the habit of going through the little performance called "throwing a kiss." Few actresses, I imagine, however able, accomplished, and remarkable for histrionic power and intelligence, could so rapidly assume and maintain the unaffected expression of graceful welcome as this unconscious and uneducated woman has put on under the impulse of a brain emotion generated by the simple impulse of associated muscular influence in the related brain centres, unrestrained by the self-consciousness which so often disfigures the best acting. Self-consciousness is, in virtue of her condition, completely abolished. She is a mere puppet, the slave of unconscious cerebration excited by external influences and suggestion or of the suggestion of her own muscles. Another figure shows a girl under the influence of hallucination beckoning to imaginary personages.

Let me show you some other examples of the influence of mere physical suggestion. Fig. 11 is a girl in the atttitude of prayer. Note the intensity of her imploring expression, which might serve as a study for a painter; but the idea of prayer has not been suggested to her by word of mouth, nor is this the self-suggestion of a hysteric; it is the attitude induced, and always induced in this particular patient, when hypnotised by the sudden influence of a strong light thrown through the medium of blue glass. On the screen is the same girl, dazed and thrown into the hypnotic state, and always undergoing this impression under the influence of a strong yellow light. I show you the impression produced on her and the corresponding attitude when a bell is loudly struck within her hearing. Not only, however, does the whole body of the hypnotised patient or of the highly hysteric patient lend itself thus easily to the influence of physical excitation or suggestion from without, or of ideas aroused by the action of local groups of muscles or of other physical excitations within the body, but individual muscles can just as easily be acted on and separately set in motion. The mere stroking of the extensor muscles of one or two fingers will throw them into extension, while the touching of any set of flexor muscles will produce violent contraction and extreme flexion of the limb, as is seen in the further series of illustrations shown.

I will not carry this subject any further, although the temptation to do so is great, and I have abundant graphic material, but let me show you our hypnotised patient, whom you have already seen with one half of the body in a state of lethargy and the other in a state of contraction, and you will see from this picture that this state can also, by simple physical method or by verbal suggestion, be transferred and alternated at will from one side of the body to the other without the patient being conscious of it, without her being



Fig. 8.

awakened, or without her knowing when she is awakened what has happened to her.

Here is a cataleptic under the influence of the vibration of a tuning fork. I hope it is sufficiently clear to you that there are a number of conditions, either spontaneous or artificially produced, in which, while the power of will is abolished, and the brain loses its restraining and controlling power, emotions may be excited, feelings induced, and intellectual operations set in motion, independently of the will of the individual, and without individual consciousness being alive to what is going on. You have seen that all these various and allied conditions may occur, and do occur, under several sets of circumstances and of influences which at first sight seem very dissimilar, but (and this is the central point of my demonstration) are in reality related by a common bond. The convulsionists and the demoniacs were thrown into strange conditions of excitement, delusion, insensibility to pain, and hallucination, under the influence of the sight of similar conditions in others, or of suggestion by word of mouth, and they became submissive, and were cured by the same agencies.

The Key to the Mystery.

The key to all this was first given to us by our countryman, Mr. James Braid, of Manchester, in 1840-50. You will find it exceedingly well stated in his admirable little pamphlet entitled, *Magic, Witchcraft, Animal Magnetism, Hypnotism, and Electro-Biology*, of which the third edition was published by Churchill in 1852. It was Braid who first introduced the appropriate word, hypnotism, to describe these phenomena. He showed that the effects of the hypnotist are produced by setting in motion certain ideas in the mind of the individual, that the individual always hypnotises himself, and that hypnotism is a state of induced sleep produced by verbal suggestion or by artificial contrivance.

I may add that in repeating over and over again these experiments I have confirmed Braid's results, and have further proved that the will of the operator has nothing whatever to do with inducing sleep in the patient. You may, in operating after the varied methods of the mesmerist, the hypnotist, or the electro-biologist, will whatever you please—to sleep or not to sleep. Your will, unless it is expressed or indicated to the patient so as to afford him a mental suggestion on which he unconsciously acts, will count for nothing; he will fall into hypnotic sleep. It depends on what he thinks you wish and not on what you really wish; and if you set before him a glass of water or a penny-post letter, or put him in front of a tree or a candle, and tell him that you have mesmerised it, and order him to look at it and to be influenced by it, he will be influenced by it whether you have made any passes over it or not, whether you have magnetised it or not, and whether you wish it to influence him or not. You have, in fact, very little to do with it as the operator except in so far as you influence by your suggestion, and by his conception of your will, his nervous system and his state of mind.



Fig. 9.

Only Verbally Expressed or Physical Impressions are Capable of Conveying Suggestions.

In the same way, when once he is thoroughly hypnotised you can do nothing with him by willing or by wishing unless you express to him in words, or indicate to him by some other method capable of physically conveying to him a suggestion, what you wish him to do or he thinks you wish him to do. Any physical excitation may in this hypnotic state excite physical changes, as I have shown you, in his muscular or nervous system, which will in their turn give rise in him to mental emotion, to hallucinations, or to self-generated acts of the strangest kind. So largely is his restraining brain power thrown to sleep, and for the time abolished, so largely is his intelligent consciousness held in abeyance, that he becomes a marvellous machine, astonishingly, blindly, actively obedient to your wildest orders or most *bizarre* suggestions. You can make him believe himself a cat, a dog, a lion, a rat, and act accordingly as far as a human machine can act. You have abolished his intelligent consciousness of impressions conveyed by the nerves of common sensation or of special sense; you can pierce his skin with needles and he will not feel it; you can put mustard or salt or assafœtida on his tongue and he will either not taste them or mistake them for anything you please to name, and he will testify the most genuine and ludicrous dislike or most intense disgust of the substance you have put into his mouth. You can induce sentiments of anger, nay even of violent and destructive rage, ecstasy, affection, grief, at will, by verbal suggestions. You have, in fact, under your hands a marvellous and God-created machine reduced and degraded by the abolition of intelligence and self-restraint.

The Condition Purely Subjective: Anyone or Anything can Hypnotise.

There is no cleverness wanted on your part, there is no special power in this matter resident in you; anyone can hypnotise and everyone can hypnotise if he is patient enough, and either scientifically intelligent or ignorantly fanatic. The marvel and the mystery is in the individual operated upon. What is the precise nature of this complex and astonishing mechanism of the body and the mind which binds together in such singular complexity of relation muscle and nerve, lower brain, upper brain, nerves of special sense, body and viscera? No anatomist, however accomplished, no physiologist, however learned or acute, can explain. We have before us only the wonderful facts; they are far more wonderful than any of the sham tricks of the clairvoyant, the mesmerist, or the magnetist, who plays upon them and uses them for his purpose of imposture, of self-deception, or of vain mystery-mongering.



Fig. 10.

The Therapeutic Uselessness and Social Mischief of Hypnotism.

Can they be put to any good use? Of this I am bound to tell you there is no present evidence except as to the most insignificant and imperfect results, and in my opinion there is little prospect of any. Esdaile showed long ago that the anæsthesia induced by hypnotism can be employed for the purposes of surgical operation, but the process is so tedious, the duration of anæsthesia so uncertain, and the number of persons whose nervous system is in this unstable condition happily so few, that as a practical method of anæsthesia it is unavailable,

and far inferior to the chemical action of chloroform and other narcotic vapours. So also as an ordinary hypnotic. It is far less certain, far more troublesome, much more rarely capable of application, and much more likely to produce mischief, than opium or sulphonal, or any other of a dozen narcotics which are always at hand, are cheap, easily used, and under ordinary circumstances innocuous when properly used.

As to the treatment of other diseases, I have, I believe, read all that is to be read on the subject, whether from the school of Nancy, of Paris, or of Vienna, and I have arrived at the conclusion that Professor Charcot, with his abundant good sense, his great erudition, and his vast experience, is fully justified in the conclusion at which he and his eminent pupil Richer, Babinsky, Déjerine, and others have arrived; that, for curative purposes, it is very rarely useful, generally altogether useless, and often injurious.

The Practice of Hypnotism, except by Skilled Physicians, should be Forbidden.

And here let me end by saying that, since no evident advantage has during forty years of extensive, patient, and elaborate trial and research been obtainable by the hundreds of physicians and physiologists who have devoted themselves to the study of the question, it is justifiable to say that the practice of hypnotism, mesmerism, electro-biology, and so-called animal magnetism, being almost invariably useless and often dangerous, even in the hands of the most highly skilled, careful, and conscientious physicians, it is a practice which ought to be forbidden to the unqualified, and is a most unfit and improper subject for platform shows. It is equally unfit for private amusement, and dangerous and improper as a society game. It is liable to gross abuse, and is frequently the means of fraud and imposture, extortion of money, and degradation of body and mind. It is apt to induce serious injuries to both. The confirmed and trained hypnotic subject is a maimed individual in mind and body, and likely at any time to be dangerous to himself and to society. Instances of this are so common that I need not, even if I had time, follow up this branch of the subject. I conclude by expressing the hope that this outline of the physical facts connected with hypnotic phenomena may help to arm those who had not before had an opportunity of investigating the subject against the wiles of the impostor and the vain suggestions of the somewhat impious persons who endeavour to connect these phenomena with the incarnation in themselves or their favourite "Sludge" of spiritual power and relations. At any rate, I hope that it may have given some correct ideas of the nature of the hypnotic state, and have cleared away some of the fictions which have been associated with it by imaginative, ill-informed, or interested persons.



Fig. 11.

A CASE OF XANTHOMA MULTIPLEX IN A CHILD.

[With a Coloured Plate.]

By T. McCALL ANDERSON, M.D.,
Professor of Clinical Medicine in the University of Glasgow.

Xanthoma (xanthelasma vitiligoides) is met with in two forms—namely, xanthoma planum and xanthoma multiplex seu tuberosum. The first of these, which implicates the eyelids, is by no means an uncommon affection, while the second is decidedly rare, especially the form which occurs in children,



Fig. 1.—Section stained with logwood; the affected part highly cellular contrast with normal at either side.

Fig. 3.—Section stained with osmic acid, showing the cutis vera with cells which are fatty.

of which not more than twenty cases have been recorded. In them the eyelids almost invariably escape, and the liver is not affected. On the other hand, when xanthoma multiplex does not commence till after puberty, in most cases (about four-fifths) there is chronic jaundice from obstruction of the bile ducts, and the eyelids are almost always implicated—indeed, the disease commences there.[1]

The following is a good illustration of apparently congenital xanthoma multiplex.

[2] D. F., aged 3, was admitted to Ward 4 of the Western In-

[1] See, if desired, the Report of the Xanthoma Committee in the *Transactions of the Pathological Society*, vol. xxxiii, p. 376.
[2] Reporter, Wm. Jack, M.B.



TO ILLUSTRATE PROFESSOR McCALL ANDERSON'S PAPER ON XANTHOMA MULTIPLEX

firmary of Glasgow under the care of Professor McCall Anderson on May 30th, 1892, suffering from an eruption of unknown duration. Her aunt states that she knows nothing of the history of the child, whose parents died some time ago. The eruption was in its present condition when she came under her aunt's care three months ago. As far as is known, she has always been healthy.

The eruption consists of numerous papules, very closely set, and varying from the size of a pinhead to $\frac{1}{8}$ inch in diameter. Where two or more of these have run together, they form patches about the size of a split pea. The separate papules are rounded, and have a flat surface, glistening in certain lights. The outline of the confluent patches is

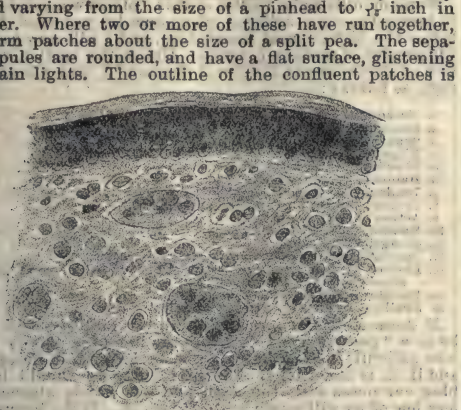


Fig. 2.—Part of Fig. 1 with high power; many of the cells are large and multinucleated.

made up of segments of circles. The papules, which are elevated in proportion to their size, are of a light buff colour, soft in consistence, and the surrounding skin is nowhere thickened or infiltrated, or in any way altered.

The eruption, which is symmetrical, is situated upon the face, neck, shoulders, arms, and legs, and is most copious upon the shoulders. The papules, and the patches formed by their coalescence, are grouped into irregular clusters. The largest of these is situated over the deltoid on either side, and extends along the posterior aspect of the arms as far as the elbows (see coloured plate). A few papules are scat-



Fig. 4.—Part of Fig. 3 with high power. The fat is in cells, chiefly large ones, such as those shown on Fig. 2.

tered over the flexor aspect of the arms as far down as the wrists. These are for the most part of smaller size and lighter colour. There are none on the hands. A large band of eruption runs from the lobe of the ear on one side beneath the chin to the corresponding point on the opposite side. The eruption is also present on the forehead, but here the papules are small and discrete. A few discrete papules also appear on the cheeks. The trunk is free anteriorly, and posteriorly as low down as the last sacral vertebra. There it reappears, and extends in a discrete form down the back of either thigh as far as the knees. A few scattered papules occupy the flexor surface of the knees and legs: the feet are not affected. Sections of the nodules were made by Dr. Joseph Coats, and the following is his report:—

"Small portions of the skin, including parts of the eruption, were excised under ether spray. They were then hardened in Müller's fluid, and sections were cut in the microtome after freezing. Some sections were stained with logwood and with alum carmine, and some were treated with osmic acid. The structure is illustrated in the four figures, Figs. 1 and 2 being from a section stained with logwood, and Figs. 3 and 4 from one treated with osmic acid. The eruption is in the form of a slight elevation of the skin as shown in a rounded prominence of the general surface. The prominence is due to an enlargement of the cutis vera, the epidermis being somewhat flattened over the surface, and the interpapillary processes considerably diminished. This is seen by contrast with the unaltered skin on either side of the prominence. The prominence is obviously due to an excess of cells in the affected portion of cutis vera. This is abundantly visible in Fig. 1, where the contrast in this respect with the normal skin on either side is very marked. The cells are only to a limited extent related to the blood vessels.

"Fig. 2, which is a part of Fig. 1 more highly magnified, shows the character of the cells in the affected area. The cells are mostly of considerable size, and many of them are of very large size. In the figure several of these latter are shown with a number of nuclei, and with all the characters of giant cells.

"Figs. 1 and 2 are from a section mounted in Canada balsam, and are prepared so as to show the individual nucleated cells. Figs. 3 and 4 are from a section stained with osmic acid, so as to bring out the presence and locality of the fat in the lesion. In Fig. 3 fat is seen to be present by the appearance of dark areas throughout the affected area in the cutis vera. Even with this power it can be seen that the fat is collected into definite masses or clumps suggesting cells.

"In Fig. 4, which is from the same section more highly magnified, the fat is seen to be in larger and smaller collections, evidently limited by the outlines of cells. It also appears that many of these cells are of large size, being strictly comparable with the giant cells shown in Fig. 2. In sections stained with alum carmine and osmic acid the nuclei of these cells could be seen along with the fat. The fat, as shown in Fig. 4, is in the form of small homogenous granules, giving the characteristic appearance of fatty degeneration.

"Summing up the pathological conditions present, it may be said that we have here evidences of an irritant acting on the skin, and producing the lesions of chronic inflammation in the form of a cellular new formation. The cells are similar to those arising from such irritants as those of tuberculosis and syphilis, but have not the arrangement or mode of aggregation which is generally found in the latter. There is the further resemblance to a tuberculous lesion that the cells have this striking degenerative tendency manifested in the fatty condition. I do not mean to say that the irritant here is that of tuberculosis, but the presence of giant cells and the degenerative tendency certainly suggest that a morbid virus of some kind has played a part in the production of the eruption."

Sanitary Administration in Roumania.—A new service of medical sanitary inspectors has been organised in Roumania, and enters on its duties with the new year. The inspectors are to be selected from among members of the medical men who have been at least ten years in the public sanitary service. They will receive a salary of 10,800 francs (£432) a year with travelling expenses at the rate of 3,600 francs (£144) a year, and with the right of free railway passage. They are to be under the orders of the Minister of the Interior or of the General Director of the Sanitary Service. Their duties will be to inspect and supervise the administration of the sanitary laws throughout the districts, cities, and communes of Roumania, to keep a watchful eye on public and private pharmacies and the sale of drugs, and on the treatment of the poor.

THE SURGERY OF THE NOSE AND ACCESSORY CAVITIES.

An Abstract of the Bradshaw Lecture delivered at the Royal College of Surgeons of England on December 1st, 1892.

BY CHRISTOPHER HEATH, F.R.C.S.,

Holme Professor of Clinical Surgery in University College, London.

THE diseases of the nose have in the last decade obtained an amount of attention on the part of certain members of the profession which their importance seems scarcely to justify. The literature of the subject has grown apace, but I say advisedly that the amount of progress bears no proportion to the amount of literary activity displayed since the date of the well-known paper by Dr. Meyer, of Copenhagen, on Adenoid Growths in the Naso-pharyngeal Cavity, communicated in 1869 to the Royal Medical and Chirurgical Society by the late Mr. John Marshall. I do not propose to revive the old controversy of "General *versus* Special," which ran its tedious length some years ago without any particular result; I have, however, to thank the President of the British Laryngological and Rhinological Association for a phrase which he was reported in a daily paper to have used in an inaugural address, in which he spoke slightingly of the "all-sufficient general surgeon," as compared with what I would venture to term the "self-sufficient special surgeon." I hope before the close of this lecture to show that the general surgeon is, in the matter of diseases of the nose, "all-sufficient," and that he owes little or nothing to the specialist. Let me take, for example, the treatment of fracture and displacement of the nasal bones and septum. The name of William Adams is at once suggested by the flat-bladed forceps and vulcanite wedges which he successfully introduced, and which, in his own hands and those of many other general surgeons, have proved most efficient. So, also, with that terrible deformity which used to be called "lipoma nasi," consisting in hypertrophy of the skin of the nose, with blocking and distension of the sebaceous follicles. One need only refer to the standard works of Liston and Fergusson to find graphic portraits of such cases, which were treated then, as now, by the old process of paring away the hypertrophied mass and inducing healthy granulation.

STRAIGHT AND CROOKED NOSES.

Given a patient with the nose well cocainised, it is by no means difficult to light up effectually at least the anterior part of the nasal cavity, provided the septum be median and straight; and then comes the important question, What is the proportion of straight noses, to say nothing of deviated septa? Robertson, an American surgeon, in an examination of 240 cases, found abnormalities of the nose in 217; and Bosworth says (p. 292): "It is worthy of note that deformities of the external nose are of far more frequent occurrence than is generally supposed, for if we examine a given number of individuals with a plumb line we will find the tip of the nasal organ deviating from the median line of the face in quite a large proportion of cases." As regards the septum, Theile found that in 117 skulls the septum was unsymmetrical in 88, or 73 per cent.; Semeleder, in 49 crania, met with deviation in 79 per cent.; and Zuckerkandl, in 370 skulls, met with deviation of the septum in 140 instances. The late Sir Morell Mackenzie investigated the question by laboriously examining the collection of skulls in the museum of this College. The total number of crania examined was 3,102, but of these only 2,152 had the bony septum in sufficient preservation to be tested, and these showed a more or less unsymmetrical position of the septum in 1,657 cases, or 76·9 per cent. It must be remembered that these figures have reference only to the bony septum, and that deviations of the cartilaginous part probably occurred in a large proportion of those cases in which the bone itself was straight.[1]

It is rare to find a septum perfectly straight, and yet how much rarer is it to find anything approaching a "spur" or outgrowth which could in any way interfere with nasal respiration, still less affect the Eustachian tube? Yet from the publications of certain nasal specialists one gathers that outgrowths from the septum which require removal with the saw or electric wire are now commonly met with, and that in fact no man's, still more no woman's, nose can be considered sound until a "free run" has been established on both sides of the median line. Bosworth (p. 292) goes so far as to say: "I regard septal deformities as responsible in the large majority of cases for the whole train of symptoms, direct and indirect, which are embraced under the term chronic hypertrophic rhinitis."

Some months ago a Fellow of this College was good enough to forward to me a syllabus of a paper he proposed to read before the Rhinological Association, and I will now read it as illustrative of modern progress. Under the section "Causation of Deviations of the Nasal Septum" I find fifteen headings, as follows:—

CAUSATION

1. Hereditary causes.
2. Congenital causes.
3. Syphilitic causes.
4. Rickets.
5. Blowing nose with same hand.
6. Habitual sleeping on one side.
7. Tendency to vertical overgrowths of septum.
8. Primary laws of organisation at fault.
9. Action of astringents.
10. Habit of putting finger in nose.
11. Overgrowth of septum.
12. Traumatism: (*a*) *In utero*; (*b*) early; (*c*) recent.
13. Lesions at root, trunk, or terminations of facial nerve (affecting muscles).
14. Unilateral obstructions of nostril.
15. Swellings or growths directly pressing on septum.

If these things are so, our children's children will surely be in a "parlous state." Every mother of a family knows how difficult it is to get children to blow their noses at all, and if it is essential that from infancy we should learn to blow our noses with the right and left hands alternately, I fear few of us will attain unto perfection. If the lecturer had insisted upon the importance of habitually closing one nostril while clearing the other with the whole force of the breath, or if he had pointed out the fact that infants' nostrils can often be cleared by hot sponging, or, if need be, by the nurse blowing the mucus into the pharynx by applying her mouth to the baby's nose, there would have been some practical outcome from his teaching. As it is, I hope that the golden time will be long distant when want of attention, now dignified by the term "aprosexia," in schoolboys and others, will be regarded as disease of a physical rather than of a moral nature. But this tendency to magnify slight deviations from the normal into matters of vital importance has its serious aspect. A year or two ago a medical man brought to me a young relative who had undergone treatment by a nose specialist, who had repeatedly drilled an exostosis of the septum, with the result that one morning the drill was broken and remained in the cavity. I made a most careful examination of the nose with a brilliant light, and of the posterior nares with the forefinger, but I failed to discover either the exostosis or the drill, which I advised should be left *in situ*, and no harm eventuated. One can only suppose that the basilar process or body of the sphenoid bone was fortunately thick enough to withstand the vigorous attacks of the operator. But such innocent results do not always follow over-activity in the nasal cavities, which, it must be remembered, are separated from the cranium by a very thin cribriform plate of bone.

TREATMENT OF ADENOID VEGETATIONS.

The clinical facts narrated by Dr. Meyer in 1869 have been abundantly tested by practitioners in all countries, and if the treatment recommended has been slightly modified its principles remain as laid down by him. As regards diagnosis the introduction of the forefinger into the naso-pharynx is at once the simplest and best method, and even with children the operator runs no risk of being bitten if he encases his first phalanx in a piece of stout indiarubber tubing. But if it is desired to avoid giving any pain the employment of the nasal douche, as advised by Semon, will at once determine whether the naso-pharynx is obstructed or not. As regards treatment, surgeons have for the most part abandoned the use of instruments introduced through the nose, as recommended by Meyer, for the more direct route of the pharynx. Here the nail of the forefinger forms a satisfactory instrument for the removal of small vegetations, but it may be usefully sup-

[1] *Diseases of the Throat and Nose*, vol ii, p. 433.

plemented by Gottstein's curette when the growths are large. The employment of curved cutting forceps introduced behind the palate is to be deprecated, since the operator has to work in the dark and may unwittingly inflict serious injury upon the pharynx or Eustachian tubes. The danger of portions of growth or blood getting into the air passages is best met by employing local anæsthesia by cocaine in all but severe cases, and, when chloroform is used for these latter, by bringing the patient's head well over the table so that the nose may be the dependent part.

Besides these cases of distinct growth in the naso-pharynx there are doubtless cases of thickening of the mucous membrane of the nasal cavities due to constitutional causes, but these are really unimportant unless sufficiently severe to cause obstruction. When this is the case they may be beneficially treated with the hot galvanic wire, scored on the surface, or thrust into any portion of thickened mucous membrane. The contraction caused by the healing of the scars thus produced and the bracing up of the tissues thus effected tend, no doubt, to reduce the thickening of the mucous and submucous tissues and to bring the parts into a healthier condition.

I would venture to quote here from Dr. McBride's recent work on *Diseases of the Nose, Throat, and Ear* a passage which is particularly valuable for expressing a specialist's reasonable view as to the over-activity frequently displayed in the treatment of slight affections of the nasal mucous membrane. He says (p. 265):

Rhinology has made rapid strides of late, and operative rhinology has accomplished much for the benefit of humanity. It has, however, added something to the sufferings of mankind. As a student of rhinology for more than a decade, with considerable clinical material at command, I know what the ideal normal nose should be. As an aurist who examines the anterior nares in most cases, I also know full well how far this organ may deviate from health (if a normal nasal mucosa be implied by the use of this term) without occasioning any symptoms referable to this part. I would therefore contend that at present we know as the normal an ideal which is not often met with. Indeed, if the persons who, in answer to leading questions, state positively that they are not in any way troubled by symptoms referable to the nose be examined, the probability is that more than half will show such evidence of disease, for example, spines on the septum, thickening of the mucosa over the turbinate bodies, etc., as would lead to severe operative measures being advised by many rhinologists if they were to carry out what they advocate. This excessive operative zeal appears to me a great danger, threatening, as it does, the credit of our profession as a whole and rhinology in particular .....I have dwelt, perhaps, unduly on these points, but the practical result I desire to lead up to is this - let no surgeon be induced to operate on the nose simply because there is some degree of hypertrophy of the mucosa unless the symptoms are sufficiently important to warrant such interference.

Gelatinous Polypi.

The gelatinous polypus of the nose consists of a delicate fibrous network infiltrated with mucin. The hygrometric properties of nasal polypus are well recognised by patients, who complain that their noses are always "more stuffy" in damp weather. Springing from the superior and middle turbinate bones, the mucous polypus is usually fairly visible from the anterior nares, where it presents a characteristic yellow mass which readily reflects the light, and this I look upon as its best marked sign. And yet mistakes are made in the diagnosis of polypus, and the commonest, in my experience, is that of taking the convex side of a deviated septum or the anterior extremity of a hypertrophied inferior turbinated bone for a growth. This last is especially apt to happen in a child with a *nez rétroussé*, and it is well to bear in mind, therefore, that polypus in children is very rare, although of course not unknown.

[*To be continued.*]

Medical Magistrate.—Dr. Thomas J. Henry, Government Medical Officer for the district of Warialda, New South Wales, has been appointed to the Commission of the Peace for the colony.

The Sydney Baby-Farming Case.—Makin and his wife have been committed for trial on the charge of manslaughter owing to the discovery of the bodies of fifteen infants in houses occupied by them at different times.

At the annual dinner of the National Dental Hospital, held on November 25th under the presidency of Sir J. Crichton-Browne, it was mentioned that the new building which was being erected by the munificence of a lady would, when completed, be one of the most complete dental hospitals in Europe.

THE PHYSIOLOGY AND PATHOLOGY OF BLOOD DESTRUCTION.

Being the Grocers' Scholarship Lectures delivered at the Examination Hall, Victoria Embankment.

By WILLIAM HUNTER, M.D.,

Assistant Physician to the London Fever Hospital; late Grocers' Research Scholar.

Lecture II.

II.—SEATS OF HÆMOLYSIS.

In the first lecture the conclusion was arrived at that an acute hæmolysis (as distinguished from a slow decay of the blood) is an event of every day occurrence. The question now arises, where does this hæmolytic change take place? Does it occur throughout the blood generally, or is it localised to certain organs? The organ which at once suggests itself in this relation is the liver. Are not the bile pigments formed there, and are they not derived from hæmoglobin? Is not the liver the seat of deposit of pigment in diseases, such as pernicious anæmia and malaria, in which everything points to an excessive hæmolysis?

The spleen also is at least a probable seat of this process. Is not blood pigment in greater or less quantity an almost constituent of this organ, and are not its peculiarities in structure and in the circulation specially favourable to the occurrence of changes in the blood?—The same arguments, though to a much lesser degree, apply to the red marrow.

Blood Pigment as an Index of the Seats of Hæmolysis.

What significance are we to attach to the blood pigment so frequently found in one or other or all of these organs? On this point observers are by no means agreed, doubtless for the reason that hitherto no exact data have been at hand on which to base a definite opinion. Thus, in the case of the spleen, some observers, like von Wittich, have referred the pigment to capillary extravasations of blood arising from the great delicacy of the splenic tissue, while others (and these, perhaps, the majority) are content, like Quincke, to refer it rather to what may be termed the "scavenging" or collecting function of the spleen, in virtue of which that organ arrests all kinds of effete particles circulating in the blood, including old effete corpuscles.

It is thus still an open question how far the presence of pigment in the spleen indicates that that organ is the seat of an actual destruction of red corpuscles, as distinguished from a mere burial place of old corpuscles that have gradually become functionless. Similarly in the case of the liver, it is still an open question how far the hæmolysis which the presence of pigment undoubtedly implies has actually taken place within the liver itself, or how far, on the other hand, it may not have taken place elsewhere, the hæmoglobin being merely carried to the liver to be disposed of.

Lastly, assuming that both these organs are the seat of hæmolysis, it still remains to be ascertained to what extent they act independently or in association with each other, how far their relative activity in this respect may be judged of by the relative amount of blood pigment they contain. To these and other collateral questions my experiments have supplied some very definite answers, which I can briefly state as follows:

The Spleen.

My observations on the spleen lend no support whatever to the view that the presence of blood pigment is in any way connected with, or can possibly be referred to, the occurrence of capillary extravasations of blood. On the contrary, the typically congested spleen of cardiac or hepatic disease I have frequently found singularly free from any pigment at all.

Nor do they support the view that the pigment merely collects there as the result of the scavenging function of that organ.

So far as mere collecting function is concerned they show that the liver is a far more important organ than the spleen, as may be best judged by the relative amounts of pigment particles found in liver and spleen respectively after injection of carmine or ultramarine blue into the blood. The liver contains by far the most.

The great quantity of pigment frequently found in the spleen in my experiments after transfusion, while little or none is present in the liver, points, therefore, to the conclusion that the *rôle* of the spleen in taking up red corpuscles is no mere scavenging one.

Experiments I conducted in this relation, moreover, show that the cells of spleen have the power of arresting red corpuscles before the latter have undergone sufficient change to allow of their enclosure by leucocytes. In the absence of the spleen such corpuscles would have remained longer in the circulation. The spleen is thus, I conclude, the most active organ in the body in withdrawing from the blood red corpuscles in process of becoming effete. Its activity in this respect is greater than the whole body of leucocytes in the blood.

In virtue of its power in thus cutting short the life of the red corpuscles the spleen acts as a hæmolytic organ, and the pigment present in it has, therefore, a certain definite, albeit limited, significance in this relation.

THE BONE MARROW.

Evidence of a similar, although necessarily less conclusive, character is afforded by my experiments on the bone marrow. Its *rôle* with regard to blood pigment is no mere scavenging one, but, like the spleen, although in an altogether subordinate degree, it plays an active part in cutting short the life of the red corpuscles. In all my experiments, after removal of the spleen, marked structural changes were found in the marrow, and the amount of pigment in it was generally increased. In its case also, therefore, the presence of blood pigment has a certain definite significance in this relation.

THE LIVER.

My observations lend no support whatever to the view that a destruction of blood takes place within the liver cells. Whatever hæmolytic change occurs in the liver takes place within the capillaries. Presence of blood pigment within the capillaries has therefore a certain (I shall presently show very limited) significance in this relation—precisely similar to that in the case of the marrow. Presence of blood pigment within the liver cells, on the other hand, no matter in what abundance, affords no index whatever of the amount of hæmolysis that has taken place in the liver. It is only an evidence that so much hæmoglobin has been broken up within the liver cells, without affording any indication as to where the preceding hæmolysis has occurred, whether in the capillaries of the liver, or outside the liver, in the spleen, or in the circulation generally.

MORPHOLOGICAL CHANGES IN THE BLOOD DENOTING ACTIVE HÆMOLYSIS.

The information derivable from a study of the distribution of blood pigment as to the seats of hæmolysis is thus comparatively limited. It is mainly negative in its character. The amount of pigment in different organs is no reliable index of their relative activity in hæmolysis. This is true especially of the pigment found in some diseases so abundantly within the liver cells. So far as it is positive, it points to the spleen rather than to the liver as the more important seat of hæmolytic change.

My chief information regarding the seats of hæmolysis was derived from another source. Certain morphological changes are to be found in plasma, red corpuscles, and white corpuscles during active hæmolysis. They include the presence of:

1. *Colourless albuminous granules and spheres* of varying size, products of disintegration of both plasma and red corpuscles.
2. *Small coloured spheres* of varying size, derived from the red corpuscle by a process of disintegration which involves stroma and hæmoglobin at the same time, causing the corpuscle to break up into two or more coloured spherical bodies.
3. *Stromata*, decolorised red corpuscles, consisting of the framework of the corpuscle freed from its hæmoglobin, homogeneous throughout, without obvious envelope: best studied after injection of distilled water into the blood, to be sharply distinguished from
4. "*Schatten*," small vesicles consisting of an outer envelope, enclosing usually clear fluid, formed from red corpuscles; their envelope, not the envelope of the corpuscles, but, in my opinion, an artificial product resulting from chemical change in the outer part of the red corpuscle: never found in the body as a product of normal hæmolysis; formed only by the action of severe poisons.

A study of the destruction of these changes in different organs and portions of the circulation during active hæmolysis induced by the injection of poisons into the blood yielded important information regarding both the nature and seats of hæmolysis.

HÆMOLYTIC ACTION OF POISONS.

Toluylenediamin.—The chief point of interest in the action of toluylenediamin is that, unlike pyrogallic acid and other similar destructive agents, its action differs greatly in different animals. It is intensely destructive in cats; even in the smallest doses it causes hæmoglobinuria and death. It is less but still very destructive in dogs, causing jaundice without hæmoglobinuria; and least destructive in rabbits, even in large doses, causing neither jaundice, nor hæmoglobinuria, nor much disturbance of any kind. It was precisely the peculiarity of its action in rabbits, inexplicable as Stadelmann had declared it to be, that induced me to make use of these animals. My purpose was not to cause a degree of change in the blood capable of producing jaundice or hæmoglobinuria, but to cause such a slight exaggeration as would suffice to render recognisable evidences of hæmolysis usually hidden or obscure. By varying the dose I was able, in rabbits, to induce the most varying degree of hæmolytic change—changes in the blood, increased formation of bile pigments, and increased deposit of blood pigment within different organs. The results obtained with this drug in the rabbit were:

THE SPLEEN THE CHIEF SEAT OF ACTIVE HÆMOLYSIS.

1. With small doses the morphological changes indicative of hæmolysis are confined solely to the spleen and the blood of the splenic vein, and are absent from the blood elsewhere, even from the blood within the liver. (Experiment 80)
2. After a medium dose, the changes extend to the blood within the liver and that issuing from the mesenteric veins, but are still absent from the general circulation both during life and after death. (Experiments 61, 75.)
3. With still larger doses the changes extend to the general mass of the blood, but are always most marked in the portal blood, and especially in the spleen. (Experiments 65 and 90, 82 and 78.)

In all cases, thus, the changes were most frequent and most marked in the portal blood, as distinguished from that of the general circulation, and were always most marked and sometimes exclusively confined to the spleen and the blood issuing from it. Had the changes always been found within the liver as well, one might have referred their presence to the scavenging or collecting function of spleen and liver. Such an explanation cannot, in my opinion, here apply; for, as I have shown, as a collecting organ the liver is more important than the spleen, and here, on the contrary, the changes were sometimes confined to the spleen exclusively. The spleen is therefore a seat of active hæmolysis. Moreover, the experiments I now record show that it is the chief seat, and that, in comparison, the *rôle* of the liver in this respect is an altogether subordinate one.

EFFECT OF REMOVAL OF SPLEEN.

1. After removal of the spleen the destructive action of toluylenediamin on the blood of rabbits, in doses both small and medium, is completely abolished, and that of large doses greatly lessened. (Experiments 88 and 69.)
2. The nutrition of the animal is then less affected by the drug than it is in the healthy animal. Thus, while 0·66 gramme per kilo caused in the healthy animal a loss of body weight of 150 grammes in two days, a dose of 0·66 followed five days later by the enormous dose of 1 gramme per kilo (a dose which would have killed the normal animal) caused in the spleenless animal a loss of only 50 grammes, and that, too, notwithstanding that in the latter case the drug was injected (here as throughout all these experiments directly into the blood) immediately after the animal had had its spleen excised. So also a total of 0·33 gramme per kilo caused in the healthy animal a loss of 170 grammes, while a total of 0·84 per kilo in the spleenless animal was followed by an increase of 200 grammes in weight. Thus in the first case almost three times the dose caused a third of the loss of weight, while in the second more than twice the dose was actually followed by an increase of body weight in the spleenless as compared with the healthy animal, and that, too, notwithstanding the operation they had been subjected to.
3. The removal of the spleen, I find, lessens the formation of bile pigments.
4. It also alters the character of the subsequent hæmolysis, rendering it more slow and less acute. (Experiment 89.)

These experiments I regard as establishing: First, the importance of the spleen in hæmolysis; secondly, the relative subordinate *rôle* of the liver as a seat of hæmolysis. For it is within the liver that toluylenediamin frequently causes a largely-increased deposition of blood pigment, especially within its liver cells. How little the liver had to do with the destruction thus caused is now evident, since, by removing the spleen, the destruction can be abolished altogether.

I cannot interpret these facts in any other way than by con-

cluding that the spleen has been the chief seat of this hæmolysis, and that the sole part the liver took in it was to dispose of the products—especially of hæmoglobin.

Gastro-Intestinal Capillaries as a Seat of Hæmolysis.

After removal of the spleen, where does hæmolysis occur? As regards blood pigment, the place of the spleen is taken chiefly by the capillaries of the liver and by the bone marrow. Blood pigment has, however, as I have shown, but a limited significance in this relation; and this is again found to hold good. For the chief seat of hæmolysis after removal of the spleen—according to the experiments I now quote—is not the liver but the portal capillaries within the gastro-intestinal tract.

These experiments show that when the spleen was present it was exceptional to find changes in the blood issuing from this area, even when a considerable hæmolysis had been induced experimentally; whereas after removal of the spleen it was the rule to find such changes, even with a considerably less hæmolysis. The changes included, moreover, in addition to those already noted, one of which I have as yet made no mention—one previously best seen in the blood of the splenic vein—namely, a four or fivefold increase in the number of leucocytes in the blood coming from the gastro-intestinal area.

For these reasons I conclude that second only in importance to the spleen the gastro-intestinal capillary area is the chief seat of active hæmolysis. I place it second to the spleen for the reason that when the spleen is present the changes in the blood coming from the area are altogether less marked than those in the splenic vein. I place it before the capillaries of the liver, partly because the chief changes after removal of the spleen are presented by the blood issuing from this area and are of the same character as those previously found in the splenic vein; partly because as regards their number, their character, and their activity the cells lying in relation to this capillary area resemble more closely those within the spleen than do those in relation to the liver capillaries.

As regards extent, and the number and activity of the cells, both epithelial and lymphoid, lying in relation to it, the gastro-intestinal capillary area constitutes an organ in size and activity second to none in the body, not even to the liver.

Share of the Liver in Hæmolysis.

Hæmolysis being thus confined mainly to the capillaries within the portal area, all the products must pass through the liver before reaching the general circulation. It is then the *rôle* of the liver in hæmolysis becomes manifest. A certain degree of destructive change may take place in the blood in its extensive capillary area, as the result of the activity of the cells, both within and adjacent to it; but the chief *rôle* of the liver in this relation is, I conclude, not to induce hæmolysis, but to dispose of its various products, whether chemical or morphological.

In no respect, perhaps, more than with regard to this point do the results of this investigation differ from the conceptions usually entertained regarding the seats of hæmolysis. Whatever doubt has been and still is cast on the *rôle* of the spleen in this relation, it has been usual to hold that if one organ more than another was the seat of such a change, that organ must be the liver. This view I myself held at the outset of my investigation, and it was to explain and establish it, if possible, more fully, that many of my experiments were originally undertaken. The result is the somewhat unexpected one that, instead of establishing, I am compelled to regard my observations as overthrowing the liver from the position of first organ in this relation hitherto tacitly assigned to it, and as assigning to it the still important, but somewhat more humble, sphere of an excretory organ, concerned chiefly in getting rid of the various products, and of preventing their escape into the general circulation.

III.—NATURE OF HÆMOLYSIS.

In ascribing such importance to the activity of cells, I have anticipated somewhat; for it required a separate and different series of experiments to establish this. The object of this series was to explain why the action of a poison like toluylenediamin injected directly into the blood should not be general, but localised to certain portions of the circulation, and particularly to the spleen. To this end the distribution of the substance amongst the blood and the various organs after its injection was studied. A method was obtained by which its presence, even to the hundredth part of a milligramme, could be detected. The result showed: (1) that no accumulation took place in the spleen; on the contrary, within so short an interval as two hours after the injection of such large quantities as half a gramme, not even a milligramme was to be found in the spleen; (2) that the amount present in the blood, even within an hour of its injection, rarely exceeded 1 milligramme; (3) that the organs containing most of the substance were those concerned in excretion, namely, the liver and kidney; and (4) lastly and most instructive of all, that only about one-twentieth part of the amount injected could be accounted for in the urine and in the bile. The remainder was broken up within the body—a circumstance remarkable in the case of a body so stable as toluylenediamin, and only explicable on the view that cells had been concerned in breaking it up.

It was found, moreover, that important differences existed between the hæmolytic action of toluylenediamin and substances like pyrogallic acid, glycerine, or distilled water. While the latter acted directly on the blood, the amount of destruction being proportional to the quantity injected, and ceasing when they had left the blood, with toluylenediamine, on the other hand, the destructive action was not immediate, but more remote, and took place at a time when not more than a few milligrammes were to be found in the whole body. Nor was it proportional to the amount injected, for it might be great with a small dose (when the spleen was present) and absent altogether with double the dose (when the spleen was absent). Moreover, it was found that outside the body the addition of it to normal saline solution in proportions so great as $\frac{1}{4}$, $\frac{1}{2}$, and 1 per cent. actually increased the preserving power of such a solution towards red corpuscles, while within the body it gave rise to the most marked changes in the red corpuscles. In all these respects its action was as indirect as that of the other agents was direct.

Further confirmation of this distinction was obtained from experiments in which the spleen was excised, and pyrogallic acid was subsequently injected. The result showed that the removal of the spleen did not materially influence the action of the latter. This result was regarded as establishing (1) the important differences between substances that act directly and those that act indirectly in destroying the blood; and (2) the importance of the spleen in determining the action of the latter.

The importance of this conclusion consists in the fact that, according to my observations, hæmolysis in health, and usually in disease, was of this indirect character, the exceptions to this statement in disease being paroxysmal hæmoglobinuria, and the hæmoglobinuria attending severe burns and scalds, where the destruction was obviously occasioned by direct action on the blood, and on the blood of the general as distinguished from the portal circulation.

The conclusion arrived at from my study of the action of toluylenediamin, namely, that its destructive action was determined by the activity of cells, especially those of spleen, is, strictly speaking, only applicable in its entirety to the animal on which the observations were made (the rabbit). But inasmuch as the results clearly showed that in the case of an agent so powerful as toluylenediamine, the final arbiters in determining whether or no it should act destructively were cells, especially those of the spleen, I think that the result is capable of almost indefinite extension, and might be held to apply to the process of hæmolysis generally, not only in rabbits with the particular substance toluylenediamin, but in other animals with all bodies that, like it, acted indirectly on the blood.

Hæmolysis in Health.

Hæmolysis, then, in health, is a process initiated by the activity of cells—more especially of those having a peculiarly close relation to the blood, namely, of spleen and gastro-intestinal tract. The degree of hæmolysis is strictly defined by the activity of these cells; it is therefore slight during starvation and greatest during digestion. The evidences of this change in the blood at this

time are—first, the increase of flow of bile and bile pigments which occurs during active digestion; and, secondly, the presence of many morphological changes in plasma, and red corpuscles within the spleen, which, according to my observations, are to be found in such great abundance in the spleen during digestion, while comparatively few in number in the spleen of the starving animal. The activity of the cells of spleen and gastro-intestinal tract is evidenced in other ways, amongst others, by the increase in the number of leucocytes in the blood during digestion, and by the accompanying increased excretion of uric acid (Pohl, Horbaczewski); by the increased tendency of the portal blood to coagulate at this period (Wooldridge, Wright).

ACTION OF CHOLAGOGUES.

Dr. Hunter drew some practical conclusions from the foregoing results:

Within the limits of health, next to digestion, the greatest hæmolysis took place, he concluded, under the action of "cholagogue" agents, such as mercury, podophyllin, iridin, euonymin, and a large series of others, with whose action we had become acquainted through Professor Rutherford's extensive researches.

The action of these so-called "hepatic stimulants" was evidenced chiefly by an increased flow of bile and an increased formation of bile pigments. So obvious was this action that they were spoken of as stimulants of bile secretion, and credited with exerting a special stimulating action on the liver, and in all probability rightly so.

The foregoing observations showed that such an increased formation of bile pigments must necessarily have been preceded by an increased destruction of blood. On the view that the the liver had as much to do with this change in the blood as it had to do with the formation and excretion of bile, it was natural to ascribe the action of cholagogues to their action on the liver.

Since, however, according to his observations, destruction of blood occurred chiefly outside the liver and was effected mainly by the lymphoid cells of spleen and gastro-intestinal mucosa, he concluded that certainly the initial, if not the chief, action of such agents was not on the liver as hitherto supposed, but on those other cells, by whose activity the preceding changes in the blood were determined; and that the *rôle* of the liver was to excrete the products so formed. This view by no means excluded the one that these agents also influenced the activity of the liver cells. On the contrary, such was probably the case, since, as he found, for similar substances, the bile was one of the channels by which they or their remains were excreted from the body.

What he concluded, however, was that this action on the liver cell did not account for everything; that it did not account for the chief change, namely, the preceding hæmolysis, but that, to be effective at all, the cholagogues must first act on the blood through the intermediation of the lymphoid cells of spleen and gastro-intestinal mucosa.

INTUSSUSCEPTION OF THE SIGMOID FLEXURE OF THE COLON COMPLETELY REMOVED THROUGH THE ANUS.

By ARTHUR E. BARKER, F.R.C.S.,

Professor of Clinical Surgery at University College, and Surgeon to University College Hospital.

THE following is the second case in which it has fallen to my lot to cut away bodily an intussusception of the lower bowel with a malignant growth from the anus, and in both instances with entire success. In the first, operated on June 9th, 1886, I dealt with the mass exactly as in the case described below, and the patient was alive and well when I inquired about her quite recently of her medical attendant, Mr. Theo. Hoskin, of Hackney Downs. In a short paper read before the Royal Medical and Chirurgical Society on May 18th, 1887, I narrated this case, and made it the text for a summary of the subject of intussusception of the lower bowel. The rarity of the condition is there pointed out, and the recorded cases, very few in number, in which the mass has been bodily excised are given. The present case is now added to the list as showing how satisfactorily the condition may be dealt with from the anus, and as suggesting whether we might not deal more boldly with intussusceptions of higher portions of the intestine when they present in the rectum by cutting them completely away and suturing them, as in the present instance, after drawing them down. Of course, this has been done, but perhaps not so hopefully as cases like the two referred to would seem to justify.

E. W., aged 56, a fairly healthy woman, was admitted into University College Hospital on August 15th, 1891, for obstruction of the bowels. She stated that two years and a-half before for two consecutive mornings she passed about half a pint of blood independently of any motions. About fourteen days before admission she first noticed pain about the anus, which was aggravated after taking solid food. Since then she had been suffering from tenesmus, and passing blood quite independently of any desire to pass a motion. She had also suffered from constipation and nausea, but no vomiting, for a fortnight.

On admission the patient looked fairly well. The pulse was 80. The abdomen was full and prominent, and only slightly tender. The outlines of the intestines could be indistinctly seen, especially in the two flanks and iliac fossæ, but everywhere the abdomen was resonant. There was a discharge of blood mixed with mucus from the anus. About two inches within the anus a mass projecting into the lumen of the bowel was to be felt with the finger. This mass presented a hard, nodular, irregular ring to the finger, which could be passed into the centre as into a ragged os uteri, and round the mass externally. The mucous membrane above the hard ring was apparently healthy everywhere.

Regarding the case as one of intussusception of the sigmoid flexure of the colon due to constriction of a malignant growth, I proceeded as follows. I first stretched the anus widely with the fingers until it was quite lax. The intussusception could then be drawn down until it projected four or five inches below the anus. A large silver tube was then passed up the central lumen about six inches to relieve the abdominal distension, and gave exit to a large amount of gas. Then grasping the mass with the index finger passed up the lumen of the bowel and the thumb externally, I passed a stout silk stitch from without inwards, and then from within outwards through all the coats of the intussusception, about one inch above the upper margin of the growth, and tied it tightly. Below this the bowel was divided transversely for a short distance. Between the serous surfaces there was no adhesion, and some glandulæ epiploicæ projected. Then a second stitch was similarly inserted to one side of the first, it being quite clear that no small intestine was seated between the serous surfaces. Then a second transverse cut was made below the second stitch. Then a third stitch and cut were made, each time the wound being examined for possible protrusion of small bowel. In this way a circle of stitches was gradually inserted all round the bowel, about an inch above the limit of the growth, and all the intussusception below the ring of suture was gradually cut away. Previous to suture and section the whole bowel and its surroundings had been cleansed thoroughly with warm sterilised water. No fæces escaped during the operation, and at the termination of the operation a morphine suppository was inserted in the upper part of the bowel.

The mass removed weighed 1¾oz. It extended round three-fourths of the circumference of the bowel, and upwards at one point for an inch and a quarter. It was moderately firm in consistence, and papillomatous on the surface. The lumen of the bowel was so narrowed by this growth as only to admit the tip of the little finger. The bowel was cut across half an inch above the highest portion of the growth. There was no adhesion between the peritoneal surfaces of the intussusception, but the serous coat was puckered by the growth, and this shrinking prevented the reduction of the intussusception. There were a number of glandulæ epiploicæ between the serous surfaces of the part removed. Under the microscope the growth was found to be a columnar epithelioma.

The patient's condition during convalescence was very satisfactory. For the first few days she complained of some soreness in the left iliac fossa, with some tenderness on pressure, but nothing severe. Flatus was passed freely from the first day. There was considerable discharge from the bowel during the first two days. Of course the sphincter ani was paralysed for a time by the stretching, and did not retain the mucus of the bowel. The bowels were moved twice on the fourth day, and on the fifth day all pain was gone. The bowels acted daily after this, and the further convalescence was uninterrupted. A gland which had been felt just outside the iliac vessels on the right side freely movable could be felt as before when the patient was discharged from hospital on the eighteenth day quite well. The highest temperature recorded was on the day after operation, when it rose to 100.8°. She was seen some time later in the street looking perfectly healthy.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Lestyr, of Morlaix, in France, who has left 600,000 francs (£24,000) for local charitable purposes; Dr. Cesare Schina, of Turin, Medical Inspector of Railways in Italy and Physician to the Italian Royal Family.

A CASE OF ACROMEGALY.

By JOHN BARCLAY, M.D.,

President of the Aberdeen, Banff, and Kincardineshire Branch of the British Medical Association,

AND

WM. ST. CLAIR SYMMERS, M.B. Aberd.

The patient, H.W., a man, aged 40, resides in the village of Whitehills, Banffshire, where he has passed the greater part of his life, never having been abroad or subjected to any climatic influences foreign to the coast of the Moray Firth. He was a farm labourer by occupation, but has for many years been unable to do any work owing to the physical condition which his disease has imposed upon him. There is nothing of any special medical interest in the history of his family, his father is still living, aged 74, his mother met her death by accident, his five brothers and four sisters are all in excellent health and present no abnormalities. So far as can be ascertained his more remote relatives are devoid of any special pathological interest.

History of Illness.

The disease began when he was in his 25th year. His hands and feet slowly grew larger, and the face and body underwent the process of enlargement typical of this malady. At the commencement of his trouble he suffered from severe headaches. These continued for some four or five years, but gradually became less intense and less frequent. He was also subject to violent and frequent attacks of epistaxis. There were likewise joint pains of moderate severity, which he attributed to cold and the hard labour to which he was subjected. The patient believes a fall from a horse to have been the starting-point of the disease, and in fact there is a depression on his skull at the upper border of the occipital bone, which depression is nearly 2 inches in diameter, and which he states to have been the result of this fall.

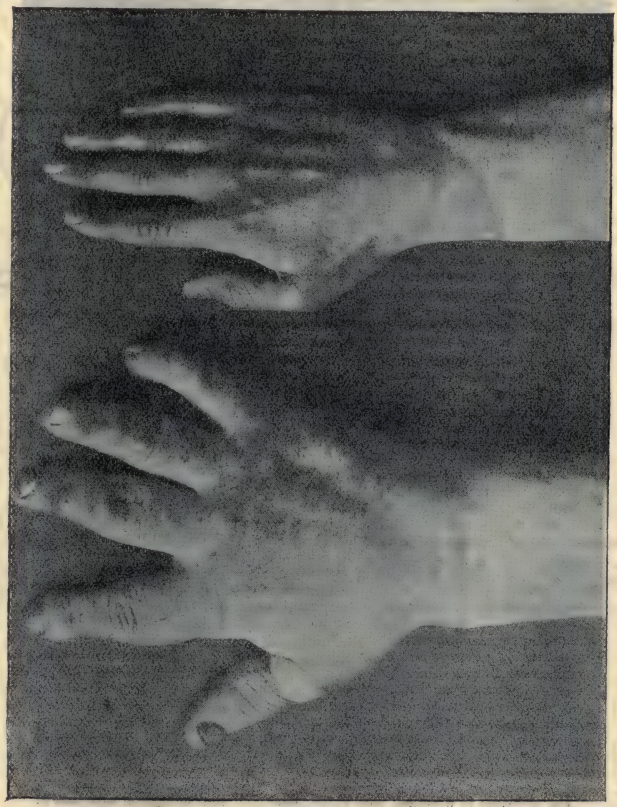


Fig. 1.—Shows patient's hand along with that of Dr. Symmers, and various characteristics referred to in the paper.

Present Condition.

The patient is a man of great size—6 feet 2 inches in height, and weighs 20 stone. His hands are enormously enlarged, the hypertrophy affecting both the bones and the soft parts. The increase in size is chiefly lateral, although the length of the hand is also increased. On palpating the fingers the increase of the bone in a lateral direction is very striking, it being at once evident that the thickness of the phalangeal bones, from dorsal to palmar surface, is not relatively so much increased as it is from side to side. The fingers are sausage-shaped, and bear nails apparently too small for them (Fig. 1). The nails are marked by prominent longitudinal striation, have incurved edges, and are about twice as broad as long. There is a huge hypothenar mass of flesh, which is easily movable above the subjacent bones. The lines in the palm of the hand and about the joints of the fingers are deeply marked. The wrist likewise participates in the enlargement, the inferior ends of the ulna and radius being greatly hypertrophied, the styloid process of the ulna is particularly huge and prominent, while the pisiform bone projects like a large marble under the skin. In addition, the hand is thickly freckled on its dorsum by pigment spots of a bistre-brown colour. This pigmentation extends up the forearm, particularly on its extensor aspect.

The bones of the arm and forearm are also considerably hypertrophied, but not relatively to the same extent as those of the hand, so that the huge spade-like hand appears almost too heavy for the arm to support.

The condition of the feet and legs is exactly analogous to that of the hands and forearms, only the hypertrophy is not so great. There is the increase in breadth and length of the bones and soft parts, the pad of flesh on the outer side of the foot, the enlarged malleoli, the pigmentation, the peculiar shape and deepened striation of the nails—in short, all the various features of the acromegalic hand are reproduced in the feet. The tendo Achillis is large and rope-like, and is fastened to an enormous os calcis. The head of the fibula, the upper extremity of the tibia, the patella, and the condyles of the femur are all greatly hypertrophied.

The forehead is low, broad, and receding, and the skin, particularly when the eyebrows are raised by muscular contraction, is thrown into folds with deeply-grooved furrows. The supraorbital ridges are exceedingly prominent, mostly so in the glabellar region. The nose is well-formed and regular in its outline, but is much hypertrophied in both the bony and soft parts. The upper lip is thickened considerably, but not nearly so much so as in the lower lip, which is very much enlarged and somewhat everted. The lower jaw is greatly increased in size, so that the face is markedly prognathous (Fig. 3), the lower incisors being ½ inch in advance of the upper incisors when the mouth is closed. The hypertrophied lower lip adds to the prognathous appearance, which is especially noticeable when the patient shuts his mouth. The patient usually goes with his mouth half open. The teeth are well formed and complete; they are not apparently enlarged, but in the lower jaw they tend to be separated from one another owing to the hyperostosis of the inferior maxilla. The zygomata and malar bones are promi-

nent,[1] the prominency of the latter being apparently due to dilatation of the antrum of Highmore, as described by Broca in his report on the skeleton of one of Marie's original cases. The face has the appearance of being flattened laterally. The eyelids are not affected to any marked degree, while the ears are considerably enlarged, the left somewhat more than the right. The cranial bones are not affected to anything like the extent of the facial bones, the various alterations of the latter giving the face the peculiarly vertically-elongated oval appearance described by M. Marie.[2] The face and neck are thickly covered over by the same kind of brownish pigment spots that were observed on the hands and feet. The scalp over the entire head is greatly thickened, and is easily movable, as there are no localised adhesions to the deeper parts, but it is not easily thrown into folds, in this particular contrasting with the scalp described by Mr. Hutchinson,[3] who speaks of the hypertrophied scalp in one of his cases of acromegaly as being very easily thrown into folds. The beard is scanty, but on the head the hair is thick, coarse, and abundant; indeed, the individual hairs would seem to have fully held their own in the hypertrophic race. The tongue is enormously enlarged in all its dimensions, and is seemingly too big for the mouth, and doubtless accounts partly for the slow and clumsy articulation which the patient manifests.

In this connection we may refer to a case published by Mr. Chalk in the *Transactions of the Pathological Society of London* for 1857, and which appears to have been a typical case of acromegaly, but which the reporter describes as one of partial dislocation of the lower jaw from an enormously hypertrophied tongue.[4] The neck is short and thick, and so set upon the trunk that the head as a whole is projected forward on the breast (Fig. 3). The thorax and vertebral column participate in the hypertrophy. There is a well-marked cervico-dorsal kyphosis (Fig. 3), with compensatory dorso-lumbar lordosis. Otherwise the spine is straight, there being no scoliosis. The clavicles are enormous, as are also the ribs, whose natural obliquity is much increased, and the lower ribs seem as if strongly forced outwards. The sternum is greatly hypertrophied, and projects markedly forward at its lower end, where it terminates in an ensiform cartilage of great size. This condition of the sternum, ribs, and spine produces a great enlargement of the thoracic cavity, the circumference of the chest at the level of the nipple being 49 inches. The respiratory movements of the thorax are peculiar; the heavy chest wall seems to be raised imperfectly under the action of the inspiratory forces, thus necessitating breathing which is chiefly diaphragmatic.

The pelvis appears to be much more massive and heavy than normal, the crests of the ilia being distinctly enlarged. All the joints of the body are more or less enlarged, and a peculiarly dry crackling is occasionally elicited on their movement. The thyroid gland cannot be felt, neither is it possible to determine any retro-sternal dulness, such as according to Erb[5] would indicate the persistence of the thymus. The patient has a strong, deep voice, and, as remarked above, articulates with some difficulty. The penis is rather large, and it would seem as if the sexual appetite were greatly in abeyance. Sight and hearing are both fair, but he thinks both these senses show some symptoms of failing. The pupils react both by light and accommodation. We may remark here that this diminution in the power of sight is, by some observers, looked upon as a diagnostic symptom of the great and progressive enlargement of the pituitary body which presses upon the optic nerves; but, as Broca[6] has pointed out, pressure on these nerves may also be caused by narrowing of the optic foramina consequent on the abnormal growth of the lesser wing of the sphenoid. Moreover, it may be well to bear in mind the frequency with which optic neuritis occurs in locomotor ataxy. The skin of the patient's hands, feet, face, and neck, except where pigmented, is more than usually white, anæmia is general. Cutaneous sensibility is in no way impaired, so far as could be determined.



Fig. 2.—Gives an excellent idea of the general contour compared with that of Dr. Symmers.

The knee-jerks are obtainable with some difficulty.[7] His muscular power for isolated efforts is great, but nevertheless he soon becomes fatigued by sustained exertion. A moderate amount of walking, any considerable or even inconsiderable exertion, such as bending to tie his shoestrings, sometimes causes profuse perspirations to break out over his face.

There are no molluscoid growths to be seen on the body, and no varicose veins, both of which appear to be common in such cases. His appetite is enormous (there is no diabetes), and he can drink immoderately of whisky without becoming at all intoxicated. His bowels are habitually constipated. His urine, which is secreted in large quantities, contains no albumen, sugar, or peptones.

The patient's mental condition is good; he is an excellent draught player, can perform on the concertina with consider-

[1] Broca, *Archives Générales de Médecine*, December, 1888.
[2] Marie, *Revue de Médecine*, April, 1888.
[3] Hutchinson, *Archives of Surgery*, October, 1889.
[4] Marie, *Brain*, vol. xii, 1890.
[5] Erb, *Deutsche Archiv f. klin. Med.*, xlii, 1888.
[6] Broca, *loc. cit.*
[7] Verstraeten, *Revue de Médecine*, May and June, 1889.

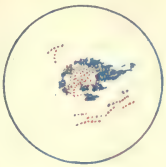


Fig. 1.—Tubercle Bacilli. Cover-glass preparation of muco-pus from the middle ear of a child who died of tuberculous meningitis. Some free bacilli and the remains of a giant cell filled with bacilli are shown. Leitz, one-twentieth inch oil immersion, Zeiss oc. 2. Stained by the Ziehl-Neelsen method.



Fig. 2.—Streptococcus Pyogenes. Cover-glass preparation from a pure culture. Same enlargement. Stained with methyl-blue.

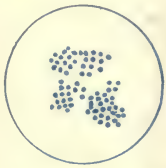


Fig. 3.—Staphylococcus Pyogenes Aureus. From a pure culture. Same enlargement and staining.

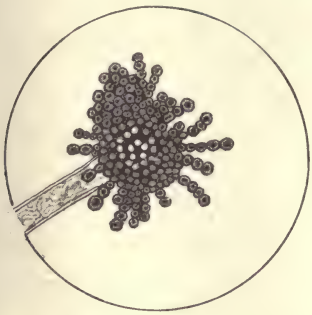
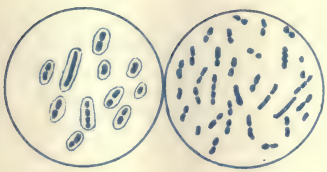


Fig. 6.—Aspergillus Niger. The asexual fructification seen partly by transmitted and partly by direct light. The spores have been removed from the upper surface so that the apices of the sterigmata are seen. Hartnack obj. 7, oc. 4. Natural colour.



4.—Pneumo-bacillus of Freidlaender. In the left hand circle encapsuled (capsules diagrammatic) as seen in a cover-glass smear taken from the lung of a youth who died of acute pneumonia; in the right hand circle, part of a pure culture obtained from the same lung. Same enlargement, etc.

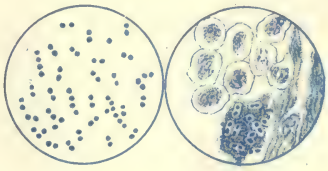


Fig. 5.—Pneumococcus of Fraenkel. The left hand circle shows part of a pure culture obtained from a lung in a state of grey hepatisation; in the right hand circle is part of an alveolus in a section of the same lung containing a zoogloea mass of encapsuled pneumococci. From a preparation by Mr. A. B. Franey. Same enlargement, etc.

able skill, and enjoys the reputation of being able to drive a shrewd bargain.

An almost continuous tinnitus aurium troubles him, but it is not sufficiently intense to cause any very great annoyance. At the present time he does not suffer from headache. The



Fig. 3.—Side view of face and neck, showing general enlargement of features and cervico-dorsal kyphosis.

first sound of the heart is weak, and he has had two or three epileptiform syncopal attacks, but there is no irregularity of the pulse and no dropsy of the limbs.

Measurements of the Patient.[8]

	Inches.
Length of hand from lower fold of wrist to end of middle finger	8¾
Length of middle finger from palmar fold at its base	3½
Dorsal length of middle finger from base of first phalanx	5
Palmar length of little finger	2½
Circumference of hand (without thumb) at head of metacarpal bones	11½
Greatest circumference of "obstetric hand"	13½
Greatest thickness of hand (callipers) at level of thenar eminence	2¾
Circumference of middle finger	4
Circumference of thumb	4½
Circumference of little finger	3½
Circumference of wrist immediately below extremities of ulna and radius	9½
Circumference of wrist at level of styloid process	10½
Circumference of forearm at the middle	10
Circumference of arm at the middle	13
Length of nail of middle finger	⅝
Length of nail of thumb	⅝
Breadth of nail of middle finger	½
Breadth of nail of thumb	½
Length from iliac crest to summit of head of fibula	23
Length from summit of head of fibula to tip of external malleolus	11½
Vertical diameter of patella	2½
Transverse diameter of patella	3
Circumference of thigh at middle	19
Greatest circumference of calf	16
Circumference immediately above tip of internal malleolus	10½
Greatest length of foot	13
Circumference over heel and instep	16
Greatest circumference of foot	12½
Greatest width of foot	4½
Circumference of great toe	5½
Circumference of little toe	3
Length of nail of great toe	½
Width of nail of great toe	1
Length from top of forehead to tip of chin	10½
Length from top of forehead to upper part of nasal bones	2½
Length from upper part of nasal bones to tip of nose	3½
Greatest width of alæ nasi	1½

[8] Marie in *Brain*, vol. xii, 1890, for measurements required.

	Inches.
Distance from tip of nose to point of junction of the latter with upper lip	1½
Length from septum of nose to point of chin	3½
Greatest distance between outer surface of cheek bones	5
Width of mouth	2½
Vertical measurement of lower lip	⅝
Transverse measurement of tongue at middle	3
Thickness of tongue at middle	⅝
Distance (with calipers) from temporo-malar articulation to lower part of symphysis of chin	7
Distance (with calipers) between angles of lower jaw	5½
Ditto, with tape measure along the body of the bone, passing in front of the symphysis	12
Ears, greatest length, right	3
Ears, greatest length, left	3½
Ears, greatest breadth	1½
Circumference of thorax over nipple	49
Circumference of neck between the hyoid bone and upper part of thyroid cartilage	18

This case is believed by the authors to be the first reported in Scotland.

The figures are from photographs taken by Messrs. A. Rae and Son, Banff.

THE PATHOLOGY AND TREATMENT

OF

SUPPURATIVE DISEASES OF THE EAR.

Being an abstract of the Harveian Lectures delivered before the Harveian Society of London.

[With a Coloured Lithographic Illustration.]

By G. P. FIELD, M.R.C.S.,

Aural Surgeon to St. Mary's Hospital and Dean of the Medical School.

Lecture I.—Antisepsis in Aural Surgery.

As regards the pathology of suppurative otitis media I wish, as briefly as possible, in view of the shortness of the time at our disposal, to lay before you some of the more recent results arrived at by observers, both British and foreign. There are few busy practitioners, who have watched the rapid progress of pathological knowledge during the past fifteen years, without experiencing an impatience amounting sometimes almost to exasperation when, face to face with some obstinate complaint, they find themselves unable to perceive that all this new science gives them a tittle of substantial aid. If one, however, compares the results of treatment some twenty or thirty years ago with those of the present day, it is impossible not to admit that times have changed for the better, and that, in fact, splendid practical advance has been made in the treatment of aural disease. Although it may be true that the majority of cases are managed much as they were in years gone by, there is yet this difference in our treatment, that it is based no longer on empiricism, however practical, but upon definite and well-recognised principles: we can justify our methods by reasons as well as by results. In olden days conclusions as to the character of disease, the probable efficacy of medicine, and of modes of treatment were deduced, not so much from observed facts, as from fancied analogies among things natural, and the healing art, as a whole, was held to be dominated by the influence of the stars and powers unseen and supernatural. Later the teachings of experience were clouded by false theories of the construction of the frame corporeal. In these last times—we may say since when John Hunter taught how death itself, when it comes, is no new thing to man, but only the final stage in the processes of life—a new pathology has arisen: Nature has been interrogated, and we have learned from her that though disease may have its phases according to the forces brought to bear upon it, still those forces are of natural origin, and can be antagonised alone by natural methods. We now know our enemy and the manner of his attack, and when deadly complications arise we have greater resolution and resource in combating them than heretofore.

From the observations of many writers we have arrived at this broad result—that, as expressed in Hüter's dictum, suppuration, that is, natural suppuration, is a specific disease endemic in the whole world; or, defining it yet more closely, we may state it to be a group of closely allied but distinct specific diseases caused by different and well characterised organisms. It is to the genius of Lister that we owe the recognition of the laws to be laid down for its prevention.

Of course, I would not have you to infer from my present remarks that I ignore the possibility of the production of suppuration by artificial means. The familiar croton-oil pustule is, as you are aware, free from germs, and its pus—an exudation filled with dead leucocytes—is caused by a chemical irritant. Similar aseptic suppuration, as Grawitz and De Bary among others have determined, and as we might have expected, may be brought about by the application of such irritants as caustic ammonia, digitaline, and cadaverine.

Predisposing Causes of Suppuration.

The natural causes of suppuration due to chemical irritation are parasites, the secretion of which, either directly or by inducing fermentative changes in the fluid of the living tissues they infest, cause the death of exuded leucocytes, and when absorbed into the general circulation, give rise to toxic phenomena included by us under the term "fever." These organisms (or microphytes), it must be clearly recognised, are not the sole factors in the production of the diseases which they characterise. Thus, the mere introduction into the middle ear of a pyogenic coccus from the mouth or air passages where it normally exists, by Valsalva's method of inflating the tympanum, will not in itself determine the commencement of otitis, for the production of which preparedness of the host is as necessary as the presence of the parasite.

On the other hand, any influence bringing about an abnormal condition of the mucous membrane, and concurrently an exudation into the cavity of the tympanum of mucus or serum serving as an acclimatising medium or culture fluid for the development of pyogenic organisms, whether it be myringitis, set up by ingress of water in bathing, or inflammation of reflex nervous origin (cold in the head), or a general fever, such as influenza, measles, small-pox, scarlatina, or typhoid, may be provocative of a discharge from the ear. Suppurative otitis may thus be simply a by-product in the course of many diseases, and may present no features diagnostic of its mode of origin. In the case of pyæmia, aural suppuration may give character to a general affection of the body. One mycotic organism, the *Aspergillus niger*, claims more than common attention on account of its remarkable life history. This fungus may leave its wonted habitat, the superficial portion of the epidermis, and, penetrating the deeper layers of the membrana tympani, may cause its perforation. Professor Delépine has lately shown that this fungus is to a limited extent pathogenic in rabbits. Before the study of pathogenic microphytes had been systematised, Grawitz thought that by suitable acclimatisation he could confer toxic properties on the common *Penicillium glaucum* and other moulds. Later researches have shown that fungi cannot thus readily be rendered hostile to animal life. Though acclimatisation has not the importance Grawitz claimed for it, we know that the powers of micro-organisms may be greatly modified by cultivation under different conditions. Recognising the interaction of two ever-changing living things, the parasite and the host, we are now beginning to understand the variability of infectious diseases, the nature of immunity from the same, and other world-old problems, so that the present must necessarily appear as a bright epoch in the future history of pathology.

Pyogenic Bacteria found in the Middle Ear.

The following pyogenic bacteria have been encountered in middle ear suppuration:

1. Streptococcus pyogenes.
2. Staphylococcus.
3. Pneumococcus of Fraenkel.
4. Pneumobacillus of Friedlaender.
5. Tubercle bacillus.

I give lithographic drawings of some excellent microscopic preparations and pure cultures of these organisms, made by Mr. J. J. Clarke, so that I shall not now devote any time to a discussion of their morphology, but shall instead dwell on the different clinical effects attributable, so far as is known, to their action.

Streptococcus.—It appears that streptococcus pyogenes—first detected by Ogston in the pus of an abscess—is the most frequent cause of acute suppuration. It is not only the most ubiquitous, but also the most dangerous of the pyogenic organisms, being the usual agent when suppurative otitis eventuates in meningitis, cerebral abscess, thrombosis of the lateral sinus, or general pyæmia. In one case (of Zaufal's) it was this streptococcus which determined a hæmorrhagic discharge. We thus find that the commonest and more pernicious of the suppurative diseases of the ear is brought about by the same organism which is met with as the most frequent cause of acute osteomyelitis, ulcerative endocarditis, and puerperal fever, and which, in all probability, when confined to the corium, determines ordinary erysipelas. If it were necessary to found an argument for the adoption of strict antiseptic treatment in aural practice, evidence of the wide distribution of this deadly parasite would be alone sufficient.

Staphylococcus.—The species of its genus most commonly met with is staphylococcus aureus. Not infrequently it is found to have caused acute suppuration of the middle ear (Fraenkel and Lussano, Dunin, Rohrer, Netter). Though generally less dangerous, it has a wider pathogenic potential than streptococcus. It has been discovered in abscess, thrombosis, pyæmia, and endocarditis. Among its many other effects are acne, sycosis, pustules, boils, carbuncles, and ordinary warts. We may hence deduce a possible explanation of the frequent association of purulent otitis with adenoids of the pharynx if, like enlarged tonsils and cutaneous warts, these bodies are hyperplastic growths due to the irritation of staphylococci.

Pneumococcus.—This organism—proved by Fraenkel to be the immediate cause of croupous pneumonia—has been frequently found in the pus produced in acute inflammation of the middle ear, and in each of these diseases, as Zaufal and others have pointed out, its effects have a definite course. This fact has led me to attribute to pneumococcus numerous cases of otitis which occurred in my practice during the late influenza epidemic. Unfortunately otitis due to pneumococcus is not uniformly brought to a satisfactory finish after a rapid cycle of pathological conditions, as it results occasionally in a general meningitis. Like the organisms already mentioned, pneumococcus has been met with in endocarditis. In rabbits it produces a true septicæmia.

Pneumobacillus.—The pneumobacillus of Friedlaender has been detected by Zaufal as a sole immediate cause of middle ear suppuration. Like Fraenkel's pneumococcus, it is encapsuled when occurring in the bodies of animals—not so when artificially cultivated—but it is distinguishable from pneumococcus by its more elongated form and by its refusal to stain by Gram's process. The original view of Friedlaender as to the excitation of croupous pneumonia by this bacillus has been shown to be unjustified.

Tubercle Bacillus.—Strictly speaking, the bacillus of tubercle is not a pyogenic organism, but wherever a tissue attacked by tubercle is exposed to infection by pus cocci there chronic suppuration takes place. Thus it is that a thin discharge from the ear due to tuberculosis may at any time become thick and purulent. One may take it as a rule that where, in spite of free drainage, there is chronic suppuration, its cause is generally tuberculosis. In the ear this begins either as an affection of the mucous membrane, or as osteo-myelitis of the mastoid. In severe tuberculous meningitis the middle ears are always filled with muco-pus; and our pathologist at St. Mary's Hospital tells me that since his attention was directed to the matter by Dr. Lees some years ago he has examined the muco-pus in many cases, and always found it to contain tubercle bacilli. In his preparations of this muco-pus may be seen crowds of tubercle bacilli excluding all other organisms. To the treatment of ear disease producing symptoms of meningitis I shall have occasion to refer somewhat later.

The Importance of Bacteriology.

The bacteriology of suppurative otitis, on account of the tremendous issues involved in the progress of the disease, is a subject worthy of our most earnest attention. When perhaps in thirty years or more it has entered into the practical daily consciousness of the whole of the profession, we shall, of course, see no more neglected cases. At a yet later period the minds of an intelligent lay public will be revelling in a very definite, if somewhat oddly distorted, vision of microscopic parasites; and a future generation of practitioners will receive with due submission their patient's report, that such

Path. Trans., vol. xlii, p. 423.

and such a lotion is unsuitable for the particular bacillus with which they are infested.

Extension of Suppuration of the Middle Ear.

The significance of suppuration in the middle ear is at once apparent when we consider that the tympanic cavity has on its inner side the labyrinth, below it the jugular vein, aboveit cerebral dura mater, and, posteriorly, openings into the mastoid process, and that the only safe outlet for pus, except by perforation of the membrana tympani, is through the Eustachian tube, through which, however, it finds its way with extreme rarity. When, owing to chronic suppurative otitis, caries of the tympanic walls is set up, pus, if it penetrates upwards, causes meningitis or abscess of the brain, if downwards septic thrombosis of the jugular vein, or pyæmic abscess of the lung, and possibly also of the liver. Again, if it proceeds inwards, the facial nerve and carotid artery are jeopardised. Attacking the mastoid process, pus may occasion thrombosis of the lateral sinus, meningitis, or abscess of the cerebellum. Pneumonia, pleurisy, Bright's disease, and amyloid degeneration are among the possible more remote effects of persistent aural suppuration.

THE "PERFECTED" URETHROSCOPE.

By WILLIAM K. OTIS, M.D.,
New York.

In spite of the great advances made by the introduction of the incandescent electric lamp as the source of illumination, the modern urethroscope still possesses several decided disadvantages. It is heavy, somewhat complicated in construction, and expensive. To overcome these objections I have devised an instrument on an entirely different principle from that of former urethroscopes, using a lens as a condenser instead of the reflected light from a concave mirror.



This instrument consists of a metal tube or cylinder one inch and a quarter in length by one half inch in diameter, closed at one end. One quarter of an inch from the open end of this tube is a plano-convex lens, so arranged that it may be easily removed for cleaning. On the inferior surface near the closed end of the tube an elbow is let in, one quarter of an inch in length and one half inch in diameter, through which the source of illumination (a small incandescent electric lamp) is introduced, a row of holes being bored at its base to allow of ventilation. The handle of the instrument consists of a piece of hard rubber, one inch long by one half inch wide, the electrical connections running through it to the lamp which is placed on top. This handle fits into the elbow by means of a bayonet joint, bringing the lamp immediately behind the plane side of the lens. A thumb-screw "switch" in the handle places the lamp under control so that it may be turned on or off at pleasure.

The instrument is attached to the urethroscopic tube by means of a stout wire one inch and a half in length, with hinged joints at each end, which swing in opposite directions and are furnished with set screws, thus allowing the instrument to be put in any position, though when once adjusted it will rarely be necessary to change it. If the ordinary urethroscope tube is used, the distal end is provided with a simple ring-sliding joint, but as I greatly favour the use of the tube devised by Dr. Hermann G. Klotz, I have adapted the instrument to this form of tube by placing at the distal end a small flat foot, at the outer extremity of which is a smooth pin. This pin fits into a hole in the tube plate, and on revolving the instrument a quarter circle the foot swings under a shoulder riveted to the plate, and is securely fastened. This joint is firm and easy of manipulation, readily allowing the illuminator to be attached or removed at any time during the examination.

When the instrument is in position and the lamp illuminated, a strong beam of light is thrown directly down the urethroscopic tube, and the urethral mucous membrane more easily and clearly observed than with any other form of urethroscope with which I am familiar.

The advantages of this instrument are: (1) The exclusion of all extraneous light, the presence of which is a most annoying fault both in the urethroscope of Leiter, and in my own improvement on it; (2) a very much more ready access to the urethral field, both to the eye and for instrumental applications; (3) increased illumination; (4) by abandoning the funnel and sliding joint, one inch and a half in distance is gained from the source of illumination to the distal end of the urethroscopic tube, increasing the illumination, and allowing the eye to be placed just so much nearer the mucous membrane to be examined; (5) its extreme compactness and lightness, weighing less than one ounce, even when constructed of brass; (6) its great simplicity of construction, which should insure a moderate cost.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

CASE OF CYSTIC TUMOUR OF THE LARYNX IN A WOMAN EIGHTY YEARS OF AGE: INTRA-LARYNGEAL REMOVAL: RECOVERY.

The following case is of interest on account of the extreme age of the patient, the rapid development of the tumour, and the completeness of the recovery which has ensued after intra-laryngeal removal.

Miss M., aged 80 years, was brought to me on August 13th, 1892, by Dr. Robert Stirling, Perth, suffering from great dyspnœa and almost complete supression of voice. Her voice had been more or less affected for about a year, and the larynx had been repeatedly examined up to April last by Dr. Stirling, who on each occasion found merely the appearance of chronic laryngitis. From April to August 12th the larynx had not been examined, nor had the patient been seen. On the last-mentioned date the patient again consulted Dr. Stirling, who now readily detected a large growth or tumour in the larynx. The tumour had thus undoubtedly developed within a period of from five to six months. The case being now one of great urgency on account of the marked respiratory impediment, Dr. Stirling travelled with the patient to Edinburgh, and placed her in my hands.

On laryngoscopic examination a large tumour was seen in the larynx, growing from the left side, probably from the ventricle, and completely obscuring the left vocal cord. The right vocal cord was partly hidden, and the glottis was almost completely blocked. The tumour was firm, smooth, red, and slightly movable, and was partially concealed by a broad and somewhat pendulous epiglottis (Fig. 1). Respiration was performed with great difficulty, and it was quite apparent that unless the tumour could there and then be removed tracheotomy would, in the first instance, require to be performed.

After the application of a 15 per cent. solution of cocaine, I

introduced Mackenzie's rectangular antero-posterior laryngeal forceps. I succeeded in removing a portion of the firm fibrous capsule, and on reintroducing the forceps I laid hold of the tumour by its seat of attachment, and removed it in its entirety in the presence of Dr. Stirling. Scanty hæmorrhage

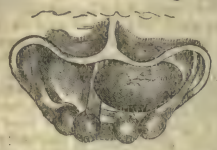


Fig. 1.

followed. The breathing was instantly relieved, and the voice returned. The tumour proved to be a cyst, with a thick fibrous capsule, somewhat pear-shaped, and with a broad pedicle (Fig. 2 is an outline sketch, showing the size of the



Fig 2.—Showing outline sketch and size of tumour.

tumour). Owing to crushing by the forceps in the process of removal the contents escaped.

The patient made an uninterrupted recovery; and four days afterwards returned to her home. On October 17th (two months after the operation) Dr. Stirling reports that "her voice is excellent, and breathing perfectly free. The larynx looks remarkably well; no trace of the tumour to be seen; congestion gone, and muscular movements perfect."

G. Hunter Mackenzie, M.D.,
Surgeon for Diseases of the Throat and Nose to the Eye, Ear, and Throat Infirmary of Edinburgh.

INTRAVENOUS INJECTION OF SALINE SOLUTION FOR HÆMORRHAGE.

This case illustrates the extreme simplicity of apparatus requisite for intravenous saline injections, and at the same time the value of this recent addition to our clinical powers. As, like most operations of emergency, it is pre-eminently a "general practitioner's" operation, its simplicity, and the fact that all necessary apparatus may be improvised from the most ordinary practitioner's stock, cannot be too strongly insisted on.

On September 27th, I was asked by my friend, Mr. C. Alford, to see with him a lady, aged 37, a multipara, whose last confinement, a twin, had occurred two years ago. She had miscarried on the evening of September 26th, being, as she reckoned, about three months pregnant. Whether the whole ovum came away is doubtful, as the discharge had not been preserved. There was much hæmorrrhage, which continued until Mr. Alford had washed out the uterus with hot water. There had been further bleeding through the night, and when I saw her at 7.30 A.M. she was suffering from acute anæmia resulting therefrom. The pulse was 148, weak and thready, the face very pale, and lips blanched. She lay in a lethargic state with her eyes half closed, languidly moaning; the respirations were deep and sighing; at frequent intervals she vomited, invariably when she took any milk and soda water, Brand's essence, or champagne, all of which had been given her in small quantities. The uterine hæmorrhage had apparently ceased.

After a hypodermic injection of ergotine the same treatment was persisted in until noon, when I saw her again; she was then decidedly worse. There had been only slight uterine flux, but the frequent vomiting had persisted, so that she retained nothing. She was very restless, and the pulse was now quite uncountable.

At 1 P.M., she being then in a condition of imminent danger, five pints of saline solution were injected into a vein at the bend of the elbow. I had no special apparatus at hand, but the following simple armamentarium was sufficient:—a lancet and a pair of dissecting forceps, a needle threaded with silk, a silver Eustachian catheter, the indiarubber tube from a feeding-bottle, a small glass funnel, and the greenhouse thermometer. The solution was prepared with boiled water, of the approximate strength of one drachm of common salt to the pint. A tape being tied round the middle of the arm, the most prominent vein at the bend of the elbow was selected. This was readily exposed by pinching up the skin and transfixing with the point of the lancet. The vein was then dissected out and isolated for about half an inch of its length. The threaded needle was passed beneath it, and the silk cut at the eye, leaving a double ligature under the vein. These being drawn upon, untied, by an assistant, the vein was opened by a longitudinal slit, and the point of the Eustachian catheter inserted without the loss of a drop of blood. The distal ligature was now tied on the vein, while the proximal was also tied round the point of the catheter, which, on relaxing the tape on the arm, was filled with blood by reflux from the vein above. The funnel and tube were filled with the solution at a temperature of 99° F., the latter slipped over the large end of the catheter, and the solution allowed to flow. The five pints were introduced as quickly as possible, the patient rapidly improving meanwhile. The pulse at the end of the injection was 108, regular, and of fair volume. She shivered a good deal just at the close, but this passed off in about ten minutes.

There is little to add, except that her recovery from this time was uninterrupted. The vomiting continuing, she was for twenty-four hours fed by the rectum only. In the evening she was delirious, but she slept a good deal in the course of the night, and the next day was carefully fed by the stomach. She once unguardedly sat up in bed, and immediately fell back in a swoon. Steadily improving, she was able to go for a drive at the end of three weeks, there being at that time still a little œdema of the legs, which later disappeared with the anæmia.

Crewkerne, Somerset. Edward J. Cave, M.D.Lond.

ON THE SPECIFIC GRAVITY OF THE URINE IN DIABETES MELLITUS.

Having read with interest Sir Edward Sieveking's valuable contribution on this subject to the British Medical Journal of September 17th, I am induced to mention a somewhat similar case that recently came under my notice. On June 2nd, 1892, Mr. X., age about 45 years, a clerk in the local civil service, being desirous of applying for an appointment in the West Coast of Africa Civil Service, requested the usual certificate of good health. Proceeding first of all to examine the urine, I found the specific gravity 1010, reaction acid, albumen absent, but to my astonishment a well-marked sugar reaction with Fehling's solution. The patient claimed to enjoy good health, and was surprised when I told him that he had saccharine diabetes. He did not pass an unusual quantity of urine, and only allowed that he suffered from dyspeptic symptoms when pressed on the point. Of course the certificate was refused, and he abandoned all idea of going to the West Coast of Africa.

I had no reason to doubt the accuracy of my results, as I am in the habit of using Martindale's modification of Fehling's solution, which is freshly prepared when wanted—the copper solution and the alkaline solution being kept in separate bottles and mixed in equal volumes at the moment it is to be used.[1]

I have always found this freshly prepared Fehling's solution reliable and time-saving, as at the moment of examination one often finds the ordinary solution erroneously sensitive on boiling it before the addition of the urine, and there is delay in procuring a freshly prepared bottle.

In connection with the general question of low specific gravity of urine in diabetes mellitus, I have met with three cases of diabetic urine with specific gravity of 1020, the first of

[1] Martindale's formulæ (*Extra Pharmacopœia*), Fehling's solution (modified). No. 1: Sulphate of copper, 181 grains; distilled water to 6ozs. No. 2: Tartrate of potash (neutral), 728 grains; caustic soda, 360 grains; distilled water to 6ozs. Of these two solutions mixed in equal volumes 10 c.c. will be decolorised by and will reduce 0.05 gramme of glucose or diabetic sugar in solution..... No. 2 solution should not be kept in a very cold place, else it will crystallise. By keeping the copper solution separate from the alkaline solution the test is prevented from becoming erroneously sensitive.

which was pointed out to me by a medical colleague in consultation. The importance of the routine practice of testing for sugar without any reference to specific gravity cannot be too strongly insisted on, and Sir Edward Sieveking deserves the thanks of the profession for calling attention to this important detail in daily practice.

Barbados, W.I. JOHN HUTSON, B.A., M.B.Edin.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

LEICESTER INFIRMARY.

A CASE OF INNOMINATE ANEURYSM TREATED BY SIMULTANEOUS LIGATURE OF THE SUBCLAVIAN AND CAROTID ARTERIES.[1]

(By C. H. MARRIOTT, M.D.Lond., F.R.C.S.Eng., Senior Surgeon.)

E. S., aged 49, was admitted on March 28th, 1890. Six months earlier he had had severe pain over the cervical vertebræ, shooting down to the right shoulder and back. Early in February, 1890, he first noticed a slight swelling near the right sterno-clavicular joint; this gradually increased in size. The pain became more severe, and he was very giddy on exertion. On admission, the swelling was as large as a Mandarin orange, dull on percussion, and pulsated equally in all directions with each beat of the heart.

On April 4th, 1890, chloroform was administered. The subclavian was ligatured first. An incision of 3 inches was made on the clavicle, after the skin, fascia, and platysma had been drawn down about half an inch. The position of the external jugular vein was ascertained, and it was drawn outwards; no other veins were met with until the sheath of the artery was exposed, when there were several tortuous veins lying in it. These were carefully avoided, the sheath opened, and a silk ligature passed under the vessel; pressure made on this with the finger instantly stopped the radial, and the ligature was tied and cut off close. The ligature had been previously soaked for forty-eight hours in a solution of carbolic acid (1 in 20). No vessel was wounded requiring to be tied, and there was only the slightest oozing. An incision of 2½ inches was then made down the line of the common carotid artery, from the level of the thyroid cartilage down to within about a quarter of an inch of the upper limit of the aneurysm. There was no difficulty in exposing the artery, pressure upon which at once stopped pulsation in the temporal artery. A silk ligature was passed round it above the omohyoid, in the carotid triangle, tied and cut off close. In this case there was merely the slightest oozing. Both wounds were washed out with a 1 in 2,000 solution of perchloride of mercury, a small drainage tube was inserted in each, and the edges were brought together with silk sutures. They were sprinkled over with iodoform, and a large pad of sublimate wool placed over them. The time occupied from the commencement of the anæsthetic till both wounds were dressed was 1 hour 20 minutes.

In the night his temperature reached 99.4°, the highest point ever touched after the operation. No pain or discomfort in head. The two wounds healed up perfectly in a week, at which time the sutures were removed. The pulsation in the aneurysm seemed quite as great as before, and it was quite as large in size. He was kept in bed till the end of June. At this time the aneurysm pulsated strongly, and was as large as ever, and it was not till October, 1890, that it became much harder and smaller. Since then it has gone on diminishing in size and becoming harder. The pulsation is now transmitted and jerky. His general health has been good, and he has done heavy work at coal wharves, etc., during the last winter. He is in good health now.

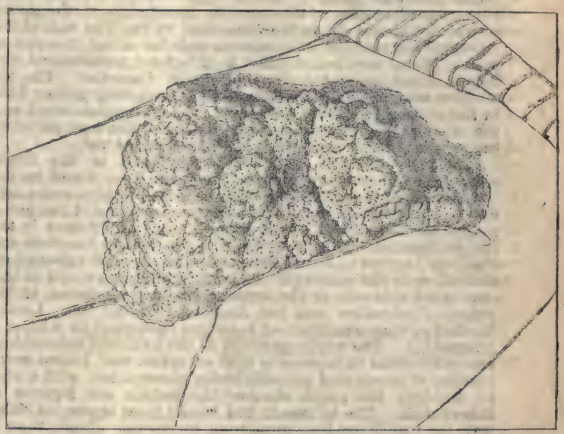
[1] Read in the Section of Surgery at the Annual Meeting of the British Medical Association, held in Nottingham, July, 1892.

PENRHYN HOSPITAL.

MALIGNANT GROWTH AT THE GROIN.

(By JOHN WILLIAM, M.D., Surgeon to the Hospital.)

R. E., aged 25, a quarryman, called at the Penrhyn Hospital in February, 1889, suffering from a smart attack of orchitis, brought on, no doubt, by the use of strong injections, with which he had been supplied by a chemist to check a gonorrhœal discharge. With proper rest he was in a few days able to resume his ordinary duties, and got married. He, however, gradually grew worse in respect to the state of his left testicle, the disease manifesting itself in the enlargement, hardness, weight, and tenderness of the organ. On June 13th, 1891, he left off work altogether, and was under treatment as an out-patient for a month or so. Various remedies, including antisyphilitic drugs were prescribed to no purpose. Removal of the testicle was advised, but refused. He returned on November 2nd, 1891, and was admitted into the hospital, and



he operation performed with the assistance of Dr. Lloyd, of Bangor. The man was discharged, December 5th, apparently perfectly cured. The testicle was not adherent to the scrotum, it was easily shelled out, smooth, firm, hard, brawny, and remarkably heavy for its size (nearly 3 lbs. in weight). It was examined by a pathologist at a large hospital, who found only fibro-plastic material. The patient returned to work, but in the course of a few weeks he complained of shooting pains in the back, and shortly afterwards the firmly healed incision at the groin became slightly tender, swollen, and irritable; the adhesion soon gave way, and a fungoid growth sprouted out freely. Remedial measures of all kinds proved utterly unavailing. Some of the old authors describe this kind of a growth as fungus medullaris and fungus hæmatodes, which are descriptive of its nature, but the late Sir Everard Home calls it as "noli me tangere," named as such from the virulence of its disposition, and remarks "That it is nearly allied to cancer, differing from it chiefly in not contaminating the neighbouring parts by absorption, but only spreading by immediate contact." This was just the case in the present instance; the surrounding glands were not in the least implicated. I also approve of the term "noli me tangere," inasmuch as it was clearly proved that whatever was done by way of a surgical interference in this case made matters worse. Pure nitric acid was applied two or three times at the first appearance of the growth, but my patient begged of me not to repeat the application. The mass was photographed three days before he died. The immediate cause of death, which took place June 10th, 1892, was sudden failure of the heart. He had an hour previously been sitting up in bed. The tumour having attained its full growth remained stationary for about two months before the patient died, without any specific alteration in its character. It bled at the slightest touch.

TRINIDAD LEPER ASYLYM.

PERFORATION FROM TUBERCULOSIS OF THE ILEUM IN ANÆSTHETIC LEPROSY.

(By Beaven Rake, M.D.Lond.).

M. P., negress, aged 50, was admitted to the Trinidad Leper Asylum on May 4th, 1892, with anæsthetic leprosy of ten years' duration. There was mutilation of the fingers and toes with complete anæsthesia from the middle of the forearm downwards. Anæsthesia was also present in the right foot. All ulcers had healed and the disease had apparently become stationary. She had no cough, and the physical signs in the chest were normal. She suffered from chronic diarrhœa, which continued till August 5th, when the pulse became very weak and the extremities cold. She died the next day.

The necropsy on August 7th showed considerable thickening of the median nerve above the wrist. The body was very wasted. The mesenteric glands were greatly enlarged, some being almost as large as hen's eggs. They were caseous. There was ulceration of the mucous membrane of the ileum for about 8 inches above the ileo-cæcal valve. The wall of the intestine was studded with caseous nodules about the size of peas. There were four distinct punched-out perforations, the largest about one-sixteenth of an inch in diameter. The intestines were matted together and there was dirty yellow fluid in the abdominal cavity. The rest of the intestinal tract and the other viscera appeared healthy. No bacilli were found in the caseous glands or nodules in the intestinal wall.

Remarks.—In this case the tuberculosis of the ileum seemed to be primary, for no tubercles were found in the other viscera, though it is of course possible that some may have escaped detection. Tuberculous ulceration of the intestine is rare in adults. The second point of interest is the the perforation. This, according to Drs. Soltau Fenwick and Dodwell[1], occurs in about 10 per cent. of cases of tuberculous ulceration in the intestine. The only symptoms noted in this case were coldness of the extremities and weakness of the pulse. Perforation was not diagnosed during life. Lastly, the fact of this condition of intestine occurring in a leper is interesting. The whole question of the nature of tuberculous visceral lesions in leprosy is still *sub judice*, and I have now a number of inoculated animals under observation with a view to deciding the point whether the lesions are leprous or tuberculous. The failure to find bacilli is no argument either way, for bacilli are less numerous in caseous glands than in more active growths, and in this case only a few cover glasses were examined.

ALBION HOSPITAL, BRITISH GUIANA.

A CASE OF FRACTURED SPINE.

(By William Arthur Dickson, F.R.C.S.I., Government Medical Officer.)

On the morning of July 4th a female East Indian immigrant, aged 34, fell off her bed, which was about 3 feet high, her head first coming in contact with the earthen floor. As she was unable to get up or move, she was carried to the hospital.

When seen by me, half an hour after admission, she was lying supine on a bed on the floor. Sensation and motion were lost in the upper and lower extremities and in the body as high as the third intercostal space. On the shoulders sensation was present over the course of deltoid to its insertion. She was quite conscious, her voice good, and temperature and pulse normal; respiration was 30 per minute and diaphragmatic. There was some diffused swelling on each side of the neck, posterior to the sterno-mastoids, with tenderness over the seat of injury; no displacement could be detected. She could swallow fluids quite well.

Perfect rest was enjoined, and a bag of ice applied to each side of the neck. On July 5th at 10 A.M. respiration was 38; the temperature in the mouth and under the knee was 101.6 F°. The abdomen was tympanitic, bowels confined, and urine retained. Two pints of the latter were drawn off with a catheter, and an enema of soapsuds and turpentine ordered. The temperature at 2 P.M. was 102.2° F. She died at 12.30 A.M. on July 6th. Her husband, who had been given permission to remain with her, stated that at about midnight she told him to lie down and rest, as she felt better and was going to sleep. Shortly afterwards he found she was dead.

[1] *Lancet*, July 16th, 1892, p. 134.

At a *post-mortem* examination made ten hours after death *rigor mortis* was found well marked, but the head was freely movable; the bulging on each side of the neck was distinct. On dissection a quantity of dark fluid blood was found beneath the cervical portion of the trapezius, and the deeper muscles of the splenius, complexus, etc., were found softened, with venous extravasation. On reaching the spine the posterior arch of the fifth cervical vertebra was seen to be slightly displaced to the left side and movable. There was a good deal of blood here, which came from the left vertebral vein. The spinal membranes were torn, but the cord appeared uninjured. On removing the bone the posterior arch of the fifth cervical vertebra was found completely broken off from its body; on the right side the fracture passed obliquely downwards and forwards between the two articulatory processes, just a small portion of the inferior articulating surface being retained on the lamina and on the left side. The pedicle was broken through just in front of the articulating processes.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Sir Dyce Duckworth, M.D., LL.D., F.R.C.P., President, in the Chair.

Friday, November 25th, 1892.

Pancreatic Cyst.

Mr. Hulke gave the history of this case. An abdominal tumour was known to have existed since girlhood, and the patient, a lady, was now 47. In 1878, when she entered the Middlesex Hospital, the tumour filled the central region of the belly from the top of the ensiform cartilage to the pubes. It seemed to be very fixed. Fluctuation could not be elicited. Latterly the patient, long an invalid, had become greatly reduced by attacks of severe abdominal pain with obstinate vomiting and constipation. An exploratory laparotomy was done. The tumour was found to be wholly retro-peritoneal in position. Its upper border was overlaid by the pancreas, which was firmly adherent to it, and below this by a large artery and vein (splenic?); also sagittally its front was covered by vessels (superior mesenteric?), whilst its lower border was transversely overlapped by a piece of small intestine, bound to it by an extension of the peritoneum covering the front of the tumour. An attempt to enucleate the tumour had to be abandoned in consequence of its posterior wall being adherent to the aorta and vena cava. The swelling was tapped, much brown glairy fluid was evacuated, and the opening in the cyst was secured to the tegumental lips of the abdominal wound. Death followed a few hours later from shock. A necropsy was forbidden by the friends, but the anatomical relations, ascertained by the exploration, did not, in Mr. Hulke's opinion, admit of any doubt of the pancreatic origin of the tumour.

Dr. Sharkey said that Mr. Clutton had, six days previously, operated on a patient of his, aged 35, in St. Thomas's Hospital, who had had a tumour for 16 or 20 years. Dr. Cullingworth had, two years ago, decided that it was a cyst, the fluid of which, obtained by means of an exploratory needle, became quite solid on being boiled. The patient was recently confined. The tumour was remarkably movable in all directions but was quite free from the uterus. At the operation the tumour was found to lie just behind the great omentum, which being opened the tumour came forward at once. It was connected with the spleen, and the splenic artery and vein had to be dissected off it. The tumour was removed entire without being opened. Its contents were fluid, canary yellow in colour, of specific gravity 1024, highly albuminous, being rendered absolutely solid by heat after being acidified by acetic acid; turbid and iridescent with cholesterine. The patient was now doing well, but the wound was discharging a large amount of pancreatic juice.

Mr. Clutton added that the tumour shot out of the wound with the greatest facility, with the tail of the pancreas attached to it, and thus contrasted strongly with Mr. Hulke's case, which somewhat resembled Mr. Jordan Lloyd's cases, in which local inflammation in the smaller sac of the peritoneum caused a tight cyst, with the pancreas forming part of

its wall. In his (the speaker's) case the tumour was not connected with any other body than the pancreas, which had to be divided, and bled much, a clamp being quite useless to arrest the hæmorrhage. A glass tube was used for drainage, and after a time the bleeding ceased.

In reply to Dr. Hadden, it was stated that there was no abnormality of urine in the case.

Mr. Gould asked if there was any history of injury in Mr. Hulke's case as in two cases, both women, under his own care. One cyst was opened and stitched to the abdominal wall; through the fistula fluid drained until, some two years afterwards, a carcinomatous growth started in it and killed the patient. He made the opening in the other case near the tip of the twelfth rib behind; the opening soon closed, and the patient did very well.

Dr. Pitt referred to a case published by Mr. Jacobson and himself. He believed the cyst in that case had again filled. He considered the posterior opening possessed advantages in the way of drainage.

Mr. Hulke, in reply, said that Dr. Sharkey and Mr. Clutton were to be congratulated on the extreme mobility of the tumour in their case. As to the suggestion that chronic peritonitis was the cause in his case, he found no trace of trouble in the peritoneum. Although the pancreas was usually fixed, in some rare cases it was mobile; it had even been found in an intussusception. In his case the urine was quite free from sugar. He had no knowledge as to how his case began. Posterior drainage might be advantageous, especially where it would be dangerous to isolate the tumour.

Cancerous Growth of Ileum Excised.

Mr. Arthur Roper read for himself and Mr. W. A. Lane the report of this successful case. The patient, aged 54, had been under Mr. Roper's care for many years, suffering from habitual constipation, for the relief of which it was necessary to render her motions quite fluid. In March, 1891, she had an attack of obstruction, and several attacks later. During the last year her abdomen gradually increased in size, though she lost flesh steadily; the small intestine was obviously distended and hypertrophied. Mr. Roper never could find any hard mass in the abdomen, but made the diagnosis of malignant stricture of the lower part of the small intestine. On March 7th she again had obstruction, which did not yield to treatment. Mr. Roper urged the necessity of an operation, but the consent of the patient and her friends was deferred until March 25th, seventeen days after the onset of the obstruction. Mr. Lane and Mr. Roper then decided that, in the face of the frequent vomiting of fluid fæcal material, and of the very feeble condition of the patient, an anæsthetic was inadmissible. A small opening was made in the middle line, when a tight annular growth was found just above the left sacro-iliac synchondrosis. As the mesentery was much shortened and puckered, the growth could not be pulled into the median incision. Another incision was made directly over it, and with the greatest difficulty it was drawn between the edges of the wound, where it was fixed by means of a steel rod covered with rubber transfixing its mesentery. A Keith's tube was tied into the bowel above the stricture through which the intestinal contents escaped freely. The enfeebled condition of the patient rendered the removal of the growth at that time impossible. A few days afterwards, however, the growth was excised, and the proximal and distal portions of the gut were carefully united by sutures. Most of this suturing yielded, under the pressure exerted by the contents of the bowel, within a few days. When the patient had gained strength and flesh, the question of establishing intestinal continuity and closing the abdominal wound was discussed, but the patient refused, as she was more comfortable than she had been for years, since she had regained her natural appetite and was no longer troubled with her bowels. The growth was situated in the ileum, a few inches above the ileo-cæcal valves. It only allowed of the passage of a director.

Mr. Hulke spoke of the risk incurred by a patient vomiting fæcal material when an anæsthetic was administered, and advocated the emptying of the stomach by a siphon and the washing of it out thoroughly with a weak boric acid solution beforehand.

Mr. Lane said that he emptied and washed out the stomach, and left the stomach tube *in situ* in such cases, and had still found the fluid coming up through it during the operation; that fluid he believed was during all the time being regurgitated into the stomach from the intestine.

Mr. Symonds had operated two years ago upon a somewhat similar case under Dr. Goodhart. The patient, a man, had a tumour at the centre of the ileum as large as two fists. The whole of the mesentery was also implicated with growths. The ileum above was opened and stitched to the abdominal wound. That opening was now a small fistula in the groin. The tumour had since disappeared; possibly, therefore it was not of a malignant nature.

Living Specimens.

Dr. Hadden showed two cases of Rhythmical Rocking Movements in Children (girls), aged respectively 1 year and 9 months and 3¾ years.—Mr. Storrer Bennett showed a case of Extensive Fracture of the Upper Jaw treated by means of a vulcanite splint.—Dr. Newton Pitt and Mr. W. A. Lane showed a man, aged 42, who presented a Cyst over the Right Parietal Region; it had penetrated the calvaria, and was supposed to be of traumatic origin; its contents resembled ordinary serum.—Dr. F. R. Walters showed a case of Pernicious Anæmia. The patient was a smith, aged 50, working in a metal a compound of zinc, copper, and iron, but believed not to contain lead. He presented a blue line on the gums, but neither colic, dropped wrist, nor enlarged spleen.—Mr. L. A. Dunn showed a case of Loose Bone in the Elbow-joint. The patient, a boy aged 7, had been injured three years before, and the bone seemed to be the separated capitellum of the humerus.—Dr. Fletcher Little showed a Congenital Defect of the Forearm, apparently due to intrauterine amputation at the wrist. The subject, a male aged 54, also had defective development of the sternum, and deficiency of the right pectoral muscle. Dr. Little also showed an Extensive Unilateral Nævus (Congenital) of the Right of the Body. The surface temperature was raised over the affected area.

MEDICAL SOCIETY OF LONDON.

Jonathan Hutchinson, F.R.C.S., F.R.S., President, in the Chair.

Monday, November 28th, 1892.

Athletic Exercises as a Cause of Diseases of the Heart and Arteries.

Dr. Collier (Oxford) called attention to the growing tendency to indulge in certain athletic sports to an injurious extent. He referred to the connection between oft-repeated muscular effort and diseases of the heart, pointed out by Dr. Peacock as observed in Cornish miners. In these men the symptoms began to develop at about the age of 40, with slight dyspnœa and palpitation, gradually increasing in severity. The pathological changes observed were dilatation and hypertrophy of the ventricles, with, in a certain proportion of the cases, aortic incompetence. He referred to the researches of Dr. Clifford Allbutt, contained in the *St. George's Hospital Reports* for 1870, bearing on the effects observed in the forges, docks, and engineering works of Leeds. The lesions developed soonest in the badly fed and the distension of the aorta increased until incompetence resulted. He alluded to observations in the production of "irritable heart" in soldiers, which were published in the *American Journal of Medical Sciences*, by Dr. Da Costa, of Philadelphia; this condition, under forced marches, frequently rendered the men unfit for service. The same sequence of events had often been observed in animals such as race horses, greyhounds, and foxhounds. He urged that the evidence was conclusive as to the effect of frequently-repeated muscular exertion in the production of heart disease. Dr. Morgan's researches on the after-history of the oarsmen in the Oxford and Cambridge Boat Races between the years 1829 and 1869 comprised 251 out of 255 still living, and he came to the conclusion that the majority were rather benefited than otherwise by their exertions. He remarked, however, that these researches bore upon picked and carefully trained men. Boating, moreover, appeared to entail less risk than either running or cycling, and he insisted upon the fact that it was in the frequent repetition of severe muscular effort that the danger lay. The practice of cycling against time he considered to be a parti-

cularly pernicious practice, in support of which he quoted a number of instances of consequent circulatory lesions. He had observed symptoms pointing to dilatation of the right ventricle after rowing, running, and football, but such symptoms occurred exclusively among badly-developed, narrow-chested, weakly men. The physiologically dilated and hypertrophied hearts of trained athletes underwent certain changes in the direction of atrophy of the muscular substances, which later on might render them unable to cope with sudden extra strains.

Dr. Sansom observed that many athletes experienced no symptoms of circulatory disturbance, though there was marked evidence of hypertrophy of the left ventricle; and he raised the question whether this condition was to be regarded as physiological or pathological. Some athletes, however, showed unequivocal signs of dilatation of the right heart, while others gave evidence of disturbance of the cardiac innervation. He referred to a number of cases of tachycardia directly attributable to overstrain, a condition which was specially liable to result from the pernicious practice of racing against time. In other cases structural disease of the heart and endocarditis resulted.

Staff-Surgeon Preston, R.N., said that during the ten years 1875-1884, the ratio per 1,000 of organic and functional diseases of the heart among the sailors was 7.94 per 1,000. At present it was only 5.3 per 1,000, while the invalid ratio had been reduced from 3.9 to 2.93 per 1,000. During the same periods the proportion of cases among the land marines had not undergone any noteworthy change, thus proving that the reduction in the navy was directly due to the introduction of labour-saving mechanical appliances and the smaller use of sails. A man who had had syphilis ought to abstain from all forms of athletics.

Brigade-Surgeon Hamilton said the great curse among soldiers was an "irritable heart." The drill of Indian soldiers, involving quick runs of a thousand yards or more, had made irritable heart far more common. The same result in cavalry regiments appeared to result from riding without stirrups. He regarded a man with secondary syphilis as practically incapacitated for service. Tobacco and alcohol were also potent factors.

The President said he did not take such a gloomy view of syphilis as some of the speakers; and he pointed out that the prolonged ingestion of iodide of potassium, which undoubtedly had a most depressing effect on the muscular system, was probably responsible for a part of the effect observed.

Dr. Collier replied.

The Varieties of Piles and their Treatment.

Mr. Herbert Allingham called attention to the importance of distinguishing between the different varieties of piles and their treatment. He classed them as external, internal and extero-internal. Internal piles he further divided into the venous, the arterial and the capillary. He described the appropriate treatment in each case, and expressed his preference for the method of treatment by incision (Salmon's operation.)

The President said that his experience had confirmed his choice of the operation by incision, known as Salmon's operation. The only improvement he could suggest was to paralyse the sphincter ani thoroughly by dilatation in order to minimise the pain after operation.

Mr. Swinford Edwards said that the crushing operation was valuable when time was an object, the patient being up and about in a week. In 120 cases he had injected piles with a 5 or 10 per cent. solution of carbolic acid in glycerine with excellent results in cases in which the pile could be reduced and kept up.

Mr. Bidwell spoke in favour of Whitehead's operation.

Mr. Marmaduke Sheild recommended passing the ligature through the base, followed by removal of the pile.

The President said that the cutting off of the pile was a proceeding which he had never found necessary.

Mr. Keetley described Whitehead's operation as expensive of the surgeon's time and of the patient's blood without any corresponding advantage.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Shirley F. Murphy, M.R.C.S., L.R.C.P., President, in the Chair.

Monday, November 21st, 1892.

President's Address.

The President delivered an inaugural address. After tracing the history and the expansion of the Society, from its origin among the metropolitan officers to its extension to the provinces, he referred to the question of regular State inspection of the food supply. Was the Continental procedure unnecessary, or were we remiss in our duty? He did not assert that there was absolutely no control attempted in this country; but while so much meat was condemned in the public market, how much more must pass the 600 private slaughterhouses in London alone which it was impossible to watch? The practical experience of a butcher appeared the highest qualification sought in the appointment of special inspectors of markets, though in Germany it was found that legally-qualified veterinary surgeons often stood in need of further instruction in pathological examination. In Germany they required assurance that all meat was fit for food; here it was assumed to be so unless the contrary happened to be shown by conspicuous changes. The Italian system was the most completely organised, expert inspection extending to all towns having 6,000 inhabitants, and a county veterinary officer being responsible for the health and sanitary conditions of all cattle and dairies. But the cattle market and slaughterhouses of Berlin were simply perfect, and were the pattern of those in other German cities. To exercise an equally strict control of the meat supply of London an army of nearly 1,500 officials would be required, and the question to be answered was whether it were necessary. Ostertag, of Copenhagen, had inquired into fifty outbreaks of illness caused by meat, and had come to the conclusion that septic conditions were more to be feared than actual disease. Experiments on animals with tuberculous flesh, more or less cooked, were positive in proportions varying from 0 to 47.7 per cent. with the degree of tuberculisation and the thoroughness of the cooking. The percentage of tuberculous cattle brought to market varied greatly in different places. Adolf Schmidt, in Alsace, found the proportions from 0.3 to 3.1 in different Rhenish towns, but in North Germany Ostertag found from 10 to 26 per cent. In Berlin the average was 4 per cent., but in districts where cows were largely fattened for the butcher it was from 8 to 12. It might be said that things were better in this country; but almost the only evidence we had was the recent inquiry of the new Board of Agriculture, from which it appeared that the percentage of animals affected was 12.22 of bullocks and 16 for cows in calf, but only 1 for calves sent to the butcher and 1.5 for bulls. In the London markets the average was 15.5, or 1 animal in every 6, and doubtless many more among carcasses disposed of more or less surreptitiously. He was strongly of opinion that, though we might dispense with the microscopical examination for trichinosis, all animals should be slaughtered and dressed in public abbattoirs only, under the eyes of fully-qualified inspectors, and that the inspection should next be extended to dead meat imported from abroad or sent in from the provinces. Dairy farms ought also to be brought under effective veterinary control. Our Cowsheds and Dairy Order was practically useless, since the only diseases recognised were those scheduled in the Contagious Diseases (Animals) Act, which, though of economic importance, were less dangerous to the community than the more widespread and invidious tuberculosis. In conclusion, the President stated that the whole question would be seriously taken up by the Society, with the co-operation of the medical officers of health of those towns where meat inspection was efficiently carried out.

The Prevention of Cholera in England.

Dr. Sisley read a paper on this subject. He asked whether we were prepared for a recrudescence of the epidemic on the Continent next year, and whether our abandonment of quarantine was a wise policy. The true argument against the practice was that it would be unworkable; but under certain circumstances that might not be the case. The sanitary conditions of the country must at any rate be kept up to

the highest possible standard. Was it satisfactory at present? He could only appeal to the Report of the Cholera Survey of 1885-86, which did not extend to more than one-third of the sanitary districts, and to the value of whose work Sir G. Buchanan bore the highest testimony. It would scarcely be an exaggeration to sum up the evidence as that, with a few bright exceptions, the medical officers of health were inefficient or powerless, the inspectors of nuisances, for the most part, knew nothing and did nothing, and the "sanitary" authorities were as bad as they could possibly be. He concluded by asking the Society to pass a series of resolutions for the completion of the sanitary survey, the granting of further powers to the port sanitary authorities, the transfer of their extraordinary expenditure to the Imperial exchequer, the provision of a pure water supply to London, etc.

After a short discussion, it was resolved that the Society should not commit itself to abstract expressions of opinion until time had been given for their careful consideration.

Poisoning by Tinned Tongue.

Dr. Gwynn referred to the case reported at page 1242, and showed the tinned tongue which had caused the toxic symptoms.

EPIDEMIOLOGICAL SOCIETY.

F. J. Payne, M.D., F.R.C.P., President, in the Chair.

Wednesday, November 16th, 1892.

Tuberculosis as an Endemic Disease.

The President delivered an address on this subject. After referring to the work of Villemin, Cohnheim, and Koch he said the results obtained by them gave to the etiology of tuberculosis a certainty attaching to no other human specific disease. Its endemicity or localisation depended on two factors, the existence of the microbe and the concurrence of circumstances more or less favourable to its propagation, and preventive medicine must aim at the extermination of the microbe, or at rendering men less susceptible. After discussing the habitat and conditions of life of the tubercle bacillus, Dr. Payne narrated numerous instances, quoted by English, German, and American authorities, of the endemic prevalence of phthisis in particular quarters of towns, streets, and houses, in many of which the dampness and insanitary conditions of the sites or houses might be deemed to furnish a sufficient explanation, but followed these by a series of cases in which neither this nor the assumption of hereditary susceptibility was admissible, some in which successive tenants free from any such taint succumbed to tuberculous phthisis, others in which the fact of direct infection was as clear as it could be in cases of scarlatina or small-pox, making allowance for the longer duration of the infection and attack. There was no doubt as to the highly infective character of the bacilli as present in the sputa, and it was remarkable that in whatever part of the organism the disease made its first appearance, it tended to involve the lungs sooner or later. It was by means of the expectoration that the bacilli gained an egress, so that, for practical purposes, this was, except perhaps the milk of the tuberculous cow, the sole, or, at at any rate, by far the most important, medium of infection, though Baumgarten laid great stress on the danger from the ingestion of tuberculous meat. The feebleness of its communicability was compensated by the long duration of the infectious period. A mass of evidence was accumulating from the examination of newborn or of fœtal calves and infants that the bacilli could be immediately transmitted from parent to fœtus either per ovum or through the placental circulation. Indeed, as regards infection from the male parent, tubercle bacilli had been found in the semen of men dying of phthisis even when the testicles were found to be free from disease. Tubercle had been demonstrated in an infant removed by Cæsarean section from a mother in the last stage of phthisis, and there were a few cases of infants dying of tuberculosis in so short a period after birth that the disease must have begun in intrauterine life. Still these were so rare that direct transmission must be considered as quite exceptional. Among cattle tubercle was so general that some were inclined to look on it as originally a bovine disease. But it was suggestive of its endemicity that, while unknown among wild animals, nearly all monkeys, ruminants and rodents, brought into the Zoological Gardens sooner or later died of tuberculosis, a fact that was explicable only on the hypothesis of localisation and contagion.

REVIEWS.

Laboratory Reports, Royal College of Physicians Edinburgh. Vol. iv. Edited by J. Batty Tuke, M.D., and D. Noël Paton, M.D. Edinburgh: Young J. Pentland. 1892.

This pleasant, well-printed, and well-illustrated volume contains a number of excellent original scientific researches. They embrace such topics as the anatomy of the female pelvis at the fifth month of pregnancy, the structure of the human placenta, with special reference to the origin of the decidua reflexa, the action of the valves of the mammalian heart, observations on the flow of bile, the function of the tonsils, the effects of blows upon the cranium, tubo-peritoneal ectopic gestation, cystic degeneration of the adult kidney, and other essays of not less interest and importance. The preface also tells us that the work completed in the laboratory during the past year is so large in amount that it has been found impossible to publish it *in extenso* in this volume of reports. We hardly know how this statement is to be taken. Most of the papers, it is said, are published here for the first time, a few have appeared or are about to appear in various journals, and the majority of these are given here in abstract. Now if this much-qualified sentence be considered with the one which precedes it one cannot help asking why, if the editors could not publish all their work, do they give up space to repetitions of papers which have appeared or which are going to appear elsewhere.

When we read some of the essays we cannot help thinking that they are more diffuse than is consistent with the highest excellence. Sometimes the author is not content with saying what he has done but thinks it necessary to add a statement of that which he has not done.

Amongst these essays are some which show very clearly how fresh methods of investigation give new information. This applies especially to the investigation of the pelvis and of ectopic gestation by Dr. Webster. In the last case he claims, and upon good grounds as it would seem, to have described a new variety, which he calls tubo-peritoneal. The essay by Drs. D. Berry Hart and G. Lovell Gulland upon the structure of the placenta, with special reference to the origin of the decidua reflexa, is also suggestive and interesting. After describing the method by which the human ovum becomes imbedded in the serotina they proceed to argue that it grafts itself only where, during menstruation, the uterine surface has been denuded of epithelium. However, before this view can be accepted a great many things remain to be explained. Dr. Ritchie's laborious work upon general cystic degeneration of the adult kidney ought to be mentioned. The illustrations are much to be commended, but the paper itself is written in such a manner as to involve repetitions which are are very tedious.

The matters we have mentioned are but slight detractions from meritorious work, and we are glad that the liberality of the College is bearing such excellent fruit.

Recherches Cliniques et Therapeutiques sur l'Epilepsie, l'Hystérie, et l'Idiotie. [Report of the Service of Idiot, Epileptic, and Backward Children in Bicêtre during the Year 1890.] By Bourneville and others. Vol. xi. With 16 figures and 10 plates. Paris: 1891.

The first part of this book gives a history of the institution during the year 1890. From this we learn that on January 1st there were 393 children resident there. During the year 96 had been admitted, 19 had died, 98 had been discharged, leaving 372 in residence on December 31st. Three pavilions had been erected; two of these were used for the accommodation of patients and attendants, while the third contained in addition, a room for teaching the children, a pathological museum, and a laboratory. The origin and plan of a

building named after M. Vallée, formerly a teacher at the Bicêtre, and containing 69 children, which had been put under the direction of M. Bourneville, are fully described. The second or clinical part contains numerous papers by M. Bourneville and his assistants. Cases of idiocy complicated by cerebral atrophy, cerebellar tumour, and meningo-encephalitis are related, as well as cases of hysteria in the male sex. The third part consists of contributions made to the International Congress of Mental Medicine in 1889, and to the National Congress of Alienists in 1890. M. Bourneville's division of idiocy into eight classes from a pathological point of view is given, and cases of microcephalic idiocy, of idiocy due to porencephalus, and of idiocy due to the absence of the thyroid gland, which we in England call sporadic cretinism, but which M. Bourneville calls myxœdematous idiocy, are described. Microcephalic idiocy has been studied by Vogt from the atavistic point of view, or its relation to monkeys, but Bourneville pays special attention to the hereditary history, physical development, and educability of the patients who have come under his care. In the cases which he relates there is a bad hereditary history, good physical development, and a capability of instruction. Microcephaly, according to some authors, is due to premature ossification of the sutures, but this observation is shown by Bourneville to be far from being the rule. Four cases of idiocy with porencephalus are related; in two of these there is true porencephalus, in the other two it is of a false character. The causation, anatomical relations, and psychic phenomena of the two kinds are not the same, and the points of difference are clearly distinguished. Eight cases of myxœdematous idiocy, one under the care of M. Bourneville, the remainder collected by him from various authors, are fully described, and the volume closes with many excellent plates of patients, and views of a microcephalic brain. Evidently the work at the Bicêtre maintains its usually high character.

The Geographical Distribution of Disease in Great Britain. By Alfred Haviland, M.R.C.S. Second Edition. Swan Sonnenschein and Co. 1892.

The first efforts of Mr. Haviland to place on permanent record the results of his painstaking labours in the mapping out of the 630 areas into which England and Wales is divided for sanitary purposes appeared under the title of *The Geography of Heart Disease, Cancer, and Phthisis*, in 1875. This book was illustrated by three large scale-coloured maps, and is a work of considerable merit. In the volume under review the author summarises the chief facts contained in his earlier work, but by far the largest portion consists of a geographical, physical, and geological description of the English Lake District, and subsequently a description of the local distribution of cancer in that area.

We fully recognise the great services that Mr. Haviland has rendered to preventive medicine by showing the interesting relationships there may be between geological formation and disease, but we must warn students that Mr. Haviland's maps and the facts on which the maps are based must be kept quite distinct from Mr. Haviland's deductions. In the one case we have a careful, laborious compilation of statistical facts, graphically displayed, facts which we are disposed to accept as perfectly authentic; in the other we have conclusions which may or may not be correct, and which even Mr. Haviland may be inclined to modify.

Mr. Haviland considers that the evidence proves that a sheltered position and a ferruginous soil are factors coincident with a low mortality from phthisis; that areas in which rivers rise from soft, easily disintegrated rocks, and which are frequently flooded, such as, for example, the Thames counties, are coincident with high mortality from cancer; and, lastly, that areas having an extensive seaboard are coincident with a low mortality from heart disease.

These views are set out with great fulness of detail, and a large and, as we think, an exaggerated influence is ascribed to the geological and physical states of the 630 areas dealt with. We are the more convinced of this, because some years ago we went painfully over the figures for cancer, and by the aid of the 1881 census constructed a table showing the distribution of females over 40 years of age.

The age periods over 40 are far more liable to cancer than earlier periods; it therefore stands to reason that if in one county there should happen to be a greater proportion of women over 40 than in another, that county will in Haviland's maps be of a darker blue. This is indeed what was found; a map coloured according to age distribution of the English areas shows that areas possessing a relative preponderance of women over 40 coincide with Haviland's cancer fields. Therefore, although the facts as Mr. Haviland represents them are useful, the facts thus represented as regards cancer necessarily lead to erroneous deductions. It is true that in the present work, so far as regards the Lake District, Mr. Haviland has mapped out that small area by taking proportional numbers derived wholly from females above 35 years of age; but the principles he laid down in his first work as to the general distribution of cancer are derived from the deaths of females from cancer in relation to the whole population, which is as fertile in error as if the distribution of measles among a mixed population was studied in reference to the whole population, and not to that of the children.

We do not criticise Mr. Haviland's deductions as to the causes of local distribution of phthisis and heart disease, for to ascertain whether they are correct or not would require prolonged research. This, however, is certain, that by means of carefully executed maps like Haviland's, discoveries may be made of considerable import, but to do this they require to be supplemented by maps in which the areas are coloured according to sex and age, according to density of population, according to pollution or impurity of water supply, and so forth—in short, this graphical method of marking out areas is in itself scientific, sound, and adapted for a variety of purposes, but it is not until many coincidences are either shown to exist, or not to exist, that a definite conclusion can be drawn to justify the acceptance of theories as to favouring causes.

The work under review abounds with interesting information with regard to the Lake District, especially as to the geology and the fauna. Evidently the writer has personally studied this beautiful portion of our island with some minuteness. The book is well printed, well bound, and the maps of the Lake District are quite works of art; lastly, there is a good index.

NOTES ON BOOKS.

Vorlesungen über Kinderkrankheiten: Ein Handbuch für Aerzte und Studirende [Lectures on Children's Diseases: A Handbook for Practitioners and Students]. Von Dr. Eduard Henoch, Sechste Auflage. (Berlin: A. Hirschwald. 1892.)—The appearance of a sixth edition of Professor Henoch's well-known volume of lectures is another proof that he has known how to treat his subject in a way which commends itself to practical men. The present edition is not larger than the fourth, which was translated into English by Dr. John Thomson for the New Sydenham Society, but it contains new matter for which room has been found by judicious excisions, chiefly of some of the older cases. The whole work has undergone a general revision, but it maintains its original character, and the comparison to which we have subjected it appears to show that it does not present many variations from the edition above mentioned. The book is in great part founded on the author's wide experience as director of the Klinik and Poliklinik for Children's Diseases at the Charité Hospital in Berlin, and as such it will long remain one of the most important works on the subjects with which it deals.

Guia das Aguas Mineraes Cucos proximo de Torres Vedras. [Guide to the Mineral Waters of Cucos near Torres Vedras.] (Lisboa, 1892.)—This is an account, in Portuguese, of the thermal station of Cucos, close to the town of Torres Vedras, not far from Lisbon. The medical part is written by Dr. Antonio Mancel da Cunha Bellem and Dr. Guilherme José Eunes, Director of the Military Hospital at Lisbon. This is stated to be a warm chloride of sodium spring, somewhat resembling those of Wiesbaden and Bourbonne, and used in the same cases and with the same indications, that is, for the treatment of lymphatism and scrofula, rheumatism, gout, paralysis, neuralgia and neurasthenia, and affections of the throat and skin. It is used internally and in the form of baths and douches.

There appears to be a well-arranged bathing establishment, with all the modern appliances, at Cucos, and it seems to be situated in a picturesque and attractive locality. It is distant about three hours by train from Lisbon.

Epilepsie (*Encyclopédie Scientifique des Aide-Mémoire*). Par Ch. Feré, Médecin de Bicêtre. (Paris: Gauthier-Villars et Fils, G. Masson. 1892.)—This volume in its 193 small pages contains a well-systematised and very succinct account of the leading facts at present known concerning epilepsy, more particularly in relation to the etiology, symptoms, and treatment of the affection. The merits of the book are incontestable, though probably its limited scope will preclude it from presenting much interest to any but French students or practitioners.

CHRISTMAS BOOKS AND PICTURES.

The approach of Christmas brings again the welcome opportunity for interchange of kindly wishes, the reality and warmth of which are symbolised by the interchange of gifts. Prominent among these are the illustrated art books, in which so large a proportion of educated people now find an exquisite pleasure; and books of travel, adventure, romance, and imagination, picture books and picture cards dear to the young. Some of those lying upon our table would grace the drawing-room or library of the most refined, others are commendable as family gifts and presents; a proportion, destined for children, are especially suitable for presents in public institutions and children's wards and among families. We have not space to notice them in detail, although many of them would deserve, in columns less specially occupied, fuller analysis and larger praise.

Messrs. Cassell and Co. send us from their rich and almost endless store, of which details may be had in extensive catalogues, a new and popular edition of a study of the works of *Henriette Ronner*, by M. H. Spielmann. This is a beautiful illustrated folio volume of cat life and cat literature, illuminated by much artistic genius. There are few things so difficult to paint as a cat or kitten, but before the genius of Madame Ronner all difficulties have disappeared. Her dexterous treatment of texture, form, and movement have enabled her to present in this remarkable volume a set of delightful pictures which will live in the history of art. The full-page plates are accompanied by an admirably-written text from the pen of Mr. M. H. Spielmann, the accomplished Editor of the *Magazine of Art*. The annual volume of the *Magazine of Art* for 1892 rises even above its usual level, which is of the highest. It is a treasure-house of fine pictures, admirably reproduced, and its articles are invaluable for modern students of art and of artistic handicrafts. No more delightful present could be given to anyone interested in the things that make life beautiful and fill it with sweet memories. *The Historic Houses of the United Kingdom* is a descriptive historical and pictorial volume, in which are told and shown by a wealth of illustration the stories of the beautiful Welbeck Abbey; Warwick, Floors, and Alnwick Castles; Hatfield House, Audley End, Malahide Castle; Chatsworth, Berkeley, Lawdor, and Belvoir Castles, and many other great historic houses in the United Kingdom. It is a book to make the reader proud of his country, and to make him desire to see those which he has not seen, for these are not only architectural and historical, but artistic buildings. It is a noble book, and one which everyone will desire to possess. *Cassell's Family Magazine* for 1892 supplies in one volume, having 400 illustrations and thirty short stories, such a mass of interesting matter for 9s. as would keep anyone interested through many a long winter evening. It is the intention of the publishers to endeavour to surpass in further attractions their past achievements, and the next issue will be enlarged by the addition of sixteen pages monthly. *The World of Romance* is an extremely handsome volume, which is a treasury of tales, legends, and traditions, extending over 550 pages, in which may be read the "Legends of the Rhine," Eastern tales, and stories for men and women by Scott, Poe, Hawthorne, Balzac, Goethe, Dickens, Hoffman; the lives and adventures of knights errant of past days, and of the gods and heroes of all countries. In this volume sweet flowers have been culled for the pleasure of the reader from all the world of romance.

Messrs. Macmillan and Co.'s volume of the *English Magazine* for 1891-92 is glorified in its frontispiece by the finest and most powerful portrait of Mr. Gladstone that we have yet seen, engraved by Biscombe Gardner. Its contents are varied, and show skilful selection and considerable literary instinct and capacity. This volume of the magazine is well in the foreground of illustrated magazines which have been competing with it in friendly rivalry. Unlike some others, it is of permanent literary as well as artistic value, and does not depend merely upon the interest of the moment. It is a marvel of cheapness. Mrs. Molesworth renews her many literary triumphs, and will retain her popularity with the young by her charming little story *The Girls and I*, a "veracious history."

Messrs. Smith, Elder and Co. send us the first volume of the new edition of a book keenly suggestive of literary study by Mr. Leslie Stephens, entitled *Hours in a Library*. The book inspires the reader with the desire to renew or to enter upon an acquaintance with the books of Defoe, Richardson, Pope, Scott, De Quincey, Sir Thomas Browne, Horace Walpole, and many another favourite. It is full of erudite analysis and subtle suggestion. *Grania; a Story of an Island*, from the same publishers, is a new edition of one of the brightest and most impressive of the Hon. Emily Lawless's studies, being full of life and character and modern interest; it has great literary merit as well to depend upon. The island is one of the Islands of Aran in Galway Bay.

Mr. T. Fisher Unwin sends us *Daddy Jake the Runaway* and other stories by Uncle Remus, Mr. Joel Chandler Harris, who has charmed the young people of both hemispheres for many years. It is a humorous and sometimes pathetic story. With this comes *A Brownie Book*, by Palmer Cox, published by the Century Company. Delightful little brownies frolic across every page; they might have been drawn by Doyle, so various and so characteristic are they.

Messrs. Blackie and Sons are bountiful in story books and books of adventure. *The Thirsty Sword*, 5s., is a story of the Norse invasion of Scotland, 1262-63, by Robert Leighton, and illustrated by Alfred Pearse. There is also a map of the western islands of Scotland. Turning over these illustrations, we see how "Aasta gripped her sword and leapt upon Roderick." Presently Aasta reveals the "thirsty sword," and so we pass on to picturesque scenes from Norse life until we reach the whole story of the Norse invasion and the last Druid fight. It is a picturesquely written book. *Beric the Briton*, 6s., is a story of the Roman invasion of England and the valour of the natives. We read of the defeat of the Britons and their struggles and imprisonment, and how they are taken to Rome; and of the hero's return to Britain. Mr. Henty has here given us a most interesting, picturesque, and historical romance, which has twelve illustrations by Mr. W. Parkinson. *A Very Odd Girl* is a tale for girls of life at the Gabled Farm, by Annie Armstrong, who has written several excellent stories. The book, which gives an account of the heroine's experiences at an English farmhouse, shows how character may be elevated and strengthened by the ordeal of trouble and misunderstanding. *An Old Time Yarn*, 3s. 6d., by Edgar Pickering, is a description of a voyage with Hawkins and Drake three hundred years ago. It takes us with them through divers perils on land and sea, and their final escape to home. There are six full-page pictures by Alfred Pearse. *In Greek Waters*, another of Mr. Henty's stories, is a story of the Greek war of independence, 1821-1827. An Englishman and his son, stirred with enthusiasm, go to the assistance of the Greek insurgents. Boys who love the sea will find in this book every kind of excitement. *The Heiress of Courtleroy*, 5s., is a quiet home story which is told of the orphan who rewards the cynical uncle on whose bounty she is a pensioner by saving his estate from ruin. It is a clever and interesting study of character, well illustrated by Mr. T. C. H. Castle. *The Captured Cruiser*, 3s. 6d., by C. J. Hyne, is so well illustrated by Mr. F. Brangwin, that we wish it was furnished with more pictures. It is a good sea story, and full of shipwrecks, blockades, torpedo boats, and other elements of excitement. *Condemned as a Nihilist*, from the most successful writer of historical tales, Mr. G. A. Henty, is a story of an escape from Siberia of an English boy

resident in St. Petersburg, who, becoming innocently involved in a political plot, is exiled to a remote convict station in Siberia.

The Religious Tract Society (London) forward to us a parcel of books in which we find the annual volume of the *Sunday at Home* for Sabbath reading, which has an abundance of process plates and woodcuts (for the most part, we are glad to say, the latter), and stories which are not without excitement, but having always a religious tone. It is an admirable and cheap volume. *Young Small Shoes* is a tale of dawn and daylight, mist and sunshine, darkness and light, in which love, prayer, religion, and affection win the day against all troubles. *A River of Water in a Dry Place*, 2s. 6d., is a new edition of the Rev. Dr. Moffat's missionary adventures from Africaner's Kraal to the city of Khama, the chief of the Bamangwato. It is a fine old book made new again in order that the children of to-day may learn, as their fathers and mothers learnt, to glory in the memory of one of the heroes of South Africa. *The Heroes of the Goodwin Sands*, 3s. 6d., by the Rev. T. S. Treanor, M.A., tells of a gallant rescue effected by the Deal boatmen, authenticated by dates and told with exactness and sailor-like truth. It is a stirring tale told in a vivid manner. *Making a Beginning*, by William J. Lacey, 2s. 6d., is a serious essay founded on the adage "Well begun is half done," illustrated from the lives of great men, Carlyle, Galileo, Garibaldi, Hugh Miller, De Lesseps, and a hundred others. It is singularly adapted for reading by boys capable of serious thought, and is full of sound teaching. *The Cottager and Artisan*, 1s. 6d., is the thirty-first volume of a paper for the people. It is replete with illustrations and good matter. "Life in the Home" is the first volume of the *Tract Magazine*, a new monthly collection of tract literature, well illustrated, and which no doubt will have an extensive circulation. *Friendly Greetings*, 1s. 6d., is a folio volume of illustrated readings for the people, profusely illustrated, and having some coloured pictures and illuminated texts. Under the title of *Books for the People* are issued a number of penny tales and novels which are destined to run a wholesome competition with the "penny dreadfuls" provided for young people by unscrupulous caterers.

Messrs. Skeffington and Son, London, send us *Olga's Dream*, a nineteenth century fairy tale, by Norley Chester, with original illustrations specially designed by Mr. Harry Furniss and Mr. Irving Montagu. Mr. Furniss's illustrations alone have already made it celebrated and will give it permanent artistic value. Many people will desire to possess the valuable "first edition." The same publishers also send us a little volume of short stories called *Soap Bubble Stories* for children, by Fanny Barry, and illustrated by Mr. Irving Montagu. They are pretty stories, but not very remarkable for their literary qualities.

Most of the publications by Chatto and Windus have a good literary savour. The *American Claimant*, by Mark Twain, will find favour from the very name on its title page. Mr. S. Clemens no longer needs praise or introduction; his quaint humour is unquenched by time, and his essay at constructive story-telling will amuse and interest a wide circle of readers. *Taken from the Enemy*, by H. Newbolt, 1s. 6d., belongs to the series of *Handy Novels*; it has an abundance of adventurous connections to recommend it. *A Prodigal's Progress*, by F. Barrett, one of the new 2s. 6d. volumes of the collected novels of this successful writer, is in illustration of history of London life in the last century; it has much to interest and nothing to offend. *Wanted*, by Dick Donovan, presents a series of small stories. We have a story of some remarkable frauds, "A Railway Mystery," "A Dying Confession," "Story of a Miser," "How the Bank was Saved," and "Story of a Christmas Fairy." This meets the modern taste for detective stories. *The Fate of Herbert Wayne*, by E. J. Goodman, is by the author of a number of successful stories of the sort with a strong and effective motive, which, however, as we learn, is not altogether a novel idea. It is well written and interesting from end to end. *Corinthia Marazion*, by C. Griffiths, is a quiet town story, full of able characterisation, and written in a clear, cultivated style, with thoughtful discussion of topics of philosophy. *The Love Song of Barbara*, in a little volume bound in a cheaper edition, a very delicate poem by Charles Joseph Whitby, and not one which will find only a limited number of readers at this Christmas time.

Messrs. Dean and Son's *Gold Medal Series* tells in large coloured pictures and handsome folio shape for 1s. the tale of "Old Mother Hubbard," and supplies a "Book of Objects and A B C," and an "Animal Toy Book" for cutting out. *The Artistic Series*, price 6d., contains the "Twelve Little Mice," and "Birds and Beasts from Field and Wood," in cheaper and many coloured pictures, and are the very things for children's wards, the best edition being that mounted on linen. The *Happy Day Painting Book* leaves room for ingenuity and effort as well as pleasure. There is a long series of these books, of which it would be well to get the catalogue from the publishers in order to make a suitable choice. *The Little One's Own Wonderland* is a well-compiled reading book, brilliantly illustrated with coloured plates. For 1s. they issue also a packet of fifty Christmas cards, which they present with the Christmas double part of the *Little One's Own*, altogether a wonderful shilling's worth which would keep a nursery or a children's ward in a state of delight for a long time to come. Another series is that of the *Surprise Model Picture Book*, which begins astonishingly well with cut card board models attached to the coloured pictures, showing all the wonders of a windmill, a railway train, and a weir and water mill. This, too, is 1s., though it would be better indestructibly mounted on linen.

Simpkin and Marshall send us *Our Country's Birds and How to Know Them*, by W. J. Gordon, which has illustrations in colour of every species, and furnishes an illustrated guide of all the birds of Great Britain, of which there are lists, each coloured picture being numbered. There are excellent chapters on sortation, identification, with an index to the orders, families, sub-families, genera, and species—altogether a most valuable book, and one which every child ought to have.

CHRISTMAS CARDS.

MESSRS. RAPHAEL, TUCK, and SONS issue now so extensive a variety of Christmas Cards and New Year Cards, illustrated books and booklets, toy books, calendars, that for any place or institution where there is likely to be a demand for a suitable number and variety of such welcome Christmas tokens we advise that an application should be made to them for their catalogue, which is already an almost formidable little volume. Their series has now become almost beyond enumeration. Amongst the productions of this year the Watteau cards and the Rococo will produce a great and favourable impression. The "Ideal" cards are extremely elegant and tasteful, and these are from among the newest varieties from which we can recommend purchasers to make their selection. There are some charming little toy books and picture booklets, with most delicate illustrations. Private autograph cards are rather more profusely decorated than in former years; some of them are perforated and some are plain. A very elegant little illustrated book of Christmas pictures is that entitled *There is Beauty in all Seasons*. *Towards the Light* is a little daily textbook for the young, full of well chosen verses and charming pictures. *The Parables* is another book conceived in a similar religious spirit. The Watteau Miniature Screen is one of the daintiest and most entirely novel panels of the year. In this ample store will be found enough for all tastes and all necessities, from the very cheap to the more costly and elaborate productions.

CHRISTMAS NUMBERS.

Of the Christmas Numbers, *Yule Tide* is notable for its abundant and lively coloured illustrations by Harry Furniss, whose quite inexhaustible pencil and ever fresh imagination has produced a series of unrivalled political cartoons in colour which will have a permanent place, like those of Rolandson, in the history of the century. With it is issued a large chromo-lithograph of a picture by George W. Joy of three types of physical beauty described as the "Rose, Shamrock, and Thistle." *Black and White* issues also a large coloured lithograph for framing. It has a Christmas number, of which the cover does not agree with the name, for it is in crimson and gold; yielding to the Christmas influence also, the pictures are in colour. This is the most artistic of the Christmas annuals in the æsthetic sense, and it has some excellent stories, including one by Bret Harte. Many of these annuals are somewhat spoilt by the interpolation in the

text of illustrated advertisements, which have an unequal rivalry with the text itself.

The *Magazine of Short Stories* issues with its Christmas number a chromo-lithograph for framing of a historical picture "For the King's Sake." The stories are short, but rather trashy, and the illustrations decidedly bad. It will not be a formidable competitor to its more expensive rivals, but it is published at half their price.

THE WORK OF THE LATE ADMINISTRATION AND THE NEXT.[1]

VIII.—English Poor-law Medical Officers: Their Responsibilities and Remuneration.

It would be difficult to find any class of public officials whose remuneration as a body is now fixed at the same rate as it was fifty years ago. That was the date when for the most part the present regulations were framed, and they have not been very materially altered since. At that time many holders of Poor-law appointments had no legal qualification whatever beyond that of having been in practice before the year 1815, and in very many cases all the work of the appointment was done by apprentices or unqualified assistants. It is far different now when the holders of all appointments are compelled to have two qualifications while many possess more, and those of high order. The remuneration now paid has consequently little proportion to the responsibility incurred and the services rendered. This evil appears to a great extent to have been brought about by the very peculiar position which Poor-law medical officers hold, in having their duties defined and regulated by one authority, namely, by the Local Government Board, and the payment for these services being fixed and awarded by another Board, namely, the guardians. The consequence of this arrangement has been that when in the past the Local Government Board have added to the work by the issue of fresh or more stringent regulations, no increased payment for additional duty has been awarded by the guardians, an anomaly which does not appear to exist in any other public department.

Fresh regulations for the Poor-law Medical Service are much needed, and the extension of the dispensary system as introduced into central London by the Metropolitan Poor Act of 1867, or some modification of this is certainly desirable for all large towns or densely populated districts, though the time appears hardly yet to have arrived for its application to the rural districts of England owing to the system of supplying medicines to all classes of patients by the general medical practitioners being there still so prevalent. Overseers should be held pecuniarily responsible for granting orders to patients other than actual paupers. At the present time it is possible for them to do this for no other purpose than to annoy a district medical officer. An order for a six-mile unnecessary journey in the middle of the night has been known to have been given when not even applied for, and this for a non-pauper patient.

At present, though nearly fifty years have passed since anæsthetics have been introduced into medical practice, no provision has yet been made by regulations for their adoption in Poor-law practice, and if used at present they must be either given by the operator himself, a practice universally condemned, or at his personal expense, if he employs another for the duty. Parochial medical officers are now expected to furnish gratuitously medical certificates of illness for children absent from board schools. It would be only just and reasonable for the school boards to be authorised to pay a moderate fee for this recent additional duty.

Many years back a special fee of £5 was allowed by the Poor-law Commissioners for the operation of trephining, but for some cause, very difficult to surmise, this allowance was silently withdrawn from the list of special fees, and now, when this operation has again become more common, and by the advance of surgery more frequently required, no provision has been made for payment of either the fee formerly allowed or any other. Many an operator has only discovered himself not to be entitled to this fee, after he has thought he had earned it and when it has been refused by the guardians.

Midwifery fees are now very unsatisfactory. Ordinary cases are paid for at different rates, according to contract, by different boards of guardians, varying from 10s. to one guinea, and difficult cases by consolidated order at £2 each. These latter are not easy to define, and at present it is sometimes referred to relieving officers to decide after inquiry into details. It is, moreover, desirable to do away with any temptation to exaggerate or misrepresent the gravity of any case, and something might well be sacrificed for the sake of uniformity. If every midwifery case were to be paid for by a fee of not less than one guinea several difficulties would be removed, and the change would be for the better, as it would add to the status of the profession by it being understood that even pauper midwifery earned a guinea fee; those guardians who wished to pay less could engage a midwife. Regulations of the Local Government Board which are impracticable or impossible to carry out should be abolished, and the Local Government Board should not issue special regulations for any particular union except for stronger reasons than have been found to exist in many past instances.

Abuse of Powers.

As an example of such abuse may be mentioned a case in which a successful applicant for a district appointment in a provincial union only found out, after appointment, that the salary offered by the guardians was inclusive, and that, with the sanction of the Local Government Board, all special fees had been abolished in the union in question; this exceptional regulation was purposely kept from the knowledge of the applicant till after the appointment was made, and a medical practice had been purchased in connection with it, which could not be thrown up, except at great sacrifice, even if the appointment had been resigned.

Police Cases.

Police cases at night are now much too frequently taken to workhouses, which necessitates calling up or sending for the workhouse medical officer. This is done to save the expense of calling in the police surgeon, and is an unjust tax on the workhouse surgeon. These night cases should be treated as police cases. A man drunk and incapable is not necessarily a pauper, and, even if he is, he should be treated as an offender against the law, and retained in custody of the police till discharged or sentenced by a magistrate.

Superannuation.

Compulsory superannuation, instead of as at present being optional with the guardians, is much to be desired, but very difficult to obtain in England, there is alleged to be a strong feeling against it in all provincial boards. It has been suggested to us by leading Poor-law medical officers that the most feasible plan for bringing it about appears to be by enacting that the holders of the appointments contribute one moiety of the sum granted by deduction from salary, the guardians paying the other moiety. One of the main objections to the present optional system is that those medical officers who have during their period of service held the best paid appointments stand by far the best chance of obtaining superannuation allowance on retirement; on the other hand, the worst paying boards of guardians almost invariably decline to recommend a pension, however strong the claim for it may be, or however urgently this claim may be put before them, and without this recommendation of the guardians no pension can at present be obtained. Another objection, too important to be disregarded, is that medical practice at an

[1] The articles of the series already published have appeared in the British Medical Journal of August 20th, p. 423; August 27th, p. 473; September 17th, p. 648; October 15th, p. 856; October 22nd, p. 903; November 5th, p. 1029; and November 19th, p. 1120.

advanced period of life is of necessity more or less inefficient, and any inducement for a medical practitioner to continue in office under such circumstances by the fear of a pension not being granted on resignation is without doubt seriously disadvantageous not only to the ratepayers but specially so to the sick poor.

COMPULSORY MEDICAL CERTIFICATION OF CAUSE OF DEATH.

No greater mistake in legislation was, in the opinion of many Poor-law medical officers, ever made than when, following the Scotch example, this became compulsory in England. Cases are constantly met with in practice where the medical officer is called in just previous to death, not really to give medical attendance, but to give the necessary certificate after death. It is now very difficult for him to refuse, and so, rather than face a coroner's jury, with the liability to censure, if sufficient cause of death is established by *post-mortem* examination, the certificate is often given. Formerly, when this was optional, much good resulted from the refusal to give it. The idea is now very prevalent that the required certificate must be given, and this idea is not far from being correct.

ANNUAL MEETING OF THE ASSOCIATION AT NEWCASTLE-UPON-TYNE, 1893.

THE sixty-first annual Meeting of the British Medical Association will be held at Newcastle-upon-Tyne, beginning on Tuesday, August 1st, and lasting until the end of the week.

GENERAL ARRANGEMENTS.

Dr. G. H. Philipson, Professor of Medicine in the University of Durham, and Senior Physician to the Royal Infirmary, Newcastle-upon-Tyne, will be the President. The addresses and Sections, as will be seen from the detailed programme, are arranged in the usual way. It will, however, be noticed that there is a Section in anatomy and physiology, one in otology, and another in dermatology.

The service on the first day of the meeting will be held in the ancient church of St. Nicholas, now a cathedral.

THE COLLEGE BUILDINGS.

The business of the meeting will be conducted in the new and handsome buildings of the University of Durham College of Medicine, and of the Durham College of Science, which have been lent for the occasion. The Colleges are conveniently near to each other, they are centrally situated, and they will afford ample accommodation for the Sections and the general business of the meeting. The museum will be made a special feature. The commercial part will be placed in the chemical laboratory of the College of Science, a large, lofty, and beautiful room. The microscopical and pathological divisions will be put into other rooms. The examination hall at the College of Medicine will probably be used as the reception room.

HOSPITALS.

In addition to the Royal Infirmary, a large general hospital, there are several special hospitals in Newcastle which will be open to the inspection of members of the association. The new Fever Hospital can also be seen.

HOTELS AND TRAVELLING.

The hotel accommodation is excellent, and those who prefer to stay at the seaside or in the country can readily do so. The rooms occupied by the students at University College, Durham, will be available for members of the Association during the week. The railway service in the district is good, both on the main and on the local lines. Tramways have been laid by the corporation throughout the town on a regular system.

EXCURSIONS.

There are many places of interest in the district to which excursions can be made—for instance, Alnwick Castle, Cragside at Rothbury, the Roman Wall with the excavations at the Chesters, Holy Island, Bamborough, etc. The district abounds in antiquities, the old Norman keep, parts of the ancient walls and gates of Newcastle, the Roman Wall, Tynemouth Priory, Fenkle Abbey, and the abbey at Durham. In contrast to these are the works and factories which cover the banks of the Tyne, and members who are interested in shipbuilding, engine works, chemical works, ordnance foundries, etc., will find plenty to interest them. Of coal pits there is no lack.

Short excursions will probably be made down the river to Tynemouth, South Shields, to the curious rocks at Marsden, and also out to sea. On the Friday afternoon it is proposed to hold a special convocation at Durham for the conferring of honorary degrees, and this will no doubt be followed by a reception or garden party in the Castle.

In addition to its Town Moor, Newcastle is well off for public parks. The most beautiful is the Armstrong Park, where it is hoped the Mayor may give a garden party.

When the meeting is over, members may be tempted to run across to the English lakes, to go to Scotland, or to sail for Norway in one of the five vessels leaving the Tyne for that country.

ACUTE POISONING CAUSED BY TINNED OX TONGUE.

BY EDMUND GWYNN, M.D.,
Medical Officer of Health, Hampstead.

A FRESHLY opened tinned ox tongue was placed before Mr. X, his wife, and two children for breakfast on November 14th, 1892. Upon carving the tongue, Mr. X perceived an unusual appearance and odour, and stopped Mrs. X and the younger child, aged 4 years, from eating the portions already served to them; they had only just tasted it. Mr. X then divided an omelette with the fork that he had used in carving the tongue. About noon on the same day the younger child was seized in the street with uncontrollable vomiting and purging, and was brought home in a state of collapse. Soon afterwards Mrs. X had severe abdominal pain, violent sickness, and purging, and fell upon the floor in a state of collapse, dejecta running from her. The elder child, aged 6, was sick in the afternoon, and Mr. X felt sick towards evening, and became faint, with cold sweats. These two latter had not tasted the tongue, but had eaten the omelette which had been divided by the infected fork.

The family attendant, Dr. W. Boulting, to whom I am indebted for the foregoing particulars, found Mrs. X, upon his arrival, cold and pulseless, vomiting occasionally and complaining of giddiness; the diarrhœa continued for some days, and left tenderness in the abdomen, with pain upon pressure over the right side. The child, aged 4, fell into a profound stupor, from which she could not be roused for some hours.

Dr. Boulting further informs me that Mrs. X (eight days after the attack) still continues ill; directly she attempts to eat solids she has increased pain and passes blood. At first the temperature was subnormal—in the evening of the first day 99.5°; afterwards normal or slightly below normal. The others ultimately recovered in a day or two.

I found the tongue to be soft, wet, pappy in parts, dull in colour, with an absence of the jelly which is generally found in these tins. The microscope showed portions of it to be much decomposed, and the muscular fibres to be quite broken up. The tongue was submitted to Mr. H. W. Stokes for analysis, who pronounced it to be a most virulent and highly poisonous sample of tinned meat. The meat was saturated with salts of iron due to the corrosion of the containing tinned iron vessel caused by the action of the decomposing meat on the vessel. No other metal could be detected. As evidence of its great poisonous power Mr. Stokes's assistant, "to see what it was like," took a piece not larger than a shilling; in five hours he was seized with violent vomiting, diarrhœa, and giddiness, the vomiting recurring for thirty hours afterwards.

There are several points of interest in the above cases: (1) The extremely minute quantity of infective matter that affected Mr. X and his child, which could only have been derived from the fork that had been used to divide the omelette; (2) the number of hours (eight) that intervened before Mr. X became affected; (3) the great resemblance which the attack bore to an outbreak of choleraic diarrhœa; indeed, had cholera been epidemic or near the neighbourhood at the time, much alarm might have been occasioned.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, DECEMBER 3rd, 1892.

THE ASSOCIATION AND JOURNAL FOR 1893.

The Continued Development of the Journal.

The present number of the British Medical Journal contains the programme of arrangements already made for next year. Such a programme it has long been customary to issue at this time of the year, and the number in which it appears is placed in the hands of a large proportion of those British members of the medical profession who are not yet members of the British Medical Association or subscribers to its Journal. This proportion is now a steadily diminishing minority. The British Medical Association and its Journal may fairly claim to have in a measure brought about for the medical profession throughout the British Empire the federation which still remains a dream for the politician. Medicine, happily, knows no frontiers, except such as are created by diversity of language. Members of our Association are to be found in every quarter of the globe, and there are now but few British dominions, colonies, or dependencies in which a Branch of the parent Association does not exist. The readers of the Journal are even more widely distributed, for it regularly finds its way into foreign countries; about a fourth of the total circulation of 18,000 copies weekly is outside the Association itself. This development of the circulation of the Journal, and concomitant growth of the Association, while gratifying and encouraging, has created fresh responsibilities, and increases our difficulty in the selection and condensation of the valuable matter which pours in upon us on every side. By classification into departments and sub-departments, we have provided from year to year for dealing systematically and in a condensed form with the multiplicity of inquiries, suggestions, and difficult cases weekly brought to notice. Thus legal, ethical, public health, Poor-law, naval, and military departments have been established, and in sincerest flattery have been copied and imitated elsewhere. The latest addition—the Epitome of Current Medical Literature—which is paged and indexed separately as a permanent work of reference, is, we are glad to notice, increasingly appreciated from month to month. Its usefulness is evidenced, among other testimonies, by its frequent quotation by recent medical authors. In this, as in the other departments of the Journal, the Editor is able to count upon the advice and active co-operation of a great number of leading British authorities in the various subjects dealt with, of whom 250 at home and abroad are members of the editorial staff.

Abuses in the Sale of Patent Medicines.

We have given much attention during the past year to the impunity with which poisonous proprietary preparations have for years been allowed to be sold by unqualified persons and without a label indicating the dangerous character of the ingredients. The reports of the proceedings in coroners' courts have from time to time afforded instances of the danger attending the popular use of these preparations without any warning, but no continuous effort was made to put a term to this violation of the law, which has been carried on with impunity for a long series of years, until the Chairman of the Parliamentary Bills Committee of the British Medical Association and Editor of the British Medical Journal had a series of analyses made of these so-called patent medicines, and, with the approval of the Committee, forwarded them to the Public Prosecutor and called for action by the Treasury. These analyses, which were published in the British Medical Journal, showed that opium, morphine, chloral, strychnine, belladonna, etc., were present in many of them. The Public Prosecutor, after further correspondence and independent investigation, took proceedings against the manufacturer of chlorodyne, one of the most extensively sold and advertised of these preparations, and the magistrate's decision in favour of the prosecution was clear and precise, leaving no doubt as to his view of the law. The decision was reported, and Mr. Ernest Hart brought it officially to the notice of the Council of the Pharmaceutical Society, calling upon that body to exercise its statutory powers intended to protect the public from such infringements of the law. This duty the Society had up to that time steadily neglected. Since then we are glad to have been able to report from time to time that effectual use has been made of these powers; the results actually achieved have, indeed, been more widespread than might be supposed from the small number of cases reported in the public press.

It will be noticed that the Chairman, was at the last meeting of the Parliamentary Bills Committee, able to report that some well-known "balsams" and soothing syrups are now being marked with the poison label, and we may hope that we are within a measurable distance of the time when a grocer will cease to dispense with impunity a bottle of poison with the same confidence with which he sells a flask of oil. The enforcement of the law must continue to be carefully watched for some time to come, and will engage our attention during the coming year. Further communications are in progress with the Public Prosecutor on this subject.

The Relations of the Profession to the State.

The general election, resulting in the return of a new Government to power, has afforded a fitting occasion for reviewing the relations of the medical profession to the State in respect to all the great civil and military services. Happily these are matters removed to some extent from the sphere of party politics, and we have been able, in a series of articles in which we have had the aid of the ablest authorities, to chronicle excellent work achieved in certain directions in the last Parliament, and to point out directions in which the new administration should deal with many reforms which, as we have shown, are still urgently needed. The epidemic of chol ra

on the Continent, the whole history of which has, in the columns of the British Medical Journal from week to week, been more systematically and authoritatively reported than ever before, or in any other European record, has brought prominently under notice many defects in sanitary law, and has shown, among other things, the inadequate extent of the means of inspection at the disposal of the central authorities. Conflict of authority and confusion of jurisdiction we have shown to exist, the means of removing these defects, and preventing their inevitable consequences if permitted to continue, will be among the subjects which must be further discussed and examined at an early date.

The Military Services.

The pages of the Journal have recently contained full analyses of the present position and needs of the medical officers of the army. That position is not yet satisfactory, and it will, we believe, be clearly recognised that this is not a class question, but one which nearly affects the honour and social status of the medical profession as a whole; we cannot afford, even if we were disposed so to do, to allow our brethren who are serving the State in the army to be subjected to slights, or to be placed in a position of social or official inferiority. The late Warrant was accepted with a loyal intention of making it work if it would. It has now become clear that it has not removed all the legitimate grievances, and we shall not rest until a medical officer of the army shall be accorded his right place in the military hierarchy, a place which must be determined not by the greater or less intelligence of commanding officers, or the higher or lower standard of courtesy of military messes, but by the clear words of the proper official document. The present uncertainty leads to all sorts of anomalies, unjust to the officers of a skilled branch of the service, and detrimental to the best interests of the army and of the country.

The Irish Dispensary Medical Officers.

Encouraged, perhaps, by the success, partial though it has turned out to be, which has attended the persistent efforts made to improve the position of medical officers of the army, and mindful of the successful movement some years ago for the removal of the grievances of the medical department of the navy, other medical servants of the State have appealed for our assistance. The cause (which was prominently brought forward last year) of the Irish dispensary medical officers, and in promoting which the Association has been enabled to co-operate with other bodies in Ireland, has not made much progress, owing mainly to the political excitement of the summer, and the preoccupation of ministers and of the press with other Irish questions. The matter will be brought before Parliament, however, next year by the introduction of a Bill, and every means will be taken to place the cruel injustice to which a hardworking and honourable class of public servants is subjected in its true light before the Legislature and the country.

Prison Surgeons.

The position of the medical officers of prisons has, by a correspondence in the British Medical Journal, been shown to be unfortunate both in regard to pay and prospects. A memorandum on the subject was published in the Journal, and, with necessary corrections and additions, will be submitted to the Home Secretary.

Other Topics of Reform Dealt with.

The inadequate payment of medical witnesses in courts of law, some defects in the amended lunacy law, the intimidation by landlords of tenants complaining of sanitary defects in their habitations are all subjects which have engaged our attention, and which, after elaboration in our columns have been passed on into the practical domain of the Parliamentary Bills Committee, and have thus entered the practical sphere of medical politics.

The Journal and the Parliamentary Bills Committee.

It is one of the great advantages of this Journal that topics raised, principles discussed, and reforms advocated do not remain mere words, but are capable of translation by the relation of its Editor to committees into the stage of *facta non verba*. A leading article of to-day becomes the basis of an Act of Parliament to-morrow. This is a special attraction to all sincere workers, and has been to us the charm which binds us to the service of the Journal, and which has converted that service so often into a potent instrument for the welfare of the profession. The British Medical Journal is not only a journal—it is a great political, social, and scientific co-operative instrument, which is in this way and in some other respects unique in periodical literature and in social history.

The Growth of the Association and the Relations of Members to the Journal.

The growth which has attended the successive years of toil in the development of the literary and scientific character of the Journal, the extension of its official, social, and professional relations and influence, have conduced to the recruiting of the numbers of the Association by great annual increments of members who, having offered themselves as subscribers, have been induced, after due formalities, to apply for election into the more profitable and less costly position of members; but it has done more—it has created an acknowledged imperial centre and literary organ of publication and intercommunication for members of the medical profession in all parts of the empire and its dependencies, dominions, and colonies throughout the globe. They are all, in so far as they are members of the Association, alike the owners, the rulers, and the clients of the Journal. Day after day we receive communications from the furthest parts of the world, showing how strongly this bond of brotherhood is recognised, spread, and strengthened by the diffusion of the Journal, and its increasing usefulness to all our most distant as well as to our nearest members. The extension and federated localisation of the Branches of the Association is thus now become an accomplished fact.

Prospects of the Next Year.

Increasing prosperity brings with it ever-growing responsibilities and enlarging labours; but it brings also the material means and the moral strength to bear them. We welcome both, we look forward with extreme interest and unfailing hope to the still enlarging sphere of usefulness and effort in the great interests of the profession; of which the programme for the ensuing year gives the promise. Clinical medicine, surgery, and obstetrics must always claim to receive the lion's share of the space of the Journal. The programme, printed on another page, enume-

rates the courses of lectures, the clinical lectures, and the numerous clinical papers which have already been placed at the disposal of the Journal by their authors. The great presentation of clinical material which distinguishes the annual meetings of the Association will certainly not fall behind the average at the meeting in the great centre of intellectual and commercial activity from which an invitation has been accepted. An article in another column gives an outline of the arrangements already made, and it will be found that the Newcastle programme gives every promise of fulfilling the great expectations which have been raised.

Experimental Researchers and their Revilers.

The Association has long shown its appreciation of the importance of the experimental study of physiology and pathology by annually voting a sum of money, which has now grown to be £700, for the purpose of assisting those workers in this country who have devoted themselves to these costly, difficult, and unremunerative lines of study. The violent attack made by the opponents of the advancement of medicine by research upon the private character and published statements of medical men engaged in physiological and pathological research has failed of its purpose. They possess the confidence, and have received the practically undivided support of the profession. Miss Cobbe, Canon Wilberforce, and Mr. Lawson Tait have endeavoured to cast a slur upon friends of humanity, whose intellectual shoe latchets they are, in many cases, hardly worthy to unloose. This strangely-assorted trio has, however, been covered with a confusion which they vainly attempt to conceal by an air of bravado which deceives nobody.

FOOD POISONING.

The case of Lieutenant Hudleston, who died at Chatham barracks, on October 24th, from the effects of food poisoning, strongly resembles the sad and only too well-known case of the late Dr. Wooldridge, which deprived science of one of her most promising workers. Here death was due to the eating of anchovies. In the present instance, as Dr. Stevenson's careful analysis has shown, tinned sardines contained the poison. A young man, in robust health, partakes of a few apparently sound sardines, and dies shortly afterwards under the typical symptoms of acute alkaloidal poisoning. No doubt exists that the poison was contained in the fish: this Dr. Stevenson's examination—an example of scientific analysis—clearly proves. He extracted from the stomach contents a poisonous substance which was fatal to a rat when injected subcutaneously. From the vomit he extracted a similar substance, possessing the same physiological effects, and the same toxic body was extracted from four sardines out of the same tin. Furthermore, of two mice fed on portions of a sardine, one died. The other articles of food of which the deceased had partaken at his fatal meal were free from toxic substances.

The general symptoms produced in the experimental animals were feebleness, retching, collapse, and gradual extinction of the vital powers—in fact, those produced by poisons derived from the decomposition of organic matter, substances variously called "animal alkaloids," "ptomaines," or "toxins." The origin of these bodies was shrouded in obscurity until Brieger's classical researches showed that at the beginning of putrefactive decomposition basic substances are formed which, however, disappear as the process advances. He first of all separated a well-defined chemical basis (neuridine) from putrid meat, and followed this up with the separation of neurine, muscarine, ethylendiamine, gadinine, dimethylamine, trimethylamine, and triethylamine. Some of these have also been prepared synthetically, showing that these bodies are well characterised substances of definite chemical constitution, represented by a rational formula.

At first it was assumed that these basic bodies were identical with the vegetable alkaloids. Brieger and Gautier, however, showed that no general ptomaine reaction exists, as was claimed by Boutmy, Brouardel, and others. The different ptomaines behave differently and in the most arbitrary manner towards the ordinary and usual alkaloid tests. Most ptomaines belong to the fatty series and are amines, while the vegetable alkaloids are members of the pyridine or chinoline series. The ptomaines are divided into toxic and atoxic bodies. Neurine, derived from putrid meat, and muscarine and ethylendiamine, obtained from decomposed fish, are extremely poisonous, and from human cadaveric tissues Brieger separated two exquisitely toxic bodies.

Besides ptomaines, which are obtained from dead decomposing organic matter, other bodies have been described which are developed within the living organism and which are to be regarded as products of the normal physiological metabolism. These have been called leucomaines by Gautier, who separated six of them, but of these only one is said to be poisonous. All these bodies are closely allied to kreatinine and kreatine, while other leucomaines allied to nucleine have also been described. Their alkaloidal nature is extremely questionable. Gautier assumed that the accumulation of these substances in the organism produces disturbances of the nervous system, yet only one of them possesses any toxic properties. This whole matter, therefore, is mere hypothesis, not based on experimental facts.

With the progress of bacteriological and pathological chemistry, the whole question of ptomaines and toxins gained in importance. Brieger already assumed and partly proved that a large number of these bodies is formed through the action of micro-organisms, though some are apparently produced by non-organised ferments. Extending his researches, he separated ptomaines from cultures of pathogenic bacteria, and these he called toxins. He obtained a typhotoxin from the bacillus of enteric fever, and also tetanine from the tetanus bacillus. Lately Fraenkel, Brieger, Roux, Sidney Martin, and others have extended these researches. The last named especially has established that in the cases of anthrax and diphtheria, at least, basic bodies of specific poisonous nature are formed. Albumoses are produced at the same time, but these apparently are responsible for some of the complications only, but not for the specific lesions themselves, the latter being most probably caused by the basic body. What the nature of these toxins is, we do not as yet know, nor do we understand their mode of action. It may be that the latter is a process of fermentation, so-called.

To come back to food poisoning: the lethal effect is not necessarily always due to ptomaines or toxins produced by a putrefactive decomposition of the article consumed. In some cases—as in the Carlisle food poisoning and other cases—investigated by Dr. Klein, the symptoms and death were due to a true infection. Extremely virulent bacilli have also been found in mussels by MacWeeny. Such bacilli, as Dr.

Klein has shown in the Portsmouth pie poisoning case, may not be pathogenic on inoculation, though when taken by the mouth or in cultures they produce a chemical poison which, received into the alimentary canal, produces illness and death.

Again, food may act as a mechanical irritant, the alarming symptoms produced not being due to a poisonous substance developed in the particular article of diet or by a specific organism which found access thereto, but due to the food itself for some normal physical or chemical reason acting as an irritant, the lesions or disturbances produced being aggravated or facilitated by special idiosyncracies or conditions of the gastro-intestinal mucous membrane. An instance in question seems to be a case recently tried in Liverpool, where a man became violently sick "immediately" after partaking of a "hot" curried steak, which was so "hot" that he had to take some stewed rhubarb to cool his tingling mucous membrane. Subsequently he ailed for several weeks, suffering apparently from gastro-enteritis. He sued for damages, alleging that he was poisoned by unsound food. We ask was this a case of true poisoning, and not rather an instance of acute irritation set up by unsuitable food? Unfortunately, a scientific analysis was impossible. Cases of poisoning due to animal or vegetable poisons which have found access to the food from without need not be considered here, as we are concerned only with those conditions under which food stuffs become toxic on account of intrinsic changes or are harmful on account of their intrinsic nature. In all cases of suspected food poisoning a careful scientific analysis, supplemented by appropriate animal and bacteriological experiments, is a matter of absolute necessity, and it is only in this manner that apparent mysteries can be cleared up and justice properly and fairly carried out, and that we shall hear less of deaths "under somewhat peculiar circumstances." A case was recently reported in the *Liverpool Courier*, November 17th, where a woman and her two children partook of some tinned meat, and some six hours later the woman became sick and suffered from diarrhœa, and shortly afterwards died. In the absence of animal experiments death was apparently not attributed to food poisoning, since the children and others who also partook of the meat experienced no ill effect. The unsoundness of this argument is clearly proved by the admirable evidence by Dr. Stevenson in the sardine poisoning case. It is only by animal experiments and analysis that we can hope to be enlightened as to the cause of death in similar cases, and, often, remove doubt and suspicion.

A COLONIAL PETITION OF RIGHT.

One of the many objects of the British Medical Association and its Journal is to watch over the interests of those members of the profession who by their position stand isolated to some extent from the great body of our medical men. We are bound to say, though we regret it, that it is sometimes necessary to exercise this watchfulness as against the arbitrary action of Colonial Governments. The Petition of Right in which Dr. H. L. Smith has just obtained a verdict and judgment against the Government of Western Australia is a case in point. For four years Dr. Smith has been engaged in the endeavour to vindicate his professional character against what was in effect an imputation of manslaughter cast upon him by the Colonial Government under circumstances which compel us to say that, unless the Government were moved by personal reasons not disclosed upon the full trial, their action was wanton to the last degree. The difficulty arose out of a misadventure whereby, upon the occasion of the transfer of the Colonial Hospital at Albany to new premises, a typhoid patient died. The exposure, which was said to be the immediate cause of death, was due to the fact that certain workmen, in the absence of Dr. Smith, who was acting medical officer, and against his authority, had removed a portion of the hospital wall. A coroner's jury of three, after a most unsatisfactory inquest, imputed blame to Dr. Smith, and the Government dismissed him. He proved then, as he has finally established now, not only that he in fact was not responsible for the unhappy occurrence, but that from the very nature of the improper action of the workmen it was quite incredible that any doctor in his senses could have permitted it. Nevertheless, one Colonial Government after another has obstinately refused to qualify or remove the terrible stigma under which he lay. The person alleged to be officially responsible in the communications which reach us from the Colony is the late Governor, Sir F. N. Broome. We cannot, of course, say whether he was personally to blame, but it certainly would be satisfactory to the profession at large if some explanation and apology were now tendered. Unless some such step is taken, we feel bound to invite the attention of the Colonial Office to what appears on our present information to be a gross scandal. The matter, as we understand, has now been twice tried in the Supreme Court of the Colony. It miscarried on the first occasion on a technical point, the Government having throughout placed every possible obstacle in the way of Dr. Smith's attempt to vindicate his character. On the last occasion the Crown did not venture to offer any evidence as to the facts of the case, but they put up the Attorney-General first to maintain, in spite of the evidence, that their action had been right, and then to contend that, even if they were wrong, Dr. Smith, as a civil servant, had no redress. The Chief Justice charged in the plaintiff's favour, and the jury found a verdict for him with damages. Even then the Attorney-General insisted upon the point of law, and boldly declared that the Government had a right to discharge the plaintiff, and that, whether they were right or wrong, no judgment could be entered against them. Happily the judicial officers in the British Empire are independent of the Executive, and the Chief Justice finally declared that, in his opinion, the jury had found rightly, and that he should not interfere with their verdict. "If the Attorney-General satisfied the full Court that the Government might dismiss a servant and abuse that servant with impunity, he might do so."

We regret to add that upon this direct issue the Attorney-General, acting, no doubt, upon the instructions of his Government, declared his intention to take an appeal. The result of that legal argument on the prerogative may be interesting, and if the point of law should be found against Dr. Smith by the Colonial Court, we hope he may be enabled to appeal to the Judicial Committee of the Privy Council. But, in the meantime, the matter concerns Lord Ripon, and public opinion, not only in the profession but beyond it, will, we venture to assume, expect some action from him in what we do not hesitate to describe as a very flagrant case.

The Duke of Westminster has joined the Council of the Cremation Society of England.

A general meeting of the Hospitals Association will be held in the Board Room of the Charing Cross Hospital on December 7th, at 8 p.m., when a paper on "Epileptic Colonies" will be read by Dr. C. T. Ewart.

M. Pasteur will be 70 years old on December 27th, and on that occasion he is to receive a costly present from the chief Russian medical men, who are sending a delegation to Paris with the gift and their best wishes.

Dr. Thos. Savill has, we learn, been appointed to act as an inspector for the Royal Vaccination Committee. He commences work by a local inquiry into the outbreak of small-pox at Warrington.

Mr. James Galloway's Morton Lecture on Cancer and Cancerous Diseases, before the Royal College of Surgeons, will be specially concerned with the relation of protozoa to these affections.

We regret to say that the detailed report communicated to us by Dr. Palmer concerning Sir Richard Owen is unfavourable. He shows signs of increasing weakness, both of the muscular and nervous system, and has less inclination for food. There are also other complications.

The Lord Chancellor has appointed a further series of medical men as magistrates: Dr. John Brown, of Burnley; Dr. Joseph Ewart and Mr. Bernard Roth, of Brighton; Drs. George H. Russell and S. Woodcock, of Manchester; Dr. R. Purnell, of Wells; and Dr. Arthur Garnons Lawrence, of Chepstow.

HABITUAL DRUNKENNESS.

Elizabeth Watts, at the South-Western Police Court, was charged with drunkenness. She had been before metropolitan magistrates 167 times before. Mr. Denman was told that a brother magistrate had tried light sentences without effect. "The time has passed for lenient sentences," said Mr. Denman, who sentenced the accused to a month's hard labour.

METROPOLITAN HOSPITAL SUNDAY FUND.

The total collections for 1892 amount to £41,512. The amount for distribution is £40,118. The annual meeting will be held at the Mansion House, on December 13th. Hospital Sunday for 1893 will be June 11th among Protestants, and June 18th among Roman Catholic congregations. Only hospitals and dispensaries whose balance-sheets are audited by chartered accountants will participate in the fund.

A CHOLERA DEBATE.

At the Medical Society of London, on the evening of December 5th, Surgeon-Colonel Hamilton, M.D., will read a paper on "Cholera, its Epidemic Progression and Causation." It is expected that Mr. Ernest Hart, Dr. Macleod, and Dr. Simpson, of Calcutta, will take part in the proceedings, and that an important discussion will arise.

THE REPORT OF THE ROYAL COMMISSION ON TUBERCULOSIS.

The publication of a Report from the Tuberculosis Commission—appointed in July, 1890—should, in the public interest, not to be much longer delayed, the more so that important progress has been made in the study of the dangers apprehended from the sale of tuberculous meat, which cannot be too early made known. There is now reason to hope that this danger may be prevented, and that science will be able to put us in possession of a method by which meat can be so prepared that no dangerous results would happen from its sale. The distinction between different kinds of meat derived from tuberculous animals, as, on the one hand, dangerous, or entirely free from danger on the other, may, it is believed, be henceforth fully established.

"THE LEPERS OF SIBERIA."

A great deal of money is being subscribed for "the lepers of Siberia." Is it ungracious to suggest that a duly audited financial statement and balance sheet should be published up to date, and that a duly constituted committee and financial officer should be appointed for further purposes?

SECRET MEDICINES CONTAINING POISONS.

It is satisfactory to find that the war initiated in our columns against the sale of secret medicines containing poison by grocers is being carried on with vigour and discretion. The Pharmaceutical Society's Council, having taken the duty in hand, are prosecuting it with firmness. A further prosecution in respect to the sale of such preparations by grocers will, we are informed, take place on December 14th, at the Bloomsbury County Court.

THE MEDICAL SCHOOL FOR WALES.

The arrangements for opening the proposed medical department of the University College of South Wales at Cardiff are, we understand, fast assuming definite shape; and it is probable that the appointment of a Professor of Anatomy will be made shortly after the new year, with the view of his superintending the construction and furnishing of the anatomical school in good time for the opening in October next.

"THE UNIVERSITY OF WALES."

The movement for the establishment of a University of Wales is being actively pushed forward. The representative committee, which was entrusted with the drafting of a charter, has held frequent and prolonged meetings at Shrewsbury since the vacation, and has nearly completed its task. Mr. Acland, in the meantime, has taken a step which will materially expedite the settlement of the question, by appointing Mr. Owen Edwards, of Balliol College, Oxford, to conduct an independent official inquiry in advance. It is hoped, therefore, that the Government will be ready to deal with the subject as soon as the petition of the Welsh educational bodies is received, and that the University may be constituted before the end of 1893.

KISSING THE BOOK.

We are glad to see that the uncleanly practice of kissing the greasy covers of the much-thumbed Bible on which witnesses have usually been sworn is beginning to be dispensed with since the publication of our recent note on the subject. It cannot be too widely known that any witness can be sworn, on demand, with uplifted hand. At the inquest at Haileybury this week we notice that Dr. C. E. Shelly was so sworn, and so also Mr. Herbert Durham at an inquest at Guy's. If the doctors set the example of rejecting this risky and disagreeable process, the practice of swearing with the uplifted hand may soon come into general use.

ENGLISH PHYSICIANS IN FRANCE.

The Bill for the regulation of the practice of medicine in France, with which the two French Legislative Chambers have been playing battledore and shuttlecock for more than a year, was finally passed by the Senate on November 22nd. It now only requires to be formally promulgated to become law, but it will not come into force till one year after its promulgation. The principal provisions affecting English practitioners are that the grade of *officier de santé* is abolished,

and that the possession of a degree of Doctor of Medicine obtained by examination before a French Faculty is made an indispensable condition of practice in that country. In the case of foreigners, however, who possess degrees or diplomas which may be considered to offer a sufficient guarantee of professional knowledge, an exemption from certain parts of the examination may be made. By the new law the notification of infectious diseases is made compulsory throughout France.

INFECTION IN CABS.

Dr. North records the fact that the Sister in charge of the Nurse's Home in York has for a long time been in the habit of sending cases of typhoid fever from the city to the County Hospital in public cabs. He has very properly urged that the practice should be discontinued, and has suggested the loan of the corporation cab gratuitously. The question of such conveyance of infectious cases is just now engaging much attention in London, where the matter is attended with some difficulty as regards disinfection, owing to cabs coming from outside the metropolitan area, and frequently passing through the districts of several sanitary bodies on their way to hospitals.

OBJECTIONABLE ADVERTISEMENTS.

The Chairman of the Parliamentary Bills Committee is in correspondence at the present moment with the Assistant Commissioner of Police on the subject of the amendment of the Indecent Advertisement Act. It is found in practice that so serious are the defects of that Act that it may be much doubted whether it has in any degree effected the objects for which it was passed. On the other hand, there is reason to believe that its shortcomings have emboldened a considerable class of advertisers to enlarge their operations, and render it easy for careless newspaper proprietors to favour the publication of advertisements of which the mischievous objects are but thinly veiled.

PROCEEDINGS UNDER THE CHOLERA REGULATIONS.

We congratulate the Port of London Sanitary Authority on the successful result of the proceedings instituted against the master of one of the vessels of the General Steam Navigation Company for having contravened the cholera regulations. Dr. Williams having certified that certain passengers from Ostend should not be allowed to leave the vessel until Dr. Collingridge, the chief health officer of the port, was satisfied as to their destination and address, it was found later that the passengers had been allowed to proceed, with the result that a fine of £25 has been imposed on the master for this breach of the order of the Local Government Board.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A meeting of the Committee of the Association of Fellows of the Royal College of Surgeons of England was held on November 30th, Mr. George Pollock, President, in the chair. The minutes of the last meeting having been read and confirmed, the Honorary Secretary (Mr. H. Percy Dunn) read the reply which had been received from the official of the College in answer to the last communication which had been forwarded to him by the Committee. The reply was deemed to be of a very unsatisfactory character, inasmuch as the writer neither attempted to substantiate the allegations which had been categorically refuted by the Committee nor withdrew them. A long discussion then took place with reference to the course of action which should be pursued. In the first place, a letter was drafted expressing the regret of the Committee that the unwillingness or inability of the official of the College in question to substantiate his repeated allegations had not led him frankly to withdraw them, and intimating the course of action the Committee would be obliged to pursue. This letter was unanimously agreed to, and the Honorary Secretary was directed to forward a copy of it to the official concerned. It was next agreed that, in the event of no satisfactory reply to this communication being received within fourteen days, the Honorary Secretary should proceed at once with the publication of the whole correspondence, with the view of submitting it in the form of a pamphlet to the Fellows of the College. A letter was read from the Honorary Secretary of the Members' Association asking to be favoured with a printed list of the names of the members of the Association of Fellows, as well as with a copy of their last report. The latter request was made with a view to the publication of a report of the proceedings of the Association of Members. The Honorary Secretary was directed to forward a copy of the proceedings of the Association of Fellows issued in June last, and to point out that a printed list of their members had not yet been published. This concluded the business of the meeting, and the Committee adjourned.

THE MASTER OF THE ROLLS ON LUNACY CERTIFICATES.

For many years we have searched in vain for an instance of the abuse of medical certificates in lunacy—of a lunatic unjustly confined, of the Charles Reade order of case. In the first part of Mr. Lane's reply in the Cathcart appeal case, Lord Halsbury said that before the law on lunacy was amended there was a time when medical men who gave *bonâ fide* testimony as to cases felt they were not sufficiently protected, and it was necessary, in consequence, to alter the law. The Master of the Rolls said no doubt, however, there had been abuses through medical men giving certificates as to lunacy without sufficient grounds. One case he remembered. A person who was interested got his brother-in-law to look at a lady through a carriage window for three minutes, and he then certified that she was insane. The person who kept the asylum where she was placed got £200 a-year for her. It would be interesting to have further particulars, if the Master of the Rolls can properly favour us with them.

CONDENSED "SEPARATED" MILK: A WARNING.

There can be no doubt, from analytical investigations recently made on our behalf, as to the desirability of drawing attention to the extensive sale of condensed separated milk, which is now largely sold in tins so labelled as to prevent the fact that the article is more or less devoid of fat from being noticed by the ordinary purchaser. Condensed "milk," made from milk from which the fat has been partially or nearly wholly removed, cannot be distinguished with certainty from condensed whole milk except by a full chemical analysis, and the result is that purchasers are injured, not only by being supplied with tinned milk, to which labels are affixed containing the statement that it is "skimmed," in very small type, but also by the sale to them of these preparations labelled as genuine condensed milk. We have examined three brands of so-called condensed milk, and have found each of them to be practically devoid of fat. In the first case the word milk appears on the label in very large letters, together with a pictorial representation of a healthy-looking animal in process of milking. On another part of the label appear the words "This tin contains skimmed milk," in comparatively small type. In regard to this, it may be said at once that even the use of the word "skimmed" is improper. The process of skimming could not be made to remove the quantity of fat that must have been taken away in the case under notice. The abstraction, which amounted to nearly 90 per cent., must have been accomplished by means of a "separator"—a properly-named piece of apparatus, since it can separate from milk nearly the whole of its fat. In the second case a label of a similarly misleading character was affixed to the tin, the contents of which could have been certified to have been deficient in fat to the extent of at least 78 per cent. In the third case, which was, in some respects, the worst of the

three, the tin was labelled "Pure condensed milk" in large letters, while, on another part of the label, in very small type, appeared the words "This condensed milk is guaranteed to be entirely pure. It is prepared from pure cow's milk, *of which a portion of the cream has been removed.*" The italics are ours. Inasmuch as the deficiency in fat in this case amounted to 90 per cent., the use of the word "portion" is altogether illegitimate—not to use a stronger expression. The matter was referred to in the recent Annual Report of the Local Government Board for 1890-91, in consequence of the fact that prosecutions had taken place in certain districts for the sale of the "condensed separated milk" as condensed whole milk. The Local Government Board quote the following from the Report of the Public Analyst for Battersea (Mr. Cassal):

> These substances were sold in tins, which bore labels setting forth their good quality, their especial fitness for infants and household use, and stating that they were free from all additions except cane sugar, a *portion* only of the cream having been removed. The directions given on these labels for diluting the substance with water would, if followed, result in producing exceedingly weak sugary liquids of very little value. To use such preparations in the manner directed as the sole food for infants would undoubtedly be seriously injurious to their health.

The subject is one of very great importance to the health of children and of the poor. Vendors of such articles should be compelled to label them "condensed separated milk" in large letters; but it is only by a stringent application of the Sale of Food and Drugs Act that the proceedings we have condemned can for the present, and pending further legislation, be coped with.

MORTALITY OF SCARLET FEVER AND DIPHTHERIA IN LONDON.

The very important series of articles now in course of publication in our columns on diphtheria will not fail to arrest attention, and will, we hope, bear good fruit. Meantime, we have been looking into the facts as to the relative per-case mortality of scarlet fever and diphtheria in the metropolis during recent weeks, and the results are sufficiently striking to merit record. The highest per-case mortality from the former disease within the ten weeks ended November 19th was 4.4 per cent. in that very week, during which over 700 cases were notified, and 32 deaths were recorded; the lowest rate being 2.5 per cent. in the week ended September 24th, with 27 deaths and upwards of 1,000 cases. In the whole period of ten weeks, close upon 9,000 cases occurred, and the deaths numbered 314, yielding a per-case mortality of 3.5 per cent. This forms a strong contrast to the 2,000 and odd cases of diphtheria, with 450 deaths, and a mortality of 21.2 per cent., ranging from 16.3 in the last week of the ten, to 33.3 in the preceding week. Thus for the ten weeks as a whole, diphtheria was a little in excess of six times more fatal than scarlet fever in the metropolis, having less than one-fourth the number of cases, and 143 deaths to each 100 from scarlet fever.

ANTIVACCINATORS RETURNING TO REASON.

About three years ago, owing to an antivaccination excitement, the Darlington board of guardians passed a resolution not to enforce the Vaccination Acts within the union, comprising that borough and about thirty rural townships, pending the result of the Royal Commission of Inquiry. As a result of this action on the part of the guardians, the practice of vaccination fell off very largely, so much so that the medical officers complained that children did not attend the regular stations, and that it was impossible to keep up the supply of lymph for arm-to-arm vaccination. Fortunately no epidemic of small-pox has occurred in the town or neighbourhood. Dr. Eastwood, J.P., gave notice, at a meeting of the board, of his intention to move to rescind the resolution passed three years ago, and this was considered on November 28th. He brought forward facts to show that vaccination was just as effective now as in Jenner's time, and that it was going backward to cease to vaccinate, but that rather revaccination should be encouraged. He also showed that epidemics of small-pox are now prevalent in many places in the North of England, and quoted the account of the disease at Warrington from the British Medical Journal of November 26th. Dr. Eastwood spoke very decidedly upon the subject, saying that it was the duty of the board to carry out the law as it stood, and that there was no probability of a Royal Commission seriously altering the practice of vaccination. The motion was seconded by Mr. Wade, chairman of the rural sanitary authority, and supported by a town and a country clergyman. It was opposed by Messrs. Bartlett and Howden, leaders of the antivaccination party. The voting was by ballot, and the chairman, Mr. J. Feetham, J.P., announced that Dr. Eastwood's motion was carried by 20 votes to 13. The Vaccination Act will therefore be carried out in the regular way.

THE "MEMORANDUM" ON THE ARMY MEDICAL DEPARTMENT.

It will be seen from a paragraph in a military paper which we print in our Service Column, that the Director-General of the Army Medical Department is believed in military circles to have expressed to the Secretary of State for War a favourable opinion on the main requirements of the Memorandum on Desiderata for the Department, prepared by the Chairman of our Parliamentary Bills Committee, which was approved by the Committee and has been published in the British Medical Journal. This is of good omen, and all will hope that the statement is authentic. Sir W. Mackinnon, who has the interests of the service at heart, could hardly confer a greater benefit on the army, on the public, and on his department, than by giving his valued and energetic support to these very essential reforms.

STRIKES AMONG MEDICAL STUDENTS.

There would seem to be an epidemic of strikes among medical students at present. Immediately after the news of the strike among the dressers and clinical clerks of the Paris hospitals, because of an alleged injustice to one of their body, comes the intelligence that the Barcelona students have "gone out" on account of the deficiency of clinical instruction, notably in the department of children's diseases. In this point they seem to have a real grievance, inasmuch as, while there is a professor, there are no patients. Professor Rull, the former occupant of the chair, had to be satisfied with three or four, but the present professor, Dr. Martinez Vargas, has, owing to administrative changes, been deprived even of these. It appears he asked for a special department with from forty to fifty beds, and it was the refusal of the authorities, on financial grounds, to consent to this, that was the immediate cause of the disturbance. Almost contemporaneously with these effervescences of the youthful spirit in Paris and Barcelona, we hear of a "strike" among the students of the University of Athens, who have risen in revolt against a recent increase of the fees for examination and graduation. A deputation of students which waited on the Prime Minister to ask him to reconsider his decision seems to have been received with somewhat scant courtesy, and a good deal of disorder ensued. Several students were arrested.

INDIAN MEDICAL OFFICERS AS GAOL SUPERINTENDENTS.

Apropos of the article in our issue of November 26th, on the above subject, our attention has been called to some remarks made by Sir Auckland Colvin at the opening of the Thomason Hospital Extension buildings at Agra, when this distinguished administrator, while complimenting the

Medical Service of the United Provinces, expressed himself strongly against the employment of medical officers as gaol governors, on the ground that it is a waste of skilled labour. "An excellent physician," he said, "may make a very bad governor of a prison; contrariwise a man might make a good prison governor, and be ignorant of all but the rudiments of the healing art." It is admitted that an officer of exceptional parts may be capable of excelling in both spheres; but the chances are that in learning to be a prison governor he may forget his science as a doctor. On the other hand, it is argued that a surgeon in a native regiment has only from 400 to 600 men to look after; in charge of a great central prison he has 2,000 men for whose health and medical and surgical treatment he is responsible, and therefore has really more professional duty to do in a prison than in purely medical charge of a regiment. There is much to be said on both sides of the question, but of this there can be no doubt, that so long as it suits the convenience of Government to employ its medical officers as prison governors and medical superintendents, they should be paid for their double duties and responsibilities.

PRESSURE ON SPACE.

OWING to great pressure on our space we have been compelled to omit some important letters, reports of societies and of meetings. We would venture again to impress upon our correspondents the importance of the assistance which they could render us, and the facilities which they would afford for the early publication of their communications, reports, and papers, by taking pains to condense them to the utmost.

VIVISECTION AND "WOMEN, CLERGYMEN, AND DOCTORS."

Two of the leading reviews for December discuss vivisection. The Bishop of Manchester, in the *Nineteenth Century*, makes a very short reply to Dr. Ruffer. His argument is briefly that "man has a right to the service of the beasts," but, he adds, "we do not object to the infliction of suffering, but to the infliction of severe and prolonged suffering." He lays down that the case throughout is one of degree, and illustrates his position thus: "I may eat, drink, and marry, and commit no sin, but if I indulge myself to excess in any of these directions I fall into vice. It is so also in respect to the infliction of pain on animals." The argument is a curious one and singularly illustrated. In the *New Review* Mr. Ernest Hart (whom editors appear to insist on dubbing M.D.) has a searching analysis of the attitude of certain "Women, Clergymen, and Doctors" in this controversy, and under that title publishes a paper, which is thus summed up in the final paragraph: "I claim, therefore, to be right in saying that the reactionary campaign against knowledge and progress has been marked by features of mediæval ignorance and a special theological disingenuousness. It is based upon a denial of proved facts which are attested by universal medical knowledge and declaration; it is barbed with insult and malignity; weighted with virulent denunciation for which there has been no parallel for the last two hundred years; it braves and expects to survive exposure; it repeats, unblushingly, proved falsehood, and at each turn invents a new one. It aims at intimidating, by threatening the fame and fortune of blameless and, happily, fearless votaries of medicine; it assails the fame of charities and hospitals. Its methods are as immoral as its case is hollow, its doctrines hypocritical. It is, indeed, lamentable that even a few 'women, clergymen, and doctors' should be found to persist in the ill-deserved support of it."

SCOTLAND.

THE 147th meeting of the Scottish Universities Commission was held on November 28th last. Ten of the commissioners were present.

AT the annual meeting of the Western Dispensary, Fountain Bridge, Edinburgh, Dr. Pringle in the chair, Dr. Fleming was appointed Senior Physician, Dr. Gordon Sanders was appointed to fill the post left vacant by the retirement of Dr. Home Ross, and Dr. J. W. Ballantine was appointed Obstetric Physician and Gynæcologist. Dr. Murdoch Brown, who has been for the past seventeen years on the staff of the institution, was unanimously elected consulting physician. Dr. Murdoch Brown retired during the past spring on obtaining the post of Assistant Physician to the Royal Infirmary.

ROYAL SOCIETY OF EDINBURGH.

AT a general meeting of the Royal Society of Edinburgh held on November 28th, Sir Douglas Maclagan, M.D., was elected President and Sir William Turner a Vice-President for the ensuing year. Dr. R. H. Farquhar, Dr. Byrom Bramwell, Professor Rutherford, and Dr. Johnson Symington were elected members of Council.

EDINBURGH HALL FOR WOMEN STUDENTS.

THE members of the Edinburgh Association for the University Education of Women have resolved to take immediate steps to raise the funds necessary (something like £5,000) to erect a hall of residence for women students; of this sum £500 already exist as a nucleus. The Hall is to be known as the Masson Hall, an act of recognition of Professor Masson's unwearied interest in the cause of the higher education of women.

MEDICAL SCHOLARSHIP FOR HINDU LADIES AT EDINBURGH.

THE first Hindu lady who studied medicine in this country was Miss A. W. Jagaunadham. After studying in the Edinburgh School of Medicine for Women, she obtained the Scotch triple qualification in 1890. Her career has inspired other Hindu ladies to follow her example, but the necessary expense has been an obstacle in the way. With the view of meeting this difficulty Mr. Cropper recently founded a perpetual scholarship of £50 a year for Hindu ladies at the Edinburgh School of Medicine for Women. The first candidate to be elected has been Miss Rose Govindurajulu, who already possesses a medical diploma obtained at Madras, and has for some years performed the duties of house-surgeon in the Maharanee's Hospital at Mysore. The Mysore Government has allowed her two years' absence in order that she may obtain a European diploma, and has also promised her a yearly grant to meet the remainder of her expenses.

HABITUAL DRUNKARDS.

SIR GEORGE TREVELYAN received a deputation in Glasgow last week asking for the appointment of a Royal Commission to conduct a public inquiry, with a view to legislation, giving magistrates power to commit habitual drunkards for lengthened periods of confinement in a reformatory institution. Sir George said he could not consent to the appointment of a Royal Commission, but suggested a Select Committee. He added that his opinion might be overruled, as other matters pressed for attention.

THE ENDOWMENT OF FEMALE EDUCATION.

THE friends of the higher education of women in the west of Scotland are jubilant over the successful issue of an enterprise that, even ten years ago, seemed very far off realisation. Queen Margaret College, the only college for women in the west of Scotland, has become part of Glasgow Uni-

versity, and degrees in arts, science, and medicine are now open to women. The women's department of Glasgow University, as it now is, has been provided with an endowment which at least guarantees its effective and permanent existence. For a few years back Mrs. Campbell, of Tilliechewan, has been struggling, and with remarkable success, to raise an endowment fund of £20,000. Of this, all but £2,000 had been obtained, but a considerable sum had been used on loan for equipment of laboratories, etc. Last week, by means of a five-days' bazaar, which had been in preparation for some eighteen months, and which had enlisted the sympathy and active help of a long list of the prominent people of Glasgow and the west of Scotland, a sum of fully £10,000 was tumbled into the coffers of the College. The gross sum realised was nearly £12,000, but the expenses will be considerable, though there seems no doubt a clear £10,000 will go to the endowment fund. Thus with buildings and endowment the value of the women's department is already about £40,000. The women students of Glasgow University have the advantage not only of being taught in separate classes, but of having their own class rooms, laboratories, reading rooms, etc., while in the lecturers of Queen Margaret College, the University has a large addition to its effective teaching staff.

APPALLING DEATH-RATE AT LEITH.

During the last few months we have several times referred, in rather severe terms, to the condition of the burgh of Leith from the point of view of public health. Matters had become so serious that the Board of Supervisson intervened, and a conference was recently held with the local authority. At this conference it was stated that Leith held a high place on the health record of the eight principal towns of Scotland, and it was thereby inferred that there was a great deal of fuss being made about nothing. Last week we mentioned that the death-rate had risen to 37 per 1,000. To-day we have to report that last week's death-rate rose to 57.9 per 1,000, a rate which, so far as we know, has rarely if ever been equalled in any Scotch town. Perhaps the Leith local authority will be able to explain away this also.

ABERDEEN UNIVERSITY EXTENSION SCHEME.

At a special meeting of the Executive Committee held in connection with the Aberdeen University extension scheme, the Marquis of Huntly in the chair, statements were laid before the meeting as to the expenditure which was likely to be incurred by the purchase of property to make room for the extension as well as other matters. It was shown that the scheme of extension had increased very considerably since the plans were first put before the public. The amount of the fund subscribed is now £82,000, and it was urged that there should be a strong effort made to increase it to £100,000. It was ultimately resolved to issue a new appeal for funds along with statements showing the various steps that have been taken since the scheme was first floated. Expression also was given to the hope that the general public, as also the graduates, might contribute more freely than they yet have done. The idea of moving the whole university teaching over to the extended Marischal College increases in popularity, and it is in many quarters objected to that any money should be spent in the extension of King's College, which, although it may appeal to many on sentimental lines, is becoming more and more removed from the touch of modern life.

IRELAND.

MEDICAL STUDENTS IN DUBLIN.

The number of anatomical entries for the session 1892-93 is as follows: Trinity College, 181; Royal College of Surgeons, 178; Catholic University, 116—total, 475. Total for the session 1891-92, 552.

SYMPHYSIOTOMY.

On Tuesday, November 22nd, Dr. W. J. Smyly, Master of the Rotunda Hospital, Dublin, performed the operation of symphysiotomy, the first of the kind, we believe, in the United Kingdom since 1782. At the time of going to press (nine days after the date of the operation) mother and child were doing well.

LEAVE OF ABSENCE FOR DISPENSARY OFFICERS.

The managing Committee of the Longford Dispensary, in advertising for a medical officer, state that one month's leave of absence will be given annually to the medical officer without deductions for substitute's fees.

THE IRISH DISPENSARY OFFICERS.

The Conference Committee met in Dublin on Monday last, and made certain verbal alterations in the Bills which it is proposed to introduce in the next session. A short memorandum of their scope was also approved, and it was agreed to prepare leaflets for distribution.

THE LATE MR. WILLIAM COLLES.

The many friends of the late Surgeon Colles will be glad to learn that the members of the medical profession are having a memorial portrait painted by Mr. W. Osborne, R.H.A., to be placed in the board room of the Royal College of Surgeons, Dublin. Subscriptions, limited to one guinea, should be forwarded to the Honorary Treasurer Colles Memorial, Royal College of Surgeons, Dublin.

THE HUNDREDTH REPORT OF THE BELFAST ROYAL HOSPITAL.

At the last annual meeting of the Royal Hospital the report, which was the hundreth in the history of the institution, presented some interesting features. The rapid increase in the work of the hospital is shown by such facts as that the in-patients, who numbered 1,762 in 1881, numbered 2,455 in the year just closed, while in the same period the extern patients had increased from 10,811 to 20,293. This increase, due to the rapid growth of the city of Belfast, has thrown a heavy strain upon the resources of the institution, and rendered apparent the need of a larger building to cope with the increasing needs of the city and neighbourhood. The past year has been a very satisfactory one from the financial point of view, the receipts from all sources having amounted to £15,207, and the expenditure to £8,789. The hospital has thus been able to clear off its debt, and to add several thousand pounds to its invested funds.

CORK POOR-LAW MEDICAL ASSOCIATION.

A special meeting of this Association was held in Cork on November 10th, under the presidency of Dr. Flynn. The Chairman stated that the object of the meeting was to receive Dr. Tanner, M.P., in reference to the grievances of which they complain. In the course of his observations Dr. Tanner said the questions raised were ripe for legislation. Their wrongs had been made known to the world through the British Medical Journal, and men of influence outside the profession had stigmatised the treatment of the Irish dispensary doctors as a standing disgrace that should be remedied at once. Sir Walter Foster had promised to do all he could to have their grievances redressed. If the Bills were sensibly drafted they would pass next session. He recommended that leaflets stating the remedies sought for should be distributed among the members of the House of Commons.

Edinburgh Catholic Students.—"The Sodality of Catholic Students" in Edinburgh, dined together on November 26th, under the Chairmanship of Dr. Matheson Cullen, the President of the Guild, which is mainly composed of medical students. Among the guests were his Grace Archbishop MacDonald, Father Whyte, S.J., and Father Greenan, S.J. A pleasant evening with toast, speeches, and songs, was spent.

PROGRESS OF MEDICAL PROVIDENCE.

At the monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society (held on the 24th ult., present Mr. Ernest Hart, the President and founder, in the chair; Dr. De Havilland Hall, Vice-President; Dr. G. E. Herman, Treasurer; Mr. Edward Bartlett, Mr. F. Swinford Edwards, Dr. M. Greenwood, Dr. J. W. Hunt, Dr. W. K. Sibley, and Mr. Frederick Wallace), the proceedings included, as on many recent occasions, some instructive examples of the benefits which membership confers on a large and happily increasing proportion of the medical profession. Medical men are availing themselves in growing numbers of the effective and economical machinery of this Society to make pecuniary provision against disabling, sickness, and unforeseen accident, as well as against the incidence of advancing age and possibly diminished earning powers. In evidence of the rapidly growing appreciation of the Society's work, it was report that for several months past the membership had shown an increase of far more considerable proportions than hitherto; for while in September, 1891, the number of proposals had been thirteen, they had risen in the corresponding month of the current year to twenty-three, a like number having also been received for October as against six for the same month in the previous year. The total number of proposals received to October 30th—of which, of course, not all could be accepted—was found to have been 1,604, the actual effective membership after allowing for deaths, etc., being now 1,272. There were five members in recept of permanent sick pay, the chronic nature of whose totally disabling illness leaves little room for doubt that they are likely to call for weekly payments of £2 2s. for many year, to come. The total amount paid for sickness and accident claims continued, however, as heretofore, to be well within the expectation under the tables. The illnesses claimed for were of a very varied character, and included locomotor ataxy, myelitis, paralysis, phthisis, hemiplegia, albuminuria, rheumatism, scarlet fever, bronchitis, catarrh, and severe forms of influenza occurring in persons all of whom at the period of joining within the last nine years were in sound health. The latter disease has recently reappeared. There was also the usual large proportion of cases of accident to which medical men, especially in the provinces, are evidently particularly and unexpectedly liable. One member had been laid up since January last owing to being thrown from his trap. His injuries had necessitated amputation of the leg, besides producing other serious results due to a severe injury to the head and cerebral commotion. The insurance for accidents included in the general sickness rates is an important branch of the Society's work. The payments made to members up to date have already exceeded £22,000. The amount of invested reserves is now upwards of £60,000, which stands to the credit of the members in the names of the trustees, Mr. Ernest Hart, Dr. W. M. Ord, Mr. J. R. Upton (Solicitor to the British Medical Association and Clerk to the Apothecaries Company), and Sir T. Spencer Wells, Bart. The success of the Society has recently attracted much attention in the insurance world here and abroad. Documents and forms of application for membership of the Society may be had on application to the Secretary, Mr. C. J. Drummond, 21, Dalmore Road, West Dulwich, London, S.E.

SALE OF SECRET REMEDIES CONTAINING POISON: UNPUBLISHED PENALTIES.

The following letter has been addressed to the President of the Pharmaceutical Society by Mr. Ernest Hart, Chairman of the Parliamentary Bills Committee of the British Medical Association. It explains itself by reference to the statement of the Chairman at the last meeting of the Committee and to our comments on the subject:

Sir,—In view of the recent correspondence as to the possibility of giving public notice of offences against the Pharmacy Act it would seem to be desirable to state distinctly what it is that the Pharmacetuical Society are asked to do, as there seems to be still some misconception.

You will agree that it was not the purpose of the Pharmacy Acts merely to enable the Society to make a private profit out of grave public offences. The Society, having been by the earlier Act of 1852, empowered to recover a penalty of £5 from persons using a misleading title, were further enabled by the Pharmacy Act 1868 to recover the like penalty for other offences, including every breach of regulations as to the sale of poisons. It happened that the old machinery was continued, and that the officer of the Society is therefore technically entitled to sue in these cases in a civil court, as for a small debt. Curiously enough, you will notice that section 14 of the earlier Act provides that "all sums of money which shall arise from any recovery of penalties for offences under this Act shall be paid as the Treasury shall direct." Whatever the ultimate effect of these words may be, they clearly indicate that even in the earlier Act, and a portion in the later one, the Society is merely discharging a public office, and is for this purpose the organ of the State in the control and punishment of offences dangerous to the public in a high degree.

It was therefore with much surprise that we learned that the Society had not only not hitherto made any arrangement for a public record of the numerous penalties recovered, but had apparently resolved to take no steps whatever in that direction.

As to the legal questions involved, we are advised, as will appear by the annexed further memorandum, that (1) there is no legal reason why the Society should not give public notice of penalties even where the proceedings have not been publicly stated in any court; (2) that there is in all or most of the cases under discussion no sufficient reason why the the proceedings should be withdrawn tacitly from the cognisance of the court before the hearing is at least formally taken; and (3) that it is open to grave doubt whether the present method of levying what may be called "compromise penalties" is legal at all.

As no one concerned can have any object except to make the law effective in the interests alike of the medical profession and the public, we are anxious to induce the Society to reconsider the possibility of arranging for some sufficient record and publication of these cases. We are advised that no amendment of the law is necessary for that purpose, though if a Pharmacy Bill were at all likely to pass through Parliament a clause declaring that, if penalties sued for were paid in, the case should nevertheless be brought on in open court could probably be obtained.

What seems to be immediately desirable is the framing of a form of public notice which would not expose the publisher to any damages for libel, and we are prepared to satisfy your legal advisers that this can be arranged if the Society is willing.—I am, dear Sir, yours faithfully,

Ernest Hart.

THE HEALTH OF THE NAVY.

We are enabled to quote from an advance copy of the "Statistical Report of the Health of the Navy for the Year 1891," which is published this year at a much earlier date than usual, and a year in advance of the corresponding report for the Army. The returns for the total force are satisfactory; although the force has numerically increased the cases of sickness have diminished notwithstanding the continuance of the epidemic of influenza.

Total Force.

The total force in the service afloat in 1891 was 55,670 officers and men of whom 31,780, or 57.08 per cent., were between the ages of 15 and 25; 17,400, or 31.25 per cent., between 25 and 35; 5,590, or 10.04 per cent., between 35 and 45; and 900, or 1.61 per cent., were above 45.

Total Sick and Injured.

The total number of cases of disease and injury entered on the sick list was 52,886, which is in the ratio of 949.99 per 1,000, being a decrease as compared with the previous year of 113.98 per 1,000, and a decrease of 58.23 per 1,000 when compared with the average ratio of the last four years. The average number of men sick daily was 2,295.65 which is the ratio of 41.23 per 1,000, and shows a decrease, as compared with the previous twelve months, amounting to 1.1 per 1,000 and a decrease of 1.23 per 1,000 compared with the average of the past four years. The number of days' sickness on

board ship and in hospital in the total force was 837,914, which gives an average loss of service from disease and injury of 15.05 days for each person, and shows a decrease compared with the proceding year, to the extent of 0.4 days, and a decrease of 0.45 days in comparison with the average of that last four years. The lowest sick-rate was on the South East Coast of America Station, the highest on the China Station.

Invaliding.

The total number of persons invalided was 1,526, which is in the ratio of 27.41 per 1,000, and shows an increase of 1.23 per 1,000 compared with the previous year, and an increase of 0.77 per 1,000 as compared with the average of the last four years. The number invalided for disease was 1,411, and for injury 115. The rate of invaliding for disease alone was 25.34, and that for injury 2.06 per 1,000. Out of the total of 1,526 invalided, 910 persons were finally invalided from the service, being in the ratio of 16.34 per 1,000 for the whole force, or 59.63 per cent. of the number invalided, showing an increase of ·58 per 1,000 as compared with 1890.

Deaths.

The total number of deaths was 344, which gives a ratio of 6.17 per 1,000, and exhibits a decrease of 2.37 per 1,000 in comparison with 1890, and of 0.8 per 1,000 on the average for the last four years. Of the 344 deaths 261 were due to disease and 83 to injury. The death-rate from disease alone was 4.68, that from injury 1.49 per 1,000. The total death-rate was 6.17 per 1,000, which is a decrease of 2.37 per 1,000 compared with the previous year.

Diseases.

The following is a summary of the diseases for which entries in the sick list were made with the number of cases of each: *Small-pox*, 17; *Chicken-pox*, 34; *Measles*, 93; *Scarlet Fever*, 58, with 1 death; *Simple Continued Fever*, 1,894, with 1 death; *Enteric Fever*, 206 with 46 deaths; *Cholera*, 50, with 29 deaths; *Dysentery*, 51, with 1 death; *Influenza*, 3,527, with 6 deaths; *Mumps*, 22; *Diphtheria*, 2; *Malarial Fever*, 1,559 with 14 deaths. *Septic Diseases*, 42 (Erysipelas, 40, and Pyæmia, 2) with 5 deaths. *Venereal Diseases*, 8,540, with 5 deaths. Of these cases 3,031 were primary syphilis, 1,494 secondary syphilis, and 4,015 gonorrhœa and its sequelæ. The cases of primary syphilis were in the ratio of 54.44 per 1,000, being a decrease of 6.32 per 1,000. The ratio of secondary syphilis was 26.83 per 1,000, showing an increase equivalent to 1.77 per 1,000 as compared with 1890. Primary syphilis shows a diminution of 5.82 per 1,000, while secondary exhibits an increase of 4.14 per 1,000, as compared with the last four years. The ratio of gonorrhœa was 72.12 per 1,000 as against 77.75 in the previous year. *Parasitic Disease*, 57. *Effects of Climate or Heat*, 141. *Alcoholism*, 62, with 1 death. *Rheumatism*, 2,563, with 4 deaths—the ratio was 46.33 per 1,000, as against 45.06 in the previous year. *Tuberculous Diseases*, 42, with 15 deaths. The ratio of cases for the total force was 0.75, and of deaths 0.26 per 1,000. *Diseases of the Nervous System*, 1,390, with 10 deaths. *Diseases of the Circulatory System*, 262, with 23 deaths. *Diseases of the Respiratory System*, 5,745, with 72 deaths. These cases include 4,389 of catarrh or ordinary cold; 433 of bronchitis, and 436 of pneumonia. The ratio of cases under this head shows an increase of 21.64 per 1,000, as compared with the previous year. *Diseases of the Digestive System*, 6,455, with 15 deaths. Of the cases under this head sore throat and and quinsy contributed 2,259; diarrhœa, 1,866; and dyspepsia, 834. One hundred and seven persons were invalided for hernia. *Diseases of the Lymphatic and Glandular System*: 841 cases of bubo and other diseases, with 2 deaths. *Diseases of the Urinary and Generative Organs*, 491, with 5 deaths, 4 of which were due to kidney disease. *Diseases of the Organs of Locomotion*, 369, with 1 death. *Diseases of the Connective Tissue and Skin*, 8,193, including 985 cases of scabies. *Poisoning*, 31, with 1 death (opium).

Injuries.

The total number of cases of injury was 9,912, being a ratio of 178.04 per 1000. This number comprised 172 general and 9,740 local injuries. The former included 4 cases of burns or scalds, 78 of heat stroke, 32 of multiple injury, and 58 of submersion. The local injuries included 728 burns or scalds, and 9,012 wounds, fractures, contusiona, etc. There were 115 invalidings for injury and 79 deaths, and the death-rates being 1.41 per 1,000, the invaliding ratio being 2.06 per 1,000. The fatal cases of injury comprised 7 of heat stroke, 13 of multiple injuries, 45 of submersion, and 14 of wounds and fractures.

Suicides.

There were 4 cases of suicide during the year—namely, 2 by poisoning, 1 by shooting, and 1 by drowning.

SMALL-POX IN GREAT BRITAIN.

Warrington and Neighbourhood.

The Effect of Revaccination: The Cost of the Epidemic.

Last week the cases notified were but little over 1 a day, against 76 and 29 in the two preceding weeks. Vaccination and revaccination are credited with bringing about the large decrease in the numbers occurring, some 500 people having presented themselves each night for revaccination, in addition to others seeking vaccination in the daytime; whilst the workmen at the large brewery owned by Messrs. Walker have all been revaccinated during the past week. The proposal to erect two hospitals a mile from the town has been abandoned for the time being owing to the falling off in the number of cases, there being only 140 patients in hospital on November 25th, and twenty additional beds available. Trade has suffered very greatly, and the local shopkeepers hail with delight the diminution in the number of fresh cases during the last fortnight. The cost of the epidemic has been placed at £5,000 as a low estimate, and an additional rate of one shilling in the pound is already threatened. The sudden decrease of the epidemicity of the small-pox will be a bitter pill for the antivaccinators, since on all sides it is put down to the prompt general performance of revaccination. The disease seems now to be well under control.

The outbreak at Lymm, which has grown to some 30 cases, besides leading to action, as mentioned in our last issue, on the part of the local sanitary authority, has led the Altrincham board of guardians to a resolve to continue weekly attendances for the performance of public vaccination during the remaining weeks of the year throughout the union. A case of small-pox has been admitted to the Wrexham hospital, the patient being a tramp who had walked from Shrewsbury, having been in several lodging houses on the way. Two cases of the disease occurred in Birkenhead during last week, so that the guardians may congratulate themselves on their determination to offer facilities for vaccination and revaccination.

Lancashire.

Small-pox has made its appearance in a large number of districts in Lancashire. In Manchester only one case was notified during the week ending November 19th, against 8 the week before, but 2 cases occurred last week, and the authorities are doing their utmost to prevent spread of the disease. In Liverpool the malady shows no signs of abatement, upwards of half-a-dozen cases coming to light again last week. Dr. Stopford Taylor has already expressed his views as to the desirability of general revaccination being provided for throughout the city, and the West Derby guardians at least have responded to the views of the health officer. Of course the cases of small-pox are still exceedingly few in proportion to population, but it is to be hoped that the tone of some of the local press, in speaking of the "mild type" of the disease, will not influence public opinion, since, mild or severe, the danger of infection is none the less present. A few cases have arisen in Newton-in-Makerfield; 2 of them come from Warrington, and have been removed to that town again. Cases of the disease are also reported as occurring last week at St. Helens, Oldham, and the adjoining township of Chaderton.

Leicester.

Delay in the Selection of a Hospital Site.

Two cases of small-pox at Leicester, with one death in the week ending November 19th, were followed by 3 cases and 2 deaths last week. But it seems not to be enough that both small-pox and scarlet fever should be in the town in order to lead the Council to proceed to the provision of much-needed additional hospital accommodation. The question, which all had thought to be settled, has been laid aside, for the time being, at least. The site proposed had not met with favour at the hands of a certain section, and the subject of cost has also called forth opposition. Leicester is ill-provided with infectious hospital accommodation, and has already spread small-pox to patients "isolated" on account of other disease. Moreover, one of the laundry hands of the hospital has contracted small-pox and died, and the hospital laundrymaids are allowed to sleep in the town. If the site of the proposed hospital is not held to be suitable for the aggregation of small-pox cases, situated as it is, surely the authorities are not limited to one piece of land in their choice of a position for a new building. It is high time Leicester seriously took in hand the important question of hospital provision on an adequate scale; but if a short delay should result in the selection of an isolated site, some amount of good will have followed the waiting.

Leeds and Other Yorkshire Districts

It is stated that the hospitals at Leeds are crowded with small-pox patients, there being 48 patients under isolation at the commencement of the present week, 9 having been admitted during the preceding seven days. The epidemic is widespread, nearly every part of the borough being infected. The limited space at the command of the Council has already led to many cases being heated at home, with consequent greater danger of the spread of the disease. In addition there are nearly one hundred cases of scarlet fever in hospital, and neither disease seems to show signs of abatement. At Featherstone several cases of small-pox have occurred, but measures of isolation have been adopted. The disease seems to be subsiding at Otley. A case has been reported from Rodley, infection having apparently been derived from Bramley. Two cases have

been found in a lodging-house at Northallerton, and cases were reported last week at Halifax, Dewsbury, Rotherham, Sheffield, and York.

MIDLAND DISTRICTS.

Small-pox has broken out among the navvies on the new railway works at Castle Bytham, Lincolnshire. Those affected are being isolated in huts specially erected for the navvies. At Cambridge 2 cases occurred during the past month. One was that of a prisoner discharged from gaol on the same day as the disease was diagnosed as small-pox; he was promptly isolated. He had not been in prison many days, and would seem to have been infected in an outside district. Small-pox seems to exhibit no signs of abatement at Newport, Mon., other cases having occurred there last week.

GLASGOW.

Our Glasgow Correspondent writes - For the fortnight ending November 12th Dr. Russell reports an increase of cases of small-pox amounting to 23, as against 9 in the previous fortnight. There were in hospital at the date of that report 31 cases, as against 10. From this disease two deaths resulted in two weeks—one man, aged 45, vaccinated, and one woman, aged 31, said to be vaccinated, but mark invisible. The spread of the disease is giving great concern to the authorities, and all their resources are being turned against it.

EDINBURGH.

With a view to a possible outbreak of small-pox in the city of Edinburgh, the Public Health Committee of the Town Council have just fitted up two lower storeys of a house at the Cowgate Port as wards for the reception of such cases.

THE CHOLERA.

RUSSIA.

The falling off in the number of cases and deaths for the whole empire during the seven days ended November 10th was maintained in the following week, when 3,870 cases and 1,633 deaths from cholera were returned, against 5,632 and 2,555 respectively, a decrease of 1,762 cases and 872 deaths on the former week. The recrudescence of cholera in St. Petersburg furnished 58 cases and 19 deaths, the quarters specially affected being those where unfiltered water is consumed. In the city of Warsaw the cases were 170 and the deaths 71, in Moscow 45 and 32 respectively, and in Gitomir 52 and 27. In the provinces the largest numbers were: in Podolia, 732 cases, 259 deaths; Orleff, 547 cases, 169 deaths; Kischineff, 307 cases, 101 deaths; Kherson, 263 cases, 109 deaths; and in Baku, 189 cases and 106 deaths. In this last province, where cholera first manifested itself in Russia, a localised recrudescence occurred in the week now in question. Riga has been declared free from cholera, no case having been notified for a month past.

FRANCE.

The monthly health bulletin of Rouen for October shows 19 deaths from cholera. Nantes had several cases during November, some being attended with fatal results. Boulogne, Portel, and St. Etienne have collectively had about 40 deaths from cholera during the past two months, and are not yet free from the disease. Cases of sickness suspiciously like cholera have recently occurred at Ardres, Brême, and Ballinghen, and several deaths have taken place. Measures of prevention are being taken by the local authorities. During November some hundred cases of "choleraic diarrhœa" have occurred in the district of Lorient, and about 30 deaths have been returned; whilst in the village of Locmiquelle there were 20 cases, with 4 deaths, on one day last week.

GERMANY.

Thanksgiving services were held in Hamburg on November 25th for the departure of cholera from the city. The German Imperial Office of Health at Berlin reports that "the cholera epidemic may now be regarded as practically extinct in all parts of the empire, though isolated cases will, perhaps, occur at longer or shorter intervals." Dr. Schomburg has been instructed to make a thorough scientific investigation into the recent epidemic at Hamburg and Altona.

HOLLAND.

The towns of Hague, Boskoon, Ysselstein, Berkel, Kapelle, and Barwoutswaarder had cases of cholera, in some instances fatal, during last week.

BELGIUM.

Antwerp town has been declared free of cholera, but the province of the same name is still infected. At Malines alone, only half an hour's run from Antwerp, there were 28 cases and 13 deaths in the first fortnight in November.

AUSTRIA-HUNGARY.

In Buda-Pesth there were 34 cases and 14 deaths during the week ended November 26th, against 40 and 12 respectively during the preceding seven days. In the whole empire over 1,000 cases and 500 deaths have occurred since the appearance of the disease in mid-August.

FOOTBALL FATALITY AT HAILEYBURY.

We are able to give authentic information on this case. A healthy and exceptionally strong lad, aged 16, was playing in a "house game" at Haileybury College on November 22nd. While running with the ball he was "collared," and fell to the ground. For some minutes he complained of severe pain about the region of the stomach, but before the resident medical officer of the school, who was present as a spectator, could reach him, the lad had risen and was again joining in the game, which he continued to play with exceptional vigour and activity until its termination. For the remainder of the day and throughout the next he continued to live as usual, taking his meals without any discomfort, and only (as was subsequently ascertained) experiencing slight discomfort, referred to the hypogastric region, when the bladder and bowels were relieved. Before going to bed on November 23rd he ate a large apple, and awoke at about 4.30 A.M. on November 24th with violent vomiting, attended with spasmodic pain in the abdomen. Subsequently he went to the Sick Home, where he was found to be in a condition of collapse, with temperature 96 4°, markedly intermittent pulse, and vomiting of colourless mucoid fluid. Some hours later he had recovered to a considerable extent, after the subcutaneous administration of morphine; his pulse was regular (barely 100), the vomiting had ceased, and he was free from pain save on pressure at two points in the right hypochondrium, in which situation the abdominal wall appeared relatively tumid.

Dr. Gee and Mr. Willett saw him in consultation that afternoon, when his condition seemed to be so far still further improved that it was decided to hold the question of operative interference in suspense for awhile. His condition, however, became less favourable during the night and the following day, and after again seeing him with Dr. Gee and the medical officer of the school, Mr. Willett performed laparotomy at 10 P.M. on November 25th. The peritoneum was found to contain blood-stained fluid, and on tracing the course of the bowel some ten inches of the ileum was found to be relatively congested and distended, the distinction between this portion and the rest of the bowel being very marked. A large retroperitoneal hæmatoma lay immediately to the right of the aorta at about the level of the pancreas, and close to its lower edge there was to be felt a small crescentic slit in the mesentery, through which the knuckle of congested ileum had presumably been thrust, and from which it had been withdrawn in the progress of the examination. The abdominal cavity was flushed with warm boracic lotion and a glass drainage tube inserted. The patient bore the operation extremely well, but subsequently became more restless, and again suffered from vomiting, finally sinking at about 8 P.M. on November 26th.

Post-mortem examination showed the existence of a large retroperitoneal hæmatoma lying to the right of the spinal column, and extending from the immediate neighbourhood of the duodenum into the right iliac fossa. Some four inches of the duodenum showed extensive ecchymoses and muscular bruising of its walls without any rupture of the serous or mucous coats, and there was a considerable hæmorrhage into the substance of the lower portion of the right hepatic lobe without laceration of the capsule, in addition to the condition already noted as presented by a part of the ileum.

A candid review of the circumstances of this lamentable disaster, as they are revealed by the careful inquiry conducted by the coroner, and supplemented by information gathered from those actually present at the time of the accident, affords no colour for any conclusion other than that of pure and simple accident. The game itself was not of a violent or even severe character. It is a rule of the school that at every game of football a referee is present whose duty it is "not merely to decide disputed points in the game, but to see that it is properly conducted"; thus, in the event of a player falling or being thrown in a scrimmage, the referee's whistle is blown, and play is suspended until the fallen player has again risen. The boy resumed his game voluntarily, and played actively to its end, nor did he feel or complain of being in any way unwell until after the lapse of some thirty-six hours. It is, moreover, a matter of experience that accidents at football are most prone to occur during weather which keeps the ground wet and slippery, when, in fact, the player has less accurate control over the results of his own muscular activity; and this cause may have been one factor in the result produced. It is reasonable to conclude that the blow which caused the fatal injury was the result of the impact of the bodies of two players, of whom one was running swiftly and trying to elude his would-be captor. But it appears equally impossible and unreasonable to attach blame to any-one concerned.

The Consultative Committee of Public Hygiene in France has adopted a report in which the organisation of a system of regular medical inspection of schools is strongly urged.

COLONIAL MEDICAL LEGISLATION.

The following letter has been received from the Secretary of State for the Colonies:

Downing Street, Nov. 11th.

Sir,—With reference to the letter from this department of February 6th last, I am directed by the Marquis of Ripon to transmit to you, for your information, a copy of Ordinance 13 of 1892, which has been passed by the Legislature of Sierra Leone to regulate the dispensing and sale of drugs and poisons in the Colony, and with respect to which Her Majesty has not been advised to exercise her power of disallowance.

I am to add that the Governor of the Colony has been instructed to procure the amendment of Section xi (c) by inserting the words "satisfactory to the Board" after the word "testimonial."—I am, Sir, your obedient servant,

Ernest Hart, Esq., Edward Wingfield.
Chairman of the Parliamentary Committee
British Medical Association.

*** The ordinance enclosed will be laid before the next meeting of the Parliamentary Bills Committee, together with a report thereon.

ON BEHALF OF THE "ANTIVIVISECTION SOCIETY."

Folkestone, the birthplace of Harvey, seems destined to be the scene of recurring episodes in the antivivisection agitation. In December, 1890, we recorded particulars of a public meeting held there, at which Mr. Berdoe and Mr. Bryan lectured, and, despite the able arguments of Dr. Tyson, Dr. T. Eastes, and Dr. F. Eastes, were so far successful that the meeting passed votes of thanks to the lecturers. The memorable meeting of the Church Congress in the same town, and the wider ventilation of the subject thereon ensuing, would seem to have considerably changed the opinion of the townspeople. Another debate on the subject at the Congregational Mutual Improvement Society's room, took place last Monday evening. The Rev. H. N. Bernard, M.A., Vicar of Ripple, opened the proceedings with the usual antivivisection speech about cruelty, torture, etc., and the alleged baking, boiling, and starving atrocities that are sometimes accepted as truth on such occasions. The Secretary of the Antivivisection Society was to have spoken next, but did not appear, whereupon Mrs. Phelan seconded the resolution "That the practice of vivisection is opposed to the spirit of Christ's religion." Dr. Frederick Eastes had been asked to speak in opposition; both he and Dr. Tyson having prepared addresses for the Church Congress meeting, which were not delivered for want of time. The amendment, which Dr. F. Eastes moved at the meeting on Monday, was "That experiments upon living animals, as restricted and practised in England, are morally justifiable, and are essential to the progress of knowledge, the relief of suffering, and saving of life of man and the lower animals." Especially he observed, that in *The Nine Circles* and another book of the kind there is a list published of eighteen classes of experiments in which chloroform cannot be given at all, or not throughout the whole experiment; and he showed that as to one class this was true, as to one partly so, and as to the other sixteen it was either altogether false or absurd, because there was no pain and no need for an anæsthetic. He next gave proofs that Claude Bernard's and Schiff's ideas about curare (the sense of feeling remaining or being intensified) have since been entirely disproved. He finally read the following telegram from Professor V. Horsley, received that day:—"Point out I have challenged enemy to enter witness-box; they dare not," which was received with cheers. Dr. Tyson seconded the amendment, in a telling speech, and was followed on the same side by Mr. Wightwich (a solicitor). Next Mr. Murray, a homœopath, said he wished to take a middle course. Mr. Pilcher spoke for the amendment; Mr. Bernard replied, and the amendment being put to the meeting (at which from 150 to 200 persons were present) was carried with great enthusiasm almost unanimously. Only five or six, including Mr. Bernard and Mrs. Phelan, voted against it. This great advance of public opinion in a provincial town in favour of legalised research should encourage the advocates of such work elsewhere in the country to confute on the public platform the false and misleading statements with which the antiresearchers endeavour systematically to delude public audiences.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Metropolitan Counties Branch.—A special general meeting of this Branch will be held on Thursday, December 8th, in the theatre of the Museum of Practical Geology, Jermyn Street. Dr. Pavy, President, will take the chair at 8 P.M. Business:—1. A University for London. 2. The Midwives Bill.—Andrew Clark, Isambard Owen, Honorary Secretaries.

JAMAICA BRANCH.

The annual meeting of this Branch was held on January 20th, 1892.

Officers and Council.—The following were elected officers for the year 1892: *President:* C. Gayleard. *President-elect:* J. W. Plaxton. *Honorary Secretary and Treasurer:* G. F. A. Da Costa. *Members of Council:* G. Cooke, Hon. J. C. Phillippo, G. C. Henderson, F. H. Saunders, Hon. C. B. Mosse, C.B., A. R. Saunders, and W. H. W. Strachan.

BOMBAY BRANCH.

A general meeting of the Branch was held in the Framjee Institute, Grant Medical College, on July 15th, Deputy-Surgeon-General Cates in the chair. Members Brigade-Surgeon-Lieutenant-Colonel Maconachie, Surgeons-Major Hatch, Parakh, Surgeons-Captain Meyer, Childe, Barry, and Assistant-Surgeon S. V. Kamtak and Surgeon-Major Dimmock (Honorary Secretary) were present.

Election of Officers.—The minutes of last meeting having been read and confirmed, the results of the election of the Committee of Management were then published and a president and two vice-presidents were elected by the members present as follows: *President:* Brigade-Surgeon-Lieutenant-Colonel G. A. Maconachie. *Vice-Presidents:* Brigade-Surgeon-Lieutenant-Colonel Banks and Surgeon-Major Hatch. *Committee of Management:* Surgeon-Major-General Pinkerton, Deputy-Surgeon-General Cates, Surgeon-Major Parker, Surgeon-Major Manser, Surgeon-Captain Meyer, and Surgeon-Captain Childe. *Honorary Secretary:* Surgeon-Major Dimmock.

Communications.—Dr. Meyer showed a series of experiments on the frog's heart, beginning with the results of stimulation of the vagus and sympathetic and varied by the comparative experiences upon that organ of various drugs such as muscarin, atropine, etc. The experiments were further illustrated by a series of tracings of other similar experiments.—Surgeon-Captain Childe showed microscopical sections of (1) Pigmentation of the Liver (malarial), (2) Lardaceous Disease of the Liver, (3) Scirrhus of the Breast, (4) Spindle-celled Sarcoma. Surgeon-Captain Childe also read a paper on Hydatids of the Spleen, which will be published. Dr. Hatch cited several cases which had occurred in the course of his experience at the Jamsetjee Jeejeebhoy Hospital.—Surgeon-Major Hatch read a paper on Osteotomy of the Leg and exhibited the patient. He also read a paper on Laminectomy, which was illustrated by a pathological specimen of the region operated upon, the patient having died of intercurrent pyæmia. The paper will be published.

Resolution as to Place of Meeting.—A letter from Dr. R. Baker was read suggesting that the meetings of the Branch association be held in the University Convocation Hall. On the proposal of Surgeon-Major Hatch, seconded by Dr. Maconachie, the members resolved that the meetings be held every month if possible, and alternately at the Framjee Dinshaw Petit Institute and in the University Hall.

The fifteenth Balneological Congress will be held at Berlin, March 8th to 13th, 1893, under the presidency of Professor Oscar Liebreich.

SPECIAL CORRESPONDENCE.

[FROM OUR OWN CORRESPONDENTS.]

PARIS.

The Disturbance among the Students.—The Antituberculosis League.—Sanitary Precautions at Cannes.—The Vaccine Institute of the Académie de Médecine.

THE quarrel between the Municipal Council, the Assistance Publique, and the hospital dressers and surgeons has ended. After several meetings of the delegates of the dressers and hospital surgeons, and deputations to the Dean of the Medical Faculty and to the Municipal Council, accompanied by Dr. Poirier, M. Strauss, the municipal councillor concerned, has requested M. Peyron to reinstate M. Salmon if the students allow the competitive examinations pending to continue without disturbance. The students are satisfied with this result of their "strike." M. Berger suggests that the students should solicit the military authorities to liberate the soldiers who are imprisoned for having allowed the students to march to the Hôtel de Ville.

M. Verneuil presided a few days ago at a lecture given by Dr. Armaingaud, *professeur agrégé* at the Bordeaux faculty. The lecturer stated that tuberculosis kills in France the sixth part of its population. The aim of the Ligue de la Tuberculose is to spread information as to the measures to be taken to prevent contagion. In order to realise this, M. Armaingaud has had the instructions drawn up by the Congress printed, and has distributed 2,600,000 copies. The profits of the sale were handed over to the sanatoria at Arcachon and Bauzul-sur-Mer.

The Medical and Hygienic Society of Cannes is much exercised "by the numerous attacks" made by foreign papers on Cannes, and, no doubt from a strong sense of duty, inform the public that disinfection is strictly carried out in hotels, lodgings, and houses inhabited by tuberculous patients, or persons suspected to be suffering from any other contagious illness. The rooms are disinfected by frequent spraying of corrosive sublimate. Medical men are called in when necessary, and give the hotelkeepers a certificate of disinfection.

The Vaccine Institute of the Academy of Medicine is very successful. When it was organised in 1889 one heifer a week was sufficient, 5,766 tubes of vaccine were distributed: in 1890 two were necessary, 14,811 tubes were distributed; in 1891 three and 20,325 tubes; in 1892 five heifers, and at the end of September 26,423 tubes.

BERLIN.

Practical Pharmacy in the University of Berlin.—The Outpatient in Berlin.—Beer and Bacteria.—Caviare and the Cholera Vibrio.

No special laboratory for pharmacy exists at the Berlin University, though on an average 77 candidates a year pass their examination in this branch of science. These unfortunate students are obliged to seek places in other laboratories. Now, however, that an entirely new laboratory is being built for Professor Fischer—von Hofmann's successor—it is generally hoped and expected that Hofmann's laboratory will be passed on to the pharmacists, and that an ordinarius professorship in this branch will be instituted. A petition on the subject has been forwarded to the Minister of Education by the Society of German Pharmacists and Chemists.

A meeting of doctors and surgeons was called last week by the Berlin "Aerztliche Berufsverein" to discuss the question of the so-called "policlinics," which are cropping up everywhere in Berlin. There are at present 183 establishments with this high-sounding name in Berlin, many of which serve no object either of scientific research or tuition. A committee of six gentlemen was elected to study the question in detail and report upon it, with a view to further steps.

An amusing but not unimportant subject of bacteriological research has been found in the so-called "Bierfilze," round pieces of thick felt placed under each glass of beer on the tables of most German "Kneipen" and restaurants. It appears that the drippings of the beer—in the warm temperature which German restaurants are known to have—transform the felt material into an admirable nutritive medium for bacteria. The specimens examined were found to be swarming with numerous species, and restaurant keepers are now told to give their "Bierfilze" a weekly boil, along with other articles of use.

Professor Fraenkel, of Marburg, has had caviare, which is largely consumed in Germany, under his bacteriological microscope, and has issued the reassuring announcement that comma bacilli, even in large quantities, quickly perish on caviare. Fraenkel thinks that this bactericidal action is due not only to the salt, but to the large amount of fat contained in cavaire. He did not, however, by any means, find caviare free from bacteria; various sorts were found, but not pathogenic ones.

LIVERPOOL.

The Practical Value of the Urethroscope.—The Lock Hospital.—Medical Magistrates.

AT a recent meeting of the Medical Institution, Dr. Armand Bernard, surgeon to the Lock Hospital, read a paper on his Urethroscopic Experiences in more than 120 cases of Gonorrhœa and Gleet. He uses the urethroscope of Leiter, of Vienna. In a few cases in which he had seen the disease in a very early stage, he had been able to cause it to abort by introducing a small-sized tube and swabbing out the urethra by means of a stylet armed with cotton wool soaked in a solution of silver nitrate 10 grains to 1 ounce. Where this result was not attained he had found that the course of the disease was modified, pain in micturition being less than usual and the chordee diminished in severity. He did not, however, advocate the use of the urethroscope as a routine in the treatment of gonorrhœa, but he found that it was most useful in the treatment of gleet. He had also found the urethroscope useful for the detection of warts and chancres in the urethra.

A fund is being raised in response to an nppeal by Mr. F. W. Lowndes, to enable poor married women who are unable to pay for their support to be received as free patients into the Lock Hospital. It is hoped that enough will be raised to give a fresh impetus to the good work of this institution, which has been carried on for many years in a quiet unostentatious way, and fully deserves the support of the benevolent.

Mr. J. Kellett Smith, consulting-surgeon to the Stanley Hospital, Dr. W. Whitford, physician to the same institution, and Dr. John Bligh, have been placed on the Commission of the Peace for Liverpool. Mr. Alexander Murray Bligh, M.R.C.S., has been elected an alderman for the city of Liverpool. The name of the last-named gentleman was erroneously given last week as Dr. John Bligh.

MANCHESTER.

New Chemical Laboratory.—The Chair of Surgery.—New Medical Buildings.

IT is proposed to institute a laboratory of organic chemistry in Owens College, the laboratory to be associated with the name of the late Professor Schorlemmer, who, by his writings on organic chemistry, did so much to advance the reputation of the chemical school of the College.

The chief event in the history of the *personnel* of the medical department of Owens College during the current session has been the resignation of the Chair of Systematic Surgery by Mr. Hare. Mr. Hare will continue the duties of the Chair until Christmas, when it is hoped a successor will be appointed.

The new medical buildings are fast approaching completion as far as the mason work is concerned. A few weeks will see them covered in, and it is hoped that they will be ready for use next session.

SHEFFIELD.

A Grateful Patient.—Ether and Chloroform.—St. John Ambulance Association.—Medical School Dinner.

IT is always gratifying to notice any token of appreciation of the benefits bestowed upon the inmates of our medical insti-

tutions, and the following is worthy of mention. A poor man who had at different times received attention at the General Infirmary and who recently died, left to the institution the sum of £21, an amount representing his savings, thinking it more entitled to remembrance than relatives, who had only appeared on the scene at the close, whilst the infirmary had often befriended him.

A most interesting and instructive debate on the respective values of ether and chloroform as anæsthetics occupied the attention of the Medico-Chirurgical Society on two evenings. That the general opinion would be in favour of ether as the safer agent was anticipated, but interest was lent to the discussion by those who, true to the traditions of Simpson and Syme, held that, given with the care that they inculcated, chloroform was by no means beset with the dangers so many believed it to present. The meetings were well attended, and the dicussion was sustained with vigour.

From the last annual report of the Sheffield Centre of the St. John Ambulance Association it appears that the work goes on satisfactorily. There were over 400 passes during the year, and there has been a total of more than 5,000 since the centre was formed.

At the annual dinner of the students past, and present, of the Sheffield Medical School, Dr. Burgess was in the chair, he was well supported, a larger number being present than on any former occasion.

LEEDS.

Revolvers as Toys.

A Painful impression has been created in the town by a revolver accident which occurred in the middle-class schools during last week. It appears from the evidence that two boys were examining a revolver, and one of them presented the weapon at the other, and after several "clicks," fired and shot the other in the head. It was pointed out by Mr. Moynihan, the Resident Surgical Officer at the infirmary, that during the past month no fewer than 12 cases of pistol accidents had presented themselves at the Infirmary. The coroner in summing up said that the subject was one which in his opinion demanded the attention of legislators, since the police were perfectly powerless to prevent the possession of firearms in the present state of the law. It appears to be quite clear that something should be done and speedily too, to prevent the ever-increasing number of these calamities.

CORRESPONDENCE.

Pressure on Space.

Notice to Correspondents and Authors of Communications.

In view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

THE INTERNATIONAL ASPECT OF RESEARCH BY EXPERIMENT.

Sir,—Science rises above all accidental or artificial distinctions, although it binds together men of all religions, all professions and nationalities by the eternal and universal law of Nature. Still it feels the wholesome stimulus of national rivalry. But unlike the rivalry of political and other meaner ambitions, the international rivalry of the votaries of science bears the stamp of generosity. The generous spirit begotten of science is strikingly demonstrated in the ever-ready testimony borne by the learned of other countries to the discoveries of Englishmen. Let me offer one proof from personal knowledge. When a student in Paris, I was a diligent pupil of Baron Flourens. His lectures were based on experimental research. Dwelling upon the advantages of this method, he described what physiology owed to England. Three discoveries, the greatest of all, he told us, we owed to England. First, the circulation of the blood by Harvey; secondly, the tracing of the motor and sensory functions to the anterior and posterior columns of the spinal cord; thirdly, the discovery of the reflex function of the nervous system by Marshall Hall. On my return to England I related what I had heard to the late Tyler Smith who was then working with Marshall Hall. Not unwilling to have full authentication of this flattering testimony, Hall came to me. I could but repeat what I could not forget. Hall wrote to Flourens and showed me Flourens's answer. The confirmation was expressed in the emphatic words: "Oui, mon ami, c'est bien celà ce que j'ai dit." I have no doubt that this letter is preserved by Marshall Hall's family. It became my good fortune to work with Marshall Hall; to assist in some of his experiments. I am in a position to affirm that he himself believed that his discoveries were made by experiments on the frog. For my own part, I find it difficult to understand how such purely functional phenomena as the circulation of the blood, the discrimination of the motor and sensory nerves, and the reflex function could by any possibility have been traced to their exact anatomical mechanism, unless by the method of experiment. No diligence in dissection, no clinical observation, not even the inspiration of genius, could reveal these truths—truths which lie at the foundation of all rational medicine, and which benefit alike those who believe in it and those who do not believe.

And now to revert to the theme of international rivalry in the pursuit of knowledge. If the emotional faddists, who cry out against what they call vivisection, were to succeed in suppressing experimental research in this country, England would be simply degraded in the sight of the world. We should be in the ignominious position of using the fruit of the labours of others, contributing nothing ourselves. But of this there need be no fear. The passion for knowledge is one of the most enduring and elevating qualities of humanity. It has triumphed over persecution much more serious than that which it has now to endure. Ignorance and bigotry have no longer the same power. Animated as the student of Nature is by the motive of benevolent application of what he learns to the good of humanity, he feels within him the courage to persevere, and the pure enjoyment that springs from the extension of knowledge. The passion so inspired is at least as ardent as, and is certainly better justified than, the ignoble passion of the sportsman by the pursuit of game.—I am, etc.

Liss, Nov. 29th. Robert Barnes.

AN ENGLISH HEALTH RESORT.

Sir,—There is a small town on the east coast of Dorsetshire, still consisting to a great extent of houses that might almost date back to the time when King Alfred is stated to have overcome the Danish Navy in its bay. I allude to a place not as yet very extensively known, but much loved by those who have benefited by its invigorating atmosphere and charming surroundings. I refer to Swanage.

Having been acquainted with it for a long series of years, and having frequently spent my holidays there, I may be credited with a loving interest in its growth.

The recent construction of a railway from Wareham—from whence we used to enjoy an eleven mile drive to Swanage—has already brought the speculative builder down; and doubtless the plain lying between the opposing cliffs of Ballard Head and the high hills to the south of Swanage will, before many years have passed, be covered with houses. Occupying the south coast of England and in the vicinity of Bournemouth, those unacquainted with it might be disposed to attribute to it a climate similar to that of Bournemouth or the south Devon watering-places, but it differs from all that I am familiar with in possessing the speciality of a bracing climate, attributable partly to its aspect, partly to the character of the surrounding hills, partly to its geological features. In speaking of it, I have occasionally dubbed it the Engadine of South England. Nor can there be a doubt that it has a future as a health resort, as I know that it has already often served to stimulate the flagging energies of distant or adjacent inhabitants of more relaxing localities.

As yet it is but a small place, but sanitary difficulties have already presented themselves and are likely to cause increasing trouble unless they are met with forethought and intelligent care. Before the radical purification of Swanage is submitted to the hands of the engineer, it may not be inappropriate to permit the expression of opinion from a medical point of view, for which reason I venture to submit the following remarks:—

Two proposals have, as I am informed, been discussed in Swanage—one that of draining Swanage by an expensive and difficult system of sewers, with the main outlet into the open sea beyond Peveril Point, the outermost ledge of cliffs to the south-east of the town, and a favourite resort of the visitors on account of the beautiful views to the north and the south. I conceive that the cost of the work, apart from all other considerations, would be an absolute negative to this proposal. The other plan contemplates the conveyance into the bay of the present and prospective sewage of the town. This appears to me to involve the ruin of Swanage as a bathing-place. The beach at present is admirably adapted for bathers of each sex and of all ages. It is sandy and shelves very gradually. Were the town sewage conveyed into any part of the bay, the purity of the water would be speedily fouled, and the prevailing winds and tides would cause deposits at and near the bathing locality, which would speedily diminish the number of holiday visitors and of permanent residents.

After repeated discussions and conversations on the subject, I can arrive at no other conclusion than the one I have formed for some years, that if earth closets were made compulsory and a suitable a corps of scavengers were initiated now, before the extension of the town, which is certain to take place, the land in the neighbourhood would be largely benefited, the bay might be kept as attractive as it is now, and the general health of the locality secured as far as it can be in regard to the removal of human excreta. The only other alternative that suggests itself might be cremation, but this, though perhaps effective, would also entail an expenditure probably beyond the powers of the locality, while the benefit accruing to the land would be lost.

While speaking of the sanitary appliances of Swanage, it would be wrong to ignore the boon conferred recently on the town by a local resident, Mr. Burt, to whom the inhabitants are indebted for an ample supply of good and wholesome water, which was not formerly a feature characteristic of Swanage.

I trust that if any inhabitant of Swanage does me the honour to read this brief communication, he will believe that nothing but a warm interest in the future welfare of his locality prompts me to write as I have done.—I am, etc.,

Manchester Square, W., Nov. 14th. EDWD. H. SIEVEKING.

P.S.—I have submitted these remarks to Sir Thomas Longmore, who knows Swanage even more intimately than I do, and he empowers me to state that he endorses my views.

THE POWER TO EXPEL MEMBERS.

SIR,—I desire to ask whether the British Medical Association has any rules providing for the expulsion of undesirable members?—I am, etc.,

The Brown Institution, Nov. 28th. C. S. SHERRINGTON.

*** We have handed this question to the General Secretary, who refers to By-law 3 of the Association, of which the following is the text:

"3. Any member may be expelled from the Association by a resolution of the Council if carried by three-fourths of the members present, subject to confirmation by the next annual meeting, and he shall thereupon cease to be a member and shall not be eligible for re-election. One month's notice of the intention to propose such resolution shall be given to any member affected thereby."

THE MEDICAL DEFENCE UNION.

SIR,—In the BRITISH MEDICAL JOURNAL of November 5th some inquiries were made with regard to Mr. Lawson Tait's costs in the action Denholme *v.* Tait, as to whether they had been defrayed by the Medical Defence Union, and no answer has been given by the officer of the Union.

This is so important a question that I venture to ask:

1. Was any money, and if so how much, paid to Mr. Lawson Tait to cover his costs in the action of Denholme *v.* Tait?

2. Was any payment, and if so what, made out of the funds of this Society to defray the costs of Mr. Tait's action against the College of Surgeons?

In a Society like this, which appeals to the practitioners of Great Britain and Ireland for 10s. 6d. annually, there should certainly be an annual and detailed statement published, from time to time, of the expenditure, and of the particular purposes for which it has been employed. Without such a safeguard this Society can hardly command the confidence of the medical profession, and I appeal once more through your powerful columns to enable us to get it.—I am, etc.,

Nov. 25th. F.R.C.S.

OPERATIONS FOR HYDATID CYST.

SIR,—In the BRITISH MEDICAL JOURNAL of September 10th, 1892, which arrived in Australia a few days ago, there appears a letter from Mr. Stephen, of Cyprus, entitled An Improvement in the Operation for Hydatid Cyst. As Australia enjoys with Iceland the unenviable notoriety of being more infested with hydatid disease than any of the other countries of the world I have naturally seen much of the disease during an experience extending over 17 years of hospital and private practice. In January, 1889, at the Intercolonial Congress in Melbourne, I reported 32 cases in which I had adopted the treatment of incision with washing out of the whole of the parasite at the time of the operation. The case which led me to decide upon this method as a routine treatment occurred in my private practice, on March 6th, 1885. In discussing the treatment of hydatids before the Congress I referred to this case, and said "this led me to formulate for myself the following rule, namely, to remove all cysts contained in the external envelope at the time of operation." Further on in the same paper the following sentence shows that Mr. Stephen's excellent plan has been the usual practice followed by my colleagues and myself during a period of several years at the Adelaide Hospital, South Australia. It runs thus: "As soon as this is finished the cyst is distended with boric acid lotion, and as the current returns the membranes are gradually extruded."

I will not weary your readers with further details except to say that we never now wait for adhesions to form between the peritoneum and ectocyst. In the third paragraph of the letter the word "ectocyst" has been printed instead of "endocyst," which is evidently what Mr. Stephen referred to, and there is also a suggestion that the endocyst is sometimes adherent to the ectocyst, which, in an experience of several hundred cases I have never found to be the case.—I am, etc.,

Melbourne. WM. GARDNER.

*** We have received a letter from Dr. Benj. Poulton, Lecturer on Surgery in the University of Adelaide, to the same effect.

ABDOMINAL SECTION IN PELVIC PERITONITIS.

SIR,—In your abstract of the adjourned discussion at the Obstetrical Society, a misstatement made by one of the speakers is duly reported, but without the correction which immediately followed it.

Mr. Knowsley Thornton called attention to the "extraordinary fact that nearly half" my "operations were incomplete." The context showed that what he here meant by "incomplete" was that I had failed to complete the operation I had intended to perform. I pointed out to Mr. Thornton at the meeting—and I shall be glad if you will allow me to point out to him once more—that when, in the summary of my paper, I spoke of a certain number of my operations having been "complete" and a certain number "partial," I meant by the word "partial" cases where the disease, and therefore, also, the operation for its removal, were limited to one side. The phrase had no reference to unfinished operations, of which I had happily none to record.—I am, etc.,

Brook Street, W., Nov. 19th. CHAS. J. CULLINGWORTH.

CAISSON WORK IN BLADDER SURGERY.

SIR,—As I was unfortunately unable to be present at the Medical Society on Monday, November 4th, when Mr. Fenwick read a paper with the above heading, perhaps you will allow me add that I have employed an almost exactly similar plan for several years past, and can fully endorse its applicability to certain cases. The only way in which my operation differs from his was that I have usually sponged out the speculum instead of sucking it dry.—I am, etc.,

Harley Street, W., Nov. 22nd. W. BRUCE CLARKE.

TREATMENT OF PERITONITIS.

Sir,—Dr. Gee, in his interesting Bradshaw Lecture, states that "surgeons say they can handle, cut, and scratch the stomach or intestines of a man who is quite sensible, and not cause him any sensation of pain." Mr. Lawson Tait, in his letter published in the British Medical Journal of November 26th, says that "this statement is wholly inconsistent with his own experience, which is that the slightest touch of the finger, sponge, or instrument applied to almost any part of the peritoneum in a patient who is not only not sensible, but who is partially or almost completely anæsthetised, at once gives rise to movements of the abdominal wall and limbs which indicate pain."

Mr. Tait's experience is not inconsistent with Dr. Gee's, who simply says that the intestine can be handled and cut when the patient is "quite sensible" without pain. This statement is, in my experience, quite accurate. I have in over ninety instances opened and cut off considerable portions of bowel in the second stage of inguinal colotomy. In the large majority of these cases absolutely no pain was complained of by the patients, who were not under any anæsthetic. A short while ago I opened the abdomen of a patient of Dr. Townsend, of Kensington, stitched a portion of the cæcum to the skin, and opened it. Owing to the urgency of the case no anæsthetic was admissible. The only pain complained of was during the skin incision and the passage of the needle through the skin. The manipulation of the cæcum, the stitching of it to the parietal peritoneum, and the opening of it were painless. My observations, therefore, so far as they go, confirm Dr. Gee's statement.—I am, etc.,

Stratford Place, W., Nov. 28th. Harrison Cripps.

Sir,—I should be glad to be allowed the opportunity of commenting on certain portions of Dr. Gee's lecture. And firstly, with regard to the signs of acute peritonitis.

Speaking from an experience in my own practice, of over 300 abdominal sections, in a considerable proportion of which peritonitis more or less pronounced occurred, the symptom which most nearly approaches a pathognomonic one is the unmistakeable hippocratic face, which never loses its terror for the abdominal surgeon.

And running it close in importance, as in time, comes the gradually distending and rigid abdominal walls, with the supervening intestinal paresis and obstruction. Pain does not invariably exist, certainly not markedly. Some of the most rapidly fatal cases have but little pain, and often a normal or sub-normal temperature. The pulse in many cases is a useful guide, but to this there are many exceptions, unless it be towards the last, when its thready, running, uncountable character is certainly characteristic.

With regard to the half-hearted manner in which Dr. Gee recommends incision as a diagnostic and therapeutic measure, his teaching, I venture to say, is not only opposed to what is with increasing frequency and success being done daily by surgeons, and of which contemporary medical literature teems with examples, but what is worse, going forth with all the stamp of authority to the medical and lay world, fosters that unwillingness for timely operation, without which the fullest measure of success from incision and drainage can never be attained.—I am, etc.,

Nottingham, Nov. 27th. George Elder, M.D.,
Surgeon to the Samaritan Hospital for Women.

THE DISCIPLINARY POWERS OF THE GENERAL MEDICAL COUNCIL.

Sir,—That the General Medical Council is equally capable with any court of law to decide the penal cases which periodically come under its consideration is manifest to any person who has been present at its proceedings. Yet the Council is placed by the Act which called it into existence in a position of limited power and vast responsibility. It may readily be imagined that many penal cases are adjudicated upon by the Council which vary greatly as to culpability. Notwithstanding this self-evident fact, there is only one punishment which the Council is able to inflict—namely, the erasure of the offender's name from the *Medical Register*. This is a punishment either terribly severe in its effect or else no punishment at all. Either the practitioner is overwhelmed, loses his practice and means of livelihood at one blow, or is a pachyderm, attitudinises as a martyr, and, following the path of modern philosophy, wipes out the social evil by the solace of pecuniary good. Or it may be the nature of the offence is one for which the law demands imprisonment, in which case the mere removal of the name from the *Register* will be scarcely felt. It is strange that there should be no agitation raised to alter the existing regulations, so that the Council may be empowered not only to remove a name entirely jrom the *Register*, but also to censure or to remove it for six months, twelve months, or any other length of time, according to the circumstances of each case. The Council would thereby be also saved from the unfortunate position of finding themselves unable to agree with the recommendation of their own Executive Committee in regard to the restoration of a name to the *Register*. A solicitor's or a sea captain's certificate may be either suspended or taken away by the respective courts authorised to punish; even a cabdriver's licence may be similarly dealt with by the magistrate; but, strange anomaly, the General Medical Council has no power to censure an offender.

There are many other points which might fairly be discussed in connection with the powers of this important body as a subject of reform. It should surely have the power to examine witnesses on oath, and so place their evidence on an equality with that given elsewhere. For there is sometimes evidence brought before the Council to the prejudice of a defendant which, by reason of its inadmissibility in a court of law, may not have been then followed up by cross-examination, although vital to the issues to be tried before the Council.

I respectfully venture to suggest that the time has come when powers equal to its responsibilities should be extended to the General Medical Council if its usefulness as a cleansing body is to be maintained.—I am, etc.,

The Temple, Nov. 29th. H. S. Schultess Young, M.A.

THE *MEDICAL REGISTER*.

Sir,—In reference to the announcement calling attention to the importance to medical practitioners of acquainting the medical registrars with any change in their address, I beg to record my experience. It has been my lot to change my address three times within the last four years, and on the occasion of each change I have notified the same to the "Branch Registrar by whom I was originally registered;" but in no case have I received any acknowledgment that my change of address has been duly registered. Under these circumstances, what certainty have I that my present address is registered, and what security have I that my name has not been erased from the *Register?* Seeing that the General Medical Council enjoin the registering of the present address of medical practitioners, and attach to the neglect of this injunction such a grave penalty as erasure from the *Medical Regis er*, I think the least the Branch Registrars can do is to acknowledge receipt of every change of address to the sender, and thus assure him of the safety of his position. Doubtless many men, like myself, find Churchill's *Medical Directory* more useful than the *Medical Register*, and do not purchase copies of the latter volume, although it is the only official guide to the profession.—I am, etc.,

Geo. A. S. Gordon, M.A., L.R.C.P., L.R.C.S.Ed.
Southgate, N., Nov. 28th.

TRADUCING THE PROFESSION.

*** *Mr. Berdoe.*—The charge made by Mr. Horsley is that Mr. Berdoe, in addressing an audience of working men, said that "their wives and children were subjected in our hospitals to operations which were not performed on a lady who rode in her carriage." Before proceeding to make new charges (as in a further letter which he forwards to us), it will be well for Mr. Berdoe to state specifically what are the operations to which he referred which are thus performed in our hospitals on female patients and which are not performed upon ladies who ride in their carriages. The implied charge is a very shocking one and specific proof should be adduced.

MEDICO-LEGAL AND MEDICO-ETHICAL.

EMPLOYER'S LIABILITY.

PROOF.—A master is bound to provide medical attendance and medicine for his apprentice, but not for an assistant, nor for a servant in husbandry, nor for a menial servant, even though the illness of the servant arise from an accident which occurred whilst he was performing the duties of his situation. But if a master send for a medical man to attend his servant whilst under his roof he is liable, and he cannot deduct from his servant's wages the expense occasioned thereby, unless it was specially so agreed.

FOREIGN DEGREES AND THE TITLE OF "DR."

H. P. H.—The degree of M.D Brux., if obtained since the passing of the Medical Act, 1886, cannot now be registered as an additional qualification; and therefore will not confer on the holder any greater right to style himself "Dr." on his card or doorplate than is possessed by the duly registered medical practitioner holding no degree.

The above remark as to the degree of M.D. Brux. applies equally to any other foreign degree now obtained; and we are unable to suggest any examination under which an available degree of M.D. can now be acquired, except at one of the universities of the United Kingdom.

To give facilities for the acquisition of the degree of M.D. by those who had passed the qualifying examination prescribed by the Medical Acts was, we believe, one of the objects of the proposed new Albert University of London.

AN ALLEGED FALSE CERTIFICATE.

B.—The allegation of false certification of death should be brought to the knowledge of the Registrar-General for investigation. B. should not investigate nor judge, but he should not stand in the way of detection of dishonest practices or the exculpation of a suspected person. A. will doubtless plead, and perhaps prove, that he saw the case himself. That would clear him from the above charge, and also from that of wrongful notification. Otherwise the sanitary authority could refuse payment of fee, and possibly prosecute, but we do not know of any precedent for the latter. Assuming A.'s defence to be sound, his action in sending the inspector was correct. Having no longer the care of the case, he might properly send his subordinate. The other charges all resolve themselves into that of employing an unqualified assistant—a course which is unfortunately by no means uncommon.

SUFFIXES.

ETIQUETTE.—Professionally indefensible as is the very ill-advised, pretentious letter which appears in the *Cambrian News* of November 4th relative to the medical career and attainments of the Welsh practitioner referred to as an assumed "incentive to young aspiring Welshmen," we may note that, although ostensibly written by a fellow-countryman dated from London, it seems probable that it was more or less inspired by the diplomate so injudiciously extolled, otherwise the minute details of his early life and student-ship, and alleged rapid acquisition of practice could not have been given, a supposition that is strengthened by the following announcement, which was simultaneously inserted:—"H——, —On October 30th, at G—— H——, Aber——, the wife of Dr. P. D. H——, M.R.C.P. (by exam.) and F.R.C.S. England (by exam.), of a son." Need we remark that such expedients are not only ill-calculated to enhance the professional position of a medical practitioner, but tend to excite a feeling akin to derision in those who are free from the somewhat vulgar failing of being apt to be more or less favourably impressed by the number of suffixes, etc., appended to a name. A skilled practitioner should not lend himself professionally to such derogatory proceedings.

THE RED LAMP.

PROVINCIAL asks: Would any breach of etiquette be made by erecting a small red lamp on wall of house with name and word "surgeon" on? I live in a side street very badly lighted, and neighbours tell me they are troubled at night by patients inquiring at their houses for me, and my name on the plate can only be read with great difficulty.

*** Although there is no *de facto* written ethical rule condemnatory of the use of a red lamp, as proposed by "Provincial," nevertheless any such deviation from general prescription and usage is, as a rule, viewed by the profession with more or less distrust and is best avoided, even under the special circumstances referred to. We would suggest, therefore that an uncoloured gas lamp, with or without a reflector, should be so arranged as to throw the light upon the door or plate, or, as an alternative, to paint or otherwise display the name on the glass of the fanlight over the door and illuminate from behind by a gas jet. Either plan is practicable.

DISPENSING BY UNQUALIFIED ASSISTANTS.

A CARDIFF chemist writes calling attention to a recent case of poisoning in which strychnine is stated to have been dispensed in mistake for croton chloral by an unqualified assistant. We understand our correspondent to complain that the dispensing of medicines is not more generally entrusted to chemists, and he states that the chemists in Cardiff rarely see a local prescription except it be out of business hours, the work of dispensing being entrusted by the medical practitioners to unqualified assistants. We are decidedly of opinion that assistants engaged in carrying out either medical or pharmaceutical duties should possess qualifications showing that they have been properly educated and found competent. In either case the employment of unqualified assistants is to be strongly condemned, except in so far as they may be engaged in mere manual work under the immediate direction and control of their employers. But this is a matter altogether distinct from the dispensing of medicine by medical men which requires to be dealt with from a different point of view. Undoubtedly the tendency is towards handing over the dispensing of medicine to pharmacists, but that can only be effected by mutual arrangement. The right of duly-qualified medical practitioners to dispense medicines was recognised and protected in the Pharmacy Acts, 1868 and 1869, and in some instances it would be impracticable for medical men to abstain from dispensing their own medicines, even when facilities exist for having that work done by pharmacists. But though the Pharmacy Act does not apply to the dispensing of medicines by legally-qualified medical practitioners, they cannot extend their exemption to assistants having neither medical nor pharmaceutical qualification. The dispensing and sale of poisons by such persons is no doubt equally subject to all the provisions of the Pharmacy Act, whether conducted in the shop of a chemist and druggist or in the open surgery of a legally-qualified medical practitioner. In both cases a personal qualification is required, and that alone is sufficient in the interests of the public or in the interest of other persons holding the respective qualifications.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

A MEETING of the Council of the London and Counties Medical Protection Society, Limited, was held on November 15th, at 57, Harley Street. Dr Heron and Dr. Cleveland consecutively occupied the chair. A very large number of new members were elected. Dr. Mead reported very satisfactory progress in organisation of new divisions and very successful meetings at Derby, Croydon, and Chelsea.

The South-West London Division was formally recognised, with the officers and council published in the BRITISH MEDICAL JOURNAL of November 19th, p. 1140.

The Derby Division was formally recognised with the officers and council published in the BRITISH MEDICAL JOURNAL of November 5th, p. 1036.

The Croydon Division was formally recognised with the officers and council published in the BRITISH MEDICAL JOURNAL of November 19th, p. 1041.

Dr. Alexander Smith, of Dublin, who attended by invitation, gave descriptions of steps taken in the matter of the so-called "American doctors," who had been practising in Liverpool, Glasgow, and Dublin, and one of whom has been committed to the Assizes for trial, while the other will be similarly charged if caught. It was resolved that the hearty thanks of the Society be given to Dr. Alexander Smith, Dr. Rentoul, Mr. Andrew Clark, and Mr. Bruce Clarke for their services in the matter. It was resolved that the hearty thanks of the Society be conveyed to the *Daily Independent* and the *Evening Herald* for the able and effective exposure in their columns recently of quacks and medical impostors. A complaint from a member about the action of a coroner was dealt with. Instructions were given empowering the secretaries to set the law in motion against a prescribing chemist, a gang of quack oculists, and an unqualified practitioner. A communication was read from the Council of the North London District recommending inquiry as to the character of applicants for membership. The by-law of the North London Division with this object was approved. Other business was deferred to the next meeting of Council.

MEDICAL DEFENCE UNION, LIMITED.

A COUNCIL meeting was held at the Medical Institute, Birmingham, on November 21st, Mr. Lawson Tait in the chair. A report from the Metropolitan Committee, referring to a proposed change in the chairmanship of the company, was received, and it was moved by Mr. Tait, and resolved:—"That this report be received and entered upon the minutes, and referred to the annual meeting." A prosecution under the Apothecaries' Act was authorised against a notorious unqualified practitioner. The solicitors were instructed to take steps to obtain a redress on behalf of Dr. Christmas, of Watford, who alleged that the National Medical Aid Company, Limited, had systematically canvassed his patients at Watford, and endeavoured by misrepresentations to obtain his patients. Further business was transacted.

BRITISH NURSES' ASSOCIATION.

THE Privy Council, on November 28th, continued the hearing of the petition for the grant of a charter for the incorporation of the Royal British Nurses' Association. There were present the Marquis of Ripon, Lord Oxenbridge, Lord Hobhouse, and Lord Hannen. Sir H. Davey, Mr. Muir Mackenzie, and Mr. W. H. Cross appeared for the petitioners: Sir R. Webster and Mr. L. S. Bristowe represented the opponents of the petition. A petition was then presented in opposition by the Council of the Nightingale Fund, and like petitions were presented from the following hospitals: St. Thomas's, the London, Westminster, King's College, St. Mary's, Charing Cross, the Seamen's (Greenwich), and Guy's; and from the following infirmaries: St. Marylebone, Paddington, St. Pancras, and Whitechapel. Similar petitions were also presented from Edinburgh, Glasgow, Dublin, Leeds, Liverpool, Manchester, Bristol, and other provincial towns, as well as by the Army Medical Department; and from many smaller general hospitals and special hospitals both in London and in the country; by the Metropolitan Nursing Association, the East London Nursing Society, the Liverpool Nursing Society, and many other institutions in London, the provinces, Scotland, and Ireland, for providing trained nurses for the sick poor. Sir R. Webster continued his arguments in opposition to the granting of the charter. He said there was, so far as he knew, no precedent for giving such a register as that of the Association the sanction or imprimatur of a chartered register. Upwards of 600 of the nurses had no hospital qualification at all. So far from fulfilling the minimum of qualifications which were put forward by Sir Horace Davey as being the main object and aim of the institution, a still larger number had nothing like that qualification which was supposed to be necessary. No fewer than 1,623 joined during the period of the absence of any qualification, and there were 136 cases of no certificate, and of no evidence of competency at all. The Society's petition was an attempt to get special sanction for the word

"trained." In London there were twelve hospitals where there were training schools attached, four of which supported the granting of the petition, eight opposing it. In the four hospitals there were 1,540 beds, and 2,751 in those against the granting of the charter. If they went to the provincial hospitals, it would be found 7 supported the petition and 11 opposed it. Speaking of it as a profession, there were altogether 30 large training institutions, of which 19 were opposed to the register, as against 11 who were wholly or in part favour of it. Some 6,000 beds were included in the 19, as against 2,622 in the others. The nurses of the Queen's Jubilee Institute, and who were known as the Queen's nurses, and were incorporated by the Royal charter, could not come on the register of the Association. A chartered register would be the means of their holding out directly to the public nurses who were upon the register, but who were not trained nurses in whom the public ought to place reliance. Sir Horace Davey referred to the arguments which had been urged in opposition to the petition, and observed that he was at a loss to see why they should not have the charter asked for by the petition. The Association desired to keep a register in which persons might voluntarily register themselves, but he repeated that there was nothing coercive about it. The three years' qualification was not in the charter, but would be in the by-laws. The three years' qualification was adopted by the Association in consequence of the report of the Select Committee of the House of Lords on the subject of nurses that three years' training was necessary. At the conclusion of the arguments their lordships rose.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Examiners in Medicine.—The following Examiners in Medicine were appointed at the meeting of Convocation held on November 29th:—For the First Examination for the Degree of B.M.: Thomas Stevenson, M.D. Lond., in Organic Chemistry; Arthur Thomson, M.A., Lecturer in Human Anatomy, in Human Anatomy; William D. Halliburton, M.D. Lond., and William Stirling, M.D. Edin., in Human Physiology; Thomas Lauder Brunton, M.D Edin., in Materia Medica. For the Second Examination for the Degree of B.M.: John Syer Bristowe, M.D. Lond., in Medicine; Sir William Stokes, M.D. Dub., and George A. Wright, M.B., in Surgery; Francis H. Champneys, M.D., in Midwifery; Seymour J. Sharkey, M.D., in Pathology.

M.D. Degree.—The following graduates have become entitled to the degree of M.D.: Mr. Bertram Mitford Heron Rogers, B.M., B.Ch. (Dissertation: Influenza), and Mr. George Lindsay Turnbull, M.A., M.B., B.Ch. (Dissertation: Surgical Treatment of Typhlitis).

UNIVERSITY OF LONDON.

M.B Examination.—The following is a list of those who passed the recent final M.B. Examination:

First Division.—C. Addison, St. Bartholomew's Hospital; Louisa B. Aldrich Blake, London School of Medicine and Royal Free Hospital; H. A. Ballance, University College; C. Barker, Sheffield Medical Institution and St. Bartholomew's Hospital; A. S. Blackwell, B.Sc., St. Bartholomew's Hospital; W. Bligh, Guy's Hospital; C. R. Box., B.Sc., St. Thomas's Hospital; A. E. Brindley, Owens College, and Manchester Royal Infirmary; T. G. Brodie, King's College; F. J. Coleman, Guy's Hospital; A. M. Daldy, Guy's Hospital; C. C. Elliott, Guy's Hospital; J. Evans, University Colleges Liverpool and London; S. G. Floyd, Guy's Hospital; E. T. E. Hamilton, B.Sc., Guy's Hospital; R. Hamilton, Owens College and Manchester Royal Infirmary; Jesse Flewitt Hatch, London School of Medicine for Women; A. D. Heath, University College; G. S. Johnston, Queen's College, Birmingham; J. Jones, University College; W. B. Jones, St. Bartholomew's Hospital; V. W. Low, St. Mary's Hospital; C. B. T. Musgrave, University College; C. S. Pantin, Guy's Hospital; H. T. Parker, St. Bartholomew's Hospital; S. H. Perry, Queen's College, Birmingham; W. L. Pethybridge, B.Sc., St. Bartholomew's Hospital; W. J. Procter, London Hospital and University College; W. P. Purvis, B.Sc., St. Thomas's Hospital; M. Randall, B.A., University College; F. A. Roberts, Yorkshire College; L. Rogers, St. Mary's Hospital; C. M. Rogerson, Yorkshire College and Leeds General Infirmary; Mary Ellen Rye, London School of Medicine and Royal Free Hospital; H. S. Sandifer, King's College; E. W. Selby, University College; A. J. Sharp, Guy's Hospital; H. E. Smith, University College; C. G. Spencer, University College; G. A. Stephens, B.Sc., University College; T. R. Taylor, B.Sc., Guy's Hospital; T. M. Tibbetts, Queen's College, Birmingham; S. G. Toller, St Thomas's Hospital; F. W. Wesley, University College; C. E. Wheeler, B.Sc., St. Bartholomew's Hospital; A. Whitfield, King's College.

Second Division.—H. S. Ballance, King's College; R. H. Cole, St. Mary's Hospital; H. Distin, King's College; H. W. Gibson, Middlesex Hospital; C. J. Harrison, University College; T. D. Lister, Guy's Hospital; J. W. Pugh, London Hospital; H. Ramsden, Owens College; H. E. Tracey, St. Bartholomew's Hospital; S. L. B. Wilks, Yorkshire College.

UNIVERSITY OF ABERDEEN.

Students' Representative Council.—A meeting of this Council was held in Marischal College, when the following students were elected to the various offices: *President*: Mr. A. Brown, M.A., B.Sc. (Medicine). *Vice Presidents*: Mr. W. D. Esslemont, M.A. (Law); and Mr. J. C. Philip (Arts). *Secretary*: Mr. G. Cowie (Medicine). *Assistant Secretary*: Mr. J. M. Gibbon (Arts).

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Fellowship Examination.—The following gentlemen having passed the necessary examination, have been admitted Fellows of the College: D. P. Coady, L.R.C.P. and S. Edin.; C. J. Lyons, L.R.C.P. and S.I.; and F. T. P. Newell, M.B., and L.R.C.S.I.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

The following appointments have been made at the Admiralty: Arthur S. Nance, Surgeon, to the *Alacrity*, November 23rd: Jeremiah Sugrue, M.D., Surgeon, to the *Shannon*, November 25th; Henry S. Archdall, Francis H. Clayton, Reginald J. Fyffe, Percy Lord, Frederick J. A. Dalton, Percival M. May, Christopher L. W. Bunton, Frederick D. Lumley, Henry E. Tomlinson, Arthur C. G. Bell, Bernard B. Gilpin, and Edward T. Meagher, Surgeons, to the *Victory*, additional, for Haslar Hospital, November 26th; David J. P. McNabb, Surgeon, to the *St. Vincent*, December 18th; William Graham, Fleet-Surgeon, to Pembroke Dockyard, December 10th; James J. Sweetman, M.D., to the *Inflexible*, December 10th.

Staff-Surgeon Alexander Cummings Air died at South Norwood on November 27th, in his 82nd year. He was appointed Surgeon, July 28th, 1830; and Staff-Surgeon, August 5th, 1843; and retired from the service in 1856.

ARMY MEDICAL STAFF.

Surgeon-Captains H. M. Adamson, M.B., and W. Hallaran, M.B., who are serving in the Madras Command, have passed the lower standard test in Hindustani.

Surgeon-Captain Hardress James Waller, who was serving in the Madras Command, died at Bernardmyo, Upper Burmah, on the 8th ult. Surgeon-Captain Waller was born in December, 1863, and had therefore nearly completed his 29th year. He entered the service February 1st, 1890. He was awarded the bronze medal of the Royal Humane Society for saving from drowning a patient who had flung himself off the hospital flat during an epidemic of cholera at Prome, in June or July, 1891.

Surgeon-Major H. Saunders, now at Malta, has been appointed to the King's Dragoon Guards, now forming part of the Queen's Guard at Windsor.

Surgeon-Major J. F. Brodie, serving on the Madras Establishment, is granted an extension of leave from October 28th to the date of his re-embarkation for Madras.

Surgeon-Captain H. C. Thurston, on return from England, is directed to do duty in the Belgaum and Bangalore Districts, Madras Command.

Surgeon-Major E. L. Maunsell, serving in the Bombay Command, is transferred from general duty in the Poona District to general duty in the Sind District.

Surgeon-Captain W. B. Stokes, expected from England for duty in India, is posted to the Bombay Command, in succession to Surgeon-Captain R. J. D. Hall, tour expired.

INDIAN MEDICAL SERVICE.

Surgeon-Captain W. R. Edwards, M.D., Bengal Establishment, is appointed Honorary Surgeon to the Beloochistan Rifle Volunteers.

Surgeon-Captain D. H. M. Graves, Surgeon-Captain W. Molesworth, and Surgeon Lieutenant K. H. Lient, all of the Madras Establishment, have passed the lower standard test in Hindustani.

Surgeon-Captain L. F. Childe, Bombay Establishment, received charge of the duty of Professor of Chemistry in Elphinstone College on October 7th.

Surgeon-Captain A. V. Anderson, M.B., Bombay Establishment, received charge of the office of Deputy Sanitary Commissioner, Western Registration District, on October 24th.

Surgeon-Captain J. P. Barry, M.B., Bombay Establishment, Superintendent of Matheran in the District of Kolaba, is appointed Magistrate, third class, in that District, and is invested with additional powers specified in the 4th schedule to the Code of Criminal Procedure, 1882.

The powers of a magistrate of the third class conferred on Surgeon-Major J. S. Wilkins, Bombay Establishment, October 16th, 1889, are withdrawn.

The following Surgeon-Majors of the Bengal Establishment, having completed 20 years' full pay service, are promoted to be Surgeon-Lieutenant-Colonels, from October 1st: M. D. Moriarty, M.D.; G. Price, M.D.; E. Bovill, M.B.; B. O'Brien, M.D.; H. W. Hill, M.B.; W. A. Gallgan; and W. E. Griffiths.

The following Surgeon-Captains of the Bengal Establishment, having completed 12 years' full pay service, are promoted to be Surgeon-Majors from October 2nd: G. M. J. Giles, M.B.; A. R. W. Sedgefield, M.B.; E. F. H. Dobson, M.B.; J. Shearer, M.B.; F. S. Peck; and W. Deane.

Surgeon Lieutenant-Colonel G. F. Bevan and Surgeon-Captain C. F. Fearnside, of the Madras Establishment, have been permitted to return to duty.

Surgeon-Captain W. E. Jennings, M.B., Bombay Establishment, is appointed Civil surgeon of Kutnagherry, *vice* Surgeon-Captain B. B. Grayfoot, continuing to act as Secretary to the Surgeon-General with the Government of Bombay.

Surgeon-Lieutenants S. H. Burnett and T. Jackson are brought on the strength of the Bombay Establishment from November 1st, the date of their arrival at Bombay.

The undermentioned officers have leave of absence as specified: Surgeon-Captain E. R. W. C. Carroll, Bengal Establishment, medical officer 16th Native Infantry, for one year out of India, on medical certificate; Brigade-Surgeon-Lieutenant-Colonel W. Finden, Bengal Establishment, 7th Bengal Cavalry, for six months, on medical certificate; Surgeon-Major H. D. Masani, Bombay Establishment, in India and to Burmah for six months, from date of departure, on private affairs.

Surgeon-Lieutenant-Colonel Henry Walter Hill, Bengal Establishment, died at St. Helier's, Jersey, on November 22nd, at the age of 42. He entered the service as Surgeon, October 1st, 1872, and attained the rank of Surgeon-Lieutenant-Colonel so recently as the 1st October last.

Surgeon-Major Peter Gooddall Lay, Bengal Establishment, died at Cairo on November 21st.

THE VOLUNTEERS.

MR. THOMAS EDWARD STUART is appointed Surgeon-Lieutenant to the 1st Essex Artillery (Eastern Division, Royal Artillery), November 26th.

Surgeon-Captain J. SHERBURN, M.B., 2nd East Riding of Yorkshire Artillery (Western Division, Royal Artillery), is promoted to be Surgeon-Major, November 26th.

Mr. WILLIAM BARON COCKILL is appointed Surgeon-Lieutenant to the 2nd (Westmoreland) Volunteer Battalion Border Regiment (late the 1st Westmoreland), November 26th.

Surgeon-Lieutenant J. W. HININGS, 1st Herefordshire, is promoted to be Surgeon-Major, November 26th.

THE DIRECTOR-GENERAL ON THE DESIDERATA.

THE *Broad Arrow* has a paragraph, but we know not on what basis, to the effect that "it is reported, with some authority, that the desiderata of the Army Medical Staff, recently submitted by the Chairman of the Parliamentary Bills Committee of the British Medical Association to the Secretary of State for War, have been transmitted by the latter to the Director-General of the Department for his consideration, and that Sir William Mackinnon has given the following opinions on the points referred to him: (1) That as regards foreign service, he is in favour of reverting to the old tour of five years for India. (2) That as to purely military titles, although personally adverse to them, he has been bound to allow that the large majority of his officers are in favour of their being conceded. (3) That the formation of a Royal corps has his emphatic approval. (4) That interference with his power to sanction, or to object to, exchanges is to be deprecated.

THE VOLUNTEER OFFICERS' DECORATION.

THE *London Gazette* of November 22nd contained the following additional list of volunteer officers upon whom the Queen has been pleased to confer the Volunteer Officers' Decoration, they having been duly recommended for the same under the terms of the Royal Warrant, dated July 25th, 1892:—Surgeon-Major George Bolton, 1st Durham Artillery (Western Division, Royal Artillery); Surgeon-Lieutenant-Colonel Thomas Carlyle Beatty, 2nd Durham (Seaham) Artillery (Western Division, Royal Artillery); Surgeon-Lieutenant-Colonel Thomas Gibbon, 2nd Durham (Seaham) Artillery (Western Division, Royal Artillery); Surgeon Lieutenant-Colonel Samuel Gourley, 4th Durham Artillery (Western Division, Royal Artillery); Surgeon and Honorary Surgeon-Major Thomas Small, retired, 1st Lincolnshire Artillery (Western Division, Royal Artillery); Surgeon-Lieutenant-Colonel Harry Meade, 2nd West Riding of Yorkshire Artillery (Western Division, Royal Artillery); Surgeon-Major Adam Wilson, 2nd Volunteer Battalion, the Northumberland Fusiliers; Surgeon-Lieutenant Hugh George, M.D., 1st Volunteer Battalion, the Lincolnshire Regiment; Surgeon-Major John West Walker, M.B., retired, 1st Volunteer Battalion, The Lincolnshire Regiment; Surgeon and Honorary Surgeon-Major Charles Bartholomew Moody, retired, 1st Volunteer Battalion, the Lincolnshire Regiment; Brigade-Surgeon-Lieutenant-Colonel James Scarborough Loe, 3rd Volunteer Battalion, the Prince of Wales's Own (West Yorkshire Regiment); Surgeon and Honorary Surgeon-Major Edward Rawson Denton, retired, 1st Volunteer Battalion, the Leicestershire Regiment; Surgeon-Lieutenant-Colonel J. Edwin Foster, 2nd Volunteer Battalion, the Duke of Wellington's (West Riding Regiment); Brigade-Surgeon-Lieutenant-Colonel William Milligan, 2nd Volunteer Battalion, the Sherwood Foresters (Derbyshire Regiment); Surgeon-Lieutenant Colonel Edward Mason Wrench (2nd Volunteer Battalion, the Sherwood Foresters (Derbyshire Regiment); Surgeon-Lieutenant-Colonel Thomas Wright, 1st Nottinghamshire (Robin Hood) Rifle Volunteer Corps; Surgeon-Major John O'Connel Hynes, 1st Nottinghamshire (Robin Hood) Rifle Volunteer Corps; Brigade-Surgeon-Lieutenant-Colonel John Blackburne, 2nd Volunteer Battalion, the York and Lancaster Regiment; Brigade-Surgeon-Lieutenant-Colonel John Mitchell, 2nd Volunteer Battalion, the Durham Light Infantry; Surgeon and Honorary Surgeon-Major Charles Nattrass, M.D., retired, 3rd (Sunderland) Volunteer Battalion, The Durham Light Infantry; Surgeon-Lieutenant-Colonel David Henry Monckton, M.D., Volunteer Medical Staff Corps, Maidstone Division; Surgeon-Major William Seymour Burrows, 1st Sussex Artillery Volunteers (Eastern Division, Royal Artillery); Surgeon-Lieutenant-Colonel Henry Benjamin Wood, M.D., retired, 2nd (the Weald of Kent) Volunteer Battalion, the Buffs (East Kent Regiment); Brigade-Surgeon-Lieutenant-Colonel Charles Francis Lewis, 2nd Volunteer Battalion, the Royal Sussex Regiment; Surgeon-Lieutenant-Colonel William Warman Coleman, retired, 3rd Kent Artillery (Royal Arsenal).

VOLUNTEER MEDICAL STAFF CORPS.

THE annual competition for the challenge shield took place on Saturday, November 26th, at the headquarters 1st Middlesex Rifle Volunteers; Nos. 1, 2, and 4 Companies competed. The judges were Surgeon-Major A. E. Hayes, D.S.O., Secretary to the Surgeon-General at the Royal Victoria Hospital, Netley, and Surgeon-Captain Pope, the Netley Adjutant. Surgeon-Major Hayes declared No. 1 Company, commanded by Surgeon Captain Valentine Matthews, to be the winners. He said that the way in which the different competing companies went through the various movements in company and stretcher drill showed great credit to both officers and men of the corps, and it also showed that the Adjutant and Instructor must have worked hard to bring men to such a high state of efficiency. All the companies drilled remarkably well, but he had never seen such perfect drill as that of No. 1, the winning company, being all moved as one man, and there was not a single mistake. Surgeon-Colonel A. J. Norton and the officers of the corps entertained the judges at mess at the Holborn in the evening. The commandant, Surgeon-Colonel A. J. Norton, the Adjutant, and all the officers were present at the competition together with a number of friends.

ON Saturday afternoon, November 26th, at Windsor, Staff Sergeant Charles Williams, of the Medical Staff Corps, was decorated by Her Majesty with the medal for distinguished conduct in the field. At the battle of Abu Klea on January 17th, 1885, the action in which Colonel Burnaby was killed, as the square, which was hotly pressed by the enemy, kept moving onwards, Sergeant Williams and the other members of his little corps, about fifteen in number, heroically rushed from time to time from the ranks and rescued some eighty or ninety wounded soldiers lying upon the field. They were occasionally left some distance in the rear of their fighting comrades, and while they were being placed upon the camel litters and conveyed to the shelter of the square, Sergeant Williams and the Medical Staff Corps were exposed to the galling fire of the Soudanese.

AMALGAMATION OF THE MEDICAL SERVICES.

SURGEON-CAPTAIN writes: Referring to your valuable article on the Indian Medical Service, I would suggest as a step towards amalgamation with the Medical Staff, the entire separation of the civil from the military duties, for the following reasons: Natives who enter the Indian Medical Service receive the compound titles, and are frequently of low caste; natives who enter the fighting portion of the army are often of high caste, but are not promoted to English rank; it is unlikely the former would be given purely military rank and title while denied to the latter; therefore we would not obtain the much-desired and needed pure military status while closely allied to or amalgamated with an Asiatic section.

"*" We see the force of our correspondent's argument. The scheme which we sketched in the article for a one-portal entrance set forth that natives would compete for purely civil appointments only; and there would thus be no need to give such men purely military rank and title.

RETIREMENT AFTER TWENTY YEARS' SERVICE.

EMERITUS writes: Your correspondent "West Africa," in the BRITISH MEDICAL JOURNAL of November 19th, has no cause for anxiety. In obedience to the regulations he is doubtless in possession of a copy of the edition of the Royal Warrant for pay, etc., of May 25th, 1892, which was promulgated by Army Order 108 of 1892, and in Article 1071 thereof he will see that the retirement of Surgeon-Majors, after 20 years' service, which, apparently by an oversight, was omitted from the Royal Warrant of August 7th, 1891 (Army Order 187 of 1891), has again been provided for.

THE DETAIL FOR GENERAL SERVICE IN INDIA.

OBSERVER declares that the detail for general service in India has arisen from a desire on the part of the authorities in that country to job appointments to friends and acquaintances. Social influences have much to do, more than merit or fitness, for detail to the best appointments and most pleasant stations.

"*" We have a better opinion of the Indian authorities than our correspondent.

OBITUARY.

WILLIAM LINDON DICKINSON, L.R.C.P., M.R.C.S.ENG., J.P.

By the death, on November 20th, of Mr. William L. Dickinson there ceased from the town of Workington and from a very large surrounding district a medical connection which has been preserved in unbroken succession for nearly a century. Mr. Dickinson was born in July, 1820; he succeeded his father and grandfather in practice at Workington. In these days of railways, telegraphs, telephones, etc., it is difficult thoroughly to estimate the great difficulties or the vast amount of hard work a practice entailed half a century ago; but the high estimation in which these services were held by such a large section of the community was in itself testimony of the conscientious way in which those duties were performed and the professional skill which was at command. In his work up to the time of his retirement the deceased gentleman brought to bear on the practice of his profession a well-informed mind, experience derived from early training, and an accurate and keen judgment.

A natural charm of manner added to his success, and helped to gain from his patients confidence and esteem. Mr. Dickinson did not neglect to keep himself well read in current medical literature, and was especially a student of physiology. The honour belongs to him of having been the first person to diagnose trichinosis in the living object in England. He was a typical specimen of the old family practitioner, courteous, cautious, dignified, and refined, beloved by his patients, of a kind and generous nature, which tended to make his presence in the sick room particularly pleasing. In his relations with fellow practitioners he was ready at all times to place his long experience and skill at their disposal, but, adhering to the best traditions of the profession, he avoided any departure from the strict rules of professional honour.

Up till a few days before his death Mr. Dickinson had been in his usual health. On the evening on which he died he had just finished tea when he was seized with an attack of angina

pectoris, and passed away almost before his sorrowing family could come to his assistance. Mr. Dickinson was buried at St. John's, Workington, the funeral being attended by a large number of friends and professional brethren. Not a few of the townspeople with whom he had so long been associated felt as they stood at the grave that they had lost, in the person of Mr. Dickinson, one who through life had shared much of their sorrow, and who had always been to them a friend and counsellor of no ordinary kind.

CHARLES ARNISON, L.R.C.P.Edin., M.R.C.S.Eng., J.P.

We regret to announce the death of Charles Arnison, of Stanhope, L.R.C.P. Edin., M.R.C.S. Eng., J.P. for Durham, which took place on November 17th. He was in his usual health on the previous day, and retired to rest as usual. He, however, was taken ill suddenly about midnight; medical aid was called, but he expired about 3 A.M., in the 84th year of his age. Dr. Arnison was the son of Christopher Arnison, surgeon, of Allendale Town, and practised in early life as physician and surgeon in Alston and Allendale. On the death of his brother, Mr. George Arnison, of Stanhope, in 1866, Charles Arnison came to Stanhope as his brother's successor, and continued to practise at Stanhope, being for many years union medical officer. He also held many other public appointments. Some years ago he retired from practice, and during several years has lived a retired life, taking commendable interest in the local affairs of Stanhope. During the last twenty-six years Dr. Arnison has been one of the first to support local improvement schemes, and as a private gentleman his name was proverbial for benevolence, for few appealed to him in vain. He liberally supported the church, the schools, reading-rooms, local societies, charity funds, coal funds for the poor, benefit societies, and in many ways was a friend to the poor and needy. Dr. Arnison was well known throughout Weardale, and he will be greatly missed by all classes. The deceased for many years sat as a magistrate on the Stanhope and Wolsingham benches. He leaves a widow and an only daughter to mourn his loss.

HOSPITAL AND DISPENSARY MANAGEMENT.

COTTAGE HOSPITAL AT FALMOUTH.

The scheme recently promulgated for the establishment of a cottage hospital at Falmouth has been so liberally supported that there is now every reason to believe that it will be carried to a successful issue.

TREATMENT OF IDIOCY.

At a meeting at the Eastern Counties Asylum for Idiots, held at Newmarket on November 19th, it was stated that there were now 207 patients. The cost of the enlargements, which more than doubled the original size of the asylum, was £25,000, and the whole of that sum had been provided by the four Eastern Counties, without incurring any debt or borrowing any money. The increase in the number of patients had been followed by a reduction in the individual expense. The cost per head in 1880, the first year, was £50, and in 1891 it had been reduced to little over £30, or 11s. per week for each patient, including all charges. The management had been able to purchase several acres of land conveniently situated immediately opposite the asylum, and to be utilised for a building invaluable for the first reception of newly-elected cases, for a recreation field for the men and boys, and to provide sufficient farm and garden work, which was useful and beneficial to the patients who were physically able to undertake it. It was hoped before long to be able to open a small convalescent home at the seaside.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,020 births and 3,694 deaths were registered during the week ending Saturday, November 26th. The annual rate of mortality in these towns, which had declined from 19.6 to 18.6 per 1,000 in the preceding three weeks, rose again to 18.9 during the week under notice. The rates in the several towns ranged from 13.6 in Derby, 15.6 in Bristol, 15.7 in Croydon, and 15.9 in Gateshead to 22.9 in Manchester, 23.1 in Plymouth, 24.2 in Halifax, 26.9 in Blackburn, and 31.6 in Salford. In the thirty-two provincial towns the mean death-rate was 19.8 per 1,000, and exceeded by 2.1 the rate recorded in London, which was 17.7 per 1,000. The 3,694 deaths registered during the week under notice in the thirty-three towns included 423 which were referred to the principal zymotic diseases, against 431 and 392 in the preceding two weeks; of these, 142 resulted from measles, 73 from scarlet fever, 65 from whooping-cough, 61 from diphtheria, 40 from diarrhœa, 39 from "fever" (principally enteric), and 3 from small-pox. These 423 deaths were equal to an annual rate of 2.2 per 1,000; in London the zymotic death-rate was equal to 1.7 per 1,000, while it averaged 2.5 in the thirty-two provincial towns. No death from any of these diseases was recorded last week in Wolverhampton or in Gateshead; in the other towns they caused the lowest death-rates in Sunderland, Derby, and Norwich, and the highest rates in Plymouth, Leicester, Brighton, Croydon, and Salford. Measles caused the highest proportional fatality in West Ham, Croydon, Brighton, Salford, Huddersfield, and Hull; scarlet fever in Plymouth, Blackburn, and Preston; whooping-cough in Birmingham, Birkenhead, Salford, and Preston; "fever" in Swansea; and diarrhœa in Halifax. The 61 deaths from diphtheria included 46 in London and 4 in Manchester. One fatal case of small pox was recorded in London and 2 in Leicester, but not one in any other of the thirty-three large towns; 16 small-pox patients were under treatment in the Metropolitan Asylums Hospitals and 2 in the Highgate Small-pox Hospital on Saturday last, November 26th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,944, against 4,063 and 4,045 on the preceding two Saturdays; 302 new cases were admitted during the week, against 403 and 404 in the preceding two weeks. The 353 deaths from diseases of the respiratory organs in London were 90 below the average, and were equal to an annual rate of 4.3 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, November 26th, 934 births and 462 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.6 and 21.5 per 1,000 in the preceding two weeks, further rose to 23.7 during the week under notice, and exceeded by 4.8 per 1,000 the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 13.0 in Paisley and 13.7 in Perth, and the highest rates 24.0 in Edinburgh and 58.0 in Leith. The 661 deaths in these towns included 162 which were referred to the principal zymotic diseases, equal to an annual rate of 5.8 per 1,000, which was 3.6 per 1,000 above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Aberdeen, Edinburgh, and Leith. The 300 deaths in Glasgow included 1 from small-pox, 18 from scarlet fever, 16 from measles, and 3 from diphtheria. Twenty-nine fatal cases of measles were recorded in Edinburgh, 13 in Aberdeen, and as many as 6 in Leith. The death-rate from diseases of the respiratory organs in these towns was equal to 5.1 per 1,000, against 4.3 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, November 19th, were equal to an annual rate of 25.2 per 1,000. The lowest rates were recorded in Lisburn and Limerick, and the highest rates in Newry and Galway. The death-rate from the principal zymotic diseases averaged 1.5 per 1,000. The 160 deaths registered in Dublin were equal to an annual rate of 23.9 per 1,000 (against 28.5 and 23.9 in the preceding two weeks), the rate during the same period being 18.4 in London and 21.9 in Edinburgh. The 160 deaths in Dublin included 9 which were referred to the principal zymotic diseases (equal to an annual rate of 1.3 per 1,000), of which 5 resulted from diarrhœa, 2 from enteric fever, and 1 from whooping-cough.

PREPARATIONS FOR CHOLERA.

We understand that the Local Government Board have in contemplation an official inquiry, which they hope to hold in the course of the present month, into the whole question of port sanitary administration in the Customs ports of Gloucester, Bristol, and Bridgwater on the south side of the Bristol Channel, with a view to the adoption of some comprehensive scheme, with special reference to the precautions to be taken against cholera invasion. At present the waters in question are under the divided jurisdiction of those port and numerous riparian sanitary authorities.

POLLUTION OF THE ORWELL.

Mr. Thomas Miller, M. Inst. C.E., the engineer to the Ipswich Dock Commission, has measured the sewage deposits in the river Orwell, below Ipswich. He finds that 62 acres of offensive mud are exposed at ordinary low tides, and 9 acres at times of spring tide. Below the lowest low water mark the deposit thins out. It is inferred from all this that the outfall works of the Ipswich Corporation are not as efficient as they might be.

VACCINATION AT COVENTRY.

Small-pox has been introduced into Coventry by a vagrant from Leicester. The man was speedily isolated at the workhouse, and it is hoped that there may be no spread of infection this time. Unfortunately, the Coventry guardians are among those who have betrayed their trust in the matter of vaccination, on the childish pretence that during the sitting of the Commission the law ought to be suspended. In a letter to the *Coventry Herald*, Dr. Lynes, the public vaccinator, states that only 28 children have been vaccinated during the last twelve months, as compared with 577 in the previous twelve months, before the guardians' default. Now that small-pox outbreaks are becoming so unpleasantly common, the Commission must recognise that the protracted delay in the issue of any expression of opinion from them upon the merits of vaccination is having a disastrous effect upon infant vaccination generally. They are by this delay simply playing into the hands of the unscrupulous and fanatical antivaccination faction, who do not hesitate to put a false interpretation upon their silence. The promised early report will do more than anything else, except an outbreak of small-pox, to silence the ignorant clamour against vaccination.

INCREASE OF SALARY.

In consequence of increased duties, the salary of Dr. S. B. Mason as medical officer of health has been increased by the Pontypool Urban Sanitary Authority from £25 to £35, and as district medical officer by the Board of Guardians from £51 to £60.

CONSTANT WATER SUPPLY.

LONDON will, the *Daily Chronicle* points out, in a few years at length have a constant supply of water, judging from the progress now made by several of the companies. The whole of the East London Water Company's district is under constant supply, only two small areas of the Grand Junction remain to be dealt with, nearly one half of the New River Company is under constant supply, three-fourths of the Lambeth, and nearly all of the Southwark and Vauxhall Company. The Kent Water Company will not be able to complete their constant supply for some years, owing to the rural nature of the greater part of the district. The West Middlesex Company have supplied four out of six areas with constant service. The Chelsea Company expects to complete its extension of constant supply in four years' time. Londoners have to thank the London Council for having taken the initiative in this matter, and exercising its powers under the Metropolis Water Act, 1871.

SMALL-POX AND FEVER IN LONDON.

THE Metropolitan Asylums Board on November 26th had the welcome news that the number of fever patients in the hospitals had at last begun to decrease. The total number under treatment now is 4,257, as compared with 4,363 in the previous fortnight. On the other hand no fewer than 15 cases of small-pox had been admitted, as against only two in the preceding fortnight. Of these cases, however, nine came from one house in Islington.

RUNCORN INFECTIOUS HOSPITAL.

THE Runcorn Rural Sanitary authorities are about to build an infectious hospital at a cost of about £1,200. At present £2 a week is being paid for pauper patients in the Runcorn Hospital.

PAYMENT OF VACCINATION GRANTS AND FACTORY FEES.

MEMBER writes: On October 1st last I received an intimation from the Local Government Board that they had awarded me a grant for successful vaccination, and had certified that the amount of the same was payable to me by the County Council. Ought I to apply for payment, or will the Council pay me in due course? What fee is usual for examination of candidates under the Factory Act, and should the fee be paid by the candidate or the employer.

*** 1. It is the duty of the County Council to pay the grant after receiving the certificate from the Local Government Board. Probably the delay arises from the necessary formalities, as all accounts have to pass through the hands of the responsible comm[i]ttees before being finally sanctioned by the Council. 2. The fee is paid to the surgeon by the employer, who may deduct 3d. of it from the wages. In the absence of any agreement as to the fee, the Act of 1878 prescribes a sum of 6d. per person examined; and where the works are more than a mile from the surgeon's residence, a further journey-allowance of 6d. per half mile beyond the first mile.

HAND-FLUSHING OF CLOSETS.

"M. O. H." proposes, we think, to act unwisely. Hand-flushing of water closets ought to be relegated to the dark ages of sanitation. It is unreliable, and requires almost incessant supervision in order to prevent a breakdown which would cause formidable nuisance. In Bristol this method was largely adopted some years back; the latest notes as to the results will be found in Dr. Parsons's recent report upon slop closets.

INDIA AND THE COLONIES.

VICTORIA.

CREMATION.—Dr. Greswell recently presented a report to the Board of Health on cremation, with reference to which the Board has passed the following resolution: "That the Minister of Health be advised that the Board is of opinion that legislation should be introduced legalising cremation, and giving the Governor in Council power, when such diseases as leprosy, yellow fever, or cholera are present, to compel the erection of crematories and to render obligatory the cremation, under suitable regulations, of the bodies of persons who have died of such diseases."

NEW SOUTH WALES.

THE MEDICAL BILL.—Sir George Dibbs moved the second reading of the Medical Bill in the Legislative Assembly on October 6th. It was carried by 48 votes to 11.

LEPROSY.—The total number of patients admitted into the Leper Hospital at Little Bay, Sydney, since its establishment in 1883, up till the beginning of last year, was 31. Among these there were 9 natives of New South Wales, of whom 1 died; 19 Chinese, of whom 8 died; 1 half caste from the West Indies, 1 Javanese, and 1 Kanaka. Thus, of the 31, 9 died and 1 could not be detained. At the beginning of 1891, 13 lepers were under detention in the hospital. In the course of that year, 17 persons were notified to the Board as being suspected of leprosy; 7 of these proved to be suffering from some other disease; of the remaining 10, all of whom were undoubted lepers, 5 were natives of New South Wales of European descent; 4 were Chinese, and 1 was a Kanaka. The number of lepers in the hospital on December 31st, 1891, was 21.

NEW ZEALAND.

SOME time ago (July 2nd, 1892) we published a letter from a correspondent enclosing an advertisement of "Macbean Stewart's New Cure for Asthma," etc. Dr. F. Macbean Stewart, of Christchurch, New Zealand, writes to say that he neither owns it, runs it, nor advertises it, an assurance we are very glad to receive, as the advertisement on the face of it may have been liable to misconstruction. Could he not, however, succeed in preventing his name appearing in this very objectionable manner?

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

AUTUMN SESSION, 1892.

SIR RICHARD QUAIN, Bart., President, in the Chair.

Thursday, November 24th (continued).

WITHDRAWAL OF DIPLOMAS.

Dr. GLOVER brought forward the following motion:

That Mr. Muir Mackenzie's opinion be taken on the following question: Have the bodies the right to withhold the qualifications of a man whose diplomas have been withdrawn by them only on the action of the General Medical Council, and in cases where the Council has ordered the restoration of the name? If they have, has the Council the power to restore the name of a practitioner all whose qualifications have been withdrawn?

Sir WILLIAM TURNER said that the answer to the first question would depend on the charters of the particular authorities. He approved the second question.

Mr. B. CARTER said that the Society of Apothecaries possessed no power of reinstatement after withdrawal. In reply to Dr. MacVail, he said that one of the requirements of the Society was a good character, and a man whose name had been erased from the *Register* would probably not answer this description. Consequently he would not be admitted to examination.

Dr. ATTHILL, Mr. BRYANT, Dr. CAMERON, and Mr. COLLINS also spoke on the question.

Sir DYCE DUCKWORTH said the Council could not interfere with the exercise of powers conferred by charter on the various bodies.

Dr. MACALISTER called attention to Section 28 of the Medical Act, 1858, which appeared to give the Council the power of ignoring the withdrawal of qualifications by a particular body. The Act evidently contemplated that in some cases the Council might not erase withdrawn qualifications.

Dr. GLOVER intimated his willingness to withdraw the first part of the question.

Dr. ATTHILL moved that the first question be dropped, and the second modified.

Dr. HERON WATSON said the Scotch law was different from that of Ireland and England. It would be necessary to have an opinion on the subject of the powers of the Scotch bodies by an experienced Scotch barrister.

Dr. GLOVER then withdrew the first part of his motion, and modified the second part to read as follows:

Has the Council the power to restore to the *Register* the name of a person whose diplomas have all been withdrawn by the medical authorities granting them?

Mr. B. CARTER suggested the following reading, which was accepted by Dr. GLOVER, and adopted:

In the event of the name of any practitioner being erased from the *Register* by the direction of the Council, and his qualifications being afterwards withdrawn by the bodies granting them, has the Council power to restore the name of the practitioner, and if so under what descriptions as regards qualifications?

CERTIFICATES TO MIDWIVES.

Sir WILLIAM TURNER moved:

That the Registrar be requested to inform Dr. Rentoul that the certificates referred to in his memorial are neither licences nor diplomas within the meaning of the Medical Acts, and possess no legal value. The Council would also point out that, whilst the certificate granted to women might express that the holder had been trained as a practical midwife, it yet gives no legal qualification to practise.

He pointed out that such certificates were merely expressions of opinion as to the holder's competence to practise in this or that department. He had a bundle of certificates of this kind, in some of which the expression "qualified to practise midwifery" was used.

Mr. WHEELHOUSE said that these women, at any rate, believed themselves to be in possession of documents qualify-

ing them to practise midwifery, and conferring the right to do so. Of course this was not so, these certificates conferring no legal status or right. He therefore had pleasure in seconding the motion.

Dr. Atthill thought Dr. Rentoul had done good by calling attention to the matter. These so-called qualified midwives were often most imperfectly instructed; three months' instruction and then an examination by their teachers was followed by the grant of a certificate which the outside public believed to be equal to the diploma of a College of Physicians or Surgeons. The Rotunda Hospital was founded as a charitable and educational institution, but especially as the latter. The women students had to live in the hospital for six months and see a large number of cases. The certificate, granted under a special charter, testified to their having been instructed to act as "nurse-tender or midwife," thus making the terms synonymous.

Sir Wm. Turner asked that the first paragraph of the motion should be taken alone.

Mr. B. Carter pointed out that there were two sides to this very important question. The practice of giving documents of this kind owed its origin to a desire to afford some kind of protection to poor women in labour. He thought the Council would not be well advised to appear to deprecate the employment of female attendants on women in labour, though they might take cognisance of the varying conditions under which these certificates were granted. It was essential that the poor should have the aid of women who would know when danger was present.

The first paragraph was then put to the Council, and was agreed to.

The second paragraph, altered as follows, was also adopted:

That the President be requested by the General Medical Council to point out to the institutions and persons who grant such certificates that the certificates should be expressed in such a form as not to lead to the impression that they constitute a legal qualification to practise midwifery.

Naval Medical Department.

The usual annual return of the Director-General of the Naval Medical Service relating to the results of the competitive examinations was received and entered on the minutes, and a vote of thanks was passed to the Director-General for his courtesy.

Warning to Dentists.

The draft warning drawn up by the Council's solicitor to be issued to registered dentists in respect of "covering" unqualified assistants was brought forward for adoption. It read as follows:

Any registered dentist practising for gain, who knowingly and wilfully deputes a person not registered or qualified to be registered under the Dentists' Act to treat professionally on his behalf in any matter requiring professional discretion or skill any person requiring operations in dentistry of a surgical character, will be liable to be dealt with by the Council as having been guilty of infamous or disgraceful conduct in a professional respect, and to have his name erased from the *Dentists' Register*.

This draft warning was approved, and Sir Walter Foster moved that a copy of the warning should be forwarded to every registered dentist.

The President said that this course had not been thought necessary in respect of the like warning to medical practitioners.

Dr. Glover pointed out the departure was a new one as concerning dentists.

Sir William Turner observed that at present the financial balance was against the Dental Fund; to send round this warning would cost at least £30. The dentists could not complain if the Council did for them exactly what it had done for medical practitioners.

Mr. Macnamara thought the warning could be distributed for less than £10.

The Registrar said that the British Dental Association had represented to him that they were in a position to distribute them better than he (the Registrar) could be.

Sir Walter Foster said that the duty was incumbent on the Council as a matter of dignity and business-like conduct; it should not be delegated to another body; and the motion was then agreed to.

Sir Richard Quain in the Chair.

Friday, November 25th.

Report of the Education Committee.

Dr. Tuke moved that the report be considered, and the recommendations appended thereto adopted. The first proposed that the Council should again recommend the Apothecaries Society to abandon their Preliminary Examinations in Arts.

Mr. B. Carter complained that the report had only come into his hands on the previous day, consequently he had not had the opportunity of communicating with the Society of Apothecaries. He maintained that the Education Committee had overstepped their duties. It was monstrous to say that a body which was fit to be entrusted with the qualifying professional examinations was unfit to stand guard over the portals of the curriculum. It was unfair to ask the Society of Apothecaries to give up holding its preliminary examinations in favour of a body like the College of Preceptors, which, so far as he knew, included no person of eminence. The action of the Society in taking legal opinion on the point seemed to have been condemned by the committee. The Society, however, declined to sign a voluntary abdication, and for that they were to be condemned as contumacious. The Committee's report positively bristled with libellous statements and defamatory innuendoes, and he warned the Council not to endorse such a document. He concluded by proposing, as an amendment:

That the report and recommendations of the Education Committee be referred to the Examination Committee for consideration, with an instruction to confer with the Council's legal adviser before sending in their report.

Dr. MacAlister said the whole question of preliminary education had for many years past been in charge of the Education Committee. They were consequently well able to form an opinion on the subject. Any such course as that embodied in the amendment would infallibly lead to the resignation of the Education Committee as a whole, and go far to stultify their efforts to improve the standard of preliminary education. The Education Committee, in taking their present stand, were acting on the lines on which they had all along proceeded. In endeavouring to improve the standard of preliminary examinations, it was natural to proceed from below upwards. On arranging the English examinations on the recognised list in order of difficulty and thoroughness, that in question beyond doubt came lowest. He thought the examination of the Society of Apothecaries offered the fewest guarantees of all the preliminary examinations, and was notoriously the easiest examination of its kind; it was resorted to by the intellectually weak and ailing. In reference to the status of the College of Preceptors he asked the Council to look over the names comprised in the list of moderators and examiners contained in the calendar of the College.

Dr. Atthill had shared the opinion that medical corporations should not hold preliminary examinations in arts. At the same time he felt a difficulty in voting for the amendment seeing that he was assured such a vote would be construed as an insult to the Education Committee. As for the motion itself, he felt that it would be a useless vote and therefore one which the Council should not make.

Mr. B. Carter did not wish to throw any slur on the Education Committee, and expressed his readiness to refer the report back to the Committee which had framed it.

Sir John Simon pointed out that the policy advocated in respect of the Apothecaries' Company was a policy urged from the very early days of the Council. It had been the principle of the Council ever since this body could be said to have had any policy in respect to examinations. He would not so much object to the examination of the Apothecaries' Society were it confined to men who were going in for the Society's professional examinations. Unfortunately, it had proved attractive to other candidates. He repudiated the claim of the Society to be a really satisfactory examining body in arts.

The President said that if this resolution were passed it would, perhaps, mean a lawsuit more tedious and expensive than the one the Council was now engaged in with the College of Physicians. He advised them not to launch out on this business; if they did they would have to take the consequences, for he knew on good authority that the Society of Apothecaries would not give up their privileges.

Dr. HAUGHTON called upon Mr. B. Carter to withdraw his utterly unwarrantable strictures on a body (the College of Preceptors) of which he evidently knew absolutely nothing. He himself had been for many years a Fellow of the College.

Sir DYCE DUCKWORTH did not believe that there was any danger of such a lawsuit on the part of the Society, and even were this likely to be the case, it would be no reason for the Council to hesitate to carry out its duty.

Mr. B. CARTER said he had expressly stated that he was speaking in his individual, and not in his representative, capacity.

The amendment was then negatived by a large majority, only four hands being held up in its favour.

The first recommendation was then brought forward, to the effect that:—

1. That the Council address to the Society of Apothecaries of London a further expression of opinion that the discontinuance of the Society's Preliminary Examination in Arts for medical students would be for the public good.

and this was passed *nem. con.*

Dr. TUKE then brought forward the second recommendation:—

2. That, in the event of the Society of Apothecaries of London not being prepared to intimate to the Council that its Examination in Arts for medical students is to be discontinued at the end of the present year, the Council attach to that examination in the Council's list a note stating that "the Council has recommended and recommends that this examination be discontinued."

Sir WM. TURNER thought it would be better to wait to see what would be the effect of the first recommendation on the attitude of the Society.

Dr. TUKE said the Council had approached the Society in a friendly spirit, and the fault for the present situation lay with the Society.

Dr. MACALISTER said it was useless to go on recommending, seeing that, since June, 1891, when a like recommendation was made, the Society had paid no attention.

Mr. MACNAMARA protested against this recommendation being adopted at present.

Sir WALTER FOSTER said he should vote against the clause because it was so lame and impotent. Had the Committee recommended more drastic measures, such as the striking off of the examination from the recognised list, his support would have been given to their proposals.

Dr. MCVAIL said the present meeting of the Council could not bind the future action of the Council in respect of a matter that would not come into effect until after the subsequent meeting had taken place.

Dr. HERON WATSON said the recommendation was a covert threat, and ought not to be proposed. He hoped the Education Committee would see its way to withdrawing the remaining recommendations.

Dr. MACALISTER said they had legal opinion that they could not by a resolution discontinue the examination, and the course recommended was the only one the Council could adopt.

Sir JOHN SIMON said that surely the Council could, if it pleased, omit the examination from the list of examinations recognised by the Council. That would at any rate make the position clear. The Council could not go on "recommending" indefinitely. He would, however, not urge this course at once.

Sir WM. TURNER said at first he thought only to vote against the second recommendation, but he preferred to propose as an amendment:

That the Council defer the consideration of Recommendations 2, 3, and 4 until the May meeting, so as to give time to the Society of Apothecaries to reply to the Recommendation 1.

Mr. B. CARTER said the only manner in which the Council could strike out the examination from their list would be by representing to the Privy Council that it was insufficient.

Dr. TUKE, on behalf of the Education Committee, said they were prepared to accept the amendment in respect of Recommendations 2 and 4. He pointed out that Recommendation 3 bore on quite a different point.

Dr. GLOVER supported Dr. Tuke.

Sir WALTER FOSTER pointed out that the amendment could only apply to Recommendation 2, which alone was before the Council.

The amendment was then adopted in reference to Recommendation 2.

Dr. TUKE then brought forward Recommendation 3:

3. That the Council instruct the Registrar, and the Branch Registrars for Scotland and Ireland, to ascertain whether the names of all applicants for registration in the *Medical Register* have appeared in the *Medical Students' Register*, and in the event of any name not having so appeared to intimate the fact to the Council, together with the name of the body from which the qualification had been obtained.

Dr. MACALISTER said that the Registrars of certain Universities would not inquire into the fact whether or not a candidate had been registered as a student. There was in some cases no official whose duty it was ascertain that a man had been registered.

Sir WILLIAM TURNER suggested that the Universities should not admit anyone to a professional examination unless he was on the *Students' Register*. It seemed to him that the Universities were trying to put on to the Council work which ought properly to be discharged by the University authorities. He thought the recommendation was entirely unnecessary.

Dr. TUKE pointed out that it had been decided that the Council had no authority over the licensing bodies in this respect.

After some remarks by Mr. MACNAMARA, Recommendation 3 was agreed to.

THE REGISTRAR-GENERAL AND FALSE CERTIFICATES OF DEATH.

Dr. MACALISTER moved:

That the Solicitor to the Council be requested to communicate to the Registrars General of England, Scotland, and Ireland the Council's opinion that it is of the greatest public importance that they should take proceedings under the Registration Acts in all cases in which it comes to their knowledge that a medical practitioner has given a false certificate of death.

Dr. GLOVER wished to ask a question of which he had given notice, namely, Had the President or Registrar of the Council received any notices from coroners of cases in which false certificates of death had been given? if so, how many? and what explanation was offered of their not having been submitted to the Council?

Mr. FARRER, the Council's solicitor, said that three communications had been received in which false death certificates were in question. Two of these cases had been brought to the notice of the Registrar-General, who had replied that in one of them he was already cognisant of the facts of the case, but did not consider that the misstatement amounted to the issue of a "false certificate," and the other was still under consideration. In the third case it was thought that an explanation might be forthcoming. No complaints had been received from coroners. He pointed out that the Registrar-General had peculiar powers and facilities for ascertaining and proving the issue of false certificates—powers not possessed by the Council.

Dr. MACALISTER said that disappointment had been expressed at the non-appearance on the programme of the names of certain registered persons who were publicly alleged to have been guilty of giving false certificates of death. He understood that certain cases had not been proceeded with in view of the difficulty of proving such cases when the Registrar-General had not taken the initiative.

The motion was agreed to *nem. con.*

ADDENDUM TO STANDING ORDERS.

Dr. BRUCE proposed the following addendum, which was agreed to, to Standing Orders (No. 810):

Each Committee shall, at least once annually, make a report on the subject referred to it by the Council.

ADMISSION TO REGISTRATION.

On the recommendation of the English Branch Council the name of Mr. Freeland John Freeland, L.S.A. 1884, M.R.C.S. 1885, L.R.C.P.L. 1886, who since obtaining his qualifications had resided in Antigua, was admitted to registration.

RECOMMENDATIONS OF STUDENTS' REGISTRATION COMMITTEE.

Sir DYCE DUCKWORTH moved, on behalf of the Students' Registration Committee:

That with regard to all future applications that may be made for the antedating of the commencement of professional study by medical or dental students, no such application should be granted except subject to the condition of the payment of a fee of half-a-crown to the Branch Council through which the application may be received.

He pointed out that it was of the nature of a fine for negligence.

The recommendation was agreed to.

Dr. MOORE then proposed the second recommendation:

That, with a view to terminate the undesirable practice of antedating, the attention of the authorities of all the medical schools in the United Kingdom be called to the extreme importance of not allowing students to commence a professional course of study before they have passed their preliminary examination—the subjects which, according to the regulations of the Council, must be all taken at one and the same time—and of seeing that their registration is then immediately effected.

This was also agreed to.

Dental Penal Case.

The Registrar stated that a dental penal case had, at the request of counsel and by the consent of the prosecuting body—the British Dental Association—been postponed until next session.

This concluded the business of the session.

MEDICAL NEWS.

Nurse Janet Dickson died in Leith Hospital last week from typhus fever contracted while engaged in her duties.

The late Mr. George Trimmer, of Farnham, a member of the Surrey County County Council, by his will leaves £15,000 for the purpose of endowment of a cottage hospital at Farnham, and £500 to the Royal Surrey County Hospital, Guildford.

Bequests.—The late Mr. George Holloway, of Stroud, has by his will bequeathed £500 to the Stroud Hospital; and the late Hon. Ralph Heneage Dutton, of Timsbury Manor, near Romsey, Hants, has bequeathed £200 each to the Southampton Dispensary and the Royal South Hants Dispensary.

Presentation.—Dr. H. M. Wood was on Tuesday, November 22nd, presented with an illuminated address and a handsome clock by the patients and hospital staff of the Royal National Hospital for Consumption, Ventnor, on the occasion of his leaving the hospital to practise in London.

Dr. Wilks has printed his address at the Church Congress on the question, "Do the interests of mankind require experiments on living animals, and if so, up to what point are they justifiable?" Copies can been obtained by applying to Mr. J. W. Kolckmann, 2, Langham Place, W., and forwarding 3d. in stamps.

Successful Vaccination.—Mr. G. F. Sydenham, public vaccinator for the No. 1 District of the Dulverton Union, and Mr. Wyndham Randall, public vaccinator for the Central District of the Bridgend and Cowbridge Union, have received the Government grant for efficient vaccination, the latter for the third time in succession.

The Bohemian Club for the Emancipation of Women has petitioned the Austrian Minister of the Interior to allow women to study pharmacology and to practise pharmacy, which in Austria is included among the learned professions. The Minister has not yet given his decision. These facilities exist in this country, but have been very little used.

Medical Lecture on the Canary Islands.—On November 24th, Dr. J. W. Hayward lectured on "The Canary Islands as a Health Resort." Dr. Hayward visited Teneriffe and Canary in the early part of the present year and made a special study of the climate, the water, and the places generally. The various springs were tested and an exhaustive inquiry was made, with the result that Dr. Hayward now recommends "The Fortunate Islands" as the finest climate in the world for phthisical invalids.

"Poisoned by Mistake"—Ecce Iterum.—An inquest was held at Manchester on November 21st, by Mr. S. Smelt, Deputy City Coroner, on the body of Sarah Ann Shore, aged 68, late of 40, Cedar Street, Waterloo Road. A doctor who attended her prescribed some medicine and lotion. The latter was for application to her left side, and was labelled "Poison." She took a dose of medicine, and immediately afterwards said that she had taken the lotion by mistake. An emetic was given to her at once, and a doctor was sent for, but she died from the effects of the poison. A verdict of accidental death was returned.

Death of a Doctor by his Patient's Bedside.—The *Occidental Medical Times* states that Dr. F. C. Durant, of Folsom, U.S.A., died of apoplexy on October 15th, under remarkable circumstances. He was visiting a patient, and had just finished making an examination. On attempting to rise from his chair, he found himself unable to do so, and, after several unsuccessful efforts, he fell back, uttering the diagnosis "paralysis." He survived only a few hours. Dr. Durant had completed his 44th year on the very day he died.

Medical Aid for Poor Clergymen.—Many of the poorer clergy, especially town and country curates, are unable to procure special medical advice or trained nursing, and with the active co-operation of many of the members of the Medical Guild of St. Luke, a nursing home, to be called St. Luke's Hostel, has been opened in Devonshire Street, W., with the object of offering them gratuitously the best surgical and medical attention. Nearly all the great specialists have given their honorary services. The hostel begins with accommodation for ten indoor patients, and it is under high episcopal patronage, and has a strong committee of London clergymen.

Harveian Society of London.—At the meeting of the Harveian Society on November 17th, Dr. Rayner D. Batten showed a "Clinical Pulse Manometer," designed to enable practitioners to estimate in ounces the degree of compressibility of the pulse, and thus to give some recordable measure of the pulse lesions. Dr. Walters said he had used the instrument for some months, and found it useful. Mr. Buckston Browne read a paper on the treatment of "impassable" urethral structure, which was published in the British Medical Journal of November 26th. The paper was discussed by Messrs. Solomon Smith, Hurlbutt, T. Robinson, and Maunsell, and the President.

The Bristol Medical Mission.—A largely attended drawing-room meeting was held at Worcester Lodge, Clifton, by kind permission of Miss Charles, under the presidency of Dr. E. Long. In the absence through illness of Dr. Elder, Dr. Lock, the honorary secretary, gave a very interesting account of the work and of his visits to the homes of the people, stating that over two hundred patients had attended at the dispensary in one day, and thirty visits were paid by Dr. Elder on another. The total number of fresh attendances had been 20,400, with 600 visited at their homes; and this large number could not have been relieved except for the valuable help of the lady dispensers and the lady superintendent and friends. Other gentlemen took part in the meeting, and a collection was made, it being stated that the institution would require £200 before the close of the year.

The Fortunate Isles.—We understand that the quarantine regulations, which have up to the present moment greatly interfered with the convenience of travellers and seekers for health bound for Teneriffe, have now been removed, and the Union and other steamship companies are now calling at this island, and land passengers. The most rapid passage on record has just been made by the Union Company's steamer on its way home from the Cape of Good Hope. Madeira is now within an easy sea journey of from three to three and a half days, and Teneriffe is reached in another day. The number of ocean steamers, the splendid accommodation of the great mail lines, the shortness of the journey, the perfection of the climate, and the beauty of the scenery are attracting invalids and persons in search of winter sunshine and a restful holiday, with a short sea journey, in increasing numbers to these "Fortunate Islands."

Irritant Poisoning or Natural Causes?—At an inquest held at St. Helens on the body of a married woman the husband testified that his wife had been taken ill soon after partaking of a small quantity of tinned beef. A doctor was called in, but she became worse and died. The daughter gave evidence to the effect that she had also partaken of the meat, and had not suffered any ill effects. Dr. Casey, who had been called to the deceased, deposed that her symptoms were clearly those produced by some irritant poison, and that she must have had something to produce those symptoms. The jury, having heard the evidence and the views

of the coroner, returned a verdict of "Death from natural causes." To anyone who may be collecting statistics of utterly useless inquests we commend this as a typical example. No attempt was made to ascertain the cause of death, but all the evidence went to show that the case was one which required the investigation which it did not receive.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Carl Friedinger, formerly Director of the Lower Austrian Lying-in and Foundling Asylum, Knight of the Franz Joseph Order, and author of works on vaccination, etc., aged 72; Dr. Johann Belky, Professor of Forensic Medicine in the University of Klausenburg, aged 41; Dr. Elias Martinez Gil, a leading physician of Valencia, Professor of Artistic Anatomy in the School of Fine Arts of that city, a post which he resigned on being elected Alcalde (Mayor), and at one time Custodian of the Anatomical Museum, which he enriched with many valuable specimens; Dr. Paul Farcy, of Vinalmont, in Belgium, a member of the Provincial Council for the canton of Huy, and a prominent politician, aged 50; Dr. A. Reeves Jackson, President of the Faculty of the College of Physicians and Surgeons of Chicago, and President of the American Gynæcological Society, aged 65; and Dr. Aurelius Homer Agard, formerly Vice-President of the California State Medical Society and a well-known contributor to different journals on the most varied subjects, aged 70. Dr. Agard died in his office immediately after prescribing for a patient.

Pasteurism at Buda-Pesth.—At a recent meeting of the Mathematico-Scientific Section of the Hungarian Academy, Professor Högyes presented a report on the work of the Buda-Pesth Pasteur Institute, of which he is Director, during the first two years of its existence. From April 15th, 1890, to April 14th, 1891, the number of persons subjected to protective inoculations was 701, of whom 8 died of hydrophobia, giving a death-rate of 1.14 per cent. From April 15th, 1891, to April 14th, 1892, the number of persons treated was 540, of whom 3 died of hydrophobia, giving a death-rate of 0.58 per cent. The average mortality for the two years was 0.88 per cent. Among the 1,241 persons treated, 130 had been bitten on the head, face, or neck; of these, 3, or 2.30 per cent., died. Of 486 bitten on the hands, 7, or 1.64 per cent., and 625 bitten on the foot or on the trunk, only 1, or 0.16 per cent., died. Official returns for the first of the two years referred to obtained for Professor Högyes by the Hungarian Government show that the rate of mortality among persons bitten during that period who either did not come to the Pasteur Institute at all or applied too late was 26.8 per cent. When compared with the death-rate among those treated in time (1.14 per cent.), these figures bear striking testimony to the efficacy of the protective inoculations.

American Jottings.—There are said to be more than 34,000 drug shops in the United States. In the Eastern States there are 10,649, in the Southern 6,239, in the Central 13,073, and in the Western 4,575. And yet Uncle Sam complains (post-nasally) that he is nervous and dyspeptic.—A medical practitioner of Bangor, Maine, had recently to reduce a dislocation of the jaw in a lady, caused by yawning in church.—An American contemporary states that there is, in the Patent Office at Washington, an application, dated some forty years back, for a patent for a trap for the removal of tapeworms from the human stomach and intestine without medicine. The invention consists of a non-corrosive metallic trap, which is baited (it is not stated what with), attached to a string, and swallowed by the patient after a fast sufficiently prolonged to ensure a healthy appetite on the part of the worm. The worm seizes the bait, whereupon its head is caught in the trap, which is then pulled out of the patient's stomach by means of a string which has been left hanging out of his mouth; the whole length of the worm is supposed to follow. Though this proposal is extravagant, there are cases on record in which the ascaris lumbricoides has brought its life to an untimely end by strangling itself in foreign bodies with annular apertures, which have been accidentally swallowed, and the deliberate swallowing of such bodies has even been suggested as a method of treatment.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

Central London Ophthalmic. *Operation Days.*—Daily, 2.

Charing Cross. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operation Days.*—W. Th. F., 3.

Chelsea Hospital for Women. *Hours of Attendance.*—Daily, 1.30 *Operation Days.*—M. Th., 2.

East London Hospital for Children. *Operation Day.*—F., 2.

Great Northern Central. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, Tu. Th., 2.30; Ear, M. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

Guy's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

Hospital for Women, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

King's College. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

London. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9, Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

London Temperance Hospital. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

Metropolitan. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

Middlesex. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

National Orthopædic. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

North-West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, Tu., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

Royal Free. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

Royal Orthopædic. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

Royal Westminster Ophthalmic. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

St. Bartholomew's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W., Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

St. George's. *Hours of Attendance.*—Medical and Surgical, daily, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

St. Mark's. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, W., 8.45; females, Th., 8.45. *Operation Day.*—Tu., 2.

St. Mary's. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

St. Peter's. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

St. Thomas's. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), Tu., 4, F., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

Throat, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

University College. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th., 1.30; S., 2.

West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

Westminster. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

MEDICAL VACANCIES.

The following vacancies are announced:

BALLINASLOE UNION, LAWRENCETOWN DISPENSARY.—Medical Officer. Salary, £127 per annum and fees. Applications (with diplomas) to Mr. T. Connolly, Honorary Secretary. Election on December 7th.

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester Street, S.W.—House-Surgeon. Board, lodging, fuel, and light found. Applications, endorsed on envelope "House-Surgeon," to the Honorary Secretary by December 16th.

BIRMINGHAM AND MIDLAND EYE HOSPITAL, Church Street, Birmingham.—Assistant House-Surgeon. Salary, £50 per annum, with apartments and board. Applications to the Chairman of the Medical Board by December 8th.

BOOTLE BOROUGH HOSPITAL.—Assistant House-Surgeon and Dispenser. Salary, £40 per annum, with board, lodging, washing, etc. Applications to the Clerk by December 6th.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House-Surgeon to the Western Branch, unmarried, doubly qualified. Salary, £140 per annum (less board at 8s. per week), with furnished apartments, coals, gas, and attendance. Applications to the Assistant Secretary by December 15th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician. Board, residence, and allowance for washing provided. Appointment for six months. Applications to the Secretary at the Office, 24, Finsbury Circus, E.C., by December 8th

EDMONTON UNION.—District Medical Officer. Salary, £25 and extra fees; must reside in the district. Applications, on forms to be obtained at the Clerk's office, to Francis Shelton, Solicitor and Clerk, 808, High Street, Tottenham, by December 6th.

FARRINGDON GENERAL DISPENSARY, Bartlett's Buildings, Holborn Circus, E.C.—Resident Medical Officer. Salary, £100 per annum, with apartments and attendance. Applications to W. K. Taunton, Honorary Secretary, by December 5th.

FISHERTON ASYLUM, Salisbury.—Clinical Assistant for six months. Board, lodging, and washing found. Applications to Dr. Finch at the Asylum.

HOLBORN UNION.—Assistant Medical Officer at the Infirmary, Archway Road, N. Salary, £100 per annum, with board, lodging, and washing. Applications, on forms to be obtained at the Clerk's office, to be sent in by December 6th.

KILLARNEY DISTRICT LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, with allowances valued at £100 yearly. Candidates must be unmarried, and not over 30. Applications to Dr. L. T. Griffin, Resident Medical Superintendent. Election on January 19th.

LONDON COUNTY COUNCIL.—Visiting Medical Officer for the Mayford Industrial School, Woking, Surrey. Applications endorsed on the envelope "Medical, Mayford," to the Clerk of the London County Council, Spring Gardens, London, S.W., by December 7th.

LONGFORD UNION, LONGFORD DISPENSARY.—Medical Officer. Salary, £125 per annum and fees. Applications to Mr. Michael Shevlin, Honorary Secretary. Election on December 7th.

NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY, Athol Street, Douglas, Isle of Man.—Resident House-Surgeon; doubly qualified; unmarried. Salary, £100 per annum, with apartments, gas, coal, and laundry free. Applications to F. Browne, Honorary Secretary, by December 3rd.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, N.E.—Junior House-Surgeon; doubly qualified. Salary, £60 per annum. Applications to Alfred Nixon, Secretary, 27, Clement's Lane, E.C., by December 9th.

NORTHUMBERLAND COUNTY LUNATIC ASYLUM, Morpeth.—Assistant Medical Officer; unmarried. Salary, £120 per annum, increasing £10 yearly to £150, with furnished apartments, and board and lodging. Applications to Dr. McDowall at the Asylum by December 15th.

OWENS COLLEGE, Manchester.—Junior Demonstrator in Physiology and Histology. Salary, £100 per annum. Applications to the Registrar by December 12th.

PARISH OF PADDINGTON.—Medical Officer for the South District; must reside within the district. Salary, £75 per annum, exclusive of medical fees. Applications to Henry F. Aveling, Clerk to the Guardians, 289, Harrow Road, W., by December 6th.

PAROCHIAL BOARD OF EDINBURGH.—Resident Medical Officer for the Poorhouse, Craiglockhart. Salary, £80 per annum, with board and lodging. Applications to G. Greig, Inspector, 2, Forrest Road, Edinburgh, by December 10th.

RATHDRUM UNION, ARKLOW DISPENSARY.—Medical Officer. Salary, £110 per annum and fees. Applications to Mr. James Hanagan, Honorary Secretary, Curranstown, Arklow. Election on December 12th.

ROYAL CORNWALL INFIRMARY, Truro.—House-Surgeon, unmarried, doubly qualified. Salary, £150 per annum, with furnished apartments, fire, light, and attendance. Applications to the Secretary before December 14th.

ROYAL INFIRMARY OF EDINBURGH.—Superintendent, must be member of medical profession. Salary, £500 per annum, with free house and gas. Applications to Mr. James S. Trainer, Treasurer and Clerk, by December 5th.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Senior House-Surgeon. Salary, £75 per annum, with board and residence. Applications to Robert Newstead, Secretary, by December 9th.

ST. ANDREWS UNIVERSITY, Dundee.—Demonstrator of Anatomy.—Salary, £120 per annum. Applications to the Secretary by December 17th.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL, S.E.—Resident Assistant-Physician, a Resident Assistant-Surgeon, three Demonstrators of Anatomy, Demonstrator of Physiology, two Hospital Registrars, Obstetric Tutor and Registrar, eight House-Physicians, eight House-Surgeons and eight Assistant House-Surgeons, eight Obstetric House-Physicians, four Ophthalmic House Surgeons, Clinical Assistants in the Special Departments, Clinical Clerks and Dressers in the Wards and in the Out-patient Departments, Obstetric Clerks, Assistants to the Teachers of Practical Surgery and of Materia Medica, Assistants in the Physiological and Pathological Laboratories, Anatomical Registrars and Prosectors. Applications to G. H. Makins, Dean.

SAMARITAN HOSPITAL FOR DISEASES OF WOMEN, Lisburn Road, Belfast.—Two Honorary Attending Physicians. Applications to the Secretaries by December 5th.

VICTORIA HOSPITAL, Burnley.—Honorary Ophthalmic and Aural Surgeon. Applications, endorsed "Ophthalmic," to the Honorary Secretary, Joshua Rawlinson, J.P., by December 6th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician; appointment for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary, by December 7th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Surgeon; appointment for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary, by December 7th.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard Street, Soho.—Resident Medical Officer. Appointment for one year. Applications to J. J. Johnson, Secretary, by December 15th.

MEDICAL APPOINTMENTS.

BAILEY, Samuel Hy., M.D., M.B., C.M.Aberd., appointed Medical Officer for the Fifth District of the Nottingham Union.

BALLANTYNE, J. W., M.D.Edin., appointed Obstetric Physician and Gynæcologist to the Western Infirmary, Edinburgh.

BROWN, Murdoch, M.B., C.M.Edin., appointed Consulting Physician to the Western Infirmary, Edinburgh.

BURY, R. F., M.R.C.S., L.R.C.P., appointed House-Surgeon to St. George's Hospital.

CHARLTON, F. J., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Fourth Sanitary District of the Wimborne Union.

COSENS, W. B., L.R.C.P.Lond., M.R.C.S.Eng., appointed Honorary Surgeon to the Taunton and Somerset Hospital, *vice* Wm. Liddon, F.R.C.S.

DALISON, B. E., M.B., C.M.Edin., appointed Medical Officer for the Puddletown District of the Dorchester Union.

DONALD, James, M.R.C.S., reappointed Medical Officer of Health for Ham.

DOUGAN, William, M.D.Glasg., appointed Medical Officer to the Glasgow Post Office, *vice* Sir George H. B. Macleod.

EVANS, J. J., M.B., C.M.Edin., appointed Resident Medical Officer to the Carmarthenshire Infirmary.

FLEMING, R. A., M.A., M.B., C.M.Edin., appointed Senior Physician to the Western Infirmary, Edinburgh.

GARDNER, Mr. Harold, appointed House-Surgeon to Charing Cross Hospital.

GARROD, A. E., M.A., M.D., appointed Assistant-Physician to the Hospital for Sick Children, Great Ormond Street, W.C.

GUNN, Donald, F.R.C.S., appointed Ophthalmic Surgeon to the Hospital for Sick Children, Great Ormond Street.

HALL, Alfred, M.R.C.S., reappointed Medical Officer for the Butterton and Grindon Sanitary District of the Leek Union.

HALLOWES, A. H. B., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the No. 2 District of the Maidstone Union.

HAYCOCK, H. E., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Thirteenth District of the Basford Union, *vice* M. Hooper, resigned.

HOPKINS, G. Herbert, L.R.C.P.Lond., M.R.C.S., appointed Senior Surgeon to the Swansea General Hospital, *vice* Jabez Thomas, L.R.C.P., F.R.C.S.Edin., resigned.

HOSKINGS, Dr. W., appointed Medical Officer for the Nazeing District of the Epping Union, *vice* T. Fowler, L.R.C.P., L.R.C.S.I., resigned.

HUGHES, E. Lucas, M.R.C.S., L.R.C.P.Lond., appointed Physician's and Surgeon's Assistant to the Out-patients at University College Hospital.

KNOWLES, E., M.D., C.M.Aberd., appointed Public Vaccinator for the Birkenhead District of the Birkenhead Union.

LEGGATT, Gerrard S., M.R.C.S.Eng., appointed Medical Officer for the Outdoor Poor and the Workhouse of the Hoo Union, *vice* A. E. Swayne, L.R.C.P., L.R.C.S.Edin., resigned.

LLOYD, T. F., M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the No. 4 District of the Reigate Union.

MARSHALL, Dr., appointed Medical Officer to the Bo'ness Parochial Board, *vice* C. M. Wildridge, M.B., C.M.Glasg., resigned.

MUIR, Robert Douglas, M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Physician to Charing Cross Hospital.

NEVILLE, Thomas, M.D., Ch.Irel., appointed Divisional Surgeon to the Police attached to the Gerald Road Police Station in the B Division, S.W.

PROSSER, Frank, M.B., C.M.Glasg., appointed Medical Officer of Health for the Urban Sanitary District of the Prescot Union, *vice* Andrew Murdoch, M.B., C.M.Glasg., resigned.

RANSOME, H. F., L.R.C.P., M.R.C.S., appointed Honorary Medical Officer to the Manchester Hospital for Consumption and Diseases of the Throat.

REECE, James, M.D., D.P.H., appointed Medical Officer of Health to the Kingstown Town Council.

RICHARDSON, R. T., M.R.C.S., appointed Medical Officer for the North Bradley and Southwick Sanitary District of the Westbury Union, *vice* N. V. Wise, L.R.C.P., L.R.C.S.I., resigned.

RYAN, Dr. A. B., appointed Medical Officer of the Silvermines Dispensary District of the Nenagh Union.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Surgeon-Colonel J. B. Hamilton, M.D.: Cholera; its Epidemic Progression and Causation.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. C. F. Beadles: Fibroma of Male Breast. Mr. W. Anderson: Fibroma of Male Breast. Mr. Dudley Cooper: Hyaline Fibroma of a Cow's Udder. Mr. H. Betham Robinson: Rodent Ulcer from Male Breast. Mr. W. Edmunds: Fatty Tumour from the Lip. Dr. Beaven Rake (per Mr. J. Jackson Clarke): Some Observations on Yaws. Mr. J. Jackson Clarke: The Histology of the Yaws Tubercle. Mr. W. Anderson: Sarcoma of the Sterno-mastoid.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Specimens will be shown by Dr. Horrocks, Dr. Rash, Dr. Boxall, Dr. Lewers, Dr. Handfield-Jones, and Dr. Amand Routh. Dr. Frederick J. McCann and Dr. W. A. Turner: On the Occurrence of Sugar in the Urine during the Puerperal State. Dr. W. S. A. Griffith: A case of Galactorrhœa during a First Pregnancy.

THURSDAY.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8.30 P.M.—Patients and Card Specimens at 8 P.M.—Dr. A. Bronner: A Portable Sterilising Apparatus for Ophthalmic Instruments and Bandages. Mr. Hartridge: Intraocular Growth (?) Mr. W. T. Holmes Spicer: Kerato-Malacia. Mr. S. Johnson Taylor: Notes of a case of Probable Rupture of the Optic Nerve (patient will be shown). Mr. W. C. Rockliffe: Notes on a case of (1) Panophthalmitis following Lachrymal Sac Affection. (2) Traumatic Ectropion treated by Tweedy's Operation. Mr. Priestley Smith: (1) A case of Toxic Amblyopia from Iodoform. (2) A Double Model Eye for Ophthalmoscopy and the Shadow Test. (3) Improved Model illustrating Conjugate Movements. Mr. Robert W. Doyne: Notes on a Foreign Body in the Eye.

BRITISH GYNÆCOLOGICAL SOCIETY, 20, Hanover Square, 8.30 P.M.—Mr. Bowreman Jessett: Twenty-five cases of Supravaginal Amputation of the Cervix Uteri for Carcinoma.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY, Great Northern Central Hospital, N., 9 P.M.—Papers by Drs. D. Fairweather, M. J. Bulger, and J. McMunn.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. James Calvert: Case of Subacute Œdema of Lung occurring above a Diminishing Pleural Effusion. Mr. Bland Sutton: Case of Axial Rotation of a Wandering Spleen: Splenectomy: Recovery. Dr. Francis Hawkins: Case of Hemiplegia in Typhoid Fever associated with Aphasia; Hæmorrhage from Bowels and Purpura. Mr. Wainwright: Case of Fracture of Lower Jaw with Traumatic Aneurysm, Ligature of Right Common Carotid Artery, followed by Left Hemiplegia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

BEAN.—On November 23rd, at Plymouth, the wife of Chas. E. Bean, F.R.C.S.Edin., of a son.

BULLOCK.—On November 16th, at Eastgate House, Warwick, the wife of Roger Bullock, M.R.C.S., L.S.A., of a daughter.

CHAMBERLAIN.—On November 27th, at Nailsworth, Glos., the wife of W. W. Chamberlain, M.B., C.M., of a daughter.

JACKSON.—On November 25th, at Bournemouth, the wife of Basil Jackson, L.R.C.P., M.R.C.S., of a daughter.

MARRIAGE.

PUGH—EVANS.—On November 26th, at New Jewin Chapel, London, by the Revs. J. E. Davies, M.A., and D. Morgan, J. W. Pugh, M.B.Lond., M.R.C.S., L.S.A., of 3, Upper Rock Gardens, Brighton, to Margaret Eleanor, daughter of the late Captain Evans, Llanon, Cardiganshire.

DEATHS.

SHEPARD.—On November 27th, 1892, at Ty Cornel, Usk, Mon., Alexander John Shepard, M.R.C.S.Eng., L.S.A., aged 77.

TAYLOR.—On November 24th, at 202, Earl's Court Road, South Kensington, Michael Waistell Taylor, M.D., F.S.A., late of Hutton Hall, Penrith, in his 69th year. (Friends are requested to accept this, the only, intimation.)

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

LUX asks what is the best kind of lamp to be used inside a brougham, for reading purposes, etc., its price, and where it can be obtained.

S. W. C. asks where an old gentleman suffering from epileptic insanity, but not very troublesome at present, can be placed at a charge not exceeding £1 1s. a week? Neighbourhood of London preferred.

T. E. J., who is ordered abroad owing to phthisis, asks what colony offers the best prospects for a medical man—in particular, whether the Cape should be preferred to Australia.

DR. F. WILLIAM COCK (Porchester Square, W.) asks to be recommended a home for a single lady, aged 68, of somewhat uncertain temper, who could be taken care of for about a pound a week.

M.B. would greatly value any suggestions for the relief of painful tonic and clonic contractures of the lower limbs in a patient, aged 62, with paraplegia from spinal caries. The abdominal muscles contract at the same time as the limbs, and dyspnœa ensues. There is also fatty degeneration of the heart, and chronic infiltration of the left lung. Argent. nitr., physostigmine, the constant current, and weights applied to the limbs have been tried.

A. E. N. writes: I have a lady patient, aged 22 years, who has been twice confined in an asylum for acute mania. Since her return she is content to sit listlessly in a chair with her hands in her lap, and refuses to see anybody beyond her own family, or even go out of doors. Before her first attack she was very high spirited, and an accomplished pianist, speaking German and French as fluently as English. I shall be exceedingly grateful if anyone can advise any measures with regard to this case, or if there is any comfortable home where she could be thoroughly looked after and cared for, at a not exorbitant sum.

LEAD WORKERS AND INFANT MORTALITY.

MUNICEPS writes: I shall be very much obliged if some of the members of the British Medical Association will let me have their opinion on the following case: A man employed at lead works for five years, aged 28, had been "leaded" about two years after he started, but now in good health. He married about twelve months ago a young woman also in good health, who is not employed at the lead works herself. About five weeks ago a baby was born, apparently healthy and fairly strong. The mother, about three weeks after, got some sort of a feverish attack, which obliged her to wean the infant. The infant did not thrive on the strange food, and, in spite of one or another kind of treatment, died when just five weeks old. The father is anxious to know if his employment has anything to do with the child's death. He tells me of a case where a man working along with him, who has his wife also in the employ of the same works, has had nine children born to him, but none of them lived.

ANSWERS.

INQUIRER has omitted to send his name.

OBSTINATE HICCOUGH.

F. H. states that in one case after failure of drugs, the symptom was rapidly relieved by leeching the anus.

J. G. writes: R. B. will find conium, if he has not already tried it, in small doses, useful in such a case.

MR. J. GOODWIN should apply to the Secretary of the Royal College of Surgeons, Lincoln's Inn Fields, London, W.C., or to the Secretaries of the Royal College of Surgeons of Edinburgh or Ireland.

Dr. F. de Havilland Hall (Wimpole Street, W.) writes: I would advise R. B. to try pilocarpine ($gr._{\frac{1}{10}}$) subcutaneously three times a day. In a case of hiccough which I recently saw with Mr. A. W. Harrison, I suggested pilocarpine, as other remedies had failed. The hiccough, which had been constant for a fortnight, at once lessened, and soon ceased entirely.

Type-Writing.

J.H.S.—1. The acquisition of the art of type-writing is very useful to everyone, but not so peculiarly applicable to medical practice as to justify recommending it to the heavily-charged medical student and assistant as part of his studies and functions to a principal. 2. The services of a good type-writing clerk (lady clerks are the best and least costly) cost about 30s. to £2 a week. The lowest tariff for type-writing with which we are acquainted is that of Rayne and Co., 40, Norfolk Street, Strand—Medical documents, 1½d. per folio of 72 words; typing from dictation, 2s. 6d. per hour, or after 6 o'clock 3s. 6d. per hour.

Urethral Caruncle.

Mr. Robert O'Callaghan, F.R.C.S. (Carlow), writes: In answer to J. F. D., if he will carry out the following simple treatment, he can destroy the largest growth, or general caruncular condition of the urethra, with absolutely no pain.

Apply a compress of lint soaked in a 15 per cent. solution of cocaine to the affected urethra; leave this on for ten minutes, and then with a Paquelin's cautery remove the growth, and destroy its base thoroughly, not being afraid to use the cautery freely.

How to Administer Rhubarb to Children.

M.Ch.—Thick substances like jam and treacle require some time for their removal from the mouth; therefore fluid vehicles are preferable for the administration of nauseous powders. It is very difficult, if not impossible, to cover entirely the taste of rhubarb. We find that liquorice disguises it to a very large extent, and if the powder be given in liquorice water—a preparation appreciated by most children—there is seldom any difficulty experienced in administering the medicine. The liquorice water can be made by dissolving half an ounce of Solazzi juice in one pint of hot water.

NOTES, LETTERS, Etc.

Erratum.—In Dr. Murphy's letter on the treatment of peritonitis in the British Medical Journal of November 26th, p. 1198, the period during which the child mentioned had suffered from tuberculous peritonitis should have been stated as four weeks.

Dr. Althaus writes to say that the observation that he made at the Medical Society on November 21st was to the effect that in cases of syphilitic hemiplegia in children he had always been able to discover other symptoms of the dyscrasia, such as old keratitis, notched teeth, peculiar deformities of the skull, scars, varicocele, etc., pointing to the specific nature of the affection.

Imperishable Fish.

Mr. J. Lawrence Hamilton (Brighton) writes: Fish is made imperishable by bleeding before blood-clotting, immediate gutting, cleaning inside and outside with abundant flowing fresh (sea) water, then draining and cooling with subsequent dry-air refrigeration. Chemicals, melting ice, water, moisture (including damp air and fogs), each rots or ruins dead fish.

Venesection in Apoplexy.

Dr. Charles J. R. Lawday (Strete, near Dartmouth) writes, with reference to Dr. Patterson's case of apoplexy treated by venesection, to point out that that method of treatment is more likely to be of use in cases in which symptoms are produced by cerebral congestion than in those in which they are due to actual hemorrhage. The complete recovery in Dr. Patterson's case appears to show that it belonged to the former category. Dr. Lawday recommends ice to the head, which should be kept well up, a soap-and-water enema, and calomel on the tongue, as the most reliable treatment.

Treatment of Syphilis by Injections of Serum.

Mr. Edward Cotterell (West Halkin Street, S.W.) writes: In the Epitome of November 19th it is stated that only two observers—Tommasoli and Sartori—have as yet tried this treatment. Kindly allow me to state that I tried it in August of this year. Permit me to add to your remarks in the British Medical Journal of November 19th that, in order to secure a good result, it is essential to use serum freshly prepared.

Official and Officinal.

Dr. A. H. Dobson (Whitechapel) writes: The terms official and officinal are frequently used by writers on materia medica and kindred subjects as synonymous. As the examiners for the triple qualification at Edinburgh fall into the same error, it may be advisable to point out that there is a wide difference between the words. Official (*officium*, an office) means "emanating from, or sanctioned by authority." Officinal (*officina*, a shop) means kept in a shop. Olive oil is official; hair oil is officinal.

Hospital Athletic Clubs.

The Secretary of the Amalgamated Athletic Clubs (St. Thomas's Hospital) writes: In your paragraph on "Guy's Hospital Clubs" in the British Medical Journal of November 26th you mention that "though schemes on somewhat the same lines have been introduced at other institutions, it cannot be said that at the present time any of these have met with unqualified success." May I be allowed to point out that at St. Thomas's Hospital, which, I presume, is one of the institutions to which you refer, we amalgamated our athletic clubs in October, 1888, and that the experiment has proved a most complete success? We have now a large and yearly increasing balance in hand, and are endeavouring to find a suitable ground within easy access of our hospital which we can make our own, and use for all athletic purposes. I believe it was the success of our scheme which prompted the clubs at other hospitals to unite with a similar object.

Clubs and Touting.

Mr. E. Panter, compositor (Plymouth), writes: What is the medical profession coming to? Is this the result of competition, or the eagerness live to and get on, the overplus and growth of the fraternity everywhere? It seems to me by the enclosed I send you that some men do not care two straws about the dignity of their profession, but simply to make money. The enclosed leaflet was thrown under my doorway some time ago, and now I have just received the enclosed card in an envelope, put under the door. I thought the medical profession had a body of some sort which took up such cases as this, and brought them to the notice of their colleges. I don't believe this man is a doctor, but only a surgeon. We have two or three medical men sending round a man to know if you will belong to Mr. So-and-so's club. Only a few weeks ago my wife answered the door to a man who asked her if she would belong to a boot club.—No! Well then, a tooth club (the dentist)?—No. Well then, a sewing-machine club?—No. Well, I know what you will belong to—a doctor's club, 1d a week.—No. And the poor man went away horribly disappointed to think she would not belong to any of these so-much-a week clubs. I am only a poor man myself, earning weekly wages, but I am disgusted to see such behaviour, and that the other medical gentlemen associate with them and meet them in practice.

*** Our correspondent encloses a pink circular of a "public dispensary" and a visiting card, on which appear the words "with compliments" beneath the practitioner's name.

The Final F.R.C.S. Examination.

A Rejected Candidate writes to protest against the custom of setting a long paper for the Final Fellowship Examination. If the examiners must make it a four-hour paper, surely, he argues, they might at least set questions of such a length as to be capable of answer within the time allotted. He continues:

When I presented myself last week I found a paper containing four questions which I could have answered fully had I been allowed sufficient time. As it was, I was obliged to start writing at once, and I did not cease until ordered to do so at the end of the four hours, by which time my hand was thoroughly cramped, and I had a splitting headache. One was not even permitted to think before writing.

What I would suggest is this: Let two papers be set, each of three hours' duration, one upon Surgery and Surgical Therapeutics, the other upon Surgical Pathology, and let them be of so moderate a length as to permit of being completely answered in the three hours allowed.

I do not complain of my rejection, but I do protest against the unfairness of a paper which no one could answer fully in the time.

A Daily Railway Journey.

F.R.C.S. writes: In the British Medical Journal of November 19th, "Enquirer" asks whether travelling daily to Brighton is injurious to health. The question is a little indefinite, for we are not told where from (presumably London), the state of health of the traveller, or the class of carriage in which the journey is made, whilst all are factors.

Some years ago the question of the effects of frequent railway travelling upon personal health excited a considerable amount of professional attention; and I then devoted some time to the investigation of the matter in persons most so engaged—namely, engine drivers, firemen, and guards. Briefly stated, the evidence was negative. The impression left upon my mind, however, was that not improbably three factors at least played a part in the issue—namely, the selection of men above the average of general health, their remarkably abstemious habits (many were total abstainers, and none either drank or smoked to excess), and, lastly, all were in the employ of one of our northern railways, where the equipment of the line was as complete and perfect as it could be made. Now in marked contrast to this, on all our southern lines this latter condition, unfortunately, does not hold, but the very reverse. The carriages are lightly built, the jolting and noise, when in motion, almost indescribable, but most fatiguing to body and irritating to mind; further, the carriages are often extremely dirty; if to these disadvantages and discomforts is added an average speed of twenty-five to forty miles an hour only, making a journey of sixty miles a matter of two to two and a-half weary hours, with unpunctuality and a dim oil light into the bargain, the sum of railway travelling misery is about complete. Under such circumstances, a medical opinion is unnecessary as to the physical injury and mental worry and strain involved, but the degree is, of course, a matter of individual experience. I have seen frequent instances of severe head- and backache, sense of great weariness, prostration and general *malaise*, lasting twenty-four hours or more after a journey of sixty miles on the South Coast lines. In consequence, my custom is to advise patients not to subject themselves to these discomforts, and in some instances, as I think, near or remote actual dangers. The southern lines are largely made use of by the invalid classes, and it seems to me they have a right to have their needs and claims regarded.

Mr. T. Madden Stone (Wimbledon) writes in reply to "Enquirer": I beg to inform him that some years ago I contemplated residing permanently at Brighton, for which purpose when stopping there for a few days I occasionally visited the departure platform to notice the passengers about my own age ("three score years and ten") on their way to town. I saw several, and on speaking to the locomotive superintendent on the subject he pointed out several then on their way to town; and subsequently asking Mr. Cock, the late President of the R.C.S., then on our way to his residence at Kingston by rail, he said, provided I did not run to catch the train, he saw no reason why I should not; if I secured a comfortable first-class carriage, and did not read a newspaper or any journal, he thought I might safely do so.

Local Registration of Medical Qualifications.

Mr. S. Evans, L.R.C.P.Ed. (Birmingham) desires to make the following suggestion as to unqualified assistants:—That every practitioner practising in a parish or district should be registered in that parish or district, quite apart from, and in addition to, the general registry now in use. That all practitioners should be registered in two groups (1) principals, (2) assistants. That every practitioner who wishes to keep an

assistant must first intimate the same to the proper authority. That every assistant on arrival in a district or parish must within a certain time, say one month, report his name, address, and qualifications to the proper authority. That the proper authority should be the registrar of births and deaths of the district, etc., in which the medical gentleman proposes to practise. That a small fee, say 2s. 6d., should be charged for registration to cover expenses. That a substantial fine should be imposed on those infringing the above laws. Thus it will happen that all unqualified persons will be detected by the registrar on the occurrence of the first few births or deaths in his practice. That every unqualified person thus detected, acting as an assistant, or practising on his own account, shall forthwith be given notice by the registrar that, if he do not either leave the district or produce substantial evidence to prove that he has ceased so to practise within say one month from the date of receiving the notice, his name will be posted up in a conspicuous place outside the registrar's office, vaccination depots, and other such public places as may from time to time be deemed fit, informing the public that So-and-So (name and address) is not a legally qualified medical practitioner. There are some serious objections to imposing severe penalties upon unqualified practice, but it is the duty of the State to protect the public against imposition. Could not the General Medical Council be persuaded to take the matter up with a view of bringing some legislation to bear upon it?

THE ACCOMPLISHMENTS OF AN ALIENIST

M. T. C. writes: It is not necessary to give the name of the asylum referred to by "Sanity," and so far from being an "Elysium" it is only one of many where the accomplishments required of the minor staff are those of a "society clown." At these asylums, until the recent Lunacy Act compelled a certain amount of casebook work, the patients' symptoms were not recorded for many years; I know of several cases for fifteen years. The superintendents do not know the difference between acute melancholia and acute mania, or even the paralytic signs due to hæmorrhage from ordinary general paralysis. The assistant medical omcer's lot is a hard and sad one, for if he attempts to do any work outside the routine, the superintendent becomes suspicious that he is "aiming at his own position," and he is discouraged, *Anglice*, got rid of. These statements may to an outsider appear to be very extraordinary, but they are, alas, only too true, as many assistant medical officers could testify.

POLYMASTIA AND EVOLUTION.

Mr. F. LORIMER HART (Sydenham) writes: In reply to Dr. A. H. F. Cameron, who confesses to see no relation to the doctrine of evolution in cases of polymastia, and who is perplexed to know what I meant when, in recording a case of this kind in the BRITISH MEDICAL JOURNAL of November 12th, I remarked that such a condition might be taken "as a fair example of retrogression to a type of a primitive ancestor," I beg to refer him to the late Mr. Darwin's book on *The Descent of Man*. After fully considering the subject of supernumerary mammæ, and also the doubt that unquestionably does arise from the additional mammæ sometimes being found in such positions as the back, thigh, and axilla, Darwin, nevertheless, sums up his conclusion as follows: "On the whole we may well doubt if additional mammæ would ever have been developed in both sexes of mankind had not his earlier progenitors been provided with more than a single pair." Personally I think it is more probable that this theory is correct than that Nature should without any apparent rhyme or reason depart from her natural course. We are all familiar with the fact that the human body possesses rudimentary organs which are quite inexplicable except on the theory of evolution. Examples of these are the attrahens and retrahens muscles of the ear, the plica semilunaris or rudimentary third eyelid of birds (membrana nictitans), the canine teeth, the appendix vermiformis, and many others might be mentioned. These may be looked upon as persistent remnants. On the other hand, the occasional occurrence of uterus bicornis in the human female is an example, similar to polymastia, of reversion to an ancestral type.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Mr. C. E. Abbott, Braintree; Dr. F. P. Atkinson, Surbiton; A. E. T.; W. M. A. Anderson, M.B., London; Mr. W. C. Allward, London; Professor Clifford Allbutt, Cambridge; An Old Trained Experienced Foreign Nurse. (B) Mr. R. Bourne, Brighton; M. Bannister, M.B., Blackburn; Dr. P. Boobbyer, Nottingham; Dr. D. Biddle, Kingston-on-Thames; Dr. J. O. Brookhouse, Nottingham; Dr. Burgess, Sheffield; Dr. J. T. Blacke, London. (C) Messrs. T. Christy, London; Messrs. Cassell and Co., London; W. B. Clarke, M.B., London; W. Carmichael, M.B., Edinburgh; Mr. W. R. E. Coles, London; Dr. C. J. Cullingworth, London; Mr. E. L. Cripps, London; Mr. H. Collier, London; J. Carroll, M.B., Dublin; Dr. F. W. Cock, London. (D) W. Downie, M.B., Glasgow. (E) Mr. L. E. Emanuel, London; Mr. T. W. A. Evans, Bradford; Dr. J. Erskine, Glasgow; Dr. J. W. Eastwood, Darlington. (F) Dr. Fitzgerald, Folkestone; R. A. Fleming, M.B., Edinburgh; Mr. R. D. Fallaghan, Carlow; Dr. H. Fox, London; F. H.; Mr. A. S. Faulkner, Southsea; Dr. A. Foxwell, Birmingham; Mr. C. J. Forrest, Accrington. (G) Dr. H. Glenn, Dublin; Glasgow Obstetrical Society, Secretary of the, Glasgow; Mr. Gay, London; Mr. E. F. Gardner, Ilfracombe. (H) Dr. J. B. Hicks, London; Dr. J. Highet, Workington; Mr. Jonathan Hutchinson, London; Dr. A. Hill, Birmingham; Dr. W. Hunter, London; G. Heaton, M.B., Handsworth; Mr. W. J. Harris, Worthing; Mr. J. Hayman, London; Mr. J. G. Hamilton, Rechton; C. W. Hogg, M.B., Wakefield. (I) Dr. W. W. Ireland, Preston; Mr. W. Iliffe, Derby; Inquirer; Mr. H. P. Ilderton, Manchester. (J) Dr. R. Jones, London; J. D. M.; Mr. J. P. Jones, Brighton. (K) Dr. A. A. Kanthack, Liverpool; Mr. A. Kidd, Devonport; Mr. C. B. Keetley, London; Kismet Hakim. (L) Mr. S. J. Lilley, Leicester; C. Lewis, M.B., Ventnor; Mr. F. Lewaine, Newton; Mr. G. W. Late, Malta; Mr. H. A. Latimer, Swansea. (M) Dr. H. Malet, Wolverhampton; Dr. Malassez, Paris; Mr. C. Macnamara, London; Mr. J. J. de Zouche Marshall, Hastings; M.D.; Dr. E. Maunsell, India; Dr. B. H. Mumby, Portsmouth; Mr. J. Micinson, Omaha; Dr. J. W. Moore, Dublin; Muncey. (N) A. E. Neale, M.B., Arlesley; J. Niven, M.B., Oldham; Dr. J. Neal, Sandown; Dr. A. D. Leith Napier, London; Mr. A. Newholme, London; Dr. J. Neil, Oxford; Mr. I. G. H. Nicholson, Liverpool; Nom de Plume. (O) Dr. W. K. Otis, New York; Dr. J. Owen, London; Dr. W. O'Neill, Lincoln; Omega. (P) Dr. T. F. Palmer, London; Sir James Paget, Bart., London; Mr. C. E. Paget, Salford; Dr. Paul, London; Dr. L. Phillips, London. (R) Dr. Russell, Glasgow; Mr. W. Randall, Bridgend; Mr. W. Rayner, London; Mr. T. F. Raven, Broadstairs. (S) Mr. J. B. Sutton, London; Mr. T. M. Stone, London; Mr. G. F. Sydenham; Dulverton; J. Scott, M.B., Stafford; W. Scatterty, M.B., Keighley; Mr. J. C. Stewart, Edinburgh; Dr. R. B. Smith, London; Dr. C. E. Shelly, Hertford; Mr. F. B. Salt, Malta; Mr. G. S. Saunders, London; Mr. C. S. Sherrington, London; C. A. Casterton Smett, M.B., London; Dr. M. T. Sadler, Portsmouth; Dr. J. W. Springthorpe, Melbourne; J. Steele, M.B., Sydney; Mr. H. H. Sturge, New Eltham; Mr. S. Stephenson, London; Dr. R. Savage, London. (T) Mr. G. Tunzelmann, London; Dr. R. B. Taylor, Santander; R. Turner, M.B., York; T. B. B.; Dr. R. Thorne Thorne, London; Dr. F. C. Turner, London. (U) University of Cambridge, Secretary of, Cambridge. (W) Mr. W. H. Winder, Norking; Mr. W. B. Walker, Shrewsbury; Dr. G. E. Williamson, Newcastle-on-Tyne. (Y) Mr. A. S. W. Young, London; etc.

BOOKS, ETC., RECEIVED.

Real Cookery by "Grid." London: T. Fisher Unwin. 1893.

Our Country's Birds and How to Know Them; a Guide to all the Birds of Great Britain. By W. J. Gordon. London: Day and Son; and Simpkin, Marshall, Hamilton, Kent, and Co., Limited.

The Australasian Medical Directory and Handbook, including a General Gazetteer and Road Guide, and Local Medical Directory of Australasia. Edited and compiled by Ludwig Bruck.

Textbook of Ophthalmology. By Dr. Ernest Fuch. London: H. K. Lewis. 1892.

Trional als Hypnoticum. By Dr. A. Boettiger. Berlin: Gedruckt bei L. Schumacher.

Notes on the Clinical Examination of the Blood and Excreta. By Sidney Coupland, M.D., F.R.C.P. London: H. K. Lewis. 1892.

A Short Manual of Orthopædy. By Heather Bigg, F.R.C.S.Ed. Part I. The Deformities and Deficiencies of the Head and Neck. London: J. and A. Churchill. 1892.

Die Praxis des Chemikers bei Untersuchung von Nahrungsmitteln und Gebrauchsgegenständen, Handelsprodukten, Luft, Boden, Wasser, bei bakteriologischen Untersuchungen, sowie in der gerichtlichen und Harn Analyse. Ein Hilfsbuch für Chemiker, Apotheker und Gesundheitsbeamte. Von Dr. Fritz Elsner. Hamburg und Leipzig: Verlag von Leopold Voss. 1892.

Past and Future; being a Second Edition, with Addenda, of Saturn's Kingdom, or Fable and Fact. By Charles Moore Jessop. London: Kegan Paul, Trench, Trübner and Co. 1892. Price 5s.

Hydrotherapy at Saratoga; a Treatise on Natural Mineral Waters. By J. A. Irwin. New York: Cassell Publishing Company.

Das Keimplasma. Eine Theorie der Vererung. Von August Weismann. Jena: Verlag von Gustav Fischer. 1892.

Studien zur Physiologie und Pathologie des Blutes und der Lymphe. Von Dr. M. Löwit. Jena: Verlag von Gustav Fischer. 1892.

Die Zelle und die Gewebe, Grundzüge der allgemeine Anatomie und Physiologie. Von Dr. C. Hertwig. Jena: Verlag von Gustav Fischer.

Anatomy of the Brain and Spinal Cord. By Ryland Whitaker. Edinburgh: E. and S. Livingstone. 1892.

The Position of the London Water Companies considered from a Parliamentary and Legal Point of View; a Report to the London County Council. By Henry Lawrence Cripps. 24, Parliament Street, Westminster.

The Chemical Basis of the Animal Body; an Appendix to Foster's Textbook of Physiology. By A. Sheridan Lea, M.A., D.Sc., F.R.S. Fifth Edition. London: Macmillan and Co. 1892.

Transactions of the Association of American Physicians. Vol. vii. Seventh Session held at Washington, D. C, May 24th, 25th, and 26th, 1892. Philadelphia: Printed for the Association. 1892.

Transactions of the Glasgow Pathological and Clinical Society. Vol. iii. Sessions 1888-1891. Edited by A. Ernest Maylard, B.S., M.B.Lond., Secretary, and John H. Carslaw, M.B., C.M., Editorial Secretary. Glasgow: Alex. MacDougall. 1892.

Consumption and Kochine (Tuberculinum Kochii); Original Observations and Reports, based on Individual Experience. By Dr. Rudolf Seiffert. Chicago: Ackermann and Eyller. Price 1 dollar 25 cents.

Textbook of Nervous Diseases; being a Compendium for the Use of Students and Practitioners of Medicine. By Charles L. Dana, A.M., M.D. New York: William Wood and Co. 1892.

Diseases of the Chest, Throat, and Nasal Cavities, including Physical Diagnosis and Diseases of the Pharynx, Larynx, Nose, Thyroid Gland, and Œsophagus. By E. Fletcher Ingals, M.D. Second Edition. New York: William Wood and Co. 1893.

*** In forwarding books the publishers are requested to state the selling prices.

REMARKS ON

CARCINOMATA AND COCCIDIA.[1]

By ELIAS METSCHNIKOFF, M.D.,

Chef de Service in the Pasteur Institute, Paris.

In a review published quite recently, M. Baumgarten[2] reproaches M. Ziegler, the author of the treatise on pathological anatomy most widely read at present, with not accepting Cohnheim's theory respecting tumours. In M. Baumgarten's view this theory "is for the present the only acceptable, and probably also the only true one, of all the theories put forward in this most obscure branch of pathological histology."

Cohnheim's theory of tumours, which is widely accepted by pathologists, especially in Germany, is that tumours in general, and malignant tumours in particular, are due to the exaggerated vegetation of primary foci detached from the embryonic folds, and gone astray in different parts of the organism. These stray germs of tumours may (according to Cohnheim's theory) exist during a series of years, or of decades, without giving any sign of their presence; but after a long period of inactivity the particles of the embryonic fold begin to proliferate in an extraordinary manner, over-running the individual, and in the end killing him.

This theory is not deduced from facts established by scientific methods, but has been built up in a purely speculative manner, and rests only on probabilities. As embryonic folds are peculiar to all metazoa (that is to say, multicellular animals), it is quite natural to suppose that invertebrates are also suitable subjects for the development of tumours analogous to those of man and the superior animals.

Monstrosities due to the abnormal development of different parts of their organism are often observed in all kinds of vertebrates; but although the inferior animals possess an ectoderm and an entoderm like vertebrates, nothing has ever been found in them resembling epithelial tumours.

Amongst the very numerous diseases of the inferior animals (insects, crustacea, worms, etc.) many infections are found, but never cancer. If, however, for the production of this latter, only a fragment of a stray embryonic fold is required, it is not clear why invertebrates should be exempt from such growths. On the other hand, invertebrates, and inferior organisms in general, present numerous cases of tumours, only these tumours are always of parasitic origin. Everyone is familiar with the galls which vary so much in many plants; these are veritable tumours, developed in consequence of abnormal proliferation of the vegetable cells; but the cause of these neoplasms is always found to be a parasite which has found its way into the plant.

Amongst invertebrates also tumours have been observed. Polypi present abundant vegetations around the foreign animals which have penetrated into the mass of the polyparies. The same rule is therefore always confirmed. In the lowest scale of living things all neoplasms are of parasitic origin. There are infectious tumours, but there are none of the fragments of embryonic folds detached and transformed into neoplasm.

Is it not possible that man and the superior animals may be subject to the same law, and that in them also true neoplasms, and especially malignant tumours, may have a parasitic origin? This supposition, raised many times in pathology, has generally been rejected by the medical profession. This is how Cohnheim, the author of the embryonic theory of neoplasms, formulates his criticism of the parasitic theory:—"Never," he says,[3] "has any epidemic or endemic of true tumours been observed. Further, it has never been possible to prove the transmission of a tumour from one individual to another. Never has a surgeon infected himself with a tumour during an operation, neither has a man ever been known to have contracted cancer of the penis in consequence of his wife suffering from uterine cancer. And how many fruitless experiments have been made with the object of transmitting tumours from man to animals, or from one individual of the same species to another." During the ten years which have elapsed since the publication of these lines, our ideas as to infection have been greatly modified. Nobody would be surprised to know that a disease which had spread all over the earth had turned out to be an infectious disease of parasitic origin. Tuberculosis has nothing of an epidemic or endemic character; but, in spite of that, it is really due to the parasitism of Koch's bacillus. The absence of contagion insisted on by Cohnheim cannot be adduced as negativing the parasitic nature of a disease. Miasmatic diseases, though not contagious, are none the less infections due to microbic parasitism.

In Cohnheim's day the history of the coccidian disease of rabbits, which is interesting from several points of view, was already known. It will not be a useless digression if, before approaching the principal subject of this paper, we dwell for a moment on this "coccidiosis," the knowledge of which throws much light on the question of cancer.

1. In the liver of the rabbit are often found greyish or white nodules, composed of a thick membrane, enclosing caseous or puriform contents. On examining with the microscope the products contained in these "tubercles," we find in them a large number of "coccidia," or oval bodies closely resembling the ova of entozoaria. In young rabbits the presence of these organisms engenders a disease which often proves fatal, whilst full-grown rabbits tolerate parasitism without suffering any great harm.

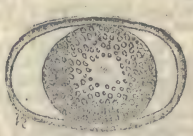


Fig. 1.—Coccidia of rabbit.

The coccidiosis of rabbits is, therefore, certainly an infectious parasitic disease. Nevertheless, it is never transmitted by true contagion. If nodules of liver containing masses of coccidia are given to a healthy rabbit to eat, the disease will never be engendered. The coccidia which are swallowed will be digested, and infection will not take place.

Coccidiosis, not being a contagious disease, is accompanied by true tumours. If sections of the nodules of liver are examined, it is easily seen that they are formed by abundant vegetations of the biliary ducts, surrounded by a more or less thick layer of connective tissue. The epithelium of the ducts retains its ordinary properties, and is only distinguished by a considerable hyperplasia, giving rise to the formation of numerous ramifications.



Fig. 2.—Hyperplasia of the biliary ducts of the rabbit under the influence o coccidia.

Here, then, is an example of a malignant and non-contagious tumour. Shall we, then, say with Cohnheim that it is not infectious? No; because the parasite which causes the tumour is a voluminous organism the existence of which, and the part played by it, can no longer be doubted.

The coccidiosis of rabbits is a miasmatic infection. In order

[1] The illustrations have been kindly supplied to us by the Editor of the *Revue Générale des Sciences Pures et Appliquées*, in which the article originally appeared.

[2] *Berliner klinische Wochenschrift*, 1892, p. 730.

[3] *Allgemeine Pathologie*, 2nd edition, 1882, p. 735.

that they may give the disease to fresh rabbits the oval coccidia must first undergo a definite transformation, which only takes place outside the organism. In sand, in earth, or in water, in suitable conditions of temperature (15° to 25° C.) and of aëration, the contents of the coccidia divides into four cells, and is transformed into four spores, provided with a very resistant external covering. Each spore encloses two falciform and very delicate embryos which give birth to new parasites, and thus engender the terrible disease when swallowed in polluted food; the sporiferous coccidia penetrate into the digestive canal of rabbits. The envelope of the spore protects the falciform embryos against the action of the gastric juice, and allows them to pass into the intestines and into the liver. The epithelial cells of the small intestine and of the biliary ducts become the seat of infection. The young coccidia, under the form of small round bodies, insinuate themselves into the protoplasm of the epithelial cells, where they grow and become transformed into oval parasites representing the adult form.



Fig. 3.—Coccidium enclosing four spores.



Fig. 4.—Epithelial cell of rabbit with a young coccidium.

But side by side with this cycle of development there exists another, discovered by M. R. Pfeiffer,[4] of Berlin. The round bodies divide into a large number of segments, which become transformed into a stage of growth, the meaning of which has not yet been determined. It is probable that these forms in growing propagate the infection in the organism of the rabbit attacked with coccidiosis. They serve also to increase auto-infection, whilst the spores (developed outside the organism of the rabbit) act the part of a true miasma.

In the coccidiosis of the rabbit we have, therefore, an example of an infectious miasmatic disease, produced by coccidia, the presence of which in the organism of the rabbit induces the development of a true malignant tumour.

Let us see what use this disease of rodents presents in regard to human pathology.

2. Are there coccidian diseases in man? This question has been decided in the most positive manner, thanks to M. Laveran's discovery of the parasite of malaria. The microbe of this disease is an intracellular parasite, like the coccidium of the rabbit, but whilst this latter vegetates in the protoplasm of the epithelial cells of the biliary ducts and of the intestines, the microbe of malaria penetrates into the interior of the red corpuscles of the blood, where it finds the necessary conditions for the support of its life.

The parasite of malaria has this in common with the coccidium of the rabbit that it shows itself in the form of a small spherical body, and forms crescents. (Fig. 6, *b*, *c*.) But

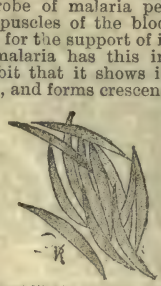


Fig. 5.—Crescent-like bodies of rabbit's coccidium.

beyond this it has an amœboid stage (Fig. 6, *a*) which has not yet been found in the coccidium of the rabbit (this stage is nevertheless very general in the coccidian world) and a very peculiar flagellated stage. (Fig. 6, *d*.) The absence of this latter stage in the coccidium of the rabbit cannot be advanced as an objection to the relation of the parasite of malaria to coccidia, inasmuch as amongst incontestible coccidia (coccidium of the intestine of salamandra maculata) there are examples of the flagellate condition.

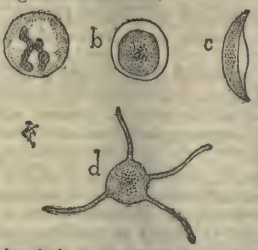


Fig. 6.—Parasite of malaria: *a*, amœboid stage; *b*, spherical form *c*, crescent; *d*, flagellate form.

On the other hand, true spores, provided with a protective covering, have not yet been seen in the parasite of malaria. It is more than probable, however, that these spores do exist in Nature, and that it is in this resistant condition that malaria invades the human organism. That disease has this in common with the coccidiosis of the rabbit that it represents a miasmatic disease of the most typical kind.

It is unquestionable that carcinomata also approximate to the category of miasmatic affections. Although less pronounced than malaria or goître, the endemic character of cancer is still a fact that has often struck observers. The frequency of these malignant tumours is far from being equal in all countries. By the side of regions of the globe which are exempt, or very nearly so, from this disease (Farcë Islands, etc.) there are others where carcinomata are very common. But besides this feature which they have in common with coccidian diseases, carcinomata present another. As is the case in the coccidiosis of the rabbit, carcinomas are distinguished by an exaggerated proliferation of the epithelial cells of the affected organs. It is precisely this character which struck M. Malassez when he made his researches on the coccidian nodules of rabbits. The fact that in this instance the epithelial neoplasia was of unquestionably parasitic origin suggested to M. Malassez the hypothesis that carcinomata might possibly be tumours caused by the parasitism of one or other of the sporozoa.

Numerous attempts made with the object of discovering pathogenic bacteria in carcinomata have, in spite of the assertions of MM. Scheuerlen, Koubassoff, and others, had nothing but purely negative results. This failure supplied another indirect indication that carcinomata might be due to the parasitism of microbes other than bacteria.

The question of the parasitism of tumours was in this incubation stage when M. Darier,[5] a fellow worker of M. Malassez at the Collège de France, discovered some very peculiar cells in a case of Paget's disease (a disease of the skin related to cancer) in the very middle of the elements of the swollen epithelium. M. Malassez assigned to these cells, which were apparently foreign to the human organism, a place amongst the sporozoaria. M. Darier's discovery was soon followed by that of M. Albarran[6] (a pupil of M. Malassez), who saw some parasitic cells in a case of cancer of the jaw. Not long after a whole literature came into existence on the parasites of skin diseases (Darier's follicular psorospermosis, Paget's disease), and especially of carcinomata. MM. Darier, Wickham, Vincent, in France; Thoma, Sjöbring, Henxelom, in Germany; Kossinsky, of Warsaw, contributed to elucidate this difficult question of the parasitic etiology of epithelial tumours. The first results were on the whole encouraging in the direction of the discovery of sporozoaria, especially some connected with the family of coccidia as the causes of carcinomata and certain skin diseases. But this period of perhaps rather exaggerated optimism was quickly followed by a scepticism not less extreme. A whole series of observers, who have tested the statements of the authors above mentioned, have pronounced themselves against the discovery of coccidian parasites in

[4] *Beiträge zur Protozoen-Forschung*, Berlin, 1892.

[5] *Comptes Rendus de la Société de Biologie*, April 13th, 1889.

[6] *Semaine Médicale*, 1889, p. 117.

tumours. These pretended parasites are, according to them, nothing but degenerated cells of the tumours themselves. In France, MM. Borrel, Cazin, Duplay, Fabre-Domergue, and in Germany Klebs, Ribbert, Schutz, and many others have expressed this view. The spirit of scepticism soon gained ground to such an extent that several authors considered the question of coccidia in tumours as dead and buried. Some observers, however, such as M. Stroebe and M. Steinhaus, were less positive in negation, and expressed the opinion that, in addition to degenerated cells, there might possibly also exist true parasitic forms. The general interest in the question became so keen that in almost every laboratory the study of this subject was commenced with great zeal. There followed a whole series of publications, which form the last period in the study of the parasite of tumours. I propose to devote a special chapter to them, dwelling almost exclusively upon the carcinomata.

3. It is unquestionable that among the authors cited many have seen, besides all kinds of degenerated cells, fragments of nuclei, etc, substances foreign to the carcinomatous cell; but inasmuch as, owing to the complexity of the phenomena, and the fact that malignant tumours have been especially studied by pathologists, it is extremely difficult to form an exact idea from the descriptions, I shall particularly follow the drawings given by the authors.

It is beyond question that in the plate given by M. Sjöbring[7] of Lund, in his dissertation on the parasite of carcinoma, there are, side by side of forms which have certainly nothing in common with this parasite, others which belong to the microbe of carcinoma. These are, in the first place, small round bodies lodged in the protoplasm of the carcinomatous cells, and in the second cells filled with analogous round bodies. These are, I believe, speaking generally, the first forms in which cancer parasites can be recognised. There is, however, so little clearness in M. Sjöbring's description of his preparations that great hesitation must be felt in interpreting them in a precise manner. It is in a case of cancer of the breast that M. Sjöbring has found most of the forms described by him.

In another case of the same form of new growth M. Foà[8] of Turin satisfied himself as to the presence of round bodies lodged in cancerous cells. He gives illustrations of them, in which foreign elements enclosing a small nucleus and foreign appendages in the form of rays can be distinguished in the cancerous cells. M. Foà is quite ready to admit the parasitic nature of these bodies.

The same forms have been found again by M. Soudakewitch[9] in a large number of cases (more than fifty) of different carcinomata. They were especially abundant in a primary cancer of the pancreas and in the metastasis of its lymphatic glands. The cancerous cells were literally stuffed with parasites, which presented themselves sometimes in the form of very small round cells, lying close beside the nucleus of the cancerous cell, sometimes in the form of large oval bodies furnished with a thick covering, and recalling the full-grown coccidia. M. Soudakewitch's description and illustrations leave no doubt that in his case we have not to deal with any products of the degeneration of cell or nucleus. The bodies described by him have entirely the appearance of cells foreign to the human organism, and bear the closest resemblance to sporozoaria, notably coccidia. In a second paper, M. Soudakewitch[10] has described the same bodies in a number of other cases of carcinomata of different kinds.

The important discoveries of M. Soudakewitch have not failed to meet with many objections. M. Fabre-Domergue[11], in a note presented to the Société de Biologie, declared that M. Soudakewitch's parasites were nothing more than pseudo-coccidia, and were in reality the results of cell degeneration, which, as in the case of other bodies, have been taken for parasites of tumours.

Confirmations, however, of the discovery were much more numerous than criticisms. M. Foà[12], in a later paper, again described the same parasitic bodies in several cases of cancer. M. Borrel[13] found parasitic bodies, altogether like those described by MM. Foà and Soudakewitch in true epitheliomata. M. Borrel's testimony is all the more valuable that he was formerly opposed to the views of the authors who uphold the presence of parasites in cancer. He has succeeded in clearly distinguishing the degenerated and modified cells so frequent in epitheliomata from the bodies which can be regarded as intruders of foreign origin.

Another confirmation came from England. Two scientists, MM. Ruffer and Walker[14], found the same parasites in a large number of carcinomata, amongst others in a case of metastatic carcinoma of the liver. Their preparations, coloured with Biondi's mixture, bring out the parasites with all clearness that could be desired. The coccidia, stained a light blue, enclose a dark brown nucleus, the cancerous cell is stained a dirty yellow white, its nucleus takes a green tint. Like M. Soudakewitch's preparations, those of MM. Ruffer and Walker show a whole series of stages of development, starting from tiny round bodies enclosing a nucleolus up to oval forms which occupy the whole of the carcinomatous cell.

M. Sawtchenko,[15] of Kieff, who in his first essay (produced in collaboration with M. Podwyssotski) only saw indistinct forms, has, in a second publication, been able to confirm the observations of M. Soudakewitch and to find the same parasite.

Doubt is therefore no longer possible. In a large number of different carcinomata there have been found lodged in the protoplasm of the cancerous cells round bodies, having the structure of true cells and presenting no appearance of degeneration either of the protoplasm or of cell nuclei.

It now remains for us to examine these bodies a little more closely in order to determine their nature and their relations with other analogous productions.

4. In scraping a little carcinomatous tissue from any organ —for example, the mammary gland—and on examining it in aqueous humour, or in some other unaltering liquid, with high powers, there will be found in a certain number of carcinomatous cells small round bodies, sharply defined (Fig. 7). Lodged in the interior of the protoplasm, these bodies present the closest resemblance to the coccidia of the rabbit in its early stages of growth, as one may convince oneself by comparing the two formations (Figs. 4 and 7)

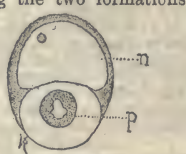


Fig. 7.—A cancer cell with its parasite in cancer of the breast; *n*, nucleus; *p*, parasite.

Like the young coccidia of the rabbit, the round bodies of carcinoma grow in the interior of the cells. In preparations of these tumours may be seen a whole series of stages of growth; the small round bodies grow and become more and

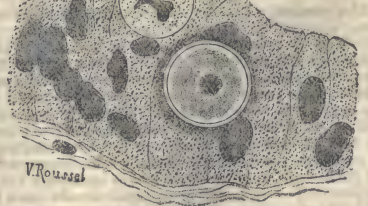


Fig. 8.—Cancer cells with two parasites; after M. Soudakewitch.

more defined by reason of the development of their membrane (Fig. 8). The same thing may also be seen in a striking manner in the liver of a rabbit infected with coccidia.

[7] *Fortschritte der Medicin*, 1890, p. 529, Pl. iv.
[8] *Gazzetta Medica di Torino*, 1891, n. 36.
[9] *Annales de l'Institut Pasteur*, 1892, mars, p. 145, pl. v. to vii.
[10] *Ibid.*, août, p. 545, pl. xi-xii.
[11] *Comptes Rendus de la Société de Biologie*, 1892.
[12] *Gazzetta Medica di Torino*, 1892, p. 381.
[13] *Evolution cellulaire et parasitisme dans l'épithélioma*, Montpellier, 1892.
[14] British Medical Journal, July 16th, 1892, p. 113.
[15] *Centralblatt für Bakteriologie*, T. xi., 1892, p. 493.

It sometimes happens that a cancer cell contains several parasites pressed one against the other (Fig. 9). The same phenomenon may also be seen in the coccidium of the rabbit. "Very often," says M. R. Pfeiffer, "an epithelial cell contains five or more young coccidia. The parasites are in that case pressed so closely together that they assume a polyhedrical form."[16]

The structure of the round bodies of carcinomata presents the closest resemblance to those of the coccidia of the rabbit in the different stages of their development. In both cases there is to be seen a cellular membrane which becomes thicker and thicker, and protoplasmic contents which stain with difficulty, and a large nucleolus which fills the transparent nucleus.



Fig. 9.—A cancer cell full of parasites; after M. Soudakewitch.

The striking analogy between carcinomata and the coccidiosis of the rabbit extends also, as has already been said, to the anatomical lesions of the organs. The epithelial vegetations of the intestine and liver of the rabbit can especially be compared to the adenocarcinomata—that is to say, to epithelial tumours which still keep the glandular type. One has only to glance at the two figures here given (Figs. 2 and 10) to be struck by the resemblance between hyperplasia of the bile ducts of the rabbit attacked with coccidia and adenocarcinoma of the rectum in man.

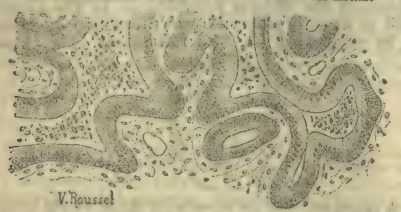


Fig. 10.—Adeno-carcinoma of the rectum in man; after M. Ziegler.

As compared with these analogies, the differences are not of sufficient importance to be advanced as negativing the fact that carcinomata are allied to coccidia. The latter do not produce true metastases. But there are also cancers which never, or very rarely, produce metastases, and this does not prevent their being intimately allied with other cancers.

Up to the present a much more limited number of stages have been noticed in cancer than in coccidia. That is unquestionably a great obstacle to a definitive judgment being formed on the subject. But it must not be forgotten that the study of parasitism in carcinomata is only beginning. The coccidia of the rabbit have been known for half a century, and it is only quite recently that, thanks to the important researches of M. R. Pfeiffer, the endogenous formation of the falciform bodies has been discovered. The finding of new stages in carcinomata need not therefore be despaired of.

Several pathologists who have lately occupied themselves with the question of parasitism in carcinomata have believed they could fill this gap. Thus MM. Stroebe, Podwyssotski, and Sawtchenko, and quite recently M. Soudakewitch, have discovered falciform bodies in several cases of cancer. From all that I have been able to observe up to the present, as well as from all the statements of the authors whom I have just quoted, the formations taken by them for falciform bodies, or (what is the same thing) for stages of the crescent, can in no way be compared with the corresponding productions of coccidia or of sporozoaria in general. The true crescentic bodies, as, for example, those of M. Laveran in malaria, are distinguished by the regularity of their outline, by the close resemblance to each other of the individual bodies, and by a number of details which are wanting in the pseudo-crescents of carcinoma. In order to satisfy himself as to this difference, I ask the reader to compare the two illustrations here given (Fig. 11, *a*, *b*), one of which (*b*) represents the true crescents of a coccidium, and the other (*a*) the formations taken for crescents in cancer. I look upon the latter as chromatic forms of the nucleus of cancerous cells. They may be

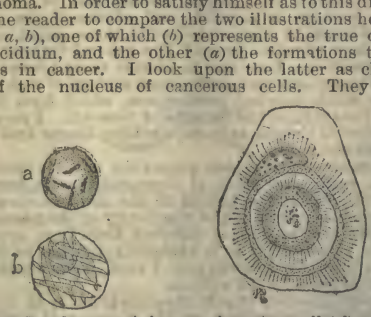


Fig. 11.—*a*, Pseudo-crescents in a carcinomatous cell (after Podwyssotski and Sawtchenko; *b*, true crescents of a coccidium, Klossia (after Balbiani).

Fig. 12.—Pseudo-coccidium; after L. Pfeiffer.

designated as pseudo-crescents, just as in cancers (especially in epitheliomata, it is necessary to distinguish pseudo-coccidia (Fig. 12), so often confounded with formations really analogous to sporozoaria.

In spite of the impossibility of admitting the presence of falciform bodies in carcinomata, and in spite of certain other differences which still exist between these tumours and coccidioses, it cannot be denied that the round bodies so often found in carcinomata present, according to what is at present known, the closest analogy with coccidia. Although the last word has not yet been said on this subject, this conclusion may already serve as a starting point for many new researches.

When it is borne in mind that the coccidiosis of the rabbit is not contagious, the failure of so many attempts at the inoculation of carcinomata will easily be understood. On the other hand, the cases of contagion recorded in literature, as well as some positive results in the experimental transmission of cancer (those of M. Hanau, in his cancer of rats, and M. Wehr, etc.), might be explained by the presence of stages developed on the surface of the organism attacked. It is known that the miasma of the coccidiosis of the rabbit (that is to say, the spores of the parasite) are formed outside the organism, but are to be found in the closest neighbourhood to these animals.

Malaria may be cited as an example to show how little infectious is the character of these coccidian diseases. In birds, in which malaria is extraordinarily frequent, contagion by blood containing parasites has never been effected in a really conclusive manner. It is, therefore, quite natural that cancers should present a miasmatic rather than a contagious character.

From the summary given in this article it will be easily seen that the microbic study of carcinomata is still in its infancy. But it will also be seen that the beginning which has already been made is encouraging, and that in order to arrive at a solution of the problem it is desirable that pathologists should join their forces with those of zoologists well versed in the science of sporozoaria.

[16] *Centralblatt für Bakteriologie*, T. xi, 1892, p. 6.

A HOME FOR CHOLERA ORPHANS IN ST. PETERSBURG.—The home for children whose parents have died of cholera, which was recently established in St. Petersburg, has been moved into roomier premises, where there is accommodation for forty children. The number of children now in the home is twenty-three.

SUCCESSFUL VACCINATION.—Dr. J. J. Rutherford, Medical Officer for the No. 7 District of the North Brierley Union, has received a grant for efficient vaccination.

A NOTE ON THE PARASITIC PROTOZOA LATELY FOUND IN CANCER.

By H. G. PLIMMER, M.R.C.S., F.L.S.

At the present moment much is being written, both in England and abroad, concerning the parasitic origin of cancer, and as I have had opportunities of examining several cases lately, with reference to this parasitic origin, I wish to place the few following observations on record.

The protozoa, which have been discovered in cancerous tumours, have been most carefully described by Dr. Armand Ruffer, and Mr. J. Herbert Walker, in the British Medical Journal in July and November, 1892, and more fully in the *Journal of Pathology*, October, 1892, and I have been able to confirm their observations entirely. I have examined specimens from thirteen cases of recent carcinoma, prepared specially for the purpose of demonstrating these organisms, and also fifty-three specimens, taken from thirty-seven cases of various carcinomata, prepared according to the ordinary pathological methods during the last eight years, and in all of these cases, without exception, I have been able to demonstrate the parasite; with some difficulty in those specimens prepared by the older methods, but still with certainty. After examining these specimens most carefully with powers up to 3,000 diameters, and by the aid of photography, I have no doubt whatever that the bodies described by Dr. Ruffer and Mr. Walker are parasitic protozoa. They have no resemblance in structure, or position, to the many forms of cells undergoing degeneration, which we so often see in cancers; and they cannot be confounded, when once they have been seen, with the appearances caused by the endogenous formation of cells. They are found most plentifully near the growing edge of the cancer, and in the glands which become secondarily affected; but they are not found, or only found in very small numbers, in that part of the cancer which is undergoing degeneration, so that it is sometimes necessary to cut sections from various parts of the growth, in order to demonstrate the presence of these bodies satisfactorily. They are not to be found either in the very fibrous parts of cancers, and I have never seen them in cells undergoing karyokinesis, although I have often met with them in the very next cell to that undergoing division. The structure, too, of these bodies is very typical: they are nearly or quite round, with a nucleus, which is always visible in well prepared specimens, and with a capsule which can also be seen in every instance; from this capsule in a certain number of specimens rays extend centripetally towards the nucleus, and from the nucleus also rays extend radially towards the capsule, these latter being usually fainter and finer than the capsular rays. But these are not seen in every instance, and their significance is as yet undetermined. The size of the bodies varies considerably, even in the same specimen; in one lately under observation I measured some varying between 0.0137 m.m. and 6.317μ; and in many specimens small chromatin granules are scattered through the protoplasm of the organism.

During the observations I have made on these bodies I have obtained, I think, evidence of the amœboid nature of the cancer cell, and, as this is a matter of great importance, especially as regards the method of secondary infection in cases of cancer, further observations in this direction will be made.

Dr. Ruffer and I have lately tried a variety of fixing reagents, and so far the method by which these organisms are best demonstrated is the following:

Small pieces of perfectly fresh tissue are fixed for twenty-four hours in Foà's solution, which is made as follows: Equal parts of a 5 per cent. solution of bichromate of potash and of a saturated solution of perchloride of mercury in 0.75 per cent. salt solution, mixed just before using. The pieces of tissue are then washed in running water for twenty-four hours, and they are then placed for twenty-four hours in 30 per cent. alcohol, then for twenty-four hours in 60 per cent. alcohol, then for twenty-four hours in 90 per cent. alcohol, and then, until hardened, in absolute alcohol. They are afterwards imbedded in paraffin, and sectioned, and stained on the slide with the Ehrlich-Biondi triple stain, washed out with alcohol, cleared with xylol, and mounted in xylol balsam. This method, although somewhat complex, gives greatly superior results to any other of the many methods we have tried.

RECTAL CANCER.

RECTAL EXCISION FOR CANCER: THE SELECTION OF SUITABLE CASES AND THE PROGNOSIS.[1]

By HARRISON CRIPPS, F.R.C.S.,
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It is only within comparatively recent years that rectal cancer has been dealt with to any extent by direct surgical treatment. The operation formerly found little favour in this country, and had practically dropped out of use until its revival fourteen or fifteen years ago. The disfavour with which the operation was viewed rose from the extremely unfavourable results both as regards the immediate mortality of the operation and the speedy recurrence of the disease.

By the increase of our knowledge in the treatment of wounds the mortality following surgical operations has materially diminished, so that the intrinsic risk following excision of the rectum is less than formerly, but those who have had any considerable experience of rectal cancer must know only too well that excision can never become the treatment for all or even the majority of cases, and that any attempt to make it so will again bring discredit on the operation. Recent surgical ingenuity has somewhat extended the range in which rectal cancer can be removed, and if this ingenuity was always tempered with discretion useful progress would be made. It is not sufficient to show that an extensive operation can be performed, involving even the partial resection of the sacrum, unless it can be further shown that a fair proportion of patients survive the operation with a substantial amelioration of their condition, or even a fair chance of a permanent cure.

If these conditions are to be fulfilled, a careful selection of cases suitable for operation will have to be made. There are doubtless occasionally cases in which severe and high operations may be justifiable, but such instances are rare. Speaking generally, no operation should be undertaken unless there is a fair prospect of a complete removal of the disease. If the entire growth be not taken away the portions left seem to grow more rapidly than ever, the embryonic scar tissue forming a favourable nidus for extension.

According to my researches into the pathology of rectal cancer, there is practically only one form of the disease—adenoid carcinoma; yet, by the bedside, growths have very different clinical features. The length of time that the disease has been in progress accounts for some of this difference, but it is by no means the only factor. In some cases the growth may have been present for many months, or even a year or two, yet only have affected the bowel in a comparatively superficial manner, it having chiefly crept along the mucous and submucous coats without completely perforating the muscular layers of the bowel. In other cases, even from the first, the cancer extends more rapidly in the deeper parts than on the surface, quickly invading and perforating the muscular coats, and then spreading widely into the neighbouring tissues. It thus becomes bound to the sacrum behind, the bladder, prostate, or uterus in front, and it is especially apt to invade the peritoneum of Douglas's pouch.

So long as the disease has not perforated the muscular coats, the prospects of an operation are hopeful. It means that the cancerous affection may still be confined to the rectum, and that, by the removal of the whole or a portion of that organ, it may possibly be eradicated. On the other hand, when it has once extended beyond the bowel, the prognosis becomes most unfavourable. It is true that surgically the rectum can be dissected out from the neighbouring organs, and surrounding indurated portions of tissue can be subse-

[1] Read in the Section of Surgery at the Annual Meeting of the British Medical Association held in Nottingham, July, 1892.

quently picked out, but the result is generally very disappointing, a recurrence taking place before the wound is completely healed. All that had been visible of the growth to the sight and touch had been removed, but undetected germs had been left behind, soon to develop into fungating masses. There is one part, however, where the extension of the disease through the coats of the bowel is of comparative unimportance—that is, when the recto-vaginal septum is implicated; and I have had two excellent cases of permanent recovery after removing a considerable portion of involved septum.

Before expressing an opinion as to the desirability of an operation in any particular case, and even before examining the local conditions, the possibility of distal dissemination must be considered. Implication of the lumbar glands and liver does not usually take place till late in rectal cancer; but it must be remembered that occasionally the liver becomes infected while the local disease is comparatively insignificant. The younger the patient, the earlier appears the infection of internal organs, and I have known cases where malignant disease of the liver was well marked before any suspicion had been aroused as to cancer in the bowel. If the liver is to any extent involved, its nodular condition can be detected by palpation, while in other cases the emaciated and cachectic appearance of the patient, considerably in excess of what the local disease would explain, justifies the inference that the internal organs have already become cancerous. Should there be no evidence of general infection, the local state of affairs next comes under consideration. In the majority of cases a full and efficient examination can be made without the aid of an anæsthetic; but in doubtful cases the value of examining a patient under ether cannot be exaggerated. On more than one occasion I have found that the disease—which appeared at an ordinary examination too firmly adherent for removal—after the muscles had been relaxed by ether proved quite suitable for operation.

It may here be remarked that the speculum is of no practical value in examining rectal cancer, being far less reliable than the educated finger. The rigidity, the extent, and the hardness of the surrounding tissues are the essential features in determining the question of operation, and these can be ascertained by touch alone.

On passing the finger into the bowel, there is generally a healthy interval of mucous membrane between the anus and the lower border of the disease. Most commonly this border is about a couple of inches from the anus. The disease may extend all round the bowel, or it may only affect a portion of its calibre. The length of the gut involved, too, is very various; sometimes it is a mere patch or ring not more than half an inch in length, or it may be implicated for several inches.

We will first consider the conditions met with which make a case unfavourable for removal. The bowel at the diseased portion is generally strictured, and difficulty may be experienced in finding the opening into it. This is caused by the bowel at the site of the disease becoming, from constant straining and pressure from above, invaginated into the gut below. If this has occurred, a rough nodulated tumour can be felt, not unlike a cervix uteri. Around this is a *cul de sac* of greater or less depth, the real entrance to the bowel being through the centre of the prolapsed mass. It is very necessary to remember this tendency of the disease to become intussuscepted. I have often seen cases where the cancer was supposed to be confined either to the anterior or posterior wall, for the finger, on examination, had passed into this *cul de sac*, in the belief that it was the channel of the bowel, and gave the idea of the growth being either in front or behind instead of, as in reality, surrounding the bowel, and it must further be borne in mind that in these cases the site of disease is much higher than it appears, and Douglas's pouch is often drawn down in the prolapse. This prolapse is present in about one-third of the cases.

The surface of the growth is nodular and hard to the touch, but bits can be easily broken off with the finger nail, and bleeding is quickly produced. If the finger be pressed against the mass, or if the tip can be insinuated into the orifice of the stricture, the whole feels rigid. The disease cannot be pushed upwards, nor can it, save to a very limited extent, be moved from side to side. This rigidity is caused by the extension of the growth beyond the walls of the rectum. Such cases are, in my opinion, quite unsuitable for excision.

As opposed to the kind of case just described, the disease may be found limited to a portion of the bowel, the whole circumference not being involved, or, if it is so, there is no tight stricture, the part being merely narrowed so that the finger can be passed through it without using any force. The surface of the growth feels like an ulcer with a rough, raised, indurated base. The border feels hard, and is tucked over so as slightly to overlap the surrounding healthy membrane. The finger, particularly if the examination be made under an anæsthetic, is able to pass beyond the upper border of the growth. The bowel in the neighbourhood of the disease admits of considerable mobility on the neighbouring parts, and this is not merely noticed from side to side, but also from above downwards. Of course this mobility is not so free as in health, but is sufficient to convey to the surgeon the idea that the rectum can be dissected without much trouble from the surrounding tissue. This is the class of case, including the laminar form of growth, which is very suitable for removal, and often gives most satisfactory results. It will be found, from practical experience, that the greater proportion of rectal cancers will fall decidedly into one of the foregoing categories, but, occasionally, cases will be met with which cannot be definitely placed in either, and here the propriety of operating must depend on the surrounding circumstances, but seeing that if left, death must be the inevitable consequence, I think any doubt should be determined in favour of the operation.

Prognosis.—During the last fifteen years I have examined upwards of 400 cases of rectal cancer. In about half of these, for various reasons, I have advised against any operative treatment, either by excision or colotomy. In the remainder of the cases operative interference was more or less strongly urged. In many my advice was not followed, the patient preferring treatment by electricity or other quack remedies. There remain however 114 cases in which I have operated for rectal cancer; 38 by excision, 76 by colotomy; total, 114.

I do not propose in this paper to deal further with the colotomy cases. I give, however, a list of the 38 cases of excision, and the ultimate termination of such cases as I have been able to trace. Of the 38 operations, 3 died, 35 recovered; giving a mortality of a little less than 8 per cent.

Table of Thirty-eight Cases of Excision of the Rectum.

Recovered 35. Died 3.

Subsequent History of Cases that Recovered:

7 No reliable subsequent history.
10 Recurrence within one year.
5 Recurrence between first and third year.
1 Died a year later without recurrence.
1 No recurrence after eighteen months.

11 No recurrence:
- 3 under 1 year.
- 1 after 2 years.
- 1 „ 3 „
- 2 „ 4 „
- 1 „ 5 „
- 2 „ 6 „
- 1 „ 12 „

It will be seen that out of the 28 cases whose subsequent history can be traced, in 15 recurrence is known to have taken place, while in 12 no recurrence had occurred. In 7 of these over three years had elapsed, so that, according to the method adopted by Mr. Butlin and others, these cases may be considered as cures, and since such cases have more interest attached to them than others, the following brief facts concerning them are given.

DETAILS OF CASES THAT HAVE SURVIVED WITHOUT RECURRENCE FOR OVER THREE YEARS.

CASE I. *After Three Years.*—E. C., aged 49, was sent to me by Mr. Malcolm of the Samaritan Hospital, and I operated at St. Bartholomew's in May, 1889. Three and a half inches of the bowel were removed, a narrow strip of unimplicated mucous membrane being left along the posterior wall, the disease being chiefly on the anterior half of the bowel. The disease had so invaded the septum that a portion had to be removed. The opening was closed by fine silk sutures. The patient, who had some albumen in the urine, convalesced very slowly. On her discharge from the hospital at the end of nine weeks the wound was practically healed, but showed a considerable tendency to contract, but by the persistent use of the bougie this was overcome. The albumen disappeared from the urine June, 1892. The patient is now in excellent health. There is a slight annular ring of cicatricial tissue just within the anus. There is no sign whatever of recurrence. The patient has fair control over her motions, except when she has diarrhœa.

CASE II. *After Four Years.*—A gentleman, aged 41, under the care of Dr. Fletcher, was operated on by me in January, 1888. The disease was confined

to the posterior half of the bowel, the lower border of the disease was 1½ inch from the anus, and the upper border 4 inches. It was closely adherent to the coccyx and lower sacral bone, but was dissected off without removing either bone. The patient for two years used a bougie daily on account of contraction. This has now entirely disappeared. He has become stout, and has been in excellent health ever since the operation. There is no sign of any recurrence (May, 1892), and the patient has perfect control over his motions.

Case III. *After Four Years.*—M. M., aged 61, was sent to me by Mr. Doran, and was operated on by me in 1878. Two inches and a half of the bowel were removed. In three months there was a slight spot of recurrence, which was removed, the portion being not larger than a pea. About a year later a recurrence took place, and again a small nodule was removed. I frequently saw the patient during four years, and the parts remained thoroughly sound and healthy.

Case IV. *After Five Years (nearly).*—S. P., aged 35, was operated on at St. Bartholomew's Hospital in October, 1887. The disease, which had surrounded the bowel, had extended high, and had implicated the lower half of the rectovaginal septum, a fistula having formed through which a fungoid mass protruded into the vagina. Rather more than 4 inches of the bowel were removed, including about half of the whole thickness of the rectovaginal septum. The wound was allowed to heal over a large sized bougie, but, notwithstanding this, contraction gave some trouble, and for the first year she had very little control over the motions. By the end of the second year the tendency to contract had almost ceased, but as a precautionary measure I advised her to pass the bougie once a fortnight. In 1890 she was confined of a fine healthy baby, and, when last examined in 1891, there was no sign of recurrence, the part being soft and supple. The appearance of the parts resembled what is seen in a bad case of ruptured perineum, but the patient had acquired fair control over her motions.[2]

Case V. *After Six Years.*—The patient was a lady, aged 40. On the anterior wall of the rectum, nearly 5 inches from the anus, was a typical patch of adenoid cancer about the size of a florin. It could only be felt when the patient strained down, and the portion of bowel on which it was situated became invaginated. With the assistance of Dr. S. Smith, the patient's medical attendant, I removed the disease, dissecting it off together with a portion of the muscular coat, treating the remainder of the base with the actual cautery. In six months the disease had recurred. It spread at an alarming rate, and there was a growth the size of a five shilling piece, with indurating overlapping edges and a hard ulcerated base. Assisted by my colleague, Mr. Butlin, I was enabled, by vulsellum forceps, after making the posterior cut, to drag the bowel some distance downwards. I completely cut round the growth, including the whole thickness of the bowel wall, a portion of the peritoneum being removed, and the opening closed with catgut sutures. Some contraction followed, necessitating the prolonged use of the bougie. There is still no sign of recurrence (July, 1892), and the patient has given up the bougie for two years. There is now a scarcely perceptible contraction, and the patient has complete control over the motions.

Case VI. *After Six Years.*—T. H., aged 62, was admitted into St. Bartholomew's in August, 1885, and I removed the last 3 inches of the bowel for adenoid cancer. He was again admitted, three months later, with a slight recurrence in the form of a small nodule in the lower part of the wound, which was removed. The patient was lost sight of till 1891, when he came to see me at the hospital. He stated that he had been quite well till within a few weeks previously, when he noticed a little blood with his motions. I found a small crack in the cicatricial tissue in the middle line behind. I was in some doubt as to the nature of this, and thought it probably a slight traumatism from a hard motion. I gave him some astringent ointment, and he promised to see me again, if not better, in a few weeks.

Case VII. *After Twelve Years.*—Miss D., aged 40, a patient of the late Dr. Matthews Duncan, was operated upon by me, assisted by Mr. Butlin, in July, 1880. About 3 inches of the bowel were removed, involving nearly the whole circumference, but a narrow strip was left. As in the former cases contraction was considerable trouble at first, but ceased to be so after two or three years. The patient now leads an active life, has good control, and has remained perfectly well from the date of the operation to the present time (somewhat over twelve years).

It will be seen from the foregoing reports that there are two prominent features which have an important bearing on the after-treatment of rectal excision. The first, and one that is common to nearly all cases, is the tendency to contraction, and the second that, in no fewer than three of the cases, there was a recurrence which was successfully treated by a second operation.

The contraction, which is so troublesome, can to a great extent be avoided by the proper treatment of the wound during the healing process. The contraction seldom commences till the third or fourth week, but will, if not prevented in the course of a few months, lead to almost complete closure of the outlet. This complication can in a great measure be prevented by introducing into the bowel a full sized rectal bougie an inch and five-sixteenths in diameter. This should be commenced at the end of a fortnight, and allowed to remain in for some hours daily for a month. The patient should then be directed to pass the bougie once daily for a year or even longer. The tendency to contraction seems gradually to disappear, and gives comparatively little trouble after the second year. The recurrence, which was successfully treated in three of the cases, was almost certainly due to minute portions of the disease being left behind at the operation, and the fact of the second removal proving so successful is very encouraging, and I think that we should not hesitate to operate a second time provided the recurrence is within reach and its removal practicable. From the facts which have been stated, very brilliant results cannot be claimed, but it must be remembered that we are not only dealing with malignant disease, but with that disease when situated in a peculiarly inaccessible part of the body.

I claim, however, to have shown, from an experience of a considerable number of cases, that the mortality of the operation is less than 8 per cent., and that, while if the disease be left alone death is inevitable, an excision in suitable case holds out a fair prospect of relief, and even of a permanent cure.

[2] Since reading this paper, a small nodule of recurrence was observed, this has been removed and the patient is now free from disease.

RADICAL CURE OF HERNIA: A NEW METHOD.

By HENRY O'HARA, F.R.C.S.I.,
Senior Surgeon to the Alfred Hospital, Melbourne, Australia.

Since September, 1888, I have performed an operation for the cure of inguinal hernia in males sixty times; in every case complete recovery followed, and in no instance has there been necessity for the re-employment of a truss or other artificial abdominal support. The ages of the patients ranged from 14 months to 73 years.

It is my intention in this paper to describe an operation differing from any yet advocated, and to give the details of the more interesting cases, with any complications that arose, merely tabulating those in which there was nothing special to note.

Special Features of other Operations.

No difference of opinion exists with regard to the first step of the operation—that of exposing the sac, an incision being made, as for herniotomy. Banks, having separated the vas deferens, applies a ligature round the neck of the sac as high up as possible, and dissects out and removes the fundus. Having pushed the ligatured portion up the inguinal canal, he trusts to silver wires to hold together the pillars of the ring. Ball twists the neck of the sac, and secures it between the pillars of the ring by sutures passed through these structures. Macewen uses the whole sac to plug the internal opening. Barker divides the neck of the sac after having ligatured it high up, but does not dissect out the fundus. He pulls the stump by means of the ligature that he has already placed round it to the internal opening, and, after having brought the ligatures through the internal pillars, from within outwards, he manages, by tying them, to approximate the sides of the canal.

Objections to these Operations.

After a very varied experience, I have come to the conclusion that even Mr. Barker's operation, which, to my mind, is the best of those quoted, can be improved upon. My objections to the methods advocated by other surgeons lie, first, in their leaving the stump in the canal; and, secondly, on their relying on ligatures to hold its margins together, feeling convinced that where a cure is effected it is the result of plastic inflammation and its resulting adhesions. I cannot see any advantage to be gained by dissecting out the fundus of the sac. In congenital herniæ it must be allowed to remain to form a tunica vaginalis, and in the acquired herniæ it has generally developed so many adhesions that its dislodgment, in my opinion, causes an unnecessary amount of disturbance to the tunica vaginalis and its contents, leading, in many cases, to severe orchitis.

The Operation Proposed.

I have adopted a method of keeping the stump at least two inches from the inner ring. Having freed the vas deferens, a long, strong, carbolised gut or sterilised silk ligature is tied round the neck of the sac; a second ligature of finer material is placed about a quarter of an inch lower down, and the neck of the sac divided between the two. I then introduce the index finger of my left hand as far as possible up the inguinal canal, anterior to the peritoneum, and having satisfied myself that no important structures lie between the tip of it and the

No.	Name.	Age.	Variety of Hernia.	Complications (if any).	Date of Operation.	Result.	Remarks.
1	J. G.	30	Acquired oblique inguinal, 12 months	None	1888 Sept. 19	1888 Cured; Oct. 15	A good deal of suppuration in the wound, but confined to the superficial structures; otherwise an uninterrupted recovery. Silk ligature used to fix neck of sac, and also to sew margins of canal together.
2	W. W.	26	Bubonocele, 2 years	Undescended testicle in inguinal canal	Oct. 4	,, Nov. 28	Testicle excised. Silk ligature.
3	J. F.	28	Oblique inguinal acquired	None	Nov. 1	,, Dec. 9	Slight orchitis, causing a rise of temperature for a few days. Silk ligature.
4	A. F.	24	,,	,,	Nov. 23	1889 ,, Feb. 21	Escaped from hospital on the third day after operation; brought back; although he had walked two miles he made a complete recovery. Silk ligature.
5	T. K.	17	Strangulated omental hernia	Undescended testicle	1889 Feb. 6	,, Mar 3	Testicle excised; slight suppuration in superficial wound, necessitating the removal of a few of the horsehair sutures. Silk ligature.
6	H. R.	34	Acquired oblique	None	Apr. 20	,, June 2	Slight orchitis delayed recovery for about ten days; some vomiting, the result of slight gastritis. Silk ligature.
7	S. P.	16	,,	Irreducible	June 23	,, Aug. 2	Silk ligature. Some suppuration.
8	A. G.	14	,,	None	Aug. 28	,, Sept. 21	Catgut ligature to fix neck of sac to abdominal wall, and silkworm gut to approximate pillars of the ring.
9	W. D.	28	Acquired oblique, 4 years	,,	Sept. 17	,,	Slight orchitis. Catgut ligature.
10	S. M.	23	Acquired oblique, 8 years	Large mass of omentum with the intestine	,, 24	,, Oct. 30	The mass of omentum was ligatured and cut away. Catgut ligature.
11	J. H.	26	Acquired oblique, 9 months	Cannot be kept back by truss	Oct. 11	,, Nov. 9	Had managed to keep hernia back with a truss until a month before admission, but it became so painful that he preferred to undergo operation. Catgut ligature.
12	N. S.	73	Acquired oblique	An immense omental hernia	1890 Feb. 11	1890 ,, Mar 9	Chronic bronchitis, which improved during his enforced rest in bed. Catgut ligature.
13	S. E.	23	Acquired oblique, 7 months	None	Mar. 19	,, April 13	Small stitch abscess; one suture removed; healed well. Gut suture.
14	W. W.	38	Double oblique inguinal—left, 7 years; right, 14 years	Double oblique	April 29	,, June 12	Operation on both sides; uninterrupted recovery. Silk suture, the very strong gut not being obtainable in the hospital.
15	R. D.	22	Acquired oblique right inguinal	Varicocele on left side	June 18	,, July 26	—
16	B. C.	26	Acquired oblique inguinal, 12 months	Irreducible	July 12	,, Sept. 2	A little difficulty with adhesions; made a good recovery.
17	E. V.	52	Acquired oblique inguinal, 2 months	Cannot wear truss	Sept. 3	,, Nov. 15	Considerable hæmatoma in scrotum night of operation; clot cleaned out; small vessel ligatured; good recovery.
18	A. G.	33	Acquired oblique inguinal	None	,,	,, Dec. 20	Retention of urine; constant catheterisation produced cystitis; perineal section; convalesced in 3 months.
19	V. M. D.	10	Congenital oblique inguinal	,,	Dec. 15	1891 ,, Jan. 15	Although very strumous, made a good recovery.
20	N. O.	12	,,	,,	1891 Jan. 20	,, Feb. 27	When the nurse was out of the room he got out of bed and came downstairs two days after operation; it did not affect the result, which was quite satisfactory.
21	W. L.	38	Acquired oblique inguinal	Irreducible	,, 27	,, Mar. 13	A good deal of suppuration in wound; complained of great pain for several days; sudden cessation; rapid healing.
22	A. M.	25	Acquired oblique inguinal, 5 years	None	Feb. 5	,, ,, 7	Was jumped upon by roughs and otherwise maltreated 2 months after operation; his medical attendant, Dr. Weigall, tells me he has no return of hernia.
23	J. T.	58	Acquired oblique inguinal	,,	,, 8	,, May 15	Left testicle sloughed out; every care was taken with sac during operation; a large scrotal abscess had to be opened five days after operation; is now quite well.
24	B. I.	9	Congenital oblique	,,	,, 15	,, Mar. 12	—
25	J. H.	16	Acquired oblique	,,	Mar. 24	,, April 30	Slight suppuration.
26	M. G.	8	Congenital oblique	,,	April 13	,, May 25	Orchitis for about ten days.
27	W. H.	60	Acquired oblique, 30 years	,,	May 11	,, July 9	Scrotal hæmatoma; lower stitches removed, clot washed out; then made good recovery.
28	M. G.	17	Acquired oblique	Irreducible	,, 19	,, June 13	Cord much wasted, a little difficulty in separating it; suppuration in superficial stitches.
29	J. B.	8	Congenital oblique	None	,, 19	,, ,, 18	—
30	H. H.	31	Acquired direct inguinal	,,	,, 26	,, July 12	Opening very large; some difficulty experienced in approximating the margins. Two strong silver wires were used to take the strain off the silkworm gut.
31	C. M.	15	Acquired oblique inguinal	,,	June 3	,, ,, 5	The rupture in this case was produced by whooping cough. Slight bronchitis two days after operation, lasting for six or seven days. Good recovery.
32	T. T.	58	,,	,,	,, 10	,, ,, 24	A large mass of omentum ligatured and cut away.
33	J. F.	16	Congenital oblique inguinal	,,	,, 17	,, ,, 27	—
34	S. C.	11	Congenital oblique	Undescended testicle in canal	July 20	,, Aug. 23	Radical cure, testicle excised.
35	W. M.	30	Acquired oblique omental	None	,, 20	,, Sept. 3	Stitch abscess which gave rise to some pyrexia; abscess opened; good recovery.
36	J. R.	31	Acquired oblique	,,	,, 27	,, ,, 29	Retention of urine for four days.
37	F. H.	44	,,	Irreducible	Aug. 3	,, ,, 22	—
38	W. S.	38	,,	Very large	,, 10	,, ,, 12	An immense hernia. The sac was accidentally opened during the dissection down to it; a large coil of intestine came out, and was with difficulty replaced during the freeing of the sac; made a good recovery.
40	R. S.	31	Double acquired oblique	Double	,, 24	Left side cured: Oct. 5	The left side done first; some signs of shock; right operated on two months afterwards.
41	R. S.	31	Acquired oblique right inguinal	Left side was operated on 2 months ago	Oct. 23	Cured; Nov. 26	Healed by primary intention.
42	S. G.	22	Acquired oblique inguinal, 12 months	None	1892 Jan. 19	1892 ,, Feb. 13	Healed by primary intention.

No.	Name.	Age.	Variety of Hernia.	Complications (if any).	Date of Operation.	Result.	Remarks.
43	C. D.	39	Acquired oblique inguinal	None	1892 Mar. 2	1892 Cured; April 9	Very slight suppuration.
44	R. C.	27	,,	Varicocele	,, 2	,, ,, 16	A radical cure of hernia and varicocele.
45	R. R.	21	Acquired oblique bubonacele, 8 months	None	,, 29	,, ,, 27	Played in a football match two weeks after leaving the hospital with no support but a spica bandage, put on by Dr. Schlesinger, of St. Kilda.
46	B. W.	29	Acquired oblique inguinal	Irreducible	April 1	,, May 9	—
47	A. M.	28	Acquired oblique inguinal, 12 months	None	,, 12	,, June 2	—
48	E. S.	50	Acquired oblique, 20 years	Very large	,, 17	,, May 28	Large piece of omentum ligatured and removed.
49	G. M.	66	Acquired oblique inguinal, 43 years	Irreducible complicated with double hydrocele	,, 20	,, June 14	The radical cure of hernia having been performed, a portion of each tunica vaginalis was sliced out to effect the cure of the hydrocele Discharged from hospital quite well 7 weeks after operation.
50	J. S.	30	Double acquired oblique	Double	May 3	,, ,, 21	Double operation. Free suppuration on both sides lasting for a fortnight. Good recovery.
51	F. K.	4	Congenital oblique	None	,, 13	,, ,, 15	—
52	M. M'C.	33	Acquired oblique inguinal	Strangulated for 11 hours	,, 14	,, ,, 24	Several attempts at taxis had been made, and the part was much inflamed. The constriction was in the neck of sac. Radical cure performed. Bowels acted 2 hours after operation.
53	J. M.	20	Acquired oblique inguinal bubonocele, 9 months	None	July 12	,, Aug. 14	Union by primary intention.
54	F. B.	30	Acquired oblique inguinal hernia, 12 mths.	,,	,, 19	,, ,, 20	Slight orchitis.
55	W. E.	26	Acquired oblique bubonocele, very small, 2 months	,,	,, 19	,, ,, 28	Complained that a truss made him feel sick, and even caused him to vomit at times. The hernia had not left the canal.
56	V. W.	27	Acquired oblique inguinal	Irreducible	,, 26	,, ,, 30	—
57	A. J.	47	,,	None	Aug. 3	,, Sept. 12	Slight orchitis.
58	W. C.	33	,,	,,	,, 8	,, ,,	Healed by primary intention.
59	B. W.	1⅛	Congenital oblique inguinal	Very large	July 15	,, Aug. 8	Healed by primary intention. Neck of sac fixed at a point 2 inches above the internal ring.
60	H. D.	7	Congenital oblique	None	Aug. 13	—	Sept. 9th, 1892, wound quite healed; will be discharged in a few days.

abdominal parietes, I make an incision—through the skin only—from without, at a point corresponding with the tip of the finger on the inside; and this is the point I select for fixing the stump, which is in most cases from two to two and a-half inches above the internal abdominal ring. A guarded needle threaded with one of the long sutures attached to the neck of the sac is now passed up the canal on the finger to the point selected for fixing the stump, and driven through the parietes. The needle, having been unthreaded, is withdrawn, to be threaded again with the other end of the ligature, and is reintroduced up the canal and brought out at a little distance from the first. The two ligatures are then firmly tied, the ends cut off, and the sac is thus secured. A decalcified bone drainage tube is now introduced into the canal, and the margins are laced together over it with silkworm gut ligatures. The superficial wound is brought together with horsehair, and an antiseptic wool pad applied with a spica bandage. The plastic inflammation resulting from this procedure causes a sufficient narrowing of the canal to prevent the recurrence of a hernia. The neck of the sac which had moulded itself to the canal is removed to a safe distance, and cannot encroach upon the orifice during the process of narrowing, and new structures overlie the internal opening. The bone drainage tube, lying as it does alongside of the vas deferens, prevents any undue pressure being made upon it when the margins of the canal are laced together, and its pressure causes an aseptic irritation favouring a mild inflammatory process, and at the same time acting as a drain should drainage be necessary.

Cases.

Cases v and lii were strangulated at the time of the operation. The condition being favourable for the return of the contents of the sac into the abdomen, the radical cure was also done, and complete recovery followed.

Case xii is interesting on account of his age, 73 years. He made an uninterrupted recovery, and was discharged cured five weeks after operation.

Case xiv was a complicated one of double oblique inguinal hernia, that on the left side of seven years', that on the right of fourteen years' standing. The double operation was performed upon him on April 29th, 1890, and I see by the hospital casebook he was discharged cured on June 12th, 1890.

Case xxii.—Left inguinal hernia (irreducible), private case with Dr. Weigall; two months after operation got into a scrimmage and was jumped upon and otherwise maltreated by two roughs while he was under the influence of alcohol. His medical attendant states that he has not had the slightest sign of the return of hernia.

Case xxiii, aged 58. I operated upon with Dr. Weigall, of Elsternwick an l although the greatest care was taken in freeing the vas deferens, the testicle on that side sloughed out; otherwise he made a good recovery, and works in his garden without any inconvenience.

Cases ii, v, and xxxiv were complicated with undescended testicle. In each the testicle was excised and they made a good recovery.

Case xlv proves the value of the operation without a doubt. The hernia was complicated by an immense varicocele; the radical cure of hernia and that for varicocele were performed on March 26th, 1892, and he was discharged cured on April 27th, 1892, two days less than a month. This patient, a footballer, played in a first-class match for the St. Kilda Club two weeks after leaving the hospital, and now plays regularly. Dr. Schlesinger, of St. Kilda, who put the case under my care, has had several opportunities of examining him since, and assures me that there is not the slightest sign of any return of the hernia.

Case xlix, aged 66, had an oblique irreducible inguinal hernia of forty-three years' standing, complicated with double hydrocele. The radical cure of hernia and also the radical cure of hydrocele—that is, slicing away a portion of the tunica vaginalis—were performed on April 20th, 1892, and he was discharged cured on June 14th, 1892.

Case lix, an infant, aged 14 months, is most interesting. He had an immense oblique congenital hernia; the ring was large enough to admit my two fingers. I fixed the stump nearly midway between Poupart's ligament and the umbilicus. Seven weeks after the operation he ran about without any sign of recurrence. The Hon. Dr. W. H. Embling, whom I have to thank for this very interesting case, informs me that the patient is now perfectly well.

Operations in Young Children.

With regard to the age at which it is advisable to operate, I am of opinion that when the rupture is so large as to affect the child's health, or that a truss cannot be borne, the operation may be safely undertaken at twelve months. I cannot see why, with ordinary care, there should be any difficulty in finding the vas deferens in so young a patient, and the chances of success ought certainly to be hopeful in structures so favourable for healing.

The death is announced of Dr. James David Rowlands, of Carmarthen, M.R.C.S.Eng. Dr. Rowlands was forty-nine years of age, and succumbed to the sequelæ of pleurisy. He was appointed coroner for the Carmarthen Borough in July, 1891, and subsequently coroner for the Liberty of Kidwelly, in which district he had acted as deputy for his father, Dr. James Rowlands, for many years.

Presentation.—On November 28th, Dr. G. Gore, of Cadoxton, was, on the occasion of his departure to Chester, presented with a purse of money as a token of the high appreciation in which he is held throughout the district.

THE SURGERY OF THE NOSE AND ACCESSORY CAVITIES.

An Abstract of the Bradshaw Lecture delivered at the Royal College of Surgeons of England on December 1st, 1892.

By CHRISTOPHER HEATH, F.R.C.S.,
Holme Professor of Clinical Surgery in University College, London.

(*Concluded from page 1228.*)

Treatment of Nasal Polypi.

If nasal polypi are fairly obvious from the front it may be assumed that larger ones hang down into the posterior nares. A properly made and slender polypus forceps, with blades serrated down to the hinge, is the best instrument for removing nasal polypi of any size, as they usually are when first attacked. It is essential to introduce the left forefinger into the posterior nares so as to guide the forceps. A 20 per cent. solution of cocaine applied both to the anterior and posterior nares (the latter with a bent brush) will do much to make the procedure painless, but the operator should invariably protect his forefinger with a piece of thick india-rubber tubing, since the best disposed patients are apt to close their teeth involuntarily under the influence of pain. The use of a general anæsthetic is to be deprecated, partly on account of the obstruction to respiration produced by the growth and the finger of the operator, but mainly because of the danger of blood entering the air passages. However successful the first operation, patients commonly shortly reappear with fresh developments. The tendency of the mucous membrane to hypertrophy is not removed by the operation, and a perfect cure could hardly be expected from a single operation. Small polypi are apt to develop on the curved edge and concave surface of the turbinate bones, and eventually to invade the nares. In inveterate cases of recurrent polypus portions of the turbinate bones might be removed with scissors. In ordinary cases, however, the common nasal snare of cold steel wire, which has been in common use in general hospitals for years, is the best instrument. If the nose be well cocainised by making the patient sniff up the solution from a brush, or by employing a small spray apparatus, a bivalve speculum can be introduced and a good reflected light thrown into the cavity. The small polypi projecting from the mucous membrane can be caught *seriatim* in the noose, and plucked away with little or no pain or hæmorrhage. The abraded surface may be touched with a solution of nitrate of silver, or with a hot wire. Several operations of the kind may be necessary before a cure is effected.

But while recognising the advantages of carefully conducted operations on small polypi, I must enter a protest against the method, too often adopted by the specialist, of making a series of attacks upon large polypi without effectually clearing the nasal cavity. The result is to give rise to great irritation of the nasal cavity, with considerable fever and general *malaise*. If the nostrils are once sufficiently cleared to allow of their being thoroughly irrigated with mild antiseptic solutions, there is no danger of any complication of this kind arising, and the treatment of hæmorrhage by hot water douching becomes at once available should it be required.

"Necrosing Ethmoiditis."

In connection with polypus nasi I am obliged to allude to a disease which has been described as of frequent occurrence by Dr. Woakes, and by him alone—the so-called "necrosing ethmoiditis." According to this author the disease starts from frequent and prolonged catarrh, sometimes from the exanthemata, sometimes from injuries. At the commencement of the attack small projecting formations are seen on the middle turbinate bone; these formations become enlarged, and lead to dislocation of the bones and deformity of the nose. In this later stage the existence of bare rough bone is said to be easily ascertained. Still later cleavage of the turbinate bone takes place, and new polypoid formations are superadded to the other symptoms present. At a meeting of the Medical Society, Dr. Woakes declared that he had never yet examined a case of nasal polypi for necrosis of bone without finding it. A normal middle turbinate bone was but rarely found. Now it is very remarkable that no single author whom I have consulted confirms these pathological views, or has ever met with the disease in question; but the most recent of all, Zuckerkandl, of Vienna,[1] speaks so forcibly upon the subject, that I hardly venture to quote him. He says:—

> The statement made by E. Woakes cannot be sharply enough criticised on account of the operative conclusions which the author draws from his mistakes, and every medical man may be warned against giving any credence whatever to these statements, which are evolved more out of the inner consciousness of the author than from correct investigation. I have not observed necrosis of the bone in a single case; on the contrary, we have seen that the bony part which exists in the basis of some polypi become elongated and softened.

Malignant Nasal Growths.

Polypi occasionally affect the whole of the mucous membrane of the nasal cavities, and produce very serious symptoms by invading the antra, frontal sinuses, and even the orbits. Vascular growths present themselves in the nares occasionally, causing more or less obstruction of one nostril only, and bleeding freely upon any manipulation. These, if within sight from the anterior nares, are, I believe, almost always growths projecting from the antrum, and are either epitheliomatous or sarcomatous in their nature. It has occurred to me on many occasions to see well-marked cases of tumour of the upper jaw, which in the early stage were thought to be cases of ordinary nasal polypus, and in which temporary relief had been given by ablation of growths with polypus forceps. I would urge upon surgeons the importance of examining microscopically any growths removed from the nose which did not present the ordinary gelatinous appearance of mucous polypus, or the ablation of which was accompanied by unusual hæmorrhage, with a view of determining whether it might not be a protrusion of columnar epithelioma or sarcoma from the antrum requiring a more extensive operation. The results of operation for epithelioma of the upper jaw are so disastrous in their after-history, that it would be of the greatest importance to the patient that the root of the disease should be attacked as early as possible.

Naso-pharyngeal Tumours.

Hæmorrhage of a more profuse character, occurring at intervals, will probably be due to some form of naso-pharyngeal tumour, which though for the most part only fibrous, are most serious in their development, being generally attached to the base of the skull. These tumours occur for the most part in young persons, and would appear to be in some way connected with the development of the cranial bones. In rare instances actual protrusions from the cranial cavity in the form of meningocele or encephalocele have been mistaken for naso-pharyngeal growths, and in more than one case have been attacked by the surgeon with fatal results.

Naso-pharyngeal tumours produce the ordinary symptoms of obstruction of the nasal cavities, accompanied by mucous and occasionally purulent discharge and deafness. A curious symptom which has been observed in many of those cases is drowsiness, the patient sometimes falling asleep even when standing upright. As the tumour enlarges it either encroaches upon the pharynx and thrusts forward the palate, or, growing forward, expands the nose, giving rise to the hideous deformity known as "frog face," and by pressure on the lachrymal ducts it causes epiphora.

The prognosis of these naso-pharyngeal growths is always serious, especially in the young subjects in whom they most commonly occur, but instances are recorded in older patients of spontaneous disappearance by sloughing, one of which occurred to Mr. Birkett, who had occasion to tie the left common carotid on account of the hæmorrhage.[2]

Operations for Naso-pharyngeal Tumours.

Operative interference being generally a matter of necessity on account of the urgent symptoms, the surgeon may, if the growth be pedunculated, be able to deal with it most satisfactorily with the wire *écraseur* introduced through the nose. I have thus succeeded in encircling a naso-pharyngeal fibroma by means of the forefinger introduced behind the palate with the best result. The galvanic wire *écraseur* may also be employed in the same way, and has the advantage that the hot wire arrests

[1] *Normale und pathologische Anatomie der Nasenhöhle*, vol. ii., 1892, p. 120.
[2] British Medical Journal, February 13th, 1858.

all hæmorrhage should the growth prove to be of a vascular and sarcomatous nature.

Maisonneuve's Operation.—In order to reach a naso-pharyngeal growth more readily from the mouth, division of the soft and even of the hard palate, as proposed by Nélaton, has been undertaken. Perhaps the most satisfactory method is Maisonneuve's "palatal button-hole," which consists in dividing the greater part of the soft palate to admit the passage of the finger and of instruments, whilst maintaining the integrity of the posterior portion and uvula, so as to permit of easy coaptation of the palate by stitches on the completion of the operation.

Rouge's Operation.—In cases where the nasal cavity is already seriously involved, operations from the face may be required, and of these Rouge's is probably the best and simplest. It consists in detaching the upper lip from the upper jaw as far as the first molar tooth on each side, by an incision carried through the mucous membrane. When the anterior nasal spine is reached, the cartilaginous part of the septum nasi is detached from it, and the nose drawn up so as to get a view into the anterior nares. If necessary, the alæ nasi also may be detached, and the nose be completely turned up on to the forehead, when the anterior nares can be readily reached and enlarged if requisite to give admission to the cavity. Professor Annandale has shown that, by detaching the whole length of the nasal septum and then dividing the hard palate with the saw, it is possible to separate the superior maxillæ for an inch, and thus gain more complete access to the naso-pharynx.[3] The great advantage of Rouge's operation is the complete absence of external scar.

When only one nostril is involved, the surgeon may prefer to divide the lip in the median line, and to carry the incision into the nostril of the affected side, thereby obtaining free access, which can be facilitated if necessary by prolonging the incision around the ala nasi and detaching it from the bone. This is, in fact, the first step in the ordinary operation of removal of one superior maxilla, which has been practised on many occasions as a preliminary proceeding in the treatment of naso-pharyngeal polypus.

Langenbeck's Operation.—In order to obviate the deformity consequent upon actual removal of the upper jaw, Langenbeck proposed to resect the upper part only, leaving it attached by the nasal process which served as a hinge, so that the bone might be turned aside for removal of the polypus and be again replaced. An incision, convex downwards, was carried from the ala of the nose to the malar bone and back along the zygoma. This was met at the malar bone by a second incision from the nasal process of the frontal bone along the lower margin of the orbit. Detaching the masseter the forefinger was passed through the pterygo-maxillary fissure into the spheno-maxillary fossa, both of which had been enlarged by the pressure of the tumour. A keyhole saw introduced along the finger was made to cut horizontally forward above the level of the palate as far as the nostril, and the upper incision having been deepened, the soft parts were raised from the floor of the orbit and from the angle between the zygoma and the malar bone. By introducing an elevator into the spheno-maxillary fissure, and thence across the floor of the orbit as far as the lachrymal bone, the whole piece was then lifted up, bending upon its attachment to the nasal and frontal bones as upon a hinge until it was completely turned inwards and upwards over the opposite side of the face.

Operations by Depressing the Lower Jaw.—Huguier and Cheever have each devised a method of temporarily depressing the upper jaw so as to reach the naso-pharynx. Both operations consist in a vertical division of the hard palate close to the median line, and a horizontal section of the superior maxilla and palate bone from the pterygo-maxillary fossa forwards to the nostril below the level of the malar bone. On the completion of the operation the depressed portion is restored to its position and held in place by wire sutures. In one case Cheever carried out this proceeding on both sides simultaneously, but with fatal result,[4] but Tiffany subsequently repeated the proceeding with success.[5]

Discharges from the Nose.

Discharges from the nose are of various kinds, the simplest being the ordinary mucus of the nasal cavities, which becomes exaggerated in ordinary nasal catarrh or acute rhinitis. A cold in the head cannot, perhaps, be strictly called a surgical affection, since it is but a part of the general catarrh, but the pain caused by extension of the inflammation to the frontal sinuses is severe enough occasionally to give rise to unnecessary alarm. In my experience, anything like permanent mischief resulting in the frontal sinuses is extremely rare, and the seat of chronic discharge is more likely to be found elsewhere than in those cavities.

A clear watery discharge from the nostril appears to be often the result of senile changes without actual disease, but cases of profuse watery discharge generally depend upon some polypus affection. The use of astringent snuffs, and especially the sulphate of zinc, as recommended by Brodie, appears to keep these watery discharges in check, and operative interference would not be justified unless there were unusually good grounds on which to found a diagnosis of polypoid growths in the antrum or elsewhere.

Purulent discharge from the nostrils may result from exaggerated rhinitis, or, if chronic, may depend upon the presence of a foreign body. In children especially it is well to examine the nares thoroughly, and to use the nasal douche until a full stream is readily passed through the nose in both directions, so as to wash out any possible foreign obstruction, the introduction of which has long been forgotten. Numerous cases of the formation of calcareous masses or rhinoliths by the deposit of saline materials upon foreign bodies are recorded. When met with these must be crushed with suitable forceps, and removed with as little damage to the mucous membrane as possible.

Ozæna.

The chronic purulent discharge of children commonly known as ozæna is essentially a fœtid atrophic rhinitis characterised by dilatation of the nasal cavities and widening of the nose, so as to produce in extreme cases the deformity known as "saddle nose." The tendency of the purulent discharge is to dry in the cavities of the nose, and to produce yellow or greenish crusts, which adhere finally to the atrophied mucous membrane. This is especially the case on those parts of the mucous membrane which are ulcerated, as they commonly are, but it may be questioned whether the ulcers are caused by the crusts, or *vice versâ*. The majority of sufferers from ozæna are well-marked tuberculous or syphilitic subjects, and in the latter the discharge is often kept up by necrosed bone, the presence of which can be detected with the probe through the anterior nares, or by the finger introduced into the naso-pharynx.

Treatment of Ozæna.

The methodical employment of irrigation with warm detergent lotions is the first and most important detail of treatment; and I prefer the terebinthinate fluid, known as Sanitas, well diluted, for the purpose. Powerful continuous nasal douches are apt to set up mischief in the middle ear. A small nasal douche, with only a tumblerful of water, is the only admissible form of continuous douche; but a better plan is to employ an ordinary Higginson's syringe, so that the muscles of the palate may act only when the impact of the water is made, and thus the Eustachian tube be closed. The forcible interrupted current has the further advantage of more readily dislodging the crusts. After thorough washing, the application of glycerine, in the form of glycerine of borax, with a brush, is most useful; and in bad cases may be followed up by the application of the glycerine of carbolic acid to both anterior and posterior nares. To obviate the stench which is so prominent a feature of these cases, the use of a snuff of iodol and borax (1 to 7) has proved satisfactory. Residence at a bracing seaside place is advantageous to the strumous cases, and the sea-water may be advantageously tried as a douche. Cod-liver oil or the syrup of the hypophosphites is also useful. In the cases of ozæna dependent on congenital syphilis, mild mercurial douching may be used, and mercurial ointments, or, better, oleates diluted, may be applied to the ulcerated surfaces. At the same time, the iodides of potassium or sodium should be administered internally in full doses. When bone is exposed and necrosed, time must be given for its complete separation; and in extensive necrosis it would be justifiable to have recourse to Rouge's operation.

Empyema of the Antrum.

A chronic discharge from one nostril of pus which is not offensive to others, or very slightly so, depends in the majority of instances upon empyema of the antrum. This may be caused by the irritation of decayed teeth, the roots of which naturally impinge upon and in many cases actually involve the floor of the antrum; or, as has been maintained of late by some rhinologists, may be caused by inflammation extending from the nasal mucous membrane. It is very difficult to prove either cause to be the only one, but, seeing that, in many cases of empyema of the antrum, the patient has suffered from his teeth but has made no complaint of the nose until the discharge made its appearance, the balance of evidence seems to be in favour of the dental origin of the affection. Be that as it may, it is certainly the fact that only of late years have surgeons recognised that a discharge of pus may be proceeding from the antrum without any of the symptoms of inflammation which have been described as pathognomonic of the affection. As most recent writers upon the subject have drawn their inspiration from John Hunter's description of the "abscess of the antrum maxillare" contained in his essay on Diseases of the Teeth, I may be permitted to point

[3] *Lancet*, January 26th, 1889.
Medical and Surgical Reports of Boston City Hospital, 1870.
[5] *Trans. Med. and Chi. Fac.*, Maryland, Balt., 1878.

out that his description refers to the rarer cases in which obstruction of the opening into the nostril has taken place, and not the more ordinary form of purulent nasal charge.

Hunter's description has been followed by most systematic writers of the present day, and I must confess to having reproduced it in the second edition of my work on *The Diseases of the Jaws*, published in 1872. I gradually became aware, however, that suppuration of the antrum was not necessarily preceded by any inflammatory symptoms, and I published a paper on the subject in the *Medical Examiner* of December 21st, 1876, from which I will quote a passage :—

> The more common course of events is that without any acute pain the patient notices that he has a purulent discharge from the nose when blowing it, and perhaps is aware that when lying down, the discharge finds its way into the throat. This latter point is often overlooked, however, though there may be a complaint of a very disagreeable taste in the mouth, and a tendency to nausea in the morning, with a hawking up of pellets of inspissated pus. With all this there is no distension of the antrum, and it is this fact which frequently misleads the practitioner. Given a patient who complains of a purulent discharge from the nostril, with occasionally a disagreeable smell, and the case is too apt to be put down as one of ozæna, and treated by nasal douches, snuffs, etc.

These views were reproduced in the third edition of my work published in 1884, and also in the course of lectures "On Certain Diseases of the Jaws," which I had the honour to deliver in this College in 1887. They seem, however, to have attracted little attention. Ziem, Stoerk, and Mikulicz, who wrote upon this subject in 1886, are generally credited with originating the views which I have held and taught for many years.

> Ziem appears to have himself suffered from empyema of the antrum, and describes his own illness most graphically in his paper. In 1877 he commenced to suffer from a fœtid unilateral nasal discharge. Various remedies were applied to the nasal mucous membrane, but these, as well as internal medication and a stay of two years in Egypt, failed to produce any improvement. In 1883 the discharge became so profuse, and the stench so marked, that the necessity of giving up his practice became more and more urgent. He now decided to have the antrum opened as the first step in a thorough search for the source of the suppuration. The surgeon whom he requested to perform the operation was very unwilling to undertake it, because none of the recognised signs of empyema were present. When, however, the cavity was opened and washed out, a large quantity of pus came away, and finally a cure was effected.

The diagnosis of pus in the antrum is by no means always easy. The method of examination, recommended by Fränkel in 1887, is useful and simple. The nose having been thoroughly cleansed and it having been ascertained by inspection that the nostril corresponding to the suspected antrum is quite free from secretion, the patient is told to lie down across a chair or on a sofa, supporting himself with both hands on the floor and holding the head down with the affected side uppermost. After remaining in this position for half a minute he is to sit up without either blowing his nose or inspiring through it. The speculum now having been reintroduced pus will be seen in greater or lesser quantity in the middle meatus if the discharge really comes from the antrum.

TRANSILLUMINATION.

In 1889 Heryng, of Warsaw, proposed to effect the diagnosis of fluid in one antrum by illuminating the bones of the face by an incandescent lamp introduced into the patient's mouth. Mr. Nathaniel Stevenson was good enough to make a series of experiments upon himself and others in my presence to establish the truth of Heryng's statement, that darkness on one side of an illuminated face might be taken as probably symptomatic of empyema. But the conclusion we came to was that the thickness of the bone varies so greatly in different individuals, as Heryng himself has noticed, that the test proposed was not very reliable.

TREATMENT OF EMPYEMA OF THE ANTRUM.

The symptoms of, usually, one-sided periodical discharge of pus, which is not offensive or only slightly so and which is apt to flow when the patient is recumbent with the affected side uppermost, ought to direct the surgeon's attention to the antrum, for that empyema of the antrum is much more common than usually supposed cannot be doubted. Some years back I was consulted by a lady who had been under treatmen for some months for a chronic discharge from the nostril, for which she had undergone one scraping operation without benefit. The discharge continuing it was suggested that the frontal sinus must be the seat of the disease, and it was proposed to trephine the sinus with a view of clearing up the question. As the patient was both young and good-looking her friends not unnaturally took alarm at such a serious proposal as opening up the frontal sinus, and I was consulted. I came to the conclusion that in all probability the antrum contained pus, and I advised that a puncture should be made into it before any more serious operation was undertaken. This was accordingly done, a quantity of offensive pus was washed out and the patient rapidly regained her health.

When a carious molar tooth is present it had better be extracted, and a puncture made through one of the outer sockets; but if there is no tooth requiring extraction I prefer to puncture above the alveolus in the canine region, and I have seen no harm follow the proceeding. Whichever method is employed, the thorough washing out of the cavity forms an essential part of the treatment, and this can readily be effected through an ordinary Eustachian catheter fitted with an india rubber syringe. Whether a permanent silver tube should be fitted by a dentist, and secured by a plate to the neighbouring teeth, must depend very much upon the patient. If he can introduce the Eustachian catheter readily, and wash out the cavity easily, there is no occasion for a tube, but if, as often happens, the opening through the alveolus tends to close, and the patient is constantly in difficulties, then it is better, I think, to have a tube fitted, care being taken that it is only just long enough to reach the floor of the antrum, and not to go beyond it. This can be fitted with a plug to prevent the accidental passage of food into the cavity.

REFLEX NASAL NEUROSES.

Within the last few years a new importance has been given to nasal disorders by the reputed discovery that many obscure nervous affections are nasal reflexes, or dependent upon some abnormality of the nasal cavity. That some forms of asthma, and particularly the so-called hay asthma, may depend upon irritation of the nasal mucous membrane has long been known; but it is only since Hack's paper in 1882 that various and distant phenomena have been connected with the nose. Hack makes these nasal reflexes cover a sufficiently large field, namely, gastralgia and dyspepsia, cardiac palpitation, salivation, trigeminal neuralgia, cephalalgia, migraine, scotoma, ciliary neuralgia, photophobia, vertigo, and agoraphobia; while his followers give examples of epilepsy, neurasthenia, and nocturnal incontinence. Even exophthalmic goitre has been thought to be sometimes connected with nasal obstruction, and Professor Hack considered this obscure disease to be a reflex phenomenon due to "permanent irritation of certain peripheral terminal apparatus of the sympathetic nerve, which are expanded in the erectile tissues of the nose."

It must, however, in fairness be stated that amongst specialists themselves there has been, from the time when Hack's doctrines were promulgated, considerable scepticism concerning the widespread influence attributed by him and his followers to nasal affections.

THE PATHOLOGY AND TREATMENT OF SUPPURATIVE DISEASES OF THE EAR.

Being an abstract of the Harveian Lectures delivered before the Harveian Society of London.

BY G. P. FIELD, M.R.C.S.,

Aural Surgeon to St. Mary's Hospital and Dean of the Medical School.

LECTURE II.—FACIAL PARALYSIS.

ANY condition interfering with the free flow from the tympanum of pus there generated may be productive of the serious complication facial paralysis. We have already seen how, in an acute attack of otorrhœa, an unyielding membrane may be its passive cause. I need hardly say that when facial paralysis occurs from suppurative middle ear disease, degeneration of muscle soon sets in, to be followed, if the affection continues long enough, by distinct wasting; so much might, indeed, be inferred from the fact that the neuritis is peripheral. Correlated with and on the same side as the facial paralysis is loss of taste, not of sensation, over the gustatory part of the tongue—a phenomenon not always noted, but of interest physiologically, in that it proves conclusively that the gustatory fibres come from the chorda tympan.. These

Dr. Gowers has traced from Meckel's ganglion along the vidian and the great superficial petrosal nerves to the geniculate ganglion of the facial.

Treatment of Otorrhœa with Perforation.

When the accumulation of pus from the meatus is cleared away and the parts kept constantly clean, a recently perforated membrane, as a rule, heals well. When there is a thick discharge it should be removed at least three times a day. Oftentimes deafness is due to deposit on the membrane, fenestræ, or ossicula, or to swelling of the mucous surface of the drumhead, and the thorough washing of the tympanum with antiseptics is of great advantage. This may in some instances be effected by the use of an intratympanic syringe introduced through the perforation; the inflation of the tympanum by Valsalva's or Politzer's method should then be resorted to. As Hinton long since observed, it is desirable sometimes to touch the edges of the perforation with silver nitrate. In the treatment of chronic cases of perforation, highly stimulating lotions are often employed month after month without any change, and the ear, in consequence, becomes excoriated and painful. The adoption of a milder application may be all that is requisite to effect a cure.

The immediate relief of pain is of prime importance. To this end free leeching and counterirritation behind the mastoid, with equal parts of tincture of iodine and blistering fluid, may be employed. Cold compresses, frequently changed, may sometimes be useful, as Weber-Liel has shown, in place of leeching. Glycerine of carbolic acid poured into the meatus is a useful anodyne, and of the value of antipyrin taken internally I have already had occasion to speak. In the acute catarrh of young children—of which one sign is refusal to rest the head on the affected side—poultices should be avoided, as they only promote suppuration; pain is best relieved by frequent fomentation of the external meatus with water. Mild purgation and the use of Politzer's bag are also of assistance. Many an earache might be completely prevented by timely politzerisation, as it renders the Eustachian tube pervious, and equalises the pressure on the drumhead. In children it acts well, without any accompanying act of deglutition. Until pain has subsided warm water should be poured into the ear, and syringing and the use of stimulating applications should be shunned. Afterwards weak and soothing lotions, such as solution of acetate of lead and tincture of opium, may be resorted to. Perchloride of iron and silver nitrate are unsuitable for acute cases. Powdered boracic acid, or occasionally alum, may be very efficacious, but the insufflation of powders is not to be recommended except in chronic cases where there is a large perforation. Strong lotions are applicable only in old-standing cases of otorrhœa. The stoppage of discharge through their use when perforation has but recently occurred, or when pain is still present, may be productive of meningitis or mastoid abscess, the edges of the perforation being stimulated to close before cessation of discharge into the tympanum.

In chronic cases of otorrhœa, as we have seen, rectified spirit may be of signal service. Dr. W. B. Johnson[1] recommends hydrogen peroxide — a 15-volume solution is the strongest required—as a non-toxic germicide, one and a-half times stronger than mercury bichloride, in catarrhal and suppurative otitis and in mastoiditis after incision. It acts by evolving nascent oxygen, and its effervescence during decomposition effects the excretion of products of healthy action. Causing the disintegration and removal of carious, and promoting the growth of living bony tissue, it obviates the necessity of scraping a diseased mastoid if applied thereto.

Eczema, Impetigo, and Boils of the External Meatus.

Tröltsch's observation that there is no justification anatomically for speaking of catarrh of the external meatus holds perfectly true, except as regards the occurrence of acute moist eczema. This disease, in one phase, may appear between the ear and the head, but a variety much less amenable to treatment is that met with within and around the meatus, and is originated by the patient's scratching of the ear to alleviate irritation caused by some chronic discharge. For its successful treatment arrest of the discharge from the internal meatus is manifestly a requisite. Careful cleansing of the meatus and the application of a small quantity of dilute nitrate of mercury ointment—preferably first melted—are remedies generally efficacious. Other ointments, or vaseline alone, may be better tolerated, or lotions (for example, a solution of chloral hydrate) may prove yet more successful. In chronic cases the application of oil to remove scabs, and then of tar lotion (Wright's liquor carbonis detergens ℥j to ℥iv of water) is usually effective.

Contagious impetigo, the result of inoculating with staphylococci, is characterised by a thick and purulent discharge, which, with scabs formed in the meatus, sometimes obstructs the passage of sound. The exhibition of tonics and bread poultices, and carbolic lotion for the ear, to be followed, if needful, by applications of calamine ointment, are useful remedies.

Staphylococcus pyogenes, var. albus, is the organism usually present in the pus of boils in the external auditory meatus. Foul air, as I have shown, and the employment of aural applications in a putrefactive condition are among the causes of boils. The occurrence of furunculosis as an epidemic points very clearly to its parasitic origin, and this again accounts for the beneficial effects of alcoholic solution of boracic acid in its treatment after the flow of pus has begun. The relief of pain due to tension and the resolution of the boil may be effected by a free upward incision.

One of the possible results of otitis or eczema affecting the external auditory meatus, especially in damp and impure atmospheres, is the appearance there of some one of the species of aspergillus, generally A. niger. This is best combated by the injection into the ear of alcohol in warm water.

New Growths.

Among the new growths in the meatus resulting from suppurative otitis are spongy exostoses (osteomata). These may be preceded by polypus, are usually pedunculated, and have the appearance in microscopic section of newly formed bone. They can easily be removed with dental stump forceps. The true ivory exostoses of the ear I do not now propose to deal with except in so far as they are connected as an effect or cause with aural suppuration. Their origin seems to be in some mechanical irritation, one source of which I long since showed to be in all probability the ingress of salt water into the ear. I was led to this conclusion after having operated on four gentlemen with double ivory exostoses, who were in the habit of bathing together daily in the sea in the south of Ireland. It is when the growth of an exostosis threatens to prevent the escape of pus from the ear that its removal is absolutely necessary, even though there should be no very appreciable loss of hearing from the occlusion of the meatus. The true ivory exostosis may be safely drilled with the dental engine. I have treated over one hundred cases by this means, and I have seen no reason to swerve from the opinion that it is superior to all others for the penetration of these excessively hard tumours. At times ivory exostoses give rise to danger by exerting mutual pressure and so causing painful suppuration, and they then require prompt treatment. One patient, sent to me by Mr. Swanwick, of West Hartlepool, suffered from increasingly alarming and frequent epileptiform fits, so that for some months he was afraid to lie down at night, being apprehensive of a seizure. His condition was apparently due to the retention of secretion in the right ear, which was almost completely blocked by an exostosis. After I had drilled through the growth, the patient recovered his hearing and had no repetition of the fits.

[1] *Proc. Amer. Med. Assoc.*, 1892; *Journ. of Laryngology, Rhinology, and Otology*, No. 10, 1892.

Dr. A. J. Shepherd, of Usk, M.R.C.S.Eng., died somewhat suddenly on November 27th. He was about seventy-eight years of age, and was the oldest medical practitioner in the town, where he was greatly respected. He was medical officer of Usk under the Local Board, and district medical officer under the Pontypool Board of Guardians.

Presentation.—In the Miners' Hall, Leadgate, on Tuesday, Dr. W. Allen was presented with a silver tea and coffee service and a purse of gold in recognition of his public and professional service during his eight years' residence in Leadgate.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

STRYCHNINE IN THE VOMITING OF DEBILITY.

A BRITISH officer came under my care suffering from obstinate vomiting and great debility. These conditions were a sequence of malarial fever, from which he had suffered much during the Chin Lushai and Manipore expeditions. I tried morphine, hydrocyanic acid, bismuth, oxalate of cerium, and most of the other agents reputed as useful in that condition. The more potent agents had a poor and only a passing effect. The patient was plainly suffering from a form of starvation. His stomach was so irritable that he could hardly retain any food, and if given medicine in a bulky form it was mostly rejected. Arsenic and quinine were apparently useless. I tried, as a last resource, large doses of strychnine, and was surprised to find that it controlled the condition within twenty-four hours, and continued to control it effectually, so that after a few weeks the patient, who was almost like a living skeleton, became fit to go about and to do light duty.

I have since tried the same agent in the few other similar cases which came under my care, and have found it equally effective. I infer that sedatives will control nervous disorders only where nerve tone exists, and that they control strength and not weakness. The action of strychnine in the above cases was too rapid to be of an ordinary peripheral stomachic character. The movements of the stomach in the above cases seem to have been due to a derangement of the centres which preside over the movements of the stomach, whereby the stimulus of food which in health excites the physiological rhythmic contractions of that organ, in the diseased and irritable condition in question were sufficient to excite the act of vomiting. Strychnine seemed to establish the physiological tone of the centres in question, and thereby to render their presiding function steady and co-ordinate. We observe frequently in functional nerve derangements such as chorea, that sedatives are of very little, if any, use, whereas strychnine and other nerve tonics are invaluable.

Dharmsala. HENRY SMITH, M.D.,
Surgeon-Captain M.S., 1st Goorkha Rifles.

MYXŒDEMA ASSOCIATED WITH GOITRE.

I AM at present attending a case of myxœdema, the patient being a female aged 46. All the symptoms and signs of that disease are prominently marked, with the exception of the condition of the thyroid gland. I found that organ very much enlarged, and at times giving rise to difficulty of swallowing and breathing. The patient first noticed the enlargement about four years ago, and the symptoms associated with myxœdema, namely, dryness of skin, œdema of hands and feet, slowness of speech and action, etc., were first noticed two or three years ago. In my opinion the goitre is a fibrous bronchocele in which hypertrophy of the fibrous tissue has caused atrophy of the glandular structure of the organ. I may mention that goitre is very commonly met with in this part of Bedfordshire.

Aspley Guise. H. W. CUNINGHAM, M.B.

ACCIDENTAL HÆMORRHAGE AND HYDROCEPHALUS.

ON November 21st I was called to Mrs. H., a multipara, with a good history as to previous confinements. The nurse informed me the membranes had been ruptured for thirty-six hours, and the patient had had no severe pains until the last three hours; movement on the part of the fœtus had not been felt for twenty-four hours. I found the patient in a state of extreme exhaustion, extremities cold, and the pulse very weak and compressible. On vaginal examination the os was found fully dilated, and the head presenting. A quarter of an hour having elapsed since my arrival, and the patient having had no pain, I decided to explore past the presenting part, with the result of a sudden gush of blood, followed by a mass of clots, proving what I had suspected, that accidental hæmorrhage was going on from a partial separation of a normally-situated placenta. While passing my hand between the presenting head and the uterine wall I thought I detected undue dimensions of the former, and on careful examination found this was due to an enormous hydrocephalus. The cord was pulseless, and the fœtus evidently dead, so I turned by the podalic method, and easily brought the body down. Having no better instrument with me, and the case extremely urgent, I punctured the head with an ordinary pair of scissors, which was followed by several pints of serous fluid, collapse of the cranial bones, and easy extraction.

The patient, who was of feeble constitution, never rallied from the shock, and died in twenty-four hours.

Dovercourt. HAROLD GURNEY, L.R.C.P.E, etc.

RETENTION FROM IMPACTED CALCULUS IN A CHILD.

R. B., 2 years of age, was admitted to the Children's Hospital, Nottingham, on October 10th with retention of urine. When seen, at 6 P.M., the boy had a calculus impacted in the urethra—at the orifice—and his bladder was enormously distended. The stone was removed, and found to weigh 3 grains. After its removal no urine escaped beyond a few drops. A No. 6 gum elastic catheter was passed into the bladder, when a very feeble stream ran out. Pressure above the pubes speedily increased this flow until 6½ ounces of urine had been withdrawn. I have only once had occasion to do a perineal section for extravasation of urine in a child, and that was due to an impacted calculus. This boy seemed to have been very near to it. In these days of litholapaxy it may not be without benefit to know that in so young a child so much fluid has been retained without disaster.

Nottingham. LEWIS MARSHALL.

STRONTIUM BROMIDE IN VOMITING.

IN the EPITOME of November 19th, par. 442, is an abstract of a paper by G. Coronedi on "Strontium Bromide in Vomiting," in which it is stated that he found this salt most successful as a gastric analgesic in vomiting of nervous origin. I write to say that I have a female patient in the Royal Infirmary here with chronic gastritis and frequent vomiting to whom I have given a great many of the recognised gastric sedatives without effect, but who always gets temporary relief when the stomach is washed out with tepid water containing a little creasote and sodium bicarbonate. About two weeks ago I began giving her strontium bromide, thirty grains thrice daily, in water, with the result that the vomiting has almost ceased and the pain is gradually lessening. I consider this new salt well worthy of trial in all such cases.

JOHN DOUGALL, M.D.,
Professor of Materia Medica, St. Mungo's College, Glasgow.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

ACUTE ASCENDING PARALYSIS (LANDRY'S).

(Under the care of Dr. TOTHERICK.)

[Reported by JOHN WATSON, F.R.C.S.E., House Physician.]

P. K., male, aged 52, coal miner, was admitted on September 9th, 1892.

History.—Six days before admission he was in the fields with several other men who were engaged in agricultural work. He was not himself working, and during the day drank freely of beer from a neighbouring inn, becoming at length more or less intoxicated. He laid himself down on the ground, and went to sleep for four or five hours. The ground was very damp. He was carried home by the other men, when he at once went to bed, and remained until the following morning. When he came to get up he found that he could only lift the legs with great difficulty, and that the thighs were very "weak." He also noticed an aching in the lower

part of the back, with much pricking and tingling in the feet and hands. The symptoms increased in severity during the next five days, at the end of which time he was brought to the hospital.

State on Admission.—He had complete paraplegia, and was totally unable to stand or walk even with support on both sides, his legs and thighs "doubling up" underneath him. There was no anæsthesia of these limbs, nor of any other part of the body, no ankle clonus, but complete absence of "patellar tendon reflexes" on both sides. The pupils acted sluggishly to light and accommodation. Heart and lungs, *nil*. Urine 1020, acid, no albumen.

Progress.—The next morning (September 10th) the lower extremities were totally paralysed, and the abdominal muscles were becoming affected, so that he could not strain during defæcation or coughing; the superficial abdominal reflexes were absent. There was, however, no incontinence whatever, either of urine or fæces. During the day the paralysis rapidly extended upwards, involving successively the abdominal, the lower and the upper intercostals, next the muscles of the hands, arms, and shoulders, and finally the diaphragm, swallowing becoming impossible, and suffocation ending his life. It was noticed also towards the last that speech became affected, and that the masticatory and facial muscles became markedly weakened, so that the eyelids could not be firmly closed, or the mouth "pursed up," as in blowing or whistling. There was no tenderness of the spinal column in any part of its course. Death took place thirty-six hours after admission to the hospital, the illness having thus run its course in less than eight days.

Treatment.—The treatment adopted was counter-irritation to the spine, and the internal administration of ergot, but these measures unfortunately proved ineffectual.

Necropsy.—A *post-mortem* examination was made six hours after death. All the viscera were found to be perfectly healthy. The membranes of the spinal cord were slightly congested, but beyond this no naked-eye appearances were noticeable. Sections of the cord were hardened and examined, but threw no further light upon the pathological change.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

JONATHAN HUTCHINSON, F.R.C.S., F.R.S., President, in the Chair.

Monday, December 5th, 1892.

A DISCUSSION ON CHOLERA, ITS EPIDEMIC PROGRESSION AND CAUSATION.

SURGEON-COLONEL HAMILTON explained the number of conflicting theories on the causation and spread of cholera by each observer reasoning on the facts that had come to his personal knowledge. The statistician, he said, merely surveyed the various outbreaks and mapped out the progress of the disease. He alluded to the want of unanimity in the writings of Indian authors which had discredited Indian opinion. He quoted at the outset Mr. Hart's recent declaration that the water cholera theory was decisive, that the East London investigation was crucial, and that "cholera was a filth disease, carried by dirty people to dirty places." The object of the paper was to show that no single theory hitherto propounded covered the ground of epidemic cholera, the explanation in every case falling short in some material particular. He referred to three principal theories: (1) propagation by drinking water, food, etc.; (2) human intercourse, and (3) conveyance of the disease by the air, to which he said might now be added the so-called vibrio or cholera bacillus. He assumed that the identity of the disease as met with in Asia and Europe respectively had now been established. Here, as there, it followed certain well defined lines, was more virulent at the commencement than at the close of an epidemic (thus accounting for the successes claimed for so-called specifics), and did not retrograde or work backwards. Admitting the contaminated water theory, for the sake of argument, he raised the question as to the value of filtration, expressing grave doubts as to the efficacy of any system of water filtration as carried out by the water companies. He called attention to a paper by the State Geologist for New Jersey, on a plan for precipitating the organic matter of water by the addition of 2½ grains of alum to the gallon and subsequent filtration. He asserted on the authority of an eminent bacteriologist that cholera had never been proved to be one of the diseases conveyed by bacilli. Koch believed that the disease was conveyed by the bacillus, but many other authorities, after mature consideration, had come to a directly opposite conclusion, and he referred to some of the examples quoted in support of these views. He denied that the lessened incidence of cholera in Calcutta that had followed the introduction of a supply of pure water, was due directly and only to the purity of the water. The effect of a pure water supply on the general health would account for a large share of the diminution apart from the absence of specific contamination; nor could the case of Fort William, where the mortality fell from 20 per mille to 1 per mille on the introduction of a better water supply, be accepted as certain proof that the improvement was entirely due to the better water supply, because at the same time general sanitation was also much improved, notably by the erection of spacious barracks and the use of earth closets. He referred to the outbreak of cholera in the Great Alipore Gaol which followed the introduction of the pipe water, and he claimed that it was as fair to put this to the account of the water as it was to attribute all improvements in the mortality returns to that cause. He traced the course of epidemic cholera in India, quoting cases where a heavy rainfall extinguished cholera in Lower Bengal, and how with the monsoon it advanced up the valley of the Ganges or the Bramaputra or both. He urged that this fact was evidence in favour of the air, *plus* heat and moisture, being important factors in progression. He admitted, however, that instances were on record of the cholera progressing in the face of the monsoon. In 1878-79 the disease left the endemic area and advanced to Oude; the following year it spread over the Punjab on to Cabul. During the epidemic in the north-west large numbers of natives went by rail from the infected districts into the Punjab, many dying on the way, yet the disease did not become epidemic there during 1878, and the disease did not break out in the other districts during that year. The same thing was observed the following year, when Punjab in its turn had become an infected district. He mentioned several instances within his own experience of cholera breaking out under circumstances in which the water supply could not be suspected. He asked how it was that cholera sometimes attacked European barracks, while the filthy native bazaars close by with a foul water supply escaped. He maintained that observation and experiment tended to prove that the comma bacillus could not determine cholera unless there were some other factor present in addition. He insisted that cholera was not infectious nor contagious in the ordinary sense. Hospitals seemed to be about the safest place to live in during a great epidemic. He referred to an outbreak at Allahabad last year, which occurred quite suddenly and without any adequate explanation, during which he observed that the period of incubation appeared to be not longer than three days. In reference to the transmission of cholera by the air, he referred to the remarkable instance of two hill stations separated by a deep valley and at a distance of seventeen miles as the crow flies, in which cholera broke out and ceased on the same days after a heavy rainfall, the intervening country remaining free. Admitting that much still remained to be learned in respect of this disease he characterised quarantine as impracticable, useless, and vexatious, though he approved of the measures actually in force. He insisted upon the importance of evacuating infected dwellings forthwith, a measure which he considered as even more important than the removal of the patients themselves. As a disinfectant he recommended crude sulphate of iron in preference to dangerous substances such as corrosive sublimate. He concluded with the suggestion that the first opportunity should be taken to try the effects of the transfusion of blood of the goat directly into the vessels of a patient in the algid stage.

The PRESIDENT said he was one of the earliest converts to the water theory of the late Dr. Snow; and though he had had an experience of two epidemics in London, and had given the

matter a great deal of attention, he saw no reason to alter his views on that point.

Dr. MACLEOD (Allahabad) said the incidence of cholera was accidental rather than general, and its progression was also peculiar, being by leaps and starts, and by no means general or uniform, going sometimes forwards and sometimes backwards. He deprecated the use of terms such as "waves," "areas," etc., as utterly fallacious and likely to mislead, and so long as the data which went to make up the general statements were imperfect so long would these statements have little weight.

INDIAN CONTRADICTIONS DUE TO FAULTY INVESTIGATION: PROOF THAT CHOLERA SPREADS BY WATER POLLUTION THERE ALSO.

Dr. W. J. SIMPSON (Calcutta) said: It seems to me that the conflicting views which have arisen regarding cholera in Europe and cholera in India are largely dependent on the different methods of investigation adopted in the respective places. The reason for this difference, and especially for the method adopted in India, is, I think, attributable to the immensity of the country and the paucity of medical men therein who have either the time or inclination to carry out such work. To show what a large amount of time an investigation of this kind requires, I may mention that during the six years I have been in India I have had the opportunity of inquiring into several important outbreaks, and each of these has taken me nearly a month or six weeks' hard work to ascertain with any degree of certainty the cause. It will thus be seen how difficult it is for medical men to investigate the causation of disease, while nearly all their work lies in other directions. In England, where medical men are plentiful, the method adopted is a careful local investigation *plus* statistics. In India the method is statistical *minus* in the majority of cases a careful local investigation. So many deaths from cholera are stated to have occurred. These are forwarded to a central office and there compiled with similar statements from other places. A report has to be written and some explanation is required, and accordingly a number of theories are apt to be elaborated. I do not say that all of these theories are wrong; many of them may be right; but they are lacking in proof, and no investigation worthy of the name that I am aware of has ever shown that the monsoon or the atmosphere conveyed cholera to a locality where it had not existed previously. On the contrary, the local investigations which have been made by sanitary commissioners and others have demonstrated the fact that cholera has been conveyed from locality to locality by infected persons or infected things, and has spread in the locality where it has been imported chiefly by contaminated water, contaminated milk, contaminated food, bad drainage, or some cause not ascertained, but not by the winds. The transportability of cholera by human intercourse in India has been demonstrated over and over again. It was even illustrated in the Hurdwâr Khumb of 1879, notwithstanding Surgeon-Colonel Hamilton's diagram, for the vast majority of the pilgrims came from the Himalayas and from the north, north-west and west, and very few indeed from Bengal. In the Hurdwâr Khumb of 1891, at which I was present, I do not think more than 500, or at most 1,000, out of nearly a million came from Bengal. Last year I was present at the Ardhodoya Jog in Calcutta, which takes place only once in twenty-seven to thirty years. Cholera broke out in a virulent form, spread in the locality of the festival, and raised the cholera mortality in the City of Calcutta at a season of the year when it is not usual for cholera to appear in an epidemic form. The pilgrims were traced to their homes, and it was found that in several districts they had set up widespread epidemics. While, however, believing that cholera is communicable in the sense of being carried from place to place by infected persons or things, and not by epidemic or pandemic aërial waves, I am not forgetful of the influence of season, which undoubtedly is an important factor, and when we come to its local manifestations I am far from thinking that any exclusive doctrine of propagation of the germ in the soil, and local infection of the air as held by Pettenkofer, or propagation by water as held by others, will explain every local outburst. For instance, epidemics on board crowded emigrant ships, where no layer of soil, wet or dry, or varying in its degree of moisture, exists for the elaboration of the poison, tend to show that local causes appertaining to the soil are not essential for the production of cholera. On the other hand, I have seen in Calcutta, in huts in which there has been an absence of light and air, small explosions of cholera, which have reminded me more of my experience of typhus fever in Scotland, or of diphtheria in England, and which by no manner of means could be traced to contaminated water. Two years ago there was an outbreak in Calcutta, which appeared to be directly traceable to sewer emanations. It seems to me, moreover, that exclusive theories regarding the propagation of epidemic disease are not in consonance with our knowledge of bacteriology, though some media may be much more important than others, on account of the different liability to contamination. There can be no doubt, for example, that even in the East the evidence is overwhelming in favour of liquids used by man for drink being the most frequent media or vehicle for the cholera organism, and that the air is not a suitable vehicle unless under special conditions of moisture as may exist in low-lying land near a marsh or river, or under special conditions of air and light, as in dark and unventilated rooms or huts, or in the forced emanations from contaminated sewers. It is by reason of the peculiar treatment which water receives in India, especially in Bengal, that the disease continues to break out yearly in an epidemic form. Calcutta is not the only town that has had its cholera decreased more than half by a pure water supply. Lahore, Delhi, Nagpore, and Bombay are in the same position. I have travelled a good deal in the East, and everywhere have taken the opportunity of inquiring into the cholera history of the locality visited, and everywhere I have found the water supply to constitute the most important factor in the decrease of cholera. Such is the case in Batavia and Pondicherry, which enjoy comparative immunity by reason of their artesian wells, and similarly in Rangoon, Colombo, Kandy, Singapore, and other towns of the East. My experience leads me to the opinion that widespread local epidemics are mainly due to contaminated water. I acquired an early lesson to this effect in 1883, when I visited Damietta in Egypt to inquire into the cause of the outbreak there, which was the first town affected in Egypt. Damietta is situated on the Nile, which forms a peculiar cup-shaped basin in front of the town during the period that the river is low. The river at this time was particularly low, so as to form almost a stagnant pool, which supplied the inhabitants with their drinking water, and at the same time served as the cesspool for the town. A large fair was held, at which 15,000 persons were present, some of whom came from suspected districts, cholera broke out, and raged with virulence, until suddenly the Nile rose and swept out the polluted basin, and cholera disappeared at once.

POLLUTED WATER THE CAUSA CAUSANS: THE RESPONSIBILITY OF INDIA.

Mr. ERNEST HART said that the categorical statements of Dr. Simpson dealt precisely with affirmative facts which were needed in connection with the relationship of cholera with a contaminated water supply. His categorical statements, indeed, constituted a crucial point in the history of the subject, and he hoped the statement would be expanded and published in detail, giving the precise figures, in order that it might be placed on record. He himself had waded through the voluminous literature of the subject for the last twenty years. Most of the reports from India had only added to the confusion. That was no reproach to the medical officers of India, but was due to the extraordinary difficulties attending the investigation of a disease in a country from some parts of which it never really disappeared. Moreover, great official pressure had at different times been brought to bear which obstructed direct observation as to the effect of the water supply. He pointed out that the author's three theories, subsequently developed into five, were in fact only two; such subdivisions only added to the confusion. He urged that the instance alleged of the cholera travelling against the monsoon was really a conclusive proof that the air had nothing to do with it. As a matter of observation, cholera travelled exactly as, when, and where human beings travelled. When they took twenty months to go round the world, then cholera took that time or longer to spread. When increased facilities for

rapid transport became available, and it became possible to do the journey in five months, then cholera took that time, and so on. When steamers were put on the Volga, then cholera came from Astrakan to St. Petersburg *pari passu*, and when the Trans-Caucasian railway was opened, it came directly. He urged that negative, confused, speculative evidence on the subject should be discarded. During the last fifteen years the evidence obtained of the importance of water as a factor in the spread of the disease had accumulated all over the world and water only was adequate to explain the phenomena. He would not go into the question as to whether or not there were other minor causes at work. He was prepared to give details of every great epidemic during the last 30 years and he alluded to the numerous instances in which towns with a good water supply had escaped the disease in epidemic seasons, while others less well provided had been devastated. One apparent exception was the case of Genoa, where, with an irreproachable water supply, an epidemic occurred and caused for a short time great mortality. On investigating the source of the water it was found however that immigrants had camped on the hills whence the water poured down in gutters and that some of them suffering from cholera had contaminated the water. The water supply was at once cut off, and the mortality quickly fell from 100 daily to nothing. Periods of drought or of rainfall only acted as they accelerated or lessened water pollution; of this he gave instances. Doubtless there were accessory causes, but when they saw a train being drawn by a locomotive they might safely conclude that the motor power was in the engine and ignore the head winds or side winds or the effect of slight obstacles on the rails, and finally for practical purposes stick to the engine. He pointed out that the British Government was directly responsible to the world for the recurring epidemics of cholera. As long as they shut their eyes to the fact that impure water was the great cause of cholera in India so long would they continue to bear the heavy responsibility of the recurrence of cholera in epidemic form.

Mr. C. Macnamara pointed out in respect to Fort William that the improvement which took place in the mortality returns prior to the introduction of the municipal supply of water was due to the care shown in the storage of water for the soldiers. The monsoon did not directly convey the cholera poison but it served to waft it up the river. It acted only indirectly by accelerating transport along the lines of human communication. Boats conveyed passengers from the infected regions of the lower Ganges and thus spread the contagion. Wherever these passengers landed there cholera broke out.

Reply.

Surgeon-Colonel Hamilton, in reply, admitted the prime importance of polluted water as the great cause, but still thought it inadequate to explain the whole incidence of cholera without some as yet undiscovered agency. He only advanced the instances of the disease travelling against the monsoon to show how conflicting was the evidence.

PATHOLOGICAL SOCIETY OF LONDON.

Sir George Murray Humphry in the Chair.

Tuesday, December 6th, 1892.

Sarcoma of the Humerus.

Mr. Edgar Willett showed, for Mr. Howard Marsh, a humerus, around the middle of the shaft of which a soft sarcomatous tumour had grown. The tumour was subperiosteal, but the medulla was throughout invaded, though the compact wall of the bone was intact. Histologically it was composed partly of cartilage, but chiefly of myxomatous tissue. The parts were removed by amputation from a lady age 54.

Mr. Hulke thought that the myxomatous portions had more probably arisen as a secondary change from the cartilaginous than the converse, to which Mr. Willett had inclined, or possibly both forms of tissue were of simultaneous origin.

Fibroma of Male Breast.

Mr. Cecil Beadles remarked on this specimen that it was, so far as he could find, unique in that it was a pure fibroma without trace of glandular tissue. Adeno-fibromata of the male breast were not so rare. It was taken from a man, aged 34, and had been noticed four months; it lay partly embedded in the pectoral muscle, and was about the size of a walnut.

Chronic Mastitis in the Male.

Mr. W. Anderson said the breast, which was considerably enlarged and about 2 inches in its chief diameter, was removed from a man, aged 45. The enlargement had been noticed about six months. Histologically sections displayed acini and ducts in small numbers, and around these a formation of dense fibrous tissue in which a certain amount of small cell infiltration was present. The author remarked that this condition might be compared with the mastitis of women at the climacteric, and furnished a missing link in the parallel pathology of the breast in the two sexes. The mastitis neonatorum and mastitis of puberty were alike in both.

Hyaline Fibroma of Cow's Udder.

Dr. Dudley Cooper: The tumour was as large as a horse chestnut, and quite devoid of glandular elements. He had found no similar growth recorded in the works he had consulted.

The President pointed out that some confusion appeared to have arisen in the use of the terms inflammation and new growth in relation to this subject, and that the latter term should be limited to the production of structures independent in their growth, of the general tissues.

Lipoma of Lip.

Mr. W. Edmunds showed a small lipoma removed from beneath the mucous membrane of the lip. Adenomata in this situation were well known, but fatty tumours were unrecorded.

Mr. E. Cotterell stated that he had once removed a lipoma from the inner side of the cheek.

The President mentioned that he had seen a case of lipoma of the tongue, and pointed out the rarity of fatty tumours in the denser forms of adipose tissue such as that of the palm and sole.

Yaws.

Mr. J. J. Clarke exhibited for Dr. Beaven Rake some specimens of the "tubercles" from cases of yaws. Dr. Rake had carried out bacteriological researches, using as culture media ascitic fluid, human blood serum mixed with glycerine, etc.; but he had as yet grown no specific micro-organism. Although all the specimens examined were taken from lepers, there were no leprosy bacilli in them; pyogenic cocci were found at the surface. Histologically Mr. Clarke had found that the "tubercle" resembled a mucous tubercle of syphilis. There was a papillary overgrowth with migration of leucocytes into the epidermis; the epidermic cells, though the specimens were from coloured subjects, were quite devoid of pigment. Pigment was present in the branched connective tissue cells close to the epidermis; he thought that the pigment was prevented from reaching the epidermis by the other cells. In the frog it had been shown that there was a passage of pigment to and from the epidermis, which took place through the medium of the connective tissue cells. When the "tubercle" healed, on the contrary, hyperpigmentation was found. The question of the identity of yaws and syphilis was undecided.

Mr. Hulke had seen about half a dozen cases of yaws in this country in natives of the West Indies. Clinically he had not been able to satisfy himself that the disease was syphilis. The tubercles might ulcerate or atrophy and leave depressions.

Dr. Colcott Fox had examined with Dr. Hebb papules from cases of yaws, and agreed with Mr. Clarke as to the histology of the lesions. A survey of the evidence led to the belief that the lesion was distinct from syphilis. Although very widely distributed, infective, and followed by tertiary lesions, and so like syphilis—yet, on the other hand, those in charge of special hospitals held it to be distinct, for many cases were known in which children were born of mothers suffering from yaws, but who showed subsequently none of the marks of hereditary syphilis. The disease was inoculable, and on the West Coast of Africa infantile inoculation was practised as a preventive measure against the more serious attacks.

Spindle-celled Sarcoma of Sterno-Mastoid.

Mr. W. Anderson said the growth was removed from a child, the whole muscle being excised. It was not congenital.

Sarcomata of the muscles were rare. Of the sterno-mastoid he had not found any instance. A case described in the Society's *Transactions* by Dr. Frederick Taylor would appear to have been a fibrosis of syphilitic origin, and not a proper tumour.

Cirrhotic Liver from a Boy.

Dr. F. Penrose remarked of this specimen that there were no signs of congenital syphilis, and no history of alcoholism. Death occurred from hæmorrhage from the veins of the omentum. The boy had been known to have had an enlarged liver since childhood. The microscopic appearances were ambiguous as between syphilitic and alcoholic cirrhosis. In answer to Mr. Shattock and Dr. Perry, he stated that he had not observed the presence of miliary gummata in the fibrous tissue, and that he did not know whether there was a history of scarlatina, which was stated to lead to cirrhosis in certain cases.

Papilloma of Duodenum.

Dr. E. C. Perry showed a beautiful specimen of cauliflower growth springing from the side of the opening of the common bile duct. It was taken from a patient admitted under Dr. Goodhart into Guy's Hospital suffering from jaundice and melæna. After death two chronic ulcers were found in the rectum (probably the sources of the hæmorrhage), and multiple abscesses in the liver.

HUNTERIAN SOCIETY.

F. Gordon Brown, M.R.C.S., President, in the Chair.

Wednesday, November 23rd, 1892.

Myxœdema.

Dr. Hingston Fox showed two cases, women, aged 42 and 54 years respectively, with typical symptoms of myxœdema. Both were about to undergo treatment, the one with fresh sheep's thyroid glands administered by the mouth, the other (by Dr. A. T. Davies) with a powdered extract obtained from the glands.

Urticaria.

Dr. Stephen Mackenzie read a paper on urticaria, having first showed a boy, aged 14, who had suffered from urticaria pigmentosa all his life. The disease was now quiescent, but there was no difficulty in raising well marked wheals surrounded by red areæ on scratching his skin with the finger nail. After discussing the symptoms and causation of urticaria, Dr. Mackenzie related cases illustrating rarer forms of the affection: (1) urticaria hæmorrhagica, in a boy aged 2 years; after eating fried Dutch plaice, a broad dark band appeared around the abdomen; (2) giant urticaria, in a man aged 37; after working in a hot vat containing some chemical, very large fugitive swellings appeared during several weeks over the surface of the body and limbs, but especially on the face, closing the eyes; (3) chronic urticaria, in a boy aged 14, following chicken-pox; and in his sister, severely, having ten or twelve years' duration; (4) urticaria pigmentosa, the case already shown. The treatment consisted in the discovery and removal of the cause, and the mitigation of the effects. Aperients, when peccant matters lay in the digestive canal; stomachic and bland diet were in most cases sufficient. When obstinate, the disorder was assuaged by soothing baths, and applications of glycerine of lead; internally, antipyrin had been found most useful.

The President alluded to urticaria following sea-bathing, and to the frequency of the disorder when erysipelas was prevalent.

Dr. Pye-Smith doubted whether the disease could be regarded as a peripheral reflex phenomenon. Local irritants might act by their direct influence on the blood vessels themselves, and the indirect causes probably acted reflexly through the cord. A true relation existed with acute articular rheumatism. There was also a close connection between urticaria and erythema, so that he would regard them as varieties of one disease. Treatment he had often found unsatisfactory; the apparent cause was removed, but the urticaria remained.

Mr. Percy Warner submitted that pyrexial forms of urticaria were rheumatic. He related two cases in which the disorder alternated with acute rheumatism, and was controlled by salicylate of soda.

After some remarks from Dr. F. J. Smith and Dr. James Galloway, Dr. Newton Pitt suggested atropine as useful in chronic urticaria. Opium or morphine caused in many subjects a factitious urticaria, and this was inhibited by atropine.

Dr. Mackenzie, in reply, fully agreed as to the connection with rheumatism, although numerically such cases bore a very small proportion to the whole.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Clinical Evening.

F. Swinford Edwards, F.R.C.S., President, in the Chair.

Friday, December 2nd, 1892.

Exhibits.

Dr. Rayner Batten exhibited a Clinical Pulse Manometer.—The President showed a Femur with Subperiosteal Sarcoma after Amputation at Hip-joint by the Furneaux Jordan method, in a woman aged 26; primary union had taken place throughout the entire length of the wound on the ninth day, and the patient left the hospital well within the month.

Cases.

Mr. Richard Lake showed a boy, aged 6, on whom he had operated for Cholesteatoma of the Mastoid Antrum, which had penetrated the posterior fossa. Recovery was uninterrupted.—Mr. William Steer showed: (1) A case of Friedreich's Disease which commenced at the age of 10 years with difficulty in walking, especially in the dark, and on going upstairs. At 17 walking was impossible, and now, at the age of 24, the patient was unable to stand. There was inco-ordination of muscles of both upper and lower extremities and head and neck, loss of knee-jerk, and plantar and cremasteric reflexes, hesitating speech, and lateral nystagmus. The brother had died of the same disease. (2) A case of Idiopathic Muscular Atrophy in a lad of 15, commencing at the age of 12. There was no marked atrophy of the face muscles, and labials were well pronounced. The muscles of the upper extremities were much wasted, together with the whole of the trapezius, serratus and rhomboids of both sides, allowing the weight of the arms to slope the shoulders and project the scapula from the back, causing remarkable wing-like deformities. (3) A case of Myxœdema in a male.—Mr. Keetley showed: (1) A case of Inguinal Hernia complicated with Undescended Testicle. An operation for radical cure had been performed and the testicle brought into the scrotum, the tunica vaginalis testis being held there by a temporary suture uniting it to the adjacent tissues of the thigh. (2) A case of Large Bronchocele Excised without Anæsthetic. (3) A case of Subcutaneous Suture (not ligature) of the Patella.—Mr. Bruce Clarke showed a case for which he had performed Nephrorrhaphy 9 months previously, for symptoms resembling renal colic. In his experience these cases yielded by far the best results after operation.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

R. C. Chicken, F.R.C.S., President, in the Chair.

Wednesday, November 2nd, 1892.

Treatment of Hernia.

The President delivered an address, the object of which was to show that the proper treatment of recent reducible hernia was by operation, and not by truss. Treatment by truss should be reserved as a means to assist radical cure in the case of congenital hernia, or as permanent palliative treatment in the case of the infirm, sick, or aged. The habit of truss-wearing had become firmly rooted in the public mind, and even the professional mind was still prejudiced against operative measures, and trusses were too often prescribed when operation was clearly indicated. Under the antiseptic system the risk to the patient was almost *nil*, much less than that entailed by wearing a truss. The actual mortality was less. The various operations which had from time to time been adopted were reviewed, and the cause of their failure shewn. The modern operations were briefly sketched, and the applicability and good points of each pointed out. It was strongly urged that the operation should be performed early, and before the rings and adjacent parts had become displaced, or the sac too large and adherent. The time was

earnestly to be desired when every hernia would be brought to the surgeon within the shortest possible time of its development for radical cure; and trusses would be relegated to museums, or at most confined to the use of the aged and infirm.

MIDLAND MEDICAL SOCIETY.

Henry Eales, M.R.C.S., President, in the Chair.

Wednesday, November 16th, 1892.

Papilloma removed from the Larynx.

Mr. Marsh showed a papilloma removed from the larynx of a patient, and the patient herself. There had been a small papilloma on the free edge of the left vocal cord, about its centre, and a group of three or four smaller ones at the anterior commissure. They were incised with a laryngeal knife and removed with Mackenzie's forceps. The patient's voice at once returned, and had remained well since. A very small papillary growth had since recurred on the anterior commissure.

Dropped Foot.

Dr. Suckling read notes of two cases of dropped foot from sciatic neuritis, and called attention to the great preponderance of left-sided sciatica over right-sided sciatica. He suggested that a loaded rectum might possibly be a predisposing cause of the neuritis. Nearly all cases of sciatica were, in his opinion, in greater or less degree due to a neuritis.

Specimens.

Mr. Jordan Lloyd showed (1) a specimen of Annular Carcinoma of the Sigmoid Flexure removed from a woman, aged 62; the lumen of the bowel was contracted to the size of a crow quill, but the patient had not complained of abdominal symptoms until a few days before the operation; (2) a life-sized drawing of a Primary Multinodular Cancer of the Liver removed *post mortem* from the body of a woman 42 years of age; the organ weighed 15 lbs. 12 ozs.—Dr. Foxwell showed a Heart from the body of a girl of 17, in which there was a communication between the auricles.—Mr. Taylor showed (1) a large Pyonephrosis removed by the abdominal method, the patient making a good recovery; (2) a Carcinoma of the Right Kidney removed through a lumbar incision; recurrence had taken place within three months; (3) a case of Hydronephrosis operated on successfully through the abdomen.

Paper.

Mr. Barling read a paper on Appendicitis.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

Walter G. Smith, M.D., President, in the Chair.

Friday, November 18th, 1892.

President's Address.

The President delivered an address in which he reviewed the work of the past session.

Saturnine Encephalopathy.

Dr. O'Carroll related the history of four cases of cerebral lead poisoning, one of which was fatal. Two non-fatal cases occurred in Civil servants who used lead-containing hair dyes. One of these, aged about 62, had a slight hemiparesis, which passed away in a couple of days and recurred in about a fortnight. There were also some visual amnesia and some amblyopia. On discontinuing the use of the hair dye all the symptoms gradually disappeared. The other patient had, about once every three months over a period of three years, attacks of violent headache, coma, delirium, and sometimes slight convulsions, followed, as a rule, by a period of insanity. The coma lasted from one to six days, the insanity from one to six weeks. The case was from time to time diagnosed as cerebritis, diffused meningitis, general paralysis, and even on some occasions hysteria. From the date of the disuse of the hair dye the patient's symptoms underwent a gradual involution, and he was now, nine years after his first attack, in perfect health. The fatal case was that of a plumber who had been in good health up to about three months before death. He at first showed slight mental peculiarities, had headache, and was forgetful. Severe symptoms began with an epileptiform attack, followed by spasmodic contractions of the muscles of the right side, repeated sixty times a minute, with right hemianopia. Finally he died in a further attack of frequently repeated convulsions. At the necropsy the arachnoid was seen to be somewhat distended with fluid, so that the cerebral fissures seemed to be occupied by cylindrical or spherical cysts. On removal of the arachnoid, after hardening in Müller's fluid, the convolutions were found separated by wide fissures, while at various parts portions of the convolutions were depressed or apparently punched out. In the spinal cord a somewhat similar condition obtained in the lower dorsal region, where the main strands of fibres seemed partially separated from one another by a dissecting subarachnoid effusion. Professor Lapper found lead in the liver, the kidney, and the spinal cord. Dr. H. C. Earl made an examination of the brain cortex at one of the convolutional depressions, and reported the presence of a curious black pigmentation of the neuroglia cells, and a similar staining of the neighbouring capillaries; this staining involved only part of the sections. The author pointed out that only one of his three cases, and that the least severe, had any sign of renal trouble. He suggested the extension of the term saturnine encephalopathy, so as to include all the morbid phenomena due to the influence of lead upon the brain. Dr. O'Carroll exhibited a case of the disease.

Remarks were made by Drs. Little, Falkiner, Doyle, H. C. Tweedy, Quinlan, and the President; and Dr. O'Carroll replied.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Pathological Meeting.

Wm. Hall, M.R.C.S., President, in the Chair.

Friday, November 18th, 1892.

Tuberculosis of the Skin.

Dr. Jacob gave the classification of varieties of cutaneous tuberculosis adopted by Leloir. He showed microscopic sections, and exhibited microphotographs with the lantern illustrative of many of the principal varieties, including (1) lupus vulgaris; (2) the "pathologist's wart," anatomical tubercle of Laennec; (3) pseudo-elephantiasis of the leg from a case under the care of Professor Annandale, of Edinburgh; (4) ulcerating tubercle of the hand, with great thickening, from an old museum specimen. He thought cutaneous tuberculosis was generally due to direct inoculation.

Fusiform Dilatation of the Œsophagus.

Dr. Wardrop Griffith showed a case of fusiform dilatation of the œsophagus without organic stricture. The tube was lengthened to 14½ inches, its maximum circumference was 6 inches, and its capacity 20 oz. It presented exaggerations of the normal curves of the œsophagus, causing a large depression on the inner aspect of the right lung, and a smaller one on the left lung further down. The coats were thickened and the muscular layer hypertrophied. The various theories to account for such cases of dilatation were discussed.

Other pathological specimens were also shown by Dr. Griffith, Mr. Mayo Robson, Dr. Barrs, Mr. Atkinson, Mr. Secker Walker, Dr. Gibson, Mr. Littlewood, and Mr. Sydney Rumboll.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

T. Oliver, M.D., President, in the Chair.

Thursday, November 10th, 1892.

Cases.

Dr. Robertson showed (1) a man in whom he had Drained the Antrum of Highmore on each side on account of old-standing disease; (2) a patient on whom a similar operation had been performed for Ozæna, with a good result.—Mr. Page showed (1) a man successfully treated for Ununited Fracture of the Femur by sawing off the ends of the bone and putting up without suturing the bone; (2) a man treated for Ununited

Fracture of the Humerus by silver wire suture; (3) a lad of 15, whose Kidney had been removed for Hydronephrosis; no calculus was to be found; while the pelvis was greatly dilated, there was no distension of the ureter; (4) a woman whose Kidney had been removed for Pyonephrosis of two years' duration; (5) a woman with very large Umbilical Hernia on whom a "radical cure" had been performed; (6) a man with Malignant Disease of the Stomach, where gastro-enterostomy had been performed with considerable benefit; (7) a patient from whose Jaw a large Bony Tumour had been removed; (8) two patients on whom Halstead's Operation for Radical Cure of large Inguinal Hernia had been done with very good results.—Dr. George Murray showed a woman with a complicated form of Spasmodic Torticollis on each side; she had suffered from chorea on more than one occasion.—The President showed a man who nine years ago received a compound Depressed Fracture of the Skull. Latterly he had suffered from left-sided epileptiform fits, going on to unconsciousness, and followed by mania. He had been treated by large doses of potassium bromide, and had had no return of his attacks for some time. The President also showed a boy, aged 14, with general Venous Distension and Œdema, due, in his opinion, to a cardiac lesion with enlargement of mediastinal glands.—Dr. Hume showed (1) a patient after Nephrectomy. The kidney was extensively disorganised and contained many calculi; (2) a man whom he had treated for advanced Epithelioma of the Tongue; through a long incision on each side the lingual arteries were ligatured, the submaxillary and their accompanying lymphatic glands removed; the result obtained was highly satisfactory.—Mr. Williamson showed a boy who two years ago suffered from Suppurative Osteomyelitis of the Tibia. An incision was made from one epiphysis to the other, the bone sawn across and removed; the leg was now as strong and useful as the other.—Dr. D. Drummond showed a woman, aged 50, suffering from Pseudo-Bulbar Paralysis.—Dr. Limont showed a girl, aged 14, suffering from extensive Favus of the Scalp of eight years' duration.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Simeon Snell, F.R.C.S.Ed., President, in the Chair.

Thursday, November 24th, 1892.

Excision of the Tongue.

Mr. Pye-Smith showed three patients on whom he had recently performed excision of the tongue.

Anæsthetics.

The adjourned discussion was resumed by Dr. Arthur J. Hall, who laid stress on (1) the methods of preparing the patient, (2) personal idiosyncrasies in taking anæsthetics occurring in families, (3) early signs of danger, for example, by the pupil, pulse, or respiration. Anæsthetists should not leave their patient until well out of the influence of the drug, and they should be more prepared for any sudden accident than was often the case at the present time.

Dr. Martin spoke in favour of chloroform. Too heavy a dose should not be given at the outset, and a little brandy might be administered before giving chloroform. The pulse should be closely watched as well as the respiration, for slowing or irregularity of the pulse often gave an earlier warning of danger than any change in the respiration.

Mr. Pye-Smith thought it important to endeavour to answer such questions as the following:—Is one anæsthetic safer than others and of general applicability? If so, which is it? How is it to be administered, and under what circumstances is it to be discarded for some other? He thought nitrous oxide the safest but not generally applicable. Ether he regarded as safer than chloroform, and of very general applicability in this country. He referred to published statistics, and to the frequent record of fatal cases from chloroform in the medical journals as evidence, in conjunction with the large use of ether at most hospitals in England, of the greater danger of chloroform. He suggested as rules never to give chloroform when ether might be equally well used; never to give chloroform in any case without the patient's urgent wish, and when in doubt as to which to give, to give ether.

Mr. Richard Favell, Mr. Charles Atkin, Dr. Rhodes, Dr. Anthony McCall, Dr. Littlejohn, Mr. Wightman, Mr. Dale James, and the President joined in the discussion; Dr. Porter and Dr. Cleaver replied.

REVIEWS.

Materia Medica, Pharmacy, Pharmacology, and Therapeutics. By W. Hale White, M.D., F.R.C.P. London: J. and A. Churchill. 1892.

In a small and handy volume of good-sized print, containing 614 pages, the author has fairly succeeded in giving the outlines of the sciences mentioned upon the title page. Pharmacy is, however, dealt with in a few pages, giving a description of the various processes employed in the dispensing of physicians' prescriptions, and is not included in the scope of the work.

The portion dealing with the actions of drugs upon the different parts of the body and its tissues occupies about seventy pages, and is decidedly the most valuable part of the book. Unfortunately, the author does not use the term pharmacology in the strict sense in which, by common consent, nearly all modern writers have employed it. He defines it as "the science which treats of the actions of drugs on the body both in health and disease;" and he uses the older cumbrous term "pharmacodynamics" when speaking of the science of the action of a drug upon a healthy organism.

The materia medica proper occupies the great bulk of the book, and contains the usual information about the sources, characters, doses, and preparations of the various drugs contained in the *British Pharmacopœia*. Their actions in health and disease are given in a clear and concise manner, which cannot fail to be of benefit to the student, though the therapeutic description is too brief to be of much practical help to the general practitioner in his daily work. In some places the reader will, however, meet with statements which may be contested by those of opposite experience. Thus, under "Creasote," upon page 289, the actions and therapeutics of this drug, which is now largely employed by many physicians for the treatment of phthisis and gastric affections, are dismissed with the statement that "it is now very rarely employed, for its smell is very penetrating, and it is difficult to prescribe." In recent years boric acid has been used internally in bladder diseases in 10 to 20-grain doses by many hospital surgeons and practitioners of medicine, but upon page 243 Dr. White declares that we know nothing of its internal action, and upon page 244 the statement occurs that "Boric acid is not employed internally in medicine."

One of the difficulties experienced by writers of textbooks on materia medica would seem to be that of the classification of remedies. The writer of the volume under review has followed the old method pursued in the classic volumes of Professor Anthony Todd Thomson, Neligan, and employed by many other writers; and he has grouped and described together the drugs which possess similar action. This is decidedly more rational than the method which groups and describes the various drugs of the vegetable kingdom under their botanical orders, and it is decidedly more helpful to the student than the method of treating each drug alphabetically, as is now employed in a few of the most popular works on this subject. It might, however, have been an advantage if the author had adopted this plan of classification in its entirety, and not separated from each other the drugs possessing similar actions though belonging to different kingdoms; thus musk could be better studied in company with cajuput, camphor, or valerian, than upon the same page as suet and curd soap. In the same way sulphate of magnesia might have been grouped with the vegetable cathartics, and cantharides with the counter-irritants or diuretics instead of being interpolated between leeches and cochineal upon page 583. The great army of non-official remedies are concisely disposed of in an appendix containing fifteen pages at the end of the book.

The book is well printed in excellent type, judiciously varied in the headings and subheadings, and does not con-

tain many printer's errors. Upon page 11 the strength of aqua laurocerasi is given as 1 per cent. real hydrocyanic acid.

Dissections Illustrated: A Graphic Handbook for Students of Human Anatomy. By C. Gordon Brodie and Percy Highley. In four parts. Part I. The Upper Limb. Seventeen coloured plates. Price 8s. 6d. London and New York: Whittaker and Co. 1892.

These plates are similar to those which appeared under the auspices of Quain and of Ellis. To render them more portable than those works of art Mr. Brodie has had his drawings made two-thirds of the natural size. They have been done from dissections which aimed at showing the ordinary detail which any careful worker can dissect for himself, and not unnecessary minutiæ. The various dissections are given in the usual order, beginning with the axilla and proceeding downwards towards the hand. The figures are boldly drawn and coloured in the usual way—the muscles a dull red, the arteries bright red, the veins blue, the nerves being left white. The structures themselves are identified by placing upon them letters and numerals. We have experienced no difficulty in finding the marginal references.

It is clear that the drawings have been conscientiously made from skilful dissections. By the adoption of this plan correctness has been attained. The letterpress is brief and illustrated by a number of diagrams. The latter, however, are not very clear and do not come up to the same artistic level as the rest of the book. From what has been said it will have been inferred that this work is all that it purports to be, and we can recommend it to those who require good clear drawings to aid them in dissecting or to those who wish to refresh their knowledge of anatomy.

Medical Electricity. By W. E. Steavenson, M.D., and H. Lewis Jones, M.A., M.D. London: H. K. Lewis. 1892.

The science of electricity as applied to medicine has been for some time in a condition which may be described as stationary. The immense strides which it made under the auspices of Duchenne and Remak, Brenner and Erb, have brought it to a point at which it must, indeed, be accepted as actually and potentially a factor of immense importance in the study of disease; but, in point of view of results, the advance is not maintained. There is no lack of enthusiasm, but it is enthusiasm of the wrong kind—an enthusiasm which disregards the slow and painful process by which alone great developments are achieved, and which manifests itself chiefly in a tendency to rush into print in order to say at best things which have been very much better said by others. Of the books on this subject which it is often our duty to review, there are too many which offer not the slightest justification for their existence. More than this, we might add that the art of bookmaking nowhere exhibits more flagrant abuses than it does in the hands of the would-be electrotherapeutist, who often brings with him nothing that is original except his title page, and seldom troubles to acknowledge the sources of his information. There is too much hasty and unfounded speculation, the product of promiscuous and injudicious reading uncontrolled by competent observation. There are plenty of data to secure a healthy progress. What is wanted more frequently is a careful record of their work by those whose position and attainments entitle them to respect. Such records are not wanting, and they never fail to make their mark. In the work at present before us we have an addition to their number.

The late Dr. Steavenson, who for many years presided over the electrical department at St. Bartholomew's Hospital, was distinguished for the zeal and energy with which he devoted himself to the labour, and the enlightened policy of his hospital provided him with ample opportunity of prosecuting it to advantage. At the time of his death he had projected a work on electrotherapeutics, and some of it existed in manuscript. By his premature decease we are assured that much has been lost, for his notes were in great part inapplicable to the purpose he had in view when it came to be carried out by another. But Dr. Steavenson was fortunate in his successor, Dr. Lewis Jones. It is necessary to assume that the work is chiefly his, and upon him devolved the task of seeing it through the press. This duty he has discharged in a manner deserving of the highest praise. The book has a character of its own. It is more than the embodiment of a long and valuable experience, such as Dr. Steavenson's. It is admirably written throughout, and easy and attractive to read.

The scope and method differ considerably from those of the manuals which have previously appeared in English. The authors have evidently proposed to themselves to offer a complete course to the student of electrotherapeutics. The physics of the subject have necessarily received a great deal of attention. The chapters devoted to them constitute a treatise which is obviously the work of one who is an accomplished electrician, but who is not in complete sympathy with the mental state of students and practitioners under present conditions when there is so much to learn and so little time to learn it in.

It would be well if we could assume that medical men in general were thoroughly grounded in the more advanced physics, but it would be absurd to do so. It is no doubt difficult to decide how much preliminary knowledge is necessary for the practice of medical electricity, and it is unwise to minimise it, but in a book designed for students and practitioners it is important to avoid repelling the reader by too exacting requirements. The better plan, perhaps, is that of Dr. de Watteville, who confines himself largely to experimental facts. If it be deemed essential that the student should possess a very extensive acquaintance with theory and the use of mathematical formulæ, it might perhaps save time and space and conduce to greater efficiency to refer him at once to textbooks of the pure science. If too high a standard be adopted it is impossible to do justice to the subject in a book of a mixed character.

On the other hand, in the chapters upon galvanic batteries, as, indeed, in every other part of a practical character, the matter is excellent, and the statements made may be easily grasped by the uninstructed. The choice which the authors have made of apparatus to be described is in every case judicious, and the description itself is good and sufficient. The illustrations are neatly executed and not too numerous, and we congratulate Dr. Lewis Jones on his avoidance of the too common fault of crowding his pages with instrument makers' advertisements.

The chapters devoted to physiology and to diagnosis contain an admirable summary of the best work which has raised electrotherapeutics to the dignity of a science. The frequent references are evidence of familiarity with the classical and occasional literature. The treatment of disease by electricity is fully and satisfactorily noticed. Here we observe with regret that the question of "direction of current" is discussed, and it is said that "the distinction between direction of flow and choice of pole is after all a subtle one." It would have been better had the authors seen their way to take a more decided view than this, since it is by the recognition and observation of polar effects as distinct from directional influence that medical electricity has achieved its most creditable results. Whatever may be the advantage of retaining the notion in physiology, it is probable that in clinical application the idea of current direction had better be dropped.

The chapter on the electric bath, from the pen of Dr. Steavenson, has already appeared in print, and has been commented upon elsewhere. We would only observe, in reference to the experiments undertaken to determine whether an electric current can be conducted by a spray, that the attempt has since been repeated, we believe, with other results, and that the possibility of an electric needle bath has been established.

The chapters on diseases of the nervous system, considered, of course, solely in relation to electrical treatment, are well and carefully written, and will form a useful guide to the practitioner. The statements made are supported by the abundant citation of authorities, thus providing ample means of reference, while they are themselves concise, clear, and to the point.

The concluding chapter is devoted to electrolysis and the uses of electric currents in surgery. Following so closely upon the book upon this subject by the late Dr. Steavenson,

it is naturally an embodiment of his views, and, although we notice with satisfaction that it has been very carefully re-written, the subject matter is essentially the same. The most notable part is the paragraph on stricture of the urethra. The results obtained by Mr. Bruce Clarke and the authors entitle them to believe themselves exceptionally fortunate—and there will be found those who regard the operation as involving elements of danger and uncertainty. At the same time, it must be admitted that the account given here is based upon the very highest authority.

NAMES AND THEIR MEANINGS: A BOOK FOR THE CURIOUS. By LEOPOLD WAGNER. New Edition. London: Fisher Unwin, 1892.

SINCE the medical philologist is only expected to cultivate one small corner of the field of the science of language, he feels some natural diffidence in criticising a book which only deals with his special region in an incidental manner.

Perhaps, however, he may not be considered presumptuous in suggesting that the derivation of such words as "humbug" and "dun" from those imaginary persons, "Mr. Hume of the Bogue" and "Mr. Joe Dun, famous bailiff of Lincoln," savours of antediluvian methods, and is nearly as scientific a specimen of philology, as our author's ascription of a skeleton found near Battle Bridge to an elephant slain by Queen Boadicea, is of his historical acumen. We might hint also that Woodfall is not "the reputed author of 'Junius;'" that Robert Fitzooth is hardly satisfactorily established as a veritable Norman nobleman, much less as the real Robin Hood; that Charles II. did not return to England on "his birthday, May 29th, 1651;" that Guy Fawkes was not "the principal conspirator in the Gunpowder Plot;" and that Quentin Matsy's "masterpiece of world-wide renown" is not the "Taking down from the Cross" (can Mr. Wagner be thinking of Rubens's painting in Antwerp Cathedral?). Nor were the Duke of Marlborough and Napoleon I. called respectively "Corporal" by their soldiery, because they had risen from corporals. Was the founder of St. Bartholomew's Hospital "Rahare, a monk?" To return to our own province. Were the barbers and surgeons separated in 1540? The derivation of "quack" from the German word for quicksilver cannot be maintained.[1]

Our author unhesitatingly settles the origin of the gipsies in Hindustan, and give the exact date of their expulsion without any reserve, an accuracy of knowledge which even the best authorities have not elsewhere attained to. His derivation of "bachelor" from the Welsh *bach*, small, little, is purely dogmatic, although Skeat says there is no evidence for it. He seems to confuse cognate forms with original derivations, as when he derives "widow" from the Sanskrit *vidhava*, "without husband." Widow is derived from the Saxon *widwe*, a widow: this is akin to the Sanskrit *vidhava*, a widow, both being probably derived from the same original root *vidh*, but the Anglo-Saxon is no more derived from the Sanskrit than the Sanskrit from it; they are cognate form, that is all; and, by the way, *vidhava*, a widow, is not held by the best authorities to be the same as *vi* without, *dhava*, a husband, as given in this work.

The very faults of the book make it attractive as a popular guide. The general reader does not value or look for accuracy; he is apt to prefer definite undoubting information even when fallacious, and if it is amusing so much the better.

HUMAN MONSTROSITIES. By BARTON COOKE HIRST, M.D., Professor of Obstetrics, and GEORGE A. PIERSOL, M.D., Professor of Histology and Embryology in the University of Pennsylvania. Part III. Illustrated with Nine Photographic Reproductions and Thirty-four Woodcuts. Philadelphia: Lea Brothers and Co. 1892.

THE first volume of *Human Monstrosities* was reviewed in the BRITISH MEDICAL JOURNAL for January 9th, 1892, p. 73, where the plan of the work was explained. Like the second part, this is superior to the first, as it is not overburdened with introductory matter. It includes cyclops and otocephalus and agnathia, which conclude the series of single monsters, the very important group of omphalosites or acardiacs, and the diprosopus and allied varieties of composite monsters.

The acardiacs are especially important in relation not only to embryology, but also to the question of placental circulation. The authors reject the more common name "acardiac" chiefly on the score that many acardiacs possess rudimentary hearts. This is not a perfectly scientific reason for rejecting the term; zoologists have not abolished the name *marsupialia* because some marsupials have no marsupium. They are, however, right in many respects in retaining the older term omphalosite; it cannot mislead, and it was introduced by a great authority. Drs. HIRST and PIERSOL most commendably take pains to explain thoroughly the current theory concerning the development of acardiac twins. Claudius and Ahlfeld maintained that the autosite's allantois developing first reaches the inner surface of the primary chorion which it monopolises, so that the allantois of the parasite cannot reach the chorion, but becomes inserted into the other allantois. Hence vascular anastomosis is established, and the parasite receives blood from the autosite, the current in its body being reversed. The heart fails to develop, and entire parts of the body are suppressed from want of arterial blood. This suppression is totally unlike atrophy or destruction by inflammatory processes. This plausible theory is doubtless substantially correct; insertion of a twin's umbilical cord in its brother's cord is usually accompanied by more or less imperfect development of the former twin. Breus, however, disputes the precise reversal of blood-current doctrine, and believes that the parasite has suffered in some early stage from internal disturbance of development, and when thus deprived of an independent circulation the blood currents of the autosite enter the vessels of the omphalosite or parasite, and keep it nourished to an imperfect degree. The authors of *Human Monstrosities* give the opposite opinions of Ahlfeld and Breus at length. Altogether this volume is the best of the three which have already appeared.

ERRATUM.—In the review of DR. EDWARDES'S book on *Vaccination and Small-pox* in the BRITISH MEDICAL JOURNAL of November 26th, page 1178, col. 1, line 5, the figures should read 2, 6, and 42.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

LIQUOR POTASSÆ IODINATÆ.

THIS preparation is a solution of iodide and hypiodite of potassium. It is a colourless and rather alkaline liquid, from which the iodine is immediately liberated by the addition of dilute hydrochloric acid. It is the opinion of some therapeutists that free iodine internally is more effectual than the alkaline iodides. This solution is a very convenient and pleasant way of administering iodine, for there can be no doubt that the iodine is at once set free by the acid of the stomach, and is thus in a favourable condition for local action or rapid absorption. The manufacturers of liquor potassæ iodinatæ are MESSRS. Willows, Francis, and Butler, wholesale druggists, 101, High Holborn, London, W.C.

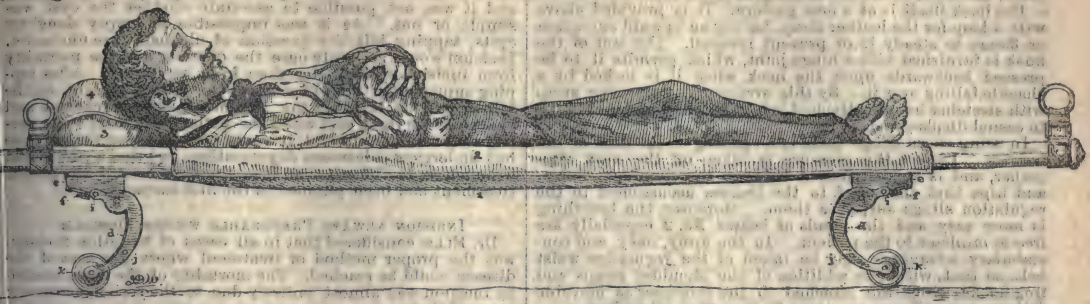
URETHRAL INJECTORS.

DR. JAMES MACMUNN (Crouch End) writes: In connection with the subject of a urethral injector, described in the BRITISH MEDICAL JOURNAL of November 12th, for years I have used a contrivance of the same kind, and with the same stated objects in view. The instrument (vulcanite) is bent so as to reach the prostatic urethra if desired. It consists of a long stem, terminating in a conical end an inch in length, this conical end being 23 millimetres at the base, and 12 millimetres at the point, and perforated with holes countersunk. The stem is graduated. Thus it will be seen that it will fulfil all the indications met by the suggestion of Mr. Burton; and possesses, perhaps, one advantage—namely, that one instrument will do for every case. Heat will cause the stem to be bent more or straightened.

[1] Vide Skeat's *Dictionary*, *s. v.* Quack.

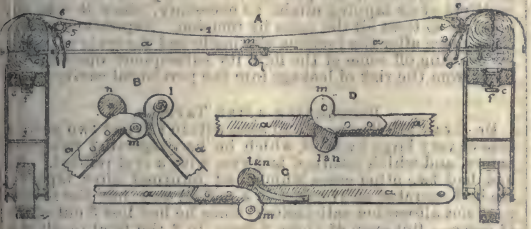
STRETCHER AND COMBINATION SLINGS.

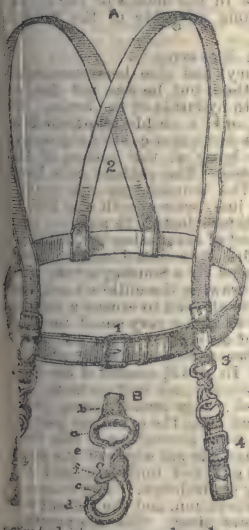
The following is a description of the stretcher and combination slings of a very ingenious and practical character, which have been introduced by Dr. John D. Macdonald, F.R.S., R.N., for use in the navy and army. They are, we believe, already in use in some foreign countries, and give general satisfaction.

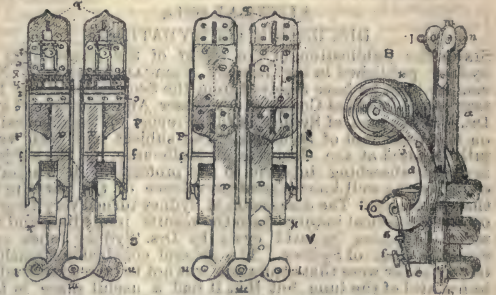


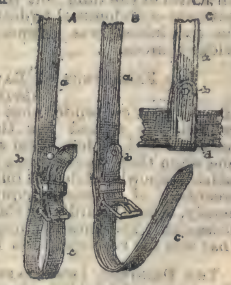
The Stretcher.

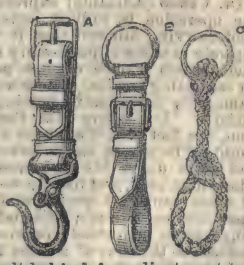
The handles are longer in front than in the rear, to enable the foremost bearer to lift the stretcher from the ground, and carry with greater comfort than is possible with existing stretchers, and a number of separate lashings fixed by staples pass through as many perforations in the wood for the attachment of the canvas. Both ends of the poles are permanently furnished with ring straps or ropes, which can be instantly connected with the hooks of the slings and as promptly released. The canvas is fixed by the separate lashings mentioned above, with strips of cane to protect the eyelet holes, so that the tension is rendered as equable as possible. It can be folded up neatly, easily removed for washing, and as easily replaced. By this arrangement two side lapels of the canvas are free to hang over the poles or to be folded over the patient; and pillow flaps are also furnished with which a comfortable pillow may be improvised by using a portion of the patient's clothing, hay, ferns, or other vegetable matter available on the spot. The traverses or cross pieces are in two parts, with hinge joint and spring pin catch, so contrived as to allow the poles to come together, or to hold them apart by an automatic locking as either may be required. The feet consist of two curved metal plates bolted together, including the connecting block above and the roller below. They are so shaped and balanced that they fall naturally into position without the possibility of lateral displacement, while upward movement and reversal are also effectually prevented by a side bolt. The feet can be folded up under the stretcher when it is to be rolled into an ambulance wagon or stowed away. The increased height of the stretcher effected by the new feet, together with the length of the ring straps, gives the bearers a power in lifting a patient which contrasts very strikingly with the difficulty felt in lifting when required to stoop low, as in the case of other stretchers in use.











The Combination Slings.

The waist belt consists of a single strap, made to buckle in front and behind, which latter arrangement admits of convenient adjustment to the body of the bearer. The separated straps may be also used to bind the parts of the stretcher together. The shoulder straps are two in number, and made to slide on the waist belt behind for adjustment to the form of the bearer, while they are connected with the frog

hook in front. The frog hooks, like the shoulder straps, are made to slide on the waist belt, and hence their name. They must, however, be always in advance of the hips.

The hook itself is of a new pattern. It is provided above with a loop for the leather strap, having an upward extension or flange to steady it or prevent reversal. The end of the hook is furnished with a hinge-joint, which permits it to be pressed backwards upon the neck, when it is locked by a shackle falling over it. By this arrangement the ring strap with stretcher handle attached is held in place and not liable to casual displacement.

In using these slings there is no galling of the neck of the bearers. Indeed, the pressure is taken off the neck altogether, and is so distributed between the shoulders, loins, and hips that the relief to the bearers accustomed to the regulation slings surprises them. Moreover, the breathing is more easy, and the hands of bearer No. 2 especially are free to minister to the patient. In the army, navy, and constabulary advantage may be taken of the regulation waist belt, so that, with the addition of the shoulder straps and frog hooks, which are attached to the stretcher as movable fittings, any ordinary man may be converted into a bearer.

INTERCOLONIAL MEDICAL CONGRESS OF AUSTRALASIA.

DISCUSSION ON HYDATIDS.

SINCE the publication of the report of the proceedings at Sydney, published in the BRITISH MEDICAL JOURNAL of November 12th, we have received from the Secretaries of the Intercolonial Medical Congress (Professor Anderson Stuart and Dr. S. T. Knaggs, of Sydney) a fuller report of the discussion on the treatment of Hydatids. The subject had been very fully debated at the Congress at Melbourne, but the subject is one of absorbing interest to the profession in Australia owing to the well-known great prevalence of the parasite on that continent. The discussion at Sydney turned very largely on the statistical inquiry into the results immediate and remote of tapping hydatid cysts by Drs. Sydney Jones and Scot-Skirving, of Sydney. The general conclusions reached in this paper were that aspiration was not to be recommended in hydatid of the lung, but that it had a useful place in the treatment of abdominal hydatids, especially those of the liver. The conclusion was supported by statistics drawn from various sources.

THE FREQUENCY OF RADICAL OPERATIONS AFTER ASPIRATION.

Dr. LENDON contended that all that Drs. Sydney Jones and Scot-Skirving proved was that with cleanliness and antiseptic precautions less harm was done by aspiration than was done when these precautions were not used. With hospital statistics showing 4 deaths out of 82 cases treated, and with a percentage of 22 cases requiring radical measures subsequently, it could hardly be claimed that the method had been successful. The question might be narrowed down to this: What was the best operation for abdominal hydatids?

THE DANGERS, IMMEDIATE AND REMOTE, OF TAPPING.

Dr. VERCO (Adelaide) expressed his complete adhesion to the operation by radical incision. Drs. Sydney Jones and Scot-Skirving allowed that it was extremely undesirable to aspirate in cases of pulmonary hydatids. It was advisable to incise them at once, cut out part of the rib, and then put in an aspirating needle. There would be less liability of doing damage by that than by putting the needle in at first without incision. In dealing with the question of tapping or incision, the fact that there were a large percentage of cases that could not be tapped had to be kept in mind. Out of 19 cases that had come under his own observation, 7 were suppurating when first seen, and had to be incised straightway. Out of 11 cases tapped, 4 were cured, 3 were not cured, and in 4 cases the result was questionable. The 7 cases unfit for tapping had to be incised; besides this there were only 2 others incised, so that out of 9 cases 2 only could have been tapped that were incised. One among the suppurating cases, which should not have been tapped, proved fatal. Among those which could have been tapped, there were no deaths at all. If every case that indicated inflammation were eliminated the mortality would be reduced to nothing. Tapping a hydatid anywhere was dangerous; it might cause sudden death, and it was not possible to ascertain whether the cyst was simple or not. As it was impossible to empty daughter cysts, tapping left the question of ultimate cure uncertain. Incision would certainly cure the disease, and the mortality from incision was smaller than from aspiration. After tapping suppuration might occur, or the hydatid might not be killed, and as it lived the fibrous capsule thickened and became more rigid, and when the patient was next seen, perhaps after a long interval, it would be found that the parasite had undergone calcareous degeneration, and that a cure would be much more difficult than it might have been if the proper treatment had been pursued in the first instance.

INCISION ALWAYS PREFERABLE WHERE POSSIBLE.

Dr. ELLIS considered that in all cases of hydatids incision was the proper method of treatment where the seat of the disease could be reached. The mortality of the cases treated by incision was almost entirely due to the serious nature of many of them.

MULTIPLE CYSTS.

Dr. GRAHAM (Sydney) said that by aspiration a living organism was converted into a dead body which might, under adverse circumstances, lead to inflammation. No patient could be said to be cured as long as a foreign body, such as a dead hydatid cyst wall, remained within. Incision afforded the best chance to the patient for a complete recovery. In multiple cysts tapping might be necessary, since it was not possible to treat all the cysts by incision. Aspiration had its right place after the incision was made and the cysts exposed; by drawing off some of the fluid its subsequent opening was freed from the risk of leakage into the peritoneal cavity.

RECURRENCE AFTER TAPPING.

Dr. RYAN (Melbourne) had seen within the last two years a case of very large hydatid, which he had aspirated five years before, and which returned last year with a cyst refilled. He had had two other cases which had returned after tapping. He had operated on 17 cases in a radical way, but the results were not altogether satisfactory, since he had lost 3 out of the 17 cases. But even of these 3 cases, in 2 the fatal result was due to unintentional negligence in the details of the operation. He was now a very strong advocate of the radical operation.

INTRACRANIAL HYDATIDS.

Dr. WILLIAM CHISHOLM (Sydney) had also been converted by experience to the radical method, but he was not clear as to the propriety of applying it to hydatids of the brain. He had operated on two cases. In one, a child—mentioned in Dr. Graham's work—there was a large cyst containing nearly a pint of fluid. The cyst was lying at the bottom of the cavity and was extracted with ease. The patient only lived six hours after the operation. The temperature rose immediately after the operation, and just before death was 104° F. The child had convulsions just before death. In a recent case he had adopted a different method of evacuating the fluid. A very fine aspirating needle was first introduced, and on drawing off hydatid fluid it was replaced by a Southey's tube with rubber tubing attached, and by drawing the child's head over the end of the table 3 ounces were allowed to escape a drop at a time. When the fluid ceased to run, a very small incision was made through one-twelfth of an inch of brain substance to reach the cavity, a fine rubber tube introduced, and the rest of the contents evacuated. In all 19½ ounces of the fluid were evacuated, and the whole process took half an hour. The cyst wall could not be detached; only small pieces broke away. Warm water was injected into the cyst very gently; but all efforts to detach the cyst were unavailing. The dura mater was stitched with catgut and the cut edges of the scalp brought together with silkworm gut and horsehair, and the whole bandaged up firmly, using no drainage. The temperature rose immediately after the operation, and the patient was quite conscious some three hours after. The temperature continued to rise, and reached 106.2° before death, which occurred twenty-three hours after the commencement of the operation. The cyst wall being elastic, its detachment or

non-detachment from its fibrous capsule might depend upon the sudden or gradual evacuation of its contents.

Tapping with a Small Needle Admirable in Some Cases.

Dr. Sydney Jones, speaking for himself and Dr. Scot Skirving, said that owing to the anatomical structure of the lungs, and the risk of flooding the organ with hydatid fluid, aspiration alone was unjustifiable. Notwithstanding that risk, the statistics they had brought forward showed that a very large number of cases of pulmonary hydatids were absolutely cured by simple aspiratory tapping. As had been stated at the Melbourne Congress, a needle larger than one-sixteenth of an inch in diameter should not be used under any circumstances, and full antiseptic precautions should be observed. Out of 66 abdominal cases in which full antiseptic precautions were observed, and in which the needle employed was one-sixteenth of an inch or less in diameter, 44, or 66.6 per cent., recovered, and they were all free from tumour from one to sixteen years afterwards. The whole mortality of all the cases only amounted to 3 per cent., whereas the mortality recorded by Dr. Stirling under the radical treatment was 18 per cent. In the unfavourable statistics of the Prince Alfred Hospital the mortality was 48.7 per cent., and those statistics were discarded because information as to the size of the needle and the antiseptic precautions observed were not forthcoming. A large needle made a considerable aperture in the cyst wall, and the chances of leakage and inflammation were immensely increased. With a small needle the contraction of the cyst completely closed the aperture. In proof of that Dr. Jones repeated his statement that in his own practice, in which he had not used anything larger than a needle of the size named for many years, he had not seen a single case of urticaria. If the needle were of the size recommended, and strict antiseptic precautions were observed, the risk of suppuration was also almost *nil*. If that were so, a patient, by being tapped, was in no worse condition for a radical operation if that should be ultimately required. Dr. Stirling's statistics give a mortality from tapping of 11 per cent., no distinction being drawn between thoracic and abdominal cases, and no regard being paid to the size of the needle employed. As to the recurrence of a cyst, it appeared to be assumed that if a swelling re-appeared at the site of the original puncture, the cyst had refilled. This was not, by any means, a fair conclusion. *Post-mortem* examination might prove a shrinkage and collapse of the old cyst, and that a new cyst had pushed forward and occupied exactly the same site as was occupied by the first cyst. It was true that in many cases after several days, in fact sometimes after several weeks, and even months, the swelling might be almost as large as before tapping. But this was generally due to an effusion of serum into the cyst, and this swelling would entirely disappear. If there were any evidence of suppuration having followed the tapping, then the radical operation ought to be performed, but unless this distinctly showed itself it was desirable to wait, as complete subsidence might take place.

The Present Position of the Controversy.

The Chairman (Dr. Gardner) said that the question had now been narrowed down to the simple issue whether aspiration or simple incision into the living cyst must be done. Drs. Sydney Jones and Scot-Skirving were agreed that every suppurating cyst must be subjected to the knife, and every cyst with daughter cysts must be subjected to the knife, and every pulmonary cyst must be subjected to the knife. The question, therefore, was whether the knife or the needle should be used in simple hydatid cysts in the liver. The whole discussion showed that there was, after all, very little divergence of opinion.

THE *BRITISH PHARMACOPŒIA*.

New Editions.—An Utopian Idea.—Representation of Pharmacists.

It is easy for physicians to project images of another *British Pharmacopœia* on the screen of the future, and even to foreshadow a date for the production of the work. So far as they paint their pictures with really local scenes and colours and do not insist on being sole artists to the empire, their presentments are not unlikely to be of service to the body on whose shoulders the nation has placed the burden of producing the great medicine book.

But broad views should prevail. The publication of new editions once in fifteen years seems to suit the majority of practitioners in medicine and pharmacy, especially if addenda be issued in the intervals. Respecting omissions, it must be remembered that medicines rarely prescribed in one part of the empire are frequently prescribed in another. At the same time, certain of the less important official medicines that have been superseded during the life of one *Pharmacopœia* are necessarily omitted from the next. Concerning additions, the critics hitherto have, we believe, afforded little assistance. And no wonder, for few popular new remedies stand the test of time, while those which do need little outside support to secure official recognition.

With reference to the idea of an international *Pharmacopœia*, it is, we fear, utopian. A less ambitious but far more practicable suggestion relating to the use of our own *Pharmacopœia* beyond the British Isles was brought before the General Medical Council in 1886, namely, that enhanced imperial characters might be given to the volume by the insertion of any articles or by the adoption of any changes that would better adapt the book to colonial and Indian requirements.

Regarding the representation of practising pharmacists on the compiling bodies, that has already been accomplished, almost as far as the law allows, in the compilation of the Addendum, and therefore may be expected to be maintained in the case of the *Pharmacopœia* itself. The General Medical Council appoints a committee of its own body, composed necessarily of practitioners of medicine and surgery, who report to the Council as to proposed additions or omissions. Acting on what now may be regarded as a satisfactory precedent, or on a slight extension of that precedent, the Council probably will, when the proper time arrives, ask the Pharmaceutical Society to name a committee of practitioners in pharmacy, who will be appointed by the General Medical Council to report to that Council on chemical and pharmaceutical processes and tests, etc. Such a pharmaceutical committee obviously cannot act until the medical committee has stated what articles should be included or excluded. The medical and pharmaceutical committees would be kept in touch better by the presence and active help of one and the same editor at each meeting of each committee than by any joint subcommittee, for the presence of medical and pharmaceutical practitioners on one and the same committee would involve much waste of valuable time, and, in the present or immediately prospective relations of medical men to chemists and druggists in this country, would probably be found to be impracticable. To act separately but in harmony, each under the direction of the only legally constituted body that can publish a *British Pharmacopœia*—namely, the General Medical Council—is, on the other hand, perfectly practicable, and is in entire accord with the present stages of the public development of medicine and of pharmacy in Great Britain and Ireland, and other parts of the empire.

INHUMATION AND CREMATION.

Urban Cemeteries.

We have received from the Burial Reform Association a copy of the report which they have had prepared on the cemetery of St. Giles's, Camberwell, and also the annual report of the Association for 1891. As to the report on the cemetery, which is of about 38 acres in extent, it contains nothing new, but is merely in corroboration of the now never seriously disputed evidence that burial in the earth is injurious to the health of those living in the neighbourhood. The graveyards in use in and around London and other populous districts have become a danger and a scandal, and our best thanks are due to the Burial Reform Association for the persistent manner in which they call the attention of the public to these dangers. In our opinion, however, it is a pity the Association, while thoroughly grasping the gravity of the mischief, does not recognise the remedy which is pointed to by the irresistible logic of the facts.

Suburban Cemeteries.

If it were possible in this country to find land sufficiently

remote from the population then, perhaps, we might continue to bury our dead with safety for some time to come, but it is not so possible. Not only do the Burial Reform Association require that the cemeteries of the future should be at a considerable distance, but they also modestly ask for sites for this purpose which are of all the most desirable for human habitation. But let us, for the purposes of argument, grant them these sites, and we must still ask what protection is afforded thereby to our water supply. Who can say that cemeteries so established in remote districts will remain remote. Experience is certainly against this supposition, and those who recommend such a plan should bear in mind the forewarning of the late Sir Edwin Chadwick. When speaking of similar proposals some years ago he described them as "shifting the soil from the centre of the populous districts to the suburbs and deteriorating them.....increasing the duration and sum of the existing evil."

CREMATION.

If, therefore, the necessary qualifications for sanitary interment, as suggested by the Burial Reform Association, are impracticable—and we submit that they are impracticable—what is to be done? Common sense points to cremation as a means satisfying all the requirements of hygiene. Further, it compares most favourably with earth burial in point of economy.

The above remarks are made in respect of burial in ordinary cases of death; but where this has been caused by zymotic diseases, there the remedy proposed by the Burial Reform Association absolutely fails, and, further, is positively mischievous. One of the things needed, for instance, to make the cholera bacilli reproductive and deadly is contact with water or earth, and the "earth to earth" method of burial suggested by the Association supplies this very condition to perfection. Contact with the earth does not destroy the germs by which they are communicated, and burial in perishable coffins allows them to find their way, when they are strongest and most active for harm-doing, through the earth to contaminate both air and water. In cases of death from such diseases cremation is already, we believe, to some extent compulsory abroad, and we are not without hope that the members of the Burial Reform Association will adopt this proposal, which they must feel is the true remedy for the state of things they so keenly appreciate.

MEDICAL EXAMINERS.

This hope is encouraged by their advocacy of a reform which has been strenuously urged for the past eighteen years by the Cremation Society of England—namely, that Parliament should appoint a duly qualified medical man for convenient districts, whose duty it shall be to examine in all cases of death, and report the cause in writing to the proper officer. It is notorious that the present system of registration of deaths is incomplete, and reform in this direction is a first and necessary step to adopting the practice of cremating the dead.

SMALL-POX IN GREAT BRITAIN.

[SPECIAL WEEKLY REPORT TO THE BRITISH MEDICAL JOURNAL.]

LONDON.

SMALL-POX cases continue to be notified in metropolitan districts. Six cases occurred in the week ended November 26th, and last week cases were returned from Islington, St. Pancras, Hackney, Marylebone, and Camberwell, among other parishes, 9 cases being in hospital at the close of the week. Two deaths are returned from the hospital ships.

Origin of the Epidemic in Islington: an Unrecognised Case.

We are indebted to Dr. A. E. Harris, medical officer of health, for a history of the circumstances under which the series of cases of small pox in Islington previously mentioned arose. A girl, who was admitted to the South-Eastern Hospital with scarlet fever on November 1st, when convalescent from that disease developed small pox (she was unvaccinated, and died on November 23rd). On November 14th a boy of the same family developed small pox. On receipt of the notification in this case, Dr. Harris visited the house, and found that the mother had been suffering from the disease in a form so modified that it was not recognised; he found three other cases in the house, this patient's husband and two children belonging to another family in the house, all in an early stage. On November 15th another child belonging to this second family, and on November 17th the father, were attacked. All these cases were isolated. On November 26th a man, aged 46, lodging in the house, was attacked; on the same day he was removed to the hospital, where he died. Two other cases occurred which were traced to this house; one was the son of a man employed by the vestry as a disinfector; the lad, aged 16, was taken by his father to assist in stripping the walls after the case of scarlet fever occurred in the house. The other was a woman, aged 23, who visited the house. Another case occurred in a neighbouring street, but though it is thought probable that some connection existed, it could not be traced.

LANCASHIRE.

In Warrington the disease continues to excite attention. We now learn that something like 50 cases have cropped up in the fortnight ended December 3rd, there having been nearly 140 patients in hospital at the end of November. It is estimated that 8,000 persons have been revaccinated during the past month. With reference to the opinion that the schools should be closed, Dr. Gornall, the health officer, has, we understand, advised that a system of exclusion of particular children would be the better plan; and the schools accordingly remain open. Neighbouring localities seem awakening to the desirability of additional facilities being granted for public vaccination in view of the prevalence of small-pox at Warrington. The disease holds its own at Liverpool, but does not increase in numbers, a weekly average of 8 cases still obtaining. From Manchester and Birkenhead respectively, 2 cases are again reported last week as in the preceding week. Oldham and Chaddarton are still having small-pox reported, and a few occurrences are heard of in Ashton-under-Lyne, St. Helens, and in Todmorden, a case in the workhouse of the latter union being one of a family on tramp.

YORKSHIRE.

Additional cases occurred last week at Rotherham, and cases have arisen in the town of Northallerton, as well as in the surrounding districts during the present week. We hear also of a few cases of the disease in Dewsbury, 3 cases having recently been removed to hospital from a lodging house, in persons stated to have come from Blackburn. At Earlsheaton, close to the borough, there have been 4 cases in one house. Another case has been removed to hospital at Thornhills, from a cottage near the small-pox hospital, and the house is under supervision. Excitement has been caused at Elland by an outbreak of the disease in a family recently arrived in the town, and active measures of isolation and prevention have been adopted. At Brighouse the Joint Hospital Board have widened the area of their limits for reception of cases, and small-pox is now being admitted to the building from both Hipperholme and Lightcliffe. The occurrence of small-pox at Ripley has led the health officer to urge the provision of an infectious diseases hospital. Other towns having small-pox last week were Keighley, Halifax, Dewsbury, Batley, and Wakefield. One death occurred in Sheffield.

MIDLAND DISTRICTS.

Small-pox spread seriously at Rushden during November, some 15 cases having occurred among navvies and their children on the new line in course of construction there. A hut has been utilised as a means of isolation, but 4 cases have arisen in a hut previously infected. Temporary hospital accommodation has been provided. Another outbreak among railway navvies has occurred at Tibshelf, in Eastern Derbyshire, some dozen cases having been dealt with during the past six weeks or so. A small-pox hospital has been constructed and several patients isolated in it. In Derby a small-pox case came out in lodging house a month ago, and spread in the house. It is stated that the disease was not diagnosed until nearly three weeks later, and then and subsequently other cases followed. In the interval at least three theatrical companies stayed in the house, and have gone to various towns. All the persons attacked were resident in Derby, and had not been out of the town for some time. In the rural districts round Chesterfield small-pox cases occurred in several centres during last month, chiefly among navvies and labourers. Hospital accommodation is much needed. Several cases have been notified in Mansfield, and close by a case has been traced to Sutton-in-Ashfield, from Tibshelf.

We are informed that small-pox is prevalent in the town of Daventry, where there have already been 30 cases in the last six weeks, but we have not seen any public notice of the outbreak hitherto.

So far as we can learn, only one case of small-pox occurred last week in Leicester. In the adjoining rural district of Blaby, the sanitary authority a few weeks back passed a resolution to provide hospital accommodation for small-pox, consequent upon the appearance of the disease at Enderby. A site was advertised for, but matters have been brought to a standstill by a notice given at a general meeting of the authority towards the close of November, that at the next assembly a motion would be brought forward to rescind the resolution as to hospital provision.

IRELAND.

In view of the prevalence of small-pox in parts of England, the Irish Local Government Board have addressed a circular to all dispensary district and workhouse medical officers, asking for various particulars as to all cases of the disease that may occur among others the locality in which patients appear to have contracted the disease in the United Kingdom, and the route of travel to Ireland, the character of attacks, and the evidence as to primary vaccination.

EDINBURGH.

Our Edinburgh Correspondent writes: A single case of small-pox occurred in Edinburgh last week. The man had come from Glasgow with the disease in its incipient stage. He was at once removed to the City Hospital and completely isolated. The place where he had slept was disinfected, and every precaution taken by Dr. Littlejohn to prevent the possibility of spreading the disease. The patient is improving, and thus far no second case has been notified. A second case of small-pox has occurred in Edinburgh. A young man who had come from Newcastle, and had been moving about the city in search of work for several days, applied for relief at one of the city Poor-law offices, and while in that office was discovered to have manifest symptoms of small-pox. He was at once removed to the hospital, but as he had been staying in a common lodging-house there is some danger of his having been a focus of contagion.

We shall be glad to receive notices of any occurrence of small-pox from districts from which the records have not thus far reached us, and which are omitted from our reports.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, DECEMBER 10TH, 1892.

THE GENERAL MEDICAL COUNCIL.

The session of the General Medical Council which has just closed was short, but not without importance. The direct disciplinary business did not occupy much time and calls for little comment. Dr. W. M. Collins, who had been on his own confession found guilty of forgery, though the judge before whom he was tried did not deem it necessary to pronounce sentence against him, was removed from the official *Register*. The Council probably felt that, while the civil magistrate might overlook the offence, inasmuch as no one was directly damaged by the forgery, it was due to the profession to take account of the fact. The case of Mr. Smith, of Seven Sisters Road, accused of giving a false certificate of death and of "habitually covering" the practice of his uncle, an "unqualified assistant," was somewhat hard to follow.

The charge of "habitual covering" appeared to break down on the word "habitual"; for the Medical Defence Union, the virtual prosecutors, did not allege more than a single instance of constructive "covering." It was, therefore, not surprising that the Council should decide that the charge was not proven, though the circumstances justified the President in warning Mr. Smith to be cautious as to his action in future. The caution was not without its effect, for Mr. Smith was understood to say that he would not employ unqualified assistants again. The lesson we have more than once urged is taught afresh by this instance; and it behoves practitioners to ask themselves whether the risks they run in employing such assistance have any compensating benefits.

One or two cases, in which alleged false certificates given by medical men have come before the courts, were expected to be dealt with this session, and some disappointment was expressed by members of the Council that they did not appear on the programme. The President and the Solicitor to the Council had to explain that, owing to the inaction, or, perhaps it would be better to say the non-action, of the Registrar-General in instituting proceedings against the accused practitioners, the Council's hands were tied. The Registration Acts provide for the prosecution and punishment of offenders against them; when a conviction is obtained it is easy for the Council to deal with the misdemeanant under the Medical Acts. But as it has no power to summon witnesses or to administer oaths, it is at a disadvantage in cases where a crime or misdemeanour, and not a professional offence only, has to be brought home. There was thus ample justification for the resolution unanimously agreed to on the last day of the session, calling the serious attention of the Registrars-General to the public importance of their prosecuting function in cases where false certificates have been given.

Another hotly-debated question, which indirectly comes under the head of discipline, was that of medical aid associations. Our readers have had the opportunity of studying the able attack of Dr. Leslie Phillips on the evils stated to to arise from a system involving, as he says, proprietary or co-operative "sweating" of medical practitioners for the benefit of lay committees and private individuals. Some of the medical officers have urged that there is another side to the question; while certain difficulties in distinguishing between legitimate and illegitimate forms of combination for medical benefits, and in removing the evils while preserving such advantages as the system may possess, were also pointed out. On a matter of this magnitude, involving far-reaching issues to the public and to the profession, the Council could not pronounce without full investigation. In his memorial, Dr. Phillips appears to have receded somewhat from his first drastic proposal, that the hired practitioners who make medical aid associations possible should be held guilty of "infamous conduct in a professional respect," as in effect "covering" the lay bodies who employ them; but he suggested other methods of dealing with the problem. His documents, together with some in defence of the system, were referred to a Committee consisting of three direct representatives, one Crown member, and two university members, with power to take oral evidence on the subject, and instructions to report to the Council next May. The profession will await with interest the result of the inquiry, which it is to be hoped that the Committee will make as searching as possible, both as regards the facts of the case and the legal powers of the Council. Meanwhile, we believe it is desired that all who are interested should communicate to the Chairman of the Committee of the Council on Medical Aid Associations whatever relevant information they may be able to afford.

Dr. Rentoul presented a memorial against the proceedings of certain obstetrical and other kindred institutions which give certificates to women examined by them in the obstetric art. The memorialist held that in giving such "qualifications in midwifery" these bodies infringed the Medical Act of 1886, and he prayed that the asserted illegality might be stopped. It was pertinently pointed out that these certificates are not "qualifications," that they confer no professional status, and that, as they give no claim to admission on the *Medical Register*, they are not within the purview of the Council under the existing law. The Council, however, held that it was desirable that the form of the certificate should not seem to imply that it conferred a legal qualification, and the President was requested to call the attention of certifying institutions to this point.

The educational business of the Council was not on this occasion extensive, the May session being by custom specially occupied with such matters. The degrees of the University of Bombay were recognised as admitting to the *Colonial Register*. The Examination Committee were charged with the duty of bringing annually before the Council in May the reports by visitors and inspectors on the final examinations dealt with up to March in each year. It may be expected therefore, that the results of the visitation and inspection of the qualifying examinations of English and Irish

Universities, and of Irish and Scottish Corporations, will be brought up for consideration at the next session.

A warm debate took place on the renewed proposal by the Education Committee that the Preliminary Examination in Arts held by the Society of Apothecaries should be abandoned. The only other medical corporations which hold such examinations are the Royal Colleges of Physicians and of Surgeons in Ireland. These, however, appear to recognise the abstract desirability of purely medical bodies ceasing to test preliminary education in non-medical subjects, and it was their representatives on the Council who moved the resolution to this effect which was carried last year. The Society of Apothecaries, on the contrary, transmitted to the Council legal opinions as to its inherent right to hold such examinations, and as to the absence of legal right on the part of the Council either to make restrictions concerning the preliminary examinations to be accepted for the registration of medical students, or, indeed, to require students to be registered at all.

The Education Committee advanced the opinion that the Apothecaries' examination appeared from its published results to be the least searching of any on the Council's recognised list, and that in five years there had been registered as students, by virtue of this examination, nearly two thousand candidates more than had passed the Society's professional examinations. It was ultimately placed on record that, in the Council's opinion, the abandonment of the examination would be for the public good.

The other point of general interest in the proceedings was the renewed motion of Sir Walter Foster for an increase in the number of English direct representatives, so as to bring them into better numerical accord with the size of their constituency. Sir Walter faced the argument drawn from the diminution in the votes recorded at the last election, which might be suggested as indicating that professional interest in the Council had fallen off. It was the Council's business, he said, to make itself interesting. The falling off was due to the inadequacy of the representation, and not to any indifference to the representative principle. Sir John Simon and Dr. Wilks dwelt on the view that the Council would not be improved by being made larger, urging that it would be more efficient if it were smaller. That is a very superficial and imperfect answer to a demand for fuller representation of the general body of the profession. The corporations all insisted on separate representation when the British Medical Association desired to reduce their number. It does not, therefore, lie in their mouths now to raise that objection. Sir John Simon is consistent. He and Mr. Ernest Hart gave strong evidence in favour of a scheme for creating a small council of workable numbers, far less costly than that which now exists. The corporations stood on their individual rights, and the profession should stand on its evident claims. Sir Walter Foster was not allowed the grace of a reply, for the "previous question" was carried against him by a majority of two to one; but this already shows a current of opinion, even within the Council, setting in favour of an obvious act of justice. Sir Walter Foster and his colleagues must persevere, and the friends of direct representation in the Branches of the Association must organise and agitate. We suggest the formation of a new medical reform committee of the Association for the purpose.

The Council took the first step in the direction of purging the dental profession of the practice of covering unqualified assistants, which the British Dental Association alleges to exist. A warning against the offence, analogous to that issued some years ago for the medical profession, was sanctioned, and that none might hereafter plead ignorance, was ordered to be sent to every dentist on the *Register*. The powers given by the Dentists' Act are more stringent even than those contained in the Medical Acts, and it is to be hoped that the loyal efforts of the British Dental Association to elevate the profession, and to eliminate unworthy dental practitioners from the *Register*, will be vigorously supported by the Dental Committee of the Council. To foist unqualified dentists on the public under the "cover" of a registered but *fainéant* principal will in future be dealt with as "infamous."

THE UNEMPLOYED AND SANITARY WORKS.

The London Reform League has done good service in giving definite information as to the local distribution of metropolitan poverty. It is stated that in only four of the forty London districts, namely, Poplar, Canning Town, St. George's in the East, and Whitechapel is the distress exceptional. This, so far as it goes, is reassuring, but, on the other hand, the four districts are considerable in area and population, and the distress acute.

For many social ailments the Local Government Board has to provide a remedy; the remedy this time comes in the shape of a circular urging on local authorities, if they contemplate any public works, to put them at once in hand. The advice we heartily endorse, but at the same time remind the Board that they have had for a long time schemes awaiting their sanction which, once given, will open the floodgates of labour. These schemes, fettered with red tape, lie like poor prisoners in the cells at Whitehall awaiting release.

We should be sorry to see local authorities giving to the unemployed work of little or no benefit to the community; but, on the other hand, there are certain duties which recent legislation has cast upon them, which, if fully carried out in the spirit of the statute, cannot fail to be, in the first place, a direct benefit to all who are really destitute, and, secondly, add to the comfort and health of the ratepayers generally.

The 29th and 31st sections of the Public Health (London) Act expressly cast upon local authorities the task of keeping the pavements, as well as the roads and streets, clean, and provide that a sufficient number of scavengers be employed. To do this effectually in winter time will require in all districts a whole army of men, but a comparison of the number of scavengers employed under the new and under the old system will show that only one or two of the forty districts have materially increased the number of their *employés*.

Surveyors have simply said that keeping the pavements clean is an impossibility, and vestries, instead of turning on with a will all males who are ready and able to manipulate a broom and shovel, have folded their hands, content with the surveyor's opinion.

Sanitarians foresee a possibility of cholera in the spring, and those who have actually been down the sewers know that there are scores of miles of festering, fermenting deposits in the old-fashioned channels which still exist; these deposits have to be removed in great part by manual labour; and here, again, a large number of the unemployed

could find occupation, occupation offensive, it is true, perhaps dangerous to health, but an occupation which demands a fair amount of wage and short hours, and to some extent is independent of the weather above. Some of the daily papers have suggested that the sanitary authorities should replace the sewer gratings by lofty shafts, but the writers forget that until the authorities have power to run such shafts up the sides of houses, the practical embodiment of the suggestion is only possible on a limited scale.

The cleansing of sewers, of streets, and of side walks does not exhaust the list of useful works. It is the duty of each sanitary authority to build or obtain refuges for the reception of poor persons turned out of their homes temporarily on account of disinfecting and cleansing operations; they are bound to provide mortuaries and disinfecting stations, and they have the power to construct aboveground and underground conveniences. St. Marylebone, St. Pancras, St. James's, and a couple of other vestries have to some extent led the way in this useful work, but the metropolis is still far behind the times, especially in its lavatory accommodation for women.

Considered singly, the matters we have enumerated last would have no appreciable effect in diminishing distress; on the other hand, if there should be a general activity, not in creating work for the sake of work, but in satisfying definite and distinct statutory requirements, it is certain that immediate relief to the form of poverty arising from lack of employment would be given.

Sir Richard Owen's condition has varied very little during the week. He is apparently quite free from any suffering, but he has taken much less nourishment, and the failure of strength is steadily progressive. He sleeps well, and is evidently refreshed and supported by the rest.

The General Secretary of the British Medical Association acknowledges the receipt of an essay on the Diagnosis and Treatment of Diseases of the Lymphatics of the Eye, in competition for the Middlemore Prize, with the motto "Strive."

Dr. F. J. Allan was on Wednesday last elected medical officer of health for the Strand district. There were thirty-seven candidates for the appointment, which is of the annual value of £400. Dr. Allan, who is Lecturer in Sanitary Science at King's College, is at present medical officer of health for Shoreditch.

Professor Virchow, at the request of the Berlin Cremation Society, has expressed his opinion that the introduction of optional cremation is desirable, especially in the case of persons who die of cholera or other epidemic diseases. According to his experience, extreme heat—even a temperature below burning heat—is an effective means of destroying micro-organisms and contagious germs, while actual combustion affords incomparably greater certainty.

At the last meeting of the Council of Owens College, Manchester, Mr. Thomas Jones, M.B., F.R.C.S., Surgeon to the Manchester Royal Infirmary, was appointed to the Professorship of Surgery, just become vacant by the resignation of Professor A. W. Hare. At the same meeting the Council established a Professorship of Clinical Surgery, in the College, and appointed to this professorship Mr. Walter Whitehead, F.R.C.S.E., F.R.S.E., Surgeon to the Manchester Royal Infirmary. Both these appointments are subject to the approval of the Court of Governors.

The Prince of Wales has intimated his pleasure to make a speech instead of reading the customary formal reply in response to the address which will be presented to him at the opening of the Clarence Memorial Wing of St. Mary's Hospital on December 17th. The Prince will be accompanied by H.R.H. the Duke of York, the Duchess of Fife (who will receive purses in aid of the fund), and by the Duke of Cambridge.

We have referred the recent complaint of Mr. Gordon, that he did not receive an acknowledgment of his several changes of address, to the President of the General Medical Council, who has kindly promised to give the matter his attention. The question is one which concerns the registrars of the several Branch councils, the President's executive functions being, however, especially related in such matters to the English Branch Council.

On M. Pasteur's birthday, December 27th, a meeting will be held in the great amphitheatre of the Sorbonne in Paris, which will be attended by representatives of all the great learned bodies in France and by delegates from foreign countries. A gold medal, specially struck for the occasion, will be presented to him. This medal bears on the obverse the bust of M. Pasteur and on the reverse a suitable inscription.

THE "BOADICEA."

As far as is known at the Medical Department of the Admiralty there has been no extraordinary sickness in the *Boadicea* since an outbreak of influenza in March. A report of the Commissioner-in-Chief, under date November 12th, stated that the health of the squadron was good.

MORTALITY FROM GLANDERS IN LONDON.

The statements recently made as to the increase of deaths from glanders in London have induced us to examine the statistics of registered deaths from glanders in London since 1881. We find them to be as follows: For the five years, 1881 to 1885, five deaths; for the five years, 1886 to 1890, ten deaths; in 1891, four deaths; and in 1892 (to December 1st), two deaths.

INFLUENZA.

We regret to hear from many quarters of the reappearance of a certain prevalence of influenza. From the town of Daventry we hear that in that town and in some of the surrounding villages influenza is much on the increase; in one especially scarcely a house has escaped a visitation of it. Occasional cases have occurred ever since January,

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IMPENDING LEGISLATION FOR INEBRIATES.

The Departmental Committee on Habitual Drunkards is getting rapidly through the evidence available for the purposes of the inquiry. Every licensee of a retreat under the Inebriates Acts has been examined. The views of the Inebriates Legislation Committee of the British Medical Association were stated, in the course of his evidence, by the chairman, Dr. Norman Kerr. Following up this representation, a formal *précis* of the amendments suggested as desirable has been adopted by the Association's special Committee as well as by the Society for the Study of Inebriety and the Homes for Inebriates Association.

THE POOR RICH.

A case was decided recently at the Clerkenwell Police Court, in which a Mrs. Simons was sued for the rent, although the house was confessedly unfit for occupation on account of bad drainage. The house was taken on a three years' agreement without written warranty, and the magistrate decided that the rent must be paid and the tenant's claim for damages fell through. Under the common law it has always been consistently held that in the taking of an unfurnished house

"the buyer must beware;" on the other hand, in the taking of a furnished house or rooms there is an implied warranty of fitness for occupation, and the law records abound with cases in which the hirer has obtained damages where injury has been proved. The principle has even been upheld in a case in which a furnished house was infested with bugs (Smith *v.* Marrable), and is applicable to the more serious evil of bad drainage. If, however, the house in question had been one the aggregate rent of which did not exceed £20 per annum, the 75th Section of the Housing of the Working Classes Act, 1890, would have been applicable. That section, it will be remembered, alters and amends the law so far as unfurnished houses or rooms of a low rental let to the working classes are concerned; in such a case there is an implied warranty, and it may well be a matter of consideration whether the time has not come to extend this principle to all houses.

THE TRUTH ABOUT RUSSIAN "FAMINE BREAD."

AT a recent meeting of the German Anthropological Society in Berlin, Professor Virchow exhibited some fragments of bread which he had procured in the neighbourhood of Samara during his visit to Russia last autumn. The bread was a sample of that made from chenopodium seeds during the famine, and was as dark and as brittle as peat. A quantitative analysis of this bread which had been made for him gave results which considerably surprised him. The "famine bread" contained 36.52 per cent. of starch, 11.79 of albumen, and 3.79 of fat, while ordinary rye bread contains a larger proportion (47.87 per cent.) of starch and is poorer both in albumen (6.02 per cent.) and fat (0.48 per cent.). The "famine bread," therefore, contrary to what might have been anticipated, was shown to have a high nutritive value, and Professor Virchow, like Balaam, felt himself compelled to bless where he had expected to be called upon to curse.

APPROPRIATION OF MEDICAL SAVINGS BY THE INDIAN GOVERNMENT.

WE have recently learned from an authoritative source that the saving to the Indian Government, mainly at the cost of the medical staff, by the introduction of European station hospitals, has amounted to ten lakhs of rupees (£100,000) annually. There was also a further saving of 50,000 rupees yearly by the discontinuance of forage allowance to medical officers attached to regiments of European cavalry and to batteries of horse and field artillery. This it was proposed to distribute as a staff allowance to those in charge of station hospitals. But the Indian Government refused even this, and has thus unblushingly appropriated every anna medically saved, leaving the whole of the money grievances of the service, which are many, unredressed.

THE CUP THAT DOES NOT CHEER.

IT is scarcely credible that the standard for the making of tea recommended by the Local Government Board should be such as was stated at a recent meeting of the guardians of the Christchurch Union, Hampshire. An infusion made with ten pints of water to one ounce of tea could not well be much more than dirty water; it is no wonder that "the inmates complained of it." Tea tasters are accustomed to allow 48 grains of tea to about 3½ ounces of water. That proportion makes a strong infusion, but an infusion only half that strength would be nearly three times as strong as the tea complained of by the inmates of the Christchurch Union. Tea of moderately good quality, according to English taste, is now to be obtained so cheaply, that a more liberal allowance than that said to be recommended by the Local Government Board might well be authorised, even in a union.

TAKING THE OATH IN COURTS OF LAW.

MR. C. H. HAYCROFT, of Bow, Devon, informs us that, at the assizes just held at Exeter, three medical men took the oath in the more solemn, impressive and less objectionable method by the uplifted hand while subscribing to it. At these assizes it came out in evidence that one of the witnesses was suffering from syphilis and gonorrhœa. Needless to say, she held the book, perhaps with gonorrhœa-stained fingers, and kissed it, undoubtedly moistening it with her vitiated salivary secretions, others slobber it. Our correspondent asks:—"Can then medical men be blamed by somewhat evading, and rather throwing into disrespect, the solemn obligation by kissing their thumbs, which is often done, to avoid contact with the Holy Book. Why do not more medical men set the example, and so avoid evasion of the real thing, by taking the oath in the dignified and cleanly manner?"

INDIAN CHOLERA THEORIES.

THE debate at the Medical Society of London on December 5th on the Indian experience of cholera was remarkable for the strong evidence adduced that the old-world "air or monsoon theory," which has so long blocked the way, is becoming obsolete. The testimony of Dr. Simpson, of Calcutta, was crucial, and he was supported by Dr. Macleod, of Calcutta, and Mr. Macnamara, always an enlightened witness to the facts of water pollution. Mr. Macnamara made a good point and caused some amusement by saying "Mr. Ernest Hart is wrong in declaring that the prevailing monsoons have no relation to the diffusion of cholera," then adding with quiet humour, "They effect its diffusion by blowing the boats down the river, which are manned by cholera-tainted crews, thus bringing about unexpectedly human intercourse." Such a debate, in which no voice was raised in favour of "the wind," and there was practical unanimity as to "water," should leave no doubt in the mind of the advisers of the Indian Government as to their duties and responsibilities in this great matter.

THE DENTAL HOSPITAL OF LONDON.

THE annual dinner of the past and present students of this institution was held on Saturday, Sir Richard Quain in the chair. The Chairman, in proposing the toast of "Past and Present Students," alluded to the history of modern dentistry. There were two classes of men who had helped its development—namely, the practical and the scientific. Among the former he might mention the elder Cartwright, Bigg, and Parkinson; among the latter John Hunter, Naysmith, Bell, and Tomes. Upon this foundation the modern system of dentistry had been established, culminating in the dental hospitals and dental departments of general hospitals, with their schools. Having alluded to some of the more distinguished men who had passed through the hospital and school, he said that the General Medical Council were willing to take, and were taking, great interest in advancing this department of the healing art. Mr. Bryant, President of the Royal College of Surgeons, proposed "The Hospital and School," to both of which he alluded in complimentary terms—to the former for its value in treating the poor, and to the latter because of its educational work, which provided for the rich properly qualified and skilled dental surgeons. Dr. Hare and Mr. Morton Smale, the Dean of the school, responded. The latter urged that if the future of the school were to compare favourably with the past, a new hospital must be provided. Such a change would necessitate an expenditure of £40,000, and he had no hesitation in asking the public to help them to provide that sum. The staff and two or three friends of the hospital had already promised £3,000 for the purpose, and he was quite sure that the public would soon provide the remainder.

MEETING THE ANTI-RESEARCHERS.

DR. C. H. ALLFREY (St. Leonard's) writes to us that at a meeting at the Congregational Mutual Improvement Society's rooms at Folkestone, at which he stated the case for experimental research as against the antivivisectors, a resolution was carried enthusiastically to the effect that experiments

on living animals are justifiable. This decisive result should encourage medical men to inform themselves thoroughly of the character of the statements usually made by the paid speakers of the anti-research propaganda, and to inform themselves accurately of the facts and arguments which afford a decisive answer to them. Such information is easily obtainable by consulting the publications of the Society for the Promotion of Research, sold at almost nominal prices by J. W. Kolckmann, 2, Langham Place, Regent Street, W. We gave a list of these publications in the British Medical Journal of November 5th, page 1026. We have this week, on the request of several medical gentlemen living in different parts of the country, furnished them with the documents in question, but it is easy for anyone to obtain these publications direct from the publishers.

PROFESSOR HUXLEY ON THE NEW UNIVERSITY FOR LONDON.

Professor Karl Pearson has resigned the Honorary Secretaryship of the Association for Promoting a Professorial University in London, which he was largely instrumental in founding some nine or ten months ago. His reason for this step appears to have been that the Association was prepared to accept a compromise, by which existing institutions would be federated into a university, rather than "absorbed" into a university consisting of the professors and constructed on the same general plan as the University of Berlin. Professor Pearson announced his intention in a letter addressed to the Right Hon. T. H. Huxley, the President of the Association, which was published simultaneously in the *Times*. Mr. Huxley's reply in the same journal is mainly interesting here because in it he sketches the rough outline of the scheme which he favoured in his evidence before the Royal Commission, and which had "the general approval" of the Association for Promoting a Professorial University. Its keynote is, in his own words, to "unify without fettering," and as the first essential of such a policy he would retain the title and prestige of the University of London, but reorganise it in such way as to secure general uniformity and efficiency. To do this he proposes to make institutions which contain technical schools of theology, law, medicine, and engineering into colleges of the University, with power to examine their own students for degrees under conditions determined jointly by them and the Senate and present them to the University for *ad eundem* degrees. In the government of the University he proposed that the professoriate should have a large but not a preponderating representation and influence. Upon the capabilities of a professoriate alone to govern a university Mr. Huxley has some very trenchant remarks, which in the mouth of any one but an ex-professor would be flat blasphemy. They, however, fully support the opinion we have frequently expressed to the effect that no scheme for a university for London can be finally successful which does not give the graduates representation on the governing body. Teachers are probably the authority by which the manner of teaching should be decided, but men practically engaged ought to have a voice in the selection of the subjects to be taught.

EPILEPTIC COLONIES.

At a meeting of the Hospitals Association on December 7th, a paper on Epileptic Colonies was read by Dr. C. Theodore Stewart, of Colney Hatch. He urged that the present system, which had the effect of driving epileptics into lunatic asylums, was injurious to them and in every way undesirable. He admitted that epileptic colonies were not likely to be self-supporting—the total expenses at Bielefeld were double the receipts—but he thought that county councils might well undertake the additional expense, looking to the ultimate benefits which might be reasonably expected. He gave some particulars of such colonies abroad, stating that there were ten in Germany, one in Holland, and one in Switzerland. At Bielefeld, first class patients paid £100 a year, second class patients £50 a year, and third class patients £20 a year or even less, some being taken free. He proposed that patients should be classified according to age, sex, social position, and mental state. Dr. Buzzard said that the National Society for the Employment of Epileptics proposed, at first at least, to exclude insane epileptics, and to take males of the artisan class. The Society proposed to obtain about 100 acres, and to erect upon it a house and cottages, and to appoint a resident medical officer and a lady superintendent. It was proposed to employ the inmates in market gardening, spade and barrow labour, cowkeeping and dairy work, poultry keeping, gardening, fruit culture, and perhaps the making of jam. Among indoor employments would be tailoring, bootmaking, bookbinding, and carpentry. It might be found possible to take paying patients, but even so he did not believe that the colony could be self-supporting, or that any large number of paying patients would be obtainable. If the colony were a success, it was probable that private enterprise would supply the needs of well-to-do patients. Dr. Hyslop dwelt on the unfavourable influence on the non-epileptic insane of the constant sight of the fits of their epileptic fellow-inmates of asylums. Colonel Monteflore hoped that in time it might be possible to obtain such a modification in the existing law as would enable guardians of the poor to treat epileptics on a different footing to insane paupers. The Society which had been formed proposed to take payments from all classes, though eventually special endowment might enable it to take some free patients. It did not propose to take insane or imbecile patients, but rather those who were able to work, but were unable to obtain steady employment, owing to the more or less frequent occurrence of fits. Dr. Ferrier thought that the Society would find its main field of usefulness in establishing small colonies in which to teach and train the young, and employ the sane epileptic adult in outdoor occupations. To deal with the epileptic insane, a change in the law would be necessary, and that might come later. Dr. Fletcher Beach, in speaking of the proposed provision for epileptic children, said that the result of an inquiry made by a committee of the Charity Organisation Society would be found to be on the whole favourable to the scheme for epileptic colonies.

CANCER COCCIDIA.

The paper on Cancer and its Parasites by Professor Metschnikoff, which we publish to-day, is interesting from many points of view. Those even who maintain that cancer cannot possibly be due to a specific parasite must admit that the researches made lately both in France and in this country have rendered it probable that parasites always do occur in cancerous tumours. The paper in question is especially important from the fact that it puts on record the opinions of a zoologist well acquainted with other forms of tumours in which the presence of parasites has been undoubtedly proved. Professor Metschnikoff now states as his opinion that parasites having the greatest analogy with coccidia are found in human tumours also. This eminent observer bases his opinion not on his own observations only, but on the microscopical specimens of Soudakewitch and Ruffer, whose preparations he had an opportunity of seeing. It is a noticeable fact, however, that since this paper was written (September, 1892), a further stage in the life-history of the parasite has been described by the English observer in the British Medical Journal (November 5th, 1892), who has traced the development of these parasites in the nucleus of the cancer cell. The supposition that cells formed by endogenous multiplication had been mistaken for parasites—and this had undoubtedly taken place in the earlier observations on the subject—had already been controverted by Ruffer; and it is clear that such a mistake is impossible whenever observers make use of more refined methods of investigation. Another noteworthy fact about these new investigations is that they bear out former clinical observations, for, as Metschnikoff points out, there are hardly any grounds for supposing

that cancer is a contagious disease, whereas there is strong clinical evidence to show that cancer, like other coccidial diseases, is of miasmatic origin. With regard to the formation of spores, or to the mode of reproduction of these organisms, Metschnikoff can give no clue, and it would appear that these organisms reproduce themselves outside the body only, for the structures which have been described as spores by the Russian observers have by no means the definite characteristics always present in true spores. We would appear, for the moment, to have come to the end of what can be learned by simple microscopical examination; and it is clear that further experimentation must be conducted on new principles, for that fresh human cancer is harmless to animals has been abundantly proved. Whether the cancer organisms, however, which have had an opportunity of multiplying outside the body will prove equally harmless is a question on which no one can possibly give a definite opinion at present.

THE ADMINISTRATION OF THE VACCINATION ACTS.

It is now ten years since the issue of the report of the Infectious Hospitals Commission was held to justify the transfer to sanitary authorities of the powers still vested in boards of guardians in relation to the Vaccination Acts; and in the interval the march of events has not tended to lessen the desirability for such transfer. But the force of the recommendation has been by no means lessened by the march of events. The existing method of procedure has many inherent faults, not least of which is the fact that guardians, acting as they do, either for one large town or a combination of sanitary areas constituting a "union," have an important health function cast upon them as to which they may hold views diametrically opposed to the teaching of the health advisers of the sanitary districts within their charge as administrators of the Poor-law. This being so, the health of a district may at any moment be imperilled by the inaction of a recalcitrant board of guardians. Again, even when stirred into action, the measures adopted may be wholly inadequate to meet the necessities of the moment. Thus we have recently witnessed in Warrington the Town Council taking the law into their own hands, and instituting a daily attendance for gratuitous revaccination, not deeming the three attendances weekly (only one at night) started by the guardians at a late stage of the small-pox epidemic, as sufficing to meet the case. We have seen events more than justify the steps taken by the sanitary body. This is not an isolated case where the health authority has been called upon to take independent action, and the sooner the law is amended in this respect the better will it be for the future of the country in relation to small-pox. Much difficulty need not attend the resulting division of unions, since authorities could collaborate where necessary for purposes of lymph supply, and county councils be charged with powers of furnishing lymph also, as well as of supervising the vaccination arrangements of counties, leaving to towns, as far as possible, independence of action. Thus the safeguarding of communities from small-pox would become the duty of the body which is now empowered to take steps for the prevention of all other infectious sickness. We commend the point to the consideration of the Royal Commission on Vaccination.

PUNISHMENT IN SCHOOLS.

Several of the difficulties attending this subject were exemplified in the course of a case which was decided at the Worthing Petty Sessions on November 24th. In the event, the defendant, a mistress at the Broadwater National Schools, was acquitted on the charge of assaulting the complainant pupil, a lad aged 10, whom she was charged with having caned with unnecessary severity. An incidental charge of assault by striking the boy on the chest, with the hand, broke down; and the case was otherwise remarkable only for some rather notable discrepancies in the medical testimony adduced. But the eternal problem of corporal punishment was well to the front in several of its aspects; and in some respects the evidence is eminently suggestive. Correction of some sort seems clearly to have been merited by an unruly schoolboy. But punishment, though it must admittedly be effective if called for at all, should never—and need never—be so administered as to be really harmful. In the present instance, the boy was, amongst other measures, "kept in," and that during a time which necessarily deprived him of his dinner. The practice of "keeping in" is essentially evil; and its ill effects are aggravated under such conditions. The same objections do not apply to the use of the cane when this is wielded calmly and with discretion. Here, again, there is great room for improvement. Caning on the hands is scarcely more defensible than the cruel and dangerous practice of boxing the ears; and objections almost equally strong apply to caning on the trunk and limbs. There is, however, a part of the body which has been aptly described as "having been made for punishment;" and, while this portion of the human frame is sufficiently sensitive to satisfy the sterner demands of justice, it is able to withstand, without serious or permanent injury, violence far beyond anything which can be safely administered elsewhere. The squeamish outcry sometimes raised against this or any other form of corporal chastisement is apt altogether to overlook the real "degradation" which inevitably attends vice and folly if unchecked; and apparently classes physical suffering, however slight and evanescent, as a something to be dreaded beyond any risk of moral ill, while claiming that other punitive methods—even though involving physical deterioration—should always be preferred if only they be physically painless. The question is one which will continue to recur from time to time; and it is always open to temperate argument. But it is doubtful whether any member of the profession—however firm and conscientious his convictions—is likely to commend his opinions for general acceptance by stigmatising an ordinary cane as "a disgrace to England," and as an instrument comparable only to the knout in cruelty and effect; or that a diffuse dissertation on its enormity is justified by a plea that he "is talking to the public of England to-day." Another and most important item in every such question of corporal punishment—and one which should always be present to the mind of the administrator—is the bodily condition and constitutional peculiarities of each individual culprit. Caning upon the hands and thighs is not commonly recognised as a factor in the etiology of an eruption of purpura hæmorrhagica—or of flea bites—on the shoulders of the victim; but children—even those of the labouring classes—do occasionally exhibit a tendency to hæmophilia; they are, more often still, on the verge of scurvy; and in any such case the mildest personal chastisement may produce results out of all proportion to the physical force employed.

THE SALE OF BAD MEAT.

The number of prosecutions which take place for the sale of meat unfit for human food fully bears out our recent contention when dealing with the art of the sausage-maker, that this nefarious practice must be a very extensive one. For, in view of the undoubtedly inadequate manner in which official inspection is applied by local authorities in this and other matters affecting the food of the people, it is plain that the number of cases brought into the courts must bear but a small ratio to the number that actually occur, especially in the poorer districts of cities and towns. Some cases which have just been reported are most unpleasantly suggestive. On November 17th, at the Marylebone Police Court, a "Co-operative Supply Society," with premises in the Edgware Road, were fined £20, with £2 4s. costs, for exposing for sale a quantity of rabbits described by the medical officer of health as "utterly unfit for human food." The magistrate stated in court that he had seen them, and that they were undoubtedly green and foul, while the condition in which they were was unquestionably known to the vendors. And

yet people were buying them at 6d. a-piece. At Northampton, on November 14th, a butcher named Fawcett was fined £10 and 13s. costs for exposing for sale on his stall in the public market eighteen pieces of beef which were described as flabby, sodden, possessing a sickly odour, and in some instances as in a state of actual decomposition. At Swansea, on November 14th, and at Cardiff on the same date, certain butchers were convicted for exposing meat for sale in a state "totally unfit for food," and at Cardiff the medical officer reported that the meat in question was in an "advanced state of disease." It is not stated what the disease was in this case. It is an open secret that enormous quantities of the meat of diseased animals are disposed of daily, but it does not, of course, follow that such meat is invariably unfit for human food; this plainly depends on the disease, the extent to which it has advanced, and the parts used. The meat in the Cardiff case was actually diseased meat; and in this, as in the other cases mentioned, the punishment inflicted by the imposition of a fine is altogether out of proportion to the enormity of the offence. What is required, if these villainous offences are to be put down, is thorough and systematic inspection and punishment in the form of long terms of imprisonment, preferably with hard labour. There are certainly great difficulties in the way of proper inspection in small towns, where the local authority is generally composed of the local shopkeepers, and the same difficulties stand in the way of proper inspection under the Adulteration Acts; but this might be got over by making officials at least partially independent of these authorities both in regard to payment and to the exercise of their powers.

THE HON. ROBERT GRIEVE, M.D.

The appointment of Dr. Robert Grieve, President of the British Guiana Branch of the British Medical Association, and Surgeon-General of the Colony, to be a member of the Legislature of the colony is of good augury for the future welfare of its inhabitants of whatever nationality. It may be remembered that some time ago considerable friction arose between the Court of Policy and the Medical Service, largely due, as appeared at the time, to the ill-defined position which that service held towards other departments of the Government. The appointment of the Surgeon-General to be a permanent member of the Court is a great step in advance, and at the October meeting of the Branch this opinion was freely expressed. The high esteem in which the Hon. Robert Grieve is held by the profession in the colony was shown by the warm congratulations addressed to him by the mover and seconder of the resolution adopted by the Branch and the applause with which these observations were received.

POISONINGS BY "INFANT'S CORDIAL."

The frequent occurrence of fatal poisoning of infants in consequence of the incautious use of narcotic preparations known as soothing syrups, infant's cordials, etc., is one among many proofs of the need for a more stringent administration of the law relating to the sale of poisons. Three cases of this kind have recently been the subject of inquiry before coroners at Leeds, Stourbridge, and Oldham. As is commonly the practice, the verdict of "death from misadventure" was accompanied by a recommendation from the jury that measures should be taken to prevent the promiscuous sale of such dangerous compounds by unqualified persons. But unfortunately it is seldom that anything further is heard of these recommendations, and the mischievous trade goes on unchecked. However, in the Stourbridge case the coroner stated that he would represent the matter to the proper authorities, and we trust that it may receive from them the attention it demands. The evidence in the Oldham case showed that the cordial was sold without a poison label, and by an unqualified person. There is no doubt that this is very generally done, and though these preparations are administered to children by ignorant persons, without ill intention, their use is attended with great danger, while the sale of them exposes the vendors to serious risk. In this case the coroner pointed out that if the death of the child had been conclusively proved to be due to narcotic poisoning, both the seller and the maker of the "infant's cordial" might have found themselves in a very awkward position. But the most serious feature of this case was the statement of the maker of the "cordial," that it did not contain opium or anything of that kind. Upon analysis, however, morphine was found in it, and the attempt to mislead the court was justly stigmatised by the coroner as a disgraceful attempt to conceal the twofold breach of the law which had been committed by the unqualified vendor of the "cordial" and the maker of it who supplied it without being properly labelled "poison." The coroner's censure of the whole proceeding should be a warning to persons who have been in the habit of selling these dangerous preparations, and it is to be hoped that his declared intention of taking immediate steps to bring the matter under the notice of the Pharmaceutical Society will have the effect of inducing that body to take further proceedings against the offenders in this case.

THE SOMERSET HOUSE CHEMICAL DEPARTMENT.

In continuation of our remarks upon this subject in the British Medical Journal of November 12th last, we feel bound to agree with the *Daily Chronicle* that if the statements made in a recent issue of *Food, Drugs and Drink* are capable of proof, an explanation from the Somerset House Chemical Department, or if it be more proper, and possible, from the Board of Inland Revenue, is imperatively demanded in regard to the rules to which the analysts at Somerset House are expected to conform. In the weekly journal alluded to, there is to be seen what is alleged to be a copy of a certificate, signed by one of the chemists of Somerset House, who is, of course, a referee under the Adulteration Acts, upon a certain food preparation, which is referred to in this certificate in laudatory terms. It is further alleged that the food preparation in question contains a considerable amount of boric acid, and that this fact does not appear in the certificate, which, it would seem, states that "from a medical point of view, it (the preparation) is far superior," etc., and goes on to recommend the substance on the ground that "for invalids and persons in delicate health it is all that could be desired, being a perfect food readily digested and assimilated." The gentleman whose signature is alleged to be attached to this certificate does not appear to be a medical man, and we can only support the statement of the *Daily Chronicle* that if these official analysts are allowed to give testimonials to firms in order that such testimonials may be advertised for trade purposes, a state of things will be created which the public must earnestly deprecate.

SCOTLAND.

The late Mr. Thomas Nelson, the Edinburgh publisher, who died a few weeks ago, has left a bequest of £5,000 to the Edinburgh Royal Infirmary.

The 148th meeting of the Scottish Universities Commission was held last week, when Mr. Henry Craik, C.B., the Secretary of the Scottish Education Department, attended and gave evidence.

The death-rate of Edinburgh last week was 26 per 1,000. Of the 134 deaths, 40 were due to zymotic causes, and of these 35 were due to measles.

The Senatus of the University of Aberdeen have appointed Professor Matthew Hay, M.D., one of their representatives in the University Court, for a further period of four years.

THE SCOTTISH BOARD OF SUPERVISION.

The Scottish Board of Supervision are about to issue an order excluding "clean cuttings of new material" from the operation of the regulations in force prohibiting the landing of rags from certain countries of Europe (France, Black Sea, North Sea, and Baltic Ports).

EDINBURGH ROYAL SOCIETY.

The first ordinary meeting of the Royal Society was held on December 5th, Professor Sir Douglas Maclagan, the President, in the chair. In his introductory address the President offered his thanks for the honour they had done him, made some remarks on the last meeting of the British Association in Edinburgh, reminded his audience that that Association owed its existence to the suggestion of a former President of the Society, Sir David Brewster, and that he was aided in this good work by two former Secretaries, namely, Professor Forbes and Sir John Robinson. Further, Hutton, who formed the theme of Sir Archibald Geikie's Presidential Address at the British Association, gave his first sketch of the theory of the earth at a meeting of the Royal Society. Sir Douglas Maclagan next referred to the connection of Sir James Hall, Sir Archibald Geikie, Professor James Geikie, the Rev. T. D. Anderson, the discoverer of the new comet in the girdle of Andromeda, and others to the Royal Society. During the past session 21 new Fellows of the Society had been elected, and during that period 12 of their Fellows had died. These last included Sir George H. B. Macleod and Professor Dittmar, both of Glasgow; and Dr. A. Keiller, of Edinburgh. Lord Tennyson was an Honorary Fellow of the Society. The Society was lately invited by the University of Padua to send a representative to take part in the celebration of the tercentenary of the appointment of Galileo to the Professorship of Mathematics in that University, the date of his first lecture being December 7th, 1592. A portrait of Professor Tait, the General Secretary of the Society, was presented to the Society by Lord Maclaren in the name of the subscribers.

THE HEALTH OF LEITH.

The death-rate of Leith continues to be abnormally high, so much so that what we last week described as an appalling death-rate has been actually exceeded, since the returns for the past week give a death-rate of 58.48 per 1,000. Of the 79 deaths 3 were due to typhus fever. A circular letter was last week sent by the *Leith Express* to all the medical men in practice in Leith asking their opinion on notification of infectious diseases. With one exception these gentlemen considered that the adoption of the Notification of Infectious Diseases Act was desirable in the public interest. Only two are prepared to continue voluntary notification if the Leith Town Council decline to adopt the Act. Further, most of the Leith medical men have given authority to make public their names if need be for purposes of verification in relation to this subject. At a meeting held on December 6th the Town Council decided, by 10 votes to 5, not to adopt the Infectious Diseases (Notification) Act. Some very foolish arguments were used against the adoption of the Act, and it is a matter of regret that one speaker should have been authorised to make the following extraordinary statement: "The medical officer is of opinion that no real or practical good could come of adopting the Notification of Diseases Act at present until the town gets a properly-equipped hospital."

IRELAND.

The Lord Lieutenant has appointed the following Committee to inquire into the sanitary condition of the Royal Hibernian Military School and the Drummond School for Daughters of Soldiers, in both of which institutions there has been an outbreak of typhoid fever, as already announced: Sir George H. Porter, M.D., Bart., President; Sir Charles Cameron, M.D.; Mr. Rawson Carroll, F.R.I.B.A.; Surgeon-Major-General Colles, P.M.O.; Mr. Kaye Parry, B.E.; and Dr. F. R. Cruise.

BELFAST STUDENTS' UNION.

His Excellency the Lord Lieutenant has written to the President of the Queen's College expressing his warm sympathy with the project of a Students' Union, and has forwarded a cheque for twenty-five guineas. The subscription list now amounts to about £3,300, so that the success of the scheme is almost a sured; £5,000 or upwards will be required to carry it to a successful issue.

MEDICAL VETERANS IN BELFAST.

At at recent meeting of the Belfast Board of Guardians, letters of resignation were read from Dr. Seaton Reid and Dr. Brice Smyth. The former retires after no less than forty-six years of service as physician to the Fever Hospital, and his resignation breaks another of the links that bound the last to the present generation of medical men in Belfast. As Professor of Materia Medica in the Queen's College, Physician formerly to the Royal Hospital, and afterwards to the Fever Hospital, and a consultant of wide experience and great ability, Dr. Reid has filled a large place in the profession in the North of Ireland. His professional eminence and kindliness of heart have won him the sincere regard of friends both in and beyond his profession, and the heartiest good wishes of all will follow him into his retirement. Dr. Brice Smyth retires after thirty years of service owing to the increasing pressure of practice. It is proposed to grant both gentlemen a retiring allowance. For the vacancies thus created many candidates are in the field, and a keen contest is expected.

CHARGES AGAINST AN IRISH DISPENSARY DOCTOR.

Dr. Browne, Poor-law inspector, held an inquiry at Roscarbery, co. Cork, on November 22nd, into charges made by the Rev. J. O'Hea, P.P., against Dr. Daunt, the dispensary medical officer. It was alleged that Dr. Daunt had been attending cases of typhus from June 24th, and that on July 6th he stated that there was no infectious disease in his district; that he did not attend a patient until the day after he had received the ticket; that he only visited one patient ill with typhus once, and that he had not taken adequate precautions to prevent a spread of the disease. Evidence having been given in support of the charges, Dr. Daunt said the first patient died of double pneumonia. He saw the man on June 5th about thirty hours before his death. Subsequently other members of the family became ill. He saw the man's wife about three weeks later; she had an eruption and he suspected typhus. He only saw her four times, as another doctor was called in, and he (Dr. Daunt) did not see the other members who became ill. As to the dispensary ticket he did not get it until it was late, and he did not know that it was marked urgent. The girl was weak and emaciated, but her temperature was nearly normal. He only saw her once. He attended a man named Donovan, his wife and daughter. He sent the two last-named to the fever hospital. The girl was very violent and bit him while he was helping to put her into a cart. She escaped, and then he swore an information and had her arrested as a lunatic and brought to hospital. No one would go near her. He made a report on July 6th that the district was free from infectious diseases, but he meant dispensary cases, and not private ones. He gave orders to have houses disinfected. He heard there were other fever cases in the district, but he was not officially informed, and he did not know the houses. The inspector said it seemed strange that none of the sanitary officers knew anything about the outbreak, and that no steps were taken to stamp out a disease which existed from the middle of June. The decision of the Local Government Board has not yet been made known.

ON THE SPREAD OF DIPHTHERIA.

II.—Lines of Future Preventive Action.

The mere fact that diphtheria has for many years been an increasing cause of disease and death in our midst, and that the period of this increase has been that in which there has been such marked advance in public health measures and administration will in itself go to show that the prevention of this disease is surrounded by serious difficulties. Amongst these difficulties, by no means the least lies in the circumstance that our knowledge of the etiology of the disease is still far from complete. But, notwithstanding this, there are, as we implied in our first article, certain definite and important indications as to the lines on which preventive action may be usefully taken.

Isolation at Home: Its Dangers.

In the first place, diphtheria is an infectious—at times a highly infectious—disease which is transmitted from one person to another, and for this reason alone the earliest practicable isolation of the sick is desirable. This may be effected either in the house where the patient sickens or in hospital. Isolation at home is always surrounded with difficulty, but it is by no means impossible to carry it out with success, provided it be rigidly maintained. The patient should, as a rule, be placed on the top floor, and that floor should be reserved for the sick and their immediate attendants. All dust, sweepings, rags, etc., that become tainted with nasal, buccal, or other discharges should be destroyed by fire in the sick-room; all china, glass, etc., used in feeding or tending the patient should be cleansed and kept in the room or part of the house which is set apart for the sick persons. Sheets and other articles of a similar sort should be soaked in a disfecting fluid before being allowed to leave the apartments attached to the sick-room, and a sheet kept wet with disinfecting fluid may usefully hang across the door of the patient's apartment. The nurse or nurses should devote themselves exclusively to the sick person; they should have the least possible communication with others in the house, and no person other than those attending on the patient ought to be admitted on to the floor allotted to isolation purposes; for diphtheria can be, and has been, conveyed by means of articles of clothing. The greatest difficulty in isolation at home lies in maintaining it for a sufficiently long period. This period varies; it should be continued for at least a week after the cessation of any semblance of throat mischief or of discharge from the mouth or nares; and even then the most careful watch should be maintained as regards recurrence of any of these or similar symptoms. Recurring diphtheria is a common means for diffusing the disease. The precautions to be adopted as regards the sick room and its contents, after convalescence, will be those common to the infectious fevers.

Isolation in Hospital: Its Drawbacks.

In most respects, hospital isolation affords by far the most efficient means for limiting the spread of recognised diphtheria; and if first attacks were really so isolated at an early stage of the disease, we might hope very materially to curtail the mischief and mortality wrought by the disease. But it is impossible to ignore the fact that our limited experience of hospital isolation for diphtheria is not altogether satisfactory. It is true that the statistics available relate in the main to the metropolis, and that it is difficult to draw any general conclusions from experience which is, perhaps, very special in character. But, so far as it goes, it is to the effect that some 40 per cent. of the patients admitted into metropolitan hospitals set apart for diphtheria have died. This is doubtless in part due to the fact that only the worst cases are admitted; but there remains the further consideration as to what is the effect of aggregating together multiple cases of this disease in one ward or building. Similar aggregations are distinctly capable of intensifying the character of the infection in at least one infectious disease, and we have some suggestion that much the same result may be brought about where many cases of diphtheria are aggregated together. We refer to the circumstance that, under the influence of such aggregations, the disease seems to spread aërially to patients in other but detached pavilions of the same hospital. This has been very marked in some of the hospitals of the Metropolitan Asylums Board; and not only so, but the infection diffused has at times been of a particularly fatal type. Thus, in 1889, 27 patients in the scarlet fever pavilions of the Western Hospital contracted diseases that were admittedly "superadded" to their original disease, and that were either diphtheria or diphtheritic in type. Of these 27 cases, no fewer than 18 terminated fatally. It is suggested in Dr. Thorne's Milroy Lectures on diphtheria that a scarlatinal throat presents the soil on which the diphtheria organism multiplies most readily. This may perhaps account for the special virulence of the superadded disease in question, but it in no way disposes of the fact, that diphtheria, under certain conditions of aggregation in hospitals, tends to diffuse itself in a manner not hitherto recognised outside such institutions.

How they may be Obviated.

But these considerations should not in themselves prevent the isolation of diphtheria in hospital. They do not apply to the reception of a limited number of patients into any one institution, such as is likely to be met with in the provinces generally; and even in large urban institutions some methods of ventilation, or of distributing the patients in smaller wards and over a wider area of site, may perhaps be found to obviate the difficulty if the dangers indicated turn out on further inquiry to be real. In short, isolation must still be held as a foremost measure for the prevention of diphtheria.

Value of Prompt Notification.

The isolation needed is, however, isolation of first attacks in the early stages of the disease, and this can only be brought about by an early knowledge of the existence of first cases. In short, prompt notification is an essential to success. The throat diseases at present notifiable under the Infectious Disease (Notification) Act, 1889, are diphtheria and membranous croup, but it is well known that a number of throat affections which give rise to diphtheria are not, in so far as their clinical features are concerned, regarded as strictly coming within either of these definitions, and we have more than once been referred to as to whether other infectious throat ailments ought not to be included within the notification clauses. The subject is by no means free from difficulty, but we cannot hesitate to say that when diphtheria is prevalent all cases of throat mischief ought, for preventive purposes, to be regarded as diphtheria, and, as such, to be carefully watched. And we would go further. In view of the experience that is available, medical officers of health ought to advise their sanitary authorities to admit of a very broad interpretation being given, when diphtheria is spreading, to the class of disease which is included for notification purposes under the statutory term "diphtheria."

Restriction of School Attendances.

Another method of isolation is that which is practised by means of restrictions in school attendances. Diphtheria prevails essentially at school ages; the practices necessarily attendant on public elementary education have been shown to provide exceptional facilities for the diffusion of an infection which can spread by means of expired air and buccal discharges; and it has been further shown that the aggregation of children in school-rooms when diphtheria and undefined forms of sore throat are prevalent, tends at certain seasons, if not at all times, to the "manufacture" of a poison of exceptional virulence, power for spread, and fatality. Hence the closest relations should exist between the medical officer of health and school authorities whenever diphtheria is about, with a view to the adoption at the earliest possible moment of those steps which are most likely to prevent the diffusion of the infection through school operations. The two methods authorised under the Education Code are closure of schools, and exclusion of scholars from infected houses and places. It will hardly be necessary for us here to attempt to lay down any rules which should guide in the selection of one or other method. The circumstances of each case must always be considered, and the memorandum on School Closure, issued by the Medical Department of the Local Government Board, sufficiently indicates the principles that should be held in view of coming to a decision in this matter. But the Education Code only applies to schools receiving a

Government grant in aid, and the medical officer of health will have largely to rely on his powers of persuasion, together with certain threats as to possible proceedings under the Public Health Act, 1875, in order to secure that precautions of a like sort are maintained as regards Sunday schools and private institutions. When a private boarding school has had to break up owing to diphtheria, it has often been a question as to when the school may reassemble. Here, again, no universal rule can be laid down. But if the sanitary state of the premises can be assured, both as regards matters of construction, measures of disinfection, etc., then, after the completion of such steps as may have been necessary to these ends, it will usually be safe to reopen the school at the end of a fortnight to all scholars who can be medically certified as free from all indications of disease and from any throat mischief, provided that during the fortnight following the reassembling of the school every pupil is subjected to a daily medical examination such as will ensure the discovery and instant isolation of any case of throat ailment, however trivial. The fortnight between the perfecting of the sanitary arrangements after school dispersal and the time of reassembling will suffice for the manifestation of any disease contracted by any of the scholars whilst the school operations were maintained; the latter fortnight should suffice for the elimination of any fresh attack or suspicious case before time has been given for a fresh diffusion of the infection.

Other preventive measures, such as those involving questions of the relation of diphtheria in man to milk supplies and to diseases of the lower animals, we reserve for a further article on this subject.

THE JEWISH SHECHITA.

The Jewish method of slaughtering animals forms the basis of a great politico-humanitarian controversy in Switzerland, where it has been forbidden in the cantons of Berne and Aargau. The Society for the Prevention of Cruelty to Animals characterises the method as cruel, and contrary to all laws of humanity, while the Jews look upon the movement as more an anti-Jewish one than one based on any real humanitarian principles. It is looked upon as a violation of the constitutional guarantee, and what they ask is for protection of their liberty of conscience, as the 50th Article of the Federal Constitution guarantees the "free exercise of worship within such limits as are compatible with public order and good morals." Their advocates point out that those people who clamour against the cruelty of their method of killing animals, in which the animals suffer pain for a few seconds only, are deaf to the squeals of pigs being killed, which squeals continue as long as half an hour sometimes before they are hushed by death. The pangs of the hunted stag, the pain inflicted on birds wounded and not killed outright in sport, the thousands of animals tortured yearly by castration to render their flesh palatable to man are all instanced as far more cruel, and yet allowed to continue without being condemned. It is difficult for them to comprehend why the custom should be prohibited in these two Swiss cantons alone, while the Jews in every other part of the world are allowed to practise the same without interference. The German Reichstag had the matter under consideration in 1887, and saw no reason to interfere with the custom which was, and still is, in vogue among the Jewish community in that country, and in America the question of universal adoption of the method by people of all creeds has been raised on hygienic grounds.

The Advantage of the Jewish Method of Slaughter.

The Jewish authorities in Switzerland have obtained the opinions of a large number of distinguished physiologists and veterinary surgeons on this question, and these are unanimous in their belief that the Jewish method of slaughtering animals is not more cruel than any other; some, indeed, consider it less so. Certain physiologists have further urged in its favour the hygienic properties of the meat, which, deprived of that factor so prone to decomposition—the blood—keeps longer, and can, they consider, be better dealt with by the stomach and other organs of digestion. It is further urged that the excretive materials contained in the blood rapidly give rise to chemical changes resulting in the production of toxic ptomaines, which, by their repeated action, injure the constitution. The Jewish law forbids the people to eat any other but the bloodless flesh of animals which have been killed by their method of cutting the throat, in which a single gash divides the carotid arteries and jugular veins. It is also necessary that no extra lesion should be produced in killing the animal, otherwise its flesh becomes "tripha," and therefore forbidden to be eaten by Jews. The difficulty of meeting both these requirements by any other method than that which has been employed by them for thousands of years, and which is spoken of in the Pentateuch and in the Talmud, is very great; but the problem deserves close attention, and leads to the consideration of what bloodless methods of painless killing can be offered as substitutes for that which has been forbidden in Berne and Aargau. There can be no doubt that a blow on the head, if sufficiently severe, causes instant loss of consciousness, in proof of which may be adduced the fact that persons who have thus been rendered unconscious have no recollection whatever of the blow when consciousness returns. But the tremendous fall of blood pressure which follows such a blow would probably preclude the possibility of the animal being made bloodless, besides which the blow would in all probability produce an external lesion in most cases.

Anæsthetics.

The only other method of painless killing is that in which anæsthetics are employed. An objection, which the Chief Rabbi in this country, Dr. Adler, has raised to this is the impossibility of being certain that the animal is in the enjoyment of full vitality and perfect health at the time of killing. The use of ether is excluded, owing to its causing rapid decomposition of the meat. Chloroform and carbonic acid are both admissible as far as this point is concerned, but against the practicability of their employment are the difficulties which would attend their administration and the tremendous cost. Moreover, it could not be guaranteed that the animal would not die from shock or from the anæsthetic.

The Duration of Pain.

There is therefore no known method of killing animals which at once conforms to the requirements of the Jewish law and which produces painless death. We are compelled therefore to contrast the only practical method of painless killing with the Jewish method. That, if properly carried out, the latter must be attended by a very short period of pain is evident from a perusal of the laws relating to the slaughter of animals as contained in the Mishna. In 1890 the Chief Swiss Rabbi issued a circular to all Swiss rabbis, in which these rules were so rigidly laid down and supplemented that, if adhered to, there can be no doubt that the amount of suffering to the animal must be reduced to a minimum. But the most ardent supporters of the method do not deny that a brief period of consciousness must exist after the infliction of the wound, during which the animal is sensible to pain. Now it is equally certain that a blow on the head, if sufficiently severe, causes instant loss of consciousness. Against this it has been urged that the first blow may partly miss its mark or may not be severe enough to cause loss of consciousness, and that therefore the animal may be severely tortured. In discussing such a question we must, however, limit ourselves to those instances in which the respective methods are carried out by competent persons—experts in their craft—otherwise the same objection could be brought against the Jewish method in the hands of incompetent persons.

Many no doubt consider that if it is proved that the poleaxe causes more rapid and painless death, none of the objections to its adoption by the Jews should be entertained. We must not, however, lose sight of the fact that the Jewish method of slaughtering animals is more than a mere ancient custom which has been preserved; the rite is as sacred and as inseparable from their religion as the mass or confessional from the Church of Rome. In spite of this, it is difficult to comprehend how even a religious rite, if proved to be inhuman, can be expected to be tolerated in a civilised age. Any method of slaughter which is distinctly proved to be one of torture would be severely condemned in the present day, quite irrespectively of any sect or creed to which it might belong, and that nowhere more severely than in these columns. But we are unable to look upon the Jewish custom, properly

conducted, as one of torture properly so called, for though the animal feels pain, it must be only for a very few seconds during which the brain is being drained of its blood, and too short a time to make the term torture applicable.

THE PROPOSED UNIVERSITY OF WALES.

The Draft Charter Committee of the Joint Conference on a University for Wales completed its labours on December 3rd, and the result, in the form of detailed "heads" for an Act or charter, will be considered by the full Conference on January 6th.

A "Federal" University.

We are enabled to state that the university proposed by the Committee is a federal university, somewhat on the pattern of the Victoria University, but with some important differences of detail. The three public University Colleges at Cardiff, Bangor, and Aberystwith are to be the constituent colleges; but theological colleges in Wales are recognised in general terms as places of theological education. The leading idea of the charter is the frank recognition of training as well as learning as a qualification for a degree; much responsibility in educational matters being thrown on the individual constituent colleges, which, it must be noted, are all public institutions under representative management and in receipt of public funds. Each college is to be entitled to propose curricula and syllabuses of examination for its own students; but all such proposals must be scrutinised by the Senate, consisting of the combined professoriate of the colleges, and finally approved by the University Court as sufficient and equivalent before coming into effect as a qualification for a degree. With these provisos, it is allowable for the Court to authorise separate plans of study and examination for each college. Each college may claim examination of its students within its own walls, but the same university examiners will, jointly with nominees of the colleges concerned, conduct all the examinations. In this way it is hoped both to avoid the burden of travelling to frequent meetings which the Victoria system involves, and to allow the larger measure of *Lehrfreiheit* that Scotch professors enjoy, without compromising the uniformity or efficiency of the standard. Theological degrees are to be given only to persons already holding university degrees after study in a theological college in Wales.

Medical Degrees not to be Granted.

Powers are sought to give degrees in "Arts or Letters, Science, Technical or Applied Science, Law and Music," and other subjects at the discretion of the Crown as visitor. Medicine and Surgery are expressly excluded from the powers given by the charter.

Governing Body.

The Court, or supreme governing body, is to consist, besides the Chancellor, of 100 members, of whom twenty-six are to be appointed by the county councils of Wales and Monmouthshire, and six by head teachers of schools in Wales, the remainder being nominated by the Crown, the colleges, the graduates, and the central Board of Welsh Intermediate Education (when formed). No executive is specified, but the Court is bound to appoint an executive by statute with the sanction of the visitor.

The Guild of Graduates: Disciplinary Powers.

Two somewhat novel features are the formation of the graduates into a "guild," with power to hold property independently and to dispose of it in the promotion of original investigation or research, and the stringent disciplinary clauses which enable the Court to revoke any degree for disgraceful conduct on the part of its holder. Should the university in the future ever be empowered to grant medical degrees, these clauses will be a great safeguard to the profession.

Small-pox in South America.—Small-pox is raging in the department of Cauca (Republic of Colombia). The medical profession and the authorities are doing their best to make vaccination general, but it appears that there is a strong prejudice against it in certain sections of the population.

THE CHOLERA.

[Special Weekly Report to the British Medical Journal.]

The Port of London.

The report which Dr. Collingridge has presented to the Port of London Sanitary Committee, on the cholera epidemic in relation to the port, is a record of constant watchfulness on the part of the health officer, his staff, and the officers of Customs, in their successful endeavours to safeguard London, and, indeed, the country generally. It is assuring to read of the arrangements made, not only in the waters proper of the port, but also at the docks on the one hand, and seaward at such places as Southend, Sheerness, and Queenborough, on the other hand, for the detection of chance cases of cholera. Dr. Collingridge's suggestion that the posts of quarantine and health officer should be held by the same person is one worthy of attention; but a still better solution of the matter, which at any moment may involve the loss of valuable time, would be the abolition of the former functionary. Why should England play at "quarantine" any longer? There should be no overlapping on the part of Customs and sanitary bodies in matters of public health. We trust the port authority will speedily proceed to the provision of additional hospital accommodation, as Dr. Collingridge suggests. They have already provided an efficient steam disinfecting apparatus. One is astonished to read that the total of extraordinary expenditure entailed by the preventive measures falls far short of £200. Dr. Collingridge gives particulars of the cases of cholera which have entered the port down to October 31st, and appends a table, much in the form which appeared in the British Medical Journal of October 15th. We may add that on looking into the facts stated the cases given are not all importations of cholera, since of the 23 named, 5 occurred abroad, 1 was a doubtful case of English origin apparently, and of the remaining 17, 2 were landed at Harwich, 1 is regarded as "doubtful," and 2 were convalescing on arrival, leaving only 10 to be accounted for, and of these the 2 on the barquentine *Hélène* were reported as displaying "choleraic symptoms" on her arrival off Dover.

Russia.

The number of cases of cholera in the whole of Russia during the week ended November 24th was 3,722, and the deaths from the disease reached a total of 1,464. In the week preceding the respective numbers had been 3,870 and 1,633; thus a decrease of 158 cases and 219 deaths is shown in the later returns. This is not such a falling off as that displayed by the previous week or that which again preceded it. In the city of St. Petersburg the numbers were maintained, being 57 cases and 22 deaths, against 58 and 19 respectively. In Moscow there were 42 cases and 27 deaths; at Batoum, 48 cases, 29 deaths. Several provinces continued to suffer heavily; thus, Podolia had 1,033 cases and 375 deaths; Kieff, 599 cases, 168 deaths; Kischineff, 304 cases, 106 deaths; whilst other provinces having many fatal cases were Kherson with 63, Ervan 62, and Kursk 54. Clean bills of health are now issued from Riga and Sebastopol. A recrudescence of cholera was recently reported from the districts on the German frontier, over 100 cases and 50 deaths being returned for two days near the middle of November.

France.

In the last ten days of November there were 6 cases of cholera at Dunkirk and adjacent villages, 2 of them fatal. At Cherbourg 4 deaths took place on the 29th, and the populace were desirous of closing all schools. The relatives of those attacked by cholera were isolated in a scholastic establishment. The neighbouring villages, especially Tourlaville and Octeville, have been heavily visited by the disease, and 2 fatal cases are reported from Gonneville. Cholera is still hanging about Calais, where some disturbances have been created on account of the removal of patients to the town hospital. The disease continues to prevail at Lorient, where many fatal cases took place during last week.

Germany.

Only 4 deaths were reported from Germany in November, these occurring at Hamburg and Altona.

Austria-Hungary.

There were five places reported as being attacked during last month in the whole empire, with 158 deaths, 96 of them having occurred in Buda Pesth, where 11 cases and 6 deaths took place last week.

Holland.

In the week ended November 26th there were 16 deaths in the whole country, including 10 in South Holland and 2 in Amsterdam. Cases recently occurred in Gastel, North Brabant, Weesp, North Holland, and 1 case at Rotterdam, on the 1st instant; but only 4 deaths are returned for the week ended December 3rd. Last month 39 towns were infected, with 104 reported cases, and 66 deaths; but it seems clear that many cases have not been notified.

Belgium.

The towns of Malines, Boom, and Niél, had close upon a dozen deaths from cholera in the concluding week of November, and a fatal case occurred in Antwerp itself. Eight towns returned 33 deaths during November.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Alois Aitenberger, formerly Dean of the Doctoren-Collegium of the Medical Faculty of the University of Vienna, aged 83; Dr. N. P. Manssuroff, Emeritus Professor of Diseases of the Skin and Syphilis in the University of Moscow, a chair which he had occupied for thirty years; and Dr. Franz Lenk, private physician to Prince Schwarzenberg, and a practitioner of high repute in Vienna, aged 87.

ROYAL COLLEGE OF SURGEONS.

A MEETING of the Council was held at the College on Thursday, and the minutes of the last meeting were read and confirmed.

Mr. Clement Lucas was elected an Examiner in Anatomy under the Conjoint Board in the vacancy occasioned by the resignation of Mr. J. N. C. Davies-Colley.

Mr. Frederick Treves was elected a member of the Court of Examiners for the vacancy occasioned by the expiration of Mr. Heath's period of office.

Mr. Hutchinson resigned his appointment as a member of the Committee of Management, and Mr. Heath was elected to fill the vacancy.

The PRESIDENT stated that he had accepted, on behalf of the Council, a silver box, which had once belonged to Edward Jenner, presented to the College by Mr. A. M. Sydney Turner. The best thanks of the Council were returned to Mr. Turner for his donation.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1893. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on January 11th, April 12th, July 12th, and October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, December 22nd, 1892, March 23rd, June 22nd, and October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—A meeting of this District will be held at the Marine Hotel, Worthing, on Thursday, December 15th, at 3.30 P.M.; Mr. G. B. Collet in the chair. Dinner at 6 P.M.; charge 6s. 6d., exclusive of wine. Mr. Raymond Johnson will read a paper on Some Points in the Pathology of Carcinoma of the Breast. Dr. Hinds will read a Case of Disease of the Pancreas. Dr. Gostling will read a Case of Hypertrophic Cirrhosis of the Liver, and show a specimen. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with W. ATTON GOSTLING, M.D., Honorary Secretary, West Worthing.

BRITISH GUIANA BRANCH.

THE usual quarterly meeting of this Branch was held at Georgetown, on July 21st; the SURGEON-GENERAL in the Chair. Drs. Wallbridge, von Winckler, Ozzard, Godfrey, Texeira, Neal, Veendam, Boase, Williams, Law, McAdam, and Ferguson were present.

Financial Statement.—The financial statement for the year was accepted.

Communications.—Dr. FERGUSON read a paper on the Nutritive Value of Beef, written by the SECRETARY. Drs. GODFREY, LAW, VON WINCKLER, and FERGUSON took part in the discussion. The PRESIDENT closed the debate by putting to the members a vote of thanks to the writer of the paper, which was unanimously agreed to.

LEEWARD ISLANDS BRANCH.

A SPECIAL meeting of this Branch was held at St. John's, Antigua, on August 5th, Dr. A. G. MCHATTIE, President-Elect, in the chair. Drs. W. H. Edwards (Ex-President), J. Freeland (Vice-President), G. E. Pierez (Honorary Secretary), A. E. Edwards (Honorary Treasurer), J. S. Gabriel, F. Forward, and G. H. Mapleton (St. Kitts), were present.

New Members.—N. G. Coopman, L.R.C.S. and P.I., Dominica, and R. S. Earl, M.A., M.B., B.C.Cantab., Antigua, were unanimously elected members of the Branch.

New Island Secretary for St. Kitts-Nevis.—Dr. A. P. Boon having resigned, Dr. G. H. Mapleton was unanimously elected as Island Secretary for St. Kitts-Nevis.

Communications.—Dr. MAPLETON read a paper on a case of Hæmatoma of the Spleen going on to Suppuration. The spleen was tapped, and a quantity of grumous fluid removed. This was followed by great improvement, but the patient eventually succumbed to an attack of dysentery. All the members took part in the discussion.—Mr. J. FREELAND read a case of Rupture of Hepatic Duct.

Luncheon.—The next day the members met at luncheon at the American Hotel, St. John's. There were present as guests: Sir Henry Wrendfordsley (Chief Justice of the Leeward Islands), Bishop Coadjutor Branch, the Hon. H. O. Bennett (President of the Legislative Assembly), Mr. C. H. Beard (Acting Attorney General), and Mr. F. Watts (Government Analyst).

A special meeting of the Antigua Section of the Leeward Islands Branch was held in St. John's, Antigua, on August 24th, Dr. W. H. EDWARDS in the chair.

Death of Dr. Alfred Boon.—The following resolution, proposed by Dr. A. EDWARDS, seconded by Dr. GABRIEL, was passed unanimously: "The Antigua Section of the Leeward Islands Branch of the British Medical Association, having with sincere sorrow heard of the lamented death of Dr. Alfred Boon, of St. Kitts, desires to tender its deepest sympathy to his widow in her bereavement, and at the same time to give expression to the sense of irreparable loss which the profession in these islands has sustained. His many great and good qualities of head and heart had endeared him to every individual member of this section."

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

THE annual meeting of this District was held on November 30th, at the Holborn Restaurant, Dr. BRIDGWATER, J.P., in the chair.

Election of Officers.—After the minutes of the former meeting had been read and confirmed the following officers for the ensuing session were unanimously elected: *Vice-President of the District*: Dr. Cleveland. *Representative of the District on the Council of the Branch*: Dr. T. Morton. *Committee*: Dr. Cooper Rose, Dr. Walford, Dr. F. Godfrey, Dr. Ogier Ward, Dr. Wight, Dr. Edridge-Green, and Dr. George Henty. The Honorary Secretary having tendered his resignation Dr. Hugh Woods was elected in his place.

Dinner.—After the business was over the annual dinner took place in the Duke's Saloon, presided over by Dr. Bridgwater, supported by Dr. Bristowe, Dr. Cleveland, Mr. Macnamara, Dr. Morton, Dr. Cooper Rose, Dr. Norman Kerr, Dr. Potter, Dr. Hooper May, Mr. F. Durham, and many others to the number of 26 members. The usual loyal and other toasts were drunk and responded to in a very hearty manner. A harmonious and pleasant evening was passed.

LANCASHIRE AND CHESHIRE BRANCH.

THE intermediate meeting of this Branch was held at Preston on November 29th; Dr. SHUTTLEWORTH, President, in the chair.

Travelling Expenses of Members of Parliamentary Bills Committee.—The following resolution was proposed by Dr. RENTOUL, seconded by Mr. BERRY, and carried:

That while not advising the payment of members of the Parliamentary Bills Committee of our Association either for their time or services given on behalf of members, this meeting of the Lancashire and Cheshire Branch recommends: that each member of the Parliamentary Bills Committee when attending either a committee meeting or a sub-committee meeting of the Parliamentary Bills Committee, be paid first-class return travelling expenses out of the funds of the Association, thus following the plan adopted by the Association in the payment of travelling expenses of members attending meetings of Council, and by the General Medical Council. That the Honorary Branch Secretary forward forthwith a copy of this resolution to the Council of each Branch of the

Association in the United Kingdom, asking that it be brought before a general meeting of their Branch for discussion and report. And that the representatives of this Branch on the Council of the Association be instructed to bring this resolution before the Council of the Association at their next meeting, asking them to consider and report upon the proposal, and that this resolution be brought up for consideration at the next annual meeting of the Association.

Communications:—Dr. Walter showed a specimen of Tubal Pregnancy.—Mr. Roger Williams read a paper on the Relative Safety of Chloroform and Ether.—Dr. Milligan read a paper on the significance of Earache in Children.—Dr. Garner showed specimens of (1) Hypertrophied Heart with absence of Aortic Valves from a child aged 6½ months; (2) Middle Lobe of the Thyroid Gland.—Dr. Shuttleworth made remarks on a Warty-looking Skin Affection observed in Imbeciles.—Dr. Sinclair mentioned a case of Ventrofixation of the Uterus, followed by pregnancy and parturition at full term.—Mr. Stanmore Bishop read a communication on Faradism in the Treatment of Prolapsus Uteri.—Mr. Berry read a paper on Ununited Fracture, with notes of a case successfully treated by means of wiring.—Dr. Eason read a case of Extrauterine Fœtation as a Complication of Natural Pregnancy.

Votes of Thanks.—The meeting terminated by a vote of thanks to the President for his able conduct in the chair, proposed by Dr. Lonie, seconded by Dr. MacNaughtan, and carried by acclamation.

Luncheon and Dinner.—A light luncheon, kindly provided by the members of the Branch in Preston, was served at the Castle Hotel. Eighty-four members and guests dined together at the Park Hotel in the evening, Dr. Shuttleworth in the chair.

BATH AND BRISTOL BRANCH.

The second ordinary meeting of the session was held at Bath on November 30th, Mr. T. B. Goss, President, in the chair. Forty-two members were present.

New Members.—The following gentlemen were elected members of the Branch: A. Leche, M.R.C.S., L.R.C.P.; Alex. Duke, F.R.C.P.I.; F. C. Wood, L.S.A.

Communications.—Dr. Preston King read a paper on Consanguineous Marriage, which was discussed by Dr. Spencer Cobbold, Dr. Lionel Weatherley, Mr. Cross, Mr. Beaumont, Dr. Markham Skerritt, Dr. Hardyman, and Surgeon-Major Peck.—Mr. Pagan Lowe read a paper on a case of Myxœdema, with marked improvement after six weeks' treatment by injections of Thyroid Emuision, which was discussed by Drs. Rogers, Watson Williams, Cobbold, and Hardyman.—Dr. Wilson Smith read notes upon a case of Intermittent Albuminuria. Remarks were made by Dr. Shingleton Smith, Dr. Skerritt, and Dr. Watson Williams.—Dr. Watson Williams read notes of a case of Subglottic Growth in the Larynx, and Dr. Hardyman made some observations thereon.—Mr. Hugh Lane gave details of a case of Rheumatic Arthritis. Dr. Preston King, Dr. Brabazon, and Dr. Skerritt joined in the discussion.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

An ordinary meeting of this District was held at the Kent and Canterbury Hospital on November 24th; Mr. F. Wacher in the chair. Thirty members were present.

Next Meeting.—After the usual business, Mr. Tuke, of Sutton Valence, was appointed chairman of the meeting to be held at Staplehurst in March, 1893.

British Institute of Preventive Medicine.—A circular from the British Institute of Preventive Medicine was read and considered.

Communications.—Dr. Halstead (Ramsgate) read a paper on the Diarrhœa of Bottle-fed Infants. The advantage of sterilising milk was insisted on in view of the growing conviction that diarrhœa was frequently of bacterial origin. The alkaline causation of green stools was referred to. The use of drugs—evacuants, alkalies, acids, astringents, and antiseptics, opium, stimulants, and the value of enemata were discussed. Diet, however, was of more importance than drugs.—Mr. S. Wacher (Canterbury) read a paper on Some Cases of Peculiarity of Speech. Two subjects of this deficiency were exhibited. The deficiency existed in the inability among many members of the family to pronounce words containing the letter "s" or the soft "c." Casts of the palates of these subjects were shown, and an abnormal narrowing and elevation of the palate was evident.—Dr. Thos. Eastes (Folkestone) read a paper on Post-nasal Adenoid Growths. The importance of early removal was insisted on; and the use of Loewenberg's forceps supplemented by the index nail was recommended. Politzer's inflation was thought to be the only after-treatment necessary.

Cases.—The following cases were shown:—Mr. T. Whitehead Reid: (1) Exostosis of the Humerus; (2) a case of Colotomy one year after operation for Epithelioma of the Rectum; (3) Congenital Dislocation of the Femur at the Hip-joint, associated with talipes and arrested growth of the bones.—Mr. Brian Ogden: Two cases of Spina Bifida.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A meeting of this District was held at Eastbourne on November 22nd, Dr. MacQueen in the chair.

Communications.—Mr. Marcus Gunn read a paper on the Diagnostic Value of Certain Symptoms in Eye Diseases. He contrasted the locality and differential characters of the pains suffered in hypermetropia, myopia, conjunctivitis, oritis, and glaucoma, and spoke of the importance of early recognition of the graver forms of intraocular disease.—Dr. Downes described an Obscure Case of Congenital Brain Disease. The little patient, a girl, was apparently healthy at birth. At the age of a month doubts were entertained as to her powers of vision. Slight nystagmus was noticed. The pupils were equal, and active to light. At 4 or 5 months old patient became quite blind, and was pronounced to be so by Dr. Gowers. Between the eighth and twelfth month of life the nystagmus ceased, and she regained some power of sight. When a year old she was a healthy but "backward" child. At 15 months old she contracted a mild attack of measles. During defervescence she suddenly became restless, then sick and drowsy. Convulsions and coma followed, and death ensued about thirty-six hours after onset of head symptoms. On examination of the brain the following appearances were noted: A slight excess of subarachnoid fluid. A small raised spot about the size of a pin's head in the velum interpositum, and tough membrane stretching across the interpeduncular space attached to and constricting, in places, the optic tracts on both sides. No trace of tubercle was found. Microscopic examination of the constricted portions of optic tracts showed a degeneration of their central fibres. The diagnosis of possible fœtal meningitis was put forward. As regards family history, no suspicion of syphilis was entertained. Gout was present in the mother's family; tubercle in the father's. It was an interesting coincidence that two other children in the same family died under somewhat similar circumstances. One, who was born blind, died with obscure cerebral symptoms, after an illness of a few weeks' duration. Another, who became blind at the age of 1 year, also died in infancy with vague symptoms of cerebral inflammation. In this case, after a *post-mortem* examination (made abroad), the diagnosis of tuberculous meningitis was made, but Dr. Downes thought that this was hardly justified by the appearances described.—Dr. Gabbett gave a microscopic demonstration of the Micro-organisms of Tubercle, Leprosy, Cholera, Influenza, and Gonorrhœa, and exhibited Microphotographs of other Bacilli, etc.

SPECIAL CORRESPONDENCE.

[From our own Correspondents.]

PARIS.

The Abuse of Medical Charities in Paris.—The Housing of the Académie de Médecine.—The Association of French Ladies.—General News.

The Syndicate of the Medical Practitioners of the Seine Department has undertaken a good piece of work. The Paris hospitals, which, strictly speaking, should be reserved for the poor, are practically open to all comers, whatever means they may possess. An organised inspection service is supposed to inquire into the pecuniary position of hospital patients. It is difficult to say whether this service has an insufficient or an

inefficient staff, but it is certain that a considerable proportion of the patients admitted could pay medical fees, and thus exclude the really poor, who are deprived of medical care which they cannot obtain elsewhere. Often the doctors themselves are to blame for this abuse.

The Paris Academy of Medicine is about to change its place of abode. The Municipal Council has offered to the Academy a building which it possesses in the Rue Bonaparte where the Academy will have spacious meeting rooms, and others where the various collections belonging to it can be suitably arranged. The Academy gives in exchange a site of the area of 1,600 metres of ground, and £10,000 in money.

The Association des Dames Françaises has sent a fourth supply of medical and other comforts, wine, milk, quinine, etc., to the value of £140, to the French troops in Dahomey. On December 8th and 9th the Association will hold a fancy bazaar for the benefit of the Ambulance Hospital at Auteuil, for the benefit of soldiers who return from Tonkin and Dahomey sick or wounded, and for the victims of public disasters.

M. Gariel has been chosen to represent the University of France at the Galileo festival, now being organised by the University of Padua.

The King of Sweden has conferred on M. Pasteur the Cross of the Order of St. Olaf.

Mme. Blanche Edwards Pillet, M.D., has been appointed Professor at the City of Paris School for Female and Male Nurses at the Bicêtre Hospital.

BERLIN.

The Remuneration of Medical Volunteers during Cholera Epidemic.—Clinical Instruction in the Berlin Municipal Hospitals.

It will be remembered that, at the time of the cholera epidemic in Hamburg, some young doctors, and advanced medical students from the University of Halle, who had hastened to Hamburg in answer to the cry for help of the Cholera Committee, and who worked in the hospitals there with self-sacrificing devotion, were remunerated by the Hamburg Senate with the magnificent sum of 3s. 3d. per day. At the time they remonstrated, but in vain, the Senate declaring that the fee was the usual fee (£5 monthly) to assistant physicians in the Hamburg hospitals. Much bitter feeling on both sides was aroused and hard words written. But now—a little late in the day it must be owned—the Senate sees fit to acknowledge the justice of the claim made against them. In a letter addressed to the Dean of the Medical Faculty, the Cholera Committee of the Senate gives thanks to all students of medicine who helped to combat the cholera epidemic, and expresses the intention of making up the sum of 20 marks (£1) per diem to all those who worked in the Hamburg hospitals with the expectation of being so paid.

The Central Committee of the Berlin medical district societies (Berliner aerztliche Bezirksvereine) held a meeting recently to decide on a petition to the municipal authorities in Berlin, praying: (1) That in the municipal hospitals more opportunity be given for a thorough practical training of medical men, since the university clinics are not sufficient for the purpose. (2) That the medical service in the municipal hospitals be regulated in a way that for every hundred, or hundred and twenty, patients one physician-in-chief and at least two assistants be provided. (3) That specialists be appointed for the treatment of special diseases.

Vaccination Grants.—Mr. Frank L. C. Richardson, Public Vaccinator for the Rhayader District of the Rhayader Union (Radnorshire), has received the Government grant for successful vaccination for the second time.

Dr. Liborio Zerda, Rector of the Faculty of Medicine and Natural Science in the University of Colombia, has been appointed Minister of Public Instruction by the President of the Republic of Colombia.

The last number of the *Journal of the Marine Biological Association of the United Kingdom* contains the report of the Council, from which it appears that much useful work has been done in its laboratory. An investigation into the young fish of the North Sea, which will probably yield important practical results, has been been committed to Mr. E. W. L. Holt.

CORRESPONDENCE.

CREMATION AND CRIME.

Sir,—On October 24th the *Times* published a letter by me, calling attention to the insufficiency of the death certificate in this country, as illustrated by the case of the girl Clover, one of Neill's victims. Mr. Seymour Haden wrote thereon as an opponent to cremation, with a challenge to me, and I replied to him twice in that journal, the correspondence ending with my last letter. But Mr. Haden revived the discussion by reading a paper at the Society of Arts on November 23rd, and called on me with some insistence for a reply. It appeared to me that the pages of a medical journal would be a more fitting place in which to consider the numerous questions he raised. I therefore venture to ask you to allow me to do so in your columns.

Permit me to say at the outset that in again replying to Mr. Seymour Haden, I wholly decline to be led into a long controversy concerning the numerous settled and unsettled questions to which he alludes in his lengthy paper. Moreover, a considerable portion is occupied with more or less disparaging personalities affecting myself and others who think with me, which I decline to notice further. I shall, therefore, make my communication as short as possible, and dispose of the most salient and important points.

Mr. Haden says, "He hears from me for the first time that burial within the earth is a propagator of infection and a cause of increase in the zymotic death-rate." Let me ask him then for what reason does he suppose that intramural interment was forbidden by law some years ago in London and in all our large towns, and this, at great cost and inconvenience, to their inhabitants? The question whether or no the graveyard was a source of danger—if it were a question even then!—was at all events settled by that famous and exhaustive investigation conducted in 1849 by the great pioneers of sanitary reform—Southwood Smith, Chadwick, Milroy, Sutherland, Waller Lewis, and others—whose report ought to be read by anyone who is interested in this subject.[1] It is replete with evidence, and transcends in force anything I could ever say. For brevity's sake alone, I will only quote two short passages, which are absolutely conclusive. Let it be observed that these gentlemen knew nothing of bacilli, had no theories, and simply depose to the facts before them:—"We" (the reporters) "may safely rest the sanitary part of the case on the simple fact that the placing of the dead body in a grave and covering it with a few feet of earth does not prevent the gases generated by decomposition, together with putrescent matters which they hold in suspension, from permeating the surrounding soil and escaping into the air above and the water beneath." The reporters also state that it is "a well demonstrated fact that cholera was unusually prevalent in the immediate neighbourhood of London graveyards," and this was attested especially by Dr. Sutherland, who adduces evidence at length which leaves no possibility of doubt as to the fact, nor as to the extent of the mortality thus occasioned. I might multiply examples described in decisive terms and opinions thereon by the above-named, and by subsequent observers such as Dr. Edmund Parkes, whom no one will deny to be one of the highest and most trustworthy sanitary authorities of modern times.

Next, I have always affirmed that in appropriate soils, at a distance from human habitations, burial may be safely effected. But the spots which were extramural forty years ago are intramural to-day; and with our increasing population, such sites must become still more rare, more required for dwelling sites, for which they are so well adapted. There is, however, one mode of burial in earth to which I make no objection; indeed, I regard it as the most sensible one, nearly approaching in value as it does to the perfection of cremation—namely, the placing the body in a thick bed of quicklime. Now this process is enforced by law in every case where an animal dies of "swine fever," wherever it occurs. And why is such a procedure enforced? Because it is beyond dispute that mere burial in earth will not prevent the spread of the disease.

[1] Report on a General Scheme for Extramural Sepulture. Clowes and Sons, 1850.

And here I desire to state emphatically that the safety of the living is not promoted by "perishable" coffins; on the contrary, I have no doubt that this is the most dangerous form of burial for ordinary graveyards and cemeteries. I am quite aware that zymotic infections arise by airborne and also by waterborne elements; and that the latter have probably the larger share in propagating disease. Such infection may be attributed to the agency of bacilli in cholera, typhoid, diphtheria, and the whole range of intestinal and dysenteric diseases. A body recently dead is placed in a coffin so constructed that early contact with earth may be obtained. Here, then, we have the very conditions known to favour cultivation of the bacillus—namely, earth, water (always more or less present), and animal matter. Nothing is wanting but percolating moisture and vicinity to the living, and the train is complete. Probably a stout oak coffin is safer as retaining its contents until, as there is reason to believe, later changes take place which render the offensive mass at least less *specifically* dangerous than it was in the early stages. Some of these questions await full solution, but it is in the direction indicated that the latest observations seem to point. The *onus probandi* that the decomposition of these bacilli occurs by contact with earth lies with my opponent. At present earth is known, under the conditions above named, to offer a favourite nidus for their multiplication. Pasteur's conclusive experiments (anthrax) and doctrines are not invalidated even by the denial of Mr. Haden. His questions to me on this subject are grounded on unproved assumptions, and no further answer can be called for. I have proved my case to the hilt, namely, that burial in earth is fraught with danger to the living. Nor, until this is disproved, is it possible to listen to speculations based on a contrary supposition. Nevertheless, it would appear that some of the present generation have either never learned or have forgotten the evils of the graveyard. Hence, the importance of briefly but sufficiently pointing out the overwhelming evidence respecting them.

Arrived at the second part of the subject I forgive Mr. Haden's imaginative description of the tall chimneys or "vomitoria," as it pleases him to call them, and their products, which have no such existence in fact, since I presume he has had no experience of cremation; a visit to Woking would undeceive him; so would an examination of Père la Chaise at Paris, where 3,000 or 4,000 bodies are burned yearly. He quotes me erroneously about exhumation, and I conclude that he has never read what I originally wrote respecting it, the results of a laborious inquiry. I have merely to declare that I have never modified that statement, notwithstanding that he says I have done so, and I maintain it at this moment as firmly as ever. It is given in detail in my work, *Modern Cremation*, and there is, therefore, no need to quote it here. Furthermore, I have all the original records relating to and constituting the inquiry in my possession, and can thus justify the statements I made. Should Mr. Haden ever take the trouble to read this he will find that the greater part of the observations he has thought proper to make are wholly irrelevant to the subject.

I shall just add that Mr. Haden is equally unacquainted with the matter in hand when he says, "that in his last letter to the *Times* Sir H. Thompson 'hopes' to be able to 'devise' a death certificate which may be depended upon as a safe warrant for cremation." I certainly never made such a statement in the *Times* or elsewhere. I did say I would explain the practice at Woking if called on to do so. I may now define that practice to be precisely the opposite of reliance upon certificates. It consists, in all cases where any doubt arises and a necropsy has not been made, in declining the cremation unless the following condition is complied with. This is that the stomach, a portion of the liver, and one kidney shall be removed, placed in a jar with spirit, sealed in the presence of a witness, and committed to safe custody so as to be produced when required. I think Mr. Haden will admit that materials so preserved must be in far better condition than any obtained by exhumation, while, let me be permitted to remark, if the earth does destroy the body with such certainty and rapidity, most organic poisons contained would in a few days, perhaps hours, elude the chemist's analysis as completely as after the act of cremation. Of this the well-known De Pommerais case, cited by Mr. Haden, is a striking illustration. Of course the resource described is only called for in exceptional cases. A necropsy mostly solves the question. I proposed it in very similar terms when writing of the defective operation of the death certificate in 1874; and it is less than two months ago that I required it to be done in a case offered for cremation.

The plan, however, which "Barrister-at-Law" suggested in your columns and which you endorse in a leading article of the British Medical Journal of November 19th, of conferring power on the coroner to order a necropsy in every case where sufficient medical evidence is not forthcoming, to be made by the best available expert, would form a valuable addition to our present system.

To attain far greater certainty as to the fact and especially as to the cause of death than at present exists is my chief aim, and equally whether the destination of the body be a coffin or a crematorium.—I am, etc.,

Wimpole Street, Dec. 3rd. HENRY THOMPSON.

THE DRAINAGE OF SWANAGE.

SIR,—The letter of Sir Edward Sieveking on the question of the Swanage drainage in the British Medical Journal of December 3rd so clearly explained the special circumstances of the locality and the advantages of introducing the dry earth system for the removal of excreta, if its reputation as a place of health resort is to be preserved, that it has seemed to me hardly necessary to write more on the subject. But as I have been asked to add some remarks, I willingly do so in support of Sir E. Sieveking's views. I have been strengthened in my opinion regarding their correctness from having talked with some of the fishermen and men of the coastguard on the spot, and from finding them doubtful, even if the sewage at very great cost be carried out by conduits to the end of Peveril Point, whether a considerable portion of it will not be carried back into the bay in certain states of the tides and winds. Swanage has undergone a great change within my memory. When I knew it first, its chief importance consisted in its being one of the chief places for the supply of certain kinds of stone to London and other parts; it was quite a secondary matter that a few persons who were acquainted with the advantages of its invigorating climate, and with the abundance of the objects of interest in its neighbourhood in the various branches of natural history, went to it for a time for purposes of health and recreation. This is now reversed. The majority of the quarries are silent, and its stone output so reduced that the stone business is of relatively little value, while its attractions as a seaside watering-place have become immensely increased, and are daily increasing. But it is still destitute of any satisfactory plan of drainage. The excreta are at present carried into the shallow bay, and though the points at which they reach the water, and their course through the water, may be avoided by those who are acquainted with them, the rapid increase in houses and their occupants must before long add so greatly to the contamination of the bay that the bathing, one of the chief attractions of Swanage, will be spoiled. The great difficulty to be encountered in the dry earth system is that it requires individual exertion (especially on the part of those who derive their incomes from letting lodgings to visitors) to carry it into satisfactory operation, for it necessitates fresh arrangements to be made in the houses; while the scheme of carrying the excreta out to sea needs little personal exertion on the part of the inhabitants, beyond putting their hands into their pockets to find the necessary means of payment. But when it is rendered plain that the original cost of the dry-earth system will be less, while, if properly organised and controlled, that cost will be more than repaid by direct sanitary benefits, and the increase of visitors they will lead to, as well as by the indirect remuneration to be derived from the greater productiveness of the land to which the results of the working of the system may be applied, it seems hardly to be credited that energy adequate to the accomplishment of the plan will not be found.—I am, etc.,

Woolstone, Dec. 5th. THOS. LONGMORE.

PERIODATE CRYSTALS AND AMINOL.

SIR,—Will you grant me space, in order to avoid misunderstanding, to make the following explanation?

1. I recently learned that certain bottles marked "aminol,

a true disinfectant," have been sent to various medical men, accompanied by a leaflet, in which my name is mentioned without my authority. Allow me to inform those who received the above bottles, that their contents is "aminol" in water in the strength of 1 in 5,000. Now, the experiments which I carried out with "aminol," as regards its disinfecting power on certain microbes, were made with a solution containing the "aminol" in the strength of 1 in 600, and that the disinfecting power of this strength was as follows: Spores of anthrax bacilli remained unaffected after eight hours' exposure; only after an exposure of 24 hours did their number decrease, but some escaped disinfection even after so long an exposure. Anthrax bacilli, staphylococcus aureus, etc., were destroyed only after a prolonged exposure.

2. A substance is advertised and circulated under the name of "periodate crystals," and is associated with my name, though without my authority. Until quite recently I have made no experiments with it. A few years ago I made a few experiments—of a tentative character—with a solution which was labelled "periodate," but not with the substance advertised as "periodate crystals." With this latter I have quite recently made experiments, and I find that its solution has no disinfecting power on the microbes hitherto tested, amongst which may be mentioned the spore-bearing and sporeless bacillus anthracis, the cholera spirillum, the spirillum of Finkler, the bacillus of typhoid and of diphtheria, the staphylococcus aureus, the bacillus prodigiosus, and others. Likewise I find that injection of large doses of the solution of the "periodate crystals" into guinea-pigs already infected with anthrax or diphtheria has no power whatever in arresting or altering the normal course of these diseases to their fatal issue.—I am, etc.,

Dec. 7th. E. Klein.

MR. TAIT AND THE SCIENTIFIC GRANTS COMMITTEE.

Sir,—In his letter to you dated November 8th, Mr. Tait states "I was put upon that [Scientific Grants] Committee at the suggestion of some experienced members of the Council as a means of checking what they regarded as errors in the Committee's method of working. I sat silent at my first and only attendance in order to learn what I could, and I came to various conclusions, one of which I have just made effective, inasmuch as a committee of inquiry has been appointed, of which I am a member."

I think any reader of the above would naturally infer that an opinion was expressed at the Council that the affairs of the Scientific Grants Committee were mismanaged, that Mr. Tait was appointed a member of that Committee to investigate the alleged mismanagement on behalf of the council, that after attending a single meeting of the Scientic Grants Committee, Mr. Tait saw enough to convince him that there was such mismanagement, that he reported to the Council accordingly, and that in consequence the Council appointed a special committee of inquiry into the matter. When I put the actual facts of the case before your readers, they will be able to judge whether the statement of Mr. Lawson Tait gives a true impression of those facts or not.

(1.) As to the purpose of Council in appointing Mr. Lawson Tait on the Scientific Grants Committee. I am indebted to the courtesy of the President of the Council for the information that when last year, "an experienced member of Council" proposed Mr. Tait as a member of the Scientific Grants Committee, he did not, at least to the knowledge of the President, declare his reasons for so doing. Nor can I learn that there was any expression of opinion on the part of members of Council that there existed a necessity for investigating the methods of working of the Scientific Grants Committee; and I decline to believe that a body of gentlemen like the Council of the British Medical Association would depute one of its members to act as a spy upon the affairs of one of its own Committees. Did Mr. Tait think when he penned that statement of what he was accusing his colleagues on the Council?

(2.) With regard to the committee of inquiry, which, according to Mr. Tait was appointed as the result of his attendance at the meeting of the Scientific Grants Committee in the summer of 1891, the President of the Council has been good enough to inform me that a sub-committee was appointed on October 26th, 1892, "to consider the question of the third scholarship, and the whole question of the expenditure of the Scientific Grants Committee," and I further learn that the sub-committee was to consist of three members, including the Treasurer and Mr. Lawson Tait. Now, considering the date of this sub-committee and the terms of the reference, it does not appear to have any immediate connection with Mr. Tait's visit to the Scientific Grants Committee some sixteen months previously. And if I mention briefly the events which led up to the appointment of the sub-committee, the connection between the two events, so far at least as the Council is concerned, will appear still more problematical.

At the meeting of the Scientific Grants Committee which was held this summer, and at which a selection of candidates for the two Research Scholarships was to be made, it happened that an unusual number of good candidates applied for these scholarships. The opinion was expressed that they were of great value for the encouragement of physiological and pathological research, and that in view of the intimate bearing of such research on the advance of medicine, it was desirable to establish a third scholarship. A recommendation to this effect was accordingly agreed to and sent up to the Council. The Treasurer of the Association, however, took exception, not without reason, to the adoption of a resolution involving increased expenditure without notice having been given either to the responsible officers of the Association or to the Committee.

Although he personally expressed an opinion favourable to the establishment of a third scholarship, Mr. Butlin was understood to advocate the employment for the purpose of part of the sum which is annually voted in smaller grants in aid of research. It was obviously necessary, therefore, that the Council should refer this question of the establishment of a third scholarship, and the whole expenditure of the Scientific Grants Committee to a sub-committee, to consider (1) whether it is desirable to establish a third scholarship, and, if so (2), whether it should be an addition to the funds already voted for scientific research, or whether it should be derived from a redistribution of the existing grants. This is surely a very different version of the facts from that which Mr. Tait wishes your readers to infer.

In conclusion I would again point out that at the meeting of the Scientific Grants Committee, to which Mr. Tait silently came, and through which he as silently sat, the sum of £300 was apportioned for scientific researches, which Mr. Tait well knew were for the most part to be prosecuted by experiments on the lower animals. These recommendations were approved by the Council, of which he is a member, and without any recorded protest from him. He did not inform the Scientific Grants Committee of any opinion of members of the Council that there were errors in the Committee's method of working. The sub-committee of inquiry, of which he speaks, did not immediately follow upon or have any obvious relation to his visit to the Scientific Grants Committee. The sub-committee of Council was appointed long after, and upon a reference which bears no indication of objection in point of principle to the main purpose of the work of the Scientific Grants Committee, namely, the promotion of medical knowledge by experimental research. It is difficult to bring Mr. Tait's own exposition of his conduct in relation to the Council and the Scientific Grants Committee into consonance with the customary practice and principles of business comity.—I am, Sir, your obedient servant,

University College, Nov. 29th. E. A. Schäfer.

AMERICAN EDITIONS OF ENGLISH BOOKS.

Sir,—The following instance of the treatment English authors are liable to in America should, I think, be brought before the notice of your readers. In the *American Journal of Medical Sciences* for November, 1892, appears an advertisement, from which I will quote:—

"The following is the very latest. From *Materia Medica, Pharmacy, Pharmacology, and Therapeutics*, by W. Hale White. . . . Edited by Reynold W. Wilcox. . . . 'Lithium salts closely resemble . . . The Londonderry lithic spring water is especially useful from its richness in lithium, which it contains in the form of the bicarbonate.' Note.—No other lithia water is even mentioned."

The sentence about Londonderry water does not occur in my book as written by me, although it does in the American edition. It is very hard upon a writer that he should be made to appear to recommend a water of which he never even heard. Until I saw the advertisement, I did not even know that an American edition of my book had been published, but I find that, quite apart from the adaptation of it to the United States *Pharmacopœia* there are several statements in it which I did not make. Although, as a copyright in America was not secured, there is nothing illegal in what has been done, I think many will agree with me that either the American publisher or the editor should have consulted me about any proposed alterations, or at least have indicated what part of the American edition was the work of the American editor.

It is useless to complain of the recklessness of the modern advertiser.—I am, etc.,

Harley Street, Dec. 5th. W. Hale White.

THE BRADSHAW LECTURE.

Sir,—I was present at the Bradshaw Lecture, delivered at the Royal College of Surgeons by Mr. Heath on Thursday last, and heard a statement affecting myself, that I trust you will afford me this opportunity of correcting.

Mr. Heath told his audience that a Fellow of this College (meaning myself) had sent him a notice of a paper he was about to read on the Causation of Deflections of the Nasal Septum wherein I had enumerated fifteen causes; and then the lecturer proceeded to enumerate the same, much to the edification and amusement of the more juvenile portion of his audience. If Mr. Heath had done me the honour of reading that paper, or the abstract of that paper as published in the *Lancet*, or had even possessed the most superficial acquaintance with the literature on the subject, he could not have fallen into the error of attributing to me the authorship or even the recognition of such a formidable list of causes. Unfortunately for Mr. Heath's case, the whole and sole object of my paper was to protest and disprove that any but a small minority of this long list of so-called causes had anything at all to do with the production of the extremely common deformity of the septum of the nose. With the good taste displayed in the lecture, as well as the assertion "That what is new is not true," I will leave those more interested than myself to deal.—I am, Sir, etc.,

New Cavendish Street, Dec. 5th. Mayo Collier.

A PERSONAL CORRECTION.

Sir,—In the British Medical Journal of December 3rd, amongst the contributors for next year, I am described as "Professor of Clinical and Operative Surgery in the University of Durham." This is an error, as the Professorship of Surgery is held by my friend and colleague, Professor Arnison. It is probable the mistake occurred from my being so described in this year's *Medical Directory*, I having notified that I then held the office of "Assessor" in Surgery, and the printer was good enough to change that appointment into a Professorship. I will therefore be glad if you would kindly find room for this letter in your next edition.—I am, etc.,

Sunderland, Dec. 3rd. James Murphy.

TRADUCING THE PROFESSION.

Sir,—If you had read the whole of my letter you would have seen an explicit reply to your question in the British Medical Journal of December 3rd. My answer, in one word, is as follows: See the case of "Catharina Serafin," reported in *Deutches Archiv für klinische Medicin*, January 18th, 1882. The experiments in cancer grafting in Germany, which created so much excitement about two years ago, would alone justify my remark.—I am, etc.,

Tynemouth House, N.E., Dec. 5th. Edward Berdoe.

*** Mr. Berdoe must be aware that the above imputation on a foreign surgeon is not a vindication of the statement that he made to London working men, which alleged "*that their wives and children were subjected in our hospitals to operations which were not performed on a lady who rode in a carriage.*" That is the statement which he has been challenged to prove. Can he do so?

MEDICAL AID ASSOCIATIONS.

Sir,—In view of the inquiry by the Committee of the General Medical Council into the proceeding of medical aid associations, may I appeal to all medical men who have had experience of these bodies, either in the capacity of medical officers, *locum tenens*, or otherwise to communicate with me? The experience of former medical officers will be particularly valuable as being less liable to be biassed by personal interests than that of present incumbents, and there seems no means of communicating with such except by this public appeal.—I am, etc., Leslie Phillips, M.D.

22, Newhall Street, Birmingham, Dec. 5th.

Pressure on Space.

Notice to Correspondents and Authors of Communications.

In view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

OBITUARY.

MICHAEL WAISTELL TAYLOR, M.D. Edin.

Dr. Michael Taylor was born at Portobello, near Edinburgh, in January, 1824, and was therefore in his 69th year. His career throughout was a most illustrious one. He was educated in Edinburgh, and matriculated at the early age of 16, taking his diploma, it is stated, at the age of 20 instead of 21, a most unusual concession. As a graduate, he obtained the gold medal for the best paper of the year, the subject being the "Pathology of the Urinary Excretion" and on the "Presence of Urea in the Blood." He acted as class assistant of Professor J. H. Balfour when he rearranged the herbarium at the Botanical Gardens, Edinburgh. He was one of the earliest presidents of the Hunterian Medical Society, and was elected a Fellow of the Botanical Society of Edinburgh. He went to Penrith in 1845. He contributed a paper to the British Medical Journal proving that milk was a medium for the spread of scarlet fever, a fertile and important observation that has since been corroborated by many different authorities. The terrible effects of an epidemic of diphtheria led him to study the subject, with the result that in 1881 he contributed a paper on the "Fungoid Origin of Diphtheria," and since then he developed his views before the Epidemiological Society in London; he was afterwards elected a member of the Council of that Society.

He took a leading part in founding the Border Counties Branch of the British Medical Association in 1868, and was its first president. He joined the first battalion of the Cumberland Volunteer Corps that was formed, and afterwards occupied the position of staff-surgeon. He was the prime mover in the establishment of the Penrith Literary and Scientific Society. It was also through his instrumentality that Penrith, which was one of the first towns to avail itself of the Free Libraries Act, acquired for the museum the valuable collection of minerals which belonged to the late Admiral Wauchope of Dacre Lodge.

In 1884 he retired from practice, and in February of that year he was presented by the members of the Border Counties Branch of the British Medical Association with an address at a dinner given in Carlisle. In November of the same year, before leaving Penrith, he was presented with a service of plate and an address by the inhabitants of the town and neighbourhood. He was the delegate representing Cumberland at the international meeting of the British Association in Canada. After relinquishing his practice, he still continued to pursue his favourite studies of botany, geology, and archæology, and allied antiquarian subjects. In 1887 he was elected a Fellow of the Antiquarian Society of England. He wrote many papers on archæological matters, and had just completed a work which will interest the residents of Cumberland and Westmorland, describing and discussing as it does matters connected with most of the manor houses in the two counties. He was one of the first members and earliest presidents of the Cumberland and Westmoreland Archæological Society.

Dr. Taylor, who had been in failing health and suffering from Bright's disease for some time, died on November 24th. He leaves a widow and six children.

FREDERICK PALMER, F.R.C.S.Eng.

We regret to announce the death, on November 24th, of Mr. Frederick Palmer, F.R.C.S., one of the oldest townsmen of Yarmouth. The deceased gentleman, who was born in 1813, obtained his diploma of M.R.C.S.Eng. in 1837, and that of F.R.C.S.Eng. in 1872. He practised as a surgeon, beginning his professional career as a partner with Dr. Bateman. He was formerly surgeon to the Great Yarmouth Hospital, and afterwards a member of the committee of that institution. For many years Mr. Palmer was a member of the Yarmouth Town Council, and in 1846 the mayoralty was offered him, but he declined the honour. He was appointed to the Commission of the Peace for the borough of Yarmouth in 1858, and for a long period he was chairman of the board of guardians.

NAVAL AND MILITARY MEDICAL SERVICES.

THE MEMORANDUM.

OMEGA contends that unless the recommendations of Lord Camperdown's Committee relative to the rank of Brigade-Surgeon be obtained, it would be better to abolish it as a "useless" rank altogether. The officers of the rank passed over for promotion are simply degraded in the eyes of all; if supersession is needful, let it take place in the rank of Surgeon-Lieutenant-Colonel. He also contends that ten years is a long enough tenure of retired pay appointments.

*** We feel confident that supersession in the Brigade rank would only take place except for very sufficient reasons; nor do we think it "useless," as those in receipt of retired pay therefrom will doubtless testify.

PROGRESS writes: The value of a title lies very much in its utility, and as those of medical officers cannot be used in conversation they are socially almost useless. Juniors and regimental officers do not know how to address senior medical officers; and as each is left to his own device the result is unpleasant to all. Either we must be addressed by the military portion of the title, or insist on perfect titular equality in a corps of Royal Surgeons with other branches of the army.

ANOTHER correspondent sends us cuttings from *Truth* on the question of Indian pay, representing the annual loss to the junior officers of the Medical Staff calculated at the rate of Government exchange, a matter which we have also frequently set forth. We cordially endorse the following extract from the comments of our contemporary: "The Home Government would do well to look into the treatment of the Army Medical Staff in India, for the repetition of incessant slights and petty injustices is certain to react unfavourably upon the popularity of the service."

WE thank another correspondent for a very lucid summary of the arguments which might be placed before the Secretary of State for War on the various points of the Memorandum, as well as for the absolute need of the formation of a Consolidated Royal Medical Corps. He insists that the officers of the army do not recognise the partly civil and partly military compound titles as indicating an army, but rather a medical, rank only; and again points out that the question of general military command, so harped on by the combatant party, is effectually dealt with in Article 269 of the Royal Warrant, Pay, etc., wherein "a departmental officer serving on his commission shall not in virtue of his rank or position hold any military command outside his department."

THE NAVY.

STAFF-SURGEON H. T. COX is promoted to be Fleet-Surgeon, from November 12th. He was appointed Surgeon, March 30th, 1872, and Staff-Surgeon, March 30th, 1884. He served, on shore, throughout the Ashantee war in 1873-74 (medal), and was surgeon of the *Amethyst* during the engagement with the Peruvian rebel ship *Huascar*, off Ylo, on May 29th, 1877.

Staff Surgeon R. G. BROWN, M.B., is promoted to be Fleet-Surgeon, from November 13th. His appointment as Surgeon dates from September 30th, 1871, and as Staff-Surgeon from September 30th, 1883.

ARMY MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL J. R. GREENHILL, who is serving in the Bengal command, is appointed to hold charge of the civil medical duties of Ranikhet, in addition to his military duties, from October 26th.

Surgeon-Major J. MARTIN, on arrival from England, will report himself to the Principal Medical Officer, Madras district, for orders.

INDIAN MEDICAL SERVICE.

THE services of Surgeon-Majors J. C. MARSDEN and R. PEMBERTON, Madras Establishment, are placed at the disposal of the Government of Madras.

Surgeon-Major D. S. E. BAIN, Madras Establishment, is appointed Civil Surgeon of Coorg.

Surgeon-Major F. R. SWAINE, Bengal Establishment, received charge of Lohardugga Gaol on October 27th.

Surgeon-Major T. R. MULRONEY, Bengal Establishment, on return from privilege leave, resumed charge of his duties as Civil Surgeon of Umritsur, on October 17th.

The services of Surgeon-Colonel J. RICHARDSON, M.B., Bengal Establishment, officiating Surgeon-General and Sanitary Commissioner with the Government of India, are replaced at the disposal of the Government of the North-West Provinces and Oude.

Surgeon-Colonel J. G. PILCHER, Bengal Establishment, officiating Inspector-General of Civil Hospitals, North-West Provinces and Oude, is appointed to officiate as Inspector-General of Civil Hospitals, Bengal.

The services of Surgeon-Captain W. VOST, Bengal Establishment, are placed at the disposal of the Public Works Department.

The services of Surgeon-Captain P. W. O'GORMAN, Bengal Establishment, are placed temporarily at the disposal of the Government of Bengal.

Surgeon-Major D. P. MACDONALD, M.D., Bengal Establishment, Senior Medical Officer, is appointed *ex officio* Assistant Superintendent at Port Blair.

Surgeon-Major J. O'NEILL, Bengal Establishment, on his return from Dalhousie, resumed charge of the civil medical duties of Goordaspore on October 29th.

Surgeon-Captain C. A. JOHNSTON, Madras Establishment, is appointed to officiate as Civil Surgeon of Mandalay in addition to his military duties.

Surgeon-Lieutenant-Colonel H. HYDE, Madras Establishment, District Surgeon and Superintendent of the Gaol at Tinnevelly, is appointed to act as District Surgeon of South Arcot and Superintendent of the Gaol at Cuddalore.

Surgeon-Captain P. CARR-WHITE, Madras Establishment, is directed to do duty in the Belgaum and Bangalore Districts.

Surgeon-Lieutenant W. C. SPRAGUE, Bombay Establishment, is appointed to officiate in medical charge of the 23rd Bombay Light Infantry (2nd Battalion Bombay Rifles), *vice* Surgeon-Captain W. E. Jennings, transferred to the Civil Department for temporary employment.

Surgeon-Lieutenants F. E. SWINTON, S. H. BURNETT, and T. JACKSON, Bombay Establishment, are posted to general duty in the Poona District.

The services of Surgeon-Captain C. H. L. PALK, Madras Establishment, are placed temporarily at the disposal of the Government of India.

Surgeon-Lieutenant R. H. ELLIOT, Madras Establishment, is appointed to the medical charge of the Coolie Corps in Burmah.

Surgeon-Captain W. H. QUICKE, Bombay Establishment, received charge of Kaira District Gaol on October 18th.

The Secretary of State for India has decided that time on half-pay, not exceeding one year, shall be allowed to reckon as service for promotion and pension in the case of an officer of the Indian Staff Corps or of the Indian Medical Service placed on half-pay on account of ill-health contracted in the performance of military duty.

The undermentioned officers have leave of absence as specified:—Surgeon-Captain E. R. W. C. CARROLL, Bengal Establishment, Medical Officer 16th Native Infantry, for one year on medical certificate; Brigade-Surgeon-Lieutenant-Colonel W. FINDEN, Bengal Establishment, Medical Officer 7th Bengal Cavalry, for six months on medical certificate, in extension; Surgeon-Captain A. O. EVANS, Madras Establishment, Officiating Civil Surgeon of Mandalay, privilege leave for six weeks; Surgeon-Captain C. ADAMS, Madras Establishment, privilege leave for two months; Surgeon-Captain J. K. KANGA, Madras Establishment, officiating in medical charge of the 17th Madras Infantry, for 180 days from September 17th.

THE VOLUNTEERS.

MR. PERCIVAL SMITH is appointed Surgeon-Lieutenant to the 2nd Volunteer Battalion South Wales Borderers (late the 1st Monmouthshire), December 3rd.

In the BRITISH MEDICAL JOURNAL of December 3rd the Christian names of Surgeon-Lieutenant STUART, appointed to the 1st Essex Artillery, were misprinted THOMAS EDWARD instead of THOMAS EDMUND.

VOLUNTEER OFFICERS' DECORATION.

THE *London Gazette* of December 6th contains the following further list of officers upon whom the Queen has been pleased to confer the Volunteer Officers' Decoration, they having been duly recommended for the same under the terms of the Royal Warrant, dated July 25th, 1892:—Surgeon-Lieutenant-Colonel John Steele Perkins, 1st Devonshire Artillery (Western Division, Royal Artillery); Surgeon-Lieutenant-Colonel Charles Pegge, 1st Glamorganshire Artillery; Surgeon-Lieutenant-Colonel Francis Poole Lansdowne, 1st Gloucestershire Artillery; Surgeon-Major (ranking as Lieutenant-Colonel) John Henry S. May, retired, 2nd (Prince of Wales's) Volunteer Battalion, the Devonshire Regiment; Surgeon-Lieutenant-Colonel Joseph Harper, 4th Volunteer Battalion, the Devonshire Regiment; Surgeon-Lieutenant-Colonel Edward Liddon, M.D., 2nd Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry); Surgeon-Lieutenant-Colonel William Harford Glover Phelps, M.D., 3rd Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry); Surgeon and Honorary Surgeon-Major Henry William Livett, retired, 3rd Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry); Surgeon and Honorary Surgeon-Major James Williams, retired, 1st (Brecknockshire) Volunteer Battalion, the South Wales Borderers; Honorary Assistant-Surgeon Edward P. King, retired, 2nd Volunteer Battalion, the South Wales Borderers; Surgeon-Major (ranking as Lieutenant-Colonel) George M. Stansfeld, retired, 1st (City of Bristol) Volunteer Battalion, the Gloucestershire Regiment; Surgeon-Captain (Honorary Surgeon-Major) Richard Charles Mason Pooley, 1st Volunteer Battalion, the Duke of Cornwall's Light Infantry; Surgeon-Lieutenant-Colonel Edward P. Phillips, retired, 1st (Pembrokeshire) Volunteer Battalion, the Welsh Regiment; Surgeon-Lieutenant-Colonel James Griffith Hall, 3rd Glamorgan Rifles; Surgeon-Lieutenant-Colonel John Wickham Baines, 2nd Middlesex Artillery; Surgeon-Lieutenant-Colonel Thomas Thyne, M.D., 2nd Middlesex Artillery; Surgeon-Major John Cook, M.D., 3rd Middlesex Artillery; Surgeon-Lieutenant Richard Buswell, 1st London Engineers; Surgeon-Lieutenant-Colonel Matthew Baines, M.D., 1st Middlesex Engineers; Surgeon-Captain Charles Swaby Smith, 1st Surrey Rifles (South London); Surgeon and Honorary Surgeon-Major Edward Law Hussey, retired, 2nd Volunteer Battalion, the Oxfordshire Light Infantry; Brigade-Surgeon-Lieutenant-Colonel William James Shone, 1st Bucks Rifles; Surgeon and Honorary Surgeon-Major James Ellison, M.D., retired, 1st Volunteer Battalion, Princess Charlotte of Wales's (Royal Berkshire Regiment); Surgeon and Honorary Surgeon-Major John Prince, retired, 2nd Volunteer Battalion, the Duke of Cambridge's Own (Middlesex

Regiment); Surgeon and Surgeon-Major (ranking as Lieutenant-Colonel) William George Shepherd, M.D., retired, 1st Middlesex (Victoria and St. George's); Brigade-Surgeon-Lieutenant-Colonel Andrew Clark, 4th Middlesex Rifles (West London); Surgeon and Honorary Surgeon-Major Henry Spencer Smith, retired, 12th Middlesex (Civil Service) Rifles; Surgeon and Honorary Surgeon-Major Robert Cross, retired, 13th Middlesex (Queen's Westminster) Rifles; Surgeon and Honorary Surgeon-Major Charles Henry Bennett, M.D., retired, 3rd London (City of London Rifle Volunteer Brigade); Surgeon and Honorary Surgeon-Major Alfred Cooper, retired, 14th Middlesex (Inns of Court); Surgeon-Lieutenant-Colonel Frederick William Humphreys, 15th Middlesex (The Customs and the Docks); Surgeon-Lieutenant-Colonel Robert Gordon Tatham, 15th Middlesex (The Customs and the Docks); Surgeon-Major (ranking as Lieutenant-Colonel) Walter Dickson, M.D., retired, 15th Middlesex (The Customs and the Docks); Surgeon-Lieutenant-Colonel Henry Reynolds Myers, 19th Middlesex (St. Giles's and St. George's, Bloomsbury); Acting Surgeon William Gill, retired, 19th Middlesex (St. Giles's and St. George's, Bloomsbury); Surgeon-Lieutenant-Colonel Commandant Arthur Trehern Norton, Surgeon-Lieutenant-Colonel William Henry Platt, and Surgeon-Captain (Honorary Surgeon-Major) John Adam Watson, Volunteer Medical Staff Corps (London Companies).

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

The result of the recent prize competitions was declared on Monday night, December 5th.

Certificated Members.—Best man, Corporal Gage, 24th Middlesex Rifle Volunteers, 41 marks (maximum each man, 50). Best detachment, London Rifle Brigade, Colour Sergeant Daniell, Corporals Roche and Harben, Private Murphy, 146 marks (maximum for detachment, 200). Five detachments competed, the examiners being Surgeon-Captains Hughes, F.R.C.P., and French, F.R.C.S.

The competition for the present class resulted in a victory for the 4th Volunteer Battalion Queen's Royal West Surrey Regiment, the 1st Volunteer Battalion Royal Fusiliers being second, and only 3 points behind; the best men, as distinguished from detachments, were Sergeants L. B. Spratley, 4th Volunteer Battalion Queen's, and E. Wilson, 1st Volunteer Battalion Royal Fusiliers. Twenty detachments competed.

Brigade-Surgeon-Lieutenant-Colonel P. Giles, Welsh Border Brigade, in declaring the result, said that he was much pleased with the marks obtained by the detachments.

Surgeon-Captain Stokes, Senior Medical Officer Instructor, thanked the large staff of officers present who had acted as judges, many of whom had travelled considerable distances in order to assist at the competition.

The prizes will be presented to the successful men at the annual dinner, by Lord Sandhurst, Under Secretary of State for War, on December 10th, at 7 P.M., at Cannon Street Hotel.

MEDICO-LEGAL AND MEDICO-ETHICAL.

BLOOD AND BLOOD STAINS IN MEDICAL JURISPRUDENCE.

Mr. Clark Bell, in a paper recently read before the Medico-Legal Society of New York, and published in the last number of the Society's Journal, discusses at some length the characters of blood, and especially human blood, as required for medico-legal purposes. His paper is very profusely illustrated with drawings and tables relative to the different shapes and sizes of human red blood corpuscles and those of the domestic animals, and he quotes numerous opinions of present or recent writers as to the possibility or otherwise of distinguishing with certainty between these. He does not, however, mention a very excellent paper by Dr. Monckton Copeman on a method of detecting human blood by means of the hæmatin crystals which appeared in our pages a few years ago. We do not think that any summary on this subject can be considered complete which does not give due prominence to Dr. Copeman's most important researches. In another respect, too, Mr. Bell's paper lacks completeness, and that is in regard to blood stains; for, excepting in the title of the paper, we are hardly able to find any mention of them—certainly no description of the varying appearances they would present according to the material on which they occurred, no differentiation between a recent and an old stain, and no account of the methods of examination of blood stains.

LIABILITY OF POLICE AUTHORITIES FOR MEDICAL FEES.

X. writes: Some time ago I was called out at midnight on a Sunday night to examine a woman said to be the victim of rape. I was called out by a sergeant of police. I examined the woman, examined the stains on her clothing, and some discharge that came from the vagina. I made both a chemical and microscopical examination at a great expense of time to myself. The result of my examination was negative. I was asked to attend at the police-court a few days after. I said I should not go unless I were subpœnaed, but I was assured that my expenses would be paid, and I agreed to go. I waited in court from 11 A.M. to 1 P.M., and was then informed by one of the magistrates on the bench that the case had been heard in private, and was finished, my services as witness not being required. The charge of rape was not sustained.

When I inquired what fees I was told by the court officials that they did not know anything about it. I have since applied to the police here, who say that they cannot tell me anything about it.

Now, considering that the court is four miles from here, considering the time I spent in examination and in waiting at court, would you kindly tell me what fee I should demand, and from whom (what official) I should demand it?

*** This case is an instance of the difficulties in which medical practitioners sometimes place themselves for want of a proper understanding in the first instance. As no summons or subpœna was issued, the police authorities will probably repudiate liability. The best course seems to be to apply for payment to the individual sergeant or officer who first required the attendance, or the one who said the fees should be paid. If he declines to pay, a county court summons against him may produce the money. We should like to know the result.

FEES TO MEDICAL MEN WHEN CALLED BY POLICE.

J. D. M. states a case in which he was called by the police to inspect a body of a woman found dead, and also to note the surroundings and to advise generally as to whether there had been foul play or otherwise. A *post-mortem* examination was afterwards made by order of the coroner, and an inquest was held, for which our correspondent received the usual fees. On making application to the police for remuneration for services rendered when called by them, "J. D. M." was informed that his services on the occasion were included in the fees paid by the coroner.

*** Such is certainly not the case, and "J. D. M." is entitled to be paid for the services he rendered when called by the police. In London, when such cases occur, the medical man receives a certificate from the police station, which entitles him to a fee which varies in amount, the fee at night being double the amount payable by day. We should advise our correspondent to make a written and definite application, first to the superintendent of the local police, and, if unsuccessful, then to the chief constable or to the county authorities. If after this reasonable remuneration is not made, a letter stating the facts should be written to the Home Secretary, and, as a last resource, legal action in the county court might be taken.

THE CUSTODY AND CARE OF BODIES PENDING INQUEST.

Sewel writes to ask several questions on the above subject, and is desirous of knowing the course that should be adopted when there are grounds for suspecting that a body has been tampered with in a manner calculated to deceive the medical man who has been ordered by the coroner to make a *post-mortem* examination.

*** The body of a person awaiting inquest is in the legal care and custody of the coroner, and no one has any right to interfere with that body without his permission or order. Should any person be found who has in any way interfered with the body with intent to defeat the ends of justice, such a person might be summarily dealt with by the coroner for contempt of court, or he might be indicted by the police on evidence taken on oath before the court. At any time before the verdict of the jury is given and the inquest closed the coroner or jury may adjourn for further evidence, medical or otherwise, and a second *post-mortem* could be made if thought advisable. If, however, after an inquest has been held and the body interred, a further inquiry is considered desirable, application must be made to the Home Secretary, who may exhume the body and request the same or some other coroner to hold a second inquest.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Appointments.—Dr. Gaskell, F.R.S., has been appointed a member of the General Board of Studies; Mr. H. H. Clutton, M.B., F.R.C.S., an additional Examiner in Surgery; Mr. E. W. MacBride, St. John's, Demonstrator of Animal Morphology; Dr. Alex Hill a member of the Court of Discipline; Mr. F. Darwin, M.B., F.R.S., Secretary of the Botanic Gardens Syndicate; Dr. Allbutt, F.R.S., Regius Professor of Physic, a member of the Museums and Lecture Rooms Syndicate; Dr. A. Macalister, F.R.S., Professor of Anatomy, and Dr. L. Humphry, Assistant Physician at Addenbrooke's, members of the State Medicine Syndicate; and Dr. D. MacAlister a member of the Special Board for Medicine.

Electric Light in the Medical School.—It is proposed to introduce the electric light into the dissecting room of the Anatomy School, the lecture room and histology class room of the physiological department and the Philosophical Library of Reference.

The late Dr. Hort.—The Lady Margaret Professor of Divinity, who died on November 30th after a long illness, was a warm friend of the medical and science schools as well as a great theologian. He himself took honours in the Natural Science Tripos of 1851, with distinction in physiology and botany, and he was an examiner for this tripos in 1856 and 1871.

UNIVERSITY OF EDINBURGH.

Union.—The following gentlemen have been elected office-bearers for the ensuing year:—*President:* J. G. Cattanach. *Honorary Secretary:* John A. Laing. *Treasurer:* W. A. Wood, C.A. *Auditor:* W. Haig Brown, C.A. *Committee:* Professor Annandale, M.D.; Professor Butcher; Mr. C. W. Cathcart, F.R.C.S.E.; Mr. J. H. A. Laing, M.B.; Mr. Logan Turner, M.B.; Mr. J. Avon Clyde; Mr. W. E. Fothergill, M.A.; Mr. H. M. Green; Mr. G. A. Cohen; Mr. O. H. Izard; Mr. S. J. Aarons; Mr. J. G. C. Scott.

JOINT BOARD OF EXAMINERS IN SCOTTISH UNIVERSITIES.

The Joint Board of Examiners created by Ordinance No. 13 of the Scottish Universities Commission met on December 3rd. The Board consisted of Principal Sir William Muir (who presided), Professor Butcher, Mr. W. Harvey, LL.B.; Mr. C. D. Campbell and Professor Taylor, as representing the University of Edinburgh; Professor Ramsay, Professor McCunn, and Mr. A. M. Bell as representing the University of Glasgow; Professor G. Pirie and the Rev. Dr. Davidson as representing the University of Aberdeen; and Professor Henry Jones, Dr. Hugh Campbell, and

Mr. George Lowson, M.A., B.Sc., as representing the University of St. Andrews. The Board formulated the following regulations:—

1. Beginning with the examinations in October, 1893, the papers set for the arts and medical preliminary examinations shall be the same. 2. In judging the English paper the examiners shall fix a higher and a lower standard, the lower being sufficient for candidates in the medical preliminary examination. 3. Every candidate for the medical preliminary examination must pass on the higher standard in at least one of the required subjects, and may pass on the lower standard in the remaining subjects where there is a lower standard. 4. The standard for French and German in the medical preliminary examination shall be that prescribed in the Arts Ordinance, No. 11, sect. iii, paragraph 5. 5. For the first medical preliminary examination to be held under this Board in the spring of 1893, no candidate shall be required to pass on the higher standard in any subject. 6. The ensuing spring preliminary examinations for arts, science, and medicine shall begin on Saturday, April 1st, next. 7. For the preliminary examinations in April next (arts, science, and medicine) each University shall accept the equivalents already announced in the calendar of that University.

The Board adjourned, to meet at Edinburgh on January 14th, 1893. The convener is Professor Taylor.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

An official inquiry is, we understand, to be held during the present month at Worcester with reference to a proposal of the Town Council to execute a scheme of sewage disposal at an estimated cost of £78,000. The Town Council of Cambridge have also resolved to expend £130,000 for purposes of sewerage and sewage disposal, a public inquiry being about to be held on the matter.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,005 births and 3,680 deaths were registered during the week ending Saturday, December 3rd. The annual rate of mortality in these towns, which had been 18.6 and 18.9 per 1,000 in the preceding two weeks, declined to 18.8 during the week under notice. The rates in the several towns ranged from 10.3 in Birkenhead, 13.0 in Halifax, 14.0 in Huddersfield, and 15.2 in Bradford to 24.8 in Manchester, 25.1 in Brighton, 26.7 in Salford, 27.5 in Hull, and 28.7 in Bolton. In the thirty-two provincial towns the mean death-rate was 19.6 per 1,000, and exceeded by 1.9 the rate recorded in London, which was 17.7 per 1,000. The 3,680 deaths registered during the week under notice in the thirty-three towns included 429 which were referred to the principal zymotic diseases, against 392 and 424 in the preceding two weeks; of these, 150 resulted from measles, 70 from scarlet fever, 60 from diphtheria, 56 from whooping-cough, 45 from "fever" (principally enteric), 44 from diarrhœa, and 4 from small-pox. These 429 deaths were equal to an annual rate of 2.2 per 1,000; in London the zymotic death-rate was equal to 1.7 per 1,000, while it averaged 3.6 in the thirty-two provincial towns. No death from any of these diseases was recorded last week in Wolverhampton or in Derby; in the other towns they caused the lowest death-rates in Oldham, Huddersfield, and Halifax, and the highest rates in Manchester, Bolton, Brighton, and Salford. Measles caused the highest proportional fatality in Manchester, Cardiff, Bolton, Croydon, Salford, Hull, and Brighton; scarlet fever in Cardiff, Sunderland, Bolton, and Plymouth; whooping-cough in Norwich, Manchester, Salford, Birmingham, and Bolton; "fever" in Swansea; and diarrhœa in Plymouth and Burnley. The 60 deaths from diphtheria included 39 in London and 6 in Manchester. Two fatal cases of small-pox were recorded in London, 1 in Liverpool, and 1 in Sheffield, but not one in any other of the thirty-three large towns; 19 small-pox patients were under treatment in the Metropolitan Asylums Hospitals and 1 in the Highgate Small-pox Hospital on Saturday last, December 3rd. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,882, against 4,063, 4,045, and 3,945 on the preceding three Saturdays; 302 new cases were admitted during the week, against 404 and 302 in the preceding two weeks. The 343 deaths from diseases of the respiratory organs in London were 92, below the average, and were equal to an annual rate of 4.2 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, December 3rd, 850 births and 673 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 20.6 to 23.7 per 1,000 in the preceding three weeks, further rose to 24.2 during the week under notice, and was 5.4 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 15.3 in Paisley and 17.2 in Perth, and the highest rates 27.7 in Edinburgh and in Aberdeen, and 58.7 in Leith. The 673 deaths in these towns included 158 which were referred to the principal zymotic diseases, equal to an annual rate of 5.7 per 1,000, which exceeded by 3.5 the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Edinburgh, Aberdeen, and Leith. The 281 deaths registered in Glasgow included 16 from measles, 4 from scarlet fever, and 11 from whooping-cough. Measles caused 39 deaths in Leith, 36 in Edinburgh, and 18 in Aberdeen. The death-rate from diseases of the respiratory organs in these towns was equal to 4.8 per 1,000, against 4.2 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, December 3rd, were equal to an annual rate of 21.1 per 1,000. The lowest rates were recorded in Lisburn and Londonderry, and the highest rates in Dundalk and Sligo. The death-rate from the principal zymotic diseases averaged 1.2 per 1,000. The 153 deaths registered in Dublin were equal to an annual rate of 22.8 per 1,000 (against 23.9 in each of the preceding two weeks), the rate during the same period being 17.7 in London and 24.0 in Edinburgh. The 150 deaths in Dublin included 7 which were referred to the principal zymotic diseases (equal to an annual rate of 1.0 per 1,000), of which 4 resulted from enteric fever, 2 from diarrhœa, and 1 from whooping-cough.

THE GRIEVANCES OF GROCERS.

On December 1st Sir Walter Foster, Parliamentary Secretary to the Local Government Board, received a deputation from a body which bears the somewhat magniloquent title of the Federation of Grocers' Associations of the United Kingdom. This body certainly does not allow the grass—or perhaps we ought to say the chicory—to grow under its feet, for shortly before the general election Mr. Ritchie, the late President of the Local Government Board, was interviewed by a deputation of the Federated Grocers, who, as we had occasion to record when commenting on the matter at the time, got but cold comfort from him. These gentlemen appear to hope that they will get something more substantial by applying to Sir Walter Foster. While grocers are doubtless a highly useful class of persons, it may be justifiably assumed, as we have before ventured to imply, that the interests of the public generally ought to be placed before those of a particular trade, a proposition which the federated British grocer is rather disposed to ignore.

The anxiety of the deputation to have it understood that they did not in any way desire to put obstacles in the way of the enforcement of the Adulteration Acts is highly satisfactory and is pleasing to witness, more especially when some few of the many unfortunate facts connected with the past history of the grocery trade are called to mind. Alderman Barrow, of Birmingham, is reported to have said rather naively that "they did not desire to do anything which should interfere with the checking of adulteration." Such a sentiment, put in such a way, does not, unfortunately, appear to indicate the existence of the red-hot enthusiasm for the thorough enforcement of the Anti-Adulteration Acts that one would hope to find, and yet by this time ought to be no doubt in the minds of the intelligent tradesmen of this country that those who are honest have nothing to lose and very much to gain by a due enforcement of existing laws and by the passing of further and more stringent ones. The deputation was, we are told, an "influential" one, and no one, surely, will have any objection to classify it as such.

It was introduced by Mr. Frye, M.P., and Mr. T. Hough, M.P. It included Sir W. Pink, of Portsmouth, Mr. Alderman Barrow, of Birmingham, Mr. Cushen, the Vice-Chairman of an Association, and many London traders. It is, therefore, the more surprising that the very first suggested amendment of the present law put forward was one whereby an ordinary invoice of goods sent to a tradesman should constitute a warranty under the 25th section of the Sale of Food and Drugs Act. Inasmuch as the mere production of a specific written warranty in court is held to exonerate a defendant and causes the proceedings against him to fail at once the danger of such an innovation is obvious. Invoices would be produced in all cases of prosecution, and local authorities, difficult enough to move as it is, would hardly ever go to the trouble and expense of prosecuting the givers of the invoices. Neither is it fair or proper that, under existing conditions, they should be called upon to do so and be the sufferers by the introduction of a process of responsibility shifting. Moreover, many of the wholesale dealers reside abroad and could not possibly be reached.

While it may be admitted that the Acts may sometimes press harshly upon a retail trader who is financially at the mercy of his wholesale dealers, if a remedy is to be provided it will be found only in making the wholesale dealer a co-defendant in the case at its first hearing, for the excellent effect produced by checking the sale of adulterated goods at the points of distribution must not be lost sight of. We agree with the suggestion that further provision should be made for the taking of samples by inspectors from wholesale houses, manufacturers, and importers; at present they are practically precluded from doing so, but we cannot agree that in every case a full statement "of the extent and particulars of an alleged adulteration should be stated in order that the analysis may be checked," nor that it should be made compulsory for the Court, at the request of either party, to refer cases to the Somerset House analyst. In regard to the former point such full statements would in many instances be equivalent to a giving away of the case, for they would often involve entering into technicalities which could only be understood by specialists; and as to the latter, reference to Somerset House is a system which has always worked badly and unquestionably to the detriment of the public, while it involves the placing of Somerset House on a pedestal which, especially in the light of recent revelations, it has not a shadow of a right to occupy, and the consequent assumption that the dictum of this particular Government department is final and irrevocable and absolutely binding on a magistrate. Nothing could be more erroneous. Neither can we agree with the suggestion that prosecutions for selling adulterated butter should only be taken under the Margarine Act and not under the Food Act, nor will that which is intended to exonerate an employer if he can prove to the Court that the sale of an adulterated article was effected by an assistant without the employer's knowledge or connivance, make such assistant the actual offender. It is to the interest of the public that there should be power to proceed under both Acts in cases of butter adulteration, and the suggestion whereby responsibility might be shifted on to the shoulders of an assistant, which, by the way, would always prevent the infliction of adequate punishment, refutes itself.

In the result Sir W. Foster stated that he recognised some of the difficulties of the deputation. In regard to magistrates' decisions, which certainly differed very widely, he referred the grocers to another department. He suggested that the deputation should set to work to make local authorities do their duty, a piece of advice which in every way was excellent. He hoped that before long they would have local authorities who

could be more effectively cantrolled. He considered that the exact quantities of coffee and chickery should be stated in simple language on tins containing mixtures of the same, and did not agree with the proposal in Dr. Cameron's Bill to label these mearly as coffee and chicory or chicory and coffee. And finally he held that an amendment of the law was required to bring the sins of the manufacturer or wholesale dealer home to him. All of which propositions we cordially endorse.

THE SANITATION OF LONDON.

A paper entitled, "An Attempt to Improve the Sanitary Circumstances of London," was read on December 3rd by Mr. John Hutton, Chairman of the County Council, before the Sanitary Inspectors Association. In an elaborate analysis of the London Public Health Act, which came into force at the beginning of the present year, Mr. Hutton made it clear that the County Council and other authorities in the metropolis are in possession of vastly increased powers, the effects of which must sooner or later be great. Previously London was behind every other town in England in respect of sanitary legislation. It was not until the Council was constituted that the Government provided the metropolis with a fairly efficient Health Act, but now the measure placed London even in advance of other towns. Laying stress on the value of the power conferred on the Council to make by-laws, he remarked that the Council had framed regulations requiring household refuse to be removed at least twice a week. It was intended that eventually this should be done daily.

FRUIT SEIZURE: AN IMPORTANT CASE.

Dr. Harris, the Health Officer of Islington, has placed on record an important case of seizure of unsound fruit, in which proceedings were successfully taken under the Public Health (London) Act of 1891. The goods were taken from a coster, but it was the wholesale dealer of whom they were purchased who was proceeded against, and fined £1 in respect of each of eleven barrels of grapes in question, the coster being a loser by the amount paid for the fruit. The case is of interest as a practical demonstration of the working of Section 47 (3) of the Act, which aims at throwing liability to penalty on the person first selling unsound food for the use of man. It is to be regretted that no parallel power is conferred in the case of food and drugs adulteration, since it is always the retailer who suffers in the absence of a "written warranty" to the effect that the particular article that is in question was sold to him as being of the nature, substance, and quality demanded; though it must not be forgotten that a convicted person may, in an action against a wholesale dealer for breach of contract, recover the costs of his conviction if he proves that the article was sold to him as being of the same nature, substance, and quality as that demanded of him, that he purchased it not knowing it to be otherwise, and that he afterwards sold it in the same state.

"TREATMENT OF PAUPER PATIENTS."

Under the above heading appeared on December 2nd, in the Birmingham papers, a report of an inquiry which was held by the Government inspector into the death of a lunatic who was in the workhouse, and whose death was produced by lung complications and fractured sternum. At present we can only refer to the facts, as the report of the inspector is not yet given. A lunatic, aged 50, was reported as having been restive in the bath room, and having been "shoved" by an attendant. Later he was seen, and at first no fracture was detected. The patient was treated as suffering from bronchitis, and kept in bed. He was seen later by the visiting physician, who recognised the nature of the injury; still later patient was removed to a surgical ward, where he died. There seems to have been friction between the resident and the visiting medical officers, which was accentuated by this case, and by the report which was made about it; and we cannot help feeling that there were errors in conduct which require careful investigation before the officers can be regarded as free from blame. There are several lessons which may be learnt from the case, one being the liability to accidents which will arise from having lunatics in the ordinary wards of a workhouse, next the need for careful training and selection of the attendants on the insane, and last, not least, the importance of good feeling between officers of any institution.

PROTEST BY A MEDICAL OFFICER AGAINST GUARDIANS' BEER ALLOWANCE TO PAUPERS.

The amount of beer consumed last year in Kidderminster workhouse having been greater than in any other provincial union, considerable attention has been attracted to the matter. The guardians, apparently uneasy under the unpleasant notoriety, have thrown the responsibility on the medical officer, though he had prescribed only one-eighth of the amount of the beer used. He has replied to the Board, in firm yet dignified terms, that he declines to accept the responsibility, stating that he has never been asked for his opinion on the necessity of a beer allowance to the healthy, and that he has been called upon simply to append his signature in order to legalise the old customary allowances. He further calls upon the Board, if they wish the practice of giving some inmates a liquor allowance for work done or otherwise, to be continued, to give him definite instructions, which he will act upon. The chairman and the clerk were technically right in their contention that by his signature the medical officer assumed the responsibility; but as a refusal to sign to legalise the Board's liquor allowances would lead to the surcharge of the guardians, he has practically no option but to comply or jeopardise his relations with the guardians. This ought not to be.

THE KEIGHLEY HOSPITAL QUESTION.

The unfortunate breakdown of the Keighley joint hospital scheme some time back, and the delay which has ensued in the matter of provision of means of isolation for cases of infectious disease occurring in the union, have led the guardians to notify to the several sanitary authorities that no more cases arising in non-paupers can be admitted to the isolation wards attached to the workhouse. We learn that the Keighley town authority have resolved to expend £7,000 in providing a hospital for their own district, and that the Bingley Improvement Commissioners and Local Board have jointly purchased a site for a hospital, but this still leaves some 13,000 people in three urban districts unprovided for.

PROPHYLAXIS OF TUBERCULOSIS.

The hygienic committee of the tenth arrondissement of the city of Paris has passed the following resolution: "In view of the facts (1) that no contagious disease causes so many deaths as tuberculosis; (2) that the sputum of tuberculous patients is looked upon as one of the most active causes of contagion; (3) that their place of abode and their clothing is almost always infected, more particularly in the lodgings occupied by the poorer classes; (4) that the same thing holds good as regards public conveyances; it is desirable that the dwellings and clothing of tuberculous patients should be subjected to the same measures of disinfection as in the case of other contagious diseases, and that public conveyances (railway carriages, omnibuses and cabs), or at least their floors, should b disinfected every day by means of a solution of chloride of zinc or other suitable disinfectant."

THE SANITARY CONDITION OF LOCHMABEN.

The Scottish Board of Supervision have just intimated to the Lochmaben (Dumfriesshire) local authority that it would be contrary to their duty to sanction any further delay in regard to the water supply and drainage scheme, and they have accordingly directed the papers to be transmitted to counsel, with instructions to prepare a petition to the Court of Session to require the local authority to take measures for the remedying of the sanitary defects complained of.

OPENING OF A JOINT HOSPITAL.

A hospital for the treatment of infectious diseases, which has been erected at Thornton Heights for the joint use of the local sanitary authorities of Thornton, Clayton, and Wilsden, was formally opened on November 26th by Mr. William Pickles, chairman of the Joint Hospital Board. The hospital contains four wards, in which accommodation is found for six beds and six cots, and has been erected at a total cost of £3,000.

INCREASE OF SALARY.

At the last meeting of the St. Marylebone Vestry it was resolved to increase the salary of the medical officer of health and the public analyst by £100 per annum, owing to the duties of these officers having considerably increased.

Plans prepared for adopting the "Aluminoferric" process at the Sewage Farm, at Walsall, have been approved by the Local Government Board, so that the scheme will be commenced early in the year.

NOTIFICATION AND ITS EFFECT IN STAMPING OUT SMALL-POX.

Dr. D. Biddle (Kingston-on-Thames) writes: Under the head of "Small-Pox in Great Britain," on p. 1194 of the British Medical Journal for November 26th, 1892, your "Leeds Correspondent" writes: "The unsatisfactory position of Leeds in regard to infectious diseases is shown by the weekly report of the medical officer of health (Dr. Cameron). On November 12th there were 29 cases of small-pox in hospital.....now brought up to 43..... Owing to the fact that notification of small-pox is not compulsory in Leeds, difficulty is sometimes met with in ascertaining the existence of cases, but we understand that most medical practitioners in the town report their cases to the sanitary authority at an early date."

On the same page of the Journal it is said: "At Warrington the occurrence of over 70 cases during the week ending November 12th created quite a panic" (altogether over 400 cases, I believe, have occurred)....."Nearly 40 deaths thus far have been registered." Warrington has been under the dual system of notification since 1879; its population in 1891 was 52,742. Leeds remains under a purely voluntary system of notification, and yet, with a population of 367,506, its deaths from small-pox during the week ending November 19th were only 2, and have barely exceeded in all, during the recent epidemic, the fingers of one hand. Now I beg of you to look upon the two pictures and judge fairly.

Glasgow is under the Notification Act. What does your Correspondent there say, on p. 1195 of the same Journal? "Small-pox has now occurred in all parts of the city of Glasgow; vaccination and re-vaccination are urged on all. Medical practitioners have been authorised to revaccinate, on behalf of the Commissioners, persons unable to pay a private fee." All which is an acknowledgment that notification is at best a broken reed.

*** We cannot share our correspondent's view that the cases he quotes go to show that "notification is at best a broken reed." No one for a moment supposes that the system will in all cases check the spread of infectious disease, more especially when that disease is small-pox. But the prompt isolation of cases of any malady having a tendency to spread must lessen the chances of diffusion, since it is the unremoved cases of disease which, remaining unisolated, act as foci for the dissemination of infection. It matters little if notification be voluntary or compulsory, so long as it is promptly made.

QUALIFICATION FOR M.O.H.

M.R.C.S.Eng.—No person registered only as M.R.C.S.Eng. prior to July, 1887, can be appointed as medical officer of health unless the Local Government Board for some particular reason see fit to allow such appointment. As regards a district of 50,000 people and upwards, a person seeking office must be qualified for the practice of medicine, surgery, and midwifery, and must possess a diploma in sanitary science, public health, or State medicine, unless he has, previous to the present year, held office during three consecutive years in a district or districts with at least 20,000 inhabitants.

MEDICAL NEWS.

The Lord Mayor has consented to preside at the Festival Dinner, to be held at the Holborn Restaurant on May 9th, in aid of the funds of the North-Eastern Hospital for Children, Hackney Road, N.E.

Dr. Arthur Ransome, F.R.S., of Manchester, and Mr. G. J. Romanes, F.R.S., Professor of Physiology in the Royal Institution, have been elected Honorary Fellows of Gonville and Caius College, Cambridge.

Metropolitan Police Surgeons Association.—The annual report submitted to the fifth annual meeting of members of this Association showed that the society was in a satisfactory condition. Many points that had been before the Council during the year, of great importance both in the interests of divisional surgeons and the public, were recapitulated, and the treasurer's report showed the society to be in a sound financial position. The honorary secretaries announced that nearly all the divisional surgeons of the Metropolitan Police were now members of the Association. The members of Council for ensuing year were elected. Mr. Phillips was elected a Vice-President, with the understanding that he would assent to continue the duties he had heretofore filled as treasurer, and Drs. Yarrow and Spurgin were re-elected honorary secretaries. At the dinner, after the usual loyal toasts, the President, Mr. Mackellar, gave the toast of "The Association." In responding to the toast of "The Commissioner of Police and Assistant Commissioners," Mr. Bruce alluded to the great pleasure it gave him to be present at so representative a meeting of a body of gentlemen so essential to the well-being of the police and the public as the divisional surgeons of the metropolis. Sir John Bridge responded for "The Visitors," and Dr. Danford Thomas and Mr. Braxton Hicks for "The Coroners."

Bacteriology as the Farmer's Friend.—At a recent meeting of an agricultural association in Berlin, Professor Hilgard, Director of the Agricultural Research Station in San Francisco, gave an account of a method of getting rid of the destructive "field bug"—apparently a near relative of the Colorado beetle—which has lately been tried in the Western States of North America with most satisfactory results. The plan is on the same lines as that so successfully carried out by Professor Löffler in the plague of field mice in Greece. The virus of a disease affecting the "field bugs" has been isolated, and is used to infect a few of these noxious insects, who are then let loose in the places where their congeners most do congregate. The result is an epidemic which works such havoc among them as only the pen of Homer or Mr. Rider Haggard could describe. So fully recognised is the efficacy of this measure, that the farmers in all the North-Western States of the Union, notably California, Nebraska, and Kansas, now send living field bugs specially captured for the purpose to San Francisco to be infected, so that they may be utilised for the extermination of their kindred. Nothing is said as to the employment of anæsthetics.

Literary Intelligence.—It is announced that the second part of the third volume of the *Etudes Expérimentales et Cliniques sur la Tuberculose*, published under the auspices of M. Verneuil, will shortly be issued. This will be the last volume of the series, the place of which will henceforth be taken by a periodical entitled *Revue de la Tuberculose*, which will appear every two months under the direction of MM. Verneuil, Bouchard, Chauveau, Brouardel, Charcot, Cornil, Fournier, Grancher, Lannelongue, Potain, Ch. Richet, and Tarnier. The first number will be published on January 15th, 1893.—The first number of a new monthly journal devoted to hypnotism appeared at Berlin on October 1st (H. Brieger). It bears the comprehensive title of *Zeitschrift für Hypnotismus, Suggestionstherapie, Suggestionslehre und verwandte psychologische Forschungen*. It is edited by Dr. J. Grossmann, of Koniz (West Prussia), with the collaboration of Professor Berheim, of Nancy, Dr. Forel, of Zürich, Dr. Moll, of Berlin, and Dr. Wetterstrand, of Stockholm. France also rejoices in an organ of the same persuasion, in the *Revue de l'Hypnotisme*, which is edited by Dr. Bérillon, Assistant Inspector of Public Lunatic Asylums.—*La Escuela de Medicina* (The School of Medicine) is the name of a new medical journal recently started in Guatemala. Hitherto medical periodicals have had as short a lease of life in that volcanic little republic as the various governments which have attempted to guide its destinies. We wish our new contemporary a better fate.—Dr. Lewis Sayre's work on orthopædic surgery will shortly appear in a Japanese dress. The translator is Dr. J. K. Kimura, of Tokio.

Anatomical Society of Great Britain and Ireland.—The sixth annual general meeting of this Society was held in the Court Room of Guy's Hospital on Monday, November 21st, at 4.30 p.m. The following gentlemen were elected office-bearers for the session 1892-93: *President:* Sir W. Turner, F.R.S. *Vice-Presidents:* John Curnow, M.D., Alexander Macalister, F.R.S., H. St. John Brooks. *Treasurer:* G. B. Howes. *Council:* William Anderson, Stanley Boyd, D. J. Cunningham, F.R.S., John Cleland, F.R.S., L. A. Dunn, M.B., Percy Flemming, Wardrop Griffith, M.D., W. P. Herringham, M.D., Alexander Hill, M.D., Robert Howden, M.D., C. B. Lockwood, R. Clement Lucas, M.S., T. H. Openshaw, M.B., M.S., R. W. Reid, M.D., Arthur Robinson, M.B., H. D. Rolleston, M.D., J. Bland Sutton, Johnson Symington, M.D., Arthur Thomson, Bertram Windle. *Secretaries:* Ambrose Birmingham, M.D. (Ireland), A. M. Paterson (Scotland), George Henry Makins (England). Mr. Arthur Thomson presented the report of the Collective Investigation Committee. Of thirty-nine institutions applied to, nineteen had contributed material for the report, dealing with (1) the mode and place of origin of the middle sacral artery; (2) the frequency of the psoas parvus and its nerve supply; (3) the arrangement of the branches of the aortic arch; (4) the frequency of communicating branches between the median (or anterior interosseous) and the ulnar nerves in the forearm. The treasurer reported that a balance of £43 0s. 9d. stood to the credit of the Society; also that the manuscript index to the first twenty volumes of the *Journal of Anatomy and Physiology*, the preparation of which had been undertaken by the Society, was rapidly approaching completion. Specimens of anatomical anomalies were shown by Professor Curnow, Mr. Bland Sutton, Mr. T. W. P. Lawrence, and Mr. F. G. Parsons. Papers were read by Professor Macalister, F.R.S., Dr. Carwardine, Mr. A. Thomson, and Professor Cunningham, F.R.S.. The proceedings and papers will be published *in extenso* in the January number of the *Journal of Anatomy and Physiology*.

MEDICAL VACANCIES.

The following vacancies are announced:

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester Street, S.W.—House-Surgeon. Board, lodging, fuel, and light found. Applications, endorsed on envelope "House-Surgeon," to the Honorary Secretary by December 16th.

BRECON INFIRMARY, 6, Bulwark, Brecon, South Wales.—Resident House-Surgeon; unmarried; doubly qualified. Salary, £70 per annum, with furnished apartments, board, attendance, fire, and gas. Applications to W. Powell Price, Secretary, by December 26th.

BRIDGWATER INFIRMARY.—House-Surgeon. Salary, £80 per annum, with board and residence. Applications to Mr. John Coombs, Honorary Secretary, by January 1st, 1893.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House-Surgeon to the Western Branch, unmarried, doubly qualified. Salary, £140 per annum (less board at 8s. per week), with furnished apartments, coals, gas, and attendance. Applications to the Assistant Secretary by December 15th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Applications to the Secretary, by December 20th.

CLUTTON UNION.—Medical Officer and Public Vaccination Officer for the Chew Magna District. Salary, £36 per annum and vaccination fees. Applications to E. H. Perrin, Solicitor and Clerk to the Guardians, Temple Cloud, near Bristol, by December 14th.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon. Board, residence, and washing provided. Applications to the House-Governor by December 31st.

GLASGOW EYE INFIRMARY, 88, West Regent Street, Glasgow.—Resident House-Surgeon. Salary, £75 per annum, with apartments and board. Applications to William G. Black, Secretary, by December 10th.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, Margaret Street, Regent Street, W.—Three Visiting Physicians. Applications to William Henry Johnson, Secretary.

KILLARNEY DISTRICT LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, with allowances valued at £100 yearly. Candidates must be unmarried, and not over 30. Applications to Dr. L. T. Griffin, Resident Medical Superintendent. Election on January 19th.

LEEDS PUBLIC DISPENSARY, New Briggate.—Junior Resident Medical Officer. Salary, £55 per annum. Applications to the Secretary of the Faculty, by December 14th.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House-Surgeon. Applications to the Honorary Secretary, George William Fox, 53, Princess Street, Manchester.

MILE END OLD TOWN.—Dispenser of Medicines at the Infirmary and Outdoor Dispensaries, Bancroft Road, E., between 25 and 45 years of age. Salary, £130 per annum, and dinner daily. Applications to William Thacker, Clerk, Guardians' Offices, Bancroft Road, Mile End, E., by December 15th.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-on-Trent.—House-Surgeon; doubly qualified. Salary, £120 per annum, increasing £10 yearly, with furnished apartments, board, and washing. Applications to the Secretary by January 21st, 1893.

NORTHUMBERLAND COUNTY LUNATIC ASYLUM, Morpeth.—Assistant Medical Officer; unmarried. Salary, £120 per annum, increasing £10 yearly to £150, with furnished apartments, and board and lodging. Applications to Dr. McDowall at the Asylum by December 15th.

OWENS COLLEGE, Manchester.—Junior Demonstrator in Physiology and Histology. Salary, £100 per annum. Applications to the Registrar by December 12th.

PARISH OF TONGUE, Sutherlandshire.—Medical Officer. Salary, £165 per annum; house available. Applications to John Murray, Inspector of the Poor, Tongue, Sutherlandshire.

PAROCHIAL BOARD OF EDINBURGH.—Resident Medical Officer for the Poorhouse, Craiglockhart. Salary, £80 per annum, with board and lodging. Applications to G. Greig, Inspector, 2, Forrest Road, Edinburgh, by December 10th.

RATHDRUM UNION, ARKLOW DISPENSARY.—Medical Officer. Salary, £110 per annum and fees. Applications to Mr. James Hanagan, Honorary Secretary, Curranstown, Arklow. Election on December 12th.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House-Surgeon. Board, lodging, and washing provided. Applications to the Chairman of the Medical Committee, by December 16th.

ROYAL CORNWALL INFIRMARY, Truro.—House-Surgeon, unmarried, doubly qualified. Salary, £150 per annum, with furnished apartments, fire, light, and attendance. Applications to the Secretary before December 14th.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, West Strand. Clinical Assistants. Applications to the Secretary, by December 31st.

ST. ANDREWS UNIVERSITY, Dundee.—Demonstrator of Anatomy.—Salary, £120 per annum. Applications to the Secretary by December 17th.

STOCKPORT INFIRMARY.—House Surgeon; doubly qualified. Salary, £100 per annum, with board and apartments. Applications to Lieutenant-Colonel S. W. Wilkinson, Honorary Secretary, by December 20th.

UNIVERSITY OF EDINBURGH.—Examiner in each of the following subjects: (1) Anatomy, (2) Chemistry and Laboratory Work for the First B Sc. Examination in Public Health, (3) Midwifery, (4) Practice of Physic, and (5) Botany. The salary in each of the departments Nos. 1, 3, 4, and 5 is £75 a year, and in No 2 £90 a year, with an allowance of £10 per annum for travelling and other expenses in the case of Examiners not resident in Edinburgh or the immediate neighbourhood. Applications to M. C. Taylor, Secretary, by January 9th, 1893.

VICTORIA HOSPITAL, Folkestone.—House-Surgeon; unmarried. Salary, £80 for the first year, with an increase of £10 each year for the two following years, with board and residence. Applications to the Secretary, by December 13th.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard Street, Soho.—Resident Medical Officer. Appointment for one year. Applications to J. J. Johnson, Secretary, by December 15th.

MEDICAL APPOINTMENTS.

ANDERSON, F. T., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the No. 4 District of the Alton Union.

ANDREW, F. W., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer to the Hendon Local Board.

BULLMORE, William King, M.D St And., M.R.C.S.Eng., appointed Medical Officer of Health for the Falmouth Urban Sanitary District.

CALLAGHAN, Thomas, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the No. 6 District of the Cork Dispensary, *vice* H. R. Townsend, M.D., resigned.

CARRUTHERS, J. Ferguson, M.B., C.M.Edin., appointed Medical Officer and Public Vaccinator for the Rivesly Rural District of the Horncastle Union.

CROOK, Arthur, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer for the Boys' Home of the Norwich Union.

DOLAMORE, W. H., L.R.C.P., M.R.C.S., L.D.S., appointed Second Dental Surgeon to the Westminster Hospital.

DOUGLAS, Dr. N. G., appointed Medical Officer for the Western District of the Scarborough

EDEN, William A., L.S.A., appointed Assistant Medical Officer of the Workhouse and Infirmary of the St. George's Union, *vice* R. H. Tompsett, L.R.C.P., M.R.C.S., resigned.

ELLIOTT, Harry Scott, M.R.C.S.Eng., L.R.C.P., L.S.A.Lond., appointed Assistant House-Physician to St. George's Hospital, London.

HUMPHREYS, John, L.R.C.P.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Trawsfynydd District of the Festiniog Union.

LATIMER, H. A., M.R.C.S., appointed Senior Surgeon to the Swansea General Hospital, *vice* J. Thomas, L.R.C.P.Edin., resigned.

LORY, Dr., appointed Medical Officer for the Gringley-on-the-Hill District of the Retford Union, *vice* J. A. Eyton-Jones, L.S.A., resigned.

LYS, Henry Grabham, M.D.Lond., M.R.C.S., appointed Medical Officer for the Out-patients to the Royal Victoria Hospital, Bournemouth.

MALVIN, Mark, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Eastern Division of Scarborough, and Medical Officer for the Scarborough Workhouse.

OLDACRES, C. E., M.R.C.S., L.R.C.P.E., appointed Medical Officer of Health for the Borough of Daventry.

REED, Henry A., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer of Health for Hamilton, Tasmania.

RICHARDSON, R. T., M.R.C.S.Eng., L.S.A.Lond., appointed Medical Officer of Health for the Trowbridge Urban Sanitary District.

ROBERTS, Sidney John, L.R.C.P.Lond., M.R.C.S.Eng., etc., appointed one of the Resident Surgeons to the Birmingham General Dispensary.

SINCLAIR, Wm., M.B., C.M.Aberd., appointed Assistant-Surgeon to the Royal Infirmary, Aberdeen.

SMITH, Mr., appointed Medical Officer of Health for the Ampthill Urban Sanitary Authority.

SMITHIES, Joseph Jackson, L.F.P.S.Glasg., L.R.C.P.Edin., reappointed Medical Officer of Health for the Gisburn District of the Clitheroe Union.

SPOWART, William Ribton, B.A., M.D.Dub., L.R.C.P.I., reappointed Medical Officer for the No. 8 District of the Norwich Union.

STACEY, John Herbert, L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer for the No. 6 District of the Norwich Union.

SYKES John Frederick, M.B., B.Sc., reappointed Medical Officer of Health for the Parish of St. Pancras.

TETLEY, F. Harrison, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for the Wangford Urban Sanitary Authority, *vice* Thomas Garneys, M.R.C.S.Eng., deceased.

THOMAS, J. T., L.R.C.P.I., L.R.C.S.Edin., appointed Medical Officer for the Magor Sanitary District of the Newport, Mon., Union.

TOWNSLEY, Dr., appointed Medical Officer of Health to the Ardsley Local Board.

TURNER, J. A., M.B., C.M.Edin., D.P.H.Camb., reappointed Medical Officer of Health to the Melton Mowbray Local Board.

WEST, J. T., M.B., C.M.Aberd., appointed Non-resident House-Physician and Surgeon to the Hospital for Sick Children, Aberdeen.

WILLIAMS, Mr. G. R., appointed Medical Officer for the Fourth District of the Henstead Union.

WOODHOUSE, William, M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the No. 1 District of the Norwich Union.

YOUNG, Meredith, M.B., C.M.Edin., Medical Superintendent of Brighouse Joint Hospital, appointed Medical Officer of Health for Rastrick.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. A. Ernest Sansom: The Irregular Heart—a Clinical Study.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Dr. A. H. N. Lewers: On some points in the Supravaginal Amputation of the Cervix Uteri for Cancer, with special reference to the methods adopted in cases where, for two years and upwards, the disease has not recurred. Dr. A. Haig: The Effects of the Iodides on Arterial Tension and the Excretion of Urates.

WEDNESDAY.

HUNTERIAN SOCIETY, 8.30 P.M.—Pathological Evening. Dr. James Galloway: Protozoa as Causes of Disease, with lantern demonstration. Dr. Arnold Chaplin: Specimens showing Induration of the Lungs. Dr. Charlewood Turner, Mr. C. J. Symonds, and Mr. J. Poland will also exhibit specimens.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, 8.30 P.M.—Mr. Field: The Harveian Lectures: Pathology and Treatment of Suppurative Diseases of the Ear. Lecture III.

NEUROLOGICAL SOCIETY OF LONDON, National Hospital for the Paralysed and Epileptic, Queen Square, 8.30 P.M.—Clinical meeting. Dr. Batten (introduced by the President): Facial Hemiatrophy. Dr. Buzzard: Case with Anomalous Nervous Symptoms. Dr. Pitt: Muscular Atrophy with Hypertrophy of Neck Muscles. Dr. Ferrier: Syringomyelia and other cases.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

EADES.—On November 29th, at 58, Carr Street, Ipswich, the wife of S. O. Eades, L.R.C.P., etc., of a son.

MARRIAGE.

DOWNIE—OGILVIE.—At Edinburgh, on December 6th, by the Very Rev. Jas. MacGregor, D.D., Kenneth Mackenzie Downie, M.D., Bengal Medical Service, to Margaret, youngest daughter of the late James Ogilvie, Esq., of 18, Buckingham Terrace, Edinburgh.

DEATH.

WATTS.—November 29th, at Redholme, Cambridge Road, Bournemouth, Dr. Thomas Watts, M.R.C.S., L.S.A., late of Frampton-on-Severn, Gloucestershire, aged 70.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. Th., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, Tu. Th., 2.30; Ear, M. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, Tu., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, W., 8.45; females, Th., 8.45. *Operation Day.*—Tu., 2.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), Tu., 4, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th., 1.30; S., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

UNDER THE SOUTHERN CROSS, who resides in Australia, wishes to hear of a good and economical school for girls in a small town in Germany.

MEDICUS wishes to hear of an institution, in Scotland by preference, where a boy, aged 10, who is intelligent and healthy and not deaf but has never spoken, could be received and educated to enable him to earn his living, and the probable expense.

M.R.C.S. asks for advice in the treatment of an obstinate case of incontinence of urine (nocturnal) in a girl, aged 8. Belladonna, strychnine, potassium bromide, lycopodium, and various tonics have been tried for long periods, alone and in combination, with only temporary improvement. All bad habits can be eliminated. The girl is of neurotic temperament.

ECONOMY IN THE SOUTH OF FRANCE.

ENQUIRER would be glad if any member could inform him of any localities in the south of France where a lady and gentleman ordered to winter abroad could obtain accommodation on very moderate terms. Some quiet village in sheltered position would suit.

NITROUS OXIDE GAS APPARATUS

W.V.M. asks to be recommended the most suitable apparatus for the administration of nitrous oxide gas for a country practitioner. It may be required perhaps a dozen times in the year. Also what is the best book to read as to its proper administration.

EXCESSIVE SWEATING.

KISMET HAKIM asks for advice as to the treatment of the following case. A lady, aged 80, ten years ago had a severe attack of congestion of the lungs. Since then she has had a discharge of fluid on the skin. It does not smell of sweat, but is so excessive as to cause her to change her garments twice and sometimes three times in the night. To add to her troubles she has senile cataract.

COLONIAL PRACTICES.

AN INDIAN ARMY SURGEON IN INDIA, who contemplates leaving the army, and is desirous of proceeding to Australia, New Zealand, America, or the Colonies with a view to practice, asks for precise information regarding the prospects of practising in any one of these countries. He mentions that he has a wife and two children, is already well experienced in private practice, and would have about £1,000 at his disposal for the purchase of a practice.

INFECTION AND DISINFECTION.

M.R.C.S. asks (1) Is it possible for the surgeon to convey the *materies morbi* of pyæmia from a case in which no wound whatever exists to patients with recent wounds, or to puerperal women? (2) What quarantine should be observed after a visit to a case of erysipelas or other infectious disorder before attending a confinement if the clothes have been changed and efficient antiseptics used?

*** 1. It is not likely that infection could be carried where no wound exists; but it would be safest to change the clothes, and employ antiseptics. 2. If clothes are changed, and efficient antiseptics used, no quarantine need be observed. Everything depends, however, on the efficiency of the antiseptics, and the way in which they are employed.

THE LITERATURE OF IMMUNITY.

SENEX writes: Would you kindly name in your next week's issue the literature necessary to know all that is at present known regarding "immunity."

*** The literature of immunity is very extensive, and will involve a good deal of study. It would include: (1) Textbooks on Bacteriology

by Flügge (translated into English, Sydenham Society), Fränkel (last German edition; a new edition about to appear next year), Baumgarten. (2) Various papers by Metschnikoff, *Annales de l'Institut Pasteur*. (3) Monograph by Lubarsch on Immunity (German). (4) Various papers by Behring in the *Deutsche medicinische Wochenschrift* and *Zeitschrift für Hygiene*. *Ibidem* papers by Kitasato and by Behring and Kitasato jointly. (5) Numerous papers by various authors in the *Centralblatt für Bakteriologie und Parasitenkunde*. (6) Various papers by Hankin in the British Medical Journal and *Proceedings of the Royal Society*. (7) A paper by Adami in the *Medical Chronicle (1891)* on Immunity, where a good bibliography will be found. (8) Discussion at the International Congress of Demography, London, 1891. (9) Discussion at the Pathological Society of London, February and March, 1892, which will appear shortly in the next volume of the *Transactions*. (10) Papers by Bouchard and Tizzoni in Virchow's *Festschrift*. Our correspondent should read the *Centralblatt für Bakteriologie*, say for the last five years, where good abstracts of the best papers are always given. It is quite impossible in the space available to mention the literature necessary to learn all that is at present known regarding immunity. Besides the textbooks mentioned, we should recommend especially the *Annales de l'Institut Pasteur*, *Centralblatt für Bakteriologie*, *Zeitschrift für Hygiene*, *Deutsche medicinische Wochenschrift*, 1890-92, *Berliner klinische Wochenschrift*, 1892, Lubarsch's paper on Immunity, where he will find a very complete bibliography. In the above journals he will find the most important papers and abstracts of papers by Metschnikoff, Buchner, Behring Kitasato, Tizzoni and Cattani, Brieger, Wasserman, Hankin, Petruschky, Emmerich, Klein, Bouchard, Roux, Nuttall, Nissen. He should make himself familiar with the works of all these.

Congenital "Erythema."

E. F. P. asks whether it is a common occurrence for children to be born with erythematous patches on the face, and whether it is usual for them to disappear spontaneously, or what treatment is necessary. A female infant, well developed, and apparently quite healthy, was noticed at birth to have an erythematous condition of the skin of each upper eyelid, and a similar disfigurement of the upper lip, centrally situated, extending from its margin to within a line of the nasal orifices, and about one inch in width. The marks are well defined, and disappear momentarily on pressure.

ANSWERS.

M.D.—Patients recovering from scarlet fever are received at the Mary Wardell Convalescent Home for Scarlet Fever, Stanmore, Middlesex.

W.H.—The *Clinical Journal* is published by Mr. E. Knight, 18, Middle Street, Aldersgate, E.C.

Dr. W. G. McDowell (Harlesden, 'N.W.) believes that either "A.E.N." or "S.W.C." would find the home they require for their patients in the house of Mr. Ingram, Morningside, Craven Park, Harlesden, N.W.

M.D. writes: "A. E. N." says nothing about terms beyond the vague expression, "a not exorbitant sum." For very moderate terms "A. E. N." can find what he wants at The Shrubbery, Southall, a private house superintended by Miss Rosser.

Transylvanian.—The case is one in which the General Medical Council cannot act until the medical bodies to which Dr. E. is attached have expressed their opinion. "Transylvanian" should therefore communicate with those bodies.

Irritable Urethral Caruncle.

Mr. Walter Charles Aylward (Tunbridge Wells) writes: The application of a mixture of of equal parts glycerine and acid carbol. liq., at intervals of four days (suggested, I think, by Whitla), proved a complete success in a case recently under my care. The application causes rather severe smarting pain for a few seconds, but this is soon followed by local anæsthesia.

Modified Barnes's Bags.

Messrs. Evans and Wormull (Stamford Street, S.E.) write in reply to "P.N.'s" inquiry *re* Steel's modification of Barnes's bags: These bags are made with collapsible corners, which, when not in use, are drawn into the bag by india-rubber springs, and are fully distended on being blown out by the syringe. We send you a sketch to illustrate our meaning.

Persistent Hiccough.

Dr. A. M. T. Rattray (Portobello) writes to say that in one very obstinate case he found musk succeed after many other remedies had failed. He prescribed: moschi gr. vi, sod. bicarb. gr. viii, magnes. carb. lev. q.s.; make a powder, six or one dozen, and take a powder in water every two or three hours while hiccough continues.

Practice in Cairo.

M.D., M.R.C.S.—We are informed that: 1. No English doctor without considerable capital would have any chance of making a living in Cairo. 2. The nature of the qualification is quite immaterial. L.S.A. is just as good as M.R.C.P. The man with the most remunerative practice at present only holds the former. 3. No examination has to be undergone, but candidates must produce their diplomas, together with certificates of respectability, before the Sanitary Department will issue its licence. 4. Living and house rent are both enormously expensive in Cairo, though the latter has decreased of late. A small "flat" costs £120 per annum unfurnished. Among the principal British practitioners in Cairo are Drs. Grant Bey, Crookshank Pasha, Rogers Pasha, Laffan, Sandwith, Murison, Keatinge, Scott, etc. There are also innumerable foreigners.

NOTES, LETTERS, Etc.

Proposed Medical Aid Society.

"Arrangements," says the *Surrey Times*, "are being made to establish a medical aid society for Wyke and Normandy on lines similar to those which prevail at Frimley, where a capital society flourishes. Recently Mr. W. Chance, J.P., and the Rev. W. Basset (Rector of Frimley) attended a private meeting at Colonel Wavell's residence, at which medical gentlemen were present and explained the scheme, which is of great benefit to the poor."

A Ventilating Hat.

The "X.L." hat shows some considerable improvements in design and manufacture. It has an excellent system of ventilation, the leather being secured to the hat in a manner which leaves them loose all round where they fit the head, and which makes the hat cool, remarkably light, and pleasant to wear. So light and well-ventilated a hat deserves commendation on hygienic grounds. We have not seen any so well devised or likely to be so healthy in wear. The hat is made by Messrs. S. Marshall and Co., Stockport Road, Denton, near Manchester.

"Sixpenny Doctors" and Vaccination.

Dr. C. R. Illingworth (Accrington) writes: A more satisfactory state could be brought about, I think, by several methods. First and most thoroughly by new legislation, either prohibiting vaccination by any but duly appointed public vaccinators, or enforcing the registration of vaccination of all practitioners, with supervision by a larger staff of inspectors holding powers of suspension for persistence in incomplete vaccination; or separating the public vaccinator from private practice, with an adequate salary, to vaccinate all who come to him, and charge those only upon whom he is summoned to attend a fee according to their means and position. The other method is by the addition to the ordinary certificate after the words "vaccinated by me" of the words "with insertions of lymph in four separate places."

Clear as Crystal.

Truly has it been said that the world is neglectful of its great men. The Old and the New Worlds have both been in great alarm about the cholera, which has been ravishing great empires in the one and threatening to invade the other. Vain alarms! It appears that there is actually among us a hitherto unknown individual who, according to the *Times*, can cure 95 per cent. of cholera cases after experimenting in Hamburg, "mainly at first upon moribund cases." But this is not all; we have still more blessings to be thankful for. The new remedy of "cristals" is also "a powerful nerve tonic," and possesses such additional and untold virtues that it is being tried upon "various ailments, native and imported from various parts of the world!" But the wonders do not end here. So powerful is the influence of this latest nostrum that if the allegations made were well founded it might be held to have involved even Sir A. Clark and Dr. Lauenstein of Hamburg within its sphere of action. Sir Andrew Clark had already repudiated in our columns the misuse of his name made in connection with this affair before this article appeared, and now Dr. Klein writes to protest. If cholera has been disarmed of its dangers and reduced to the standard of a trivial ailment, how is it that the medical men who are stated to have associated themselves with the experiments are silent? Why is the publication of the marvels worked in medical wards in curing cholera left to the daily papers? This latest wonder-boom originates with a London civil engineer or sanitary surveyor. It is deeply to be regretted that the press should allow their columns to be thus abused for advertising in a covert way. There can be few papers who have not scientific advisers who could save them from these pitfalls.

To Those going to the Colonies.

M.B. writes to us that he has just returned from Australia after some years' practice there. He would strongly advise those thinking of such a step to take better advice than the information to be gained from "Government offices, Colonial newspapers, directories, and emigration hand books." "Up-country" practice is a very hard life, the expenses are very heavy, and the majority of people very poor, nearly everything being in the hands of the banks. The majority of the poorer classes are club patients, and competition for the latter is so keen that in many cases they pay lower rates than are to be obtained in England. Wages are very heavy; a good groom can get 30s. a week, and found in everything, and female servants corresponding amounts. House rent is very heavy, and other expenses on the rise. Some years ago "up-country" practice was certainly remunerative, but such is not the case now. There are three medical schools in Australia, and one in New Zealand, and the cry "Australia for the Australians" is now beginning. Quacks abound in every district, and almost any foreign diploma is registrable. He therefore advises great caution to intending emigrants. Every steamer brings home disappointed and unsuccessful men.

The Clergy Hostel.

Dr. T. Unicume (Headcorn) writes: The paragraph on page 1267 of the British Medical Journal of December 3rd on Medical Aid for Poor Clergymen is an instance of vicarious charity indeed. But this time it goes further and is episcopal. How regretful that nearly all the great specialists have given their honorary services. This gratuitous work it is which keeps our profession down and prevents its advancement. The work these men will do in this hostel represents income and capital both. And when they do not get the pay it means that all down through the ranks of the profession we are minus that amount. And it has been given, deliberately given, to a body of men with an assured income of ten millions a year. The high episcopal patrons would do much better to provide for the poorer members of their profession. It is hardly manly to put off upon already heavily-weighted shoulders this additional care. And I call upon the Episcopal Bench to provide that none in the clerical ranks, high or low, shall call our best men inhuman devils. That is not manly either.

The Accomplishments of an Alienist.

Insanity writes: Your correspondent, Mr. Farquharson believes that "the status of asylum medical officers is as high as that of any branch of the profession." It may be so, but the assistant is not, and in most cases has no prospect of becoming "the medical officer." I repeat that the assistant has no legal existence, and is virtually outside the pale of the profession. He exists simply and solely for the convenience of the superintendent, without whose permission he cannot prescribe a rhubarb pill, and in whose hands are his outgoing and his incoming. Not one of the innumerable statistical and other reports now required from asylums, if signed by one assistant, is worth the paper it is written on. All the work he does—be it much or be it little—is credited to another man; and no professional merit or length of faithful service makes any real improvement in his position. Such being the legal and official status of the assistant, it is almost needless to add that his pay and his social standing are in most cases of a corresponding kind. If, notwithstanding these facts—and they are facts—your correspondent has found his status "as high as that of any branch of the profession" he is greatly to be congratulated. For one man who has had his happy experience there are half a-dozen who bitterly rue the day they first darkened an asylum door as assistants.

Kissing the Book.

With reference to our recent articles on this subject the *Yorkshire Herald* writes: "There are signs that the old custom of kissing the book is going out of fashion. Mention was made the other day of the fact that the newly-appointed coroner for West London had abolished the practice, and it is now reported that the house surgeon at Guy's Hospital has, at his own request, been relieved from conforming to it. This gentleman seems to have objected to kissing the book on the ground of danger of infection, and his objection was allowed. He was permitted to hold up his right hand and was then sworn in the Scotch fashion. It is probable that the risks of infection from kissing the book are very much exaggerated, but no one who has seen the well-worn volume which is used in some of the courts can aver that it looks altogether wholesome. There is a growing opinion that it can be dispensed with and that the interests of the community will not in any respect suffer from the substitution of a different mode of taking the oath."

A Sign of Stillbirth.

A. C. Moreno gives, in the *Boletin Medico de Puebla* for August, the following as an "infallible" method of determining whether a dead infant has breathed or not. He says the ciliated cylindrical epithelium of the respiratory tract extends down to the terminal bronchioles, where it becomes cubical. In an infant which has never breathed this cubical epithelium will be found present, but as soon as respiration begins it is transformed into flat epithelium. The change, according to the author, is not a mechanical but a physiological one. Hence he says it would be possible, with the help of the microscope, to determine whether an infant whose lungs contained air had drawn the air in by inspiration or whether it had been forced in during attempts at artificial respiration. No doubt the cubical cells become flattened as they have to cover a wide area. No doubt also this is more marked after breathing has occurred naturally; natural respiration is in all ways more effective than artificial; it is impossible, for instance, to express the imprisoned air after natural breathing, so it is not at all surprising that the accompanying change in the epithelium is more marked also. We fail, however, to see the proof that the change is a physiological, not a physical one. Granting it is, the presence of two kinds of epithelium even in the adult alveoli—one flat, the other cubical—would always make the test unreliable except to the practised histologist.

LETTERS, COMMUNICATIONS, Etc., have been received from:

(A) D. W. Aitken, M.B., Edinburgh; Mr. D. Ainley, Halifax; Mr. H. E. Armstrong, Newcastle-on-Tyne; F. B. Archer, M.B., Barbados; Mr. T. K. Atkinson, Kingston-on-Thames; Mr. A. M. Anderson, Dundee; Dr. C. M. Allfrey, St. Leonard's-on Sea; Mr. G. H. Ambler, Liverpool; Messrs. Armour and Co., London. **(B)** Dr. W. J. Burrell, Oxford; Mr. H. T. Battersley, Meerut; S. Barwise, M.B., Derby; Mr. C. J. Bond, Leicester; Mr. E. A. R. Ball, London; Mr. W. L'H. Blenkarne, Leicester; Mr. J. Brunton, Sorrento; Mr. A. H. Beal, London; R. Banks, M.B., Belford; J. E. Bowser, M.B., Penrith; Dr. L. Brunton, London; Dr. J. W. Ballantyne, Edinburgh; Beta. **(C)** Dr. Custor, British Guiana; E. S. R. Cadman, M.B., Horsley; Dr. R. E. Coles, London; Dr. A. H. W. Clemow, London; Mr. J. W. Coombs, Bridgwater; Mr. W. F. Clayton, London; J. G. Corkhill, M.B., Kirkdale; Mr. J. S. Cameron, Leeds; F. W. Collinson, M.B., Preston. **(D)** Dental Hospital of London, The Secretary of the, London; A. E. Dutt, M.B., Whitby; Dr. T. Deville, Harrogate; Dr. A. T. Davies, London; Mr. A. E. Davies, Liverpool; Dr. R. Davidson, Halifax; Messrs. Dodd Bros. London. **(E)** Mr. J. E. Erichsen, London; Eyepiece; Mr. H. S. Elliott, Southsea; Mr. S. Eades, Ipswich. **(F)** Mr. G. P. Field, London; Mr. S. Fleming, London; Mr. F. J. Freeland, London. **(G)** Dr. H. R. Greene, Portsmouth; Dr. J. A. Goodchild, Bordighera; Dr. W. A. Gothing, Barningham. **(H)** Mr. C. H. Haycroft, Bow, North Devon; T. L. Hart, M.B., Sydenham; Humanitas; T. E. Hughes, M.B., London; Dr. G. Henty, London; Dr. J. Holmes, Whitefield; Mr. A. W. Harris, Southampton; Mr. T. E. Hepworth, London; Dr. Hale, Barrow Hill; Dr. G. E. Herman, London. **(I)** Dr. J. Irwin, New York; J. Irving, M.B., Huddersfield. **(J)** Dr. W. Jones, London; W. Jones, M.B., Dolgelly; Mr. M. Johnston, Manika. **(K)** Dr G. C. Kingsbury, Blackpool; Dr. P. Y. Halsky, Moscow; Mr. J. E. Key, Old Hill; Mr. T. G. Koelridge, London; Mr. P. Q. Karkeek, Torquay. **(L)** Dr. J. T. N. Lipscomb, St. Albans; Dr. J. Kera Love, Pollokshields; Dr. D. Lowson, Hull; L.R.C.P.Lond., M.R.C.S.Eng; Messrs. Longman and Co., London; Rev. F. Lawrence, York; Dr. A. E. Lloyd, Rhyl; Dr. T. Lyndon, Wicklow; Mr. J. W. Lee, London; Mr. W. L. Liston, Tewkesbury; Messrs. Charles Letts and Co., London. **(M)** A Member; Dr. F. H. Mead, Taunton; Dr. W. G. McDowell, London; Mr. T. D. Meade, London; V. Morgan, M.B., Narberth; Dr. J. Murphy, Sunderland; M.D., M.R.C.P., L.R.C.S.Edin.; Medious; Dr. E. S. Reynolds, Manchester; Mr. M. McHardy, London; Dr. J. Meredith, Wellington. **(N)** Dr. J. Neill, Oxford; Mr. P. Newell, Crowborough; Mr. T. G. H. Nicholson, Liverpool; Messrs. Newton, Chambers and Co., London. **(O)** Officer. **(P)** Mr. T. Palmer, London; Mr. B. H. Paul, London; Dr. R. W. Philip, Edinburgh; Mr. A. T. Powell, Edinburgh; Mr. L. Phillips, Birmingham; Dr. Paul, London; Mr. O. J. Prince, Sidcup; Mr. F. Pilkington, Littlemore; Mr. E. F. Page, Solihull. **(R)** Mr. H. W. Randolph, Milverton; Mr. Mayo Robson, Leeds; Mr. R. T. Richardson, Tunbridge; Dr. W. B. Ransom, Nottingham; W. Rogers, M.B., Cockermouth; Mr. R. Roberts, Isallt; Dr. E. Ramage, Edinburgh; Dr. G. Reid, Stafford. **(S)** Mr. F. Spurgin, London; Mr. S. Snell, Sheffield; Mr. D. C. Smiley, Belfast; Mr. T. E. Stuart, Harwich; Dr. S. T. Smith, Southsea; C. E. Shelly, M.B., Hertford; Mr. J. B. Smith, London; Dr. R. Saundby, Birmingham; Dr. Savage, London; Mr. J. B. Sutton, London; Dr. C. S. Sherrington, London; Mr. J. Startin, London; Mr. H. W. Scratchley, Pinner. **(T)** Dr. W. E. Thompson, London; S. J. Taylor, M.B., Norwich; Mr. E. M. Taylor, York; Mr. E. J. Tilt, Torquay; Dr. M. H. Tootle, London; Dr. G. S. Taylor, Liverpool; Dr. J. W. Tatham, Manchester; Messrs. F. Times and Co., London. **(U)** Dr. T. Unicume, Headcorn. **(W)** Dr. W. Hale White, London; J. W. Watson, M.B., Wolverhampton; Mr. A. Wheeler, Darlington. **(Y)** Dr. M. Young, Brighouse.

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*** In forwarding books the publishers are requested to state the selling prices.

CLINICAL REMARKS
ON
INTESTINAL OBSTRUCTION: SOME CURIOUS CASES.

By GEORGE BUCHANAN, M.A., M.D., LL.D.,
Professor of Clinical Surgery in the University of Glasgow.

Diseases of the rectum are, of all surgical affections, among those which are most frequently neglected in their early stages, and so are allowed to assume a condition of considerable gravity before treatment is resorted to. This arises from various causes. Many persons, especially females, have great disinclination to have that part of the body made the subject of observation and examination, till compelled by their suffering to resort to a medical opinion; at least, that has often happened in my experience. Again, many imagine that all disorders of the intestinal tract arise from indigestion, biliousness, or habitual constipation, which they imagine can be removed by the use of familiar laxative medicines, and these they use with all diligence till they prove ineffectual; and if by pain and other discomfort they feel that there is something wrong at the lower end of the bowel, they assume that it is "a touch of the piles," which can be cured by some of the pills and ointments so frequently advertised. One can scarcely take up a newspaper, especially provincial, colonial, or American, without observing the numerous advertisements of remedies vaunted as cures for such ailments; and I believe that the extensive use of these arises from the disinclination, to which I have referred, to submit these complaints in the first instance to the regular practitioner.

But while this is so, not infrequently neglect of radical treatment can be traced to errors in diagnosis, sometimes, though not always, the fault of the medical attendant, who is apt to be thrown off his guard by erroneous descriptions of the symptoms given by the patient. One or two examples of this will follow.

The term "intestinal obstruction" in the present day is used rather vaguely. Under it are included cases presenting symptoms, or groups of symptoms, which are present when there is real occlusion of the intestinal tube, but which are sometimes present when there is no actual obstruction at all, but which depend on some functional deficiency, such as loss of the peristaltic action of the bowel, either with or without flatus; of that I have seen several instances. In a discussion which took place in the Medico-Chirurgical Society of Glasgow last winter on intestinal obstruction, numerous examples of spontaneous recovery were cited, and some of these in circumstances which precluded the idea of there having been even temporary local occlusion of the tube. I mention these to point out that such instances were not recoveries from actual intestinal obstruction, but from symptoms identical with those of that condition.

Taking the term in its strict etymological sense, the most constant and obvious symptom is inability to pass fæces; but in the great majority of cases, symptoms of far graver import come on, long before that is of any importance. It is just in cases in which these serious symptoms, such as obstinate vomiting and failure of the vital powers, are early prominent, that spontaneous recoveries have been most frequent. It is also this fact that renders the question of operative interference so difficult to decide.

The foregoing observations, which are applicable to intestinal obstruction generally, are more or less illustrated in the following examples.

Case I. *Symptoms of Obstruction: Peritonitis with Effusion: Abdominal Section: Recovery.*—Some years ago I was called to see a domestic servant, aged about 30, suffering acute symptoms of intestinal obstruction, which had come on rather suddenly after a heavy meal some twenty-four hours before. Pain in the abdomen; obstinate vomiting, stercoraceous; cold skin, flagging pulse; no flatus. I could not form any accurate diagnosis, but felt satisfied that there was no course open to me but abdominal section. The patient's father, being summoned from the country, agreed; the patient, who was quite conscious, acquiesced; and I did the operation. No obstruction could be found, but the peritoneal cavity was full of acrid greenish effusion, and the bowels partially glued together with recent lymph. I washed out the cavity with a stream of tepid water. The patient made a rapid recovery, and is now the mother of a family.

Case II. *Symptoms of Obstruction: Abdominal Section: No Discoverable Cause: Death.*—Shortly after that I was called to see a young lady, aged about 20, with symptoms somewhat the same, but not so rapid or acute. There was no flatus, but the vomiting was continuous and non-stercoraceous. I performed abdominal section. There was no obstruction; the intestines were quite flaccid, and contained very little fluid; and the peritoneum was quite healthy. She did not get better, and died next day.

Case III. *Symptoms of Obstruction: Apparent Failure of Enemata followed shortly by Relief, and Recovery.*—Some years ago I attended an old gentleman with symptoms of intestinal obstruction. Constipation had existed for some days, and now there was pain in the abdomen, flatus, and obstinate vomiting. I carefully examined the rectum to ascertain if there was any local occlusion, and I frequently washed it out with tepid water, using a long tube and a forcing pump. There was no evidence of any fæcal impaction, the water returning as it was introduced. I could not find any indication of any precise situation of any abnormal condition of the intestinal tube, but, as the symptoms were becoming more grave, I proposed abdominal section as a last resort. The patient, who was very intelligent and quite conscious, agreed, but asked me to bring in consultation a physician with whom he was acquainted. I did so with great willingness, and we agreed that, if he should have the same opinion as I had, the operation should be done at his visit. I returned with my friend three or four hours after, when to my surprise I found my patient greatly relieved. He had had a copious evacuation in the interval, and the vomiting had ceased. He made a rapid and good recovery.

Case IV. *Obstruction: Suspected Epithelioma: Removal of Impacted Fæces: Rapid Recovery.*—A short time ago I had an urgent message to go to the country to see a lady, about 30 years of age, suffering from symptoms of obstruction. She had been troubled with constipation for some time, accompanied with much pain in the rectum. Latterly, the pain in attempting defæcation was so great that, practically, she had passed nothing for some time but discoloured mucus and sometimes blood. For some days she had been troubled with vomiting whenever she took any nourishment, which was only a small quantity of milk, and now she was afraid to swallow anything. Her medical attendant, under the impression that it might be a case of chronic intestinal obstruction from some abnormal condition of the alimentary canal, had sent for a physician in consultation two days before. He, discovering that the symptoms arose from some obstruction in the rectum, endeavoured to make an examination, but the pain on introducing the finger was so great, that the patient would only allow a very partial exploration to be made, either *per rectum* or *per vaginam*. Enough was felt to lead to the opinion that the rectum was occluded by an epithelial growth, which extended far up the gut and bulged the recto-vaginal septum far into the vagina. He gave as his opinion that some surgical operation was urgently demanded—either excision of the rectal tumour, or the making of an artificial anus. Accordingly I was sent for, and went prepared for any operation I might find necessary. As the patient could not suffer a preliminary examination, it was arranged that I should put her under chloroform, make a thorough examination, and proceed as I might find matters required. But as the operation contemplated, whether the one or the other, was of a most formidable kind, I explained to the patient and to her husband and father the nature of the case as it was represented to me, and that in the one case the operation might be immediately fatal, and in the other could not be looked on as anything more than a palliative proceeding, giving relief from suffering for a time, but with the not improbable return of the disease at no very distant date. They quite understood my representation, and were at one in accepting the position.

The medical attendant had secured the assistance of two other fellow practitioners, so that I was prepared for any proceeding however formidable. The patient was placed on a table, and put under chloroform till she was completely unconscious. On introducing my finger into the rectum I found it occluded by a large mass of firm unyielding material, either adhering to or firmly grasped by the walls of the bowel. But it had not the feel of an epithelioma. It was smooth and globular. I could not tear it with my finger, and there was no channel through it for fæces to pass through, and it did not bleed. I had no doubt it was a mass of hardened fæces, and the smell from my finger nail made it certain. I now with my thumbs dilated the sphincter ani as far as it would stretch, and, getting a horn spoon, tried to lever it out. It was too large and firmly fixed for that. The medical practitioner, who lived in the adjoining house, went for his obstetric bag, and I chose a long, narrow-bladed fenestrated forceps, which is used in some obstetrical manipulations connected with craniotomy. I passed a blade on each side, and, by putting on firm traction, removed a large globular mass of firm tough material as large as a full-sized orange. Another mass as large as a turkey's egg was impacted above that, and was removed in the same way. A third the size of a hen's egg was impacted still higher up, and that was also removed, and the passage was cleared. I now injected a basinful of soapy tepid water, which came away with a few bits of scybala. I need not say that next day the patient was practically well, and she has remained so ever since.

Case V. *Obstruction due to Impacted Fæces.*—Another case of nearly a similar nature occurred last winter. I was summoned late at night to see a man who had had a short attack of obstruction for some time, but on the day I saw him had vomiting come on. The medical attendant believed that the rectum was obstructed by an epithelial growth, and called me to perform some operation for its relief. On examination I found that the rectum was blocked by an enormous mass of hardened fæces. As the house was not suitable for operation and the symptoms were not dangerous, I gave a subcutaneous injection of morphine, and ordered the patient to be sent in the morning to my ward in the Western Infirmary, and next morning, before my clinical class, broke up and removed the mass, which was about the size of two closed fists.

Case VI. *Obstruction due to Impacted Masses of Calcined Magnesia.*—A third case, which occurred some years ago, I mention from the unusual nature of the obstructing mass. It was composed of hard masses, the size of walnuts, with facets caused by long mutual pressure. They were concretions of calcined magnesia, which the patient had long been in the habit of using as a laxative. I then recalled that, when I was a student in

the materia medica class, we were cautioned against allowing patients to use calcined magnesia habitually.

It is not often that an opposite error of diagnosis occurs, but the following case is a good illustration:

Case VII. *Diagnosis of Epithelioma: Revised Diagnosis of Intestinal Atony: Recovery.*—A middle-aged gentleman, of sedentary habits, had for many months suffered from some anomalous symptoms—indigestion, flatulence, occasional vomiting, and obstinate constipation, alternating with looseness, the stools being often simply discoloured mucus. His medical man had ordered some tonic remedies for dyspepsia; but, as he did not improve, he, without telling his regular attendant, consulted a surgeon with whom he was personally acquainted. The surgeon examined him *per rectum*, and told him that he had an epithelial growth far up; that it was out of reach of any operation for its removal; that there was no hope of his recovery; that his progress downwards would be gradual; but that at no distant date he must decide whether he would submit to undergo an operation for the formation of an artificial anus or await his end, which could not be very far off. His medical attendant was unable to acquiesce in this opinion, and, before accepting it, brought him to me. I made a most careful exploration of the rectum, but I could find no growth, stricture, or any kind of obstruction; indeed, the mucous membrane seemed to me more flaccid and folded than usual, and in one of the folds I felt a small piece of hardened fæces, which seemed adherent or retained in the fold. I came to the conclusion that the symptoms arose from atony of the intestinal tube from end to end, with possibly some softening, in parts, of the mucous lining, and specially of the lower end of the colon and rectum. I recommended that he should give up business for two or three months and go to Spa in Belgium, and gave him a letter to my friend Dr. Thomson, indicating my opinion and the treatment I thought would benefit him. The result proved more fortunate than I could have anticipated from the use of the chalybeate waters and the change of climate and diet. My patient came home practically well, and has continued so ever since: that is, for more than two years.

I may here state that many patients with atony and relaxation of the mucous tracts—especially the bladder—whom I have sent to Spa have been, if not absolutely cured, at least greatly improved by the use of the chalybeate waters and baths; but now that Brides-les-Bains, in the Alps of French Savoy, is connected by railway with Chambéry on the great railway to Turin, and is within two hours of Aix-les-Bains, I should be inclined to recommend it, even in preference to Spa. Its advantages are its height above the sea, its warm sunshine during the day, its cool refreshing nights, owing to the crisp air from the neighbourhood of the glaciers, and the great strength of its ferruginous spring at Salins, which contains a large amount of chloride of sodium. Also the presence in the same place of a natural hot saline laxative spring, the use of which in the morning counteracts the tendency to constipation which sometimes follows the use of chalybeate baths, which are usually taken in the afternoon.[1]

POISONING BY SARDINES: A TOXIC PTOMAINE.

By THOMAS STEVENSON, M.D., F.R.C.P.

Official Analyst, Home Office; Lecturer on Medical Jurisprudence and Chemistry, Guy's Hospital.

On October 23rd, 1892, W. H., a military officer, aged 21 years, whilst apparently in good health, made his breakfast, at 10.30 A.M., off six hot sardines on toast, with coffee. A fresh tin of the fish was opened, and one of the female servants who prepared the breakfast ate one sardine without ill effect. The rest of the tin of sardines came into my possession six days later. W. H. said that the fish tasted nasty. At lunch the same day he complained of feeling unwell, took no meat, but ate some apple tart, and caviare, and drank brandy and soda water. After lunch he retired to the latrine, and vomited. He had supper at 7.30 P.M., and vomited again after retiring to bed. This vomit was reserved for my analysis. He passed a sleepless night. Next morning—the 24th—he was seen for the first time during his illness at 11.15 A.M., by Surgeon-Captain Weston. He was then in bed, wrapped up in rugs, and perspiring. The pulse was weak, the breathing natural; the abdominal walls tense, but the abdomen not enlarged, and there was slight pain in the stomach. He complained of stiffness and feeling of weight in the right leg; but on examination nothing was found to account for this, and the limb was natural in size. Shortly after, at 11.30 A.M., Surgeon-Lieutenant Thomson saw the patient in consultation. A mixture containing ether was prescribed, and one dose was taken. An hour later Surgeon-Captain Weston was hurriedly sent for, and found the patient moribund. Indeed, he died almost immediately afterwards, and, though artificial respiration and other means of resuscitation were employed for an hour and a half, these were unavailing. It was then noticed that the right thigh and scrotum were œdematous.

The *post-mortem* examination was made next day. During the interval between death and the necropsy, the weather was cool and damp, the temperature of the external air not exceeding 47° F. *Post-mortem* lividity and rigidity were both well marked. The features were so much bloated as to be unrecognisable. Bloody fluid exuded from the nostrils, mouth, and ears. The whole body was emphysematous, except the hands and feet, which appeared blanched by contrast. There were large bullæ on the buttocks. The pectoral muscles were dark, and these and the whole muscular system were emphysematous. The abdomen was tense from gaseous distension. The mucous membrane of the stomach and the rugæ of the intestines were emphysematous. Posteriorly the liver was cavernous and friable, and the organ generally was hyperæmic, as were also the kidneys and the bladder, which latter was distended with gas. The heart and larger blood vessels were empty of blood, and the endocardium was blood-stained. The large intestines were normal, and the lower two or three feet of them contained solid fæcal matter. The stomach contained about 4 ounces of semifluid contents.

On October 29th, five days after the death, and four days after the necropsy, I received for analysis the opened tin of sardines, other articles of food, an almost clear watery fluid that had been vomited many hours before death, a portion of the contents of the stomach, the stomach itself, and 2½ ounces of the liver.

The sardines had no unusual appearance, and looked quite fresh; the tin itself was bright and uncorroded. Their odour was peculiar, but not offensive. Some of the fish were intensely toxic; of six white mice, which were fed on them, four died; also a rat; whilst two of the mice and a young cat, fed on two of the fish, were unaffected. One mouse, which had only a small piece of sardine, was extremely ill within an hour, and died in 3½ hours; the rat a young, white, tame animal, was very ill half an hour after eating a piece of a sardine. Two mice appeared to have immunity, for, when fed on portions of fish which had been fatal to other mice, they did not suffer. From four of the fish, weighing 2½ ounces, I extracted, by a modification of Stas's process,[1] an alkaloidal substance, which weighed only 1 milligramme (1/77 grain). About two-thirds of this, when injected beneath the skin of the back of a young white rat, caused its death within 4½ hours.

No characteristic pathogenic forms of bacteria were discovered in the sardines. A piece of one of the sardines, which when eaten had caused the death of two mice, was macerated, whilst swarming with ordinary bacteria, in sterilised (by heat) water and placed beneath incisions in the backs of two guinea-pigs, but the animals were unaffected.

These experiments point to poisoning by a toxic ptomaine, and not to the direct action of pathogenic bacteria on the animal organism.

Half an ounce of the stomach contents, containing ordinary forms of bacteria when similarly extracted for alkaloids, yielded 3 milligrammes (1/22 grain) of an alkaloidal extract. Of this, about half was injected into the back of a young white rat. The animal died in about twenty-six hours.

Two fluid ounces of the vomited fluid also yielded 3 milligrammes (1/22-grain) of alkaloidal ethereal extract. About half of this was injected into a young white rat. Next morning the animal was found dead. A similarly-prepared alkaloidal extract from 2 ounces of the liver had no effect when injected into a young white rat.

The symptoms exhibited by all the animals were similar—great feebleness, loss of muscular power, and retching. These experiments again appear to show that the stomach and ejecta of the deceased man contained a virulently poisonous ptomaine, similar in character to that contained in the sardines.

From the remainder of the three poisonous alkaloidal extracts, when mixed, a minute precipitate was obtained by precipitation with a solution of iodine. This precipitate was washed, dissolved in a solution of sulphurous acid, and on evaporation a portion left microscopic crystalline plates. Another portion of the sulphurous acid solution was evapo-

[1] Brides-les-Bains. See British Medical Journal, October, 1889, and also *Glasgow Medical Journal*, December, 1889.

[1] See *Watts's Dict. of Chemistry*, new ed., vol. i., p. 120.

rated to dryness and exhausted with absolute alcohol. The alcoholic solution on evaporation deposited microscopic acicular crystals.

A fragment of the putrid liver, swarming with bacterial life, but in which no characteristic pathogenic forms could be detected, was macerated in water previously sterilised by heat, and some of the macerated fluid was inoculated beneath the skin of the flanks of three guinea-pigs. All died within twenty-four hours. Two of the animals exhibited no particular *post-mortem* appearances. The third had much œdema about the site of inoculation, there was fluid in the peritoneal cavity, the spleen was enlarged and much congested, and the intestines were emphysematous. The œdematous fluid from the site of inoculation, the peritoneal fluid, and the spleen juice all abounded in bacilli, similar in appearance to those of malignant œdema. Some were single rods, but many were prolonged into long jointed threads. No spores were seen.

A large, old, grey, wild buck rat was now fed on the remainder of the liver—less than half an ounce. It was found dead in eighteen hours. No bacteria were found in the blood nor in the spleen juice, though this organ was congested. It will be noted that the liver was toxic to a rat, and toxic and capable of producing a malignant œdema in the guinea-pig, but that I failed to obtain from it a toxic alkaloid.

Lastly, a large, old, grey, wild buck rat was fed on a small piece of the putrid stomach of the deceased. It died in about twenty hours. No bacteria were found either in the blood or the spleen juice of this animal after death.

Remarks.—My evidence given at the inquest on the body of the deceased man, before I had experimented on the guinea-pigs, expresses an opinion which my later experiments have confirmed, and was as follows:—"My experiments show that a poison of the class produced by decomposition of animal matter was contained in some of the fish, and not at all, or not in deadly quantity, in other of the fish, and that the same poison was present in the vomit and stomach of the deceased man."

That a ptomaine and not the direct action of bacteria was the cause of the death of W. H. seems to me clear from the above experiments. Nevertheless, the facts that there was œdema of the thigh of the deceased man, and that his liver was capable of producing malignant œdema in a guinea-pig are curious. I incline to the opinion that the ptomaine was generated before the tinning of the sardines.

My thanks are due to Surgeon-Captain Weston for his care in supplying me with the history of this most interesting case, and, above all, to Dr. Washbourn, without whose aid and advice the investigation must have been more incomplete than it still is.

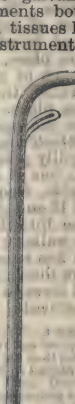
THE RADICAL CURE OF PROSTATIC OBSTRUCTION BY THE GALVANO-CAUTERY.

By W. BRUCE CLARKE, M.B., F.R.C.S.,
Assistant Surgeon St. Bartholomew's Hospital; Examiner in Surgery to the University of Oxford, etc.

Of the various surgical procedures which have been proposed during the last few years for the relief of prostatic enlargement, most have been directed to the removal of the gland itself or of some portion of it either through a perineal wound or after the bladder has been opened by the suprapubic route. When a considerable amount of enlargement exists, so that a swelling the size of a small egg can very possibly be felt *per rectum*, either with or without the introduction of an instrument into the bladder, such operations as these are not only useful, but are urgently called for. But the conditions which demand them are comparatively rare. In by far the great majority of cases the obstruction to the urinary outflow is produced by some small portion of the prostate gland, overlaid perhaps by a piece of swollen and enlarged mucous membrane. Indeed, the obstacle may be sometimes so slight that it is oftentimes overlooked after death unless it is carefully sought for at the *post-mortem* examination. Even in those cases in which the prostatic obstruction is accompanied by a considerable amount of prostatic hypertrophy, it is very often the case that the actual cause of the obstruction lies in some tiny portion of the gland, and the large mass which is so obvious when the bladder is opened has played but a small part in obstructing the urinary outflow. It is clear, then, that no operation which does not aim at making more patent the actual orifice of the prostatic urethra is likely to succeed in restoring the patient to natural urination. Some few years back, Mercier, of Paris, attempted the removal of the offending portion of the gland by means of an instrument shaped somewhat like a lithotrite, by means of which he punched out the obstructing portion of the gland. In many instances the results which he obtained were excellent for a few weeks after the operation was performed, but relapse speedily took place, and no permanent benefit ensued. I have myself tried this instrument on several occasions, but success in each instance was but temporary, and in one of them by no means complete even for a time. A short time back the same problem was attacked by Professor Bottini, who has made use of the galvano-cautery, and after numerous experiments both on the living animal and upon dead tissues he has succeeded in constructing an instrument—his "cauterizzatore termo-galvanico"—which is here displayed. (Figs. 1 and 2). In shape it resembles an ordinary lithotrite, or, to be more precise, the instrument of Mercier, and consists of a metal tube which is divided into two compartments by means of a thin septum. By this contrivance a continuous stream of water can be passed through, and thus ensure that it will not become too hot during an operation or inflict any damage on the rest of the urethra.



Fig. 1.


Fig. 2.

The galvanic current is conducted to the cautery by means of a wire which is thoroughly insulated, and passes down the inside of the tube, whilst the metal of the instrument is utilised for the return current. The cautery itself consists of a strip of thin platinum, about three-quarters of an inch in length and from one-eighth to a quarter of an inch in breadth, which is laid upon a piece of porcelain. This is sunk in the bend of the instrument, so that it does not stand up from its surface, or in any way impede its introduction into the bladder, or its withdrawal from it. It is so placed that when the beak of the instrument is turned round towards the rectum, the platinum plate rests on the obstructing portion of the prostate gland. Before introducing the instrument, it is of course essential to ascertain that a sufficient current is available to heat the platinum to a dull red heat, by which means the tissues can be destroyed without the occurrence of any serious hæmorrhage.

The period during which the heated instrument is kept in contact with the prostate is, as a rule, only fifty seconds, after which it is carefully withdrawn, and a soft red rubber catheter is introduced into the bladder and retained there for forty-eight hours. Great care is necessary, both in the removal of the one instrument and in the introduction of the other, so as not to displace the eschar which has been produced by the cautery. Bottini himself does not in all cases employ chloroform, as he finds that the operation is by no means a painful one. In my operations, however, the patient has always been anæsthetised, partly in order to avoid pain, and partly for the sake of ensuring that perfect quiet which is so essential to a successful result. So much depends on an accurate adjustment of the instrument, and on bringing the cautery into

exact apposition with the obstructing portion of the prostate, that every means should be employed of putting the patient into a position which will enable the surgeon to gauge as precisely as possible by his sense of touch the exact locality of the obstruction; and it is no less important that when the instrument is once in action no dislodgment should occur, which quite possibly might be the case were the patient not somewhat deeply anæsthetised. As a rule, but little, if any, pain is experienced by the patient when he comes round from the anæsthetic, and oftentimes until the catheter is withdrawn forty-eight hours later, but little pain is complained of; it is usually not until the instrument has been removed for a day or two, that the eschar begins to separate, and its fragments are brought away with the urine, generally without any difficulty. This process continues for about a week, and during this period there is some liability to blocking of the urethra by the sloughs, thus possibly necessitating the careful passage of a catheter. A week or two later, when the urine begins to get clear and free from sloughs, it is advisable to gently introduce a catheter for the purpose of ascertaining whether any residual urine still exists in the bladder. The rapidity with which the bladder will regain its power of expelling urine must of course depend upon the extent to which atrophy of the muscular wall has already taken place, and, to a certain extent, upon the presence or absence of previous cystitis; but it is remarkable how soon, provided the patient is fairly healthy, complete recovery takes place. It not infrequently happens that for a few days after the operation the patient is unable to hold his water satisfactorily, but this is only a temporary condition, and speedily passes off.

In one of my cases the patient had suffered with urinary trouble, frequency of micturition, etc., for about a year, and had 18 ounces of residual urine in his bladder when he first came into the hospital, and yet in less than three weeks he was walking about, able completely to empty his bladder, and has remained perfectly well up to the present time—now more than a year since the operation. The following notes will serve to indicate the course and progress of this plan of treatment:

Case I.—W. P., aged 73, came under my care in St. Bartholomew's Hospital on June 20th, 1891, complaining of urinary incontinence. He stated that for the past year or more he had noticed that his water had not passed so freely as it should do, but he had always been able to void it until April of that year, when, after a day's work which involved some prolonged stooping, he was quite unable to make water, and had to send for a surgeon to relieve him. A catheter was passed without any very considerable difficulty, and he believed himself to be all right; but the next day his testicles began to swell and he was obliged to go to bed. He suffered a good deal of pain in the testicles for several days. During the last two months he has been unable to retain his water, which has dribbled away from him, particularly at night. He has not slept well recently, and has become a good deal thinner. There is at present a slight enlargement of the prostate to be felt *per rectum*, and a metal instrument does not enter the bladder without some difficulty. Between his admission and July 8th his residual urine was drawn off regularly twice a day. It varied between 4 and 7 ounces in amount.

July 8th. Under chloroform, Bottini's instrument was introduced into the bladder and connected up with two accumulators, which it had been previously ascertained would heat it up sufficiently. The instrument was turned round so as to bring the platinum into relation with the obstructing prostate, and the current was turned on for a period of fifty seconds, after which it was withdrawn and a No. 10 red rubber catheter introduced and tied in. Dr. Morotti, Bottini's assistant, was present both at this case as well as at the succeeding one, and I am much indebted to him for the care with which he explained and demonstrated the various points of the method, for without his assistance in my early cases I should not have been able to succeed as I have done.

July 9th. Next morning the catheter slipped out, but Mr. Maund, the house-surgeon, found no difficulty in introducing a *coudé* in its place.

July 10th. The patient expresses himself as feeling quite comfortable. Urine, acid, contains some amount of phosphates and pus. The catheter slipped out a second time, but was easily replaced.

July 13th. The catheter was withdrawn, as it seemed to be causing a great deal of irritation, and the temperature had risen to 101° F. The patient feels comfortable and passes his water without inconvenience.

July 27th. During the last tortnight he has had no special trouble, but his right testicle has swollen a great deal, and to-day there is evidently some pus in connection with his epididymis and tunica vaginalis. Pus let out; boracic fomentation.

August 18th. The patient's general condition is good. He eats and sleeps well, does not get up at all at night to pass water, and can hold his water during the day for four or five hours continuously. A No. 12 catheter was passed, and no residual urine whatever was found in his bladder; the wound in his scrotum was well.

December 28th, 1891. Letter from the patient to say that he is perfectly well and able to do his work.

A catheter was passed in October for diagnostic purposes, and there was no residual urine whatever. He is well at the present time, December 5th, 1892.

Case II.—J. P., aged 58, admitted into St. Bartholomew's Hospital on August 17th, 1891, suffering from difficulty in micturition. He is a healthy-looking man, and states that he has had trouble with his water to a marked extent for the last three months, and of a slighter nature for eight or nine months more. At the present time he has to get up two or three times a night to pass his water, and can only get rid of it after a great deal of straining. On first coming into the hospital a No. 12 English instrument was passed, and after he had emptied his bladder as far as he was able by his own unaided efforts, 14 ounces of residual urine were drawn off. During the next few days the residual urine varied from 9 up to 17 ounces; the water was perfectly clear, acid, and contained no albumen. Specific gravity 1018.

August 24th, 1891. After the patient had been placed under the influence of an anæsthetic, and the bladder had been completely emptied of urine by means of a catheter, Bottini's instrument was introduced into the bladder, and the beak was reversed and pulled back until it was fixed against the obstructing prostate, the instrument being held at such an angle as to ensure this. Connection with the battery was then made, and continued for fifty seconds, cold water circulating through the hollow portion of the instrument at the same time. The instrument was carefully withdrawn, and a No. 14 soft red rubber catheter introduced on a stilette, and the stilette was withdrawn and the catheter left behind. The patient complained of but little pain during the next day or two. Forty-eight hours later the catheter was withdrawn, and he passed his water perfectly well.

August 28th. He has to strain a little to pass his water. During the night he passed a few sloughs. Urine rather thick, acid; specific gravity, 1020.

August 29th. Passes water quite easily, without straining.

September 3rd. A No. 11 red rubber catheter was passed. A slight obstruction was encountered near the prostate, but only 1 ounce of residual urine could be drawn off.

September 7th. Still passing one or two tiny sloughs, which cause occasional straining, otherwise quite well. No residual urine. Urine contains some phosphates, acid, no albumen or sugar. Seen on two occasions since, and a catheter passed. No residual urine. Feels perfectly well.

December 29th. Letter saying he is quite well.

December 5th, 1892. Still perfectly well.

Case III.—H. S., aged 67 (sent me by Dr. Harper, of Kensington). First came under my care suffering with a stricture, and complaining that he could not get rid of the whole of his urine without the aid of a catheter. He had had his stricture divided some few years previously, but partial recontraction had taken place, and only a No. 6 would pass through it. There was only a slight amount of prostatic enlargement to be felt *per rectum*, and no difficulty was experienced in passing the catheter into the bladder. Under these circumstances, treatment of the stricture was advised in the first instance, it being explained to the patient that his prostate might require treatment later on. The stricture was treated by electrolysis, and notwithstanding several slight attacks of gout which induced a considerable amount of vesical irritability, by October 7th a No. 16 English easily passed into the bladder. The water was clearer than it had been, but the residual urine still continued, and varied in amount from 4 up to about 8 ounces.

November 30th, 1891. Dr. Harper being present, and Mr. Mills administering the anæsthetic, whilst Dr. Lewis Jones assisted with the accumulators, Bottini's operation was performed exactly in the same way as in the last two cases, and a red rubber catheter tied in.

December 1st. The temperature rose to 100.4°, and there was a good deal of vesical irritability.

December 2nd. The instrument was withdrawn, and a good deal of mucus came away, with perhaps a dessertspoonful of purulent-looking fluid. The urine was only slightly acid, and large doses of citrate of potash had been administered in order to diminish the acidity, which seemed to be aggravating the vesical irritability.

December 5th. The patient was able to pass his water in the standing position, which he had been unable to do for more than a year, but though much clearer than it had been, the water was still thick and contained a good deal of ropy mucus. He had been for several hours the day before in a good deal of pain owing to the slough sticking in his urethra, and it had only been able to be dislodged by the passage of a catheter.

December 21st. Has gone on uninterruptedly well since the last visit. Sits up and goes about the house as well. He has so long been accustomed to the use of his catheter that he is inclined to use it too often, and thus provokes a certain amount of extra vesical irritability.

January 11th, 1892. He seems in excellent health; goes out in all weathers. There is still some residual urine, but slightly less than there was. Occasionally some ropy mucus in the water. Passes water with perfect ease in the standing position.

November 30th, 1892. Dr. Harper tells me he is much the same.

Case IV.—J. C., aged 72, admitted under my care in St Bartholomew's Hospital on November 14th, 1891, suffering from retention of urine. He has had difficulty with his water for the last fifteen or twenty years, and has from time to time been obliged to seek medical aid and have catheters passed, and his water is only passed after considerable straining, which has been at times so severe as to cause some prolapsus ani. At the present time he suffers quite as much, if not more, with his rectum than with his bladder. For the last week he has had to have his water drawn off with a catheter twice daily, and there has been at times a good deal of blood mixed with it. On admission, a great deal of pain; 16 ounces of water withdrawn by catheter, contains some blood. Morphine injection ¼ gr.

November 18th. Can only pass a very little water; most of it has to be drawn off; a good deal of pain still; the urethra is exceedingly sore. Temperature, 104.6°; rigor; urine acid, 1018, no albumen, some blood.

November 26th. He is now much better; passes a good deal of his water unaided, but there is about 8 ounces of residual urine.

December 8th. Under an anæsthetic, the residual urine, amounting to about 6 ounces, was drawn off. Bottini's galvano-cautery was passed into his bladder, and the current turned on for the space of fifty seconds, after which the instrument was withdrawn, and a No. 12 red rubber was introduced. About half an hour after the operation the patient passed

about 3 ounces of blood-stained urine, and complained of a good deal of pain. During the night he suffered from a desire to micturate about every half hour.

December 9th. In his attempts to micturate he managed to pull his catheter out, which was not replaced, and he has been more comfortable ever since.

December 10th. Slept much better and feels easier. Says he has not passed water so easily for years.

December 11th. A large slough, measuring nearly ¾ inch in length, has passed with his urine, which, with the exception of the sloughs, is quite clear, acid, 1020, no albumen.

December 17th. Catheter passed after he had micturated, and there was no residual urine whatever.

December 18th. The prolapsed rectum and piles were operated on, a cautery being used to the mucous membrane.

December 29th. Had to have his water drawn off.

January 7th. Now perfectly well. Passes his water without any difficulty, and has no residual urine. Piles and prolapsus are also well.

November 9th, 1892. Remains well.

From the notes which have just been read it will be seen that the operation in question is one which has, so far, yielded most excellent results in a class of case which is usually amongst the most intractable in surgery so far as cure is concerned. The only one of the four cases in which the temperature after the operation rose as high as 100.5°, or gave one the slightest momentary anxiety, was the first, in which case also it will be remembered that there was an abscess formed in connection with the testicle, thus unduly prolonging the period of convalescence. To a large extent, if not entirely, this was, in my opinion, due to the retention of the catheter for a longer period than forty-eight hours. It is the practice of Bottini to insist on this plan of procedure, but such retention is, I am convinced, both unnecessary and undesirable, as is shown by the more favourable course which the other cases have taken. As far as the results are concerned, three out of the four cases now pass the whole of their urine without catheter, and experience no difficulty whatever in its passage, whilst the fourth, which was the most severe case of them all, is so far improved that he can urinate when standing up, which he had been unable to accomplish for some year and more, as well as having much less residual urine in his bladder than was formerly the case.

RETINAL AFFECTIONS OF CHRONIC BRIGHT'S DISEASE AND DIABETES.

Being an Abstract of the Middlemore Lectures delivered at the Birmingham and Midland Counties Eye Hospital.

By ROBERT SAUNDBY, M.D., F.R.C.P.,

Professor of Medicine in the Mason College, Birmingham; Physician to the General Hospital, Birmingham; and Consulting Physician to Eye Hospital, Birmingham.

Lecture I.

The following classification of the retinal affections of Bright's disease formed the basis for the descriptions given by the lecturer:—

1. Diffused opacity.
2. White patches: (*a*) Rounded soft-edged areas generally situated near the disc, and (*b*) smaller, brighter, often radiated specks generally near the yellow spot.
3. Hæmorrhages.
4. Optic papillitis.
5. Diffuse retinitis.
6. Secondary atrophic changes.
7. General retinal periarteritis.

General retinal periarteritis was included in this classification because although not solely, it was usually associated with Bright's disease, and had therefore as much claim to be regarded as one of the retinal affections met with in Bright's disease as any of the forms more usually recognised.

The pathological explanation of all these changes was sought in the dyscrasia, which set up, first nutritive disturbances and, secondly, inflammatory and degenerative changes in the tissues. The minute histological details of each were fully described. The course of the inflammatory lesions was shown to be not necessarily hopeless of cure, though more or less permanent structural change might remain; even the degenerative spots sometimes disappeared; cases illustrating these facts were quoted. The difficulty of assigning any absolute diagnostic value to these appearances was pointed out and illustrated by drawings and cases.

On the other hand the prognostic meaning of the degenerative white specks (*b*), of diffuse neuro-retinitis, and of general periarteritis in otherwise well-assured cases of Bright's disease, was well defined and of the most serious character. The lecture was illustrated by a number of diagrams and by microscopical preparations kindly lent by Mr. E. Treacher Collins, Mr. Lawford, and Mr. Priestley Smith.

Lecture II.

After a brief historical introduction the lecturer described the retinal affections of diabetes in accordance with Hirschberg's recent classification.

1. Retinitis centralis punctata diabetica, in which there is a characteristic inflammation of the central portion of the retina, giving rise to the appearance of bright spots often coalescing, and frequently accompanied by hæmorrhages.
2. Retinitis hæmorrhagica diabetica, in which the essential process is hæmorrhage followed by inflammatory and degenerative changes.
3. Mixed cases.

The disease in all its forms occurs only in persons of middle or advanced life, and in cases of diabetes of some standing. It is generally bilateral and causes disturbance of vision, the patients complaining of a mist before their eyes. In the first form the ophthalmoscope reveals groups of small, clear, bright specks situated in the structure of the retina, in and around the disc, occurring on the nasal as well as the temporal side, never radiated in arrangement but often occupying large areas, never pigmented but accompanied by fine punctiform hæmorrhages. It is never attended by optic papillitis or diffuse retinitis. Newly formed blood vessels have been observed, and there is a decided tendency to the occurrence of large hæmorrhages into the vitreous. This description was illustrated by a case, and the fundus oculi shown by means of Mr. Priestley Smith's demonstrating ophthalmoscope.

The pathology of the affection was held to be dependent on the diabetic dyscrasia which leads to nutritive changes in the walls of the vessels, and to the effusion of albuminous material into and between the layers of the retina. In the second form the hæmorrhages are usually punctiform, but may be striated, and are situated all over the retina; their source is not the superficial retinal vessels, and their rounded shape indicates that they are situated below the nerve fibre layer. There may be haziness of the retina, depending on some degree of œdema. The hæmorrhages are due to vascular degeneration caused doubtless by the dyscrasia, but the histological details have not been worked out. The course of both is progressive, and no instance of recovery has been recorded, although temporary improvement in vision occasionally takes place.

The first form is highly characteristic when well marked, but the diagnosis should always be confirmed by examining the urine. Little is known definitely as to the prognostic importance of either, but on general grounds it is probable that they indicate an advanced degree of those nutritive derangements which herald a fatal termination.

This lecture was illustrated by drawings and microscopical sections, the latter being kindly lent for the purpose by Dr. Stephen Mackenzie.

THE PATHOLOGY AND TREATMENT OF SUPPURATIVE DISEASES OF THE EAR.

Being an abstract of the Harveian Lectures delivered before the Harveian Society of London.

By G. P. FIELD, M.R.C.S.,

Aural Surgeon to St. Mary's Hospital and Dean of the Medical School.

Lecture III.—Intracranial Abscess.

A new epoch in brain surgery was inaugurated by the publication of Mr. Hulke's Remarks on Trephining for Evacuation of Intracranial Abscess in Connection with Suppurations in the Ear.[1] His account therein of three typical cases will ever be prominent in the literature of middle ear disease. It was Mr. Hulke who first laid stress on the frequent occur-

[1] *Lancet*, July 3rd, 1886.

rence of slow pulse and low temperature in intracranial otitic abscess, and on the untrustworthiness of local tenderness as a guide to its localisation. Three years later appeared the now classical lectures of Mr. Barker, in which the pathology of the cerebral complications attendant on ear disease is exhaustively dealt with. It would be impossible for me adequately to dilate upon the many excellences of those lectures, which in the topographical anatomy and the details they furnish for the diagnosis of intracranial pathological conditions, indicating, for example, the favourite sites of extradural and the limits of temporo-sphenoidal abscesses, in defining the symptoms of thrombosis of the lateral sinus, further in advocating the use of small trephines, and in giving particulars of a series of successful operations, including the first successful one for cerebral abscess by Macewen, have proved simply invaluable to the surgeon.

Next Mr. Victor Horsley,[2] in his observations on a case of thrombosis of the lateral sinus in which recovery took place after septic embolism, suggested the opening of the sinus and the removal of clot after ligature and section of the internal jugular in the neck. This idea was subsequently carried into practice with complete success by Mr. Arbuthnot Lane.[3] In 1890 Mr. Ballance[4] further added to the surgeon's resources by his useful essay on thrombosis of the lateral sinus, with a tabulation of symptoms.

Early in the present year (February 18th) my colleague, Mr. A. J. Pepper, read before this Society an important paper on the graver complications of middle ear disease. Among the contributions to the literature of cerebral abscess, the statistics given by Dr. Newton Pitt, in the *Guy's Hospital Reports*, are of great value.

The anatomical work accomplished with reference to the bearing of aural upon cerebral disease during the past few years by Horsley, Symington, Cunningham, Anderson, Makins, and Müller, have enlarged our acquaintance with cerebral topography. Professor Alec Fraser, in his *Atlas* showing the results of the superposition of photographs has afforded the surgeon weighty assistance in the carrying out of operations on the brain. To the aural surgeon, however, the work done by Professor Ambrose Birmingham is of the highest moment. In his paper on the mastoid region of the skull,[5] he has dispelled illusions, disproved many old assertions, and established new truths as regards the anatomy of the lateral sinus. Thanks to him, surgeons will now be more than ever careful, when opening the mastoid antrum, to keep close to the border of the meatus.

Complications of Suppuration of Middle Ear.

The graver complications of middle ear suppuration comprise:

1. Facial paralysis from central or peripheral implication, meningitis or abscess.
2. Suppuration of the mastoid cells and sometimes also of the deeper tissues of the neck, more commonly subperiosteal abscess, and necrosis and sclerosis of the mastoid.
3. Extradural abscess, that is, suppuration between the skull and the dura.
4. Meningitis.
5. Cerebral abscess from direct extension of septic inflammation along veins or lymphatics from the roof of the tympanum, mastoid antrum, or lateral sinus.
6. Thrombosis of the lateral sinus and internal jugular vein.
7. General pyæmia.
8. Marasmus.

The intracranial lesion is usually associated with at least one other complication. In most instances aural suppuration does not early eventuate in intracranial complications. The patient's general health may be excellent provided there is free exit for pus. Caries and necrosis of the temporal bone may go on to an extraordinary extent without causing cerebral mischief.

Symptoms of Cerebral Implication.

The pathology of brain disease due to otorrhœa is usually quite simple. An outbreak of head symptoms is usually only the final stage in a long series of insidious morbid changes of which the patient himself has been unaware. The mere accumulation of pus within the tympanum may give rise to symptoms simulating those of basal meningitis. The special sign of actively inflammatory brain lesion from aural suppuration is pain. Almost universally there is dull aching over and radiating from the mastoid region and racking headache. Oscillations between subnormal and high temperature with rigors indicate pyæmia. The temperature in uncomplicated meningitis is continuously high, as also in simple subdural abscess, in which, however, there are modifications according to the complications present. An abrupt fall in temperature after an initial rise signalises the completion of the development of an abscess; the temperature then, as a rule, remains at or below the normal.

Other diagnostic signs of cerebral abscess are slow, full, and even pulse, constipation (as in meningitis), sluggish cerebration, respirations which are rhythmical but less in number and extent, and localised paralysis and convulsive movements. In meningitis there is usually delirium and the pulse is quick, small, and irregular.

Even when the diagnosis is almost certainly that of diffuse meningitis, the penetration of the mastoid cells and tympanic wall and exploratory trephining by Wheeler's operation may be the means of saving life.

[2] *Clin. Soc. Trans.*, vol. xix, p. 255.
[3] *Ibid.*, vol. xxii, p. 262.
[4] *Lancet*, vol. i, p. 1116.
[5] Dublin, 1891.

CASE OF HYDROPHOBIA FIVE YEARS AFTER HAVING BEEN BITTEN.

By JOHN IRVING, M.B., C.M.Glas.,
Surgeon to the Huddersfield Infirmary.

H. L., aged 17, was admitted to the Huddersfield Infirmary with symptoms of hydrophobia about midday on September 5th, 1892. He had been bitten near Shepley, a country district, by a mad dog (fox terrier) on August 1st, 1887. A brother and neighbour were bitten at the same time. The bite was on his left hand, his brother being bitten on the wrist and arm more severely. All three went to Paris on August 5th, and stayed there until August 19th, being treated by Pasteur. On October 4th his brother was admitted into the infirmary suffering from hydrophobia, and died on October 5th. His age was 26.

Since the bite H. L. had been perfectly well with the exception of lymphangitis of his left arm two years ago, for which he was treated by Dr. Alister Macgregor, who traced the mischief on that occasion to a deep scratch from a rusty nail; the inflammation soon subsided, although at the time the lad's mother was deeply concerned, thinking it was the result of the dog bite three years previously. His parents stated that he first complained on August 31st of pain about the neck and the back of the head; he thought it was a cold, but as Dr. A. Macgregor, the family medical attendant, has kindly supplied me with an account of the illness previous to his admission to the infirmary, I give it in his own words. He writes:—

I was called to see H. L. on September 4th. On arriving at his house I met his father outside the door, and he said to me that his son was sleeping on the hearthrug, and that I should not waken him, as he had been very violent. He went on to explain that on September 1st H. had complained of a pain in his left shoulder and in his back, which pain steadily grew worse, much to his father's alarm, as his other son F. (who died of hydrophobia five years ago) had been taken the same way. They bathed the shoulder, and the pain in it disappeared on the morning of September 4th, although the pain in the back (where M. Pasteur had inoculated) still remained, though not so severe. During this time the lad seemed out of sorts, but took his food fairly well, and showed no aversion to fluids. On September 4th, at dinner time, he had taken some food, when, on beginning to drink some beer, he was seized with a spasm, and said the beer stuck in his throat, and he could not swallow it. Immediately afterwards he began to look very wild, as the father expressed it. The poor parents were very alarmed, and sent for me. After hearing this history, I entered the house and found the patient lying on the hearthrug, apparently sleeping. I had hardly sat down when he wakened and spoke quite sensibly to me—so sensibly, in fact, that I formed the impression that the parents (who had never really got over the death of the other son) had got needlessly alarmed about him. H. told me that the pain in his shoulder and back had kept him from sleeping for three nights, but that he thought he could sleep a bit now that the pain was rather better. He said he "didn't ail so much now." On questioning him about his appetite, he said that some beer he had had at dinner had upset him, so that he could eat no more, but on my asking him if he could drink some milk he said "Oh, yes, I think I can." He had by this time got up and sat in a chair, and when the milk was handed to him he took the mug quite calmly and proceeded to drink it. Hardly, however, had it touched his lips when a violent convulsion seized him in his arms, and with a groan he flung the mug away. I said to him: "Come, now, H., try again and see if you can't drink some." He said "I'll try." Then he braced his shoulders back and made a convulsive grasp at the mug handed to him, but directly he tried to swallow it his eyes gleamed fire

(exactly like a cat's in the dark); his features worked convulsively; he tried to gulp the milk down, but it all came back; he let the mug drop, and, with a peculiar weird cry, sank back in the chair. He immediately afterwards showed signs of becoming very violent, so I injected half a grain of morphine subcutaneously, and got him put to bed. At midnight (that is, about 8½ hours afterwards) he was sleeping calmly, but about 6 A.M. on September 5th he was seized with convulsions. On my visit at 8 A.M. I again injected half a grain of morphine, which quieted him until he reached the Huddersfield Infirmary. On the journey he seemed quite easy; in fact, on arriving at Huddersfield he said he had had a very pleasant ride. While waiting in the cab at the infirmary gates he said he felt very hungry; but when some beef-tea was offered to him he became violently convulsed. I shall never forget the scene when the poor lad was saying "Goodbye" to his parents, brothers and sisters; it was really most heartrending. He realised fully on Monday morning (September 5th) what was to be his fate; but always previously, his father told me, he had made very light of his dog bite, and said it did not bother him much, so that, in his case at least, morbid glooming was not the exciting cause of the hydrophobia symptoms. The other lad who was bitten by the same mad dog is up to now, I believe, quite well, but, as you may imagine, in a fearful state of mind.

On admission he looked fairly well but rather flushed, and his lips were very dry. He talked rationally, and said that two minutes before the severe attack, on attempting to drink at dinner on the previous day, he had been able to drink quite easily. He was offered some beef-tea, but was seized with convulsions, complained of some oppression in his respiration, and a feeling as if there were a lump in his throat. About half an hour after admission he managed to drink a little milk without much trouble, and to eat a slice of bread and butter, but about four hours afterwards he became restless and nervous, and sat up on the side of his bed. He was still quite rational, but seemed afraid of the spasm coming on. His tongue was dry in the middle, with a little frothy deposit at the edges. Pulse 120, respirations 36. After a hypodermic injection of half a grain of morphine he became quite calm. There was, however, an occasional sudden respiratory spasm, apparently caused by attempting to swallow some saliva. He was ordered to have chloral by the bowel alternately with the hypodermic injections of morphine, and to be fed by enemata of peptonised milk and beef-tea. These were given every four hours. Up till midnight he was fairly quiet but with slight respiratory spasm. At 2 A.M. he became restless, and started up in bed several times, and the spasms became more severe. At 4 A.M. he grew worse, and was shouting, foaming at the mouth, and jumping out of bed. He remained pretty much in this condition until 6 A.M., when he quieted down a little, and an hour and a half later took about a teaspoonful of tea, and liked it, although he drank it with great difficulty. A few minutes later he again became much worse, and shouted, and threw himself about in bed. Spasm became more severe; there was much foaming at the mouth; he was quite unable to drink, and had a severe attack of spasm when the nurse wanted to wash his face. By 9 A.M. the nurse and his two brothers, who were with him during the night, could not control him. He had to be held down in bed, and struggled very violently, at the same time spitting out large quantities of saliva, and rambling and shouting. He was put under the influence of chloroform, and half a grain of morphine was injected, and his hands, shoulders, and feet were secured to the bedstead.

He was kept more or less under the influence of chloroform, and whenever he commenced to come out of it he began struggling and shouting. There were frothing at the mouth, spitting all over the bed and floor, widely dilated pupils, great restlessness, profuse perspiration, violent efforts to get out of bed, vomiting of greenish watery fluid, and some priapism. The saliva was very abundant, and was every now and then sucked into the windpipe, and then violently ejected. At times he would suddenly stiffen the whole body, throw his head backwards and to one side, put his features into a half grin, and scream loudly. His pulse was 136, very feeble, and there were abundant coarse *râles* in the chest. Shortly after 11 A.M., on coming round from the chloroform, he was fairly quiet, but was foaming at the mouth, and vomiting mouthfuls of saliva and mucus continuously, which he spat all round his bed. The respiratory spasm became worse, and caused more sucking in of the saliva into his trachea, and somewhat cyanosed him. The pulse rose to 180. An hour and a-half later he was still very restless. He had intervals of apnœa lasting sometimes about half a minute, when he became rather cyanosed, and then the respiratory spasm came on. He was still vomiting and spitting out large quantities of saliva. He continued to ramble, and threw himself about as much as the straps would allow him, and became gradually weaker. The respiratory spasm also became worse, and the cyanosis also increased, whilst the vomiting became more frequent. Shortly after 2 P.M. the cyanosis was more or less continuous. The pulse was only just perceptible at the wrist. He was still bringing up mouthfuls of saliva, but did not spit it out, but allowed it to run out of his mouth. He still rambled a little, and moved his head about. At 2.30 he died, little more than forty-eight hours after the commencement of the serious symptoms.

The temperature reached 101.2° F. The specific gravity of the urine was 1025, and it contained a fair quantity of albumen. At the *post-mortem* examination the brain and lungs were found very much congested.

I am indebted to Mr. Cholmeley, Assistant House-Surgeon, for notes of the patient's condition whilst in the infirmary.

MICROSCOPICAL EXAMINATION.

Dr. Sims Woodhead, Director of the Laboratory of the Royal Colleges of Physicians and Surgeons, has made an examination of portions of the central nervous system. Unfortunately, owing to some postal misunderstanding, the specimens only reached his hands after a somewhat long interval. Dr. Woodhead's report is as follows:—

The cord, medulla oblongata, and portion of cerebral cortex was somewhat softened, at one or two points almost creamy; the surface of each piece was blanched, but on making sections at various levels there appeared some evidence of congestion, especially of the grey matter of the piece of the cortex, of the medulla, and of the anterior horns of grey matter of the cord in which the small vessels, especially those running from the pia mater, are considerably engorged. In the floor of the fourth ventricle, just at the lower angle at the entrance of the central canal, there is a very minute hæmorrhage, or what may be mistaken for one, for it is possible that this appearance may be due to the diffusion of pigment from a distended blood vessel into a softened area. The same remark applies to several similar patches found on either side of the raphé in the motor area higher up in the pons. On account of the almost diffluent condition of some parts of the specimens, it is difficult to make out anything further. The tissues have since been kept in strong methylated spirit, changed repeatedly in order to harden them as much as possible. Pieces were then embedded in celloidin, and with difficulty a few fairly good but thick specimens of the medulla and pons at various levels and of the cortex cerebri have been obtained. These stained in Ehrlich's hæmatoxylin and then with benzo-purpurin, cleared up with clove oil and mounted in xylol balsam, show the following appearances.

In the medulla and pons, beyond extreme granularity of the cells of the olive and of the ganglion cells of the nuclei, some congestion and dilatation of the smaller vessels, slight distension of the perivascular spaces in which a few leucocytes could be found, there is nothing abnormal. There is no evidence of hæmorrhage near the median line (mentioned above), though there are localised patches in which the congestion appears to be much more marked than on the general surface. In the piece of the cortex there are far more evident changes. The vessels of the pia mater are distended, though here and there the spirit seems to have caused them to contract and so to drive out the blood. In and around the larger vessels, both those near the surface and those in the deeper layer, there are marked evidences of acute inflammation. Attention is at once drawn to large accumulations of leucocytes which occur just at the points of bifurcation, especially of the veins. The perivascular lymph spaces are considerably distended, even when they are not filled with leucocytes. At one or two points where putrefaction changes have set in, it appears as though some of the vessels had actually given way, but it is impossible to determine this with any degree of accuracy. Here, as in so many cases of hydrophobia, the histological changes in the nerve centres are little characteristic of the disease. I have seen much the same appearances as above described in cases of acute mania, in "acute congestion" of the brain, and in a case of acute tetanus, so that I am afraid there is little here to help to make a more accurate diagnosis than has already been able to be made from the clinical history of the case.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

FOREIGN BODIES IN THE LUNG.

MR. W. J. MIDDLETON, in the BRITISH MEDICAL JOURNAL of November 26th, describes two very interesting cases of foreign body in the lung where the foreign body was expelled, in one case nine months, and in the other twelve months, after its introduction, and without resort to any surgical procedure.

When a foreign body has entered the trachea or has become impacted in a bronchus, whether the resulting symptoms be trivial and occasional only, or whether they be severe and persistent, that patient is liable at any moment to suffocation by impaction of the body in the larynx during a strong expiratory effort, as in coughing. Where such an accident does not occur, can we say that the lung will remain healthy? The re-

verse is my experience, and thus I strongly urge operation in all cases where the inversion method has failed to dislodge the body. I could quote several cases in support of those statements, but I shall shortly describe one seen recently in consultation with Dr. James A. Adams. The patient was a boy, aged 9 years, who, while eating hazel nuts, accidentally inhaled a portion of one. Dyspnœa at once supervened, but, after the administration of an emetic given by the boy's father, he breathed more freely, and was put to bed. This was on November 21st. On account of a persistent cough, Dr. Adams was called on November 24th. The patient was flushed, temperature 104.2° F., breathing rapid; he was annoyed by a persistent hard cough. While the left side of the chest expanded freely on inspiration, no movement could be detected over the right chest; and on auscultation it was found that, while air entered the left lung freely, it was thought that none whatever entered the right lung, as there was complete absence of the respiratory murmur and of vocal fremitus. I saw the patient the same evening, when, in addition to the above symptoms, there was an area of dulness on percussion over the base of the right lung, and there was fœtor of the breath. There was no doubt of the blockage of the right bronchus, and there was possibly suppuration around the foreign body, so I strongly recommended early operation, consent to which was very reluctantly given. On the following morning the patient was put under the influence of chloroform, and the trachea cut down upon. The patient was then allowed to recover consciousness in great measure, before the trachea was opened, in order that the coughing set up by the entrance of air through the wound might in no way be interfered with. When the trachea was opened, the edges of the wound were held apart by the blades of a tracheal dilator, but mucus and blood alone were expelled. After an interval, a fine laryngeal probe was introduced through the tracheal opening, and passed down along the right wall of the trachea, to the distance of about 3 inches. Then, by moving the point towards the middle line, I attempted to dislodge the foreign body. While this was being done, the patient gave a violent cough, which resulted in the expulsion of a quantity of somewhat fœtid muco-pus, and along with it a pyramidal-shaped portion of the kernel of a nut. More muco-purulent expectoration followed, accompanied by other two small portions of the same material. Air was then found to enter the right lung freely. A Foulis tube was introduced, and the patient put to bed. The pyramidal portion of nut expelled measured one-quarter of an inch at the base, and from base to apex it was three-eighths of an inch. The two smaller portions together equalled the size of a split pea. The tracheotomy tube was removed the following morning, when the patient was virtually well.

Walker Downie, M.B., F.F.P. & S.G.,
Surgeon Throat and Nose Department, Glasgow Western Infirmary, etc.

ON "HEBERDEN'S NODES" AS A SIGN OF RHEUMATOID ARTHRITIS.

There are not a few surviving King's College men who remember Dr. Todd's teaching about rheumatism and the so-called rheumatic gout. They cannot forget the stress he laid on what have been known (since the beginning of the century) as "Heberden's nodes."[1] My memory tells me that Dr. Todd's doctrine inclined to the gouty affinity of the nodes, and that, when they were present, he sought for collateral evidence of the gouty diathesis.

The great predecessors and contemporaries of Dr. Todd were much more under the influence of Cullen than of Heberden. Sir Thomas Watson's lectures are Cullenish all through, and the same is true (though to a less degree) of Copeland and John Mason Good.

Both Haygarth and Heberden spoke of rheumatoid arthritis as nodosity of the joints. Hence it is probable that they would associate the diminutive node with rheumatoid arthritis rather than with pure gout.

Charcot and Garrod lead to the opinion that these nodes constitute the slightest and most chronic manifestations of rheumatoid arthritis, and that they are attended by the "characteristic rheumatoid changes in the adjacent joint structures." I venture to offer my complete confirmation of this opinion. During the last five years I have examined at least 400 cases (in private and hospital practice), and very seldom indeed has the existence of Heberden's nodes been demonstrated without collateral proof of rheumatoidal changes. These changes are exhibited mostly in the neighbouring interdigital articulations. Not seldom, however, these articulations are passed over, and the first and second metacarpo-phalangeal joints are the nearest parts affected by rheumatoidal lesion. The lesion may be so slight as not to be seen at all unless specially looked for or verified by a little failure in the dynamometric grip of the whole hand. Sir Dyce Duckworth's large experience leads him to say that Heberden's nodes are now and then indications of true gout. It is improper, therefore, to think of the nodes as connoting rheumatoid arthritis. But as valuable aids to diagnosis they are also aids to treatment, and as such I commend them to the attention of my brethren.

Bath. John Kent Spender, M.D.Lond.

[1] Heberden applied the term to the knotty or nobby state of the terminal phalangeal joints. "They consist in the overgrowth of the natural tubercles of the distal digital phalangeal bones." (Duckworth.)

A CASE OF PERIPHERAL NEURITIS.

J. S., aged 30, a labourer, was seen on October 18th; he stated that four weeks before he began to suffer from cramps and feelings of numbness in the legs, with gradually increasing weakness in them. There was a distinct history of alcoholism.

He was found to have weakness of the extensor muscles of the legs, and a slight degree of muscular wasting; both knee-jerks and superficial reflexes were absent. There was diminished sensibility to, and retarded conduction of, tactile and painful impressions. The patient could distinguish between heat and cold, but conduction was retarded.

Some days after admission to the hospital the patient began to pass fæces and urine in bed; this was found however to be due, not to a true incontinence, but to an apathetic mental condition. This symptom passed off in four days. The paralysis of the extensor muscles has since become more marked.

An interesting fact is that muscular hyperæsthesia did not begin to show itself until the patient had been four weeks under observation, which would correspond to the seventh or eighth week of the illness. It appeared first in the calf, and later in the thigh muscles. The pulse, which had been fast from the commencement, ranging from 120 to 130 beats per minute, suggests the existence of neuritis of the cardiac fibres of the vagus, there being no cardiac nor pulmonary disease. The diaphragm and laryngeal muscles are not involved.

Wakefield. G. H. Hogg, M.B.

ACUTE INVERSION OF UTERUS: *POST-PARTUM* HÆMORRHAGE: RECOVERY.

I was called about 6 A.M. one morning in April, 1884, to a case of labour. On my arrival I found the patient, Mrs. M. A., primipara, a strong, healthy young woman, in bed. The child had been born alive, about half an hour. The midwife told me there was something the matter which she could not understand.

On examination I found a tumour protruding from and completely outside the vulva, which I found to be the fundus of the uterus, or rather, I should say, the uterus inverted, with the placenta adherent to it. The patient had lost a good deal of blood, but was not blanched or faint, nor did she suffer from shock; and she was not aware that there was anything seriously wrong with her. I removed the placenta from the fundus without much difficulty, and replaced the uterus by grasping it in the hand and pressing it, and then following up the fundus with the fingers formed into a cone, the left hand meanwhile grasping the fundus through the abdominal walls. Under the stimulation of the hand in the uterus and the other outside, and the administration of liq. ext. ergotæ ℥j, complete contraction was ensured, and the hæmorrhage ceased. I ordered ergot ℿxx and tinct. opii ℿxx every four hours. The next day she was nothing the worse, and recovered without an unfavourable symptom, being out of bed at the end of a week. As to the cause of the inversion, it is difficult to make out, unless it was due to traction on the cord.

Rathmines. J. Mason, M.B., L.R.C.S.I.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

TOXTETH PARK HOSPITAL, LIVERPOOL.

DETERMINED ATTEMPT AT SUICIDE.

(By J. Moore Bennett, Senior Resident Medical Officer.)

J. H., female, aged 33, was admitted on October 25th, suffering from chronic alcoholism. On October 30th, at 1.30 A.M., the nurse, on entering the ward, noticed that the patient had drawn the sheet over her face and was breathing heavily. On withdrawing the sheet, she found the woman was bleeding severely from throat and arms. I saw the patient in about ten minutes; the bleeding had then ceased through faintness. I found seven distinct superficial wounds on the throat and one on the left side, which had cut through the posterior border of the sterno-mastoid muscle; the left arm was cut across and down to the bone in six different places, the thumb was cut on its palmar aspect down to the joint, and the right wrist was cut across in two places.

The edges of the wounds were brought together with fine wire, and boracic acid powder plentifully used; the left forearm was placed on a splint. The temperature never rose beyond 100° F., and that only twice. The dressings were opened on November 10th, and all the wounds had united, except the thumb, which was again plentifully covered with boracic acid powder. On November 12th the four stitches in the thumb were removed, and all the wounds were healed. The arm is retained on a splint on account of drop wrist.

WIRRAL CHILDREN'S HOSPITAL, BIRKENHEAD.

DISLOCATION OF THE LOWER JAW IN A BOY.

(Under the care of Dr. Francis Johnston, Honorary Medical Officer to the Hospital.)

[Reported by J. Harold Bailey, M.B., Ch.B., House-Surgeon.]

The extreme rarity of this dislocation in children renders the following case worthy of being recorded. A boy, aged 11 years, was brought by his mother to the hospital on November 15th, 1892. The mother said that about half-an-hour previously the boy had received a blow on the right side of the face from a man's fist, and that immediately after the blow the lower jaw was fixed, and the boy could not close his mouth nor speak distinctly. I found that the incisor teeth of the upper set were separated from those of the lower set by a space of about three-fourths of an inch; the lower set of teeth were nearly half-an-inch in advance of the upper set, and the teeth could not be approximated. The depression of the glenoid fossa could be distinctly felt on each side. Reduction was readily effected by the usual method. After reduction the boy could speak distinctly.

On my questioning the boy as to where he was struck, he indicated a spot just over the angle of the jaw on the right side; he also stated that his mouth was open at the time he received the blow.

A four-tailed jaw bandage was applied in order to prevent any return of the dislocation. After five days the bandage was removed, there having been no return of the dislocation. The boy complained of slight pain in the region of each tempore-maxillary articulation for a couple of days after the accident.

Sir Astley Cooper reports, as the result of his extended experience, only one instance of this dislocation, which occurred in a boy who had an apple thrust into his mouth while at play. Of 912 dislocations admitted to the Pennsylvania Hospital, as recorded by Professor Agnew, only nine involved the lower jaw, and none of these occurred in persons under 25 years of age.

Three cases of trichinosis in the same family have recently occurred in New York. The infection was derived from raw pork, which was mixed in a hash.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir Andrew Clark, Bart., F.R.S., President, in the Chair.

Tuesday, December 13th, 1892.

ON SOME POINTS IN THE SUPRAVAGINAL AMPUTATION OF THE CERVIX UTERI FOR CANCER.

Dr. A. H. N. Lewers, in this paper, considered the subject under the following heads: (1) the indications and contra-indications for the operation; (2) its mortality; (3) the results as regards recurrence; and (4) the details of the operation in those of his own cases where the disease had not recurred for periods of two years and upwards. The paper was based on an experience of 19 cases. So far as (1) was concerned, the author would lay special stress on the importance of careful examination under anæsthesia in doubtful cases with the view of determining their fitness or otherwise for operation. As regards (2), none of the cases succumbed at the operation; as regards (3), full proof was brought forward of the malignant nature of the disease in those cases where the disease had for periods of two years and upwards not recurred. (The specimens themselves and drawings of them were shown for reference on this point.) As regards (4) the author laid stress (*a*) on the importance of making the preliminary incisions for clearing the cervix as far as possible from the diseased tissue; (*b*) on the importance of removing the cervix in an anatomically complete condition at the level of the internal os uteri; (*c*) on the little risk involved in opening Douglas's pouch during the operation; and lastly (*d*) on the apparent value of applying the cautery freely to the "bed" from which the cervix had been dissected out and of cutting off the cervix from the body, after it had been cleared, with the cautery rather than the knife or scissors.

Mr. Jessett mentioned how much more favourable the immediate results of the supravaginal operation for the removal of the cervical portion of the uterus were than the operation for the total extirpation of that organ. In the years 1889 to 1891 he had performed the former operation 24 times, and the results had been 15 cases without recurrence, 5 with recurrence, 3 had been lost sight of, and there had been 1 death. Statistics of total extirpation gave a mortality of about 16 per cent. He thought that it was advisable in the supravaginal operation to remove a cone-shaped piece from the body of the uterus instead of separating the tissues straight across just above the internal os. If the operation had been performed on a patient before she had reached the menopause, she might suffer considerably after the operation at the time of her periods owing to obstruction, and he referred to a case in which the discharges had been retained; so he was accustomed at the time of the operation to allow the parts to heal round a stem. In two cases of his own the microscopical examination had not confirmed the clinical aspects of malignancy. He agreed with Dr. Lewers that it was a matter of very little importance whether Douglas's pouch was opened or not. He much preferred to use scissors or knife in the operation to any form of cautery, on account of the latter so altering the consistency of the tissues as to make it almost impossible to say whether all the diseased parts had been removed or not.

Dr. Champneys said that in considering this question it was important to bear in mind that there were three classes of cases of uterine cancerous disease: cancer (*a*) of body, (*b*) of vaginal and (*c*) of supravaginal portion of cervix. In most cases, if the body of the uterus was affected, the operation of total extirpation was the right method to adopt, but where the cervix was the part affected the supravaginal operation was the operation most favoured in this country; and even in the latter class of these cases the disease had often progressed too far before the patient was first seen for favourable results to follow. One practical point had to be remembered when the disease was high up and the cervix was enlarged, that in endeavouring to pull the parts down within reach they were liable to be torn if much diseased; this was a very unfavourable condition, and in any such case total extirpation of the organ would probably be the right method to pursue.

Abroad the operation of total extirpation had been much more commonly practised than in this country, and had been performed occasionally for other conditions than new growths. This fact had to be remembered when the statistics were being considered.

Dr. Routh advocated removing the cervical portion by means of the *écraseur* or electrical *écraseur* or by cautery, with subsequent destruction of the parts with caustics, especially with bromine.

Mr. Hulke, speaking as a general surgeon, felt that if there was to be freedom from recurrence, the cases must be treated early, and he thought that generally, if a case was too far advanced for the supravaginal operation to be successful, it was probably also too far advanced for any operation to succeed. He agreed that removal by some cutting instrument was certainly preferable to the use of any cautery, as the latter always masked the condition of the tissues.

Dr. Heywood Smith agreed that the cautery was liable to hide the true condition of the tissues. He approved of Manley Sims's method of using chloride of zinc as a caustic, and gave details of his methods of procedure.

Dr. Amand Routh mentioned a case that had been under his care in which the growth, when first seen, had appeared to be too far advanced for operation. A microscopical examination had, however, shown that it was a case of simple adenoma with a little proliferation of some of the epithelium cells. The parts were accordingly removed, and no recurrence had occurred. He advocated that in all cases, however hopeless they appeared, a small portion of the growth should be removed and subjected to microscopical examination.

Dr. Herbert Spencer had been surprised at the unanimity of the speakers for the supravaginal operation in preference to the total extirpation of the organ. He referred to a paper by Dr. Byrne, the President of the New York Obstetrical Society, in which the statistics showed that the mortality after the operation for total extirpation was 14.5 per cent., whilst after the supravaginal operation it was only 2 or 3 per cent., and in Dr. Byrne's own practice, out of 400 cases of supravaginal operation, not one single death had occurred as a result of the operation. Dr. Byrne in all his cases had used the galvano-cautery. Dr. Spencer, however, agreed with Mr. Jessett's remarks that removal by cutting was preferable to removal by cautery or any other method, and for the reasons given. He had once seen pyometra when the removal had been with the scissors, and thought it was even more likely to occur if the cautery was employed.

Dr. Lewers, in reply, did not see any great advantage in removing a cone-shaped piece of the body of the uterus. If the disease had progressed so far as to render it essential, he preferred to extirpate the organ totally. He had had no experience of using a stem for the parts to heal upon, and had never known absolute occlusion so that the menstrual discharges could not escape; but he had noticed that dysmenorrhœa had been more severe after than before the operation. If retention should occur, it could always be relieved by incision. He entirely agreed with Dr. Champneys's classification, and also with the great importance of keeping the parts intact at the operation until the actual moment of severance; any tearing of the parts made the operator much less certain of whether he was removing all the diseased parts. It was only natural that a much higher mortality should attend any operation when the body of the uterus was affected than if the cervical portion only was involved. He agreed with Mr. Hulke that, in the majority of cases, if the growth had progressed too far for the supravaginal operation to suffice to prevent recurrence, then total extirpation would probably likewise be of no avail. He had, however, brought a specimen to the meeting in which the disease had spread some distance into the body of the uterus, and he had extirpated the entire organ with perfectly satisfactory results, as there had been no recurrence. He thanked Dr. Spencer for mentioning Dr. Byrne's paper.

At the thirtieth annual meeting of the Surgical Aid Society, the Lord Mayor in the chair, it was stated that the annual subscriptions amounted, in 1892, to £5,313. The legacies amounted to £7,353, including one for £5,037 from Miss H. M. Mellor. Ten thousand eight hundred and eighty-seven persons were assisted.

CLINICAL SOCIETY OF LONDON.

Sir Dyce Duckworth, M.D., LL.D., F.R.C.P., President, in the Chair.

Friday, December 9th, 1892.

Subacute Œdema of Lung after Pleural Effusion.

Dr. James Calvert described this case; the patient was a male, aged 45. On September 23rd the whole of the left side was dull with fluid; 45 ounces of clear yellow serous fluid were drawn off by aspiration. This was followed by partial expansion of lung above the fourth rib. The position of the heart, beneath the sternum, was not altered. Two weeks after the operation, the lung above the fourth rib became œdematous, the signs being abundant subcrepitant *râles*, with profuse expectoration of grey frothy watery fluid. During these two weeks the effusion had diminished. The œdema persisted for three weeks and then began to decline gradually, so that when the patient left the hospital, in January, only an occasional crepitation could be heard. He attended as an out-patient for six months, and during this time he had no cough, no expectoration, no crepitations, and he gained weight and strength. The temperature, after the aspiration, was normal throughout. This subacute œdema was probably due to obstructed venous return in a lung held by adhesions and endeavouring irregularly to expand in presence of a diminishing effusion. The practical point was that these crepitations, limited to one apex and persisting for weeks, were not due to phthisis.

Dr. S. West remarked that the complication was of exceeding rarity. He referred to a case at St. Bartholomew's Hospital, under Sir D. Duckworth, in which, two hours after paracentesis, the patient had expectorated two pints of fluid. No serious result had ensued, perhaps because one lung only was involved; in a few days the expectoration ceased, and the patient recovered.

The President referred to other cases of the kind, and distinguished between them and cases of that very rare condition—acute œdema of the lung.

Dr. Calvert, in reply, stated that the fluid expectorated was grey, whilst the fluid that flowed during aspiration was straw-coloured, so that the fluid expectorated could not be pleuritic fluid filtered into the lung through a space denuded by the stripping off of the pleura.

Wandering Spleen: Splenectomy: Recovery.

Mr. Bland Sutton gave details of this case. The patient, a married woman, aged 22, mother of one child, became aware of the existence of a swelling in the left half of the belly. In March she was seized with acute pain in the tumour, accompanied by vomiting and diarrhœa. On admission to the Middlesex Hospital, the tumour, which was very mobile, resembled hydronephrosis of a movable kidney, but the diagnosis was reduced to a hydatid cyst of the omentum or a wandering spleen. On March 21st an exploratory operation was undertaken, and the swelling proved to be a greatly enlarged spleen, with a twisted pedicle. The pedicle was untwisted, and the spleen returned to the left hypochondrium. The patient lost the pain, rapidly convalesced, and left the hospital wearing a carefully-adjusted belt. Six weeks afterwards the spleen was in its normal position, and apparently of proper size. On July 7th the patient came again to the hospital. The "lump" had appeared again, and she had been suddenly seized with acute abdominal pain, vomiting, diarrhœa, and hæmorrhage from the vagina. The spleen on July 9th was in the right iliac fossa, in front of the cæcum; on July 10th it was in the left iliac fossa, resting on Poupart's ligament. On July 12th it was in the pelvis, its lower end resting on and doubling up the uterus. Splenectomy was performed on July 12th, the abdomen being opened through the scar of the first operation; the incision extended from the umbilicus to the symphysis pubis. The pedicle was twisted through three complete turns, and with its distended veins looked like a huge umbilical cord. The pedicle was transfixed, and tied in two halves with thin, strong plaited silk, and then encircled with a separate ligature for safety. The wound was closed in the usual manner. The patient was treated as after an ovariotomy, and recovered without the least drawback. The spleen weighed 16 ounces, and though of an unusual shape, was in texture quite natural. Observa-

tions on the number and proportions of the blood corpuscles were made before and subsequent to the operation, and it had been arranged to continue them for some months to come.

The President hoped the sequel of the case would be watched and recorded. He inquired if it was known why the rotation occurred.

Dr. Glover asked if it would have been practicable to attach the spleen to the abdominal wall instead of removing it.

Mr. Sutton said that the question of axial rotation had been worked out by Dr. Andrew in a paper in the *St. Bartholomew's Hospital Reports*. Every organ in the abdomen had been found to undergo axial rotation. On a few occasions a wandering spleen had been mistaken for a tumour of the ovary, or even of the uterus. As to stitching the spleen to the parietes, it was so enormously engorged with blood that to put a stitch into it would have been like putting a knife into an aneurysm—the hæmorrhage would have been terrific. It was safer to remove the organ.

Hemiplegia in the Course of Typhoid Fever.

Dr. Francis Hawkins read notes of this case. He had collected from various sources 16 cases, and had analysed several facts. He found that as regards the age, it varied from between 2 and 3 years to 30, and that the majority of the cases occurred in males. In reference to the period of occurrence, it was found that the earliest onset of hemiplegia was during the second week, but in most instances during the third or fourth week, and during convalescence. In one case hemiplegia did not occur till as late as the eighth month. Most cases ended in complete recovery; in a few the paralysis remained persistent, and in some cases death occurred. The right side was the most frequently affected, the left side only being so in a few instances. Aphasia accompanied the hemiplegia in most cases. As regarded the cause, it was taken to be a consequence of a non-valvular cardiac lesion leading to the formation of thrombi in the left auricle, causing emboli which became located in a cerebral artery. Instances of other cases of hemiplegia in which there was no valvular lesion were given, such as diphtheria and noma vulvæ.

Dr. Hale White remarked upon the late period in which the blood tended to clot in typhoid. He had often seen clots in the veins of the leg in typhoid at a late stage of the illness. Whether the blood should clot seemed to him to depend upon the fact of the occurrence of hæmorrhage, as in this patient, and on the fact that there had been a deficient food supply beforehand.

Dr. Voelcker referred to a case of infective endocarditis. A man had a purpuric eruption on the trunk, and had had paralysis of the right arm and leg, with general paralysis and coma before death. Purpuric spots were found on his brain.

Dr. Longhurst asked if there were any statistics as to the occurrence formerly of hemiplegia in typhoid. He said that in other days the medicinal treatment of that malady was excessive; now, possibly, it was too little. He suggested that perhaps a little stimulant given during convalescence might have prevented the formation of a clot and the symptoms due to its presence.

The President said that physicians were apt, in the present day, to treat the disease too much, and not the individual patient; he advocated a large personal attention to the wants of the patient himself.

Dr. Hawkins, in reply, said there was some softening of the brain. He had not noticed any purpura on the patient's brain.

Fracture of Jaw with Traumatic Aneurysm.

Mr. Wainwright read the notes of a case admitted on July 24th. The patient was a builder, aged 23, who sustained a fracture of the lower jaw on the left side, together with concussion of the brain. Some days later an abscess formed on the right side, and was opened. He left the hospital on August 8th, but returned on August 18th with fresh abscess formation over the right side of the jaw; this was likewise evacuated. On August 31st he was seized with a sharp pain on the right side of the face, and, on examination, a pulsating swelling was discovered in the parotid region. The house-surgeon was summoned, and, considering the pulsation to be merely transmitted from the carotid artery, cut into the swelling, giving exit to a small quantity of pus, which, however, was immediately followed by a smart gush of blood, when it was discovered that a traumatic aneurysm had been laid open. Mr. Wainwright was called, and he found a second and hitherto unsuspected fracture of the jaw just below the right condyle. The right common carotid artery was ligatured, and the wound healed readily, but a fortnight later hemiplegia slowly developed, associated with mental weakness, culminating in dementia. The mental symptoms subsequently improved to a limited extent. In reply to Dr. Hadden, Mr. Wainwright said that the hemiplegia occurrred on the sixteenth day after the ligature of the common carotid.

MEDICAL SOCIETY OF LONDON.

Jonathan Hutchinson, F.R.C.S., F.R.S., President, in the Chair.

Monday, December 12th, 1892.

Cases.

Mr. Openshaw showed a man who followed the occupation of horse-keeper, and who presented on both cheeks large indurated sores, the glands beneath the lower jaw being much enlarged and indurated. The man had been attending to a horse which was suffering from greasy heel, and the affection appeared to be of the nature of an acute impetigo. Mr. Openshaw also showed a boy who was the subject of a unilateral warty growth on the neck, arm, and trunk.

"Irregular Heart."

Dr. A. Ernest Sansom read a paper on "irregular heart," as contrasted with the allied condition of "paroxysmal hurry." He repeated his former conclusion that the cardiac manifestations constituted the central feature of Graves's disease, the other troubles being merely offshoots. His observations did not bear on cases of arhythmia dependent upon or associated with valvular or other structural lesions of the heart, but exclusively upon long-standing cases of persistent irregularity. His cases comprised 37 in which the cardiac phenomena existed alone, and 10 of undoubted Graves's disease. He referred to the sphygmograph as a means of obtaining precise and valuable information respecting the nature and severity of the cardiac irregularity. These comprised (1) intermission; (2) the alternating pulse; (3) coupled and linked beats; and (4) external arhythmic irregularities. The etiological associations of these forms of cardiac irregularity were (1) dyspepsia; (2) syphilis; (3) osteo-arthritis; (4) disturbance of the organs of hearing and naso-pharyngeal irritations; (5) influenza; (6) mental disturbances and the effects of severe nervous shocks; and (7) a group of cases without any of the foregoing associations, in which the symptoms were so complex as to render classification difficult. He read notes of cases belonging to each of these groups, pointing out that in only two instances did an acute disease (pleurisy) appear to have initiated the cardiac arhythmia. In only one did it appear probable that the irregularity was attributable to physical overstrain. He observed that all forms of irregular heart, whether slight or severe, were met with in cases of disturbance of the cardiac nervous system. In Graves's disease rapidity of the heart beat was more frequently met with than irregularity.

Dr. B. W. Richardson said he had given a good deal of attention to the particular variety of cardiac irregularity characterised by intermittency which might be due either to failure of the sympathetic nervous system or to overstimulation of the vagus. A point to notice in respect of this form of irregularity was that when it existed it was usually persistent, as distinct from mere irregularity. As a rule, the patient himself was not cognisant of the irregularity, and when it was perceptible to the patient it was a sign of very bad augury. Any change in this character of intermittency supervening in the course of an acute disease was usually unfavourable to the patient. In examinations for life assurance he always rejected proposals in respect of persons themselves cognisant of the irregularity.

Dr. A. Maude referred to a case of Graves's disease, in which the pulse—at first about 80—gradually increased in about a quarter of a minute to over a hundred, and then slowed again. This was not present on subsequent occa-

sions. Living in a part of the country where goître was common, he had been enabled to observe that, though irregularity was not a frequent symptom in Graves's disease, it was met with more frequently in persons who had previously had goître. He referred to the observations of Tripier on the irregularity of the pulse in epileptic subjects, and mentioned a case which confirmed Tripier's opinion that such patients often died suddenly.

Dr. Woakes explained that in two of the cases referred to by the author the cardiac irregularity was associated with a special condition of the nostril; in both the middle spongy bone was cleaved, one part adhering to the septum and the other to the external wall of the nostril. He observed that cardialgia was a frequent complaint with patients applying for relief on account of disease of the nose.

Dr. Pasteur reported the case of a woman who exhibited extreme tachycardia when he first saw her. A week later this had given place to an extreme form of cardiac irregularity, the most pronounced he had ever met with. In the recumbent position her pulse at once fell to normal. Ultimately the irregularity altogether disappeared.

Dr. J. C. Thorowgood referred to the effect on a weak heart of raising the arms, and mentioned a case in which syncope had followed an effort of the kind, and the patient soon after died from heart failure. He thought this was a good test to detect heart weakness.

Dr. Stephen Mackenzie pointed out that these irregularities were also associated with acute conditions such as uræmia, and then constituted an indication of great significance. Many forms of irregularity might exist for years without modifying the patient's general health. He recalled the case of a man who was known to suffer from tachycardia who one day was brought to the London Hospital with a pulse of about 300 to the minute. He gave him drop doses of solution of atropine, and later on the rate suddenly dropped to normal, a change to which the patient was the first to call attention.

Dr. Solomon Smith pointed out that irregularity did not necessarily imply cardiac inadequacy as was sometimes supposed.

Dr. Allchin alluded to the researches of Dr. Clifford Allbutt, and raised the question whether these irregularities were usually associated with a high tension pulse. He had met with several such cases, and he mentioned the case of a lady, aged 46, who, subsequent to a period of intense mental distress, had suffered from marked irregularity of the cardiac rhythms, sometimes amounting to positive intermittence. This condition had lasted for several years, and had throughout been associated with a high tension pulse without any other evidence of renal mischief. He agreed that the gravity of the symptom might be inferred from its perception, or otherwise, by the patient.

Dr. Sansom, in reply, emphasised the undesirability of patients being told of the existence of cardiac irregularities of the existence of which they were not previously aware. He pointed out that fatty heart did not necessarily or usually cause irregularity, but rather rapidity.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Henry Power, M.B., F.R.C.S., President, in the Chair.

Thursday, December 8th, 1892.

Kerato-Malacia in Young Children.

Mr. Holmes Spicer read this paper. Young children are more subject to gangrene of the cornea than adults, when their vitality is reduced below a certain level; the gangrene may either be spontaneous or the result of comparatively slight attacks of conjunctivitis. In the late stages of tuberculous meningitis and in infantile diarrhœa, the cornea undergoes destruction, but this is due partly to exposure, and partly to insensibility. After measles or whooping-cough with bronchitis and in malignant varicella, where there has been much exhaustion, the cornea is not infrequently seriously damaged by large perforating ulcers. After serious malnutrition the cornea may slough spontaneously; this is not uncommon among nurslings in countries where the mothers practise long religious fasts; in this country it is rare except among the hand-reared, who have had insufficient nitrogenous diet. The affection generally attacks both eyes of children from four to nine months old; it begins with dryness of the conjunctiva, with patches of froth on its surface, and with night blindness; soon the whole cornea becomes opaque and perforated; the termination is very often fatal. The treatment should be increase of the nitrogenous elements of food, some meat juice or raw meat finely pounded, in addition to milk for young babies, and cod-liver oil; and locally, eserine in the form of ointment to the eye, with warm applications to the lids. Some of the cases under this treatment made a good recovery; in one case the cornea recovered, although the child succumbed eventually.

The President spoke of the disease as met with in adults, and mentioned a case he had recently seen in a woman completely crippled by deforming arthritis.

Mr. Drake-Brockmann had met with many cases of keratomalacia in India during famine, and in epidemics of cholera, and not infrequently in chronic dysentery. In children the condition was, he thought, often associated with congenital syphilis. In some cases destruction of the cornea occurred with extraordinary rapidity.

Mr. Doyne mentioned the case of a child 6 weeks old, in which the cornea eventually cleared almost completely.

Mr. Priestley Smith (Birmingham) referred to the necessity of carefully watching the cornea in children and others prostrated by serious illness. In such cases the corneæ were often exposed during sleep, and were prone to severe ulceration. Protection of the cornea by a bandage, or adhesive plaster on the eyelids would often prevent this dangerous complication. Sometimes union of the margins of the lids was necessary, and to effect this he had had recourse to a procedure differing a little from that ordinarily employed in blepharoplasty. He split each lid at the margin, in its long axis (as in Arlt's operation for trichiasis), and by means of stitches brought together the raw surfaces of the gaps in the upper and lower lids. By this means no loss of tissue was incurred, and in his experience the results were very satisfactory.

Panophthalmitis following Lachrymal Abscess.

Dr. Rockliffe (Hull) read notes of this case. The patient, aged 63, had suffered for thirty years from lachrymal obstruction, but never before the present attack from abscess of the sac. The suppuration in the lachrymal sac was followed by conjunctivitis, chemosis, keratitis with hypopyon, panophthalmitis, and excision of the globe. On examination the whole eyeball was filled with inflammatory products, and there had been much matting of the orbital tissues.

Dr. Hill Griffith (Manchester) thought that if the cornea had entirely escaped injury, the case was unique. He had seen one case in which suppurative panophthalmitis had followed lachrymal abscess, but in that instance the cornea became accidentally abraded by the end of a lead style.

Mr. Adams Frost referred to a case in which infection of the orbital cellular tissue occurred through a small wound of the conjunctiva, and led to complete destruction of the eyeball.

Cicatricial Ectropion Treated by Tweedy's Operation.

Dr. Rockliffe (Hull) reported the case of a man who had been kicked in the face by a horse, the lower lid being divided close to the inner canthus, and the cheek split open. The resulting cicatrix produced ectropion. Tweedy's operation was performed with results quite as satisfactory as in cases in which the deformity was at the outer canthus.

A Case of Probable Rupture of the Optic Nerve.

Mr. Johnson Taylor (Norwich) read notes of the case of a young man, who in stooping to pick up kindling wood, struck the right lower eyelid violently against the end of a piece of wood standing obliquely on the floor, with the result of immediate and permanent loss of sight in the right eye. The neighbouring bone was not struck, there was no probability of penetration, the skin alone of the lid appeared to have been broken; no tenderness or swelling of the eyelid, or conjunctiva followed, and only slight temporary patchy discoloration of the skin resulted. No headache, vomiting, or other symptoms ensued; the patient immediately resumed his work and continued it for several hours. When seen for the first time, five

days later, the right eye had no perception of light, the direct pupillary reflex was entirely absent; indirect reflex and contraction of the pupil with convergence were normal; movements of globe normal. The appearances on ophthalmoscopic examination were almost *nil*, and quite inadequate to explain the symptoms. After discussing the possible explanations of the case, Mr. Taylor suggested that the optic nerve had been ruptured either by sudden violent and extreme rotation of the globe, or by overstretching the result of the sudden proptosis produced by the piece of wood being driven in between the eyeball and the lower orbital margin.

Mr. Adams Frost mentioned a case he had seen at Moorfields, in which the stem of a tobacco-pipe had penetrated the orbit and ruptured the optic nerve. The disc became recognisably atrophic in four to six weeks. The external wound was so insignificant that if the pipe stem had not remained in the orbit till the patient came to the hospital, it would have been impossible to say that there had been more than a cutaneous wound. He thought that, in Mr. Taylor's case, direct injury to the nerve by penetration of the piece of wood, was the more plausible explanation.

Mr. C. Wray spoke of a patient under his care, in whom, after removal of the blind eye, an orbital exostosis was found, against which the nerve might easily have been compressed.

Mr. Bullar (Southampton) referred to a case, in some respects similar to Mr. Taylor's, in which there had evidently been a perforating wound of orbit.

Mr. Tweedy mentioned the case of a man under his care at University College Hospital, in whom a piece of tobacco-pipe stem had entered the orbit, damaged the optic nerve, causing blindness, and had remained in the orbital tissues for two years. The man was unaware that he had received any injury other than a "scratch" on the eye.

Living and Card Specimens.

Dr. Bronner (Bradford): Portable Sterilising Apparatus for Instruments and Bandages and Dressings.—Mr. Julee: (1) Guttate Choroiditis; (2) Cyst of Iris; (3) Pemphigus of the Conjunctiva.—Mr. Lawford: New Growth in Ciliary Region.—Mr. Hartridge: Intraocular growth.—Mr. Frank Haydon: Ophthalmoscopic Atlas for Recording Changes in the Fundus Oculi.—Mr. Silcock: Recurrent Growth in both Orbits, probably Syphilitic.—Dr. A. Sandford (Cork): (1) Double Sarcoma of Orbit in an Infant; (2) Gunshot Wound of Eyeball.

BRITISH GYNÆCOLOGICAL SOCIETY.

W. A. Dingle, M.R.C.S., L.R.C.P., Vice-President, in the Chair.

Thursday, November 24th, 1892.

Specimen.

Mr. H. Reeves showed a large Spindle-celled Sarcoma of the Uterus removed from a single woman aged 52. The patient died from metastatic deposits.—Remarks were made by Dr. Heywood Smith, Mr. Bowreman Jessett, and Dr. C. H. F. Routh.

Apostoli's Treatment in Fibromyoma.

Dr. Inglis Parsons read notes of a case of large fibromyoma absorbed by Apostoli's treatment. The patient (sent by Dr. R. Barnes), aged 35, was married, and had two stillborn children. Menstruation regular and rather scanty; some dysmenorrhœa for the last few years. She complained of constant pain in the left iliac region and irritability of the bladder. The uterus was found to reach the level of the umbilicus; it was smooth and pear-shaped above, but nodular in the lower segment. The sound passed 3½ inches. Eight applications of the current were made between April 8th and May 13th, 1892, with an average strength of 60 milliampères for ten minutes. On June 20th the tumour had nearly gone; by July 21st it was completely absorbed. On October 19th she was sent to Dr. Robert Barnes again, and he confirmed the disappearance of the tumour.

Remarks were made by Dr. Batchelor, Dr. C. H. F. Routh, Mr. Bowreman Jessett, and Dr. Widenham Maunsell.

Cystic Formation in Broad Ligament.

Dr. F. C. Batchelor (Otago, New Zealand) read a paper on this subject. He divided the cases for clinical purposes into three groups: (1) The large ovarian tumours distending the abdomen; (2) small cystic formations occupying the true pelvis; (3) medium-sized tumours above the pelvic brim. After discussing the diagnosis, he said, with regard to treatment, that some cases giving rise to no symptoms might be left alone. He found it extremely difficult to remove a cyst deeply imbedded in the broad ligament, and asked if some of these cases might not be cured by aspiration or puncture, or injection after exploratory incision. The method he usually adopted was to endeavour to enucleate the cyst through a large incision. There was free hæmorrhage, but it could be controlled. Sometimes he evacuated the cyst and then snipped off a small piece to see if the inner wall would strip off readily. When this was found to be the case he removed the whole of the inner lining of the cyst in the same way.

Remarks were made by Drs. J. Inglis Parsons, Widenham Maunsell, and C. H. F. Routh.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Pathological and Clinical Section.

Robert Saundby, M.D.Edin., F.R.C.P.Lond., in the Chair.

Friday, November 25th, 1892.

Cases.

Dr. Suckling showed a second case of Ophthalmoplegia and General Motor Paralysis in a young lady, aged 18.—Mr. Morrison showed a boy, aged 9, in whom the Power of Supinating the Hands had been Absent from Birth. The head of the radius could be plainly felt in front of the external condyle of the humerus. The bones of the forearm were crossed, so that the hand was pronated, and rotation only possible through the shoulder-joint. Mr. Morrison had excised the head of the left radius without materially affecting the rotary movements.—Dr. E. N. Nason showed a girl, aged 13, with an Orbital Tumour. There was distinct and increasing prominence of the right eye. There was slight but increasing defect of vision, but no pain. The growth was most probably a solid tumour of malignant nature.—Mr. Heaton showed a boy, aged 12, who developed an Abscess of the Brain after trephining for compound depressed fracture of the frontal bone. The wound was reopened, and more bone was removed. The dura mater appeared sloughy, and had lost all pulsation. A scalpel was pushed into the left frontal lobe, and 6 drachms of pus evacuated. A small drainage tube was left in. The child progressed well for three weeks, when he was suddenly seized with symptoms pointing to acute meningitis. The brain was again explored in various directions with a negative result. The acute symptoms subsided after this exploration, and he made an uninterrupted recovery. He was a bright intelligent boy, and, except for some slight right facial paralysis, showed no evidence of brain injury. Mr. Heaton remarked that the brain abscess must have been due to his leaving some septic material in the wound.

Specimens.

Mr. Jordan Lloyd showed the Sac of a Congenital Hernia, with a Testis and Piece of Omentum removed by operation for the radical cure of an irreducible scrotal epiplocele in a man aged 30. The specimen was shown to exhibit two points—(1) the continuation of the tunica vaginalis beyond the level of the retained testis, and (2) the ease with which operations for the radical cure of hernia could be done if a patient would assent to the removal of a testis.—Mr. Marsh showed a specimen of Congenital Cyst in the Floor of the Mouth removed from a young woman aged 19. It was removed through a submental incision. It was situated in the middle line on the glossal surface of the mylo-hyoid muscle, and was not adherent at any point. The contents were similar to putty, and did not contain hair or any "dermoid" material. The patient made a good recovery.—Dr. E. N. Nason showed microscopical specimens of (1) Primary Carcinoma of the Liver, (2) Primary Carcinoma of Ovary; Secondary Carcinoma of Brain.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

JOSEPH BELL, M.D., F.R.C.S.E., President, in the Chair.

Wednesday, December 7th, 1892.

SPECIMENS.

MR. DAVID WALLACE showed (1) a Phosphatic Vesical Calculus with a foreign body (paraffin) forming its nucleus, removed by crushing from a highly nervous young man who had injected paraffin into his urethra. (2) A Vermiform Appendix in which was an aperture through which a small impacted mass of fæcal matter had been working its way by suppuration. Some of the usual signs of appendicitis were present, the abdomen was opened, and the appendix successfully removed.—Dr. JAMES CARMICHAEL exhibited a specimen in which a fistula had been formed between the pleural cavity and the œsophagus in a case of empyema in a child aged 21 months.

MODIFIED GALVANIC CELL.

Dr. DAWSON TURNER described a modified bichromatic of potassium galvanic cell, which he held was superior to that ordinarily in use. The new solution was made up of 3 ounces of chromic acid, 3 ounces of sulphuric acid, 1 pint of water, and chlorate of potassium half an ounce to the pint. The latter substance added to the depolarising power of the cell.

SUDDEN DEATH.

Dr. TEMPLEMAN (Dundee) read a paper on two rare cases of sudden death in medico-legal practice. The first was that of man, aged 43, highly neurotic, who had felt faintness at times, and had actually fainted once. He had been out at a friend's house, where he had had a game at draughts, came home at 10 P.M., went to bed at 11, and at 11.30 his son came home drunk. The father had an altercation with his son, and a few minutes later was found lying on his bed quite dead. The heart was in diastole, the blood was fluid, there was no evidence of any pathological state, and the diagnosis was emotional inhibition of the heart. The second case was that of a middle-aged woman, who had been struck in the epigastric region by her husband, who was drunk. After the blow the woman walked several yards, lay down, turned on her side, sighed, and died three or four minutes after. At the necropsy there were some five or six slight bruises, no ecchymoses; the spleen, liver, and mesentery were congested, but otherwise there were no morbid conditions. The diagnosis was death from syncope and shock. In both cases Dr. Templeman cited parallel instances from medico-legal literature.

Remarks were made by Dr. JAMES RITCHIE and Dr. HERBERT LITTLEJOHN; and Dr. TEMPLEMAN replied.

CYSTOSCOPY IN RELATION TO VESICAL NEOPLASMS, FROM NOTES OF 23 CASES.

Mr. DAVID WALLACE read a paper on this subject. During the past three years he had seen 23 cases of vesical neoplasm distributed thus: Fibromyoma, 1; papilloma, 8; epithelioma, 14. In 13 cases microscopic examination had been made, namely, in 1 fibromyoma, 4 papilloma, and 7 epithelioma. All these were operated on. Notes of three selected cases were next given. Mr. Wallace summed up his paper in the following propositions: (1) Tumours of the bladder are more frequent than is generally supposed. (2) Hæmaturia suggests their existence. (3) Positive evidence by cells is not often got. (4) The cystoscope gives that positive evidence. (5) By the cystoscope the site, size, attachment, and removability can be determined. (6) No evil results follow the use of the cystoscope. (7) The suprapubic operation is the best. (8) Malignant tumours are far more frequent than innocent. (9) The tumour should be thoroughly removed. (10) Good results follow even the removal of malignant tumours.

Dr. JOHN DUNCAN said the cystoscope gave an absolute diagnosis in certain cases, while in others it was only an adjuvant, and in still others, for example in large tumours, it gave absolutely no help. He was unable to agree with the statement as to the transition of such neoplasms from the innocent to the malignant, and was strongly of opinion that that rarely happened, and even then only after long intervals (say 10 or 15 years), and in cases of ulceration, in this latter condition following the analogy of other parts of the body.

Professor CHIENE agreed that hæmorrhage was a pathognomonic symptom, and believed strongly that innocent tumours became malignant, probably that papilloma soon became so. As to operation, he was not fond of Petersen's bag; he thought Trendelenburg's position the best, and if the patient were weak he did the operation in two stages, with an interval of two days.

Dr. MCBRIDE thought simple tumours hardly ever became malignant.

After some remarks by Dr. C. W. MCGILLIVRAY, the PRESIDENT said that instead of keeping the opening into the bladder patent by Péan's forceps, he preferred to put in a thread into each side, inasmuch as there was less squeezing of the edges of the wound afterwards.

Mr. D. WALLACE replied.

ACQUIRED UMBILICAL FÆCAL FISTULA.

Dr. RAMSAY SMITH read a paper on this subject.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

ROBERT POLLOK, M.B., F.F.P.S.G., President, in the Chair.

Wednesday, November 23rd, 1892.

SPECIMENS.

Dr. MURDOCH CAMERON showed a Dermoid Ovarian Cyst, several small Fibroids, and a Uterus with a mass of small fibroids in its walls, all removed from an unmarried woman, aged 48.

TWO YEARS' MIDWIFERY.

Dr. ROBERT JARDINE, Outdoor Physician to the West End Branch of the Maternity Hospital, read notes of 1,028 confinements, being the report of two years' work at the branch. Nine hundred and thirty-two women were confined at full term, 65 prematurely, and 31 aborted. There were 13 cases of twins. The operative cases were: Forceps, 63; version, 10; craniotomy, 1; induction of premature labour, 1. Of the 5 fatal cases 1 was due to pneumonia, from which the woman was dying when prematurely delivered, 2 to puerperal fever, 1 to concealed accidental hæmorrhage, and 1 to placenta prævia. The latter did not send for assistance until she was *in extremis*, and died as the doctor reached her. There were 7 cases of accidental hæmorrhage and 1 of marginal placenta prævia treated successfully. There were 6 cases of *post-partum* hæmorrhage. He always cleared the clots out of the uterus before using the hot douche. There were 2 cases of eclampsia; one, a multipara, had two fits before and eleven after delivery, the other, a primipara, had three before and one after. In the former case the urine was loaded with albumen, while in the latter it was normal. The treatment was rapid delivery under chloroform and chloral and bromide by the rectum. Both recovered. He induced premature labour at seven and a-half months in one case with a conjugate of 3; and in another of 2¼ he did craniotomy. The placenta was adherent 16 times. Syphilis he believed to be the most frequent cause. He used Milne Murray's axis-traction forceps, and expressed great satisfaction with it. The usual routine was for the nurse to allow the second stage to go on for two hours, and if there was then no advance to send for assistance. Weak perchloride of mercury was the antiseptic used. Normal cases were not douched unless bleeding ensued. There had been comparatively few alarming rises of temperature considering the houses were very dirty and many of them in an insanitary condition. When a rise occurred he douched out the uterus with 1 in 2000 perchloride, and ended with pure warm water. He had never seen the least sign of mercurial poisoning.

Dr. S. SLOAN thought the mortality of 1 in 200 was exceedingly low considering the nature of the work. He preferred aseptic to antiseptic midwifery.

Dr. M. CAMERON said the best treatment in septic cases was proper and frequent douching of the uterus with perchloride. In the pure form of septic absorption the woman often never complained of any abdominal pain but merely of languor, slight headache, and vomiting. The lochia might not be foul. Peritonitis of a low form existed. He thought the sanitary authorities should take charge of puerperal fever cases even if they did not remove them.

Remarks were also made by Dr. RICHMOND, Dr. MILLER, and the PRESIDENT; and Dr. JARDINE replied.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

J. H. Bell, M.D., President, in the Chair.

Tuesday, December 6th, 1892.

General Paralysis in a Boy.

Dr. Major showed a boy whose father had died a short time since of general paralysis; the boy's mother, too, was mentally defective, slurring in her speech, and probably also on the verge of the same disorder. The boy himself, who was formerly bright and intelligent, first came under notice in February, 1892, for choreiform movements, with migrainous headaches. He was treated for chorea with arsenic, and improved considerably. Later stammering came on, with tremors of the tongue and lips; he occasionally fell in walking; the mental power was impaired. No hallucinations, no optic neuritis, nystagmus, or visual defects. The most noticeable symptoms were slurred speech, marked loss of memory, and lately negligent habits. The diagnosis was general paralysis. Cases at 17 and 16 had been reported in this country, and a Continental one said to be 14.

Specimens.

Mr. Rabagliati showed specimens of Ovarian Sarcomata he had recently removed. In one case (aged 41) the tumour, which weighed 4½ pounds, was a spindle-celled sarcoma, with some myxomatous change in parts. In the other it was a large round-celled sarcoma, with extensive hæmorrhagic effusion throughout. It was universally adherent, but the patient made an excellent recovery. Messrs. Horrocks and Althorp discussed the cases.—Dr. Major showed specimens of Old Hydatid Tumour of the Liver from a man, aged 66.

The Hypnotic Condition.

Dr. Kerr spoke of the hypnotic and hysterical conditions as similar. Although hypnotic treatment could not cure disease, yet it was sometimes the only means applicable for the relief of symptoms. If a patient was directed to concentrate all his voluntary efforts on the tight closure of the eyes, clenching of the jaws or fists, it was said that the normal tonic influence of the cerebral cortex on the lower spinal centres was thereby depressed. In the case of an epileptic aura referred to a limb, peripheral irritation by the application of a tight ligature to the limb had been known to inhibit the cortical area affected, and avert the threatened nervous discharge. In hypnotising, the cerebral balance was upset, cortical efforts were all turned in one direction, "self-control" was lost, and the hypnotised nervous system was a complicated reflexing mechanism. Dr. Kerr demonstrated the various hypnotic and posthypnotic phenomena produced by suggestion.

Dr. Goyder and Mr. Rabagliati continued the discussion, which was adjourned.

STAFFORDSHIRE BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Henry Malet, M.D., President, in the Chair.

Thursday, November 24th, 1892.

Specimens.

The following specimens were shown:—By Mr. Spanton: (1) Uterus with Extensive Epithelioma removed by Vaginal Hysterectomy from a married woman, aged 25, who made good recovery. (2) A Fibro-sarcomatous Tumour of the Spermatic Cord, weighing 2¼ lbs., removed from a patient, aged 47, followed by recovery. (3) A very large Vermiform Appendix with recent perforation and a Foreign Body found loose in the Peritoneal Cavity, removed by laparotomy five weeks previously from a man, aged 21, while suffering from acute peritonitis; the patient was now quite well.—Mr. West and Mr. Herbert Folker: A gelatine preparation of Glioma of the retina from an eye removed in July, 1892, by Mr. West from a child, aged 5. No recurrence had taken place and the child was at present quite well.

Cases.

Mr. West showed a boy on whom he had operated for very severe Symblepharon by the transplanting method advocated by Wolfe. The case had done very well, and the movements of the globe were perfect.—Mr. Folker showed a girl, aged 16, on whom he had performed Tarsectomy for Talipes equinovarus with excessive deformity twelve months previously. A wedge-shaped piece was removed from the tarsus, of such a size as to enable the inner side of the foot to be brought into a straight line, and the superfluous skin was removed. When the wound was healed, the foot was put up in plaster, which was removed at the end of ten weeks. The patient now walked well without support of any kind.

Papers.

Dr. McAldowie read a paper entitled Cardiac Bruits audible at a Distance from the Chest.—Mr. Herbert Folker read a paper on Cataract, giving a description of the earlier and present operations, and detailing the different complications that might arise, together with the best treatment adapted to each case.—Dr. Charlesworth read a paper on a case of Sacciform Dilatation of the Uterus. After describing a case in his own practice, in which the child was born dead and the mother made an excellent recovery, he said such cases were very uncommon. Depaul in 1876 had reported a similar case. In that instance it was impossible to find the os uteri, and, believing it to be completely closed, Depaul made an artificial opening. The woman died undelivered.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

Friday, November 11th, 1892.

E. Hamilton, F.R.C.S.I., President, in the Chair.

President's Address.

The President delivered an address on the various surgical advances that had occurred of late years. He alluded to anæsthesia, antiseptics, and vivisection, and condemned the senseless outcry which practically denominated men of learning and refinement as brutal savages.

Estlander's Thoracoplastic Operation.

Sir William Stokes discussed the cases of empyema in which drainage would be likely to be sufficient, and those in which a plastic operation such as Estlander's was required. The particulars of a series of cases operated on by Sir William Stokes and his colleague, Sir P. C. Smyly, were detailed, the results of which were, on the whole, most satisfactory. The results of the experience derived from the cases operated on in Dublin tended to show that ultimately the operation would be deemed applicable to a much larger range of cases than at present. The views of Mr. Godlee and Mr. Heuston as to where the opening into the cavity of the pleura should be made were considered, the author being of opinion that the situation recommended by them would be, in the majority of instances, perilously near the diaphragm. The question of flushing the pleura was also discussed, the author giving his approval to the practice both during and subsequent to the operation.

Mr. Heuston said that in the performance of Estlander's operation it was important that the periosteum of the rib should not be preserved to too great an extent, as it was liable to form new bone to such a degree as to do away with the object of the operation. In the more recent cases he turned the flap of periosteum over the end of the rib where it had been cut across, and thus hindered the absorption of the discharge by the cancellous bony tissue, to which he ascribed the immunity of his patients from pyæmia, which some authors considered the greatest danger from this operation. He had never injured the diaphragm in the many operations he had performed, although he always selected the eighth interspace in the scapular line for his incision; this position presented a great advantage over those incisions made on the anterior or lateral chest wall, in the fact that here the ribs were so fixed by their vertebral attachments that there was no danger of the tube being occluded by the ribs falling together. In recent cases he employed only one washing, namely, at the time of the operation, to remove any semisolid lymph which might be within the pleural cavity, and he had found that by the occasional introduction of an antiseptic which dissolved slowly within the cavity, even where the dis-

charge was fœtid at the time of operation, it became quite sweet within a few days, never to resume its fœtid character.

Mr. Thornley Stoker and Mr. Doyle also spoke.

Section of Obstetrics.

Andrew J. Horne, F.R.C.P.I., President, in the Chair.

Friday, November 25th, 1892.

Cases.

Dr. John M'Cullagh exhibited a case of Spina Bifida, treated by iodo-glycerine; result after four years.—Dr. M'Ardle exhibited another case of Spina Bifida, cured spontaneously at the age of 21.

Specimens.

Dr. Smith showed the following specimens: (1) An Ovary the size of a Hen's Egg, removed from a married woman, aged 24. This had caused great pain for the past three years, increasing in intensity. The patient made an excellent recovery. (2) A Large Dermoid Cyst, removed from a patient, aged 26. (3) A Multilocular Ovarian Tumour, the size of a seventh month pregnancy, removed from a patient, aged 20. (4) A Sloughing Fibromyomatous Polypus, from the posterior wall of the fundus uteri. (5) A Parovarian Cyst, with an unusually long pedicle.—The President exhibited an Ovarian Tumour removed on account of twisted pedicle. Complete recovery was the result. Dr. M'Ardle and Dr. Smyly spoke.—Dr. Flynn exhibited a Parovarian Cyst.—Dr. E. Hastings Tweedy showed a specimen of Blighted Ovum, which came away from a woman confined in the Rotunda Hospital on November 18th, 1892, six hours after she had been delivered of a full-term living child. In reply to Dr. Kidd, Dr. Tweedy said he could see no connection between the placenta of the living child and the blighted ovum, although he admitted the possibility of vascular connection.—Dr. M'Ardle exhibited a specimen of the Labia Majora, removed for perforating ulcer from a patient aged 38. Dr. Smith, Dr. Tobin, Dr. Smyly, Dr. Parsons, and the President spoke; and Dr. M'Ardle replied.—Dr. M'Ardle also exhibited a Renal Cyst. The kidney was flattened out over the tumour and the cyst pressed against the ureter. The only point of interest was the way in which it simulated an ovarian tumour. It came down into the pelvis below the umbilicus, and was likewise fluctuating. Dr. Horne made a thorough examination of the uterus, and then they diagnosed that it was a renal cyst. On account of its size they decided upon the abdominal operation. It was found much easier, and in future he would certainly be inclined to do the abdominal operation. The ureter was found to be perfectly normal. After the third day the temperature went up, and on examination they discovered a swelling and tenderness above the crest of the ilium. Assisted by Mr. Tobin, he cut down in the lumbar region, and there they discovered half a pint of pus, and with the pus came away the upper part of the ureter. The patient was now perfectly well.—Mr. Tobin said that the contents that came away were half solid and would not come away through any cannula.

Arrest of Development caused by a Railway Accident.

Dr. M'Ardle gave details of a case in which intrauterine arrest of development occurred as a possible result of injuries sustained by the mother in the Armagh railway disaster in 1889. The woman, who was three months pregnant at the time, sustained severe strain of the back, which confined her to bed for several weeks. On the birth of the child, the spinal canal was incomplete, except at the middle dorsal region, resembling exactly the condition present in a three months' fœtus. The head also showed an arrest of development, the parietal, upper frontal, and upper occipital regions being covered only by thin membrane. The right hip-joint was also undeveloped, the femur being shorter than that of the opposite side. Dr. M'Ardle exhibited plates to show that the condition found in this child three months after birth coincided accurately, as regards the spine, with the descriptions given by Humphry and others of fœtal development between the third and fourth month. From this he argued that the accident to the mother was directly responsible for the arrest of development in the child.

Dr. M'Cullagh said the case of spina bifida he had shown that night was ascribed by the mother to a blow on the back between the third and fourth months of pregnancy.

Dr. Smith said the whole case really rested upon the point of maternal impressions.

Dr. Smyly said the case was probably only a remarkable coincidence. His experience was, that if a woman were given twelve hours to consider she would account for any deformity.

Dr. Broomfield also spoke; and Dr. M'Ardle replied.

REVIEWS.

Elements of Human Physiology. (Student's Guide Series.) By Ernest H. Starling, M.D., M.R.C.P., Joint Lecturer on Physiology, Guy's Hospital. London: J. and A. Churchill. 1892.

This is a textbook that will be eagerly welcomed by a large circle of students. During the last few years the science of physiology has passed through a very critical period. From being little more than a mass of isolated and empirical facts, it is rapidly assuming a definite and coherent form. This change is due to a large increase in the number of experiments and observations, and to a great advance in the methods and appliances of investigation. But still definite working hypotheses resting on sure experimental bases are very remote. Consequently the ideas that underlie modern physiology, although rapidly crystallising in definite form, are vague and, to beginners, difficult to understand. It is just this difficulty that usually renders abortive any attempt on the part of students to ascertain for themselves the direction in which investigations are at present tending. The work before us, however, is well adapted to remove such serious obstacles to genuine and profitable study as these must surely prove to be. It is a volume of some five hundred well-printed pages, boldly illustrated with excellent diagrams. Of these most are original, and those which are not so are culled from well known and reliable sources. The practice of illustrating students' manuals with reproductions of well-known plates is one which has much to commend it, and is far preferable to the usual method of crowding the pages with indistinct cuts, in which quantity and not quality seems to be the end in view. Scientific literature abounds in excellent illustrations, permission to copy from original memoirs is in most cases easy to obtain, and photo-mechanical copying processes are now of high perfection. The book is primarily intended for the use of medical students, but when its value becomes known we feel confident that it will be largely read by many who study physiology, as it always should be studied, as a branch of biology. The volume commences with an excellent introduction, which almost ranks as an epitome of the general mechanism of the body. Such an introduction is of the greatest use to those who, not being good anatomists, desire to study the science. It is, we fear, no uncommon occurrence to find students commencing to study the physiology of a body of the structure of which they have not even a general idea.

A short account of the chemical constitution of the body contains the general properties and classification of proteids and other great constituents of food stuffs, together with the chemistry of the products of digestion, and the substances derived from the various tissues. This is a branch of the subject which usually receives but scant attention in elementary textbooks, and its introduction into Dr. Starling's manual greatly adds to its value. The rest of the volume is occupied with the special physiology of blood and the various other tissues and organs of the body. Digestion, absorption, and the functions usually described in elementary textbooks are clearly and lucidly explained, not omitting an excellent and concise account of the nervous system and the special senses. Dr. Starling's style of teaching is excellent; wherever possible, all statements are referred to an experimental basis. The results of recent work are incorporated in the text and put before the reader in the plainest possible manner. Hitherto such information has been largely inaccessible to the general student, either by reason of its being hidden away in journals or expensive textbooks, which are out of the

reach of many, or by reason of its being, at its original source, detailed in some foreign language.

The author deserves great credit for the complete and exhaustive manner in which the book has been brought up to date in all its departments. This is a marked feature, and renders the volume of the greatest use, not only to the elementary student, but also to the more advanced, to whom it will serve as an abstract or "fact-book." In order to maintain this standard of excellence repeated and careful revision will be necessary, and we trust that the work will run through its editions sufficiently rapidly to render such a course possible to the author. There is one omission which will, however, seem of rather a grave nature to many: this is the almost complete exclusion of any account of the histology of the of the tissues from the text. This objection, in view of the fact that physiology is surely changing from a science of the functions of organs to a science of the function of constituent cells, would be valid, but for the fact that in all those cases in which work has been done in this direction an account of it is introduced. A notable example is the description given of the cellular changes accompanying salivary secretion. This is a most excellent and concise account, and is, moreover, amply illustrated with reproductions of the original figures. It only remains to be said that Dr. Starling has produced a valuable textbook, and has supplied most ably a distinct want in students' literature.

A Dictionary of Psychological Medicine. By D. Hack Tuke, M.D., LL.D. London: J. and A. Churchill.

This is an elaborate and valuable contribution to the literature of medical psychology, and will be found a reliable work of reference, of use, not only to the expert in mental diseases, but also to the profession generally. It will fill a gap long felt by those who have been called upon to deal with cases of insanity in the course of their ordinary practice, and those who have made psychological medicine a special study will find that it brings well into focus the widespread literature of the subject, and carries our information upon many kindred matters down to the present time.

The list of contributors numbers about 128, and includes many names well known in connection with mental disorders. These contributors are not confined to the various countries of Europe alone, but include some of note in the United States of America and the Colonies.

The "Historical Sketch of the Insane," by the editor himself, which forms part of the introduction to the body of the work, is of much interest, for it traces back the evidence of the existence of insanity to times so remote that, as the author states, the conclusion is irresistible that there never was a period in the history of the human race when insanity did not exist. He tells us, further, that as far back as 5,000 years ago, in a moral discourse by Prince Ptah-hotep, which portrays the social life of the Egyptians at that date, there is a graphic description of senile decay, in which it is said: "The heart grows hard and remembers not yesterday."

Following this historical essay, and forming a second part to the introduction, is an article on "The Philosophy of Mind," by W. C. Coupland, necessarily condensed owing to limitation of space, but nevertheless well written and well placed.

The aims of the editor in laying this work before the profession have been to provide information more or less systematic in regard to the definition, etymology, and synonyms of the terms used in medical psychology, and the symptoms, treatment, and pathology of insanity, together with an abstract of the law of lunacy in Great Britain and Ireland. That the *Dictionary* carries out these aims in no niggardly fashion is evident in the two large volumes, containing upwards of 650 pages each, to which are added a copious bibliography and an index carefully prepared.

The special articles written by able and experienced writers are valuable contributions to our knowledge of the various subjects touched upon. The print is clear and not too small, while the general arrangement of the work bears evidence of the great labour bestowed upon it, and shows an intimate knowledge of all matters of detail which is worthy the high reputation of the editor, and which is bound to commend the *Dictionary* as an essential and comprehensive standard book of reference.

Les Microbes Pathogènes [Pathogenic Microbes.] Par Ch. Bouchard, Membre de l'Institut (Académie des Sciences) Professeur à la Faculté de Médecine de Paris. Paris: J. B. Baillière et Fils. 1892.

We are so accustomed to anticipate both pleasure and profit from a perusal of Professor Bouchard's work that it was with the keenest interest we took up his recently published book on pathogenic microbes. We may say at once that our anticipations have been more than realised. In Professor Bouchard we have combined the clinician and the laboratory student, and, as we should expect from such a combination, the vitality with which he invests his subject is communicated to the thought of the reader, who, if he is anything of an observer and a philosopher, must have his mental pulses set throbbing when he reads the descriptions and deductions set forth in this book.

The work opens with an essay on the theory of infection, originally communicated to the Tenth International Medical Congress held in Berlin in 1890; this essay is now so well-known that it is scarcely necessary to say much about it, but it serves most admirably as an introduction to the remainder of the work, as in it are defined and explained, as shortly as possible, many of the points with which the author afterwards deals. Many readers will feel grateful to him for the lucid manner in which he shows how sharply we must distinguish between many of the terms that are now only too frequently used in a somewhat slovenly fashion. His definitions of the bactericidal theory, of phagocytosis, of the theory of infection, of vaccination, of natural immunity, and the like, and his definitions of virus and vaccines, will all be useful in helping the student to a proper conception of the limitation of these terms.

In a long chapter on the actions of the products secreted by pathogenic microbes, he states that he has come to the conclusion that certain substances secreted by microbes hinder not only their own development, but those of other micro-organisms; whilst on the other hand, other substances stimulate the development of the organism that secretes them, and, it may be, of certain other organisms also; that all microbes secrete a toxic substance, and that some of them secrete also a vaccine; that this vaccine so alters the animal organism that even when it has been eliminated the fluids of the body remain less favourable nutrient media for the micro-organism, but that this vaccine also acts directly upon the cells, stimulating their phagocytic activity. He also finds, as might be expected, that when the soluble poison is injected along with the organism, the symptoms are more rapidly developed and are more distinctly marked. He has also made a series of experiments on the result of the inoculation of two organisms, one more powerful than the other. For particulars of these we must refer the reader to the original, but we may state briefly that Professor Bouchard finds that the protective effect commences to be developed very rapidly; that it can be increased by repeated injections of the bactericidal products; but that where an animal is not immune, either naturally or artificially, the soluble products of a very virulent microbe may actually paralyse phagocytosis, even when non-pathogenic or attenuated pathogenic organisms can be dealt with by the phagocytes.

The third chapter is devoted to "Clinical observations and experimental researches upon cholera." The author considers that cholera is an infective disease due to the action of a microbe which is capable of producing a morbid poison, but that in addition to the intoxication produced by this poison there is uræmic poisoning, of which we have most important indication in the myosis which is so often present. He concludes by stating that he is convinced that the pathogenic agent of cholera is not found exclusively in the intestinal canal, and that the "comma" bacillus is not the actual producer of the cholera poison. These conclusions are so much at variance with what we are taught to believe that it would seem well worth the while of some of our experimental pathologists to take up this matter and go into it from a thoroughly impartial standpoint.

We may conclude this notice of a most interesting book by giving a list of the contents of the remainder of the work. The chapters include one on "Elimination by the urine in infective diseases," "Soluble substances, morbific and vacci-

nating," "The *rôle* of poisons of microbic origin in infective diseases," "On the elimination of certain morbid poisons by the kidneys," "The *rôle* and mechanism of the local lesion in infective diseases," "A critical review of the doctrines of inflammation," "The action of the vasomotor supply on bacterial products," "Bacteriological reseaches upon influenza and its complications," "The influence exercised upon anthrax by the inoculation of the bacillus pyocyaneus," "The etiology and general pathogeny of infective diseases," and "The antiseptic treatment of acute infective diseases."

Those who read this work of Professor Bouchard cannot fail to derive profit from his realistic descriptions, well thought out experiments, and acute criticism; and even if one cannot agree that the basis on which Professor Bouchard founds some of his arguments is correct, the reader will always feel that, granting him his premisses, his conclusions are unassailable.

THE ART OF MASSAGE. By A. CREIGHTON HALE. London: The Scientific Press Limited. 1893.

OF making and publishing works on massage there is apparently no end. The recipe for their production seems to be a very simple one. The compiler will sometimes be found to draw largely on Quain and Gray for his anatomy; he throws in a little physiology from Huxley or Kirkes, borrows a few plates illustrating the methods of performing *effleurage* and *pétrissage*, gives a table usually occupying several pages, of "Weir-Mitchell dietary," and, if he is especially enterprising, copies the description of a cheap battery, or two perhaps, from an instrument-maker's catalogue. For what class these compilations are intended it is difficult to say; they are evidently not addressed to the medical profession, and a nurse who had been properly trained would treat them with little respect. Possibly they may appeal to those—generally young women from the country—who are led to believe that by the expenditure of a few pounds in learning "the whole art of massage" they will find themselves on intimate terms with the members of the aristocracy, and will make an income of at least a thousand a year.

We do not suggest that the work before us has been compiled on these lines, or with any specific object, but the preponderance given to certain elementary facts in anatomy is excessive. For example, Chapter III, On the Structure and Functions of the Body, is devoted almost entirely to an enumeration of the bones, accompanied by a short and meagre description of each. Chapter VII, On the Structures of the Muscles, is pretty much on the same lines, the information conveyed being such as could be derived from any elementary work on the subject. The illustrations to this chapter (notably one giving the arrangement of the muscles and nerves of the eye as shown by a section through the orbit) can have very little interest for students of massage. Chapter X, On the Throat, Chest, and Heart, gives an imperfect account of the lymphatic system, and of the minute structure of the capillaries.

In the next chapter there is a popular description of the stomach, liver, intestines, spleen, pancreas, and kidneys, whilst other chapters are devoted to the nervous system and the composition of adipose tissue. On pages 103-7 we find the details of a case treated by the Weir-Mitchell method. Every particle of food administered during a period of seven days is recorded, but the "notes" are not of a very elaborate description, consisting chiefly of the words "doctor," "pill," and "stool" repeated with wearisome iteration. There is the usual description of a faradic battery. Judging from the standpoint of a work on massage there is little to be said, for the information on the subject seems to have been reduced to a minimum. Whatever knowledge the author may possess he has been successful only in concealing. Possibly a work of this kind may appeal to a certain audience, and we can easily conceive that to those who have never been made acquainted with the elementary principles of anatomy or physiology, it may come with the force of a revelation. It is a good point about the book that the author indulges largely in quotations. Chapter XV On Therapeutic Massage is, with the exception of four lines and a half, composed of quotations.

REFORM IN THE TREATMENT OF THE INSANE: EARLY HISTORY OF THE RETREAT, YORK; ITS OBJECT AND INFLUENCE. By Dr. HACK TUKE. London: J. and A. Churchill. 1892.

THIS is a small volume, which, dedicated as it is to the memory of the founder of the Retreat, by his distinguished descendant, marks a period in the history of the treatment of the insane in England.

The volume contains the address given by Dr. HACK TUKE at the centenary meeting, held in May of this year, an account of the centenary celebrations, and the various letters of congratulations sent from all parts of the world on the occasion.

The Retreat had the advantage of being founded by a man with broad principles, who was not hampered by narrow views of treatment. One hundred years ago there was stirring a feeling for the confined and the afflicted; freedom was in the air, and the insane and the prisoner both benefited.

The book before us gives most clearly the history of all the circumstances which led to the establishment of the Retreat, and the history will prove to be one of those distinct points of departure upon which future writers may depend with perfect confidence. Dr. Hack Tuke has the quality of the historian; he sees with the proper perspective, the near not obscuring the more distant views. It is interesting to note the opinion of the founder's work as it grew, which was formed by foreign visitors, and some of the literary scraps contained in the volume before us are interesting, not so much for their intrinsic as for their relative value.

The objects of the Retreat are shown to have been, "that the principles of treatment should be those of kindness and consideration for the patients;" a second object, "was to provide an atmosphere of religious sentiment and moral feeling congenial to the accustomed habits and principles of those for whom the institution was primarily intended;" the third principle was the use of recreation and employment as a means of cure; the fourth rule was the moral one, by which insane people were not to be treated as all alike, and as being in all ways beyond the reach of reason. "Homishness" was to be the guiding influence. Nowadays it seems absurd to refer to these as questions which need to be considered, but it was very different one hundred years ago. We are now inclined to fear danger in the future treatment of the insane in the tendency to treat too many cases at home or in private homes under so called individual care; this latter being quite as often individual neglect.

Dr. Hack Tuke, as might be expected, takes a broad view in relation to restraint. He points out that the Retreat was founded for the best treatment of the insane without any hampering dogma of non-restraint. Dr. Hack Tuke says: "We ought never to have recourse to mechanical restraint at the Retreat, except when it is decidedly the most easy and altogether unexceptionable method of coercing the patient," and, "when this is really the case why should we be subject to a prohibitory law?" Again he says, "there is such a thing as a true and genuinely humane movement against shameful abuses, while on the other hand there is a fussy intermeddling philanthrophy which is as different from the former as the true coin of the realm from the counterfeit." "A pseudo-humanitarianism has ended in making lunacy legislation vexatious, and calculated to interfere with the prompt care and unfettered treatment of the insane by the asylum physician whose thoughts are diverted by such means from proper scientific work into that which, as General Sherman would have remarked, carries us back to the day when our mothers taught us the Book of Numbers." Equally strongly does Dr. Hack Tuke protest against the plan of considering only the scientific, and not the social side of mental disorder. Any one of our readers, whether engaged in the speciality or not, may read with pleasure and profit this little book of Dr. Tuke's.

FIGURES recently quoted by Lord Kelvin at the anniversary meeting of the Royal Society indicate that the pursuit of science is by no means unfavourable to the prolongation of life. It appears that of the thirty Fellows deceased during the past year the average was over 74. Only two died before the age of 60, while two others reached the age of 90.

NOTES ON BOOKS.

A Short Manual of Inorganic Chemistry.—By A. Dupré, Ph.D., F.R.S., etc., and H. Wilson Hake, Ph.D., F.C.S. Crown octavo. (London: Charles Griffin and Co. 1892. Second edition, revised.)—We must congratulate the authors on having produced in a concise form a work on inorganic chemistry which, besides containing a large number of well-arranged facts, also appeals to the intelligence of the student by presenting him with a connected and lucid exposition of modern chemical philosophy. Such an introduction to chemical theory is of the highest importance to the medical student for whom a course of chemical study should be designed to serve two perfectly distinct purposes, namely, in the first place, to generate in the mind a scientific habit of thought and power of logical deduction, and in the second, to furnish him with the special knowledge necessary for the correct interpretation of the chemical phenomena presenting themselves in ordinary life and in the practice of his profession. The catalogue of chemical facts is, as a rule, soon forgotten, but the discipline of chemical theory remains a permanent possession of the mind. In the next edition the authors would do well to devote even more space to the philosophical side of the subject than they have in the present one.

Household Nursing. By Dr. John Ogle Tunstall. (London: T. Fisher Unwin. 1892.)—Dr. Tunstall has compiled a handy little book, written in simple homely language for use in the family where the services of a trained nurse are not available. The subject is dealt with under the headings of General Nursing, Infectious or Special Nursing, Food in Disease, Emergencies, and Invalid Diet; under the latter heading we find some useful recipes for sick cookery. Careful directions are given for the washing of a wound on antiseptic principles, even though the more elaborate antiseptic appliances of the hospital may not be at hand; it is most necessary that the untrained attendant should understand that the word "clean" in surgery is an absolute not a relative term, attention to which makes all the difference between the quick and the slow healing of a wound. The chapters dealing with Emergencies have some valuable suggestions for rendering first aid to the wounded, such as are given in ambulance lectures, and for the immediate treatment of cases of poisoning, shock, or collapse. The book will doubtless soon pass into a second edition, when we trust that the author may see his way to giving more definite instructions as to the isolation of, and period of infection in, such diseases as measles and scarlet fever, ignorant people being most careless in permitting association with healthy children before infection is over. Under the heading of Food there is some common-sense teaching on the feeding of infants; a word of caution against the use of the popular feeding bottle with the india-rubber tube might have been given with advantage. The paragraph on Typhoid Fever gives plain instruction on the careful systematic feeding of the patient, with reasons for the course recommended. We cordially recommend this book to all who, in the words of the preface, wish to obtain more general knowledge of facts "which by their application tend to limit disease, to shorten sickness (by placing patients under the best conditions for recovery), and very materially assist the doctor in his work."

The Complete Medical Pocket Formulary and Physicians' Vade Mecum. By J. C. Wilson, M.D. (Philadelphia: J. B. Lippincott Company. 1892.)—This volume is in the form of a pocketbook with flap binding, and contains 261 pages printed upon elegant paper. It consists of 2,500 formulæ or physicians' prescriptions arranged under an alphabetical index of diseases. Many of the recipes are no doubt excellent in themselves, and the volume is faultlessly got up; but it presents all the objectionable features of the therapeutic index system; it may be prized by the unweaned graduate who has neglected his prescription writing, but its use is not to be recommended to anyone who can write a prescription or consult a good volume on therapeutics. It probably may be more used in America, especially as it contains many formulæ from Bartholow.

Aix-la-Chapelle as a Health Resort. By Eight of the Principal Physicians at Aix. English edition translated by James Donelan, M.B. Pp. 323. (London: J. and A. Churchill. 1892.)—It is not necessary that we should do more than call attention to the publication of this translation of the important work on the resources of Aix-la-Chapelle as a health resort and the therapeutic uses of its springs by the principal physicians of that place, as we recently reviewed it fully in its French form. The translation appears to be well done, and it will be an advantage to English practitioners to be able to consult this elaborate work in their own language.

Advice to Women on the Care of the Health Before, During, and After Confinement. By Florence Stacpoole. (London: Cassell and Co. 1892.)—It is always a very difficult question to answer, How much should the laity know respecting the conditions of bodily ailment? The writer of the present volume has shown much tact in her way of setting forth those simple rules which all may understand and practise, and of avoiding those points which would only mystify and injure. The signs and symptoms of pregnancy are given, together with simple and sensible rules for the care of health during pregnancy, and the remedies for some of the more common ailments. The requirements for confinement, the general management of a confinement, and the treatment after confinement are given in sufficient detail. The book, which is published at 1s., is well and clearly written and full of practical hints.

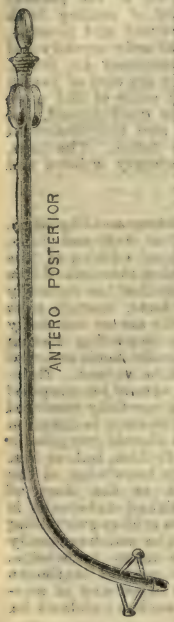
Notebook for Dental Students: Dental Anatomy and Physiology. By James F. Rymer. (London: Claudius Ash and Sons, Limited. 1892.)—That in four years a second edition of this little book should be called for is a proof that manuals of this character are valued by the student. The author has certainly compiled a book that is correct in its facts, though, from the smallness of its size, they necessarily are so concisely put that they can be of little value for imparting lasting knowledge to the reader. By those who prefer their notes to be made for them, no doubt this book will be valued. Notebooks, to be of any real value, however, should be compiled by him who is to use them, after having carefully mastered the subject in systematic manuals. The notebook in question is such an one as a hard-working student should compile for himself, when it will be most valuable to him, but to him only. Another who relies upon it for his knowledge of the subject is very likely to be rejected at the time of examination. The objection to all published notebooks is that they provide for the lazy student, who prefers everything to be done for him, a series of short paragraphs which are easily committed to memory, but in no sense mean knowledge. The author urges in his preface that "the general textbooks should be first mastered," and there is no better way of mastering them than for the student to make such a notebook for himself.

Transactions of the American Climatological Association. Eighth Annual Meeting, held at Washington, September, 1891. (Philadelphia: W. B. Saunders. 1892.)—It strikes one at first as remarkable that out of twenty-eight papers in this volume only eight deal directly with subjects connected with climate. But it appears that this Association includes in its province the consideration and description of diseases of the respiratory and circulatory organs as well as hydrology. It cannot be said that there is much that is novel or original in these communications, but there are many interesting subjects dealt with. Influenza is treated of in no fewer than seven separate papers. Phthisis and tuberculosis form the main topic of eight more. There are also papers on the treatment of Pleurisy and Empyema, on Whooping-cough, on Diphtheria, on Lepra, on Lymphadenoma, on the Climatic Treatment of Chronic Diarrhœa, on the Doubtful Efficacy of Hot Dry Climates in Disease, on the Sulphur Waters of Richfield Springs, N.Y., on the Climate of the Greater Piedmont and Mountainous Regions of the Southern United States. The scientific study of climatology is evidently a difficult undertaking for men engaged in active practice, and that may account for the difficulty which practitioners so often find in supplying precise and useful observations on this subject.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

PROSTATOMETERS.

THESE instruments have been made by Messrs. Meyer and Meltzer, of Great Portland Street, at the suggestion of Mr. C. Mansell Moullin, who has found them of great service for obtaining exact measurements of the size and shape of the prostatic urethra in cases of enlargement of the gland before proceeding to radical operation for the removal of the obstruction. Obviously they only give the dimensions of the canal, not those of the prostate itself; but any marked alteration of the former is nearly always associated with definite changes in the shape of the latter, though the converse may not be true; and combining the knowledge obtained in this way with what can be found out by rectal examination and cystoscopy, it is stated by Mr. Mansell Moullin that in cases suitable for operation it is nearly always possible to form a definite diagnosis as to the character of the overgrowth.

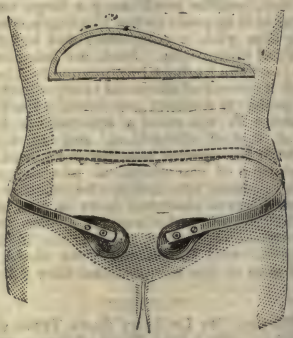




There are two instruments: one for the lateral and the other for the antero-posterior diameter. Each consists of a diamond-shaped metal frame, hinged at the angles to allow of expansion and contraction, and enclosed in the curve of a prostatic catheter, part of the wall of which has been cut away. The projecting angles are capped with little rounded buttons to prevent the mucous membrane being hurt or bruised. Expansion and contraction are effected by means of a stilet gliding in the shaft and terminating in a finger ring; and the measurement scale which is engraved upon the handle of the stilette gives at a glance the width to which the diamond is opened at the moment. By means of this Mr. Mansell Moullin states that the interior of the prostatic urethra can be mapped out with perfect accuracy, and that in many cases, owing to the difference in the degree of resistance presented by the walls, the nature of the growth, whether it is soft and adenomatous or hard and fibroid, can be ascertained as well.

IMPROVED TRUSS FOR HERNIA.

WE have received from Messrs. Salt and Son of Birmingham a truss of their manufacture, with improved patent pad. This pad (a sketch of the longitudinal section of which is shown) is of a pear shape, and is wholly constructed of semi-transparent orange-coloured celluloid. It is hollow, the upper or convex portion being made of the material rolled sufficiently thin to present an elastic surface to the hernial ring, the back being thickened to ensure rigidity for attachment to the spring. This spring is entirely covered with a thin coating of the same semi-transparent material of which the pad is constructed, and being carefully sealed and a washable strap supplied, the appliance is perfectly waterproof, and may be cleansed daily, thus dispensing with the necessity of a separate truss for bathing purposes, and with the ordinary leather cover, which so rapidly becomes unpleasant from absorbed perspiration, and requires constant renewal. The surface of the instrument is smooth and highly polished, the elasticity

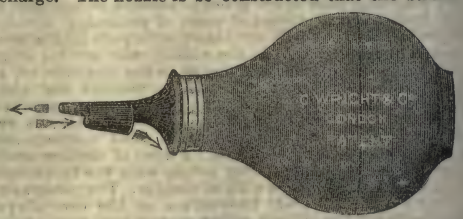


of the pad makes it peculiarly comfortable to wear, and, on account of the thin coating of the spring and the fact of the pad being hollow, the truss is extremely light; as on no point of it has the perspiration any action, it is very durable. It therefore appears to possess all the qualities requisite in an appliance of this description—namely, lightness, cleanliness, comfort, and durability.

Messrs. Salt have also pads for umbilical hernia, which offer the same advantages.

EAR SYRINGE.

MESSRS. WRIGHT AND CO., of 108, New Bond Street, W., have lately submitted an ear syringe to be used by patients and nurses when the ears have to be frequently cleansed from discharge. The nozzle is so constructed that the stream of



water passes only along the roof of the auditory canal, so that the ear is completely cleansed; it is impossible to insert the nozzle too far into the ear, consequently is safe in the hands of anyone.

URETHRAL INJECTOR: AN EXPLANATION.

MR. WILLIAM E. BURTON (Wimpole Street, W.) writes: In order not to take up unnecessary space, I avoided contrasting with instruments already known to the profession (one of which is described by Dr. MacMunn), my urethral injector made by Messrs. Mayer and Meltzer, and figured in page 1065 of the BRITISH MEDICAL JOURNAL. The disadvantages of a conical as compared with a cylindrical expansion of the distal end of the stem are that the former (*a*) only fully distends the urethra at one point, namely, its greatest circumference; (*b*) (if of sufficient diameter to distend the urethra fully) it is more painful of introduction to the patient; (*c*) it permits injected fluid to pass into the undistended urethra. Finally, a diameter of 23 millimetres is too great, and a circumference of 23 millimetres too small, for the average urethra; and a rigid instrument cannot suit all cases, since no two urethræ have similar dimensions. With my instrument the surgeon may feel sure (*a*) of comparatively painless introduction, and (*b*) complete distension of 1½ inch of urethra at the moment of injecting the medication.

WITH reference to the notice published in the BRITISH MEDICAL JOURNAL of December 10th, page 1293, of Dr. John Macdonald's Improved Stretcher, we are requested to state that Messrs. Arnold and Sons can supply them.

THE NEW UNIVERSITY FOR LONDON.

Special Meeting of the Metropolitan Counties Branch.

A special general meeting of the Metropolitan Counties Branch of the British Medical Association was held at the Museum of Geology, Jermyn Street, on December 8th, to discuss the question of a university for London. Dr. Pavy, F.R.S., presided.

Mr. Eastes, Treasurer to the Branch, gave a historical statement as to the university question, especially in its relation to the action of the Metropolitan Counties Branch. He first stated the difficulties that attended the obtaining of a medical degree of the University of London, which, although it had contributed largely to raise the standard of medical education amongst the graduates and in the schools generally, had restricted the candidates for the degrees to the picked men of the schools. The sole aim of the Senate had been to maintain the high qualification of its graduates. Lately, the facilities for graduating had been increased, but the standard of examination had never been lowered. The fact, too, that it was not a teaching university had started most of the schemes for its reform which in later years had been brought forward. In 1884 a subcommittee of the Branch had drawn up an elaborate report, which showed the necessity of further increased facilities for graduation, called for on behalf of London students, such as were enjoyed by students educated at any of the other university towns of England, Scotland, or Ireland. Deputations under the Branch President of that year, Mr. Macnamara, had accordingly waited on the Senate, and strongly urged their views, but without any success. In the autumn of that same year, 1884, the Association for the Formation of a Teaching University in and for London was started; and Lord Justice Fry's scheme, embodying the views of that Association, was propounded to the House of Convocation of the graduates of the University; was amended by it, and finally adopted as the scheme of Convocation. Being referred to the Senate, that body drew up a scheme of its own. University and King's Colleges applied for a charter for the proposed "Albert" University, and the Royal Colleges of Physicians and Surgeons presented a scheme which would have created a university of one faculty (medical), under "The Senate of Physicians and Surgeons." These schemes were, in 1888, all referred by the Privy Council to Lord Selborne's Commission; which reported that the scheme of the Royal Colleges should not be granted, but that the general case for a teaching university had been made out, and that it was desirable to improve and extend the present University rather than create a new one; that the demand for medical degrees was justifiable, and that the want should be granted in some proper way, as the Branch had desired. The present University was to be given time in which to formulate its new charter. The Senate consequently prepared a scheme on the lines laid down by the Commissioners; but this was objected to by Convocation, and finally, for various causes, rejected by the decisive majority of 461 to 197. This scheme provided for the joint examination of students by the University and the Royal Colleges, and would almost certainly have resulted in greatly increased facilities for obtaining the degrees, without any practical lowering of the standard of examination. King's and University Colleges were then summoned to state their case for the "Albert" University before the Privy Council, and the prayer of their petition was granted. These two bodies, in combination with all the medical schools in London, then framed the "Albert" scheme, which was strongly opposed by the provincial schools and by Convocation. The Gresham Grand Committee next offered to give the "Albert" scheme a local habitation in the City, and an assured present income of £2,000, if the name were changed to "Gresham." This charter was, in February last, placed upon the table of the House of Commons, and was in April last referred to a second Royal Commission now sitting, under the presidency of Earl Cowper. The whole subject generally was also referred again to this Commission. Sir John Lubbock had stated that the object of the Senate of the present University was to meet the views of the Colleges in the most friendly manner. Mr. Macnamara, Dr. Bristowe, and Dr. Cleveland had given evidence on behalf of the Branch, in accordance with the following resolutions passed by a subcommittee:

1. That in the interests of students educated in London, where unrivalled opportunities exist for clinical instruction, in the interests of the London medical schools, which lose many of their students at the most important part of their career, and of the profession in England, who suffer from unfair competition with Irish and Scotch graduates, continued effort should be made to obtain for London students facilities for obtaining degrees in medicine such as are enjoyed in Oxford, Cambridge, Manchester, and Newcastle, in the four Scottish university towns, and in Dublin, Belfast, Cork, and Galway.

2. That every practitioner who has been educated at a London medical school for at least the final two years of the curriculum, and obtained a complete qualification to practise before the date of the founding of the university shall be allowed to proceed for the degrees of the university on passing such examination in arts as may be determined by the university and the final examinations for the degree of M.B.

Mr. Eastes concluded by moving the following resolution:—

That this meeting of the Metropolitan Counties Branch of the British Medical Association is strongly of opinion that it is eminently desirable that a degree in medicine, based upon a sound, thorough, and practical standard should be placed within reasonable reach of the majority of students educated in London, as is already done in the case of students educated in certain English provincial towns, in Scotland, and in Ireland.

Dr. Cleveland, in seconding the motion, thought the matter lay within a very narrow compass. Was it desirable that at the end of a curriculum London medical students should have the privilege and opportunity of taking a degree in medicine, based upon a good sound practical examination, and within the reach of the majority—a degree of which they would be proud? To that they would all answer "Yes." Was there any other means by which such an end could be attained unless it were through the action of the present Commission? To that question they would answer "No." Referring to the evidence given by himself and his colleagues before the Commission, it was difficult to bear in mind all the questions which had been asked, but they had answered on the lines of that resolution. London students had no desire to degrade the examination; all that they wished was that in the new university the examination should be altered from the present style of too much of the theoretical to more of the practical. The Commissioners seemed very desirous to know what was the collective feeling of the members of the Metropolitan Counties Branch and of the Association upon the topics now under review, and if they gave a decided and unanimous expression of opinion on the resolution, it would have a very great influence when sent to the Commissioners.

Mr. George Brown did not think the resolution proposed by Mr. Eastes on behalf of the committee quite met the exigencies of the case. He thought the resolution might have been made a little more expressive of what they really desired. What was wanted was not a degree placed within the reach of the majority of students, but within the reach of all students. The London University would reply to the resolution, that they already placed within the reach of London students, upon a sound, thorough, and practical standard, a degree in medicine, and that anything short of what they now offered to the London students would neither be sound, thorough, nor practical. There were nearly 3,000 medical students who had taken their degrees in Edinburgh, the majority of whom came from England and Wales and the Colonies. At Newcastle, where only fifteen years ago twenty was considered a very large entry, this year they had 129. That meant that London was drained to that extent. Twenty years ago there was not a school in the provinces which could show an entry of twenty-five students, yet seventy and eighty students had been annually entered at Owens College, Manchester, for years past. While this had been taking place, those attending London schools had decreased in numbers, and were fast dwindling away. He wished that the resolution should be somewhat more definite as to what was really required. Mr. Brown then read the resolution as he had amended it, but

Mr. Eastes declared his inability to accept it, whereupon

Mr. Brown, at the suggestion of Dr. Radcliffe Crocker, and with the consent of the meeting, withdrew his amendment in order that the principle of the resolution might receive the unanimous sanction of the members, afterwards bringing it forward as a separate resolution.

Mr. S. J. Hutchinson declared that the teaching in London was not inefficient at the present time either in arts, medicine, or science. It would be an extremely easy solution of the difficulty if every student desirous of possessing an M.D.

degree should pass the matriculation examination of the London University.

Dr. Sansom said he objected to the words "the majority of" in the resolution, and suggested to the mover that they should be withdrawn.

Mr. Eastes having agreed to this, with the consent of the seconder and the approval of the meeting, they were struck out.

Dr. Gage-Brown thought that it would avoid many heart-burnings if his suggestion were carried out, namely, that all medical students should obtain a university degree, that all general practitioners should be compelled to become Bachelors of Medicine, and should be allowed to call themselves "Dr."

The Chairman then read out the resolution, as moved by Mr. Eastes, with the exception of the words "the majority of," and it was carried unanimously.

Dr. Bristowe then moved:

That facilities should be afforded to medical practitioners educated in London and already holding qualifications from the London examining bodies to attain such degree upon passing such examinations as are needful to preserve the standard prescribed for it.

This followed as a corollary to the resolution which had just been passed. It was not proposed to lower the standard, but simply that the university should make provision for allowing gentlemen already in practice, under the conditions named, to go in for the examinations at the university and obtain a degree. At the present time they were not allowed to go up at the London University after a certain time. For every examination, excepting, perhaps, the Matriculation, men had to attend lectures and study, and bring certificates. That had not always been the case. At the time he passed the M.B. examination, the late Dr. Sibson had come up for examination, and passed. He had left London for some time, but applied to the University of London, which allowed him to pass all the examinations one after another as quickly as he could, without requiring him to bring certificates or undergo fresh courses of clinical instruction, or attend lectures. If that could be done now it would remove a very great grievance, and would in no degree tend to lower the standard of the degree.

Dr. Stephen Mackenzie, in seconding the resolution, said that there were two courses open in order to provide the facilities for obtaining the degree. One was to put everybody practising on the university register, which would make everybody graduates of the new university. This was unsatisfactory, and the only alternative course would be that they should pass some examination. It was obvious that the examination for a middle-aged or perhaps a venerable member of the profession, who had left the schools for many years, would not be exactly of the same scholastic character as that for students coming up fresh from study, but it would be perhaps similar to that of St. Andrews University and other places, where it was made of a searching and practical character, so that nobody should be allowed to slip in and obtain a degree who was unworthy of it.

Dr. Major Greenwood suggested an amendment. He considered that facilities should be afforded to "those resident in London" without having necessarily been educated there, and proposed, therefore, that the word "resident" should be substituted for that of "educated."

Dr. Bristowe pointed out that it was to be a university for London, and they had no right to put men educated in Edinburgh and other places into the university; and Dr. Greenwood, seeing it was the sense of the meeting, withdrew his amendment.

The resolution was then carried *nem. con.*

Mr. George Brown then moved his resolution as follows:

That this meeting of the Metropolitan Branch of the British Medical Association records its opinion that it is desirable to establish an additional university in London on the lines laid down in the proposed charter for the Gresham or Teaching University.

By passing that motion they would greatly strengthen the hands of those who were endeavouring to press forward the scheme. The intention was that the new university was to be a university for London students; the London University was for all the world.

Dr. Hugh Woods briefly seconded the motion.

Mr. Macnamara said that all that possibly could be done had been done. Deputation after deputation had been sent to impress upon the London University the desirability of altering its method, and widening it into such a scheme as had now been proposed in the Gresham University; they had tried to get the professors and teachers more in accord with the government of the university by boards of studies and faculties, and so on; and to bring the government of the university as regarded medical education into the hands of the teachers of the London medical schools; but they had failed. They were then instructed to try to get the two Colleges to form a university which would grant degrees. Sir William Jenner had helped them with all his sagacity. They had had meeting after meeting, and had elaborated a scheme—that scheme which was entirely overthrown by Lord Selborne's Commission because it was a "one faculty" university. They had the Gresham scheme before them at the present time; it was the only scheme which was before them; it was before the Privy Council, and the only scheme before the Privy Council. He was very glad indeed to hear Mr. George Brown bring forward his resolution.

Dr. Isambard Owen said he felt the greatest sympathy with nearly all that Mr. Brown and Mr. Macnamara had said, and yet he doubted whether the resolution was quite an opportune one to send either to the Royal Commission or to the Government at this particular moment. Mr. Macnamara said that the only scheme under consideration at the present moment was the Gresham University scheme; but there was now sitting an exceedingly active and energetic Royal Commission, which was taking evidence upon all sorts of subjects connected with projects of university education in London, and which had interpreted its functions in a very wide manner. It was no secret that there were men upon it who did not approve of the provisions of the Gresham charter, and who yet had no idea of forcing permanently upon London a university modelled upon the lines of the present London University. It was well known that there were men upon the Commission who had some hope of producing a scheme which, while it offered many of the advantages which they all saw in the Gresham scheme, yet would preserve for the university to which their successors would go the very important name of the University of London. He would ask every member if, *ceteris paribus*, he would not rather hold the degree of M.D. from a University of London than from a Gresham University? There was much in a name. While there was much that was excellent in the Gresham University charter, there were a great many things in it of which he thought many there pretty strongly disapproved; and although they had expressed in general terms an approval of its provisions, that was in some instances due to the fact that they knew the late Government was pushing the Gresham scheme, and had intimated in no very dubious terms that it was Hobson's choice. If they passed that resolution, he was afraid it might be seriously misinterpreted, and that the expression "on the lines of the Gresham University," might be held to apply to those parts of the scheme of which they disapproved. He thought it would be wiser not to try to suggest any specific scheme to the Commission until they saw what it really had in its mind.

Professor Horsley said he was very anxious that a resolution of the kind before them should be carried, although he agreed in the main with everything Dr. Owen had said. The point he had raised could be got over by simply leaving out "on the lines of the Gresham University." He would keep in the words "additional university," because it was perfectly clear that the University of London had no power within itself to reform itself, since it was out of contact with the teaching in London; therefore they must have an additional university.

Mr. George Brown expressed his willingness to strike out the words mentioned, and also, on the suggestion of Dr. Owen, the word "additional."

The resolution was finally carried, with one dissentient, as follows:

That this meeting of the Metropolitan Counties Branch of the British Medical Association records its opinion that it is desirable to establish a teaching university in and for London.

On the motion of Dr. Henty, seconded by Mr. Brindley James, it was unanimously agreed:

That the above resolutions be forwarded to the present Royal University Commission and to the Lord President of the Council.

Dr. Isambard Owen then moved the following resolution, which, he explained, was purely personal, and not proposed officially on behalf of the Council:

That the Council of the Metropolitan Counties Branch of the British Medical Association be hereby authorised to address itself when it shall deem opportune to the members of the House of Commons sitting for metropolitan constituencies, and to solicit on behalf of the Branch a personal interview for the purpose of laying before them the views of the Branch as regards facilities for graduation in medicine in London, and that all members of the Branch be invited to join in such an interview should it be granted by the said members.

It was of the highest importance that they should obtain the support of votes in the House of Commons.

Dr. Alderson (Hammersmith) seconded, and Mr. George Brown supported the resolution, which was then carried unanimously.

A vote of thanks to the Chairman, proposed by Mr. George Brown, brought the proceedings to a close.

OPENING OF THE NEW BUILDINGS OF THE UNIVERSITY COLLEGE, LIVERPOOL.

Origin and History of the Undertaking.

The completion of the Victoria Building in connection with University College, Liverpool, marks an epoch in the intellectual and educational development of the city. The College and all that relates to it is of special interest to members of the medical profession, inasmuch as the College owes its origin to the efforts of the lecturers of the School of Medicine to provide for the needs of medical students who were candidates for the higher university degrees, and inasmuch as the Faculty of Medicine by its seniority and extent may be considered *prima inter pares* of the faculties of the College.

The project of establishing a college in Liverpool arose from the action of the University of London in 1876, when new regulations were issued requiring practical instruction in physics, and imposing a practical examination in that subject. No provision for such instruction existed at the School of Medicine, and the Council, being unwilling to relinquish the teaching of university students, was compelled to take steps to extend its teaching of science. The lecturer on chemistry, Dr. J. Campbell Brown, pointed out that it would be impossible to combine the teaching of physics with that of chemistry in one chair, and urged that a new chair of physics should be founded, and that this opportunity should be taken for pressing upon the attention of the public the need of a college for the cultivation and practical teaching of the higher branches of knowledge, such as other large centres of population in Great Britain already possessed. This suggestion was favourably received by the Council of the school, and was unanimously adopted, on the motion of Dr. A. T. Houghton Waters, Lecturer, afterwards Professor, in the Practice of Medicine. The Council next held a conference with the Association for the Promotion of Higher Education in Liverpool, and the result was the formation of a committee for the purpose of arranging a plan for bringing under the notice of the public the desirability of establishing a college of science in Liverpool. The next important step in the progress of the scheme was the calling of a town's meeting by the Mayor, which was held on May 24th, 1878, and also an adjourned meeting on November 6th of the same year. Henceforth the movement becomes associated with the history of the city, though the members of the medical school continued to bear a leading part in it, but the honour of initiating the scheme and launching it on its successful career belongs, without doubt, to the medical profession and the teachers in the School of Medicine.

Part Taken by the Medical and Other Learned Professions.

Before proceeding to a general canvass for subscriptions it was proposed that literary and scientific men who best knew, and most strongly felt, the great want of a college in the town should say what they, out of their small means, were willing to contribute towards the funds of a college, as a substantial indication of the strength of their opinions. This was acted upon with the happiest result, and the subscription list shows in the most unmistakable and practical manner the interest taken in the scheme by the medical, the clerical, and the learned professions generally. The example so set was contagious. The capital required was estimated at £75,000, exclusive of what might be needed for the purchase of a site or the erection of buildings, and in a short time the whole amount had been promised or subscribed.

Generous Endowment of the Scientific Chairs.

The necessary capital for the foundation of a professorial chair was fixed at £10,000. Donations to this amount were found by Messrs. W., S. G., and P. H. Rathbone; by Colonel A. H. Brown and Messrs. Crosfield and Barrow; by Mrs. Grant, of Rock Ferry; by Mr. Edward Whiteley, as co trustee of the Roger Lyon-Jones Trust Fund; by Mr. Samuel Smith and Mr. Balfour; by Lord Derby, and by a number of ladies and gentlemen desirous of perpetuating the illustrious name of Roscoe, well known both in local circles and in the wider domain of science. With these sums of £10,000 each, and with a further sum of £13,000 received in miscellaneous contributions, chairs were founded, and Liverpool University College received its charter of incorporation on October 18th, 1881.

The Site of the College.

The selection of a site at first offered difficulties, but by a happy coincidence the College was enabled to obtain the most eligible of any of the sites in the city. In the vicinity of the Royal Infirmary and medical school there stood a lunatic asylum with its recreation grounds, the property of the trustees of the Royal Infirmary. The grounds—already too small to satisfy the Lunacy Commissioners—were about to be rendered useless for recreation by the action of the London and North-Western Railway Company, which desired to open up the tunnel which passed beneath a portion of them, so as to cut off one angle. The result was that the railway company had to buy the whole plot from the infirmary trustees, and the Corporation bought it from the company, and presented the greater part of it, together with the site of some insanitary property, to the College for so long as it should be "carried on to the satisfaction of the Corporation as a place of higher education." The old asylum buildings were altered, and formed a tolerable home for the College during its early years. It was not long before it began to be felt that in order to secure to the students the fullest advantages, and to enable them to obtain degrees it was desirable to raise the College to such efficiency as would qualify it for affiliation with Victoria University, and to do this a sum of £30,000 was raised by subscription for the endowment of professorships, and in November, 1884, the College was admitted side by side with Owens College, Manchester, as a college of Victoria University.

The College Buildings.

New and improved buildings now began to appear. In 1886 a commodious chemical laboratory was opened, a handsome block, the first of the splendid group of buildings in which the work of the College will be chiefly carried on in future. Next came the engineering laboratory, the gift of Sir A. B. Walker, Bart., in honour of the Queen's jubilee. At the opening of the session 1887-8 the Council of the College issued an appeal to the public urging the necessity of providing permanent buildings for the main work of the College on the arts and science side. The cost of such a building was estimated at £35,000. By midsummer, 1888, £16 000 had been raised, and the work was forthwith commenced. In November of the same year Mr. Henry Tate offered to provide the library block, and so enable the Council to proceed to the erection of the entire range of buildings. In December of the same year Mr. Holbrook Gaskell offered £5,000 towards founding a chair of botany, and by March in the following year other £4,000 were subscribed. Subsequently a chair of economic science was endowed by Mr. J. T. Brunner, M.P., and the professorship of physiology was founded and endowed by Mr. George Holt, a chair that has given fresh impetus to the scientific work of the medical faculty, and has shed lustre on the school by bringing into association with it the well-known name of Professor Gotch, the first occupant of the chair.

The New Victoria Building.

The Victoria Building, now completed, is constructed internally, like the new infirmary, of local brick with red terra-cotta dressings, and red Ruabon bricks. A character is given to the whole by the graceful Jubilee clock-tower, the origin of which is explained by the inscription it bears;

"Victoriæ Reginæ, Dei Gratia, L annos feliciter regnanti, cives posuerunt." The interior is marked by elegance of design, and by careful adaptation to the comfort and convenience of teacher and student. It is not necessary to describe the apartments in detail, but a word may be said of the Tate library. The full length of the library, including the special readers' room, is 136 feet, while the main rectangle is 102 feet by 49 feet. The lofty Gothic roof is supported by huge principals of worked pitch-pine with arched ribs, king-posts, and tie-beams. There is accommodation for about 100,000 volumes. The walls are decorated with a number of exquisite engravings of the old masters, presented by Mr. Tate, but which formed part of the collection of the late Mr. T. Shadford Walker, the Liverpool opththalmic surgeon, whose artistic tastes were well-known.

Suggestions for the Future.

Although the new home of University College is all that can be desired as far as it goes, it must not be supposed that finality has been reached either in respect to the construction of buildings or the endowment of professorial chairs. The Medical Faculty has in great measure been content to stand aside and to leave the rest of the College a fair field for its early struggles. Now its turn has come, and the time has arrived to make the medical school in every respect worthy of the rest of University College and of the splendid Royal Infirmary under the shadow of which it stands. In the matter of buildings, no half-hearted measures should be adopted. The present physiological laboratory provides altogether inadequate space and accommodation, having been constructed at a time when students were fewer and when practical physiology was a less important part of the curriculum than it is now. Certain parts of the school might probably be retained with more or less modification, but the work should be undertaken with no grudging hand. Besides the need of a large physiological laboratory, there is equal need of a laboratory for bacteriological research, a kind of investigation for which no provision of any kind exists in the school.

Turning from the subject of accommodation to that of instruction, it is an anomaly that there should be no endowed chair of anatomy, and that the school should still have to fall back on the help given by Mr. W. Mitchell Banks, the accomplished surgeon to the Royal Infirmary, for its lectures on this elementary subject. It is devoutly to be wished that before long some generous citizen will follow the example set by Mr. George Holt, the founder of the chair of physiology, by endowing a chair of anatomy. This is undoubtedly the addition at present most urgently needed to the professorial staff of the College, but it is not too much to hope that at no distant date there will also be established an endowed chair of pathology.

The Opening Ceremony.

The formal opening of the Victoria Buildings took place on December 13th, at 3 P.M. The meeting was held in the new lecture theatre, which was crowded by a distinguished gathering of friends and supporters of the College, including a number of graduates of both sexes wearing their academical costumes. A number of delegates were present from other universities and colleges, including Sir Henry Roscoe from Owens College, the Rev. Professor Mahaffy and Professor Fitzgerald from the University of Dublin, Principal Donaldson from St. Andrews University, etc.; Dr. A. J. H. Water, Mr. Mitchell Banks, Dr. Campbell Brown, and all the leading medical and scientific men of Liverpool; Mr. Ernest Hart (London), Dr. Edison (Leeds), etc. The Chancellor of Victoria University, the Right Hon. Earl Spencer, K.G., was met in the library by the Mayor of Liverpool, the Council, professors, and lecturers of the College, the honorary staff of the Royal Infirmary, the delegates, and a number of distinguished guests, graduates of universities wearing their full academical robes. A procession was formed, and marched into the theatre and ascended the platform.

The Chancellor having taken his seat, the Mayor (Mr. R. D. Holt), who presided, opened the proceedings. He said that it was a memorable occasion; that the College was now emerging from a chrysalis state into a fully-fledged condition, with buildings of its own of a palatial kind. He thought the College was to be most heartily congratulated on the success of the architect in having produced such a remarkably handsome building. His further observations referred chiefly to the Victoria Clock Tower, which had been built with funds collected in the city to commemorate the Jubilee of Her Majesty the Queen, and had been handed over to the College authorities to carry out the work.

The Progress of the College.

Mr. Edward Lawrence made a statement as to the progress of the College. He quoted from a statement made in 1887, showing in detail the deplorable straits to which the teachers had been reduced by the miserably inadequate room in the College buildings, and which led to the Council making an appeal to the public for funds to enable them to carry out the present work. The first step in that work had been taken by Mr. William Rathbone, who had done so much for the institution ever since its inception. The first estimate of the cost of the building was £35,000. Mr. Tate had first offered £16,000 to erect the library block, but had afterwards increased the amount to £20,000. The total expenditure had largely exceeded the original estimate, having reached the sum of £53 000, of which only £44 000 had been subscribed. Contrasting the present state of things with what existed six years ago, he thought that wonderful progress had been made.

Conversazione.

On Wednesday evening, December 14th, a *conversazione* was given in the new buildings, about 2,500 being present. The suites of rooms were much admired, and the arrangements made by the authorities for the convenience of the guests were admirable. A Latin ode, composed for the occasion by Professor Strong, was sung in the Lecture Theatre by the University College Choral Union, and was heartily received. Professor Strong was called for, and made a graceful speech. The spectacle of the theatre filled with bright costumes, with a plentiful sprinkling of academical robes, was very striking.

SMALL-POX IN GREAT BRITAIN.

[Special Weekly Report to the British Medical Journal.]

London.

There are signs of increasing small-pox in London. In the week ended December 3rd there were 8 cases notified, but last week many more occurred. We hear of multiple cases from St. Marylebone, Greenwich, Camberwell, and Paddington, and cases notified from many other parishes At the end of last week 30 cases remained on the hospital ships. The Small-pox Hospital Committee of the Metropolitan Asylums Board have reported upon the need for more isolation accommodation for doubtful cases of small-pox. Several members of the Board expressed their concurrence in the view taken by the committee at the last meeting of the Board.

Lancashire.

The Town Council of Warrington, at their meeting last week, were able to congratulate themselves on the continued gradual decline of the small-pox prevalence. Mr Gornall considers that the local efforts put forth to secure revaccination of residents have resulted in a quarter of the entire population being now protected against small-pox. All thoughts of providing further temporary hospital accommodation for small-pox seems now to have been abandoned; but a permanent structure, perhaps in combination with neighbouring districts, is talked of. Small-pox continues to make headway in Oldham and Chadderton, some 15 cases having occurred in these two towns last week. The Chadderton Local Board, at their meeting at the beginning of this month, had before them the question of the desire by Oldham of their present hospital for small pox cases, the institution being regarded as a danger to its neighbourhood. The desirability of the removal of small-pox patients to a distance was generally approved. Dr. Patterson holds that small pox infection has been spread by the aggregation of cases in the Oldham Hospital at Westhulme. That institution would serve the joint needs of the district for diseases other than small-pox. Meanwhile the Oldham guardians have remained inactive in the matter of appointing a vaccination officer to replace Mr. Mallalieu, who died some little time back. A case of small-pox in the workhouse has led the medical officer to revaccinate all the female imbeciles. Birkenhead had 5 cases of small-pox last week, 1 case proving fatal; whilst in Liverpool the weekly average of 6 cases was somewhat exceeded. St. Helens and Lancaster each report a single case, and Manchester showed a rise from 2 to 12 cases.

Yorkshire.

Small-pox continues to increase in Leeds. During the week ended December 3rd there were 9 cases admitted to hospital, the total number under treatment being over 50; but scarlet fever seems to be diminishing. Small-pox still crops up at Lightcliffe and Hipperholme, and cases are being admitted to the joint hospital at Clifton under a recent arrangement. A death from the disease took place at Liversedge on December 7th, and other cases have occurred in the town. At Northallerton a fourth

case has occurred in one family; the patient has been removed to the fever hospital. In the rural district 2 cases have been reported from households previously invaded; in one house the first patient died. The district has been placarded with notices offering gratuitous vaccination at public stations or people's homes. We heard of cases during last week at other towns—namely, Dewsbury, Halifax, Wakefield, York, and Middlesbrough, whilst a death was registered at Sheffield. The accommodation at the Sheffield Infectious Diseases Hospital has proved to be inadequate for the requirements of the town. The Sanitary Committee propose to build a new pavilion to accommodate 20 patients at an estimated cost of £3,000, and they recommend that application should be made to the Local Government Board for sanction to borrow the sum required. In the whole of Yorkshire West Riding over 100 cases occurred during November in some thirty districts, Leeds having half the total number of cases.

MIDLAND DISTRICTS.

There were 2 cases in Leicester last week, and one each in Coseley and Northampton. The disease is on the increase in Chesterfield, the hospital accommodation being moreover inadequate. Some 20 beds are to be added in a wing to the Derby Lane Hospital.

DEVONSHIRE.

Dr. J. Leslie Callaghan, of Colyton, reports two cases of small-pox in a farmhouse a couple of miles outside the town of Colyton. A girl, aged 8 years, who had never been vaccinated, first developed the disease, and in the following week her brother, aged 11 (who had been vaccinated in infancy) also became affected, but in a much milder form. They are both progressing satisfactorily. The patients were isolated, disinfection thoroughly carried out, and everyone who had anything to go with the farmhouse was revaccinated, so the disease has not spread farther. On these cases being reported to the sanitary authority, it was proposed that the Axminster Board of Guardians should adopt the Infectious Diseases Notification Act. There was an outbreak of cow-pox amongst the cattle on the farm at the same time.

GLASGOW.

Our Glasgow Correspondent writes: The sanitary authorities of Glasgow seem to have gained control of the slight small-pox epidemic. In the past ten days no new cases have occurred. On December 2nd, 36 cases were in hospital, and on the 9th three less. None are known to the medical officer as existing in private houses. In the fortnight ending November 26th, however, 4 cases died in hospital, of whom 2 had been vaccinated and 2 had not been. This number has not been equalled since the spring of 1884. The sanitary authorities, knowing the movements of the small-pox patients before the exact nature of their disease was recognised, fear infection may yet appear. Meantime, the outbreak has caused quite a commotion in the public mind, and revaccination is being largely resorted to.

THE CHOLERA.

[Special Weekly Report to the British Medical Journal.]

RUSSIA.

Of 51 provinces formerly affected by cholera, 15 have now been declared completely free; but the disease continues to some considerable extent in certain districts. Thus we learn that last week 864 cases were reported in the province of Podolia, 508 in that of Kieff, 498 in Bessarabia, 297 in Tamboff, 205 in Kherson, 70 in Volhynia, and 50 in Saratoff; whilst other 30 provinces returned cases of the disease. If, as we learn, the weekly summaries of cholera prevalence in the empire are to be discontinued, their absence will not tend to allay anxiety called forth by the known occurrence to this late period of the year of thousands of cases each week. In St. Petersburg itself 21 cases and 11 deaths were recorded during the week ended December 1st, against 57 cases and 22 deaths in the preceding seven days, whilst in the week ended December 8th 38 cases and 12 deaths were returned.

The Odessa correspondent of the *Daily News* telegraphs: "In the neighbourhood of Batoum the cholera is spreading among the troops, whilst in the town of Batoum there have been 23 fatal cases within the last month, one of which was of that of the most energetic of the town doctors. In Tobolsk and other Siberian centres the epidemic really shows but very slight abatement considering the change of season. It is known that the cholera mortality in many of the East Volga Governments is still serious, but the authorities vouchsafe no particulars. Although the British and other foreign consulates in this port have been issuing clean bills of health to departing steamers during the last twenty days, the Porte still declines to raise its quarantine. One can scarcely blame the Turks for this, seeing that they have every reason for discrediting Russian official declarations."

FRANCE.

Cholera is spreading in Lorient and the villages near at hand, though measures of prevention are being adopted. A dozen deaths occurred during the first two days of the present month, the record for the first week reached some 30 fatal cases, and many non-fatal cases have been notified during this month. Some half a dozen deaths from cholera have been registered at Boulogne as taking place in the week ended December 3rd, and cases have occurred recently at Portal and St. Etienne. At Dunkirk two cases occurred on December 11th, and one death took place.

GERMANY.

A fresh and fatal case of cholera is reported from Hamburg on December 8th, in the person of a servant girl, who left Stettin early in the month, arriving at Hamburg on the 6th, after visiting Gustrow.

BELGIUM.

About 70 cases, with 40 deaths, have occurred during the past cholera prevalence in West Flanders, and just on 100 cases, with some 70 deaths, in the district of Molenbeck St. Jean.

AUSTRIA-HUNGARY.

No returns have come to hand from Buda-Pesth or other town of Austria-Hungary in respect of last week, but only 6 deaths occurred in the Hungarian capital during the week before last, and it may be that the town is free.

HOLLAND.

There were but four deaths in the week ended December 3rd, as compared with 16 during the previous week. One death took place at Alphon on December 4th.

OBITUARY.

JAMES HOBSON AVELING, M.D.

We feel sure there are many who will hear with regret that Dr. Aveling succumbed to an attack of typhoid fever on Monday last, after only ten days' illness.

Born in 1828, in Cambridgeshire, he graduated at Aberdeen in 1856, and soon after settled in Sheffield in general practice, where he soon obtained a large *clientèle*. Recognising the need of more special help for women than the general hospitals at that time afforded, he devoted special attention to this department, and succeeded, in 1865, in founding the Sheffield Hospital for Women. Three years later, finding that the field for observation was too limited, he decided upon migration to London and devoting himself entirely to the diseases of women. So much had he made himself appreciated that his friends, his patients, the whole town begged him to reconsider his determination. Failing in this he was entertained at dinner and presented by the Mayor and his fellow townsmen with a gold repeater watch, engraved with the expression of their regard.

He commenced his London career in 1868, and soon made his influence felt. In conjunction with Dr. Chambers he started a small hospital for women in King's Road, Chelsea, with half-a-dozen beds; and from this sprang the Chelsea Hospital for Women, containing sixty beds, which is now a flourishing institution, and doing good work. It may be interesting to many to learn that over £8,000 was netted for this charity by the first Old English Fair ever held in London. For several years Dr. Aveling was senior physician to the hospital, and only relinquished his duties a few years since, when illness compelled him to lessen his public work. He was made consulting physician, a post he held to the time of his death, and he devoted much time and consideration to establishing the hospital on a firm basis. It was only last year he took a prominent part in the opening of the Convalescent Home at Leonards-on-Sea by Lady Cadogan.

Dr. Aveling was a firm believer in the advantages of electricity in pelvic disorders, and carried out his views in practice. He published a very interesting history of the Chamberlens, the inventors of the midwifery forceps. For many years he edited the *Obstetrical Journal*, and contributed many valuable articles on the science and art of obstetrics to various journals.

He was greatly interested in the question of midwives, and devoted much time and attention to furthering the improvement of this class, and advocating their recognition and regulation by the State. He embodied his views in *English Midwives; their History and Prospects*. He was also the author of *Memorials of Harvey*, *The Influence of Posture on Women in Gynecic and Obstetric Practice*, *On Inversion of the Uterus*, *On Immediate Transfusion*, and other kindred subjects. He was a successful practitioner, and, had his health permitted it, would have been President of the British Gynæcological Society. The profession has lost an able man, a hard worker, and a conscientious practitioner.

His remains were cremated at Woking on Thursday, numbers of his friends, patients, and colleagues paying their last tribute of respect to his memory.

Our Sheffield Correspondent writes: Although it is now many years since Dr. Aveling's active connection with Sheffield ceased, there are still many friends in these parts who will hear of his death with feelings of deep regret. He at one time occupied an important and prominent position in the profession locally, and had early succeeded in surrounding himself with strong friends and an influential *clientèle*. The manner in which he was led to practise in these parts, to which he was a stranger, is not without interest. At the village of Ecclesfield, situated some five miles from Sheffield,

he resident surgeon had in 1852 met with an accident, which proved fatal; and the Vicar's wife, we learn from Hunter's *Hallamshire* (Gatty), was desirous "that a successor should be found who would administer chloroform to mothers at childbirth, as well as in all painful operations, the prejudice against that anæsthetic being as yet maintained not only in this locality, but in England generally." Aveling was the one recommended for the post by a friend of Sir J. Simpson, and he came shortly after the date above given with the highest credentials, not the least among these being that he had been a pupil of the discoverer of chloroform. This habit of giving chloroform in obstetrical cases is believed to have stood him in good stead when a few years later he removed into Sheffield. This must have been about the year 1856, and we find that in the next year, 1857, he issued a private circular advocating the establishment of a hospital for women. The time for such an institution had not then arrived and the project fell through. In 1863, however, with the co-operation of the late Dr. Edward Jackson and Dr. Keeling, a more successful effort was made, and it resulted in the founding of a hospital with suitable premises and 12 beds. With this institution—with which as founder his name must for ever be associated—he remained connected during his residence in Sheffield. It may here be added that the small beginnings mentioned have since grown into the well-built and well-equipped Jessop Hospital for Women with forty beds. He was at the time of his decease consulting medical officer to this institution. In many ways besides this he filled an important and prominent place in the medical life of the town more than twenty years ago. He lectured on midwifery at the medical school, delivered an opening address at a winter session, and took part in the working of the medical society. He was a cultured and well-educated man, took a considerable interest in antiquarian matters, both inside his profession and outside of it, and, besides the works by which he is known to the profession, he wrote a *History of Roche Abbey*, which was thought highly of at the time. He was an active worker in the Literary and Philosophical Society, and was at one time its president.

ALFONSO CORRADI, M.D.,

Professor of Therapeutics in the University of Pavia.

We regret to announce the death of Professor Corradi, which occurred at Pavia on November 28th in his 59th year.

Alfonso Corradi was born at Bologna in 1833, and after studying in the historic university of his native city, took his doctor's degree there in 1856. After doing duty for some time as an assistant in the Hospital della Vita, he successfully competed for the post of Professor of General Pathology in the University of Modena in 1859. In 1863 he was called to the corresponding chair in the University of Palermo, and in 1867 he was appointed Professor of General Therapeutics, Materia Medica, and Experimental Pharmacology in the University of Pavia. This chair he continued to occupy till his death.

Corradi was universally acknowledged to be one of the foremost medical teachers in Italy. Profoundly and widely learned, and at the same time keenly critical and accurately observant, he was able not only to communicate his own knowledge to others, but to inspire them with the desire to seek the truth for themselves, and to show them the paths by which it was to be found.

Corradi's writings bear testimony to the high quality and versatility of his powers. Among his scientific publications may be mentioned his works on the etiology and history of pellagra and on the contagiousness of tuberculosis. Of his other works the most important is his history of epidemics in Italy, from the earliest records to the present time. He also published a history of surgery in Italy from the closing years of the last century till the present day; a history of obstetric medicine in Italy; and notes for a history of the University of Pavia and its most illustrious teachers. He edited the letters of Lancisi and Morgagni, with an introduction and copious notes. Among his more purely literary writings may be mentioned his essay on the hallucinations of Tasso, and his "Excursions of a Physician in the Decameron."

Corradi took a prominent part in the hygienic renascence of Italy. He had been President of the Italian Society of Hygiene since its foundation, and his annual reports of the work of that body show what an active zeal and practical insight he brought to the discharge of his duties. At the inaugural meeting of the International Congress of Hygiene and Demography, held in London in 1891, he represented Italy, and responded to the Prince of Wales's address of welcome in a speech characteristically historical in tone.

How fully Corradi's merits were recognised by those best qualified to judge is shown by the fact that he was chosen by his colleagues to be President of the Medical Faculty and Rector of the University of Pavia. He was a member of the committee for the preparation of the Italian *Pharmacopœia*. He was a corresponding member of the French Academy of Medicine. On the occasion of the London Congress of Hygiene, the degree of LL.D. *honoris causâ* was conferred on him by the University of Cambridge, the Public Orator, in introducing him, describing him as having happily combined the study of history with that of medicine.

AXEL IVERSEN, M.D.,

Professor of Surgery in the University of Copenhagen.

Professor Axel Iversen, whose death we announced recently, was born at Helsingor, in Denmark in 1844. He received his medical education at the University of Copenhagen. He passed the State Examination in 1869, and won the University Gold Medal in 1872 for an essay on "The Normal Anatomy of the Prostate." He received the greater part of his surgical training under Professor Holmer in the Commune-Hospital of the Danish capital. Early in his career he showed a special interest in the surgery of the urinary organs, enlarging his experience by visits to Vienna and Paris, where he worked under Dittel and Guyon. On his return to Copenhagen in 1874 he qualified as a teacher by a thesis on hypertrophy of the prostate. In 1884 he was appointed Surgeon-in-Chief to the Commune-Hospital, the duties of which position he continued to discharge with the greatest energy and devotion almost up to the hour of his death. On November 15th he was suddenly seized with illness, which was thought to be due to septic infection from ulcerated hæmorrhoids, and he died on November 22nd with thrombosis of both popliteal arteries.

Iversen had earned for himself a great reputation as a specialist in urinary diseases, and especially as an operator. He was, however, as his position at the head of an important surgical clinic required, much more than a specialist. His numerous contributions to literature show that no province of surgery was neglected by him. He was an indefatigable worker, and had the faculty of inspiring others with something of his own enthusiasm. By his pupils he was revered as a teacher, and loved and respected as a man; he was liked and trusted by his colleagues; and his cheery optimism of disposition, united to real kindness of heart, made him very popular with patients of all classes. By his premature death the profession in Denmark has sustained a loss which cannot easily be repaired.

His published writings include papers on the Operative Treatment of Cancer of the Tongue (1874), Subhyoid Pharyngotomy (1884), Vesical Neoplasms (1886), Resections of the Pharynx and Œsophagus (1887), Catheterisation of the Ureters in Man (1888), Abdominal Surgery (1889), 247 Cases of Cancer of the Rectum (1890), Ether Narcosis (1891), Appendicitis and its Treatment (1891), Ureteral Fistulæ (1892), besides numerous other papers on his favourite subject of urinary diseases.

Health of Dundee.—In Dundee 212 cases of infectious disease have been notified, against 56 in November of 1891. Of these no fewer than 24 were cases of typhus fever, making a total of 33 in the past two months.

The arrangements for the Pan-American Medical Congress, to be held at Washington in September, 1893, are now well advanced. Recent additions have brought the number of sections up to 22.

It is stated that a fuller examination of the census returns of the United States shows a slight decrease in the proportion of lunatics to population, as compared with the returns for 1880.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, DECEMBER 17th, 1892.

THE MEDICAL FACULTY OF THE NEW UNIVERSITY.

The Requirements of London.—A Quarter of a Million recently Expended on Extension of Metropolitan Medical Schools.

The Royal Commission on University Education for London has taken a very large amount of evidence from many sources—the Royal Colleges, University and King's Colleges, the medical schools of London, women's college, working men's colleges, and other educational bodies of different grades in the educational hierarchy. Among the evidence tendered has been that of delegates of the Metropolitan Counties Branch, and it will be seen that at the special meeting of the Branch, which is reported at length on another page, there was practical unanimity as to the needs of London students.

The resolutions placed on record the unanimous opinion of the meeting that "a degree in Medicine, based on a sound, thorough, and practical standard should be placed within reasonable reach of students educated in London," that this should be retrospective in the case of practitioners educated in London and qualified before the establishment of the new degree, and that it is desirable to establish a teaching university in and for London. The first two of these resolutions are similar to those that have been again and again passed by the Branch since 1884. It remains to be seen whether the present Commission will be more successful than its predecessor in unravelling the difficulties that beset its path by reason of the conflicting interests which animate the representatives of the several educational bodies that are concerned in the higher education of London.

It cannot be too clearly understood that if a good working scheme can be arranged, the new, or the reformed university, will be able to start with a medical faculty which, in point of numbers and of the repute of its teachers, will be second to none. Further, though there was a time when the equipment of the London medical schools was inferior to the standard which ought to have been reached in the metropolis of the British Empire, yet a great change has taken place. Probably few people are aware how large the capital expenditure on lecture rooms, laboratories, and other buildings for teaching purposes by the metropolitan schools has been during recent years. We are not aware that the full figures are anywhere available, but from information which has been kindly supplied to us at our request by the authorities of certain of the schools, we find that eight of these schools have within the last ten or fifteen years expended over £150,000 in school buildings alone. The figures are in round numbers as follows: St. Bartholomew's, £52,000; Charing Cross, £20,000; Guy's, £16,000; London Hospital, £25,000; Middlesex, £8,000; St. George's, £10,000; Westminster, £14,500; and London School of Medicine for Women, £8,000. University College and King's College are omitted from this list for obvious reasons, and the figures from St. Mary's and St. Thomas's are not available. In addition to the expenditure on school buildings, considerable sums have been sunk in residential colleges. Guy's, for instance, has spent £21,000, and Middlesex £10,000. There have also been other sums expended with the object of drawing closer the bonds of collegiate life, as, for instance, the expenditure of £6,000, by Guy's for a cricket ground and the necessary buildings, so that we shall probably not be far out if we estimate that between £250,000 and £300,000 has been expended in London to meet the modern requirements of medical education. The money has been raised, or the necessary liability incurred by the corporate body of teachers at each school, who have thus given evidence of their confidence in the future of university medical life in London.

In the constitution of a new university, or in any reconstruction of the old, the eminent position of these medical colleges must be fully recognised. It is absurd to ask them to take a subordinate place. There are many, and we believe grave, objections to a one-faculty university, but the objections to a one-faculty college are by no means so weighty. A college thoroughly organised and equipped in one faculty, as the medical schools of London now are, is a worthy element in any university.

Rumour has it that the majority of the Royal Commission are in favour of a reorganisation of the present University, but the means by which the goal is to be reached cannot be usefully discussed until we have the report before us. The goal which London practitioners of all kinds desire is now again, with the increased emphasis that comes of unanimity, presented to the Royal Commissioners. It is allowable to hope that their report may lay the foundation of a wise and temperate solution of this protracted and very vexed question. Should it be found, when it comes to be published, happily to satisfy the very reasonable requirements set forth in the resolutions of the members of the Metropolitan Counties Branch, it will already have secured for itself the support of an important section of educated and enlightened public opinion.

THE PHYSIOLOGY AND PATHOLOGY OF THE HEART.

One of the most important contributions to knowledge of the heart which has appeared for many years is contained in the elaborate paper by Professors Roy and Adami, recently issued in the *Transactions of the Royal Society*. The work is in the highest sense original. The registration of the facts obtained is so clear that absence of detailed experiments from the text is felt only as a pleasant relief from the burden which usually accompanies physiological and pathological papers. The work is too large to be dealt with fully in our limited space; we can only refer here to its more salient features.

The earlier portion of the paper deals with the influence of the vagus nerve upon the heart's activity. By means of that

nerve the *force* of the auricular contractions may be reduced even to extinction and the auricles for hours kept quiescent. Two kinds of action on the auricles can be distinguished, both due to the vagus; on the one hand reduction of *force* of contraction, on the other hand reduction of *frequency*. The influence of the vagus on the ventricular beat is in strong contrast with its action on the auricular. The vagus cannot arrest the ventricles, as it arrests the auricles. It lowers the excitability of the ventricles, and so can temporarily arrest their beat, but the arrest cannot be maintained for a period long enough to endanger life, no matter how strong the stimulation. By exciting the vagus the heart can be thrown into such a condition that the ventricles beat with a rhythm independent of the auricular rhythm; in other words the ventricles contract with a rhythm of their own independent of the check which the vagus is holding on the auricles. This independent beating of the ventricles establishes itself somewhat slowly; it is at first infrequent and irregular, but gradually becomes less slow and almost completely regular. The regularity may, however, be upset if the check on the auricles is not strongly maintained by the vagus, for then the rhythm of the independent intrinsic mechanism of the ventricle may be interfered with by beats arising in the auricles and passing over to the ventricles. This irregularity diminishes the efficiency of the heart without reducing its expenditure of energy. It will not much embarrass the circulation during health when of short duration and when the heart has a good "margin of reserve" of power, but when it occurs in cardiac disease the authors show that it is productive of great harm. The authors prove that even weak excitation of the vagus nerve reduces considerably the amount of blood passing through the chambers of the heart, and may reduce the output from the ventricles by a third.

As to the action of the augmentor nerves (sympathetic system) on the heart, the authors point out that the acceleration of the heart's rhythm and the augmentation of force of beat produced by the augmentors are effects which bear no constant proportion one to the other. The output of blood by the heart is increased by the augmentors. The augmentor nerves, apart from their influence on the force and frequency of the auricular beat, also increase the force of the ventricular contractions; this augmentor effect on the ventricle can be set aside by the vagus, which, as explained, lowers the excitability of the muscle of the ventricle. An important point discovered is that the augmentor nerves exert no influence on the cardiac rhythm when once the cardiac branches of the vagi have been paralysed by section or by atropine. This may be taken to mean that the augmentor nerves act as a check upon the restraining influence of the vagus on the heart. The actions of the augmentor and vagus centres can be brought to bear on the heart reflexly by exciting the central ends of such mixed nerves as the sciatic and the splanchnic. Usually the augmentor centre is then the more strongly excited of the two, so that augmentor effects result during the excitation of the nerve, but are later succeeded by vagus effects.

Other factors besides the vagus and augmentor nerves are studied as influencing the force of the cardiac beat. The pressure of blood in the coronary arteries is one of the most important of these factors. Lowering of this pressure weakens the contractions of both auricles and ventricles; increase of the pressure causes the strength of the contractions to be increased. The force of the heart is thus partly automatically regulated by changes in its own arterial pressure. Alteration in the quantity of blood circulating also affects the contractions of the heart. Intravenous injection of a volume of defibrinated blood equal to one-tenth the total blood may double the output of blood from the heart. The amplitude of the ventricular contractions is not increased nor does the arterial pressure rise, but the work done by both the ventricles is increased. Thus, in plethoric hypertrophy of the heart (Niemeyer, Bollinger, etc.) the right as well as the left ventricle must be affected, while the hypertrophy resulting from high arterial tension will, in the absence of mitral insufficiency, be confined to the left ventricle. Increase of the mere water of the blood increases in the same way the work of the heart, and it acts still more unfavourably because while the work done is greater the nutrient value of the blood supplied to the tissue of the heart is less. The increased output of the heart, both in plethora and in hydræmia, is due to increase of pressure in the systemic veins increasing the amount of blood entering the right ventricle in the intervals between the beats.

Fatigue of the cardiac muscle is studied, and it is pointed out that fatigue and dilatation are in the healthy heart synonymous terms. The amount of exertion possible by the body is largely conditioned by the limits of power of the heart to continue efficiently supplying blood to the nervous and muscular mechanisms of movement. Cardiac dilatation resulting from fatigue forms with the fatigue itself a vicious circle for the heart's action, since it further increases the difficulty besetting the organ. A given pressure existing inside it, the strain upon the wall of a hollow spheroid increases along with the expansion of its figure; therefore the resistance opposed to the contraction of the cardiac wall is greatly increased by dilatation of the cardiac chambers. It is further pointed out that the augmentor nerves have little power to brace up a ventricle that is fatigued.

A matter of great interest brought forward in the paper consists in some experimental evidence that, commingled more or less with the fibres of the augmentor nerves, are nerve fibres which are vaso-constrictor to the coronary blood vessels. Excitation of these fibres produces marked weakening of the contractions of the auricles and ventricles, accompanied usually with reduced frequency of beat, and often followed later by a rebound to greater force and frequency. Commingled with inhibitory fibres of the vagus the investigators also find fibres which increase the force and frequency of beat; these are probably of the nature of vaso-dilators to the coronary blood vessels.

It is not too much to say that this research places the heart in a position more accessible to the logic of the clinician and of the pathologist than hitherto. A feature of the work is the large degree of success which has attended an application of graphic measurements to a warm-blooded muscular machine *in situ*, reacting under conditions by nature peculiarly complex both vitally and physically. Generalisations obtained from the physiology of the amphibian heart are often applicable to the mammalian heart only with great reserve, lest error result from the difficulty of accurately synthetising the result of interaction of many factors, some comparatively simple, but none finally to be considered apart from the rest. The work before us contains

several instances in which dynamical and statical facts interweave with and contribute to explain phenomena at first sight purely vital—tonic, inhibitory, etc.

No praise is too high for the ingenuity of the *technique* employed. Instruments have been to a large extent specially devised for the purposes of the research. Some of these will no doubt become the means of investigation in other laboratories besides that of Professor Roy. The myocardiograph may evidently be applied with little modification to various uses other than those for which the authors have devised it. The automatic counter might easily make an excellent *Arbeitsammler* preferable in some ways to the classical instrument of Fick.

SCIENCE, LETTERS, AND EDUCATION.

The Professor of Latin at University College has printed the brave plea for disinterested learning which he made at the opening of the winter session.[1]

It is commonly asserted, he says, on behalf of "science" (by which term he seems to mean the positive sciences) that her end is utility; on behalf of literature that her end is the transformation of the human mind and the cultivation of the love of beauty; but, he argues, if science be pursued only for the more material advantages—if astronomy be good only in so far as it is of assistance in navigation, chemistry only for the discovery of dyes or manures, and so forth—then these sciences need only be studied within such remunerative areas. As to the "classics" (by which term he seems to mean certain Greek writers of the 5th and certain Latin writers of the 1st century B.C.), he denies that their study does transform or beautify its devotees, and he makes some quotations to prove that they write in as slovenly a fashion and express thoughts as obscurely as other people. The "classics," he contends, do not give beauty to the soul, but rather furnish the key to a store of ornaments of speech, which have been very fashionable and are not quite out of fashion yet. The capacity for culture is a rare and peculiar quality of individuals; it can find sufficient nourishment in a very scanty measure of classical reading, and no profundity of scholarship can produce it.

The purposes of science and letters would seem then to be other than utility or beauty; and Professor Housman concludes that the attainment of knowledge satisfies a hunger common to all men, which satisfaction, being the most permanent of pleasures, is a good in itself and the only abiding good. As Virchow said, in the Berlin address from which we quoted the other day, man is born and grows up a creature keen of inquiry, and his greatest happiness consists in the reading of the endless storybook of Nature.

Learning, then, is its own end and its own reward, and although technical schools must exist for purposes of immediate utility, yet this kind of teaching is to be regarded as but provisional, and far short of the standard of a university, where learning shall be pursued for its own, that is, for happiness' sake.

Now if Professor Housman be right in his main contention, his argument is defective in more than one part. Putting aside certain crudities of opinion in subordinate matters, it is a mistake to suppose that the physical sciences can be quarried with parsimony of labour for practical purposes. "Science" is a jealous mistress, and will give her favours—her secret and unexpected favours—only to him whose love and pursuit of her are passionate and singlehearted. Science will have disinterested devotion or none.

Again, is it true that the satisfaction of curiosity is in itself the joy and end of study? Aristotle did, no doubt, as did Virchow, speak of this delight of the spirit in its own energy; but, in quoting Aristotle, Professor Housman, like many other writers, as it seems to us, misses his moral earnestness. The spur to our energies is the desire for unseen good; we desire an end, not a process only. To busy one's self *in vacuo* is no noble emotion. Aristotle says the soul delights in exercising its energies ἐν βίῳ τελείῳ, engaged or versed in a life not formally complete, but constantly fulfilling its purposes, ever realising anew the highest forms consistent with the state of the agent. There is an ethical and philosophical part in the matter which Professor Housman seems to neglect.

[1] Introductory Lecture delivered in University College on October 3rd, 1892. By A. E. Housman, Professor of Latin. Cambridge, 1892.

The new law for the regulation of medical practice in France, which, as we recently announced, has passed both legislative chambers, was formally promulgated by the President of the Republic on December 1st. The law will therefore come into force on December 1st, 1893.

Dr. E. C. Perry has been appointed to succeed Dr. J. C. Steele as Superintendent of Guy's Hospital. Dr. Perry vacates the appointments of Warden of the College and Dean, but continues to hold the posts of Assistant-Physician to the hospital, and Demonstrator of Morbid Anatomy in the Medical School. Dr. Lauriston Shaw succeeds Dr. Perry as Dean.

We understand that the report of the Committee of the Privy Council on the application of the British Nurses' Association for a charter will be submitted to the Queen at an early meeting of the Council. Till the report has received Her Majesty's approval the result of the application cannot be made known.

THE FELLOWSHIP EXAMINATION OF THE ROYAL COLLEGE OF SURGEONS.

It has been decided that the papers on Anatomy and Physiology for the Fellowship Examination shall be given in future on separate days instead of on the morning and afternoon of the same day, as at present arranged.

SICKNESS ON THE TRAINING SHIPS.

We are able on the best authority to state that energetic measures are being taken by the naval medical authorities for dealing with the increased number of boys on the sick list from the training ships. This increase is, we believe at least, partly attributable to the increase in the number of boys under training, a large additional number having been entered of late. Special steps are being taken to obviate any ill effects which may possibly arise from overcrowding.

SWEARING WITNESSES IN COURTS OF LAW.

The hygienic objections to the uncleanly method of swearing witnesses in courts of law by making them "kiss the book" are rapidly permeating the professional and well-informed classes, since we recently drew renewed attention to the adoption in the coroner's court for West Middlesex of the mode of swearing with uplifted hand. As we have pointed out more than once, this is not an "affirmation" only, but constitutes as lawful and binding a method of taking the oath as "kissing the book," which is a superfluous and—in view of the doubtful hygienic antecedents of successive witnesses—a dangerous and disagreeable proceeding. Not all the judges or magistrates yet understand the matter correctly,

and of this the following incident in the court presided over by Sir C. Hall, the Recorder of London, appears to afford an example. In the course of the case a medical man was called, and on coming to be sworn he asked if he could be excused from kissing the Testament. The Recorder: "Have you religious objections to kissing the book?" Witness: "No." The Recorder: "Then on what ground do you object?" Witness: "On sanitary grounds." The Recorder: "You can open the Bible and kiss the inside." The witness accordingly did this and the case proceeded. Under this *regime* the inside of the book is likely to be as much liable to infection as the outside, and the precedent is not to be commended.

SEARCHING FOR A GAS ESCAPE.

So many accidents of a fatal nature arise from imprudence in searching for a "gas leak," that we have obtained authoritative advice. It comes in the following form: In "case of any escape of gas I would advise the immediate turning off of all gas from the premises by means of the main cock, always placed near the meter, then opening doors and windows to allow the accumulated gas to get away, and immediately sending for a gasfitter, or one of the company's inspectors, seeing, of course, that no lights or fires are going. I would no more advise a householder how personally to search for an escape of gas than I would advise him how to doctor himself or repair his watch." This is the opinion with which we are favoured by the distributing engineer of a great gas company.

SIR GEORGE BUCHANAN PRESENTATION FUND.

It has been decided that the fund should be devoted to the founding of a gold medal to be given biennially or triennially for distinguished services rendered to sanitary science; that the Royal Society should be asked to award the medal; that Sir George Buchanan should be asked to formulate the precise terms, defining the conditions under which the medal should be given; that Messrs. Pinches should be asked to submit a design for approval to the special subcommittee, which, when satisfied as to the design, should take the necessary steps to have the medal made. The sum at the disposal of the Committee is rather more than £330, and it was estimated this would admit of the biennial bestowal of a gold medal of about two inches in diameter.

PRECAUTIONS AGAINST THE EXPECTED RETURN OF CHOLERA.

The Local Government Board have notified the Town Council of Liverpool that they are about to hold inquiry, embracing all that portion of the Mersey situate within the Customs ports of Liverpool and Runcorn, with a view of placing the port sanitary administration of the river in a better state of preparedness to deal with cholera. We understand that the Board have in immediate contemplation the renewal of the cholera survey carried out during the past summer, of port and other coast sanitary districts, on the lines of the survey of 1885-86. The scheme is likewise intended to embrace inspection of certain inland sanitary areas that stand in need of further visit on account of their unpreparedness to resist the spread of cholera if once introduced. If the expected outbreak of cholera in Western Europe next spring and summer does occur, the stray cases brought to our shores will doubtless be very much more numerous than during the past few months, since the disease has already infected the whole west coast line of Europe from St. Petersburg to Lorient. Thus not only may England be exposed to infection by a greater number of cases of cholera, but this danger will continue for a longer period than last year. In these circumstances it can hardly be held reasonable to anticipate such practical immunity from cholera at our great sea ports as has been experienced this year, and the danger of carrying infection from large to small shipping ports by coasting traffic will arise; hence it is satisfactory to learn that it is proposed, as far as may be, to visit all riparian authorities, great and small, since the most insignificant seaport village might, by its unpreparedness, prove a distinct danger to the whole country.

INEFFICIENT VACCINATION AND THE ROYAL COMMISSION.

The suggestion that all vaccination should be performed by public vaccinators paid by the State and devoting the whole of their time to their official duties, has again been put forward by a correspondent, Dr. T. Garrett Horder. Such a man would probably be unpopular in the eyes both of a number of medical practitioners and also of a section of the public, who have been accustomed to submit their children to an imperfect vaccination, but it would have some counterbalancing advantages. The organisation of such a scheme would, however, not be free from difficulty. It might, for example, be extremely difficult to arrange that an official who had a settled circuit for vaccination purposes should suddenly leave his circuit to carry out nightly vaccinations for workpeople in a town where smallpox had broken out; and it would probably, even if limited to cases of primary vaccination, have to be so contrived as to admit of exceptions. We fear that, at the present stage, a circular addressed to all registered practitioners, such as our correspondent also suggests, requesting them to vaccinate according to the regulations laid down for public vaccinators, would not be attended with any marked change in the practice of vaccination. And we believe we are right in saying that the Local Government Board feel some hesitation in issuing any new memoranda, instructions, or advice on the subject of vaccination whilst a Royal Commission, appointed under the auspices of a President of that Board, is taking evidence with the view of reporting on the whole subject in all its different phases.

RURAL SANITATION.

The latest report of the Local Government Board states that in the twenty years ended with 1891, loans for upwards of one hundred millions sterling have been raised by one and another sanitary body in England and Wales, of which £43,357,149 was borrowed for sanitary purposes, under the Public Health and kindred Acts, in urban, and £3,275,325 in rural, districts. Of the latter sum, £2,099,280 represents the loans of the twelve years 1880-91, and the report further shows that in these years the matter of water supply accounted for £576,502, whilst £1,145,278 was borrowed for purposes of sewerage and sewage disposal. In 1891 the loans for sanitary improvements in rural districts reached only £174,862, and were contracted by some seventy out of the 570 rural authorities. The above figures show that comparatively little is being done by the guardians of the public health outside the towns. And yet, taking up the report of the health officer of the county of Surrey for last year, we note that the mean death-rate of such districts therein was 14.8; in Essex it was 16.8; in Staffordshire, 18.1; in Lancashire, 18.2; in Derbyshire, 18.3 per 1,000 of population. The rate for standard healthy rural districts is probably now 14.0 per 1,000, so that Surrey alone among these counties shows a good record; although something may be said, in explanation of high rural rates, as to the migration of the young and able-bodied adult population from the country to the towns which is constantly going on. No one can read the records of our sanitary officers without being struck by the frequency of statements as to total absence of sewerage and drainage. Leaky cesspools endanger local water supplies, huge midden privies, reeking with filth, contaminate the atmosphere, and adjacent water courses receive the drainage of unsewered localities. Yet people are content to use the nearest stream or surface wells for domestic water supply. The members of a rural authority often appear to

know but little of their district in its sanitary aspects beyond their own immediate parish, whilst they are only too frequently averse from incurring the expense needed to place their district on a proper sanitary footing. Rural boards often give but a few minutes to sanitary affairs at the fag end of a long meeting concerned with Poor-law business. It is little encouragement to a health officer to have his advice again and again ignored, or, if pressed in the face of a do-nothing policy, to find his tenure of office thereby insecure. It is just here that our hope for the future hangs largely upon county councils. With a medical, engineering, and inspectorial staff removed from the dangers attending outspoken local advisers, councils should be in possession of the full facts as to every town and hamlet in their counties; and we trust that they will not scruple to use to the full the powers conferred upon them for bringing defaulting authorities to book.

POISONS IN SECRET MEDICINES: FURTHER JUDGMENT.

On Wednesday last His Honour Judge Bacon gave judgment in another case in which the right was claimed to sell stamped secret medicines containing poisons in favour of the Pharmaceutical Society, thus confirming the previous decisions obtained. We congratulate the Pharmaceutical Society on the decisive steps which it is now taking to carry out the provisions of the law which have too long been allowed to lapse. Our Parliamentary Bills Committee can but feel highly satisfied with these results of their efforts to protect the public and the profession from a practice too long carried out with impunity. It is understood that an appeal will be made.

THE REGISTRATION OF PLUMBERS.

The Lord Mayor, who is Master of the Company of the Worshipful Company of Plumbers, gave a dinner at the Mansion House on Wednesday, December 14th, to a company of nearly 250 gentlemen, representing the mayors of many English, Scotch, and Irish boroughs, chairmen of county councils, heads of technical schools, medical officers of health, and sanitary associations. The Lord Mayor was supported at the head of the table by Sir Walter Foster, M.P., the Lord Mayor of Dublin, the Rev. Dr. Wace, Sir J. Crichton-Browne, Dr. Withers Moore, Mr. T. Bryant, President of the Royal College of Surgeons; Dr. Tanner, M.P.; Mr. Ernest Hart, Dr. J. F. J. Sykes, Dr. F. J. Allan, Dr. Littlejohn (Edinburgh), Dr. McVail (Dundee), Mr. Shirley Murphy, Dr. R. Thorne Thorne, Dr. M'Gregor, M.P.; Professor W. R. Smith, and a large number of members of Parliament, medical officers of health, etc. Sir W. Foster, M.P., responding for the House of Commons, said the House had before it a Bill in which the Company was interested—the Plumbers' Registration Bill—and that Bill had received careful attention and approval of a distinguished Select Committee. The Bill was an exemplification of the wise action of the Company. The British Medical Association had, through Mr. Ernest Hart, already at an early date urged such action. At the Local Government Board there existed a feeling of very considerable sympathy with the Plumbers' Company, and as one who had devoted the greater part of his life to sanitation and to public health, he recognised the great work the Company had undertaken, and he hoped the House of Commons might see its way to do something to promote the great objects they had at heart.

TWO MEDICAL WORTHIES.

In the persons of Dr. Hawksley and Dr. Aveling, who have both passed away this week, the country and the medical profession have lost two men of social and professional mark. Without holding official position or aspiring to what are superficially supposed to be the insignia of leadership, they were both of them men of light and leading. The teachings of a large general practice and much meditation on the sufferings and hardships of the poor, familiarity with the out-patient department of dispensaries and hospitals had brought to Dr. Hawksley, as to so many others of our profession—*pace* its traducers from within and from without—a softened spirit of pity and love, and an ardent desire to be actively useful in discovering and applying truly scientific and real remedies, social as well as therapeutical. In the busiest years of a considerable practice he found time to take a very active part in the conferences, the studies, and the systematic course of action of the founders of the Charity Organisation Society, and to participate in innumerable acts of charity. After retiring from practice, with impaired health but unshaken conviction and courage, he set himself with Mr. Loch (Secretary of the Charity Organisation Society), Lord Cross, Mr. Ruskin, and others to found in 1886 a National School of Handicrafts for Destitute Boys, towards which he gave a sum of £25,000, and which was soon after opened at Chertsey. He subsequently dedicated his life largely to the guidance and development of this work, which has flourished under his hand. There are many who will call him blessed. Dr. Aveling was a man of another stamp, but of some notable characteristics. Removing to London in middle life from the provinces, he was distinguished by a quiet and unassuming independence of character and originality of thought. He belonged to no clique and joined no official party; he was not always elected to offices which might naturally have been his by seniority and ability, but which sometimes fell to lesser men. This disturbed him but little. It did not prevent his taking his own line in all things. He mainly originated and chiefly led the movement for the better education, examination, and control of midwives. Through many years of debate he treated the subject with strength, moderation, and equable temper—qualities sometimes sorely tried by the manner of some of his opponents and their habit of imputation. His latest contributions to the discussion were some letters published within the last few weeks in the columns of the British Medical Journal, admirable in tone and strong in their appeal to the high principles always present to his mind. He too will be much missed and sorely lamented in the course of the coming attempts to settle this public question equitably, a settlement which indeed his departure may do something to retard.

A NEW MUSEUM OF HYGIENE.

On Thursday, December 8th, the Lord Mayor, in the presence of a number of gentlemen interested in and connected with hygiene, formally opened a museum at Highgate (North Hill) established under the auspices of the Hornsey Local Board and formed under the supervision of Mr. de Courcey Mead, M.I.C.E., the Board's engineer. The origin of the museum is as follows: Some two years ago it was thought well to collect a few specimens of the most improved fittings for the purpose of guiding builders, and this plan was found most useful, especially in a suburb of rapid growth like Hornsey. At first a room of about 940 square feet sufficed, but the museum has rapidly grown and now consists of seven rooms with a superficial area of 5,000 square feet. There are something like 1,000 exhibits; of these no fewer than 68 illustrate various forms of closets, giving the casual observer the idea that sanitation is mainly the anæsthetic disposal of stercoraceous material, but as the museum develops the relative preponderance of closets will naturally diminish by the increase of other exhibits. Water is laid on and the appliances are shown at work. There are several glass models and a particularly good section of a house showing how the water supply to bath, closet, sinks, etc., should be laid on and the modern method of arranging house drainage so as to secure self cleansing channels disconnected from sewer gas and provided with good ventilation. The Board have wisely resolved that all articles deposited shall become the property of the Board. The excellent example set by the Local Board of Hornsey we hope may be followed by other metropolitan suburbs and also by the chief towns. Permanent museums of an educational character are badly required in the pro-

vinces, especially for the purposes of giving object lessons to those who desire to become sanitary inspectors. In this connection we understand that, thanks to the representation of Dr. Sergeant, a museum will shortly be established in the county of Lancaster, besides which the County Council have voted £500 for the purpose of defraying the cost of a course or courses of lectures in sanitary science to inspectors.

BRIGHTON.

THE exceptionally high death-rate of Brighton during the last two weeks has caused some comments in an evening contemporary which reflect unfavourably on this favourite health resort. Such comments illustrate the erroneous conclusions which are so frequently drawn from these weekly returns, the safer deductions from the death-rates for a whole year or series of years being ignored. The weekly returns of the Registrar-General, however, show that the recent excess over the normal death-rate in Brighton is almost entirely due to the prevalence of measles in the poorer districts of the town. The same returns show a comparative immunity from scarlet fever and enteric fever, which is all the more remarkable considering the intimate association between London and Brighton. It must be noted also that the population of Brighton at the present time is probably nearly 50 per cent. higher than that on which the weekly death-rate is officially calculated, owing to the great immigration of visitors, many of them invalids, at this season of the year. In view of the high mortality from measles when prevalent among a poor population, it becomes a serious question for the local authorities in large centres of population to consider whether hospital isolation and treatment should not be extended to this disease, thus helping to diminish its prevalence and case mortality to the standard which holds among populations of a higher social status.

INSANITARY LONDON BOARD SCHOOLS.

A USEFUL deduction may be drawn from the public investigation of the sanitary state of certain of the London board schools. Passing over the numerous details of the case laid before the Southwark magistrate, it is evident that the sanitary reforms required were of a character which were covered by an expenditure of a very few pounds. Such complaints ought never to arise and never need occur. They must necessarily have a prejudicial influence over the educational work of the Board. Obviously an alteration of the principle of organisation is required. The medical officer of the Board appears only to have seen this school for the first time, from the point of view of sanitary inspection, two days before the case came before the magistrate. There would appear to be no official relation between the local clerks of works—who are practically the local sanitary inspectors of the Board—and the medical officer of the Board. It is obvious that a more fully developed and systematic organisation of the available machinery of the Board would prevent the occurrence of such incidents, which are not only discreditable and mischievous in themselves, but tend to create what is often an unnecessary panic among the parents of the children.

MEDICAL REFORM IN COVENTRY.

A MEETING of the profession in Coventry was held on December 10th to consider the question of reform. There were present Messrs. Milner Moore, M.D. (in the chair), Brown, M.B., Davidson, M.D., Day, Fowler, Haig, M.D., Hird, M.B., Iliffe, Oldham, Overton, Overton (jun.), Phillips, M.B., Rice, M.D., Loden, and White, F.R.C.S. The population of Coventry is 52,000. Out of this 26,000 belong to the provident dispensary, about 13,000 to the club and Poor-law system, and the hospital provides for about 3,000, so that there is left for the private practitioners, who number about twenty, about 10,000 people to attend. Truly a deplorable condition of things. It is calculated that the dispensary medical officers receive the sum of 1s. 4d. per head per annum, or £1,723 per annum. At a calculation of 1d. per week a head they should receive about £5,600. There is no wage limit, and the medical men are unable and unwilling to make any effectual reform. It is proposed, in the event of being unable to induce the committee to fix a wage limit, to found a public medical service in the town with a strict wage limit. The following resolutions were passed by the meeting:—Proposed by Mr. White, seconded by Mr. Brown: "That, in the opinion of the medical men of Coventry, it is expedient that some measure of medical reform be resolved upon." Proposed by Dr. Haig, seconded by Mr. Day: "That the introduction of the wage-limit system, as applied to medical contracts, be the measure of medical reform resolved upon." Proposed by Mr. Iliffe, seconded by Dr. Rice: "That a committee be appointed, with two or more of the dispensary staff and four other practitioners, to investigate and report on these resolutions." The subject of the resolutions was brought before the meeting in an able paper by Dr. Phillips.

MR. WILLIAM WATSON.

WE are very glad to be able to state on authority that since Mr. Watson's admission to the Bucks County asylum he is becoming much calmer, and though somewhat restless, he is sleeping better, and his mental condition is showing signs of improvement. It is, however, considered evident that he will require a prolonged period of rest before he will be able to resume his literary work. Happily the general health remains good.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE electricians of the Society having reported a dangerous leakage of current in the library, which cannot be repaired without considerable disturbance of the book cases, the Council have been obliged to order the library to be closed during the week following Christmas day.

DR. ROBERT JONES.

DR. ROBERT JONES, Resident Physician and Superintendent of the Asylum for Idiots, Earlswood, has been appointed Medical Superintendent of the new London County Asylum at Claybury.

THE WILL OF THE LATE MR. E. COCK, F.R.C.S.

THE will of the late Mr. Edward Cock, F.R.C.S., J.P., Consulting Surgeon to Guy's Hospital, who died recently at his residence, Kingston-on-Thames, has been proved at the value of over £92,000.

THE GALILEO TERCENTENARY.

THE tercentenary of Galileo was celebrated with much pomp and circumstance at Padua on December 6th, 7th, and 8th. Addresses were delivered by the Minister of Instruction, representing the King of Italy; by the Rector of the University, Professor Ferraris; by Professor Favaro, and others. Wreaths were laid on and before the statue of Galileo, and ceremonial visits were paid to the house in which he lived, and the garden in which he made his astronomical observations. The English delegates were Sir Joseph Fayrer, representing the Royal College of Physicians of London and the University of Edinburgh; Professor Darwin, representing the University of Cambridge; and Professor Stone, the University of Oxford. Sir Joseph Fayrer presented an address, written in very choice Italian, in which speaking of Harvey and Newton, he said the latter had taken up the torch of science fallen from the dead hand of Galileo, and held it aloft to enlighten the darkness and irradiate with the light of truth places which had remained dark even to Galileo himself, while the former had studied and taken his degree at Padua, where the genius which made the whole world his debtor was developed. To Galileo himself he rendered homage, not only as a discoverer of important truths, but as the founder of experimental philosophy. He concluded by conveying the best wishes of

those whom he represented for the prosperity of the venerable University of Padua, which, long before Galileo's day, was a centre of intellectual life in Europe, and which still shone with its own light as well as with that of him of whom it might be said, as Dante said of Aristotle: "Tutti l'ammiron, tutti onor gli fanno." Professor Darwin also delivered an address in Italian, and he was followed by the representatives of the other universities and scientific bodies, who were present in great number. Degrees in letters and philosophy were conferred on several of the foreign delegates, Sir Joseph Fayrer and Professors Darwin and Stone, among others, receiving the degree of Doctor of Philosophy. The tercentenary celebration was a great success, and the delegates were treated with the greatest courtesy and hospitality.

FORECAST SHADOWS.

Mr. William Watson's poems contain, it has been pointed out, some remarkable and sad forebodings of the mental malady which has—let us hope for a brief while—shown itself so distressingly at the very moment when his remarkable genius had attracted national recognition and a gift from the Crown funds. The following passages have a mournful psychological interest. In one of his sonnets he tells how he is plagued by

> Meeting oft a phantasm that makes claim
> To be myself, and hath my face and name.

Herein is a picture of madness. But another sonnet is even more sadly suggestive. Here it is, its title being Life Without Health:

> Behold life builded as a goodly house
> And grown a mansion ruinous,
> With winter blowing through its crumbling walls!
> The master paceth up and down his halls,
> And in the empty hours
> Can hear the tottering of his towers
> And tremor of their bases underground.
> And oft he starts and looks around
> At creaking of a distant door,
> Or echo of his footfall on the floor,
> Thinking it may be one whom he awaits,
> And hath for many days awaited,
> Coming to lead him through the mouldering gates
> Out somewhere, from his home dilapidated.

Unhappily Mr. Watson has been led through the mouldering gates from his home dilapidated to a home of cure, but soon, it may be hoped, he will be restored to mental health. He had long been suffering from insomnia.

SANITARY REFORM IN EGYPT.

Mr. Alfred Milner, late Under-Secretary for Finance in Egypt, in his work on *England in Egypt* just issued, expresses the opinion that sanitary reforms are now among the most pressing needs of Egypt. More backbone must be put into the Public Health Department, and in particular immediate steps should be taken to give Cairo an efficient drainage system. The need for sanitary reform in Egypt has frequently been pointed out in these columns, and particular attention has been directed to the insanitary conditions existing in Cairo. Our eminent and able correspondents on the spot have described the defects and their remedies, and have pointed out the imperfections in the Public Health Department. Much has been done by English sanitary advisers but more remains to be done, and it is satisfactory to find so able a lay authority and financial expert recognising this necessity.

THE COMING CARDIFF MEDICAL SCHOOL.

At the last monthly meeting of the Council of the University College of South Wales and Monmouthshire, it was unanimously resolved to proceed to the appointment of a Professor of Anatomy and a Professor of Physiology, each at an annual stipend of £350. There will necessarily be a considerable amount of preliminary work in organising the new department in suitable premises, and it has been thought well to make these appointments in order that the Council may have the advice of the professors through the preparatory stage. It is proposed to appoint subsequently a Demonstrator of Histology. A Lecturer on Materia Medica, who will be required to teach tutorially rather than by formal lectures, will also be appointed at a modest salary; a medical man practising in Cardiff will probably be appointed to this post. Organic and practical chemistry will be taught by the present Professor of Chemistry. It is proposed to expend about £800 in the fittings and apparatus of the dissecting room and physiological and pathological laboratories. The general arrangements will be planned to meet the requirements of the first medical examination of the University of London. The school will, it is expected, be in working order at the commencement of the next winter session.

INCREASE IN THE STAFF OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

We are able to announce that it has been finally decided to increase the permanent staff of the medical department of the Local Government Board by the addition of two medical inspectors. The appointments will be probably made within the next few days from a selected list now before the President and Parliamentary Secretary. These additions will raise the staff to fourteen officers—namely, a medical officer (Dr. Thorne Thorne, C.B.), two assistant medical officers (Mr. W. H. Power and Dr. Parsons) and eleven inspectors. This increase of the staff of the medical department, which has so soon followed the appointment of Sir Walter Foster to the office of Parliamentary Secretary, and which we may attribute largely to his study of this department of the business of the Board, has long been urgently needed. At the present time a large number of special inquiries are waiting to be made; in some cases the delay has already exceeded twelve months. A number of temporary inspectors will also be appointed immediately. Their services will, we understand, be utilised for the ordinary work of the medical department, thus liberating some of the senior inspectors, to whom the task of making the special cholera survey (referred to in another column) will be confided. It is anticipated that the services of these temporary inspectors will probably be required throughout the whole of next year.

EPSOM COLLEGE.

The anonymous donor, who so recently contributed £1,000, has now transferred £2,750 in long mortgage securities into the name of the Royal Medical Benevolent College. This generous benefactor has now given between £6,000 and £7,000 to help on this most excellent institution. The repute of the school has risen so rapidly that the dormitories are completely full, and already there are four times as many candidates for admission after Christmas as there are likely to be vacancies. Such success and such pressure will necessitate the Governing Council at once to face the question of providing extended accommodation. At the sixteenth annual dinner of Old Epsomians, under the presidency of Mr. Henry Morris, the prospect of having to provide in the immediate future for the accommodation of 150 boys was referred to. With a view to meeting one of the difficulties created by this increase, a committee has been formed by Old Epsomians and their friends to raise a fund to rebuild or enlarge the College chapel.

DRUGS: IMPURITIES AND EXPERIMENTS.

At a meeting of the Chemists' Assistants' Association of London on December 8th, Dr. Lauder Brunton, F.R.S., delivered a lecture on "Impurities and Mistakes." The principal impurities dealt with were tellurium in bismuth preparations, traces of perchloride of mercury in calomel, oxide of mercury in mercury with chalk, pyridine and amylic alcohol in rectified spirit, etc. The tellurium was detected by its imparting the unpleasant garlic odour to the breath of

the patient. This had occurred recently at St. Bartholomew's Hospital, and he was informed that the preparation answered the tests of the *Pharmacopœia*, although on analysis tellurium was found present. His attention had been called to the presence of perchloride in some calomel pills by their exceeding activity in extremely small doses. A medical friend took two or three of these pills, each supposed to contain one-twentieth of a grain of calomel, and was surprised at their activity. Professor Rutherford had shown that perchloride of mercury in small doses was an active cholagogue, and this led to Dr. Brunton's suspicion that the extraordinary action of the calomel was really due to the impurity present, and examination proved this to be correct. With regard to the presence of oxide of mercury in the Pharmacopœial mercury with chalk, his attention had been forcibly drawn to it when examining with Professor Leech. They had desired to give this preparation for examination by students, and had the utmost difficulty in obtaining a sample free from oxide, even when quite recently prepared. This was due to the modern method of manufacturing the article. The trituration of the two was effected by means of cannon balls rolling about in a revolving pan. This continued action led to prolonged exposure, and ultimate oxidation of the metal. Serious results might happen to very young children where the amount of oxide present was large. Referring at length to recent experiments and researches on the impurities sometimes present in both grain and potato spirit, Dr. Brunton pointed out that the presence of pyridine derivatives was due probably to the use of decomposed material. The inactivity of certain samples of commercial nitrite of amyl had caused Dr. Brunton to suggest that an examination should be made. This was undertaken by Professor Dunstan in the Research Laboratory of the Pharmaceutical Society, and indicated that a considerable proportion of nitrate was frequently present. The investigation also brought to light the varying composition of the commercial nitrite of amyl, and with the assistance of Professor Cash it was shown that one of the constituents—iso-butyl nitrite—was more active than the official mixture of nitrites. In replying to a vote of thanks proposed by Dr. Macnaughton Jones, Dr. Brunton expressed the opinion that the *Pharmacopœia* was the best work for illustrating the value of experiments upon animals, as he did not believe a single drug therein had obtained official recognition without that aid. It had recently been stated that the value of amyl nitrite in angina pectoris had been discovered without any experiments upon animals. As he had made the discovery he would take the opportunity of declaring emphatically that this statement was untrue, and that had there been no experiments upon animals the value of nitrite of amyl and nitroglycerine in this particular affection would never have been known.

SCOTLAND.

The Professors of Surgery and the Institutes of Medicine in Aberdeen University have recommended, respectively, to the Senatus of that University that Dr. John Scott Riddell and Dr. John Marnoch be appointed their assistants.

THE NEW SUPERINTENDENT OF THE EDINBURGH ROYAL INFIRMARY.

From thirty-nine candidates the managers of the Edinburgh Royal Infirmary have elected Surgeon-General Lithgow, C.B., to be superintendent of that institution. He is Principal Medical Officer on the staff of the Duke of Connaught at Portsmouth; a Scotsman, and 59 years of age. He graduated M.D. and B.Sc. in Public Health at the University of Edinburgh. He entered the army in 1855; and served at the Cape throughout the Indian Mutiny with the 75th Regiment. In 1884 he took part in the Nile Expedition, and received honourable mention in Lord Wolseley's despatches, and was made C.B. His application for the appointment he has now received was supported by H.R.H. the Duke of Connaught, Lord Wolseley, Lord Roberts, Sir Redvers Buller, Sir Evelyn Wood, Lieutenant-General A. G. Montgomery, Sir William Mackinnon, and Sir Thomas Crawford.

THE ABERDEEN UNIVERSITY BILL.

Copies of the Aberdeen University Bill have been received in Aberdeen and circulated amongst the persons interested. There are several minor alterations; the most important, however, is that dealing with the site of Greyfriars Church—namely, "The Corporation shall, as soon as conveniently may be after they have acquired the lands authorised to be taken under the powers of this Act, appropriate such part thereof as may be required as a new site for Greyfriars Church, and shall on such a site, at the expense of the Corporation, erect a new church, and the new church shall be the parish church of Greyfriars parish, and be in all respects and for all purposes in substitution of the existing church. Upon the completion of the new church, the site of the existing church shall vest in the University Court."

IRELAND.

The Dublin Corporation have, in their estimates for next year, provided for a sum of £500 as a provision to meet the threatened appearance of cholera in the city.

MEATH HOSPITAL.

Dr. James Craig has been appointed physician to the Meath Hospital, Dublin. Dr. Craig is an M.B. of the University of Dublin, and a Fellow of the Royal College of Physicians in Ireland, and he has for some years been senior assistant to the hospital. While congratulating Dr. Craig on his appointment, we very deeply regret to state that the vacancy was caused by the resignation of Dr. Arthur Wynne Foot, the senior physician, who has unhappily been in delicate health for some time. The Dublin Clinical School loses in him one of its most brilliant and accomplished teachers. We are glad to hear, however, that Dr. Foot's health is somewhat improved, and we only express the desire of all who know him when the hope that the improvement may be progressive.

PROPOSED OPENING OF THE UNION HOSPITAL, BELFAST, FOR CLINICAL TEACHING.

A movement is on foot to promote the opening of the Union Hospital, Belfast, for clinical teaching. This institution has over 1,200 beds, and it is felt that so much medical and surgical material should be utilised in connection with the medical school. A deputation of students waited on the board of guardians at their last meeting, and their propositions were favourably received by the board. A committee was appointed to confer with the President of the Queen's College, Professor Redfern, and Professor Cuming. The difficulties in the way of erecting the Union Hospital into a fully equipped and independent teaching institution are very great, and probably at present insuperable, but it would be a great gain if the Union Hospital could in some way be utilised to supplement the resources of the existing teaching hospitals. Two departments especially of the Union Hospital—namely, the fever department and the maternity department—would be a valuable assistance to students.

Mr. H. Mayo, of Epsom College, has recently won an open scholarship of £50 a year at Caius College, Cambridge.

Vaccination Grant.—Dr. Thomas Jones, of Bridgend, has been granted the Government grant for successful vaccination in that district.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 11th day of January next, at 2 o'clock in the afternoon.

Francis Fowke, *General Secretary.*

December, 1892.

NOTICE OF QUARTERLY MEETINGS FOR 1893. ELECTION OF MEMBERS.

Meetings of the Council will be held on January 11th, April 12th, July 12th, and October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, December 22nd, 1892, March 23rd, June 22nd, and October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Aberdeen, Banff, and Kincardine Branch.—An ordinary general meeting of this Branch will be held in Milne's Library, 1, Crown Street, Aberdeen, on Wednesday, December 21st, at 8 o'clock P.M.; the President, Dr. Ogilvie Will, in the chair. Business: 1. Minutes, etc. 2. Ballot for the admission of Dr. Leyack, 146, Great Western Road, Aberdeen. 3. Case of Patent Urachus, Operation, Recovery, by Dr. Ogilvie Will. 4. Case of Buphthalmos, by Dr. McKenzie Davidson, with exhibition of patient.—J. Mackenzie Booth, C. Thiselton Urquhart, Honorary Secretaries.

Gloucestershire Branch.—The next meeting will be held on Tuesday, December 20th, at 7.30 P.M., at the General Hospital, Cheltenham, under the presidency of Mr. E. D. Bower. Agenda: 1. Brief Notes, with Illustrations on (*a*) Case of Abdominal Section; (*b*) Treatment of Wounds; (*c*) First Aid for Fractured Femur, by Mr. T. S. Ellis, Gloucester. 2. Note on the Treatment of Sprains, by Dr. Watters, Stonehouse. 3. Notes on a Case of Bullous Eruptions following Vaccination, by Mr. W. R. Buckell, Cheltenham. 4. Short Notes and Photograph of a Case of Pemphigus, by Mr. T. Firmin Cuthbert, Gloucester.—G. Arthur Gardew, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

A meeting of this District was held at Guy's Hospital on November 24th, Dr. Pavy, President, in the chair.

Cases.—After the minutes of the last meeting had been read and approved, the following cases from the wards of the hospital were shown and described:—Mr. Howard: a case of Pseudo-Hypertrophic Paralysis.—Mr. Matthews: a case of Idiopathic Muscular Atrophy.—Mr. Steward: Interstitial Keratitis.—Mr. Gopson: Congenital Dislocation of Knees.—Mr. Jimenez: Pulpy Disease of Both Knees.

Paper.—Dr. W. Hale White read a paper on the Prognosis in Cases of Ascites, contending that the onset of ascites in alcoholic cirrhosis was of very grave import, and that the majority of cases where paracentesis had been performed more than once had their origin in chronic peritonitis.

Afternoon Meetings.—Mr. Lewis Lewis (for Mr. R. J. Oswald) moved the following resolution, which was seconded by Dr. Hector Mackenzie, and carried *nem. con.*:—"That in view of the success of previous afternoon meetings, one be held in the afternoon before the next evening meeting."

The late Dr. Steele.—Mr. Nelson Hardy proposed, and Dr. Oswald seconded, that a vote of condolence should be sent to Mrs. Steele, the resolution being worded as follows:—"That this meeting of the South London District, British Medical Association, deeply deplores the death of Dr. Steele, of Guy's Hospital, and desires to record its sense of the services rendered by him to the profession at large, to the British Medical Association, and to this District of the Metropolitan Counties Branch, and that a copy of this resolution be forwarded to Mrs. Steele."

Votes of Thanks.—Votes of thanks were passed to the President of the Branch, and to the Treasurer of Guy's Hospital for the use of the Court Room, and to Dr. Hale White for his paper.

THAMES VALLEY BRANCH.

A meeting of this Branch was held at Kingston on December 6th, Dr. Kane, the President, in the chair.

Communications.—Mr. Harrison Cripps read a paper on the Treatment of Obstruction of the Large Intestine, which was discussed by several of the members.

New Members.—The following gentlemen were elected members of the Branch:—Dr. Hadden, Mr. Gale, and Mr. Bayley, all of Kingston.

Dinner.—The members and guests afterwards dined together.

The next meeting of the Branch will be held at Richmond on Wednesday, February 1st.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The third ordinary meeting of this Branch was held at the Medical Institute, Birmingham, on December 8th; Dr. Joy, President, in the chair. Fifty-three members were present.

New Members.—Dr. Kauffmann, Mr. J. R. Fuller, and Mr. A. M. Neatby were elected members.

Specimens.—Mr. Taylor showed a woman whose Uterus he had Extirpated for Cancer a year and eight months ago, and who had since remained in perfect health.—Mr. Marsh showed a girl suffering from Bilateral Paralysis of the Serrati Muscles.—Mr. Morrison showed a specimen of Ruptured Femoral Aneurysm removed *post mortem* from a man.—Mr. C. Martin showed two specimens of Large Uterine Myomata removed that morning, one by Mr. Tait and the other by himself.

Papers.—Dr. Simon read a paper on Peritonitis; and Mr. Tait, Dr. Joy, Dr. Foxwell, Mr. Taylor, Dr. Lycett, Dr. Birt, Mr. Browne, Dr. Saundby, and Mr. Marsh took part in the discussion.—Mr. Alfred Freer read an interesting and amusing paper on Some Reliefs (Mental) in the Conduction of a General Practice. A vote of thanks was unanimously passed to Mr. Freer for his paper.

STAFFORDSHIRE BRANCH.

The first general meeting of the present session was held at Stoke-upon-Trent on November 24th, Dr. Malet, President, in the chair. Twenty-four members were present.

New Members.—The following gentlemen were elected members of the Branch: J. Biggam, M.D., Upper Gornal; I. J. Baker, L.R.C.S., Bilston; W. T. Cockill, L.R.C.P., North Stafford Infirmary; J. H. Croudace, L.R.C.P., Stafford.

A report of the scientific proceedings will be found at p. 1339.

BRITISH GUIANA BRANCH.

The fourth quarterly meeting of this Branch was held at Georgetown on October 20th; the Hon. Robert Grieve, M.D., President, in the chair. Drs. Wallbridge, Ferguson, Bezbaroa, Law, McAdam, Gomes, Rholeher, Ozzard, Leary, Veendam, von Winckler, Teixeira, Castor, Stephanson, Irving, and the Secretary were present; Dr. Conyers attended as a visitor.

Election of Office-Bearers.—The minutes of the last meeting having been read and confirmed, the election of office-bearers for 1893 was proceeded with. The President announced that the gentlemen nominated by the outgoing Council had all been elected as follows:—*Vice-Presidents:* Drs. Wallbridge

and Veendam. *Members of Council:* Drs. Godfrey, Leary, Snell, and London. *Treasurer and Secretary:* E. D. Rowland, M.B.

Surgeon-General Grieve.—Dr. WALLBRIDGE then asked permission to be allowed to move the resolution "That this meeting of the British Guiana Branch of the British Medical Association desires to congratulate the Honourable Robert Grieve, M.D., President of the Branch, upon his well-merited elevation to a seat in the Legislative Assembly of the Colony; and at the same time this meeting desires to record its satisfaction the medical profession of British Guiana is now represented that in the Court of Policy." In moving this resolution, Dr. Wallbridge spoke and drew attention to the progress he had seen the colony make in twenty-five years' work here, and characterised the fact of the Surgeon-General having been made a permanent member of the Court of Policy as one of the greatest steps in advance made in recent times.—Dr. VEENDAM seconded this, which was carried with cheers, all the members standing.—The PRESIDENT returned thanks.

Infantile Mortality.—A discussion on this subject was opened by Dr. BARNES, and continued by Drs. FERGUSON, LAW, OZZARD, RHOLEHER, ROWLAND, WALLBRIDGE, and the PRESIDENT. There was an almost unanimous opinion that the Creole infant started life with more favourable chances than the children of the inhabitants of northern countries, but that, owing to (1) the ignorance, more especially as regards feeding, of the mothers; (2) to the overcrowding, more especially in the towns; and (3) to the fact of the mothers having to leave their home to work, these chances were all lost, and that the infantile mortality was, for the seven years ending 1889, 161 per 1,000.—Dr. ROWLAND showed that for the same seven years, according to race, the infantile mortality was: For Coolies, 143 per 1,000; for Chinese, 137; for European, 161; for aborigines, 171; for black, 202; for mixed, 215; and for Portuguese, 220.—Dr. WALLBRIDGE showed that the mean infantile mortality under 1 year in towns of the Colony for ten years (1890) was 307 per 1,000, while for the country districts it was only 168.—Dr. FERGUSON gave some statistics from the hospital maternity ward, and dwelt on the effect of inherited syphilis in the infant.—Dr. OZZARD devoted some part of his paper to show the effects of illegitimacy on the death-rate; and Dr. RHOLEHER dwelt on the necessity of trained midwives and nurses.—Drs. CASTOR, VEENDAM, BEZBAROA, and VON WINCKLER also spoke; and the PRESIDENT pointed out that the remedy was not to be found so much in legislation as in the gradual education of the people.—It was afterwards unanimously agreed that the papers should be forwarded to his Excellency the Governor.

JAMAICA BRANCH.

A GENERAL meeting was held on February 24th at Kingston, Mr. GAYLEARD (President) in the chair. Hon. J. C. Phillippo and Drs. Plaxton, Henderson, Strachan, Bronstorph, Grabham, Castle, and Farquharson were present.

Communications.—The minutes of the annual meeting having been read and confirmed, and some formal business having been transacted, the following papers were read: 1. Two cases of Conservative Surgery, by Mr. W. H. W. STRACHAN (published in the BRITISH MEDICAL JOURNAL of October 15th, p. 841). 2. Sarcoma of Kidney, by Mr. GRABHAM. Several interesting ophthalmic cases were shown by Mr. GRABHAM, and a series of microscopic preparations of pathogenic organisms by Messrs. A. A. ROBINSON and GRABHAM.

A general meeting was held on April 27th, at the Institute of Jamaica, Kingston, Dr. GAYLEARD (President) in the chair. Hon. J. C. Phillippo and Drs. Lockett, Grabham, Plaxton, Henderson, Strachan, F. Saunders, and Da Costa (Secretary) were present.

New Members.—The minutes of the last meeting having been read and confirmed, Messrs. W. G. R. Farquharson, G. Hargreaves, and H. B. Knox were admitted members of the Branch.

Communications.—The following cases and papers were read: Mr. W. H. W. STRACHAN, (1) Detached Retinæ (both eyes), (2) Tuberculous Orchitis (the patients were shown); Dr. G. V. LOCKETT, Sudden Total Blindness.

Alleged Increase of Syphilis in Jamaica.—The PRESIDENT read a paper on this subject. He said the district medical reports were responsible in a great measure for the cry. For ten years, in a population of over 600,000 the average annually returned by all the public general hospitals had been 330; but in 1890-91 the number rose to 420, and returns showed that the banana shipping must have been the cause of the increase. In Kingston the increase was more apparent than real. The official records showed that in a population of over 600,000 there were but a fifth more cases in 1890 than in 1889. This might be seen to be due to the seaports chiefly.—In the discussion which followed Dr. HENDERSON was of opinion that there had been a greatly increased prevalence of venereal diseases since 1885, not only in Kingston but in the country parishes. In a country parish within his own knowledge 19 men were infected by one woman and 17 by another.—Mr. STRACHAN said that since the abolition of the Lock Hospital and the repeal of the Contagious Diseases Act in Jamaica venereal diseases were much more prevalent. Fifty per cent. of those admitted into the Public Hospital were tainted in some way by these diseases.—Remarks were also made by Messrs. GRAHAM, PLAXTON, and F. H. SAUNDERS.

SPECIAL CORRESPONDENCE.

[FROM OUR OWN CORRESPONDENTS.]

BERLIN.

Death of Werner von Siemens.—Official Report on the Cholera Epidemic.—General News.

THE death of Werner von Siemens is the topic of the day. His loss leaves a great blank, not only in the scientific world, but also in Berlin society. The hospitality of the Siemens villa at Charlottenburg was proverbial; it was a meeting ground for brain-workers and the world of fashion; and the circle of young people that gathered round the daughters of the house was always made specially welcome by its master, who delighted in being in its midst. The fatal illness was influenza—a second attack—complicated by inflammation of the lungs. Pulmonary apoplexy was the end. The funeral ceremony was extremely simple, but was made impressive by the great number of distinguished persons who attended it, and by the hundreds of magnificent wreaths and floral arrangements, with which the rooms were entirely filled. The Emperor was represented at the funeral by his brother-in-law, Prince Leopold; the Empress Frederick by Count Seckendorff. The Imperial Chancellor, Count Caprivi, was present, with several other Cabinet Ministers, and scarcely one of the representatives of science in Berlin was absent. Pastor Scholz, an intimate friend of the deceased, preached a short sermon, and the coffin was carried by twelve overseers of the Siemens works. Thousands followed the procession to the little churchyard at Lietzow, near Charlottenburg, where the family vault is.

The official report on the cholera epidemic of 1892 has just been published. It traces the cholera from its appearance in Persia and Afghanistan in April and May, in its progress across the Caspian, and through south and middle Russia to West Russia, and the independent nidus, which appeared near Paris in the spring. The Hamburg epidemic, and the infection carried from there to other places, are fully described, and a detailed account given of the measures taken by the Imperial authorities to grapple with the epidemic. As regards the future, the fear is expressed that next summer will bring a fresh outbreak in Russia, and great danger to the Vistula district of Prussia.

Amongst the petitions handed in at the opening of the session of the Reichstag are several praying for abolition of obligatory vaccination, and one signed by 54,766 women for the admission of women to the study of medicine.

PARIS.

Poisonous Alkaloids in Tobacco.—Vaccine Prepared on Glycerine.—Sanitary Inspection of Factories.—General News.

M. GAUTHIER, Professor of Chemistry at the Paris Medical Laboratory, stated at the Academy of Sciences that when a pipe or cigar is smoked not only is nicotine distilled but a

number of alkaloids which are not pre-existent in them but are formed during smoking. These alkaloids have a very pleasant aromatic smell but are more poisonous than nicotine.

MM. Saint Yves Ménard and E. Chambon have observed that when accidentally they used during four or five weeks vaccine prepared in glycerine the pustules were more perfect than when fresh glycerine vaccine was used. On systematically testing this point they ascertained that pulp 15 days old produced moderately-developed pustules. Pulp of 40, 50, or 60 days produced typical pustules.

The Prefect of Police will shortly issue a decree directing all those possessing factories and large houses of business to send to the Prefecture a plan of their buildings, the said buildings will then be visited by officials from the technical department. All existing establishments must send in their plans within a month of the issue of the decree. Every time a dwelling is disinfected the fact must be notified at the Prefecture by telephone or telegram stating the address, hour, and day.

The General Association of the Paris Medical Students has organised a large section of athletic sports among its members. Walking, football, and cycling matches will be arranged; the first walking match took place on December 11th.

A series of meetings is being organised at the Bourse du Travail to regulate the work of children, young girls, and women serving in shops, bazaars, and houses of business. A meeting attended by 600 girls and women has already been held. Resolutions were passed that girls and women should not be compelled to work more than eight hours a day, with one day's rest. Working at night and over hours ought to be forbidden; and no work should be required for six weeks before and six weeks after delivery. Standing to sell outside shop doors should also be forbidden. Seats should be provided for shop girls.

M. Brouardel, Dean of the Paris Medical Faculty, has been elected a member of the Academy of Science.

NOTES FROM NEW ZEALAND.

Medical Practitioners and Friendly Societies.—A "Mauvais Quart d'Heure."—The Treatment of Constipation.—Post-partum Hæmorrhage.—The September Meeting.

Mr. J. Murray-Aynsley, Honorary Secretary of the Canterbury Branch of the New Zealand Association, writes to us: The dispute with the lodges, to which I referred in my last report, may be considered settled, the friendly societies now being engaged in quarrelling as to who was to blame for bringing the matter forward.

Worthington, the spiritual healer, has had an exciting experience, his pamphlets on sexual relations having given just offence to the women of Christchurch. A deputation of ladies, numbering over a hundred, waited upon him with an invitation to leave the town, one enthusiastic lady going so far as to offer to carry him out on her back. After a short parley, Mr. Worthington fled from the room.

The discussion on Constipation was held at the July meeting. Dr. Thomas opened the discussion, of which a full report will be found in the *New Zealand Medical Journal*, vol. v, No. 4. The ancient and modern *bêtes noires*, bile and white bread, came in for their fair share of criticism. In the ensuing discussion, the efficacy of bile as a purgative was disputed, and, while some eulogised podophyllin, others found it caused great irritation; the action of glycerine was disputed in like manner. Dr. Thomas recommended castor oil, the wet pack, electricity, fruit diet, and especially enforcement of regular habits; Dr. Irving a mixture of hydrastis and hamamelis; Mr. Jennings dilatation of the sphincter ani; Dr. J. Guthrie coffin-shaped suppositories. Dr. Symes and Messrs. Morton Anderson and Murray-Aynsley also took part in the discussion.

At the August meeting Dr. Irving opened a discussion on *Post-partum* Hæmorrhage. He thought ergotinine superior to any other preparation of ergot, recommended administration of calcium chloride, and uterine injections of hot water, perchloride of iron, hazeline, or alum, electricity, and, in cases of great collapse, saline injections. Mr. Jennings advised a previous course of iron, ergot, and digitalis, and injections of hot water; perchloride of iron he thought dangerous. Dr. J. Guthrie was doubtful as to the propriety of emptying the uterus of clots. Dr. Thomas related a case in which a previous course of gallic acid had succeeded. Mr. R. W. Anderson advised saline injections into a vein or the rectum; and Mr. J. H. Murray-Aynsley a previous course of calcium chloride. Mr. Devenish-Meares stated that as much as two quarts of saline solution could be absorbed in five minutes if injected into the buttocks, and the parts massaged. Dr. T. O. Guthrie attached importance to quick expression of the placenta, the membranes not being twisted. Mr. Morton Anderson had succeeded with electricity in a case where all else had failed, and recommended a trial of nitrite of amyl. Mr. Lomax-Smith had a case in which he obtained contraction with a two-ounce dose of vinegar, no drugs being at hand.

At the September meeting, Mr. Hacon's paper on Treatment of Residual Urine in Retention was read. The author had tried his method on a man aged 80, with success. Mr. Lomax-Smith gave notes on a case of Iodoform Poisoning, and Mr. Murray-Aynsley notes on two cases of Ether Idiosyncrasy.

CORRESPONDENCE.

Pressure on Space.

Notice to Correspondents and Authors of Communications.

In view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

GROUPING IN CHOLERA.

Sir,—A great deal has been written about the localisation of cholera, and many ingenious theories have been constructed with the object of accounting for this notable attribute of the disease when viewed epidemiologically, namely, its tendency to attack men in colonies. Of this attribute several interesting examples were given by Surgeon-Colonel Hamilton in the able paper which he read at the Medical Society on December 5th. It is no new thing to learn that in any outbreak of cholera certain tracts of country, certain quarters of towns and villages, certain streets and houses, certain hospital wards or barracks, certain troops or companies, certain castes or trades, certain communities on board ship (crew or passengers, or even particular families) have been attacked while others have remained exempt. No doctrine of personal or local susceptibility is sufficient to account for this grouping, which is really the most striking and essential of the epidemiological phases of cholera. At any rate, no satisfactory demonstration has been furnished regarding the special circumstances in which infected persons and places differ from uninfected.

Our ideas respecting the epidemiology of cholera have been so dominated and obscured by statistical aggregates and maps, and writers on this aspect of the disease have grown so accustomed to the use of fallacious terms—such as cholera areas and waves, cholera invasion and progression, cholera-stricken districts and towns and streets, and so forth—that this most general and characteristic and essential feature of grouping is apt to be lost sight of. The phenomenon resembles the development of colonies on a gelatine plate. Some spots appear earlier than others; some are minute, others large; and the rate of extension or increase also varies, but discrete growth is the main law of the process. So in cholera, the principle of discrete dissemination or grouping is the one feature which marks the spread of the disease in the East or West in its epidemic area or its epidemic advance. My experience of the disease has been exclusively gained in the so-called endemic home of cholera, Lower Bengal, and chiefly in the centre and capital of that area, the town of Calcutta, where cholera is perennially prevalent, and I am in a position to state with an assurance justified by long and close observation, that this feature of grouping is quite as manifest in the endemic prevalence as it is in the epidemic visitation of cholera.

This, in fact, is the one general feature in which the two things agree, and if any light regarding the causation of cholera is to be gained from a study of its epidemiology or its general aspects of incidence and progression, it is to this phenomenon of grouping that attention should be mainly

directed. It would be easy enough, were it needful at the present stage of cholera inquiry, to decry and discredit all explanations which attribute discrete manifestations to general influences, or to argue that the doctrines of personal or local susceptibilities, as accounting for limited liability, rest on a very frail basis. The analogy of the gelatine plate might, on the other hand, be pushed to plausible and, *mutatis mutandis*, probable speculations. But the purpose of this letter is not to add to the already overwhelming and confusing mass of infructuous speculation founded on statistical aggregates and imperfect studies of widespread outbreaks, rather to draw pointed attention to the well-known and characteristic attribute of grouping which the disease uniformly displays both in its incidence and progress, and to suggest that in the exercise of imagination as an instrument of discovery this feature of grouping must not be lost sight of; nay, must be held in view as a dominant and indispensable element in the epidemiological study of the disease.—I am, etc.,

Upper Norwood, Dec. 10th. K. MCLEOD.

PROFESSOR OGSTON'S OPERATION ON SUBMAXILLARY CANCER.

SIR,—I can testify to the ease and thoroughness with which cancer can be removed from the submaxillary region in the way described by Professor Ogston in your issue of December 3rd. Without being aware of the method practised by him for so long, I last July adopted a practically identical operation in removing a cancerous tongue with disease of part of the left half of the lower jaw and the gland underneath, which was the size of a small apple. As a preliminary I opened the windpipe by laryngotomy, and packing the back of the throat with sponges, I administered the chloroform by the tube, thus avoiding the frequent awakenings from the anæsthetic. My incision was a little different. It extended from mid-lip to chin, and thence along the base of the jaw to the angle. The flap thus outlined was thrown back, and the facial artery secured when divided. The jaw was next divided first in front of and then behind the disease, the tongue removed with the scissors, and the malignant mass in the submaxillary region, being now freely exposed, was dissected out with the greatest ease. I was assisted by Dr. Close and Dr. Savege, who probably thought I took up a good deal of their time; but another time, and with the advantage of Professor Ogston's detailed account of the various steps, I have no doubt I could do it all in half the time. This plan of throwing back a flap from the middle or angle of the mouth gives such easy access to the oral cavity, that I shall in future adopt it in case of difficulty there; and the result æsthetically is much more satisfactory than a scar across the cheek. The upper jaw could also be reached in this way, and that without injury to the facial nerve. The operation described by Professor Ogston is therefore of great value, not only as being the best hitherto adopted for the disease in question, but also because it is highly suggestive of future developments.—I am, etc.,

Hull, Dec. 4th. D. LOWSON.

TREATMENT OF HYDATID DISEASE.

SIR,—I should like to bear testimony to the marked advance in the treatment of hydatid disease due to the adoption of the sound principle of complete evacuation of the cyst contents at the time of operation, either by flushing or other means. This has been advocated lately in the BRITISH MEDICAL JOURNAL by Dr. Gardner and other Australian surgeons, and Mr. Stephen of Cyprus. As, however, I do not think the method is sufficiently appreciated or practised in this country, may I be allowed to draw attention to a paper on the treatment of hydatid disease, published in the JOURNAL of April 11th, 1891, in which I advocated the complete evacuation of the cyst contents, and in certain cases the return of the ectocyst so treated into the peritoneal cavity, without drainage? It is in order to elicit information on the soundness of this latter point that I venture to trouble you with these remarks.—I am, etc.,

Leicester, Dec. 3rd. C. J. BOND.

THE MECHANISM OF DILATATION OF THE LEFT VENTRICLE.

SIR,—In the able opening of the discussion on cardiac tonics at the meeting at Nottingham, and recorded in the BRITISH MEDICAL JOURNAL of November 26th, Dr. Broadbent states that the dilatation of the left ventricle during the defenceless diastolic period in mitral regurgitation is due to the high pressure of blood in the pulmonary veins and left auricle. It has been clearly shown by the late Dr. Herbert Davies, in his work on *The Mechanism of the Circulation through Organically Diseased Hearts*, pp. 15, 16, 17, 18, 19, to 29, that there is a further factor in the dilatation of the left ventricle, namely, the amount of blood regurgitated at each systole, and he further demonstrates that this dilatation is as conservative a process as the subsequent hypertrophy. In the same way as Dr. Broadbent points out that the left auricle is dilated by the amount of blood regurgitated into it from the ventricle, so in a similar manner is the left ventricle dilated by this same amount of blood *plus* the usual normal quantity flowing into it from the pulmonary veins and left auricle. Dr. Davies says: "Let us suppose, for example, the left ventricle to be undilatable beyond the amount of holding the normal three ounces of blood, and the mitral insufficiency to allow of the regurgitation of a quarter of an ounce of that fluid. The ventricular contraction would cause the accumulation of three and a quarter ounces of blood in the auricle; but as in our supposition the left ventricle can only hold three ounces of blood, a quarter of an ounce must remain behind in the auricle as the result of that beat. At the next beat the process is repeated, a quarter of an ounce being again regurgitated, and therefore added to the previous quarter of an ounce, and thus in a dozen beats three ounces of blood will have failed to find their way into the systemic circulation. Although the pulmonary capillaries act for a time as reservoirs to hold some of the regurgitant blood, it is clear that such a process could not continue for any length of time, but the result must inevitably be stagnation of the venous portion of the blood, and death. This *reductio ad absurdum* shows, therefore, that ventricular dilatation must occur to allow of the due mechanism of the circulation, and that it and its associated hypertrophy are not examples of disease, but are instances of the instinctive conservative power of Nature to neutralise the injurious consequences of diseased apertures." In the case as stated above, the ventricle is supposed to be capable of completely expelling its contents at each systole; what takes place when it does not empty itself at each beat, but retains a certain amount of blood in its cavity, is fully discussed in the work from which I have quoted.—I am, etc.,

Finsbury Square, Dec. 5th. ARTHUR T. DAVIES.

THE BRADSHAW LECTURE.

SIR,—I regret to have done Mr. Mayo Collier an injustice, but I quoted from a printed paper headed "Synopsis of Mr. Mayo Collier's Paper on the Etiology of Deviations of the Nasal Septum," and there was nothing to lead me to suppose that the fifteen causes I quoted were set up like nine-pins only to be bowled down again. Mr. Mayo Collier has kindly sent me a copy of his paper, from which I learn "that deflections of the nasal septum are almost always due to a difference in pressure on one side of the nasal septum, due to the blocking of one nostril, and to consequent aspiration of the closed cavity by the stream of air passing through the naso-pharynx from the open one."—I am, etc.,

Cavendish Square, W., Dec. 12th. CHRISTOPHER HEATH.

SIR,—I have read in the BRITISH MEDICAL JOURNAL of December 3rd, Mr. C. Heath's remarkable statement regarding necrosing ethmoiditis, in his Bradshaw lecture delivered at the College of Surgeons on December 1st.

When the incumbent of an office of this kind delivers a course of lectures, it would seem to imply that he is an authority on the subject of which he treats, and it is reasonable to expect that he will then criticise adversely only those branches of the subject of which he has himself some personal knowledge. There is no evidence in Mr. Heath's remarks touching necrosing ethmoiditis that he has any acquaintance with this disease other than he has obtained from the remarks

of those authors who have mentioned it in their writings. Of these, he selects for quotation the remarks of a Vienna professor, whose opinion he says "I hardly venture to quote." Notwithstanding this revulsion of his innate good feeling, he proceeds to quote him, and with what regard for the courtesy which members of the British Medical Association, at least, are entitled to expect from one another, those will form the best judgment who care to read the statement from Zuckerkandl, as given by Mr. Heath in page 1282 of the JOURNAL.

The questions concerning ethmoiditis, as of any other disease, cannot be settled by quoting opinions by whomsoever expounded, but by studying the disease clinically in the living subjects of it, and pathologically by the examination of specimens of it taken from such subjects. I regard it as a matter of course that Mr. Heath is really anxious to obtain some knowledge of the subject in question, and therefore I shall be glad to show him, at any time convenient to us both, patients now suffering from this disease, and a considerable amount of pathological material got from it, which has been worked out for me by Mr. Heath's distinguished colleague, Dr. Sidney Martin.

A summary of Dr. Martin's report of his examination of 20 separate specimens of ethmoiditis, representing over 300 stained and mounted sections, was embodied in a paper presented by me to the Section of Surgery at the annual meeting of the British Medical Association, held at Bournemouth in 1891. As this paper was not published in the BRITISH MEDICAL JOURNAL till March 12th, 1892, it is obvious that Professor Zuckerkandl could not have been acquainted with this work at the time he wrote the statement quoted by Mr. Heath. Otherwise, he would possibly have hesitated to commit himself to the opinions therein expressed.

This examination of Dr. Sidney Martin's did but review, and to some extent expand, at the same time that it confirmed, the previous report of Mr. Thurston, then pathologist to King's College Hospital, made for me six years previously, and on which my paper, presented to the Medical Society in 1885, was based. I ask every candid reader, if the continuous labours of a decade, conscientiously carried out by me in hospital and private work—confirmed, moreover, in every particular, by one of the first English pathologists—can, with any respect to truth, apart altogether from our English sense of fair play, I ask, can this work be justly described as "evolved more out of the inner consciousness of the author than from correct investigation"?

Zuckerkandl, of Vienna, further states: "I have not observed necrosis of the bones in a single case." Very well; but so much the worse for Zuckerkandl, seeing that two English pathologists have detected extensive necrosis, and have described it definitely as such. Moreover, a drawing of one of the microscopical sections, prepared by Dr. Sidney Martin, and which drawing he affirmed to be an accurate presentment of his section, appeared in the JOURNAL of March 12th, in the paper already referred to.

I have only to add that I shall be equally pleased to afford Professor Zuckerkandl the same opportunity of inspecting the disease in its clinical and pathological aspects, as I have already offered to Mr. Heath.—I am, etc.,

78, Harley Street, Dec. 10th. EDWARD WOAKES, M.D.Lond.

SIR,—In Mr. Christopher Heath's lecture on The Surgery of the Nose and Accessory Cavities, delivered at the College of Surgeons on December 1st, he refers to some experiments made by me, to establish the truth of Heryng's statement, that, darkness on one side of the illuminated face was symptomatic of empyema of the antrum, and adds, that in consequence of the varying thickness of the bones in different individuals "the test proposed is not reliable." The experiments alluded to were made about three years ago, with micro lamps of half-candle power, far too weak for the purpose. I now use a lamp of 5-candle power, and have not seen a case in which it has failed to show the symptomatic light under the orbit and in the nostril more or less distinctly; but on the other hand I have cleared up many a doubtful case, and saved in this way, useless operations. In fact, I do not hesitate to say that no operation should be undertaken without first resorting to this simple but certain test. The following interesting case will illustrate its use: Last month, a lady was sent to a surgeon here for treatment for empyema of the antrum, having suffered for a long time from offensive discharge from the nostril and most of the usual symptoms of the disease. The lamp test was applied, and to our mutual surprise, the face was equally and perfectly illuminated on both sides. I removed the diseased second and third molars, and a very extensive alveolar abscess connected with the latter appeared to be the cause of all the trouble, for there was no discharge afterwards, and without further treatment she got quite well.

The arrangements for safeguarding the tongue and mouth, as well as those for supplying the necessarily reduced current to the lamp, are rather too complicated to describe in the BRITISH MEDICAL JOURNAL; but if any medical man interested in the matter cares to call, I shall be pleased to show and explain it all to him.—I am, etc.,

51, Wimpole Street, W., Dec. 10th. N. STEVENSON.

THE FIVE YEARS' CURRICULUM.

SIR,—I am one of those who agree with Dr. Bruce as to the value of the pupilage system, and regret that advantage has not been taken of the additional year recently imposed upon students to recommend its adoption for at least six months. But as I am also one of those whose opinion my good friend Mr. Mitchell Banks airily disposes of as neither sound nor valuable because I am not actively engaged in teaching in any of the schools, I should hold my peace were it not for a fact recorded in the BRITISH MEDICAL JOURNAL of November 26th, at p. 1199, where, under the heading of "Naval Medical Service," it is recorded that a former pupil of mine, Mr. H. S. Archdall, gained the first place in the examination for surgeon in the Royal Navy. Far be it from me to detract from the credit due to Mr. Archdall himself or to his teachers at Guy's for his success; but I feel entitled to say that, coming to me as a youth from school, I first taught him how to acquire some elementary medical knowledge, and thus, perhaps, did something to prevent his wasting two years, as Mr. Banks says the English boy mostly does, "before he gets a glimmering of how to study."—I am, etc.,

Dulwich Grove, S.E., Nov. 28th. H. NELSON HARDY.

SIR,—The letter from Mr. Mitchell Banks on "Pupilage" supposes that all students are alike. All medical practitioners are not alike, nor are all practices alike suitable for introducing a young man to the profession, or for helping him to learn whether he is fit to be a medical man. That this is an important point is shown as well by every surgeon's experience as by the statistics Sir James Paget published some years ago of the careers of the students who had entered at St. Bartholomew's in a certain term of years. A very large proportion passed no examination at all.

Surely it is better for the parents, for the pupil, and for the public that a boy should have some opportunity for seeing what the practice of medicine demands, and for judging whether he is able to make the necessary effort before heavy fees are paid in launching him at a hospital.

Mr. Banks thinks that clinical teaching is sure to make a well-furnished student. From observation of hospital pupils, as well as from twenty-one years' experience of qualified assistants, I am in a position to deny this; and I would say that with a teaching practitioner a youth will learn far more of clinical medicine than he would with an ordinary hospital physician. The personal influence of the teacher is generally overlooked in this pupilage controversy. I and many other men have gained their love for the profession from the daily society of good general practitioners. One fault in medical education is the large amount of time which is spent at lectures. A student learns less from lectures than from reading. Clinical lectures or demonstrations, or the unfolding of the views and experiences of an expert are accepted. The special departments of hospitals are not attended by students as they should be. Though post-graduate courses are chiefly at hospitals for special diseases, these places are very little sought by men until they are qualified, partly from want of time, but largely from want of appreciation. Young men do not know what kind of knowledge will be most useful to them in actual practice.

It is with much pleasure that I read your remarks in the

British Medical Journal of November 19th, under the head "Not Extinct."

I write in favour of a short pupilage, because my own career owed much of its success to the excellent training and influences of a good master before I entered St. Mary's Hospital.—I am, etc.,

Castle Cary, Nov. 21st. Carey Coombs, M.D.Lond.

ROE v. NIX AND OTHERS.

Sir,—The reports in the daily press of the proceedings in this trial, concluded yesterday, were very short, and a remark which, at the conclusion of my evidence, by the permission of the learned judge, I made to the court, was not reported. May I venture to ask you to allow me to reproduce it in the British Medical Journal?

In one of Miss Ellen Roe's letters read in court, she said, referring to a visit of mine to her after she had made her will, that I had, in joke, asked her whether she had remembered Dr. Deas and myself in it. I stated to the Court that I had no recollection of having made this joke; but that if, even in joke, I had suggested the possibility of any medical superintendent or official visitor being guilty of an act of such grave professional impropriety as to accept a legacy under the will of an insane patient under their control, it was, at least, but a very poor joke, and one which, if made, I should desire most emphatically to recall. I felt indebted to Mr. Justice Gorell Barnes for the great courtesy which permitted me to make this public disclaimer.—I am, etc.,

C. Lockhart Robertson.

Lord Chancellor's Visitors' Office, Royal Courts of Justice, Dec. 10th.

INTRAPERITONEAL OPERATIONS FOR ANEURYSMS.

Sir,—Abdominal aneurysms may be classified into (1) those which can be treated by ligature of the artery above, and (2) those which cannot. Aneurysms are placed in the latter class not only by origin and position but also by size. Professor Mitchell Banks will agree that his comparison, in the main just, of ligature compression does not apply here, and Mr. Bulkley Footner that such cases cannot, as a rule at least, be treated by the tourniquet. It was for such a case that the intra-abdominal compressor was originally designed and used.

But even when the aorta is accessible above the aneurysm, it is a very serious thing to obstruct permanently that great vessel by ligature. Once when I tied merely the common femoral, although the case ran a perfectly aseptic course and made a good recovery, the points of the heel, of the malleoli, and of one or two toes perished, of inanition I believe, and not through embolism. How much would have necrosed in this case if the aorta or even the common iliac had been tied?

In answer to an important question asked by Mr. Footner, it may be pointed out that (1) ether has been administered for twelve hours at a stretch during compression of the aorta, and that (2) there is strong reason to believe that the present practice of keeping up anæsthesia from end to end of long procedures, regardless of the nature of each stage of operation, is an abuse of anæsthetics. Healthy peritoneum, even when not anæsthetised, is tolerant of gentle compression by smooth surfaces. I have formed this opinion not from the movements of patients half anæsthetised, but from the facial expression and the verbal testimony of patients not anæsthetised at all.

Grosvenor Street, W., Nov. 26th. C. B. Keetley.

TRADUCING THE PROFESSION.

Sir,—When I addressed my Battersea audience I used the pronoun "you," and also the words "your wives and children," with reference to the proletariate in general, arguing that on the working classes would have to fall the testing of the results of experiments made in the physiological and pathological laboratories upon animals. As you object to my proofs of this statement from German hospitals, I give you the following from sources nearer home. In the issue of the British Medical Journal of December 3rd, in which you protest against my remarks, you report a case on page 1221, column 2, lines 9 and 10, which is a perfect answer to your question. Would that precise operation be done on the child of a carriage-keeping patient? Or if you refer to the *Journal of Physiology*, vol. x., pp. 213-231, would that sort of treatment be exactly carried out (see page 225, lines 13-16), on a lady of fashion? It seems rather idle to ask me these weekly questions, to which your own columns many times every year supply the most perfect answer.—I am, etc.,

Tynemouth House, N.E., Dec. 10th. Edward Berdoe.

*** Once more we are obliged to remind Mr. Berdoe that the specific indictment which he has to meet is that he told an audience of working men that "their wives and children were subjected in our hospitals to operations which were not performed on any lady who rode in her carriage." This serious charge he now attempts to substantiate by giving chapter and verse for two "operations" professing to be of this kind. Will it be believed that in the first of these, which is quoted from a paper by Dr. McCall Anderson on xanthoma multiplex, the whole procedure is thus described in the passage to which he refers, by Dr. Joseph Coats, who made sections of the diseased parts: "Small portions of the skin, including parts of the eruption, were excised under ether spray," that is, local anæsthesia. And this is what is called by a qualified medical man, who must be supposed to know something of surgery, an "operation!" Waiving this point, however, we are able to assert that the removal of small pieces of diseased skin for diagnostic purposes is habitually practised by scientific dermatologists without regard to the social position of the patient, and when the parts are first sprayed with ether the "operation" is absolutely painless. Mr. Berdoe's illustration proves therefore the opposite of what he has alleged. His second instance is still more extraordinary. The reference is to a paper by Dr. Monckton Copeman and Mr. W. B. Winston giving the results of observations on the bile in a case of biliary fistula in St. Thomas's Hospital. It was found among other things that in the absence of the bile the pancreatic juice was not able to complete the digestion of fats. The passage alluded to by Mr. Berdoe is as follows: "To test this matter still further Dr. Bristowe ordered half a pound of butter to be taken with the meals in the course of the day, but in consequence of the intense nausea and vomiting which ensued it was not persisted in." Setting aside the absurdity of calling the administration of butter with the meals an "operation," we would ask what there is in the simple physiological experiment here recorded to ruffle the sensibilities of the most hysterical antiresearcher? Has Mr. Berdoe never had to discontinue giving cod-liver oil to a child whose stomach rejected it? Do not "ladies of fashion" often take greater liberties than this with their own digestive organs, and with consequences even more distressing? It would require "considerable command of countenance," to use a phrase of Lord Beaconsfield's, to treat Mr. Berdoe's amazing *apologia* seriously; but is it tolerable that a medical man should make peculiarly odious charges against his professional brethren before an ignorant audience on the strength of such utterly irrelevant statements as those which when driven to the proof he now adduces? Mr. Berdoe has not yet attempted to name the operations which he alleged to be performed upon the wives and children of British working men, and which are not performed on ladies who ride in their carriages. His present futile effort in that direction rather aggravates the seriousness of his position.

THE RESULTS OF THE ROYAL COMMISSION ON VACCINATION.

Sir,—I have during the last four weeks vaccinated four infants. The vaccination officer of many years' standing has resigned. Would it not be as well to close all vaccination stations and await the result? The Commission would soon have some further demonstration of small-pox and vaccination which appears necessary. I have applied to my board two or three times to know if they consider it advisable to continue my services.—I am, etc.,

W. Woodward, M.D.,

Worcester, Dec. 12th. Public Vaccinator for the Worcester District.

KISSING THE BOOK.

Sir,—I have been thirty years in practice. On my first appearance before a coroner I kissed the book, but never since. I put the Testament to my nose and make a noise with my

lips, but I would never take part in such a disgusting thing as kissing the book after all the abominable characters that appear at a police court or at an assize trial.—I am, etc.,

Dec. 10th. X.Y. Z.

URETHROSCOPIC EXAMINATION.

Sir,—The reading of an account of "The Perfected Urethroscope," by Dr. W. K. Otis, of New York, leads me to draw attention to a very simple means of examining the urethra, which I have found quite as effective as that by any form of electric light adaptation I have tried. This consists merely in the use of an ordinary urethroscope tube, a small aural concave forehead mirror, and a good gaslight (60 candle power).—I am, etc.,

Newcastle, Dec. 7th. Wm. Robertson, M.D.

"AMINOL."

Sir,—Under the above heading there appears in the British Medical Journal of December 10th an explanation by Dr. Klein. That part of it referring to "Periodate Crystals" does not concern me, as I have nothing whatever to do with such a substance. "Aminol," on the contrary, is my affair, and, to my regret, the reference made to it contains inaccuracies which, unintentional though they are, as I am convinced, would, if not promptly corrected, do me injury. The experiments to which Dr. Klein refers as having been carried out by him with "aminol," as regards its disinfecting power on certain microbes, consisted of five separate and consecutive series. In the first four series the solution employed was of the strength of 1 in 6,000. Amongst the results obtained with this solution Dr. Klein's report mentions the following:

In Series IV: On staphylococcus aureus, which may be taken as the most resistent microbe amongst those associated with surgical and other external disease processes, the aminol solution (1 in 6,000) did produce an effect, though a limited one, after two hours already, and after twenty-four hours' exposure destroyed the microbes. In Series I: Aminol solution D (1 in 6,000) kills the bacillus diphtheriæ in two hours. This was confirmed in Series III.

Now, as to the disinfecting power of the solution containing the aminol in the strength of 1 in 600, which was employed only in Series V, I cannot do better than quote Dr. Klein's own words as follows:

From this series it will be seen, therefore, that the solution used in the same acted very differently from those used in the former experiments, inasmuch as the staphylococcus aureus, which was not killed heretofore in eight hours, was in this instance completely disinfected in that time, and was considerably reduced even in one hour. The sporeless bacillus anthracis, bacillus diphtheriæ, and streptococcus erysipelatis, are killed in one hour.

From the above it is evident that when Dr. Klein wrote his explanation he had not at hand either his notes or the printed copy of his own report, which was published last year with his full approval.

In conclusion, I would state that there is now ample evidence of conspicuous successes in certain disease processes obtained with the solution R., strength 1 in 5,000, which has for some time been in the hands of various medical men for trial.

As to the various degrees of strength required for different applications in surgical and medical practice, I propose to be guided entirely by the advice of those members of the profession who are now kindly trying the effects of aminol.—I am, etc.,

Leadenhall Street, E.C., Dec. 13th. Hugo Wollheim.

MR. TAIT AND THE SCIENTIFIC GRANTS COMMITTEE.

Sir,—My reply to Dr. Schäfer must be deferred till after the report of the subcommittee appointed to consider the whole question of the expenditure of the Scientific Grants Committee, because I have been served with a resolution from the Reference Committee to the effect that they do not consider it advisable to discuss matters by correspondence in the British Medical Journal which are the subject of such inquiry. How it comes that Dr. Schäfer is allowed to defy such a reasonable resolution is a question which the Reference Committee will have to answer.

On only one matter let me put Dr. Schäfer right now, for it does not trench on the prohibited ground. He says that at the one meeting of the Scientific Grants Committee at which I was present, "the sum of £300 was apportioned for scientific researches, which Mr. Tait well knew were for the most part to be prosecuted by experiments on the lower animals." I knew nothing of the kind, and I am sorry now to learn that so much of the money of the Association was to be wasted in such a way. But it would have made no difference if I had. Dr. Schäfer is quite mistaken if he thinks that the vivisection question enters into my criticisms of the Scientific Grants Committee. My desire for reform lies entirely within the compass of questions that are purely of a business and financial character, and the outcry carried on in the columns of the British Medical Journal against me on the vivisection question is being used only as a means of prejudging this much-needed inquiry.—I am, etc.,

Birmingham, Dec. 12th. Lawson Tait.

*** The Reference Committee desire us to state that what Mr. Tait describes as "being served with a resolution" relates apparently only to a letter, addressed to him from the Reference Committee, pointing out that certain parts of a communication forwarded by him for publication in the Journal discussed matters which were *sub judice*, and the publication would therefore be contrary to an order of the Committee. He withdrew those parts of his letter accordingly, and the remaining portion was published. Professor Schäfer's observations are comments upon letters from Mr. Tait as published in the Journal.

THE TITLE OF "DR."

Sir,—This question is, as one of your correspondents has well remarked, like the poor—we have it always with us. It seems to me, however, that with the exercise of a little more charity, a little less pedantry on the part of some, and a little practical common sense generally, it might surely be put at rest. We—I am speaking of general practitioners—are all but universally styled by the public as doctors, both in describing our vocation and in ordinary colloquial address, and if a pedantic diplomate were to point out that he was not strictly speaking "Dr.," he would probably be relegated by his listener to the ranks of unqualified pretenders.

This being the case, why should not general practitioners be universally styled "Dr.," graduates being distinguished by the appropriate suffix to their names? It would go a long way towards the solution of this difficulty if a large and influential body like the British Medical Association were to set the example by addressing all its members as Dr. ——— or ———, Esq., M.D., as the case might be. At present there seems to be no system whatever. I, an ordinary London diplomate, am addressed by the Association as Dr.; my friend X., with precisely similar qualifications, as X., Esq. I believe the opinion of the Association is in favour of what I have advocated, and I trust that their officials will give practical effect to that opinion in the way I have suggested.—I am, etc.,

Dec. 3rd. A Member.

THE SPECIFIC GRAVITY OF THE URINE IN CASES OF DIABETES MELLITUS.

Sir,—The fact that urine reduces Fehling's solution cannot be considered a trustworthy proof that it contains sugar. For purposes of life assurance or Government appointments, it is most important that this fact should be recognised. The case quoted in the British Medical Journal of December 3rd by Dr. Hutson is one in point. The young man referred to had none of the symptoms of diabetes, and yet he was refused a medical certificate because his urine reduced Fehling's solution.

I agree with Dr. Hutson that sugar-testing should always be carried out, however low the specific gravity of the urine is. But without the confirmation of the fermentation test, Fehling's test is valueless. Uric acid, creatinin, and hippuric acid when in excess, produce a small reduction of Fehling's solution, but glycuronic acid when present (and it may be present without any serious pathological trouble) gives a heavy yellow or red precipitate, just as sugar does.—I am, etc.,

Dec. 3rd. W. D. Halliburton.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEMBER.—The position of A is clear. He must be careful to act as medical attendant and not usurp the functions of legal adviser. Those who have warned A were exceeding their duty, and A should carefully avoid taking a side in the matter. Mrs. B. will be fully protected by the Court.

SENEX.—This is a question in which no general principle is involved, the point raised relates to a special and by no means plain interpretation, which "Senex" desires to put upon the clause of an agreement. It is, therefore, one on which he should consult his private solicitor.

"THE CARBOLIC SMOKE BALL."

IN the Appeal Court on December 7th Lords Justices Lindley, Bowen, and A. L. Smith dismissed an appeal against the decision of Mr. Justice Hawkins, in the action Carlill *v.* the Carbolic Smoke Ball Company, in which a person who had taken influenza after regularly using the defendants' carbolic smoke ball sued for and was awarded a sum of £100, which the defendants had advertised they would pay in the event of their preventive proving ineffectual.

"EMINENT AMERICAN AND GERMAN PHYSICIANS."

BEFORE Mr. Justice Grantham last week, William H. Hale, aged 40, described as a "physician," was charged with conspiracy and with a series of frauds in obtaining sums of money from the public by false pretences. Mr. Hopwood, Q.C., and Mr. Tobin prosecuted, and Mr. Commins and Mr. Reginald Harrison defended. On August 6th last, Hale, in conjunction with a man not in custody called Miller, inserted in the *Liverpool Courier* the following advertisements: "The Doctors in Liverpool,—Services will be rendered, first three months, free of charge. A staff of eminent German and American physicians have permanently located in Liverpool. All who visit these eminent doctors will receive services, first three months free. All kinds of chronic diseases are treated, especially male and female weakness, catarrh, catarrhal deafness, etc., but no incurable cases will be accepted. The doctors will examine you thoroughly, free of charge, and, if incurable, will frankly and kindly tell you so." Like advertisements were inserted in other local papers. A traveller named Boggiano visited Hale in consequence of this advertisement, and was told that his heart was badly affected. Hale promised to cure him for seven guineas, which Boggiano paid, and for which he got a bottle of medicine, which he took without any good effect. On a second visit Hale told him a waste of nervous tissue was going on, and that he showed signs of Bright's disease, which would take three or four months to cure. A further sum of five guineas was paid to Miller on August 24th. In another case Hale undertook to cure a woman named Thomas of deafness, for which she paid him four guineas. He gave her medicine, and told her to come again in six weeks. When she went he had gone. The medicine did her deafness no good. Many persons who, having seen the advertisement, visited the prisoner, and paid him various sums of money under like circumstances, were called, and it was also proved that the medicine given to each of the patients was water, with a little morphine and vegetable colouring. Leaving Liverpool suddenly after twenty-five days, the prisoner went to Glasgow, inserted a similar advertisement, and began operations with Miller on the same plan. From Glasgow they moved to Dublin, and, after heralding their arrival in the same way, took up their quarters in Rutland Square. There a Dr. Smith, a physician and surgeon since 1873, who believed from their advertisement that they were quacks, visited them as a patient, pretending to be a farmer. He saw Hale, and told him he was suffering in the left ear. Hale examined the ear, and said he found him suffering from thickening of the drum of the ear, catarrhal deafness, and congestion of the middle ear, also acute laryngitis. He promised a cure for two guineas. Dr. Smith said he was well acquainted with the symptoms of the complaints ascribed to him. He had none of the diseases at all. After three weeks in Dublin the prisoner and Miller proceeded to Belfast, and began a campaign there. He was arrested on a warrant on October 18th, and taken to Liverpool. A book found among the prisoner's effects showed that the taking of the combination in Liverpool were £116 3s. 9d., in Glasgow £189 2s., and in Dublin, during ten days, about £75. The jury returned a verdict of Guilty, and Hale was sentenced to eighteen months' hard labour.

MEDICAL DEFENCE UNION.

A LOCAL committee of the Union was recently established in Liverpool, consisting of the following gentlemen:—Dr. Carter, Chairman; Dr. Barr, Dr. Costine, Dr. Cregeen, Dr. Macfie Campbell, Dr. G. Stopford Taylor, and Mr. Robert Jones; Honorary Secretary, Mr. Richard Williams. On December 5th a public meeting of the profession was held at the Medical Institution, Dr. Carter in the chair, when Dr. Leslie Phillips, one of the general secretaries of the Union, was present, and explained the objects and position of the company. In reference to the proposal to elect alternately a metropolitan and provincial chairman of the Union, the meeting was unanimously of opinion that such a course would be detrimental to the best interests of the Union at the present juncture. At the close of the meeting several gentlemen handed in their names to be enrolled as members.

PREPARED COCOA MIXTURE.

A FEW days ago a grocer was summoned at the West London Police Court for selling as cocoa a mixture containing 43 per cent. of sugar and starch. The defence relied upon was that the substance was sold in a packet labelled as a "prepared mixture," but it did not appear that the exceedingly high degree of admixture was stated. The makers were a well-known firm who were stated to have been "in business for fifty years;" and it was contended on their behalf, and on that of the retail vendor, who had acted as the distributor of the mixture, that the sugar and starch were only added for the purpose of "making the cocoa more soluble and ready for the table," or "to keep the cocoa in a state of suspension." It cannot be too widely known that this very old form of excuse is in no way valid, and when it is used to defend the admixture of so large an amount of sugar and starch as was found in this case, it is merely ridiculous. Properly prepared cocoa requires nothing of the kind. The magistrate dismissed the case as he thought that "the label fully complied with the section." If this be so, the sooner "the section" is amended the better.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

A MEETING of the Council of the London and Counties Medical Protection Society, Limited, was held at 57, Harley Street, on December 1st. Dr. Heron presided. The report of the Finance Committee was unanimously approved and adopted. Dr. Mead reported good progress in organising new districts. A complaint as to the conduct of the senior medical officer of a cottage hospital was read, and the Council directed that the following expression of opinion should be forwarded to the aggrieved member to be laid by him before the meeting of the Hospital Committee: "The Council of this Society is of opinion that it is impossible to carry on harmoniously the work of any public medical charity unless each medical officer is made solely responsible for the treatment of his own patients. The supervision of one medical officer by his colleague appears to the Council of the Society not only undesirable from the patient's point of view, but certain sooner or later to make the working of the medical department of the hospital an impossibility." The Secretaries reported that in the case of a complaint from a member that the relative of a deceased patient had been spreading false reports to the effect that he had mismanaged the treatment of the patient; they had written warning the offender against such conduct, and would again lay the case before the Council if the offence were repeated. Various matters of business were dealt with.

THE LAW AS TO TESTAMENTARY CAPACITY OF AN ALLEGED LUNATIC.

ROE *v.* NIX.

IN the Probate and Divorce Court, before Mr. Justice Gorell Barnes, for several days this very important case was tried, and as it involves several very important medico-legal questions, we must shortly review it. A lady, of 68, died in an asylum hospital, she being a lunatic, so found by inquisition; while in the asylum she made a will, the validity of which was in question. The medical history of the case was this: that there was eccentricity, if not insanity, in her family. She had given way to alcoholic intemperance, which was the starting point, if not the real cause of the insanity. She was placed in several of the asylum hospitals, and she improved while under treatment, but when at liberty seems to have relapsed. As she had property, she was placed under the care of the Court of Chancery, and though she improved, it was not thought necessary to apply to the Court for a *supersedeas*, and so she died in an asylum legally a lunatic. It has long been recognised that valid wills can be made by persons of unsound mind; that, in fact, the same ruling holds good as to wills as to criminal acts; that in the one case if a person knows the nature and quality of his act he is to be considered to be responsible, and in the other if the testator knows the nature of his act, the nature of his property, and is not so mentally weak as to be unduly influenced, his will may be held to be good though he may have insane delusions. As far as criminal acts are concerned, certain qualifications of this principle have been made, but the principle still holds with the judges. We give extracts from the masterly summing up of the judge, which gives the opinion of English judges up to the present time.

MR. JUSTICE GORELL BARNES told the jury that they would have to consider, in the first instance, whether at the dates of the testamentary papers propounded by the plaintiff the late Miss Ellen Roe was of "sound mind, memory, and understanding," as those terms were understood in law, or, in other words, whether she had mental capacity to make a will. In the case of "Boughton and Knight" (*L. R.* 3, P. and D. 64), a case tried before Sir James Hannen and a special jury in March, 1872, the question of testamentary capacity and that of delusions was gone very fully into by that learned judge. In approaching the question Sir James Hannen said: "Now you will naturally expect from me a definition, or at any rate an explanation, of the legal meaning of the words 'sound mind.' I must commence by telling you what these words do not mean. They do not mean a perfectly-balanced mind. If so, which of us would be competent to make a will? Such a mind would be free from all influence of prejudice, passion, and pride. But the law does not say that a man is incapacitated from making a will if he proposes to make a disposition of his property moved by capricious, frivolous, mean, or even bad motives.....He (a testator) may disinherit, either wholly or partially, his children and leave his property to strangers to gratify his spite, or to charities to gratify his pride, and we must give effect to his will, however much we may condemn the course he has pursued." On the question, What is the amount and quality of intellect which is requisite to constitute testamentary capacity? Sir James Hannen observed: "Now the test which is usually applied, and which in almost every case is found sufficient, is this: Was the man labouring under delusion? If he laboured under delusion, then to some extent his mind must be unsound. But though we have thus narrowed the ground, we have not got free altogether from difficulty, because the question still arises, What is a delusion? On this subject an eminent judge who formerly presided in the Court the jurisdiction of which is now exercised here, Sir J. Nicholl, in the famous case of 'Dew *v.* Clark and Clark' (3 Add. Ell., 70), says: 'One of the counsel (Dr. Lushington) accurately explains it: it is only the belief of facts which no rational person would have believed that is an insane delusion.'.....The Lord Chief Justice laid down with, I think I may say, singular accuracy what is essential to the constitution of testamentary capacity in these words: 'It is essential to the exercise of such a power (of making a will) that a testator shall understand the nature of the act and its effects; shall understand the extent of the property of which he is disposing; shall be able to comprehend and appreciate the claims to which he ought to give effect, and, with a view to the latter object, that no disorder of the mind

shall poison the affections, pervert his sense of right, or prevent the exercise of his natural faculties; that no insane delusion shall influence his will in disposing of his property and bring about a disposal of it which if the mind had been sound would not have been made. Here, then, we have the measure of the degree of mental power which should be insisted on. If human instincts and affections, or the moral sense, become perverted by mental disease, if reason and judgment are lost and the mind become a prey to insane delusions calculated to interfere with and disturb its functions and to lead to a testamentary disposition due only to their baneful influence, in such a case it is obvious that the condition of testamentary power fails, and that a will made under such circumstances cannot stand.'" The jury found that the three testamentary papers propounded by the plaintiff were duly executed, and that the testatrix was of sound mind at the date of their execution. Mr. Justice Gorell Barnes pronounced for those three papers.

It appears, then, from this case that a person not only of unsound mind, but also in an asylum, may make a will which will hold. Much has been said about the conflict of medical witnesses, and, as usual, much more has been made of this difference than was true. The facts are easily explained. On the one hand, the official visitors having knowledge of the whole history of the patient were quite justified, we think, in treating her as one certain to have a relapse if restored to her liberty, and were certainly justified in not urging her removal from control. In every asylum patients subject to the various forms of recurring insanity are to be met with who are perfectly sane for longer or shorter periods, and yet justice is done and society is safeguarded by their permanent detention in the asylums. On the other hand, the resident medical officer was justified in saying that at a certain time, in his opinion, the patient was sane. We do think, however, that the permission of the officer for the making of a will should, like the transaction of any business by a legal lunatic, be very rarely allowed. We are inclined to believe if there were some simpler process for the placing the property of a lunatic under official control, and if the reverse process were also more easy, this prolonged trial would have been avoided.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

The following appointments have been made at the Admiralty:—Henry W. G. Green, Surgeon, to the *Bellerophon*, lent; Alfred T. Corrie, Fleet-Surgeon, to the *Malabar*, December 9th; Herbert W. G. Done, Surgeon, to the *President*, additional, December 9th; Charles W. Sharples, Surgeon, to the *Vivid*, December 17th; Richard E. Biddulph, Staff Surgeon, to the *Canada*, undated; George McGregor, Surgeon, to the *Canada*, undated; Charles G. Matthews, Surgeon, to the *Vernon*, undated.

MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel Francis Johnson, M.B., F.R.C.S.I., retires on retired pay, December 14th. He was appointed Assistant-Surgeon, March 31st, 1864; Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; attained the rank of Lieutenant-Colonel, March 31st, 1881; and became Brigade-Surgeon-Lieutenant-Colonel, from October 16th, 1889. He has no war record in the Army Lists.

Surgeon-Lieutenant-Colonel P. R. Gabbett, from the Seconded List, is reappointed Surgeon-Lieutenant-Colonel, November 28th. Surgeon-Lieutenant-Colonel P. R. Gabbett, has resigned his appointment as Surgeon to Lord Wenlock, Governor of Madras, and to which he was appointed January 23rd, 1891.

Surgeon-Captains G. Scott, M.B., and T. Birt, who are serving in the Bengal Command, have leave of absence for six months on medical certificate.

Brigade-Surgeon-Lieutenant-Colonel R. P. Ferguson, having been appointed to the Administrative Medical Staff of the Bengal Command, is appointed Principal Medical Officer, Allahabad District, *vice* Surgeon-Colonel F. W. Wade, transferred to the Home Establishment.

Surgeon-Colonel C. H. Y. Godwin, having been appointed to the Administrative Medical Staff of the Bengal Command, is appointed Principal Medical Officer, Rawalpindi District, *vice* Surgeon-Colonel A. Allan, deceased.

Brigade-Surgeon-Lieutenant-Colonel F. B. Scott, M.D., C.M.G., having been appointed (in anticipation of promotion) to the Administrative Medical Staff of the Bengal Command, is appointed Principal Medical Officer, Quetta District, *vice* Surgeon-Colonel W. Graves, transferred.

Surgeon-Colonel F. W. Wade, serving in the Bengal Command, is directed to proceed to England in anticipation of promotion.

Brigade-Surgeon-Lieutenant-Colonel A. F. Churchill, M.B., serving in the Bengal Command, is directed to proceed to England in anticipation of promotion.

Surgeon-Colonel T. Rudd, M.D., serving in the Bengal Command, is directed to proceed to England in anticipation of promotion.

Surgeon-Colonel W. Graves, serving in the Bengal Command, is transferred from the Quetta District to be Principal Medical Officer, Meerut District, *vice* Surgeon-Colonel T. Rudd, transferred to the Home Establishment.

Surgeon-Major J. Martin, who is doing duty in the Madras District, is appointed to the medical charge of the station hospital at St. Thomas's Mount, also in the Madras Command.

Surgeon-Major G. Laffan, M.D., serving in the Madras Command in medical charge of the station hospital at Thayetmyo, is appointed to the medical charge of the station hospital at Cannanore.

Surgeon-Major C. R. Woods, M.D., doing duty in the station hospital at Belgaum, is appointed to the medical charge of the station hospital at Poonamallee, Madras Command.

Surgeon-Major J. H. Nicholas, who is doing duty in the Madras District, is appointed to the medical charge of the station hospital at Thayetmyo, Madras Command.

Surgeon-Captain W. H. Bean, serving in the Madras Command in medical charge of the station hospital at Cannanore, is directed to do duty in the Madras District.

Surgeon-Captain R. E. Kelly, M.D., serving in the Madras Command, has leave to England for six months on urgent private affairs.

Deputy-Surgeon-General William Tydd Harding died at Dublin on November 30th. He entered the service as Assistant-Surgeon May 13th, 1853, and retired with the honorary rank of Deputy-Surgeon-General May 27th, 1879.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant C. E. L. B. Hudson, Middlesex Yeomanry (Duke of Cambridge's Hussars), is appointed Surgeon-Lieutenant, December 7th.

INDIAN MEDICAL SERVICE.

Surgeon-Captain U. N. Mukerji, Bengal Establishment, has passed the examination in Persian by the higher standard.

Surgeon-Captain A. H. Nott, Bengal Establishment, received charge of Beerbhoom Gaol on October 21st.

The services of Surgeon-Captain E. Hudson, Bengal Establishment, are placed at the disposal of the Government of India.

Surgeon-Captain C. Donovan, M.D., Madras Establishment, has passed the examination in Hindustani by the higher standard.

Surgeon-Captain W. E. Jennings, Bombay Establishment, received charge of Rutnagherry Gaol on November 17th.

Surgeon-Captain J. B. Jameson, Bombay Establishment, is appointed to officiate in medical charge of the 5th Bombay Cavalry (Sind Horse), *vice* Surgeon-Captain J. G. Hojel, transferred temporarily to the Civil Department.

Surgeon-Captain F. E. Murray, Bombay Establishment, is appointed to officiate in medical charge of the 7th Bombay Lancers (Belooch Horse), *vice* Surgeon-Captain J. L. T. Jones, on furlough.

Surgeon-Lieutenant W. C. Sprague, Bombay Establishment, has passed the examination in Hindustani by the lower standard.

The under-mentioned officers have leave of absence as specified: Surgeon-Major A. Duncan, M.D., Bengal Establishment, Corps of Guides, for six months on medical certificate; Surgeon-Major J. C. Marsden, Madras Establishment, for six months on medical certificate; Surgeon-Captain C. T. Hudson, Bombay Establishment, for one year on medical certificate.

THE VOLUNTEERS.

Surgeon-Major J. McGibbon, M.D., 4th Volunteer Battalion Royal Scots (late the 2nd Edinburgh), is promoted to be Surgeon-Lieutenant Colonel, December 10th, and is permitted to resign his commission from the same date, retaining his rank and uniform.

The Rev. W. P. Burn, M.A., is appointed Acting Chaplain to the Norwich Company, Volunteer Medical Staff Corps, December 10th.

DECORATION FOR DISTINGUISHED SERVICE.

Our contemporary, the *Daily Chronicle*, in commenting on the extraordinary fact that Staff-Sergeant Williams, of the Medical Staff Corps, only received the Distinguished Service decoration the other day, at the hands of Her Majesty, although recommended for it for gallant service at Abu Klea so long ago as January, 1885, says: "We have discovered the reason. He was passed over because he was recommended to notice by his immediate superior officer, which seems a queer thing until we remember that this officer was a medical man;.....which was quite sufficient to cause his name to be passed over." "Men who did less have been wearing their distinguished conduct medals for six years.....We believe it is due to Sir Evelyn Wood that justice has been done him at last."

Whether our contemporary's explanation of the remarkable delay in this case be the true one or not, the circumstance is so extraordinary, that, in justice to brave men, it may well form the subject of interrogation when Parliament meets.

SURGEONS-MAJOR-GENERAL AND COMPULSORY RETIREMENT.

The proposal to extend the term of service of Surgeon-Major-General Faught has not been carried into effect, as was understood to be the intention of the authorities when we called attention to the point some time ago. This final decision, which has been taken in spite of the exceptional circumstance that the commanding officer made, spontaneously, a special application recommending the extension, indicates that the War Office intend to adhere to a rule which in its general effect must be salutary, in the interest both of the Medical Department and of the service at large. A good deal of sympathy will, however, be felt with Surgeon-Major-General Faught, who has a distinguished war record, and a long and honourable career in administrative posts. We believe it to be the case that he himself suffered owing to an excessive use of this power of extension in the case of another officer some time ago. We repeat what we have already said, that there can be no objection to granting such an extension to an officer if the good of the service or the public interest requires it, provided such officer is removed from the direct line of promotion by being seconded. With regard to the sanitary administration of Aldershot, while unable to withdraw what we have felt it our duty to say on the subject, we have reason to believe that the blame really lies on the shoulders of the military rather than the medical authorities.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

The annual dinner of the staff, members, and friends of this school, took place at Cannon Street Hotel on December 10th. Major Maclure, V.D., late London Scottish R.V., the President of the school, was in the chair. Lord Sandhurst, the Under-Secretary of State for War, was the guest of the evening. He responded for the toast of "The Army," and afterwards distributed the prizes. In the course of his speech he stated that he took a special interest in the medical branch of the service and in the organisation of military hospitals. With regard to the volunteers, he was of opinion that a definite staff rank should be given to ambulance sergeants.

He noted the large number of officers, non-commissioned officers, and men present, and mentioned that almost every metropolitan, and many provincial, regiments were represented.

Surgeon-Colonel Hamilton, Principal Medical Officer of the Home District, proposed the toast of "Success to the Volunteer Ambulance School of Instruction," and, in an interesting speech, spoke of the great work which the school had done and was still doing. He sketched the evolution of the Medical Services from the time of the Crimean War to the Warrant of 1858, the beginning of the volunteer movement in 1859-60, and the abolition of the regimental system in 1873. He referred at length to the manner in which the President, Major Maclure, the Senior Medical Officer, instructor-Surgeon-Captain H. F. Stokes, and the staff, laboured to promote the efficiency of all ranks.

Surgeon-Captain Stokes, in his reply, stated that upwards of a thousand members had joined the various classes, a large percentage of whom had obtained certificates of proficiency.

In addition to the names mentioned above the following were present: Deputy-Surgeon-General Don, M.D., Home District Recruiting Staff; Colonel Cholmondeley, Commanding the London Rifle Brigade. Brigade-Surgeon-Lieutenant-Colonels Andrew Clark, South London Brigade; O. M. White, East London Brigade; Parsons Smith, West London Brigade; Pocklington, Surrey Brigade. Surgeon-Lieutenant Patten, 2nd V.B. Middlesex Regiment. Surgeon-Majors Culver, James, and Foster McGeah, Hon. A.C. Major Tasker, 2nd Kent A.V. Surgeon-Captains J. Cagney, Artist's R.V.; L. Ogilvie and Watson, London Scottish R.V.; P. Whitcombe, Q.W.V.; J. Squire, V.M.S.C.; Younger, 3rd V.B.R.F.; Fenton, 1st Middlesex R.V.; Reckitt, 1st Lincoln A.V.; Sleeman, Artists R.V.; and Lovelace, 1st V.B. Hants Regiment. Captain Graham Gordon, L.S.R.V. Surgeon-Lieutenants Dagg and Atkinson, 1st Surrey Rifles; Wilkins, 2nd V.B. Middlesex Regiment; Lloyd-Williams, West London Rifles. Lieutenants J. H. Griffin, 3rd R.F.; Braik, Gore, Buckinham, L.S.V.R. Messrs. Ernest Hart, Tomkins, H. Easterbrook, and W. Church.

The next class will be held at the "Artists" headquarters, commencing on February 9th, 1893.

VOLUNTEER OFFICERS' DECORATION.

HER MAJESTY THE QUEEN has been graciously pleased to confer the Volunteer Officers' Decoration upon the undermentioned officers of the volunteer force, who have been duly recommended for the same under the terms of the Royal Warrant dated July 25th, 1892: Surgeon-Major Nicholas K. Marsh, retired, 1st Lancashire Artillery; Surgeon-Lieutenant-Colonel Arthur A. Corte, 3rd Lancashire Artillery; Surgeon-Lieutenant-Colonel Thomas Cayzer, 6th Lancashire Artillery; Brigade-Surgeon-Lieutenant-Colonel Clement Dukes, M.D., 2nd Volunteer Battalion the Royal Warwickshire Regiment; Surgeon and Honorary Surgeon-Major R. Hopwood, retired, 4th Volunteer Battalion, the Cheshire Regiment; Surgeon-Lieutenant-Colonel Luke Fisher, retired, 2nd Volunteer Battalion, the East Lancashire Regiment; Brigade-Surgeon-Lieutenant-Colonel Cornelius Scamp Hall, 1st (Cumberland) Volunteer Battalion, the Border Regiment; Surgeon-Lieutenant William F. M. Jackson, 1st Volunteer Battalion, the South Staffordshire Regiment; Surgeon and Honorary Surgeon-Major J. Fraser, M.D., retired, 3rd Volunteer Battalion, the South Staffordshire Regiment; Surgeon-Captain (Honorary Surgeon-Major) Edward Lister, 1st Volunteer Battalion, the Prince of Wales's Volunteers (South Lancashire Regiment); Surgeon-Lieutenant-Colonel F. B Mallett, M.D., 2nd Volunteer Battalion, the Loyal North Lancashire Regiment; Surgeon and Honorary Surgeon-Major Robert Settle, M.D., retired, 2nd Volunteer Battalion, the Loyal North Lancashire Regiment; Brigade-Surgeon-Lieutenant-Colonel Peter B. Giles, 1st Herefordshire; Surgeon and Honorary Surgeon-Major Edwin H. Roe, retired, 1st Volunteer Battalion, the Manchester Regiment; Brigade-Surgeon Lieutenant-Colonel John Armstrong, retired, 5th (Ardwick) Volunteer Battalion, the Manchester Regiment; Surgeon-Major William H. Folker, retired, 1st Volunteer Battalion, the Prince of Wales's (North Staffordshire Regiment); Surgeon-Major William Dawes, retired, 1st Volunteer Battalion, the Prince of Wales's (North Staffordshire Regiment); Brigade-Surgeon-Lieutenant-Colonel Herbert M. Morgan, 2nd Volunteer Battalion, the Prince of Wales's (North Staffordshire Regiment); Surgeon-Major Walter George Lowe, M.D., 2nd Volunteer Battalion, the Prince of Wales's (North Staffordshire Regiment).

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

EXAMINER.—Dr. John Abercrombie, F.R.C.P., has been appointed an additional examiner in Medicine for the Third M.B. Examination.

DEGREES.—At the Congregation on December 8th the following degrees were conferred:—C. F. Harford-Battersby, M.B., B.C., M.A., Trinity; E. Collingwood Andrews, M.B., B.C., M.A., St. John's; J. Squier Hinnell, M.B., B.C., B.A., Pembroke, M.B. and B.C.; J. Basil Hall, B.A., Pembroke; J. J. Perkins, M.A., Emmanuel.

CHAIR OF BOTANY.—Dr. Allbutt, Regius Professor of Physic, has been appointed an elector to the Professorship of Botany, in the room of the late Dr. Hort.

FEES FOR DEGREES.—The Senate on December 8th agreed to raise the fees for medical degrees as follows:—For M.B. or for B.C. (if B.A. or LL.B. previously), £4. For M.D., £25. These changes come into force at once. The Senate, however, declined to sanction an increase in the capitation fee to be paid annually by undergraduate and graduate members of the University. It was proposed to raise this from 17 shillings to £2 in the former case, and to £1 in the latter.

FIRST M.B. EXAMINATION.—Part I. *Chemistry and Physics.*—Abercrombie, Cai.; Barnes, Chr.; Bellamy, Down.; S. S. F. Blackman, Joh.; Borradaile, Cai.; Bradford, Emm.; Burton, F. H., Cla.; Chapman, B.A., Corp.; Coleman, Joh.; Cox, Cai.; Denyer, Queen's; W. R. Elliott, B.A., Joh.; Ellis, Cai.; Fawcett, B.A., Pet.; Glasier, Emm.; Golby, Joh.; Hale, Chr.; Harwood, Trin.; Haslam, B.A., Cai.; Hunt, Trin.; E. Hyde, Cla.; Inchley, Joh.; H. G. T. Jones, B.A., Joh.; Jupe, Down.; Lea, B.A., Cai.; Le Fleming, Cla.; Levick, Jes.; Lobb, B.A., Cai.; McCarthy, Pet.; G. F. McCleary, Trin. H.; Manners-Smith, B.A., Down.; Mills, Jes.; Parsons, B.A., Corp.; Powell, Emm.; Priddle, Cai.; Prout, Down.; P. B. Reckitt, King's; Roderick, Emm.; Roper, N. C.; Rose, Joh.; Hon. G. H. Scott, Trin.; Sewell, B.A., Pemb.; Shrubsall, Cla.; H. M. H. Smith, Cai.; Tallent, Joh.; Taylor, King's; Tebbs, Queens'; Williamson, Joh.; Winton, Cla.; Yeld, Trin.

Part II. *Elementary Biology.*—Allfrey, Trin.; Baker, M.A., N. C.; S. S. F. Blackman, Joh.; Brooke, Pemb.; H. J. Burkill, Cai.; Carver, Cai.; Coleman, Joh.; Cole, Corp.; Cox, Cai.; Fraser, Cai.; Hale, Chr.; Haslam, B.A., Cai.; Horne, B.A., Trin.; Hunt, Trin.; Hunt, Down.; Inchley, Joh.; H. T. James, Trin.; Lea, B.A., Cai.; Levick, Jes.; Lindsay, Sid.; G. F. McCleary, Trin. H.; Nix, B.A., Pemb.; P. B. Reckitt, King's; Rose, Joh.; Scholberg, Trin.; Shewell, Trin.; Shrubsall, Cla.; Skrimshire, Joh.; Sugden, B.A., Cai.; Symes-Thompson, Chr.; Tallent, Joh.; Williamson, Joh.; Wilson, J. (jun.), Pet.; W. R. Wilson, Corp.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen having passed the necessary examinations and having conformed to the by-laws and regulations were, at the ordinary meeting of the Council, admitted Fellows of the College, namely, Messrs.:

	Date of Membership.
R. W. Doyne, L.S.A.	July 27th, 1880.
W. Robinson, M.B.Durh.	July 20th, 1881.
C. P. Childe, L.R.C.P.Lond.	July 19th, 1883.
J. L. Thomas, L.R.C.P Lond.	January 20th, 1886.
F. W. Edridge-Green, M.D.Durh., L.R.C.P.Lond. ...	June 27th, 1887.
E. J. P. Olive, M.B.Cantab., L.R.C.P.Lond. ...	November 14th, 1889.
W. J. Foster, L.R.C.P.Lond.	February 13th, 1890.
T. C. Grey, L.R.C.P.Lond.	May 8th, 1890.
A. H. S. Hallidie, M.B.Cantab., L.R.C.P.Lond. ...	May 8th, 1890.
G. H. Hopkins, L.R.C.P.Lond.	May 8th, 1890.
J. L. Thomas, L.R.C.P.Lond.	May 8th, 1890.
A. T. Collum, L.R.C.P.Lond.	July 28th, 1890.
C. H. Preston, M.B.Lond., L.R.C.P.Lond.... ...	July 28th, 1890.
W. S. Griffith, M.B.Cantab., L.R.C.P.Lond. ...	November 13th, 1890.
H. F. Mole, L.R.C.P.Lond.	November 13th, 1890.
C. Wyman, M.B.Cantab., L.R.C.P Lond.	February 12th, 1891.

Four other gentlemen passed the examination, but not having attained the legal age (25 years), will receive their diplomas at future meetings of the Council. Twelve were referred.

The following gentlemen having previously passed the necessary examinations and having now attained the legal age (25 years) was also admitted a Fellow of the College, namely, Mr. C. D. Marshall, L.R.C.P.Lond., date of Membership, July 28th, 1890.

The following gentlemen, having passed the necessary examinations, were, at the same meeting, admitted Licentiates in Dental Surgery:

F. P. Allworth, S. R. Apthorpe, C. F. P. Baly, E. J. Blain, F. J. Blewitt, H. G. Danolds, F. J. Fennings, S. Fitter, F. Fouraker, D. P. Gabell, C. S. Gardner, W. H. Goodman, P. Harrison, A. R. Henry, A. T. Hilder, A. C. Hope, H. W. Johnson, G. Kershaw, G. W. Martin, F. G. Mordaunt, E. Mosely, G. Northcroft, L. J. Osborn, R. S. Parris, J. G. Rankin, C. S. Reed, H. T. Roberts, T. B. Steele, H. J. Stevens, C. J. Tisdall, E. F. Townsend, H. A. Turner, F. E. Watson, E. Weston, J. D. Whittles, R. E. Woodcock.

Thirteen gentlemen were referred, 12 for six months and 1 for one year.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 5,923 births and 3,838 deaths were registered during the week ending Saturday, December 10th. The annual rate of mortality in these towns, which had been 18.9 and 18.8 per 1,000 in the preceding two weeks, rose again to 19.6 during the week under notice. The rates in the several towns ranged from 11.2 in Halifax, 13.0 in Leicester, 14.7 in Gateshead, and 15.1 in Huddersfield, to 26.0 in Swansea, 24.1 in Manchester, 23.3 in Bolton, 29.5 in Oldham, and 31.6 in Salford. In the thirty-two provincial towns the mean death-rate was 21.0 per 1,000, and exceeded by 3.3 the rate recorded in London, which was only 17.7 per 1,000. The 3,838 deaths registered during the week under notice in the thirty-three towns included 444 which were referred to the principal zymotic diseases, against 424 and 429 in the preceding two weeks; of these, 164 resulted from measles, 77 from diphtheria, 60 from whooping-cough, 56 from scarlet fever, 41 from "fever" (principally enteric), 41 from diarrhœa, and 5 from small-pox. These 444 deaths were equal to an annual rate of 2.3 per 1,000; in London the zymotic death-rate was equal to 1.9 per 1,000, while it averaged 3.5 per 1,000 in the thirty-two provincial towns. No death from any of these diseases was recorded last week either in Halifax or in Wolverhampton; in the other towns they caused the lowest death-rates in Huddersfield, Bristol, and Newcastle-upon-Tyne, and the highest rates in Hull, Oldham, Brighton, and Salford. Measles caused the highest proportional fatality in Bolton, Croydon, Oldham, Hull, Brighton, and Salford; scarlet fever in Salford, Swansea, Plymouth, and Preston; whooping-cough in Norwich, Nottingham, Birkenhead, Gateshead, and Birmingham; "fever" in Preston, Derby, and Swansea; and diarrhœa in Burnley. The 77 deaths from diphtheria included 58 in London, 3 in Sheffield, 2 in West Ham, and 2 in Bradford. Three fatal cases of small-pox were recorded in Oldham, 1 in Birkenhead, and 1 in Sheffield, but not one in London or in any other of the thirty-three large towns; 31 cases of this disease were under treatment in the Metropolitan Asylums Hospitals and 1 in the Highgate Small-pox Hospital on Saturday last, Decem-

ber 10th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,772, against numbers declining from 4,067 to 3,882 on the preceding five Saturdays; 273 new cases were admitted during the week, against 303 and 302 in the preceding two weeks. The 339 deaths from diseases of the respiratory organs in London were 105 below the average, and were equal to an annual rate of 4.2 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, December 10th, 860 births and 683 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 20.6 to 24.2 per 1,000 in the preceding four weeks, further rose to 24.5 during the week under notice, and exceeded by 4.9 per 1,000 the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 13.2 in Greenock and 17.2 in Perth, and the highest rates 25.4 in Glasgow and 41.6 in Leith. The 683 deaths in these towns included 156 which were referred to the principal zymotic diseases, equal to an annual rate of 5.6 per 1,000, which was 3.3 above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Glasgow, Edinburgh, and Leith. The 327 deaths registered in Glasgow included 26 which were referred to measles, 11 to scarlet fever, 8 to diphtheria, and 8 to whooping-cough. Measles caused 31 deaths in Edinburgh, 28 in Leith, and 9 in Dundee. The death-rate from diseases of the respiratory organs in these towns was equal to 5.5 per 1,000, against 4.2 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, December 3rd, were equal to an annual rate of 24.0 per 1,000. The lowest rates were recorded in Lisburn and Limerick, and the highest rates in Kilkenny and Sligo. The death-rate from the principal zymotic diseases averaged 1.6 per 1,000. The 156 deaths registered in Dublin were equal to an annual rate of 23.3 per 1,000 (against 23.9 and 22.8 in the preceding two weeks), the rate during the same period being 17.7 in London and 27.8 in Edinburgh. The 156 deaths in Dublin included 9 which were referred to the principal zymotic diseases (equal to an annual rate of 1.3 per 1,000), of which 5 resulted from enteric fever, 1 from typhus, 1 from scarlet fever, and 2 from diarrhœa.

TYPHOID FEVER IN LONDON DISTRICTS.

The statements which have been made to the effect that there has been a large increase of typhoid fever in London do not appear to be well founded. The deaths from typhoid fever in London last week were only 11, and in the week before also 11; these numbers are little more than half the average numbers recorded in the corresponding periods of the preceding ten years. With regard to notified cases, the average weekly number during November was 72; in September it was 85; and in October 68.

There would, however, appear to be an undue prevalence in Hampstead. At a meeting of the Sanitary Committee of the Vestry on December 12th, to consider the statement which had appeared in some of the daily papers, that diphtheria and typhoid fever were prevalent in Frognal owing to the faulty condition of the sewer, Dr. Gwynn, the medical officer, stated that there had been no case of diphtheria reported to him from the Frognal district since the first week in July. With regard to typhoid fever, one case had been removed from Frognal on December 3rd. The drainage of the house was faulty, and the water supply contaminated by sewer air. For the parish generally he had not received more than the usual number of notifications of diphtheria, but there was an increase in the number of typhoid cases, 13 having been reported in the four weeks. They were, however, mostly at a long distance from the area in question, and scattered over the parish (Frognal). As to the state of the sewer, he had, in company with the surveyor, inspected and passed through it, and had found it to be clean, free from deposit, and in excellent repair. There was at the time of his inspection a powerful in-take and down draught to London. The up draught caused by the south and south-westerly winds, prevalent in the latter part of November, had caused alarm by passing out through some unsealed or untopped gullies.

The Committee directed the medical officer of health and surveyor to bring up a report, with suggestions as to the best way of relieving and distributing the upward current from London on this particular line of sewer.

TYPHOID FEVER AND THE WATER SUPPLY OF EXETER.

At a recent meeting of the Council for the city of Exeter attention was called to the increase of typhoid, and a resolution passed requesting the medical staff to report specially on the matter. The fact is, the city of Exeter is afflicted with a Council that has but a faint appreciation of the deplorable sanitary condition of Exeter. Fair to look upon from a distance, when narrowly inspected the city is found to be complacently sitting down in her own filth. The whole of the sewage is poured direct into the river, a portion of which forms a great seething fermenting cesspool. The supply of water to Exeter is not beyond suspicion, for it is derived from the same river, at a point below that at which the sewage of a portion of the town of Tiverton flows into it. Hence it follows that whatever good may be derived from mere cleansing operations and the removal of obvious local nuisances, no real and permanent benefit can be expected until the sanitary authority adopts some proper scheme of dealing with the sewage, and above all provides the city with an absolutely pure supply of water.

THE LOCAL GOVERNMENT BOARD AND OUT-WORKERS.

In compliance with the Local Government Board's request, the local authorities of London are, in fulfillment of provisions in the Factory and Workshops Acts, 1878-91, serving notices upon occupiers of factories and workshops within the respective parishes and districts of the vestries and district boards of work, and also upon every contractor employed by the occupier in (1) the manufacture of articles of wearing apparel; (2) the manufacture of electro-plate; (3) cabinet and furniture making and upholstery work; and (4) the manufacture of files. These notices require each occupier and contractor to keep, in the form and with the particulars prescribed by the Home Secretary, lists of the names and addresses of all persons directly employed by them, either as workman or as contractor, outside the factory or workshop, so that the lists may be inspected by any inspector under the Factory and Workshop Act, 1878, or by any officer of a sanitary authority.

SMALL-POX AND SANITATION.

We have received a letter from Mr. Wheeler, of Darlington, who strongly objects to our assertion that the antivaccinators are returning to "reason," and who appears to be of opinion that the elected representatives of the people should carry out the wishes of the people, as embodied in the votes of the majority on some special subject like small-pox, obtained in a local census. This needs no answer; but Mr. Wheeler goes on to say that small-pox is wholly a matter of good or bad sanitation. "Small-pox cannot come to a place where the population is living in the right sort of conditions."....."And in Sheffield it was not in the delightful suburbs in which the well-to-do live, but in the 'croft' and densely packed portion of the old town that the small-pox was prevalent." The rest of the letter is occupied chiefly by assertions of the futility of vaccination. The above as regards Sheffield is a statement of a fact, though vaguely made.

Now the medical officer of the Local Government Board has said, *in re* Dr. Barry's report, that "owing to the peculiar localisation of small-pox in Sheffield due to the influence of the hospital near its centre, the distribution of small-pox according to the general sanitary circumstances of the several sub-districts has become a matter difficult to apprehend in its right proportions." The houses within a 4,000 feet circle round the hospital were invaded to twice the extent, and the houses within a 2,000 feet circle to three times the extent of houses elsewhere in the borough. The same report shows that the small-pox fatality was not greater in the more crowded than in the less crowded quarters. Even the hospital small-pox fatality was only very little above that of the whole borough, namely, as 32.7 : 31.1. So much for Sheffield. But this allegation by anti-vaccinationists that small-pox is wholly a matter of good or bad sanitation has long ago been plainly proved erroneous by the Registrar-General, who has shown us in his reports that the decline in small-pox mortality in the sanitary era is a decline which has not affected all ages alike, as improved sanitation would, but has occurred exclusively in persons under 15, and chiefly in persons under 5. The changes in other infectious diseases, whether in the direction of increased or lessened mortality, have occurred almost equally throughout all the age-classes. Small-pox forms a curious and startling exception till explained by the factor of vaccination in childhood.

ENTERIC FEVER AT TEMPLE CLOUD.

Mr. Sweeting's report to the Local Government Board upon an outbreak of enteric fever at Temple Cloud, is a document which reflects little credit upon the sanitary administration of the Clutton Rural Sanitary Authority. The outbreak which led to the inquiry consisted of eleven cases (two of them fatal) in four families, the disease hanging about from October, 1891, to February, 1892, each month showing cases except December. Eight of the patients were females, and seven were under 20 years of age. The disease seems not in all cases to have been promptly recognised, and the absence of compulsory notification in the early part of the outbreak led to delay in the acquisition of knowledge by the health officer.

The water supply of Temple Cloud is mostly from shallow wells and open dipping places, liable to all sorts of animal contamination, and in the fields, particularly open to pollution from land drainage and manurial soakage. There is only one main drain of a very rudimentary character, and discharging into a ditch by the roadside. The ditch, after being joined by a second, finds its way into the Cam. As a rule slops are discharged into rubble drains, badly laid, and leading by way of ditches to the Cam. This stream and its tributaries are much polluted by privies, some of which are situate on the banks or directly over these waterways. The streams, with masses of excrement on their surface, pass close alongside and in front of cottages. The advice of the health officer in regard to water supply appears to have been set aside. The Local Government Board, with a view of securing for the district the elements of sanitation, have advocated the provision, under skilled advice, of a proper public water supply, and of sewerage and sewage disposal; also a better system of refuse and excrement disposal and removal, as well as the provision of an infectious hospital apart from the workhouse wards, and adequate means of disinfecting clothing and bedding. The absence of these primary necessaries betokens a serious neglect of duty on the part of the local body charged with the administration of the law as it affects public health.

INSANITARY BOARD SCHOOLS.

Police Court Proceedings.—At the Clerkenwell Police Court on Tuesday, December 13th, the London School Board were summoned by the Islington Vestry for permitting "two foul and defective nine-inch drains" to exist at their premises, the Yerbury Road Board School, "it being necessary to remove the same, and to substitute for them two six-inch glazed stoneware pipe drains," and for allowing drains to exist at Hanover Street Board School which "were in such a state as to be a nuisance or injurious to health." Mr. MacMorran said the summonses were taken out under the Public Health (London) Act, 1891, 4th Section. The Islington Vestry had taken up this matter with a full sense of the responsibility which rested upon them. Between February of this year and the present time there had been 86 cases of infectious disease among the children attending the Yerbury Road Board School, 66 of these cases having been diphtheria. This pointed at once to something more than suspicion. Some of the faults found in the school had been remedied, but the School Board in an extraordinary way maintained that the drains did not require remedying. The sanitary inspector and Dr. Harris, medical officer, when they visited the school, applied what was known as the "water test" to the drain. By this test the drain was plugged at one

end and water was poured in at the other. If nothing happened and the water did not fall in the pipe, that proved that the drain was in good repair, but if it fell the drain leaked. In the case of this drain the test showed that it leaked seriously. In almost every instance the pipes were found to have been laid end to end without any cement; in only a few places was there a little cement. The consequence was that the sewage escaped through the joints and permeated into the soil. When the water test was applied the first time an enormous amount of solid stuff came away from the pipes, which must have been there for some time. This drain was laid at a fall of 1 in 400 (almost level), and the consequence was that in a nine-inch drain the flush was not sufficient. Solid matter remained and choked up the drain. No remedy now would be of any use except taking up the drain and relaying it. The vestry contended that a nine-inch pipe was far too large for the work. There were three ventilating shafts from the drain. One discharged its gas under the windows of the caretaker's house, another shaft discharged only 12 feet high, just over the shed of the girls' playground; the third opened near the boys' lavatory. These outlets seemed to have been specially selected for the purpose of doing as much mischief as possible. This foul drain, if it were allowed to continue, would be a serious danger, as it had already been, to the health of everyone connected with the school. The vestry were strongly of opinion that the school ought to be closed while the relaying of the pipes was in progress if the magistrate made the order for the work to be carried out. It would be unsafe for the work to be done while hundreds of children were attending the school. At any rate, he asked the magistrate to express his opinion that the school ought to be temporarily closed. Evidence was given of the facts. The further hearing of the case was adjourned.

INFLUENZA AT DAVENTRY.

WE are indebted to a correspondent, with special sources of information at his disposal, for the statement that influenza has prevailed in Daventry and its neighbourhood more or less since January. Relapses have been frequent and recoveries slow. Recurrence of the disease in the same person has also been frequent. Many patients have had as many as half a dozen attacks. This has more generally happened in large families living in small houses. Our correspondent was disposed to attribute this to sanitary defects, but it is hard to believe that this cause can affect at the same time several villages widely separated from each other, and not particularly unhealthy. Women recently delivered and persons who have met with recent accidents have been particularly subject to the disease. The number of cases of toothache, abscesses in connection with diseased fangs of teeth, and general inflammation of the gums, especially of the upper jaw, in association with influenza has been extraordinary. In January, February, and March lung complications were frequent, but during the summer months they occurred but seldom; recently they have been much more prevalent again, probably owing to the increase of the epidemic and to cold weather. Menorrhagia and metrorrhagia have complicated influenza in many instances, and miscarriages and premature labour have happened sometimes. Among important sequelæ, our correspondent has seen 8 cases of rheumatic fever, 1 case of facial erysipelas, several cases of gout, Bright's disease, peripheral neuritis, and sciatica following influenza. By way of treatment, our correspondent has found no medicinal remedy of any avail to prevent recurrence. In houses where the disease is nearly always present, change of air has invariably done good to convalescents, but in most instances they have relapsed soon after their return, indicating that the cause is local.

THE MEDICAL ATTENDANCE ON STEPNEY WORKHOUSE.

ACCORDING to evidence given at recent inquests the arrangement made by the Stepney Board of Guardians for the medical attendance on the inmates of the workhouse is unsatisfactory. Stepney is a board of guardians which has carefully restricted its outdoor relief, and therefore it certainly should provide adequate and efficient indoor relief. Situated in a densely populated and poor district surrounding the docks, it has no separate infirmary of its own, but is content to share the Poplar and Stepney Sick Asylum with another parish. A workhouse, containing 700 inmates, many of whom are very old and infirm, is sure to abound in medical emergencies, and there ought most certainly to be a resident medical officer. But it seems evident that the joint use of a sick asylum is not sufficient for the needs of the parish. Paddington and other parishes smaller than Stepney provide a separate infirmary for their own indoor sick poor within their own parish, and it is a public scandal that Stepney should not do the same.

A HYGIENIC LODGING HOUSE.

THE first municipal lodging-house in London is situated in Parker Street, Drury Lane, and will accommodate 324 lodgers. Each lodger has a separate enclosed cubicle, 7 feet by 4 feet, in which is fitted up a spring wire mattress, covered with a hair mattress. The building is lighted throughout by electricity and heated by hot-air pipes, which in the cubicles can be regulated by the inmates. Two bath-rooms, two shower baths, eight feet-washing troughs, 32 basins supplied with hot and cold water, perfect sanitary appliances, and excellent ventilation are features of the new building. There is a large disinfecting room, a capacious laundry, filled with steam machinery, and spacious dining and recreation rooms. The lodgers can do their own cooking if they wish, or can obtain provisions from a shop in the building. The recreation-room will contain 1,000 books, the gift of some philanthropic gentleman. The charge per bed each night is to be 5d. The water to the building is supplied by meter, and arrangements have been made for an independent supply in the event of any failure in the company's water supply. Every care has been taken to make the building as hygienic, cheerful, and homely as possible. It has cost £16,650, or £51 8s. (nearly) a cubicle.

HOSPITAL ACCOMMODATION IN THE ISLE OF WIGHT.

SOME of the sanitary authorities of the Isle of Wight have recently been seriously thinking of some joint action for the purpose of providing infectious hospital accommodation, and the districts of the Ventnor, Shanklin, and Sandown local boards have been named as those most likely to unite with the rural authority for making such provision. Ryde already has a Royal Infirmary, and a borough hospital, which, it is alleged, has seldom been used; but the scheme of erecting ward blocks for sixteen beds, four by each of the districts first named, at a cost estimated at £1,000, seems to savour of the cheap and ineffective. If the whole island would come together and make the sum £20,000, then something useful might be accomplished. The island comprises 93,242 acres, and has an area of 146 square miles. Regarding this as too large for one hospital to serve the whole, why not divide the island, say from Binstead to Chale, with five urban, and part of the rural, districts to the east, and an aggregate population of some 42,000 persons; and on the west three urban, and part of the rural, districts, and an estimated population of 36,000 people? There appears to be some opposition to the motion to borrow money for the purpose of hospital construction through the Local Government Board. As the scheme at present stands, we can quite understand this, but the necessary sanction of that department would at least ensure that the institution was fitted to its purpose, and a good beginning on a small scale would be better than aiming at quantity of a questionable character.

REPETITION OF NOTIFICATION.

DR. E. RICE MORGAN (Morriston, R.S.O., Glamorganshire) writes: As probably many medical men will from time to time be called in to attend cases of infectious diseases that have been the patients previously of another medical man, they will feel the difficulty of knowing what ought to be done with regard to reporting to the medical officer of health under the Infectious Diseases Notification Act. Having carefully read through the Act, I held that the medical attendant had no option but to report every case he attends—whether previously reported or not.

This practice I have always followed, but having had my papers returned by a medical officer of health, who of course very courteously informed me that he had had notification from another medical man, I thought it well to have an authoritative opinion on the subject. Hence I gave the facts and asked for the opinion of the Local Government Board. They bear me out in the view I took. As the subject is probably of sufficient interest to the profession, I enclose this opinion as a guide for future action in similar cases.

"Local Government Board, Whitehall, S.W.,
"November 15th, 1892.

"Sir,—I am directed by the Local Government Board to advert to your letter of the 27th ultimo, inquiring whether you are entitled to claim fees in respect of certain certificates notifying cases of enteric fever, which you transmitted to the Medical Officer of Health for the Borough of Swansea, and which were returned to you on the ground that the cases had been previously notified.

"In reply I am to state that Section 46 (4) of the Swansea Corporation Act, 1889, requires that 'every registered medical practitioner attending on or called in to visit' an inmate of any building used for human habitation, 'shall, on becoming aware that such inmate is suffering from any infectious disease (that is any infectious disease within the meaning of Section 45 of the Act), forthwith fill up, sign, and deliver, or send, to the medical officer of health, at his office, a certificate or declaration,' stating certain particulars of the case, and I am to inform you that the Board are advised that if more than one medical practitioner attends on, or is called in to visit, the patient, each practitioner is bound to send a certificate, and is entitled to the fee prescribed by Section 46 (5) of the Act in respect of such certificate.

"The enclosures to your letter are returned herewith.—I am, Sir, your obedient servant, "C. N. DALTON, Assistant Secretary."

INEFFICIENT VACCINATION.

MR. EDWARD MATTHEWS, L.R.C.S.I. (Redditch), writes: With regard to Dr. Illingworth's letter in the BRITISH MEDICAL JOURNAL of November 26th, I beg to suggest that it would be a great assistance to private vaccinators, and a check to imperfect vaccination, if the certificate form contained a direction that "the child shall be vaccinated in four places." Also it would be useful for statistical purposes if the certificate stated in how many places the child was vaccinated and the number taken effect.

*** It is to be feared that practitioners desirous of following the letter of the law, whilst evading its spirit, would find no difficulty in making four (so-called) "insertions" of a character yielding results no better than those produced by one. Statistics founded on such results would be useless, or at best misleading. The area of vesiculation, in combination with adequate number of insertions, is probably the important point. The half-square-inch of area laid down in the regulations of the Local Government Board is the minimum to be obtained by public vaccinators under contract as the result of four insertions of lymph, but, if it were possible with certainty and without undue local irritation in all cases to secure this area, it would, we imagine, confer equal protection if arising from three or two abrasions of the arm. It is the sufficiency of area of well-foveated vesicles, in addition to their number, to which we must look for protection, and it is just in these respects that inefficient vaccination throws discredit upon the practice.

FALSE REPORT OF CHOLERA.

DR. J. W. COOK, Medical Officer of Health of Tendring, reports thus: "I am glad to be able to announce that there has not been a single case of cholera at Great Bromley, and that the announcements made are without foundation. The scare arose from an unfortunate and thoughtless remark of a young medical man, and has been the cause of considerable work and trouble to me. I have always objected to see the patient of any medical man in my capacity as medical officer of health, but I have very carefully investigated every case of illness, and although there have been cases of diarrhœa and dysentery (as far as I can trace brought on by cold and wet), I failed to find the slightest sign or symptom of cholera."

MEDICAL NEWS.

Sir Wm. Mac Cormac has been elected a member of the Board of Examiners in Dental Surgery of the Royal College of Surgeons, *vice* Mr. Christopher Heath, retired.

Royal Institution.—Among the courses of lectures arranged to be given before Easter is one by Professor Victor Horsley of ten lectures on the brain.

The *Medical News* reports that there are no fewer than 1,774 medical students now in attendance at the medical colleges of Philadelphia, and that these institutions have, since their foundation, granted the degree of M.D. to 21,474 persons.

Bequests and Donations.—The late Mr. Herbert Ellis, of the Priory, East Farleigh, Kent, has by his will bequeathed £200 each to the West Kent General Hospital and the Kent County Ophthalmic Hospital at Maidstone.

Cremation in Switzerland.—As the penal code of Geneva makes no mention of any way of disposing of the bodies of the dead except earth burial, the State Council of that canton has decided to submit to the Grand Council of the Swiss Republic a *projet de loi* legalising cremation.

A committee has been appointed to prepare a supplement to the French Pharmaceutical *Codex*. It includes the names of MM. Brouardel, Planchon, de Beauchamp, Regnauld, Hayem, Pouchet, Jungfleisch, Bourgoin, Gilbert, Petit, Vigier, and Yvon.

Mr. A. W. Bennett, M.A., B.Sc., Lecturer in Botany at St. Thomas's Hospital, will be nominated as the third candidate for the vacant seat in the Senate of the University of London. Convocation presents three names to the Crown, which always selects that which receives the largest number of votes. It will be remembered that the other candidates are Mr. Howse, of Guy's, and Dr. W. J. Collins.

Anderson's College Medico-Chirurgical Society.—At the usual weekly meeting of the above Society on December 10th, Professor J. Macintyre, M.D., read a paper on diseases of the nose and throat, illustrated with microscopic specimens; and Mr. Francois, a native of Natal, gave a paper on Natal as a Health Resort, in the course of which he dwelt largely upon the habits and customs of the natives.

At the last annual meeting of the British Laryngological and Rhinological Association held on December 10th, Dr. Sandford, of Cork, President, in the chair, it was unanimously resolved that Professor von Schroetter, of Vienna, and Dr. Francke Huntington Bosworth, of New York, be elected Honorary Fellows of the Association, both of these gentlemen having signified their willingness to accept.

Italian Congress of Hydrology.—The Italian Hydrological Association held its annual meeting this year at Florence, on November 20th and 21st, under the presidency of Dr. G. S. Vinaj. Among those present was Dr. Winternitz, Professor of Hydrotherapeutics in the University of Vienna. Various papers of more or less scientific interest were read, among them being one by Signor G. Chiari, on Artificial Mineral Waters. This gave rise to an animated discussion, and a resolution was unanimously passed to the effect that, while natural mineral waters are preferable to artificial, the trade in the latter should be so regulated as not to mislead purchasers or interfere with the interests of proprietors of natural waters. This question is to be discussed more fully at the meeting of the International Congress of Hydrology at Rome, in 1893.

American Jottings.—Dr. Barton Cooke Hirst recently reported to the Philadelphia County Medical Society a successful case of symphysiotomy performed by him in the University Maternity Hospital on a young German woman with a kyphotic pelvis. The operation presented no difficulty, and the child, a girl of normal development, was easily extracted. Both mother and child did well. It is believed that this is the first case in which symphysiotomy has been performed in the United States as a substitute for Cæsarean section.—The last United States census shows that one-fifth of the married women of Massachusetts are childless, the point of minimum fertility being Suffolk County, where 23.89 per cent. of the married couples make no addition to the birth-rate. Massachusetts is blest by the presence within its boundary lines of Boston, which, on the testimony of its inhabitants, is the "hub of the universe," and an atmosphere of "culture" pervades the State. Do "braininess" and barrenness go together, or is the gospel according to Malthus accepted as the "perfect way" in Massachusetts?—Charles Dickens, when in America, was much struck by the refreshing frankness with which his personal appearance was discussed in his hearing by the natives. Our transatlantic cousins, in spite of advancing civilisation, still seem to retain this amiable peculiarity of unsophisticated man. The following "elegant extract" which is going the rounds of the American papers refers to a pugilistic celebrity whose name we suppress; it seems to show a charitable anxiety on the part of editors that the subject of the diagnosis set forth in such good set terms should be under no illusion as to his state of health: "—— is now said to be a paralytic. By the long-continued alcoholic soaking to which his tissues have been subjected, the connective tissue elements have become hypertrophied, the increased growth causing atrophy of the muscular fibrillæ. The magnificent development of muscle that won him so many victories has thus given place to a spurious hypertrophy; the bulk remaining, the consistency even increased, but the force has imperceptibly diminished, until he again exemplifies the aged simile of the oak of fair appearance, but rotten at the heart."

MEDICAL VACANCIES.

The following vacancies are announced:

BRECON INFIRMARY, 6, Bulwark, Brecon, South Wales.—Resident House-Surgeon; unmarried; doubly qualified. Salary, £70 per annum, with furnished apartments, board, attendance, fire, and gas. Applications to W. Powell Price, Secretary, by December 26th.

BRIDGWATER INFIRMARY.—House-Surgeon. Salary, £80 per annum, with board and residence. Applications to Mr. John Coombs, Honorary Secretary, by January 1st, 1893.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C. —House-Surgeon. Applications to the Secretary, by December 20th.

CHICHESTER INFIRMARY, Chichester.—House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications to E. E. Street, Secretary, by March 1st, 1893.

COUNTY OF CHESTER.—Medical Officer of Health; doubly qualified. Salary, £100 per annum, and out-of-pocket travelling expenses. Applications to Reginald Potts, Clerk to the Cheshire County Council, Chester, by December 31st.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon. Board, residence, and washing provided. Applications to the House-Governor by December 31st.

GRIMSBY AND DISTRICT HOSPITAL.—Resident House-Surgeon; unmarried, doubly qualified. Salary, £60 per annum, with furnished apartments, board, attendance, fire, and gas. Applications to Joseph Smethurst, Secretary.

HOSPITAL FOR ST. PETER PORT, Guernsey.—Surgeon. Salary, £50 per annum. Applications to the President of the Poor-law Board by December 29th.

HULL ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £40 per annum, with board and lodging. Applications to Chairman, House Committee, by December 26th.

KILLARNEY DISTRICT LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, with allowances valued at £100 yearly. Candidates must be unmarried, and not over 30. Applications to Dr. L. T. Griffin, Resident Medical Superintendent. Election on January 19th.

KING'S COLLEGE, London.—Medical Registrar. Applications to J. W. Cunningham, Secretary, by December 30th.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-on-Trent.—House-Surgeon; doubly qualified. Salary, £120 per annum, increasing £10 yearly, with furnished apartments, board, and washing. Applications to the Secretary by January 21st, 1893.

PARISH OF TONGUE, Sutherlandshire.—Medical Officer. Salary, £165 per annum; house available. Applications to John Murray, Inspector of the Poor, Tongue, Sutherlandshire.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, West Strand.—Clinical Assistants. Applications to the Secretary, by December 31st.

ST. ANDREWS UNIVERSITY, Dundee.—Demonstrator of Anatomy.—Salary, £120 per annum. Applications to the Secretary by December 17th.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Junior Resident House-Surgeon. Salary, £57 per annum, with board, lodging, and washing. Applications to Dr. Crochley Clapham, Honorary Secretary of the Medical Staff, The Grange, near Rotherham, by December 19th.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Senior Assistant House-Surgeon. Salary, £72 per annum, with board, lodging, and washing. Applications to Dr. Crochley Clapham, Honorary Secretary Medical Staff, The Grange, near Rotherham, by January 2nd, 1893.

STOCKPORT INFIRMARY.—House-Surgeon; doubly qualified. Salary, £100 per annum, with board and apartments. Applications to Lieutenant-Colonel S. W. Wilkinson, Honorary Secretary, by December 20th.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE, Cardiff.—A Professor of Anatomy, and a Professor of Physiology. Stipend in each case, £350 per annum. Applications to Ivor James, Registrar, by February 10th, 1893.

UNIVERSITY OF EDINBURGH.—Examiner in each of the following subjects: (1) Anatomy, (2) Chemistry and Laboratory Work for the First B.Sc. Examination in Public Health, (3) Midwifery, (4) Practice of Physic, and (5) Botany. The salary in each of the departments Nos. 1, 3, 4, and 5 is £75 a year, and in No. 2 £90 a year, with an allowance of £10 per annum for travelling and other expenses in the case of Examiners not resident in Edinburgh or the immediate neighbourhood. Applications to M. C. Taylor, Secretary, by January 9th, 1893.

UNIVERSITY OF GLASGOW.—Assistant Examiner in Zoology. Salary, £30 per annum. Applications to the Secretary of the Court, Mr. Alan E. Clapperton, West Regent Street, Glasgow, by January 10th, 1893.

WEST HERTS INFIRMARY, Hemel Hempstead.—House-Surgeon and Dispenser; doubly qualified, unmarried. Salary, £100 per annum, with board, furnished rooms, light, fire, attendance, and washing. Applications to the Secretary by January 31st, 1893.

MEDICAL APPOINTMENTS.

ALLAN, Francis John, M.D.Edin., D.P.H.Camb., appointed Medical Officer of Health for the Strand District, *vice* Conway Evans, M.D.Lond., deceased.

ALLEN, J. D. C., M.B., C.M.Edin., appointed House-Surgeon to Nobles Isle of Man Hospital, Douglas.

ANDERSON, W. H., M.B., C.M.Glasg., appointed Medical Officer for the No. 3 Sanitary District of the Birkenhead Union.

ANDRÉ, Jas. Edward Felix, M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Manhood District of the Westhampnett Union.

BAILEY, S. H., M.B., M.S.Aberd., appointed Medical Officer for the Fifth Sanitary District of the Nottingham Union, *vice* E. C. Buckoll, M.R.C.S., resigned.

BODY, H. M., M.R.C.S., reappointed Medical Officer of Health for the Crediton Urban Sanitary District.

BURTON, Dr., reappointed Medical Officer of Health for the Greenford Rural Sanitary District.

CREASY, Rolf, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Windlesham District of the Chertsey Union.

CULROSS, James, M.B., C.M.Glasg., appointed Medical Officer of the Newton District of the Newton Union.

CUTLIFFE, Montague, appointed Assistant House-Surgeon to the Devon and Exeter Hospital, *vice* Mr. Abram, resigned.

DENNING, F. A. V., L.R.C.P.Edin., L.R.C.S.I., appointed Medical Officer to the Midland Great Western Railway Benefit Society, Sligo.

DERBY, B. G., L.R.C.P.Lond., M.R.C.S., reappointed Medical Officer of Health for the Bodmin Urban Sanitary District.

EATOUGH, Robert, M.B., C.M.Aberd., appointed District Medical Officer of the Saddleworth Union, *vice* George Murray Bramwell, M.D., resigned.

EVANS, William, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health for the Anglesey Rural Sanitary Districts.

EWING, S. A., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Resident Medical Officer for the Victoria Eye and Ear Hospital, Melbourne.

FENTON, John Samuel, M.D.Dub., L.R.C.P., reappointed Medical Officer of Health for Brackley Urban District.

FOSTER, W. F., M.R.C.S.Eng., appointed *pro tem.* Deputy Medical Officer of Health to the Newport Urban Sanitary District.

FRASER, Peter, M.D., B.Sc.Edin., reappointed Medical Officer of Health for the Llangefni Urban Sanitary District.

FROST, J. K., M.R.C.S.Eng., L.S.A., appointed Medical Officer of the Madley District of the Dore Union.

FUSSELL, E. F., M.B.Aberd., M.R.C.P.Lond., reappointed Medical Officer of Health for East Sussex.

GARDNER, W. T., M.B.Lond., M.R.C.S., L.R.C.P., appointed Medical Officer of Health for Acton.

GILPIN, F., M.R.C.S., reappointed Medical Officer of Health to the Stratford-upon-Avon Town Council.

GRAHAM, Charles W., L.R.C.P., L.F.P.S., appointed Medical Officer for St. Cuthbert District, Carlisle, *vice* William Douie, M.D.Edin., resigned.

HOOPER, F. L., M.R.C.S., appointed Public Vaccinator and Health Officer for Mornington Shire, Victoria, Australia.

JONES, Thomas, M.B., F.R.C.S., appointed Professor of Surgery at Owens College, Manchester, *vice* A. W. Hare, M.B., F.R.C.S.Edin., resigned.

LEIGH, W. W., M.R.C.S.Eng., L.R.C.P.Edin., appointed Certifying Surgeon under the Factories Act for Treharris and District.

MANDER, Percy R., L.R.C.P.Lond., M.R.C.S.Eng., appointed Assistant-Surgeon to Dartmoor Convict Prison.

MARTIN, Thomas Berkeley, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Bishopwearmouth District of the Sunderland Union.

MILLARD, E. J., M.B., Ch.M., appointed Junior Resident Medical Officer of the Hospital for the Insane, Paramatta, New South Wales, *vice* Dr. Scott, resigned.

MORSE, Edward, L.R.C.P., L.R.C.S.Irel., reappointed Medical Officer of Health for Torrington.

MULCAHY, P., L.R.C.P.Edin., L.R.C.S.I., appointed Resident Medical Officer at Barrington's Hospital, Limerick, *vice* Michael Lane Riordan, L.R.C.P., L.R.C.S.I.

OLDMEADOW, L. J. H., M.B., C.M.Edin., appointed Assistant House-Surgeon to the Northern Hospital, Liverpool.

OSBURN, Mr. Harold B., appointed Medical Officer for the Bagshot District of the Chertsey Union.

OVEREND, Mr. W., appointed Junior Assistant Medical Officer at the Infirmary of the Fulham Union.

PETHICK, Charles Stuart, M.A., M.B., B.C.Camb., M.R.C.S., L.R.C.P., appointed Medical Officer for the Woolton District of the Prescot Union.

PULLIN, T. H. S., M.D.St.And., L.R.C.S.Edin., M.R.C.S., reappointed Medical Officer of Health to the Sidmouth Local Board.

ROBERTS, Sidney J., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Birmingham General Hospital.

RUSSELL, J. S. Risien, M.B., M.R.C.P., appointed Assistant Physician to the Metropolitan Hospital.

SCRATCHLEY, Henry Wm., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the No. 3 District of the Poole Union.

SOUTHEY, A. J., M.R.C.S., reappointed Medical Officer of Health to the Slough Local Board.

STEELE, H. Octavius, M.R.C.S.Eng., reappointed Medical Officer of Health for Gomersal.

TATHAM, Ernest John, M.D.Camb., M.R.C.S.Eng., appointed Medical Officer for the Township of Halesowen, *vice* W. T. Ord, L.R.C.P.Lond., resigned.

TENNANT, T. H., L.F.P.S.Glasg., appointed Government Medical Officer and Vaccinator for the District of Hillston, New South Wales.

URQUHART, C. T. D., M.B., C.M.Aberd., appointed Physician to the Hospital for Incurables, Aberdeen.

WAGGETT, Ernest B., B.A., M.B., B.C.Camb., M.R.C.S., L.R.C.P.Lond., appointed Pathologist to the London Throat Hospital.

WEDGWOOD, W. Brackenbury, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the King's Lynn Union and North District.

WHITEHEAD, Walter, F.R.C.S.E., F.R.S.E., appointed Professor of Clinical Surgery at Owens College, Manchester.

WRIGHT, Henry, L.R.C.P., L.M.Edin., reappointed Medical Officer of Health for the Gainsborough Rural Sanitary District.

ZIMMER, C. Raymond, M.B., appointed Assistant Government Medical Officer in the Fiji Islands.

DIARY FOR NEXT WEEK.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. Wainwright, introduced by Mr. Shattock: Diseases of Adrenals in an Infant. Mr. W. Arbuthnot Lane: Case of Rapidly-destructive Papilloma of the Penis. Dr. H. D. Rolleston, for Mr. Bull: Sarcoma of Kidney growing down the Ureter. Dr. H. D. Rolleston: Spontaneous Rupture of the Internal and Middle Coats of Aorta leaking into the Pericardium. Mr. J. Jackson Clarke: Case of Squamous Epithelioma of the Septum Nasi due to Psorospermosis. Dr. S. W. Wheaton: A Specimen of Ulceration of the Arm following Vaccination in a Case of Hereditary Syphilis. Dr. F. C. Turner Sarcoma of Both Ovaries in a Child. Card Specimen:—Dr. S. W. Wheaton: Ivory Exostosis of the Skull.

ZOOLOGICAL SOCIETY OF LONDON, 3, Hanover Square, W., 8.30 P.M.

WEDNESDAY.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, W., 8 P.M.

ROYAL METEOROLOGICAL SOCIETY, 25, Great George Street, Westminster S.W., 7 P.M.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, 8 P.M.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

MILWARD.—November 23rd, at Agra, N.W.P. India, the wife of Surgeon-Major E. O. Milward, Army Medical Staff, of a daughter.

ST. LEGER.—On December 11th, at Chalk Hill, Watford, Herts, the wife of Robert A. St. Leger, M.B., of a daughter.

THOMAS.—December 11th, at 13, West Southernhay, Exeter, the wife of Dr. J. Raglan Thomas, of a daughter.

MARRIAGES.

HAY—TUCKER.—December 10th, at St. Swithin's Church, Allington, Bridport, by the Rev. S. S. Keddie, William A. E. Hay, M.R.C.S., son of the late William Henry Hay, M.D., of Bridport, to Louisa, daughter of Richard Tucker, Fulbrook, Bridport.

ROUND—SYMONS.—On the 7th instant, at S. Paul's, Wolverhampton, John Round, L.R.C.P., etc., Aston, Birmingham, to Jessie, second daughter of C. G. Symons, Esq., M.R.C.S., of Wolverhampton.

WOOD—WALTON.—At St. Andrew's Church, Southport, December 8th, by the Rev. Canon Cross, D.D., assisted by the Rev. Wm. Wood, M.A., brother of the bridegroom, Arthur Wood, M.B., C.M., of Southport, to Fanny, second daughter of the late Joseph Brice Walton, Esq., of Leonard House, Southport and formerly of Sowerby Bridge, Yorks. Edinburgh graduates of 1887 please note.

DEATH.

JAMESON.—December 7th, at Francis Street, Newtownards, David Jameson, M.D.Edin., L.R.C.S., formerly Medical Officer, Newtownards Dispensary District.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

Central London Ophthalmic. *Operation Days.*—Daily, 2.

Charing Cross. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operation Days.*—W. Th. F., 3.

Chelsea Hospital for Women. *Hours of Attendance.*—Daily, 1.30 *Operation Days.*—M. Th., 2.

East London Hospital for Children. *Operation Day.*—F., 2.

Great Northern Central. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, Tu. Th., 2.30; Ear, M. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

Guy's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

Hospital for Women, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

King's College. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

London. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

London Temperance Hospital. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

Metropolitan. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

Middlesex. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Th., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

National Orthopædic. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

North-West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, Tu., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

Royal Free. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

Royal Orthopædic. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

Royal Westminster Ophthalmic. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

St. Bartholomew's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

St. George's. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

St. Mark's. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, W., 8.45; females, Th., 8.45. *Operation Day.*—Tu., 2.

St. Mary's. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

St. Peter's. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

St. Thomas's. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), Tu., 4, F., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

Throat, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

University College. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th., 1.30; S., 2.

West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

Westminster. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not Later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted, will be found under their respective headings.*

QUERIES.

Juvenis asks for information as to the prognosis and treatment of anosmia following influenza.

G. M. C. asks where he could get any information as to the personal history of Andreas Vesalius. He would like to know if the great anatomist ever married, and if so whether he had any children, or whether he was fortunate or otherwise in his choice of a wife.

Leeds asks for advice in the treatment of the following case. A lad, aged 16, is almost unable to walk, owing to an inability to extend fully the great toe of each foot. At times the joint at the ball becomes red and painful, which subsides with rest. The toes can be flexed, but not extended beyond the plane of the foot; this affection has existed for about two years. There is no enlargement of the bones, and no other strumous symptoms. His father suffered the same inconvenience for years, when a similar age, but it disappeared in complete adult life. No alteration of the articular surface of the metatarsal bone can be discovered. "Leeds" believes an operation can be done which would remove the upper edge of the bone, bevelling its surface, and thus allowing the phalanx to over-ride.

ANSWERS.

J. M. W.—We have forwarded your letter and enclosure to "Southern Cross."

Persistent Hiccough.

Dr. J. W. Allen (London, N.W.) recommends: R Olei succini ver. 3ss.; liquor potassæ 3j; tinct. camphor. comp. 3iv; mist. acaciæ 3ij; aq. menthæ pip. ad 3vj; Sig. One-sixth every two hours. Two doses usually succeed.

Nitrous Oxide Gas.

J. M. writes: If "W. V. M." would apply to Parkinson's Condensed Gas Company, Stretford, Lancashire, he would get every information, and everything necessary for the administration of nitrous oxide. He can also get a small pamphlet entitled *How to Use Gas*, price 1s. 6d., by E. T. Constant, M.R.C.S., L.R.C.P., L.D.S., published by Messrs. Legg and Co., 289, Regent Street, W.

Economy in the South of France.

Dr. Thomas Linn (Nice, France) writes, in reply to "Enquirer:" Allow me to say that the "quiet village" is dearer than anywhere else. There is only poor accommodation at high prices in them—I refer to Beaulieu, La Turbie, Antibes, Villefranche, Eze, etc. Those who live at Beaulieu have to come to Nice to market. It must be understood that the South of France villages have no accommodation except dear ones, that is, large hotels.

Nice is the only place where "Enquirer" could get reasonable living at pensions from 6s. per day each, and by taking a small furnished lodging in the environs and going to the excellent market, it would be still more moderate.

NOTES, LETTERS, Etc.

Correction.—The meeting at which Dr. C. H. Allfrey stated the case for experimental research as against the antivivisectionists was held at the Working Men's Club at New Hollington, a suburb of St. Leonard's.

Antipyrin in Malaria.

Dr. J. A. Wegg (Jamaica) writes: It may not be wholly uninteresting to learn that we are at present suffering from malarial fever, which in some cases puts on an adynamic form. Antipyrin and sulphate of quinine are very reliable agents for successfully combating it. The doses are pretty large. The fever attacks all persons, irrespective of social, or sexual, or age differences.

"PESSAMISM."

ACCORDING to the *Boston Medical and Surgical Journal* a Mrs. Malaprop recently told a physician that "the doctor said my womb was out of place, and he put in a *pessamist*."

PHYSICIANS' HANDWRITING.

THE Chief Magistrate of Lower Austria has issued an ordinance that henceforth every practitioner of medicine in Vienna must present a specimen of his signature to the President of the Pharmaceutical Guild. Facsimiles of the signature will be sent to every pharmacist in the city. It is not stated whether a translation of the signature will in all cases be appended, but it is obvious how indispensable such a help must be in the case of a profession in which cabalistic handwriting is almost a "note" of celebrity.

CONTAGION.

DR. GEORGE CORDWENT (Milverton, Somerset) writes: As spread of epidemics and notification as a supposed preventive are again warmly discussed, much experience bearing on the subject obtained in a sparsely-inhabited rural district may be to the point.

Of forty-three cases of diphtheria occurring in my practice of inspection in the years 1858-59-60, all were in infants or quite young persons. The majority were in such remote places as made infection by personal propagation in the highest degree improbable—in some I may even say impossible. About two-thirds of the cases proved fatal. Those cases of diphtheria without exception occurred where the domestic surroundings of the patients were as bad as possible; but the prominent fact in each case was unmistakable privy odour; the soil on which those cases of diphtheria occurred was clay over blue lias. I have evidence of the clearest kind that even small-pox will often refuse, as it were, to spread, though occurring where social surroundings in the accepted view appear most favourable to contagion. Two such cases are particularised in my evidence before the Royal Commission on Vaccination.

THE CORONER AND MR. WINKLE.

WE have before had occasion to refer to the Walsall coroner and his inquests. The following episode is reported in the *Walsall Chronicle*: "Mr. Winkle, watchmaker." The Coroner: I must insist on your being sworn..... Mr. Winkle then took the book and kissed his thumb. Police-Constable Pritchard: Kiss the book, if you please, and not your thumb. Mr. Winkle: I shall not kiss the book. The Coroner: I must insist on you kissing the book. Mr. Winkle: Oh, very well, if you want me to. He then kissed the book, and the jury retired to view the body. As the evidence was about to be called one of the jurymen asked if it was in order for Mr. Winkle not to see the body. The Coroner: The law requires that every juryman shall see the body, but Mr. Winkle had stated to him that if he saw the body he would not be able to eat anything for a month. The whole scene was indecorous, but if Mr. Winkle or the Coroner had known the law he could have insisted on being sworn with uplifted hand and without incurring the risks of "kissing the book."

ACCOMPLISHMENTS OF AN ALIENIST.

SOCIETY CLOWN writes: Your correspondent "Insanity" has evidently a grievance; the man with a grievance generally overshoots the mark, and is noted a grievance by all sensible folks. At last, however, he has given an opportunity of testing the common sense of his wonderful formula as applied to army medical officers, namely—"legally non-existent." He quite gratuitously informs us that all our reports, etc., are not "worth the paper" they are written on, and would not be legally recognised. There is a freshness about this kind of information which merits reward, so I present him free gratis with my case as one in point, and ask him to prepare my defence, for my illegality is monumental, and I begin to feel that I am a sort of colossal fraud roaming at large. Let me confess:

For years I have been making entries in seven angry, ponderous volumes, containing innumerable signatures of mine, and concerning deaths, recoveries, treatment, and clinical history incidental to the lives of several hundred patients. I have signed death certificates, and the registrar (*pace* "Insanity") has allowed burial; I have signed orders for removal, and relieving officers (*pace* "Insanity") have both taken away from and given into my keeping insane persons: I have taken affidavits regarding detention and insanity of patients, and, what is more, by leave of my seniors, pocketed the fee; I am daily writing reports, issuing diet dockets, prescribing medicines, extras, etc.—but why waste space? all the while I am a sham! a fully-developed, thoroughly-matured "illegality"! Very well, you have my brief; you can yourself find judge, jury—but "that's another story."

DR. FFRENCH BLAKE (Camberwell Green, S.E.) writes: I also have read the letter of "Sanity" in the BRITISH MEDICAL JOURNAL of November 12th, and can corroborate in the main his statements. In the year 1872 I became a candidate for the appointment of resident medical officer at an asylum, and received a telegram from the then resident medical superintendent, requesting me to go down. This I obeyed. No question was put to me concerning my experience in mental diseases, nor did he inquire whether I was a good cricketer or could play tennis, but he did ask whether I was a good hand at billiards, and if I considered myself competent to amuse the patients and others who might feel inclined to patronise the "show," by a variety of acrobatic performances upon the stage of the very pretty, compact little theatre attached to the asylum, which I had the honour of inspecting.

POISONING BY PRUSSIC ACID.

DR. WILLIAM O'NEILL (Lincoln) writes, with reference to Mr. H. Taylor's case of poisoning by prussic acid, to recall that twelve years ago he published in the BRITISH MEDICAL JOURNAL a case of poisoning by the same acid. In this case a handsome, fair-skinned young man, in a fit of temporary insanity drank an ounce of hydrocyanic acid. Dr O'Neill saw him a few minutes after lying dead on his bed. The first thing that attracted attention was the brilliant violet colour the whole skin presented. Several hours afterwards the violet colour had considerably faded. He thinks it probable that this peculiar violet colour of the skin is only well marked when the quantity of the poison taken has been great, and that it is more or less transient.

UNINFLAMMABLE WOOL FOR CHRISTMAS DECORATIONS.

MR. T. S. DENNISON (Hull) writes: At the coming season of the year house surgeons or others interested in hospitals often assume the *rôle* of "Father Christmas" for the amusement of the patients at the Christmas tree entertainment. In past years we have read of some who have been severely burnt through the wool of which the beard and, often to a large extent, costume is made catching fire from some of the numerous candles which form so important a part of the tree decorations. I wish to point out that these accidents may be absolutely avoided if the wool before being used is soaked in a strong solution of ammonium chloride and then dried, in the same way that salicylic and other antiseptic wools are prepared, except that no glycerine need be used. Thus prepared the wool is practically fireproof, and the only change in it is that it is a little stiff and glossy as though frozen somewhat, but to my mind this is an improvement rather than otherwise, especially if a little "posting" be sprinkled on. I had the wool thus prepared at the hospital where I was house surgeon last Christmas, and I could afford not to trouble about the proximity of my beard to the candles, for I knew that it could not burn.

BARBARIC MIDWIFERY AT HOME.

DR. H. G. MOLONY (Ballingary) writes: A description in the BRITISH MEDICAL JOURNAL of November 19th by MR. C. J. LYONS (British Honduras) of a case of inverted uterus following the second stage of labour, recalled vividly to my mind a similar case I met with six years ago. I was sent for to see a woman living four miles from my house. I found a woman who officiated as nurse still tugging at what she thought was the placenta. This I found to be the inverted uterus with the placenta adherent. The uterus had for several hours been completely inverted, and during that time had been subjected to great violence, and in contact with dirty discharges, fæces, etc. I removed the placenta, washed and replaced the uterus, and gave a rather guarded prognosis of the case. On my next visit my surprise was only equalled by my pleasure at finding my patient without the slightest febrile reaction, and only craving leave to "get up and mind the childher." This bit of "barbaric midwifery" occurred near home in Ireland.

MECHANICAL AIDS IN DIFFICULT DEFÆCATION.

SURGEON-MAJOR WOOLLCOMBE, retired (Stoke, Devonport) writes: Some of the more modern seats in water closets project slightly in front; not that such projection was probably intended for the object dealt with here. If there be no projection, which is the more common form, then by having a slip of wood about three-quarters of an inch deep screwed on to the front edge of the seat, its upper surface being level with the seat, an important purchase is thereby afforded by counter-pressure upwards from the fingers of both hands in passing hard and scybalous stools on the wood; provided, it should be added, there is no hernia present or threatened, or other reason for not greatly reinforcing temporarily the strength of the compressive powers in the abdomen. But there is another method acting ultimately in a similar way, but with greater power, and, it may be said, with a longer reach. Thus, when seated, put both hands behind the back, the thumbs being forcibly pointed upwards on each side of the spine in the direction of the spaces between the spine and scapula, the backs of the hands pressing on the skin over the lumbar region; then, by very slightly approximating the elbows towards each other the palmar surfaces of the thumbs will face forwards at the same time that the backs of the fingers below also face forwards. Both the thumbs and fingers maintaining their previous relative positions should be slowly and with pressure slid down to about the level of the sacrum; this movement should *ab initio* be repeated slowly, and with, if possible, higher reach of the thumbs (a few times will probably suffice), and it will be found that with some scybalous matter there will appear what may not have been seen for a very long time—fæcal matter of continuous form, and not merely the sacculated form of lodgments from the cavities of the colon.

AN ITALIAN REMEDY FOR GOUT.

A CORRESPONDENT writes to say that, having been a martyr to gout for many years, and deriving but little relief from ordinary treatment, he was induced to write to the Lady Superior of the convent at Pistori, Tuscany, for some powder, which he took daily for one year. As the result has been so satisfactory, our correspondent considers that if an analysis of this powder were made and published, it might be of service to others. The powder is of a greenish colour, and has a bitter taste resembling gentian. A microscopic examination shows that it is composed of vegetable tissue with starch granules of two distinct kinds. The bitter principle is extracted by water and alcohol, and from these extracts no alkaloidal body could be obtained. The powder, therefore, appears to be simply a vegetable one containing a bitter principle. A remedy for gout has been in use on the Continent for a very long period, the basis of which is gentian. The "Duke of Portland's powder for gout" is supposed to be this remedy. It is composed of equal parts of the following: Gentian root, birthwort root (Aristolochia rotunda), tops and leaves of germander (Chamœdrys), tops and leaves of ground pine (Chamœpitys), tops and leaves of lesser centuary (Chironoca centaurium). We are of opinion that the powder sent by our correspondent is similar to the above.

INSTRUCTION IN THE ADMINISTRATION OF ANÆSTHETICS.

DR. W. LAWRENCE LISTON (Tewkesbury) writes to point out that adequate means are not provided for teaching all the students the administration of anæsthetics in many of our schools. By that I mean, he adds, no compulsory course; for no system of tuition in medicine can be adequate that is not compulsory, even with modern students. I know that in some schools candidates for resident appointments must bring a certificate in anæsthetics, but no such certificate is required of the general student by his examining boards. There are few qualified general practitioners in the present day who may not have to administer anæsthetics; and in view of the new five years' curriculum, it does not seem inconsistent to me that those bodies that demand a certificate of proficiency in vaccination should also demand one in anæsthetics. The teaching of the subject, it appears to me, might be shared by the senior anæsthetist and his qualified assistants at each school.

Hypnotism, Hysteria, etc.

Dr. G. C. Kingsbury (Blackpool) writes: The only portion of Mr. Hart's address that I wish to refer to, at present, is that which deals with "the therapeutic uselessness and social mischief of hypnotism."

1. As a practical anæsthetic, Mr. Ernest Hart declares hypnotism to be "unavailable," but in the same breath refers to the operations of Esdaile. For argument's sake, Mr. Ernest Hart could not have made a more unfortunate choice, as it is well known to every student of the literature of the subject that Esdaile[1] performed 261 operations painlessly, during hypnotic anæsthesia, including lithotomies, amputations, and the removal of tumours in elephantiasis. Mr. Ernest Hart must also know that medical experts who were appointed by the Indian Government, reported that "complete insensibility to pain was attained by mesmerism in the most severe operations, and its influence in reducing the shock of the operation was decidedly favourable."

It is therefore absurd to talk of hypnotism, as a practical anæsthetic, being unavailable. True, it is not universally available, and no one who employs hypnotism now ever dreams of advocating it as a general anæsthetic, but there are many cases where there is no urgency about operating, in which I fancy hypnotism might be used with great advantage. Surely if one surgeon could in six years find it available as a practical anæsthetic in 261 cases, it is not too much to surmise that nowadays a systematic trial in our hospitals would show that hypnotism is available in a large number of cases; and possibly if this was found to be so, the reports of deaths from chloroform and ether, which almost every week reproach us in the British Medical Journal, would diminish.

2. As a hypnotic, Mr. Ernest Hart declares that hypnotism "is far less certain, far more troublesome, much more rarely capable of application, and much more likely to produce mischief than opium or sulphonal, or any other of a dozen narcotics which are always at hand, are cheap, easily used, and under ordinary circumstances innocuous when properly used."

Whether it was prudent for Mr. Ernest Hart to inform his hearers, even if they were members of a philosophical society, that opium, sulphonal, and any other of a dozen narcotics were safer than hypnotism, I will leave to your readers to decide, but it strikes me that in these days, when insomnia is so common an ailment, this kind of testimonial from so high an authority, is apt to be mischievous. How often does the British Medical Journal record cases of fatal results from the employment of opium, and others of a dozen narcotics? And though I have not yet seen any report of a fatality from sulphonal, I have read of several cases in which alarming symptoms were noticed.

No doubt Mr. Ernest Hart protects himself by adding that the medicinal hypnotics are, "under ordinary circumstances, innocuous when properly used." Now on this footing I challenge Mr. Ernest Hart to produce proof that, "under ordinary circumstances and properly used," hypnotism is "much more likely to produce mischief than opium or sulphonal," and I further challenge him to produce a single case in which hypnotism has brought about a fatal result.

3. In other diseases Mr. Ernest Hart declares that "hypnotism is very rarely useful, generally altogether useless, and often injurious." In support of this dictum Mr. Ernest Hart refers to the "forty years of extensive, patient, and elaborate trial and research by the hundreds of physicians and physiologists who have devoted themselves to the study of the question" without evident advantage. Mr. Ernest Hart does not give the dates of these "forty years," and I think most of your readers will be at a loss to identify them. He cannot refer to the Middle Ages, nor yet to the time of "Mesmer and his dupes," and, coming nearer, he cannot refer to the studies of Braid and Elliotson[2] (1837-50), for he knows that both these medical men claimed to have studied the subject with great advantage, but were hounded down by the medical press of the period. Where, then, were the "hundreds of physicians and physiologists" devoting themselves to the study of hypnotism during the "forty years?" In France, Dr. Liébeault[3] began his investigations in 1860; Charcot commenced his studies in 1878; Bernheim's experiments date from 1882.[4] Liébeault, then, has been studying hypnotism for over thirty years, and still declares himself a believer in its usefulness. Bernheim, with ten years' experience, still employs it. Charcot, on the other hand, whose "vast experience" is appealed to by Mr. Ernest Hart, confesses himself that "at the very outset my studies dealt with hysterical women, and ever since I have always employed hysterical subjects";[5] and Binet and Féré,[6] who were present at Charcot's experiments, tell us that the subjects were not ordinary hysterical women, but belonged to the class of epileptic hysterics. Surely, then, Charcot's studies on some dozen hystero-epileptics can but poorly compare with Liébeault's and Bernheim's investigations on tens of thousands of the ordinary patients coming for treatment.

Mr. Ernest Hart's address ends with a general denunciation of the practice of hypnotism, in which he mixes up electro-biology, animal magnetism, mesmerism, and hypnotism, highly skilful physicians, showmen, impostors, extortioners, impious persons, and "sludge" (whatever that expression means), in such a grand confusion, that there seems to be no distinction between the various elements. One passage, however, I would like to disentangle: "Hypnotism is almost invariably useless, and often dangerous, even in the hands of the most highly skilled, careful, and conscientious physicians."

Here, again, I join issue with Mr. Ernest Hart, and beg of him to publish in the British Medical Journal the evidence of this assertion, which is absolutely at variance with the experience of Liébeault, Bernheim, and many others who have been led by them to try hypnotism.

I do not set myself up as an advocate of hypnotism, my experience has been too short; but I do claim that the subject is worthy of serious investigation, and that its fate should not be settled offhand by Mr. Ernest Hart.

[1] *Mesmerism in India*, London, 1846. *The Introduction of Mesmerism with Sanction of Government, into the Public Hospitals of India*, London, 1850.
[2] *Surgical Operations in the Mesmeric State*, London, 1843.
[3] *Du Sommeil et des Etats Analogues*, Paris, 1866.
[4] *Suggestive Therapeutics*, 2nd edition, London, 1890.
[5] *The Forum*, January, 1890.
[6] *Animal Magnetism*, London, 1888.

Mr. Albert E. Davis (Liverpool) writes: We may as well argue that spinal paralysis due to organic change is hysterical, as have we not daily all the symptoms of spinal paralysis reproduced in hysteria? The fact that Professor Charcot discovered in ten years' practice in the Salpêtrière about a dozen hysterical persons who could simulate hypnotic states to my mind proves nothing. As to Professor Charcot's opinions and experiments, I, in common with all other hypnotists outside the circle of his disciples, refuse to grant them one atom of evidential value, until he experiments on healthy brains and not on hysterical or hystero-epileptic subjects. I maintain, by my own experience and that of all other hypnotists except the Charcot school, that the normal healthy brain is the one in which the best results are obtained, and not with "the number of persons whose nervous system is in this (?) unstable condition." If this sentence of Mr. Ernest Hart's is true, then 20 per cent. of the population must have unstable nervous conditions, for I will make that percentage insensible to pain. I grant that hypnotism is at present uncertain; this I believe to be due to scanty knowledge of the subject, and when this is remedied I believe that 80 per cent. of our over-much vaunted drugs will be relegated to oblivion. This uncertainty makes it inferior to chloroform and other narcotic vapours, I admit, but I emphatically deny that it is "more likely to produce mischief than opium or sulphonal."

How are we to eliminate this uncertainty when we are frustrated by so-called scientists (I say so-called advisedly, because a true scientist is willing to search for and acknowledge new truths even at the expense of sacrificing old beliefs) hounding us down and holding us up to public opprobrium as dangerous characters, and so, as in my own case, preventing us in a large number of cases from using it as a remedial agent? I deny that it is "almost invariably useless even in the hands of the most highly skilled, careful, and conscientious physicians," and that "the confirmed and trained hypnotic subject is a maimed individual in mind and body, and liable at any time to be dangerous to himself and to society."

Since Mr. Ernest Hart says instances are so common, I challenge him to mention ten authentic cases within the last five years in which it has proved dangerous to, or maimed the minds of persons possessing previously healthy brains, and trained by physicians taking the ordinary precautions laid down to prevent harmful results.

Sixpenny Doctors and Vaccination.

Dr. P. M. Davidson (Congleton) writes: Although not a sixpenny doctor, I am one of those who do not make four marks in vaccinating, having always believed them to be unnecessary, and, singularly enough, I have been confirmed in that belief by a comparatively recent study of the reports of the Sheffield epidemic, and of the London Small-pox Hospital, which Dr. Illingworth cites in support of his charge of dishonesty. In that report it is stated that private practitioners vaccinate in fewer places than public vaccinators; that the attack and death-rates are greater the fewer the marks, and that consequently the attack and death-rate among those vaccinated by the private practitioners is greater than among those done by the public vaccinator. Dr. Barry found that, under 10 years of age, 57,532 children were vaccinated by the public vaccinators, and 38,836 by private practitioners; that of these, 451 were attacked with small-pox; 358, or one attack in 161, of the public vaccinations, and 93, or one attack in 364, of the private vaccinations, showing—although Dr. Barry did not attempt or mean to show it—that the bad vaccination (dishonest vaccination of Dr. Illingworth) of the private practitioners was more protective against attack than the good, honest, and disinterested vaccination of the "struggling" public vaccinator in the proportion of 2.27 to 1 (Sheffield report, pages 184, 5, 6, and 7). I do not wish anyone to suppose that I contend that private vaccination is really more protective than public, because that is an absurdity, but Dr. Barry's report shows that it is more than twice as much so, and as, from the nature of it, he was able to ascertain this fact with more accuracy than any of his other statistical facts, are we not entitled to say that his report is very unreliable? He would, no doubt, find the death-rate, according to his view, lower in the publicly vaccinated, but the fallacy of such contention should be as easily demonstrated as in the case of the attacks, only it would involve this letter reaching a length I wish to avoid, and I content myself for the present with merely remarking that, seeing the attack-rate in the privately vaccinated is considerably more than twice as small as in the other class, it is necessary for them to die at more than double the rate in order to get on an equal footing with the publicly vaccinated, and so become proper subjects of comparison. If Dr. Illingworth can point to any fact in the Sheffield report as strongly supporting his contention as this condemns it, and supports the opposite view, I may be induced to abandon my bad habits, and join him in denouncing dishonesty of our brother practitioners who still decline to be converted.

Food Poisoning and the Local Government Board.

With reference to the recent food poisoning occurrences and the reports published in the British Medical Journal, the London Correspondent of the *Manchester Guardian* says: "The whole question of food poisoning requires thorough investigation, and, looking to the large consumption of tinned foods by the working population it is important that this should be carried out without much longer delay. More than a dozen cases have been recently reported of poisoning by unsound food, and no doubt a much larger number of cases of severe illness occur in which the cause is either unsuspected or unreported. The Local Government Board, I hear, have for some time had the matter under their notice and have given some attention to it. But their scientific staff is so utterly inadequate that with much overwork they cannot even cope with their ordinary and necessary routine duties, and the Treasury allowance is so small that they are quite unable to undertake any fresh inquiries of however urgent a character."

Sewer Gas plus Fogs.

E. J. T. writes: Many thousands of sewer-ventilating pipes are now pouring sewer gas into the atmosphere of London, and quite harmlessly, so long as there is wind to carry it away. It is, however, a very grave question to know what becomes of the sewer gas when fog settles down

in some part of London or lazily creeps over town, from east to west. It is possible that some reaction may take place between the component parts of the gas and fog? But I doubt it until it shall have been proved by careful chemical analysis. Till then I think it most likely that the two are merely mixed, and come down together to be breathed by all living creatures, and to cover all our household gods with a grimy film of filth. Five millions of human creatures cannot breathe fog and sewer gas for several weeks together during six months without it giving rise to a lowering of vital power and to the development of disease or to its increase. Some years ago you, Sir, gave some of your great energy to the founding of a society for the abatement of London fog, and under your auspices there was an exhibition at South Kensington Museum of smoke consuming stoves suitable for ordinary London houses. Surely it is high time to revive this society, and to offer handsome prizes for the best stoves of this description. This society should also see that there be no relaxation of whatever law has been already made for the consumption of their smoke by large factories. This is all the more necessary if what I have seen in print be true, that the London County Council has not been so careful in this respect as the old Board of Works used to be. All this will be useless unless Parliament enacts that private houses should consume their own smoke. This might be made imperative for all houses constructed after the passing of the Act—houses having a rental of £100 or upwards. It might also be enacted that the owners of all other houses with a similar rental should be obliged to do the same after one, two, or three years. It must be well borne in mind that stoves to be introduced into common use must be effective, safe, and cheap or it will be beyond the power of Parliament to bring them into use.

CONGENITAL SYPHILIS AS A CAUSE OF NERVOUS DISEASES IN CHILDREN.—DR. S. JOHNSON TAYLOR (Norwich) writes: I have read with much interest Dr. Hadden's paper on the above subject in the BRITISH MEDICAL JOURNAL of November 26th. I feel convinced that congenital syphilis is more frequently at the bottom of nervous diseases than is generally imagined. Only two days ago I saw a child, aged 14 months, with nystagmus of each eye, most marked in the right, and noticed by the father the day before she was brought to me. The child appeared to see well; there was no history of ophthalmia neonatorum, corneal ulcer, nor indeed of any previous affection of the eyes; the media were quite clear, and the fundus normal in each, no trace of choroiditis, etc., could be detected on careful examination under chloroform with the pupils dilated. But there was a very well-marked and undoubted family history of congenital syphilis in the other children as well as in the subject of my remarks, who, though a healthy-looking infant, has snuffles now and has had thrush in the mouth, with a rash about the buttocks. In the absence of any detectable disease of the eyes, I presume I may pretty safely refer the condition to a central cause, and, with the above history, may not go a step further and infer it to be of specific origin? I have, at any rate, prescribed pulv. hyd. c. creta with syrup. ferri iodidi, and shall watch the case with interest. I believe that many of these apparently obscure cases of nystagmus are due to the influence of central specific mischief. It may, of course, be urged that my patient is the subject of congenital amblyopia, and that the nystagmus is the result of that; but, in the first place, the child apparently sees as well as other children of the same age, and the nystagmus has only, seemingly, quite recently come on; and, in the second place, such a view would not help us much out of the difficulty, for under the circumstances we should, I think, be justified in referring the congenital amblyopia to a specific taint. Dr. Hadden did not specially mention nystagmus amongst his cases, so I thought these few remarks might be of interest to him and others.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) J. Adam, M.B., Hamilton; Mr. A. R. Anderson, Nottingham; Aqua; Mr. T. P. Atkinson, London; Mr. C. H. Allfrey, St. Leonards-on-Sea; A.M.S.; Professor Clifford Allbutt, Cambridge; Mr. T. D. Acland, London. (B) Mr. A. H. Benson, Dublin; Professor G. Buchanan, Glasgow; Mr. W. E. Burton, London; Dr. J. M. Booth, Aberdeen; P. Birt, M.B., Louth; Mr. W. G. Bott, London; Mr. J. Bourne, London; Mr. B. Brooks, Hull; E. C. Baber, M.B., Brighton; Mr. Bloxam, London; Mr. R. D. Boase, Penzance; Dr. G. A. Bannatyne, Bath; Mr. A. H. Beal, London; Mr. A. W. Blyth, London; Mr. M. Barnes, Welwyn. (C) Mr. J. B. Cox, Lynn; Candidate; H. W. Cross, M.B., Norwich; Dr. G. Cordwent, London; Dr. J. L. Callaghan, Colyton; Mr. J. G. G. Corkhill, Southport; Mr. J. B. Campbell, London; Mr. B. F. C. Costelloe, London; Mr. H. Collier, London; C. R. E.; Dr. R. Caton, Liverpool; Mr. H. B. Chapman, London; Mr. S. W. Churchill, Atherstone; Mr. M. Carteighe, London; Professor Charcot, Paris. (D) Dr. E. Deanesly, Wolverhampton; Dr. H. Didama, Swansea; Mr. W. T. Dyer, London; Mr. T. S. Dennison, Hull; Mr. P. M. Davidson, Congleton; Mr. M. P. Dunn, London; Mr. H. Dale, Teignmouth; Mr. A. D. De Beer, Kimberley. (E) Mr. W. P. M. Eldonney, Poole. (F) Mr. H. Fox, Newcastle-on-Tyne; Miss Frohnstein, London; Sir J. Fayrer, London; Sir Walter Foster, London; Mr. F. Fox, Strathpeffer; Dr. Fernandez, Ross; Mr. L. Farrer, Slough. (G) Mr. J. Gray, London; W. Gardener, M.B., London; Dr. Gwynn, London; Dr. R. Gibson, Queensland; Dr. E. Ground, Maidstone; Mr. C. W. Graham, Carlisle; Dr. N. Guborn, Brisbane; Dr. J. Gordon, Brockley; G. M. C. (H) Dr. F. de Havilland Hall, London; Mr. G. Harling, London; Dr. T. Horne, Stockton-on-Tees; Humane; Dr. J. Hunter, Linlithgow; Mr. A. Haviland, London; Dr. A. E. Hay, Glasgow; Dr. J. V. Hunt, Cardiff; Mr. C. Heath, London; Dr L. Henry, Melbourne; Mr. T. G. Horder, Cardiff; Dr. J. Highet, Workington. (I) Dr. H. J. Ilott, Bromley. (J) Mr. C. Johnston, Ballymena; J. D. M.; J. P. L.; J. M.; Juvenis. (K) Mr. B. Kuhn, London; Dr. A. A. Kanthack, Liverpool; Dr. E. Klein, London; Mr. C. B. Keetley, London; Miss Krocker, Liverpool; Dr. James Kerr, Bradford; Mr. A. P. King, London; Dr. G. C. Kingsbury, Blackpool. (L) Mr. W. W. Leigh, Glyn Barjoca; Dr. L. Linn, Nice; Miss E. Loredo, Bournemouth; Mr. R. A. Lindie, Edinburgh; Leeds; London and Counties Medical Protection Society, The Secretary of the, London; J. Limont, M.B., Newcastle-on-Tyne; Dr. G. H. Lilley, Portland; Dr. E. Law, London. (M) Mr. A. McLeod, London; Dr. J. W. Moore, Dublin; Mr. T. Mann, London; Medicus; Dr. K. McLeod, London; Member of the B. M. A.; Mr. A. E. Maylard, Glasgow; Dr. A. K. Morgan, Bournemouth; Dr. W. W. Moore, Burgess Hill; A. E. Munro, M.B., Paisley Dr. S. Martin, London; Mr. E. J. Millard, London; Dr. G. Mundie, Canterbury; Mr. J. K. Macdonald, London; Dr. T. Marshall, Bridgwater; Mr. E. R. Morgan, Morriston; Mr. J. H. Main, Reforne; Mr. J. Mivillan, London; M.R.C.S.; Mr. H. C. Moore, Hereford; Mr. J. H. Murray-Aynsley, Christchurch, N. Z. (N) Mr. G. W. Newman, Rhayader; Messrs. Newton Chambers and Co., London; Mr. A. E. Neale, Arlesley. (O) Owens College, The Secretary of the, Manchester; Dr. W. Ogle, London; Dr. I. Owen, London; Obconica, Daventry; Mr. H. Owen, London. (P) Mr. T. Proctor, Oldham; Mr. D. J. Preston, Blackpool; Mr. R. Potts, Chester; Mr. T. H. Pounds, Derby; Mr. H. C. Paull, Luton; Mr. A. Perry, Ceylon; Mr. F. Pilkington, Littlemore; Mr. B. H. Paul, London. (Q) Sir Richard Quain, London. (R) Dr. G. Reid, Stafford; Dr. W. Robertson, Newcastle-on-Tyne; Royal National Pension Society for Nurses, The Secretary of the, London; J. S. R. Russell, M.B., London; Mr. Henry B. Robinson, London; Dr. W. R. Rice, Coventry; Dr. J. Ross, Bowmore; Dr. M. Ruffer, London; Dr. J. B. Robinson, Halstead; Mr. J. H. Rech, Cape Colony; Mr. W. Robinson, Stanhope; B. Rogers, M.B., Clifton; Mr. E. L. Robertson, Wimbledon; Mr. R. Roberts, Isault. (S) Dr. L. E. Shore, Cambridge; Mr. S. Snell, Sheffield; Society Clown; Dr. W. R. Smith, London; Mr. S. Sykes, Charlton Kings; Dr. Savage, London; Mr. C. S. Sherrington, London; Mr. Morton Smale, London; Straightforward; Mr. R. R. Sleman, London; Dr. R. Saundby, Birmingham; Dr. R. Stevenson, London; Messrs. L. P. Segg and Co., London; Mr. N. Stevenson, London; Mr. M. Stewart, Glasgow; Mr. H. Sturge, New Eltham. (T) Mr. J. F. Twist, Aberkenfig; Professor Tyndall, Haslemere; Mr. R. F Tobin, Dublin; Dr. F. C. Turner, London; Dr. J. R. Thomas, Exeter. (W) Mr. A. G. Welsford, Winterbourne; Mr. A. W. H. Walker, Helorean; Mr. F. F. White, Coventry; Mr. C. E. Wright, Edinburgh; Mr. J. R. N. Woolcoomb. Devonport; Mr. F. Warren, London; Mr. H. Wollheim, London; Mr. W. Wimpore, London; Mr. A. Welsford, London; Mr. W. B. Wedgwood, Lyme; Mr. T. Wilson, Wallsend; W. Walsh, M.B., London; Dr. R. Williams, Liverpool. (X) X. Y. Z. (Z) C. R. Zimmer, M.B., Rotherham; etc.

BOOKS, ETC., RECEIVED.

An Elementary Textbook of Physiology. By J. M'Gregor-Robertson, M.A., M.B. Second edition, revised and enlarged. London: Blackie and Son, Limited. Price 4s.

Transactions of the Pathological Society of London. Volume xliii, comprising the Report of the Proceedings for the Session 1891-92. London: Smith, Elder, and Co. 1892

Yearbook of Pharmacy, comprising Abstracts of Papers relating to Pharmacy, Materia Medica, and Chemistry contributed to British and Foreign Journals, from July 1st, 1891, to June 30th, 1892, with the Transactions of the British Pharmaceutical Conference at the Twenty-ninth Annual Meeting, held at Edinburgh, August, 1892. London: J. and A. Churchill. 1892.

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March Hares and their Friends. London: Dean and Son, Limited. Price 3s. 6d.

Vaccination Eruptions: Original Research. By Thomas Dobson Poole, M.D. Edinburgh: E. and S. Livingstone.

Symptoms and Physical Signs: A Formulary for Clinical Notetaking, with Examples. By William Ewart, M.D.Cantab., F.R.C.P. London: Baillière, Tindall, and Cox. 1892. Price 2s.

The Hygiene of the Ear. By Dr. Vincenzo Cozzolino. Translated from the Fifth Italian Edition by James Erskine, M.A., M.D. London: Baillière, Tindall, and Cox. 1892. Price 1s.

A Manual of Practical Medical Electricity. By Dawson Turner, B.A., M.D. London: Baillière, Tindall, and Cox. 1893. Price 7s. 6d.

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The Principles of Theoretical Chemistry, with Special Reference to the Constitution of Chemical Compounds. By Ira Remsen. Price 7s. 6d.

*** In forwarding books the publishers are requested to state the selling prices.

SIXTIETH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

OBSTETRIC MEDICINE.

ALFRED LEWIS GALABIN, M.D., President.

ON THE TREATMENT OF *POST-PARTUM* HÆMORRHAGE,

BEING AN INTRODUCTION TO A DISCUSSION BY

G. ERNEST HERMAN, M.B.Lond., F.R.C.P.,
Obstetric Physician to the London Hospital; Physician to the General Lying-in Hospital; formerly Physician to the Royal Maternity Charity.

PRELIMINARY.

NATURE and art alike stop bleeding by pressure. A torn artery contracts, and its muscle presses together its walls; the surgeon compresses cut vessels with forceps, ligature, or pad. In the retracted uterus the muscular fibres compress and close the veins. The best treatment of *post-partum* hæmorrhage is that which secures closure of the veins by compression. No means but pressure is relied upon by surgeons who deal with other parts of the body; and in the treatment of *post-partum* hæmorrhage nothing can be relied upon that does not ensure compression of the bleeding vessels.

PREVENTION.

Nature prevents *post-partum* hæmorrhage by the retraction and contraction of the uterus, always present when the child is naturally born, and persisting after delivery. The surest way to produce *post-partum* hæmorrhage is to drag out the child or the placenta at a time when contraction is absent. A method of hastening delivery—forceps, breech, or foot traction—should only assist the action of the uterus, never replace it. In any case of delay in delivery, accurate diagnosis of the cause of delay is essential for the safe management of the labour. If this cause be mechanical obstruction with tonic contraction of the uterus, or if labour is lingering because the pains, although regular, are weak, in these cases it is good practice to help delivery by pulling. Uterine contractions not strong enough to expel the child within the usual limit of time, may be quite strong enough to expel the placenta and compress the uterine veins. But if the delay is due to cessation of pains, the condition to which Dr. Braxton Hicks has given the name of "temporary passiveness," and Scanzoni that of "secondary uterine inertia," extraction of the child during this condition is almost certain to be followed by hæmorrhage, because uterine retraction and contraction are absent. In this condition there can be no necessity for hasty delivery, for damage from pressure cannot happen while the uterus is inactive.

This principle is most important in cases of placenta prævia and accidental hæmorrhage, for here pains are often absent. In these grave conditions the patient is not safe till she has been delivered. From this sound proposition too often is deduced the maxim for conduct, "deliver as quickly as possible," the results of which are often disastrous. Because the patient is not safe till she is delivered, it does not follow that she is safe when she has been delivered. Delivery, in *ante-partum* hæmorrhage, is a means to an end, the end being the procuring of uterine contractions. If this end be not attained the patient's state after delivery is worse than it was before; for while the child is *in utero* it is possible, by means of the binder, or, in placenta prævia, by bringing down the half breech into the os, to get some pressure on the bleeding part while we wait for uterine contraction. The right line of treatment is first get uterine contraction, then deliver. I make no apology for what may seem a digression, for some of the worst cases of *post-partum* hæmorrhage that I have seen are those which have followed hasty delivery in *ante-partum* hæmorrhage.

The principle not to deliver in the absence of uterine contraction is the first point in the prevention of *post-partum* hæmorrhage. Pulling away the placenta without waiting for uterine contraction is so well known to be dangerous that I need not say more about this. I am not sure that the importance of giving time for the proper detachment of the membranes, and of looking at them to see that the whole of the chorion has come away is so general as it should be. If the placenta is squeezed or pulled out before the membranes are separated, a bit of chorion may be stripped off the amnion instead of off the uterus, and so be retained and afterwards cause hæmorrhage.[1] However natural the delivery of the placenta and membranes, it is important to see that the whole of the chorion is removed. There may be a placenta succenturiata, and, if so, this can be ascertained by the gap in the chorion, but in no other way, except by the hand in the uterus.

If due time is given for the natural separation and expulsion of the placenta and membranes from the uterus, it matters very little whether the placenta is pushed out of the vagina by pressure from above or pulled out by the cord. The advantage of the Dublin or Credé's method of delivering the placenta from the vagina is that it ensures the prompt discovery and treatment of failure of uterine action.

These two points: care not to extract child or placenta when the uterus is not contracting, and close supervision of the third stage of labour, are the chief precautions for the prevention of hæmorrhage.

TREATMENT.

The *post-partum* hæmorrhage I deal with is the common kind, namely, that due to uterine atony. The modes of stopping bleeding after labour may be divided into three groups, according to their principal aim, which is:

1. To make the uterus contract.
2. To compress the bleeding veins.
3. To clot the blood.

In all cases we first try to make the womb contract—in most with success. Cases are fortunately rare in which the womb will not contract and we have to do something else.

There are three ways of making the uterus contract, namely: 1. Direct stimulation. 2 Indirect stimulation. 3. Drug stimulation.

I. DIRECT STIMULATION.

(*a*) *Kneading with Hand Outside.* — Kneading the uterus through the abdominal wall comes first, because it is quickest. The attendant's hand is always ready, while everything else takes time to prepare. It is almost always successful for the time, and in the slighter cases its repetition at intervals is enough.

(*b*) *Hand Inside.*—But in some cases the response of the uterus to stimulation from outside is not lasting. The second step is to pass the hand into the relaxed uterus. This not only stimulates the uterus, but by it we gain help in diagnosis and prevention. The business of the intrauterine hand is to find out if there be anything in the womb which is causing the bleeding, such as retained placenta or membrane, or clots, or a tumour, and, if there be, to remove it. If there is a cause which we have removed, continued stimulation from outside will generally secure continuance of uterine contraction.

(*c*) *Injection of Hot Water.*—But the contraction provoked by the contact of the hand with the inside of the womb may not last. The repeated introduction of the hand is undesirable. The next thing to be done is the injection into the uterus of hot water. This directly provokes contraction, and does good in another way, because it washes out loose clots, bits of membrane, etc., small enough to elude the hand, and yet better out of the uterus. It seems as if the hotter the water the greater the effect. Water in which the accoucheur can bear to immerse his hand will not injure the tissues, although it may be a little hotter than the patient likes. There is, therefore, no need to lose time in taking the temperature of the

[1] See Runge, *Med. Times and Gazette*, 1880, vol. ii, p. 593.

water; the accoucheur's hand (not finger) is sensitive enough.

(*d*) *Cold Water or Ice.*—Cold water may be used instead of hot water, or iced water, or a lump of ice may be put in the uterus or in the vagina. But ice is not generally available when wanted, while hot water is always ready in the lying-in room, and, to an exhausted patient, warmth is more grateful than cold.

(*e*) *Electricity.*—Electricity has been recommended, and doubtless a powerful current would stimulate the uterus as it does any other muscle. But even if the accoucheur should have with him a portmanteau containing a powerful battery, the time consumed in getting the electrodes fit for action will be better spent in using quicker ways of stopping the bleeding.

II. Reflex Stimulation.

Two modes of reflex stimulation are in common use, which act through the nerves (*a*) of the skin, (*b*) of the breast. (*a*) Ice or cold wet napkins to the vulva, slapping the abdomen with a cold wet cloth, pouring cold water on the abdomen, are familiar and old. They undoubtedly cause reflex contractions of the uterus, but drenching with cold water makes the patient uncomfortable, and depresses her strength, as Madame La Chapelle pointed out. The milder measure of a cold wet cloth is less objectionable, but it is not superior in effect to kneading the uterus with the hand. But if the accoucheur is tired of kneading, or has to do something else with his hands, a cold wet cloth applied by the nurse may be a useful temporary substitute. (*b*) Putting the child to the breast is so harmless that this should always be done. But the time generally taken in this prevents it from being of immediate use, although it is valuable as a means of keeping up the contractions procured by kneading the uterus.

III. Drug Stimulation.

Ergot.—There is one drug, and only one, which produces uterine contraction and retraction, and that is ergot. Other drugs have been advised, and good results reported from them, but there are none that approach ergot in power. But in the worst cases we cannot wait for the absorption of ergot, for even when the drug or one of its derivatives is injected under the skin, there is still time for fatal hæmorrhage before its action on the uterine muscle begins; and the worst cases of hæmorrhage are those in which the contractile power of the uterus is exhausted, and then even ergot fails. Ergot is invaluable, but its chief uses are (*a*) as a prophylactic, given immediately after the birth of the child, and (*b*) after bleeding has stopped, to make tonic the contraction produced by other means.

Treatment of Exhaustion of Contractile Power.

But the worst cases of *post-partum* hæmorrhage are those in which the contractile power of the uterus is exhausted, and no kind of stimulant will procure tonic contraction. We must here rely on either pressure, blood clotting, or a combination of both.

Perchloride of Iron.

The injection of perchloride of iron solution stimulates the uterus to contract and clots the blood. It is the clotting that is valuable, for the stimulant effect can be got by other means. The cases in which the clotting is required are those in which the uterus has lost its contractile power; we, therefore, leave off trying to make it contract, and act directly on the blood. The objections to this treatment are, first, that it is dangerous:

(*a*) Death has occurred from pumping a quantity of fluid into the uterus, for the uterus will not tolerate sudden distension, although it will submit to gradual stretching. To avoid this we ought to use a double-channelled tube, or put two fingers in the cervix with the tube between them. Either precaution lessens but does not remove the danger. Bleeding is still going on and the injection clots the blood, and the clots may be carried down by the reflux and stop up the channel for the back flow of fluid.

(*b*) A clot may be carried from a uterine vein into a pulmonary vein and plug it, and thus cause death. A clot formed artificially in a vessel with an open channel is quite a different thing from one formed in a vessel the walls of which are firmly pressed together.

(*c*) The iron solution may run along the Fallopian tube into the peritoneal cavity and set up peritonitis. (The two latter accidents have as yet not occurred from the injection of iron for *post-partum* hæmorrhage, though they have resulted from its intrauterine injection for hæmorrhage of other kinds.)

(*d*) If these immediate dangers are escaped, the uterus is not left in a physiological condition. It ought to be contracted and empty. It is left dilated and full of clot. This clot may decompose, and thus the patient has an additional chance of septicæmia.

Secondly, the injection of perchloride of iron is not always successful. In the *St. Thomas's Hospital Reports*, between 1872 and 1880, I find 5 failures recorded. Galabin[2] states that out of 12 cases in the Guy's Charity in which the ferric solution was used 5 died. It may be urged that cases in which death took place are not always failures to arrest hæmorrhage, for the patient may have died from the effect of the loss of blood which had occurred before the treatment was used. But in a paper by Pollard[3] I find 3 cases in which hæmorrhage recurred after the iron had been injected. Two others are recorded in the Obstetrical Society's *Transactions*, vol. xx. My conclusion is that the injection of perchloride of iron, although its effect is to check hæmorrhage, yet is neither safe nor certain.

Plugging the Uterus.

Lately a new treatment has come from Germany, namely, plugging the uterus with iodoform gauze. It is claimed that, by packing the uterus with gauze the flow of blood from the vessels is mechanically hindered, and that the presence of the gauze provokes energetic uterine contraction. It will be evident also that the threads of the gauze furnish a surface well adapted to provoke clotting of the blood. Its advocates say that the bleeding is stopped by the powerful contraction of the uterus on the gauze plug, which is a continuously-acting stimulant. They say, further, that if the doctor has gauze with him he is saved the trouble of exact diagnosis of the cause of bleeding, for gauze plugging is the best way of stopping hæmorrhage from lacerations of the canal (except in the case of tears of the vulva, which can be easily seen), and therefore in hæmorrhage of uncertain origin the best plan is to plug both vagina and uterus. Dührssen[4] (to whom we are indebted for this mode of treatment) recommends prophylactic plugging instead of waiting for hæmorrhage to become serious. It must be admitted that, if the uterus is to be plugged, there is no better way of doing it than with iodoform gauze.

Any treatment of *post-partum* hæmorrhage that is largely used as a prophylactic in slight cases will show a great percentage of lives apparently saved, for cases of dangerous *post-partum* hæmorrhage are rare. Galabin[5] found from the Guy's statistics their frequency to be 1 in 2,040. I find the proportion in the St. Thomas's Charity to be 1 in 2,172.[6] Hegar[7] gives the number in Prussia at 1 in 3,131. Hence, when we find a large number of cases reported within a short time, the presumption is that many of them were slight. We must judge the effect of treatment of *post-partum* hæmorrhage rather by the fewness of failures than by the number of apparent successes. Fritsch[7] has published a case in which death from atonic hæmorrhage took place in spite of the plugging; and others, in which the cause of death was less clear, have also been published. The introduction of the gauze has a danger of its own. Vavra[8] relates a case in which sudden death took place from entrance of air into a uterine vein while the gauze was being put in. This treatment, therefore, is neither certain nor safe. It is, like the injection of a styptic, unphysiological, for the uterus cannot be completely contracted while the gauze is inside it. In one reported case the uterus expelled the gauze. Surely this could hardly be called uterine atony.

Continuous Compression.

If the uterus can be got to contract, and remains contracted, bleeding will stop. When the uterus responds either to iron injection, or to gauze in its interior, by vigorous contraction, it will respond to other means. The worst cases are those in which the contractile power of the uterus is exhausted, and nothing will procure tonic contraction. Here the best and only remedy is prolonged and continuous compression. The uterus is too large to be compressed by one hand unassisted. Various modes of compression have been advised. One is to

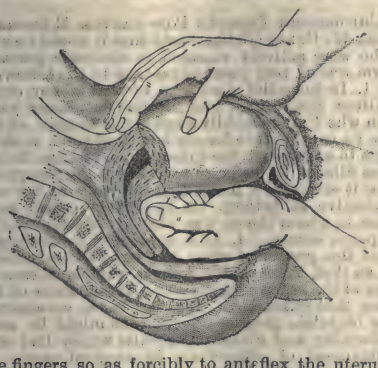
[2] *Midwifery*, 1st edition, p. 694.
[3] BRITISH MEDICAL JOURNAL, 1880, vol. i.
[4] *Sammlung klin. Vort.*, Leipzig. No. 347.
[5] *Midwifery*, 1st edition, p. 687.
[6] *Reports*, 1871-89.
[7] Dührssen, *op. cit.*
Cent. für Gyn., 1890, S. 353.

press the uterus backwards, with the hand in front of it, so as to compress it between the hand and the spinal column. But the spine forms a convexity with a hollow on each side, and the uterus, when pressed back against it, is apt to slip to one side of the spine, into a place where it cannot be so well compressed. Another suggestion is to put the hand behind the uterus, and compress it between the symphysis pubis and the hand. Here the pressure of the symphysis is limited to a small area of the uterus.

It has been advised to combine the two hands by putting one hand in the uterus and the other outside. This has been varied by substituting for the internal hand a dilated bag. Thus the uterus is compressed all round, within and without. But the objections to the use of iron to clot the blood and to plugging the uterus with gauze, apply with greater force to this proposal. The uterus cannot contract properly with the hand or an inflated bag within it; and the procuring of uterine retraction must be the final aim of all our treatment, for by it alone can hæmorrhage be permanently stopped. We get by this means temporary compression at the expense of hindering the permanent natural compression which we want. There are other objections: the bruising of the uterus, which cannot be avoided, and the keeping open a channel through which germs of disease may get to the inside of the womb.

The right way, in my opinion, is to compress the uterus between one hand in the vagina and the other on the abdomen. In the left lateral position the left hand will naturally be used internally, the right outside. The internal hand may be laid flat (as suggested by Hamilton, of Falkirk[9]), the body of the uterus being opposed to the palm, the cervix lying between the parted fingers.

Zweifel[10] has advised that the cervix be pressed forwards



with the fingers so as forcibly to anteflex the uterus. Thus the canal is kept so bent that blood cannot get out. But there is no benefit in keeping blood in the uterine cavity. We want to compress the vessels in the uterine wall, so that blood may not flow into the cavity. If such bleeding has taken place, the effused blood will, in proportion to its amount, hinder uterine contraction, if it be thus retained. Blood effused into the uterine cavity should be expelled from it, not kept pent up in it.

That which seems to me the best way of firmly compressing the uterine body is to bend the fingers of the left hand into the palm, and grasp the uterine body between the right hand on the abdominal wall, and the firm resisting surface formed by the closed fingers and volar prominences of the left hand. By this use of the hands the whole of the uterine body can be firmly compressed, and clots can be squeezed out through the cervical canal, which is not blocked up, as it is in Zweifel's method. It brings with it no risk of injury to the uterus, offers no increased facilities for the entry of germs, and secures the maintenance of one essential condition for permanent uterine retraction and contraction, namely, an empty uterus. The pressure need not be more forcible than is needed to press the uterine walls together. It is a little irksome to keep it up, but it can be maintained quite long enough for the blood in the vessels to clot. It is not more irksome than the repeated manipulations which other less certain modes of treatment involve, and the anxious watching of their effect.

When the uterus will not contract, the only thing that in my opinion can be relied on is the maintenance of firm compression. In almost all the cases I have read in which it is said that more was required, either pressure had not been tried, or only tried after other ineffective measures had been practised. By "pressure" I mean not simply kneading the uterus to make it contract, but firmly and continuously compressing the uterus, just as a surgeon would compress a vein wounded during an operation. This ought not to be postponed until the failure of attempts to get contraction has been repeatedly demonstrated; but as soon as ever it is clear that stimulation fails to produce contraction, or that the contraction produced by stimulation is not lasting, the uterus should be steadily compressed, and pressure maintained until it can be relaxed without bleeding occurring. Early and steadily-maintained compression of the uterus is the safest and best treatment of *post-partum* hæmorrhage.

[9] *Ed. Med. Journal*, 1861.
[10] *Geburtshülfe.*

Rarity of Post-partum Hæmorrhage.

Dr. T. More Madden (Dublin) said that only three fatal cases of this kind had come under his own observation, and no one of them came within the ordinary meaning of the term *post-partum* hæmorrhage, one being a death from flooding caused by inversion of the uterus; in another the same result was occasioned by hæmorrhage consequent on rupture of the uterus; and the third was a case of secondary hæmorrhage, proving fatal on the eighth day after delivery, and induced by malignant variola. Of 116 instances of flooding noted in the Dublin Lying-in Hospital, in 83 the patients had borne children previously. In Dr. Churchill's tables, collected from different countries, in a total of 170,221 cases of labour, *post-partum* hæmorrhage occurred in 1,370; that is in the proportion of 1 to 124; and, further, the maternal mortality thus caused was about 1 in 6 of these cases. From the four published reports of the Masters of the Rotunda or Dublin Hospital, Dr. Madden found that in 47,175 deliveries, there were only 206 cases of *post-partum* hæmorrhage, and that only 16 of those proved fatal. These statistics represented the frequency of cases of severe *post-partum* hæmorrhage in women delivered under careful and experienced medical supervision.

Uterine Inertia.

Inertia, or inefficient contraction of the uterus, was the cause of *post-partum* hæmorrhage in 65 per cent. of such cases, and in 25 per cent. this accident was due to irregular or intermittent uterine action. In irregular or partial uterine action the os and cervical zone might be securely sealed by firm contraction, whilst the cavity of the uterus might be enormously distended by blood, but the so called hour-glass contraction might be dismissed as a theoretical fiction.

The Hæmorrhagic Diathesis.

The most serious cases of flooding after labour occurred in persons of this diathesis. In London obstetric practice, according to Dr. Playfair, hæmorrhage after childbirth was most frequent in the upper ranks of society; but in Irish midwifery practice the converse was the case. In the condition of the ill-fed and ill-housed population, who inhabited the poorest and filthiest quarters of the ill-drained, low-lying city of Dublin, were combined all the causes, predisposing and exciting, of the bleeder diathesis.

Laceration of the Cervix Uteri.

The connection between the length of the second stage of labour and the occurrence of *post-partum* hæmorrhage has been demonstrated by the annual reports of the late Masters of the Dublin Lying-in Hospital, which, although intended to prove the safety of the use of the forceps at the earliest possible moment, yet showed that of 31 cases of hæmorrhage, 20 occurred in cases where the child was delivered within one hour from the beginning of labour.

QUICK PULSE.

Dr. Madden had never seen the pulse permanently quickened during labour, that is, not subsiding to its normal rate in the intervals between the pains in any case in which *post-partum* hæmorrhage did not follow, unless it was obviated by proper anticipatory treatment.

INVERSION OF THE UTERUS.

In a memoir read before the Obstetrical Society, he showed that in 190,883 cases of labour in the hospital with which he was connected, there had been only one instance of flooding caused by inversion of the uterus. In private practice he had seen one fatal case of this kind.

TREATMENT.

Early Rupture of Membranes.—In every case of natural labour in which there was any reason to anticipate *post-partum* hæmorrhage, the membranes should be ruptured before the full dilatation of the os uteri so as to allow the womb to contract firmly on the body of the child. This practice, recommended by Dr. McClintock, might be safely and advantageously extended to every multiparous labour in which the presentation was natural.

Ergot or Ergotine.—With regard to the preventive treatment of flooding, the subcutaneous injection of a full dose of the fluid ergot, or of ergotine, as soon as the child's head began to press on the perineum was most useful. In an extended experience of the hypodermic use of ergot or of ergotine as a prophylactic against *post-partum* hæmorrhage, he had found that, provided the preparation employed was fresh and reliable, this expedient was generally most effectual, and in but one instance had he seen any abscess thus produced, and in that case the ergotine was not sufficiently deeply injected into the gluteal muscles.

Perchloride of Iron.—The use of perchloride of iron in the treatment of flooding, which they owed to Dr. Barnes, although its advantages had been warmly controverted by others, was so manifest that no one who had fairly tried it could possibly doubt its efficacy. During the last nine years he had used it in 16 cases; in 15 of these the flooding was completely arrested, and in only one instance it failed. The latter, a case of secondary hæmorrhage, proving fatal within two hours on the eighth day after delivery, was due to hæmorrhagic small-pox. This was the only instance of death from uterine hæmorrhage within the puerperal period he had met with in private practice. In another case hæmorrhage was arrested by the perchloride of iron, but the patient died suddenly, apparently from embolism, on the third day after delivery. Whether this was ascribable to the perchloride of iron used or not was questionable. Sudden death from embolism soon after delivery was not confined to cases in which this remedy was employed, and was most likely to occur when the circulation had been weakened from hæmorrhage. The injection of perchloride of iron, through a syringe passed up to the fundus uteri, was not safe. The fluid might be forced through the open uterine sinuses into the circulation, producing embolism; or through the patulous Fallopian tubes into the abdominal cavity, and cause peritonitis. He had had proof in two instances that the latter accident might be thus occasioned by a much milder astringent injection, several days after delivery. Instead of injecting the perchloride, Dr. Madden applied the iron thus: A sponge was soaked in the strong liquor, carried up to the fundus, and applied to every portion of the flaccid uterine surface. The solid perchloride of iron employed successfully by Dr. A. H. Ringland in several cases presented certain practical difficulties owing to the hard crystalline state of the styptic, and there was the risk of injuring the soft uterine tissues.

Opium.—There were two conditions connected with flooding in which opium could not be replaced by any other remedy: (1) when, after an arrest of active hæmorrhage, a thin incessant streamlet of blood continued to ooze from the uterus; (2) in the treatment of collapse.

Hot Water and Turpentine Injections.—Hot water injections and the intrauterine injection of that best of all styptics—namely, pure turpentine, which he had used in a large number of such cases—afford, as that experience had proved, an effectual alternative treatment.

Transfusion.—The results obtained by the most improved recent methods of transfusion were little if any better than those attained by Dr. Blundell upwards of sixty years ago. Many years ago Dr. Martin, of Portland, suggested the venous injection of a weak saline solution in these cases, and Dr. Madden had no doubt that where healthy human blood could not be obtained life might be saved by the expedient by which the empty vessels might be so refilled as to afford the heart some mechanical resistance to its rapid contractions and bring back the pulse to an approach to its normal volume, and at least give time for the use of other remedies.

Sulphuric Ether.—The hypodermic injection of sulphuric ether, suggested by Professor von Hecher, of Munich, was an easily applied and generally reliable substitute for transfusion in the treatment of collapse from flooding after labour. For some years past Dr. Madden had carried to every midwifery case a syringe specially constructed for the purpose; it differed from the ordinary hypodermic syringe in holding upwards of a drachm of ether (less was useless), and was not cemented by any gum.

PROPHYLAXIS.

In multiparæ a course of some preparation of iron during the last two months of pregnancy was valuable. As to the use of ergot as a prophylactic during labour, he said that it ought not to be given until the first stage was complete; the presentation should be natural, and no mechanical obstruction should exist. The drug should be given in one full effective dose (℥j or even ℥ij of fresh liquor ergotæ *B.P.*) either by the mouth or by deep hypodermic injection, and if the labour were not completed within three-quarters of an hour, delivery should be accomplished by the forceps. If ergot be administered in a case of *post-partum* hæmorrhage after the completion of the third stage, a similar amount might be similarly injected into the gluteal region.

DOES CHLOROFORM PROMOTE POST-PARTUM HÆMORRHAGE?

Dr. JOHN W. BYERS (Belfast) said that it would be admitted those who were actively engaged in obstetric practice that chloroform was of very great advantage in the following conditions: 1. In the relief of pain in normal labour, especially, as Dr. Alfred McClintock had pointed out, many years ago, in women who "are morbidly susceptible to pain, and unable to endure its continuance for any length of time, so that when they begin to experience the throes of parturition their minds become so filled with terror and anxiety at the prospect before them that it exercises a paralysing influence on the uterus."[1] 2. In operative midwifery. 3. In certain cases, especially multiparæ, in whom the os was slow in dilating and the expulsive pains severe. 4. As a means of preserving the integrity of the perineum when the head was advancing too rapidly, so that there had not been sufficient time for the dilatation of the external parts. In explanation of the circumstance that chloroform was not more extensively employed in obstetric practice, two reasons might be assigned: (1) the alarming and disastrous results which had attended the employment of chloroform in surgical cases; (2) its alleged promotion of hæmorrhage after delivery. The teaching of writers on obstetrics varied; some authors stated dogmatically that chloroform did not promote *post-partum* hæmorrhage, others that it did predispose to flooding, while a third class adopted the view that the statement that a patient was more liable to *post-partum* hæmorrhage when this anæsthetic was properly given was unproved. Dr. Byers believed that in the majority, if not in all, the cases of *post-partum* hæmorrhage following the employment of chloroform, this complication was due not to the anæsthetic, but to too great rapidity of delivery (a common cause of after-bleeding through atony of the uterus), or to a want of proper management of the third stage of labour. He suggested that in all future cases the following points should be noted carefully:

a. The age of the patient, and the number and character of her previous confinements. *b.* Whether chloroform was used at any former labour. *c.* The degree to which, and the method by which, the anæsthetic was given. *d.* The length of time of its administration. *e.* The reason for the use of the chloroform. *f.* The method employed in the management (α) of the delivery of the child, (β) of the third stage of labour.

Dr. Byers said that within the past five years he had become a firm believer in the great usefulness of chloroform as

[1] *Smellie's Midwifery*, edited by McClintock; New Sydenham Society, vol. iii, p. 268.

a means of relieving pain in normal labour, the object being to give it only to such an extent as to lessen pain without abolishing consciousness. His experience was that chloroform had not any effect in causing *post-partum* hæmorrhage, provided that in all cases care was taken not to effect delivery too rapidly, and to manage the third stage of labour according to modern teaching. He considered that in all cases in which chloroform was given to its full extent an assistant should be procured to administer it.

The Normal Post-Partum Contraction.

Dr. Peter Horrocks said that it was difficult to separate the management of the third stage of labour from the actual treatment of *post-partum* hæmorrhage. He considered it a bad practice to attempt to "express" the placenta from the uterus as soon as possible after the birth of the child. So long as everything was natural, and therefore little or no loss of blood going on, why not leave well alone? Nature was capable of managing her own affairs perfectly well in above 90 per cent. of cases, and she generally gave a little rest or interval between the birth of the child and the birth of the placenta. During this interval important changes took place—clotting, thrombosis, etc.—which had for their object the prevention of hæmorrhage. Hence it was best to wait in all natural cases for at least fifteen to twenty minutes before attempting to expel the placenta by expression. Active uterine contraction was not necessary in order to stop hæmorrhage. In a normal case after the placenta was expelled the uterus was found now hard and well defined like a cricket ball when it was in a state of active contraction, and now soft and ill-defined, and apparently larger, when it was in a state of relaxation. These two conditions alternated like the beat of the heart, the active state being the systole, and the passive the diastole. This condition of relaxation without extension was known as retraction of the uterus, and was most important in the natural prevention of hæmorrhage. It was very important clearly to understand that no muscular fibre, after contracting, could, of its own accord, extend itself again. He had proved this by experiment. Hence, when the uterus had contracted so much as to expel the placenta, its fibres were as short as they could contract down to, and when the active contraction passed off they did not lengthen but remained short, though relaxed. He compared it to the masseter muscle when the jaws were closed; the fibres of that muscle could be contracted actively, though in this case they did not become shorter, or they could be relaxed, the teeth being held close together all the time by the hand pressing on the lower jaw. Some accoucheurs who were unaware of this fact were greatly alarmed, on feeling for the uterus through the abdominal wall, when they could not find the cricket-ball-like mass; but so long as there was no hæmorrhage they need fear nothing, even though they could not define the outlines of the uterus. After a time it would actively contract and assume the more spherical and more defined shape, and get harder so as to be easily felt. When, however, there was hæmorrhage after the birth of the child, the very first thing to be done was to grasp the uterus through the abdominal wall and squeeze it so as to diminish the size of its cavity. This would not only directly compress bleeding points, but would tend to detach and expel the placenta, shorten the uterine fibres, and promote active contraction and the important condition of retraction. The child should be quickly separated, and if hæmorrhage continued in spite of uterine kneading, then without delay, the fingers, or as much of the hand as was necessary, should be passed carefully and gently into the uterus, and the placenta peeled off wherever attached. It would then be an easy matter to "express" it, and this was better than pulling on it. Ergot should be given in big doses. If hæmorrhage continued, or if it began after the delivery of the placenta, the uterus should be immediately grasped and kneaded, and ergot should be given if this had not already been done. The hand should be passed into the uterus as far as was necessary in order to remove any piece of placenta, membrane, or clot, and if bleeding still continued, hot water at a temperature of 115° to 120° F., should be injected into the uterine cavity. In very few instances did this fail; when it did a solution of perchloride of iron might be used; but in the Guy's Lying-in Charity they had not had occasion to resort to iron for years. With regard to plugging the uterus he considered it bad treatment and quite contrary to the principles of natural hæmostatics. Any plug, however small, tended to stretch the shortened fibres, and so to open up the sinuses, and to cause further hæmorrhage. Of course he was referring to what was ordinarily understood by *post-partum* hæmorrhage, and not to hæmorrhage from lacerations, where plugging might be of use. Finally, he expressed the opinion that in very rare cases patients would bleed to death in spite of the very best treatment at present known, even when efficiently carried out by competent hands.

Dangers of Ice.

Dr. Herbert Spencer said that the introduction of ice into the vagina was a possible source of sepsis, and antiseptic fluid was better but inferior to hot water. There had only been one death from simple *post-partum* hæmorrhage (that is uncomplicated by *ante-partum* hæmorrhage or laceration of the uterus) in 11,000 labours in the maternity of University College Hospital. In that case only a pint was lost. For the anæmia after the hæmorrhage had been stopped intravenous injection of normal saline fluid was the most valuable treatment but was rarely necessary.

Abuse of Credé's Method.

Dr. Purslow thought that *post-partum* hæmorrhage was often induced by the abuse of Credé's method and that there was a tendency among many practitioners to use active expression without allowing sufficient time to elapse after the birth of the child. In a large midwifery clinic of which he had charge the injection of hot water, followed by manual compression was used in cases of *post-partum* hæmorrhage, and had always been successful. He thought Dr. Madden's routine plan of administering half an ounce of ext. ergotine during the second stage was fraught with danger.

Removal of Clot: Plugging the Vagina.

Dr. Murdoch Cameron said that Dr. Herman had properly urged the great importance of preventive treatment. *Post-partum* hæmorrhage resulted most frequently from exhaustion, due to prolonged labour and, when the parts permitted of it, he urged instrumental interference, always imitating Nature, by avoiding continuous traction. When hæmorrhage had set in, reliance might be placed in slight cases upon stimulating the uterus by kneading with the left hand whilst counter-pressure was applied with two fingers of the right hand, one upon each side of the cervix. The removal of all clot and membrane must not be overlooked, as many cases of hæmorrhage depended upon their presence. Plugging of the vagina was the great safeguard in serious bleeding, but he condemned strongly any proposal to plug the cavity of the uterus as a preventive measure in *post-partum* hæmorrhage.

Hot Water: Electricity: Plugging: Chloroform.

Dr. Walter (Manchester) confined his remarks to some of the special methods of treatment mentioned by Dr. Herman: (1) He had given the intrauterine use of hot water for checking hæmorrhage an extensive trial, and considered that its efficacy depended, at least in some cases, upon the exact temperature of the water. He referred to the experiments of Max Runge, which proved that if the temperature was raised too high, that is above 115° or 120°, it might produce paralysis of the muscular fibre of the uterus, which was not followed by the wished for contraction. The result of the hot water injections was often admirable, but it was by no means a certain remedy; he advocated adding to the hot water vinegar, if necessary, in equal parts, after the hot water had washed out the clots from the uterus. (2) Electricity was not used often enough, owing no doubt to the fact that most batteries were difficult to carry and apt to get out of order. He had induced Messrs. Weiss to make, some years ago, a portable magneto-electric machine which never went out of order, and yet which acted effectually. A special uterine electrode fitted in the box. (3) Plugging the interior of the uterus with gauze was not a treatment to rely upon, and if used at all the patient should not be left, lest the uterus should expand beyond the plug through a further onset of inertia; this danger was not so likely to occur in cases of premature labours or miscarriages where the expansile power of the uterus was less. (4) He agreed with Dr. Byers, that chloroform did not produce *post-partum* hæmorrhage, and might in some cases even prevent hæmorrhage by favouring sleep during labour

between the pains, and thus aiding in maintaining the patient's strength, the loss of which was one of the most common causes of uterine inertia.

HOT WATER: IRON: SALINE INJECTIONS.

Dr. ROBERT BARNES expressed his sense of the fair manner in which Dr. Herman introduced the subject. He would not dwell upon preventive measures. In spite of every care, hæmorrhage must be expected to occur in some cases. Hæmorrhage had to be dealt with under two different conditions: (1) When the systems, uterine and centric, could respond to reflex excitation; and (2) when the system was dead to reflex excitation. In the first condition ordinary means would generally suffice. In the second decisive measures must be resorted to. Of these, the one he first used was the injection of hot water. This was commonly effective, especially when it caused contraction; it also acted as a styptic. This failing, as a last resort, there was the injection of perchloride of iron. It was said to be dangerous, but it was called for to combat the imminent danger from hæmorrhage. The patient ought not to be allowed to die of hæmorrhage. The late Dr. McClintock, in whose judgment he had the highest confidence, showed that ergot poisoned the fœtus. He could endorse Dr. Madden's praise of turpentine. It was a stimulant, a tonic, and an antiseptic. The saline injection was by no means new. He had described it and used it long ago. It began, he believed, with Dr. Little at the London Hospital, who used it freely for cholera, and since then it had been resorted to repeatedly in cases of hæmorrhage. But in the last resort he must still look to the injection of iron.

PLUGGING: SALINE INJECTIONS.

Dr. T. E. HAYWARD related a case in which *post-partum* hæmorrhage had been treated by plugging with iodoform gauze. The results had been satisfactory. He also related a case of extreme collapse from *post-partum* hæmorrhage in which death was imminent—a large subcutaneous injection of saline fluid. A teaspoonful of common salt to a pint of water at 100° F., was given to the quantity of three pints, in the interscapular region by means of an aspirator needle, attached by a bit of india-rubber tubing to a Higginson's syringe. A marked improvement was immediately noted. Recovery followed. He recommended that an aspirator needle should be carried in the obstetric bag.

COMPRESSION.

Dr. JOHN A. ROBERTSON (Stilton) pointed out that although there might be many ways which might succeed in checking *post-partum* hæmorrhage, the method suggested by Dr. Herman was the best, and should always be used in the worst cases. In the most severe cases there was no time to use ergot, or injections of perchloride of iron, hot water, or anything else. The hand was the most natural instrument to use, as by it clots could be discovered and removed, the uterus stimulated to contract, and compressed between the two hands.

Mr. COLIN CAMPBELL advocated pressure, and the intra-uterine injection of equal parts of whisky and water at a temperature of 110°—where preventive measures failed.

PERCHLORIDE OF IRON: PROPHYLACTIC MEDICATION.

Mr. C. H. WATTS PARKINSON referred to those cases of *post-partum* hæmorrhage in which it was impossible to stimulate the uterus to contract by kneading, compression between the hands within and without, injection of hot or cold water, etc. In these cases a styptic was required, and perchloride of iron could stop the hæmorrhage directly without stimulating the uterus to contract. He had injected iron in one case after all other means had failed; the hæmorrhage ceased at once, but the uterus remained flabby, and did not begin to contract for at least an hour. He would lay stress on the efficacy of treatment to prevent hæmorrhage in persons liable to *post-partum* hæmorrhage. Tonics—iron, strychnine, and chlorate of potash—given during the later months of pregnancy, would do much to prevent recurrence of hæmorrhage.

FREQUENCY OF POST-PARTUM HÆMORRHAGE.

Dr. SIDNEY GRAMSHAW said that during an active midwifery practice extending over twenty-five years, it had been his unfortunate experience to attend many cases of *post-partum* hæmorrhage, some two or three being fatal. The most frequent cause of hæmorrhage was uterine inertia from prolonged labour, and it was therefore of the highest importance to shorten labour as much as possible. With this view the membranes should be ruptured early, and the forceps used if the confinement were too much prolonged. Ergot was most useful, provided it were given in sufficient doses and an active preparation used. Hot water at a high temperature was most successful, the failures in its use being due to timidity on the part of the operator. Iron had been used by him several times, but, although successful, was not more so than hot water. Many administrations of chloroform confirmed him in the opinion that it did not increase the chances of *post-partum* hæmorrhage.

FREQUENCY: MEDDLESOME MIDWIFERY.

Dr. W. NAGEL (Berlin) said that the views expressed confirmed his own observations based on the extensive material of the Obstetric Poliklinic of the Royal Charité in Berlin (under the direction of Professor Gusserow). Dangerous *post-partum* hæmorrhage was rare and, in the main, avoidable by a judicious management of labours. He agreed with Dr. Horrocks that physicians (and in Germany also midwives) were often too meddlesome, and thereby increased a previous slight hæmorrhage which, under rest, would very soon have ceased of itself. Chloroform, he believed, had no influence in causing *post-partum* hæmorrhage. He supplemented kneading of the uterus by injection of hot water (usually only into the vagina) and administration of ergot, partly by mouth and partly subcutaneously. With the exception of two cases of placenta prævia, which were not simple cases of *post-partum* hæmorrhage, he had never met with a death from bleeding after labour.

MODE OF USING HOT WATER.

Dr. CULLINGWORTH thought that Dr. Herman had mentioned the accepted methods of treatment of ordinary *post-partum* hæmorrhage in the order in which they ought to be accepted. Few cases would resist combined external and internal manipulation if properly carried out. When it was necessary to use hot water it was important that it should be of a temperature above 110°, that it should be used in large quantity, until, indeed, the hæmorrhage ceased, and thirdly, that it should be so injected as to bathe the whole inner surface of the uterus. He had hoped that plugging the vagina was a method of treatment as obsolete as it was inefficient. The evidence that chloroform had any influence in promoting *post-partum* hæmorrhage was very slight.

PLUGGING THE UTERUS.

Dr. GALABIN said that there was a general agreement as to the prophylactic and the ordinary modes of treatment, but that there was still a doubt as to the best method in those rare and extreme cases in which all reflex action in the uterus appeared to be lost. He understood that Dr. Herman rejected both injection of perchloride of iron and plugging the uterus in favour of prolonged manual pressure upon the bleeding site. He doubted whether this was possible with a uterus relaxed to its full size, and thought that the success of even this depended upon some amount of retraction being secured. He believed that the same applied to the other two methods, and that nothing could save a patient if reflex were absolutely abolished. Dr. Playfair estimated that the puerperal uterus would hold two ball dresses, but no one had succeeded in getting nearly so much muslin into it. There was therefore some retraction at work, combined with the pressure on the internal surface. Of the two he would now prefer plugging the uterus, from his experience of the relative effects of pressure and of the application of iron as a styptic to a furiously bleeding external surface, such as that produced by the excision of a very vascular cancer of the vulva.

COMPRESSION.

Dr. BATCHELOR contended that it was impossible for sudden and severe hæmorrhage to take place if the uterus was properly grasped and compressed by the hand externally. Moderate hæmorrhage might take place, but this could be treated more reasonably and according to the method in which the practitioner had a personal preference and was adept.

Reply.

Dr. Herman, said that there was a great difference between labour delayed by obstruction and labour delayed by what Dr. Braxton Hicks called "temporary passiveness." In the former, delivery was right treatment; in the latter it would be followed by hæmorrhage in sleep; to restore nerve force was what was wanted. Ergot was a dangerous drug during labour if there were any obstruction such as a large child or small pelvis. It should never be given without accurate diagnosis. He did not think chloroform produced hæmorrhage. Pinard had published careful researches into this point, which showed that it did not. Compression of the uterus was better than compression of the aorta. Compression of the uterus generally excited contraction, and if the compression was continuous the uterus would not be allowed to dilate.

THE PREVENTION OF HÆMORRHAGE IN CÆSAREAN SECTION.

By MURDOCH CAMERON, M.D., F.F.P.S.G.,
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Hæmorrhage in Cæsarean section may have its origin in the uterine incision, the presence of the placenta in the line of incision, or from uterine inertia.

To combat these hæmorrhages various methods have been suggested, all of which are either injurious or attended with danger—as, for instance, the application of an elastic band to the cervix as recommended by Litzmann, the removal of the placenta before extracting the child, and, lastly, Porro's operation for inertia. Such treatment can only endanger the life of the patient, and, so far as I have been able to observe, are quite unnecessary and unjustifiable.

The application of the elastic band induces inertia, and has even been blamed for causing death from hæmorrhage by Veit, Doléris, and Pajot. Zweifel, Sänger, and Lusk have also noticed this complication, whilst Caruso advised its early removal. So we see that, whilst its use may prevent bleeding during the early stage of the operation, it is apt to excite later what might be termed severe *post-partum* hæmorrhage. In my earlier cases I found that pressure with the fingers and making a small incision to begin with did much to prevent bleeding.

Desiring, however, to prevent even oozing during the primary incision, I have introduced the use of a pessary for compressing the uterus at this stage, and this enables the operator to cut down upon the membranes without puncturing them. Its mode of application is best seen on reference to the diagram:—

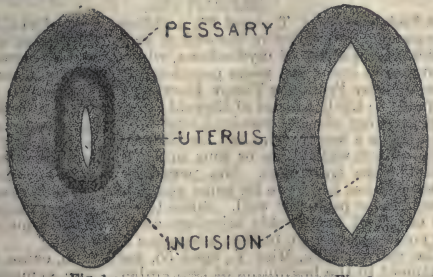


Fig. 1. Fig. 2.

The pessary is laid upon the uterus, and, when compressed by the fingers of the operator and assistant, completely prevents bleeding whilst the small primary incision is being made (Fig. 1).
When the opening is large enough to admit the finger, the pessary is removed, and the incision extended upwards and downwards with a blunt pointed bistoury sufficiently to permit extraction of the fœtus (Fig. 2).

Previously I have urged the necessity of seeing that the uterus is not only in the middle line, but is not twisted on its axis. This is important, and can easily be ascertained by observing the location of the Fallopian tubes, one of which will be found more or less in front if this twisting exists.

Even when the placenta intervenes, this method of pressure is beneficial not only in preventing bleeding, but also in permitting us to observe the placental tissue, which is recognised from its darker colour. Should the placenta intervene, the operator may either cut right through it, or, as I have also done, separate it first with the finger in the median line whilst extending the incision, and afterwards upon the left side with the left hand, till the membranes are reached, which are then perforated, and the child's head turned out with the fingers. Should the feet present at the incision, they may be seized and the child extracted without delay. If the shoulder presents, a hand should be firmly pressed upon it to prevent its expulsion.

The placenta should never be separated and extracted before the child, as recommended by some writers, as any diminution in the contents of the uterus permits contraction, and so complicates the extraction of the child, and necessitates an enlargement of the incision to prevent laceration, usually at the lower angle of the wound. With the after removal of the placenta, the membranes are more effectually removed, a point never to be overlooked. Likewise the uterus should only be everted after the birth of the child, the abdominal cavity being protected by large warm flat sponges placed behind and round about the organ. It is quite unnecessary to avoid the middle line, as recommended by some authors, in cases where the position of the placenta is supposed to be in front, as by the above method little bleeding should occur.

At no point in the operation can the assistant be more serviceable than after the removal of the placenta, as it is when the uterus is entirely empty that serious bleeding is most likely to occur. Very free bleeding will take place from the wound unless the uterus is immediately seized by the operator and held until the assistant has securely grasped it with the lips of the wound everted thus:

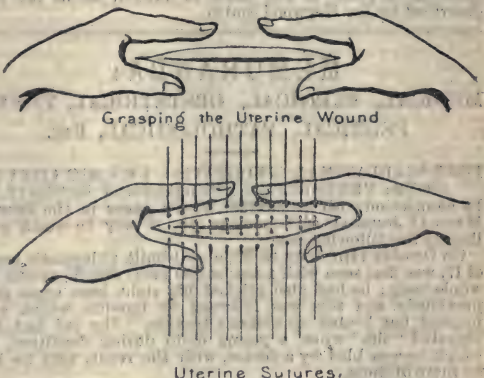


Fig. 3.

With a firm grasp the assistant almost entirely prevents bleeding from the wound, whilst the stitches are being introduced. These sutures, from seven to ten in number, should embrace nearly the whole thickness of the uterine wall. Before tying them, the cut edges should be brought together and the entire uterus, rolled in a large warm flat sponge, should be steadily and firmly compressed with both hands, as this at once ensures contraction. After the sutures have been tied, the uterus is again wrapped in a large flat sponge and compressed as before. The sutures having been cut, and the Fallopian tubes tied, the organ may now be replaced in the abdominal cavity, which should be carefully sponged out.

In no case has the uterus failed to respond to this method of compression. Should any oozing appear at the needle punctures, slight pressure with a warm sponge should be applied for a few seconds.

The performance of hysterectomy for bleeding is bad treatment, as the uterus always responds freely to pressure with a warm sponge. Several authors advise the introduction of pledgets of iodoform gauze, tents, drainage tubes, etc., as a

precaution against *post-partum* hæmorrhage. Nothing could be worse. Everyone who has practised midwifery knows that the presence even of a clot in the uterus may lead to serious hæmorrhage, distension of the uterus, and bursting of the incision, with speedy death of the patient. This is no mere theory, but is what has actually taken place where these means have been tried.

On no account should the uterine cavity be washed out or medicated in any way, and the less the parts are interfered with the better.

Dr. HEYWOOD SMITH said he had been present at the Middlesex Hospital a few months before at a case of Cæsarean operation by Dr. William Duncan, where the flattened pessary was used with good effect, but after the uterus was drawn out of the wound it wholly failed to contract, in spite of hypodermic injection of ergotine, kneading the uterus, and hot water flushing, and it was not until a lump of ice was introduced into the uterine cavity that contraction took place. He would insist on the operation, where a choice could be made, not being undertaken before labour had actually set in, in order to ensure proper and efficient contraction.

Dr. HERBERT SPENCER had two months earlier a case of Cæsarean section for fibroids, terminated by Porro's method successfully to mother and child, in which the ingenious suggestion of Dr. Murdoch Cameron failed to check the hæmorrhage. The reason was probably the presence of fibroids in the uterine incision.

Dr. BATCHELOR had seen a fatal case in which the use of the hot sponges recommended by Dr. Cameron had entirely failed to arrest *post-partum* hæmorrhage from the wound. He thought that hæmorrhage was more likely to result from atony, the result of uterine exhaustion due to prolonged labour, than from uterine inertia, in consequence of the operation being undertaken prior to the onset of labour, as in the case described by Dr. Heywood Smith.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

POST-SCARLATINAL NEPHRITIS: URÆMIC CONVULSIONS: VENESECTION: PERMANENT BENEFIT.

IN connection with Dr. Samuel West's paper in the BRITISH MEDICAL JOURNAL of November 5th, it may be worth publishing the following case:

On October 14th, 1892, G. H., a well-built, phlegmatic youth of 17, was first seen with a scarlatinal rash, which covered the whole body; he had also pricked his right knee some time previously, and this was followed by bursitis, which suppurated but healed up without trouble. The lad had had repeated "fits" when a young child during dentition, for which he was bled by a doctor, with the result that he had no more of them.

The scarlatina ran the usual course of a rather more than ordinarily severe type of the disease. The treatment was directed towards the prevention of uræmia. He was kept warm, and he was only allowed milk with soda water, barley water, or lemon "tea." All went well till the beginning of the second week, when albumen appeared in the urine, and pains in the joints were complained of. He was put on sodium salicylate with Fowler's solution, and the former treatment as to diet, etc., strictly enforced.

Early on November 2nd I was called, and found him suffering from uræmic convulsions. These had been recurring every fifteen minutes for two and a half hours previously. Now, although one has no scientific basis on which to defend venesection for uræmic convulsions—but the same may be said for the use of pilocarpin, because the total poison eliminated by the skin is infinitesimal—yet I resolved to try it. I withdrew from the median basilic vein of the left arm blood till it came away bright, altogether about eight fluid ounces. This was followed by ⅓-grain of pilocarpin nitrate hypodermically, hot bottles applied around the body, 25-grain doses of potassium bromide hourly, and a purge of Epsom salts. He had only one more slight convulsion half an hour afterwards, and has now for eighteen days gone on "peeling" and feeling remarkably well. The albumen has almost disappeared.

A week ago I received a sample of his urine, which I thought must contain blood, but gave no blood test. I evaporated it down, extracted the colouring matter with absolute alcohol and then with ether, and found it to be diphenol-pyrocatechin, and on inquiring next day found he had been drinking freely of a water made from preserved blackberries. This shows how cautious one should be of judging by mere ocular appearances.

Ashton-under-Lyne. G. SHARP, M.B.Edin.

OBSTRUCTION TO DELIVERY DUE TO DISTENDED BLADDER.

ON November 27th I was sent for by the midwife of the Marylebone Workhouse, because she could not complete the delivery of E. D., a primipara, aged 25, who said she was seven months gone in pregnancy.

The patient had been admitted on the previous evening, and had been in labour twenty-seven hours when I saw her. The child's head had been born half an hour, but the body would not follow. The pains had ceased, and the child was dead.

By means of firm and steady traction I was able to deliver the shoulders and arms in twenty minutes, and was then able to examine the body as far as the umbilicus and hips, but could not detect anything unusual. While again using firm and careful traction, the child was suddenly delivered, and there was a rush of about three pints of clear fluid from the vagina.

On examining the fœtus (a female) there was found a rent, about six inches long, straight across the abdomen, about an inch above the umbilicus, and on looking further it was seen that the fluid had come from a very distended bladder, which had ruptured at the same time as the abdominal wall. The bladder seemed large enough to contain about three pints of urine. The ureters were very dilated, and so translucent that they were at first taken for part of the bowel. The kidneys were normal. The urethra was perfect, and allowed a probe to pass easily. There was meconium in the first foot or so of the jejunum only, none in the colon or rectum, both of which were so cord-like as to be easily mistaken for ureters, as were also the lower two-thirds of the small intestine.

W. RAYNER,
Visiting Medical Officer, Marylebone Workhouse.

TWO CASES OF MYXŒDEMA TREATED BY THYROID INJECTIONS.

THE first case, Mrs. T., aged 64, a widow in comfortable circumstances, presented in the end of May of this year all the typical symptoms of myxœdema, which she considered had commenced some five years previously. She was about this time seen by Professor Victor Horsley, who approved of my proposal to try the effect of thyroid injections. Up to the end of September she had received over thirty injections, usually given twice a week. She had lost 19 lbs. in weight, and could with comfort walk three or four miles, in place of about 100 yards before treatment. She perspires freely on exertion, which she has not done for some years, and, in fact, considers herself to be perfectly well. Since the end of September she has only had one weekly injection, and with this maintains her position, with no further alteration in weight.

The second case, Miss T., aged 55, well-to-do, came under treatment in the beginning of September. The symptoms of myxœdema were well marked, the speech very characteristic, hair lost, skin dry and furfuraceous. She had lost all her teeth, and on two occasions had nearly died from hæmorrhage after the removal of some stumps. In less than seven weeks after thirteen injections the weight had fallen from 10 st. 5 lbs. to 9 st. 1 lb., there was free perspiration on exertion, the speech was clear and distinct, without the previous hesitation, and the facial expression had greatly altered for the better. She is now going on with a weekly injection, which is being administered to her by her own medical attendant, Dr. Smith of Dumfries. In both cases the improvement has been most remarkable.

Mode of Preparing the Thyroid Juice.—The method of preparation of the extract which I have followed has been somewhat different in detail from that used by Dr. Murray. Usually, on Monday at the killing hour, either I or my friend, Dr J. E. Gemmell, who has kindly assisted me in this matter, and acted for me in my occasional absence, have gone to the abattoirs here and removed from newly-killed sheep three lobes of the thyroid; these have been placed in a bottle containing ½ per cent. carbolic solution. In the course of the evening the capsules have been carefully and completely stripped, the glands thinly sliced on a sterilised slab, and placed with 45 minims of ½ per cent. carbolic solution in a conical 2-drachm measure, this being covered over with a piece of sterilised blotting paper. Next morning the mass is squeezed through a piece of well-boiled cambric, the resulting 80 minims or so of turbid fluid being then reckoned as four doses. The hands and instruments used are always sterilised by heat, or by the use of 1 in 20 carbolic solution. The syringe used for injection is always washed out with the same solution, both before and after use.

A. Barron, M.B.Lond.,
Professor of Pathology in University College, Liverpool;
Physician Bootle Borough Hospital.

ACUTE ASCENDING (LANDRY'S) PARALYSIS.

The following are condensed notes of another case of the above disease: A.D., aged 15, of a healthy stock, was visited on December 25th, 1891. He had got thoroughly wet a few days before and considered his illness arose from that. He complained of trembling of his legs and inability to stand. The temperature was normal and remained so throughout the illness. He was seen again next day and though the trembling still existed, nothing otherwise being detected, he was advised to go out.

He was visited again on December 29th, when it was seen that there was something seriously wrong. Trembling of the legs and inability to stand were more pronounced, and anæsthesia had set in in the feet. Tenderness of the lumbar region was detected. From that date till January 6th, 1892, the paralysis and anæsthesia advanced until the body was involved up to the level of the sixth rib. The reflexes also were abolished up to that level. The sphincters retained their power. At this time double vision was detected and headache was a most troublesome feature.

Between January 6th and 13th the disease remained stationary. From January 13th amendment set in slowly, beginning at the part last affected. The first indications were return of sensation and reflexes. By January 16th sensation had returned to the feet. From that date recovery proceeded more rapidly until, by February 12th, he had full command of his body though weak from the long confinement. He is now (October 26th) apparently in perfect health.

Treatment.—A blister was applied to the lumbar region when the pain disappeared. Ergot and potassium bromide, with the addition in the second week of potassium iodide, on the advice of a consultant, were prescribed. Cascara for constipation and antipyrin for headache were also given.

Glasgow. R. McC. Service, M.B., C.M.Glas.

OXYGEN GAS AS A PALLIATIVE IN CARDIAC AND PULMONARY DYSPNŒA.

A. B., aged 56, suffered from pulmonary phthisis (2½ years), came under my care twelve months ago with loud mucous *râles* apparently over the upper half of the left lung, physical signs indicative of a cavity, and slight dulness over the left apex. The disease, progressive in its course, was complicated with albuminuria (2½ to 3½ per cent.), resulting in extreme anæmia with weak action of the heart and consequent dyspnœa of a severe and suffocating type, ultimately orthopnœa, and death from cardiac failure. Having failed to relieve the dyspnœa, which was the most distressing symptom throughout this case, I decided to give oxygen a trial and sent to the Manchester Oxygen (Brin's Patent) Co. for a supply. The inhalation was attended with marked relief (for a period extending over two and a-half months).

It was not until the final stage of the disease had been reached, however, that the beneficial effects of the gas became most pronounced. On October 10th I was summoned to see my patient; he was then in a state of collapse, skin cold and clammy, face and lips pallid, respirations 48, laboured and noisy (the patient sitting up in bed waving his hands for breath); pulse 135, feeble and intermittent, evident signs of an approaching end. Having a cylinder of oxygen at the bedside ready for inhalation, I administered the gas in a full stream direct from the cylinder, by means of a piece of glass tubing attached by an indiarubber tube, allowing the tube to play over the mouth for about fifteen minutes; the effect was marvellous, the patient declaring himself able to breathe as well as ever he could, so long as he inhaled the gas. With this relief to the breathing there was noted a marked improvement. The respirations fell from 48 to 36, and the pulse from 135 to 120. This condition of collapse was maintained for three days with constantly recurring paroxysms of dyspnœa, and, with a view to stimulating the heart's action during the attacks, the inhalations were continued until within a few hours of death, when unfortunately the supply of gas had run out, and I was not able to test it in the last few paroxysms, the patient dying suddenly on October 13th from cardiac failure. This case not being adapted for curative treatment, we could only look upon the gas as a palliative; it relieved the respiratory distress to a degree, I think, which no other therapeutic agent could have effected.

Worksop. James Menzies, L.R.C.P.Lond.

ACUTE INVERSION OF THE UTERUS.

I was called to attend Mrs. W., aged 27, multipara, at 2.30 P.M. The membranes had ruptured at 1.30 P.M. The pains were strong and quick. At 4.30 P.M. the head was well down on the perineum, when a heavy pain came on driving the head through the vulvar orifice, and the patient gave a scream and became unconscious. My left hand on the uterus felt it relax, and then the anterior wall of the fundus became inverted. I passed my finger in and found the cord wound round the child's neck, and a rigid portion passing upwards, which I at once divided. The child was rapidly extracted, making very violent efforts to breathe, being livid as the shoulders emerged. A tremendous gush of blood followed, after the child was extracted; I passed in my hand and found the placenta partly detached and partly adherent to the anterior portion of the fundus, which was inverted. This was separated as soon as possible, and the inversion pushed back with the closed hand. The uterus then contracted, and bleeding stopped. The patient was getting collapsed, and there was no radial pulse. Strychnine, ether, and ergotine were injected, but the patient showed very little signs of life for two hours, and did not regain consciousness until 6 A.M. next morning. At about 6 P.M. the next night she had an attack of acute mania, lasting an hour, and one each night for nine days. The cord was four times round the child's neck, and was so stretched that it did not bleed on division. The patient is now progressing well.

Leonard Barnes, M.R.C.S., L.R.C.P.,
T. Hillier Chittenden, M.R.C.S., L.R.C.P.
Whitwell, Welwyn, Herts.

ON THE SPECIFIC GRAVITY OF THE URINE IN DIABETES MELLITUS.

It will scarcely be contended that in the following case glycuronic acid was mistaken for sugar.

In August, 1887, J. T., then aged 58, was passing daily from six to seven pints of urine which contained sugar, but no albumen, and was of specific gravity 1035. During the intervening years he has continued to lose flesh and strength, but I have not seen much of him, except occasionally during the present year, on account of broncho-pneumonic complications. During the last few months his urine was repeatedly tested, and sugar always found (Fehling's and Trommer's tests); the specific gravity ranged from 1008 to 1012. The quantity was about six pints a day. For a considerable time he had had severe pains, especially in the legs; and, more recently, frequent shaking fits, during and after which he was in a state of semi-stupor and forgetfulness. On October 10th, one of these shivering fits lasted from noon till 2.30 P.M. When I saw him at 7 P.M. the temperature was 103° F., and he was perspiring freely, the first time he had done so. The urine taken at this time was of specific gravity 1010, and contained sugar and a slight trace of albumen. No renal tube-casts were found. On the following morning the temperature was 98° F.; the patient felt better. The urine passed during the night measured two pints. A specimen was sent to Dr. Luff, who kindly replied to my inquiry thus: "The sample of urine you sent me is of specific gravity 1006, and contains a small amount of sugar and a trace of albumen." This finding was exactly the same as my own. After this time the patient kept in bed; the

urine, now reduced to two pints daily, and of somewhat higher specific gravity, still contained sugar; the attacks of trembling and stupor by-and-by returned, though slighter and without sensations of cold; cough became troublesome, and weakness increased. The knee-jerks, though very feeble, were not entirely lost. On November 25th the urine (specific gravity 1020) was proved by the fermentation test to contain sugar. The same day incontinence of urine came on, and on November 27th the patient died, having been quite conscious during his last hours. He was a temperate man, strong and healthy previous to his illness, and had never suffered from any form of malarial fever.

Mirfield. A. Anderson, M.D.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

COLNEY HATCH ASYLUM.

A CASE OF MYXŒDEMA WITH INSANITY TREATED BY THE SUBCUTANEOUS INJECTION OF THYROID EXTRACT.

(By Cecil F. Beadles, M.R.C.S., L.R.C.P., Assistant Medical Officer Colney Hatch Asylum.)

The following is a further case of myxœdema treated by the method first proposed by Dr. George Murray, which is followed by such remarkable results, and has now been shown to be so successful. We all owe, I think, to Dr. Murray our best thanks for pointing this out.

M. B., a single woman, aged 50, was admitted on April 26th, 1892, upon the medical certificate which ran as follows: "She is suffering from mania. She destroys her clothes, and she also imagines that she has done some terrible crime for which there is no forgiveness. These mental symptoms are common in the third stage of myxœdema, from which she is suffering."

Mr. John R. Lunn, medical superintendent of St. Marylebone Infirmary, kindly informs me that the patient had been several times in that institution since the year 1884 suffering from advanced myxœdema with delusions and religious melancholia. Mr. Lunn supplies me with the following brief notes of her past history:

July, 1885. Always had good health; only ailing twelve months. First commenced in the big toes with intense pain, which was followed by swelling in the wrist. Is said to have slept in a damp bed in March, 1884, since which she has been unable to attend to her calling, and has been for the most part confined to her bed. There is swelling and thickening of the lower end of the femur, with grating in the joints; both knees can be bent. Phalangeal joints enlarged and thickened. Complains of intense pain in all the joints. No nerve symptoms; pupils react to light; reflexes normal; catamenia stopped.

September, 1887. No change, with exception of religious delusions at times. December. Since last account the patient has remained in the same condition, not getting either worse or better, but on two occasions she has had paroxysms of religious mania. In these paroxysms on the first occasion she imagined the porter who cleaned the windows had bowed to the crucifix, and she threw herself flat on the floor and refused to move until the arrival of one of the medical officers. She completely recovered from this attack, but about a month afterwards she had another religious frenzy, calling out loudly, and falling on her knees before the medical officer. Between the fits she is the same as usual. April 13th. Patient seems better, and does not now have delusions.

April 30th, 1888. Discharged improved. Readmitted October 29th, 1891.

On admission into Colney Hatch the patient was in impaired health, suffering from advanced myxœdema. Nothing could be found out from her regarding her past life. She appeared to have no relatives or friends living. Her religion was Roman Catholic. If asked a question she made no attempt to answer it, but always made the sign of the cross, and said "Send me the priest." When asked if she was married she replied "Yes, to the cross." When the priest visited her she took no notice of him. She took not the slightest interest in anything that was going on around her.

The patient weighed 9 st. 12 lbs., and had the characteristic appearance of one suffering from well-marked myxœdema, with all the usual symptoms of that disease. The skin was thick, coarse, scaly, and œdematous-looking, without pitting on pressure. Eyelids much swollen, nose broad, lips thick, scalp scurfy; hair on head thin, black, but turning grey; eyebrows and eyelashes very scanty. Slight flush on the cheeks. Fulness under the lower jaws. No thyroid could be felt. Hands large, fingers swollen and spade-like; much swelling at both wrists, more especially at the back, with what appears to be thickening of the bones and joints, probably the result of a chronic rheumatoid arthritis. Feet swollen and large. Tongue large and flabby. Voice slow, thick, and monotonous. She had no difficulty in swallowing, and took all food that was given to her. Hearing was very bad. Eyesight was impaired, but she was able to read by holding large print close to her eyes. She slept heavily at night and snored loudly. Her temperature was subnormal; it did not rise above 95.2° on the several occasions upon which it was taken. Urine: colour natural, specific gravity 1022, acid, no albumen and no sugar.

May 10th. She has remained in the same condition both bodily and mentally. The heart sounds were slow and prolonged, and there was a loud systolic murmur best heard at the apex. Pulse 56. Breath sounds weak over the whole chest, but very faint at the bases. Respirations 17. Temperature 95.2.° At 4 P.M. the patient had a subcutaneous injection (m xv) of thyroid extract. This I obtained from the fresh thyroid gland of a young cow that was slaughtered on May 9th on the farm, and was made according to the directions given by Dr. George Murray in the British Medical Journal of October 10th, 1891. At 7 P.M. the patient said she felt the same as usual, and there were no bad symptoms. Temperature 96°; pulse 44 at wrist. The following day she appeared a little brighter, and talked more. She said she felt better.

May 12th. She had passed a restless night, and complained of slight pain in the left side. The temperature in the morning had risen to normal, and in the evening was 99.4°.

May 13th. She had been very restless and noisy all night. Temperature 97.2°. This morning her voice appeared decidedly less hoarse, and she spoke more readily. Hearing was improved, as she could catch more readily what was said. She was generally brighter, and took more notice of what was said and was going on, and walks about. Second injection given (m xx). Talkative during the day; in the evening the pulse was 68°, and the temperature 98.7°.

The third injection (m xx) was given on May 15th. The injections have had to be discontinued, owing to the difficulty in obtaining a supply of the extract. The slight improvement noted above only continued for a day or two after the third injection was given, and on May 24th the temperature fell from 98° to 96.2°. The patient relapsed into the same condition as that before the injections were commenced.

On July 17th the treatment was recommenced, the extract being obtained from Brady and Martin, of Newcastle, and supplied regularly every week; m xx were given at a time, three times a week.

During the next month marked improvement took place. By August 15th, her temperature remained about normal, pulse had improved and was 76 to the minute, respirations 24, and her weight had dropped to 8 st. 8 lbs. She was not nearly so deaf, her voice had greatly improved, and she could be understood with ease. Her sight was much better, she answered questions readily, and whereas formerly her conversation was solely on various religious delusions, it was now rational and sensible and she volunteered statements as to her past life. She said that she felt much better, and would like to return to the workhouse, which she called her home. These changes had been gradual. On this date she asked the charge nurse if she might help to wash up, lay the tables, and otherwise help in the ward.

She continued to improve and work in the ward. On August 25th she talked sensibly, and said she felt well in her mind but very weak. She was anxious for the injections to be left off, saying that she always felt hot and had a sense of sickness after the injections, which, however, soon passed off. She weighed 8 st. 12 lbs.; the lips, eyelids, and skin in general had lost their appearance of fulness; the latter was moist and warm; the pulse was 80. Her appetite had always continued good. Some enlargement of the hands and thickness of the wrists remained, but the swelling of the feet had disappeared. She had the seventeenth injection since July 17th on August 24th. The injections were discontinued, and she was given a mixture containing quinine and iron.

On September 20th the patient's mental condition remained the same, and there was little if any difference to be seen in her bodily state. Young hair had appeared on the scalp where she was previously bald. She had had an acute attack of rheumatism, on September 13th complaining of much pain in the wrists, and the following day her temperature was 103°, with pains all over, but worse in the wrists and knees. On September 16th the temperature fell to 97°, since which it had remained subnormal. She was confined to bed for a week.

September 27th. The temperature continuing subnormal and there being slight indications of a return of the myxœdematous conditions, an injection was given.

The injection was repeated on October 4th, and was followed by slight swelling and pain in the left shoulder without redness.

October 15th. No further injections have been given. The swelling and pain of the shoulder passed off in a couple of days, but she complained of pain in her joints when the weather was damp, and her wrists were still tender. The temperature remains about normal. There was a systolic cardiac murmur, but this was less loud than before treatment was commenced. The pulse was 54. She passed a considerably larger amount of urine now, specific gravity 1010, acid, no albumen or sugar. She had recently increased in weight, and was now 9 st. 4 lbs., but she had not the œdematous appearance, and it is possible that the increase in weight was due to an increase of fat. New hair was growing on the scalp and eyebrows, she was less grey and was looking very well. She stated that she used to be very active when a cook. She was very cheerful and grateful for what had been done. The improvement in her mental condition had been as great, or greater, as that of the myxœdema with which it was associated.

I have to thank Dr. Seward, Medical Superintendent, for allowing me to treat the patient in the manner described; and the Committee for their liberality in providing the necessary thyroid extract.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Sir George Murray Humphry in the Chair.

Tuesday, December 20th, 1892.

Ulcer of Tongue.

Mr. V. H. W. Wingrave: This was a sharply-defined ulcer of the tip of the tongue in a man, aged 50. The edge was slightly elevated, but the surrounding tissues only slightly indurated. It had been observed ten years. The author thought it probably tuberculous, as antisyphilitic remedies gave no relief, and, although there was no family history of phthisis, the patient had lately lost flesh and suffered from diarrhœa; there were no definite signs of tubercle in the lungs.

Disease of Adrenals in an Infant.

Mr. W. L. Wainwright: The specimens were taken from an ill-nourished infant, which died with broncho-pneumonia. *Post-mortem* examination showed nowhere any signs of tuberculosis. Histologically the cortex was, for the most part, traceable and normal, but there was in each adrenal a central mass of earthy and caseous substance, associated with the presence of orange-red blood pigment. There was no histological evidence of tubercle around the degenerate mass. He could not say that there were any signs of Addison's disease in the case, which was in this comparable to the ones recorded in Dr. Greenhow's monograph, in which, without the clinical signs of Addison's disease, the adrenals were found affected with carcinoma, sarcoma, apoplexy, or tubercle. Dr. Greenhow did not discuss the possibility of syphilitic lesions of the capsule; in one case the apoplexy was associated with tuberculosis of the organ. The youngest instance of Addison's disease was in a boy, aged 11 years, recorded by Sir Risdon Bennett. Dr. Bruce had recorded a case like that recounted, in which there was also no evidence of the disease being tuberculous.

Dr. S. W. Wheaton thought the calcification due probably to changes at the seat of past hæmorrhage; he had seen blood cysts in the adrenals in a new born child, possibly due to congestion attending parturition.

Destructive Papilloma of Penis.

Mr. Arbuthnot Lane: The growth occurred in a man, aged 39, and commenced apparently as a phagedænic ulcer, the penis becoming greatly swollen. The surface presented a finely papillomatous character, and on being partly removed, the growth was found to penetrate throughout the substance of the organ. He considered the disease to have started in the urethra. Amputation was performed, and no recurrence took place.

Mr. Shattock referred to what he thought was a similar specimen in St. Thomas's, in which, as Mr. Lane had described, a papillary growth invaded the adjoining parts, not on the deep aspect as in a common carcinoma, but grew into them as a papillary formation. [Mr. Lane's specimen was referred to the Morbid Growths Committee.]

Rupture of Aorta into the Pericardium.

Dr. H. D. Rolleston: There was a spontaneous rupture of the inner and middle coats, the blood raising the pericardium where reflected over the root of the aorta and eventually escaping through it by a minute pin-hole aperture. He conjectured that the blood had escaped slowly on account of the quantity present in the pericardial sac; the usual maximum quantity found in like cases was 10 fluid ounces, but this was greatly exceeded in the present instance. The veins of the neck were much distended, the escape of blood into the pericardium eventually leading to compression of the auricles.

Sarcoma growing down the Ureter.

Dr. F. Penrose exhibited for Mr. Bull a cylindrical cast, several inches in length, of the ureter. It was passed after much straining by the urethra, and was found on microscopic examination to be partly of blood clot, partly of sarcoma tissue. A tumour of the left kidney was diagnosed by the clinical signs, the diagnosis being confirmed after death. In the bladder, near the orifice of the ureter, was a small growth of similar sarcomatous structure; the retroperitoneal glands were infected.

Mr. Shattock referred to a precisely similar specimen in the museum of St. Bartholomew's, in which a tumour of the kidney had grown out into the renal pelvis and down the ureter, as sarcomata not infrequently did into the lumen of a vein; a long cast of the growth had been passed, as in Dr. Penrose's case.

Mr. Marmaduke Sheild considered the growth at the orifice of the ureter as probably due to implantation of detached fragments of the tumour.

Dr. Charlewood Turner referred, as probably analogous in some points, to cases of cirrhosis of liver, in which he had found hepatic cells in blood extravasated into the tissue.

Mr. Leonard Bidwell had witnessed in an operation of nephrectomy for renal tumour an extension of the growth for a short distance down the ureter.

Dr. Rolleston thought that the case was not so much one of implantation by detachment as of adhesion of the extension of the tumour to the orifice of the ureter.

Dr. Penrose, in reply, had formed the idea himself that the growth at the origin of the ureter was due to implantation, and he regarded the chief part of the cast as blood in which portions of the tumour had been entangled, rather than an actual extension of the tumour had occurred down the ureter.

Epithelioma of Septum of the Nose Showing the Presence of Psorosperms.

Mr. J. Jackson Clarke, the author, regarded the appearances he described without hesitation as due to psorospermia, and held that these bodies were the cause of carcinoma. He traced, he stated, all the developmental changes in the life history of the parasite, except the encysted condition so common in the rabbit's liver. As in the case of psorospermial cysts of the ureter he had studied and described in the last volume of the Society's *Transactions*, so he had seen in the epithelioma. In sections of the tissues hardened with Müller's fluid, large cells, staining deeply throughout with carmine and but slightly with acid hæmatoxylin, were abundant, for example, in some of the cysts of the kidney

and ureter, and in the cell nests and other parts of the epithelioma. In the epithelioma the oval form of the large cells was sometimes greatly altered by pressure. These cells, which had hitherto been regarded in epithelioma as degenerated cells, were, he thought, unmistakably psorosperms. The idea of degeneration was in both cases negatived by the beautiful nuclear figures presented by some of the large cells, and by the clear evidence in them of biological processes described below. The large cells at a certain period showed an extension of the nuclear network which spread outwards, generally as a delicate but sometimes as a very coarse reticulum which filled the whole cell, and this now split up into innumerable delicate amœbæ, which at first were devoid of a nucleus. These amœboid psorosperms were set free by the rupture of the capsule of the mother cell. Conjugation previous to the amœba formation was seen in some of the sections of the epithelioma. In both cases there were many large psorosperms lying within cells, the parts of which adjacent to the parasite were modified into a capsule. In sections stained with picro-carmine and mounted in glycerine, these capsules were seen to possess a beautiful radial striation, which sometimes gave a semblance of a radiated structure to the protoplasm of the psorosperm, a semblance which, on close examination, disappeared. In cell nests of this and three other squamous epitheliomata he had detected clear evidence of the following process: (1) A single psorosperm, or one resulting from the conjugation of two or more, throughout the whole of its protoplasm becomes highly refracting, and is traversed by a well-marked, usually delicate but sometimes coarse, reticulum, which spreads outwards from the nucleus or nuclei. (2) The reticular mass—usually surrounded by the thinned capsule consisting of the dead and distended host cell—breaks up into rounded segments, which keep the fine reticular structure, but are stained slightly purple with acid hæmatoxylin. (3) Within some of the daughter psorosperms fine filaments of chromatin appear and condense to a definite nucleus, whilst the obvious reticular structure disappears from the rest of the cell (see Fig. 1). These amœboid cells are set free

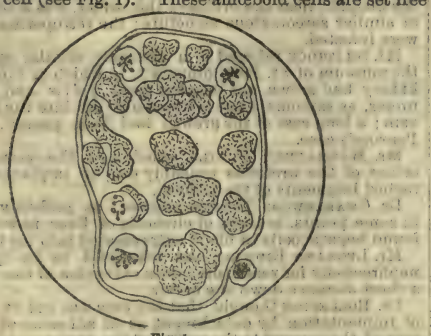


Fig. 1.

by rupture of the remains of the host cell. They give evidences of multiplying by division, and are easily distinguishable from leucocytes and red blood corpuscles in specimens treated with acid hæmatoxylin. (4) The amœboid parasites make their way between the epithelial cells and pass in vast numbers into the connective tissue spaces beyond the epithelial part of the growth. In their passage they cause the rows of epithelial cells to separate and thus bring about a multiplication of the points of epithelial ingrowth and detachment of small growths of epithelial cells. A considerable amount of inflammation is caused by the invasion of the vascular tissues by the amœbæ, with the same result as that seen in inflammatory papillomata—for example, mucous tubercles—namely, an extension of epithelial growth and a formation of new blood vessels, etc. Most of the amœbæ disappear, and the inflammation seems to subside; a small proportion of the amœboid psorosperms enter epithelial cells, where even in the non-nucleated amœboid stage they could be detected. In the course of growth they remain near the central parts of the epithelial columns as the now familiar intracellular psorosperms. In the squamous epithelioma the latter are most abundant in and about the cell nests; when they arrive there the cycle is renewed, and a new extension of the epithelial growth results. In conclusion, Mr. Jackson Clarke insisted that the cyclic life of the parasites and their reaction on the tissues of the host accounted for all the chief phenomena of the disease—local malignancy of metastatic growths, etc. He had examined again his sections of the case of psorospermosis of the urinary tract, and he found in it an affection of the nature of cystic adenoma. To the naked eye, the contents of these cysts resembled those of colloid cancers. A consideration of the case afforded suggestions as to features noticed in mammary adenomata in non-cancerous parts of cancerous mammæ, and as to conditions such as adenoma of the cervix uteri, etc. The amœboid psorosperms were identical in structure with some of the plasmodia met with in the blood in ague. The cyclic course of this disease was suggestive of a cycle in the life of the parasite observed in it. There might be psorosperms in the large spleen, and in lymphadenoma, from which it was a short step to sarcoma. In the four cases of squamous epithelioma he found the structural evidence so full and complete that he deliberately attributed the disease to the agency of the psorosperms. These four cases were taken as they came, and not selected from a number. In several cancers of the breast, kidney, etc., he was now investigating, psorosperms, both in the large and in the amœboid process, were present in every case. He had no doubt all cancers would prove to be due to psorosperms. The mystery of the disease when once contracted was solved; the paths of infection remained to be explored.

Mr. Shattock observed that, although the histological appearances pointing to the presence of protozoa in carcinomata were so strong, nevertheless the evidence, to be really complete, must be based as in other cases on the fulfilment of Koch's postulates; the microzoon must be cultivated outside the body, and from the culture the disease must be reproduced. For he did not agree that Mr. Clarke had traced the complete life-history of the presumed protozoon in the carcinoma. Mr. Clarke had not seen a true encapsuled form, nor had such been seen by Wickham and others in the epidermis in Paget's disease of the nipple; nor had the speaker seen encapsuled forms in this disease, though such structures as were figured by Wickham he had seen in abundance. The many experiments performed by Mr. Ballance and himself of grafting cancer had been negative, and he thought that the explanation offered by Metschnikoff afforded a clue to it, namely, that part of the cycle in the life of the parasite was passed outside the body. It was in this direction that Mr. Ballance and he were now working. He remarked how numerous the appearances described by Mr. Clarke were in squamous-celled carcinomas, whilst in a scirrhus of the breast in the main part of the growth they were rare; if anything was true, it would hold of scirrhus of the breast, and Mr. Ballance and he always limited their observations and experiments to such, for in these tumours, as contrasted with those of superficial parts, there was the least chance of protozoa gaining access to the tissues after the manner of mere saprophytes; in the vagina, for example, such might happen, as certain forms of protozoa were known to occur in this situation.

Dr. Galloway thought Mr. Clarke had been too bold in so dogmatically stating that the various appearances described by him were all psorospermial, and thought that such carcinomas as those of the tongue were full of appearances liable to misinterpretation; in scirrhus of the breast the changes were almost limited to the growing edge. Mr. Clarke, moreover, had not described any falciform stages such as all psorosperms yet studied exhibited. The proof, as Mr. Shattock had said, needed to be pushed further, and this would be the next stage in the investigation.

Mr. Clarke, in reply, remarked that the cycle he alluded to was sufficient to account for the infectious nature of cancer in the individual, though he was not prepared to say that it was the full and complete one. He had examined other tumours than the squamous-celled.

Phagedænic Ulceration after Vaccination.

Dr. S. W. Wheaton: This was an instance of such ulcera-

tion following vaccination after fourteen days, and due to inherited syphilis; in cases of syphilisation from vaccination the symptoms were delayed for nine weeks.

CARD SPECIMENS.

Dr. W. S. WHEATON: Ivory Osteoma of Skull.—Dr. R. G. HEBB: Tuberculous Tumour of Male Breast.

OBSTETRICAL SOCIETY OF LONDON.

JAMES WATT BLACK, M.D., President, in the Chair.

Wednesday, December 7th, 1892.

SPECIMENS.

THE following specimens were shown:—Dr. HORROCKS: (1) Long Forceps; (2) Uterine Sound; (3) Saline Transfusion Apparatus.—Dr. RASCH: Woman, subject of Osteomalacia, cured by Excision of the Ovaries.—Dr. LEWERS: Papilloma on Peritoneal Aspect of Ovarian Cyst without other Peritoneal Injection.—Dr. A. ROUTH: Deformed Fœtus.—Dr. BOXALL: Placenta Prævia of unusual size and shape.

THE OCCURRENCE OF SUGAR IN THE URINE DURING THE PUERPERAL STATE.

Drs. J. McCANN and W. A. TURNER read this paper. From a series of 100 cases they had come to the following conclusions: 1. That sugar is present in the urine of women during lactation. (The authors assume with Hofmeister that this sugar is milk sugar.) Glucose may also be found. 2. That sugar is present at some period in every case. 3. That in the majority of cases the largest amount occurs on the fourth and fifth days of the puerperium. 4. That the quantity depends on (1) the condition of the breasts; (2) the quantity and quality of the milk; (3) the sucking of the child. Out of 100 cases the average quantity found was 0.35 per cent., that is, 1½ grain per ounce. 5. That when lactation is diminished or suppressed, the amount of sugar diminishes or disappears. 6. That when the production and exhaustion of the milk are equal the amount of sugar is very small. Cases showing the varying conditions observed were cited in detail.

Dr. A. ROUTH asked if the authors had been able to follow any of the cases so as to ascertain whether the glycosuria persisted. Information on this point would be valuable as to the permanency of its persistence in these minor and primarily, perhaps, physiological cases.

Dr. BOXALL mentioned the case of a suckling woman who was admitted to University College Hospital for repair of a ruptured peritoneum, and whose urine was loaded with sugar, so the operation was postponed for a week or two, when the sugar had disappeared. When resident at the General Lying-in Hospital his observations as regarded the presence of sugar in the urine of lying-in women completely coincided with the conclusions reached by the authors of the paper.

Dr. HORROCKS pointed out that the paper was on a physiological and not a pathological subject. The cases were not diabetic, and in none of them, therefore, was there any reason for hesitating to perform any operation required. In true diabetes the fear of operation might induce coma, but otherwise he knew of no reason for not operating upon diabetic patients.

Dr. WHEATON agreed in the main with the authors' results, but he did not think sugar was so frequently present as stated in the paper. Normal urine always contained a small amount of copper-reducing substances. In the cases where only 0.17 per cent. of sugar was found by the author, he thought the reduction of the copper probably due to the excess of uric acid and urates generally present in the early part of the lactation period. The authors had not shown that the sugar present was really lactose, and asked if they had found any test to distinguish between it and dextrose or diabetic sugar. It seemed a most unusual thing that the secretion of a gland should be reabsorbed, and it would be important to ascertain whether the sugar existed in the blood during lactation. He had found that where a considerable amount of sugar existed in the urine of the mother, it also was present in that of the infant, suggesting that the sugar was incapable of assimilation, and of a more or less poisonous nature, and that its presence in excess might be injurious to the child. He thought the sugar in the urine of pregnant women might be due to congestion of the liver which was present, or to a ferment in the mother's blood producing a similar effect by the decomposition of glycogen.

Dr. CULLINGWORTH suggested an alteration in the heading of the last column of the main table, and this was at once accepted by the authors.

Dr. LEWERS asked whether, in addition to Fehling's test, that by potash and the specific gravity had been noted.

Dr. GRIFFITH thought the probable explanation of the presence of sugar in urine of nursing women was that it was a resorption process from the mammary glands, varying in quantity with the activity of the secretion and the difficulty with which the breasts were emptied, and, as had been suggested, possibly with the composition of the milk.

In reply, Dr. McCANN thanked the Fellows for the reception given to the paper. The observations were made on 100 cases, and over 1,400 samples of urine were tested. The authors followed strictly the method of testing with Fehling's solution advocated by Sir W. Roberts, namely: (1) Avoid prolonged boiling; (2) allow suspected urine to stand twenty-four hours before deciding that it does not contain sugar; (3) do not add excess of urine. Dr. McCann pointed out the importance of distinguishing between glycosuria and diabetes; glycosuria without constitutional symptoms was of little importance. Unfortunately the cases could not be traced, as lactation was stopped when the patients left the hospital. The only method of distinguishing between glucose and lactose was by the polariscope, and where much sugar was present in the urine probably accompanied by a large amount of lactose in the milk, the nutritive value of the milk was diminished. Barron's tests had been employed. The quantitative estimation was made with Pavy's solution. He pointed out the many important points still requiring elucidation, such as the composition of the milk, its nutritive value, and the condition of the blood during lactation.

GALACTORRHŒA.

Dr. GRIFFITH communicated notes of a case of galactorrhœa occurring during a first pregnancy in a patient under the care of Dr. Fentem, of Bakewell. The excessive flow of milk (which reached to a pint daily) continued during the whole period of gestation, and the treatment, which consisted in the administration of iron and quinine with pilocarpin and in firmly bandaging the breasts, was apparently without material benefit.

BRITISH GYNÆCOLOGICAL SOCIETY.

W. A. EDIS, M.D., F.R.C.P., Vice-President, in the Chair.

Thursday, December 8th, 1892.

SPECIMENS.

DR. O'CALLAGHAN showed (1) a large Fibromyoma of the Uterus, containing a cyst produced by degeneration of the central portion of the tumour; (2) an Ovarian Cyst, with a thick wall containing a number of papillomata.—Dr. GRANVILLE BANTOCK made remarks.

SUPRAVAGINAL AMPUTATION OF CERVIX UTERI.

Mr. BOWREMAN JESSETT read a paper on twenty-five cases of supravaginal amputation of the cervix uteri for carcinoma. The operation was advocated for cases in which the disease was limited to the external os and cervical canal, but not where the vaginal wall or the body of the uterus was involved. The cases brought forward were operated upon during the years 1889, 1890, and 1891. Except in one or two instances microscopical examinations had been made, which confirmed the diagnosis. In one instance this was doubtful. Of the remaining twenty-four cases, two died within a fortnight of the operation. Of the remaining twenty-two, four had been lost sight of; of the remaining eighteen, recurrence had so far taken place in six—four within a few months, one in twelve months, and one in eighteen months. The remaining cases were ascertained to be without recurrence in November, 1892, the duration of time since operation being as follows: For three years, two cases; two years, three cases; one year and a-half, two cases; one year and a few months, two cases; eleven months, three cases. The author then gave details of his method of performing the operation.

Dr. A. W. EDIS said that the success of the operation depended entirely upon its performance in an early stage. It

was too soon yet to judge of the permanent effects of the operation in Mr. Jessett's cases. He preferred the operation to complete extirpation.

Remarks were made by Dr. C. H. F. Routh, Dr. Inglis Parsons, Dr. Heywood Smith, and Dr. Granville Bantock; and Mr. Bowreman Jessett replied.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Wm. Hall, M.R.C.S., President, in the Chair.

Friday, December 2nd, 1892.

Acute Anteflexion of the Pregnant Uterus in the Later Months of Pregnancy.

Dr. Braithwaite related four cases. He said in this affection the body of the uterus was in acute forward flexion, and the neck, elongated to some extent, lay behind the rounded anterior tumour. This was distinct from the pendent belly with anteversion, in which the cervix was carried up posteriorly almost out of reach, the latter occurring in multiparæ, the former generally in primiparæ. The condition, which was very rare, was sometimes mistaken for an extrauterine gestation.

The paper was discussed by the President, Dr. Hellier, and Dr. Johnstone.

The Treatment of Tuberculous Peritonitis by Abdominal Section.

Dr. Hellier discussed this subject under the following heads: 1. Historical notes. 2. Some cases in which cure had been absolutely verified. 3. Examination of results obtained in different forms of tuberculous peritonitis. In the ascitic form the results had been very good. In the dry fibrous form complete recovery had followed operation in some remarkable cases. In the caseating ulcerative form the results were poor, but there had been some encouraging successes. 4. *Modus operandi*. Shall we wash out? Shall we use antiseptics? Shall we drain? 5. The counterindications to abdominal section. 6. In what way does the operation cure tuberculous peritonitis? He also referred to a case lately under his care in which abdominal section had apparently arrested the downward progress of a case, and where a very protracted period of fever had been followed by ultimate recovery.

Mr. Mayo Robson divided cases of tuberculous peritonitis into those with effusion of fluid into the peritoneum and those without. In the former his experience of operation was decidedly favourable; in the latter relief only had been given, and phthisis or other tuberculous trouble had always developed.

Dr. Kilner Clarke (Huddersfield) had intentionally performed laparotomy for tuberculous peritonitis in 1887; the patient was now in perfect health. He had most frequently met with the caseous form, but thought the true nature could seldom be diagnosed before opening the abdominal cavity; in these cases there was generally more or less ascites. In the purely ascitic cases the prognosis was most hopeful. He had met with two cases of the dry fibrous form. He was in favour of washing out the peritoneal cavity, but strongly opposed to drainage.

Dr. Churton said that the cases stated to be most suitable for incision were chiefly those which would, under proper conditions, readily recover without it.

Dr. Barrs referred to the statistics recently published by Dr. Hawkins in *St. Thomas's Hospital Reports*, which went to prove that the surgical procedures recently advocated in the treatment of tuberculous ascites showed no better results than the older methods of expectancy with occasional paracentesis.

Dr. Gordon Black, Dr. Braithwaite, and Mr. L. Knaggs also took part in the discussion.

Cases and Specimens.

The following cases and specimens were shown:—Mr. Ward: Case of Excision of Right Knee and Hip-joint for tuberculous disease.—Mr. Littlewood: Patient whose Penis had been removed twelve years before for Epithelioma.—Dr. Churton: Girl with Spasmodic Talipes Varus, with Overpronation and Adduction of Right Wrist.—Mr. Rumboll: Double Hydrosalpinx.

MANCHESTER MEDICAL SOCIETY.

A. W. Stocks, M.R.C.S., President, in the Chair.

Wednesday, December 7th, 1892.

Cases of Nervous Disease.

Dr. Reynolds showed a case of Male Hysteria in a patient, aged 66, who exhibited very markedly the trepidant variety of "astasia-abasia." This was probably merely a new name for the well-known difficulties of walking and standing met with in hysterical and neurasthenic patients. The patient had other hysterical symptoms, as retraction of the field of vision, irregular patches of anæsthesia, etc. Dr. Reynolds also showed (1) a case of Hereditary Chorea coming on about the age of 6, the patient's father having suffered from adult chorea; (2) a case of Bilateral Chorea following an attack of slight right-sided hemiplegia in a male adult; and (3) a well-marked case of Hysterical Chorea in a girl, who also had hemianæsthesia.

Aortic Disease with Presystolic Murmur.

Dr. Edge mentioned a case of aortic regurgitation in which a presystolic murmur had frequently been heard, and expressed the opinion that it would prove to be one of the cases first described by the late Dr. Flint, in which, after death, no mitral lesion could be discovered. Dr. Edge also mentioned a case of mitral stenosis in which the presystolic murmur was unusually well conducted to the left and could be heard at the back. A loud rough murmur was also heard in this case over the pulmonary area. After excluding other causes, this murmur was considered to belong to the group described by Quincke in which, owing to retraction of the left lung, the pulmonary artery came in contact with, and was thus flattened against the parietes at each systole and a murmur produced. Allusion was also made to Dr. Bramwell's opinion that this murmur was exocardial and caused by the pericardium covering the root of the pulmonary artery being roughened by a deposit of lymph and rubbing against the chest wall.

Deep Cardiac Dulness in Mitral Disease and Cardiac Dilatation.

Dr. G. Harris related the result of a number of *post-mortem* examinations in cases of mitral stenosis and cardiac dilatation due to muscle failure, which showed that in the cases where the deep cardiac dulness extended as high as the second left interspace it was due to the enlargement of the conus arteriosus of the right ventricle. The left auricle in the case which he had observed was either not seen at all from the front or only the tip of its appendix was visible. Dr. Harris pointed out that the dulness resembled closely that caused by pericardial effusion.

Mediastino-Pericarditis.

Dr. Leech showed a case of mediastino-pericarditis in a boy.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

T. Oliver, M.D., President, in the Chair.

Thursday, December 8th, 1892.

Detection of Free Hydrochloric Acid in the Stomach.

Professor Bedson said Jolles's method was based on the fact that a solution of eosin showed two absorption bands in the blue-green portion of the spectrum, which were destroyed by hydrochloric acid, intensified by alkalies, but not affected by lactic, butyric, acetic, or formic acids. His own method was a modification of this, and required for its employment (1) standard solution of eosin to which a known quantity of soda was added, (2) parallel-sided glass cell of different width, (3) standard solution of hydrochloric acid, (4) spectroscope.

Cases.

Mr. Morgan showed a boy in whom the Right Common Carotid was tied for Uncontrollable Hæmorrhage from the mouth, following apparently extraction of a tooth. The bleeding recurred after ligature, but much less severely, and was easily controlled by plugging.—Dr. Murphy showed a girl whose Tibia he had sutured for Ununited Fracture.—Dr.

Hume showed a man from whom he had removed a large Sarcomatous Kidney by anterior incision.—Mr. Page showed (1) a man, aged 38, whose Right Kidney he had removed for Pyonephrosis; (2) a boy from the Synovial Membrane of whose Knee-joint a growth had been dissected; (3) a man, aged 70, who presented all the symptoms of Stone in the Kidney. An incision was made, but no stone found. The patient had, however, lost all his symptoms.—Mr. Page, Dr. Murphy, and Mr. Williamson showed patients whose Femoral Arteries they had tied for Popliteal Aneurysm, a good result being obtained in each case.—Dr. Limont showed a woman suffering from widespread Lichen Planus; on one leg there was a patch of lichen verrucosus.—Dr. Hume showed Calculi removed from three patients by suprapubic lithotomy; and Dr. Selby Plummer showed one removed in a similar manner.

Specimens, Etc.

Dr. A. E. Morison showed specimens from three cases of Ectopic Gestation on which he had recently operated, all the patients recovering.—Dr. Coley showed a Syringe which he had used for intralaryngeal injections of menthol. Cough and dyspnœa had been relieved by the treatment.—Mr. Williamson showed a Cup of Bone removed from an Excised Eyeball, and two specimens of Glioma of Retina.—Dr. Robertson showed some of the modern instruments used in throat and ear surgery.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Simeon Snell, F.R.C.S.Ed., President, in the Chair.

Thursday, December 8th, 1892.

Remains of Hyaloid Artery.

Dr. Arthur Hall showed a woman, aged 23, with the remains of the hyaloid artery persisting in the left eye. In front of the disc a cloudy funnel with a black rod-like body on the upper and inner part of it extended for some distance into the vitreous.

Specimens.

Mr. Richard Favell showed the following specimens: (1) Tubal Mole, which he had removed by abdominal section. No embryo was found, but a microscopic section showed chorionic villi. He also related a case in which a blood mole, after being retained in the uterus for six and a-half months was expelled about the time when gestation, had it been normal, would have terminated. (2) Fibroma of Ovary removed from a woman, aged 63. The tumour weighed just over 3 lbs. and had a thin, short pedicle which was tied in one loop. The patient made a good recovery.

Acute Axial Rotation of Ovarian Cyst.

Mr. Richard Favell related for Mr. Laver particulars of the removal of an ovarian cyst for acute axial rotation.

Acute Bright's Disease.

Dr. Black Milne presented a note on the etiology of acute Bright's disease. He related an instance where in one house three healthy children were almost simultaneously attacked. They had not been exposed to wet or cold, and careful examination and inquiry as to the possible existence of diphtheria, scarlet fever, or other of the exanthemata was made with negative result. A probable source of origin was suggested in the presence of an offensive privy midden in a small back yard near the kitchen door. In another instance, where two children in one house were suffering from acute nephritis, Dr. Milne failed to discover any cause whatever. Reference was made to a possible microbic origin, and the mysotic nephritis of Continental writers was mentioned. Our views of acute pneumonia had been altered by the discovery of Fraenkel's pneumococcus, and possibly in the future a similar discovery might explain acute idiopathic Bright's disease.

Dermatol in Diarrhœa.

Dr. Martin reported a case of diarrhœa in advanced phthisis in which half-drachm doses of dermatol four times a day stopped the diarrhœa after various astringent remedies had been tried without avail.

Flat Foot.

Mr. Atkin read a paper on flat foot. The connection with ingrowing toe nail and sweating of the feet from pressure on the plantar nerves was adverted to. Though massage, regular exercises, douches, and galvanism were pretty universally recommended every possible shade of opinion existed as to the value of boots, heels, instruments, and operations. Mr. Atkin specially noticed the operations of Ogston and Trendelenburg, and stated that as the former had operated 50 times and the latter on 27 cases their results must have been fairly satisfactory else they could hardly conscientiously continue operating.

COUNTY AND CITY OF CORK MEDICAL AND SURGICAL SOCIETY.

N. Grattan, M.D., F.R.C.S.Edin., President, in the Chair.

Wednesday, November 9th, 1892.

President's Address.

The President delivered an introductory address, in which he gave details and statistics relating to the spread of cholera, its modes of invasion, epidemic nature, duration, treatment and prevention. He congratulated the Society on its valuable work in enforcing on the authorities the necessity of complying in every particular with the directions of the medical officer of health (Dr. Donovan), and drawing attention to the unsatisfactory state of the Cork water supply.

Surgeon-Colonel Mansell, Principal Medical Officer, Cork District, brought forward a great mass of detail on the prevention of cholera, from long experience in India and various countries, and gave analyses of the water supply, which showed the Cork drinking water to be likely to be a fertile source of danger should cholera visit the country.

After a discussion the matter was referred to a subcommittee, and votes of thanks were passed to the President and Surgeon-Colonel Mansell for their valuable papers.

Specimens.

Dr. Cotter showed a specimen of False Hermaphrodite in a fœtus born at full term, which survived its birth only a few hours. The anus was imperforate. The external organs of generation were represented by a well-formed penis and scrotum, but without testicles. Internally there were present a bicorn uterus, Fallopian tubes and both ovaries. The rectum, lower portion of uterus and bladder, formed a common cloaca, and the large intestine was greatly distended. The fœtus was perfectly matured and well-formed in every other respect.—Dr. Woods, medical superintendent of Eglinton Asylum, showed a specimen of Gastric Ulcer, from a woman, aged 27, who had been treated from time to time for subacute attacks of gastritis.—Professor Pearson showed a large Ovarian Tumour, which he had removed; the patient made an excellent recovery.—Dr. W. Ashley Cummins exhibited a specimen of Encysted Hydrocele of the Canal of Nuck, about the size of a large hen's egg, which he had removed.

REVIEWS.

The Pharmacy and Poison Laws of the United Kingdom, their History and Interpretation; with a Brief Account of the Pharmacy and Poison Laws in Force in Australasia, Canada, and Cape Colony. London: Office of the *Chemist and Druggist*.

Unfortunately the practice of pharmacy in this country is so much more largely a mere matter of ordinary trade than it is in Continental countries that, with the exception of a comparatively small number of those engaged in the business, there is a marked deficiency of that professional spirit which characterises the more scientific pharmacists of Germany and France. Since the foundation of the Pharmaceutical Society and the recognition, by legislative enactment, of the principle that the practice of pharmacy demands scientific and technical qualifications of a high order there has probably been some improvement; but it is by no means sufficiently general. The great majority of chemists and druggists, though possessing a legal qualification, are essentially traders only, and though they have the advantage of an Act of Parliament which offers them the possibility of securing a distinct monopoly in the

exercise of their calling, there has been far too little effort on their part to turn its provisions to practical account, either in their own interest or for the benefit of the public. In making these observations we are guided by a knowledge of the state of things which has prevailed in regard to the sale of poisons, and to which we have recently directed attention. The neglect of the Pharmacy Act in this respect has long constituted a ground for urgent remonstrance from the medical profession and from coroners, who have the serious consequences of that neglect brought under their notice. It is a reproach to the chemists and druggists of this country that such neglect has been allowed to continue, and that they have not long since united in an effort to put an end to it.

The treatise on Pharmacy and Poison Laws that has been published by the proprietors of the *Chemist and Druggist* gives a most interesting summary of the history of pharmaceutical legislation and of the cases in which questions relating to the Pharmacy Acts have been brought before the courts. It sufficiently demonstrates that ample means exist for the more efficient and satisfactory regulation of the trade in poisons. In fact, perusal of the Act of 1868 and of the decisions which have been given in various cases of prosecution for its infringement leads to the conclusion that chemists and druggists enjoy protection in the exercise of their business to a far greater degree than medical men. The Act not only prohibits any but registered persons from keeping open shop and carrying on business as a chemist and druggist, or making use of that designation; but it absolutely forbids the retail sale or dispensing of a large number of articles, commonly used in medicine, by any person who is not authorised under the Act. The consequence of these prohibitions is that practically the business of compounding medicines and dispensing physicians' prescriptions cannot be lawfully exercised by any other persons. The power of enforcing the provisions of the Act in these respects is vested in the Pharmaceutical Society, which may be regarded as representing for that purpose the whole body of chemists and druggists. The exercise of that power serves, therefore, not only as the fulfilment of a public duty, but also to protect the privileges of duly qualified persons. In such cases as have come before the courts respect has been shown for the statutory privileges of qualified persons, and even in the litigation relating to the application of the law to limited liability companies, the necessity of qualification in the persons selling poisons was fully upheld by the House of Lords. And yet it is the fact, as stated at page 83 of the work now under review, that the explicit judicial dicta on this point "have been but little regarded by chemists generally"! For many years no action was taken in the sense suggested by those dicta, and it was not until the point was pressed upon the Pharmaceutical Society by Mr. Braxton Hicks that a prosecution was instituted for the sale of poison by an unregistered assistant. That prosecution gave rise to a considerable outcry on the part of chemists and druggists, and even the decision upholding the necessity of qualification was at first received with dissatisfaction and the whole matter was once more allowed to sleep until the recent vigorous action of the Chairman of the Parliamentary Bills Committee of the British Medical Association stirred the Pharmaceutical Society to something more nearly approaching a sturdy fulfilment of its public duty.

A similar inconsistency has characterised the action of chemists and druggists in regard to branch shops and the sale of poisons in the form of proprietary medicines. The general disregard of the law in both respects has long been notorious, and while it has contributed largely to render the Pharmacy Act ineffective for its intended object, it has deprived chemists and druggists of that protection, in the exercise of their business, which they might justly have claimed. Under these circumstances the complaints made by chemists and druggists of the competition of limited liability companies cannot be deserving of much consideration. If a limited company can carry on the business of a chemist and druggist, it must be with the agency of a qualified person, and by that condition the public object of the Act is secured as amply as if he were the proprietor of the business. It is for qualified chemists and druggists to see that this condition is fulfilled, and it must be remembered that whatever may be their opinion of the value of proprietary qualification, it is of little account in the public interest when its duties are delegated to unqualified assistants.

The very excellent summary of this subject of pharmaceutical legislation now published will, it is to be hoped, direct attention to the need for better observance of existing enactments. It should stimulate those most directly concerned in promoting the interests, as well as the usefulness, of the important calling of pharmacy, to greater activity in the defence of their recognised position.

The book has evidently been written with great care. It is a simple narrative of facts, without expressions of opinion or any attempt to advocate particular views, and it is on that account the more valuable. Generally speaking, the statements in the book may be accepted as correct, and only in one place have we met with a remark to which exception can be taken. In reference to the application of the Act to patent and proprietary medicines, at page 93 there is this passage:—"It was always certain that all medicines, patent or not, if they come within the description of poisons, are subject to the requirements of the 17th section of the Act—that is, as to labelling." If that certainty has always been perceived, the very general failure to observe the requirements of the Act, which has occasioned such strong remonstrance on the part of the Parliamentary Bills Committee, would furnish ground for a serious charge against the sellers of such articles.

However, we think that few can read this book carefully without being convinced that whether, in regard to pharmacy and the sale of poison, further legislation be requisite or not, the beneficial capabilities of the Pharmacy Act, 1868, are still very far from having been exhausted. Whether it be on the part of the Pharmaceutical Society, as the representative of chemists and druggists, or, failing that, by some other agency, that the latent powers of the Act are to be developed and made effective we will not now attempt to predict, but we are convinced that, in one way or other, action in that sense cannot long be delayed.

Chemical Lecture Experiments: Non-Metallic Elements. By G. S. Newth, F.I.C., Chemical Lecture Demonstrator in the Royal College of Science, South Kensington. London: Longmans, Green and Co. 1892.

This volume consists of a useful collection of experiments illustrating the modes of preparation and the properties of the non-metallic elements and their commoner and more important compounds. Directions are given for the preparation and performance of the various experiments. For the most parts experiments merely illustrative of the ordinary laboratory processes of quantitative analysis are excluded, as are all experiments illustrating the action of substances upon animal life, and such as are of either so critical or dangerous a nature as to involve the adoption of any special or elaborate preparation. For the conveniemce of such teachers as may not have ready access to works of reference a number of important and useful tables are added in the form of an appendix.

The equations representing the various reactions are given, and the book has been so arranged that the student may learn from it the methods of preparation and most of the important properties and their non-metallic elements, and their more common compounds.

The volume will be especially welcome to those who have not the mechanical genius which is so requisite in inventing any but the simplest apparatus. In these pages will be found full instructions, accompanied by clear and well-drawn diagrams for constructing, out of such simple material as glass flasks and tubing, all the apparatus necessary to any but very advanced classes. The author, in the preface, claims to have tested experimentally all the methods described throughout the volume. Simplicity and ingenuity seem to be the author's watchwords, and it is not too much to say that he has produced a book of immense value.

There is one point, however, on which we entirely disagree with the author. He intends the book for the use of students, who by its use, he says, may be saved the trouble of drawing apparatus for themselves during lecture time. But lecture and demonstration time are the only opportunities students have of seeing and understanding many pieces of apparatus which are at all out of the common, and if any alternative

is necessary, the time had better be spent in understanding these, and leaving book work to be read up afterwards.

Pathogénie et Diagnostic des Ophtalmoplégies. [Pathogeny and Diagnosis of Ophthalmoplegiæ.] Par le Dr. Ch. Sauvineau. Paris: G. Steinheil. 1892.

This monograph of 144 pages had its origin in the study of six cases of ophthalmoplegia, which were under the immediate observation of Dr. Sauvineau. The author, who has been a somewhat voluminous writer during the past three or four years, has dealt with his present subject in a manner which renders his book interesting and instructive. Although his views do not always coincide with those of previous writers on the pathogenesis of the ophthalmoplegiæ, he shows that he has carefully studied the subject and generally adduces clinical or pathological evidence in support of his statements. Throughout the book we find notes of a large number of cases, derived from very varied sources.

The author begins by giving an historical account of the use of the term ophthalmoplegia since 1850, when it was firs employed by Brümmer to signify complete paralysis of the third nerve or pair of nerves. This is followed by a few pages concerning the classification of the ophthalmoplegiæ; that adopted by Sauvineau is Mauthner's classification modified by some additional subdivisions. After this we find about 15 pages devoted to the anatomy of the nuclear region controlling the ocular movements. This chapter, in which there are several diagrams, gives a succinct and intelligent summary of our present knowledge of this difficult subject.

The remaining chapters are devoted to the discussion of each of the varieties of ophthalmoplegia given in the previous classification; the form due to nuclear disease claiming, naturally, more attention than the other varieties. Under this heading the writer makes the statement, which he substantiates by notes of cases, but which is, we think, not quite in accord with general experience, that "cases of unilateral ophthalmoplegia of nuclear origin" are very frequently met with.

The last seven pages contain the author's conclusions, and in these few pages those who are unable to read the whole book will find a time-saving and well-expressed epitome. A fairly exhaustive bibliography is appended, and adds to the value of the treatise.

Treatise on the Diseases of Women. For the use of Students and Practitioners. By Alexander J. C. Skene, M.D., Professor of Gynecology in the Long Island College Hospital, Brooklyn, New York, etc. Second Edition, Revised and Enlarged, with 251 Engravings and 9 Chromolithographs. London: H. K. Lewis. 1892.

A work by so distinguished an authority as Dr. Skene is certain to prove of some value, hence it is not wonderful that this *Treatise* has attained another edition. In October, 1889, we reviewed the original issue at considerable length. The highest authorities are by no means the best compilers of textbooks, and our present author is no exception to the rule. The *Treatise* is far too bulky and solid, physically and intellectually, for "students and practitioners," the persons for whom it is avowedly designed. To the experienced it is, on the other hand, very useful; in fact, it is a work which the gynæcologist needs for his library.

Dr. Skene certainly avoids the common error of crowding his pages with figures and descriptions of instruments. He confines himself, it must be presumed, to what he uses in his own practice. He omits, however, many well-known instruments with which "students and practitioners" ought certainly to be acquainted, and this edition resembles the first in that respect. Certain clerical errors, such as "Gärtner" for "Gartner," are repeated. In turning to the important question of electrolysis in fibroid disease, we must confess to further disappointment. The opinion: "This method takes the highest rank among the means of treating fibroma of the uterus" remains stereotyped, as it were, from the former edition, but we find little, if any, additional evidence for or against the practice either in clinical reports or in statistics; indeed, the latter are entirely wanting. It is strange that hysterectomy is simply mentioned, with the admission that there may always be some cases that will demand it.

The edition is, it is fair to note, condensed after a fashion, for the first edition contained 966 pages divided into fifty-one chapters, whilst here are fifty-three chapters making up 951 pages. One of the additional chapters is on ectopic gestation; it is much too short in proportion to the scale on which less important subjects are treated in the same work. It contains no drawings. On the other hand, we must speak in high terms of the chapter on diseases and injuries of the ureters. Indeed, the best part of the *Treatise* consists of the section on affections of the urinary organs in women, and the new chapter is an addition which on that account distinctly increases the value of the work, for the author is a recognised expert in the anatomy and pathology of the female bladder and urethra.

Les Acariens Parasites. [The Parasitic Acari.] Encyclopédie Scientifique des Aides-Mémoires. Par P. Mégnin. Paris: G. Masson, Gauthiers, Villars et Fils. 1892.

The name of P. Mégnin is favourably known to biologists as an excellent authority on parasites, vegetable and animal, several of the former having been discovered by and named after him. Though already distinguished in veterinary medicine by some good work, he has, in making parasitology a special study, largely benefited human as well as animal medicine by his researches and by the publication of many papers and an excellent little manual.

The parasitic acari of mankind are very few compared with the number and diversity of those infesting animals; but it must be remembered that some kinds of the latter are transferable to our own species, and may thrive when so transferred either for a certain time or permanently. Numerous instances of this are recorded, especially of the psoric sarcopts, and the author's references to them are interesting and instructive. Since the days of Linnæus the order of Acari has been wonderfully increased, until now it might be truly said that their number is legion. With these Mégnin deals in a succinct manner, giving their chief characteristics with regard to form, size, habits, and habitat; the species of creatures they live upon and to which they can be transferred; the countries in which they are found; and, in fact, everything pertaining to them from a biological point of view. The descriptions are illustrated by figures, the greater portion of which are well drawn and clear, and afford a good idea of the special features of these small but often very troublesome pests of man and beast.

In his brief introduction, the author gives a sketch of the general characters and habits of the order, and alludes to some curious things in connection with acari. He reminds us, for instance, that moulting with them is not merely a change of skin, but is a complete renewal of the entire individual. While this process of moulting is going on, all of the internal organs are being merged into a sarcodic mass that is collected in the central cavity, where it constitutes a veritable ovum. This ovum throws out buds which form new limbs and buccal organs, as in the primary ovum. In some aquatic species the old integuments are destroyed and leave this adventitious ovum entirely free. Some species, again, under the pressure of certain circumstances—famine, for example—undergo an extraordinary moulting. In the envelope of the nymphs, which are young octopodons and not yet sexualised creatures, there is formed not an individual similar to itself, as is the case under ordinary circumstances and under more advanced conditions of development, but a cuirassed acarus which is totally different. Its buccal organs are atrophied, and it is provided with a group of post- and sub-abdominal suckers, that permit it to attach itself to any animated being that comes in contact with it, and in this way it contrives to escape from a situation where it must perish of hunger, as do its parents and the young larval hexapods, neither of which have the power to undergo this metamorphosis.

To anyone who is in need of a handy guide to the eleven families of acari described by Mégnin, this little volume can be honestly recommended.

On Thursday, December 14th, previous to the banquet at the Mansion House, Professor W. R. Smith was admitted to the Freedom of the Plumbers' Company.

NOTES ON BOOKS.

Our Sick and How to Take Care of Them. By FLORENCE STACPOOLE. (Cassell and Company).—This is a cheap popular manual of sick nursing, well written, and very much to the point. The writer evidently has had experience of a practical kind, for the many useful hints found in every chapter of the book suggest something over and above a theoretical acquaintance with the subject. The book will be valuable to anyone called upon to perform the responsible and arduous duty of nursing the sick.

Easy Lessons on Alcohol. By W. TAYLOR. Part I. (Church of England Temperance Society.)—Of all the practical measures for counteracting the abounding influences conducive to excess in alcohol, none is more valuable than teaching the young sound doctrine on the composition and action of alcoholic intoxicants. The simple and fairly-accurate easy lessons in this pamphlet are intended as a syllabus of instruction for bands of hope during the season 1892-3. The chemistry of alcoholic liquors is taught in clear and easily-understood language, while their properties and effects on body and mind are also stated.

The Value of Hypnotism in Chronic Alcoholism. By C. LLOYD TUCKEY, M.D. (London: J. and A. Churchill.)—In this pamphlet, which is the reprint of a paper read at the Nottingham meeting, with additions and alterations, the author relates a series of 31 cases of chronic alcoholism treated by him hypnotically. He reports 3 cases as having been "cured" over two years, while 5 still under treatment are doing well. Four are stated to have been permanently benefited. In 3 there was no effect, and 11 are reported as having relapsed after temporary benefit. The time which has elapsed since the "cures," more than half dating only from last year, has been too short, and it might be well to avoid speaking of "probable cures." An exact record of facts is the main desideratum. A curious circumstance is that Liébeault is stated to allow his cases of ordinary drunkenness to drink wine or beer with their meals; so, it appears, does Bernheim. Liébeault claims to have successes of long standing.

Outlines of Organic Chemistry. By CLEMENT J. LEAPER, F.C.S. (London: Iliffe and Son. 1892.)—The twenty chapters of which this little book is composed are well arranged to serve as an introduction to the study of organic chemistry, and they have been made to embrace the subjects required for the elementary organic chemistry examination of the Science and Art Department. The book is much in want of revision, as will be seen from the following errors: In Chapter I, page 9, we are told that the "unused portions" of the carbon and hydrogen of the food are expelled from the body as water vapour, and CO_2. Here, also, the formula of urea is given as CON_2H_2, for N_2H_4CO. On page 27 the formula $C_{2n}H_{2n}O_n$ should be $C_{2n}H_{2n}O_n$. On page 34, Experiment 25, the student is directed to dissolve cuprous chloride in strong solution of ammonia. The extreme instability of this solution, however, would indicate the advisability of using a strong solution of ammonium chloride as the solvent. On p. 40, line 12, "only drops" should of course be "oily drops." For want of detail the book will be of greater value to the teacher, or to the student who is in a teacher's hands, than to the unaided student.

The Operative Treatment of Enlargement of the Prostate. Based upon the Records of upwards of One Hundred and Forty Cases. Three Lectures delivered at the Royal College of Surgeons. By C. W. MANSELL MOULLIN, M.A., M.D. Oxon., F.R.C.S., Hunterian Professor of Surgery and Pathology; Surgeon and Lecturer on Physiology at the London Hospital. (London: John Bale and Sons, 1892.)—The lectures which are here presented in the form of a pamphlet will certainly be found very useful by those surgeons who are interested in the treatment of severe and advanced forms of prostatic disease. Mr. Mansell Moullin has described clearly and at full length the numerous operations that have been proposed, and has compared the results obtained by such treatment with those that follow the ordinary methods. It is held that in those cases in which ordinary measures fail to relieve suffering and to preserve life, a more active line of treatment is likely to give much better results. In the third lecture it is held that by operative measures, varied according to the nature of each case, the whole of the obstruction may, in a large majority of instances of severe prostatic enlargement, be removed with very little risk of recurrence, and with decided improvement of the condition of the bladder. The author does not express very definite views as to the respective values of perineal and suprapubic prostatectomy, but probably it is not yet time to form any decided opinion on this question. The interest of this contribution to a subject of great practical importance is much enhanced by a long and seemingly exhaustive list of cases of McGill's operation, and also by a full bibliography of works relating to this branch of surgery.

The A B C Medical Diary and Visiting List for 1893. (Burroughes, Wellcome and Co.)—This very convenient and useful diary and visiting-list is now ready. It is of the same size as last year's edition, and contains space for recording visits to either 56 or 112 patients, according to the requirements of the doctor, pages for cash account, obstetric engagements, vaccination engagements, engagements under Factory Act, memoranda, etc. With the diary is bound on thin toned paper the Excerpta Therapeutica, which contains late information in therapeutics, culled from recent editions, with references.

DIARIES AND POCKET BOOKS.

MESSRS. CHARLES LETTS and Co. send us an excellent series of improved diaries for 1893. *The Office Diary and Note Book for 1893*, published in an octavo series, includes several varieties, varying in price from 3s. to 6s., of which No. 181 in cloth lettered, with index, with one day on a page, will be found perhaps the most generally convenient. The popular shilling diary, interleaved with blotting paper, and with a week on each page, with extra pages for memoranda, or the corresponding diary in quarto form, a week to an opening, No. 73 at 6d., are marvels of cheapness for use in the office or on the desk. Diary No. 21, a pocket diary and cash book, one day on a page, on thin paper, bound in leather with gilt edges at 2s. 6d., is an ample and convenient pocket diary. No. 23 is a thin waistcoat pocket diary and note book bound in limp leather. No. 30 (price 1s.) is a very convenient little pocket diary and note book, bound in leather, with special arrangements for memoranda, and carries a pencil. *Letts's Gem Diary*, which consists of six handy volumes for the waistcoat pocket, with a little leather case to hold each volume, and having a page for every day, is perhaps the most convenient of all, for it combines extreme portability with relative amplitude of space, a most convenient arrangement, with a subdivision into six parts.

Smith's *Physician's and Surgeon's Visiting List*, with diary and almanack, etc., and book of engagements, is in its forty-seventh year, and is an old-established favourite. Some may, however, consider it unnecessarily bulky, but it is, as always, very useful for general practitioners. *Letts's Medical Diary*, of which one edition is published interleaved, is, in our opinion, better arranged, and we especially prefer the French morocco pocket-book with tuck, 3s. 6d., which is a very portable and convenient form.

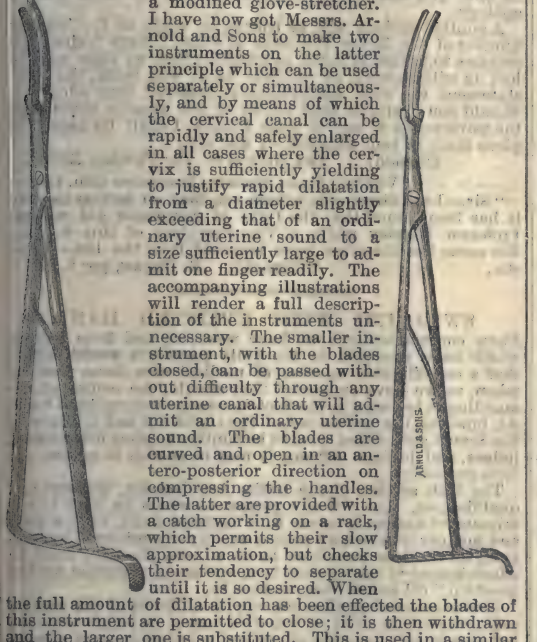
Messrs. John Walker and Co., Warwick Lane, London, issue a series of elegant so-called back loop diaries. The back loop which materially adds to the elegance and convenience of the binding also contains a perpetual pencil. These diaries are on thin paper, they are very portable, and produced with great mechanical perfection. Among the most useful we may mention No. 71, in American Russia binding, the size of the leaf being 3 in. by 2 in. (1s. 6d.); No. 64, in which the size of the leaf is $5\frac{3}{4}$ by $6\frac{1}{2}$ in. (2s. 6d.); and No. 187, morocco, size of leaf $2\frac{3}{4}$ by $5\frac{3}{4}$ in. (6s. 6d.), with leather side pockets.

The *Driquic Blotting Case* is filled with a new production in blotting paper, which is highly absorbent, blotting, it is stated, as well when covered with ink as when new. It is manufactured by Spicer Brothers.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

UTERINE DILATORS.

Anyone introducing a new form of uterine dilator owes some apology to the profession; yet I think the great variety of such instruments already in existence is in itself evidence that no form has given perfect satisfaction. For some years past I have been accustomed, in cases where I desired to effect rapid dilatation of the cervix, first to pass graduated metallic dilators, and when the canal was sufficiently opened by this means, then to effect further dilatation by means of a modified glove-stretcher. I have now got Messrs. Arnold and Sons to make two instruments on the latter principle which can be used separately or simultaneously, and by means of which the cervical canal can be rapidly and safely enlarged in all cases where the cervix is sufficiently yielding to justify rapid dilatation from a diameter slightly exceeding that of an ordinary uterine sound to a size sufficiently large to admit one finger readily. The accompanying illustrations will render a full description of the instruments unnecessary. The smaller instrument, with the blades closed, can be passed without difficulty through any uterine canal that will admit an ordinary uterine sound. The blades are curved and open in an antero-posterior direction on compressing the handles. The latter are provided with a catch working on a rack, which permits their slow approximation, but checks their tendency to separate until it is so desired. When the full amount of dilatation has been effected the blades of this instrument are permitted to close; it is then withdrawn and the larger one is substituted. This is used in a similar manner, except that the blades expand in a lateral direction—that is, at right angles to the other. When the larger instrument has been compressed so as to produce the fullest expansion of the blades, if any further dilatation be desired it can be accomplished by inserting the smaller dilator between the expanded blades of the larger one, and again opening them; but for the purpose of curetting this will not be found necessary. If the cervix be rigid, and rapid dilatation to any considerable extent therefore contra-indicated, the following method will be found most satisfactory.



First, use the small dilator until the canal is sufficiently opened to admit a medium-sized tent, then introduce a tent and permit it to remain for three or four hours. At the end of this time the cervix will have become so soft and yielding that the full amount of dilatation required for ordinary purposes can be readily accomplished with my dilators. For these dilators I claim the following advantages:

1. Only two instruments are required for all ordinary purposes.
2. They will rapidly and safely dilate the cervical canal from its ordinary size to a diameter sufficiently great to admit a full-sized finger.
3. Owing to the way in which the blades open, they will dilate the *os internum* to a slightly greater extent than the *os externum*, a point which most of the dilators in use fail to accomplish.
4. The compressing force of the hand, while capable of exerting all the force desirable, acts as a guide to the amount of pressure and resistance, and can be used in a delicate manner so as not risk any injury by over-stretching, having this great advantage over any screw-like mechanism.
5. As the blades are only 2 inches long from the projecting shoulders, they will not come in contact with the fundus.

C. Yelverton Pearson, M.D., F.R.C.S.E.,
Surgeon to the County and City of Cork Hospital for Women and Children, etc.

CHLOROETHYL SPRAY.



This instrument, designed by Dr. Bengué—for which the agent is B. Kühn, St. Mary's Hill, Eastcheap—by its ingenious arrangement supplies a very useful desideratum for the convenient production of local anæsthesia. The practitioner is able to produce by it local anæsthesia for minor operations such as present themselves in dentistry, in the incision of abscess, carbuncle, extraction of foreign bodies, etc. The physician will find it available as a means of subduing neuralgic pains.

The instrument is employed in the following manner: Take the ball in the right hand, unscrew the stopper, and the warmth of the hand will send out the spray. If applied at a distance of ½ inch for 30 to 60 seconds to one spot the skin first gets a pink colour, then red, and finally white. In the latter stage local anæsthesia is completed; it will last for 2 minutes, and can be prolonged if the spray is applied for more than a minute. To subdue neuralgic and other nervous pains it is sufficient to let the spray play over the part affected until the pain ceases, and to apply it again should the pain return afterwards. This instrument has several advantages over the old method of simply supplying glass tubes filled with the liquid. It is cheaper; the ball complete in case costs 3s. 6d. It contains 30 grammes; sufficient for ten to fifteen minor operations, or the same number of extractions of teeth. The stopper preserves the liquid intact to the last drop.

THE CLARENCE MEMORIAL WING, ST. MARY'S HOSPITAL.

Special Circumstances of the Occasion.—The New Wing.—The Duke of York and St. Mary's Hospital.—The Reception Speech of the Prince of Wales.—Prize Presentation.—Laying of the Foundation Stone.

The ceremony of laying the foundation stone of the Clarence Memorial Wing of St. Mary's Hospital was one which had more than merely professional interest—it took the character of a national event. It was the first public act performed by the Prince of Wales since the death of the Duke of Clarence, to whose memory the wing will form a memorial. The Prince was accompanied by the Duke of York, who has accepted the presidency of the hospital; by his daughter Princess Maud, who represented the Princess of Wales; and other members of the Royal Family.

The wing, which will provide accommodation bringing the number of beds in the hospital up to 400, will also furnish further accommodation for nurses, new out-patient rooms, and additional accommodation for the medical school. It extends the façade of St. Mary's Hospital into Praed Street, and thus brings the hospital much more thoroughly into view. Forty thousand pounds were needed to purchase the site, and the buildings which occupied it will cost upwards of £100,000, in addition to the increased cost of maintenance which it will entail.

The Duke of York had on the previous day, after lunching with Dr. Broadbent, accompanied him on a visit to the hospital, which he had thoroughly inspected, visiting all the wards and acquainting himself with the details of manage-

ment. The Duke, as President, arrived before his father, and accompanied him to the Board Room, where the Prince was received by some members of the Reception Committee, of which Mr. J. D. Allcroft is chairman, and of the Building Committee, of which Mr. G. P. Field is the chairman. There were also present some members of the present and past medical staff of the hospital, among whom were Dr. Broadbent, Dr. Cheadle, Mr. Arthur Norton, Mr. Anderson Critchett, Mr. Edmund Owen, and Mr. Ernest Hart. After those present in the reception room had been presented to the Prince, who found a gracious word for each, the Royal party proceeded to a large reception tent which had been erected for the purpose, and where a numerous and influential company were assembled. Among them were the Archbishop of Westminster, Dr. Farquharson, M.P., Sir Algernon Borthwick, M.P., Sir J. Crichton-Browne, and all the members of the staff of the hospital, with many of the most leading inhabitants of the district. On their way to the reception tent Sister Victoria, who had nursed the Duke of York through his severe illness, presented a bouquet of orchids (*Odontoglossum Alexandriæ*) to Princess Maud.

Addresses were read by Mr. Field, the Chairman of the Building Committee, to whose intelligent initiative and indefatigable exertions the erection of a new wing is in no small measure due; and by the Chairman of the Reception Committee. To these addresses the Prince of Wales replied, not formally, as is usual on such occasions, but in a most gracious and touching speech. Tracing succinctly the history of the hospital, which in the twenty-five years of its existence had risen so rapidly to a high position of usefulness among metropolitan charities and of repute amongst the educational institutions of the country, he referred to the interest which the Prince Consort had originally taken in the foundation of the hospital, and to his own personal interest in its welfare. This, he gracefully added, was due not alone to its value and importance as a public charity, but to his sense of the services which had been rendered to himself and beloved members of his family by the eminent physician, Dr. Broadbent, whose name is intimately associated with the hospital. Here it may be noted that four members of the staff of St. Mary's Hospital have had the honour of rendering such services: Dr. T. K. Chambers, who accompanied the Prince in his travels in Palestine; Sir Edward Sieveking; Dr. Broadbent; and Mr. Anderson Critchett.

Mr. Field, as Dean, then presented the students of the year who had won scholarships and prizes, to whom the Prince presented the certificates. Then followed the laying of the foundation stone with due ceremony. Mr. Allcroft, in returning the thanks of the Board of Management of the hospital, particularly drew attention to the Residential College for Students, which will form an important part of the new wing, and remarked that the fact of the resident medical officers and students being placed under the same roof in the hospital ground tended to the advancement of medical education, and would be, therefore, a great gain to rich and poor alike. So terminated a ceremony of an unusually interesting and auspicious character, in which the Prince of Wales and other members of the Royal Family once more testified their deep interest in the extension and development of the great medical charities of the metropolis, and their grateful sense of obligation and regard for the medical profession.

VIVISECTION: A SONNET.

An age of doubt and cavil seeks a sign.
Oh, toiler for mankind, look back, and see
Where down the barren slopes of Galilee
Pours black the shrieking cataract of swine.
Forth from those summits shines the man divine,
The healed demoniac crouches at his knee.
This sign is given to thy day and thee,
And Christ performed that duty which is thine.

Also, thou hast thy further help 'gainst hate,
And fear, and ignorance. Watch still that scene.
The swineherds flee, the crowd pours from the gate,
The man is naught beside their beasts unclean.
Christ is thrust forth. Be not intimidate
For any terror of the Gadarene.

Bordighera. J. A. Goodchild, M.D.

THE DUKE OF NEWCASTLE AND MR. HORSLEY.

The following apology has been sent to Mr. Victor Horsley:—

The Verulam Review, Editor's Office, 31, St. Andrew Square, Edinburgh, December 17th.

Sir,—This morning's post has brought me a letter from the Secretary of the Victoria Street Society, of which I herewith enclose a copy.

From that letter it appears that I was entirely misled in making, on the authority of the writer's former assurance, the statement in our Extra Number, published last month, with regard to the alleged falseness of your charge against the Duke of Newcastle. So far, therefore, as concerns the assertion in that article that your statement was untrue, I hasten to offer you the fullest retractation and the most sincere apology.

A similar apology will, of course, be made in the January number of the *Review*, the issue of which I have desired the printers to hasten as much as possible, that no time may be lost in withdrawing, as publicly as it was made, the misstatement we were unfortunately deceived into adopting. Should you desire to send copies of the number containing the retractation to any of your friends, I shall be happy to place them at your disposal.—I am, etc.,

(Signed) The Editor of *The Verulam Review*.

"Victoria Street Society, December 15th, 1892.

"Sir,—I am directed to inform you that on further inquiry it has been found that the Duke of Newcastle did consult Professor Horsley while a Vice-President of this Society. His name has therefore been removed from the list.—I am, etc.,

"(Signed) B. Bryan, per S. B."

SWEARING WITH UPLIFTED HAND.

From communications we have received, and from reports which have appeared in the daily papers, it would appear that a considerable number of medical men have recently taken, as we have suggested they should, the course of demanding to be sworn in the Scotch manner with uplifted hand. As, however, the provisions of the Oaths Act and the form of the Scotch oath do not seem to be familiar to some magistrates, judges, and judicial officers, it may be as well to set out the facts precisely.

The fifth section of the Oaths Act declares, without any qualification, that "if any person to whom an oath is administered desires to swear with uplifted hand, in the form and manner in which an oath is usually administered in Scotland, he shall be permitted to do so, and the oath shall be administered to him in such form and manner without further question" (51 and 52 Vict., c. 46, s. 5).

This enactment applies not only to all forms of the witness oath, whether in civil or criminal courts or before coroners, but also to the swearing of affidavits before a commissioner, and to the swearing in of jurors and to all forms of oaths of office—in a word, to every oath which may be lawfully administered in Great Britain and Ireland. The change of form has no reference to religious belief, and it is improper for either the witness or the judge to describe it as an "affirmation." It remains an oath of the same character in all but the form as before. But the Scotch form should be exactly followed, as the risks of invalidity would be at once incurred if some private variation were allowed to grow up. The form is simple, except in the fact that it involves a different form of words. In the case of the witness oath, the Scotch words are: "I swear by Almighty God [and as I shall answer to God at the Great Day of Judgment] that I will speak the truth, the whole truth, and nothing but the truth." The juror's oath is analogous: "I swear by God, and as I shall answer to God at the Great Day of Judgment, that I will well and truly try this issue, and a true verdict give according to the evidence." In neither case are the words "So help me God" added. In all cases the witness takes the oath standing, with the bare right hand uplifted above the head. If a man, he is uncovered, but, as in England, a Jew is sworn covered. If a woman, she is not to be veiled, and takes off her glove. The witness oath is ad-

ministered by the presiding judge, rather than by an officer of the court, but the jury oath is administered by the clerk of court. In either case the person claiming to be so sworn should have the correct words said over to him, and should repeat them. No book or other symbol is used, and the oath is complete as soon as the words are said. All penalties for perjury or other consequences are unaffected by the change of form, for which, as will be seen by the words of the Act itself, no reason is to be asked or given. A witness intending to take this course would do well to take this form of words with him, and tender it to the Court at once. The Court is supposed to have judicial knowledge of it, though in fact it could hardly be expected that the multitude of judicial officers concerned would at once know the exact details. The witness's right, however, is quite absolute, and any coroner or judicial officer refusing would probably subject himself to an action for damages and costs.

It might be expedient for the removal of practical difficulties if the Home Office and the Lord Chancellor were asked to issue official notices on this subject to the judicial offices with which they are in communication. One point which should in such a case be borne in mind is the position of the words as to the Day of Judgment which are marked in brackets above. It is said that these words, although they are unquestionably a part of the authentic and customary form handed down from earlier times, are now frequently omitted in practice by the Scotch judges and sheriffs when administering the oath. Probably, therefore, the oath even without the words would be quite valid. But in the absence of any authoritative ruling on the matter it will be proper to repeat the full formula.

NOTES ON HEALTH RESORTS.

XI.—ST. RAPHAEL.

[Second Article.]

By W. Vignal, D.Sc.Paris.

The Arrangements for the Ozone Cure.—Effect of Inhalation of Ozone on the Corpuscular Elements and the Pigment of the Blood.

In a former note on St. Raphael we stated that an ozone establishment was organised there for treating the special affections the patients sent to St. Raphael and Valescure suffer from. A number of observers have noticed that localities where ozone is present in a large proportion, such as the seaside, the surface of the sea, and numerous places, exercise a good influence on the animal organism. Observations by Schoenbein, Scouttetten, Baeckel, Cl. Bernard, Thénard, and others have shown that it is dangerous to submit animals for long periods to the inhalation of ozone artificially prepared. These experimenters prepared ozone with phosphorus or with the electric spark. Ozone thus prepared is mixed with nitric or nitrous products. In 1886 Dr. Donatien Labbé constructed an apparatus consisting of two concentric tubes. In the space between the tubes electric sparks were produced. With this apparatus he was able to make a large quanity of ozone—that is to say, some ten milligrammes every minute. Animals inhaling ozone from this apparatus continued in perfect health. Encouraged by these results, he tested on himself the innocuity of ozone thus prepared, and afterwards submitted to the influence of ozone inhalations a series of cases of slight anæmia. He found that after a certain number of daily inhalations, the proportion of hæmoglobin was considerably increased. Drs. Donatien Labbé and Oudin then treated thirty-eight tuberculous patients with ozone inhalations, seven in the first stage, twenty-three in the second, and eight in the third. At the Paris Congress of Tuberculosis in August, 1891, Drs. Labbé and Oudin stated that all these patients improved considerably. They have also treated fifteen patients in M. Desnos's ward in the Charité Hospital; eight were anæmic and seven suffered from pulmonary tuberculosis. The anæmic patients on an average increased in weight 1.8 kilogramme during a month's treatment; the tuberculous patients during the same time 1.5 kilogramme, the oxyhæmoglobin had increased 1.33 per cent. in fourteen days.

Last year Dr. Bontems of St. Raphael applied the ozone treatment to twelve anæmic and tuberculous patients; they all improved. Many therefore believed that the ozone treatment would be a beneficial therapeutic agent added to the climate of St. Raphael and Valescure. In the previous article in the British Medical Journal the climatological advantages of these localities were described. There is now at St. Raphael an establishment at which ozone treatment is adopted for anæmia, for persons convalescent from serious illnesses or operations, and for tuberculosis in its early stages; in a word, for all illnesses in which it is necessary to increase the quantity of hæmoglobin. Dr. Lagrange, the director of this establishment, kindly offered to allow me to visit the establishment and examine the patients. Dr. Mireur, Dr. Niepce, and Dr. Bontems, also begged me to examine their patients under ozone treatment. The ozone establishment is well organised, containing inhalation rooms where patients can inhale ozone either as it leaves the tubes or diffused through the atmosphere. There is likewise an excellent hydrotherapeutic establishment attached, and a fine glass gallery which serves as a promenade. The electric generator is an electro-magnetic machine, which also provides light for the establishment. It is placed in a separate underground room, and all vibration and smell are thus avoided. I carefully studied the effect of ozone on red blood corpuscles and hæmoglobin, in some of the patients under treatment. A good average of red corpuscles in the blood of a healthy person is 5,000,000, that of hæmoglobin 13 to 14 per cent.

Case I.—Mdlle. H. was very anæmic after a violent attack of influenza combined with bronchitis. On January 27th the red corpuscles were 3,900,000, white corpuscles 7,400, hæmoglobin 8.33 per cent. On April 2nd, red corpuscles 4,760,000, white 3,400, hæmoglobin 12 per cent.

Case II.—Mdlle. E. Tuberculous pleurisy cured. The apex of the left lung was tuberculous. The patient, who was slightly dyspeptic, received no other treatment but ozone; she was not able to take cod-liver oil. On January 20th the red blood corpuscles were 4,050,000, the white 4,400, hæmoglobin 8.30 per cent. On March 21st the red corpuscles were 4,920,000, the white 2,300, hæmoglobin 12 25 per cent.

Case III.—M. L. Tuberculous, subcrepitant and crackling *râles* in the infraspinous fossa on the left side; on the right side, subcrepitant *râles* dispersed throughout the apex of the lung. Dr. Mireur also examined this patient the same day I made my second examination, and Dr. M. found considerable improvement. On the left side, where at previous auscultation he heard fine *râles*, there were none except just at the scapulo-vertebral angle. This patient had also presented pharyngeal tubercles, but these had disappeared. On January 23rd the red corpuscles were 3,170,000, the white 113,000, hæmoglobin 6.78 per cent. On March 16th the red corpuscles were 4,190,000, the white 10,000, hæmoglobin 8 per cent.

Case IV.—Mme. L. Spinal irritation and neurasthenia. On January 26th the red corpuscles were 4,070,000, the white 3,000, hæmoglobin 10 per cent. On March 21st the red corpuscles were 4,630,000, white 2,600, hæmoglobin, 11.5 per cent.

Case V.—Mdlle. H. Asthmatic from her birth, herpetic constitution, anæmia. On January 27th the red corpuscles were 3,730,000, the white 6,500, hæmoglobin 8.7 per cent. On March 24th the red corpuscles were 4,400,000, white 4,400, hæmoglobin 11.75 per cent.

Case VI.—M. R. Pulmonary tuberculosis in the first stage on both sides, not very extensive. On January 19th the red corpuscles were 3,750,000, the white 12,300, hæmoglobin 8.5 per cent. On March 17th the red corpuscles were 4,630,000, the white 13,800, hæmoglobin 10 per cent.

Case VII.—M. H. Purulent infection (salpingitis). After parturition, when the treatment was commenced, the patient could scarcely walk, owing to her weakly general condition. On January 27th the red corpuscles were 4,230,000, the white 15,500, hæmoglobin 8 per cent. On March 18th the red corpuscles were 4,930,000, the white 7,400, hæmoglobin 10 per cent.

Case VIII.—Mdlle. R. Nothing very marked in her physical condition, but her mental condition bad, and was influencing her physical condition; menstruation absent. On January 26th the red corpuscles were 4,190,000, the white 6,000, hæmoglobin 9.3 per cent. Menstruation commenced after one month's treatment. On March 14th the red corpuscles were 4,980,000, the white 3,200, hæmoglobin 11.5 per cent.

Case IX.—M. C. The apex of both lungs tuberculous, but the general health was good. After catching cold the cough came back, as well as night sweats, and the patient lost appetite. Dr Bontems advised ozone inhalations; these were practised about twenty times in the course of a month; the cough had almost entirely ceased after the third inhalation, and the patient slept better. On January 25th the red corpuscles were 4,350,000, the white 11,900, hæmoglobin 10 per cent. This patient had been treated five times with ozone inhalations when I examined him on January 25th. At the termination of the treatment the red corpuscles were 5,090,000, the white 4,600, hæmoglobin 12.75 per cent.

Case X.—Mme. G. Nothing very definite, rheumatic and very anæmic. On January 25th the red corpuscles were 3,100,000, the white 4,300, hæmoglobin 8 33 per cent. On April 4th the red corpuscles were 4,680,000, the white 3,200, hæmoglobin 12 per cent.

The Hofmann-Haus, the new home of the German Chemical Society, which is to be erected as a memorial to the late Professor A. W. Hofmann, is estimated to cost 1,200,000 marks (£60,000). The Langenbeck-Haus cost only 300,000 marks (£15,000).

SMALL-POX IN GREAT BRITAIN.

[SPECIAL WEEKLY REPORT TO THE BRITISH MEDICAL JOURNAL.]

LONDON.

THERE were 11 cases of small-pox notified in London during the week ended December 10th, and the number was increased during last week, at the end of which over 30 cases remained on board the hospital ships in Long Reach, where one death took place. Cases were heard of in many parishes, Bethnal Green, Greenwich, Whitechapel, Hackney, Paddington, and Marylebone among the number.

LANCASHIRE.

In the week ended December 10th there were upwards of 20 cases of small-pox notified in Warrington, whilst during last week the number fell to one half that of the preceding seven days. Dr. Gornall has caused a large placard to be posted in the town, stating that the ten deaths in young children were all among the unvaccinated. The authorities at Lymm seem to have confined small-pox to the district which was first infected, Lymm proper having escaped. Dr. Fox regards the disease as traceable to Warrington. He places on record a case in which a small-pox patient in hospital at Lymm had an overcoat brought in from a tailor's shop, the coat going back to the shopkeeper, who, however, "disinfected" it before returning it to the manufacturer. Proceedings are to be taken against the patient and his relatives who took part in the transaction. At St. Helens there were only 8 cases under treatment on December 14th, 3 cases having been reported during the present month, two in a house previously infected, the third in a young person who had attended a patient, and refused vaccination. Several cases were, however, reported from Eccleston Park and Lane, near St. Helens, the source of infection not being traceable. A deputation of the Town Council have held counsel with the Local Government Board in reference to a proposed new hospital of 24 beds, and the scheme which had been drawn up is to be reconsidered; also the question of site. The present building is in a populous neighbourhood. There has been an outbreak of small-pox at Runcorn, and 4 cases were in hospital at the middle of the present month. Dr. McLannon had occasion to report in serious terms on the inefficiency of the untrained nursing staff (mother and daughter), going so far as to say that he could not recommend patients to leave their homes for isolation purposes under existing conditions. But the Health Committee, after inquiring into the matter, held that the arrangements were adequate, and declined to disturb them. "There is no necessity," their report, "to engage a trained nurse." A case of small-pox has recently occurred in the Leigh rural district, whilst a still further increase of cases, 14 in all, were notified last week in Manchester. Bootle and Birkenhead, both had cases, and we hear of 3 in Chadderton, and of 4 in Oldham, with two deaths.

YORKSHIRE.

Several small-pox cases were last week removed to the Brighouse Hospital from the districts of Hipperholme and Lightcliffe, and much alarm prevails in these localities. On December 15th there were thirty-three cases in the hospital. A considerable proportion of the inhabitants of the district have, says the *Bradford Observer*, been revaccinated. Cases have come to our knowledge as of recent occurrence in Bedale and Northallerton, and two additional cases in the rural areas round the latter town. Over a dozen cases are stated to have arisen in Halifax last week, and Barnsley, Batley, Sheffield, and Wakefield to have been freshly invaded.

MIDLAND DISTRICTS.

We learn that isolated cases continue to be reported in Leicester. The latest case is engaging some attention, since it occurred in the person of a tramp who came apparently from Rutland, but is said to have been sent on to Leicester by the Billesdon workhouse officials whilst complaining of illness, on the plea that "they had not sufficient accommodation for casual sick." Small-pox is reported from Oakham and Melton Mowbray, as also from Leighton Buzzard and Hungerford, and several cases have occurred recently at West Halton, not far from Glanford Brigg. Birmingham, Derby, and Northampton had some small amount of small-pox last week.

EDINBURGH.

Our Edinburgh Correspondent writes: Four additional cases of small-pox have just been notified to the Public Health authorities, making in all six cases in the city of Edinburgh during the past few weeks. Two of these new cases were in St. Cuthbert's Poor-house, and seem to have caught infection from the man who came from Glasgow while sitting in the City Relief Office. The third case occurred in another of the city poor-houses, and the source of infection is uncertain. The fourth case appears to have been infected in a common lodging-house by the man who had come from Newcastle. Thus all the cases have been imported, all have been comparatively mild, and no death has occurred. Besides these six cases in the city, two cases have come from the surrounding district. All the eight cases are under treatment in the Canongate Hospital.

THE CHOLERA.

[SPECIAL WEEKLY REPORT TO THE BRITISH MEDICAL JOURNAL.]

CHOLERA CONGRESS IN ST. PETERSBURG.

A CONGRESS of Russian physicians will be held in St. Petersburg from December 25th, 1892, to January 1st, 1893. The following is the programme:

First Day.—Members will receive the whole statistical material of the progress of the epidemic; the numbers of sick, recovered, dead, route taken by the epidemic and extension. Reports on causes of outbreak and conditions of same, illustrated by plans, maps, and diagrams. A review will be given of the measures already put in force by the Government, as also by the different local authorities of the cities and Governments, finally of various corporative bodies. Reports upon sums expended, numbers of doctors ordered to spot, students, sisters of mercy. Reports on measures adopted before outbreak of epidemic, namely: (*a*) Establishment of sanitary commissions and bureaux, (*b*) Sanitation of individual inhabited places, nature of the ground, removal of stagnant water and rubbish, canalisation, and drainage, and construction of privies. (*c*) Registration of places with bad drinking water, and discussion as to means and ways to provide the same with better water. (*d*) Consideration of the position of hotels, large houses, barracks, as well as individual dwellings which may be dangerous from a sanitary point of view. Arrangements of sanitary and control books. (*e*) View of manufactories and larger workshops, places where provisions are prepared. Committees will be appointed to revise the material collected, and to divide systematically the questions to be decided.

Monday, December 26th. Sessions of individual committees, practical demonstrations in disinfection and bacterioscopy. The second general meeting will be held in the evening to discuss and appoint committees with regard to measures against importation of cholera.

a. Quarantine, cordons, prohibition of markets, bazaars, closing of schools.

b. View upon extensive migrations of the population, the overcrowding of workmen, travellers, particularly those from suspicious regions; Medical examination of same. Points of observation in marine and river ports, upon railway and post stations, sanitary visa of documents. Reception rooms for sick and suspected. Night refuges, people's kitchens and tea shops.

c. Mode of determining first case of cholera in towns and in the country. Organisation of registration necessary therefore for sick and dead. Sanitary instructions for non-medical and medical staff.

Tuesday, December 27th. The morning will be devoted to sessions of committees and practical work. In the evening report of measures for combating the epidemic itself will be presented. (*a*) Organisation of medical aid. Determination of the number of physicians, their assistants and hospitals. Stationary and flying columns. (*b*) Isolation or removal of sick. (*c*) Means to be employed for (*b*). (*d*) Burial of cholera bodies. (*e*) Disinfection. (*f*) Establishment of sanitary and disinfection service.

Wednesday, December 28th. The morning will be occupied as on the previous day, and in the evening reports will be received on treatment as well as upon subjects not announced in the programme.

Thursday, Friday, Saturday. In the mornings the Committees will meet, and in the evenings general meetings will be held for taking account of results of deliberations of the individual committees.

RUSSIA.

CHOLERA continues in St. Petersburg, although the deaths are only at the average rate of little more than one a day; thus on December 10th there were 4 cases and 1 death; 11th, 3 cases, 1 death, and 35 cases in hospital; 12th, 8 cases, 1 death; 13th, 3 cases and no fatalities; and 14th, 2 cases and 3 deaths, 12 recoveries being chronicled against the 6 deaths during these five days. The Russian ports on the Black Sea and Sea of Azof have been officially declared free, but cholera is still virulent in the south-western Government districts. An official return of the cholera epidemic of 1892 in Russia, compiled to the end of November, states that in the European provinces there were 289,961 cases and 152,756 deaths; and in Asiatic Russia 261,411 cases and 134,502 deaths, yielding grand totals of 551,372 cases and 287,288 deaths in the whole empire. The mortality among persons attacked was over 48 per cent. The provinces showing the largest death returns were Saratoff, with 21,033 deaths; Don Cossack Territory, 18,207 deaths; Samara, 18,040; Kuban, 15,045; Tursk, 13,112; Tobolsk, 12,729; Voronesh, 12,072; Astrakhan, 10,980; and Daghestan, 10,457 deaths—a total of 131,675 deaths in these nine districts, or nearly half the mortality of the empire. In the town population, 51,853 cases occurred, with 26,172 deaths, a mortality rate of over 50 per cent. Over thirty provinces were still returning cholera cases at the close of last month in European Russia.

The Cholera Riots.—The court-martial held at Mariabol to try the people charged with rioting in connection with the outbreak of cholera in Insovka has sentenced 4 of the prisoners to death, eight to various terms of hard labour, 30 to detention in a house of correction, and 40 to imprisonment without hard labour. Twenty-seven of the accused were discharged.

GERMANY.

Four cases of cholera occurred at Hamburg and Altona between December 12th and 14th. One death took place on the first-mentioned date, and 2 cases are reported from the same house on December 16th. One case also occurred on December 18th. Some of these seem to have originated in the city itself, and 1 in a suburb of Hamburg. The city board of health has now, we understand, made every preparation for dealing with any fresh appearance of cholera next year.

FRANCE.

One death from cholera was registered in Dunkirk on December 15th, and deaths, at the rate of some half-dozen, were of daily occurrence at Lorient during the first fortnight of the present month.

HOLLAND.

Only 2 deaths were heard of in Holland during the week ended December 10th, 1 being at Capelle, and 1 in Yssel in South Holland.

AUSTRIA-HUNGARY.

After a freedom from cholera of many days, Buda-Pesth had 2 fresh cases and 1 death notified on December 17th. Cholera is stated to have broken out in the garrison of the fortress of Petervardein in South Hungary quite recently.

TURKEY.

Cholera is still present in Turkey, in the little town of Yan. In Yemen several choleraic deaths have been reported from Setif, an Arab village, situated opposite the island of Camaran. During their quarantine on this island the Turkish troops lost more than 100 soldiers and several guards from cholera.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, DECEMBER 24th, 1892.

PATENT MEDICINE ADVERTISEMENTS.

It is to be hoped that at no distant date some means may be devised whereby the public will be able to cope successfully with the number of adventurers who speculate so profitably by their so-called remedies on the vanity or ignorance of their customers. Whole pages of some of our leading London daily newspapers are not infrequently filled with an advertisement of some patent specific professing to cure almost every ill to which humanity is subject.

Some means should surely and speedily be adopted by the Legislature to protect the credulous portion of the public from squandering their money and perhaps injuring their health for the sole profit of unscrupulous quacks, for the law, as it at present stands, is, we fear, wholly insufficient to grapple with this evil.

The British Medical Journal has for some time past advocated the necessity of suppressing the practice adopted by some secret medicine vendors of including poisonous ingredients in their compounds, and recourse has been found necessary to the proceedings prescribed by the Pharmacy Acts, the provisions of which have been infringed. By the Pharmacy Act of 1868 it is provided in express terms that "it shall be unlawful to sell any poison, either by wholesale or by retail, unless the box, bottle, vessel, wrapper, or cover in which such poison is contained be distinctly labelled with the name of the article and the word poison, and with the name of the seller of the poison." But until lately, and even now to a large extent, persons are permitted to escape the penalties provided by this Act, simply because the mixture in which the poison is contained bears a Government stamp and thus acquires the dignity of a so-called patent medicine, although the use of poisons as one of the ingredients of these patent remedies is necessarily an element of danger in view of the fact that the vendors of them have probably no knowledge whatever of pharmacy, possess no medical qualification, and sometimes, perhaps, are ignorant of the very properties of the drugs which they compound and sell to the public. The recent action of the Parliamentary Bills Committee is doing something to abate this abuse, but the work is not yet complete.

The method adopted in Germany in such circumstances seems to have been very successful. A skin lotion was, we are informed, largely advertised there some short time ago in the usual glowing colours, the proprietor of it establishing the business in the most fashionable quarter of Berlin. The Chief of Police, with commendable zeal for the public welfare, promptly caused an official notice to be inserted in the newspapers containing an analysis of the lotion and the cost price of its manufacture. From such notice it appeared that the infallible skin lotion, for which no less a sum than 11s. per bottle had been charged, was chiefly composed of corrosive sublimate and glycerine slightly perfumed, the total cost of the manufacture not exceeding three farthings.

Without legislation, however, it would be vain to hope for similar measures being adopted in this country, and until this is done the patent medicine vendors will doubtless find their trade undiminished and their advertisements unchecked.

To protect the unwary from becoming the dupes of gambling schemes, and to prevent the adulteration of our food supply, Acts of Parliament have been passed; and we think that the sale of secret specifics is an equally important matter for consideration, and equally calls for some remedy to secure a definite knowledge of their cost and the ingredients of which they are composed. Unquestionably it should be made a condition precedent to the sale of any proprietary medicine that the ingredients and proportions should have been the subject of official analysis, the result duly registered and published, and a penalty imposed upon any infringement of the regulation. Considering that the Government derives an enormous revenue from the sale of patent medicine stamps, it is not much to ask that the public should receive some equivalent in the form of an official guarantee that the medicines advertised and sold as patent medicines are really genuine and effective for the purpose represented by the advertisements of their vendors.

MEDICAL EDUCATION IN BOMBAY.

We have before us a full report of a largely attended meeting held in Bombay, on November 12th, of native medical men practising in that city. The object of this meeting was to enter a protest against a particular appointment made by the Governor of Bombay in Council, and to press on the authorities the opinion of the meeting that the time has come when appointments to medical educational schools, colleges, and teaching hospitals should not be confined to covenanted European medical officers, but should be open to men of merit educated in India.

We are bound to say, after a careful perusal of the speeches delivered at the meeting, that while there was no lack of self-confidence and belief in the justice of their claims, there was an absence of disrespectful and objectionable language either towards the Government or its European medical officers—a remark not always applicable to the speeches of educated natives of India in public meeting assembled.

It appears that the Government Chemical Analyst, who is also a teacher in the Grant Medical College, took privilege leave of absence for some months. The Professor of Pathology in the College was deemed competent to be this gentleman's *locum tenens*, and appointed accordingly. Dr. Deshmukh, assistant analyst, who had served many years in this office to the satisfaction of his superiors, was of opinion that he had a paramount claim to act as chief analyst, and because the Governor in Council took a different view of the question, and, as we have just mentioned, appointed a European medical service officer, in accordance with regulation and precedent, Dr. Deshmukh resigned. Evidently this gave rise

to great dissatisfaction among the private native medical men, mostly, if not all, educated in the Grant Medical College, and this meeting was called to give expression to it.

Questions like this, as has long been foreseen, are now cropping up in all the great centres of administration, education, and commerce, and are certain to give rise to much embarrassment to the authorities in the near future. On the one hand, the Government of India is bound by many serious considerations to make the great European Medical Service of India sufficiently attractive to men of high attainments to exile themselves during all their active life to that country, and our native fellow subjects must not be offended if we say that for a long time to come the Government of India will naturally prefer for their educational appointments men who have from their youth been trained in the schools and universities in Great Britain and on the Continent of Europe. We think that in the long run the best educational interests of India would suffer if this wise principle were set aside. On the other hand, we are sure that the rulers of India are too wise and too far-seeing to go on encouraging Western education and culture without, as far as possible, opening a career for those they have, by their own act, called to the full light of modern knowledge. Our advice to our native fellow subjects and professional brethren is—patience. Let them by their conduct, diligence, and professional zeal show themselves worthy of the positions to which it is right and reasonable they should aspire, and they may rest assured their claims to positions of trust and responsibility will be recognised and supported by their fellow subjects and brethren in England, as well as by those who have been called to administer the Government of India.

We understand that there is a probability of one or two coronerships being vacant shortly in the county of Cambridgeshire, and we hope that efficient medical candidates will be forthcoming.

Mr. Watson has been removed to the Priory at Roehampton from the Bucks County Asylum. Prior to his removal there was not, we understand, any change in his mental condition, or any further improvement, since the report we gave last week.

The committee appointed at a conference held at Spencer House last July, to consider the recommendations of the Select Committee of the House of Lords on Metropolitan Hospitals, held another meeting on December 15th, in the Board Room of the United Westminster Schools, when Lord Sandhurst occupied the chair. The committee have completed their report. Another conference, it is stated, will shortly be convened, before which it will be laid.

On November 25th a monument was unveiled at Heilbronn to the memory of Dr. Robert Mayer, who formulated the law of the conservation of energy, and calculated mathematically the mechanical equivalent of heat. Dr. Mayer was born at Heilbronn, and, after serving some years as a medical officer of the Dutch Colonial Government in Batavia, returned to his native place in 1841, and practised his profession there till his death in 1878.

Mr. Montagu Williams is, Dr. Tamplin reports, in the last stage of organic heart and kidney disease, with increasing dropsy and coma from uræmia. He is unconscious and unable to take nourishment. The larynx appears to remain free from any further symptoms of the epithelioma of which he was some years since so successfully relieved by excision.

YELLOW FEVER.

We have authoritative intimation from Rio Janeiro, dated December 6th, announcing the reappearance of yellow fever at Santos.

SIR RICHARD OWEN AND THE BIRDS.

Sir Richard Owen had an intense love of animals and birds, and his old-fashioned garden at Richmond Park, containing shrubs and trees from all parts of the world, planted with his own hands, was vocal with the song of birds. Mr. Startin writes to us: "Several times I have had the privilege of being invited by him to come 'and see his feathered friends.' I have then seen all the birds in his garden come at his call; blackbirds, thrushes, finches, tits, and pigeons come and perch on his shoulders and head and feed out of his hands and lips."

ROYAL COLLEGE OF PHYSICIANS.

The following are the names of lecturers and subjects of lecture which have been arranged for the year 1893: Milroy: February 21st, 23rd, 28th, March 2nd, Dr. B. A. Whitelegge, "Changes of Type in Epidemic Diseases." Goulstonian: March 7th, 9th, and 14th, Dr. W. D. Halliburton, "The Chemical Physiology of the Animal Cell." Lumleian Lecture: March 16th, 21st, 23rd, Dr. C. Theodore Williams, "Aëro-therapeutics in Lung Diseases." Croonian Lectures: in June, Dr. D. J. Leech, "On the Physiological Action and Therapeutic Uses of the Nitrites and Allied Compounds.

IRREGULAR DEATH CERTIFICATES.

At an inquest recently held at Pontlottyn, the coroner, Mr. J. R. Rhys, remarked that it had come to his knowledge that certificates of death were being filled up by unqualified men. Dr. Kent Jones is reported in the *Western Mail* of December 15th to have explained that it was a custom throughout the district for medical men to sign their names to blank certificates, to be filled in by their assistants. The coroner stated that it was a very wrong thing to do, and if he should hear of it again he would communicate with the authorities.

MEMORIAL TO DR. J. C. BODKIN.

Dr. Bodkin, of Chelmsford, has just received a letter from Mr. P. N. McGiffin, director of studies at the Imperial Naval College at Wei-Hai-Wei, North China, informing him that a tablet to the memory of his brother, the late J. C. Bodkin, M.D., who died at sea in 1888, at the age of 28, has been erected by his old comrades the European officers of the Pei-Yung Squadron. The stone sets forth that it was erected in affectionate remembrance of the deceased by his comrades and is surrounded by a Chinese inscription at the instance of the leading Chinese officers, recording Dr. Bodkin's services and worth. "He is still dearly remembered," says Mr. McGiffin, "by many hundreds of Chinese of all ranks who owe their life or health to his ministration and skill." A photograph of the tablet accompanies the letter.

PROSPECTS OF INFLUENZA.

We recently published a report on a prevalence of influenza in Daventry, and other rumours of the reappearance of the disease in the Midlands have reached us, but there would not seem to be any such indications of epidemic influenza as were present at this time in each of the last three years. A somewhat widespread prevalence of the disease is spoken of as existing in South London, but it is evi-

dently of a mild character, and cases have also been met with in East London. It is true that three deaths were last week registered as due to "influenza" in London, all in persons over 40 years of age, whilst the deaths from diseases of the respiratory organs have averaged some 350 during the past six weeks as compared with 245 in the six weeks preceding. Not only, however, is this natural, but we have the assurance that the present weekly totals are 30 per cent. below the corrected average. Abroad cases of influenza are reported from various parts of Germany. An epidemic seems to be threatened in Denmark, 167 cases having occurred in Copenhagen last week. In many South Russian centres the disease is assuming an epidemic character. Last week 56 cases were reported at Kieff, 49 in Odessa, and 101 in Kherson and Nicolaieff. The Moscow health report for last week includes 76 cases of influenza.

HEALTH AND TRADE.

Paper manufacturers in this country are likely materially to benefit by the order which the Local Government Board have issued as the result of inquiry by the medical department with reference to the importation of rags, bedding, and clothing. The restrictions placed on the rag trade of Western Europe and other parts of the Continent during past months have borne hardly on importers; and now the question of unobstructed landing of rags seems, briefly stated, to be a matter of cleanliness and of remanufacture, whole or in part. In addition, all rags, bedding, and clothing may be landed for purposes of disinfection at the cost of the consignee; and this may secure for some of our ports the provision of adequate disinfecting apparatus. Despite the relaxations granted by the order we foresee that friction will inevitably arise on two points at least—namely, the interpretation put by Customs officers at the several ports on the terms "dirty" and "dusty" as applied to rags, bedding, etc., and the question of admixture, to however small an extent of dirty rags, in bales otherwise consisting of clean cuttings or the like.

THE WATERS OF LETHE.

"It was a miserable case," said Mr. Coroner Graham, at an inquest on a woman, aged 65, who was found dead in bed in an attic at Monkwearmouth last week. Dr. Somerville testified that death was due to an overdose of laudanum, and said he had attended the deceased last May, when she was suffering from the effects of laudanum. She had been in the habit of taking the drug for years, and he cautioned her about taking it. On going to the house he found several ounces of laudanum and a number of empty laudanum bottles. John Lethe, a local chemist, said he had been in the habit of supplying deceased with laudanum for the last thirty years. She had increased her dose to 7 drachms a day. This is a case which seems to justify the the view taken by Mr. Lowe when the Pharmacy Bill was before the House of Commons, that no poison should be supplied except upon the written order of a legally qualified medical practitioner. This necessity is still more forcibly suggested by the coroner's statement that the drinking of laudanum is very prevalent among the women of that town. Certainly the habitual sale of laudanum in this way savours less of legitimate pharmacy than of the business of the gin shop. In reply to some stringent comments on this case, a chemist writes to state that it is legal for a chemist to sell laudanum in any quantity, and he does not appear to perceive that such sales as those above described are scarcely licensed even by their legality.

"QUARANTINE" FOR SMALL-POX.

Leicester is not the only town where persons exposed to the infection of small-pox have been placed under observation by the local sanitary authority. Dr. Spottiswoode Cameron gives a detailed account in his annual report of a prevalence of small-pox in Leeds during the autumn of 1891, comprising 48 cases in twenty-seven houses. It states that 123 persons were sent to the sanatorium (shelter) from infected houses lest small-pox should develop amongst them, and how, in fact, 9 of these persons fell ill with the disease and were at once removed to hospital without infecting new districts. But apparently the quarantine of all such persons could not be at once effected. So, too, during the present prevalence of small-pox in Leeds, some persons exposed to infection have had to be left at home under observation and away from work. One would imagine that the system—apart from the question of utility—must be much more costly than compulsory notification, without which Leeds cannot be held to have perfect sanitary administration. If we mistake not, the prevailing epidemic was in large measure due to a concealed case not medically attended. This is evidence of the want of a dual system—presuming, of course, that the case was recognised within the house as being of an infectious nature.

SWALLOWING A RAZOR.

There was much excitement in Paris some years ago over "l'homme à la fourchette," a man who had swallowed a fork, which was successfully removed by a somewhat elaborate operation. A still more remarkable case has this week been successfully treated at the Lincoln Hospital by gastrotomy. The following is a brief note which has been furnished to us of this remarkable and interesting case: A woman, aged 69, in a depressed condition of mind, was supposed to have swallowed a full-sized razor on December 13th. She was admitted into the County Hospital the same day. There were no symptoms, and the presence of the razor could not be determined till December 18th, when the end could be felt at the pylorus. On December 19th vomiting commenced, and Mr. Cant, surgeon to the hospital, operated, opening the abdomen by an incision in the median line, then feeling the razor, and bringing the stomach to the opening, he was able successfully to remove it. The wound in the stomach was doubly sutured, and the external wound closed. Thirty hours after the operation the temperature was normal, the bowels had acted naturally, and there was no unfavourable symptom. The razor, a large black bone-handled one, was somewhat acted upon by its six days' digestion.

WANTING TO SWALLOW BACILLI.

The world has grown tired of fasting competitions and the struggles between strong men. It seems that now we are to be treated to a novel competition to decide who can swallow or inhale the largest quantity or variety of bacilli. An aspirant after distinction, who is introduced in the *Freeman's Journal* (December 5th) as "a doctor who wants to swallow bacilli," is apparently disgusted or annoyed that the veteran Professor von Pettenkofer, who recently swallowed cholera vibrios with but passingly evil effect, should have attracted general attention and "been lionised over Europe," while the ungrateful world has forgotten his own challenges and he therefore offers "to swallow any amount of bacilli." In a style which, both with regard to composition and good taste, reminds us forcibly of the challenges of pugilists and other champions in sporting papers, he repeats his offer to "swallow any quantity of typhoid bacilli" and to "inhale any volume of tubercle bacilli." His object is not merely to be "lionised over Europe" and to outdo Professor von Pettenkofer, but a distinctly noble one—namely, to let humanity perceive "that, as long as other things are equal, the so-called specific bacilli are of no moment." Unfortunately, humanity has not expressed any desire for instruction by means of the foolish and unscientific auto-experiments of this more foolish and unscientific "Schwerenöther." We shall not pause to point out the folly and the display of ignorance of this sceptic who is so anxious to be used as a *corpus vile*. He is, however, perhaps not quite so foolish as he seems to be, since he

chooses typhoid and tubercle bacilli under the conditions that "other things are equal"—a splendid loophole. If—as we trust he will not do—he were to try inoculations with tetanus or glanders bacilli to prove that under the same condition of "other things being equal," "the so-called specific bacilli are of no moment," the results might be distressing, and such as he apparently does not count on. The bad taste which could prompt a member of our profession, who signs himself M.D., publicly to put forward such prattling nonsense is deplorable, not to use a stronger term. We do not ask him "to allow Nature more than Nature needs," even though he regard "man's life as cheap as beasts."

SCIENCE AND THE PROPOSED NEW UNIVERSITY.

A MEMORIAL signed by the presidents of a large number of learned societies, head masters, and representatives of universities and of science colleges has been presented by Sir Henry Roscoe to Earl Cowper, Chairman of the Royal Commission on the proposed University for London. The memorial expresses the strong opinion that the foundation of a teaching university without due provision for higher education and original research would be "unworthy of the metropolis, and would entail the neglect of an admirable opportunity for promoting the advancement of science and learning."

HELP FOR LEPERS.

FROM a report in a newspaper of a lecture given by Miss Kate Marsden on her visit to Siberia it appears that the lady now admits that she had seen not more than seventy-three lepers, and she stated her belief that there were only between two and three times that number in the whole of the vast Yakutsk district. It may not be generally known that the question of leprosy in Russia is, and has for some time been, receiving considerable attention on the part of the authorities, and that really competent investigators, like Drs. v. Petersen and Hellat of St. Petersburg, Professor Münch of Kieff, and many others are devoting themselves to the work, and are doing what they can to organise suitable homes for lepers and collect funds for their support. What special claims the comparatively few Siberian lepers have on the charity of the British public it is not easy to see. Miss Marsden might appeal to the wealthy princes, landowners, and others in Russia to support their own lepers. There is indeed sore need for help from British folk for our own fellow subjects who are afflicted with the fell disease. Assistance is wanted in our Colonies and in India; not 2 per cent. of the thousands and thousands of these unfortunate outcasts are properly cared for in hospitals and asylums; in fact, as the Indian Government has more than once pointed out, there is still a wide field open to the charitable in the founding of institutions of the kind. But if English people wish to help lepers they need not go even so far; here in England we have several of the sufferers who are in distress, and drifting to the poorhouse. If philanthropists would start a fund for the proper care and support of these poor people real good would be effected, and under their own eye there would be no doubt as to the money being satisfactorily used and applied under due guarantees for the benefit of the lepers.

THE LATE DR. WALSHE.

THE announcement of the death of Dr. W. H. Walshe, some time Professor of Pathology and subsequently of Clinical Medicine at University College, has been received with profound regret by his old pupils. Dr. Walshe possessed to an extraordinary degree the clinical acumen which sometimes seemed to amount to intuition, and was one of the most remarkable of the clinical teachers of the past generation. Sir William Roberts, who was one of his most distinguished pupils, writes to us as follows: "As a clinical teacher Walshe excelled by his insistence on exactness. Nothing irritated him more than that a pupil should use the word 'about' when actual measurements, weights, or numbers could be given. In dictating notes to the clinical clerk he was scrupulous to use accurate description, and was most fastidious in the choice of the right words and phrases. As a systematic lecturer this passion for precision became something of a snare to him, and betrayed him at times into making statements and drawing conclusions too confidently, and which a larger and longer experience compelled him to modify; but his lessons and example at the bedside were invaluable in training his pupils to observe accurately, minutely, and exhaustively what they saw and felt and heard. Few men have left such a large record of work that will stand the test of future criticism. He was a most obliging and patient teacher. I may add that he had a fine sonorous voice, with a fine ear for music, and was somewhat of a dandy in his outward adornment." A formal obituary notice is unavoidably postponed.

PROPOSED REORGANISATION OF THE LONDON UNIVERSITY.

AT a meeting of the Association for the Promotion of a Professorial University for London on December 21st, the Executive Committee presented a report, and a memorandum on an interview recently had with the Special Committee of the Senate of the University of London. At this meeting the Vice-Chancellor (Sir James Paget) stated that this Committee had adopted a series of resolutions for submission to the Royal Commission. These resolutions expressed the Senate's willingness to see a reorganisation of the present University as a teaching university in and for London, without curtailment of its present functions. The Senate proposes the establishment and incorporation with the University of Faculties in Arts, Science, Laws, and Medicine with Boards of Studies, the incorporation with the University of teaching institutions of the higher rank, the institution and maintenance of professorships and lectureships, and the provision of adequate representation of the professoriate on the Senate. Professor Huxley expressed the general concurrence of the Association for the promotion of a Professorial University with these recommendations, and Sir Henry Roscoe went through the proposals of the Association *seriatim*. Professor Weldon, who has succeeded Professor Karl Pearson as Secretary of the Association, spoke hopefully of the disposition of the Senate "to exercise in future not only that indirect control over teaching in London which is at present effected by means of examinations, but also the more important function of the direct organisation and unification of such teaching." The general result of the interview was to show that the recommendations of the Senate's Committee were perfectly consistent with the programme of the Professor's Association.

PRECAUTIONS AGAINST CHOLERA IN LONDON.

MR. ERNEST HART has referred more than once in his recently published addresses and writings to the increased powers necessary to be given to the London Council in the event of an outbreak of cholera. After further consideration, the Public Health Committee have determined to insert two important clauses in their General Powers Bill, so that it will be fully armed in the event of the Local Government Board issuing epidemic regulations. One of the clauses runs as follows: "Whenever London appears to be threatened by any formidable epidemic disease, the Local Government Board may, in anticipation of the issue of regulations suitable and sufficient for the protection of London, authorise the Council to inquire into and report to the Board as to the amount and character of the hospital and ambulance accommodation which would be available in the county in the event of an outbreak of epidemic disease, and the arrangements made or capable of being made for the supply of medicine and medical attendance, and for inspections and for the

immediate burial of the dead, and generally the best means of preventing the outbreak or spread of any epidemic disease." The Council is to be empowered to hold inquiries within the county of London, and to have the attendance and evidence of any medical officer or other officer of a sanitary authority within the county if necessary. In addition, the Council are anxious that the Local Government Board should have its power extended under the Public Health (London) Act, 1891, so that the Board may be empowered to impose duties upon the Council in the event of its being necessary to issue epidemic regulations, so as to insure the existence of a sufficiently complete organisation in each district. This is a very urgently necessary piece of patchwork, but a more organic reform is called for, of which we shall shortly venture to give the outlines.

DEATH UNDER CHLOROFORM.

From the reports of the proceedings at the inquest recently held by Mr. A. W. Rawlison into the circumstances attending the death of Frances Fanny Lambourn, it would appear that the deceased, who was 51 years of age, was suffering from certain tumours. In pursuance of the advice of a London surgeon, her local medical attendant (Mr. Parish), accompanied by his partners Drs. Gostling and Hinds, attended her for the purpose of removing a tumour from the left temple. Chloroform was administered by Dr. Hinds, and the operation was commenced by Mr. Parish. The patient was unconscious but not deeply under the influence of the anæsthetic. All went well for a short time when the patient vomited. After this the administration was resumed, and some few minutes later there was sudden change in her appearance, and the pulse ceased to be perceptible. This was about a quarter of an hour after the commencement of the operation. Various methods of restoration were tried, and artificial respiration was kept up for about twenty minutes, but there were no signs of returning life. The heart had been examined beforehand, but no signs of disease were detected. At the *post-mortem* examination the heart appeared healthy, but there were signs of commencing atheromatous disease. Mr. Parish expressed the opinion that death was due to syncope, and the jury returned a verdict of "Death by misadventure."

THE CYCLISTS AND THE METROPOLITAN HOSPITALS.

On the invitation of the Lord Mayor, a conference was held at the Mansion House on December 17th for the purpose of electing a committee to organise cycle and athletic sports next year in aid of the medical charities benefited by the Hospital Saturday Fund. There was a very large attendance of those interested in physical training, whilst letters of apology for absence and sympathy with the proposed movement were read from the Home Secretary, Sir Andrew Clark, and others. The Lord Mayor, having intimated the object of the meeting, said that the funds of the hospitals had been seriously affected by the depreciation in land values and the depression in trade. In such a juncture it was most generous of the metropolitan athletic societies to volunteer, as they had done, to assist so good a cause. A discussion ensued, and subsequently a council of forty cyclists and athletes was formed to act as an executive body with the committee of the fund to work out the projected plan of operations.

SUICIDAL LUNATICS.

A patient at Colney Hatch Asylum recently committed suicide by hanging, or rather strangling, himself with his braces. This case is one of those which proves the practical impossibility of preventing all suicides from effecting their purpose, even in asylums. As one such once observed, 'though there is but one entry into this life, there are a thousand ways out of it," and it is impossible for a fairly active and acute man to be always safeguarded. The patient who killed himself at Colney Hatch had been four years under observation, and had before his detention shot himself, cut his throat, tried to poison himself, and attempted to hang himself. In the asylum he tried to kill himself by swallowing a big stone, as well as by trying to strangle himself with his handkerchief. There are some cases in whom this perversion is the most marked symptom of disorder. Such cases used to be called suicidal maniacs, and they cause the utmost anxiety to the medical officers of asylums. We believe no precautions will always prevent accidents. The removal of all risk would only mean, in a number of cases, the most intolerable restraint or seclusion, and the risk of worrying and injuring patients by always having the red flag of danger dangling before their eyes.

ADULTERATION OF MILK WITH STARCH.

A man named W. Brown, of South Grove, Mile End, was summoned a few days ago at the Marlborough Street Police Court for selling to an inspector of the Marylebone Vestry some so-called milk, which was found on analysis to have had 66 per cent. of fat removed and to contain about 1 per cent. of starch. The preparation was purchased in Charlotte Street, Fitzroy Square, from a man employed by Brown. Adulteration of milk with starch is an old form of fraud, which of late years, however, has apparently been rare. The object of the addition is obvious. A "milk" deficient in fat, either through skimming or admixture with "separated" milk, can be thickened with the starch and the amount of "solids" thereby, making it appear to be richer and better than it is. The somewhat singular statement is alleged to have been made in the police court during the hearing of the evidence that the adulteration in question "would escape the eye of the ordinary analyst," as in the "ordinary process" of testing milk starch would escape notice. We cannot suppose that any public analyst can have made such a statement, least of all the public analyst for Marylebone. Such an adulteration ought not to, and would not, escape the eye of any analyst. It having been proved that the defendant had already been fined £5 for a similar offence, the magistrate inflicted the full penalty of £20 and costs allowed under the sections of the Act relied on by the prosecution, and the punishment is none too heavy in view of the nature of the offence and the large profits made by the unscrupulous dealers who are guilty of such practices.

THE LONG DISTANCE RIDE AND LONG DISTANCE MARCHES.

Brigade-Surgeon Myers, who recently retired from the Brigade of Guards, has written very strongly—we do not think too strongly—on the serious consequences likely to ensue if the proposal to transfer and develop the military competition among horses in the long distance rides on the Continent into a series of struggles in this country, in the shape of long distance marches among the men of our army, should be carried into effect. History has recorded at great length what can be done, and what has been done, by soldiers in the matter of prolonged and rapid marches, when forced by urgent circumstances or by necessity to make such efforts. On active service before an enemy the advantages which it is hoped to gain by the extraordinary exertions made on such occasions justify the means taken. Similar efforts can be easily got from bodies of men, when no such advantages—neither safety nor victory over an enemy—are in prospect. The stimulus of competition, hope of distinction, the determination not to be beaten in the contest by others, and a hundred other motives, will lead men into struggles of unmeasured violence and into self-sacrifice, quite as much as the stimulus of necessity. But is there any justification for men being led on to such sacrifices without any adequate gain? We know how soldiers "fall out," as it is called, on long marches under ordinary circumstances, and we also know how many examples there have been of soldiers not merely falling

out fainting from the ranks, but falling down to be carried to hospital, never to rise and march again. If once the fashion of competition in marches among bodies of soldiers acquires an ascendency, can there be any doubt that—what is probably worse even than a few occasional fatal results—the instances of heart disorders, already sufficiently numerous in army returns, will be immensely increased? We have seen what occurred among the picked and high-bred horses in their forced marches from Berlin to Vienna, and from Vienna to Berlin, and we do not desire to see the same facts illustrated again among our soldiers. We do not believe, however, that these suggested competitive struggles will ever be sanctioned by the authorities who rule in the British army.

THE "PERIODATE" TREATMENT OF CHOLERA.

Mr. Richard Weaver, C.E., F.C.S., writes to us in reply to the letter of Dr. Klein concerning the "periodate crystals," the solution of which his experiments do not indicate to have the disinfecting power over pathogenic bacilli which has been attributed to them. Mr. Weaver objects to the statement that an unauthorised use has been made of the name of Sir Andrew Clark as "recommending this remedy," and also to Dr. Klein's similar statement. As to that, however, we have only published the authorised declarations of those gentlemen. In an article published in the *Times* of November 18th, and in a Reuter's telegram, it is "claimed that, in the early stages of cholera, periodate was successful in 95 per cent. of the cases in which it was employed, and, even in the later stages of the disease, cure 75 per cent. of the patients treated." The name of Dr. Lauenstein was mentioned as physician-in-chief of the Sailors' Hospital, Hamburg, in which the treatment was carried out. In reply to inquiry as to the therapeutic and statistical facts, Dr. Lauenstein states: "Towards the close of the cholera epidemic, and in the beginning of the month of October, the substance 'periodate' was administered in about thirty cases. Of these, seven were severe, and about two dozen slighter, or already reconvalescent. In six severe cases the periodate was applied by means of intravenous infusion in combination with a physiological solution of common salt, all of which succumbed; whereas in one severe case the same combination of periodate with salt solution was infused hypodermically, and the patient, a woman, speedily recovered. The other milder or reconvalescent cases received the remedy in acid solution in a concentration of $\frac{1}{150}$ gramme, through the mouth, and a few cases by means of enema under high pressure. All the mild cases recovered. I believe, however, that this short trial of the substance at the close of the epidemic does not permit of sufficient judgment on its remedial value. Neither do the six severe cases, which ended fatally, speak against, nor the single dangerous one, which recovered, as well as the mild cases, in favour of it."

SCOTLAND.

ROYAL SOCIETY OF EDINBURGH.

An ordinary meeting of this Society was held on Monday last, Professor Sir Douglas Maclagan in the chair. Reference was made by the President to the death of Sir Richard Owen, and to his distinguished position in the scientific world. An obituary notice of the late Mr. Thomas Nelson, the publisher, was read, and his services in perfecting the rotary press were specially referred to. Dr. Hunter Stewart criticised Kjeldahl's method of organic analysis, and described an apparatus of his own for analysing air. Professor Rutherford read a contribution by Dr. W. G. Aitchison Robertson on the madder-staining of dentine.

WOMEN MEDICAL STUDENTS AND THE EDINBURGH ROYAL INFIRMARY.

The managers of the Edinburgh Royal Infirmary have now placed seventy beds at the disposal of those who are giving instruction to lady medical students in that institution. At the beginning of the session only forty beds were at their disposal. The authorities who direct the Conjoint Scotch Triple Qualification had intimated to women students that clinical studies on forty beds could not be held as qualifying for their examination. While thus increasing the number to seventy, the infirmary managers, it is announced, only wish to meet the requirements of the lady students, and not to recognise the decision of the Examining Board above referred to.

PROPOSED NEW ATHLETIC FIELD FOR EDINBURGH UNIVERSITY.

At a meeting of the Edinburgh University Students' Representative Council held last week, the chief business was a proposal to acquire a new athletic field in place of that now held, and the lease of which expires next November. To purchase and equip the proposed new field there would be required a sum of £12,750, of which only £3,000 had yet been raised. At the meeting £40 was subscribed. Various plans for raising more funds were discussed. An appeal to the University Court was spoken of, and through that Court an appeal for a Treasury grant.

THE COST OF INFECTIOUS DISEASE IN EDINBURGH.

At a meeting of the Edinburgh Public Health Committee, held on Tuesday, it was resolved to ask the Town Council to authorise an extra expenditure of £1,000 by this Committee. This sum is in addition to the ordinary estimate at the beginning of the financial year. The reason for the great additional expenditure is the widespread prevalence of infectious disease, involving extra cost for notification fees, and also extra expenditure in the Fever Hospital. The matter will be considered in the Town Council on Tuesday, December 27th.

OPENING OF THE NEW NURSES' HOME AT THE EDINBURGH ROYAL INFIRMARY.

The new Home at the Royal Infirmary, suggested by the late superintendent, Surgeon-General Fasson, was formally opened on Monday, December 19th, by the senior manager, Mr. Edmund Baxter, W.S. The new home has already been described in the British Medical Journal. It stands on the west side of the main corridor, between the surgical and medical parts of the hospital. It has 121 nurses' rooms, a sick room with six beds, two separate sick rooms, recreation rooms, and sixteen bathrooms. It is beautifully decorated and furnished, and is connected by a conservatory with the main building. Remarks at the opening were made by the Rev. Dr. Scott, Dr. Joseph Bell, Dr. Affleck, and the infirmary Treasurer replied on behalf of the nursing staff.

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.

The monthly meeting of this society was held on December 8th, Professor Stephenson in the chair. Professor David W. Finlay read a paper on the treatment of the febrile state of typhoid fever by small (2-grain) and frequently repeated doses of antifebrin. He detailed examples of three cases in which he had employed this treatment, and exhibited temperature charts illustrative of the action of the drug. He claimed for antifebrin the merits of steadily reducing the temperature, with no unpleasant effects, such as profuse perspiration, symptoms of collapse, as in skin eruptions. The reading of the paper was followed by an interesting discussion, in which most of the members took part.

BELVEDERE FEVER HOSPITAL, GLASGOW.

The post of physician superintendent of the Glasgow Fever Hospital, vacant by the resignation of Dr. Allan, is likely to be filled by the appointment of Dr. Alex. Johnstone, at present medical superintendent to Monsall Fever Hospital, Manchester. The Health Committee of the Town Council have decided to recommend him to the Council. He is a Glasgow student, and graduated at the University in 1883; previous to his present Manchester appointment he held similar posts at the Victoria Hospital, Burnley, and the Barnes Convalescent Hospital, Cheadle.

IRELAND.

At a meeting of the Belfast Board of Guardians held on December 13th. Dr. E. C. Bigger was unanimously elected physician to the Fever Hospital in succession to Dr. Seaton Reid. For the post of physician to the Union Infirmary, vacant through the resignation of Dr. Brice Smyth, there were several candidates in the field, and Dr. Hall was elected by a large majority.

DUBLIN MAIN DRAINAGE.

At last there is some prospect that the great main drainage scheme for Dublin will be carried into effect. The Corporation have arranged to take up £80,000 next year as a first instalment of their loan, and the work will be commenced as soon as the contractors have been declared. The scheme is that approved of by Mr. Chatterton, C.E., of London. The filtered liquid sewage will be delivered into the sea by pipes, and the solid matter will be conveyed some miles outside the port in suitable barges, which will then discharge their cargo. The north and south mains will be carried to the works beyond the Pigeon House Fort.

A WEEK'S LEAVE.

Dr. W. R. Davison, Medical Officer of the Ballymena Workhouse and Fever Hospital, applied a couple of weeks ago for a week's leave of absence. The leave was granted, but on condition that the substitute should be paid by the applicant. When the appointment was made a year ago the combined salary was reduced by £35. We do not know what was the purpose of the leave sought for. Of course if it was of the nature of a holiday we think it was churlish in the special case to refuse to pay Dr. Davison's substitute. This question of leave is one that is dealt with in the Bills which will be introduced into Parliament next session, and we hope that the whole question will then be satisfactorily settled.

THE SAMARITAN HOSPITAL, BELFAST.

A meeting of the Committee of this institution was held on December 2nd for the purpose of electing two attending physicians. There were four candidates, and the voting resulted in the election of Dr. John Campbell and Dr. St. Clair Boyd. Dr. Campbell has been for several years demonstrator of anatomy in the Queen's College, and assistant surgeon to the Belfast Hospital for Sick Children. He had a distinguished collegiate and university career, and, in addition to possessing the diplomas of the Royal University, he is a Fellow of the Royal College of Surgeons of England. Dr. Boyd has been for some years gynæcologist to the Ulster Hospital for Children and Women, where he has done some successful operative work.

BELFAST MEDICAL STUDENTS' ASSOCIATION.

The inaugural address at the opening meeting of this prosperous Association was delivered by the President, Dr. J. S. Morrow, who pointed out that the heavy and ever-increasing curriculum of medical study necessitated a most laborious life on the part of the student. He expressed a doubt whether the medical profession was suffering from overcrowding in a greater degree than other professions. The President of the College, Dr. Hamilton, spoke of the success attending the effort being put forth to establish a students' union, and urged the students to give it all the material assistance in their power. It was decided that the Medical Students' Association should this year unite with the Literary and Scientific Society for the purpose of holding a *conversazione*.

THE TREATMENT OF HYDROPHOBIA.

At the last meeting of the Larne Guardians the clerk read a letter from the Local Government Board auditor (Colonel R. M. Studdert) inquiring whether the guardians had paid the amount surcharged to them, which amounted to upwards of £20, the expense of sending five persons who had been bitten by a mad dog to a Mr. M'Govern, of Cavan, for treatment. Mr. Donnan proposed that the board refuse to pay the amount surcharged to them except under the ordinary process of law; Mr. Boyd seconded the motion. On Mr. Dale's suggestion a specially summoned meeting of the board has been convened to protest against the surcharge.

CLINICAL TEACHING AT THE UNION HOSPITAL, BELFAST.

This question has been advanced a step by the adoption on the part of the board of guardians of the scheme submitted to it by Professor Cuming. The main features of this scheme are that three clinical teachers shall be nominated by the Council of the Queen's College, these nominations to be confirmed by the board of guardians, and that to these teachers a limited number of beds shall be assigned, and selected cases, suitable for clinical teaching, distributed amongst these beds. It is expected that the present staff of the Union Hospital will also take part in clinical instruction. It remains undecided for what proportion of the obligatory period of hospital study recognition will be sought for instruction given in the Union Hospital. It also remains to be seen whether the Union Hospital will be able to satisfy the Senate of the Royal University that its arrangements for teaching are up to present day requirements, and such as to warrant its certificates being received. The proposed scheme has been ably framed, and should achieve success if success is, under the circumstances, feasible. In reference to this proposal, a correspondent writes doubting that there is authority for the statement made, namely, "that the reason assigned by the Royal University for refusing to recognise the certificates was that the teaching staff at the infirmary was not sufficiently large." He says that upon this ground the guardians are asked to increase the number of medical officers, and therefore he thinks it should be made clear by the authors of the memorial that their first statement is accurate. The objections to the recognition of workhouse hospitals are much wider than are stated by the applicants, and certainly would not be met by a mere increase of the medical staff. As at present constituted he considers that workhouse hospitals in Ireland are not suitable for clinical teaching as it is understood in these days. Our correspondent suggests that the applicants should make quite sure of their position before promoting a change, which, when effected at much cost, would not bring the question nearer to settlement.

Surgical Aid Society.—At a meeting, held recently at Tunbridge Wells, a local branch of the Surgical Aid Society was formed. After speeches by the Chairman, Mr. T. K. Fothergill, Dr. Pincott, Dr. Claude Wilson, Dr. Stricklaw, and others, the necessary officials were elected, including (as honorary surgeon) Dr. E. A. Staveling and (as local secretary) Mr. D. Dossetor, Rosewell, Guildford Road, Tunbridge Wells. Assuming the Surgical Aid Society to be a useful charity, in spite of the evil of the multiplicity of letters, for which many of the applicants have to wander wearily about begging, it is obviously a good plan to establish local centres, and thereby save the expense of sending patients to London for surgical examinations.

CHOLERA AND THE PORTS.

CONFERENCE OF PORT MEDICAL OFFICERS.

On December 17th a Conference attended by the medical officers of twenty-seven port sanitary authorities in England was held in the Mansion House. The proceedings were opened by the Lord Mayor, and the chair was taken subsequently by Dr. Collingridge (Port of London).

Medical Inspection by Night.

A resolution expressing the opinion that medical inspection for the prevention of cholera should be kept up by night as well as by day was moved by Dr. Armstrong (Newcastle), and seconded by Dr. Wynne (Lowestoft). The motion led to considerable discussion. Dr. Davies (Swansea) pointed out that in practice much must depend on the nature of the port, as it was not possible to visit vessels lying in an open bay. Dr. Mason (Hull) said that in the Humber inspection by night was dangerous; and Dr. Wood (Sunderland) said that he had been thrown overboard while visiting ships at night. Other speakers, among whom were Dr. Williams (Plymouth), Dr. Wellington (Wisbech), and Dr. Simpson (Weymouth), thought that it was advisable not to make the inspection except by daylight; and other speakers pointed out that, apart from the difficulty and danger involved in reaching the ship, a good light was necessary to make the inspection of any real value. Dr. Collingridge, on the other hand, pointed out that there was no power to detain ships, and the Conference adopted the resolution as a general principle, but the opinion was expressed that the details ought to be determined by local circumstances, that it would be necessary to have two medical officers, one for night and one for day, in those ports in which night inspection was fully adopted, and that a steam launch should be provided. A resolution was also adopted that continuous medical inspection should be kept up, and that all vessels from infected ports should be promptly inspected and subsequently supervised.

Infected Ports.

The difficulty of ascertaining what ports were to be considered infected was pointed out, and Dr. Armstrong observed that the great question of international notification was thus raised. A system of consular notification was wanted. Dr. Collingridge did not think that the Local Government Board could undertake to publish a list of infected ports. He suggested that a committee of some particular ports should publish a list. Finally a resolution was unanimously adopted expressing the opinion that medical inspection should be carried out on every vessel from an infected port and that the Port of London sanitary authority should be asked to issue lists of infected ports.

Detention of Vessels.

The Chairman pointed out that there was no power of detention beyond the indirect power through the action of the Customs, and Dr. Mason (Hull) moved the following resolution which was adopted:

> That it be a recommendation from this Conference to a conference to be called of all port sanitary authorities, that they approach the Local Government Board to obtain compulsory powers for themselves that any ship arriving from an infected port be detained for medical inspection and be not released until a certificate be given by the port medical officers of health that there is no infection on board.

As a rider, a resolution was adopted to the effect that the detention of medical officers of health on board vessels under the Quarantine Act was objectionable, and the general opinion was expressed that quarantine should be removed as much as possible from the control of the Customs to the port sanitary authorities.

False Answers.

Resolutions were carried recommending that the giving of false answers in regard to the health of persons on board ship, whether to the Customs or to the sanitary officer, should be made a penal offence. At present there is no penalty.

Vessels from Infected Ports.

On the motion of Dr. Davies (Swansea) a resolution was adopted recommending that all vessels, including fishing boats from infected ports or having been in communication with infected ships at sea, should hoist a distinguishing flag. It was suggested that a regulation of this kind might be published and enforced by the Customs.

Quarantine.

The question whether quarantine was desirable, and if so, under what circumstances, was briefly discussed, and the following resolution moved by Dr. Davies (Bristol), and seconded by Dr. Mason, was adopted unanimously:

> That in the opinion of the Conference, quarantine or the detention of a vessel having no sickness on board, and being so certified by the medical officer of health, is unjustifiable.

Movements of Passengers.

It was pointed out that at present the names and addresses of passengers by an infected ship were forwarded by the clerk of the port authority to the clerk of the inland authority. It was resolved to request the Local Government Board to give the medical officer of health power to communicate direct with the medical officer of health of the other district.

Disinfection of Ships and Isolation of Patients.

The opinion was expressed that the present mode of disinfection of ships—fumigation followed by washing with perchloride of mercury—was unsatisfactory; and a committee, consisting of the Chairman, Dr. Armstrong, Dr. Mason, Dr. Malcolmson, Dr. Davies (Bristol), Dr. Walford, and Dr. Wynne, was appointed to consider the question and report thereon, as well as on the disposal of disinfected corpses and as to compensation for destruction of cargo. A resolution was also adopted to the effect that it was the "imperative duty" of every port sanitary authority to provide forthwith proper special hospital accommodation for cholera patients and the isolation of suspected cases.

Who is to Pay?

The question, "At whose expense should cholera defences be maintained?" was stated to be a serious question, especially in some of the smaller ports, and after some discussion, during which Dr. Malcolmson (Middlesbrough) suggested that large areas might be given to port sanitary authorities, a resolution was adopted, on the motion of Dr. Malcolmson, to the effect that, as the precautions were for the benefit of the whole kingdom, they should be carried out at the Imperial expense.

Concluding Business.

The Conference adopted a resolution recognising the valuable assistance rendered by H.M. Customs and other public bodies having jurisdiction in ports, and recommending that another conference should be held in London at an early date. Votes of thanks to the Lord Mayor and to Dr. Collingridge brought the proceedings to a close.

Certifying Surgeons Association.—A meeting of the General Committee of this Association was held at Manchester on December 20th to consider the first annual reports supplied under the new rule to the Home Office, giving the number of children examined and rejected, with the cause, in each district. In the large towns, chiefly of Lancashire, the rejections averaged from 3 to 4 per cent. The meagreness of the returns from some districts caused the Chairman (Mr. Hughes, of Ashton) to remark that there may have been some laxity in the certifying. It was explained, however, that since it was decided to retain the surgeons, fewer children in a physically weak condition had been presented, showing that great care was taken by the employers in the employment of children. It was decided to impress the importance of strict certifying on members of the Association, and the issue of quarterly reports, giving the number of children examined, and the rejections was ordered to be resumed. Satisfaction was expressed at the progress of the Association, which is now well organised.

Dundee Royal Infirmary.—Dr. McCosh has resigned the appointment of superintendent of the infirmary, which he has held for over seventeen years. Before he leaves Dundee he is to be entertained at a complimentary dinner by the medical staff of the hospital, and his personal friends. During Dr. McCosh's term of office the infirmary has been raised to a position of great efficiency and usefulness, and his rule has been marked by the institution of many improvements of a permanent character.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 11th day of January next, at 2 o'clock in the afternoon.

Francis Fowke, *General Secretary.*

December, 1892.

NOTICE OF QUARTERLY MEETINGS FOR 1893. ELECTION OF MEMBERS.

Meetings of the Council will be held on January 11th, April 12th, July 12th, and October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Dublin Branch.—The annual meeting of this Branch will be held (by permission of the President and Fellows) in the hall of the Royal College of Physicians, on Thursday, January 26th, at 4.30 o'clock. The members will dine at 7.30, at the College.

SPECIAL CORRESPONDENCE.

[From our own Correspondents.]

BIRMINGHAM.

Addition to Mason College.—Dinner of Past and Present Students.—Commencement of the New General Hospital.—The Workhouse Inquiry.

The structural additions and alterations at Mason College, rendered necessary by the transference of the medical school from Queen's College, are now nearly completed, and the students are established in their new quarters. The arrangements in all their departments are greatly superior to those at Queen's College.

The dinner of past and present students, which had fallen through during the past two years, was this year revived, and was held on December 1st, at the Grand Hotel. The evening passed off most successfully: Dr. Saundby presided, and most of the medical staff of the various hospitals, and many of the leading practitioners in the City were present, in addition to the large gathering of present students.

Building operations for the new General Hospital in St. Mary's Square have now actually commenced. The present contract is for the foundations only. More than £80,000 have already been subscribed towards the building, but a considerably larger sum will in all probability be needed. Great pains are being taken to make it complete in every detail, and the new institution when finished will rank second to none in the provinces.

A Local Government inquiry has lately been held at the Workhouse Infirmary, to investigate the case of an inmate of that institution, who on admission into the asylum from the infirmary was found to have several ribs fractured. The inquiry lasted three days, and evidence of a very conflicting character and showing the existence of much friction between the residents and one of the visiting officers was heard. The result of the inquiry has not yet been made known.

LIVERPOOL.

Distribution of Prizes to Students of Medical Faculty: Address by the Right Hon. Professor Bryce, M.P.—Students' Grievances.—Prosecution under the Infectious Diseases Notification Act.—Royal Southern Hospital Dinner.—Clinical Evening at the Medical Institution.

On the afternoon of December 14th the prizes gained by the students of the Medical Faculty of University College were distributed by the Right Hon. James Bryce, M.P., Chancellor of the Duchy of Lancaster, who, in the course of a most eloquent and scholarly address, listened to with profound attention, reviewed the past history of the College and of Owens College, Manchester, and pointed out the remarkable progress that had been made by both institutions during recent years. He congratulated the College on the great progress of the engineering school, and said he had no fear that, under present circumstances, the scientific aspect of that department would be lost. He also congratulated the College on its having admitted women and men upon equal terms. Whatever else women might demand, there was certainly no doubt that they had a right to the best education in the country. The speaker then considered the question how far oral lectures were needed in these days. Why not, it might be asked, be content with books? Such an idea predominated forty years ago, and caused the pernicious number of examinations from which we were now suffering. The same line of argument would suggest the replacement of sermons by the distribution of tracts, and would also lead to the abolition of political addresses. Some were more susceptible than others to the influence of personality, but in most people the impression produced by oral instruction was deeper than that derived from books. The teacher, by his method and manner, could make a dry subject interesting, and could note the effect on his audience as he went along; he could also choose subjects that were of special importance at the time. Finally, far better than any books, he could impart to his hearers a critical spirit and a philosophical method. A vote of thanks to Professor Bryce was proposed by the Rev. Dr. Mahaffy, of Trinity College, Dublin, and seconded by Sir Henry Roscoe.

During the opening ceremony at the University College on December 13th considerable disturbance was caused by the students in the gallery, who, before the proceedings began made an uproar and frequently interrupted the speakers during the meeting. Reprehensible as such conduct undoubtedly was it appears that the students thought they had a grievance, inasmuch as they were under the impression that it had been proposed by someone in authority to exclude them altogether from the opening ceremony. Such a proposal was never entertained by the Council, but it would certainly be a desirable thing that the students should feel in future that they form an integral part, and by no means the least important part, of the College, and that it is their right as well as their duty to bear a dignified part in all its public proceedings.

The first prosecution in Liverpool under the Infectious Diseases Notification Act took place before the stipendiary magistrate on December 14th. It appears from the evidence of Dr. Hope, the deputy medical officer of health, that on November 25th a man named Patten was removed to hospital from a house—134, Elias Street—suffering from confluent small-pox, from which he subsequently died. The usual disinfection and cleansing of the premises were carried out, and, in accordance with the practice of the health department, visits were made daily by the inspector, whose business it was to inquire whether any person in the house was unwell, and if so, to report the matter forthwith. It appears that three of Patten's children developed small-pox on December

2nd and 3rd, and that a fourth patient, the son of a woman named McKnight, who lived in the house, also fell ill with the disease on December 3rd. It was, however, proved that up till December 8th both Mrs. Patten and Mrs. McKnight assured the inspector that everyone in the house was perfectly well, and the actual condition of things was not discovered till December 9th, and no medical man was called in. Patten was fined the full penalty of 40s. and costs, and McKnight 20s.

At the annual dinner of the Royal Southern Hospital, the speakers bore witness to the excellent instruction and opportunities for practical work to be found in the hospital. Dr. A. Barron, in replying to the toast of "The Medical School," spoke of the need that existed for the establishment of a bacteriological laboratory in connection with University College. The gathering was one of the most successful and enjoyable of the kind that has been held for some years.

On December 15th there was a clinical evening at the Medical Institution, when a number of interesting and instructive cases were exhibited. This is the first occasion on which a meeting of this kind has been held at the institution, and the excellence of the clinical material, as well as the large attendance of members, will, it is hoped, encourage the Council to repeat the experiment.

CORRESPONDENCE.

AMINOL.

SIR,—In the BRITISH MEDICAL JOURNAL of December 17th, Mr. Wollheim, in answer to a letter of mine which you kindly inserted in your issue of December 10th, explains what needs no explanation and omits to explain what is in want of explanation. I had stated that aminol, in the strength of 1 in 600, does not kill the spores of anthrax in eight—nay, not even in twenty-four—hours. It kills the sporeless bacillus anthracis, the staphylococcus aureus, etc., after prolonged exposure; one hour for sporeless bacillus anthracis, two or more hours for staphylococcus aureus, are practically prolonged exposure. These last statements Mr. Wollheim reiterates without, however, mentioning the former—that is, the resistance of the spores.

Now, what Mr. Wollheim might have explained is this: (1) Why does he call aminol of the strength of 1 in 5,000—that is the strength of the samples advertised—"a true disinfectant," knowing from my reports that such a strength, or one very near it, does not kill the staphylococcus aureus in eight hours? (2) The leaflet, on which my name is introduced in a seemingly misleading manner and without my authority, and which accompanies the samples, gives in the form of a motto a quotation from Koch, to the effect that no disinfectant can be called a true disinfectant that does not kill spores; yet, notwithstanding the fact that aminol, even in the strength of 1 in 600, fails to kill the spores of anthrax in twenty-four hours, the aminol solution of the strength of 1 in 5,000 is described as "a true disinfectant."—I am, etc.,

Dec. 20th. E. KLEIN.

"NECROSING ETHMOIDITIS": A DISCLAIMER.

SIR,—In the BRITISH MEDICAL JOURNAL of December 17th Dr. Woakes has, in a letter to you on the subject, made me responsible, from a pathological point of view, for the existence of a disease of the nose called by him "necrosing ethmoiditis." This is a responsibility I cannot assume.

In 1888 I received from Dr. Woakes certain specimens, twenty in all. Many of them were in one bottle, others arrived later, singly or by twos and threes; they were described to me as portions of the ethmoid bone removed during life from patients suffering from "necrosing ethmoiditis." As far as I could ascertain, there was no clinical history obtainable of each specimen. The specimens varied in size, some being mere fragments, while the majority were about one-third of an inch broad by about one inch long. They were examined microscopically by means of a large number of sections made transverse to the long axis. In nineteen of them the mucous membrane was diseased, showing a greater or less degree of sclerosis, or of increase of myxomatous tissue. In one the mucous membrane was normal; in four cysts were found; in two necrosis of the bone was present, the arteries in these specimens being greatly thickened, and their lumen nearly occluded; in eighteen specimens there was no necrosis of the bone, which, in eight of these specimens, was quite normal, and in ten was undergoing absorption in parts. In the absence of any recorded clinical history of the cases it was impossible to decide to what the necrosis observed in the two specimens mentioned was due; in the remaining eighteen specimens it was, however, a definite fact that no necrosis of the bone was present, after an exhaustive examination of the large pieces of ethmoid bone I had to report upon.

I cannot see in what way these results confirm the existence of "necrosing ethmoiditis."—I am, etc.,

Mansfield Street, W., Dec. 19th. SIDNEY MARTIN.

CHICKEN-POX AND SMALL-POX.

SIR,—My recent experience of small-pox in Lymm has led me to address the following letter, which will sufficiently explain itself, to the Local Government Board. It opens a practical consideration, the importance of which cannot be exaggerated, upon which your animadversions or those of your correspondents cannot fail to be interesting and beneficial.—I am, etc.,

Lymm, Dec. 12th. JOHN M. FOX.

"To the Secretary of the Local Government Board.

"SIR,—In reference to the outbreak of small-pox in Lymm recently reported to the Board, there is a matter of such extreme practical importance which has come under my observation, that I think it right, without further delay and in anticipation of a further report, to bring it also under the notice of the Board.

"I refer to the perplexingly various forms which small-pox is now found to assume in vaccinated persons. The diagnosis is thus rendered increasingly difficult; and mild but real cases fail to be notified, to the great subsequent damage of the community, and no less discredit of sanitary administration.

"Under these circumstances I think it most desirable that chicken-pox should be included in the scheduled list of diseases made subject to compulsory notification. In this event eruptions of doubtful significance would be brought under the notice of the medical officer of health, who would assist in determining whether the suspicious case should be dealt with as one of small-pox or not. I shall strongly advise all my authorities agreeably to this view.

"I most respectfully submit this as a most urgent, practical matter, calling for the immediate consideration and action of your honourable Board in the interests I have named.—I have the honour to be, Sir, your most obedient servant,

"JOHN M. FOX,
"Medical Officer of Health Mid-Cheshire
"Combined Sanitary District."

THE PREVENTION AND TREATMENT OF PERITONITIS.

SIR,—Without necessarily accepting the theory of peritonitis as propounded by Mr. Lawson Tait, I can, from my own experience, strongly confirm all that he has said with reference to its treatment by purgatives. With regard to preventive treatment, I think that flushing the peritoneum has done a great deal towards averting it in operative cases, by removing putrescible matters, such as pus, cyst fluid, etc. At the Women's Hospital in this town, a simple apparatus is used to carry out the flushing process. Hot and cold water are led into a mixing ball, into the top of which a thermometer is inserted, the hot water, at the required temperature, being taken from beneath by a tube attached to the flushing cannula. Surely this flushing treatment is a distinct Listerian precaution!—I am, etc.,

Derby, Dec. 13th. T. HENDERSON POUNDS, F.R.C.S.

SANITARY REFORM IN EGYPT.

SIR,—Mr. Alfred Milner is quite right in saying that the Sanitary Department of Egypt requires more backbone, but the expression is open to misconstruction. The backbone that is required is money; and of that fact no one can be

better aware than Mr. Milner himself, for he was a member of the Financial Committee which systematically refused all demands for increasing the sanitary budget.

Without funds it is impossible to carry out sanitary reform, and it is unworthy of a man with Mr. Milner's reputation to cast blame by implication on officials whose efforts he himself was actively concerned in paralysing.—I am, etc.,

Southsea, Dec. 17th. H. R. Greene.

PROVISION FOR NEEDY MEDICAL MEN.

Sir,—Would it be possible in order that provision might be made for needy medical men that the examining bodies should make a small yearly charge on all who hold their degrees or diplomas?—I am, etc.,

Honiton, Dec. 9th. John Craigie, M.D.

MEDICO-LEGAL AND MEDICO-ETHICAL.

URGENCY CERTIFICATES OF LUNACY.

Lord Halsbury's judgment in the Cathcart case will, the *Manchester Guardian* reports, probably lead to an alteration in the practice if not in the law, as to the grant of urgency certificates. While his lordship agreed with their Lordships in Lunacy in holding that the bulk of the costs of the inquisition must be paid out of Mrs. Cathcart's estate, he intimated his emphatic opinion that the case was not one in which an urgency order ought to have been applied for and obtained, and the grant for such orders ought to be confined to cases requiring the instant intervention of a court of law. As Lord Halsbury was the author of the Lunacy Act which created urgency orders, his opinion on this point is entitled to much weight, and is receiving great attention. If the British Medical Association induces Lord Herschell to bring in a Lunacy Acts Amendment Bill, the urgency sections will probably be amended in accordance with the spirit of the ex-Lord Chancellor's direction.

THE MEDICAL DEFENCE UNION, LIMITED.

A Council meeting was held at the Medical Institute, Birmingham, on December 9th, 1892, at 4 o'clock P.M., Dr. R. Saundby in the chair. Eleven applications for membership were accepted. The recommendation of the Metropolitan Local Committee was adopted, and it was resolved to defend Dr. B., of Tottenham, in an action for malpraxis with which he was threatened. The solicitors were instructed to write to a nurse who was defaming the character of a member. It was resolved to obtain legal opinion on the interpretation of Section 22 of the Coroners' Act, 1887. A letter of thanks was received from a Liverpool member who had been assisted. A local committee was appointed for Monmouthshire, and also for the town of Monmouth. Other business was transacted.

FOREIGN DEGREES AND THE TITLE OF "DR."

Dr. Major Greenwood (Hackney Road, N.E.) writes: My attention having been drawn to a notice in the British Medical Journal of December 3rd relative to "Foreign Degrees and the Title of 'Dr.,'" I trust you will permit me to protest strongly against the opinion therein expressed, as being erroneous in point of fact and tending to encourage moral dishonesty with regard to medical titles. In the first place, an M.D Brux. does nothing illegal in putting the above title on his card or door plate, even if he cannot register the same, having acquired his degree since 1886, and as such is undoubtedly entitled to call himself "Doctor."

*** The statement in the Journal to which Dr. Major Greenwood refers was a categorical reply to a question put by a correspondent as to the strictly legal aspect of the matter, and to that opinion we must adhere. If we are to consider the moral distinction between the holder of the degree of M.D. Brux.—although obtained at a date which renders it unregistrable—styling himself "Dr." and a person having no such qualification doing the same thing, we might find ourselves in agreement with the views of Dr. Major Greenwood. Beyond this we cannot go with him.

TITLES, APPELLATIONS, AND DEGREES.

L.R.C.P.Lond., M.R.C.S.Eng., writes: With reference to the opinion that the holder of the degree M.D.Brux. obtained since 1886 has not the right to use the prefix "Dr." on his card and doorplate, I take it for granted that this is a legal conclusion, although it seems to me illogical, provided the practitioner possesses registrable British diplomas as well. I was about to enter for the Brussels M.D solely for the purpose in question, and shall be much obliged if you will answer the following queries in your Medico-Legal and Medico-Ethical column next week. 1. Shall I risk any penalties if I now obtain the M.D Brux. and, on commencing practice, style myself "Dr.?" 2. If I now obtain the L.R.C.P. Edin., shall I have the right to style myself "Dr." on my card and doorplate?

*** 1. We do not think that our correspondent would incur any practical risk of penalties if he now obtained the degree of M.D.Brux, and on commencing practice styled himself "Dr." 2. The diploma of L.R.C.P. Edin. would not, in our opinion, confer any greater right to style himself "Dr." than our correspondent now possesses.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

Inspector-General David Lloyd Morgan, C.B., M.D., F.R.C.S., F.R.C.P., died on December 3rd at Rosmasen, near Llandillo, in his 70th year. He entered the navy as Surgeon, December 31st, 1846; became Staff Surgeon, November 13th, 1854; Fleet-Surgeon, October 15th, 1866; Deputy-Inspector-General, May 31st, 1870; and Inspector-General, December 22nd, 1877. He retired from the service, May 30th, 1883. From the *Royal Navy List* we learn that he served on the West Coast of Africa in 1847-49, during which time he was constantly on detached duty in medical charge of boats employed in the capture of slavers. Served in the Black Sea during the Crimean war, as senior medical officer of the *Trafalgar* during the outbreak of cholera, and at the attack on the forts of Sebastopol on October 17th, 1854, and subsequently of the ironclad battery *Meteor*—specially promoted (Crimean and Turkish medals, Sebastopol clasp). Served with the land forces in China in 1857-61; was Surgeon of the 2nd Battalion of the Royal Marine Brigade at the capture of Canton in December, 1857, and Staff-Surgeon and senior medical officer of the force (*vice* Turnbull killed in action) during the subsequent operations until 1859 specially mentioned in the despatches); senior medical officer in charge of hospital ship *Cooper*, into which were received the wounded at the capture of the Taku forts in 1860, and senior medical officer of the Provisional Battalion of Royal Marines until the end of the war (China medal, Canton and Taku clasps). Served again in China in the flagship *Euryalus* in 1862-65; senior medical officer in charge of the Naval Brigade in the expedition against Kahding, where there was an outbreak of cholera and dysentery, and at the attack on the batteries of Kagosima, Japan, and was also the senior medical officer of the force at the capture of the batteries of Simono-seki, Japan (mentioned and highly commended in the despatches); especially promoted for "meritorious services;" D.I.G. at Bermuda Hospital, 1870-72, Hong Kong, 1874-76, Chatham, 1876-77; and I.G. of Plymouth Hospital, 1879, and Royal Hospital at Haslar, from 1880: Sir Gilbert Blane's Gold Medal; C.B. in June, 1871; Honorary Physician to the Queen, 1888.

ARMY MEDICAL STAFF.

Surgeon-Major-General J. G. Faught, Principal Medical Officer at Aldershot, attained the age of 60 on December 15th, and will therefore be placed on retired pay.

Surgeon-Captain J. B. W. Buchanan, who is serving in the Bombay command, is transferred from general duty in the Mhow District to general duty in the Poona District.

Surgeon-Captain G. Scott, M.B., who is serving in the Bengal command, has leave of absence for six months, on medical certificate.

Quartermaster William McKay has retired on temporary half-pay on account of ill health, December 21st. He was appointed Lieutenant of Orderlies, April, 1876; Quartermaster Medical Staff, July 1st, 1881; and Honorary Captain, April 1st, 1886. He was in the Egyptian war of 1882 (medal and Khedive's bronze star), and in the Soudan campaign in 1885 (clasp).

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant-Colonel J. K. Anderson, M.D., 2nd Volunteer Battalion Royal Highlanders (late the 2nd Forfarshire), is appointed Surgeon-Lieutenant Colonel, December 21st.

Surgeon-Captain E. B. Reckitt, 1st Lincolnshire Volunteer Artillery (Western Division Royal Artillery), is appointed Surgeon-Major, December 21st.

INDIAN MEDICAL SERVICE.

The following promotions, which have been already announced in the British Medical Journal, have received the approval of the Queen, namely:—Bengal Establishment.—Surgeon-Majors to be Surgeon-Lieutenant-Colonels.—Mathew Dear is Moriarty, M.D., Gordon Price, M.D., Edward Bovill, Bartholomew O'Brien, M.D., Henry Walter Hill, Zalmoor Allee Ahmed, M.D., William Arthur Gilligan, and William Edwin Griffiths, October 1st. Surgeon-Captains to be Surgeon-Majors,—George Michael James Giles, Arthur Robert Wyatt Sedgefield, Edwin Francis Horatio Dobson, Johnston Shearer, Syed Hassan, Hem Chandra Banerji, Shambu Chandra Nandi, Francis Samuel Peck, and William Deane, October 2nd. Madras Establishment.—Surgeon-Majors to be Surgeon-Lieutenant-Colonels.—Augustus Napoleon Rogers-Harrison, Lionel Beech, and Henry Plunkett Edmonde-White, October 1st. Surgeon-Captains to be Surgeon-Majors.—John Lawrence Van Geyzel, Hastings Norman Victor Harington, Gerard Mackiln Eccles McKee, Kavasji Cursetji Sanjana, Hormasji Merwanji Hakim, John Adolphus Burton, Francis Joseph Doyle, Manekshaw Jamshedji Kelawala, and Mervanji Pestanji Kharegat, October 2nd. Bombay Establishment.—Surgeon-Captains to be Surgeon-Majors.—Alexander Frederick Ferguson, Kavasji Hormasji Mistri, George Ernest Fooks, and Joseph William Townsend Anderson, October 2nd.

Brigade-Surgeon Lieutenant-Colonel James Davidson, M.B., Bombay Establishment, has retired from the service, which he entered as Assistant-Surgeon September 30th, 1867, attaining the rank of Lieutenant-Colonel, September 30th, 1887, and becoming Brigade Surgeon-Lieutenant-Colonel, April 2nd, 1892. He served in the Abyssinian War in 1867-68 as Assistant-Surgeon attached to the General Hospital at Zoulla (medal), and in the Afghan War in 1880, when he had medical charge of the Base Hospital at Pir Chowky (medal).

The services of Surgeon-Captain J. F. Evans, M.B., Bengal Establishment, are placed at the disposal of the Punjab Government for appointment as officiating Professor of Chemistry and Toxicology in Lahore Medical College, and Chemical Examiner to the Punjab Government.

The services of Surgeon-Captain G. B. Irvine, Bengal Establishment, are replaced at the disposal of the Military Department.

Surgeon-Captain W. Yost, M.B., Bengal Establishment, is appointed Medical Officer of the Mushkaf Bolan State Railway.

Surgeon-Captain A. J. Willcocks, M.D., Bengal Establishment, Civil Surgeon, on return from furlough, is posted to Agra District.

Surgeon-Lieutenant-Colonel B. O'BRIEN, M.D., Bengal Establishment, Civil Surgeon, Agra, is tranferred to Kheri District.

Surgeon-Captain C. L. WILLIAMS, Madras Establishment, is temporarily transferred from Yemethen to Mandalay, to officiate as Civil Surgeon.

The privilege leave for two months granted to Surgeon-Captain C. ADAMS, Madras Establishment, is cancelled.

Surgeon-Major J. W. EVANS, Madras Establishment, is appointed to act as Civil Surgeon of Chittoor.

Surgeon-Major P. H. BENSON, M.B., and Surgeon-Captain F. J. DEWES, of the Madras Establishment, have returned from furlough out of India.

Surgeon-Captain W. H. M. INGHAM, Madras Establishment, is permitted to proceed to England to appear before a medical board.

The undermentioned officers have leave of absence as specified:—Brigade-Surgeon-Lieutenant-Colonel H. B. PURVES, Bengal Establishment, Civil Surgeon of Howrah, for two months on urgent private affairs, without pay; Surgeon-Major K. M. DOWNIE, M.D., Bengal Establishment, 29th Bengal Infantry, till April 1st, 1893, on urgent private affairs; Surgeon-Captain D. T. LANE, M.D., Bengal Establishment, for three months on medical certificate; Surgeon-Captain W. H. B. ROBINSON, Bengal Establishment, 34th Bengal Infantry, for three months on medical certificate; Surgeon-Captain D. ST. J. D. GRANT, Bengal Establishment, Professor Lahore, Medical College and Chemical Examiner to Punjab Government, for two years from November 26th; Surgeon-Major F. C. SMITH, Madras Establishment, District Surgeon, Tanjore, for 303 days in extension.

THE VOLUNTEERS.

THE undermentioned gentlemen are appointed Surgeon-Lieutenants to the corps respectively specified, all being dated December 17th:—JAMES SOUTTER, 2nd East Riding of Yorkshire Artillery; JOHN THOMAS WALSH, 5th Volunteer Battalion King's Liverpool Regiment (late the 18th Lancashire); CHARLES CUMBERLAND BRODRICK, 2nd Volunteer Battalion Devonshire Regiment (late the 2nd Devonshire); and WILLIAM ROSE, M.B., 13th Middlesex (Queen's Westminster).

THE VOLUNTEER OFFICERS' DECORATION.

A FURTHER list of officers upon whom the newly constituted decoration has been conferred is published in the *London Gazette* of Tuesday last, but it does not contain the name of any medical officer.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:

		From	To
Brig.-Srg.-Lt.-Col.	F. B. Scott, M.D., C.M.G.	Aldershot	Bengal.
,,	W. F. Burnett	Bombay	Fermoy.
Surg.-Lieut.-Col.	P. R. Gabbett	Madras	Colchester.
Surg.-Major	W. M. James	Windsor	Malta.
,,	G. F. A. Smythe	Canterbury	Cork.
,,	P. H. Fox	Ballincollig	,,
,,	E. R. Cree	Gravesend	Aldershot.
,,	H. Saunders	Malta	Windsor.
Surg.-Captain	E. J. E. Risk	Bengal	Aldershot.
,,	W. G. Birrell, M.B.	Piershill	India.
,,	F. H. M. Burton, M.D.	Salford	Hulme.
,,	R. Kirkpatrick, M.B.	Lanark Muir	India.
,,	J. Hickman	Bathurst	Sierra Leone.
,,	R. P. Bond	Barbadoes	St. Lucia.
,,	W. Kelly, M.D.	Aldershot	Bengal.
,,	H. P. Birch	Netley	India.
,,	J. D. Moir, M.B.	Pirbright	Thames District.
,,	A. de C. Scanlan	Shorncliffe	India.
,,	R. Crofts	Sierra Leone	Gambia.
,,	R. L. R. Macleod, M.B.	Lydd	Canterbury.
,,	J. M. F. Shine, M.D.	Dublin	Castlebar.
,,	L. P. Mumby, M.B.	York	India.
,,	H. Cocks, M.B.	Brighton	Colchester.
,,	T. G. Lavie	Bengal	Chester.
,,	J. R. Burrows, M.D.	Fermoy	Ballincollig.
,,	R. J. D. Hall	Bombay	Colchester.
,,	J. J. C. Watson, M.D.	Aldershot	India.
,,	J. E. Brogden	,,	,,
,,	G. W. Tate, M.B.	,,	,,
,,	N. Faichnie, M.B.	,,	,,
,,	F. McDowell	Cork	,,
,,	J. J. Gerrard, M.B.	Curragh	,,
,,	C. B. Lawson, M.B.	Dover	Canterbury.
,,	W. J. Smyth, M.D.	Home District	Gren. Gds.
,,	A. J. Chambers	Dover	Shorncliffe.
,,	G. A. Moore, M.B.	Aldershot	Fermoy.
,,	E. C. Lewis	Dover	Shorncliffe.
Quartermaster	D. O'Connor	Portsmouth	Curragh District.

AMBULANCE WAGONS *V.* WHEELED STRETCHERS.

SURGEON-MAJOR writes: Allow me to ask medical officers of Volunteers how they would have replied to the following questions if asked by their respective C. O.'s.

(1) "Do you consider a field ambulance wagon a necessity, it being only required one week in the year, with the trouble and expense of housing and looking after it and harness for the other 51 weeks?"

(2) "What is your opinion as to purchasing wheeled stretchers to accompany the regiment in place?"

I replied to the first question: "The wagon was regulation and necessary for drill but that I should not advise its purchase, as a covered wagon could be hired which would do well enough for drill purposes. Many wagons in use in the town would suit."

To the second question I replied: "The only objection I had to wheeled stretchers was the necessity of altering the drill, and suggested having a pair of bicycle wheels geared together so that the regulation stretcher might be lifted on the wheels after being duly loaded by the regular method."

Is any regiment at present using wheeled stretchers, and if so how do they get over the drill difficulty?

"NONCOMBATANT" VOLUNTEERS.

A CORRESPONDENT asserts he has heard on good authority that, after a portion of the nominal lists of Volunteer officers eligible for the decoration had been supplied, an order was issued that the names of "noncombatants" (by which among others are meant medical officers) were in future to be omitted unless in special and exceptional cases.

*** We cannot credit this; it would be monstrous. No official, even if he had the will, could surely have the temerity to do such a thing, and risk the condign public punishment which would follow on exposure.

PAY IN INDIA.

SURGEON-CAPTAIN propounds the following question: A Surgeon-Captain enters the service with the understanding that his pay will be £200 per annum, *plus* £88 allowances. He does not wish to serve in India, but he is ordered to go, and his services "lent" to the Indian Government, which pays him Rs. 917 per month. Can he bring an action at law to compel the British Government to pay the balance equivalent between English and Indian pay?

*** There may be room here for a strictly legal opinion, which should be obtained elsewhere. The Surgeon-Captain contracts in his commission to serve Her Majesty and her representatives when and where ordered; go therefore to India he must, and accept payment in the currency of the country. But while his duty is clear enough and whatever may be the legal aspects of the hypothetical case, there can hardly be any doubt that the Government on their part are under a moral and honourable obligation to see that he suffers no financial or other wrong when they "lend" his services to a second party.

INDIA AND THE COLONIES.

VICTORIA.

TREATMENT OF HARMLESS LUNATICS.—The Colonial Government is endeavouring to make arrangements with some of the benevolent asylums in the colony to take over 200 or 300 harmless lunatics. It has been found that the cost of erecting a building for them would be over £200 per patient, while additions could be made to the benevolent asylums at a cost of £50 a bed, as there would be no necessity to provide apartments for a medical staff, or extensive kitchens and laundries in these institutions. The cost of maintenance of an inmate in a lunatic asylum is £32 a year, while in a benevolent asylum it is only £18 a year.

SMALL-POX AND QUARANTINE.—The failure of quarantine to keep out small-pox from a country, says the *Standard*, is well illustrated in a report just issued by Dr. Gresswell on the introduction of the malady into Victoria last summer. In spite of the fact that a young woman had suffered on the voyage from a most suspicious skin eruption, and that another passenger had also experienced symptoms pointing clearly to small-pox, the usual port questions were answered in the negative, and free *pratique* granted. The consequence was that seven others of those on board the vessel developed small-pox in Victoria, New South Wales, and Queensland, and subsequently four Australian residents caught the disease from them. The limitation of the epidemic to such small bounds was entirely due to the almost superhuman activity displayed by the sanitary staff of Melbourne in vaccination, disinfection, and isolation. Police *cordons* were placed around invaded houses, whose inmates were compulsorily vaccinated, and no ingress or egress was permitted. Fortunately the supply of calf lymph proved sufficient. In addition to this, all persons who had been in any kind of relation with the attacked persons were detained in isolation for fourteen days. Thanks to these measures, what appeared likely at one time to be the starting point of a general prevalence of small-pox was arrested. Vaccination is still maintained, we believe, by a compulsory statute in Victoria. The Victorians, however, seem to have a rooted predilection for quarantine. Their late experience ought to demonstrate the futility of this method, and points to vaccination only as the true prophylaxis against small-pox. Surely the quiet and continuous practice of vaccination and revaccination is preferable to a system of police *cordons* and compulsory detention.

NEW SOUTH WALES.

STATISTICS OF INSANITY.—The report of Dr. F. N. Manning, Inspector-General of the Insane in the colony on the state and conditions of the hospitals for the insane for the year ending December 31st, 1891, shows that on that date the number of lunatics on the official registers was 3,134 (1,912 males and 1,222 females). The number on the corresponding date in the previous year was 3,102, so that the increase during the year was 32, being the smallest that has occurred in any one year since 1862. The average increase for twenty years past has been at the rate of 85 per year. There has been no diminution in the rate of "occurring insanity," since 1 out of every 1,955 of the population became insane during the year, which is about the average for the last five years. The unusually small increase in 1891 was due partly to an increased death-rate in the hospitals (chiefly owing to influenza and its complications), and partly to an unusually large recovery rate in these institutions. During the year 539 patients (327 males, 212 females) were admitted for the first time, and 57 were readmitted. The total number of lunatics under care during the year was 3,959, and of these 297 (168 males, 129 females) recovered, 28 were relieved, 6 escaped, and 233 (167 males, 66 females) died. The average number resident during the year was 3 149. With regard to the causation of the insanity, 75 cases were assigned to intemperance, 61 to epilepsy, 60 to hereditary influence, 40 to old age, 32 to congenital defect, 27 to adverse circumstances, 23 to domestic trouble, 23 to parturition, and 21 to accident. The total expenditure was £100,112 7s. 2d; the average weekly cost per head was 12s. 1¼d.

OBITUARY.

SIR RICHARD OWEN, K.C.B., D.C.L., LL.D., F.R.C.S., F.R.S.

THIS distinguished man of science, whose death at the ripe age of 88 we have to deplore, was a member of the medical profession, born and bred to surgery, and commenced life in private practice as a surgeon in Serle Street, Lincoln's Inn Fields. When after a short time he abandoned practice for the pursuit of studies in zoology and comparative anatomy, he found a fitting field for his genius and marvellous industry in the great Hunterian Museum of the Royal College of Surgeons, where his labours were carried on for a long series of years, and where he laid the foundation of his European fame.



Richard Owen[1] was the youngest son of Mr. Richard Owen, of Fulmer Place, Berks. He was born at Lancaster on July 20th, 1804, and educated at the Grammar School there. He studied surgery under the surgeon of the County College at Lancaster, and matriculated in 1824 in the University of Edinburgh, where he attended the anatomical lectures of Dr. Barclay. He entered St. Bartholomew's Hospital the following year, and became a Member of the Royal College of Surgeons of England in 1826. In the same year he produced his first scientific paper, the subject being Encysted Calculus of the Urinary Bladder. In 1825 he visited Paris, where he made the acquaintance of the illustrious Baron Cuvier. In 1827 he began surgical practice in Serle Street, communicated several cases to the Medical Society of St. Bartholomew's Hospital, of which he was a member, and in a paper read before the Medical and Chirurgical Society settled the question of the practicability of successfully tying the internal iliac artery, which had been mooted in connection with Dr. Stevens's famous case of aneurysm of the gluteal artery. Owen, who while at St. Bartholomew's had been one of Abernethy's prosectors, had sought for and obtained an appointment as assistant-surgeon in the navy. When he told Abernethy of what he had done, that very plain-spoken person replied that he "had better go to the devil at once."[2] Soon afterwards Abernethy, interested himself in the career of young Owen whom he recognised as a gifted anatomist, and procured for him the appointment of Assistant Curator of the Hunterian Museum at the College of Surgeons, at a salary of £80 a year. This office diverted him from the practice of medicine to the more congenial pursuit of comparative anatomy. The chief curator of the Museum was Mr. Clift, himself a near relative of Hunter, and by his marriage with Clift's daughter, Owen became connected with the great surgeon and anatomist, to the study, expansion, and conservation of whose collections he devoted so many years of his life and whose memory he held in unceasing veneration. In 1834, at the age of 30, Owen was elected a Fellow of the Royal Society. He now gave himself entirely to scientific studies, occupying in 1834 a chair of Comparative Anatomy founded for him at St. Bartholomew's Hospital, becoming in 1835 Hunterian Lecturer at the Royal College of Surgeons and Honorary Professor of the College, and its Professor of Anatomy and Physiology in 1836, and on Mr. Clift's retirement succeeding to the principal curatorship of the Museum. He addressed himself from the first with untiring energy and remarkable genius to the study and cataloguing of the Hunterian collections which had been handed over by Parliament to the College of Surgeons. The work was no light one. Hardly one of the specimens and drawings, whether of animal or vegetable parts, was accompanied by a notice of the species; the collections were in confusion, and few records existed giving an adequate account of or reference to the origin of the specimens. To obtain a knowledge of necessary facts Owen applied himself to a long series of dissections of animals dying in the gardens of the Zoological Society of London. The elaborate investigations which he carried out enabled him to make valuable contributions to the *Proceedings of the Zoological Society*, at the same time that he carried on the preparation of the Hunterian Catalogue. The first volume of the Catalogue appeared in 1833, the second in 1834, and the third in 1836. The two remaining volumes, cataloguing the most extensive and remarkable part of the Museum, namely, the "Generative Organs and Products," were not

[1] In preparing this obituary, we have been much indebted to the biographical reports at various dates of Dr. Barker, *Nature*, and Messrs. Barraud.

[2] [At that time and until the Crimean war, the naval surgeon was classed with the middies in the cockpits. *Nous avons changé tout cela*, and so far have not lived in vain.—ED. B. M. J.]

completed until 1840. They form together the *magnum opus* entitled the "Descriptive and Illustrative Catalogue of the Physiological Series." The Council of the College passed a resolution expressing their acknowledgment of "the unremitting labour which had been for years bestowed on this work by Mr. Owen, one of the Conservators, and now Hunterian Professor of Comparative Anatomy and Physiology to the College." They subsequently gave similar acknowledgments for the Catalogues of the "Osteological Series," 2 vols., 4to, pp. 914; of the "Fossil Reptilia and Pisces," 4to, pp. 184, with plates; and of the portion of the "Fossil Invertebrata," 4to, including the class Cephalopoda, of which Hunter had collected a very numerous and beautiful series of specimens. Owen's labours at the College of Surgeons lasted for thirty years. It was not until 1856 that he completed the enormous labour of fully describing and illustrating in a series of monumental volumes, the collections which he had himself largely enriched as well as arranged and explained.

In 1835, Mr. Wormald, of St. Bartholomew's Hospital, sent to Professor Owen a piece of human muscle, in which was a new entozoon, which Owen described and identified as a remarkable nematoid worm living in the muscles of the human body (trichina spiralis), which gives rise to the serious and often fatal disease called trichinosis, since often observed and well known, especially in Germany. In addition to the five 4to volumes of his catalogue of the physiological specimens in the Hunterian collection published between 1830 and 1840, he issued a catalogue of osteological specimens in two 4to volumes published in 1853, and one of the fossil vertebrates and cephalopods in three 4to volumes published in 1855. His great work on Odontography was the result of an application of the powers of the microscope suggested by a present made to him by Charles Darwin of some fragments of the teeth of the extinct megatherium and other animals from South America. These fragments were in a state of incipient decomposition. A microscopic examination of their structure led to comparative investigations of the differences in the microscopical structure of the teeth of every class of animal, and the result was the production of the splendid work on *Odontography* (1840-45), consisting of two 4to volumes of 650 pages, illustrated with 168 finely-executed plates. While preparing the drawings for this work, Professor Owen was threatened with an attack of retinitis, and was compelled to commit the further preparation of the illustrations to the excellent artists Lens Aldous and Erxleben.

In 1839 his observations on the "blood discs," published in the *Medical Gazette*, and the important results of other microscopical studies carried on about that time by Farre, Bowerbank, and Busk, resulted in the formation of the existing Royal Microscopical Society in 1840, of which Owen was the first President. He had become a Fellow of the Geological and Linnean Societies in 1836, and in 1844 he received from the Royal Society the Royal Medal for his description of certain belemnites from the Oxford clay. These fossils were so well-marked that he was enabled to compare their structure most ably with the corresponding parts of recent cuttle fishes and with those of the "nautilus pompilius," which he had first dissected in 1831. His well-known lectures on Comparative Anatomy and Physiology appeared between 1843 and 1846. His epoch-marking work on the *Archetype and Homologies of the Vertebrate Skeleton* was made known in 1844, in the course of the Hunterian Lectures at the Royal College of Surgeons for 1844-45, and a sketch of his general views on the subject was laid before the British Association at Southampton in 1846. His memoirs on the nature of limbs and on Parthenogenesis were published in 1849, the term being devised by him to designate scientifically the strange phenomenon observed. He found time also for preparing a series of monographs for the Palæontological Society on British Fossil Vertebrates, publishing a memoir on the *Fossil Reptiles of the London Clay* (1849-50). A remarkable series of papers on the fossil birds of New Zealand and on some fossil mammals of Australia also appeared about this date in the *Transactions* of the Zoological Society, and a very elaborate memoir on the great American Megatherium in the *Philosophical Transactions*.

In 1837 Professor Owen published, under the title of *The Animal Economy*, the papers by John Hunter, which had been published and collected during his lifetime, with the addition of the Croonian Lectures, which had been read before the Royal Society from 1776 to 1782. On the demise of Mr. Clift (who had been Hunter's last articled pupil), certain extracts from Hunter's writings on Comparative Anatomy and Physiology came into the possession of Professor Owen, and he published them later on with annotations, in two octavo volumes (1861). Mr. Clift, whilst in charge of the collection, before its purchase by Parliament in 1799, had made certain copies from the Hunterian manuscripts on Natural History, Comparative Anatomy, Physiology, and Fossil Remains. These manuscripts were removed by Sir Everard Home, his executor, in 1800, and subsequently destroyed. On the completion of his work in editing the two volumes of *Essays and Observations*, Professor Owen deposited in the Library of the Royal College of Surgeons the extracts which had been made by Mr. Clift. In dedicating the two volumes to the Fellows and Members of that College, the Professor speaks of the publication as the "last of his labours in making known the thoughts and works of the founder of philosophical surgery."

Professor Owen's connection with the Royal College of Surgeons ceased in 1856, when he was appointed Superintendent of the Department of Natural History in the British Museum. This appointment he owed chiefly to Macaulay, who, in referring to the matter, speaks of Owen as follows:[2]—

"I cannot but think," he says, "that this arrangement would be beneficial in the highest degree to the museum. I am sure that it would be popular. I must add that I am extremely desirous that something should be done for Owen. I hardly know him to speak to. His pursuits are not mine, but his fame is spread all over Europe. He is an honour to our country, and it is painful to me to think that a man of his merit should be approaching old age amidst anxieties and distresses. He told me that £800 a year, without a house in the museum, would be opulence to him. He did not, he said, even wish for more. His seems to me to be a case for public patronage. Such patronage is not needed by eminent literary men or artists. A poet, a novelist, an historian, a painter, a sculptor, who stood in his own line as high as Owen stands among men of science, could never be in want except by his own fault. But the greatest natural philosopher may starve while his countrymen are boasting of his discoveries, and while foreign academies are begging for the honour of being allowed to add his name to their list."

He was the Lecturer on Palæontology at the School of Mines in Jermyn Street in 1856, and Fullerian Professor of Physiology in the Royal Institution of Great Britain in 1858. In 1859 he gave the first of the restored Reid Lectures at Cambridge, "On the Classification of Mammalia."

As Superintendent of the Natural History Department of the British Museum, Owen presented annual reports on the state and advancement of its various component sections. Estimates founded on the known number of species, in the ratio of the additions in past years, and on the spaces required for the exhibition of the several classes, led him to recommend a building covering two acres and a half, with a reserve of the same amount of space for future expansion. His matured ideas on this subject are published in his work, *On the Extent and Aims of a National Museum of Natural History*, 8vo, 1862.

The Parliamentary paper on the British Museum, issued May 10th, 1865, contains the last of Professor Owen's annual reports on this subject, and concludes as follows: "The present space allowed to the Natural History Collections restricts the labours of the staff in regard to a large proportion of the specimens, to the business of conservation; whereas the purpose of the collections is to be instructively exhibited, or arranged under conditions of light and access facilitating scientific scrutiny and comparison. Not only the birds, the shells, and the minerals should be shown in serial sequence, but every other class of natural history; nor ought the bulk of the specimens in certain of these to be a bar to such displays; for it is only in a National or British Museum that adequate space for such means of advancing natural science can be afforded or expected."

For a long time the propriety of moving this collection from Great Russell Street was hotly contested, and as in other great

[2] *Life and Letters of Lord Macaulay*, by his Nephew, George Otto Trevelyan, London, 1878, vol. ii, p. 450.

questions the weight of authority could at one time be quoted against the proposal. Scientific men are, however, as a rule, not often to be unduly swayed, even by authority, and they are generally philosophical enough to accept accomplished facts. In the new building at South Kensington the State has provided ample accommodation so far as space is concerned, for the present collections and for the probable increase of these for another generation; and, not content with this, there is in addition room enough for future generations if they feel inclined to nearly double the available space, and thereby even add to the beauty and completeness of the whole structure. In the obtaining of this splendid casket in which to display Nature's gems, Professor Owen has seen accomplished one great object of his life; and even those who think it might have been better for science had their own peculiar plans been carried into effect, will hardly grudge Professor Owen the palm of victory which he may have won from them.

While holding this appointment, and engaged in researches so vast as to demand more than the time allotted to the life of man, Professor Owen has also served the public in other departments. In 1845 he was engaged, with other scientific men, on the Commission for Inquiring into the State of Large Towns, for which he wrote the Report on the Sanitary State of Lancaster. As member of the Commission for Inquiring into the Health of the Metropolis, and of the subsequent one on Smithfield and other meat markets (1849), he strongly advocated the entire suppression of intramural slaughterhouses, and the concomitant evil of the passage of droves of sheep and cattle through the crowded streets of London. For the great Exhibition of 1851 he was on the Preliminary Committee of Organisation, and acted as chairman of the jury on raw materials, alimentary substances, etc.; published an elaborate report of their awards, and, at the request of the late Prince Consort, delivered to the Society of Arts a lecture on "Raw Animal Products and their Uses in Manufacture." Similar services were performed by him for the Exposition Universelle of Paris in 1855. Professor Owen was an active member of the British Association for the Advancement of Science, of which he was President in 1858.

The necessary and often arduous routine work required of Professor Owen as head of so large a department did not in any great measure diminish the extraordinary activity with which he from time to time published original works. The record of his contributions to Science during the period of his active service at the British Museum equals, if it does not surpass, that of the previous thirty years. Among the more important of these we must notice: *Memoir on the British Fossil Reptiles of the Mesozoic Formations, Pterodactyles*, 1873-1877; on the *British Fossil Reptiles of the Liassic Formations, Ichthyosaurs and Plesiosaurs*, 1865-1870; on the *British Fossil Cetacea of the Red Crag*, 1870; on the *Fossil Reptiles of South Africa*, 1876; on the *Classification and Geographical Distribution of Mammals*, 1859; a *Manual of Palæontology*, 1861. The long list of papers published in the *Proceedings* of learned societies, to be found in the Royal Society's invaluable Catalogue (numbering over 360), includes many the scientific value of most of which would have given an abiding fame to their author. It would be impossible here to give even a tithe of their titles, but we quote some to show that Professor Owen left few of the classes of the animal kingdom unnoticed. On the Andaman Islanders; on the Anthropoid Apes; on the Aye-Aye; on the Giraffe; on the Great Anteater; on the Great Auk; on the Dodo; on the *Apteryx australis*; on *Lepidosiren annectens*; on the *Argonauta argo*; on *Spirula australis*; on *Clavagella*; on *Limulus polyphemus*; on *Entozoa*; on *Euplectella cucumer* and *E. aspergillum*.

Honours have not been wanting to reward, so far as such recognitions can do so, the truly stupendous labours of Richard Owen. He received the Wollaston Medal of the Geological Society in 1838, the Royal Medal of the Royal Society in 1844, and the Copley Medal in 1846. He was made a Knight of the Prussian *Ordre pour le Mérite* in 1851. In the following year Her Majesty assigned him a residence in Richmond Park. The late Emperor Napoleon III gave him the Cross of the Legion of Honour in 1855. He was also decorated by the King of Italy with the Order of S. Maurice and S. Lazarus, by the King of the Belgians and by the Emperor of Brazil with the Order of the Rose. When the Emperor of Brazil visited England in 1877, on arriving in London from Liverpool between 5 and 6 in the morning, he went on at once to Sir R. Owen's residence in Richmond Park, and there breakfasted with him. Before leaving for his visit to Oxford, Dom Pedro spent a couple of hours in conversation with the Professor on scientific matters. The Universities of Oxford, Cambridge, and Dublin conferred on him honorary degrees. Most of the learned societies of Europe and America elected him to their membership. He was President of the British Association in 1857. He was chosen one of the eight Foreign Associates of the Institute of France in 1859; and in 1874 was elected a Foreign Associate of the French Academy of Medicine, in the room of Baron Liebig. In 1873 Her Majesty gave him the Order of the Bath, and shortly afterwards made him a K.C.B., in recognition of his eminent services.

A mere enumeration of this fertile and indefatigable worker's books, memoirs, essays, and contributions to scientific periodicals would fill these pages. The list of his papers occupies twenty-eight columns in the Royal Society's Catalogue of Scientific Papers, being, as far as the writer could see at a hurried glance, numbered from 1 to 311 in Vol. iv, 1870, and from 312 to 368 in Vol. viii, 1879, this enumeration taking his papers up to 1873. Altogether, during the sixty odd years in which he has laboured, he has placed on record the results of patient and unceasing research at once so minute and so extensive as to arouse wondering admiration of the genius which accomplished them.

It is difficult, indeed, to give an idea of the unbounded energy, unceasing industry, and illuminating genius which he brought to the monumental work of his lifetime. Although all of Owen's views have not held the field, especially his exclusive adoption of the Archetypal theory, nevertheless his work remains a vast and almost unexampled contribution to the permanent knowledge of the world, and the brilliancy of his generalisations, the eloquence with which they were enforced, and the profundity as well as the elaborateness of his research, will long maintain his fame as the greatest comparative anatomist of his time. To the last he maintained an unceasing devotion to his work, from which nothing could wean him; and his example both in this respect and in the general amenity of his character, the loftiness of his views, his sweet reasonableness, and his social sympathies, will insure for him a place in the affectionate recollection of all who have had the privilege of knowing him, as well as a niche in the Temple of Fame.

Mr. Ernest Hart adds to our notice some personal recollections of Sir Richard Owen. Early in life (he writes), whilst still a student of medicine at St. George's Hospital, I was in the habit of passing the week end from Friday till Monday at Sheen Lodge, Richmond Park, where I had the privilege of being the next neighbour to Professor Owen. With his customary kindness, and because of my having had the opportunity of making his acquaintance through his relatives and friends, Dr. Arthur Farre and Mr. White Cooper, he expanded this acquaintance into an early and long-enduring friendship. By his affectionate kindness I became a constant visitor at the delightful house he occupied by favour of the Queen, and I spent there many of the happiest days of my life. He treated me, then a young student, with all the high bred courtesy and unaffected and sympathetic kindness which were inborn in his nature, and quickly put everyone whom he admitted to his friendship at ease. He opened to me, as he did freely to all around him, the stores of his richly informed and cultivated mind, and the gentle and poetic thoughts which illumined every object of Nature and every remnant of geological times with the bright fancies and the loving interest that few of the greatest teachers have had the power to infuse into subjects so replete with dry and technical detail. The pre-historic world lived again as he drew the picture of the plants that grew, and the strange creatures that hovered in the skies and wandered through the forests; in imagination, but on sure scientific data, he reconstructed them with marvellous skill and detail. His hospitality was large, and his Sunday gatherings were attended in simple state by many of the leading scientists of Europe, and some of the most interesting social personages. He loved a story and a gentle joke, but no man was more averse to any form of vulgar or ribald humour, which I have seen him repress and reprove with a stern severity not easily to be forgotten.

He was wont to dwell much upon the family history of the Hunters and the Clift, and greatly valued his connection with the Hunter family by marriage with his much-beloved wife. He felt bitterly, and would sometimes refer to, the unkind and ungenerous treatment which he believed he had sometimes experienced at Lincoln's Inn Fields, and in connection with which it became my duty and my pleasure to defend him from attacks which were made upon him in 1861, when he published the remains of Hunter's papers, which had been removed by Sir Everard Home, Hunter's executor, but of part of which Clift had kept some copies. He loved to wander in his garden, but so devoted was he to his work that he was rarely able to enjoy that pleasure much except on Sunday. I well remember one of his pleasant and characteristic sayings on the day when I first had the pleasure of introducing to him my wife. Walking round the garden on a pleasant summer's day, and showing her his favourite flowers and fruits, we came to cherry trees, of which some were netted and others left open, from which all the cherries had disappeared. My wife remarked on this, and he answered with that beaming smile and sympathetic twinkle with which his face often lighted up, "Ah, those—those I leave for the birds. I call them the salary of the orchestra." This was characteristic of his whole cast of thought and of the sweetness and considerateness of his character. One of his favourite guests was Serjeant Merryweather, then justly famed as one of the kindest and wittiest of conversationalists, always brimful of anecdote, and whose advent to the Sunday dinner was always welcome. To the end of Professor Owen's working day, far on in the evening of life, he retained his intense devotion to public work. I remember that when Pasteur was in London, on the occasion of the International Medical Congress in 1881, and was coming to lunch with me, I wrote to Professor Owen, whom Pasteur had expressed a wish to meet, begging him to give up an hour from his ceaseless work in arranging the collections of the Zoological Museum—his great creation at South Kensington—and to come and meet Pasteur at lunch. He wrote to me, "If anything could induce me to surrender an hour from the work here, which my life will be all too short to complete, it would be the opportunity of spending an hour in your house, of which I have seen so little now of recent years, and to meet Pasteur; but I dare not break my resolve. I spend my day examining, classifying, and putting in place the collections brought here from the British Museum. It is for me a sacred trust, and I cannot wean myself from the continuous carrying out of the task. I have said to myself I would fain come, but I cannot. Give my kindest and most respectful regards to Monsieur Pasteur, and accept for yourself my affectionate remembrances and my regret that I cannot accept this most seductive hospitality. Come to see me when you like, but do not stay too long. You will find me always among my bottles and my preparations; I have little time to spare from them, for the 'night cometh when no man can work.'"

Sympathetic, large-hearted, courtly, and gentle, he had the happiness of being possessed by enthusiasms, and penetrated, as men of science rarely are, with sentiment. This tendency may have sometimes led him astray in his great work, for he pursued what was almost with him a religion of "archetypes" with something of the blindness of a lover and the passion of a worshipper. Pure reason is proud of always being in the questioning mood. He had in his science something, and in the affairs of life much, of the strenuousness of a faith. For this he has been sometimes scornfully attacked. But he possessed one good part of the things of this world—"he knew how to admire;" and in this, as in many other things, he was fortunate and happy. It inspired his life and his work with many of its elements of poetry and highmindedness, and thus he and the world were the richer.

The portrait on p. 1411 is from a photograph by Barraud.

A correspondent who was for many years in close personal relationship with the departed scientist, sends us the following interesting notes:—

In September, 1845, Owen was present at the Association of Naturalists held at Naples, and from thence went on to Rome as a guest at the Palazzo Buonaparte. In his younger days it was not easy to tell Owen's age from his appearance, and, being clean shaven, he looked considerably younger than he really was. Accordingly, when he presented himself at the Council, one of the foreign naturalists, who was well acquainted with the work the professor had already done, asked the name of a youngish, fresh-coloured individual who was entering in a very modest and unassuming way. "His name is Owen," was the reply. The Italian scientist accordingly made his way over to Owen, and said to him, "And how is your respected father?" Owen took in the situation at a glance, and replied gravely, "I am sorry to say he has been dead for some years now." "Uncle, I should have said, perhaps," pursued the foreign gentleman. "I have no uncle living," was the answer. "You don't mean to say that you are the author of all those books?" Owen assured him that such was the case, but it was some time before the learned foreigner was convinced.

In 1860, and also later on in 1864, Professor Owen was called upon to give a course of lectures to the Queen's children. On these occasions the Prince Consort used to act as his demonstrator, pointing to the diagrams with a long rod. When Owen first arrived at Windsor Castle he inquired where he should hang up his diagrams, as these lectures were to be given in the white drawing room, the walls of which were covered with white satin. The answer was given him that Her Majesty had given directions that he should do exactly as he pleased. The gentleman in waiting was therefore of opinion that he should pin the drawings upon the white satin hangings. But this the Professor declined to do, and thereupon requested to be led to the laundry of the Castle, to the blank amazement of the official. When he arrived there he picked out the largest clothes-horse he could find, borrowed it for the afternoon, and, after having sent to the town for some green baize, rigged up an impromptu stand, which showed off his diagrams to the best advantage.

On certain occasions when he lectured the whole Court attended, with any visitors that happened to be staying at the Castle. Professor Owen once made the remark that he supposed that he was perhaps the only lecturer that upon occasion had to begin with "Your Majesties," etc.; for when the King of the Belgians was staying at Windsor Castle, two large armchairs were brought into the centre of the room, and the Queen and the King sat together. But sometimes the course of studies of the young princes and princesses was of a purely private nature, and then it was that the Professor noticed the door of their working room often ajar, and a mysterious rustling the other side. He afterwards discovered that the Queen used to bring a chair and sit outside, in order to listen to his lecture when Her Majesty felt so disposed.

Sir R. Owen has made several expeditions to Egypt during his life. His first was in 1868, when he accompanied the party got up by the Prince and Princess of Wales, and the (then) Duke of Sutherland. He was then able to take the opportunity of making several interesting observations. The cuttings of the Canal in the isthmus of Suez gave him an excellent opportunity of examining the geological character of the desert, and he detected signs of an ocean bed on which layers of an alluvial soil were periodically deposited. He speculated that in those days long since gone by, and long before the Isthmus was raised to its present height, the Nile was already in existence, and the more important features of African geography were much the same as they are now. With regard to his observations made on this voyage the Professor says: "The arrangements which His Royal Highness was enabled to make for his suite and guests, through the generous hospitality of the Viceroy, were such that the inspection of the manifold objects of varied interest which Egypt and the Nile afford, could be seen and studied to the greatest advantage. If the scientific results," the Professor continues, "should not prove of great originality and value, you must set it down to the shortcomings of the observer, or to the degree in which the part of the Nile he inspected had been scientifically worked out by previous and better qualified *savants*. In the grand labours of the engineers of the Suez Canal I had indeed opportunities of seeing sections of the desert-deposits of unusual depth and extent. There were attenuations of strata in parts of these—thin beds of argillaceous deposit between thicker ones of silico-calcareous and gypseous materials, and these suggested that the old ocean of that locality—for the desert is nothing but an upraised sea

bed—had begun to receive, about the close of the Miocene period, the wearing away (by fresh water) of an adjacent land, and this at regularly repeated intervals."

His Last Illness.

Dr. Frederick S. Palmer sends us the following communication as to Sir Richard Owen's last illness :

Sir Richard Owen's mental and physical powers have been gradually failing in a marked degree for the last two or three years, and his infirmity of deafness increased so much that it was difficult to carry on any prolonged conversation with him. He had œdema of both lower extremities from cardiac dilatation, but until his last illness began he was able to walk about the house and grounds and his appetite was excellent.

His illness commenced early in August, but it was not until a fortnight later that any anxiety was felt about his symptoms. On August 25th I found him in bed suffering from a severe form of dermatitis. The interior of his mouth, buccal mucous membrane, fauces, and gums were covered by a thick, tough, opaque fur, almost resembling in appearance a diphtherial membrane. His tongue looked like a piece of washleather. His temperature was normal, pulse irregular but good, and his articulation and deglutition very difficult. There was no trace of albumen in the urine. Owing to the extension of the membranous deposit to his fauces and pharynx the entrances to the Eustachian tubes were so blocked that he was unable to understand a word that was said to him, and the conversation had to be carried on by signs or in writing.

For many days he lay in this serious condition supported only by small quantities of beef tea, soup, and brandy and milk. On August 30th he was visited by his old friend Sir James Paget, with whom he tried to converse, but he was unable to sustain the effort for more than a few minutes. Sir James considered it unlikely that he would recover, but expressed an opinion that he might linger for some time, and this opinion has been justified by the result.

Early in September the symptoms entirely cleared up. His mouth and throat resumed their natural appearance, and his power of taking nourishment returned. Although he never exhibited any disposition to leave his bed, he continued to make slow but satisfactory progress towards recovery, and his appetite so far improved that he began to take solid food—chicken, game, fish, and even a little meat in larger quantities than before the illness commenced. He was able to read the daily papers, light books, and appeared much interested and amused in looking over the illustrated journals. In reply to my repeated inquiries, Sir Richard assured me, to use his own words, that "he felt no pain at all," and had no desire to rise from his bed. In direct proportion to the improvement in his symptoms, his intelligence returned, and his deafness became less marked. He was able to converse for a short time without fatigue, and would occasionally discuss some of the questions of the day in his usual kind and courteous manner. The anasarca completely disappeared, and he slept well. No one understood better, or appreciated more, the value of physiological rest. It was in this state of steady improvement that Sir Richard was visited by H.R.H. the Prince of Wales and H.H. the Duke of Teck.

On Saturday, November 19th, I noticed he was not so well. His ability to take nourishment failed. His pulse again became very irregular, and he complained of coldness in the extremities. From this time he never exhibited the smallest disposition to rally. He took less nourishment each day, and became much emaciated, although he continued to sleep as well as before. The former difficulty of articulation returned, and he passed away peacefully, without a struggle, to his well-earned rest early on Sunday morning last, retaining consciousness until within a few hours of his death.

Cremation in Portugal.—On November 19th, Dr. Silva Amado, Professor of Hygiene in the Medical School of Lisbon, brought forward a motion in the municipal council of that city, of which he is a member, that cremation should be permitted in the Lisbon cemeteries. The motion was discussed at several sittings of the council, and on November 23rd, a committee was appointed to study the condition of the Lisbon cemeteries, and what changes in them are needful in the interest of the public health, and to report on the steps to be taken to make cremation lawful.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,125 births and 4,046 deaths were registered during the week ending Saturday, December 17th. The annual rate of mortality in these towns, which had been 18.8 and 19 6 per 1,000 in the preceding two weeks, further rose to 20.7 during the week under notice. The rates in the several towns ranged from 13 5 in Huddersfield, 14.7 in Derby, 15.0 in Portsmouth, and 15 5 in Newcastle-upon Tyne, to 27.1 in Sunderland, 27.3 in Brighton, 27.5 in Salford, 28 3 in Hull, and 35.4 in Bolton,. In the thirty-two provincial towns the mean death-rate was 21.6 per 1,000, and exceeded by 2 2 the rate recorded in London, which was 19.4 per 1,000. The 4 046 deaths registered during the week under notice in the thirty-three towns included 448 which were referred to the principal zymotic diseases, against numbers increasing from 392 to 444 in the preceding four weeks; of these, 145 resulted from measles, 80 from diphtheria, 80 from whooping-cough, 68 from scarlet fever, 37 from "fever" (principally enteric), 35 from diarrhœa, and 3 from small-pox. These 448 deaths were equal to an annual rate of 2.3 per 1,000; in London the zymotic death-rate was equal to 2 2 per 1,000, while it averaged 2.4 in the thirty-two provincial towns, among which these diseases caused the lowest death-rates in Huddersfield, Wolverhampton, Leeds, and Newcastle-upon-Tyne, and the highest rates in Cardiff, Oldham, Bolton, Salford, and Brighton. Measles caused the highest proportional fatality in West Ham, Manchester, Oldham, Bolton, Hull, Salford, and Brighton; scarlet fever in Bolton, Swansea, and Preston; whooping cough in Birmingham, Norwich, Nottingham, and Salford; and diarrhœa in Gateshead, The mortality from "fever" showed no marked excess in any of the large towns. The 80 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 59 in London, 3 in Bristol, 3 in Cardiff, and 3 in Sheffield. Small pox caused 1 death in London and 2 in Oldham, but not one in any other of the thirty three towns; 33 small-pox patients were under treatment in the Metropolitan Asylums Hospitals and not one in the Highgate Small-pox Hospital on Saturday last, December 17th. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,621, against numbers declining from 4,067 to 3,772 on the preceding six Saturdays; 286 new cases were admitted during the week, against 302 and 273 in the preceding two weeks. The 365 deaths from diseases of the respiratory organs in London were 121 below the average, and were equal to an annual rate of 4.5 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, December 17th, 886 births and 710 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 20.6 to 24.5 per 1,000 in the preceding five weeks, further rose to 26 5 during the week under notice, and exceeded by 4.8 per 1,000 the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 13.7 in Perth and 16.8 in Paisley, and the highest rates 28.1 in Edinburgh and 43.9 in Leith. The 710 deaths in these towns included 136 which were referred to the principal zymotic diseases, equal to an annual rate of 4.9 per 1,000, which was 2.6 above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Edinburgh, and Leith. The 319 deaths registered in Glasgow included 24 from measles, 10 from scarlet fever, and 6 from diphtheria. Measles caused 26 deaths in Edinburgh, 17 in Leith, 11 in Dundee, and 8 in Aberdeen. The death-rate from diseases of the respiratory organs in these towns was equal to 7.1 per 1,000, against 4.5 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, December 10th, were equal to an annual rate of 21.9 per 1,000. The lowest rates were recorded in Sligo and Dundalk, and the highest rates in Belfast and Kilkenny The death-rate from the principal zymotic diseases averaged 1.6 per 1,000. The 161 deaths registered in Dublin were equal to an annual rate of 24 0 per 1,000 (against 22.8 and 23.3 in the preceding two weeks), the rate during the same period being 17.7 in London and 25.4 in Edinburgh. The 161 deaths in Dublin included 7 which were referred to the principal zymotic diseases (equal to an annual rate of 1.0 per 1,000), of which 3 resulted from diarrhœa, 2 from typhoid fever, 1 from whooping-cough, and 1 from scarlet fever.

HYGIENIC INSTRUCTION FOR SCHOOL TEACHERS.

M. Strauss has submitted to the Municipal Council of Paris a proposal that a Chair of Medicine and School Hygiene should be established for the instruction of the teachers in the municipal schools. He suggests that the lecturer should be chosen from among the medical inspectors of the schools of the city of Paris. The proposal has been referred to a committee.

QUARANTINE IN THE UNITED STATES.

In a recent article we showed that the unsatisfactory state in which port sanitary administration is in the United States must be attributed, in large part at least, to the fact that such matters were regulated by State and not by national laws and regulations. Under the present system uniformity is impossible, the opportunities for the practical training of officers are limited and an uninformed local opinion may compel officials whose tenure of office is precarious to acquiesce in obsolete restrictive measures. This view has so far been adopted by President Harrison in his message to Congress that he recommends that "the whole subject of quarantine should be taken into the national control."

LONDON WATER SUPPLY.

PROFESSOR FRANKLAND, in his report, speaks unfavourably of the condition of water when taken for consumption in London during November. He says that on November 23rd the Thames at Hampton was chemically in an even worse condition than on October 17th, though bacterially it was considerably better. The water was turbid and brown, but was in every case except one efficiently filtered before delivery. The unfiltered water taken chiefly from the Lee by the New River Company was, on November 23rd, both chemically and bacterially in an unusually bad condition. Compared with the sample taken in the previous month, it contained more than twice as much organic matter and more than four times as many microbes. It was also turbid and yellow, but before it was distributed it was efficiently filtered and improved. The deep well waters of the East London and Colne Valley Companies contained more organic matter than usual, but they were organically much better than any of the river-derived supplies.

EXPERIMENTS ON FILTERING SEWAGE EFFLUENT.

FILTRATION experiments have been carried out at the Barking outfall with coke breeze, pea ballast, burnt clay, and a compound filter known as the polarite, the first portion of which was sand and the second sand and polarite. The purification shown on analysis was very considerable in all the filters, coke breeze giving the best average results, the pea ballast coming next. The experiments are now to be conducted on a larger scale and a trial is to be made of a coke filter bed, so that reliable data can be obtained as to the most suitable rate of flow.

PRINTING OF HEALTH OFFICERS' REPORTS.

NOW that the time is approaching at which the attention of medical officers of health will be directed to the writing of their annual reports, we think it well to urge upon them the desirability of securing that such documents be printed by their sanitary authorities. The percentage of printed reports is steadily increasing, but we would gladly see it made incumbent upon all sanitary bodies to print the annual record of health and sanitation in their districts.

NON-RE-ELECTION OF A MEDICAL OFFICER BY GUARDIANS.

A DISTRICT MEDICAL OFFICER, who has held his appointment for twenty-five years, but not being resident in his district, has consequently been subject to triennial re-election by the guardians writes to say that when the period for which he was last elected expired, he was, in consequence of the action of the chairman of the board, who had actively canvassed against him, outvoted by a small majority of the guardians, these not being usual attendants at the board, but whipped up for the occasion, and another non-resident medical officer appointed in his place. He has written a full statement of his case to the Local Government Board, and asks us if this action of the guardians is legal, and what course should be adopted by him to frustrate it?

*** We cannot think that the Local Government Board will sanction this change which the guardians have voted for, especially as the newly-appointed officer is a non-resident in the district. It is within our knowledge that in a very similar case which occurred some years back the decision of the guardians to supplant a medical officer by making a fresh appointment was not confirmed; the former officer was therefore subsequently re-elected. The final decision in all such cases rests with the Local Government Board.

MEDICAL ORDERS FOR FARM LABOURERS.

ENQUIRENS, who is a district medical officer, writes to ask if it is proper for a farm labourer (a widower with two children, aged 16 and 12) earning 14s. weekly, with rent, rates, and taxes free, to have an order granted for medical attendance on the elder child?

*** In our opinion this case is not one in which an order for medical attendance at the expense of the ratepayers should have been given, as the elder of these two children ought to have been in receipt of wages and in a benefit society, which would leave the maintenance of one child only on the father. We feel sure that in very few unions would a medical order have been granted in such a case; and should therefore recommend our correspondent to take care that the facts are laid before the guardians at their next meeting, with a view to the order for medical attendance being cancelled by them.

THE NOTIFICATION OF CROUP.

W.N.C.—The term "croup" is still often used in a very loose sense, and hence the limitation of notification to membranous croup. The Act and also the note printed on the certificate are quite explicit and clear. If the notifying practitioner believes that all croup is necessarily membranous, he has no reasonable excuse for omitting the adjective while inserting the noun; and still less if he holds the contrary view.

COMPULSORY DISINFECTION OF ALL SECOND-HAND CLOTHING.

DR. J. TAYLOR (Medical Officer of Health, Tandragee, co. Armagh) writes: Permit me to call attention to the necessity for legislation which will compel all persons who dispose of or sell second-hand clothes or bedding to have them disinfected by a recognised sanitary authority. As the law now exists (at least in Ireland), clothes or bedding which have been in contact with persons suffering from infectious diseases may be disposed of or sold without any guarantee that they have been properly disinfected. Section 124, Public Health (Ireland) Act, makes it penal to do so, but there is no difficulty in evading it. I would suggest that an Act of Parliament should be promoted which would make it illegal to give, lend, sell, transmit, or expose any second-hand clothes or bedding, except they have a stamp to show that they have been recently disinfected. The stamp should be impressed on the fabric of which the principal part of the article is made, and should be easily obliterated, so as to prevent its use for a second disposal. It should also have the date and place of disinfection.

OFFENSIVE SEWERS.

W. WRITES: May I call attention to the offensive state of the sewer in the Uxbridge Road, especially between Hyde Park Gardens and Lancaster Gate? The stench from the ventilating holes is at times almost overpowering to anyone passing near them and shows that the sewer must be in bad order, probably either from an obstruction or from want of flushing.

QUALIFICATION FOR MEDICAL OFFICER OF HEALTH.

CANDIDATE writes: As a practical commentary on the point raised in the BRITISH MEDICAL JOURNAL of December 10th by "M.R.C.S." under the above heading, will you allow me to state that at the late election in this town to the post of medical officer of health, the appointment was given to a gentleman possessing only the single qualification of M.R.C.S.? The Local Government Board, after only the slightest demur, sanctioned the appointment. There were other doubly qualified candidates for the post, one at least of whom had held the appointment of medical officer of health for the last seven years in another part of the country.

INFECTIOUS HOSPITALS AT HEALTH RESORTS.

A. E. L.—Our correspondent would do well to make application to the Local Government Board for a list of health resorts possessing efficient hospitals for infectious disease, and asking also for a copy of their memorandum "On the Provision of Isolation Hospital Accommodation by Local Sanitary Authorities." Bournemouth has, we believe, a hospital built according to the plans recommended in this memorandum, and Eastbourne also has a good hospital. Brighton possesses a hospital for 110 beds, that is, nearly 1 per 1,000 of population, with an average annual admission of 380 patients. Our correspondent should press for not less than this rate of beds as a commencement, on a site which will admit of future extension, temporary or permanent.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

THE following have passed in Anatomy and Physiology for the first M.B.: E. Blackburn, St. John's College; J. Fairbairn, Magdalen College; H. R. Fort, Worcester College; E. W. Palin, Christ Church; A. Partridge, Balliol College.

UNIVERSITY OF CAMBRIDGE.

SECOND M.B. EXAMINATION.—Part I. *Pharmaceutical Chemistry.*—J. L. Allen, B.A., King's; Armitage, B.A., Emm.; Bassano, Trin.; R. H. Bell, Trin.; Bodington, M.A., Cai.; Carsberg, Cai.; Carter, Jes.; W. Charles, Cai.; Clarke, Trin.; Deller, Trin.; H. Dodson, Down.; W. B. Dove, Chr.; Eardley, M.A., Joh.; Forbes, Chr.; Gladstone, Joh.; Greg, Trin.; Haward, B.A., Sid.; J. P. Hill, Cai; R. J. Horton-Smith, Joh.; Hughes, Cai.; L. T. R. Hutchinson, B.A., Trin.; Jeaffreson, Chr.; Jephcott, Cai.; Jordan, Sid.; Kirk, B.A., Chr.; MacCallan, Chr.; McDougall, Joh.; H. Marshall, B.A., Cai.; Martin, Cai.; Matthews, Trin.; Molesworth, Cai.; Moritz, Cai.; Mort, B.A., Trin.; Muir, Emm.; Nicholls, Joh.; Pearse, B.A., Trin.; Pentreath, B.A., Queens'; Philpots, Trin.; S. P. Pollard, Cai.; Pollitt, Trin.; Rawling, Cai.; Robinson, Cai.; Roe, Pemb.; Sapwell, Cai.; C. C. Simpson, B.A., Trin.; M. H., Smith, B.A., Pet.; Snowden, Chr.; Somers, B.A., Pemb.; Stacey, Joh.; Talbot, King's; Thorp, Emm.; C. F. Webb, B.A., Cla.; Webster, Cai.; W. K. Wills, Joh.; Wingate, Jes.; Winkfield, King's; Woodhouse, B.A., King's; E. J. Woolley, Cai.

SECOND M.B. EXAMINATION.—Part II. *Human Anatomy and Physiology.* E. M. Barker, B.A., Emm.; Beddard, B.A., Trin.; Bumsted, B.A., Joh.; Clark, M.A., Down.; Duckworth, B.A., Jes.; C. D. Edwards, B.A., Joh.; Evans, B.A., Trin.; Fletcher, Cai.; Griffin, M.A., Down.; Hadow, B.A., Cai.; Haigh, B.A., Joh.; L. K. Harrison, Cai.; Hobday, B.A., Chr.; L. T. R. Hutchinson, B.A., Trin.; Jackson, B.A., Joh.; M. B. Johnson, B.A., Trin. H.; Judd, B.A., New; P. R. Lowe, Jes.; Mackenzie, B.A., Cai.; C. E. Marriott, B.A., Cla.; E. B. Marriott, B.A., Cla.; Martin, B.A., Pet.; Maxwell, B.A., Corp.; Milsome, B.A., Trin.; P. L. Moore, B.A., Joh.; Neshams, B.A., Trin.; Pendlebury, Pemb.; Renshaw, B.A., Trin.; Roper, B.A., Chr.; Selby, Down.; Smallwood, Cai.; Taylor, B.A., Emm.; C. A. H. Thomson, B.A., Chr.; Tod, B.A., Trin.; Troup, B.A., Pemb.; Walker, M.A., Pemb.; Watson, B.A., Trin.; Wedd, Down.; Wingate, Jes.

THIRD M.B. EXAMINATION.—Part I. *Surgery and Midwifery.*—Alston, B.A., Cla.; Bardsley, B.A., Cai.; Bliss, B.A., Sid.; J. R. Carver, B.A., Chr.; Christopherson, B.A., Cai.; Fenton, B.A., Cai.; Fish, B.A., Chr.; J. C. Gardner, Emm.; W. J. Harris, B.A., Chr.; Hart, B.A., Jes.; Herd, B.A., N. C.; Hobart, B.A., Cai.; P. Horton Smith, Joh.; Lambert, B.A., Joh.; Langmore, B.A., Joh.; C. E. M. Lewis, B.A., Joh.; Locket, B.A., Chr.; Lace, B.A., Chr.; Moore, B.A., H. Selw.; Neill, B.A., Cai.; R. E. Nix, B.A., Cai.; Nowell, B.A., Cath.; Palmer, B.A., Down; Poole, B.A., Cath.; Pulford, B.A., Trin.; Ransome, B.A., Trin.; Sharp, B.A., Cai.; W. M. Smith, B.A., Cai.; Still, M.A., Cai.; Stephens, B.A., Cai.; C. S. Storrs, B.A., Emm.; G. C. Taylor, B.A., Chr.; H. S. Willson, B.A., Emm.; Windsor, B.A., N. C.

THE *Occidental Medical Times* contains the history of certain cases of influenza in which the infection was, with great probability, attributed to a smoking jacket worn by a patient while suffering from an attack in Paris, and not again until more than two months later, in San Francisco.

MEDICAL NEWS.

It is announced that the establishment of a Pasteur Institute in Lisbon has been decided on.

Dr. Matthew L. Hewat, of Mowbray, has been appointed J.P. for the district of Wynberg, Cape Colony.

University of Berlin.—The total number of students in the University of Berlin during the current semester is 4,876, of whom 1,254 belong to the medical faculty.

At a meeting of the Board of Trustees, held on Wednesday, November 30th, 1892, Dr. G. E. de Schweinitz was, on the unanimous recommendation of the faculty, elected Clinical Professor of Ophthalmology in the Jefferson Medical College.

A sum of 690,000 marks (£34,000), has been voted for the purchase of a site in the Klopstockstrasse, in Berlin, for the erection of new buildings for the housing of the Imperial Public Health Department.

Death from Hydrophobia.—On December 7th, Emily Davenport, aged 11, died from hydrophobia, the result, as is believed, of bites received on May 24th from a dog, which was afterwards destroyed at Colne, and was certified suffering from rabies. The wounds had healed, and the child appeared in her ordinary health until last week.

Mr. Thomas C. Hodgkins, whose gift of £20,000 to the Royal Institution was announced some time ago, has just died at Old Field, Long Island. He made many other munificent benefactions; and it is stated that not long ago he handed a "retainer" of £6,000 to a physician in return for a promise of constant attendance as long as medical service might be required.

Bishop Bubics, of Kassa, has recently published the correspondence of a Venetian volunteer in the allied European army which laid siege to Buda, then in the hands of the Turks, in 1686, and took it in the following year. From this work it would appear that, owing to the initiative of certain Roman Catholic dignitaries, ambulances were organised, and surgical assistance provided during the siege. This is probably one of the earliest instances of the organisation of ambulances in war, and of the provision of surgical assistance by an agency other than the surgeons attached to regiments.

Guy's Hospital London University Club.—The annual general meeting was held December 15th, at which Dr. Pavy, F.R.S., was elected president, and other officers chosen. Dr. Pye-Smith took the chair at the annual dinner held subsequently. The great success of Guy's men at the recent London University examinations was a matter of much congratulation. The medal in medicine was taken by Mr. Daldy, and that at the M.S. examination by Mr. Davies, while Mr. W. G. Rogers obtained marks qualifying for the same medal. The club now numbers 119. All Guy's students, whether graduates or undergraduates, are eligible for election. Particulars can be obtained from Dr. Horrocks.

Mr. William Webber Monckton, Coroner for the Western Division of Somerset, died at his residence at Curry Rivel, near Langport, on Monday evening, at the age of 74 years. The deceased had held the officer of coroner for nearly forty years, having succeeded the late Dr. Caines, for whom he was deputy. Educated for the medical profession, he was well qualified for his office, the duties of which he carried out in a manner which gained the respect and esteem of many people with whom he was brought into contact. For the last few years he had been in failing health, and his duties had been performed by his deputy, Dr. Cordwent, of Taunton.

The late Dr. S. H. Taylor.—We regret to announce the death of Dr. Sidney Hamilton Taylor, of Willesden Green. The deceased gentleman was educated at Trinity College, Dublin, and had practised in Canada some time before coming to Willesden, which he did about ten years ago. He was for a number of years chairman of the sanitary committee, and amongst other things took great interest in the proposed isolation hospital, visiting, in company with the surveyor (Mr. O. C. Robson), several of the sites which were suggested. Latterly his name had been closely associated with the Cottage Hospital which is now being built.

Royal South London Ophthalmic Hospital.—The Duke of York on December 15th opened the new buildings of the Royal South London Ophthalmic Hospital, St. George's Circus. His Royal Highness having inspected the extremely well-planned new buildings, an adjournment was made to the Surrey Theatre, where the opening ceremony took place. The Duke of Cambridge, as Chairman of the Reception Committee, delivered a brief address, after which the Duke of York formally declared the new hospital open. The hospital contains, besides ample provision for out-patients, four large wards, two of which hold seven beds each, and the other two eight beds. Four private rooms are reserved for paying patients, and there are six isolation wards for persons requiring special treatment or absolute quiet.

The late Dr. Steele, of Guy's.—At the last meeting of the Royal National Pension Fund for Nurses, Mr. Walter H. Burns in the chair, the death of Dr. J. C. Steele, of Guy's Hospital, having been reported, it was moved by the chairman, seconded by Mr. Burdett, and resolved:—"That the Council of the Royal National Pension Fund for Nurses have heard with deep regret and sorrow of the lamented death of their colleague, Dr. Steele, who had been a member of the Council since its institution, and was ever ready to do his utmost to promote the welfare of the nurses by heartily co-operating to alleviate the sorrows and to minimise the risks attaching to the calling of a nurse. The Council desire to tender to Mrs. Steele and the family the expression of their sympathy with them in this heavy trial, and to place on record their appreciation of the services which Dr. Steele rendered not only to the Royal National Pension Fund for Nurses, but to the progress of nursing generally."

Queen Victoria's Jubilee Institute for Nurses: Scottish Branch.—The fourth annual report of this institute, recently issued, states that the demand for nurses has grown so much that an addition to the Edinburgh home has become a necessity. The two flats above the existing home have been purchased, altered, connected, and partly furnished. In this way twenty-three nurses can now be accommodated, and there are possibilities of extension held in reserve. The Scottish branch of the institute has lost the services of Miss Peter, who has been appointed General Inspector for the United Kingdom. She has been succeeded by Miss Wade as superintendent of the training home, and Miss Robin as district superintendent. Twenty-seven district probationers have entered the home during the year, twenty have completed their training and have received appointments. At the close of the year the Council are responsible for thirty-one nurses, either on active duty or in training. More nurses and more funds are required. Fourteen new local associations have been formed in connection with the institute, and have engaged Queen's nurses. During the past year 1,969 cases have been nursed, and 40,977 visits paid.

MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Assistant House Surgeon. Salary, £50 per annum, with apartments and board. Applications to the Chairman of the Medical Board by January 2nd, 1893.

BRECON INFIRMARY, 6, Bulwark, Brecon, South Wales.—Resident House-Surgeon; unmarried; doubly qualified. Salary, £70 per annum, with furnished apartments, board, attendance, fire, and gas. Applications to W. Powell Price, Secretary, by December 26th.

BRIDGWATER INFIRMARY.—House-Surgeon. Salary, £30 per annum, with board and residence. Applications to Mr. John Coombs, Honorary Secretary, by January 1st, 1893.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Rooms, coal, and light provided. Applications to the Secretary by January 10th, 1893.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistant. Applications to the Secretary.

CHICHESTER INFIRMARY, Chichester.—House-Surgeon. Salary, £30 per annum, with board, lodging, and washing. Applications to E. E. Street, Secretary, by March 1st, 1893.

COUNTY OF CHESTER.—Medical Officer of Health; doubly qualified. Salary, £100 per annum, and out-of-pocket travelling expenses. Applications to Reginald Potts, Clerk to the Cheshire County Council, Chester, by December 31st.

CROYDON GENERAL HOSPITAL.—House-Surgeon, doubly qualified, unmarried. Salary, £100 per annum, increasing £100 yearly to £120, with board and residence. Applications to the Secretary, by December 30th.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon. Board, residence, and washing provided. Applications to the House-Governor by December 31st.

HOSPITAL FOR ST. PETER PORT, Guernsey.—Surgeon. Salary, £50 per annum. Applications to the President of the Poor-law Board by December 29th.

HOSTEL OF ST. LUKE, Devonshire Street, W.—Honorary Visiting Medical Officer. Applications to the Secretary, Hostel of St. Luke, Church House, Westminster, by January 7th, 1893.

HULL ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £40 per annum, with board and lodging. Applications to Chairman, House Committee, by December 26th.

KILLARNEY DISTRICT LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, with allowances valued at £100 yearly. Candidates must be unmarried, and not over 30 Applications to Dr. L. T. Griffin, Resident Medical Superintendent. Election on January 19th, 1893.

KING'S COLLEGE, London.—Medical Registrar. Applications to J. W. Cunningham, Secretary, by December 30th

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer for the Fever Hospital at Monsall; not less than 25 years of age, doubly qualified. Salary, £250 per annum, with board and residence. Applications to the Chairman of the Board by January 7th, 1893.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Albert Memorial), Queen Square, Bloomsbury, W.C.—House-Physician, double qualified. Salary, £100 per annum, with board and apartments. Applications to B. Burford Rawlings, Secretary and General Director, by January 5th, 1893.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-on-Trent.—House-Surgeon: doubly qualified. Salary, £120 per annum, increasing £10 yearly, with furnished apartments, board, and washing. Applications to the Secretary by January 21st, 1893.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, West Strand. Clinical Assistants. Applications to the Secretary, by December 31st.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Senior Assistant House-Surgeon. Salary, £72 per annum, with board, lodging, and washing. Applications to Dr. Crochley Clapham, Honorary Secretary Medical Staff, The Grange, near Rotherham, by January 2nd, 1893.

SOUTHPORT INFIRMARY.—House-Surgeon, doubly qualified. Salary, £100 per annum, with board, furnished rooms, and attendance. Applications to Joseph Worall, Infirmary, Southport, by January 4th, 1893.

STOCKPORT INFIRMARY.—Junior House-Surgeon, appointment for six months. Board and residence provided and £10 honorarium after six months' satisfactory service. Applications to Lieutenant-Colonel S. W. Wilkinson, Honorary Secretary, by December 27th.

STRATFORD-ON-AVON RURAL SANITARY AUTHORITY.—Medical Officer of Health. Salary, £110 per annum. Applications to John Charles Warden, 9, Guild Street, Stratford-on-Avon, by January 21st, 1893.

STRATFORD-ON-AVON URBAN SANITARY AUTHORITY.—Medical Officer of Health. Salary, £40 per annum. Applications to Thomas Hunt, Town Clerk, Municipal Office, Stratford on Avon, by January 2nd, 1893.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE, Cardiff.—A Professor of Anatomy, and a Professor of Physiology. Stipend in each case, £350 per annum. Applications to Ivor James, Registrar, by February 10th, 1893.

UNIVERSITY OF EDINBURGH.—Examiner in each of the following subjects: (1) Anatomy, (2) Chemistry and Laboratory Work for the First B.Sc Examination in Public Health, (3) Midwifery, (4) Practice of Physic, and (5) Botany. The salary in each of the departments Nos. 1, 3, 4, and 5 is £75 a year, and in No 2 £50 a year, with an allowance of £10 per annum for travelling and other expenses in the case of Examiners not resident in Edinburgh or the immediate neighbourhood. Applications to M. C. Taylor, Secretary, by January 9th, 1893.

UNIVERSITY OF GLASGOW.—Assistant Examiner in Zoology. Salary, £30 per annum. Applications to the Secretary of the Court, Mr. Alan E. Clapperton, West Regent Street, Glasgow, by January 10th, 1893.

WEST HERTS INFIRMARY, Hemel Hempstead.—House-Surgeon and Dispenser; doubly qualified, unmarried. Salary, £100 per annum, with board, furnished rooms, light, fire, attendance, and washing. Applications to the Secretary by January 31st, 1893.

MEDICAL APPOINTMENTS.

BARNETT, R. H., L.R.C.P.Lond., M.R.C.S., reappointed Medical Officer for the Second and Third B. Sanitary Districts of the Wisbech Union.

CAMPBELL, Dr., appointed Medical Officer for the Usk District of the Pontypool Union.

CAMPBELL, John, F.R.C.S.Eng., M.A., M.D., M.Ch., M.A.O.I., appointed Surgeon to the Samaritan Hospital for Women, Belfast.

COPLEY, W. H., L.R.C.P.Lond., M.R.C.S., reappointed Medical Officer for the Seventh Sanitary District of the Wisbech Union.

CORT, John G. D., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Second District of the Blackburn Union.

CRAIG, J., M.D., B.Ch., M.R.C.P.I., appointed Surgeon to the Meath Hospital, Dublin.

CRAIGIE, James, M.D., C.M., B.Sc., Public Health, Edin., appointed Medical Officer of Health for the Burgh of Musselburgh, N.B.

CULROSS, James, M.A., M.B., C.M., appointed Medical Officer and Public Vaccinator to the Newton Abbot (No. 4) District, *vice* Henry A. Davies, M.R.C.S., L.R.C.P., resigned.

DOUGLAS, Norman G., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer to the Western District of the Scarborough Union, and Public Vaccinator for the Borough.

EVANS, Edward Prichard, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health for the Mountain Ash Urban Sanitary District.

FRASER, H. E., M.A.Edin., M.B., C.M.Edin., appointed Resident Medical Officer to the Northern Infirmary, Inverness.

GILBERT, H. P., L.R.C.P.Edin., M.R.C.S., reappointed Medical Officer for the Eleventh Sanitary District of the Wisbech Union.

GROOM, William, M.R.C.S., L.M., reappointed Medical Officer for the Eighth Sanitary District of the Wisbech Union.

GROOM, William, jun., M.D.Camb., M.R.C.S., reappointed Medical Officer for the Newton and Tydd St. Giles District of the Wisbech Union.

GUISANI, Joseph, M.D. R.U.I., M.Ch., appointed Visiting Physician to the Cork Union Hospital.

HUGHES, Edward, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Collieries at Ton, Ystrad, Rhondda.

JONES, Robert, M.D.Lond., B.S., F.R.C.S.Eng., L.R.C.P.Lond., L.S.A., appointed Medical Superintendent to the London County Council's New Asylum at Claybury.

KEMPE, Arthur Wightman, M.D Brux., M.R.C.P.Edin., reappointed Medical Officer of Health to the Budleigh Local Board.

KEYWORTH, Arthur F., M.R.C.S., L.R.C.P.I., appointed Surgeon to the Marple District of the Cheshire County Police, *vice* Henry Heginbotham, M.R.C.S., deceased.

KYNOCH, John A. C., M.B., C.M.Edin., appointed *pro tem.* Medical Superintendent to the Dundee Royal Infirmary, *vice* R. N. McOosh, M.D. Glasg., resigned.

LLOYD, Evan, M.B., C.M.Glasg., reappointed Medical Officer of Health for the Rural Sanitary District of the Tregaron Union.

MACKAY, William, L.R.C.P.Edin., L.M., L.F.P.S.Glas., reappointed Medical Officer of Health for the Norton District of the Malton Union.

MARSHALL, R. J., M.B., C.M.Glasg., appointed Deputy Medical Officer for the Iver Sanitary District of the Eton Union.

MASON, George, M.R.C.S., reappointed Medical Officer for the Ninth Sanitary District of the Wisbech Union.

METCALFE, Dr., appointed Medical Officer for the Capel District of the Tonbridge Union.

MILLIGAN, William, M.D., C.M., appointed Lecturer on Diseases of the Ear, at the Owens College, Manchester.

MUSPRATT, Charles Drummond, M.D., B.S.Lond., F.R.C.S.Eng., appointed Medical Officer for Out-patients to the Royal Victoria Hospital, Bournemouth.

NIGHTINGALE, J., M.B.Edin., appointed Medical Officer of Health to the Horsforth Urban Sanitary Authority.

PERRY, Edwin Cooper, B.A.Camb., M.D., M.R.C.P., M.R.C.S., appointed Medical Superintendent to Guy's Hospital, *vice* J. C. Steele, M.D., deceased.

RICHARDSON, Richard T., M.R.C.S Eng., appointed Medical Officer of Health for Trowbridge, *vice* Nicholas V. Wise, L.R.C.P., L.R.C.S.I., resigned.

RILEY, James Woodward, M.R.C.S.Eng., L.R.C.P.Edin., appointed Medical Officer and Public Vaccinator to the Pontesbury District of the Atcham Union, *vice* A. M. Sutton, M.B.Lond., resigned.

SINCLAIR, F. H., M.D., M.Ch., L.R.C.P., L.R.C.S.I. reappointed Honorary Attending Physician to the Belfast Hospital for Consumption and Diseases of the Chest.

STACK, E. C., L.R.C.P., L.M., L.R.C.S I., appointed Honorary Attending Surgeon to the Belfast Hospital for Consumption and Diseases of the Chest.

SYMMERS, William St. Clair, M.B.Aberd., appointed Pathologist to the General Hospital, Birmingham.

THOMAS, John T., L.R.C.P.I., L.R.C.S.Edin., appointed Medical Officer for the Magor District of the Newport (Mon.) Union.

VARDON, A. D., L.R.C.P., L.R.C.S Edin., L.F.P.S.Glasg., appointed Medical Officer for the Eastern Sanitary District of the Gaurie Parochial Board.

WARRINGTON, W. B., M.B., B.Ch. Vict. Univ., appointed House-Physician to the City of London Hospital for Diseases of the Chest, Victoria Park.

WOOLLETT, Sidney Winslow, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Wangford District of the Blything Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

MCGEAGH.—On December 15th, at 28 Spellow Lane, Liverpool, the wife of R. T. McGeagh, M.D., of a son.

STOKES.—On the 21st instant, at 2, Highbury Crescent, N., the wife of H. Fraser Stokes, M.R.C.S.Eng., L.R.C.P.Lond., of a son.

TUKE.—On the 6th of December, at Chiswick House, Chiswick, the wife of T. Seymour Tuke, M.A., M.B.Oxon., of a daughter.

WINGATE-SAUL.—At Fenton-Cawthorne House, Lancaster, on the 18th instant, the wife of W. W. Wingate-Saul, M.D., of a daughter.

MARRIAGE.

WELSFORD—CROSS.—On December the 14th, at the parish church of Bexhill, by the Rev. W. L. Gane, M.A., Arthur Gerald Welsford, M.D., F.R.C.S., of Dover, to Frances Adelaide, youngest daughter of the late Alfred Cross, of Kilmarth, Hastings.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

J. F. C. wishes to know if there is any society or association which gives assistance to destitute orphan daughters of medical men.

MEMBER wishes to be informed if there is a convalescent home where a delicate boy recovering from a severe illness could be received for a time. His parents are extremely poor, but formerly were in a better position in life.

M.S. writes: I find a difficulty in preparing various solutions of antiseptics, etc. Thus, instead of giving grains or minims to the ounce, most books give the strength of the solutions as 1 in 10, 1 in 500, 1 in 100,000, and so on.

*** True percentage solutions contain in 100 parts by weight the various percentage amounts by weight of the substances in solution. But sometimes the weight of substance dissolved is expressed in relation to the measure or volume of the solution. Thus a solution of 1 in 10 would be one containing 10 parts by weight of a substance in 100 parts by weight of the solution, or in 100 parts by measure; for example, 10 grains bichloride of mercury in 100 grains of the solution, or 10 grains in 100 minims, and so on.

CONSTANT CURRENT BATTERY FOR A HOSPITAL.

HOSPITAL would be glad of advice as to the best form of inexpensive constant current battery for use in a hospital. The battery might be a fixture, but the chief point would be to obtain an arrangement which could be cleaned and charged without being sent to the instrument maker; this is not only expensive, but gives rise frequently to long and inconvenient delays.

ANSWERS.

A MEMBER should consult a solicitor.

INQUIRER (Belize).—The queries are complicated legal questions, and should be referred to your own solicitor.

OBSTINATE CASE OF INCONTINENCE OF URINE.

M.D. (Bradford) writes: M.R.C.S. might try pichi, which has been stated[1] to give good results. It may be obtained, made up as lozenges, of Messrs. Thos. Christy and Co., 25, Lime Street, E.C. Perhaps "M.R.C.S." should he give the drug a trial, will report effects.

ARTHRITIS OF THE GREAT TOE-JOINT.

DR. REGINALD H. LUCY (Plymouth) writes: In reply to "Leeds" query, I would refer him to a communication on page 726 of the BRITISH MEDICAL JOURNAL, vol. i, 1887. The foot of the adolescent, more especially the male, outstrips in growth the usual "life" of the factory-made boot, with its stiff upper and heavy unwieldy sole, which hence cannot accommodate the monthly increasing length of the foot; the end pressure thus tells on the metatarsophalangeal joint, producing a traumatic arthritis, which subsides on leaving off and recommences on again wearing the faulty boot. A pointed toe to the boots in like manner forces the toe towards the middle line of the foot and produces similar results. But the worst of the three factors is the absence of flexibility in the sole—the foot is bound down as to a board for fifteen to sixteen out of the twenty-four hours, and no wonder the joint becomes stiff and painful. The remedy is to see that the boot is long enough for the foot when extended by the erect position of the body, that the great toe is not forced outwards by a pointed toecap, and to cut across one layer of the sole immediately in front of the heel, so that the boot can be bent at the "waist."

[1] BRITISH MEDICAL JOURNAL, October 11th, 1890.

NOTES, LETTERS, Etc.

OUR RANGOON CORRESPONDENT will see that the information with which he kindly favours us has been largely anticipated.

CHRISTMAS AND THE BRITISH MEDICAL BENEVOLENT FUND.

MR. EDWARD EAST (16, Upper Berkeley Street, Portman Square, W), as Honorary Secretary of this charity, would feel very grateful for money, warm clothing, or blankets for distribution this Christmas time.

STARCH BATHS IN CHRONIC GOUT.

MR. EDWD. STECHAN, M.B. (Ulverston) recommends the treatment of chronic gout by means of hot starch baths. The excretory action of the skin is powerfully stimulated by water at a temperature of 105° F. The tendency of gouty patients to contract eczema on taking hot baths is counteracted by the starch (1 lb. to 40 gallons of water); in fact, patches of eczema which may be present on the patent tend to vanish thereby.

MR. FRED. LESLIE.

IT has been publicly suggested that a searching inquiry was desirable as to the source of the typhoid fever from which the late Mr. Fred Leslie died. There were obvious reasons that such an inquiry should be made, both for the sake of the public who frequent the Gaiety Theatre, for the credit of the management, and for the safety of the performers. We therefore requested a medical man who is well acquainted with theatres and the theatrical profession to inspect the Gaiety Theatre, and report the facts of the case to us.

He informs us that he was afforded the opportunity of thoroughly examining the dressing rooms and sanitary arrangements at the Gaiety Theatre, and found them perfectly satisfactory. Most of the dressing rooms are situated in a part of the theatre recently built, and others are under the stage. They are dry and clean, and compare favourably with dressing rooms in many other theatres. In most of them are fixed basins with waste pipes, which, however, are all "siphoned," and no return or leakage of sewer gas was detected. The dressing room of the late Mr. Fred Leslie is large, dry, and airy; in it there is a fixed basin, the waste pipe of which is fitted with a siphon, and there was no reason to believe that his illness was due to any insanitary condition of this room "or the back of the scenes generally." The gentleman who favours us with this report was informed that Mr. Leslie himself expressed his belief that he had received the infection on visiting at the house of a sick friend.

With the consent of the various managers, an inspection will be made later on our behalf of other theatres in the vicinity, and the results will be published.

ACCOMPLISHMENTS OF AN ALIENIST.

DR. PERCY J. BAILY (Senior Assistant Medical Officer London County Asylum, Hanwell) writes: There is, no doubt, vast room for improvement in our position in many directions. It is true that as a class our remuneration is small—sometimes, in fact, a mere pittance. We are debarred in a great measure from returning the hospitality of our friends and we are almost as much condemned to a life of celibacy as if we had taken the vows of priesthood. If these be some of the grievances that no doubt many feel, would it not be wise to endeavour to alleviate them rather than to be at pains to show that we lack professional ability, and are, in fact, nonentities?

A. M. O. writes: I have had experience as junior assistant at two institutions, and have never occupied the contemptible position which your correspondent "Insanity" describes.

In my present asylum I have this year performed five major operations, and have personally conducted the medical and psychological treatment of the male inmates, subject of course to the general supervision of the superintendent, to whom I always applied for advice in a difficulty in the same way as one consults a brother practitioner of more experience in general practice.

There are few men of real ability—I do not mean bookworms who do not come to the front at lunacy, as in every other walk of life; and I frequently notice that those who grumble about their scope for action are generally devoid of the energy and ability to take advantage of their surroundings.

Adverting to the social question, I can say that I have always been received in neighbouring society as a professional gentleman, and that surely is sufficient to satisfy the most fastidious. I admit that length of service is no guarantee for promotion, but then it is not a definite Government service.

Your correspondent's grievance about assistants not signing statistics, etc., is to my mind childish; they are important official papers, and must consequently go through the supervision of the most responsible person—the superintendent.

*** We have received many more letters on this subject. The correspondence may, however, be considered as now closed.

CREMATION AND CRIME.

MR. J. D. COLA (Middle Temple, E.C.) writes: The BRITISH MEDICAL JOURNAL of December 10th contained an article headed "Cremation and Crime." Would you allow me to remark that the very same subject has been treated in an exhaustive paper published on September 19th in a London periodical? It has been written by a most energetic adversary of cremation, Professor E. Savary d'Odiardi. All arguments which can possibly be brought to bear on the question have been developed by that learned lecturer in a most interesting manner it is headed "Cremation *versus* Burial." The facilities afforded to criminals by practice of cremation are strongly illustrated.

BANANAS AND MILK.

MR. J. CLEASBY TAYLOR, M.B.Edin., M.R.C.S. (Las Palmas, Grand Canary), writes: I was much interested in a communication in the BRITISH MEDICAL JOURNAL of November 26th, 1892, from Mr. E. S. Page, of Solihull, concerning the effect of bananas and milk.

My experience here coincides with that of the medical men in Madeira, in that the combination is likely to bring on diarrhœa and dysentery. Last winter I had under my care a rather sad case, illustrating this—a doctor, invalided from the West Coast of Africa, on account of dysentery. He had been improving for three weeks or more, becoming each day stronger; the dysentery had entirely passed away, his tongue had been clean for the greater part of this time, and the irritable condition of the intestine had entirely disappeared. One morning, in the exuberance of his new healthful condition, he partook of a glass of milk (which was his custom) and also two bananas; within an hour he was troubled with his old pains, and in three or four hours with diarrhœa. None of the remedies previously efficacious had now any effect, and within two months I heard of his death, his dysenteric condition, after his departure from here, continuing the same. Long before this, from experience, I had cautioned visitors against the use of this combination, and still do.

Though the majority of bananas in the English markets come from either Madeira or the Canary Islands, yet perhaps this combination can be given in England, as what can be done there may not be able to be done here, and *vice versâ*. There may be some difference in the milk; as here and in Madeira, all the cows are stall fed, and their food very different to English cattle food.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Dr. T. D. Acland, London; Messrs. Armour and Co., London; D. W. Aitken, M.B., Edinburgh; Dr. J. F. Anderson, London; Mr. C. Abel, London; Professor C. Allbutt, Cambridge; A. Andrews, M.B., Hull. (B) Professor Bryce, Liverpool; Dr. H. Barnes, Carlisle; S. Boyd, M.B., London; Mr. A. E. Barker, London; Mr. G. Buchanan, York; Mr. C. A. Ballance, London; Mr. B. Bryan, Edinburgh; Dr. W. L. Blight, Diss; Mr. P. J. Baily, London; Miss A. H. Beal, London; Mr. R. Bevan, Lydd; Mr. J. W. Brooks, Oxford; Dr. P. Boobbyer, Nottingham; Dr. J. Babinski, Paris; Mr. P. Buxton, Liverpool; Mr. R. Battey, Rome. (C) Dr. J. Campbell, Belfast; Mr. B. F. C. Costelloe, London; Dr. Collie, Parkstone; Dr. J. W. Cook, Colchester; Messrs. T. Christy and Co., London; Mr. J. D. Cole, London; C. D.; Mr. J. J. Clarke, London; Mr. Cheesewright, Rawmarsh; Messrs. Collard and Co., London; Mr. J. A. Clarke, London; Dr. Castle, Jersey; Dr. W. Collier, Oxford; Cambridge; Mr. C. Cripps, Cirencester; Mr. C. Carruthers, Openshaw; Dr. Collingridge, London; Professor Charcot, Paris. (D) Dr. Davies, Bristol; Dr. T. Dutton, London; Mr. J. Dunlop, Wilmslow; Delirium Tremens; Mr. G. E. Deacon, Hethersett; Dr. R. Davidson, Halifax: H. Dickie, M.B., Morpeth. (E) G. Eastes, M.B., London; Mr. J. Ewens, Clifton. (F) Mr. J. Foreman, Sydney; Professor P. F. Frankland, Dundee, Mr. Joseph Foulkes, London; Mr. W. A. Frost, London; Mr. E. H. Fenwick, London; H. E. Fraser, M.B., Inverness; Dr. Ferguson, Perth; Dr. H. Fox, London; Dr. T. Fisher, London. (G) H. G. Gornall, M.B., Warrington; Messrs. Gales and Co., London; Mr. A. Grove, London; Mr. A. G. Goodwin, Liverpool; Mr. A. Gourlay, London; Dr. G. T. Galbraith, Stirling; H. P. Godfrey, M.B., London; Mr. Gardner, Tewkesbury. (H) Dr. H. A. Hare, Philadelphia; Mr. J. H. Hart, Trinidad; Mr. R. Helmstead, London; Mr. L. Humphry, Cambridge; G. Heaton, M.B., Birmingham; Professor V. Horsley, London; Mr. H. Horton, London; Mr. W. Heming, London; Mr. A. Haviland, Douglas; Messrs. Hazell, Watson, and Viney, London; Mr. J. E. Hill, Durham; Mr. W. F. Hepworth, Stockport. (I) Messrs. Ingram and Royle, London; Dr. Illingworth, Accrington. (J) J. J. G.; Mr. C. J. Jeaffreson, Newcastle-on-Tyne; Mr. J. Jones, London; Mr. F. B. Jenkins, Edinburgh. (K) Mr. G. Kirker, London; Mr. A. F. S. Kent, London; Mr. J. M. Knapp, London; Mr. R. Knapp, Trinidad; Dr. A. A. Kanthack, Liverpool; Dr. E. Klein, London; T. N. Kelynack, M.B., Manchester; Dr. H. D. King, Sudbury. (L) Mr. L. H. Liston, Stafford; Mr. H. Littlewood, Leeds; Dr. C. Lounstein, Hamburg; Mr. M. S. Lowin, London; Mr. W. B. Lewis, Wakefield; R. H. Lucy, M.B., Plymouth; Mr. C. J. Lyons, Mullingar; Mr. E. H. Lee, Cork. (M) M. Mackie, M.B., Elgin; A. C. Munro, M.B., Renfrew; M. O.; Dr. W. Withers Moore, Burgess Hill; Mr. S. B. McKenny, London; Dr. Muspratt, Bournemouth; M.B.Edinburgh; Mr. A. D. McLaren, London; M.O.Bradford; Mr. T. F. McDowell, London; Dr. J. D. Mann, Manchester; Mr. J. M. Moir, Cupar Fife; Dr. R. C. Miller, Derbock; W. Milligan, M.B., Manchester; Dr. W. A. Michie, London. (N) Dr. A. Newsholme, Brighton; Dr. J. T. C. Nash, Beckenham; J. Nightingale, M.B., Leeds; Dr. James Neill, Oxford; Mr. P. Newell, Crowborough. (O) Dr. J. O'Carroll, Dublin; Oxford University, The Secretary of the, Oxford. (P) Mr. E. C. Price, London; Dr. Paul, London; Mr. W. Palmer, London; Mr. W. A. Purser, Tobago; Dr. E. C. Perry, London; Mr. J. J. Pitcairn, London; T. Pagdron, M.B., Jersey; Dr. A. Paterson, London; Pathological Society of London, The Secretary of the, London; Dr. J. Priestley, Leicester; Dr. G. C. Purvis, Edinburgh; Mr. A. W. Paterson, Dundee; Mr. F. T. Palmer, London; Dr. L. Phillips, Birmingham; Probe; Dr. H. F. Parsons, London. (R) J. W. Rodgers, M.B., Redfield; Mr. R. Ruttle, Burnley; Mr. W. Randall, Glamorgan; Mr. J. W. Riley, Pontesbury; Sir W. Roberts, London. (S) Mr. R. B. Smith, Burbage; Messrs. Spratt and Co., London; Mr. N. H. Spielmann, London; Dr. G. Stoker, London; Dr. R. Saundby, Birmingham; Mr. W. J. Smith, London; Mr. F. Stoker, Godalming; Dr. Squire, London; Southern Hospital, Liverpool, The Secretary of the; E. Strechan, M.B., Ulverton; Mr. E. Sharpley, Louth; Mr. W. P. Smith, Southport; Mr. J. Startin, London; W. Sinclair, M.B., Birmingham; Dr. Stocker, Glasgow; Dr. A. Sansom, London. (T) Mr. W. E. F. Thomson, Glasgow; Mr. J. C. Taylor, Tandragee; Mr. J. E. Thorpe, Macclesfield; Dr Thorne Thorne, London; Mr. J. Tay, Bristol; Dr. S. Thomson, London. (W) Mr. W. Wells, Grenada; Mr. A. Winkfield, Oxford; Mr. R. Weaver, London; Dr. A. G. Welsford, London; W. B. Warrington, M.B., London; Mrs. Ward, Firleap; Mr. T. H. Waller, Chelmsford; Mr. C. B. Whitcombe, Birmingham; Dr. G. S. Woodhead, London; Dr. C. White, London; Mr. D. J. G. Watkins, Lincoln; Mr. W. B. Wood, Dumfermline. (Y) R. J. E. Young, M.B., Dighton; Your Obedient Servant; etc.

BOOKS, ETC., RECEIVED.

The Coal Tar Colours, with especial reference to their Injurious Qualities and the Restriction of the Use. A Sanitary and Medico-legal Investigation. By Theodore Weyl. With a preface by Professor Sell. Translated with permission of the author by Henry Leffmann, M.D., Ph.D. London: Kegan Paul, Trench, Trübner, and Co., Limited.

Etudes de Clinique Chirurgicale: Année Scolaire 1890-91. Par A. Le Dentu. Paris: G. Masson.

Report on Leprosy and the Trinidad Leper Asylum for the year 1891. By W. V. M. Koch, M.B., M.Ch. Port-of-Spain: The Government Printing Office. 1892.

How to Give Gas. With a detailed description of the Apparatus Employed. Illustrated. By T. E. Constant, M.R.C.S., L.R.C.P.Eng. London: J. P. Segg and Co. Price 1s. 6d.

The Calendar of the Royal Veterinary College for 1892. London: Adlard and Son. 1892. Price 1s.

On Peripheral Neuritis; a Treatise. By James Ross, M.D., LL.D., F.R.C.P., and Judson L. Bury, M.D.Lond., M.R.C.P. London: Charles Green and Co. 1893.

The Diseases and Deformities of the Fœtus: an Attempt towards a System of Antenatal Pathology. By J. W. Ballantyne, M.D., F.R.C.P.E., F.R.S.E. Vol. I. Edinburgh: Oliver and Boyd. Price 10s. 6d.

Hygienic Measures in Relation to Infectious Diseases, comprising in condensed form information as to the Cause and Mode of Spreading of Certain Diseases, the Preventive Measures that should be resorted to, Isolation, Disinfection, etc. By G. H. F. Nuttall, M.D. London: G. P. Putnam's Sons.

Eight Simple Exercis es with Apparatus for Securing Warm Hands and Warm Feet and for Preventing Chilblains. By A. L. Arnim. Price 1s.

A Manual of Bacteriology. By George M. Sternberg, M.D. New York: William Wood and Co. 1892.

Clinique Chirurgicale. Par A. Richet. Paris: Baillière et Fils.

Lay Down Your Arms: the Autobiography of Martha von Tilling. By Bertha von Suttner. London: Longmans, Green, and Co. 1892. Price 7s. 6d.

La Pratique Gynécologique et Obstétricale des Hôpitaux de Paris. By Paul Lefert. Paris: J. B. Baillière et Fils. 1892.

Le Thé Botanique, et Culture, Falsifications, et Richesse en Caféine des Différentes Espèces. Par Antoine Bietrix. Paris: J. B. Baillière et Fils. 1892.

La Thérapeutique Suggestive et ses Applications aux Maladies Nerveuses et Mentales à la Chirurgie, à l'Obstétrique, et à la Pédagogie. Par le Dr. A. Cullenne. Paris: J. B. Baillière et Fils. 1892.

Le Lait: Caractères dans l'Etat de Santé et de Maladie, Altérations et Falsifications, Germes de Maladies, Micro-organismes du Lait. Par Dr. Jules Rouvier. Préface du Dr. Pierre Budin. Paris: J. B. Baillière et Fils. 1892.

Dod's Peerage, Baronetage, and Knightage of Great Britain and Ireland for 1893, including all the Titled Classes. Fifty-third Year. London: Whittaker and Co.

Hazell's Annual for 1893; a Cyclopædic Record of Men and Topics of the Day. London: Hazell, Watson, and Viney. Price 3s. 6d.

Qualitative Analysis Tables, and the Reactions of Certain Organic Substances. By E. A. Letts, D.Sc., Ph.D., F.R.S.E., F.C.S., etc. Belfast: Mayne and Boyd. 1892.

A Pocket Medical Dictionary, giving the Pronunciation and Definition of about 12,000 of the Principal Words used in Medicine and the Collateral Sciences. By G. M. Gould, A.M., M.D. London: H. K. Lewis. 1892. Price 4s.

Physical Education. By Frederick Treves, F.R.C.S. London: J. and A. Churchill. 1892. Price 2s. 6d.

Die Praxis des Chemikers. Von Dr. Fritz Elsner. Lieferung 3. Hamburg und Leipzig: Verlag von Leopold Voss. 1892.

Essai sur le Traitement de l'Epilepsie Essentielle par Ligature Simultanée des Artères Vertébrales. Par James Gowing Middleton. Paris: Ollier Henry. 1892.

*** In forwarding books the publishers are requested to state the selling prices.

SIXTIETH ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION

Held in NOTTINGHAM, July 26th, 27th, 28th, and 29th.

PROCEEDINGS OF THE SECTIONS.

SURGERY.

JOHN CROFT, F.R.C.S., President.

ON THE TREATMENT OF SPINAL ABSCESS.

BEING AN INTRODUCTION TO A DISCUSSION BY

W. WATSON CHEYNE, M.B., F.R.C.S.,

Surgeon to King's College Hospital; and Professor of Surgery in King's College, etc.

THERE is probably no more striking instance of the value of antiseptic treatment and of accurate pathological knowledge than that afforded by the revolution which has taken place in the treatment of spinal abscess, and the consequent improvement in the results. It will be interesting and instructive, in the first instance, to consider the views held as regards treatment at three different periods.

PREANTISEPTIC METHODS.

Before the antiseptic period, the opening of these abscesses was followed in the great majority of the cases by rapid decomposition of the contents of the sac and absorption of the poisonous substances so formed, and sometimes also of the micro-organisms. The result was high fever, violent inflammation, profuse suppuration, and usually the death of the patient either from acute septic diseases, or from more chronic septicæmia (hectic fever), or from exhaustion from the prolonged suppuration and waxy degeneration in various organs. Hence if this subject had been under discussion, say thirty years ago, the chief question considered would have been the advisability of operating on these cases at all. I think that at that time probably the majority of surgeons would have been adverse to operation of any kind for these among other reasons: (1) the dangers, already mentioned, of incision; (2) because in some cases the immediate inflammatory symptoms were less if the abscess burst of itself; and (3) because in a certain number of instances absorption of the fluid took place if the parts were placed absolutely at rest. It is difficult to estimate the frequency with which these abscesses become absorbed. Lannelongue holds that it is a very common occurrence, and he bases his view on the fact that in almost all cases of vertebral disease without visible abscess, he has found masses of caseous material in front of the bodies of the vertebra, which he looks on as the unabsorbed remains of former abscesses. It seems to me, however, much more probable that the masses are merely caseated tissue, and Lannelongue himself admits that when these abscesses are large, their spontaneous disappearance is a rare occurrence. Lacharrière, however, in 1883, was able to find, in French literature, a record of 44 cases of abscesses connected with the spine which disappeared spontaneously. During this first period, also, among those who advocated operation the question lay between a free incision or some method which would more or less exclude the air, which was looked on as the cause of the danger. Undoubtedly the best results were got by the latter means, either by repeated evacuations through a trocar, or by a valvular incision, the skin wound in both cases being allowed to close; in many of these cases sepsis nevertheless occurred, because the necessity and the mode of disinfecting instruments, skin, etc., were not then understood.

THE EARLY ANTISEPTIC METHODS.

The second period commences with the development of the antiseptic method of treatment. At that time the pathology of chronic abscess was regarded as, in its essence, the same as that of acute abscess, and it was therefore considered that all that would be necessary to effect a cure would be to relieve the tension by opening the abscess freely at the same time that measures were taken to prevent decomposition of the contents. And it turned out that in reality the majority of cases got well when so treated. In 1888 I put together notes of all the cases of spinal abscess which had been treated by Sir Joseph Lister or myself by drainage, and I found a record of 58 cases, of which 49 remained aseptic from first to last, and of these 49 cases, 38, or 77.5 per cent. had been cured when the statistics were made up; 6 were going on well, and 5, or 13.1 per cent. had died either of tuberculosis or of causes unconnected with the abscess. While these results are brilliant as compared with those formerly obtained, the method of treatment by drainage has certain disadvantages. The chief of these is the length of time before healing takes place. In the above cases the average length of time was between 8 and 9 months, the shortest period being 2 months, and the longest from 2 to 3 years. Hence during all this time the patient is or ought to be kept in bed, and cannot be sent to the country for change of air. And further, there is always the chance that at some time or other sepsis may occur and the case go to the bad. Of our 58 cases 9 became septic during the course of the treatment; none of these 9 healed. Another disadvantage is that, as we now know, a large quantity of tuberculous material is left behind which could be readily removed. During this second period the points which were mainly discussed were the following: (1) Some still held to the old idea that the drainage of spinal abscesses was an unsafe procedure, and advised either leaving them alone or treating them by aspiration. Among those surgeons who practised strict asepsis, however, the main points discussed were (2) whether the abscess should be at once opened, or (3) whether its size should in the first instance be reduced by repeated aspirations. There is a good deal to be said in favour of the latter procedure. Provided that no septic material is introduced there is a smaller cavity when the abscess is ultimately opened, and consequently less immediate risk should a mistake be committed in the aseptic management; in some cases also after aspiration the cavity does not refill. Another point of discussion was (4) when the abscess should be opened; should an incision be made as soon as the presence of fluid is ascertained even though a deep dissection might be required to reach it, or should we wait till the abscess is pointing? The best practice seems to be early incision, because the cavity is smaller, and the amount of material to be got rid of less. Finally, there was the question (5) where the opening should be made. In answer to this it was laid down as the most essential point that the incision should be as far as possible from sources of septic contamination such as the perineum, and in the second place that it should be at a dependent point.

MODERN ANTISEPTIC METHODS.

The third period is that in which we are at present and which followed on the recognition of the true pathology of these chronic abscesses. We now know that the pathology of chronic suppuration is quite different from that of acute, and that a chronic abscess is merely a tuberculous tumour with a softened centre. Hence by simply opening and draining a chronic abscess we leave the essential part of the disease—the wall—untouched, and the main curative work has to be done by Nature. The first outcome of this more exact pathology was the attempt, after removal of the contents, to apply some bactericide to the abscess wall, and as at that time iodoform was much thought of as an antiseptic, that was the substance chosen. The original plan, which came from Vienna, was to introduce a trocar into the abscess cavity, evacuate the fluid contents, wash out the cavity with weak carbolic lotion till the fluid returned clear, inject a 10 per cent. emulsion of iodoform in olive oil and glycerine, and stitch up the puncture. In France the method was modified by the use of a solution of iodoform in ether instead of the emulsion. The results of this plan were very good as regards ultimate healing, though in most cases either the puncture wounds broke down and a sinus formed, which was some time in healing, or reaccumulation took place and the performance had to be repeated, sometimes several times.

That this procedure is not altogether safe is shown by the

following case, under the care of my colleague, Mr. Stanley Boyd:

V. M., aged 4, female, admitted with large iliac abscess, curvature of upper lumbar vertebræ. Operation January 25th. Preparation by application of compress of carbolic, 1 in 20, over lower abdomen for one hour. Took chloroform badly. Abscess evacuated through large-sized trocar, washed out with boracic lotion, and iodoglycerin 3ij (10 per cent. solution) injected. Skin wound sutured. Marked collapse after operation with frequent bloody vomit. Child delirious. Carboluria. Sickness continued with varying intensity, at times the vomit was bloody; restlessness and delirium. Carboluria ceased on second day. Pupils equal and contracted, but became unequal on the fifth day. On the sixth day after operation, sickness having returned after 48 hours' respite, during which the child's condition had not, however, improved, the abscess was aspirated and iodoform smelling pus withdrawn and the cavity irrigated with boracic lotion. The temperature rose from normal to 104.6° F., and the child died the same night.

Since these first attempts to act on the pathology of the disease it has become generally recognised that some more energetic treatment of the wall of the abscess is desirable. In my lectures at the Royal College of Surgeons[1] I pointed out that there are three ways in which the abscess wall may be dealt with, namely:

I. *Excision.*—The most radical and satisfactory method is to dissect out the swelling without opening it, as if it were a cyst. This is applicable to many cases; for example, to many glandular abscesses, to the subcutaneous tuberculous nodules of children (*gommes scrofuleuses*), to many abscesses connected with ribs and to some connected with other bones. Where this is done a clean cut wound is left which heals by first intention.

II. *Piecemeal Removal of Wall.*—If the abscess is too large, or its connections such that it cannot be dissected out in this way, the next best thing is to lay it freely open so as to see its interior, and then remove the wall by clipping, cutting, etc. This is possible in a good many cases of abscesses in the extremities, and also elsewhere, and in this way we can generally get a healthy wound which heals by first intention.

III. *Scraping.*—Failing either of these methods, we can still get rid of the greater part of the wall by making a smaller incision into the abscess, scraping away the wall with a Volkmann's spoon, or rubbing off the degenerating tissue by means of rough sponges, etc. I have been using this method in certain cases for the last four years, and the way in which it has been carried out in most instances is shortly as follows. The necessary antiseptic precautions are of course taken, and a small incision is made into the abscess, somewhat larger than can admit the finger, which is then introduced, and the cavity thoroughly explored. The surface of the abscess cavity is then gently scraped with a Volkmann's spoon, preferably a flushing spoon, on the principle introduced by Mr. Barker, free exit being permitted to the fluid, and the finger being inserted from time to time to guide the spoon. Where the use of the spoon is dangerous—as towards the peritoneum or along a large vein, a good deal of the degenerating material can be removed by rubbing the surface with a piece of coarse sponge. If any loose piece of bone is felt, it should be removed, and the carious surface of the bone scraped if it can be got at. At the same time the cavity is thoroughly flushed out with warm (1 in 10,000) sublimate solution, and when it is thoroughly clean the fluid is squeezed out; 1 to 2 ounces of a 10 per cent. emulsion of iodoform in glycerine containing a small proportion of bichloride of mercury is introduced, and the external wound and also the wound in the muscles, if present, is stitched up. I have treated 24 cases, chiefly lumbar and psoas abscess, essentially in this way, with slight variations in some case. Of these, 13 healed by first intention, and they were sent out in a suitable apparatus, and with apparently no recurrence; eleven of these remained well, but 2 were brought back some months later with sinuses, reaccumulation having taken place, and the scars having given way. In one of these there was very little discharge, and I opened up the sinus, scraped it, washed it out, dissected away the cutaneous margin, injected iodoform and glycerine, and stitched it up; the wound healed by first intention, and remains well. In the other there was free suppuration, and it is still open. In 7 of the remainder the greater part of the wound healed by first intention, but a small sinus remained at one part; in 2 of these the sinus healed in about a month without anything further being done; in 1 it healed in a few weeks after Koch's treatment; in the remaining 4, as healing had not occurred after a month, the sinuses were opened up, scraped, and injected, and then healed by first intention (in 2 of these no iodoform was used in the first instance, but was employed on the second occasion). One case healed by first intention, but the cavity filled up again, and the patient would not have anything further done. Thus of the 21 cases, 19 were cured either at once or after a second operation, 1 had recurrence at home and became septic, and 1 refused further treatment. The remaining 3 cases died, 1 of pneumonia, and 1 several months after he left the hospital of suppuration in the cervical spinal canal (paralysis and death in two or three days); neither of these deaths having anything to do with the treatment. The last case, however, died, no doubt as the direct result of the operation. This was a child, aged 2, with acute curvature in the lower dorsal region of about six months' standing, and right psoas abscess noticed for a month. An incision was made into the abscess just in front of the anterior iliac spine, the abscess was scraped out, washed out with 1 in 4,000 sublimate, and stitched up; no iodoform was employed. The operation only lasted fifteen minutes, and the child quickly recovered and seemed quite well during the evening; it was only sick once just after the operation. At 5 A.M. next morning the nurse noticed that the child's hands were rather cold, but otherwise it seemed well, and took its milk. At 6 A.M. the house-surgeon was called up, and found the child in a state of extreme collapse, and it died twenty-five minutes later. On *post-mortem* examination, no cause of death could be discovered; the abscess cavity was empty; there was no bleeding; there was a small psoas abscess on the other side, and a large caseous mass in the body of the twelfth dorsal vertebra. I am quite at a loss to what to ascribe the fatal result; had iodoform been used, one might have thought of iodoform poisoning, but it was not employed here. It has been suggested that it was some after-effect of chloroform, but this I can hardly believe. The only other suggestion I can make is fatty embolism; the lungs in this case seemed quite healthy, but were not examined microscopically. I have in two other cases had a good deal of collapse after the operation, but that followed immediately on it, and in these cases it struck me that possibly in scraping the wall the sympathetic may have been interfered with. I have also heard of another case where death occurred in forty hours after this procedure, and where nothing was found *post mortem* to account for it. Hence, while the procedure is on the whole extremely satisfactory as regards the cure of the abscess, more so than any other method short of excision of the sac, it cannot be regarded as an absolutely safe measure; but, considering the extreme gravity of the disease, I think that this small proportion of risk is well worth running.

METHODS APPLICABLE TO THE TREATMENT OF SPINAL ABSCESS.

The first and best method of treating chronic abscess—namely, the complete removal of the disease by dissection—is only applicable in very rare instances, practically only in those very uncommon cases in which the disease affects the posterior or lateral parts of the vertebræ, the spines, laminæ or transverse processes, not the bodies. I have only had one such case, and in that instance I was able to dissect out the abscess and remove the spinous processes, and the wound healed by first intention. In a case of cervical spinal disease affecting the body of the vertebræ I was also able to dissect out the abscess, but of course the bone itself could be only imperfectly dealt with. The third method—namely, scraping, washing, and injecting—is that which is applicable for retropharyngeal and psoas abscess. In the case of retropharyngeal abscess it is best to employ Chiene's incision behind the sterno-mastoid, and great care must be taken in scraping not to make a communication with the pharynx. In psoas abscess the incision may be made either in front of the anterior iliac spine or in the lumbar region. Here, of course, the question of the most dependent opening does not arise. Our object is to get an opening which will give the best access to all parts of the cavity, and, if the abscess has passed into the thigh, an incision in the neighbourhood of the anterior superior iliac spine is probably the best; if it be still in the abdomen, a lumbar incision is no doubt nearer the bone disease. From the first a lumbar incision has been looked on as the best, both as regards dependency and dis-

[1] BRITISH MEDICAL JOURNAL, vol. 1., 1892.

tance from sources of contamination, and Mr. Treves subsequently advocated it as enabling the surgeon to get at and remove the diseased bone. This last point is not of much importance, because sequestra are much rarer in these cases than caries of the surface or caseous deposits in the bone, and these cannot be at all thoroughly dealt with by any method. In lower cervical, dorsal, and lumbar abscesses the best treatment is a combination of the second and third methods—that is to say, free incision into the external portion of the abscess with removal of the wall and then dilatation of the channel leading to the bodies, scraping, injection of iodoform, and subsequent accurate closure by stitches.

Summary.

1. *Drainage versus Cleaning Out and Subsequent Closure of the Abscess.*—While drainage has yielded good results, my objections to it, as compared with the other plan, are the length of time required for cure, the consequent risk of sepsis during the course of the case, and the greater uncertainty of the results.

2. *Washing Out and Injection alone versus Washing Out and Injecting after Scraping.*—My objections to the first plan as compared with the second are that the process requires in most cases to be repeated more than once, that sinuses frequently form, and that it may be necessary to resort to drainage with the attendant risks of failure of the antiseptic precautions. The second plan is more certain in its results, and does not so often require repetition, and the greater immediate risk is more than counterbalanced by the subsequent risks in the former, among which I have not mentioned the onset of phthisis, which seems to have occurred to an unusual degree in some of the lists of cases treated by that plan.

3. *What should the Cavity be washed out with?*—I generally use 1 in 10,000 sublimate solution, but boiled water would, of course, do quite as well. The aseptic manipulation of boiled water is, however, much more troublesome than that of an antiseptic solution, and it might happen that some septic material might be carried in and deposited in the wound without running any chance of being subsequently destroyed. On the other hand, 1-10,000 is quite unirritating, and is so dilute that there is no risk of poisoning, while it might destroy cocci. I quite admit that this strength of sublimate is not a powerful antiseptic, but if made with boiled water, and some time before use, it is less likely to carry anything into the wound than boiled water alone, and the precautions in working with it are less irksome.

4. *Is the Subsequent Injection of Iodoform Necessary or Desirable?*—This is a point on which I find great difficulty in making up my mind. By the method of scraping, etc., the disease is not in reality entirely got rid of, remains being left both in the bone and in the wall of the cavity. The main object of using the iodoform is in the hope of destroying or preventing the development of the tubercle bacilli, and therefore, unless it is capable of doing this, its use is unnecessary. At first I was much opposed to the view that iodoform had an antituberculous action, and have therefore in several cases not injected. Some of these have healed quite well, but on the whole I think that the iodoform does some good. Thus in two of my recent cases I used no iodoform in the first instance, and sinuses remained in the middle of the scar. I then opened up the sinuses and used iodoform, and the wounds healed by first intention.

5. *If Iodoform is Employed should we Use the Glycerine Emulsion or the Ethereal Solution?*—From my experience with the ethereal solution in other cases, I should most decidedly give the preference to the glycerine emulsion. I have more than once seen a tendency to sloughing in connection with the ethereal solution, and I should be afraid that its use might interfere with healing of the wound by first intention.

6. *The Site of the Incision.*—As to the principles to guide us in our choice as to the seat of incision, the first is to get as far away as possible from sources of contamination such as the perineum, and the second to get as convenient access as we can to all parts of the cavity.

7. *Asepsis.*—I have been assuming all along that whatever method is employed the operation will be done aseptically. I presume this is not really a matter for discussion, for whatever may be the case with such a splendid antiseptic surface as the peritoneum, in this instance, at least, strict asepsis is imperative.

Discussion.

Mr. Charters Symonds thought that all surgeons who dealt much with spinal disease were dissatisfied with the results of the older method of treatment, and that to Mr. Cheyne and to Mr. Barker the profession owed much for the improvements in methods to which many patients owed their lives. He now invariably incised freely, scraped the wall, flushed with boiled water, inserted iodoform, and closed the wound. He considered that this was the only possible treatment, and that it was as incumbent to remove the tuberculous wall in these cases as to remove a mass of malignant growth. Indeed, he did not think that, in view of the admirable results obtained by the modern plans, the surgeon did the best possible for his patient unless he operated in this way. He referred to a case in which he opened a large psoas abscess in the thigh, groin, and lumbar region, and obtained primary union. A sinus formed later, and a second abscess was discovered on the other side. The sinus was scraped, the second abscess cleared out, and the patient was quite well. He thought iodoform was useful, and though he had good results without, he still felt he had not done the best possible unless it had been used. He preferred dissecting out the abscess where possible, and referred to one particularly large case over the trochanter in which this had been done.

Mr. Jordan Lloyd agreed in the main with the conclusions of Mr. Cheyne. The experience of the older methods was not such as to justify its continued employment. All were agreed as to the value of fixation in spinal disease. The ideal treatment of chronic abscess was undoubtedly removal by dissection, but only in few spinal abscesses could this plan be completely carried out. Free incision, complete erosion, thorough irrigation, and perfect asceptic ity, were the indications to follow. For washing purposes he preferred very weak solutions of perchloride, and thought it better to leave a little iodoform in the cavity. Although failures had occurred in his hands under this method, he affirmed unhesitatingly that it gave results far in advance of the older method of simple incision and drainage.

The President (Mr. Croft) protested against the loose way in which the term "abscess" was employed. It was used to include such widely different things as tuberculous glands and accumulations of serum and clotted fibrin, such as were met with in collections of inflammation products connected with spinal disease. He thought that we had arrived at a period in surgery when the term should be given a definite significance.

THE LATER RESULTS OF LAMINECTOMY FOR PARAPLEGIA DUE TO ANGULAR CURVATURE.

By W. ARBUTHNOT LANE, M.S.,

Assistant-Surgeon to Guy's Hospital and to the Hospital for Sick Children, Great Ormond Street.

I propose to relate as briefly as possible the subsequent career of the several cases of compression paraplegia on which I operated, the accounts of which I read before the Clinical Society in October, 1891. Of the eleven cases operated on, two terminated fatally.

Case I was an extremely feeble, pallid child, aged 5½ years, who died a few hours after the operation. In this case the bodies of several vertebræ were very extensively diseased, and the amount of blood lost at the time of the operation, though very slight in quantity, was yet, when added to the exhaustion resulting from the chloroform, sufficient to kill the child.

This was the only one of the eleven cases in which death or any evil result whatever was consequent upon the operation, and I have no doubt that this death, as also the one following, would not have occurred if at that time we had been familiar with the very great advantages which are derived in such cases from the intravenous injection of a normal saline solution.

Case II.—The fatal termination in the second case had no causal relationship whatever with the operation, but resulted six whole days after it from a sudden and excessive hæmorrhage from a polypus of the rectum; this appeared to have been started by the administration of a teaspoonful of compound liquorice powder the night before. Except for this remarkable accident I have no doubt that the child would have recovered completely from her paraplegic symptoms, and that the spinal column would have anchylosed firmly, since it is possible at the time of the opera

tion to remove almost, if not quite, the whole of the diseased portions of bone.

Two other cases were unsuccessful, being only temporarily and partly benefited by operative interference.

CASE III.—W. S., aged 16, had very extensive disease of the dorsal spine, from which he had suffered for a long time. He had had marked paraplegia for six months, and when operated on this was complete. The spinal canal was exposed on three separate occasions within a period of fourteen or fifteen months, and large quantities of tuberculous material and carious bone were removed. On the third occasion large pieces of dead bone, as large as the end of the finger, were taken out of the cavity below the cord. Some benefit was derived from each operation, but the steady and comparatively rapid progress of the disease soon obliterated the advantage gained. He died later from pneumonia, probably complicating influenza, with which his paralysed condition rendered him quite unable to cope successfully

CASE IV.—J. M., a lad, aged 17, gave only a month's history of progressive paraplegia. At the operation the posterior surface of the bodies of three or four dorsal vertebræ were found to be deeply infiltrated by tuberculous material, a quantity of caseous material compressing the cord. He improved after the first operation, but as a relapse of his original symptoms took place, another and a more extensive operation was performed. An abscess was then found in the right side of the chest, and the bodies of the vertebræ were found to be more deeply involved than was suspected at the first exploration. He improved but slightly on this occasion, and soon relapsed. He refused any further active interference, and though the treatment by recumbency was continued he did not improve. I have been unable to find him, as his parents have changed their address, so cannot report as to his present condition.

CASE V.—H. S., a boy, who gave eleven months' history of paraplegia, with more or less incontinence of urine and fæces, was apparently sinking rapidly from pulmonary complications, was operated on in February, 1890. He rapidly lost his paraplegic symptoms and gained in health and strength, his cough also disappearing. He now leads a very active life, having had no recurrence of his paraplegic or spinal symptoms, the tuberculous disease being apparently cured.

CASE VI.—H. M., aged 32, gave about three weeks' history of progressive paraplegia, which, while he was treated by recumbency alone, rapidly became almost, if not quite, complete. He was operated on in May, 1890; an abscess was opened, and much tuberculous material removed. He gained complete power over his legs, and since the operation has had no return of paraplegic symptoms. The spinal disease is apparently cured. He says that it is only after he has walked a considerable distance that he feels any weakness in his back.

CASE VII.—K. B., aged 21, gave more than nine months' history of paraplegia, which had been complete for some considerable time before her admission. She had also a disorganised knee-joint. She was extremely feeble physically. On November 5th, 1890, she was operated on, and in a remarkably short space of time all symptoms of paraplegia had disappeared. The knee was excised on November 30th. Five months after the first operation complete paraplegia and cystitis developed very rapidly, and a second operation was performed. On this occasion a considerable quantity of pus and caseous material was evacuated, when she recovered as rapidly as she had done before. The excised knee did well. I heard from Dr. Bernard Scott, whose patient she was, that she died of influenza about eight months after she left the hospital, and that she had had no recurrence of the paraplegic symptoms, nor had she any trouble in her back or knee.

CASE VIII.—A. T., aged 7, gave six weeks' history of rapidly progressive paraplegia, which became almost complete, sensation being much impaired. He was operated on on February 10th, 1891, a large abscess which compressed the cord anteriorly being opened, cleansed and filled with iodoform. He recovered rapidly and completely, and now leads as active a life as a boy with so marked a deformity can. The angular curve is now apparently firmly anchylosed, and free from disease.

CASE IX.—T. J., aged 23, a very delicate man, had paraplegia five years before admission, and recovered after fifteen months' recumbency. Three months before admission paraplegia steadily returned. He was operated on in July, 1891, when a large abscess extending well into the chest, the walls being formed by bone, was exposed and evacuated. It was obvious that this abscess had existed since the first attack of paraplegia. He has now regained control over his legs, and can walk about, though not for very long distances. He is troubled by a slight purulent discharge from an abscess which formed in the loin, the spinal trouble being in the mid dorsal region. This discomfort will, I hope, be removed during the next few months. He has gained in strength, but has a suspicious condition of the apex of one lung.

CASE X.—E. R., aged 8, a feeble, deformed child, rapidly developed paraplegia which appeared three weeks before the operation, and became almost complete. The spinal canal was opened on May 2nd, 1891, when extensive caries and necrosis of the bodies of two or more vertebræ was found. He soon recovered power over his legs, and led as active a life as his deformity permitted. Recently a sinus has formed in the vicinity of the cicatrix, and some pus discharges daily from it. It improves rapidly under treatment, and will, I have no doubt, close shortly. He has had no return of the paraplegic symptoms.

CASE XI.—W. H. W., a very delicate deformed boy, 7 years of age, gave five weeks' history of paraplegia, which developed more or less suddenly, and was accompanied by imperfect control over the sphincters. He was operated on in April, 1891, when extensive disease of the bodies of two or three vertebræ was found. He recovered rapidly. He now leads an active life, has had no return of the paraplegic symptoms, and the spinal disease is apparently cured.

In the paper which I read before the Clinical Society I urged very strongly the advisability of operating on these cases as early as possible, if a short period of recumbency was not followed by definite improvement. The subsequent career of these cases confirms me still more strongly in this opinion.

I would point out that operative interference is accompanied by slight risk, for out of the eleven cases operated on, in only one was death consequent in any way upon the operation, and considering that these patients were all greatly enfeebled and often very much deformed, their respiratory functions being very much impaired by the angular curvature, frequently also by paralysis of the abdominal and lower intercostal muscles, and occasionally by bronchitis and cystitis, and by other tuberculous lesions, this mortality can hardly be regarded as other than small.

In the large majority of cases the operation not only relieves the patient permanently of the paraplegic symptoms, but it enables the surgeon to remove the large quantity of caseous material, and such carious and necrosed bone as is not uncommonly present. In all but one of my cases a quantity of caseous material with carious bone existed. The surgeon is enabled to treat the scraped bone by suitable antiseptic reagents. By this means the diseased vertebræ are put in a condition most favourable for their recovery and ankylosis. I do not believe for one moment that the spinal disease would have subsided in some of my cases without operative treatment quite apart from the paraplegia resulting from its presence. The pulmonary and vesical symptoms are rapidly relieved by the removal of the paralytic condition, and the general health of the patient is correspondingly improved.

The operation in no way interferes with the treatment by recumbency, the latter being a necessary consequence of the former in order that the spine may anchylose firmly. If a case does not recover with operative treatment and recumbency, it obviously will not recover if treated by recumbency alone. I would point out that one of the cases had, after fifteen months' recumbency, been cured of his paraplegia; but I found on operating on him for a relapse of his symptoms five years afterwards, that the relief of the cord from pressure was due to an extension of the abscess forwards into the chest where it acquired a more or less perfect bony wall and remained latent for five years. The tension within the abscess then increased for some reason or another and paraplegia again developed. On this occasion the abscess cavity which was as large as a tangerine orange was readily and effectually cleared of its contents.

NOTES
ON
CARBOLIC ACID: ITS PHYSIOLOGICAL ACTION AND THERAPEUTIC USE IN TYPHOID FEVER.

BY M. CHARTERIS, M.D.,
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WHEN the research on salicylic acid, natural and artificial, had been completed I was induced to test the physiological action of the three forms of carbolic acid which can now be purchased, namely, ordinary carbolic acid of the *British Pharmacopœia*, pure carbolic acid, and synthetic carbolic acid. The physical characters of these acids will now be noted:

1. Ordinary carbolic acid. In colourless acicular crystals of a peculiar tarry odour. Melting point 33° C.
2. Pure carbolic acid. Rhomboidal, not needle-shaped crystals; free and detached. Melting point 40° C.
3. Synthetic carbolic acid. Well defined separate crystals; little odour. Melting point 42° C.

PHYSIOLOGICAL ACTION.

The physiological action of these acids was tried upon rabbits weighing in each case 3½ lbs. The mode of procedure was to dissolve the acid in water and to inject it into the cellular tissue of the abdomen.

EXPERIMENTS.

1. Ordinary carbolic acid. Eight grains of this injected caused immediate convulsions, and death occurred in thirty minutes. This experiment repeated three times gave in each case a similar result. Four grains injected caused, in the course of a few minutes, convulsions, which continued with diminishing severity for twenty-four hours. The

animal died after the expiry of two days. This experiment repeated twice gave the same result.

2. Pure carbolic acid. Eight grains of this caused no convulsions and no bad results in three cases in which it was injected. In a fourth case disturbances but not death ensued.

3. Synthetic carbolic acid.[1] Eight grains of this occasioned, after the expiry of four minutes, severe convulsions, which lasted for two hours. At the end of this time they became less marked, but the animal remained weak, listless, unable to eat, and death ensued after eight hours. The same quantity tried three times had a similar effect. Four grains injected on different days into two rabbits occasioned slight convulsions, but the animals recovered.

Summary.—The results of these experiments thus showed that an 8-grain injection of pure carbolic acid was innocuous; that an 8-grain injection of synthetic carbolic acid caused death, while a 4-grain injection caused disturbance, but not death; that an 8- and 4-grain injection of ordinary carbolic acid always proved fatal. In all the fatal cases it was observed that convulsions occurred, not continuous, but separated by intervals more or less short, according to the strength of the acid employed. In human beings who have been poisoned by carbolic acid, convulsions do not ensue; those poisoned by large doses sink into a comatose condition, with abolition of sensory and reflex movements, stertorous breathing, and suppression of the urine. If the poisoning be due to absorption of the acid from external applications, the urine is not suppressed, but what is passed has a dark colour, and, on being allowed to stand, becomes black. This colour is due to the presence of hydrochinon, a derivative of phenol. When carbolic acid is purified, this derivative, and doubtless other impurities, are taken away, and in this way may be explained the difference of the physiological action of the pure and impure acid, but it is difficult to explain why synthetic carbolic acid, presumably more pure from its higher melting point, should have more injurious properties than pure carbolic acid.

Action on different Micro-organisms.

Having now ascertained the physiological action of these different forms of carbolic acid, a further inquiry was obviously essential—namely, to determine whether or not the freedom from impurities altered or minimised the antiseptic properties of the pure acid.

In order to obtain a definite, accurate, and impartial verdict upon this crucial point, I requested my friend, Dr. John MacIntyre, Glasgow, to institute a series of experiments with regard to the action of the three forms of carbolic acid on different micro-organisms. In due time he gave me the following report:—

On September 28th, 1890, Professor Charteris sent me three specimens of carbolic acid marked 33° C., 40° C., and 42° C., to test their comparative antiseptic properties. The organisms found in suppurative processes, typhoid, tubercle (Koch's spirillum) were selected for experiments. Two solutions of the strength used in surgical practice were prepared from each of these, and control experiments in every case were made in suitable media for the cultivation of the specific organisms. In the first set of experiments inoculation was made into tubes. In the second, sterilised threads were soaked for different periods in the fluids containing these organisms, and passed into solutions containing the antiseptics, and subsequently placed upon cultivation plates. In every instance the control experiments succeeded proving the vitality of the germ life. The results were such that no difference could be found between the antiseptic properties of the ordinary carbolic acid and the new specimens. In all about 150 experiments were made extending over a period of four months. Weaker solutions were afterwards tried with the same result as in the above mentioned experiments, namely, that the carbolic acid melting at higher temperatures seemed as efficacious as that usually employed in surgery.

Preparation of a Pill of Pure Carbolic Acid, Coated with Keratin.

Dr. MacIntyre's carefully conducted experiments conclusively showed that the purity of carbolic acid in no way impaired its antiseptic action on specific micro-organisms, and the question now to be considered was: Could any benefit be derived from this in the treatment of disease? His laboratory experiments showed that it had controlled the development of the bacillus of typhoid fever, and the literature of this fever evinces the desire of many well known physicians to give an antiseptic remedy, even before its specific micro-organism had been definitely determined. Thus, Liebermeister recommended calomel in the early stage with a view of destroying putrefaction products and so rendering the disease milder and shorter. With a similar object, arsenic, naphthol, hydro-naphthol, sulphides, and free chlorine have been administered. Dr. Gramshaw used with success carbolic acid in a mixture of tincture of iodine, tincture of orange and syrup. The objection to giving carbolic acid in this or any mixture is that it causes vomiting, and I had personal experience of this objection at the Royal Infirmary of Glasgow, when I administered it with glycerine.[2] Theoretically carbolic acid was an excellent remedy, but practically its use was inadvisable, whether on account of its mode of administration, or the impurities it contained, I cannot say.

I resolved, however, to have a pill of pure carbolic acid prepared, and then to coat this with keratin, so that its emetic action would be minimised because solution would not take place until it had passed from the stomach. The preparation of a pill from this acid is very difficult, and consequently those first used at Belvidere Hospital, Glasgow, were not perfect, for they were not stable; but now I am glad to say Mr. Macmillan, of Glasgow, has succeeded in preparing a pill which satisfies all requirements as regards form, stability, non-solubility in a peptic and ready solubility in a pancreatic solution. Each pill contains 2½ grains of pure acid made up with some innocuous powder and covered with keratin. The nature of the pill and the results of the experimental research were made known to Dr. Allan, of Belvidere, and he consented to try them in suitable cases of enteric fever, and on June 15th, 1891, I received the following reports:—

Treatment of Typhoid Fever at Belvidere Hospital by Carbolic Acid Pills.

Dr. Davidson reports: "I have employed them three times daily in cases where the motions were very offensive in odour. In one case I found that after their use the motions became much less offensive, and (what is to my mind more important) much less frequent. This was the more gratifying as the patient suffered from old-standing bronchitis, with much expectoration, and I scrupled to employ opium more than I could help. I had grave fears for her life, but fortunately she is now up and convalescent. I never found the pills to affect the urine to any appreciable extent, nor yet to cause vomiting. In another case there was, on admission, tympanites, a little ascites, and some vomiting; green vomited matter and green motions followed the use of the pills, but not in greater frequency than before their use. Here, again, without the aid of opium at all, I am pleased to record a diminution in the severity of the diarrhœa."

Dr. Tindal reports: "I had three typical cases—two of these were amongst the most severe of my enteric cases. They each had a pill thrice daily. No nausea followed after the exhibition of the pills. One of these cases was a girl, aged 18. She had frequent offensive "chopped vegetable" motions. After the use of the pills, it seemed to the nurse and myself that the motions were not so offensive nor quite so frequent."

The next communication I had from Belvidere was not so satisfactory. The pills were tried by Dr. Love in four cases, and he states, "the pills had no favourable influence on the disease, its course was not shortened, the temperatures were in no way modified."

The statements in this report, contradictory of those obtained in the previous reports, were explained by the fact that the pills used in the first cases had in each 2½ grains of carbolic acid, while in the latter, for convenience in preparing them, the pharmacist had subsequently made them to contain only 1⅛ grain. This difference had unfortunately not been notified when they were delivered at the hospital. In subsequent cases they were ordered to be given four times instead of thrice daily, and Dr. McNaught—a distinguished graduate of the University of Glasgow, and now a surgeon in the Army Medical Service—undertook the treatment of cases on which they were tried. He fulfilled the task with great

[1] In the following experiments Robert Graesser's pure carbolic acid, which has a guaranteed melting point of 40° C., was used. The pills subsequently referred to were made from the same acid.

[2] Dr. Kirk, of Glasgow, in 1887, speaks favourably of the acid in typhoid fever, and in other conditions connected with pyrexia, and in an able and suggestive address at the meeting of the British Medical Association in Glasgow, 1888, Professor Cash spoke as to its antipyretic action, but because "of the dangerous character of the body," he considered its employment inexpedient.

care, gave charts of the temperature in each case, and a daily record of their progress to recovery. I regret that pressure on the space of the BRITISH MEDICAL JOURNAL prevents me publishing all the cases in full or inserting the charts. In all he treated successfully eight cases, and of three of these I shall now give his report.

CASE I.—A. McW., aged 15, admitted January 2nd, 1892. History: Illness began 14 days ago with headache, shivering, and diarrhœa, no abdominal pain. He had been confined to bed for 8 days. Temperature on admission 102.8° F. Notes on admission: Patient was quite intelligent and did not complain of any pain, abdomen somewhat distended, no tenderness over the right iliac region, but slight pain caused by palpating the spleen. Some rose spots observed on abdomen and back. The spleen did not project below the costal arch. The area of dulness extended from the seventh to the eleventh ribs and increased forwards; a sense of resistance was felt on palpating underneath the ribs. Tongue was dry, glazed, and slightly brown in the centre. Heart sounds pure but weak. Urine showed a faint trace of albumen. Carbolic acid pill (1½ grain) four times a day.

January 5th. Bowels have moved twice since admission, motions not characteristic. He had some difficulty in swallowing carbolic pills and to-day was inclined to be sick after taking one. Temperature remits well in morning.

January 8th. Doing well. Morning temperature is now 99° F., but evening temperature is still keeping up. Tongue bare and glazed. No abdominal pain or distension. Bowels are now inclined to be loose. Two motions in the last 24 hours. Pulse 84. Urine very slightly albuminous. He now took the pills more easily.

January 12th. Temperature normal for two evenings.

February 21st. Dismissed well.

CASE II.—W. H., aged 14. Admitted January 12th, 1892. History: Illness began eight days ago with headache and shivering and pain in the abdomen. He was constipated until three days ago when castor oil was given and his bowels have been loose since. He has been confined to bed for four days. Temperature on admission 103.4° F. Notes on admission: Patient was quite intelligent. The abdomen was considerably distended but was neither painful or tender. There were several rose spots on the abdomen, chest, and back. The spleen could be felt projecting slightly beneath the costal arch. He had two motions since admission, one "pea-soupy" in character. Tongue moist with slight white fur. Heart sounds pure. Pulse 108, full, soft, and regular. Some sibilant *rôles* are heard at the base of both lungs, but especially over the right one. Urine slightly albuminous. Carbolic pills (1½ grain) four times a day.

January 15th. Some fresh rose spots noted to-day. Has had characteristic loose motions since admission; tongue remains moist; sleeps well without hypnotics; takes carbolic pills easily.

January 18th. This boy continues to do well. The abdominal tenderness, which was very marked on admission, is now very much less. He has two or three loose motions in the twenty-four hours; at first they were "pea soupy," latterly they have been of a more healthy type. He has no pain, no delusions, and sleeps well. Some fresh spots noticed to-day.

January 23rd. Temperature normal for four mornings.

March 5th. Dismissed well.

CASE III.—M. G., aged 13, admitted December 25th, 1891. History: Illness began four days ago with shivering, headache, sickness, vomiting, and pain in the chest. Bowels were constipated until she had a dose of castor oil, after which they became loose. Temperature on admission 101.2°. Notes on admission: Her face is flushed, eyes clear, abdomen is not distended or painful, spleen cannot be felt, tongue is dry and brown in the centre and at the tip; at the sides it is coated with sordes. Pulse 108.

December 27th. No abdominal tenderness, spleen markedly enlarged, but not below the ribs. She had a loose, enteric-like motion to-day.

December 29th. There is a rose spot noticed in the left umbilical region. She is passing on the average two "pea soupy" stools in the twenty-four hours; tongue brown and dry, thickly furred: pulse 108, small and weak; urine free from albumen; temperature shows distinct morning remissions; to have carbolic pills 1½ grain four times a day.

December 30th. Had a good night, and is progressing favourably. There is a fresh rose spot noticed in the epigastrium to-day, and two fresh ones in the back.

January 1st. Tongue becoming moist; three fresh rose spots; abdomen slightly distended; two loose yellow motions in twenty-four hours.

January 2nd. Two fresh rose spots.

January 6th. Fresh rose spot noticed; temperature normal in morning, 100° in the evening; tongue moist; pulse 96.

January 8th. Evening temperature normal.

January 15th. Pills stopped.

February 10th. Dismissed well.

TREATMENT OF TYPHOID FEVER IN PRIVATE PRACTICE BY CARBOLIC ACID PILLS.

Consideration of the reports from Belvidere justified me in concluding that greater and more decisive benefit might be obtained from their employment in private practice when cases of enteric fever can be treated at an earlier stage of its development than when patients are admitted to a fever hospital, and the disease has taken a complete hold of the system. On my advice Dr. Sloan, of Galashiels, decided to try them in his practice, as he had opportunities for doing this, since typhoid fever in spring and autumn is not uncommon in the district where his lot is cast. At the end of last July he reported that he had treated seven cases successfully, and from these he selected one as evidencing the influence which carbolic acid has in reducing the temperature and in curtailing the progress of the fever.

M. L., female, aged 26. Illness began six days ago with shivering, headache; and on the seventh day of her illness when I saw her I detected some rose-coloured spots on the abdomen, and tenderness was evinced on pressure over the right iliac region. The temperature was 102.5° F. in the morning, and 104.5° in the evening. There was slight diarrhœa. The following day (June 24th) I found the symptoms in no way different, and I ordered her carbolic pills (2½ grains in each) thrice daily.

June 26th. She takes the pills easily, and the evening temperature is now 101° F.

June 27th. Temperature in the morning normal; in the evening 100° F.

June 28th. Temperature normal morning and evening.

The pills were continued for two days, and on July 1st were stopped. She continued to do well until July 10th, when owing to an indiscretion in her diet, the temperature rose to 101° F., and diarrhœa reappeared. The pills were again ordered thrice daily, and in the course of two days the temperature was normal. Yet I considered it advisable to continue their employment for four days afterwards. There was no further increase of the temperature, and she made a satisfactory recovery.

GENERAL CONCLUSIONS.

I am perfectly aware that the record of cases of typhoid fever treated by carbolic acid is not conclusive, yet I think it has sufficiently proved that no danger attends this method of treatment in the doses mentioned, and even the dosage might, if necessary, without peril be increased.

Wisely and timely undertaken, I believe benefit will be derived from its adoption by medical men in general practice, who see the fever at its onset, and consider it inadvisable or impossible to remove the patient to a fever hospital. At the same time the reports from Belvidere Hospital show that in suitable cases, even where the disease is advanced, it will moderate the diarrhœa, sweeten by its antiseptic action the intestinal tract, and check the fœtor of the stools.

There are other internal uses of carbolic acid, and I have elsewhere recommended its employment in cholera as a prophylactic and therapeutic agent, and also stated that it might be tried in diphtheria with advantage and safety in doses of two grains every two hours to control the development of the pathogenetic organism on which this disease depends. Others have advocated its use in flatulency with great distension accompanied by pain. But to enter into details on these points would be extraneous to the scope of this article.

I conclude by saying that this research clearly shows that the pure acid should supplant the objectionable and impure acid at present sanctioned by the *British Pharmacopœia*. Our official melting point is below the standard of any other civilised nation, and doubtless this glaring defect will be altered when another edition of the *Pharmacopœia* is issued. Meanwhile it is the obvious duty of surgeons to see that the pure acid is alone employed in hospital and private practice, and if this be attended to I have little doubt that the untoward results accruing from its use, emphasised by Billroth in 1889, would no longer be observed, and that it would resume its position of unquestioned superiority over other antiseptic agents.

ON PERFORATION OF THE MASTOID PROCESS IN CASES OF ACUTE OTITIS MEDIA DUE TO INFLUENZA.

BY ADAM POLITZER, M.D.,
Professor of Otology in the University of Vienna.

PURULENT inflammation of the middle ear appears to occur with exceptional frequency in connection with influenza, and I am inclined to attribute this fact to direct infection by the passage of pathogenic organisms into the middle ear from the pharynx. The affection is in many cases limited to the lower part of the Eustachian tube, without reaching the cavity of the tympanum. In other instances, however, a catarrhal or suppurative inflammation of the middle ear is observed, which is apt to prove much more dangerous than ordinary cases of acute otitis media.

During the last two epidemics in Vienna the complication of acute middle ear inflammation with the formation of mastoid abscesses was remarkably common, and in a considerable number of these cases perforation of the mastoid process became unavoidable.

Classification of Mastoid Suppurations.

In the normal condition, the mastoid process exhibits considerable variations in its structure. In most cases probably it is made up of cellular spaces, in others it consists entirely of diploetic tissue, while in a third group the air spaces are found combined with diploë, the latter structure constituting the lower and posterior portion of the process, the rest of which is formed of cells. According to my experience the type of mastoid process containing air cells is that in which abscesses most frequently develop. The explanation of this fact is to be found in the facility with which the purulent exudation may be pent up by obstruction of the communication between the cellular spaces of the bone and the mastoid antrum. In ordinary cases of middle ear suppuration, such circumscribed collections in the mastoid process are no doubt frequently reabsorbed, while in the cases under consideration much less tendency to this is observed, probably on account of the destructive effect upon the bony tissue exercised by the pent-up pus infiltrated with the special micro-organisms of the disease. This pronounced destructive influence of the inflammatory exudation in influenza may be recognised upon opening up the abscess in the bone after the morbid process has lasted from a week to a fortnight. The osseous structure limiting the abscess cavity is seen to be softened by caries, and the cavity itself partly filled up with spongy granulations of unhealthy appearance. Besides the class of cases just described, I have met with others in which abscesses of the mastoid process were developed in the diploë. These were most commonly situated quite near the surface as small purulent collections, either discrete or confluent, and had no apparent connection with the antrum. I have rarely observed spontaneous evacuation of such abscesses through the cortical layer of the bone.

Symptoms.

With regard to the symptoms indicating abscess formation in the mastoid, I attribute a particular importance to the following:

a. Spontaneous pain, seldom intermittent, in the mastoid process, with great tenderness on pressure over its middle and lower part.

b. Increased temperature over the same region as compared with the healthy side.

c. As a general rule, no notable cutaneous infiltration is perceptible, but redness and swelling may be observed where external periostitis is present.

d. The occurrence of fever is of special significance. In some cases the temperature is but slightly raised, but it usually reaches 100° or 102° F., though this is seldom exceeded. As in most other inflammatory affections, the greatest febrile exacerbations occur in the evening. In exceptional instances prominent swelling and fluctuation was noticed in connection with discharge of an abscess through the bone externally.

Course of the Affection.

The development of abscesses in the mastoid in many cases occurred together with purulent accumulation in the tympanic cavity, without perforation of the drum membrane. In these, paracentesis of the membrane was required, as well as the opening of the mastoid process. In the majority of cases operated upon, however, perforation of the membrane took place before symptoms of abscess formation became prominent. While the abscess remains an abundant discharge from the ears is present, usually blenorrhœal in character. Sometimes reabsorption of the abscess and spontaneous cure results, as in certain cases of common otitis media. I observed this much more frequently during the last than in the preceding epidemic, a fact pointing probably to the milder form of the latter. As a rule, however, the morbid process continues in spite of rigid antiphlogistic measures, and leads to destructive caries, the arrest of which demands timely operative treatment in order to prevent the occurrence of the most grave complications. There is no doubt that the lateral sinus may also become implicated. In one case, I found upon opening the mastoid process a cavity filled with large granulations and bony detritus, and limited internally by the exposed venous sinus. The abscess cavity ultimately became obliterated by granulation tissue, and complete recovery ensued. In the absence of an operation, the disease would probably have extended so as to involve the intima, and have ended fatally by setting up phlebitis of the sinus and pyæmia.

Treatment.

The treatment of mastoid abscess will be influenced by the duration of the affection, the degree of fever, the intensity of the subjective symptoms, and the general condition of the patient. At an early period, when pain has been present only two or three days, the inflammatory process will sometimes recede by painting over the surface with tincture of iodine, by inunction with unguentum cinereum, or by the application of cold by means of Leiter's apparatus. The effect of these remedies is greatly assisted by washing out the tympanic cavity with a lukewarm solution of sterilised water, or a 1 to 2 per cent. tepid solution of boric acid. With amelioration of the local symptoms, the purulent discharge from the ear also diminishes, and after the employment of these measures for some weeks a cure is obtained.

Operative Treatment.

If, however, the febrile condition, together with the local symptoms just described, should have continued for more than eight days; or, if in more recent cases, active antiphlogistic treatment should afford no relief either in respect of the local symptoms or of the fever, then it will become necessary to resort to the procedure of making an opening in the mastoid process. Immediate interference is indicated in these cases, since not only may extension of the morbid process in the bone involve vital regions, but the operation being, as I believe, in no way dangerous, it may be performed without hesitation.

Description of Operation.

The following is the manner in which it is carried out. The external parts having first been thoroughly cleansed with an antiseptic solution, and anæsthesia having been induced, an incision 4 to 5 centimetres in length, and slightly curved, is made through the skin, half a centimetre behind the attachment of the concha, and reaching almost to the upper limit of the mastoid process. The periosteum is then divided, and separated from the bone with an elevator, so as to expose the middle and lower part of the process. The lips of the incision being now held apart with hooks by an assistant, the cortical layer of the bone is removed to the depth of ½ centimetre to 1 centimetre by means of a gouge 6 millimetres in breadth, which is to be held obliquely to the surface. In the course of the process one comes across the purulent focus, situated sometimes immediately beneath the cortex, sometimes at a depth of ½ centimetre to 1 centimetre only from the surface, and filled up with pus and granulations. In some cases I have found several small abscesses, either isolated or in communication with each other. After having sufficiently enlarged the opening in the bone, the abscess cavity must be scraped out with a sharp spoon so as completely to remove the surrounding softened and infiltrated bony tissue. The procedure is apt to be accompanied by somewhat active hæmorrhage, which may be arrested by plugs of sublimate gauze. In no case operated upon, except one, could I ascertain the existence of any communication between the abscess and the antrum. The abscess cavity should be thoroughly irrigated with a 1 per cent. solution of corrosive sublimate, and afterwards filled with iodoform gauze. Finally, the external incision is to be partly closed by a couple of sutures above and below, and a suitable bandage applied. The latter need not be renewed before six or eight days if the case goes on well.

Results of the Operation.

The beneficial effect of the operation is in most cases shown by a rapid decrease of temperature, which by the next day generally falls to normal, or even lower. The discharge from the ear also becomes notably less in a few days, and disappears with the healing of the cavity, sometimes in a week, sometimes not before a fortnight. In one case only did a case end fatally after operation. This was during the epidemic of 1890, and was of a very severe character from the first. In the most recent epidemic no fatal termination was observed. The length of time necessary for complete cicatrisation depends partly upon the size of the cavity left after the

operation, and partly upon the extent of disintegrated tissue which may, perhaps, remain behind. Under normal circumstances, the wound takes three or four weeks to heal when dressed with iodoform gauze, the cavity filling up with granulation tissue. With a superficial abscess, leaving a shallow cavity in the bone, I consider it advisable at once to bring together the edges of the incision, leaving, however, a small space below for the passage of a thin strip of iodoform gauze. If no suppuration should take place, the lower opening may be allowed to close up after a few days, providing the healing process goes on in a normal manner. With more deeply situated abscesses, its duration may be shortened by the adoption of Gruber's recommendation to insert a suture at a later period.

I wish, in conclusion, to point out the simplicity of the operation, a knowledge of which is of the greatest importance for the surgeon, especially in country practice, where, if danger threatens, immediate interference becomes necessary.

Need for Compulsory Instruction in Otology.

I cannot refrain also from expressing how desirable in my opinion it is that aural surgery should be made an obligatory subject of examination for the student, in order that this branch of medicine should become the common property of all practitioners.

FOUR CASES OF MYXŒDEMA TREATED BY INJECTIONS OF THYROID EXTRACT.

By G. E. HALE, M.B., B.C.CANTAB.,
House-Physician, St. George's Hospital.

HAVING had the opportunity of treating four cases of myxœdema with injections of thyroid extract, in the manner recommended by Dr. George Murray,[1] it seemed that a record of them, at a time when the treatment has been recently under discussion, might be of some value.

CASE I. *Advanced Myxœdema (15 years' standing): Marked Improvement under Treatment.*—Mrs. C. B., aged 43, had been a confirmed sufferer for about fifteen years, and on a previous occasion an in-patient at St. George's Hospital, but no treatment had produced any alleviation of her symptoms. In 1889 she became too weak to leave her room, and had not done so for three years previously to the present admission.

On January 5th, when she became an in-patient for the second time, she was in an extremely advanced stage of the disease. Her physical strength was at such a low ebb that she could hardly walk alone; the senses were blunted, and all movements slowed to a remarkable degree. There was no dropsy. Perspiration had been absent for some time. She had not menstruated for ten years.

She was at first kept in bed, and the treatment was commenced on January 9th, the injections (m xxv) being made weekly into the back. When she got up, she at once resumed the classical habit of gravitating to the fireside. These little journeys at first could only be performed with assistance, and she complained occasionally of a feeling of faintness, not occurring particularly after the injections. By the end of January she could walk about slowly without help, and announced that she felt decidedly better. She was then troubled by œdema of the legs, which continued to appear and subside occasionally during the whole of February. By the end of that month there was a marked improvement in her speech, perspiration became more free, and even profuse after each injection, while she evinced increased vivacity by quarrelling with a fellow-patient about a trifling difference of opinion. Early in March she began to sew, and she thought that her hair was beginning to grow. She regained strength slowly but surely up to the time of her leaving the hospital on March 14th. During her stay the temperature was taken night and morning. It was at first markedly subnormal, but rose very rapidly after the treatment was begun, and then with one trifling exception never varied much from the normal line. Observations unfortunately were not made on the daily quantity of urine passed with regard to diuresis being set up, but when questioned subsequently about this point, she was certain that she had passed more than usual. Since March 14th the patient has come up to the hospital from time to time, and has been injected on each visit. At first she felt weak, was troubled with œdema of the legs and profuse perspiration, and was unable to walk 300 yards to the nearest omnibus, being obliged to take a cab. By April 21st, however, she was much brighter and stronger; she walked as far as the omnibus for the first time, and had ceased to be troubled with swelling of the legs; her aspect was clearer, and had lost much of the heavy look characteristic of the disease; and a profuse crop of new hair was noticed for the first time in parts of the head which had previously been nearly bald. By May 11th she was able to do all her own washing and dusting, and had foresworn the delights of the fireside. By June 1st she had succeeded in scrubbing the floor for the first time for fifteen years; her new hair was still growing in length, her speech had become fairly brisk, but was still below the normal standard. Her strength improved, and she showed signs of a degree of mental acumen and alacrity of movement which had for years been foreign to her nature. The temperature was taken on each visit, and showed a marked fall following the exchange of the comforts of the hospital ward for a far from luxurious home, but it subsequently rose nearly to the normal line.

From June 1st a long interval elapsed before she made her reappearance at the hospital; and at her next visit on August 31st it was obvious that there was a slight deterioration in her condition; her face was duller and slightly puffy, and her bodily strength less than before. She was still able, however, to do most of her household work.

The case shows that a great change was brought about, and this presumably by the treatment. She was at the time of her admission in such a state of physical prostration that one cannot but think that her feeble spark of life would have soon become extinguished, had not some means been found to fan it into fresh vigour; and inasmuch as no decided improvement had taken place during her previous stay in the hospital, one is justified in attributing this to the injections rather than to the nursing and comforts of the ward. As a proof of her changed aspect, it may be mentioned that, whereas she had in January been more than once sent up to the Examination Hall for the purposes of the Conjoint Board examination, the examiners thought that she was not in April a sufficiently marked case. No unpleasant symptoms followed any of the injections in this case. I am indebted to Dr. Whipham for permission to publish these notes.

CASE II. *Myxœdema in Early Stage: Great Improvement.*—Mrs. R., aged 46, had first noticed symptoms of the disease early in 1890. She was admitted into the hospital in January, 1891, when she stated that she had altered so much in face that her friends failed to recognise her. The question of thyroid transplantation was considered and negatived. There was no change in her condition during her stay. Her hair was then beginning to fall off. This patient was not admitted into the hospital for treatment, but attended weekly as an out-patient to have the injections performed. She was, at the commencement of the treatment on April 5th, a well-marked case, whose only peculiarity was that she was subject to profuse perspirations.

After the first injection (m xxv) she had much giddiness and headache for twenty-four hours. By May 15th she felt stronger in the legs, and could use her hands better; and by May 30th there was also distinct improvement noticeable in her aspect; she found that she was able to work better, and that she no longer felt languid and tired, or suffered from aching in her legs as formerly, while her speech was quicker and less nasal in tone. After the injection on that day (made at one spot in the back) she said that she, to a great extent, lost the use of her hands for two days. She was injected on June 14th, but after that an interval of four weeks elapsed, and on July 11th the temperature, which had previously risen from subnormal to normal, had fallen to 97°. She had by this time began to feel the want of the injections, and complained of her hands feeling "woolly," but her gain in strength was evinced by her ability to wash blankets for two days, a feat which before the commencement of the treatment was quite beyond her powers. On July 20th the temperature had once more reached normal. She mentioned again the weakness and pain in the arms following the injection for some hours. Her improvement in speech and in vigour had been sufficiently plain to call for much comment from her fellow servants and her mistress. On August 15th she was still improving although no injection had been given since July 20th. There were numerous new black hairs visible about 1½ inch long, among the old grey hair. She had not noticed any increase in the quantity of urine during the treatment. Although much stronger, she did not think that she was as strong as before the onset of the disease, and volunteered the statement that she was becoming more like a photograph of herself taken at that time.

CASE III. *Myxœdema of Seven Years' Duration: Marked Improvement.*—Mrs. M. B., aged 54, had been a sufferer from myxœdema for seven years, and was once a patient in St. George's Hospital for a few days, but had never derived any permanent benefit from medical treatment. At the time of the commencement of the treatment she was a very well marked case, having much œdema of the face and legs, chilliness, red nose, red patches on either cheek, and her speech so greatly affected as to be unintelligible to strangers, while her weakness incapacitated her from fulfilling her household duties. Her menopause took place in 1887.

The first injection was given on March 16th, and she attended weekly as an out-patient for their repetition. After the first few injections she was troubled for some hours with sensations of faintness and nausea. By April 12th the œdema had almost disappeared, and she noticed that her movements were sharper. No further unpleasant symptoms were complained of as following the injections till May 24th, the injection on that day being followed by pain and swelling at the seat of puncture for nearly a week. Improvement in all respects was slowly taking place during this time. After the injection on May 31st she had frequent fainting fits, while after that on June 7th, which was performed very slowly, she felt "queer," and unable to raise her arms. Since that date she has had the injections less frequently—about one every three weeks. On these occasions m xxv were not all injected at one spot, but one-half of the dose injected on either side of the back, and no unpleasant symptoms have followed any of them. On August 16th she stated that she felt wonderfully well, as strong as before the onset of the disease; that she could now kneel, scrub, shake up beds, and do all her washing; that the services of an interpreter were no longer needed in her shopping; that, though her hands still felt "woolly," she could sew better, and thread a needle without putting on her spectacles; and that she seemed to be growing younger instead of older. No new hair was noticeable, but she thought that her old hair was growing longer. She was also sure that since the employment of injections she had passed more water than before, but the fact of her having attended as an out-patient has precluded any confirmation of this statement. Her aspect at this time is still of the kind diagnostic of the malady, but to a far slighter degree than at the commencement of the treatment. The temperature, formerly below 96°, reached the normal at the end of May, and has rarely fallen

[1] BRITISH MEDICAL JOURNAL, October 10th, 1891.

more than one degree on any subsequent occasion. I am indebted to Dr. Ewart for leave to publish this case.

Case iv. *Myxœdema in Early Stage: Slight Improvement.*—A. N., female, aged 27, had, when admitted as an in-patient in February, shown symptoms of the disease for a year and a-half, but did not present a very characteristic appearance. The treatment was begun early in March, and injections of mxxv were made weekly for three months. The injection on May 30th was followed by pain and swelling at the seat of puncture, and that on June 4th by an abscess, which healed kindly after incision. She then had no treatment for seven weeks. In July, August, and September she underwent another course of injections at the Atkinson Morley Convalescent Hospital. The result may be briefly summarised as follows: No improvement in strength or in appearance has taken place, and she still feels as cold as before, but her speech has become brisker, and her fingers more nimble in the use of the needle, while menstruation has reappeared regularly. According to the patient's account diuresis took place during the treatment, but the phenomenon was not confirmed by observation.

It will thus be seen that improvement—decided in the first three cases, slight in the fourth—followed the adoption of the treatment. The cases have not been long enough under observation to discuss the permanency of the improvement, but at present it seems as if a period of more than three or four weeks' abstention from the injections was sufficient to produce a certain amount of deterioration. In the first and fourth cases the red blood corpuscles were counted before and after the commencement of the treatment, but no appreciable difference was found in the estimations. It is unfortunate that the diuretic properties of the remedy were not known by me in time to permit of the urine being measured daily in the two cases treated as in-patients, but it will have been noticed that three of the four patients asserted that their urine was unusually profuse during the administration of the injections.

The unpleasant symptoms following the injections may be summarised as (1) inflammation which may terminate in abscess, (2) giddiness and headache, (3) faintness, (4) loss of power in the upper extremities. The best method of obviating these has yet to be elucidated; in the above cases no unpleasant symptoms have occurred if the injection has been made at two spots instead of one, but the employment of this method has not been sufficiently tested even in the above cases to more than suggest its further trial. Dr. Murray[2] now recommends that the extract should be sterilised by the pressure of liquefied carbonic acid gas at 40 atmospheres, whereas that used in the above cases was rendered aseptic by the addition of a minute quantity of carbolic acid (about 1 in 600). It will be seen that two of the above patients had been sufferers from the disease for some years, and the fact that both have been greatly relieved tends to disprove Dr. Michell Clarke's theory[3] that the injection treatment must be adopted at a very early stage of the disease to produce any good effects.

The thyroid extract was obtained throughout from Brady and Martin, of Newcastle.

Beyond these few comments the cases speak for themselves, and will help to prove, if proof be necessary, the efficacy of the treatment recommended by Dr. Murray before the British Medical Association.

CASE OF DYSENTERY WITH AMŒBA COLI IN THE STOOLS.

By JOHN HAROLD, L.R.C.P.Lond., M.R.C.S.Eng.,
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The subject of amœbic dysentery has of late been much discussed, and has received a fresh stimulus from the prolonged and comprehensive investigations carried out by Drs. Councilman and Lafleur, of Baltimore.[1] The following case, so far as I am aware, is the first of its kind noted in England in which the amœba coli was detected in the stools.

A. H., aged 27, formerly a soldier, was admitted to Charing Cross Hospital, under the care of Dr. Green, on February 6th, 1892, suffering from chronic dysentery. His past history may be thus briefly summarised. In August, 1886, being then in India, he suffered from ague; two months later, for the first time, he passed bloody and slimy motions. He was but little benefited by treatment. He was stationed from June, 1888, to June, 1889, in Burmah, where the quality of the drinking water was highly unsatisfactory. Here he had an exacerbation of his trouble, but improved under treatment at the military hospital, so that he was able to resume military duty and serve with the Black Mountain Expedition, but he had frequent relapses, chiefly induced by his alcoholic bouts. He was invalided home in September, 1890, since which time his dysenteric trouble has varied in intensity according as he dieted himself and abstained from alcohol.

On coming under observation he complained of tenderness over the liver, which was enlarged, its surface being smooth and regular. The abdomen was sensitive to pressure, especially along the course of the colon. The spleen could not be felt; the thoracic organs were healthy; the tongue was quite clean and shining, typically a "tropical tongue;" the urine, which was repeatedly tested, was always found acid in reaction, of specific gravity from 1010 to 1015, and never contained albumen, sugar, or albumoses, nor did it present any special microscopical characters. The blood was carefully examined, and showed a slight deficiency in the number of red blood discs, and a corresponding decrease of hæmoglobin. The motions were generally preceded by colicky pains, and were very variable in character, frequency, and quantity. They were usually mucoid, very loose, with a varying amount of fæculence, and contained blood, the quantity of which might be large, or merely a streak. At times they looked like mucoid exudation tinged with blood, or slimy, with a sickly odour, or else they presented the appearance and consistence of thin gruel, with here and there a few scattered masses of gelatinoid exudation; they were alkaline in reaction.

The motions were submitted to microscopical examination in the following manner: A little of the motion was taken from the warm bed-pan into which it had been passed and was placed on a warm glass slide placed on a "warm stage;" it was then examined with a ⅓-inch objective. After a careful search amœbæ coli were detected, generally in the gelatinous masses already referred to. They varied in number and somewhat in size—usually being about four or five times the diameter of a blood corpuscle, and exhibited their characteristic movements in all degrees of activity. Their outline was faint and indistinct. At times there was a well-marked progressive movement, but there might only be a simple thrusting forth and retraction of blunt pseudopodia. When it appeared more or less circular in outline, by carefully observing a focussed amœba, its stages of quiescence, pseudopodial protrusion, or rapid change of position or of shape could easily be noted, as also the division of the amœba into ectosarc and endosarc, the pseudopodia being at their first protrusion an entirely homogeneous ectosare, and remaining so until what looked like a sudden rupture of the boundary line of the granular endosarc allowed this to pour into it, and thus effect a change of position. In order to recognise the amœba, it is most important that it should be actively moving, and therefore the temperature of the warm stage must be attended to. Cold has a paralysing effect on the amœbæ, and when passive they are readily overlooked. The activity of the amœbæ is readily made out by watching the varied substances taken up by its protoplasm—granular matter, red blood corpuscles, organisms, etc.

As a human parasite the amœba coli was originally detected by Lambl, but the first satisfactory investigations concerning the amœba were carried out by Lösch. According to Kartulis, of Alexandria, who in 1883 recorded the results of his examination of 150 bodies of persons who died of dysentery in Egypt, the amœba coli is present in all cases of true dysentery, as also in dysenteric abscess of the liver; and so far his results have been confirmed in America, Greece, and Russia. In this connection I have the permission of Dr. Patrick Manson to state that he has detected this parasite in the stools of two patients suffering from dysentery acquired in India, but that he has failed to find it in the pus of three cases of liver abscess in which he made careful search.

I desire to express my best thanks to Dr. Green for kindly permitting me to publish this case.

[2] British Medical Journal, August 27th, 1892.
[3] *Ibid.*
[1] *Johns Hopkins Hospital Reports*, vol. ii, Nos. 7, 8, 9, 1891.

Medical Magistrate.—The Lord Chancellor has appointed H. Dove King, M.D., B.Sc., one of the magistrates for the borough of Sudbury, Suffolk.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

OXY-CHLOROFORMIC ANÆSTHESIA.

Acting upon the assumption that the pronouncement of the Hyderabad Chloroform Commision, relative to the cause of deaths from chloroform, is correct (for it has not been disproved), the thought has occurred to me, that if it is as they say, "invariably" due to an "overdose" and "asphyxia," there must surely be a remedy, and two or three ugly "accidents," fortunately without a fatal termination in either case, have stimulated me to seek one. This, I believe, we have in oxygen. We are told that ordinary chloroform inhalation is always accompanied by a fall of the blood pressure, or slowing of the circulation, which, however, is not dangerous "if" not excessive; we are also told to avoid any kind of interference with the respiration, to watch it carefully, and, should it fail, to have recourse immediately to artificial respiration, so that, practically, we are watching the respiration merely to see it stop, and are then by no means certain that we can resuscitate our patient. Now, to slow the circulation is to at once interfere with the aërating process, and though the system up to a certain point would seem to tolerate it, yet when the limit of stagnation, or tolerance of excess of carbonic acid, is reached, the vagus is paralysed, and we have asphyxia, as much probably from this source as from the chloroform. Be this as it may, a judicious combination of oxygen and chloroform keeps up the blood pressure, maintains regularity of the respiration, and ensures perfect aëration throughout the period of administration; it limits the action of the chloroform to the suspension of consciousness, does away with much of the post-anæsthesial depression, brings about a much more rapid recovery from the anæsthetic, and induces a feeling of confidence unknown under the old system, because, by it the "accidental" element in this connection is eliminated. The combination alluded to is effected by what I may best express as an "oxy-chloroform inhaler," so constructed as to bring the two agents under the perfect control of the manipulator.

Liverpool. Theo. G. H. Nicholson.

CASE OF RECRUDESCENCE IN SCARLET FEVER.[1]

The following case occurred during an outbreak of scarlet fever in this district:—On October 16th, J. K., a girl, aged 8, took ill, complaining chiefly of sore throat. The following day, when I saw her, in addition to an inflamed state of both tonsils and of the soft palate, I found, covering the whole of her chest, a distinctly scarlatinal rash, which extended to her sides, back, and limbs.

Communication with an infected house was proved. Desquamation began on the eighth day, and the case, which, though of a mild character, was undoubtedly one of scarlet fever, ran an ordinary and uncomplicated course. On November 24th—almost six weeks from the onset of the illness—the girl had been allowed into the garden when the weather was damp, with a sudden fall of temperature. The same night sore throat was again complained of, with sickness. The temperature was 100°. Next day I found her very unwell, the temperature 103°, the tongue coated with a white fur, the throat, palate, and naso-pharynx acutely inflamed, swollen submaxillary gland and a very abundant reappearance of the rash over the neck and chest, from which to the remainder of the body, arms, and limbs there was a speedy extension. On the following day (November 26th) the temperature was 104°, the tongue was becoming very red and glazed, with large papillæ, and pain was complained of in the right knee-joint.

On November 27th the morning temperature was 105.2°, the patient restless and ill, but there was no disturbance of cerebral functions. Antipyretics were frequently administered, and the evening record showed a temperature of 102.4°. Next morning the temperature was 101° and the rash fading. From this point there was a gradual and steady improvement, the temperature reaching normal on December 1st. Desquamation began on the sixth day, and was on this occasion much more extensive. There has, thus far, been no albumen in the urine, and no evidence of endocardial change.

Complications of various kinds, even the incidence of a purpuric rash over the extensor surfaces of joints, one has met with during the course of scarlet fever, but I have never before seen a case of complete recrudescence. Where, as in the present instance, a fresh infection was not likely, the probable explanation of such a relapse would seem to be that of Henoch—namely, that the virus had not been completely eliminated by the first attack.

Linlithgow. James Hunter, M.D.

[1] Notes of two somewhat similar cases, together with a very able and exhaustive reference to the literature of the subject by Dr. G. P. Boddie, will be found in vol. x. of the *Transactions* of the Medico-Chirurgical Society, Edinburgh.

COPIOUS WARM ENEMATA AFTER SEVERE HÆMORRHAGE.

I was called lately to a man, aged about 30, with hæmatemesis probably from ulcer, which continued severely for six days and was eventually controlled by hazeline internally, and ice-bladders to the epigastrium. Two days thereafter, the bowels not having been moved for more than a week, I ordered a warm water enema. About a quart was injected, but to my surprise none of it returned. The patient meanwhile expressed himself as feeling stronger after the injection.

I do not know whether copious rectal injections have been used as a means of restoring the circulation after hæmorrhage; but it would seem natural to suppose that in the depleted state of the tissues, the intestinal capillaries, like a dry sponge, might absorb rapidly and effectually, as indeed they appeared to do in the above instance. The description by Dr. E. J. Cave in the British Medical Journal of December 3rd, of a case of hæmorrhage successfully treated by direct intravenous injection has led me to suggest an indirect and simple method.

Strathpeffer Spa. Fortescue Fox, M.D.Lond.

OPERATIONS ON OLD PEOPLE.

The following case is, I think, worth reporting:—

Miss H., aged 87, was the subject of a sprouting epitheliomatous growth on the left cheek, which, as its rate of growth was increasing, I removed by knife and cautery on June 22nd. The wound healed very quickly and there has been up to date (December 12th) no recurrence nor trouble of any kind.

Mrs. B., whose arm I amputated in 1889 (case reported in British Medical Journal, January 25th, 1890), was alive and well this summer, and should be celebrating her 84th birthday in a very short time

Coventry. F. Faulder White, F.R.C.S.

THREE INFECTIVE DISEASES INCUBATIVE AT THE SAME TIME.

I have recently had under my care a child, aged 3½ years, in whom was developed within a week the following infectious diseases in the order named; namely, whooping-cough, chicken-pox, measles. The incubative period of pertussis is stated to be a few days, that of chicken-pox to be variable, and that of measles from seven to ten days, and the point of interest is that three distinct poisons (microbic?) should flourish in one *corpus vile*, and come to full maturity at one and the same time.

Beckenham. J. T. C. Nash, M.B., C.M.Edin.

THE INCUBATION PERIOD OF CHICKEN-POX.

On November 18th Mrs. M., residing at Hampstead, accompanied by her little boy, visited a married sister at Streatham. They stayed at Mrs. O.'s house about three hours. Soon after they left Mrs. O. found that one of her children had red pimples on the body. The doctor who saw the child next day discovered that she was suffering from chicken-pox. Mrs. M.'s child was taken ill with the disease on December 2nd, and the rash appeared on December 3rd.

Although this is only a single case, I think it is worth recording for two reasons: first, it enables us to definitely declare the period of incubation to be fourteen days; and secondly, it proves that chicken-pox is infectious directly the rash appears.

It is only by recording like conditions of infection that we can accurately state the period of incubation of infectious diseases. I would, therefore, suggest that all medical men, under whose notice similar circumstances occur, should send brief particulars of them to the medical journals.

Beckenham. John J. Eyre, M.R.C.P.I., D.P.H.Cantab.

FOREIGN BODY IN THE LUNG.

In the British Medical Journal of November 26th, I have been much interested in perusing two cases of foreign body in lung.

A Case.—My son, then about 17 years of age, being on board-ship, put a piece of teak into his mouth, when it suddenly slipped through the rima glottidis into the right lung, giving rise at the time to much coughing. Afterwards nothing more was thought of the occurrence until he returned to England, when it was diagnosed "abscess pressing upon the right bronchus." No hint was ever given that any foreign body had been swallowed. The case was regarded as the sequel of fever, contracted at Bombay. After occasional attacks of vomiting and coughing, the abscess gave way, and in the fœtid pus was discovered the piece of teak. Upon drawing his attention to it, he then remembered swallowing it when off the Cape of Good Hope, the exact date being fifteen months from the day of entrance to the exit. He now enjoys good health, but, upon catching cold, is apt to manifest signs of bronchial asthma. At the present time he is in command of an ocean steamer, and passes most of his time in a hot climate. In his case nothing but supporting, soothing treatment was resorted to.

Southampton. Spencer T. Smyth, M.D., F.R.C.S.

DISLOCATION OF LOWER JAW IN CHILDREN.

I think these dislocations must be far more common than statistics show. Personally, I have seen and reduced two cases, both in girls, aged respectively 16 and 13 years, and both caused by yawning. Perhaps the dislocation in children is very easily produced and reduced naturally, and therefore rarely seen in hospitals, or brought under the notice of men who compile statistics. It is common to see a mother support the lower jaw of a yawning infant; but, whether she does so by reason of tradition, observation, or instinct, I do not know, but perhaps the fact itself is worthy of note.

Both the cases referred to occurred during the last six months; and I remember that it was not an uncommon experience ten years ago to find, both in adults and children, that the lower jaw became "set" (that is, dislocated), during the extraction of lower teeth, if the jaw was not efficiently supported.

Lorrimore Square. R. Watson Councell, M.R.C.S., L.S.A.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

SIR JAMSETJEE JEJEEBHOY HOSPITAL, BOMBAY.[1]

HYDATIDS OF THE SPLEEN: LARDACEOUS LIVER.

(By Surgeon-Captain F. L. Childe, Second Physician to the Hospital.)

R. N., a woman, aged 38, was admitted on May 2nd for pain in the region of the liver. She was a Goanese by extraction, but born and resident in Bombay. She was married and had one son. She said she had suffered from rheumatism for one year, that she had been troubled with diarrhœa for two months, and that the abdominal pain had lasted four months. She had been in the habit of drinking and smoking much. She was much emaciated; there were a number of small, hard rheumatic osteophytes on the spine and around the glenoid cavity of each scapula; the left coracoid process was large and rough, and the movements of the left shoulder-joint impaired. There were no evidences of syphilis. The tongue was flabby and furred, appetite bad, the motions were diarrhœic, and passed four times a day. The liver was enlarged, its upper level was at the fifth right intercostal space, below it extended to one inch below the last rib, thence across the abdomen to the umbilicus, and then curved gradually upwards towards the left till it came into contact with the spleen. The hepatic notch was easily felt, the surface of the liver was quite smooth and uniform, and its edge distinct; it was only slightly tender on pressure. There was no jaundice.

The spleen was also enlarged, its lower margin reached to two inches below the last rib, upwards splenic dulness extended to the seventh rib; there was no ascites. The respiratory and circulatory systems were normal, but the heart sounds were feeble; the urine was normal. The patient grew weaker daily, the diarrhœa and abdominal pains persisted, and she became very drowsy, with a subnormal temperature. The liver became more tender to pressure, and the patient rapidly sank and died on May 8th.

Post-mortem examination 20 hours after death. Rigor mortis present, but passing off; body emaciated; there were a number of small osteophytes on the spines of the scapulæ and on the edges of the glenoid cavities, and the left coracoid process was large, thick, and irregular. The liver weighed 2,170 grammes, it was large, solid, smooth on the surface, and heavy; its edge sharp, its surface glistening, and light-red in colour. It cut with a clean smooth section; it was dry, containing but little blood and bile, and it was not easily lacerable; the cut surface looked like pale-red wax. On the cut surface the separate lobules could not be made out; there was a little watery bile in the gall bladder. The liver gave the lardaceous reactions readily, particularly well with iodine and iodine green. There was a small part of the edge near the gall bladder which was darker and softer, and looked rather less diseased; otherwise the whole organ was as described above. There were rather firm adhesions of the liver to the spleen and diaphragm. The spleen weighed 1,350 grammes; it was large and bound by old adhesions to the liver and diaphragm. On opening it 20 ounces of hydatid cysts were removed, of various sizes, from a small marble to a large hen's egg; the capsules of the cysts were soft and gelatinous. Their contents resembled semi-fluid jelly, but while some of the cysts were quite clear others had partly caseous partly gelatinous walls and contents. All these cysts were contained in one large mother-cyst, and within the latter there was also a considerable quantity of yellowish-white curdy matter, looking like putty, and having no smell. The spleen was a mere sac; its outer surface and lower margin were one-third of an inch thick and looked like normal spleen; its inner surface was one-eighth inch in thickness, composed of firm fibrous tissue, with small islets of thin splenic tissue scattered through it here and there. The spleen did not give the lardaceous reactions. The intestines were pale, their walls thin, and there was but little blood in their vessels; otherwise they were normal. They did not give the lardaceous reactions. All the other organs were examined. They were all anæmic, otherwise there was nothing specially abnormal about them; in none of them was any lardaceous material discovered.

Remarks.—Hydatid disease is rare in India; indeed, this is the only case which has occurred in the *post-mortem* room of this hospital during the past four years. In *Diseases of India*, by Dr. Norman Chevers, p. 29, it is stated: "The only case with which I am acquainted in which it appears to be shown that hydatid disease originated in the human subject in India is that of a low-caste woman of Bhopal, in whose spleen hydatids were found." The patient whose case is described above stated that she had never been out of the city of Bombay.

[1] Read at a meeting of the Bombay Branch of the British Medical Association.

A CASE OF LAMINECTOMY.

(By Surgeon-Major W. K. Hatch, M.B., F.R.C.S.Eng., Acting Senior Surgeon.)

The patient, a young man, a Sudee, aged about 25 years, was first admitted into the medical wards under Surgeon-Captain Childe, complaining of inability to stand and constipation on July 17th, 1891. A month before admission, while at work on board a ship of which he was fireman, he was struck by the

wheel on the left side of the chest. He fell down unconscious and was taken home. He was treated, and was able to do some work on board for fourteen days, after which he became unable to work. He had suffered from fever ever since the accident. He was well-nourished but unable to walk or stand, and had absolute constipation of ten days' duration; he had control over the bladder. It was found that the fifth dorsal spine was distinctly prominent to the extent of a third of an inch. There was no tenderness complained of on striking it, but girdle pain was felt. Below the level of this vertebra sensation was impaired on both sides down to the feet, but sensibility to heat and cold was perfect. The leg muscles were wasted equally on both sides; the abdominal muscles moved imperfectly, and respiration was chiefly thoracic. The superficial reflexes of the legs and abdomen were normal; the deep reflexes were increased, the knee-jerk being violent; the muscles of the thighs and legs were more irritable than normal, slight tapping producing movements; these muscles were rigid. The patient was unable to move his legs at all, but if the knees were bent for him he could place them further himself. All other systems and the urine were normal. The temperature was at first 98.6°, 99°, 102°, but after quinine it fell.

His condition remained much the same, and in August measurement of the legs showed that no wasting had taken place.

On August 24th it was noticed that the lower limbs were more rigid, clonus much increased, and the muscles tremulous on attempting to bring them into action; he could draw up his leg more than before when flexed for him, but only with great difficulty.

In September the fever returned, his temperature, which was nearly normal in the morning, going up as high as 103° and 104° in the evening; no drugs had any marked effect on the temperature.

On October 21st he was transferred to my wards; his condition was much as described. Although fairly nourished his complexion was dull and earthy, and the temperature continued to rise every evening as before. I kept him under observation for some time, but there was no change in his condition.

On December 1st he was chloroformed, and in the presence of Dr. Banks, Dr. Childe, and others, I made a vertical incision over the prominent position of the dorsal region; the laminæ of the fifth and sixth vertebræ were exposed, cleared of soft parts, and by means of a saw and chisel they were removed; the cord was brought to view, and a prominence could be felt through it on its anterior surface, and the cord seemed rather curtailed; it did not look wasted or in any way abnormal. Next day he had a good deal of pain in the back, and his temperature rose slightly. He died on December 7th. No change in his condition was apparent as the result of the operation.

NECROPSY.—I am indebted to Dr. Childe for the *post-mortem* notes. The kidneys were large and pale, both full of abscesses, especially in the calix; the surfaces were studded with small yellowish spots varying from a pin head to No. 3 shot; these were small abscesses, and were found to lead down along the tubes, so that on section there were yellow lines of pus. There were one or two larger abscesses the size of a two-anna piece, quite on the surface. The lower portion of the ileum showed a dark patch of ulceration, shallow and apparently of a chronic nature. Similar ulcers were present at flexure of colon and rectum. The body of the fifth dorsal vertebra was broken right across, and a wedge-shaped piece had been separated and remained attached to the fourth intervertebral disc. The fracture extended into the pedicles and adjoining parts of the laminæ of the fifth vertebra, chiefly on the left side. Here an abscess cavity was found on the left side of the fifth and sixth dorsal vertebræ, the size of a pigeon's egg; it surrounded the fractured laminæ and pedicle of the fifth dorsal as well as those of the sixth; it contained curdy pus. Pus was present in the body of the fifth vertebra, near the wedge-piece mentioned before. In front of the spine there was a long abscess from the first dorsal vertebra to the middle of the tenth; all the bodies of the vertebræ implicated by this abscess were carious, having a worm-eaten appearance, and the abscess contained pus of a curdy character; this abscess was in connection with the small one first described. These appearances were not evident until the cord had been removed. Thus the operation failed to show the extremely diseased state of the parts. The temperature was the only symptom which, combined with the appearance of the patient, suggested suppuration, but nothing was visible externally. There is no doubt that most of the symptoms present were due to pyæmia.

GENERAL HOSPITAL, NOTTINGHAM.

TWO CASES OF OPERATION ON THE TONGUE AND JAW.

(By A. R. ANDERSON, F.R.C.S., Surgeon to the Hospital.)

THE report of the following cases, which have recently been under my care in the hospital, may prove of interest in connection with the communication on submaxillary cancer by Professor Ogston, which appeared in the BRITISH MEDICAL JOURNAL of December 3rd. The patients were shown at a meeting of the Nottingham Medico-Chirurgical Society on December 7th.

CASE I. *Extensive Epithelioma involving the Symphysis of the Lower Jaw, the Floor of the Mouth, the Tongue, and Submaxillary Lymphatic Glands.*—W. W., aged 68, stated that he first noticed a growth on the gum of the lower jaw some five or six months before his admission. He at first took but little notice of it, but as it had been rapidly growing larger, and causing him pain and interfering with speech and taking food, he came to the hospital. On admission, an epitheliomatous growth the size of an egg was found attached to the gum and lower jaw in the middle line, extending on either side as far as the second bicuspid tooth. On either side of the frenum the disease had invaded the floor of the mouth to a considerable extent, and a hard nodule existed in the substance of the anterior half of the tongue, as well as an epitheliomatous ulcer on the under surface near the tip. There was much pain and salivation and general distress; the patient was anxious to have an operation performed. There was enlargement of the glands in the submaxillary region. On August 12th, 1892, I performed the following operation. The lingual artery was first tied on each side under the hyoglossus, and these wounds closed. The lower lip was then divided in the middle line, the incision being carried down as far as the lower border of the symphysis of the jaw. From this point an incision was carried outwards on either side along the edge of the ramus of the jaw to a point rather beyond the angle of the mouth, and the flaps thus formed being freely dissected up, the growth was by this means completely exposed. The lower jaw was then sawn through on each side well below the growth, at the level of the first molar teeth on each side, the muscular attachments divided, and the bone removed. There was free oozing of blood at this time, which was prevented from getting into the throat by packing with sponges. The pressure of sponges and the ligature of a few vessels having checked this, the whole of the disease in the floor of the mouth could be thoroughly inspected and dealt with. The affected tissues in the floor of the mouth were then freely excised, including mucous membrane, the tongue muscles, and enlarged lymphatic glands; and, lastly, the tongue was dissected up and removed just in front of the epiglottis. There was little or no bleeding during the later steps of the operation. The lip was sutured and a dry dressing applied. All the wounds healed by first intention, and gave no trouble. For a few days after the operation he was fed by means of a stomach tube. He left the hospital at the end of three weeks with the parts soundly healed.

CASE II. *Epithelioma of the Left Ramus of the Lower Jaw, Left Side of the Tongue, and Floor of the Mouth.*—G. R., aged 62, had for four months been complaining of a swelling of the left side of the mouth, with pain, fetor, difficulty in swallowing and in speaking. On admission, the left side of the tongue was found hard and thickened nearly as far back as the epiglottis. At the root of it, on the left side, was a typical epitheliomatous ulcer. The whole of the floor of the mouth on the left side was involved in the disease, as were also the gum and the inner surface of the ramus of the jaw. No enlarged glands could be felt. The right side of the tongue was not apparently involved, and the right side of the floor of the mouth was certainly free from the disease. On October 13th, 1892, an operation was performed. The left lingual artery was first tied and then an incision was made in the middle line through the lower lip and along the horizontal ramus of the jaw on the left side as far as the angle. The facial artery was at this point cut through and ligatured. The mucous membrane was then dissected off the left half of the jaw and the flap turned up. The ramus was sawn through at the symphysis and again at the angle, and removed. The remainder of the diseased parts being now well exposed, the disease in the floor of the mouth was freely cut away with scissors, and finally the whole tongue was removed with the *écraseur* as far back as the epiglottis. The bleeding during the operation was insignificant, and this was especially noticeable whilst dealing with the floor of the mouth. He made a good recovery, and left the hospital with the parts soundly healed at the end of some weeks.

The above cases exemplified in a striking manner, first, the practical utility of ligaturing the lingual arteries as a preliminary to extensive operations on the tongue; and, secondly, the advantage of making a sufficiently free external incision to completely expose the whole of the disease. The only bleeding of any moment occurred when the bone was being removed. Although the parts forming the floor of the mouth were freely excised (as were also the structures between the jaw and the hyoid bone in Case I), the remainder of these operations was carried out with the most trifling loss of blood, enabling one to distinguish clearly between diseased and sound tissues, instead of having, as is often the case, to

practically work in the dark on account of the continuous and copious oozing of blood which obscures everything. The free external incision further helped me, by the sufficient exposure of the parts, to see clearly what I was doing during the various steps of the operation, and thus to remove the whole of the disease with precision and certainty, while it had the further advantage of allowing the free escape of any hæmorrhage which took place, and diminished the risk of its getting into the patient's pharynx or trachea. The extent of the external incision is really a matter of small moment, as the tissues of the lips and face heal so readily and well, that there is very little deformity left from extensive wounds.

With respect to Case I, a point deserving attention is the state of the patient with respect to deglutition. With the removal of practically the whole of the factors concerned in its voluntary stage, one would expect him to have considerable difficulty in taking food. He has some, but not nearly so much as might be supposed. Thus he can swallow easily and well all fluid and pulpy food, but in swallowing a solid bolus he has to push it to the back of his mouth with his finger. He is in good health, and can talk so as to be easily understood. There is but little external deformity, and he is free from the disease for which the operation was performed. Case II made a speedy recovery, and can swallow and speak well. The absence of any enlargement of the lymphatic glands was remarkable considering the superficial extent of the disease, this absence being demonstrated during the operation; although the submaxillary triangle was freely opened up, and a search was made for them at the time, none were found. This patient has grown a beard since the operation, and the deformity can scarcely be noticed.

REPORTS OF SOCIETIES.

HUNTERIAN SOCIETY.

Pathological Evening.

F. Gordon Brown, M.R.C.S., President, in the Chair.

Wednesday, December 14th, 1892.

Influence of Protozoa in certain Diseased Conditions.

Dr. James Galloway presented a communication on this subject. The general term "protozoa" was preferred, as certain of the parasitic forms were of doubtful classification. The well-known psorospermic disease of young rabbits was taken as the basis, and the main symptoms of this affection described. The main stages in the development of the parasite (Coccidium oviforme, Leuckart) were then described. The method by which the parasite gained access to the cell was suggested to be by movements on the part of the invading organism, either alone or possibly aided by movements on the part of the epithelial cell itself. The stage of development undergone outside the body was said to be of great importance in reference to the infectious rather than contagious character of the disease. The close resemblance of the growths observed in the organs of the host to adenomatous tumours was shown. Coccidial infection in the human subject was alluded to. The question of protozoa occurring as parasites in malignant tumours in the human subject was then considered, and many forms of epithelial cell inclusions which had been described as parasites were arranged roughly as follows: (1) The invagination of one epithelial cell within another; (2) the occurrence of invading leucocytes within epithelial cells; (3) the endogenous formation of cells, possibly by direct division of the nucleus without division of the cell body, or more probably by asymmetrical karyomitosis of the cell nucleus, giving rise to several masses of chromatin bodies within one cell wall; (4) the various forms of degeneration of the cell body or its nucleus, such as the colloid, etc. Many of the so-called parasites were caused by one or other of these processes. Certain other cell inclusions had been described by some observers abroad and by Dr. Ruffer and Mr. Walker in this country. Dr. Galloway confirmed in almost every particular the appearances described by these authors. The occurrence of the inclusions within the cell body, occasionally also within the nucleus itself; the structure of the inclusions, consisting in the adult condition of a very distinct capsule enclosing one or more very obvious, brightly staining bodies; the radial striations passing from the periphery towards the centre; the variations in size indicating various stages of growth; the completely distinct staining reactions shown by the inclusions when compared with the nuclear chromatin of the epithelial cells and its degeneration products, were mentioned as clearly differentiating these bodies from any form of cell degeneration, and guiding to the conclusion that, in our present state of knowledge, these inclusions must be regarded as parasitic protozoa, probably having very distinct effects on the epithelial cell growth, and possibly even on the causation of the malignant tumours in which they had been found. The demonstration was illustrated by drawings, by the use of the lantern, and by microscopic preparations.

Dr. Ruffer expressed his entire agreement with Dr. Galloway's conclusions, and added some account of his investigations into the development of the parasites. Contrary to his first belief, he could now, with more perfect methods, see the intranuclear form of the parasites in every specimen of cancer he examined. It first appeared as a little round body staining by hæmatoxylin, which approached the periphery of the nucleus, and then escaped and lay free in the protoplasm of the cell. There might be one or many of these bodies, and in some cases the nucleus actually burst. He knew of nothing in human pathology which would correspond to this, unless it were a parasite. He had been able to see the living parasite in fresh juice scraped from a rapidly growing cancer of the breast, placed in normal physiological fluid on the stage. It looked just like an amœba enclosed in a capsule, putting out pseudopodia to the periphery and with drawing them. As to the part these bodies played in cancer, he could only say that there was no reason against the supposition that some of them might be the actual cause of cancer. A nucleus containing the parasite was hardly ever to be seen dividing; but where cells were dividing the parasite was found near. His suggestion was that the bodies produced karyokinesis in the cells around, and thus caused the cancer growth.

Fibroid Degeneration.

Dr. Arnold Chaplin showed specimens of fibroid induration of the lungs.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

R. C. Chicken, F.R.C.S., President, in the Chair.

Wednesday, December 14th, 1892.

Cases and Specimens.

Mr. Anderson: (1) A boy, aged 10, upon whom he had successfully operated for Double Osseous Anchylosis of Hip, giving a free and fairly firm joint on both sides; (2) A man, aged 45, upon whom he had operated for Empyema with Multiple Sinuses, with complete success.—Dr. Hunter showed the Fœtus and Membranes from a case of Tubal Pregnancy rupturing at the end of the second month, in which Dr. Elder had performed abdominal section. Ten days had elapsed since the operation, and the woman was recovering without a bad symptom.—Dr. Handford showed specimens of Multiple Miliary Aneurysms from the Brain of a man, aged 60, who was first attacked with right hemiplegia. The one-sided paralysis, after a few hours' duration, spread to the other side, and the man rapidly succumbed in a state of coma. The aneurysms were from 20 to 30 in number, and from $\frac{1}{20}$ to $\frac{1}{10}$ inch in diameter.—Dr. Sykes Ward showed a specimen of Acephalous Monster (female, weighing 9 lbs.), which he had delivered with some difficulty by turning.—Dr. William B. Ransom showed a Spleen, some 6 inches in diameter, removed from a patient, aged 17, who had died in the third week of typhoid. The cystic cavity was filled with bile-like fluid, and its walls showed the splenic trabeculæ dissected out.—Mr. Anderson showed a Uterine Fibroid, weighing many pounds, which he had successfully removed.

Myxœdema.

Dr. Hunter read a paper upon myxœdema, and advocated the injection of thyroid extract. After discussing the usual symptoms and course of the disease, he described several cases in which this treatment had been adopted with complete success. He laid stress upon the necessity of a slow injection of the juice.

Dr. William Ransom recommended the ingestion of raw

thyroid tissue. He stated that he had unsuccessfully applied the thyroid treatment in a case of exophthalmic goître.

Dr. Handford advised the slight cooking of the gland tissue, and gave an account of a case recently under his own care, in which every other line of treatment had been tried without benefit.

Mr. Wood (Ilkeston) gave a further history of the same case.

Tuberculous Tendo-vaginitis.

Mr. Anderson read a paper on this condition. In describing tubercle in tendon sheaths, he stated that its behaviour in them was practically the same as in joints. He advocated early operation by scraping, and free drainage, with antiseptic precautions.

The President said the removal of tuberculous tissue from surfaces to which it was adherent, by scraping, had been very generally attended with the best results.

MANCHESTER PATHOLOGICAL SOCIETY.

Judson S. Bury, M.D., President, in the Chair.

Wednesday, December 14th, 1892.

Self-inflicted Injury of the Skull.

Mr. F. H. W. Cottam exhibited a skull showing an aperture through the bone 2½ inches long, and seven-eighths of an inch broad, situated in the upper frontal region close to the middle line. The patient had been an inmate of the County Asylum, Prestwich, and had inflicted the above injury on himself with a carpenter's axe. Death occurred twenty-four days later, after the formation of a cerebral abscess.

Primary Malignant Disease of the Pleura.

Dr. Thomas Harris showed specimens from two cases microscopically; one growth presented the characters of a squamous-celled epithelioma; the other was a cylinder cell type. He said that, although he felt that recent embryological researches and also much of our pathological knowledge might be against the view of primary epithelial malignant tumours arising in tissues developed from the mesoblast, he held that, occasionally, though certainly rarely, such tissues did give rise to growths of this character.

Suffocation from Tuberculous Bronchial Gland.

Mr. J. W. Smith showed the preparation from a case in which suffocation had resulted from ulceration of a suppurating bronchial gland into the right bronchus. The patient, a girl, aged 3 years, who was supposed to be choking from a piece of toffee, was brought to the Manchester Royal Infirmary in a moribund condition. Tracheotomy and artificial respiration were performed without success. At the necropsy, an oval ulcer, with ragged edges, was found on the outer and posterior wall of the right bronchus. It communicated with the cavity of a caseous and suppurating gland. The smaller bronchi contained the purulent *débris* of the gland and a flocculous slough, the size of a horse bean, lay at the bifurcation of the trachea. Caseous nodules were scattered throughout both lungs.

Acute Myelitis Simulating Hæmatomyelia.

Dr. Williamson showed sections of the cord from a case which had been under the care of Dr. Steell. On the day of the onset of the symptoms, the patient got up feeling quite well, but while drawing up the window blinds found herself suddenly unable to raise her arms. An hour later both her legs became paralysed. On admission to hospital there was also paralysis of the intercostals, with bladder and rectal symptoms; analgesia and thermo-anæsthesia on the left side below the seventh rib, and hyperæsthesia on the right side. Death occurred in forty-two days. Examination of the cord revealed myelitis affecting chiefly the grey matter of the lower cervical and upper dorsal regions. The left posterior horns were much more affected than the right. There was not a trace of hæmorrhage at any part.

New Children's Hospital.—The municipal authorities of Riga have decided to apply half the legacy of £40,000 left for charitable purposes by Mr. James Armitstead, formerly a merchant in that city, in building a hospital for children. The hospital is to contain 98 beds, but will probably soon be enlarged.

REVIEWS.

The Diagnosis of the Diseases of the Heart and Thoracic Aorta. By A. Ernest Sansom, M.D., F.R.C.P. London: Griffin and Co. 1892.

In the volume before us Dr. Sansom has summed up the results of a long and diligent study of the subject of which it treats. The author has been honourably known for many years as a sound and careful student of diseases of the heart and great vessels. If the book be not a brilliant book, it may be the more trustworthy; and in our reading of it we find the common knowledge of the best clinicians of the day compactly and systematically set forth, and tempered by the judgment of an observer whose industry and experience give great weight and interest to his treatment of the various problems which he has undertaken to discuss. Dr. Sansom's treatise is divided into three parts. The first part deals with "Rational Diagnosis," under which head the immediate symptoms of heart diseases and the records of previous influences upon the patient are set forth; the second part deals with physical diagnosis in its various means and modifications; and the third part with diagnosis by sphygmograph and cardiograph.

Heart diseases are not treated as symptom groups therefore, but the means of diagnosis form the heads of the chapters, and the symptom groups, or several diseases themselves, are broken up in subordination to this plan. For example, a reader desiring to study the malady of mitral stenosis, or the like, would have to search under a large number of heads for the information, which he would then have to put together; a part of his subject would be found among the subjective symptoms, a part under the "previous history," parts under inspection, palpation, percussion, cardiography, and so on. This, of course, is inevitable if Dr. Sansom's plan be used, and no doubt the author carefully considered his plan before adopting it, and he is the best judge of its fitness for his purpose. The book thus becomes a work of reference on physical diagnosis, and lends itself less to continuous perusal. The advanced student will find it, in the first two parts at any rate, an excellent bedside companion, being plain, reasonable, and well informed.

Of the third part we shall have to speak with more qualified approval. A "schema" prefixed to the volume might with advantage have been set out on the plan of the several diseases, with complete references to the pages; thus a full table of contents would have given a conspectus of the volume as it stands, while the "schema" would have given a conspectus of the symptom groups; in any case, there should have been a much better index. As instances of some difficulty in using the book as it is arranged, we will take the subject of the specific gravity of the blood, which is an important factor in the dynamics of the circulation; this may be discussed somewhere in the book, but the word "blood" does not appear at all in the index, nor is this matter referred to in the "schema;" again, the part played by diphtheria as an antecedent of cardiac disease, may or may not have received sufficient attention. Dr. Sansom's purpose is to discuss minutely the means of diagnosis, not to give pictures of morbid states; these must be sought elsewhere. In the hands of inexperienced persons there is a danger in this method, lest diseases, primarily cardiac, which are overshadowed by accumulated arrears in the liver, lungs, and so forth, should be misinterpreted, and their treatment miss the mark.

The parts of the book which deal with symptoms and ordinary signs we shall quickly pass over; there are many points we had marked for comment. Among such points are, for example, the scarcely qualified assertion on page 149 that dicrotism of the pulse is an "indication of low arterial tensions," whereas distal resistance may cause recoil to increase under conditions of high pressure. Moreover, as the tracings 1 and 2, Fig. 112, show, an inertia wave such as the dicrotic must, *cæteris paribus*, be increased by rigidity of the arterial wall. On the other hand, many of the author's opinions may be accepted cordially, as, for instance, much that he says on the practical aspect of ventricular synchronisms. Concerning other disputed points of clinical observa-

tion, whether we agree with the author or not, he satisfies us that he has at least good grounds for his opinion. For example, in respect of the direct auriculo-ventricular murmur, Dr. Dickinson may be wrong, but we think he is not yet by any means proved to be wrong. All the sections on this branch of diagnosis are pointed, compact, and comprehensive, and none the worse if they challenge dissent here and there. Many useful diagrams are inserted in the volume.

This judgment we express the more willingly and the more clearly because on the third, or cardiographic, part of the work, upon which ground the author calls more especially for the reader's approval, a wholly favourable verdict cannot be pronounced with the same confidence. In his preface Dr. Sansom lays great stress upon the value of cardiographic and sphygmographic records; he speaks of his earnest desire thus to inculcate precision, and of his regret that many observers have discouraged the use of instruments for these purposes. The semblance of precision without the reality is, however, dangerous, and this danger besets an author almost more than a reader who has no paternal regard for the work produced. When, therefore, we are called to admire certain records for their especial accuracy and precision, we are entitled, nay we are bound, to apply to them very rigorous tests. Now not only does Dr. Sansom publish many bad tracings of his own, both of pulse and heart movements, but also many as bad or worse of other observers; not only so, but he writes up to these bad curves, and is thus often misled; for instance, the vibrations, called arterial in the curve Fig. 113, p. 449, are inertia vibrations of the recording lever, not physiological at all. The same is true of the cardiographic tracings p. 521, Fig. 155, and p. 522, Fig. 156. Granting there is such a thing as *the* normal pulse tracing (p. 404), we must protest that the series of tracings given from Landois and Stirling are technically defective. The set of curves on page 442 are bad, and, as "types," misleading. To get good curves two things are required, first a sensitive instrument, and secondly a sensitive manipulator. Many of the tracings printed in Part III are clearly failures of the instrument; perhaps under the circumstances of the cases no instrument could have taken a finely-articulated curve.

The third tracing given on page 429 is amorphous, and the two first, on p. 430, prove no more than this—that the finer movements of the pulse were beyond the powers of the instrument to delineate. Of what possible use is the row of structureless bumps here recorded? When, as in Fig. 3, the artery has re-expanded, the instrument is once more able to follow the undulations. In discussing the phenomena of angina, it must be remembered that pain in itself may cause a rise of blood pressure. The discussion on the pathology of angina and that on the cause of "low arterial tension" indicate that the author has not firmly grasped recent pathological or clinical facts. Even in cases where the coronary arteries are not diseased, constriction may and does occur in them, as in other areas; and, if the coronaries be diseased, constriction in other areas throws additional labour upon the heart, uncompensated by a larger access of blood to its tissues. We may point out that sudden death in angina is illustrated by the mode of death produced in a dog by ligature of a large coronary branch.

Besides the delicacy of the instrument, we have to value the personal equation of the observer. We hasten, however, to add that the curves, presumably Dr. Sansom's, on pp. 466-7; p. 550, Fig. 176; p. 491, Fig. 132; p. 513, Fig. 144, and others, are good.

We need not stay to insist on the importance of a competent interpretation of good tracings when obtained. On page 450, curve A is said to indicate the last stages of a failing heart; now curve A, taken by itself, may be interpreted to mean dilated arteries and good contraction volume of the heart. The patient's febrile temperature, which should have been accurately recorded as a vasodilator cause, is not so much as mentioned. Again, no proper interpretation of pulse tracings can be made without the value of the abscissæ being given, and also the rate of clockwork, in which no two instruments agree. Of these in no case (save dubiously Fig. 134) is any record given. Moreover, in curves of venous pulses, such as Fig. 170, interpretations without the time relations with the heart beat is impossible, as Dr. Mackenzie, of Burnley, has fully explained.[1] In important tracings a line should be given at the commencement, with the paper at rest, especially in such as those on page 411, where the obliquity of the ascending line must be of extreme importance if verified as cardiac and not instrumental. Broadening of the wave top probably is due to lengthening of the period of systolic outflow from the left ventricle. As regards pressure, however skilful the manipulator, the fingers on the radial artery are the best test, and the verbal description of the pulse less misleading than instrumental records which profess to rate pressures in curves made without a manometer. It is unfortunate that Dr. Sansom should still use the loose expression "prolonged arterial tension." By it he seems generally to mean high medium arterial pressure, which may be present whether the pulse wave be high or low, and the artery distended or contracted. Tension of the wall must vary with the circumference of the vessel. If the pressure in the left ventricle rise towards the end of a period of outflow, we see an anacrotic wave, but like notches may be due simply to manipulations of the recording instrument.

On page 421 it is said somewhat absolutely that anæmia is always attended by high arterial pressure unless the heart be degenerate. This is true, no doubt, of some kinds of anæmia, such as chlorosis, which, however, may be cases, not only of defective, but also of poisoned blood, and it may be true of bulky hydræmia. But in anæmia proper—and mere anæmia can be produced at will by sufficient blood-letting—the blood pressure is low. Figs. 108 and 109 show good pulses of low arterial pressure with arterioles distended over largish areas. In the former there is large contraction volume of the left ventricle; in the latter a smaller volume. Dr. Sansom fails to note (p. 472) that irregularity in time is always accompanied by inequality of volume. On the previous page the observations quoted from Dr. Gaskell do not apply to the mammalian heart, and afford no support to the doubtful theory for which they are invoked. The section on slow and rapid pulse (p. 457) must be rewritten in the light of Roy and Adami's latest researches,[1] and Professor Roy's view that in Graves's disease there is excitation of the vasodilators of the coronary arteries, as well as of the thyroidal parts of the head, is unnoticed; yet this is the most probable explanation of the cardiac symptoms.

Dr. Sansom's book is an important one, and in many ways valuable and creditable to the author. He, however, introduces the chapters on recording instruments with some emphasis and no little demand upon our attention. It is for these reasons that we have felt it to be our duty to apply to them a more searching criticism and to require of them that scientific accuracy to which they themselves lay claim. Dr. Sansom seems to have no knowledge of the work of German writers, but a more careful study of the work of Roy and Adami, to whom we are indebted for improved graphic methods and for much of our recent knowledge, should have rectified his opinions on the subjects of which he has treated. With these reservations, which, however, bear chiefly upon the third part, we cordially recommend Dr. Sansom's treatise, and, had our space permitted, we would gladly have extended our quotations in justification of our approval.

[1] *Jour. of Path. and Bact.*, May, 1892.

Textbook of the Eruptive and Continued Fevers. By John William Moore, M.D., F.R.C.P.I. Dublin: Fannin and Co. 1892.

While the importance of a thorough acquaintance with the symptoms and causes of the eruptive and continued fevers has always been recognised in theory, it has now been admitted that owing to a combination of causes their study has been rather allowed to fall into the background in the regular medical curriculum. The recognition of this fact led to the adoption of a resolution by the General Medical Council in 1890, to the effect that clinical instruction in infectious diseases ought to form a part of the educational course of every medical student. Dr. J. W. Moore quotes this resolution in the preface to the volume now before us, which is designed to serve as a handbook for the use of students and practitioners. Dr. Moore is well qualified for his task, and the main fault we shall have to find with him is that he has, in some cases, not

[1] *Vide Practitioner*, February-July, 1890; Brit. Med. Journ., December 15th, 1888, and elsewhere. Their paper in the *Phil. Trans.* for 1892 was published after Dr. Sansom's work was in the press.

relied with sufficient boldness on his own clinical experience.

The book is divided into three parts: the first is introductory; the second treats of the eruptive fevers—small-pox, chicken-pox, measles, scarlet fever, rötheln, and erysipelas; the third, and much the longest, occupying more than half the volume, deals with the continued fevers—febricula, typhus fever, relapsing fever, and enteric fever. In his method of dealing with each fever, Dr. Moore follows the order usually adopted, treating first of etiology, then of symptomatology, diagnosis, prognosis, morbid anatomy, and finally of treatment. Due prominence is given to bacteriology, and we are glad to note that the author appears, as a rule at least, to have gone to the original authorities for his descriptions.

Dr. Moore, in his introduction, deals with the "intimate nature of fever," a subject which in the present state of knowledge cannot be satisfactorily represented; but the student will find the various theories and definitions of fever admirably summarised. It would be interesting to consider these at some length, but space forbids. We shall be content with one observation. The word "fever" has been used vaguely in two distinct senses. In one sense it is used to denote a disease the severity of which is not in proportion to the increased temperature; in another as a symptom the severity of which may be measured by the thermometer. In Chapters II and III there are excellent observations on the intimate nature of contagious and micro-parasitic diseases together with clear definitions of certain terms employed in specific infectious disease, but at the end of Chapter II there is a table containing statements which are open to criticism. From this table it appears that no small-pox patient need be isolated after the scabs have fallen. To this we should have added "and the scales," because after the scab has fallen a desquamation continues for some time on its site, and it has not been proved that these scales may not be dangerous. The isolation period of measles is said to be four weeks, which in the milder cases may be sufficient, but in the very severe forms we should think a longer period necessary, ranging according to the nature of the case. For scarlet fever a period of from six weeks to two months is recommended; but it would have been well to point out that some authorities believe that scarlet fever varies so much, that some mild cases might be considered free of danger to others in from two to three weeks, while severe cases might be a danger up to the end of the sixth month. If we confine ourselves to hospital cases, taken from the poor of our larger towns, we think few cases will be fit for discharge before the end of the second month. Some years ago an inquiry made into the duration of residence in hospital of scarlet fever patients consisting of the poor of a large town, showed that, excluding fatal cases, the duration varied from about eight to eleven weeks in five successive years.

It would appear, then, that each case should be treated on its own merits, and the patient discharged when desquamation is complete. Of incubation periods we have something to learn, and we do not suppose Dr. Moore means to be quite precise in his number of days, but we take exception to the statement that the incubation period of enteric fever varies from two to twenty-eight days. No one is in a position at present to say what the period is, but there is evidence that the minimum and the maximum here given are too short.

In Chapters IV and V there is an exhaustive account of the general principles of treatment. Dr. Moore deals with disinfectants, isolation, refuges, hospitals, etc. He states that alcoholic intemperance induces a strong predisposition to zymotic disease. It would be interesting to know on what precise grounds this statement rests. Zymotic disease, in the great majority of cases, is a disease of children, adolescence, and early manhood, in whom intemperance is extremely rare. The predisposition of adults is small, and of this small number there must be some sober people.

In Chapter V we come upon what Dr. Moore speaks of as the curative treatment. We are glad to find ourselves in complete agreement with Dr. Moore on the question of the administration of alcohol. The majority of fever patients do not require it, but some do, even some children, and occasionally it must be given even to them freely.

Small-pox, chicken-pox, measles, scarlet fever, rötheln, and erysipelas are described in considerable detail, and a large portion of this division of the work is devoted to treatment. Dr. Moore's opinions that in hæmorrhagic small-pox life may be *saved* by doses of ferric chloride, gallic or tannic acids, and other "drugs," and that in the menorrhagia and metrorrhagia, which occur in this form of small-pox, "slapping the buttocks with cloths dipped in ice-cold water" is of use, will be received with some scepticism.

The remaining subjects in this part of the work need not detain us long, but the observations under the head of prognosis in scarlet fever cannot be passed over without comment. Dr. Moore says that this is "uncertain under all circumstances." In the sense that all things human are more or less uncertain, the statement is a truism; in the sense that it is specially true of scarlet fever we think it erroneous. From our point of view there is nothing "treacherous" about this disease; but those who conclude that all danger is over when a patient is apparently well about the end of the first week need not be surprised if in the third he have a convulsion, swollen eyelids, and albuminuria. Dr. Moore says that the mortality is high, and we do not doubt the accuracy of his figures—25, 30, and 40 per cent.; but on what number of cases are they based? over what periods of time do they extend? where did they occur—in hospital or in private practice? in what class of society? Until questions of this kind be answered, the figures 25, 30, and 40 have little or no meaning. In hospital practice among the poor of our larger towns it rarely exceeds 12 per cent., a fact which may be verified by reference to the reports of the London fever hospitals. In the Liverpool Road hospital, for example, since it ceased to receive the East London poor it has been less than this, and in private practice among the well-to-do, death is comparatively a rare event.

In the third part of his book Dr. Moore has to discuss subjects which have already received a great deal of attention in this country, both from clinical observers and sanitary workers; in particular we have the great work of the late Dr. Murchison, so that it will not be necessary here to speak of the chapters on these fevers at any great length. Dr. Moore appears to be a safe guide, and has been at great pains to give the various theories of pathology, and methods of treatment which have been advanced. The treatment of enteric fever properly occupies a great deal of space, and the reader will find a very large collection of opinions as to the value of drugs; the cold bath treatment in its various forms is fully described; but we have not observed that the author anywhere tells us distinctly his own experience and opinion; as has been already hinted this fault, for so we regard it, runs through the whole book; it is one which might well be corrected in a second edition.

The book is well arranged; a systematic use of headings in large type, and of other similar devices for catching the eye render it very convenient for reference. There are a large number of temperature charts, and some statistical diagrams, but we suspect that the student would be more grateful for coloured drawings of typical eruptions. We may conclude by expressing the hope that the success of this edition may be sufficiently great to warrant their introduction in the future.

Cure Radicale des Hernies, avec une Étude Statistique de deux cent soixante-quinze Opérations. Par le Dr. Just Lucas-Championnière, Chirurgien de l'Hôpital Saint Louis, etc. [Radical Cure of Herniæ, with a Statistical Study of 275 Cases.] Paris: Rueff et Cie. 1892.

In this volume, which contains over 700 pages, and is illustrated by 50 woodcuts, M. Lucas-Championnière presents his matured views on the value and indications of operative measures for the radical cure of hernia. The author, it is well known, has long been an advocate, and in his own country a pioneer, of such treatment, and since 1879 has in many published papers made known the results of a wide experience of this branch of surgery. In his enthusiasm he declares the operation for radical cure of hernia to be one of the best instances of the reparative surgery of the age, and asserts that it not only abolishes the local lesion, but also brings about a reparation of the functions and the general condition of the patient. The contra-indications are, it is held, very few, and in subjects under the age of 40 the author would see no reason to refuse such treatment unless, on the one hand, the herniæ were very small, or, on the other, the

opening in the abdominal wall were so large as to forbid any hope of success.

The operation practised by M. Lucas-Championnière differs but slightly from that advocated by Mitchell Banks and many others in this country. Careful and complete removal of the hernial sac is regarded as a more important condition of success than any attempt to effect a closure of the orifice in the abdominal wall. Much stress is laid on the necessity of dissecting away the whole of the sac, so that no depression be left in the parietal peritoneum at the seat of the hernia. The free dissection of the sac, it is held, results in the formation of a firm cicatrix which tends to make up for any defect in the abdominal wall, and to obviate the formation of a fresh sac. In dealing with omentum, not only is the portion contained in the sac removed, but also as much as can be dragged down from the abdominal cavity. Inclusion of the stump of omentum in the peritoneal orifice left after removal of the sac is regarded as really a retention of part of the hernia, and as a practice that is likely to be followed by speedy relapse. The author is opposed to the direct application of truss pressure to the seat of operation, but thinks it necessary to strengthen the abdominal wall by the use of a belt with a firm pad placed above the cicatrix.

The operation for radical cure performed by the author is applicable to most varieties of hernia. It is likely, he states, to be followed by excellent results in cases of congenital inguinal hernia. In femoral hernia, in both the male and the female, it is usually very successful, provided the whole of the sac has been carefully removed. But the variety of hernia which is calculated to offer the best field for the treatment is held to be undoubtedly the umbilical, the operation in such cases being less dangerous and less liable to be followed by relapse.

The volume concludes with a table of 275 cases of non-strangulated hernia, in which the author has in the course of the past twelve years operated for radical cure. This table, though full and extensive, adds very little to our present knowledge concerning the real value of operative interference in cases of simple reducible ruptures. It is proved that the operation for radical cure, if practised with close observance of the rules of antiseptic surgery, is attended with very little risk, and also that in properly selected cases apparently excellent results may be obtained. Whether such results are abiding still remains to be proved. In two of the tabulated cases no relapse had occurred after an interval of nine years; 15 patients remained cured after intervals of not less than three years, and 13 patients at the end of two years. It will be found, however, that only 112 patients were seen again after the time of their recovery. As in most cases of relapse, the hernia shows itself again very soon after the operation, the author thinks that most of these patients, who were not discharged until long after the completion of healing, remain cured. He holds that, as a rule, the good results of the operation are persistent, although he acknowledges that it is impossible to support such a conclusion by any mass of statistics.

To those interested in the radical cure of hernia this book will be found of much service. It contains information on almost any question and detail of this subject, such information being based almost wholly on the practical experience and personal investigations of the author.

Artificial Feeding and Food Disorders of Infants. By W. B. Cheadle, M.A., M.D.Cantab., F.R.C.P. London: Smith, Elder and Co.

In this, the second edition of a series of post-graduate lectures delivered at St. Mary's Hospital and the Great Ormond Street Hospital for Children, Dr. Cheadle has revised and enlarged a very valuable treatise. The scientific and intelligent feeding of infants, when circumstances necessitate their being brought up by hand, is so important, that all practitioners cannot fail to be deeply indebted to Dr. Cheadle for his plain and simple directions based on the latest researches on food values. Taking human milk as the typical food for infants, Dr. Cheadle complains that in most methods of artificial feeding, fat and proteids are deficient, and he expresses the opinion that by the proper dilution of cow's milk and by the addition of cream, raw meat, or bread jelly, children may be quite safely brought up by hand, and be well-nourished. The tables of analyses on which the recommendations are based are new, and full of instruction. Dr. Cheadle also points out how many of the patent artificial foods for infants are composed of pure starch, and hence quite unfit for the food of infants, who have no capacity to digest starch until they are six months old. These foods are also often deplorably deficient in proteids and fats, and he gives striking instances of children starved to death while being abundantly fed on them. He gives careful and minute instructions how to prepare bread jelly, raw meat juice, etc., and how to feed an infant at different ages. The value of artificial human milk, of the patented malted foods, and the advisability and dangers of using predigested foods are fully treated with great lucidity and perspicacity. The various forms of dyspepsia from which infants suffer, as well as the diseases of atrophy, anæmia, rickets, and scurvy are discussed, as well as their dietetic causes and treatment. Diet Dr. Cheadle considers to be more the proper care of the physician in treating infantile disorders than drugs, and he deprecates strongly the disregard of dieting, and the attempt made to cure the results of mistaken treatment by drugs. "Children," he says, "are generally overdosed with cod-liver oil, syrups of phosphates, and chemical food. I more often stop them than order them." He strongly urges that all milk used for infants should be boiled, both as a preventive of fermentative changes and also as a protection against infectious diseases. He says: "I have observed generally that those households where all milk is boiled enjoy a singular freedom from infectious diseases," and he urges, particularly, in view of the extraordinary liability of children to abdominal tuberculosis, which is probably conveyed by milk, that "in all cases where the milk supply is not private and its conditions fully known, all milk for the nursery should be boiled immediately upon its arrival in the house."

In rickets, Dr. Cheadle considers that the only factor always present is the food factor, and that privation of fat is alone sufficient to produce rickets. He gives some interesting cases of recovery brought about by putting children on a diet of raw meat juice and cream.

We strongly recommend Dr. Cheadle's book to the notice of the busy general practitioner, who is called upon almost daily to give dietetic directions for the nursery.

NOTES ON BOOKS.

Physique du Physiologiste (Physics for the Physiologist) *Encyclopédie Scientifique des Aide-mémoires.* Par J. Bergonié, Professeur à la Faculté de Médecine de Bordeaux. (Paris: Gauthier-Villars et Fils. G. Masson. 1892.)—Difficulty is often experienced in using some useful invention or labour-saving appliance working on scientific principles of which we are ignorant. A very little technical knowledge would entirely remove such difficulties, and enable us to take full advantage of the progress of science. A difficulty of the same order confronts the medical man of the old school when he attempts to use some new piece of apparatus or instrument whose operation is based on principles recently formulated. This little volume is designed to remove such difficulties. It deals with the physical aspect of sound and electricity, and their applications to medicine and physiology. An account of molecular physics and the general properties of bodies is prefixed. The more special physiological effects of direct and induced currents are dealt with in a separate volume of this series, which has already received notice in these columns. The plan of the book is to state in clear and succinct manner the fundamental principles of the subject under treatment, and to remind the reader of the applications which these principles find in physiology and medicine. Good judgment is shown in the selection and treatment of the topics. A few simple diagrams would, however, greatly enhance the value of the work. Among many points of interest the following may be specially mentioned. A physical explanation is given of the accuracy of the long-known method of drop measurement. The account given of phonation in its physical aspects will be read with interest; so will the explanation of the principles which underlie the construction and use of the stethoscope and the practice of auscultation. On the other hand, few will

be found to give assent to the entirely physical explanation of the latent period of muscle, especially in the light of recent work that has been done on the subject. There is much that is of interest to the practitioner, and much more that is useful to the student.

Medical Communications of the Massachusetts Medical Society. Vol. xv, No. iii. 1892. (Boston: David Clapp and Co. 1892.)—In this volume of reports many matters of interest in medicine, surgery, obstetrics, and preventive medicine find a place. The annual discourse was given by Dr. Draper, the subject chosen being the medical profession and the commonwealth. Influenza naturally receives much attention, its bacterial origin being discussed by Dr. Jackson, and its nervous and mental sequelæ by Dr. Knapp. In an interesting paper on acute pneumonia in influenza, and also in the discussion which followed, the view is advocated that the inflammation of the lung is not the direct expression of the influenza poison, but the outcome of an infection of the pneumococcus under altered conditions. A communication on an outbreak of trichinosis illustrates the importance of acuteness in diagnosis in preventing the further spread of disease. One of the most valuable papers in this volume is upon acute intestinal obstruction, the symptoms and diagnosis being discussed by Dr. Shattock, and the surgical aspects by Drs. Homans, Irish, Warren, and Cabot. The frequency with which carcinoma caused acute obstruction in the experience of some of the speakers is striking. The treatment of compound fractures by Drs. Burrell and Dwight illustrates recent advances in an important branch of practice. The other subjects dealt with are the prevention of disease, classification and nomenclature in vital statistics, dermatol, and hydatidiform moles. There is also a summary of 100 midwifery cases. This volume undoubtedly bears evidence to the very valuable services rendered by this long established society not only to its members, but by its reports, to a wide circle of readers.

Examen Químico y Bacteriologico de las Aguas Potables [Chemical and Bacteriological Examination of Potable Waters]. By A. E. Salazar and Y. C. Newman; with an Appendix by Dr. Rafael Blanchard. (London: Burns and Oates.)—The text of this volume is based on the results of a series of systematic observations carried out on the waters of Valparaiso, in the laboratory of the Naval School, during the years 1887-1888. It is a most painstaking attempt to present the outlines of a subject, which must at first sight seem one particularly difficult to treat. The authors have supplied the reader with a general outline of the processes to be carried out in examining a specimen of water, rather than with a complete account of every possible modification of the various methods which may be employed, leaving it to the ingenuity of the individual worker to supply the more minnte details. In fact, they recognise that many of the processes habitually followed by the skilled worker cannot be acquired by reading, but only by experience. They have, therefore, made it their care to suggest rather than to describe. At the same time, no explanation is withheld which might be wanting to elucidate the principles on which the various methods are based. The work is divided into three parts, dealing respectively with the "mineral," "organic," and "bacteriological" examination of water. As an appendix, is given a description of the parasites liable to be introduced into the body by means of water. This section, though styled an appendix, occupies nearly one-third of the volume, and is beautifully illustrated by pictures of each parasite, which should greatly facilitate their recognition.

Pharmacopœia of the Royal Infirmary, Edinburgh. Compiled by Charles Arthur, Chemist to the Institution. (Edinburgh: James Thin. 1892.)—This little volume has been prepared for the use of students at Edinburgh Infirmary, but whether published by the authority of the staff or that of the "chemist" (dispenser or pharmacist?) to the institution, is not clearly stated, nor is it stated who is responsible for the therapeutic notes appended to the preparations. A hospital pharmacopœia should be supplementary the *British Pharmacopœia*, but in compiling the pharmacopœias of some hospitals, it has been customary to take the gist out of the *British Pharmacopœia*, recognising only what the staff think necessary, and making such additions as their experience has found to be useful. The latter often form useful handbooks for the young practitioner, and, if carefully compiled, there is no objection to them. But in the work before us we find that official (*B. P.*) names are applied to preparations which are not identical with the official formulæ, without any indication being given that they deviate from the latter; for example, Injectio Ergotini Hypodermica, Liquor Cocainæ Hydrochloratis, Pilula Ferri (Blaud), Suppositoria Glycerini, Unguentum Hydrargyri Nitratis Dilutum, Cataplasma Carbonis and Cataplasma Lini. In fact, the *British Pharmacopœia* is ignored altogether. This is unfortunate and very confusing to the medical student, who has to pass examinations on his knowledge of the official work. We have sought for crumbs of original pharmacy in the book, but find them not. We are told of "Mistura Santali Composita (—)" that "this mixture was originally introduced by a druggist, whose name it bears. Many imitations of it have been introduced, but the preparation can be obtained of any chemist," and yet no formula is given for it! There is a mixture supposed to be equivalent in effect to the nostrum Bromidia, and many useful formulæ for mixtures, pills, ointments, etc., are published, but there is a great want of general definiteness, which should not exist in a pharmacopœia; for example, in "Syrupi Tres." A "chemist" should know, too, that subnitrate of bismuth is incompatible with bicarbonate of sodium; this combination occurs in two formulæ.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

LIQUOR CATHARTICUS OR SOLUTION OF CATHARTIC ACID.

The active principle of senna is a colloid body easily soluble in water, but not in strong alcohol. When an aqueous extract of senna is mixed with an equal volume of alcohol, and the mucilage thus thrown down is removed, the addition of a further quantity of alcohol occasions the fall of a dark brown, almost tasteless, easily alterable substance, possessing purgative properties. This precipitate is a mixture of calcium and magnesium salts of phosphoric acid and a peculiar acid termed cathartic acid. This acid is a black substance, which in the mouth is at first insipid, but afterwards tastes acid, and somewhat astringent. The analysis of senna, with a view to the isolation of its active matter, has engaged the attention of a number of chemists. Mr. T. Smith, of Heriot Hill House, Edinburgh, more than forty years ago, found that the cathartic principle of senna could be thrown down from a weak spirituous solution of senna by caustic lime. This chemist at that time attempted to separate the active principle from the lime salt in a state of purity, but he found it to be of so delicate a nature that it could not stand the necessary manipulations for its purification. Some two years ago it occurred to Mr. Smith that a solution of the active matter might be prepared from the lime precipitate. The result of this idea is the liquor catharticus or solution of cathartic acid, which has been sent to us for examination. This solution is a dark coloured liquid, quite free from the smell and taste of senna. It is stated to contain the active principle combined with minute quantities of bodies of an indefinite character, which do not interfere with its action, and which are of little or no consequence in a practical light. Each fluid ounce is the product of an ounce of senna, and is of the alcoholic strength of sherry.

The results which have followed the administration of liquor catharticus, so far as they have come under our notice, have been entirely satisfactory. It is a pleasant, efficient,

and reliable purge, and certainly is an improvement upon the official preparations of senna.

EXTRACT OF MALT WITH COD-LIVER OIL.

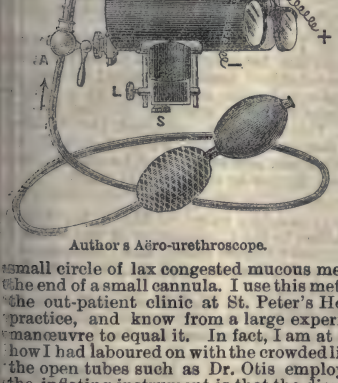
Messrs. James Robinson and Co., chemists, Norwich, have sent us a sample of extract of malt with cod-liver oil. Our examination of this preparation shows it to be a very excellent one. It has been carefully prepared; the malt extract is of full diastasic power, and the cod-liver oil thoroughly incorporated. The quantity of oil present is much larger than is usually contained in similar combinations. This preparation has a very pleasant aromatic flavour, and there is only a very slight taste of cod-liver oil.

PHARMACEUTICAL PRODUCTS.

We have received from Messrs. Newbery and Sons, King Edward Street, Newgate Street, E.C., a number of pharmaceutical preparations manufactured by Messrs. W. R. Warner and Co., Philadelphia and New York. These articles appear to have been very carefully made, and bear out the representations made concerning them. The pills especially are excellently finished, and have an attractive appearance. The Fluid Extract of Cascara is an efficient preparation, and fully represents all the active matters of cascara sagrada bark. The Cascara Cathartic Pill contains cascarin, aloin, podophyllin, extract belladonna and strychnine. Little Cathartic Granules are very small sugar-coated pills, composed of aloin, jalapin, podophyllin, nux vomica, and capsicum. There are other convenient pill formulæ.

OTIS'S "PERFECTED" URETHROSCOPE *v.* THE INFLATING URETHROSCOPE.

On page 1231 of the British Medical Journal of December 3rd, Dr. Otis describes what he has termed his "perfected" urethroscope. I do not wish to detract from any merit the instrument may possess, and would not have commented upon it at all, if I had not been certain that no urethroscope, no matter what its lighting power may be, will be found "perfect" unless it is fitted with an inflating apparatus, whereby the entire penile urethra can be blown out like the finger of a glove, and displayed with its many folds and creases taut and smooth to the observer's eye. In the British Medical Journal of March 3rd, 1888, I described the then new Leiter's "electric urethroscope," after having proved it to be the most practical and efficient instrument in use. But I wasted so much time in learning the protean changes which the end of the open tube produced in the mucous membrane by pressure, and I was so slow in discovering granular and other conditions needing topical treatment, that I adopted Geza von Antal's method of inflating the urethra, and obtained by this means a splendid field of observation and treatment—a long flat wall instead of a small circle of lax congested mucous membrane crowded into the end of a small cannula. I use this method regularly, both in the out-patient clinic at St. Peter's Hospital and in private practice, and know from a large experience that there is no manœuvre to equal it. In fact, I am at a loss now to realise how I had laboured on with the crowded little field permitted by the open tubes such as Dr. Otis employs. The objection to the inflating instrument is that the diaphragm D (see Figure) which prevents the inblown air escaping from the urethra, also prevents the topical treatment of the diseased patches under the control of the light. In my own pattern (see Figure) I have overcome this by means of an accurately fitting movable diaphragm which fastens with a bayonet catch. Cannulæ of different lengths, provided with cups for the reception of the glans penis, are used. Leiter, of Vienna, made me the instrument.



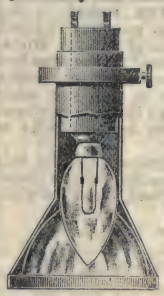
Author's Aëro-urethroscope.

Knowing that few of those who use the electric urethroscope in England employ this very valuable method ("aëro-urethroscopy)," I venture to ask for space in the crowded columns of the Journal, in order to draw attention to its value, at the same time that I comment upon a non-inflating urethroscope being termed "perfected."

Old Burlington Street. E. Hurry Fenwick.

AN INCANDESCENCE SEARCH LIGHT.

This lamp is designed to supply a want long felt amongst medical men who require a bright disc of light upon any part under examination. It consists of a small incandescent lamp so adjusted that the arch of the filament is as nearly as possible coincident with the focal point of a small silvered parabolic reflector one inch in diameter at its mouth. The reflector is pierced to admit the lamp, and mounted upon the extremity of a metal tube; in the tube slides a cylindrical block of ebonite, which serves as a carrier for the lamp; it can be fixed in any position by a screw with a milled head which passes through the outer metal tube. The ebonite block contains two small brass tubes, which convey the current from the terminals at one end of the block to the lamp at the other. By a simple arrangement, not shown in the cut, a "burst" lamp can be replaced in less than a minute. The mouth of the reflector is closed by a small glass cover, which protects the lamp, and prevents the silver from being quickly tarnished. With a 6-volt lamp taking 0.5 ampère, the lamp will project a beam of light several hundred feet. Newspaper print has been read at a distance of 100 feet from the lantern.



I am indebted to Mr. Richard Inwards for the perfect curve of the parabola, drawn with his special instrument, and this curve, which was large, was reduced by means of a pentagraph. This little lamp may be held in the hand or fixed to a head band after the manner of Leiter's head lamp, or it may be attached to a bracket from a wall, etc. Mr. Beddoe, 29, Nine Elms Lane, Vauxhall, has worked out my idea with great care, and the lanterns may be obtained from him. The drawing is "life size." The weight of the lantern complete is half an ounce. Protection has been applied for.

Gower Street, W.C. G. Washington Isaac, M.B.

PROSTATOMETERS AND URETHRAL INJECTORS.

Dr. James MacMunn (Crouch End) writes: There is a prostatometer described in the British Medical Journal of December 17th by Mr. Mansell Moullin. I lent an instrument to this gentleman in June, first described by me in the *Lancet* of October 10th, 1891, from which, judging from Mr. Mansell Moullin's description of the prostatometer and my conversation with him in June, he evidently got his ideas of construction, especially that which connotes the determination of the resistance of the encroached upon urethral walls, such questions being the chief *raison d'être* of my invention. My instrument is capable of doing what Mr. Moullin's instrument can do, but it also registers the amount of resistance in the prostatic urethral walls when bent, and takes an actual diagram of the entire urethra on a sliding slip of paper.

Mercier's manœuvres with a sound are simple and largely effectual and efficiency would be still greater, perhaps, if the beak of his sound were hinged on the shaft, and movable in obedience to a wire running through the shaft. In that way one could tell not only degrees of enlargements but the aspect of their encroachments.

With regard to injectors, I did not intend to detract from the ingenuity of that described by Mr. Burton, but his letter puzzles me. If he read mine he will see that I did not refer to diameters of 23 millimetres, which would mean circumference of 69 millimetres. I still think 23 millimetres large enough for average urethral injections. Conical instruments I prefer on account of (1) the ease of introduction and hence the less amount of irritation at the membranous urethra; (2) the less risk of carrying discharge before them un-neutralised by the injection; (3) the possibility of cleaning the secreting patches with their shoulders before injecting.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

The monthly meeting of the Executive Committee of this Society was held on December 22nd, Dr. Major Greenwood, in the unavoidable absence of Mr. Ernest Hart, the President, in the chair. There were also present Mr. Edward Bartlett, Dr. F. Swinford Edwards, Dr. Alfred Gubb, Dr. J. W. Hunt, Dr. J. Pickett, Dr. W. Knowsley Sibley, Mr. Frederick Wallace, and the Secretary.

It was reported that the Society continued to grow in public favour, the number of medical men availing themselves of the advantages offered being in excess of any previous year, the total number of proposals to November 30th having reached 1,617. Consequent upon this increased membership, the sickness pay for the month was found to be somewhat higher than for the corresponding period of 1891, though still well within the expectation under the tables framed by the actuary, Mr. Neison; but the number of members in receipt of this benefit at date of meeting become normal. The nature of the ailments from which the sick members were suffering was as varied as usual, and included among others such complaints as locomotor ataxy, myelitis, paralysis, phthisis, rheumatism, scarlet fever, perityphlitis, lumbago, oxaluria, aortic disease, nervous debility, insanity, influenza, neuralgia, and accidents. With regard to the latter, it was pointed out that, while most societies charged extra premiums for liability to accidents of various kinds, this Society interpreted the word "sickness" in the broadest sense, and, as members of the medical profession, especially in rural districts, were peculiarly liable to trap and other accidents, it could not be too widely known that the payment of a sickness premium insured members against risks of accident from whatever cause arising.

The fullest particulars, forms of application, etc., of this Society will be readily supplied on application to the Secretary, Mr. C. J. Drummond, 21, Dalmore Road, West Dulwich, London, S.E.

THE CASE OF THE LATE MR. MONTAGU WILLIAMS.

So many inaccuracies concerning the late Mr. Montagu Williams's laryngeal affection have crept into the obituary notices published in the daily papers, that it appears desirable to briefly review the salient features of his case, although it has been reported in full in the *Transactions* of the Clinical Society, vol. xx., p. 44, and vol. xxii., p. 421.

Mr. Williams, who at that time was 51 years of age, began to suffer in 1885 from gradually increasing hoarseness, which, up to the time of the operation, which was subsequently performed, was the only symptom of his serious affection. In April, 1886, having by that time become almost aphonic, he consulted Dr. Felix Semon, who found a papillomatous looking growth originating from the left ventricle of Morgagni and completely covering the left vocal cord. The intralaryngeal removal of a little fragment and its microscopic examination led to the apparent result that the growth was of a simple papillomatous nature; the clinical features of the case, however, did not allay the suspicion of more serious mischief, and the subsequent removal and microscopic examination of another piece a few days later left no doubt that in reality the neoplasm was of the nature of a cornifying epithelioma.

In an interview which has been described with much dramatic force, though perhaps—as was natural enough under the circumstances—not quite correctly in every particular, by the deceased gentleman himself in his *Leaves of a Life*, he was informed of the serious character of his illness, and immediately decided with rare fortitude rather to submit himself to radical operation with all its dangers than to allow the terrible disease from which he suffered to take its fatal course unchecked.

He himself selected, on the basis of the statistics then existing, Professor Hahn, of Berlin, as the operator, and on May 3rd, 1886, partial laryngectomy—that is, removal of the whole left half of the larynx—was performed by that gentleman, in the presence of Sir James Paget, at Fitzroy House Home Hospital. Uninterrupted recovery took place, and a few months after the operation the patient's voice, although the entire left vocal cord had been removed, was so surprisingly strong that he actually thought of returning to his work at the Bar. From this, however, he was dissuaded by Sir James Paget and Dr. Semon. About one year afterwards laryngoscopic examination revealed the existence of a small tumour in the trachea, originating from the internal aspect of the scar of the tracheotomy wound. This tumour was of a somewhat nondescript character, resembling neither the common forms of benign nor of malignant new growths.

The patient went with Dr. Semon to Berlin, where a consultation took place with Professor Hahn and Professor B. Fraenkel. Neither of these gentlemen dared to give a definite opinion as to the nature of the new growth; but whilst Professor Hahn was inclined to look upon it as a keloid, Professor Fraenkel and Dr. Semon leaned more towards the view that it might be a tracheal ecchondrosis, such as that described by Virchow in his great work on tumours, but never until then laryngoscopically observed. It was decided not to proceed at once by further operation, and simply to watch the further development of the neoplasm. When last laryngoscopically examined, that is, about three years before the patient's death, the little projection was still there, entirely unchanged, and the point just mentioned illustrates the important fact that if after an operation of this character an obscure new formation is discovered, one ought not to at once rush to the conclusion that it must needs represent a recurrence of the primary malignant growth. Its exact nature could, unfortunately, never be decided upon, as, in spite of strenuous efforts, no *post-mortem* examination was obtained.

The patient survived the operation for nearly 6¾ years, ultimately dying from organic heart disease; and although no further laryngoscopic examination took place for the last three years, yet it can with confidence be stated that there has not been the least evidence of any local recurrence. He was able to devote himself with untiring energy to the duties of a police magistrate, to which office he was appointed shortly after the operation, and the obituary notices which have appeared in almost every daily journal leave no doubt as to how admirably he has filled this position, and devoted a life which had been so much prolonged to the alleviation of the sufferings of the poor of London.

In conclusion, it is hardly necessary to say that the statements as to the enormous rarity of successful radical operations in such cases, which have appeared in so many of his obituary notices, are very far from being correct. The more we have learned to diagnose laryngeal cancer at an early period, the more restricted has the selection of cases for such operations become. The operation itself is now performed much earlier than it used to be, and is much less extensive than it was even in the case of the late Mr. Williams, its chances have thus become much better, so that at the present time not a few patients are living and enjoying a useful existence, to whom in former years the prolongation of life would have been denied.

We are informed by Dr. Robson Roose, under whose care Mr. Montagu Williams was for several years before his death, that there was evidence both of aortic and mitral disease, and he suffered at irregular intervals marked attacks of angina, but his death was directly due to uræmia. Neither Dr. Robson Roose, nor Dr. Tamplin, who attended Mr. Williams during his stay at Ramsgate, nor Dr. Douglas Powell, who was called in consultation, saw any reason to suspect recurrence of the malignant disease in any internal organ.

Medical Magistrates.—The name of Mr. S. W. Griffith, Pwllheli, has been added to the Commission of the Peace for the County of Carnarvon; Robert Parry, M.B., Carnarvon, to that of the Borough of Carnarvon; and Dr. H. Dove King for the Borough of Sudbury.

The Sanitary Committee of the Kieff Municipality has submitted a report recommending that in future epidemics the lives of married medical practitioners should be insured at the public expense.

During the past year dysentery has been very prevalent in Japan. In Shikoku and Kinshiu over 50,000 persons were attacked.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1892.

Subscriptions to the Association for 1892 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, DECEMBER 31st, 1892.

M. PASTEUR AND THE SIGNIFICANCE OF HIS JUBILEE FESTIVAL.

The homage which the civilised world has this week offered to M. Pasteur through its most eminent and authorised representatives, official and scientific, is a consecration of the glories and the benefits of abstract science, the significance of which nothing can dim. M. Pasteur is a researcher pure and simple; an ardent lover and indefatigable student of knowledge for its own sake; a physicist and a chemist, he is also, by subsequent development of a rigid scientific method of research, a signal benefactor of the science and practical arts of medicine and of surgery. From the study of polarisation of light and the optical investigation of its phenomena in fermenting sugar solutions he was led to investigate the presence of microscopic growths, of which he recognised the essential function. Thence, as is pointed out in an excellent summary of his scientific work in *La Liberté*, it was only a step—although a great step—to verify the analogous powers of other microbes, and to bring from obscurity to light the agents of acetification and fermentation.

Pasteur proceeded by inflexibly accurate, sagacious, and truthful methods of research to direct his studies towards the elucidation of the agents which especially affect the animal organism. Thus he distinctly separated the germ of the cholera of fowls, of the *rouget* of the porcine species, of the anthrax of the bovine species, and of the silkworm disease. He performed for each of them the control experiments, and created a system and a practice of rational and preventive vaccination against these poisons. Pasteur's discoveries, it is truly said, "touch the origin and the preservation of the human race and their transcendent importance has won for him the admiration and the gratitude of the thinking part of all the nations of the world." He is no empiric, but a researcher of the highest power, as acute in analysis as he has been fertile in synthesis.

It has, unhappily, been reserved for an English gynæcologist recently to insult, in an evening paper, both him and our illustrious compatriot, Lister (whose appearance in the great amphitheatre of the Sorbonne was hailed by the assembled *savants* of Europe with plaudits only second to those which greeted the hero of the ceremony) as being both wild and fantastic. With them were joined, however, in a common obloquy the crazy Koch, the "foolish" Andrew Clark, and John Hunter, the father of a mass of appalling nonsense. The great ceremony of this week—the homage of an assembled concourse of eminent and authorised representatives of the medical, surgical, and scientific bodies from every part of the civilised world—gives a silent and disdainful answer to the ill-conceived and ungracious charge. It is painful that it should have proceeded from the pen of a British surgeon; but the sympathy with which the spokesman of surgery and medicine was received in the person of an illustrious Englishman, makes a striking reparation, while it served to signalise the honour in which Pasteur is held among us, as in every civilised nation. The misguided section of the unscientific public, who attribute some importance to the unhappy utterances to which we have perforce referred, will at least find in the proceedings of Wednesday, and in the cosmopolitan convictions to which they testify, a better standard and a truer guide to wise conclusions and to humanitarian efforts. The path which Pasteur, Lister, and Koch have marked out, and along which they and their disciples have trodden with so much painstaking and beneficent devotion, is the fertile way of scientific progress by experimental research; it is that which is leading year by year to increased and still unforeseen benefits to humanity. It will be seen that at a later ceremony M. Pasteur took occasion specially to recognise—by words of which he desired the publication—the value of the sympathy and aid which the British Medical Association has extended to biological experiment and research, and his appreciation of the esteem and support of the British school of medicine and biology, which was ably represented on this occasion.

What characterised the whole ceremony was, as M. Dupuy intelligently pointed out, that the homage which was offered pointed to the future as well as to the past. Science has been endowed by Pasteur with a sure method and a secure principle; and, as he has himself said, "the era of application has only begun." Seldom has any name, during the lifetime of its possessor, flown to the lips of the whole world with such praise and gratitude. The Institut Pasteur, "built and endowed by the gratitude and admiration of nations and of governments, has become a centre of high scientific culture and a source of mitigation of the ills of humanity." May it and its offshoots in other nations realise, as was anticipated on this great occasion, the hopes founded on it, which it has already begun to justify! The Institute of Preventive Medicine, still in slow course of foundation in this country, should help to redeem our many enlightened countrymen from the reproach of being indifferent to the beneficent studies from which mankind has already derived so great benefit and from which much more may with confidence be anticipated. We commend it to the enlightened humanity and generous support of our compatriots, and of the members of the British Medical Association.

PHYSIOLOGY IN 1892.

A glance through the pages of the *Centralblatt für Physiologie*, or at the increased thickness of the volume of the *Journal of Physiology* for the year just closing, will be sufficient proof that physiologists have not been idle either in this country or abroad. The even tenour of their way has, however, been interrupted by the antivivisection breezes, which, since the Church Congress, have brought their science in a marked

manner before the public gaze. Opposition is always stimulating, and though the opposition has in the present instance been an unscrupulous one, we cannot but think that an unbiassed observer would feel that the scientists have had the best of the tussle.

The International Physiological Congress.

In another way also the work of the year stands out from preceding years, for the second International Physiological Congress was held at Liége in the summer, and a most representative gathering held a pleasant meeting in the old Belgian city. It is impossible to give even the briefest summary of all the interesting papers read there, but we may select a few which seem to have been specially striking. Among the new discoveries, that of Langlois and Abelous in relation to the suprarenal capsules may be mentioned. They find that removal of these capsules produces a condition in an animal similar to that produced by curare, and they consider that the normal function of the suprarenals is to destroy the poison, originating during muscular activity, that produces this effect.

Among new methods which were shown were the graphic registration of the heart sounds by the aid of the microphone by Hürthle of Breslau, and the telephonic demonstration of the current of action in nerve by Wedensky of St. Petersburg. Under the same heading Starling's work on peptone in the blood may be also referred to. It has always been difficult to discover peptone in the blood after intravenous injection. It was known that it leaves the body by the urine, but where it was hidden meanwhile was the mystery. Starling showed, however, it was easy to recognise peptone in the blood an hour and a half after injection; the other albuminous constituents of the blood may be precipitated by trichloracetic acid, and the peptone is formed in the filtrate. It is because unsuitable precipitants were previously used that the question has been so long difficult to answer. We cannot conclude this brief note on the Congress without alluding to the circumstance that physiologists were not only shown what was new, but that they had an opportunity of seeing something which was old as well, for the veteran Chauveau gave a demonstration of his classical experiment on intracardiac pressure.

Neurology.

Turning now to physiological literature, it is again somewhat invidious, but nevertheless necessary, to make selections. The nervous system has, of course, its full share of workers. Thus, in Germany, we find Goltz still sticking to his old text on the matter of cerebral localisation, and supporting it with new experiments. It is especially the localisation of the vision with which he has dealt, and he shows that, in the dog at any rate, Munk's views must be received with modifications. In this country Mott has traced the ventral cerebellar tract (Gowers's tract) into the cerebellum through the upper peduncle. Sherrington has done good work concerning the distribution of peripheral nerves, and Langley has extended his valuable researches into the course of sympathetic fibres. Langley and Anderson have given physiological proof of a dilatator of the iris. All these researches show that correct anatomical knowledge depends not only on naked-eye dissections or microscopical examination, but that physiological methods must now be employed as well.

Pancreatic Diabetes.

Minkowski has continued his important work on pancreatic diabetes, and Hédon has confirmed most of his results. They find that the glycosúria which follows extirpation of the pancreas can be stopped by transplantation of a portion of a living pancreas into the abdominal wall. This, taken in conjunction with the beneficial result that follows injection of the thyroid juice in myxœdema, shows us that glands have actions in general metabolic processes which were before unknown, but the *modus operandi* has still to be discovered. Though the glycolytic ferment theory of Lépine is, as Arthus has shown, most unsatisfactory, it has at any rate led to a revision of our methods for estimating sugar in blood. Most precipitants of proteids carry down with them some of the sugar. So marked is this, that Schenk considered that a compound of proteid and sugar was formed. This view is untenable, and is now abandoned by Schenk himself. The best method now available appears to be that of Abeles, who uses zinc acetate as the precipitant. Seegen's name must also be mentioned in this connection; his paper on the subject will be found in the current volume of the *Centralblatt f. Physiologie*.

Other Chemical Investigations.

Other chemico-physiological questions that have attracted attention have been the composition of Hofmeister's crystalline egg albumin, and the applicability of the method of practical heat coagulation for the separation of proteids. Another is the proved importance of calcium salts in vital and coagulation processes. We have, on a previous occasion, stated Pekelharing's views on blood coagulation. His more recent observations on the relation of fibrin ferment to nucleo-albumins justify the expectation we then expressed that divergent theories, such as those of Hammarsten and Wooldridge will shortly be reconciled.

Cellular Physiology.

In cellular physiology Hardy has continued, on crustacean blood, the important work of Ehrlich on the different behaviour of colourless corpuscles to aniline dyes.

Haldane has found that expired air contains no toxic substance, as Brown-Séquard, D'Arsonval, and Merkel have supposed. The only toxic material is carbonic acid, and this fact will, if it is confirmed and accepted by sanitarians, very considerably modify current views on ventilation. The important work of Roy and Adami on the heart we have reviewed in the British Medical Journal quite recently.

Looking over the year's work as a whole we cannot fail to be struck with the immense amount of laborious and fruitful work expended on research. Knowledge grows slowly, and though no epoch-making theories or startling discoveries are to be chronicled, it must be remembered that material for such have first to be laid down, and that the steady work at such matters as we have alluded to is to be commended and prized.

The laws of Michigan forbid all railway companies within the boundaries of the State from employing men who are not total abstainers as engineers, firemen, brakemen, or railroad servants of any kind. The penalty for breaches of this ordinance is 500 dollars for each offence.

It is with the deepest regret that we announce the death, at Rawal Pindi, of acute dysentery, of Surgeon-Colonel C. H. Y. Godwin, until recently Professor of Military Surgery at Netley. Surgeon-Colonel Godwin only sailed last month for India to take up the post of principal medical officer at Rawal Pindi, rendered vacant by the death from cholera of Surgeon-Colonel Allan.

THE "WORLD'S FAIR" AT CHICAGO.

We are pleased to note that the Columbian Exposition is not to be a happy hunting ground for the vendors of patent medicines. One of the rules (15) just issued under official sanction reads as follows:—"Articles that are in any way dangerous or offensive, also patent medicines, nostrums, and empirical preparations whose ingredients are concealed, will not be admitted to the Exposition."

SANITARY REFORM IN HAMBURG.

The authorities of Hamburg seem to be taking the lesson of the recent cholera visitation to heart. The Senate has under consideration a proposal to establish a hygienic institute with a yearly subvention of 15,300 marks (£675). The salary of the medical councillor (chief of the sanitary department) is to be raised to 15,000 marks (£750), with the right to accept consulting practice, and an additional *Physikus* or health officer is to be appointed at a salary of 5,760 marks (£280) with full freedom of private practice.

MEMORIAL TO SIR RICHARD OWEN.

A meeting to make preliminary arrangements for promoting a memorial to the late Sir Richard Owen was held at Sir James Paget's house on December 28th. It was suggested that the memorial should be a marble statue, to be placed in the hall of the Natural History Museum at South Kensington. Steps were taken to form a committee, and among those who have already given their adherence are the Presidents of the Royal Colleges of Physicians and Surgeons, and of most of the scientific societies in London, the Duke of Teck, Lord Playfair, Right Hon. T. H. Huxley, Sir Joseph Hooker, Sir Henry Acland, Sir John Evans, Sir William Savory, Sir Joseph Fayrer, Sir Edward Fry, Professor Michael Foster, Dr. Günther, Dr. Woodward, Mr. Carruthers, and Mr. Sclater. Sir William Flower, the present director of the Natural History Museum, will act as treasurer. A general meeting to be held in the rooms of the Royal Society, will be called at an early date.

WILLIAM CLIFT.

Dr. R. Hingston Fox has sent us the following interesting note on William Clift:—In the biographical notice of Sir Richard Owen, published last week, William Clift is spoken of as "a near relative of Hunter," and again (p. 1414) Owen's "connection with the Hunter family by marriage" is alluded to. This, Dr. Fox writes, was not so:—"Clift was not related to Hunter. In 1849, the year Clift died, Owen printed anonymously a small seven paged brochure, *Memoir of William Clift. F.R.S.* I possess a copy from his own library, and have also conversed with him about the facts of Clift's life. From these sources I may briefly state that William Clift, the 'last and favourite pupil' of Hunter, was a Cornishman, born at Bodmin in 1775, left early fatherless, and that then, showing some ability, especially with his pencil, he came under the notice of Colonel Gilbert, whose wife had been a schoolfellow of Miss Howe, then Mrs. John Hunter. When Hunter needed a successor to William Bell, who left him in 1790, Mrs. Gilbert strongly recommended young Clift. He was sent to London in 1792 and apprenticed to Hunter without fee, working early and late with and for his master until Hunter's sudden death, October 16th, 1793. This short period was enough to implant in young Clift's mind a deep sympathy with, and devotion to, John Hunter, and thenceforth the whole of his long life was spent in following out his master's work and preserving his memory. How faithfully and fully he did this, in the care of Hunter's collections, is witnessed by the entries in the old manuscript book described by Dr. Finlayson.[1] He was a modest, unassuming worker, singularly unselfish (Owen has told me), bent only on carrying forward Hunter's work and fulfilling his aims. In the words of his epitaph (from Owen's hand) 'he carried a childlike simplicity and single-mindedness to the close of a long and honoured career.'"

A USELESS INQUEST AND A MEANINGLESS VERDICT.

The Coroner for the City of Oxford has lately held an inquest for which there does not appear to have been any necessity, and which resulted in a verdict which must certainly be regarded as worthless. A dairyman, aged 68, whilst delivering milk, and leading his horse and cart, was found to be in a dazed condition, and unable to speak, and shortly became insensible. He was admitted into the Radcliffe Infirmary, where he was found to have complete paralysis of the right side of the body, and he died within twenty-four hours of his admission. A certificate of death from cerebral hæmorrhage was given, but the coroner intervened, and held an inquest, and told the jury that the circumstances quite justified him in summoning them. He, however, did not take the evidence of either of the medical men who had seen the deceased, nor did he order a *post-mortem* examination to be made, and the verdict was "Sudden faintness from natural causes, aggravated by the severe cold." We grieve to be obliged to add that the coroner is a medical man, who certainly ought to have known better than to accept such a verdict.

THE GENERAL MEDICAL COUNCIL AND MEDICAL AID ASSOCIATIONS.

The extent of the injury done to general medical practice by the growth of medical aid associations has been sufficiently demonstrated by the correspondence published in these columns. There is good reason to believe that still further extensions of the system are in contemplation. The case against the system has been very forcibly and ably stated by Dr. Leslie Phillips on behalf of the Medical Defence Union, which has done good work in taking the matter up and bringing it prominently under the notice of the General Medical Council, in whose hands it for the present rests. The Committee of the Council, appointed at its last session, has now issued a form of inquiry, which will be found in another column, seeking further information from the medical officers of these associations. It is probable that much valuable information could also be given by ex-medical officers whose connection with some of these medical aid associations ceased at a recent date, and it appears to be very desirable that they should communicate the facts in their possession to the Chairman of the Committee of the General Medical Council, at 299, Oxford Street. It is clear that at the present juncture the fullest information should be supplied to the Committee by everyone who has facts and figures at his disposal in order that the whole of the evidence may be before it and that its members may clearly understand the views of the profession upon the subject.

THE SHAKING CURE.

Some one has said that our boasted progress largely consists in rediscovering things which were known to the ancient Egyptians, and were buried with them in the sandy waste of oblivion. Almost the latest "new thing" in therapeutics is M. Charcot's vibrating armchair for the treatment of paralysis agitans (see Epitome, October 1st, 1892), the idea of which was suggested to him by the benefit which sufferers from that disease appeared to derive from driving and railway travelling. It is not impossible that some medical Bentley may, with the help of a few conjectural emendations, be able to prove that Hippocrates recommended some of his patients

[1] British Medical Journal, 1890, vol. i., pp. 738, 865.

"to be well shaken." Without going back to the Father of Medicine, however, it is certain that as regards his "vibratory medicine," M. Charcot may well exclaim, with the unconscious plagiarist of old, *Pereant qui ante nos nostra dixêre*. His *fauteuil trépidant* was clearly anticipated in 1734 by the *trémoussoir* of a certain Abbé de St. Pierre, which was a kind of rolling armchair, warranted to give those sitting in it "*des secousses fortes et vives*," and thereby cure them of many human infirmities. The Abbé confesses that he got the idea of his invention from Dr. Chirac, first physician to the king, who was in the habit of saying that for many diseases generally attributed to biliousness, obstruction of the liver, etc., the best cure was a few days' drive in a postchaise over paved streets. As the carriage-way of that time was paved with casual boulders of irregular size and shape such a drive might be relied upon to shake up the viscera "like coppers in a box," as Wendell Holmes says of horse riding. By this treatment Chirac had, it seems, cured an Englishman of that mysterious malady the "spleen." This may perhaps explain the partiality of Samuel Johnson for travelling in postchaises; he himself, if we remember aright, put it down to the sense of rapid motion, but it was no doubt the effect of the *médecine vibratoire* on his spleen or his liver, or both. That other great but splenetic Englishman, John Milton, used to have himself rocked in a swinging chair, probably for the same purpose. The Abbé de St. Pierre's *trémoussoir* had a great vogue for a time; Voltaire, who was a confirmed hypochondriac, being one of those who testified most emphatically to its therapeutic virtue. Its fame spread to Holland, to Germany, and to England; it worked innumerable "cures," and then faded away into the infinite. The invention of railways entirely superseded such primitive methods of vibratory therapeusis, and to such perfection has the system been brought in these days that, if a disease can be shaken out of a man, a journey by the London, Brighton, and South Coast Railway or some other of the southern lines may be confidently prescribed for that purpose.

THE SENSITIVENESS OF THE TISSUES.

THE subject of the sensitiveness of the tissues, especially in relation to general surgery, is undoubtedly one of great interest. Seldom is it nowadays, with the universal use of general and local anæsthetics, that opportunities occur for gleaning information on this point. Nevertheless, occasionally, under exceptional circumstances, operations are required to be performed when an anæsthetic is inadmissible, and then the surgeon is enabled to judge to what extent his procedures cause pain to the patient. Perhaps the best instance in this connection which has occurred of late is that of a case of removal of the thyroid gland by Mr. Keetley, notes of which were read at a recent meeting of the West London Medico-Chirurgical Society. The patient, a woman, came under treatment for an enormously enlarged thyroid. At the operation for removal an anæsthetic was only administered at the commencement, and during the whole of the rest of the time—some three hours—when the operation was proceeding the patient was conscious. The testimony was to the effect that she suffered very little pain—indeed, while the huge tumour was being dissected out she experienced no pain to speak of. Mr. Keetley took occasion to remark that it was well known how painful were incisions of the skin. With regard, however, to the deeper tissues, he said that, generally speaking, only certain structures were markedly sensitive—for example, deep tense fascia, such as the fascia lata and the aponeurosis of the abdominal muscles, the sheaths of blood vessels, and certain special structures. He also called attention to the essential difference between the effects of compression and those of tension. The skin over bony surfaces would bear pressure to a considerable degree without pain being excited, but as soon as the skin became stretched, as by the process of inflammation beneath it, then pain to a greater or lesser degree was caused. Ordinary dissection, consisting of separating structures by division of their more or less loose cellular connections, was practically painless, provided that the structures themselves were not roughly handled or forcibly stretched, and were not inflamed. Facts of this nature are of great interest, and they certainly raise the question of whether complete and continuous general anæsthesia is urgently called for in many of the operations in surgery.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

IT may have been gathered by our readers from the recent reports of the meetings of the Committee of the Association of Fellows of the Royal College of Surgeons of England that a correspondence has been in progress between the Committee and an official of the College. This correspondence has now terminated, and, as we are informed that it will shortly be placed *in extenso* in the hands of the Fellows, we are at liberty to mention that the official in question was the President of the College (Mr. Thomas Bryant), and to explain the circumstances under which the correspondence originated. At the special meeting of the Fellows of the College of Surgeons held on Thursday, July 7th last, the day of the annual election to the Council, Mr. Christopher Heath adversely criticised the conduct of Mr. Holmes in relation to the affairs of the College; and as the remarks made were not officially discountenanced at the meeting, Mr. Holmes deemed it to be his duty to bring the matter by letter under the notice of the President of the College with a view to having it submitted to the judgment of the Council. Mr. Bryant declined to lay Mr. Holmes's letter before the Council, alleging, in a letter addressed to Mr. Holmes, that he (Mr. Holmes) had allowed statements which were far from correct to be issued with his sanction in the name of an association against the Council, without the slightest attempt on his part to do justice to the body upon which he had so ably served. So far, then, from Mr. Holmes having received, as he had anticipated when he wrote to the President, the *amende honorable* for the imputations which had been publicly cast upon him, he found that he was subjected to fresh aspersions involving also the Association of Fellows, of which he had for a long period been an active member. The avenue of justice at the College of Surgeons being closed, Mr. Holmes considered that he had no other alternative than to bring the subject before the Committee of the Association of Fellows. This he did at a meeting of the Committee which was held on July 21st, 1892, when a letter was drafted to Mr. Bryant, requesting him to furnish the grounds upon which he had based his charge against Mr. Holmes and the Association. After some delay, owing mainly to Mr. Bryant being obliged to apply to the Committee for copies of the proceedings of the Association, he sent a letter to the Committee, enclosing a paper setting forth three alleged misstatements made by the Association, and side by side his own refutation of the same. To this a lengthy rejoinder was made by the Committee, and this rejoinder elicited a reply from Mr. Bryant which introduced fresh issues, and led to a further reply from the Committee. In his reply, Mr. Bryant was requested to state whether he intended to charge Mr. Holmes and the Association with issuing intentional misstatements or not. Mr. Bryant not having afforded the Committee satisfaction in this respect, a final communication was forwarded to him intimating that the Committee had no other alternative than to publish the correspondence.

IS ALCOHOLISM INCREASING AMONG AMERICAN WOMEN?

DR. T. D. CROTHERS, in the current number of the *North American Review*, assures us that it is not. He says that the women charged in American police courts with drunkenness

and associated offences, such as breach of the peace, larceny, etc., are always profoundly degenerate in body as well as in mind. They are commonly, if we are to believe Dr. Crothers, "the mere wreckage of worn-out foreign families far down on the road to extinction;" only a small minority of American women fall so low. Higher up in the social scale, we are told, intoxicated women are rarely *seen*, but would not even Lady Frederick Cavendish admit as much regarding her own countrywomen? Dr. Crothers maintains that the constant educational forces of travels, lectures, the theatre, literary societies, church and reform movements, and "the possibility of leadership and prominence in many directions," all lead the American woman away from alcoholism. When these various causes of dissipation of mental energy are followed by nerve and brain exhaustion, they are, according to Dr. Crothers, more likely to lead to drug-taking than to dram-drinking. We venture to doubt whether the former will be generally accepted by English physicians as the lesser evil of the two, as Dr. Crothers would seem to imply. He states that patent medicines, composed largely of alcohol, which, according to him, have an "immense" sale among women in England, are in America sold almost exclusively to men who drink either moderately or to excess. He adds that for several years past there has been a considerable falling off in the sale of spirits to families in all the large towns of the Union, while a rapidly-increasing demand has sprung up for table mineral waters. Dr. Crothers admits, however, that there are in the United States many female inebriates who indulge both in alcohol and in opium, but he argues that if the numbers were increasing clear evidence of the fact would easily be obtainable. His defence of his countrywomen's sobriety is chivalrous, and we have no reason to think it otherwise than perfectly sound. It would, however, be more convincing if it proceeded less on the "high *a priori* road," and were based more on solid statistical facts.

SCOTLAND.

The annual dinner of the Aberdeen Medico-Chirurgical Society was held in the hall, 27, King Street, on the evening of Thursday, December 15th. The President, Dr. Angus Fraser, was in the chair. The Vice-President, Professor Stephenson, was croupier. There was a large attendance of the members of the Society, and numerous guests were also present.

PROPOSED "SCIENCE HOUSE" FOR EDINBURGH.

At an extraordinary meeting of the Edinburgh Medico-Chirurgical Society, held on December 21st, it was resolved to take steps in the direction of procuring a hall, with accompanying side rooms, either for the sole use of the Society or as a common hall in conjunction with some of the other Edinburgh scientific societies that are at present homeless.

ST. MUNGO'S COLLEGE.

Mr. Robert Thomas Kent, M.A.Oxon, F.R.C.S.Eng., formerly demonstrator of anatomy at the Middlesex Hospital and at Minto House and Surgeons' Hall, Edinburgh, has been appointed Professor of Anatomy in St. Mungo's College. Dr. Robert Fullarton has been appointed Lecturer on Diseases of the Throat in the room of Dr. David Newman, resigned.

THE PHARMACEUTICAL SOCIETY.

At the last meeting of the North British Branch of the Pharmaceutical Society of Great Britain, Dr. Ralph Stockman gave results of certain physiological experiments to show that the volatile oil of the Australian sassafras does not possess poisonous properties. The statement that two minims were sufficient to inhibit the heart's action was inaccurate; he had taken 10 minims without marked effect. An analysis of "koumiss" was read by Dr. Gordon Sharp. The revision of the *Pharmacopœia* was discussed.

THE TOWN COUNCIL, THE MEDICAL OFFICER, AND THE BOARD.

Having regard to the duties and responsibilities of its medical officer, with the necessary precautions for preventing cholera, with epidemics of measles, scarlet and typhus fevers, with additional hospital work, Leith Town Council, on the motion of the Provost, and after discussion and a division, by a majority resolved that the honorarium to that medical officer should be raised from £75 to 100 guineas, but with the addendum that this sum should include professional fees incurred in the recent visit of the medical officer to England to examine fever hospitals. Comment on all this is needless. The same meeting voted £5 to the Leith Flute Band to enable it to buy brass instruments.

BELLAHOUSTON BEQUEST FUND.

The trustees of the Bellahouston Bequest Fund have resolved to make the following grants for charitable and benevolent purposes, to be paid at Whit Sunday, 1893: Glasgow Royal Infirmary, £10,000; Western Infirmary (for building a dispensary and other purposes), £10,000; Victoria Infirmary (to redeem the feu and for other specified purposes), £10,000; Glasgow Society for Education of Deaf and Dumb, £2,000; Glasgow Asylum for the Blind, £2,000; West of Scotland Convalescent Seaside Homes, £2,000; Glasgow Eye Infirmary (for the erection of a dispensary and operating room and adjuncts in Charlotte Street, £2,000; Royal Hospital for Sick Children, £2,000; Glasgow Sick Poor and Private Nursing Association, £1,500; Glasgow Ear Hospital, £1,000; Eastpark Home for Infirm Children (to pay off the feu duty), £1,000; Glasgow Hospital for Skin Diseases, £500; Glasgow Cancer Hospital, £500; Glasgow Samaritan Hospital for Women, £500; Glasgow Maternity Hospital, £500; Glasgow Central Dispensary, £100; Glasgow Public Dispensary, £100. The trustees have further resolved to distribute a sum not exceeding £1,000 per annum in annual payments to various other applicants and purposes. The trustees are proceeding with the disposal of the applications which have been lodged in connection with the other purposes of the trust, as to which intimation will be given in due course.

RE-ELIGIBLE EXAMINERS.

Professor Stephenson, at the last meeting of the Aberdeen University Court, brought in the following motion, which was agreed to: "That before advertising the appointments of examiners in medicine the Secretary ascertain and report to the Court whether the examiners who are eligible for re-election intend to become candidates." He stated that the method that had been followed in the past in regard to advertising had led to great disappointment to the candidates, who, after having been at considerable trouble in sending in their applications, found there was no vacancy at all owing to the former examiners having been reappointed.

IRELAND.

RICHMOND HOSPITAL, DUBLIN.

In June, 1891, Mr. Louis Higgins, of Stephen's Green, Dublin, died, leaving a bequest of £5,000, which he directed his executors to apply, if they thought fit, to several hospitals in the city. Application was recently made to the Master of the Rolls (Dr. Samuel Gordon, one of the executors, acting with the consent of the others), for leave to apply the whole sum to the rebuilding or repair of the Richmond Surgical Hospital, one of the group known as the Richmond, Whitworth, and Hardwicke Hospitals. He stated that if this were done a further sum of £6,000 would be given by a friend of the hospital. His Lordship made the necessary order in terms of the application. The Richmond was an old building eighty years ago, and these liberal contributions to a building fund will enable the governors to have a hospital in accordance with modern requirements.

M. PASTEUR.

At the Sorbonne.—The Anniversary of a Researcher.—A Public Ceremony.—Addresses of the Minister of Education, of Sir Joseph Lister, of M. Pasteur, the Delegates of Europe.—Reception at the Pasteur Institute.—Private Fêtes.—Personal Incidents.—Message from M. Pasteur to his Professional Friends in England.

THE seventieth anniversary of the great French biologist, chemist, and researcher, was celebrated on Tuesday, December 27th, by a ceremony—or as our French colleagues say with characteristically lucid exactness—a solemnity which was organised and carried out with every circumstance which could give to it authority, dignified significance, and interest. The chief of the State, M. Carnot, President of the French Republic, officially presided over the ceremony, surrounded by so many of the Ministers that it was elsewhere officially announced that "most of the members of the Cabinet being engaged in the ceremony of the jubilee of M. Pasteur, the Council of Ministers will not meet till to-morrow (Thursday)." The ceremony took place in the grand amphitheatre of the Sorbonne, in the avenues to which were trooped a guard of honour, the band of the Garde Municipale being stationed in the gallery, and prefacing with its music the formal opening of the proceedings and the entry and departure of M. Carnot. On the right of the President was M. d'Abbadie, the President of the Académie des Sciences, a veteran in his 83rd year, and on his left M. Bertrand, and next to them on either side the General Secretary of the Academy, the President of the Senate, and the President of the Chamber of Deputies. Around the President were grouped MM. Ribot, Tirard, De Freycinet, Bourgeois, Loubet, and other Ministers; the Ambassadors of England, Russia, Austria, Italy, Spain, Turkey, and the Ministers Plenipotentiary of Portugal, the Netherlands, Denmark, Belgium, Persia, the Argentine Republique, and the *Chargés d'Affaires* of Brazil, Peru, Switzerland, Bavaria, and Roumania. Thus official honour was, in fact, paid to the illustrious *savant* by all the countries of the civilised world. All the learned bodies of Paris, indeed, of France, were represented.

M. Carnot entered the amphitheatre at 10.30. At this moment the hall presented a brilliant appearance. The great functionaries who occupied the platform, and the invited guests and the delegates of universities and foreign learned societies who filled the front ranks of the parterre, were in official uniform or academic costume. The brilliant decorations and embroidered coats of the members of the Académie and of the Institute, the crimson and ermined robes of the university delegates and graduates vied with and in some cases eclipsed the toilettes of the privileged ladies who occupied seats in the tribune—among whom were Madame Carnot, Madame Bouchard (wife of Professor Bouchard, the chief organiser of the ceremony), and Madame Valléry-Radot (daughter of M. Pasteur)—and in the gallery. M. Pasteur entered the hall with M. Carnot, and supported by his son. M. Pasteur was looking very well, although suffering a little from the cold.

After the enthusiastic plaudits had subsided, M. DUPUY, the Minister of Public Education, delivered an address, which was several times interrupted by prolonged applause, the students firing off their rhythmical "*ban, ban, ban!*" which is the characteristic and well-disciplined "Kentish fire" of the Quartier Latin. In the opening passage he justly affirmed that "it might be said that at that moment all France conjointly with all the thinking power of the civilised world, had its eyes fixed on the ancient Sorbonne, on the illustrious master whose seventieth anniversary the public powers and scientific bodies were that day celebrating." . . . "His striking and pure glory helped to console the sorrows of France, to comfort her heart, and in forming her growing esteem among the nations increased her confidence in her free institutions and her noble and generous destiny." He traced the career of Pasteur, the persistence, patience, and vivacity with which he had successfully combated the doctrine of spontaneous generation and established the germ theory. He repeated the words of Renan at Pasteur's reception into the Academy: "Your scientific life is like a stream of light in the great darkness of the infinitely small on these deep abysses of existence in which life is born." He cited some of the developments of this doctrine already achieved: his studies on silkworm disease, on fermentation, on wine, beer, vinegar—reiterated affirmations and renewed victories of the doctrine. France had recognised these achievements by a higher recompense. Since then the doctrine had reached to greater heights and thrown new light on the transmission and the contagion of disease, first in animals anthrax and *rouget*, discovering their immunising vaccines, to-day rabies, and perhaps to-morrow cholera, realising the imaginings of Descartes and the dreams of Condorcet. The afflux of learned great personages from all parts of the world showed that it was not only France which glorified Pasteur, but the whole world which brought its benediction.

M. D ABBADIE then, in a few touching words, offered the congratulations of the Institut de France, and carried to him the special medal designed and struck in his honour.

M. BERTRAND—an old and valued friend—concluded an eloquent address with the words, which deeply touched the assembly: "You are not only a great *savant*, you are a great man."

Then Sir JOSEPH LISTER rose by request to address M. Pasteur in the name of medicine and surgery. His name and his rising were saluted with successive rounds of enthusiastic applause, and the brilliant and spontaneous ovation to the illustrious author of *Antiseptic and Aseptic Surgery*, which owes so much to the inspiration of M. Pasteur's discoveries, was mingled with cries of "*L'Angleterre*," testifying to the pleasure which the presence of the great Englishman gave as the representative of his country as well as of his profession. Sir Joseph Lister spoke as follows in excellent French:—

Monsieur Pasteur, the great honour has been conferred on me of being the bearer to you of the homage of medicine and surgery. In truth, there is not in the whole world any person to whom the medical sciences are more indebted than to you. Your researches on fermentation have thrown a powerful ray of light which has illuminated the fatal darkness of surgery in changing the treatment of wounds from a matter of uncertain and too often disastrous empiricism to a scientific art surely beneficent in its operation. Thanks to you, surgery has undergone a complete revolution, which has stripped it of its terrors, and has enlarged its effective power almost to a limitless extent. Medicine is not less indebted than surgery to your profound and philosophic studies. You have raised the veil of mystery which had throughout the foregoing centuries covered infectious diseases. You discovered and demonstrated their microbic nature. Thanks to your initiative and in many cases to your own special labours, there is already a host of these pernicious diseases with the causes of which we are perfectly acquainted. "*Felix qui potuit rerum cognoscere causas.*" This knowledge has in an astonishing degree perfected the diagnosis of these scourges of the human race, and has indicated the path which must be followed in their prophylactic and curative treatment. In this path your beautiful discoveries as to the attenuation and intensification of viruses and preventive inoculations serve, and will always serve, as a guiding star. As a splendid illustration, I may mention your researches on rabies. Their originality, in the province of pathology as well as in that of therapeutics, was so striking, that at first many medical men felt some distrust. "Is it possible," said they, "that a man who is neither a medical practitioner nor a biologist should be able to instruct us in such a manner regarding a disease on which the finest intellects in the medical profession have spent themselves in vain? "*Quis novus hic nostris successit sedibus hospes?*" As for myself, I was too well acquainted with the clearness of your genius, the scrupulous caution of your inductions, and your absolute integrity to share for a moment these ignoble sentiments. My confidence has been justified by the event. With the insignificant exception of a handful of ignorant persons, the whole world now recognises the greatness of what you have achieved against that terrible disease. You have supplied a means of diagnosis which surely dispels the anguish of uncertainty which formerly haunted any

one who had been bitten by a healthy dog suspected of being rabid. That alone would have been enough to assure the everlasting gratitude of mankind. But by your wonderful system of antirabic inoculations you have been able to pursue the poison after its entrance into the body and to conquer it there. Monsieur Pasteur, infectious diseases constitute, as you are aware, the great majority of the diseases which afflict the human race. You can therefore have no difficulty in understanding why medicine and surgery hasten on this solemn occasion to lay at your feet the deep homage of their admiration and their gratitude.

Other speeches of interest were those of M. Bergeron, the Secretary of the Académie de Medecine, of M. Santon, the President of the Municipal Council of Paris, and of M. Ruffier, the Mayor of Dôle, the birthplace of M. Pasteur. The two last were the fruits of tardy conviction, and had a special interest for the Parisians and for those who knew the history of the past. M. Santon presented an address which had been unanimously adopted by the Municipal Council. It referred to "past resistance of *les ignorants*, among whom the councillors had taken rank;" that "short resistance" had but rendered the victory more striking and the more decisive; it was due "assuredly not to the nature but to the results" of his fertile discoveries, which had contributed not only to the improvement of the alimentation of the people, but to "the saving of life and to the opening of an immense field to the art of healing." Since last year, I may add, the Paris Municipality has begun to contribute £400 a year to the Institut Pasteur. Dôle has at length recognised the honour of being the birthplace of the researcher to whose fame and genius it had been insensible, and presented not only a sympathetic address, but some touching souvenirs of his youth.

M. Pasteur's reply was as follows:

M. le Président de la République, your presence transforms everything. A private festival becomes a public function, and the mere anniversary of the birth of a scientist becomes, thanks to you, a date in the history of French science. Monsieur le Ministre—Gentlemen: Through this glitter my first thought goes back with sadness to the remembrance of so many scientists who have experienced nothing but trials. In the past they had to struggle against prejudices, which stifled their ideas. These prejudices overcome, they had to encounter obstacles and difficulties of all kinds. Only a few years ago, before the powers that be and the Municipal Council had housed science in magnificent buildings, a man whom I much loved and admired, Claude Bernard, had but a few steps from this place only a damp, low cellar for a laboratory. Perhaps it was there that he contracted the disease which carried him off. On learning what you intended for me here, the recollection of Claude Bernard at once came back to me. I salute the memory of that great man. Gentlemen, it seems that by an ingenious and delicate inspiration you have wished to make my whole life pass again before my eyes. One of my countrymen, of the department of Jura, the Mayor of the town of Dôle, has brought me a photograph of the lowly dwelling where my father and mother led a life of hard struggle. The presence of all these students of the École Normale recalls to me the dazzling brightness of my first scientific enthusiams. The representatives of the Faculty of Lille bring back the memory of my first studies on crystallography and fermentation, which opened up a new world to me. With what hopes was I filled when the feeling began to grow within me that there were laws behind so many obscure phenomena. By what series of deductions I, working by the experimental method, have been permitted to extend my researches to the domain of physiology, you yourselves, my dear *confrères*, have been witnesses. If occasionally I have disturbed the calm atmosphere of our academies by somewhat lively discussions, it is because I was passionate in upholding the truth. Lastly you, delegates of foreign nations, who have come so far to give proof of your sympathy with France, you bring me the deepest joy that can be felt by a man who has an invincible belief that science and peace will triumph over ignorance and war, that nations will come to an agreement not to destroy but to construct, and that the future will belong to those who shall have done most for suffering humanity. As to this I appeal to you, my dear Lister, and to all of you, illustrious representatives of Science, of Medicine, and of Surgery. Young men, young men, put your trust in those sure and powerful methods of which we yet know only the first secrets; and all of you, whatever be your pursuit, I entreat you not to allow yourselves to be taken possession of by sneering and barren scepticism, and not to allow yourselves to be discouraged by the sadness of certain hours through which a nation has to pass. Spend your lives in the serene peace of laboratories and libraries. Say to yourselves at first "What have I done for my own instruction?" Then as you make progress say to yourselves "What have I done for my country?" and continue to ask yourselves this question till the time comes when haply you may have the exceeding gladness of thinking that you have in some measure contributed to the progress and wellbeing of mankind. But whether your efforts are more favoured or less by life, at any rate be in a position when the great goal draws near to say to yourselves "I have done what I could." Gentlemen, I wish to express the profound emotion and the lively gratitude which I feel. Just as that great artist, Roty, has, on the reverse of this medal, hidden under roses the date which shows the heavy load of years which weighs upon my life, so you, my dear *confrères*, have wished to give my old age the sight most fitted to make it rejoice still more, that of all this youth so full of life and love.

Then began a long defile of the representatives of the leading universities and seats of learning in all parts of the world, too long to enumerate, each bringing diplomas, addresses, medals of honour, and what not, and each applauded in turn.

M. Pasteur was deeply touched, and showed much restrained emotion throughout. At the close of Lister's address he gave him the "accolade fraternelle," which is of Continental usage; and it will be seen that in his reply he addressed him personally and specially. Among the invited delegates or guests from Great Britain were, in addition to Lister, Sir T. Spencer Wells, Sir William Mac Cormac (representing the Royal College of Surgeons of England), Dr. Pavy (representing the Royal College of Physicians of London), Dr. Ruffer, Mr. Ernest Hart, Dr. Turner, Professor Burdon Sanderson (Oxford), Dr. Sims Woodhead, and Dr. Sidney Martin (Laboratories Research Club).

Later in the afternoon there was a reception by M. Pasteur at the Institut Pasteur, which was specially decorated for the occasion, when most of the invited guests and of the delegates assembled. The addresses, orders, and medals were on view, and a collation was provided. M. Pasteur, who showed remarkable vigour and endurance, was surrounded by his pupils and assistants; Duclaux, Roux, Metschnikoff, and a great number of distinguished *savants* were present. M. Pasteur found a thoughtful and individual word for each, testifying his gratification at the compliment paid to him by Sir Spencer Wells and Dr. Pavy, who had come for a single day so far to do him honour, and, turning to Mr. Ernest Hart he specially desired that he might be permitted to offer through him, and publicly in the pages of the British Medical Journal, the expression of his deep appreciation of the sympathy shown for his work in Great Britain, and how much he had been touched by the presence and the authoritative words of congratulation and friendship from such men as Lister and Wells. He spoke also with feeling and warm recognition of the valuable support which the British Medical Association had given to kindred and related scientific research in medicine and the allied sciences, and of the services of the British Medical Journal in publishing repeated analyses and statements of the progress of new biological and medical study in the realm of bacteriology and bacterial vaccinations. He sent messages also to individual friends in England, and showed throughout a keen and vital reminiscence of the circumstances of scientific evolution in Great Britain.

In the evening there were large reunions at the houses of Mrs. Bouchard, Charcot, and other leading professional men, bringing agreeably to a close a day of memorable and historic interest.

It was made known to M. Pasteur, after the ceremony on Wednesday, that the President of the Republic had approved the promotion of Dr. Roux to the grade of Officer of the Legion of Honour, in recognition of the value of the national services which continue to be rendered by the Institut Pasteur.

THE REFORM OF SICK NURSING AND THE LATE MRS. WARDROPER.

By FLORENCE NIGHTINGALE.

The Extinction of Mrs. Gamp.

One has passed away without noise, without crown or sceptre of martyrdom, who was the pioneer of hospital nursing, the first lay hospital matron, at least of a great public hospital, who was a gentlewoman. Her kingdom was that of the sick. No public press heroine was she; yet countless sick will bless her name though they never heard it, and she opened a new calling for women of all classes, the Nursing Institutions for the Poor. She did this—a great work—for her country and her Sovereign, who is the mother of English-speaking womankind, thrice blessed to those for whom it initiated a divine life of common sense in nursing. No Mrs. Gamp could live in her neighbourhood; Mrs. Gamp was extinct for ever. She was soon gladly acknowledged by the doctors as their chief in nursing. She led a hard life, but never proclaimed it. What she did was done silently. No herald chanted her praises.

The state of what was by ignorance called nursing when she began hospital work, the miserable state, moral and technical, of the nurses, would scarcely now be credited. Did one, who knew it, attempt to describe it, she would be, by a universal jury of her fellows, found guilty of exaggeration. But God knew it.

Reforms at St. Thomas's.

I saw her first in October, 1854, when the expedition of nurses was sent to the Crimean war. She had been then nine months matron of the great hospital in London, of which for thirty-three years she remained head and reformer of the nursing. Training was then unknown. The only nurse worthy of the name that could be given to that expedition, though several were supplied, was a "sister" who had been pensioned some time before, and who proved invaluable. I saw her next after the conclusion of the Crimean war. She had already made her mark. She had weeded out the inefficient, morally and technically; she had obtained better women as nurses; she had put her finger on some of the most flagrant blots, such as the night nursing, and where she laid her finger the blot was diminished as far as possible, but no training had yet been thought of.

The Establishment of the Nightingale School.

All this led to her being chosen to carry out in the hospital of which she was matron the aims, in the training of nurses, of the Nightingale Fund, which had then been subscribed. She was named first superintendent of that school, and continued such for twenty-seven years till her retirement in 1887. That school under her has been more or less the model of all the subsequent nurse-training schools, of which now nearly every considerable hospital, and many an inconsiderable, has its own, but they chiefly train for themselves; she, as head of the Nightingale School, trained for many other hospitals and infirmaries. The principles of this school may be shortly said to be as follows:—(1) That nurses should have their technical training in hospitals specially organised for the purpose; (2) that they should live in a "home" fit to form their moral life and discipline.

The Work of the School.

The school under this lady was opened at the old St. Thomas's Hospital, near London Bridge, in 1860. St. Thomas's and the Nightingale School were removed to the Surrey Gardens in 1862, and in 1870 to their present abode opposite the Houses of Parliament on the other side of the river. At the time of her retirement upwards of 500 nurses had completed their course in the school, and entered into service on the staff of St. Thomas's and other hospitals; and of these over 50 educated gentlewomen were occupying important posts as matrons or superintendents of nurses in hospitals, infirmaries, and nursing institutions for the poor, and not only in the United Kingdom, but also abroad.

The Methods and Character of Mrs. Wardroper.

This lady was Mrs. Wardroper, who passed away, quite peacefully, in her 80th year, on December 15th, 1892, and was buried quietly on December 19th. It is difficult to describe the character of such a woman, the more so as her praises were never sounded in newspaper or book. No laurel encircles her brow, no crowds assemble to do her honour. But hundreds of trained nurses, and hundreds of thousands of well-nursed sick are her meet tribute.

Her power of organisation and of administration, her courage and her discrimination in character were alike remarkable. She was straightforward, true, upright; she was decided; her judgment of character came by intuition, at a flash, not the result of much weighing or consideration, yet she seldom made a mistake; and she would take the greatest pains with her written delineations of character required for records, writing them again and again in order to be perfectly just, not smart or clever; but they were in excellent language. She was free from self-consciousness; nothing artificial about her. "She did nothing because she was being looked at, and abstained from nothing because she was looked at."

Her whole heart and mind, her whole life and strength were in the work she had undertaken. She never went a-pleasuring; seldom into society. Yet she was one of the wittiest people one could hear on a summer's day, and had gone a good deal into society in her unmarried life. She was left a widow at 42 with a young family. She had never had any training in hospital life. There was none to be had.

Her force of character was extraordinary; her word was law. For her thoughts, words, and actions were all the same. She moved in one piece. She talked a great deal, but she never wasted herself in talking; she did what she said. Some people substitute words for actions; *she* never. She knew what she wanted, and she did it. She was a strict disciplinarian; very kind, often affectionate, rather than loving. She took such intense interest in everything, even in things matrons do not generally consider their business, that she never tired. She would be quite late in decorating the chapel at Christmas and Easter with her own hands. She had great taste, and spent her own money. She was a thorough gentlewoman, nothing mean or low about her; magnanimous and generous, rather than courteous.

And all this was done quietly. Of late years the great nursing work has been scarred by fashion on one side, and by mere money-getting on the other—two catastrophes sure to happen when noise is substituted for silent work. Few remember her in these express-train days, dashing along at 60 years in a day.

> A perfect woman, nobly planned
> To warn, to comfort and command.

"Comfort," not in the present meaning of comfortable, easy-chair life, but comfort in the good old meaning of "Be strong with me."

And so, dear Matron, as thou wast called so many years, we bid thee farewell, and God-speed to His higher world; not as the world giveth, giveth He thee.

THE GENERAL MEDICAL COUNCIL AND MEDICAL AID ASSOCIATIONS

The Committee on Medical Aid Associations of the General Medical Council have issued a circular letter to all medical officers of medical aid associations containing a series of questions as to the mode in which these associations are carried on and their relation to their medical officers. We give below a copy of these questions. It will be seen that they are of a comprehensive character. The Committee has held two meetings, and by issuing this circular letter it "proposes to learn as much as possible without troubling the officers of the associations to give evidence in person."

The Committee "will be glad to have" their answers if they "see no objection to giving them," and the answers will be regarded as strictly confidential if so desired; names mentioned will not be divulged without permission. The Committee also ask for copies of annual reports, especially the earliest and latest. Communications, in reply, should be addressed to the Chairman of the Committee on Medical Aid Associations, The General Medical Council Office, 299, Oxford Street, London, W.—The members of the Committee are Dr. J. C. Glover (Chairman), Mr. Wheelhouse, Mr. Teale, Dr. Leech, Dr. Bruce, and Dr. MacAlister.

Questions.

1. How is the association of which you are medical officer governed; and have you any voice in the management of it? if so, to what extent? How long has the association been in existence? How long have you been its medical officer?

2. What is the nature and amount of your work as medical officer?

3. Give some particulars as to:

(*a*) The area of ground covered in your rounds.

(*b*) The average number of patients seen daily; (*a*) at their own houses; (*β*) at your house or surgery; (*γ*) the amount of midwifery attended, and the proportion of the fee (stating the whole sum) retained by you?

(*c*) Can you overtake satisfactorily all the work expected of you?

(*d*) Is the amount of work imposed on you such as to permit you conscientiously to give the necessary amount of attention to individual cases?

4. What facilities are given for the performance of your work?

(*a*) Is any conveyance provided?

(*b*) Are drugs and medical appliances supplied by you or the association?

(*c*) What assistants are you allowed? What are their qualifications? What remuneration do they receive? By whom are they paid, and to what extent are they under your control?

(*d*) How are you situated in reference to a consultation in a case in which you deem further advice necessary or desirable?

5. What is the amount of your salary, and are there any, and if so, what, perquisites of your office? Has your salary been raised since you were first appointed medical officer, and if so, when?

6. How are the receipts of your association appropriated, as between its medical officers, and its general members, or any special members in particular?

7. To what extent do you attend patients who would be able to pay a private practitioner? State generally the class to which patients belong whom you attend as medical officer of the association?

8. Do you enter a bond or other engagement not to practise in the same place as that of your present office?

9. Is systematic canvassing for members adopted by your association?

10. Does your experience enable you to give an opinion as to the influence, beneficial or otherwise, of the system: (1) On the public, and the public health; (2) on the medical profession?

11. Be kind enough to state generally, for the information of the Committee your views of the memorials addressed to the Council, copies of which, extracted from the minutes, are sent herewith.

THE CHOLERA.

[Special Weekly Report to the British Medical Journal.]

Russia.

In St. Petersburg we learn that, owing to the continued prevalence of cholera in a particular quarter of the city, a sanitary body has been charged with the function of carrying out measures of disinfection in fourteen groups of houses, each group having a special doctor and disinfecting expert. During the present week the city has witnessed the daily meetings of the medical men, some 200 in number, specially summoned from various parts of the empire, for detailed discussion of the measures best suited to the checking of the spread of the anticipated outbreak of cholera in the spring. Meanwhile, cholera is not yet dead in the empire. In the capital cases are of almost daily occurrence still: thus in the five days, December 17th-21st, there were 13 cases and 7 deaths, with 19 recorded recoveries from the disease; whilst on the 15th and 16th there were other 10 cases and 5 deaths, a total of 23 cases and 12 deaths for the week in question, leaving some 30 cases in hospital. The cold was intense at Christmas-time, 20° below zero F. having been registered. In the south-western provinces of Russian Poland near Cracow the cholera epidemic is increasingly virulent; whilst reports from Sebastopol declare that the disease is raging severely along the Caucasian shore, the deaths in the fortnight ended December 24th being reckoned by hundreds. The Director of Prisons has organised special measures of precaution against the introduction of cholera into Siberia by convicts from European Russia.

Germany.

An official report on the cholera epidemic of 1892 in Germany, which has recently been issued, gives the grand total of deaths throughout the Empire as 8,510. In the city and state of Hamburg the mortality was 7,611, or 122 per 10,000 of the population; in Altona, close at hand, 328 deaths occurred, or 23 per 10,000 inhabitants; in Wandsbeck, 43 deaths; in Lauenberg, 25; whilst across the River Elbe there were 102 deaths at Harburg, 61 of them being in the district of Wilhelmsburg, a rate of 70 per 10,000 of population. At Neuenfelde, in Jork sub-district, the 21 deaths yielded a rate only second to that of Hamburg. In Prussia proper 892 deaths were recorded, the district of Schleswig being credited with 502, Lüneburg with 116, Stade with 90, and Stettin with 66. Of the last-named, 17 took place in the town of Stettin. In the district of Potsdam there were 42 deaths; in Madgeburg 16, and 15 in the precincts of Berlin, Charlottenburg having 5 and Spandau 4 deaths. The sub-district of Westpriegnitz, situated on the Elbe, suffered very severely relatively to population; and of the 14 deaths, 8 took place in the little town of Wittenberge. Many other districts and towns were infected, the figures tending to show that Hamburg was most severely attacked, and that cholera spread up the rivers with diminishing virulence.

The Hamburg authorities appear to be ready to give publicity to all fresh occurrences, and if the public are assured that nothing is concealed, confidence will be assured. Hamburg has now been declared infected again, and all other German ports as suspected. From December 9th to 19th there were over half-a-dozen authenticated cases of cholera in Hamburg, one proving fatal; 2 cases occurred on December 20th, one patient being an Italan sailor; 2 on December 21st, in addition to 7 suspected cases; on December 22nd, 4 cases, 1 death, and 9 suspected cases; December 23rd, 5 cases, 1 death, 6 suspected cases; December 24th and 25th, 12 cases, 3 fatal; December 26th, 2 cases in a house already infected, and 1 death; whilst 8 undoubted cases remained in the Eppendorf Hospital, besides 39 patients suspected of having cholera. One fatal case occurred at Wandsbeck on December 24th, and one case at Altona.

France.

On December 25th and 26th last there were 3 cases of cholera in Dunkirk, one proving fatal. In Boulogne, during the second week of this month, 2 deaths occurred, followed by 2 more in the third week. Calais also had 2 fatal cases, 2 others recovering, last week. The disease continues to linger at Lorient, where over a dozen deaths took place in the week ended December 21st.

Austria-Hungary.

It has been officially declared that the cholera epidemic has ceased to exist at Buda-Pesth.

SMALL-POX IN GREAT BRITAIN.

[Special Weekly Report to the British Medical Journal.]

London.

The 11 cases of small-pox notified in London during the week ended December 17th were followed by 9 in the succeeding week, whilst last week we hear of cases having occurred in Chelsea, Holborn, Hackney, St. George-in-the-East, and Camberwell. Outside the metropolitan area one or two cases arose at Erith. At the end of the week 38 cases remained on board the hospital ships at Long Reach.

Lancashire.

At Warrington 12 cases of small-pox were notified in the week ended December 17th, and 2 deaths occurred. There were 28 patients discharged from the Hope Hospital, and 102 remained under treatment at the end of the week. At St. Helen's more half-a-dozen cases notified in the four days, December 16th-19th, whilst near at hand in the week ended December 17th Liverpool, Bootle, and Birkenhead had the same number of cases between them. Bootle also had a few cases last week. The disease has seriously increased at Oldham and Chadderton, where a score of cases were heard of last week.

Small-pox continues to increase at Manchester, the records of last week showing no fewer than 19 cases, whilst there were 2 at Salford. Dr. Tatham has had handbills printed giving a short account of the prominent features of the disease, with a view of ensuring that no cases shall go unrecognised. Up to December 22nd there had been 42 cases in Manchester during the month; and Dr. Tatham, in addition to drawing attention to the importance of prompt notification of cases, and of at once calling in a doctor, urges vaccination and revaccination on those requiring these protective operations. Especially has he pressed the matter on proprietors of large establishments in regard to the hands employed, and at least one firm (Messrs. Calvert and Co.) have seconded his wishes by urging all in their employ to take advantage of the opportunities afforded for securing revaccination. There are twenty-one public vaccination stations in and around Manchester, and at seventeen of these attendances are given weekly throughout the year, particulars of the stational arrangements being given in Dr. Tatham's handbills.

A case of small-pox occurred at Bollington, near Macclesfield, last week, the infection having been introduced from some town not far away.

Yorkshire and the North.

In addition to the smart outburst of small-pox at Halifax in the week ended December 17th Wakefield and Sheffield both had cases of the disease, whilst last week there were again not far short of a dozen cases in Halifax. In Barnsley there were half that number. A case is reported from Driffield workhouse last week, and Bedale, Greatland, Snaith, Ripon, Rotherham, and Middlesbrough have also been recently visited by the disease. Several cases are cropping up in the Newcastle-on-Tyne and Durham districts. A case has arisen at a lodging house in Sedgefield, and the rural sanitary authority have decided to purchase a disinfecting apparatus, and to make arrangements for leasing two cottages for use as an infectious hospital. A case is reported to have occurred at Crawleyside, in the Weardale Rural district, in circumstances that lead to fears of other cases cropping up. There is an utter want of proper means of isolation, opportunity for the spread of infection has been present, and there are no public means of disinfection of bedding and clothing. Moreover, the Infectious Diseases (Notification) Act has not hitherto been adopted. In Tynemouth a case occurred last week in the person of a tramp.

At Barnsley last week the cases reported numbered some half dozen, the majority occurring in a particular factory, and deriving infection, it

is thought, from a previously unrecognised case. All the cases heard of have been sent to hospital. The deaths from small-pox in Yorkshire last week included 3 in Leeds and 2 in Halifax.

MIDLAND DISTRICTS.

At Hathersage, in Derbyshire, there has been an extension of small-pox, the outbreak in the township being at Padley Huts, on the Dore and Chinley Railway workings. Some 250 men, with their wives and children are congregated there, and the Notification Act is not in force. Special facilities are to be given for vaccination. In Derby itself, last week, there were some few cases, and in the previous week Leicester had 4 cases, and a couple were heard of in Birmingham. At the former town small-pox caused 2 deaths last week. Cases have recently been notified in several Midland towns, such as Winterton, Hungerford, Longton, and Oxford News also comes of multiple cases at Southampton, and of two cases at Swansea, all of them of recent occurrence.

SCOTLAND.

Our Edinburgh Correspondent writes: One of six small-pox patients who have been admitted to the Edinburgh Canongate Hospital died last week. He was an old man who had suffered from chronic bronchitis. His attack of small-pox was a mild one. Two further cases are known to have occurred in the county of Midlothian.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 11th day of January next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

December, 1892.

NOTICE OF QUARTERLY MEETINGS FOR 1893. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on January 11th, April 12th, July 12th, and October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the Offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

DUBLIN BRANCH.—The annual meeting of this Branch will be held (by permission of the President and Fellows) in the hall of the Royal College of Physicians, on Thursday, January 26th, at 4.30 o'clock. The members will dine at 7.30, at the College.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held on Friday, January 27th, at the Radcliffe Infirmary, at 3 P.M. Notice of papers, etc., should be sent, by January 20th, to the Honorary Secretary, W. LEWIS MORGAN, 37, Broad Street, Oxford.

ON December 10th a bronze bust of Professor Jacob Moleschott, the distinguished physiologist, was uncovered in the great hall of the University of Rome in the presence of deputations from every university in Italy. Signor Martini, the Minister of Education, represented the Italian Government. The occasion was the completion of Professor Moleschott's fortieth year of service as a public teacher in Italy.

SPECIAL CORRESPONDENCE.

[FROM OUR OWN CORRESPONDENTS.]

PARIS.

Reform of Preliminary Medical Education—The Municipal Council and the Hospitals.—A Paris Vigilance Society.

A MEETING of the Medical Faculty was held a few days ago to consider M. Le Fort's report on the reform of medical study. The Rector of the French Faculties sent the following questions to be discussed:—"The organisation in the Science Faculties, after a complete primary curriculum, the philosophy class included, one year's study, practical and theoretical, physics, chemistry, and natural history to replace the *baccalauréat ès sciences restreint*: and the first year's studies included in the existing Faculty programme. In consequence of the new military law, which obliges medical students to be M.D.'s before 26, and takes away a year from their studies, it was decided to issue a recommendation to families who are able to give their children a classical education, not to delay unnecessarily sending them to the *lycée*. It was also recommended that scientific instruction should be re-organised in *lycées*, and that the examination of diploma of Bachelier-ès-lettres should be passed, if possible at the age of 17.

The Municipal Council has decided that six subcommittees shall be organised in the service of the Assistance Publique. Their duties will be to visit hospital wards and asylums, to assist at consultations, but not to interfere with the treatment; to overlook the *personnel* and sanitary condition of the buildings, and to see that the poor are regularly received in asylums. It was agreed that the law of 1849 needs revision: it gives only slight power to the Municipal Council, and does not clearly define the position of the hospital medical staff.

La Société Centrale de Protestation contre la Licence des Rues held a meeting a few days ago, under the presidency of M. Jules Simon, member of the Institute. The objects of the Society, which has a membership of 4,000, are "to make known the existence of immorality, to denounce the guilty, to aid and strengthen the law, and discourage those who break the laws." An appeal was made to the general public to co-operate with the Society in this work.

SHEFFIELD.

District Nursing.—Prosecution under the Notification Act.—Poor-Law Hospital Accommodation.

AN appeal has been made for aid in carrying on efficiently the nursing of the sick poor at their homes, which for some years past has been associated with one of the nursing institutions. From the published statement it appears that during the last four years the lady who is the principal of this institution has contributed to the working of this excellent object no less than over £800 out of the receipts of the private nursing, for which her home primarily exists. It is to be hoped the help required will be forthcoming. A contrast to such praiseworthy action is afforded by the conduct of a Town Councillor, who recently, at a council meeting, said he noticed that a piano was to be provided for the nurses at the Borough Hospital; he also saw that they had books to read, and the next thing he supposed would be that linen would be spread for dancing to the music from the piano which they were providing. He would like to know when and where this sort of thing was going to stop! The answer given was very proper, that the piano was provided to help to make the lives of the nurses happy. "A cheerful nurse always looked well after the patients."

A parent has been proceeded against and fined for failing to notify that her children were suffering from scarlet fever. It was stated that the mother knew they were suffering from the disease in a mild form, and that yet she allowed them to run about.

The Sheffield Guardians have had under their consideration for some time the need of further hospital accommodation, but at a recent meeting the Local Board inspector used decided language, and told the Guardians that words would not express the strength of his regret that nothing had been done. He had pressed the matter since September, 1891.

LEEDS.

Proposed Extension of the Convalescent Home as a Memorial to the late Canon Jackson.—Death of Mr. John Lupton.—Christmas at the Infirmary.

An influential and widely representative meeting, convened by circular, was recently held in the Town Hall, for the purpose of considering what form a memorial to the late Canon Jackson should take. The Mayor, in opening the meeting, said that the object would commend itself to everyone in Leeds. The memory of the late Canon's life stood out as one which they should seek to cherish amongst them as long as they could. The Vicar of Leeds moved a resolution that the memorial should take the form of a wing to the existing Convalescent Home at Cookridge, to be called "The Edward Jackson Memorial Wing," chiefly with the view of providing more accommodation for women and children. Mr. R. Benson Jowitt, Treasurer of the Leeds General Infirmary, said that there was a peculiar appropriateness in the form the memorial was to take; for, speaking at the meeting of the hospital a year and a-half ago, Canon Jackson said very emphatically that the time had come when further accommodation must be made. That hospital was founded in a very real sense by Canon Jackson, for he suggested to the late Mr. Metcalfe Smith this outlet for his beneficence. How better could they erect a memorial to a man than by fulfilling one of his dreams? The resolution was unanimously adopted, and a representative committee formed to carry out the scheme. Subscriptions to the amount of £1,300 were announced in the room.

We regret to have to announce the death of Mr. John Lupton, an active member of the House Committee of the General Infirmary Board, which took place on Christmas Eve. Mr. Lupton's loss will be felt not only by the members of the Committee, the medical staff and the officials, but by the patients, to whom he was a familiar figure at the annual Christmas festivities.

Bright as are the various wards of the infirmary at all times, they never look so cheerful as at Christmas time, when deft hands have been at work decking walls, windows, and tables with misletoe, holly, and laurel. In the children's ward is an enormous Christmas tree, reaching from floor to ceiling and laden with toys which kind-hearted people have sent in abundance to give pleasure to the suffering little ones. The mid-day meal was of the wonted Christmas kind, and was followed by the distribution of tobacco, fruit, or toys. Friends and relations were allowed free access, and the corridors and wards were full of life all day.

CORRESPONDENCE.

INDIAN VIEW OF THE ETIOLOGY OF CHOLERA.

Sir,—In your issue of October 15th, "Asiaticus" attacks the position taken up by the Editor of the British Medical Journal towards water supply as the chief cause of epidemic cholera. He professes to do so from the standpoint of all Indian experience. Even the names of one or two well-known Surgeon-Generals would not, however, carry conviction on this point. The attempt made some years ago to bully Surgeon Andrew Duncan and other medical officers out of their frankly-expressed professional opinions that water is the chief carrier of cholera does not favour the idea of there being any such consensus.

And so far as my experience of two severe epidemics has gone, those who stood in the forefront of the battle concentrated their energies on preventive measures based on the theory that "Asiaticus" disavows. Witness the paper read by Surgeon-Colonel Harvey before the British Medical Association with reference to Kashmir, a country which, with its ring-fence of snow-clad hills might well have hoped for immunity. I venture to think that the majority of surgeons in the Punjab and all of those in Kashmir are avowed water-contagionists, although some of us fail to see any necessary antagonism between the views of Koch and those of Pettenkofer.—I am, etc.,

Kashmir, Dec. 18th. Arthur Neve, F.R.C.S.E.

THE EXAMINATION OF THE HEART PRIOR TO THE INDUCTION OF CHLOROFORM ANÆSTHESIA.

Sir,—There is a general scepticism as to the value of examining the heart previous to the administration of chloroform: yet there is as general a belief that death under chloroform is the result of heart failure.

Were the examiner entirely to divest his mind of any knowledge of valvular disease, and to make his examination purely for the purpose of discovering whether the heart was, at the moment of his examination, acting well, was functionally healthy, the information he could thus convey to the anæsthetist would, I believe, be far more valuable.

Perhaps the most important thing of all to note is the existence of functional (and therefore temporary) high tension. Dread is a frequent cause of this. If it be chronic, as it is when due to the existence of thick vessels (one must not forget that, even here, there may be temporary functional increase of the high tension), we need not mind it, for the heart has become as used to it as it becomes to the small lung space in phthisis; but if it be from dread, for example, and therefore acute, it endangers the heart's action just as much as does the acute limitation of lung space in lobar pneumonia. The fatal stoppage usually comes before the operation, or with the shock of the first incision; rarely after the operator has got well at his work, and lowered the tension by loss of blood or other fluid, or by exhaustion.

Another noteworthy point is the nature of the first sound. Is its duration of sufficient length, slow in its onset and in its departure, and thus indicative of a steady, well-conducted, muscular contraction? Or is it short and sudden, and irregular both in size and rhythm, as if the cardiac musculature were taken unawares by some sudden call for increased labour?

The history in this regard should also be attentively considered. Has the patient had palpitation of late, or is his temper easily upset? Is he subject to dyspnœa on exertion? At the same time, history is of comparatively minor importance, for it is the actual kinetic, as opposed to potential, energy of the heart which we have alone to consider. One thing we should never forget: the importance of accurately delineating the size of the heart, and forming a judgment as to the comparative proportions of dilatation and hypertrophy.

The questions the examiner should ask himself are these: (1) Is the cardiac government at this moment orderly and calm, or is there any tendency to disorder and anarchy in its nervous mechanisms? (2) How much more force could the heart at this moment exert than it is actually putting forth?

In children there is usually so much latitude allowed us under (2) that we do not trouble greatly about (1), though even with children, every anæsthetist of experience must be able to recall some anxious minutes. Some cases are reported as having taken the anæsthetic quietly, and the heart to have been reported sound, and yet this organ has suddenly ceased to beat. This outward and cardiac calm must then have been due to an unusual power of voluntary self-control, and when, with the inset of unconsciousness, most of this was removed, the nervous anarchy appeared, and, there being little spare force in the heart, this organ suddenly succumbed to the shock.

If we feel that our answer to question (1) above is unsatisfactory, a strong dose of alcohol, given some five minutes before the inhalation of the chloroform, should prove of benefit, or better still, if there be previous knowledge of the operation by the patient, would be the exhibition, some two or three hours previously, of opium in a dose (say one grain) sufficient to induce its dreamy exhilaration. Of the efficacy of the alcohol I have satisfied myself, but I believe a larger field of good lies before opium, both as a soporific on the previous night, and as a sedative some two or three hours prior to the operation.—I am, etc.,

Birmingham, Nov. 29th. Arthur Foxwell, M.D., F.R.C.P.

CAN ENEMATA BE VOMITED?

Sir,—The letter of Dr. James H. Aveling in the British Medical Journal of November 26th on the above subject recalled to my memory an interesting specimen which at present exists in the Hunterian Museum of the Glasgow University. Some few years ago I wrote a paper on the Anatomical

Section of this Museum[1] with the object of awakening more interest in it amongst students and local practitioners. Like his brother John, nothing seems to have escaped William Hunter's keen observation, and specimens are to be found in this museum which will scarcely be duplicated elsewhere. It was while taking notes of these rarer curiosities that I came across the following, and quote from my jottings of this particular specimen: "Vomiting of clysters, No. p. 87a. The preparation shows the termination of the ileum in the cæcum. There is no proper ileo-cæcal valve, and its place is taken by a particularly large and lax orifice. The parts were removed from a young lad, who died of peritoneal inflammation, and in whom clysters thrown up into the rectum were in a few minutes after vomited by the mouth. Linseed oil so injected appeared on the surface of the material vomited."—I am, etc.,

Glasgow, Nov. 26th. A. ERNEST MAYLARD.

SIR,—In a paper read before the American Medical Association in June, 1878—a synopsis of which will be found in the *Virginia Medical Monthly* of October, 1878—I answered this question affirmatively, giving a number of cases of my own. My original paper on this subject was read before the Atlanta Academy of Medicine in 1874, and published in the *Atlanta Medical Journal* for June of that year. At that time I supposed myself to be the original discoverer of this fact, but subsequently learned from the *Medical and Surgical History of the War of the Rebellion*, Part II, vol. i, p. 836, that I had been long antedated in this discovery.

My experiments proved that, whilst moderate distension by a liquid from below closes the ileo-cæcal valve, over-distension, by stretching the longitudinal muscular fibres, opens the valve, and allows the liquid to pass through.—I am, etc.,

Rome, Ga., U.S.A., Nov. 30th. ROBERT BATTEY.

NECROSIS OF THE ETHMOID.

SIR,—Having been present at the Medical Society of London six years ago, when Dr. Woakes read a paper on the subject of nasal polypi in their connection with necrosing ethmoiditis, I have endeavoured to find a case in which the two conditions were clearly and unmistakably connected. I have been unsuccessful, except (if they are an exception) in regard to those cases reported by Dr. Woakes. I am still, therefore, of the same opinion, which I expressed at the Medical Society, that necrosis as an accompaniment of polypi in the nose is extremely rare, and should be regarded when present as an accident, or in some instances, perhaps, as a remote result of polypi, and not as a cause. The cases reported in the JOURNAL two weeks ago do not prove any etiological connection between "necrosis" and polypi. That in two cases out of twenty in which specimens were submitted to microscopical examination, necrosis was found, is a fact which is open to various interpretations, dependent mainly on the history of those two cases. Was there any previous operation on the polypi before the removal of the specimens examined? Had the ethmoidal cells been probed for the purpose of discovering loose bone? If either of these questions is answered in the affirmative, it makes the further question important—namely, Were the necrotic spiculæ of bone found microscopically the results of the operation or the probing; or were they related to the polypi as their original starting points? I believe that the former is the more probable interpretation; because (1) I have never been able to detect any of the usual indications of necrosis associated with polypi in my own cases before operation or after removal; and (2) because, notwithstanding very free use of the electric cautery, the snare, and other instruments in the removal of polypi and of portions of the turbinates, I have been often surprised at the rapid healing of the surfaces of bones and the absence of any of the usual indications of necrosis.—I am, etc.,

Henrietta Street, W., Dec. 22nd. W. SPENCER WATSON.

AMINOL.

SIR,—Dr. Klein's letter in your issue of the 24th inst. necessitates a reply from me.

I shall confine myself to such matters as have not been touched upon in my previous letter. I again quote from Dr. Klein's report:—1. "Spores of bacillus anthracis after twenty-four hours, growth reduced from 100 to 6." 2. "This solution (1 in 600) is in itself a perfectly harmless fluid as regards the human organism; therefore, when applied to wounds, no undesirable disturbances could ensue owing to its being absorbed. This is well known to be the case with some antiseptics, as in carbolic acid applications, or in the use of perchloride of mercury."

Now I shall quote from *Koch on Disinfection* (abstracted and translated by Whitelegge, published by the Sydenham Society). 1. "For practical purposes, a disinfectant should not require much longer than twenty-four hours." 2. "Except chlorine, bromine, and iodine, only mercuric chloride, osmic acid, and potassic permanganate (5 per cent.) destroyed anthrax spores within twenty-four hours. Since a 5 per cent. solution of permanganate is inadmissible for disinfection in bulk, and osmic acid is out of the question, we have left only mercuric chloride and iodine, bromine, and chlorine."

The strengths in which the above-named substances succeeded in destroying anthrax spores in twenty-four hours are stated in Koch's tables thus:

Permanganate	aqueous solution		5 per cent. (1 in 20).
Bromine	,,	,,	2 per cent. (1 in 50).
Chlorine	,,	,,	?
Iodine	,,	,,	?
Mercuric chloride	,,	,,	1 per cent. (1 in 100).
Osmic acid	,,	,,	1 per cent. (1 in 100).

Now put against this the fact that Dr. Klein found, as cited above, that aminol in the strength of 1 in 600 (which he himself calls a perfectly harmless fluid) kills 94 per cent. of the spores of anthrax in twenty-four hours, and its claim to be classed amongst true disinfectants becomes at once apparent.

That the designation "a true disinfectant" is meant by me to be applied only to such strengths of solutions of aminol as to kill anthrax spores in twenty-four hours or thereabouts Dr. Klein may rest assured, as also that everything will be scrupulously avoided by me which could possibly give rise to misconception in future.—I am, etc.,

Leadenhall Street, E.C., Dec. 28th. HUGO WOLLHEIM.

CLOSE APPOINTMENTS.

SIR,—It is high time that some protest was made against a practice which is, unfortunately, becoming too common. I refer to the habit of advertising as vacant posts which have virtually been filled up. I speak from a somewhat limited experience, but, limited though it be, it is sufficient to justify me in drawing attention to a system, of which the best that can be said of it is that it is a miserable sham. No one can object to any body of electors nominating a candidate for a vacancy, but when this informal nomination practically carries with it the formal election to the post, it seems a *fiasco* to go through the formality of advertising the post as open to all comers on their merits.

The hardship falls especially on the junior men, who, in their endeavours worthily to represent their claims, are put not only to considerable expense, but also, what is more important, to much trouble and anxiety in acquiring influential testimonials. Under such circumstances, all this is wasted energy, and anyone who knows aught of the "push" requisite to get such testimony, or the discrimination necessary in giving it, will agree that, under these or similar conditions, it is a thankless task alike to giver and seeker.

Some stand should be made against such jobbery, and I hold that the profession is entitled to some consideration in the matter, and that, in the event of a position being advertised as vacant and open to competition, both juniors and seniors should have some guarantee that the appointment will be made with due regard to the merits and necessary qualifications of the various candidates.—I am, etc.,

Oxford, Dec. 27th. ARTHUR THOMSON.

MEDICAL LEGISLATORS.—Two medical practitioners, Dr. H. F. Thomas, of Allegan, and Dr. John Avery, of Greenville, have been elected members of the United States Congress. Both gentlemen have already had experience of political life, Dr. Thomas having served as Representative and Senator, and Dr. Avery as Senator, in the Michigan Legislature. Dr. Avery has for several years past been President of the Michigan State Board of Health.

[1] *Glasgow Medical Journal*, s.s., vol. xxii, p. 9, 1884

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

A MEETING of the Council of the East Anglian Division of this Society was held at Hatter Street, Bury St. Edmunds, on December 21st. Dr. Fegen, of Brandon, presided. After some general business had been transacted, it was decided to hold a general meeting of the members and others interested in medical protection at Bury early in 1893. Mr. John Kilner, F.R.C.S., Senior Surgeon to the West Suffolk Hospital, being invited to preside. Dr. Mead (Newmarket), the organising secretary, reported that at least thirty divisions had been already formed, and that at a recent meeting of the London General Council 142 new members were elected.

DR. FRANCIS W. CLARK, Honorary Secretary (Cardigan Terrace, Newcastle-on-Tyne) writes: A Northern Counties Branch of the London and Counties Medical Protection Society has been formed under the presidency of Walter Ridley, M.S., F.R.C.S. (Newcastle-on-Tyne), and I shall be pleased to supply forms of application for membership, or any information respecting the Society, to medical or dental practitioners in this district.

FREE TRADE IN MEDICINE.

THE London and Counties Medical Protection Society recently prosecuted three Hindus for pretending to be physicians or doctors of medicine. Handbills had been issued upon which one of the defendants was called "Dr. Molla Bux." The solicitor for the defence admitted that Molla Bux practise as an oculist at Greenwich, Nabie Bux assisted him in his business and other addresses, and the third defendant was a kind of clerk. According to the report in the *Times* it was asserted that "Molla Bux was qualified in India to practise as an oculist." At the suggestion of the magistrate, Mr. Cooke, the defence undertook that in any future handbill the name Molla Bux should appear without the prefix Doctor. The magistrate, according to the report already quoted, then made the observation that "the defendants had as much right to practise as any other person in England as long as they did not hold out to the public that they were on the *Medical Register*. They were oculists, and it was quite possible that they might have thought that they had a right to practise as doctors here, and if they gave an assurance that they would carry on their business in a legitimate way he would dismiss the summonses."

This undertaking—that is to say, as would appear, the undertaking not to hold out to the public that they were on the *Medical Register*—was given, and the summonses dismissed. Mr. Cooke correctly observed that, according to the law of England, any person might practise medicine so long as he did not hold to the public that he was on the *Medical Register*. "Caveat emptor." Such is the expressed will of Parliament, and the declared limits of the protection afforded to the public by the Medical Acts; beyond this the Legislature has steadily refused to go. The generous rivalry between the two medical protection societies appears to be leading to very satisfactory activity. It will be seen that the Medical Defence Union has, on its part, important and good work in hand.

INTRODUCTION TO PRACTICE.

TWENTY-ONE YEARS' MEMBER writes: A. purchases a practice of B. at a stated figure and six months' partnership introduction, partnership being regulated and subject to the Partnership Act, 1890. Within three months B. is taken ill, and is thereby unable to take any further work or to appear in the practice, any further than by name, for the remainder of the period. A. does all the work and takes full responsibility.

1. What allowance should B. make for an equitable settlement?
2. What could A. claim legally under the circumstances?

*** The two apparently simple questions submitted constitute *de facto* important contingencies which should have been provided for in the covenants of the deed of agreement, and which, in the absence of various essential details, we are not in a position to solve. We would therefore simply counsel a settlement by mutual arrangement and, if need be, mutual concessions: failing which, it would be judicious to refer the matter to an experienced medical common friend; and, if such be unavailable we would suggest, as an alternative, medical arbitration in accordance with the usual legal form. Litigation is not to be commended, and should be specially avoided, if possible, as it could scarcely fail to more or less prejudice the interests of our correspondent, however just may be his cause.

THE VISIT OF COURTESY.

M.B.EDIN. writes: Will you kindly give me your advice on the following point: I have bought a practice in a country village, in which is another medical practitioner, on whom I have called. Five miles distant is a large town in which there are fifteen men in active practice, one or two of whom occasionally come into my district. Ought I to call on any or all of them?

*** Having called upon the resident practitioner in the village, "M.B.Edin." has fulfilled the intra-professional duty devolving upon him as a new comer, and there, in our opinion, it had better rest; for were he to extend the usual visit of courtesy to the one or two medical men in the adjacent town "who occasionally professionally visit his district," and omit it to the others, it might possibly evoke a more or less undesirable feeling on the part of the latter towards our correspondent. The more judicious plan would be for him to become a member of the local Branch of the Association in question which would obviate the difficulty, and at the same time afford the desire duction.

"M.B.Edin." will, if he cares to refer thereto, find the subject of "Intra-professional Etiquette" fully explained in the *Code of Medical Ethics*, Chapter iv.

A SPECIAL CASE.

RETIRED-SURGEON.—Although it has from time immemorial been the custom of the faculty to attend (not as a matter of right, but as an act of professional courtesy) the members thereof, their wives, and children, while under the paternal care, gratuitously—expenses out of pocket excepted—we are nevertheless strongly inclined to think that under the somewhat exceptional and prolonged attendance a deviation from the traditional prescriptive usage is justified, and that moderate fees should be charged, not, be it noted, in consequence of the more or less needy position of the practitioner, but in view of the fact that the retired and reputedly wealthy practitioner is now regularly engaged in a distinctly commercial vocation.

NAVAL AND MILITARY MEDICAL SERVICES.

INVALIDING FROM TRAINING SHIPS.

WE have authority for stating that the widely alleged "uneasiness" at the Admiralty concerning the increased invaliding from the training ships, is purely imaginary, as is the suggested carelessness of the examining officials. It is considered at the Admiralty that the medical officers of the training ships, from their knowledge of the special requirements of this service, are the best qualified to act as examiners as to the suitability of candidates to undergo the necessary physical training. The apparent increase in the number invalided is due to the augmented entry of boys during the past two years, and does not represent any unusual addition to the average number of cases of respiratory diseases. The number of boys annually entered by each training ship is insufficient to call for the appointment of a medical officer for examining purposes only, as has been suggested.

ARMY MEDICAL STAFF: EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office order with the notice. The first post on Thursday mornings is the latest by which these announcements can be received.

A SURGEON-CAPTAIN returned home at the end of last trooping season from India, is willing to exchange out for full or part tour this season. Apply No. 4284, care of Manager, BRITISH MEDICAL JOURNAL.

ARMY MEDICAL STAFF.

SURGEON-MAJOR-GENERAL J. G. FAUGHT is placed on retired pay, December 15th. He entered the service as Assistant-Surgeon, January 5th, 1855; became Surgeon, November 9th, 1867; Surgeon-Major, March 1st, 1872; Brigade-Surgeon, April 17th, 1880; Deputy-Surgeon-General, September 3rd, 1884; and Surgeon-Major-General, November 13th, 1890. He was employed as sanitary officer at Cape Coast Castle during the Ashanti war in 1874 (medal); in the Afghan war of 1878-80 (medal); in the Egyptian war of 1882 (medal and Khedive's star); and with the Bechuanaland expedition under Sir Charles Warren in 1884-85 as principal medical officer. He was also principal medical officer during the operations in Zululand in 1888.

Surgeon-Lieutenant-Colonel N. B. MAJOR is promoted to be Brigade-Surgeon-Lieutenant-Colonel, December 14th. He was appointed Assistant-Surgeon, October 2nd, 1866; Surgeon, March 1st, 1873; Surgeon-Major, October 2nd, 1873; and Surgeon-Lieutenant-Colonel, from October 2nd, 1886.

Surgeon-Captain E. J. E. RISK has assumed medical charge of women and children at Marlborough Lines, Aldershot, during the absence on leave of Surgeon-Lieutenant H. P. Johnson till January 20th.

Brigade-Surgeon-Lieutenant-Colonel W. MCWATTERS has proceeded to Portsmouth for duty.

Surgeon-Colonels R. P. FERGUSON and C. H. Y. GODWIN have been brought on the Administrative Medical Staff of the Bengal Army, the former from October 27th, the latter from November 7th.

Surgeon-Major P. M. CARLETON, M.D., who is serving in the Madras Command, has been transferred to the Myingyan District, Burmah, for medical charge of the station hospital at Myingyan.

Surgeon-Major J. F. BRODIE, M.D., is posted to duty in the Belgaum District, Madras Command.

Surgeon-Captain J. W. COCKERILL, on return from England, is directed to do duty in the Bangalore District, Madras Command.

Surgeon-Captain H. J. PARRY, serving in the Bombay Command on general duty in the Bombay District, is transferred to general duty in the Poona District.

Surgeon-Captain R. J. A. DURANT, serving in the Bombay Command on general duty in the Poona District, is transferred to general duty in the Bombay District.

Surgeon-Captain R. HOLYOAKE, serving on the Bombay Establishment, has leave of absence to remain in England from November 26th to May 25th, on medical certificate, in extension.

The death is announced of Inspector-General JOHN ROBERT TAYLOR, C.B., at Cheltenham, on December 23rd, at the age of 82. He was appointed Assistant-Surgeon May 31st, 1833; Surgeon June 14th, 1842; Surgeon-Major March 3rd, 1854; Deputy Inspector-General February 1st, 1855; and Inspector-General December 31st, 1858. He retired on half pay August 11th, 1863. *Hart's Army List* informs us that he served with the 29th Regiment in the Sutlej campaign of 1845-46, including the battles of Ferozeshah and Sobraon (medal and clasp); and with the 80th Regiment in the Burmese war of 1852-53, including the capture of Martaban, the operations before Rangoon on April 12th, 13th, and 14th, and capture of the Great Dagon Pagoda; also at the capture of Prome (medal, with clasp for Pegu). Was in medical charge of the 3rd Division before Sebastopol from March 20th, 1855, to the end of the war, including the assaults of June 18th and September 8th (C.B., medal with clasp, and Turkish medal). He was appointed Honorary Surgeon to the Queen, August 16th, 1859. He was in receipt of a reward for distinguished service.

INDIAN MEDICAL SERVICE.

SURGEON-CAPTAIN J. CHAYTOR WHITE, M.B., Bengal Establishment, is appointed to officiate in medical charge of the Meywar Bheel Corps.

Surgeon-Lieutenants C. G. ROBSON SCOTT and H. M. EARLE, appointed to the Bengal Establishment, reported their arrival at Bombay, the former on November 1st, the latter on October 31st.

Surgeon-Lieutenant-Colonel C. CAMERON, Bengal Establishment, is permitted to retire from the service from September 21st. He was appointed Assistant-Surgeon July 27th, 1859, and became Surgeon-Lieutenant-Colonel July 27th, 1879. He served with the Bhootan expedition in 1865 (medal).

Surgeon-Captain A. E. GRANT, M.B., Madras Establishment, is confirmed in the appointment of Professor of Hygiene, Madras Medical College, and Assistant Physician at the General Hospital from October 8th.

Brigade-Surgeon-Lieutenant-Colonel F. H. BLENKINSOP, Madras Establishment, is appointed Municipal Councillor for the municipality of Trichinopoly.

Surgeon-Major A. J. STURMER, Madras Establishment, is permitted to return to duty.

Surgeon-Captains G. C. HALL and P. C. H. STRICKLAND, Madras Establishment, have returned to duty from furlough out of India from November 21st, and are directed to do duty in the Madras District.

Surgeon-Major J. LEWTAS, M.D., Bengal Establishment, joint Civil Surgeon of Simla, is appointed to the medical charge of the Army Headquarters and establishments remaining at Simla during the winter from November 9th.

Surgeon-Captain D. G. MARSHALL, Bengal Establishment, is posted to the civil medical charge of Roorkee, in addition to his military duties, from the date of taking charge from Surgeon-Lieutenant-Colonel T. O'Reilly.

The services of Surgeon-Lieutenant-Colonel S. L. DOBIE, Madras Establishment, are placed at the disposal of the Military Department, and he is appointed to act as Principal Medical Storekeeper, Madras.

Surgeon-Captain H. M. MORRIS, Bengal Establishment, has been granted leave for four months on medical certificate, and extraordinary leave for two months on medical certificate, without pay, in extension of leave.

The services of Surgeon-Major A. F. FERGUSON, M.B., Bombay Establishment, are placed at the disposal of Government for employment in the Civil Department.

Surgeon-Captain J. B. SMITH, Bombay Establishment, is appointed to officiate in medical charge of the 2nd Bombay Infantry (Grenadiers), *vice* Surgeon-Captain A. Milne, transferred temporarily to the Civil Department.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN GEORGE R. T. PHILLIPS is promoted to be Surgeon-Major, December 28th.

THE VOLUNTEERS.

SURGEON-LIEUTENANT W. T. GRANT, 1st Forfarshire Light Horse, has resigned his commission, which was dated August 7th, 1878.

Mr. WILLIAM JOSEPH MURPHY BARRY is appointed Surgeon-Lieutenant to the 3rd Volunteer Battalion King's Liverpool Regiment (late the 13th Lancashire), December 24th.

Mr. ALEXANDER JAMES BOYD, M.D., is appointed Surgeon-Lieutenant to the 1st Volunteer Battalion Bedfordshire Regiment (late the 1st Hertfordshire).

Acting-Surgeon T. HOLMES, 1st Cadet Battalion Queen's Royal West Surrey Regiment, has resigned his commission, which was dated December 20th, 1890, and Mr. JAMES HERON, M.D., is appointed Acting-Surgeon to the same battalion, December 24th.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

THIRD M.B. EXAMINATION. PART II. *Medicine.*—Addison, B.A., Cai.; Barnes, B.A., Pemb.; Beggs, B.A., Sid.; Bird, B.A., Emm.; Bower, B.A., Trin.; Carr, B.A., Trin.; Crofton-Atkins, B.A., Cla.; Doman, B.A., Cai.; G. M. Edwards, B.A., Emm.; Frith, B.A., Trin.; Goldsmith, B.A., Cai.; Grove, B.A., Sid.; Harvey, B.A., Joh.; Hollis, B.A., Sid.; P. Horton-Smith, B.A., Joh., W. F. Lloyd, B.A., Cla.; Master, B.A., Cai.; H. T. Maw, M.A., Chr.; Monro, B.A., Cai.; Ord, B.A., Cai.; Paterson, B.A., Trin.; Phillips, B.A., Down; Ransome, B.A., Cla.; Sevestre, B.A., Trin.; A. A. Shillitoe, B.A., Trin. H.; Shuter, B.A., Down; T. R. H. Smith, B.A., Trin.; W. M. Smith, B.A., Cai.; Stephens, B.A., Cai.; G. W. Thompson, B.A., Chr.

DEGREE.—At the Congregation on December 15th, the following candidate was admitted to the degrees of M.B. and B.C.:

A. E. Carruthers, M.A., of Christ's College.

UNIVERSITY OF DUBLIN.

At the Comitia Hiemalia (winter commencements) held in Michaelmas term, on Thursday, December 15th, 1892, in the theatre of Trinity College, the following Degrees in Medicine, Surgery, and Midwifery, were conferred by the University Caput, in the presence of the Senate.

Baccalaurei in Medicinâ, in Chirurgiâ, et in Arte Obstetriciâ.—A. J. Abbott, V. L. Ardagh, F. J. Barter, G. Beare, H. M. Eustace, T. Gibbons, R. W. W. Henry, J. Halahan, G. B. Jones, F. Kiddle, A. Moore, H. B. Moorhead, A. A. Mussen, J. S. Owens, C. H. Saunders, C. B. Scott, E. W. Wade.

Doctores in Medicinâ.—A. J. Abbott, L. Cole-Baker, H. Fayle, F. J. Green, V. L. Jones, W. F. M'Carthy, J. A. M'Cullagh (*stip. cond.*), H. B. Moorhead, N. A. Reid, H. F. N. Scott, A. Silcock, F. S. Swiney, S. C. Westwood.

Baccalaureus in Medicinâ.[1]—H. L. Ferguson.

Doctores in Medicinâ.[1]—J. W. Eakin, H. L. Ferguson, L. T. Young (*stip. cond.*).

SCOTTISH UNIVERSITIES COMMISSION.

FURTHER UNIVERSITY ORDINANCES.—Eleven new ordinances were issued by the Scottish Universities Commissioners on December 19th and 20th. Six of these are of medical importance.

Composition of the Faculties and Institution of Faculties of Science (General, No. 11).—In the University of Edinburgh, the Faculty of Medicine will be constituted of the Professors of Botany, Physiology, Medicine, Anatomy, Chemistry, Midwifery, Natural History, Materia Medica, Clinical Surgery, Medical Jurisprudence, Surgery, and Pathology. The designations of the present Professorships of Institutes of Medicine, Practice of Physic, Midwifery and Diseases of Women and Children, and General Pathology will be altered, and hereafter they shall be designated as the Professorships of Physiology, Medicine, Midwifery, and Pathology respectively. The Faculty of Science (now instituted) will consist of the Professors of Mathematics, Natural Philosophy, Botany, Physiology, Anatomy, Chemistry, Natural History, Astronomy, Agriculture and Rural Economy, Pathology, Engineering, and Geology.

Pensions to Principals and Professors (General, No. 12).—Any principal or professor who has completed his 65th year, or having completed his 60th year, has served for thirty years or upwards, or by reason of infirmity has become permanently unable for the duties of his office, shall be entitled to retire and to receive a pension. For ten years' service, twenty-sixtieths of the annual salary, calculating that salary on the average of the five years preceding retirement, the maximum salary being taken at £900, an addition of one sixtieth for each additional year of service, and no addition in respect of any service beyond thirty years.

Regulations as to Application of Parliamentary Grants as to Salaries, and for the institution of a Fee Fund, and for other Purposes (Glasgow, Aberdeen, and Edinburgh, No. 1).—By this ordinance the annual Parliamentary grant of £42,000, divided among the universities under the Universities (Scotland) Act, 1889, is shared thus by the following Colleges: Glasgow, £12,180; Aberdeen, £8,400; Edinburgh, £15,120. Further, the annual sum of £30,000 under the Education and Local Taxation Account (Scotland) Act, 1892, is appointed as respective shares to Glasgow, £8,700; Aberdeen, £6,000; Edinburgh, £10,800.

The whole fees payable to the professors are now to be drawn by the University Court, collected as the Court may appoint, and constitute the fee fund. The professors are to receive from this fee fund such sums as shall bring their salaries up to the amount hereinafter fixed as the "normal salary," but, in the event of a deficiency in this fund, the normal salary is to be proportionately diminished. In no case, however, is the salary to be allowed to fall below a fixed minimum salary, the deficiency to be supplied out of the other University funds.

The present professors are to receive from the fee fund the full amount of fees drawn from their classes, with just and equitable deductions, not exceeding the average of the sums paid by the professor in each class for the salaries of assistants and class expenses. In the event of the salary of Professor T. Annandale (clinical surgery) falling below £980 in any one year, he may make over his emoluments for that year to the Court, and receive in lieu thereof such a sum as shall bear the same proportion to the total number of students of medicine matriculated in the University in that year as the sum of £980 bears to the average number of such students matriculated in the five years preceding the passing of this ordinance.

Each University is to set aside each year out of its share of the Parliamentary grants or out of its general revenues a sum not less than the following for the payment of pensions, such sum to be termed the "minimum provision for pensions": Glasgow, £4,000: Aberdeen, £1,500; Edinburgh, £5,000. The salaries of principals shall be as follows: Glasgow, £1,100; Aberdeen, £800; Edinburgh, £1,100. In each case an official residence is to be provided in addition.

In the Faculty of Medicine in the University of Edinburgh the following sums are to be "normal salary" and "minimum salary" respectively:

	Normal.		Minimum.
Professor of Physiology	£1,400*	...	£900
,, ,, Anatomy	£1,400*	...	£800
,, ,, Chemistry	£1,400*	...	£800
,, ,, Pathology	£1,400*	...	£800
,, ,, Botany	£1,000*	...	£800
,, ,, Natural History	£1,000*	...	£800
,, ,, Medicine	£800	...	£500
,, ,, Midwifery	£800	...	£500
,, ,, Materia Medica	£800	...	£500
,, ,, Clinical Surgery	£800	...	£500
,, ,, Medical Jurisprudence ...	£800	...	£500
,, ,, Surgery	£800	...	£500

These salaries marked * are fixed on the understanding that the professors do not engage in private practice.

[1] *In Absentiâ.*

Fourth, entitled "St. Andrews, No. 4 Regulations for Degrees in Medicine."—This is essentially the same as Ordinance No. 16, Edinburgh No. 1, which has already been published in the British Medical Journal. The only difference is in Section xxvi, and relates to the degree of M.D. It is ordained that "in each of the three years next after the date when this ordinance shall come into operation, but no longer, it shall be lawful for the University of St. Andrews to confer the degree of doctor of medicine on not exceeding ten registered medical practitioners above the age of 40 years, whose professional position and experience are such as in the estimation of the University to entitle them to that degree, and who shall on examination satisfy the medical examiners of the sufficiency of their professional knowledge. No person shall be entitled to receive the degree of M.D. under the provisions of this section unless he shall have intimated his candidature for the said degree to the secretary of the University on or before November 7th, 1892. Except under these provisions the degree of M.D. shall only be conferred on those who have already obtained the degrees of M.B. and C.M.

The fifth new ordinance relates to the application of Parliamentary grants as to salaries, and for the institution of a fee fund and other purposes in the University of St. Andrews.

The sixth makes regulations for professorships in the United College of St. Salvator and St. Leonard, St. Andrews, and in the University College, Dundee.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

OFFENSIVE SEWERS.

W. W. S. writes: In Uxbridge Road, immediately north of Hyde Park, I have for many years often noticed in the roadway the stench referred to, and would accordingly confirm your correspondent "W." This occurs in repulsive contrast with the refreshing atmosphere belonging to the adjacent interior of the park.

NOTIFICATION OF PUERPERAL PERITONITIS.

M.O.H.—Puerperal peritonitis ought to be notified if the 1889 Act has been adopted in the district.

MEDICAL OFFICERS OF HEALTH AND THE DIAGNOSIS OF INFECTIOUS DISEASES.

J. J. G.—(1.) Save under very exceptional circumstances, it is no part of the duty of the M.O.H. to examine notified cases with a view to verifying the diagnosis; nor is it desirable that he should do so, except of course at the request or with the consent of the medical attendant. He has no legal right to insist upon entry for such a purpose. (2 and 3.) The medical attendant should be communicated with before such a step is taken. (4.) It is quite optional. There might be difficulty in agreeing as to the terms of reference or the exact facts. If not, reference to some impartial authority is the usual and proper course.

THE SMALL-POX EPIDEMIC AT WARRINGTON: EFFECTS OF REVACCINATION.

The total admissions to the hospital number 400, and altogether there have been 36 deaths from the disease. The medical officer of health has issued a further poster in which he says: One quarter of the population is now safe from the small-pox; a large proportion remains in great and serious danger. Not a single person revaccinated in time has taken the disease. Not one death has occurred in a well-vaccinated person, while it is a matter of experience that the unvaccinated and insufficiently vaccinated have had severer forms of small-pox, have been longer recovering, and had more disfigurement, and other serious after-effects. Of the children that died, ten have been unvaccinated.

MERSEY PORT SANITARY ADMINISTRATION.

Pending an official inquiry by the Local Government Board into the question of port sanitary administration in the Mersey, delegates from the various local authorities interested in the matter met at Liverpool on December 21st, when a resolution was unanimously adopted to the effect that the present port sanitary arrangements are satisfactory, and that it is not desirable to make any change. But we hope this will in no wise set aside the inquiry already promised from headquarters, since the Mersey is a river fraught with great danger to England in the event of inefficient administration in times of cholera owing to divided responsibility in matters of port sanitation.

OBITUARY.

WALTER HAYLE WALSHE, LL.D., M.D., F.R.C.P.,

Emeritus Professor of Medicine and Clinical Medicine University College, London.

On December 14th, in the 81st year of his age, another patriarch in our profession passed away. Dr. Walter Hayle Walshe was for twenty-one years professor in University College, London, and he was one of the brightest medical ornaments of the Victorian era. We say this without the slightest fear of contradiction, for, although thirty years have elapsed since Dr. Walshe resigned his chair at University College, and consequently an entire generation of medical men has been born, educated, and passed into practice since then, not only the multitude of students who enjoyed the advantages of his teaching, but all those who had the privilege of being his colleagues will readily testify to his having been a man of altogether exceptional ability as a lecturer and a diagnostician. He combined in a very rare degree quickness of perception, soundness of judgment, and lucidity of exposition. These gifts of mind, coupled as they were with an engaging appearance and courteous manners, proved so attractive to all brought into contact with him that it is next to impossible that his personality can ever fade from their memory. Consequently, while a brief sketch of his career will give pleasure to all who knew him in the flesh, it cannot possibly fail to be edifying to the much more numerous class whose only acquaintance with him was through his writings. To the writer, who was for many years his colleague, its pourtrayal is a labour of love.

Dr. Walshe was born in Dublin on March 19th, 1812, and entered as a student at Trinity College in 1827, where he displayed such remarkable linguistic talent that he was advised to take up philology as a profession, and with this object he betook himself to Paris in 1830. While there, however, through his coming into intimate contact with several of his former fellow students at Trinity College who were pursuing medical studies, he was led to abandon his philological idea and take up the study of medicine. This he accordingly did, and soon afterwards made the acquaintance of Oliver Wendell Holmes, who was also a medical student in Paris at the time. To him, half a century later, he dedicated one of his books.

While studying medicine in Paris, Walshe had the good fortune to follow the course of auscultation given by the renowned Louis at La Pitié, and there laid the foundation of his ultimate success with the stethoscope and pleximeter. Not being satisfied, however, with the system of clinical teaching then followed in the Parisian hospitals, Walshe migrated to Edinburgh, which at that time bore the palm as a clinical school, owing to the mode of teaching adopted and the ability of its professors—more particularly of Allison, Christison, and Syme.

Till the time he graduated at Edinburgh in 1836, Walshe gave special attention to the aural diagnosis of pulmonary and cardiac diseases by percussion and auscultation, and became so remarkably skilful in their diagnosis that we never met a single individual who had seen him, either in the public ward of the hospital or the private sick room, who failed to be struck with the amazing rapidity, as well as with the accuracy with which he detected the physical signs of both cardiac and pulmonary diseases. His spurs were, however, won in the field of pathology, by his articles in the *Cyclopædia of Surgery*. These were so highly thought of that in 1841 he was made Professor of Pathology in University College, London. In 1842 he published a work on *Diseases of the Lungs*, and in 1846 another on *Cancer*, both of which were thought so admirable that when Dr. Williams resigned the Chair of Medicine at University College, Walshe was chosen to succeed him.

Almost simultaneously he was appointed physician to the Brompton Hospital for Diseases of the Chest. We may next refer to the introductory lecture he delivered at University College at the opening of the winter session in 1860. A more impressive lecture was probably never delivered. Walshe took for his text the positive philosophy of Auguste Comte, and expounded it with such energy and eloquence that it was published verbatim in a medical journal under the heading of "An Oration," and an oration most truly it was, alike in language, style, and substance. So successful was Walshe in practice, that at the early age of 50 he was able to withdraw entirely from teaching. That happened in 1862, the year in which his classic work on *Diseases of the Heart and Great Vessels*, passed into its third edition.

Besides his linguistic and other accomplishments, mention must be made of Walshe's musical proclivities. So ardent an admirer was he of classical music that he was not only a frequent visitor at the Italian opera during the season, but he published a work entitled *Dramatic Singing Physiologically Estimated*.

It has often been said that there never was a great man who had not at least one hobby, and most assuredly Walshe

was no exception to the rule. His mind was as versatile in its conception as it was deep in its reasoning. His little book on the *Colloquial Faculty for Languages and the Nature of Genius* indicates this.

Dr. Walshe married late in life, and has left a widow and a son to mourn his loss.

SAMUEL DUKINFIELD DARBISHIRE, M.A., M.D.Oxford.

By the death of Dr. S. D. Darbishire the profession has lost one of its most earnest members, and a figure well known in University and rowing circles has disappeared.

Dr. Darbishire was born in 1846 at No. 1, Spring Gardens, Trafalgar Square, where his father, who was solicitor to the Lancashire and Yorkshire Railway, had taken up his temporary residence. He was descended, both on his father's and mother's side, from old Lancashire Nonconformist families, and his early life was spent partly in Manchester and partly in his father's country house near Conway. He was educated for some time privately, and later at University College School. He entered at Balliol College, Oxford, in 1864, and soon made his reputation as an oarsman of unusual power, first in his College boat and later by rowing stroke in the Inter-University races of 1868, 1869, and 1870. In 1869 he stroked the Oxford boat to victory in the race against Harvard University.

Dr. Darbishire took mathematics for his schools, obtaining a third class in Moderations and a third class in Mathematical Greats. During his residence in college he was well known for his kindly, upright, and cheerful disposition, and particularly for a simplicity of character, which made him many devoted friends. An old story is related of him that, having omitted to send any essay to his tutor (the late Professor Smith) for a fortnight, he was summoned to his tutor and explanation demanded. In reply, Dr. Darbishire said: "When I last brought you an essay you told me if I couldn't do any better I need not write any more—and I had done my best." His modesty is well illustrated by the fact that, although he was one of the best—if not the best—strokes that Oxford has ever produced, he left the management of his College boat to others, and though he was devoted to the interests of his College he was content to remain a simple member of the boat.

After taking his degree, Dr. Darbishire entered at St. Bartholomew's Hospital, and there served the offices of House-Physician and House-Surgeon. He then went abroad, and studied medicine at the Continental schools, and later returned to England, and settled in private practice at Kensington. After remaining here a short time, at the invitation of several influential residents, he came back to Oxford and was elected Physician to the Radcliffe Infirmary. Here he finally settled in practice, and during his residence in Oxford he filled many university offices, amongst them being the Lichfield Lectureship in Medicine, the University Coronership, and an Examinership in Medicine. On the constitution of a Medical Faculty in the University he was elected one of its first members. Besides taking interest in University matters, he w as for a time a member of the Local Board for the city.

For some years, until in fact his health began to fail, he threw himself into his professional work with great vigour. On obtaining the post of Physician to the Radcliffe Infirmary he took under his charge the whole of the out-patient department and devoted a large part of his time to this. In hospital work he was most patient and kind to the poor, giving his energy without scruple to his cases. In private practice he was greatly respected and beloved, and he gave his services to many who had seen better days without thought of fee or reward.

In the winter of 1888 his health began to show signs of breaking down, and he travelled abroad for some months without benefit. On returning to England he settled at Penmaenmaur, where he died after a long illness. Those who were privileged to know him will remember him as a hospitable and kindly friend, an enthusiast in all matters likely to benefit his profession, and at the same time as a modest and unassuming English gentleman.

Dr. Darbishire married the daughter of Mr. W. Eckersley, of Manchester, by whom he leaves one son and two daughters.

MEDICAL NEWS.

There are said to be no fewer than 2,000 female practitioners of medicine in the United States.

A second edition of the Hungarian *Pharmacopœia* will shortly be published.

The Austrian Government has appointed a female practitioner, Dr. Bohnslava Keck, to act provisionally as public medical officer in Bosnia.

M. Pasteur has received from Queen Emma, for his birthday present, the Grand Cordon of the Lion of the Netherlands, and on Wednesday, December 21st, he was elected an honorary member of the Berlin Medical Society.

A Chemist Heavily Fined.—Mr. F. Thompson, homœopathic chemist, of Glasgow, was last week fined £70 for selling patent medicines without having them stamped, as required by the Inland Revenue.

Dr. A. Reeves Jackson, Professor of Gynæcology in the College of Physicians and Surgeons of Chicago, who died recently of cerebral hæmorrhage, is believed to have been the original of "my friend the doctor" in Mark Twain's *Innocents Abroad*. Professor Reeves Jackson was also well known in medical literature by his writings on gynæcological subjects.

Edinburgh University Chemical Society.—The following office-bearers have been elected for the ensuing session:—President: Professor Crum Brown; Vice-Presidents: Dr. Dobbin and Dr. Marshall; Librarian: Mr. Th. Rettie; Secretary: Mr. A. F. Watson; Treasurer: Mr. J. W. Tullo; Members of Committee: Messrs. Bolan, Campbell Dykes, Fairbairn, Lee, and Nisbet; Mr. Tullo was appointed Representative to the Students' Council.

We regret to learn that Mr. Walter A. Price, aged 24, a fourth year's student of the Bristol Royal Infirmary, was taken ill while on duty as dresser for the week on December 8th with lymphangitis of the arm, and, after a few days, developed cellulitis and died on the morning of December 15th. A memorial service was held in the infirmary chapel on December 17th, which was attended by the members of the honorary staff, the resident medical officers, and a large number of nurses, students, and patients.

Royal Physical Society, Edinburgh.—Professor H. A. Nicolson presided at a meeting of this Society last week, at which it was reported that the Society consisted of 225 ordinary members, 16 extraordinary, and 19 corresponding members. A communication was read on the glacial fauna of a district of the County of Banff. Mr. J. E. Goodchild stated the results of further observations on the lungs of birds, supplementary to those given previously. He exhibited a series of wings prepared at Sir William Flowers's request for the South Kensington Index Museum, to illustrate the variations of covert feathers on the fore limb.

Ulster Hospital for Women and Children.—A bazaar in in aid of this institution was held recently during three days in the Ulster Hall, Belfast. On the first day the inauguration ceremony was performed by the Duchess of Abercorn, and the Duke of Abercorn delivered a speech, commending the objects of the bazaar. On the second day the bazaar was opened by the Lady Mayoress of Belfast, Mrs. Dixon, and on the closing day by Mrs. Hamilton, wife of the President of the Queen's College. The stalls were arranged as vessels, supposed to form part of a fleet for Polar exploration. The bazaar was largely attended, and it is expected that about £1,000 will be realised.

An Abortive Congress.—The Hispano-American Congress, which was to have been held in Madrid on the occasion of the celebration of the quatercentenary of the discovery of America by Columbus, fell through, it appears, owing to what may be called a "conspiracy of indifference" on the part of the Government and the medical profession. Senor Canovas was applied to on the subject three times, but vouchsafed no reply. Of 1,000 invitations sent out to members of the medical profession, only 2 bore fruit in the shape of adhesions. The *coup de grâce* was finally given by the authorities declining to carry out their promise of pecuniary support on the ground of the depleted state of the exchequer.

Nurses for the Molokai Lepers.—It may be remembered that shortly after the death of Father Damien, Sister Rose Gertrude started for Molokai amidst a flourish of journalistic trumpets to nurse the poor outcasts who inhabit that island of disease and death. Instead of martyrdom, however, she found marriage—perhaps a happier if not so glorious a vocation. Undeterred by her fate, a party of young American ladies are now, as we learn from the *Boston Medical and Surgical Journal*, on their way to Molokai to take her place among the lepers.

Inebriate Women.—A law has recently been passed by the Legislature of the State of New York, establishing in New York City an institution for female inebriates. The law permits of the admission to St. Saviour's Sanatorium of women addicted to the inordinate use of alcohol, opium, morphine, or any other intoxicant, by voluntary commitment for three months. But they may be committed for a year by a judge of a court of record upon the sworn certificates of two physicians, with the privilege of a renewal of the term of commitment for another year, if deemed necessary for a completion of the cure. There is a staff of physicians in attendance. This marks a great advance in the United States, for hitherto there has been no means of placing patients beyond the reach of temptation, except by committing them to asylums for the insane. It is expected that this step will be followed by the inauguration of other similar establishments in the various States.

Explosion of Ether.—A serious explosion occurred in the surgery of Dr. Alfred Averill, in Longton, Staffordshire, on the evening of December 19th. Dr. Averill, while pouring sulphuric ether into a phial from a five-pint bottle upset the liquid near the fireplace. The ether became ignited and a loud explosion followed. The house was shaken and the bottles in the surgery shattered, the windows also were broken and the room was totally wrecked. Dr. Averill was found with his clothes in flames rolling about on the floor. His eldest son rushed into the room and with great presence of mind ripped the clothes off his father's body and saved him from being burnt to death. Dr. Averill, who was very badly injured about the head, face, and other parts of the body, is, we are glad to learn, progressing favourably though still confined to bed. His son was burned about the hand.

Deaths in the Profession Abroad.—Among the members of the medical profession who have recently died in foreign countries are: Dr. Johann Georg Joessel, Professor of Anatomy in the University of Strassburg, aged 54; Dr. Enoch Fithian, of Greenwich, New Jersey, U.S.A., who took his degree in the University of Pennsylvania in 1816, aged 101; Dr. Walter Carpenter, formerly Professor of Materia Medica in the Medical Department of the University of Vermont, aged 84; Dr. Franklin H. Hooper, a distinguished laryngologist and physiologist of Boston, of cancer of the tongue, aged 42; Dr. Giovanni Bonalumi, Surgeon-Colonel in the Italian Army, Professor of Military Medical Jurisprudence, and author of a valuable treatise on that subject; S. J. N. Aichhorn, M.D., Emeritus Professor of Mineralogy and Geognosy in the University of Prague, aged 79; Dr. Luigi Amabile, some time Professor of Pathological Anatomy in the University of Naples, author of papers on Movable Bodies in Joints, Vesico-vaginal Fistulæ, etc., and of works on philosophy and general literature (*Tommasso Campanella, The Inquisition in Naples*, etc.) and a Senator of the Kingdom of Italy, aged 64; Professor Armando Melegari, Physician to the Public Hospital at Brescia, aged 42; Dr. Eulogio Zomeno Martinez, of Cuenca, Physician to the Real Hospital de Santiago in that city, and a practitioner of considerable repute in Spain, aged 77; Dr. Bonnet, of Jujurieux, formerly a member of the French Senate; Dr. Charazac, of Toulouse, a laryngologist of considerable distinction, aged 34; Dr. Tracon, Chief Assistant in the Obstetrical Clinic of the Medical Faculty of Lille; Dr. J. Rosebrugh Leaming, a well-known physician of New York, aged 72; Dr. Brixhe, one of the leading practitioners of Liége, aged 65; and Dr. Caspar Theod. Kraus, formerly Medical Councillor, that is, Chief of the Official Sanitary Staff, of Hamburg, aged 66. Dr. Kraus resigned this post soon after the outbreak of the recent epidemic; he had long been in bad health, and his death is said to have been due to cancer of the lung.

The late Dr. Aveling.—A correspondent writes: The late Dr. Aveling took an active part in promoting the education of midwives. In the autumn of 1870 the Obstetrical Society (of which he was an original Fellow) adopted the recommendation of their Council that an examining board for midwives be formed. A year later the Board was organised, and the first members were Dr. Hall Davis (Chairman), Drs. Aveling, Meadows, and Sedgwick, and the Honorary Secretaries, Drs. Playfair and J. Jones Phillips (*ex officio*). The first examination was held in April, 1872. Only four candidates were examined, all satisfying the Board. At the October examination, 1891, 64 were examined, 46 passing. From 1875 to 1883 Dr. Aveling remained on the Board, holding the office of Chairman from 1878 until 1883. He also held the appointments of Honorary Secretary and Honorary Librarian to the Obstetrical Society, and was Vice-President in 1877-8. He served on its Council as early as 1865, and as late as 1884, when re-elected as an ordinary member. At the annual meeting of the Obstetrical Society in February, 1891, he moved a resolution, which was adopted, approving "the policy pursued by the Society for the last twenty years relating to midwives." Dr. Tilt, in his annual address, delivered in 1874 at the Obstetrical Society, when he was President, referred to the foundation of the *Obstetrical Journal* in 1873. "It was," he observed, "an excellent idea of Dr. Aveling to attempt to concentrate in a monthly number what was best out of the obstetrical literature of our own and other countries, and the well carrying out this idea would greatly aid the advance of obstetrical science." These remarks were true, and it is, in some respects, to be regretted that the venture did not meet with the success which it deserved. Our readers will remember that Dr. Aveling wrote a letter on his favourite subject, "Registration of Midwives," which appeared in the British Medical Journal on November 19th, and was dated "Nov. 14th," so that it was written but four weeks before his death.

MEDICAL VACANCIES.

The following vacancies are announced:

ALNWICK INFIRMARY.—House-Surgeon; unmarried. Salary, £120 per annum, with furnished apartments, attendance, coals, and gas. Applications to William T. Hindmarsh, 26, Bondgate Without, Alnwick by January 14th, 1893.

ANCOATS HOSPITAL, Manchester.—Resident Junior House-Surgeon. Salary, £50 per annum, with board and washing. Applications to Alexander Forrest, Honorary Secretary.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Assistant House Surgeon. Salary, £50 per annum, with apartments and board. Applications to the Chairman of the Medical Board by January 2nd, 1893.

BRIDGWATER INFIRMARY.—House-Surgeon. Salary, £80 per annum, with board and residence. Applications to Mr. John Coombs, Honorary Secretary, by January 1st, 1893.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C. —House-Surgeon. Rooms, coal, and light provided. Applications to the Secretary by January 10th, 1893.

CHICHESTER INFIRMARY, Chichester.—House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications to E. E. Street, Secretary, by March 1st, 1893.

COUNTY OF CHESTER.—Medical Officer of Health; doubly qualified. Salary, £100 per annum, and out-of-pocket travelling expenses. Applications to Reginald Potts, Clerk to the Cheshire County Council, Chester, by December 31st.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon. Board, residence, and washing provided. Applications to the House-Governor by December 31st.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House-Physicians. Applications to the Secretary by January 12th, 1893.

HOSTEL OF ST. LUKE, Devonshire Street, W.—Honorary Visiting Medical Officer. Applications to the Secretary, Hostel of St. Luke, Church House, Westminster, by January 7th, 1893.

KENSINGTON DISPENSARY.—Honorary Medical Officer. Applications to Mr. Fred. Leach, 7, Stanford Road, Kensington Square, W., by January 3rd, 1893.

KILLARNEY DISTRICT LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, with allowances valued at £100 yearly. Candidates must be unmarried, and not over 30. Applications to Dr. L. T. Griffin, Resident Medical Superintendent. Election on January 19th, 1893.

KING'S COLLEGE, London.—Assistant Physician for Diseases of the Throat at King's College Hospital. Applications to J. W. Cunningham, Secretary.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer for the Fever Hospital at Monsall; not less than 25 years of age, doubly qualified. Salary, £250 per annum, with board and residence. Applications to the Chairman of the Board by January 7th, 1893.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Albert Memorial), Queen Square, Bloomsbury, W.C.—House-Physician, double qualified. Salary, £100 per annum, with board and apartments. Applications to B. Burford Rawlings, Secretary and General Director, by January 5th, 1893.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-on-Trent.—House-Surgeon; doubly qualified. Salary, £120 per annum, increasing £10 yearly, with furnished apartments, board, and washing. Applications to the Secretary by January 21st, 1893.

PARISH OF APPLECROSS, Ross-shire.—Medical Officer for a Division. Emoluments from public sources, £105 per annum, with house and garden free. Applications to Mr. D. Bain, Applecross, by January 7th, 1893.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, West Strand. Clinical Assistants. Applications to the Secretary, by December 31st.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Senior Assistant House-Surgeon. Salary, £75 per annum, with board, lodging, and washing. Applications to Dr. Crochley Clapham, Honorary Secretary Medical Staff, The Grange, near Rotherham, by January 2nd, 1893.

SOUTHPORT INFIRMARY.—House-Surgeon, doubly qualified. Salary, £100 per annum, with board, furnished rooms, and attendance. Applications to Joseph Worall, Infirmary, Southport, by January 4th, 1893.

STRATFORD-ON-AVON RURAL SANITARY AUTHORITY.—Medical Officer of Health. Salary, £110 per annum. Applications to John Charles Wardell, 9, Guild Street, Stratford-on-Avon, by January 21st, 1893.

STRATFORD-ON-AVON URBAN SANITARY AUTHORITY.—Medical Officer of Health. Salary, £40 per annum. Applications to Thomas Hunt, Town Clerk, Municipal Office, Stratford on-Avon, by January 2nd, 1893.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE, Cardiff.—A Professor of Anatomy, and a Professor of Physiology. Stipend in each case, £350 per annum. Applications to Ivor James, Registrar, by February 10th, 1893.

UNIVERSITY OF EDINBURGH.—Examiner in each of the following subjects: (1) Anatomy, (2) Chemistry and Laboratory Work for the First B.Sc Examination in Public Health, (3) Midwifery, (4) Practice of Physic, and (5) Botany. The salary in each of the departments Nos. 1, 3, 4, and 5 is £75 a year, and in No. 2 £90 a year, with an allowance of £10 per annum for travelling and other expenses in the case of Examiners not resident in Edinburgh or the immediate neighbourhood. Applications to M. C. Taylor, Secretary, by January 9th, 1893.

UNIVERSITY OF GLASGOW.—Assistant Examiner in Zoology. Salary, £30 per annum. Applications to the Secretary of the Court, Mr. Alan E. Clapperton, West Regent Street, Glasgow, by January 10th, 1893.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's Road, Chelsea, S.W.—House-Physician to the In-patients; doubly qualified. Honorarium, £50 per annum, with board and lodging. Applications to the Secretary by January 14th, 1893.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's Road, Chelsea, S.W.—House-Surgeon to the In-patients; doubly qualified. Honorarium, £50 per annum, with board and lodging. Applications to the Secretary by January 14th, 1893.

WEST HERTS INFIRMARY, Hemel Hempstead.—House-Surgeon and Dispenser; doubly qualified, unmarried. Salary, £100 per annum, with board, furnished rooms, light, fire, attendance, and washing. Applications to the Secretary by January 31st, 1893.

MEDICAL APPOINTMENTS.

BARRON, Barclay Josiah, M.B., C.M.Edin., appointed Physician to the Nose and Throat Department of the Bristol General Hospital.

BIERNACKI, John, M.B., C.M.Glas., appointed Medical Officer at the Bootle Borough Hospital.

BONAR, Thomas Mitchell, M.B., C.M.Glas., appointed Medical Officer of Health for the Western District of the Truro Rural Sanitary Authority, *vice* F. G. H. Whitley, resigned.

BOYD, John St. Clair, M.B, M.Ch., R.U.I., appointed Surgeon to the Samaritan Hospital for Women, Belfast.

BROWN, John, M.D.Vict., M.B., Ch.B., reappointed Medical Officer of Health for Bacup.

BURY, R. F., appointed House-Surgeon to St. George's Hospital.

CLARKE, J. Michell, B.A.Camb., M.D., M.R.C.S., appointed Physician to the Bristol General Hospital.

CROSSE, Herbert William, M.B., C.M.Edin., appointed temporary Medical Officer of Health for Norwich, *vice* T. W. Crosse, M.R.C.S.Eng., deceased.

ELLIOTT, C. N., M.B., C.M.Dub., appointed Medical Officer of Health for the Rural Sanitary District of the Oundle Union, *vice* G. W. B. Calcott, M.R.C.S.Eng., resigned.

ELLIS, W. C., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Tollerton Sanitary District of the Great Ouseburn Union.

FULLARTON, Robert, M.D., appointed Lecturer on Diseases of the Throat and Nose at St. Mungo's College, Glasgow, *vice* David Newman, M.D., resigned.

GOODWIN, Edward Knot, M.R.C.S., L.R.C.P.Lond., appointed Assistant House-Surgeon to the Royal Albert Hospital and Eye Infirmary, Devonport, *vice* Dr. McKinnon, resigned.

HARRISON, Reginald, F.R.C.S., appointed House Surgeon to the Kingston Provident Dispensary.

HEAVEN, John C., L.R.C.P., M.R.C.S., L.S.A., D.P.H., reappointed Medical Officer of Health to the Keynsham Rural Sanitary District.

KENT, Robert Thomas, M.A., F.R.C.S., appointed Professor of Anatomy at St. Mungo's College, Glasgow, *vice* Henry E. Clark, M.R.C.S., appointed Professor of Surgery.

LANCASTER, Ernest Le Cronier, B.A.Oxon., M.B., B.Ch., appointed Medical Officer to the Out-door Patients at the Swansea Hospital, *vice* Jabez Thomas, F.R.C.S.Eng., L.R.C.P.Edin., resigned.

LITTLE, Andrew, M.B., C.M.Aberd., appointed Ophthalmic and Aural Surgeon to the Victoria Hospital, Burnley.

LUSH, Percy J. F., M.A., M.B., B.Ch.Oxon., M.R.C.S., appointed Medical Officer of Friedenheim, Upper Avenue Road, Swiss Cottage, N.W.

MACLURE, Herbert William, B.A.Camb., M.B., B.C., appointed Medical Officer for the South District of the Paddington Union.

MARRIOTT, Osburne Delano, M.D.Glasg., reappointed Medical Officer for Seventh District of the Sevenoaks Union.

OVEREND, Mr. W., appointed Junior Assistant Medical Officer to the Infirmary of the Fulham Union, *vice* — Smith.

PARKER, George, M.A., M.D.Cantab., M.R.C.S.Eng., appointed Assistant Physician to the Bristol General Hospital.

ROBERTSON, George M., M.B., C.M.Edin., appointed Medical Superintendent of the Perth District Asylum at Murthly, *vice* C. MacIver Campbell, M.A., M.D.Aberd., resigned.

ROMER, R. Leslie, appointed Honorary Physician to St. George's Hospital.

SIBLEY, W. Knowsley, M.A., M.D., B.C., M.R.C.P., appointed Clinical Assistant to the Skin Department of the Middlesex Hospital.

SNELL, Mr. E. H., appointed Assistant Medical Officer at the Workhouse and Infirmary of the Parish of Paddington.

WALKER, Benjamin, M.D.Durh., M.R.C.S.Eng., reappointed Medical Officer for the Ravenstonedale District of the East Ward Union.

WILLIAMS, W. M.A., M.B., B.S., D.P.H.Oxon., M.R.C.S.Eng., F.C.S.Lond., appointed Medical Officer of Health to the Glamorganshire County Council.

WILSON, John, L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health for Pudsey.

WINSTANLEY, R. W., L.R.C.P., L.M.Edin., M.R.C.S., appointed Medical Officer for the Shotter Mill Sanitary District of the Farnham Union, *vice* Henry Whiting, M.R.C.S.Eng.

DIARY FOR NEXT WEEK.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Specimens will be shown by Dr. Handfield-Jones, Dr. Napier, Dr. W. S. A. Griffith, Dr. Playfair, and others. Dr. Herman: On the Frequency of Local Symptoms Associated with Backward Displacements of the Uterus. Dr. Cullingworth: Note Supplementary to a Paper on Vaginal Hysterectomy, giving the Subsequent History of the Cases.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, 8.30 P.M.—Discussion on Obstruction of the Large Intestine. To be opened by Mr. Harrison Cripps.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

GREENER.—December 16th, at 1, Clare Street, Riverside, Cardiff, the wife of M. H. Greener, M.B., of a son.

SPENCER.—On December 26th, at 35, Brook Street, Grosvenor Square, the wife of Walter G. Spencer, F.R.C.S., of a son.

STOCKER.—On December 25th, at Floore, Weedon, the wife of E. G. Stocker, M.R.C.S., L.R.C.P., of a daughter, stillborn.

MARRIAGES.

CLARKE—HARRISON.—On December 20th, at St. Paul's Church, Clifton, by the Rev. J. Michell Clarke, rector of Fenny Drayton (uncle of the bridegroom), assisted by the Rev. Canon Mather, the vicar, and the Rev. W. Gordon (cousin of the bride), J. Michell Clarke, M.A., M.D.Cantab., M.R.C.P., eldest son of the late Wm. Mitchell Clarke, surgeon, Clifton, to Amy, eldest daughter of Dr. Alf. J. Harrison, of Failand Lodge, Clifton.

ENTROVEN—RUDALL.—On October 12th, at St. Paul's Cathedral, Melbourne, Australia, by the Rev. Canon Handfield, assisted by the Rev. J. G. Swan, Elias James, third son of John Enthoven, of Harrow-on-the-Hill, England, to Anna Georgiana, only surviving daughter of James T. Rudall, F.R.C.S., of Spring Street, Melbourne.

OWEN—O'NEILL.—On November 26th, 1892, at St. Michael's Church, Colombo, Ceylon, by Rev. J. C. Ford, M.A., Arthur Deaker Owen, M.R.C.S., of the Perak Government Service, Straits Settlements, to Katharine, eldest daughter of Major Edward O'Neill, Teignmouth, South Devon.

DEATHS.

BARSTOW.—At 8, Hoxton Street, Girlington, Bradford, on December 20th, Arthur Henry Barstow, L.R.C.P.S.Edin., L.F.P.S.Glasg., aged 29.

BOOTH.—At 231, Union Street, Aberdeen, on the 17th December, in the 65th year of her age, Mary Craig Mackenzie, wife of James Booth, M.D., M.R.C.S.

GODWIN.—At Rawal Pindi, India, on December 23rd, Surgeon-Colonel C. H. Y. Godwin, Principal Medical Officer Rawal Pindi Division, late Professor of Military Surgery Army Medical School, Netley, aged 54.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

M.R.C.S. asks if there is any method by which the striæ produced in the abdominal wall by distension during pregnancy can be prevented.

PROBE would be thankful to anyone informing him of the best work on the habits, migration, and metamorphoses of sea fish.

EQUINUS asks the name (with price) of book or books which will give country practitioner reliable information about horse-keeping, buying, and some of more common ailments.

FINAL FELLOWSHIP.

AN M.D.LOND. and M.R.C.P.LOND. asks what books he should read for the Final F.R.C.S. He passed his Primary 12 years ago and has not practised surgery for 10 years?

*** Our correspondent would probably find the following works most useful for his purpose: (1) Jacobson's *The Operations in Surgery*, second edition; (2) Erichsen's *Surgery*, edited by Marcus Beck; (3) Treves's *Surgical Applied Anatomy*; (4) Greig Smith's *Abdominal Surgery*; (5) Nettleship's *Ophthalmic Surgery*; (6) Liveing's *Skin Diseases*; (7) A book on surgical pathology might be added, but Erichsen is very good and gives all that is required.

A week at least ought to be passed in the dissecting room with a Gray's *Anatomy* before the examination, as candidates are examined *viva voce* on soft parts freshly dissected.

ANSWERS.

D.M. (Glasgow) has omitted to send his name.

CAMBRIDGE.—Obviously the employer is in his right in acting in the manner described, if he thinks it well to do so.

ORTHOS.—The interpretation of Messrs. Orridge appears to us to be a correct one. "Gross profits" include profits on all accounts due for the year, whether paid or to be encashed.

J. G. T.—Dr. Nolan's article on Stuporose Insanity Consequent on Induced Hypnotism was published in the *Journal of Mental Science*, January, 1891. (3s. 6d. Messrs. Churchill). The *Journal of Mental Science* is published quarterly.

ANOSMIA AFTER INFLUENZA.

DR. FITZ-JAMES MOLONY (Porlock, Somerset) writes: In reply to "Juvenis," if he uses glycerine or tannin and glycerine locally and iodide of potassium internally he will probably be successful in his treatment of this condition. The loss of taste and smell is usually caused by a thickened condition of the nasal mucous membrane from repeated attacks of catarrh. The hypertrophied tissue occludes the sensitive ends of the olfactory nerve and thereby produces anosmia. The glycerine, by its affinity for water, causes local depletion and restores the mucous membrane to a healthy state. Price's glycerine is the most trustworthy. The iodide of potassium should be continued for some time.

ANDREAS VESALIUS.

DR. FITZ-JAMES MOLONY (Porlock, Somerset) writes: If "G.M.C." will communicate with me I may be able to give him some information about Andreas Vesalius. I recently secured possession of his works, entitled *Andreæ Vesalii Invictissimi Caroli V. Imperatoris Medici Opera Omnia*. It is a curious work in two immense folio volumes, written in fairly good Latin. It has several plates representing the surgical instruments of the period, dissections, and, it must be added, quadrupeds of all sorts tied up evidently awaiting vivisection.

The preface consists of a lengthy and appreciative life of Vesalius from which it seems that he was born in 1514, at Brussels, where his father was court physician. As a boy he seems to have shown a taste for comparative anatomy, "puer animalium penetralia nudare atque viscera inspicere soleret." His anatomical studies were at all times pursued under difficulties. He obtained the bodies of criminals by bribing the judges, "corpora nactus eorum, in cubicula vexit, suosque in usus per tres et ultra septimanas asservavit. Horretne legenti animus? O juvenilis ardor, repagula eluctatur ferrea! Tali opus erat ingenio, artibus bis, at nobile conderet opus." He does not seem to have been married if we may judge from the following extract: "Aetate vero integra, uxore, liberis, rei familiaris omni cura liber, totum se immersit in anatomicis."

Vesalius was an enthusiastic surgeon and apparently looked down upon the physicians of the period, "Jocatus medicos reliquos syrupis præscribendis unice occupari." His success aroused the jealousy of his contemporaries. Among others he came into collision with Sylvius, of Paris, Eustachius, of Rome, and Fallopius, of Padua. Mention is also made of "Joannis Caji Medici celebris Britanni." It would be interesting to ascertain who this was.

The end of Vesalius was tragic enough. "Hispanum curabat nobilem petiit ab amicis defuncti corpus aperire ut mortis scrutaretur causam. Quo concesso, visum cor in aperto jam pectore adhuc palpitans." The punishment ordered for this was a pilgrimage to Jerusalem. On his return voyage he was wrecked on the island of Zacinthus. "Inops, in loco solitario, omnique carens subsidio miserabiliter vitam finivit 1564."

NOTES, LETTERS, Etc.

THYROID MEDICATION: A SUGGESTION.

MR. FRED. GOURLAY, M.B., C.M. (West Hampstead) writes to suggest that in giving the thyroid gland as a medicament the fresh glands should be minced very fine and dried at a low temperature. In this way more accurate doses could be given. He adds, the active principle of the gland I consider is probably the globulin, of which the secretion is mostly composed.

INSTRUCTION IN DIETETICS.

MEMBER writes: I am of opinion that a course of lectures on dietetics ought to form part of the new curriculum. Most newly-qualified men are quite ignorant of the principles which ought to be observed in feeding the sick, to say nothing of the healthy. They may have learnt what food is given in different diseases at lectures and in the wards, in a rule-of-thumb kind of way, but of general principles they know nothing.

THE ROYAL COMMISSION ON VACCINATION.

DR. W. WOODWARD (Worcester) writes: Can you kindly give us any information with regard to the expense the country will incur with the Royal Commission, including the cost of the increase of small-pox? Are the Commissioners paid per diem, or is it contract work, in other words, paid according to the amount of the harm done? It does seem strange, after all the profession has done to mitigate disease and suffering, that a Commission, some of whose members belong to the profession, should be instrumental in rendering those efforts abortive.

THE LATE DR. MICHAEL W. TAYLOR.

DR. HENRY BARNES (Carlisle) writes: In the obituary notice of the late Dr. Michael W. Taylor, published in the BRITISH MEDICAL JOURNAL, it is stated that he took a leading part in founding the Border Counties Branch of the British Medical Association in 1868, and was its first President. On referring to the BRITISH MEDICAL JOURNAL for July 18th, 1868, p. 68, it will be seen that Dr. Taylor was present at the inaugural meeting of the Branch, that he seconded the fourth resolution, and that he was elected president-elect. He thus became the second and not the first President. At that time the Branch was called the Cumberland and Westmorland Branch, but, in 1874, by extending its boundaries it became the Border Counties Branch. For many years Dr. Taylor was the representative of the Branch on the Parliamentary Bills Committee of the Association, in which capacity he did much useful work in promoting medical reform.

CHAIN AND PULLEY FOR LARGE UTERINE FIBROID.

DR. HEYWOOD SMITH (Harley Street, W.) writes: In the EPITOME of December 17th there is a notice (526) under the above heading of a contrivance of Dr. A. Reverdin, of Geneva, for elevating and holding up large fibroid during the operation of hysterectomy. It is more than ten years ago that I had made and used at the Hospital for Women an exactly similar device. It was in the form of a large hinged "cramp" with blunt points, such as is used by stonemasons; a chain ran through loops in the handles, and the apparatus was suspended over the operating table by a cord passing through a pulley fixed in the ceiling. It could doubtless be seen there by anyone desirous of giving credit to this country of priority in the invention of so useful a help in the case of some difficult and ponderous tumours.

SIXPENNY DOCTORS AND VACCINATION.

DR. C. R. ILLINGWORTH (Accrington) writes: Dr. Davidson does not defend his position very well. 1. His study of the Sheffield reports, etc., being only recent, what were the grounds for believing four marks quite unnecessary prior to their perusal for purposes of special study and special deduction? 2. There is a vast difference between "citing in support of" and "basing upon." My charge of dishonesty is based upon the presumed acquaintance of most vaccinators with the statistics of the London Small-pox Hospital and the Sheffield epidemic. A fallacy perpetrated by the compilers of those statistics once demonstrated, my charge of dishonesty may subsequently have to be withdrawn. But such a fallacy has not yet been conclusively demonstrated. Dr. Davidson now for the first time makes an attempt. I have no doubt, however, that Dr. Barry will be able in a very thorough manner to stand by his report on the Sheffield epidemic, and to show the fallaciousness of the argument now begun by Dr. Davidson.

THE MEDICAL DEFENCE UNION.

THE Secretary of the Medical Defence Union, Dr. Leslie Phillips, Birmingham, takes exception to the publication in our columns of letters asking for further information concerning the payments made out of the funds of the Society to the defendant in the case of Denholme *v.* Tait referred to in the published reports of the Council, BRITISH MEDICAL JOURNAL, page 873, October 15th, 1892. This, Dr. Leslie Phillips considers, is a matter only of domestic concern. We cannot agree with the view that the affairs of a council which forwards its minutes for publication in the JOURNAL, and which undertakes to treat matters of general professional concern, can properly be treated as purely domestic. Nor can we admit that when the minutes forwarded for publication are considered by readers of the JOURNAL to afford insufficient information, they are not entitled as such to ask for further details. It is a matter of discretion whether the officials of such a society prefer to withhold that information from public knowledge, but if the principle contended for were admitted, we should feel it necessary to decline the publication of selected abbreviated minutes forwarded under an implied condition that they were not open for discussion in our pages. This we should regret, for we have always regarded the Society as one of much public usefulness, and its proceedings as of general professional interest, as are, indeed, the proceedings of all such societies. The claim is a novel one, and we hope it will not be persisted in.

PRESCRIBERS AND DISPENSERS IN GUATEMALA.

IN the matter of prescribing and dispensing, this country might perhaps learn something from Guatemala, which has not hitherto, so far as we are aware, come before the world as a source of sweetness and light in matters medical. We learn from the New York *Medical Record* that at a recent meeting of the pharmacists of that State, the governing committee directed the Secretary to call the attention of the members to certain laws, the provisions of which, it appears, were in some danger of coming to be looked upon as a dead letter. These laws provide that pharmacists shall not dispense without a physician's prescription any drugs except those in common use in domestic medicine, which even medical practitioners are accustomed to prescribe by word of mouth. Even on a prescription they are forbidden to dispense any poison in large dose without previously calling on the practitioner and ascertaining from him that the prescription is intended to be dispensed as written. Similar precautions must be taken when incompatibles are prescribed. Prescriptions of older date than one week before presentation must not be made up. Finally, no druggist is allowed without the permission of the prescriber to give a copy of any prescription to any person whomsoever unless he is specially ordered to do so by the proper authorities.

HEREDITARY TENDENCY TO TWIN BIRTH.

DR. ALEXANDER PATERSON writes: The other day I delivered a patient of mine of twin boys. On a subsequent visit I made inquiry into the family history of my patient with the object of ascertaining whether there had been any former cases of double birth in the family. On the mother's side there had never been, as far back as could be remembered, any case of twins, but I learned that the great grandmother on the father's side had been confined eleven times, and on each occasion she was safely delivered of twins, a few of whom are still alive. Some weeks ago a cousin on the same side of the family gave birth to twins. The foregoing is, in my experience, very remarkable.

THE AFFINITIES OF "HEBERDEN'S NODES."

DR. F. G. GARDNER (Tewkesbury) writes: I am at present treating for multiple gout an elderly woman who has "Heberden's nodes" on nearly all her "distal digital phalanges." When I first saw her she had swelling of several finger-joints, several toe-joints, and of one knee. The swellings were typical, being painful, throbbing and tender, red, tense, and shining. She had been suffering for ten days very much, but the usual gouty remedies gave almost immediate relief, and extensive desquamation followed. During the last thirty years she has had about a dozen similar attacks, and judging by the light of the present one I should say they were true gout. Her finger ends have been enlarged during a great part of the time—a condition frequently attributed to "rheumatic gout." She has been troubled very little in her joints between the attacks.

A METHOD OF OPENING THE MASTOID ANTRUM.

DR. WM. ROBERTSON (Newcastle-on-Tyne) writes that the following are the steps of the operation for opening the mastoid antrum recently recommended by him. A free incision is made along the line of junction of auricle with mastoid to its full extent and down to the bone. The auricle is now firmly hooked forward by a strong retractor, and with a raspatory of suitable size the soft parts are lifted forward from the posterior meatal wall throughout the extent of the external meatus. The soft parts over the mastoid are pushed aside from the incision as far as possible, so as to expose the area of bone (freed from periosteum) required. An ordinary probe is now taken, and less than a quarter of an inch is bent to a right angle, and this end is now inserted into the meatus running along the posterior meatal wall to search for the mastoid antrum. When the end of the probe becomes caught in the antrum, it is moved about so as to afford some idea of site and size of antrum, and is left *in situ* as a guide to chiselling off the external wall of this cavity, as well as the posterior meatal wall. This guide affords distinct help when making section of the deep part of the posterior meatal wall, where incautious strokes of the mallet might drive the chisel into the semicircular canals lodged in the inner wall of the tympanum just opposite. No injury can befall the facial, if care is observed not to carry section of the posterior wall too low down it, below the site of the probe in the antrum. I am indebted to Victor Horsley for the hint as to the use of the probe in the antrum in the way described above. After having thus cut away the whole of the posterior meatal osseous wall and the portion of the mastoid, limiting the antrum externally, the posterior cutaneous meatus is divided longitudinally throughout its extent, and the flaps pressed back on to the adjoining bony surfaces. This step permits a free drainage from the enlarged area in the mastoid. The extensive primary incision is now curtailed by sutures inserted towards each of its extremities, a central part one and a-half inch long being left free. The antrum is now filled with iodoform gauze, and a strip of this placed in the meatus.

In four cases recently operated on after this plan the results have been decidedly good. Amongst the principal advantages that can be claimed for it are these—namely, that the antrum cannot be missed, and no dangerous structures lie between the probe and the surface. The lateral sinus escapes injury if the indications given are observed. The plan adopted holds out a hope of more thoroughly removing extensive disease than the older method of operating. If the attic region is affected, free access is obtained to it, as well as for curetting out antrum and tympanum. Inflammatory swelling quickly subsided, and hearing rapidly improved in the four cases mentioned.

LETTERS, COMMUNICATIONS, ETC., have been received from: (A) Dr. Aveling, London; Dr. S. W. Abbott, Boston; Professor C. Allbutt, Cambridge; Dr. T. McCall Anderson, Glasgow; Dr. E. C. Avragnet, Paris; Mr. J. M. Atkinson, London. (B) Mr. A. H. Benson, Dublin; Mr. Stanley Boyd, London; Mr. J. Backs, London; Mr. J. P. Baily, London; Dr. J. M. Booth, Aberdeen; P. Boobbyer, M.B., Nottingham; D. G. Braidwood, M.B., Halkirk; Dr. Babinski, Paris; Mr. L. Browne, London; Dr. A. W. Blyth, London; Dr. F. Lucas Benham, London. (C) Mr. A. H. Cownley, London; Mr. J. C. Cameron, Montreal; Dr. W. A. Carline, Lincoln; Dr. H. E. Critchley, Inverness; W. Carmichael, M.B., Edinburgh; Mr. H. A. Campbell, Guernsey; Mr. H. B. Carter, London; Mr. W. J. Cant, Lincoln; Mr. A. Coccoz, Paris. (D) H. Dickie, M.B., Morpeth; Mr. H. P. Dunn, London; D. M.; Mr. C. J. Drummond, London. (E) Mr. G. S. Elliston, Ipswich. (F) Dr. J. Filirsen, Cradock; Dr. H. Fox, London. (G) Mr. G. Grimsdale, London; M. H. Greener, M.B., Cardiff; Dr. F. Godfrey, Scarborough; Mr. J. L. Green, Salisbury; Mr. G. Gilroy, Eccleshill; Mr. H. Gilford, Reading; Mr. L. M. Griffiths, Clifton; Mr. F. G. Gardner, Tewkesbury; General Practitioner. (H) Dr. A. Hess, London; Mr. W. Hacon, Christchurch; Professor V. Horsley, London; Mr. F. Haydon, London; Dr. W. G. Hewett, London; A. J. Harrison, M.B., Clifton; Mr. M. Howard, Oldham; Mr. J. L. Hamilton, Brighton; Mr. L. Henry, Melbourne; Mr. J. C. Heaven, Bristol; Dr. G. Harley, London; Messrs. Hockin, Wilson and Co., London; Mr. W. J. Hill, Bristol. (J) Dr. W. James, London; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Mr. J. B. James, London; Mr. E. H. Jones, Dowlais. (K) Dr. S. W. Knowsley, London; Mr. R. J. Kimbering, Galway; Dr. A. A. Kanthack, Liverpool; Dr. James Kerr, Bradford. (L) Mr. J. Lawrence, London; Dr. J. T. N. Lipscombe, St. Albans; Dr. A. Little, London; Mr. C. B. Lockwood, London; Literary Digest, Editor, London; P. F. Lush, M.B., London; Dr. T. Laffan, Cashel; Mr. W. Limont, Newcastle. (M) Professor McHardy, London; Mr. W. B. Murray, Galashiels; Mr. N. Gordon Munro, Vancouver; Messrs. Margrave Brothers, Llanelly; Mr. M. A. Messiter, Dudley; Dr. J. W. Moore, Dublin; Mr. N. McLiesh, Bolton; Mr. J. J. N. Morris, Devonport; Mr. G. B. Morgan, Sunderland; Mr. W. F. McCarthy, Worcester; Melbourne; G. Miller, M.B., Salford; Mr. W. J. Morris, Portmadoc; Mr. J. MacMunn, London; R. C. Macdiarmid, M.B., Glasgow; Mr. F. Molony, Portlock: Dr. Mead, Royston. (N) Mr. P. Newell, Crowborough; Miss Florence Nightingale, London. (O) Dr. Oliver, Newcastle-on-Tyne: Observer. (P) Mr. J. H. Parsons, London; Mr. T. Piggott, London; The Secretary of the Pelican House College, London; Dr. C. Y. Pearson, Cork; Dr. G. V. Perez, Paris; Mr. W. W. Potter, Buffalo; Dr. J. F. Payne, London. (R) Dr. G. Reid, Stafford; A. T. Rake, M.B., London. (S) Messrs. S. P. Segg and Co., London; Mr. W. St. C. Symmers, Birmingham; Mr. Spurway, Rome; Dr. C. E. Shelly, Hertford; Dr. R. Savage, London; Dr. R. Saundby, Birmingham; Mr. E. J. Stocker, Weedon; Dr. A. Smart, Edinburgh; Messrs. R. Smith and Son, Dublin; Dr. W. W. Smith, London. (T) Mr. E. P. Thurston, Teneriffe; Dr. A. S. Tindall, Glasgow; Mr. W. N. Thursfield, London; Mr. G. E. Twynam, Sydney; Mr. A. Thomson, Oxford. (W) W. S. Watson, M.B., London; Mr. West, London; Mr. W. Williams, Dolgelly; Mr. J. K. Watson, Manchester; Mr. H. Wollheim, London. (Y) Dr. Young, Rome; Mr. W. E. Yorke-Davis, London; etc.

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AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(1) Examination of the Urine by the Centrifugal Machine.

ALBU (*Berl. klin. Woch.*, May 30th, 1892) says that the centrifugal machine, when once introduced quickly comes into general use in the examination of pathological fluids. The author has thus examined some hundred hospital urines, one half of which were from cases of Bright's disease. The deposit was compared with that obtained after standing. Like gravitation, centrifugal force would seem to have its limits. Sometimes no deposit is obtained, and at other times perfectly clear urine gives one. The greater part of this deposit falls in a few minutes, and the microscope shows it to be richer than that obtained by standing, but the difference is in quantity rather than quality. There is no advantage in adding alcohol or barium carbonate except in cases of examination for bacilli. In apparently healthy urine a greater or less number of leucocytes, or flat epithelial cells were found. In non-albuminous urine hyaline and granular casts were repeatedly seen, and in two-thirds of the cases of acute pneumonia more or less numerous casts, covered with leucocytes or renal epithelium, were observed. Blood cells were at times found by the microscope in cases where the deposit did not look as if it contained any. Other pigment, such as that of jaundice, was found intimately united with formed elements. Bacteria could be separated out by the centrifugal method, but only partially. Twice tubercle bacilli were demonstrated, but they were also found in the deposit obtained after standing. The estimation of (coagulated) albumen by this method was not more accurate than by Esbach's albuminimeter. The centrifugal method is, however, a valuable addition to the clinical examination of the urine, in that it provides an unaltered sediment in the shortest time, but it is no material help to diagnosis.

(2) Unilateral Hallucinations.

TOULOUSE (*Gaz. d. Hôp.*, May 31st and June 4th, 1892) records a case, with an antecedent alcoholic history, in which all the symptoms of a circumscribed lesion of the right cerebral hemisphere, including well-marked Jacksonian epilepsy, were present, and in which there were well-marked unilateral hallucinations of hearing, always referred to the left ear. The voice which the patient heard made accusations against her, insulted her, and so on. There was some evidence of hallucinations of sight, to some extent unilateral, but this was less definite. There was sclerosis of the tympanum on both sides, more pronounced on the right. The author has collected 39 cases of unilateral hallucinations that have been recorded. In 26 of these hearing was affected, in 7 sight, in 4 sight and hearing, in 1 sight and touch, and in 1 touch alone. He is not aware of any records of unilateral hallucinations of smell or taste. Of the 26 cases in which hearing was affected, in 23 it was on one side alone, in 2 it was bilateral but of different characters on the two sides, and in 1 it was sometimes on one side, sometimes on the other, but never on the two sides simultaneously. Of the 7 cases in which sight was affected, once the affection was bilateral and of different characters on the two sides, and once it was unilateral but had affected consecutively the left and right sides. He arranges the conditions under which these hallucinations are met with in three classes: those which coincide with a peripheral lesion of the organ for that particular sense, those occurring in mental conditions such as melancholic delirium and the delirium of persecution or a toxic delirium such as alcoholism, and those which are associated with a circumscribed lesion of the brain, in which latter category he places his own case, excluding the condition of the ears as the etiological factor, owing to this being bilateral and more marked on the right side, while the hallucinations were left-sided. Where the condition depends on a peripheral lesion the diagnosis is easy, and the diagnosis of a central one must, he considers, be based on the absence of such peripheral lesion, together with the presence of motor and sensory affections. The recorded evidence points to the cortical centre for the particular sense as the seat of the lesion in these central cases. The symptom is considered of great clinical value, as it leads to precise diagnosis, establishes a prognosis, and indicates in certain cases a curative treatment.

(3) Diphtheria.

BAGINSKY (*Archiv f. Kinderheilkunde*, xiii) found Loeffler's bacillus in membrane from the pharynx in 68 out of 93 cases of diphtheria. In all the cases in which it was found extremely severe symptoms were present. The remaining 25 cases exhibited the same kind of symptoms as those observed in the majority of the cases, but the bacilli were absent, only strepto- and staphylococci being found. Recovery took place in all the cases of the latter class, whilst nearly 50 per cent. of those presenting Loeffler's bacillus died. The author concludes from his investigations that there are two forms of diphtheria, alike clinically in the main; the symptoms, however, are more severe in the one variety than in the other. In the severe form Loeffler's bacillus is the causal agent; the mortality is great. The milder form is produced by strepto- and staphylococci; it is not dangerous, and results in recovery.

(4) Rumination in Man.

DECKER (*Münch. med. Woch.*, May 24th, 1892) reports five such cases. Three of them occurred in men, and the two others in a mother and her child aged 3½ years. The complaint was congenital in three of the cases. The author does not believe that rumination is due to any paralysis of the cardia, but that the latter opens at the time of each regurgitation. Only in one case was there any evidence of weakness of the cardia (as tested by inflation). Hyperacidity is only an accidental occurrence. In four of the five cases the gastric juice was normal. Rumination may occur with or without dyspepsia. Dilatation of the stomach was only present in one case. Decker would look upon this dilatation as the result and not the cause of the complaint. He thinks that too rapid and excessive eating with deficient chewing is the proximate cause; this was present in four of his cases. In addition there must be a neurotic predisposition. In four of the five cases the rumination is to be regarded as a reflex neurosis. The other case occurring in a neurasthenical patient the author would look upon as a central affection. In a comparison between eructation and rumination it is pointed out that in the former there is only a slight contraction of the stomach whereas in the latter the stomach contracts energetically as well as the diaphragm and abdominal muscles.

SURGERY.

(5) A New Osteoplastic Operation for Spina Bifida.

BOBROFF, of Moscow (*Centralbl. f. Chir.*, June 4th, 1892) reports a case in which a new osteoplastic operation was performed for the cure of a myelo-meningocele in the sacral region of a boy, aged 8, who had suffered since birth from incontinence both of urine and fæces. After removal of a portion of the skin covering the tumour, and excision of the whole of the sac, the cleft in the bone which corresponded to the back of the third piece of the sacrum and readily admitted the forefinger, was closed by a piece of bone taken from the crest of the right ilium. This fragment, which measured about 1¼ inch in length, ⅜ inch in breadth, and a little less than ⅛ inch in thickness, was completely separated from the crest of the ilium and from the gluteus maximus, but retained its attachment to the erector spinæ. After the osseous margins of the vertebral cleft had been cut away, the displaced portion of bone was fixed in its new position by sutures, the part covered by periosteum being directed towards the interior of the spinal canal, and the raw spongy surface backwards towards the external wound. The results of this operation seem to have been very satisfactory. Notwithstanding a profuse discharge of cerebro-spinal fluid, which lasted for several days, the patient made a good and uninterrupted recovery. At the end of the second month the author made out that there was complete consolidation of the transplanted fragment of bone with the sacrum. After an interval of three months the boy had complete control over the contents of the rectum, but, although there was no longer any nocturnal incontinence of urine, was unable

to restrain the flow from the bladder whilst in the erect position. In conclusion the author suggests that it might be possible in cases of spina bifida in the upper lumbar or dorsal region to close the vertebral cleft by transplanting in a similar manner a portion of bone cut away from a rib, but left attached to the soft parts.

(6) Craniectomy for Epileptic Dementia.

Engel (*Med. News*, 1892, No. 17) relates the case of a boy who was in good mental and bodily health until the age of 6 years, when, without discoverable cause, he had convulsions following epilepsy. The fits became more frequent and severe until, between the age of 12 and 14 years, he had as many as 21 during the 24 hours. The fits began in the upper limbs, but beyond this there were no localising signs. The boy was in a state of partial dementia, but was cunning, used foul language, and was liable to attacks of maniacal excitement. The skull presented symmetrical deformity —flattening of the upper part of the frontal and anterior two-thirds of the parietal bones, and approximation of the parietal bones to each other. A course of treatment by bromides diminished the number and severity of the fits without producing any improvement in the mental state. An operation was then performed by Packard, who trephined on each side of the sagittal suture, and removed the intervening bone. The operation was repeated on the opposite side of the skull three months later. For five weeks after the first and two weeks after the second operation he had no attacks, but at the time (not stated) of the report he was having one or two a week, but of a much milder type than before operation. A few weeks after the second operation his expression changed, and he became less irritable, and much more intelligent. This improvement was progressive, and his mental condition became that of an ordinary, intelligent boy of 8; his age was 14. The bone removed at the operation was much changed, being chalky and very thick.

(7) Malignant New Growths in Children.

Stern (*Deut. med. Wock.*, June 2nd, 1892) collects the recorded cases, and adds four new ones. No organ in the child's body is exempt from new growth. Skin, bones, lymphatic glands, eye, and brain may be attacked, and the lungs and pleura do not escape. The kidneys and genital organs are the favourite sites, but the liver and alimentary canal may also be affected. The author first refers to carcinomatous growths in the skin. He then records a case of spindle-shaped sarcoma of the tongue in a child aged 4, which recurred fifteen months after removal. Among the growths connected with the genital organs, primary sarcoma of the vagina has been observed in a child aged 3½ years. Both sarcoma and carcinoma of the uterus have been seen in quite young children. An ovarian tumour which had undergone carcinomatous degeneration occurred in a child aged 15. Carcinoma of the testis was seen in a boy aged 1½ year, and sarcoma of the same organ in a boy aged 5. Sarcoma of the bladder and prostate have also been met with in children. Malignant disease of the kidney is much more frequent. Quite a number of cases of malignant tumours of the abdomen, starting from the retro-peritoneal glands, have been observed. The author records the case of a boy, aged 11, in whom a large carcinoma was found between the layers of the mesentery. In connection with the alimentary canal the number of cases is small. Sarcoma and carcinoma of the liver have been observed. Carcinoma of the pancreas has been seen in children of 2 and 13 years respectively. A lymphosarcoma of the lower end of the œsophagus has been recorded in a child aged 4 years. Carcinoma of the stomach has been observed at least three times. Under malignant disease of the small intestine, Stern records the case of an infant a few days old, in whom a sarcoma of the ileum gave rise to complete intestinal obstruction. Under the large intestine the author reports the following case in a girl aged 11 years. For a month preceding admission the bowels had acted irregularly, and for twelve days the obstruction had been almost complete. It was thought to be a case of chronic intussusception, until examination under an anæsthetic revealed a stricture high up in the rectum. Right colotomy was performed. After death, six months later, an adeno-carcinomatous growth encircling the bowel was found 10 centimetres from the anal orifice. The author thinks it more than probable that cases of malignant disease in children may at times be overlooked, and some other disease diagnosed.

(8) Treatment of Trifacial Neuralgia.

Chalot reports (*Gaz. des Hôp.*, May 31st, 1892) a case of trifacial neuralgia in a man, aged 66, which had lasted for twenty years, having resisted all kinds of treatment, and upon which he had carried out the following operative measures: (1) exposure of the terminal part of the infra-orbital nerve; (2) excision of the superior maxillary nerve and the spheno-palatine ganglion in the pterygo-maxillary fossa by the operation of Lossen H. Braun. Two incisions—one vertical and the other horizontal, were made in the malar region, and the malar bone and zygomatic arch exposed; this bone was then sawn through in front and behind, and a segment thrown downwards. By this means the upper part of the pterygo-maxillary fissure could be explored with a sound. The internal maxillary artery was ligatured and structures in the fissure separated, and then the nerve was taken up with a blunt hook as it lay in the fossa, and was divided in front and behind this ganglion. The segment of nerve thus separated was drawn out and removed, and then, after stoppage of hæmorrhage, the bone was replaced and fixed in position; (3) drawing out of the infra-orbital nerve from the incision made at first; (4) section of the inferior dental nerve and the lingual nerve. For this operation the lower jaw is bared 1½ centimetre above the angle, and a trephine applied and the bone perforated; the two nerves are now pulled, and a piece removed from each; (5) division of the auriculo-temporal nerve. The results of this operation were good, and two months afterwards there had been no return of the neuralgia.

MIDWIFERY AND DISEASES OF WOMEN.

(9) Perforation of Uterus by the Curette.

Lannelongue (*Arch. de Tocol. et de Gynéc.*, May, 1892) employed the curette for a woman, aged 64, a 4-para. The patient had total prolapse, with metritis. After dilatation, the irrigating curette was used; it seemed to pass indefinitely far without resistance, and the injected fluid did not return. As perforation was evident, vaginal hysterectomy was at once performed. The uterus was very flabby, and had been perforated at the angle between the body and the neck. The patient recovered. In a second case, the patient was 31, also a 4-para. She had endometritis and slight salpingo-ovaritis. There was cystocele, rectocele, and ruptured perineum. After dilatation, the irrigating curette was used. In scraping the right cornu, it was noticed that the injected fluid ceased to return, yet the instrument did not seem to have passed beyond the uterine cavity. As the patient was young, and perforation not absolutely certain, the uterus was not removed. The cavity was swabbed, the cervix, much hypertrophied, was amputated, and colpoperineorrhaphy performed. By the second day the abdomen became distended; next day stomatitis set in and poisoning by sublimate was suspected; on the tenth day, diarrhœa occurred with albuminuria. On the nineteenth, erysipelatous patches appeared on the forehead, and the patient died; a soft, solid tumour had developed in the abdomen. The enlarged, flabby uterus was found full of pus, and there was purulent peritonitis as well. The perforation in the right cornu was distinct. Lannelongue believes that when the uterus is perforated by the curette before the scraping has begun, the uterus must be amputated, as the danger of septic peritonitis from fragments of diseased endometrium is great. If the curette does not pierce the uterus till the process has nearly finished, the uterus may be saved, especially if the patient be young.

(10) Diarrhœa from Retroflexion.

Fischel (*Prager med. Wochenschr.*, No. 47, 1891) publishes the case of a well-nourished woman, aged 23, who was seized with violent diarrhœa a few days after recovery from confinement. It commenced regularly between 4 and 7 A.M., preceded by hypogastric pains and a feeling of anxiety. Four or five motions were passed. At the end of three weeks the patient was very emaciated, having lost nearly twenty pounds

in weight. No drugs were of service, and rest did no good. Fischel explored the pelvis and discovered retroflexion of the uterus, which to his knowledge had previously lain in its right axis. Following Schauta's directions, the displacement was rectified and a pessary applied. Next morning the diarrhœa ceased and did not return. Nine months later the pessary became displaced and the intestinal catarrh returned, but ceased on rectification of the position of the pessary. A year and a half later the pessary was removed with the same result; on its replacement the retroflexion was rectified and the diarrhœa once more ceased.

(11) Total Removal of Uterus for Myoma.

PÉAN (*Gazette des Hôpitaux*, June 7th, 1892) claims to have greatly improved upon the ordinary operations for large uterine fibroids. He removes tumour and uterus by a mixed abdominal and vaginal operation. An abdominal incision is made, the tumour extracted, and its pedicle secured by a loop of metal as low down as possible. The tumour is then cut away. The abdominal wound is closed, and the operator removes the pedicle and cervix uteri by section through the vagina. The broad ligaments are secured by pressure forceps, as in his operation for the removal of small or medium tumours through the vagina. This method obviates all the disadvantages of the older abdominal operation, where a pedicle is left, which partly sloughs and at length sinks deeply into the pelvis.

(12) Polypoid Hypertrophy of Vagina detected during Labour.

RISSMANN (*Centralbl. f. Gynäk.*, June 18th, 1892) writes of a case of labour in a 2-para, where the brow presented. Progress was slow, and in the course of washing out the vagina for purposes of disinfection, a pale-red, ribbon-like structure was detected pressed between the head and the vagina; it projected from the vulva. As long as the labour continued, it was not thought advisable to trouble much about the morbid structure which was taken at the time for large condylomata, such as sometimes develop during pregnancy. After delivery, it was found that the new growth sprang from the anterior vaginal wall immediately above the meatus. It tapered towards its extremity, and measured 3 inches in length; its base was four-fifths of an inch broad. From the posterior vaginal wall grew two similar growths, not so long, but broader at the base. There was no evidence of gonorrhœa, no urethral discharge, and no gonococci could be detected. On the tenth day after labour, the polypoid vaginal growths were excised; they proved to be developed through hypertrophy of the connective tissue of the vagina.

(13) Danger of Intrauterine Injections.

TARNIER (*Journ. des Sages Femmes*, June 16th, 1892) has determined never to employ sublimate lotions for intrauterine injections. Eighteen cases of death, after sublimate injections in childbed, have been recorded; in sixteen of these cases the injections were thrown into the uterus, in two only into the vagina. Death may be due to some severe reflex stimulus, or to direct poisoning through entrance of the injected fluid into the uterine veins. From experiments, it seems that permanganate of potassium, microcidine, iodine, and salicylic acid are innocuous. Sublimate is liable to involve dangers some time after its injection. Of substances which may cause syncope or immediate death when injected carbolic acid holds the first place. Biniodide of mercury is also very dangerous, and the perils of perchloride of iron are well known. Tarnier reminds the obstetrician, however, that perfectly innocuous solutions, or even plain water, have caused death when injected into the uterus. This accident is undoubtedly due to the entrance of air into the veins. Any kind of injecting apparatus may prove dangerous if the obstetrician or nurse neglect to drive air out of the tube, or uses too great propelling force. When gravitation is the agent, the receptacle for the fluid should not be placed more than 15 inches above the level of the patient's pelvis.

(14) Vaginal Extirpation of Cancerous Uterus.

SCHOPF (*Wiener klin. Wochenschr.*, No. 45, 1891) describes a case where the uterus was removed for cancer localised to the fundus in a woman, aged 52. As the uterus was very big, lateral incisions were made in the vulva. Three months after the operation cancerous nodules were found in the scars of the wounds made in the vulva, whilst the fornix remained free from disease. Four months later the patient died of cancer of the left lobe of the liver. Schopf believes that the vulvar wounds were directly infected by the cancerous mass during its extraction at the operation.

THERAPEUTICS.

(15) Pental as an Anæsthetic.

R. BREUER AND A. LINDNER (*Wien. klin. Woch.*, Nos. 3 and 4, 1892) have used pental as an anæsthetic in 120 cases of minor and major operations, and are on the whole well satisfied with its action. The duration of anæsthesia varied from 50 seconds to 31 minutes. The corneal reflex was not abolished, even in the deepest narcosis. The loss of consciousness was preceded by a stage of analgesia, during which minor operations could be begun. The authors found that pental, while not causing such deep insensibility as chloroform, produces anæsthesia sufficient for the performance of major as well as minor operations. Narcosis is induced by it in about one minute and a-half, goes on quietly, and is very seldom followed by such unpleasant after-effects as those seen when chloroform has been used. When the administration is suspended, the patient quickly recovers. In only one case in the author's experience did pental cause any grave accident (sudden collapse); in that case 4 g. of the anæsthetic had been employed. — ROGNER (*Wien. med. Presse*, No. 51, 1891) has used pental for operations requiring short periods of anæsthesia, such as are called for in the out-patient room. In his experience narcosis is induced in from 60 to 70 seconds without any preliminary stage of excitement. Neither the heart nor the breathing is injuriously affected. Insensibility lasts from 4 to 5 minutes. The patient recovers quickly and quietly. —On the other hand, Chalalb (*Intern. klin. Rundsch.*, No. 9, 1892) has made experiments with pental on dogs, and has tried it clinically in Professor Assaky's clinic at Bucharest, with unsatisfactory results. A patient on whom lithotomy was about to be performed could not be narcotised with pental, and the operation had to be done on another day under chloroform. In a case of internal urethrotomy pental proved equally ineffectual, the administration having to be discontinued owing to the condition of the pulse and respiration. In a third patient (a woman on whom curetting of the uterus was to be performed) anæsthesia could not be induced, although the administration was continued for 40 minutes, and 32 cubic centimetres of pental were given. The agent was also tried as a local anæsthetic in a case of ingrowing nail, but without result. Chalalb sums up his results as follows: (1) The anæsthesia caused by pental is quite superficial; (2) the agent takes longer than chloroform to produce its effect; (3) it has an unfavourable effect on the circulation, and in large doses may prove very dangerous; (4) as a local anæsthetic it is far inferior to ether.—A. HAEGLER (*Korresp. f. schweiz. Aerzte*, No. 6, 1892) has tried pental in some 40 cases in the Basle Policlinic. The dose given was 5 g. in children, and 10 g. in adults. Contrary to the statement of HOLLÄNDER, a preliminary stage of excitement was very often observed; in almost all the cases slight hyperæmia of the skin of the face was noticed during the administration. The time taken to produce narcosis varied from 1½ to 2 minutes. When insensibility was complete, the arms hung limp, the eyes staring, the pupils widely dilated, the corneal reflex in most cases abolished. Narcosis lasted from 3 to 7 minutes. Recovery was sudden, and unpleasant secondary effects, such as headache, vomiting, etc., were not observed. Haegler also disagrees with Holländer as to the absence of danger in the use of pental. In the case of a healthy medical student to whom the agent was administered for demonstration purposes, slight cyanosis was noticed at the very outset, and in about 30 seconds the arms hung limp, the eyes stared, the pupils were widely dilated, but the corneal reflex could still be elicited, and the pulse was strong and regular. The administration was then discontinued, but at that moment acute dyspnœa, with intense cyanosis, came on; and although the tongue was drawn forward, the man soon ceased to breathe, and the pulse could not be felt. After

artificial respiration had been performed for two minutes, he began to breathe again, and two minutes later he recovered consciousness to some extent. No further untoward effects were noticed, and in a few minutes the student was able to resume his duties as assistant in the policlinic.

(16) Parenchymatous Injections of Pyoctanine in Pulmonary Tuberculosis.

This method of treatment has been tried by Petteruti and G. Mirto (*Rif. Med.*, February 1st, 1892). The following is a summary of their results. (1) Injections of pyoctanine (1 : 500) into a phthisical cavity are well borne, without signs of immediate or subsequent reaction. (2) The injections produce a certain effect on hectic fever, reducing temperature; whether this is due to a direct action on the febrile process or to a destructive action on the pyrogenic products of the bacilli cannot be said. (3) During the injections the bacillus disappeared from the sputum, and this disappearance should probably be attributed to the action of the drug, for 18 days after the last injection they reappeared, but in smaller numbers. (4) If the solution gets into a bronchus it seems to have a deleterious action on the lining epithelium, expectoration then consisting of abundant mucous flakes and ciliated epithelial cells. Direct introduction into a bronchus also causes a most troublesome irritative cough. (5) Pyoctanine blue may, without doubt, give rise to acute nephritis; either the drug itself or the products of its decomposition seem to act as powerful irritants to the renal epithelium. It follows, therefore, that although the local action on a phthisical cavity appears to be favourable much caution should be displayed in using pyoctanine in this manner, for there is grave risk of an irritating action being exercised on distant parts.

(17) Hot Pack in Fever.

Bremner (*N. Y. Med. Journ.*, May 28th, 1892) describes a method of applying a hot pack which he has found very efficacious and convenient in the treatment of enteric fever, scarlet fever, and measles, especially in children. A blanket just large enough to envelop the patient completely is folded lengthwise twice, and then rolled into a moderately tight roll. Two ounces of good soap are boiled until dissolved in two quarts of water, and this boiling solution is poured slowly into the centre of the roll, which is struck from time to time to facilitate thorough saturation. The blanket is then placed on a bed or on a part of the patient's bed prepared with a waterproof sheet covered by a dry blanket, and rapidly unrolled. As soon as the blanket has become cool enough to be borne, the patient is wrapped up, with the arms enclosed, first in the wet and then in the dry blanket. The dry blanket, which should be double, must be carefully secured round the neck with a safety pin, and well tucked in at the feet, to which a hot water bottle may be applied if they tend to be cold. If the room is cold the whole may be covered with another blanket. A cold wet handkerchief or ice bag is applied to the head. The pack is kept on for one or two hours, according to the temperature and the feelings of the patient. The effect is to reduce temperature, to remove delirium or coma, and to induce sleep. The pack should be repeated twice or thrice daily until the temperature remains permanently below 101° F. When removed from the pack the patient should be rubbed gently with a soft towel and replaced in ordinary bedding. The advantages of the method are said to be that it is more agreeable to the patient and to the friends than the cold pack, and reduces the temperature as effectually.

(18) Poisoning by Creasote.

Freudenthal (*N. Y. Med. Rec.*, April 23rd) reports the case of a lady, aged 31, suffering from phthisis, whom he treated with creasote. Commencing with a small dose, this was gradually increased, until she was taking 2.4 g. twice daily. One morning after her walk, having already had her morning dose, but feeling weak, she took a second dose of the usual amount; she had hardly strength enough to drag herself to bed, where she lay unconscious for some eight or nine hours. When the doctor arrived late in the evening she was in a state of narcosis, her eyes were closed, and her breathing was stertorous; there were loud coarse *râles* over the whole chest, which could be heard from a distance; her teeth were so tightly clenched that it was impossible to separate her jaws; her lips were cyanotic, and her pupils contracted and did not react to light: there was paralysis of all reflex movements, the pulse was 128, respirations 30; she passed water under her. Ammonia was held to her nostrils, a mustard footbath was given, and ice applied to the head, and she awoke and felt no ill effects. Subsequently, in the course of treatment, she took even larger doses of creasote, but without experiencing any of the former troubles. It is noteworthy that there were no renal manifestations.

(19) Phenocollum Hydrochloricum.

Balzer (*Therap. Monatsh.*, June, 1892) relates his investigations with this drug in the case of 30 patients in Eichhorst's clinic. There were no ill effects from it, even in doses of 4 to 6 g. in the day, except in two cases, where it produced some cyanosis, but without any threatening symptoms. In doses of 1 g. it acted as a prompt antipyretic. It thus gave good results in 15 cases—7 of enteric fever, 4 of phthisis, 2 of pneumonia, and 1 of erysipelas. In phthisis it produced much sweating, and was on this account not so useful. It is valuable as an antirheumatic, and it may take the place of the salicylates when the latter are contraindicated. In 2 cases of chronic rheumatism the result was negative, and in the cases of neuralgia it did not seem to have much effect. The excretion of nitrogen by the urine was proved to be increased.

PATHOLOGY.

(20) Bacteria in Wounds.

Hunter Robb and Ghrisky (*Johns Hopkins Hosp. Bull.*, No. 21, April, 1892) have made a bacteriological examination of the sutures and of the fluid exudation in thirty cases of cœliotomy and fifteen cases of perineorrhaphy, all of the operations having been performed under rigid antiseptic precautions. Their mode of procedure was to remove several sutures from different parts of each wound, and from each of these an agar tube was inoculated, and a cover-slip preparation was made. In every case they found micro-organisms to be present; in twelve cases either staphylococcus pyogenes aureus, staphylococcus gilvus, or streptococcus pyogenes, often associated with staphylococcus epidermidis. In the remaining thirty-three cases staphylococcus epidermidis occurred alone. They conclude that microbes are always present in wounds, even when treated by rigidly antiseptic methods, the kind of microbe which is present determining the course taken by the wound. In two cases, occupying adjoining beds, they found streptococcus pyogenes, and suppuration followed with constitutional disturbance. In neither of these cases had a drainage tube been employed, and they consider this precaution prevented the occurrence of septic peritonitis. They state that microbes are always more abundant if a drainage tube is employed, or if the tissues are unnecessarily constricted by the sutures. They found catgut sutures were not so good as silk ones, and that silkworm-gut sutures had the least tendency to harbour microbes. The authors strongly recommend the timely examination of wounds by similar methods, and that when virulent microbes have been ascertained to be present, the patient should be at once isolated, and vigorous measures should be taken to diminish their virulence by the use of disinfectants.

(21) Growth of Bacteria upon Acid Media.

Schlüter (*Centralbl. f. Bakt.*, xi Band, No. 19) states, as a result of his experiments, that very many bacteria grow (some of them very well) upon media with a distinctly acid reaction. Amongst these are the various forms of staphylococcus, Friedländer's bacillus, and the bacilli of chicken cholera, typhoid, and anthrax. Out of a number (13) of pathogenic and saprophytic organisms experimented with, the streptococcus of erysipelas was the only one which would not grow upon any of the acid media employed. Lactic, acetic, and hydrochloric were amongst the acids used; one of these was added to ordinary nutrient gelatine. Beyond a certain limit of acidity—which varies much for different bacteria—growth will not proceed.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(22) Primary Laryngeal Croup.

E. Fraenkel (*Deut. med. Woch.*, June 16th, 1892) says that the presence of membrane in the fauces frequently extending to the larynx, trachea, and bronchi is almost unanimously looked upon as true diphtheria, and as due to the Klebs-Loeffler bacillus, but that there is still some question as to the nature of a primary membranous laryngitis in which the fauces are intact. Four cases of this latter affection are here recorded in which no membrane was found in the fauces by the author either before or after death. In one of the cases the child was said by the parent to have had white patches in the throat a fortnight before the fatal illness, but there was no reason to believe that this was diphtheria. Pure cultures of the true diphtheria bacillus were obtained from the membrane in all these cases. Inoculation experiments upon guinea-pigs gave rise to the symptoms and pathological appearances usually produced by this bacillus. The animal rapidly fell ill, and soon died with paralytic symptoms. Double hydrothorax, hæmorrhagic swelling of both suprarenal bodies, and slightly hæmorrhagic œdema at the site of the injection were found. The author would conclude that idiopathic membranous laryngitis is etiologically identical with genuine faucial diphtheria. The presence of an enlarged spleen, of changes in the kidneys, and of swelling of the lymph follicles, especially in the ileum, found in these cases is also in favour of this view. There are two other affections of the air passages which, in the author's opinion, require investigation, namely, the pseudo-membrane seen in the bronchioles in acute pneumonia and the bronchial casts of plastic bronchitis. In one case of fibrinous bronchitis from a fatal case of acute pneumonia the author found by cultivation and otherwise Fraenkel's pneumococcus in this exudation.

(23) Abscess of Left Frontal Lobe.

Gouget (*Bull. de la Soc. Anat. de Paris*, April—May, 1892, Fasc. 12) reports the case of a man, aged 54, who, whilst in his usual state of good health, suddenly lost consciousness. Recovery was rapid and complete, so that he was able to renew work. Shortly afterwards he again became suddenly unconscious, this time remaining so. He was taken to hospital and found to be comatose, and also to have complete right hemiplegia, with conjugate deviation of head and eyes; the pupils presented nothing of note; temperature 37.3°. Urine free from albumen and sugar. Under the influence of repeated injections of ether he recovered sufficiently to recognise his parents and respond to questions by signs, but he quickly became comatose again, and died four days after admission. Temperature on evening of death 38.5°. The diagnosis was cerebral hæmorrhage, but at the necropsy a circumscribed abscess was found in the second left frontal gyrus; from this between three and four "spoonfuls" of very thick pus were evacuated. The anterior wall of the abscess cavity was situated about 2 centimetres behind the anterior boundary of the frontal lobe; "posteriorly and below" the limit corresponded with the anterior extremity of the corpus striatum, which was slightly infiltrated with pus. The cavity did not communicate with the lateral ventricle. The other organs were healthy. The nasal fossæ and petrous bone accidentally escaped examination. Owing to the absence of diagnostic signs surgical interference was impossible; this Gouget regards as unfortunate, since it offered every prospect of success.

(24) Reflex Iridoplegia in General Paralysis.

Redlich (*Neurologisches Centralblatt*, May 15th, 1892) has investigated the iridal contractility to light in general paralysis of the insane, with special reference to the consensual reaction. In all the cases examined by him he found that if each iris reacted to direct light stimulation the consensual activity was intact in each eye, but if neither iris responded to the incidence of light upon its retina there was complete absence of consensual motility in both irides. In all cases presenting loss of direct light reflex in one eye only, illumination of that eye caused consensual action in the opposite iris; on the other hand, no pupillary change in the iridoplegic eye resulted from exposure to light of the sound eye. He concludes that these phenomena can only be explained by a partial decussation of the light reflex fibres of the optic nerves, the crossing taking place in such a manner that from each optic nerve fibres proceed to the right and left oculo-motor nuclei. This decussation must be situated peripherally to the lesion which causes abolition of the light reflex; probably it takes place in the chiasma or posterior commissure.

(25) Osteoarthropathy of Pulmonary Origin.

Moebius (*Münch. med. Woch.*, June 9th, 1892) observes that this disease differs from acromegaly in that the fingers, and not the hands as a whole, are affected. The fingers become drumstick shaped, and the ends of the bones of the forearms thickened. The feet are similarly affected. The lower jaw and the tongue are not involved. The distinctions between these two affections are so well marked that they must be different diseases. The osteoarthropathy is always secondary to pulmonary disease. Marie has pointed out that the clubbing of the finger ends so often seen in lung disease is of like nature with this osteoarthropathy; and Bamberger has shown that painful thickening of the ends of the bones of the forearm not so very rarely occurs along with this clubbing, thus forming intermediate conditions. Decomposition of pus would seem to be the necessary antecedent for the development of this osteoarthropathy, the morbid change being brought about by the absorption of some poison from the focus of disease in the chest. Many patients have first complained of the pain and swelling when the sputum became offensive. Moebius then refers to hereditary predisposition, and records the following case in which nervous influences were apparently at work. In a man aged 51, suffering from bronchitis, the sputum became foul-smelling. A few weeks later there were pains in the distribution of the right ulnar nerve, and especially in the ends of the corresponding fingers. A month afterwards the pains ceased, but the hand became weaker and more useless. On admission, in addition to the paresis of the right ulnar nerve, there was great thickening of the end phalanges of the two corresponding fingers, the nails being of the shape of a parrot's beak. There was only very slight swelling, either in the remaining fingers of that hand or in the fingers of the other hand. The feet were unaffected. There was great loss of memory. There seems to have been some injury to these two fingers, and this may have had some relation to the neuritis. The author believes that it was not a mere trophic disturbance, but that the poison absorbed from the diseased lung was more active in the region of the affected nerve than elsewhere.

SURGERY.

(26) Operative Treatment of Epilepsy.

Kümmell (*Deut. med. Woch.*, June 8th, 1892) first refers to two cases in which the vertebral arteries were ligatured (in 1884) for genuine epilepsy with very temporary benefit, and to another severe case in which the superior cervical ganglion was extirpated. Four cases are then recorded in which trephining was practised over definite tender spots with a longer or shorter cessation of the fits and with considerable mental improvement. A further case, however, died in consequence of the operation. Kümmell says that the results in such cases of idiopathic epilepsy cannot be looked upon as very satisfactory, and doubts whether any case has been really cured. The so-called reflex epilepsy is next referred to. Cortical or Jacksonian epilepsy, almost always traumatic in origin, is the most important in regard to surgical treatment. After giving some details in regard to the method of operation and the localisation of the lesion, the author relates three cases. (1) A man, aged 34, received a blow on the head in 1881. Four years later the fits began. They started in the facial area and arm. They became more frequent later, and intense headache supervened in 1887. Trephining was practised in 1888 at the site of a tender scar over the

parietal bone. There was nothing on the inner surface of the bone, but the dura mater was adherent to parts beneath, and presented a cicatricial appearance. It was excised. The patient has remained quite well since the operation 3½ years ago. (2) A boy, aged 5, had been previously trephined, but with only passing benefit. The fits affected the left arm and face. The corresponding centres were exposed, but no pathological change was found. The fits returned later. The author thinks that he will have to remove these centres. (3) A lad, aged 20, had a blow on his head in September, 1891. Ten days later there was spasm in the right arm and face. The speech, sight, and hearing became affected. There was slight paralysis of the face and right arm. The choked disc was present. The patient was trephined over one of two cicatrices. A rent in the dura mater and adhesions were found. This part of the dura mater was excised. The patient recovered perfectly from the symptoms, a prolapse of the brain alone remaining. The author then refers to the case of an idiot, aged 3 years, with frequent fits. A depression was found near the lambdoid suture, probably the result of injury during birth. A large piece of bone was temporarily resected, and a deep depression was found in the brain. The corresponding bony projection was removed. Very great improvement followed, even while the child continued under observation. Later its mental development was still progressing, and there had been no fits.

(27) Double Movable Kidney cured by Operation.

Rotch (*Boston Med. and Surg. Journ.*, May 26th, 1892) relates a case of double movable kidney which had been cured by operation. The patient was a nulliparous, unmarried woman, aged 27, who had had good health till December, 1890, when she noticed something "shaking in her abdomen as she walked," and a little later she experienced a sensation of something slipping forward into the left inguinal region when she stooped. In January, 1891, she fell upon the ice, and then noticed a resistant mass in the left inguinal region, and soon afterwards a similar mass on the right side. Three weeks later these became very painful. On examination of the abdomen double movable kidney was diagnosed. On September 22nd an incision was made in the left lumbar region at the outer side and parallel with the erector spinæ, and carried down to the kidney; silk sutures were then passed through the capsule of the kidney and fixed to the quadratus lumborum muscle, and the wound closed. From this operation the patient made a good recovery. On November 27th the right kidney was treated like the left, three silk sutures being passed through the capsule of the upper, middle, and lower parts of the kidney and fixed to the muscles in the wound. The patient recovered from this, and was quite well on December 28th, the wounds having healed. On February 6th she re-entered the hospital with a discharge of pus from the right cicatrix. This was investigated and a ligature removed. Rapid healing ensued, and on February 21st both kidneys were found to be fixed in position in the lumbar region.

(28) Craniectomy.

Estor (*Nouv. Montpellier Méd.*, June 4th, 1892) reports a case in which he performed craniectomy on a microcephalic child presenting the usual symptoms. A considerable amount of bone was removed, the hole left in the skull being 11 centimetres in length by 2 in width. There was no appreciable improvement in the mental condition, the only benefit resulting from the operation being that the child gained the power of stooping to pick up things without falling. Estor thinks the cases recorded up to the present, while not sufficiently numerous to form the basis of a definitive judgment on the value of the operation, are not very encouraging. Even in the cases in which distinct improvement has taken place, this has not been lasting.

(29) Cerebral Tumour Removed Twice in the Same Patient.

Erb (*Wien. med. Presse*, No. 24, 1892) reports the following case. A man, aged 47, had clonic convulsions affecting the left arm and leg, and the left side of the face. This condition was followed after a time by hemiparesis of the whole of the left side. Trephining was performed and a gliosarcoma found in the right anterior central convolution; this was removed as completely as possible. The operation was followed by marked improvement of the paretic symptoms, while the convulsive phenomena ceased altogether. Eight months later, however, they came on again, though with less severity. A year after the first operation the patient was again trephined, and it was found that recurrence had taken place. The growth was again extirpated, the circumjacent tissue being removed even more freely than before. The second operation was also followed by improvement, but the symptoms did not entirely disappear.

(30) The Surgical Treatment of Perityphlitis.

Schede (*Deut. med. Woch.*, June 8th, 1892) records 18 cases. The inflammatory processes in perityphlitis nearly always take place within the peritoneal cavity, and the appendix is almost exclusively the starting point. A blocking of the appendix takes place most frequently by a concretion, and much more rarely by a foreign body. It may even be due to a contracting cicatrix, or perhaps to catarrhal swelling. The integrity of the appendix is preserved in the slighter forms, the mucous, or mucopurulent, secretion escaping into the cæcum. Relapses are, however, frequent, and sooner or later severe forms are noted. Three cases of relapsing typhlitis are then recorded, successfully treated by excision of the appendix. In severe cases, with much inflammatory exudation, perforation is said to be seldom absent, yet they mostly run a favourable course, as adhesions have been formed. An abscess with muco-purulent or fæco-purulent contents may arise. In general, one may wait until the abscess comes near the abdominal wall, unless severe symptoms are present. Three successful cases are recorded in which the operation was undertaken in the interval after severe attacks. In each case centres of thick and more or less inspissated pus were found. The appendix was removed. The author then comes to the well-recognised group of very serious and dangerous cases with rapid perforation before adhesions have been formed. Three such cases were operated upon, and two died. The third one was probably saved by the perforated appendix being in the sac of an inguinal hernia. In the remaining cases unusual complications were present. One simulated intestinal obstruction. A median incision was made, but the patient died. Incision over the cæcum, which, owing to diagnostic difficulties, was not adopted, might have let out the pus without infecting the peritoneal cavity. In the other cases adhesions about the cæcum caused some obstruction to the passage of the intestinal contents along with other symptoms. The worst case died. In another case the cæcum was excised with good results after a second operation. At times there may be, as in Cases 15, 16, and 17, such thickening as to suggest malignant disease, especially if it occur in elderly people. Here, too, the cæcum had to be excised in one case. It was successful. The last case was one of carcinoma of the cæcum, believed to be secondary to typhlitic changes. The extensive disease was excised, but the patient died.

MIDWIFERY AND DISEASES OF WOMEN.

(31) Results of Vaginal Hysterectomy in Cases of Uterine Cancer.

Terrier and Hartmann (*Rev. de Chir.*, April, 1892) publish a series of 18 cases of vaginal hysterectomy performed for the removal of cancer of the uterus, and also give the results of recent inquiries concerning 18 other cases of a like kind, which were tabulated and published in 1888. In each series the immediate mortality from the operation was 23.5 per cent. In the second and later series death was due in one case to shock, and in two cases to peritonitis. In one case the patient died on the fourteenth day in consequence of phlebitis of the main venous trunk of the lower limb. Of the patients referred to in the first series of cases who recovered from the direct effects of hysterectomy, two were living and in good health after long intervals—one after six years and four months, the other after five years and four months from the date of operation. In eight cases included in the earlier list

recurrence occurred after intervals varying from six weeks to two years. In five of the second series of cases the patients when last seen were living after intervals varying from three years and five months to eight months. Of these five patients, however, two presented indications of return of the disease in the vaginal cicatrix. The authors point out that vaginal hysterectomy is a serious measure, as these tables show a death-rate from the operation itself of about 23 per cent. The results of this treatment are, it is held, not more serious when it is performed as a palliative step than when it has for its object complete removal of the diseased structures. It is indicated therefore, whenever the cancerous uterus is mobile, although the vaginal *cul-de-sac* may be involved in the disease. Recurrence, which has been noted in about 70 per cent. of the cases, although usually speedy, may in some cases be postponed for a long interval (from seventeen months to two years, or even longer). These tables show that 30 per cent. of the patients who had undergone vaginal hysterectomy are apparently cured by this operation, even in cases in which the malignant nature of the disease has been proved by both clinical and histological observation.

(32) Racemose Sarcoma of Cervix.

Y. PFANNENSTIEL (*Virchow's Archiv*, vol. cxxvii, part 2, 1892, p. 305) tabulates the 12 cases of this rare and very malignant disease which have been authentically recorded. The series includes a new case under his own observation. The patient was 53. A structure, taken for a simple mucous polypus of the cervix, was removed. Eleven months later recurrence was discovered; a large racemose growth had developed. It was removed and the cervix scraped. Six months afterwards a racemose mass filled the vagina. The patient was weak and cachectic. The uterus was extirpated. Symptoms of recurrence were detected five months later, yet sixteen months after the removal of the uterus the patient was alive though very cachectic; the vaginal wall was infiltrated. This was her condition when the report was published. With the exception of 2 patients lost sight of, the disease recurred in all the 12 collected cases. Strange to say, though the clinical and naked-eye characters of racemose sarcoma are fairly constant, their histology is more variable. They are pedunculated tumours, looking like a bunch of fruit, but they may be adenomata, myxomata, or even tumours consisting to a great extent of embryonic striped muscle cells (Pernice). Early diagnosis is very difficult. These tumours are much softer and more friable than true mucous polypi. Racemose sarcoma is much more malignant than any kind of cancer of the uterus, or any other variety of sarcoma of that organ. The only active treatment justifiable in cases of this disease is total extirpation of the uterus, and that severe proceeding is useless and not to be attempted if the incision in the vault of the vagina cannot be made over two-fifths of an inch outside the area invaded by the disease.

(33) Catheterism of the Fallopian Tube.

BOURSIER (*Archives Clin. de Bordeaux*, May, 1892) succeeded in catheterising the left tube in a case where the patient, a 2-para, aged 31, was under treatment for endometritis. She had been delivered, normally, about four months previously, and Boursier had applied sulphate of copper points to the uterine cavity. In the act of passing the sound he found that without the least force, violence, or pain its point slipped upwards and to the left for over four and a-half inches. Six days later it could be passed five and two-fifths inches, in the same direction. When the sound was carefully directed upwards the uterus being steadied so that the fundus was touched in the middle line, the uterine cavity was found to measure a little over two and a-half inches. The sound could not be passed into the right tube. About a month later, when the sound was passed to the left, as before, its point was felt under the abdominal wall three inches to the left and below the umbilicus. The least attempt to move the point of the sound to the middle line caused severe pain, and the instrument was evidently held by some resisting structure. The patient was thin, and hence the appendages could plainly be distinguished in place before the sound was introduced. After its introduction in the manner just described the left appendages could no more be detected in the pelvis, though the right were clearly in their natural position. In fact the left appendages were drawn upwards by the sound. When the patient was last seen, within three months and a-half after the first introduction of the sound into the left tube, it was found that that manœuvre was no longer possible.

(34) Symmetrical Axillary Mammary Glands.

PUECH, of Montpellier (*Arch. de Tocol. et de Gynéc.*, May, 1892) reports the following case. A woman, aged 19, was delivered of her first child on January 24th. By the next day a swelling, as big as half a hen's egg, had developed in the left axilla, immediately below the border of the pectoralis major. The superjacent skin was not adherent, nor pigmented, nor otherwise discoloured; no trace of a nipple existed. On pressing the swelling a few drops of milk oozed from the skin. The corresponding breast was full of milk, which freely issued from its healthy nipple. The tumour felt as though composed of mammary glandular tissue; a distinct cord could be traced from its inner aspect to the left breast. On exploring the right axilla a similar gland was found. It was slightly smaller than its fellow, but in other respects precisely similar. There was no nipple and no visible external orifice, but milk exuded from the skin on pressure, and there was a cord running to the right breast. On February 3rd, the patient went out as a wet nurse. The breasts were full of milk, but no milk issued from the skin over the swellings, which had diminished in size. By February 17th the swellings had almost disappeared. The patient had not been troubled with spontaneous escape of milk from the swellings, which were clearly supernumerary mammary glands; the axilla kept clean and dry throughout. It was only on pressure that milk escaped.

(35) "Show" or Vaginal Hæmorrhage in Newborn Children.

ERÖSS, of Buda-Pesth (*Centralbl. f. Gynäk.*, No. 24, 1892) observed, within two years, 6 cases of hæmorrhage from the genitals in newborn female children. In 2 cases the "show" began on the third, and in 4 on the fourth day. In two cases it lasted two days; in 3, four days; and in 1, five days. One case died. The infant was premature, and sank, it seemed, from pure debility. The endometrium was dark coloured and loosened from its connections. On its surface were two hæmorrhagic foci, of the size of lentils. The serous coat was very vascular at the fundus. The cervical mucosa was pale, the vaginal mucous membrane swollen and deeply injected. Clots, mixed with mucus, lay in the vagina and uterine cavity. Eröss attributed the hæmorrhage to acute catarrh of the mucous membrane of the genital tract. All the five children were born well developed, and there was in no case any history of septicæmia, syphilis, hæmophilia, or Winckel's disease. As the five survivors were discharged on the eighth day, there was no opportunity of judging if the "show" represented menstruation.

THERAPEUTICS.

(36) A Seventh Case of Traumatic Tetanus treated by the Tizzoni-Cattani Antitoxin.

ANOTHER case of pronounced tetanus, to which the treatment by the tetanus antitoxin was successfully applied, is reported by G. Casali (*Rif. Med.*, June 1st, 1892). The details are as follows: The patient, a woman, aged 22, developed symptoms of the disease eight days after receiving an injury to her foot. The wound had quickly become inflamed, and the inguinal glands enlarged and painful; it had been in consequence washed with carbolic lotion and dressed antiseptically. The progress of the symptoms was fairly rapid and when received into hospital, on the fourteenth day after the injury, the jaws were tightly closed, speech was indistinct, slow, and painful, there was marked "risus sardonicus," the muscles of the neck and back were stiff, and there was also some spasm of the injured limb. Tizzoni, on being summoned, confirmed the diagnosis, and cauterised the wound with silver nitrate, recommending the daily application thereto of the caustic in a 1 per cent. solution. He also arranged that the patient should receive two injections daily of 25 centi-

grammes of antitoxin (prepared from the serum of an immunised dog), and ordered her to be kept well covered, so as to favour sweating. After the first injection sweating was very profuse—as it was, indeed, after each of the first five injections—and by the evening the stiffness of the neck and tongue was markedly diminished. Five injections were given in like manner with similar results, the spasms gradually yielding, and the condition becoming steadily better. At this time there appeared a rise of temperature, with a temporary recurrence of the facial pain, but the tetanus proper had practically disappeared. Quinine and stimulants were then administered, and a sixth and last injection of only 15 centigrammes of antitoxin was made. This produced no sweating, and the patient, though cured of the tetanus, showed great restlessness, a slight vesicular rash also appearing on the chest and back (? sudamina). These untoward symptoms, due, it was thought, to septic absorption from the wound, cleared up under ordinary treatment, and the patient was shortly discharged with the injured limb quite healed, and no signs remaining of her illness save great weakness of her limbs. Bacteriological examination of the wound had revealed the presence in it of the tetanus bacillus, of streptococcus septicus, and of a spore-bearing earth bacillus. It was to these latter organisms that the slight septic symptoms were attributed.

(37) The Use of Digitalis in Large Doses.

At a meeting of the Belgian Académie de Médecine on April 30th (*Sem. Méd.*, May 11th, 1892), Masius said digitalis was generally given in heart disease as an infusion in daily doses of 0.75 g. to 1 g. to reduce the rapidity of the pulse and increase and regulate its strength and tension. Used in the same doses in febrile disorders, it fulfilled the same indications, and in addition lowered the temperature, these effects usually manifesting themselves on the third day after the commencement of administration. As the result of numerous experiments, Masius has convinced himself that not only can digitalis be taken without any ill effect in doses (4 grammes in the twenty-four hours) which are generally looked upon as "hypertoxic," but that in these massive doses it obviates "surely and rapidly" the dangers arising from cardiac weakness and pyrexia. On the other hand, even in large doses, digitalis neither checks nor shortens the evolution of pneumonia. Digitalis used as an infusion in daily doses of 4 grammes often produces good effects in forty-eight, sometimes within thirty-six hours; the effects show themselves less quickly in febrile conditions than in diseases of the heart. The drug causes gastric disturbance more frequently in healthy persons than in those suffering from the affections in which its use is indicated. Masius says he has employed digitalis with success, in the form and dosage already mentioned for nearly a year in a large number of cases of cardiac diseases and infectious febrile disorders, especially pneumonia, to strengthen and regulate the action of the heart. Of course, the drug has no effect if the heart muscle is too much altered in structure, or if its nervous apparatus is too exhausted to respond to stimulation. Masius sums up his conclusions in the statement that the toxic dose of digitalis has been in the case of man fixed too low both in health and in disease.—At a more recent meeting of the same Society (*Sem. Méd.*, June 29th, 1892), Masius's assertions were severely criticised by Miot, who said those who might be bold enough to act on his teaching would be likely to repent it. He pointed out that different samples of digitalis varied considerably in therapeutic activity. The parenchyma of the leaf was the most active part of the plant. The leaves gathered at the end of the second year were dried and kept in a closed vessel: they should not, however, be kept longer than twelve months, as after that time they lost much of their activity. As regards the infusion, Miot said it must not be forgotten that boiling water robbed digitalis of a good deal of its activity; the water should, therefore, never be at a higher temperature than 70° C. By the use of digitalis prepared in this manner, and in a daily dose of 2 g., Miot recently induced resolution in a case of chronic pleuritic effusion in five days, and in another case effected complete and rapid cure of congestion of the left lung, with œdema of the legs. In a third case, the same treatment (with the addition of 2 g. of tincture of nux vomica to the 2 g. of digitalis) caused the disappearance of serious symptoms of cerebral and pulmonary congestion in an alcoholic patient. In discussing Miot's communication, Moeller said that in two cases (one of mitral insufficiency and one of cardiac weakness without valvular lesion) digitalis given in ordinary doses did good at first, but seemed to lose its effect after a time without gastric intolerance being induced. After becoming acquainted with Masius's views, he tried digitalis in progressively increasing doses of 2, 3, and 4 grammes. The effect on the circulatory apparatus was *nil*, while the gastric intolerance was such that the treatment had to be discontinued.

(38) The Action of the Cantharidinates.

Liebreich (*Therap. Monatsh.*, June, 1892) replies to some of the criticisms upon the use of these salts. The chief points to be decided are: (1) Whether these agents have any action on the diseased, particularly tuberculous, tissue, and if so (2) whether this effect is obtained before any disturbance is produced in other organs, such as the kidneys. The author says that the drug gives rise to an increased exudation from the capillaries, and hence its beneficial action, but that there is no hyperæmia. In his cases of lupus, a steady decrease in the disease has been noted, but much time may be needed. It is impossible for changes lasting for years to be cured by a few injections. The author sets off this lengthened treatment against the relapses seen after scraping, etc. If the kidneys be healthy, these salts may be used in doses of ½ to 2 decimilligrammes without injury. If the kidneys are diseased, the treatment should not be adopted. Advanced tuberculosis should only be treated with the greatest caution, for the author says that the kidneys are often affected with lardaceous disease. Improvement has been recorded in other than tuberculous processes, namely, in chronic laryngitis, etc. Any local application of the cantharidinates is not rational, for they thus only produce irritation. Liebreich says that in hundreds of injections made by him, there has been no more danger to the patient than from the use of mercury or arsenic.

PATHOLOGY.

(39) The Arterio-sclerotic Contracted Kidney.

Leven (*Deut. med. Woch.*, May 29th, 1892) says that Ziegler first suggested this name, and that he was also among the first to define this disease sharply from other forms of chronic nephritis. The relation of the vascular disease to the renal affection is a fairly constant one. It is not necessary that it should extend to the whole vascular system; indeed, it is mostly limited, and the heart has been pointed out as the organ in which the vascular lesion is almost constantly present. Even more characteristic and hardly ever absent is the marked affection of the arteries of the pia mater. In the author's experience, the spleen has always been involved. The small arteries show marked sclerotic changes. The splenic reticulum is considerably thickened, and the cells exhibit commencing degeneration. It is the picture of a fibrous induration, the cause of which is to be found in the vascular disease. The cardiac hypertrophy, almost limited to the left side of the heart (while the muscle itself shows early degeneration) is no real objection to this view, for the hyperplasia of the left ventricle is due to the increased vascular resistance, and takes place when the heart is as yet well supplied with blood. The author says that the changes in the kidney itself are the typical manifestations of a degeneration brought about by deficient blood-supply. The changes in the arteries in the kidney affect chiefly the intima and the middle coat only slightly. The adventitia is also much thickened. Leven states that the urine has been in all his cases diminished in quantity (without corresponding dropsy). Eye changes are uncommon. The author says that this form of renal disease exists mostly in the case, of men without previous evidence of acute nephritis, who present in the course of time slight albuminuria, passing œdema, a diminished quantity of bright urine, hypertrophy of the heart, and slight uræmic symptoms.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(40) Hæmatoporphyrinuria.

Sobernheim (*Deut. med. Woch.*, June 16th, 1892) says that the chemical properties of this iron-free hæmatin (hæmatoporphyrin) are as yet hardly sufficiently established, but that it has been found on several occasions in strikingly red-brown urines. He reports a case in a boy, aged 13, suffering from enteric fever. In an early stage of the disease the urine was of reddish to blackish-brown colour. It contained no albumen, no bile pigment, and no blood cells. It did not give Heller's reaction. A solution of the colouring matter after extraction, as well as the urine itself, yielded the two characteristic spectroscope absorption bands. Hitherto hæmatoporphyrinuria has only been described after the use of sulphonal, as in the case of sulphonal poisoning reported by Kober (Epitome, April 2nd, 1892, par. 299). In the above-named case neither sulphonal nor any like drug had been employed. It was thought that the hæmatoporphyrinuria had as its cause a hæmatoma of the rectus abdominis muscle which appeared shortly before the boy's illness, for the pigment was first noted during the absorption of this hæmatoma. The pigment, however, again appeared in the urine shortly before the patient's discharge, and it was ascertained that on several occasions during the past years the urine had presented similar changes. It was a sort of chronic hæmatoporphyrinuria. The author concludes that hæmatoporphyrin itself exercises no deleterious effects, but that the severity of recorded cases has been due to the sulphonal intoxication, of which the hæmatoporphyrinuria was only a part manifestation.

(41) Bulbar Paralysis.

Hoppe (*Berl. klin. Woch.*, April 4th, 1892) says that there are a number of cases which clinically have a close relation to bulbar paralysis, but the minutest examination fails to find any lesion after death. Of such a character is the following case: A man, aged 40, with no history of syphilis, began to suffer three weeks before admission from difficulty of swallowing and drooping of the eyelids. Shortly afterwards the speech became nasal. The tongue was found on admission to be unaffected, and there was no laryngeal paralysis. The pupils reacted normally. There was no paralysis in the limbs. He went out considerably improved. He was readmitted eight months later. He had gradually become worse, and now he had much difficulty in swallowing, speaking, or chewing. The palate was paralysed; the abductors of the larynx were also paralysed; there was also weakness in the arms. There was ptosis, especially on the left side. The pulse was rapid. A few days later there was complete inability to swallow, and later death occurred. On careful examination, both with the naked eye and the microscope, nothing abnormal was found in the central nervous system (including the cerebral cortex) except a fresh hæmorrhage into the oculo-motor centre. This hæmorrhage had taken place quite shortly before death, as the unaltered blood cells showed. The author then gives the details of three such recorded cases, where nothing was found after death. He would look upon them as belonging to a distinct group of disease, characterised by a motor paresis especially affecting the cranial nerves, progressing slowly and in some regions ending in complete paralysis, but without atrophy or altered electric reaction. The two latter facts, as well as the involvement of the upper face muscles and oculo-motor nerve, the infrequent affection of the hypoglossal nerve, the distinct remissions and change in symptoms perhaps in a single day, and the negative necropsy distinguish it from ordinary bulbar palsy. The disease is certainly not hysterical in nature nor yet peripheral in origin. It does not belong to the group described by Erb, and characterised by ptosis, weakness of the muscles of mastication and of the neck, and secondarily paresis of the tongue and extremities, difficulty of swallowing and involvement of the upper part of the face, for here there was wasting. The author suggests that it may be due to an intoxication or to some undiscovered lesion in the cerebral cortex.

(42) Metabolism in Acute Phosphorus Poisoning.

Münzer (*Centralbl. f. klin. Med.*, June 18th, 1892) says that it would appear to be proved that urea is formed synthetically from carbon dioxide and ammonia, and that this synthesis takes place in the liver. With the view of ascertaining the relation of the liver to nitrogenous metabolism, the author has carefully estimated the individual nitrogenous constituents of the urine in eight cases of acute phosphorus poisoning, six of which were fatal. This drug may kill rapidly by cardiac paralysis. In such a case nitrogenous metabolism is almost in abeyance, and the patient excretes less nitrogen in the urine than in starvation, but the amount of urea is not relatively decreased when compared with the total amount of nitrogen excreted. If the patient survive, the poison brings about an abnormal decomposition of the albumen of the organs, and the total excretion of nitrogen is rapidly increased. Now the urea nitrogen is diminished and the ammonia nitrogen increased. The author does not believe that the increased ammonia nitrogen is due to a diminished synthetic function of the liver, for it must not be forgotten that in phosphorus poisoning there is an abnormal development of acid metabolic processes and a diminution of the alkalinity of the blood. These abnormal acid products are neutralised by the ammonia of the organism, and the increase of the ammonia-containing bodies in the urine is due to this neutralisation of the abnormal acid products. In the acutest cases of phosphorus poisoning fatty acids are not present in the urine. In only one subacute case were large quantities of formic and acetic acids present. Diminished alkalinity of the blood has been said to be due to destruction of red blood cells, but experiments show that in man no such destruction takes place as is seen in fowls. The cause of the abnormal acid production must lie in the abnormal metabolism of the individual cells of the organs.

(43) Actinomycosis of the Lungs and Vertebral Column.

In the *Münch. med. Woch.*, June 14th, 1892, Heuck reports the following case: A girl, aged 16, first became anæmic nine months before admission, and had influenza a month later. From that time she suffered from cough and her general health deteriorated. Four months afterwards she had a severe fall, and since then she had pain in the left side and back. On admission she was very anæmic. There were signs of a left pleural effusion, and a few days later she had pleurisy of the right side. No tubercle bacilli were found in the sputum. Exploratory puncture drew off a somewhat turbid fluid. Tuberculin was injected without any benefit. In five months' time she left the hospital, her condition being unaltered. She was readmitted two months later, when a fluctuating swelling was found on the left side near the vertebral column, with slight right scoliosis. Exploration was made with the idea that it might be an empyema, but only a few drops of blood were obtained. Later, there was much tenderness over the vertebræ, the knee-jerks were increased, and ankle clonus was present on the right side. Two months later a distinct and isolated bulging appeared in the left scapular line. Exploration gave a blood-stained fluid which contained small granules. These were found under the microscope to be rosettes of the actinomyces. The sputum contained the same bodies but no tubercle bacilli. Some of the back teeth were decayed, but the alveolar processes were intact. On the left side the dulness now extended in front from the fourth rib and behind from mid-scapula downwards. There was distant bronchial breathing and *râles*. There was also some impaired percussion and bronchial breathing over the lower part of the right base. Later, a thick reddish-brown and sweet-smelling pus escaped from the above-named swelling. The patient died about eighteen months from the commencement of the illness. In the peritoneal and right pleural cavities there was some sero-fibrinous fluid. An abscess cavity was found over the fourth to eighth ribs on the left side, the muscles being destroyed and some of the ribs laid bare. Inside the chest, and in a corresponding position, there were some

puriform masses, and communication existed with the above-named abscess cavity. Above, the lung was adherent to the chest wall. The lower left lobe was airless and solid. The last two dorsal and upper two lumbar vertebræ were considerably destroyed, especially on the left side, and the pus contained the actinomyces. In sections from the lungs and the walls of the peripleuritic abscess the ray fungus was demonstrated. It was also present in the teeth. The bronchial glands, liver, spleen, and kidneys were free from the fungus.

SURGERY.

(44) Opening of the Mastoid Process in Median Otitis following Influenza.

Politzer (*Ann. des Mal. de l'Oreille*, May, 1892) found mastoid inflammation of common occurrence during the two later epidemics of influenza. The form of mastoid process most frequently affected was the "pneumatic," in which numerous cells communicate with each other and the antrum by very small openings. Such openings become closed by inflammatory swelling and a pent-up collection of pus results. Politzer found such abscesses "in the middle or inferior segment of the vertical portion of the process, notably in the superficial cells situated under the cortical layer of bone." In most cases the tympanic suppuration had already ruptured the membrane, otherwise the ordinary symptoms of that condition were present. The special symptoms of mastoid implication observed were lancinating local pain radiating in various directions, tenderness on pressure or percussion on the mastoid, local and general rise of temperature. The tympanic membrane may bulge and postero-superior wall of the meatus may be pressed downwards into the passage. The course of mastoiditis following influenza is much less likely to end in resolution than ordinary cases, it occasionally opens externally of itself, it tends to cause destruction of bone and to lead to serious sinus or brain complications. The treatment of influenzal median otitis varies with the stage of the disease. In the earliest days and before the membrana tympani has given way paracentesis should be performed, and ice or Leiter's cold coil applied to the mastoid. If the mastoid symptoms have lasted with intensity for eight or ten days the mastoid should be opened in addition. If perforation of the tympanic membrane has occurred in the early days, antiphlogistic means (ice or Leiter's coil, iodine, counter-irritation) should be adopted, and with them should be combined boracic irrigation of the tympanum by catheter through the Eustachian tube. Should the intensity of the symptoms not then diminish within three or four days the mastoid should be opened. When we are called to a case in which symptoms of mastoiditis have existed for two or three weeks no delay is permissible. Operation by means of a gouge is recommended. Often the abscess is found under the superficial layer of bone, not communicating with the antrum. Politzer insists that on no account should an artificial communication be made in these acute influenzal cases, unlike what holds good in ordinary chronic otitis.

(45) Radical Cure of Ventral Hernia.

Pitschke (*Centralbl. f. Chir.*, No. 24, 1892) reports a case in which he performed, with good prospects of ultimate success, an operation for the radical cure of a large ventral hernia. The patient, a female aged 61, presented a swelling which reached from the lower third of the abdomen on the right side almost to the knees. This was a hernial protrusion, containing readily reducible intestine and omentum. The mouth of the sac, measuring about 6 inches in diameter, was situated a little below the level of the antero-superior spines of the ilium. The coverings of the hernia consisted of attenuated skin and muscle, which, after reduction of the contents of the sac, formed large dependent folds. There were also two inguinal herniæ—a large one on the left side, which necessitated the wearing of a truss, and a smaller one in the right groin, which came down only after reduction of the ventral hernia. The large central swelling had existed for about three years. It had first increased in size slowly; but after a time, in consequence of violent muscular exertion, suddenly enlarged, and subsequently continued to descend with greater rapidity. The patient could not tolerate the pressure of a truss on this hernia, which, as it increased in size, became more and more irksome. The frequently-renewed contact of urine and fæcal matter caused a painful and obstinate excoriation of the skin on the lateral and posterior surfaces of the swelling, which, together with the weight of the hernia and its protrusion between the thighs, led the patient to seek urgently for surgical relief. After reduction of the contents of the hernia, a long incision, which exposed the interior of the sac, was carried through the abdominal wall from above, downwards, and inwards as far as the greater labium on the right side. The thick and strong peritoenal wall of the sac was then dissected away from the superjacent soft parts, during which stage of the operation the intestines were retained within the abdomen, and guarded by a large pad of antiseptic gauze. The dissection was carried as far as the mouth of the sac, and the portion of peritoneum forming the neck then constricted by silver wire. After this the body of the sac was excised, and the free margins of the stump were brought together by catgut sutures. It was found impossible to bring together the thin fibrous and muscular margins of the opening in the abdominal wall. The surrounding structures, however, and the edges of the wound on the skin were closely applied by numerous sutures. During the first three days after the operation the patient suffered much from frequent vomiting, with obstinate constipation, which excited a suspicion of intestinal obstruction. These disquieting symptoms ceased after the administration of a copious enema, and the patient subsequently made a good and uninterrupted recovery. The wound healed by primary intention, and when the woman was last seen by the author, twelve months later, there was complete freedom from ventral hernia, and an absence of any protrusion, even on coughing, at the seat of the operation.

(46) A Substitute for Decalcified Bone in Senn's Discs.

Baracz (*Centralbl. für Chir.*, No. 23, 1892) states that in experimenting with Senn's discs, the idea struck him that decalcified bone might be replaced by some other and more readily available material, which could be used by the practical surgeon without much preparation, and, consequently, with less trouble. After trials of numerous edible vegetables, such as potatoes, turnips, and carrots, from which sections of firm, flexible, and moist discs can be obtained, the author found that the most suitable substance for his purpose was afforded by the Swedish turnip. Sections of this vegetable, it is stated, form a reliable material for use in gastro-enterostomy and in establishing intestinal anastomosis, and one which can be more readily obtained and prepared than decalcified bone. That sections of fresh turnip present a trustworthy substitute for decalcified bone is shown by the results of the author's experiments on animals, and also by the success of an operation for gastro-enterostomy which he performed on the human subject early in May. The results of this operation, which was performed for the relief of carcinoma of the pylorus, had, up to the date of the publication of this paper, been very favourable.

(47) Auto-infection in Cancer.

O. Hamburger (*Med.-chir. Rundschau*, No. 12, 1892) reports the following case. A woman, aged 50, had had a tumour on the left labium minus for two years, during which it had grown to a considerable size. Superficial ulceration then took place, very offensive pus being discharged. Soon after the growth began to ulcerate, small warty excrescences appeared on the part of the right labium minus, which was in contact with the left. These warts soon ulcerated, and on removing the growths on both sides they were found to belong to the category of flat-celled epithelioma.

MIDWIFERY AND DISEASES OF WOMEN.

(48) Diagnosis of Early Pregnancy.

R. L. Dickinson (*New York Journ. of Gynæc. and Obstet.*, June, 1892) believes that the presence or absence of pregnancy may be determined in favourable cases by bimanual examination between the second and sixth week after coitus, or between the third and eighth after the beginning of the last menstruation. Bulging of the

walls of the body of the uterus is the most constant and valuable sign. It is usually found by the twenty-eighth day after coitus, although often present by the sixteenth. Occurring most frequently on the anterior face, it may appear on both; in retroversion it is found posteriorly, and in certain cases laterally. Elasticity or resiliency of the body of the uterus is more readily detected than the bulging, but is not quite so frequent. It usually appears later, on the average by the thirtieth day after coitus, yet may be detected on the sixteenth. Hegar's sign (compressibility of the lower uterine segment) is still less constant. It was noted in 66 per cent. of R. L. Dickinson's cases. It may be well defined by the twenty-fourth day after intercourse, but is often indistinct until the thirtieth or fiftieth. A transverse fold on the anterior uterine wall is usually distinct in the relaxed condition. Although infrequent, this sign is of high value. Lastly, between the second and sixth week the uterus shows signs of intermittent contraction.

(49) Placenta Prævia: Suppuration of the Symphysis Pubis: Recovery.

Lennander (*Centralbl. f. Gynäk.*, No. 24, 1892) read this case before the Medical Society of Upsala. The patient had already borne two strong children, the labours being natural. Placenta prævia lateralis was diagnosed. When the os was well dilated and the membranes still unruptured, one foot was seized and turning performed. Delivery of the arms was difficult and the right clavicle was fractured. The head was easily extracted. The child, born asphyxiated, was soon revived; it weighed over 7½ lbs. The mother became feverish directly after delivery, the temperature rising to 105.5°. Three weeks later a large abscess, which pointed below the left glutæus maximus, was observed. Eight days later a yet larger abscess over the symphysis was laid open. The ossa pubis lay wide apart, and necrosed sequestra, bony and cartilaginous, were removed. Three months after delivery the patient was discharged cured. A year later the patient was in good health. The symphysis was firmly united; she could get on to a chair and jump off it without pain or difficulty.

(50) Danger of Ovarian Cysts in Pregnancy.

Potherat (*France Méd.*, March 25th, 1892) attended in October, 1891, a patient, aged 34, who had been delivered twenty days previously. Two years before a surgeon had discovered an ovarian cyst, and advised her not to submit to any operation. Labour was natural; but, a few days after delivery, fever, rigors, and vomiting set in. A cystic tumour was discovered, and Potherat operated. The cyst wall adhered to intestine, omentum, the parietes, and the pelvic peritoneum. The breaking down of adhesions was very difficult. The ovarian fluid was full of blood. The pedicle was twisted. The peritoneal cavity was washed out and drained. On the third day the temperature rose; this was due to the development of an abscess in the posterior part of the right thigh. The abscess was freely laid open, and the patient at once began to recover. She was soon restored to excellent health. For a long time she had been sickly, with a sallow complexion and a rough tongue. This case shows the importance of early ovariotomy, and also indicates that pregnancy and labour exercise a bad influence on an ovarian cyst. In this case there was acute torsion, and in other instances, where torsion had not occurred, acute inflammation of the cyst had been set up in childbed.

(51) Exploratory Vaginal Incision for Pelvic Suppuration.

Routier (*Rev. de Chir.*, May, 1892) read a paper at the recent meeting of the Congrès Français de Chirurgie, in which he condemned the too free removal of the uterine appendages, so much in vogue in cases of pelvic suppuration. Still more did he object to vaginal hysterectomy for the same affection. This operation, done by *morcellement*, maimed the patient at once, and left her life for hours at the mercy of pressure forceps. Routier has long been accustomed to open Douglas's pouch and to drain through the vagina in cases of collections of pus or blood in the pouch. He finds that the appendages can readily be explored through the incision made in the posterior vaginal fornix. He has often practised this method of exploration, and found that in many cases the simple incision suffices; sometimes abdominal section is needed after all; and lastly, vaginal hysterectomy may prove the more advisable operation. In that case, Routier does not perform *morcellement*, but bisects the uterus by a median antero-posterior incision, removing each half separately. By this method there is little danger of serious hæmorrhage. Each half of the uterus is easily depressed, and with it the corresponding appendages are drawn out without difficulty and safely removed. Routier has succeeded in all the sixteen cases where he has operated in this manner. In three there were multiple fistulæ, and other old intractable lesions.

(52) Perforation of the Cervix by Laminaria Tents.

Bruchon (*Nouv. Archiv. d'Obstét. et de Gynéc.*, May, 1892) indicates a danger which may arise from the incautious use of laminaria tents. The tent should never be allowed to pass entirely into the cervical canal. It should be sufficiently long to protrude one-fifth of an inch below the external os when its upper end touches the fundus. The danger of using too short a tent is most evident when a marked degree of anteflexion exists. The uterus contracts on the tent, and its lower end is driven into the substance of the posterior lip of the cervix. The lip has been completely perforated in that manner. Bruchon observed a case where the cervix was damaged by a tent. The patient was 23 years of age. Dilatation was undertaken in order that the curette might be used, as endometritis existed. On March 12th the first tent was applied. On the 16th two tents were inserted. On the 19th the curette was used. It was found that one of the tents had almost perforated the posterior lip, its extremity being covered by a thin layer of the mucous membrane of the posterior part of the cervix. Bilateral laceration and eversion existed. The perforation set up no evil consequences; the curette was used, and the local uterine disease cured.

(53) Retrovaginal Fibroma simulating Rectocele.

W. Netzel, of Stockholm (*Hygeia*, No. 2, 1892) observed this rare disease in a married sterile woman, aged 45. For five years a growth had projected from the vulvar cleft; it grew very slowly. It resembled a rectocele or prolapse of the vaginal wall, and reached from the posterior commissure to the vaginal fornix. Above, it was not clearly circumscribed. It was removed together with a triangular piece of the vaginal mucous membrane, of which the base lay along the limits between the vulvar mucous membrane and the integuments. The tumour was enucleated without much difficulty. Above it was connected with the retrovaginal connective tissue by a cord-like process, which was ligatured and divided. The cavity was left open, it suppurated freely, and right parametritis occurred. Ultimately the patient recovered. The tumour, which was made up of connective tissue with large vessels and no muscular fibres, measured over 10 inches in its widest diameter.

THERAPEUTICS.

(54) Thyroid Grafting in Myxœdema.

Macpherson (*Edin. Med. Journ.*, May, 1892) reports the case of a woman, aged 39, suffering from myxœdema treated by the above method. The patient had been the subject of the disease for three years, and her prominent symptoms were melancholia with stupor and delusions of fear. Her extremities were cold, swollen, and blue, she refused her food, and was markedly lethargic, her movements were clumsy and slow, and she had exaggerated tendon reflexes. She had the waxy appearance of the face with characteristic flush on the cheek, the tongue was enlarged, soft, and flabby, there was well-marked supraclavicular swelling, the hands presented the usual spade-like appearance, and the hair and nails were characteristic; she was anæmic and suffering from headache, the menses appeared every fortnight, and lasted a whole week, the urine was scanty. Within 12 hours of the operation there was a marked mental improvement, she became talkative and cheerful, and her intelligence and spontaneity markedly increased, the fear, the melancholia, and the delusions disappeared and did not recur, the

anæmia and headache were also permanently removed, the average daily quantity of urine was increased and the temperature, which had been subnormal, was raised; menstruation became regular.

(55) The Treatment of Tuberculosis.

Flick (*Med. News*, March 12th) publishes a series of cases of tuberculosis treated by inunctions of a solution of iodoform in oil. According to his experience, iodoform will cure tuberculosis in the first stage, and it acts better when administered by inunction than when given by the mouth. When the disease has advanced to the second or third stage, iodoform may do good, but can no longer be depended upon as a curative agent. Creasote in large doses (15 minims) should then be given, and tonics and forced nutrition, but the inunction should not be discontinued, as there may be areas in which the disease is still in the first stage.

(56) Injections of Testicle Juice in Tuberculosis.

Espagne and Pourquier (*Nouv. Montpellier Méd.*, June 4th, 1892) have tried hypodermic injection of testicle juice in a case of pulmonary tuberculosis. The patient was a girl, aged 19, without known hereditary antecedents, but of lymphatic temperament. There was harsh breathing nearly all over the chest, and dry crackling at both apices, especially on the left side and at the back. The girl suffered from amenorrhœa and profuse night sweats, and was wasting steadily. The testicle juice was prepared as follows: 50 grammes of testicular substance (from a bull calf) were macerated for twenty-four hours in 50 grammes of sterilised glycerine. This preparation after filtration first through paper, and then through a Chamberland filter, gave a clear liquid almost as transparent as distilled water. The injection of a Pravaz syringeful of this liquid caused considerable pain, but was followed by a fall of temperature and reduction in the pulse rate. The authors, however, are doubtful whether a repetition of the injection will be permitted.

(57) Calcium Sulphide in Tonsillitis.

F. P. Norbury (*Therap. Gaz.*, May, 1892) has been very pleased with the effects of small doses of calcium sulphide in acute parenchymatous inflammation of the tonsils. These cases, especially if the subject be strumous, very generally tend to rapid suppuration. He has found that small doses ($\frac{1}{6}$ to $\frac{1}{2}$ gr.) of the sulphide, frequently repeated, are most valuable, both in preventing this suppuration, or in hastening convalescence when the mischief is already advanced. Febrile symptoms and pain are both greatly modified under its influence. In abscess of the mouth and throat Norbury prefers to apply a solution of hydrogen peroxide to which has been added a little oil of cassia, which he finds a thorough and most efficient antiseptic.

(58) Treatment of Small-pox by Means of Darkness.

Seven years ago Gallavardin drew attention to a plan of treatment for small-pox, originally suggested and carried out by John of Gaddesden and Waters. The treatment consisted in keeping the patients absolutely away from all solar light. This solar darkness had to be complete and uninterrupted, otherwise no beneficial results were obtained. The same writer now (*Lyon Médical*, June 12th, 1892) gives the result of his experience since 1876, and finds that if this treatment be carried out, the disease presents no period of suppuration, and that in consequence the subsequent scarring is infinitesimal.

(59) Vomiting in Chloroform Anæsthesia.

Passet (*Münch. med. Woch.*, June 7th, 1892) says that the chloroform vapour acting on the mucous membrane of the mouth produces a flow of saliva. This saliva is swallowed, and a certain part of the chloroform is thus conveyed into the stomach. The gastric mucous membrane is in this way irritated, and vomiting is set up. This increased flow of saliva at the beginning of the administration may be seen in animals, especially in cats, as well as in the human subject. For some time after the anæsthesia chloroform is exhaled with the breath, and even this may irritate the mucous membrane of the mouth in the same way, and with the same result. The action of chloroform upon the stomach varies in different individuals. The author adds that the only rational way of preventing the vomiting is to avoid the swallowing of chloroform, and that this may be done more easily than might appear by directing the patient to spit out the abundantly secreted saliva.

(60) Acute Mercurial Poisoning.

In the *Berl. klin. Woch.*, June 20th, 1892, Sackur relates the following case. A girl, aged 20, sprained her wrist. A few days later lymphangitis apparently supervened, for which mercurial ointment was applied and rubbed into some cracks on the hand. An hour after the inunction the patient felt ill, fainted and vomited. On admission the same evening there was much swelling of the hand and of the arm on its dorsal aspect. An incision was at once made into the brawny and grey coloured tissues. The next day, January 16th, there was vomiting with tenesmus and slight albuminuria. Cultivation experiments were negative. On January 17th the vomiting was less frequent, but there was anuria. The stools were blood-stained, and the condition very like that of dysentery. There was no fever. On January 18th severe hæmatemesis occurred. Diarrhœa with stools of almost pure blood, and anuria continued. On January 19th there was gangrenous gingivitis and glossitis, with moderate salivation. The prostration was great but the mind remained clear. The following day there was a feeling of weight, and then paralysis in the extremities, and the patient died. There were small hæmorrhages and superficial sloughs in the mucous membrane of the lower part of the small intestine and the characteristic appearances of severe dysentery in the large. In the kidneys there were well marked necrotic changes in the epithelium, especially of the convoluted tubes. In the absence of a clear history the diagnosis from sepsis was at first difficult, but there was no pyrexia or splenic enlargement, and the results of cultivation were negative. The amount of ointment used was small, but as has often been pointed out, the broken skin must be taken into account. The author then refers to three recorded cases of fatal mercurial poisoning, in two of which the mercurial application was made for pediculi capitis, and in the third inunction for syphilis. A certain idiosyncrasy must be present. Kaufmann says that nephritis, septicæmia and anæmia are contra-indications to the use of mercury. Marked anæmia and commencing septic processes were present in the case recorded here, and the author would attribute the rapidly fatal issue of the poisoning in this instance to these two conditions, and more especially to the former.

PATHOLOGY.

(61) Metastases of the Enteric Fever Bacillus.

Rosin and Hirschel (*Deut. med. Woch.*, June 2nd, 1892) say that in the various suppurating metastatic foci in enteric fever, typhoid bacilli alone or mixed with the ordinary pyogenic organisms have been found. In the furuncles and abscesses seen during convalescence from enteric fever, the staphylococcus and but rarely the streptococcus has been found alone by one of the authors. A case of enteric fever is then reported in which there appeared about the twentieth day a swelling of the size of a five-mark piece near the tuberosity of the left tibia. There was also œdema of the left foot and leg. An incision was made into this swelling. No pus came out of it, but a piece of necrotic tissue was found in it. Cultivation experiments amply proved the micro-organism present to be Eberth's bacillus alone. The authors could not absolutely exclude the periosteal origin of the swelling, but the infiltration was apparently in the muscle substance. The thrombosis of some important vein produced the œdema. The authors suggest that in the cases of suppuration where typhoid bacilli have alone been found, other micro-organisms being less resistant may possibly have perished. It has, however, been shown that injections of typhoid bacilli may produce an abscess, and it is possible that under certain conditions the micro-organisms may produce suppuration in the human subject. The above case shows that typhoid bacilli may cause an infiltration which does not break down into pus, and which gradually disappears.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(62) Cancer of the Stomach.

GUINARD (*Arch. Gén. de Méd.*, June, 1892), discusses the treatment of cancer of the stomach, and sums up his conclusions as follows: (1) No operative procedure can guarantee complete cure; (2) all cancers of the stomach which are not accompanied with pain, pyloric stenosis, or progressive inanition should be treated entirely by medical means; (3) the neoplasm should only be removed when it is a single tumour, small and mobile; (4) every possible means must be taken to arrive at a correct diagnosis, such as analysis of the gastric juice, gastroscopy, with a minor insufflation of air into the stomach, or ingestion of effervescent powders, and, in some cases, an exploratory laparotomy must be done, with strict antiseptic precautions; (5) in those cases in which, on examination, the cancer is found to have grown to a considerable size, and to be adherent to the colon or pancreas, and in which glandular enlargements exist, removal of the tumour must not be attempted, but gastro-enterostomy must be done; this operation does not give so long a tenure of life as complete removal of the growth, but is less dangerous, and as a palliative measure it is the best, death coming on slowly and without symptoms of obstruction and inanition; (6) pylorectomy is a rarely performed operation, whilst gastro-intestinal anastomosis ought to be a common one; (7) the palliative results of gastro enterostomy are remarkable, and the immediate dangers of the operation are small when compared with the beneficial results.

(63) Chronic Progressive Hereditary Chorea.

IN the *Deut. med. Woch.*, June 23rd, 1892, Schmidt observes that the chief distinctions from ordinary chorea are that the progressive disease occurs later in life (from 30 to 40), that it is progressive in character and accompanied by mental change, and that it is the result of direct inheritance and is incurable. The two cases recorded here by the author occurred in sisters, and differed from the usual cases in (1) the age of the patients and (2) the absence of any question of direct inheritance although there was a neuropathic family history. It has been said that if a generation be skipped the disease does not appear in later generations. If, however, epilepsy and simple psychoses be regarded as equivalent types of disease then heredity must hardly be looked upon in this narrower sense. The elder, aged 16, first had movements affecting the head, mouth, and tongue, when she was 7 years old. She was able to remain at school until she was 14. Then the disease steadily increased. When seen the patient's intelligence was somewhat deficient, the speech difficult, and the gait stumbling. The movements were choreiform in type and sometimes extended to the hands. They became rather less marked on voluntary exertion and ceased during sleep. Fatigue and mental excitement aggravated them. There was no local paralysis and no impairment of sensation. The knee-jerks were present. There was slight nystagmus. The younger sister, aged 14, was also well up to the age of 7 years. The movements affected the head and face, but they were less marked than in the sister. There was also some mental weakness. Whether this progressive disease is to be sharply separated from ordinary chorea can hardly be stated at present considering the obscurity of the pathological anatomy in both affections. Voluntary movement lessens the spasm in the hereditary disease, but not so in ordinary chorea. Sleep does not always entirely stop the movements in the former disease.

(64) Pancreatic Cysts.

KRECKE (*Münch. med. Woch.*, Nos. 25 and 26, 1892) gives a summary based on published cases. Traumatism is the only cause established with certainty, but its mode of action is not very clear. A certain significance must apparently be attributed to gastro-intestinal catarrh spreading to the duct and causing obstruction. The exact position of the tumour depends on the part of the pancreas involved. It is a retro-peritoneal fluctuating tumour, coming forward generally between the stomach and transverse colon, and surrounded in a characteristic fashion by tympanitic resonance. Sometimes it may present above the stomach or below the colon; in the first instance the dulness would be continuous with that of the liver. Its contents are alkaline, dark brown in colour, and possessing the digestive properties of pancreatic fluid. Exploratory puncture is rarely necessary, and is not without risk. The symptoms are chiefly due to the pressure of the tumour, and also in less degree to the absence of the pancreatic juice. The attacks of colic are perhaps due to pressure on the cœliac plexus. Jaundice may be caused by pressure on the common bile duct. Wasting is very common. The duration of pancreatic cysts has been known to be very prolonged. Their size depends on their age. Very large cysts may give rise to much difficulty in diagnosis. These cysts must be distinguished from ovarian and also renal tumours, from hydrops of the gall bladder with attacks of colic, as well as from aneurysm and deep-seated suppuration. The results of treatment by incision and drainage have been very good. A fistula occasionally remains, but this may subsequently heal up. Out of 27 cases thus treated, all recovered; 3 died some time later of diabetes, phthisis, and intestinal obstruction respectively. Extirpation of the cyst would appear to be accompanied by very considerable risk, for out of 6 such cases 3 died.

(65) Objective Modes of Testing Sensibility in Traumatic Neurosis.

GOLDSCHEIDER (*Neurol. Centralbl.*, June 15th, 1892) maintains that in cases presenting local or general hyperæsthesia, the perception of thermal stimuli is also involved. His researches have further shown him that the method of estimating the topographical temperature sense, devised by him a few years since, is an adequate gauge by which the truth of a patient's statements regarding the existence of anæsthesia can be determined, consequently it is specially useful in traumatic neurosis or hysteria. For deciding between actual and feigned analgesia or hypalgesia he recommends the following plan. A large metal plate is used as the indifferent electrode, the other electrode is a long wire brush connected with the cathode of the opening induced current, and is placed in such a manner that half the length of the brush rests on the unaffected skin, the remainder on the part said to be numbed. The secondary coil is then adjusted until pain is obviously produced. While continuing this current the electrode is slightly raised from the normal side without letting the patient recognise the manœuvre; cessation of pain necessarily results if the skin remaining in contact with the electrode be analgesic.

SURGERY.

(66) Arterio-Venous Aneurysm: Ligature of the Common Carotid and Internal Jugular.

KEEN has reported an interesting case of arterio-venous aneurysm (*Amer. Jour. of the Med. Sciences*, June, 1892). A boy, aged 16, was stabbed with a pocket knife on the right side of the neck. The injury was followed at once by profuse bleeding, which was arrested by direct pressure. No attempt was made to ligature the vessels, and the pulsating tumour which soon made its appearance was treated by the continued pressure of a bag of shot. The patient, when first seen by the author about three months and a-half from the date of injury, presented a well-marked arterio-venous aneurysm. There was a small scar at the site of the stab, on a level with the lower border of the thyroid cartilage. The sterno-mastoid was so thin that apparently only skin and fascia covered the swelling. There was visible pulsation over an area of 3 inches on the vertical, and 2 inches in the transverse, direction. There was a distinct thrill over a larger area, and with the stethoscope a rasping *bruit* could be heard, which extended from the site of the aneurysm over the entire circumference of the neck, the whole of the head, and the anterior portion of the chest, down the back as far as the lumbar region, and along the right upper extremity, from the axilla to the elbow. An incision 4 inches in length was made from the sterno-clavicular articulation just above the clavicle, and another incision, starting from the same point, was made along the inner border of the sterno-mas-

toid muscle, which was cut through near its sternal and clavicular attachments, and lifted up with the flap of skin. After a very tedious dissection, the carotid artery and the internal jugular vein were isolated, and tied below the tumour. The vein was found to be much distended in this portion of the neck, whilst the artery was normal in size and appearance. A very painstaking dissection had to be made in the upper part of the neck, where, at a point a little below the angle of the jaw, the vein suddenly narrowed to nearly its ordinary diameter. The vein at this point was secured by a silk ligature, and the carotid was afterwards secured just below its bifurcation. The sac was laid open, but as its adhesions to the surrounding soft parts were firm and extensive, it was thought prudent not to attempt its removal. The entire operation lasted a little over two hours. The patient made a very good recovery, and was able to leave his bed and to move about on the eighteenth day. Keen states that, though sharing the opinion that it would be advisable, in most cases of aneurysmal swelling in which the internal jugular is involved, not to operate, the result in this case proved the wisdom of operating, since the patient has been relieved of an aneurysm, which not only caused much deformity and discomfort, but might have ruptured and caused speedy death.

(67) Operations on Aged Subjects.

Blum (*Arch. Gén. de Méd.*, July, 1892) asserts that as a result of recent improvements in surgical treatment, subjects of advanced age may be submitted to operation without any special risk. Whilst regarding as aged subjects those over 70, he points out that they are theoretically old whose anatomical elements and tissues have lost much of their physical, chemical, and organic properties. The chief physiological characteristic of old age, he states, is atrophy of the structures of the body, and especially of adipose tissue. Reference is made to several instances reported by British surgeons of successful operations on old people, and records are given of fourteen cases in which equally satisfactory results have been obtained by himself. In one of these a woman, aged 84, recovered after removal of a cancerous mamma; one woman, aged 81, was operated on with good results for strangulated umbilical hernia, and another, ten years older, for femoral hernia. The list includes several instances of removal of malignant growths. The author concludes from these cases that the surgeon, in dealing with aged patients, ought not to rest content with intervening in those instances only in which life is directly threatened, as, for example, in strangulated hernia, but that he should be prepared to act also in instances of chronic disease advancing slowly, yet inevitably, towards a fatal issue. He should endeavour to dispense with general anæsthesia; beyond its direct danger, the anæsthetic agent is liable to cause a prolonged state of prostration, against which the aged subject struggles with much difficulty. The author usually trusts to the injection of cocaine, or to the previous internal administration of chloroform in small doses with the object of benumbing the patient. Old people, he states, are much less sensitive to pain than adults. During the operation, much care should be taken to keep the patient warm. Although the surgeon should prevent loss of blood as far as possible, he ought not to practise the so-called bloodless method, as paralysis of the vasomotor nerves results in an oozing of blood from the seat of operation, which may be found very difficult to arrest, particularly in subjects of atheroma. Every effort should be made to bring about immediate healing of the wound by careful attention to asepsis, so that the necessity for prolonged rest in bed may be avoided. The patient should be well nourished after the operation, and be allowed to get up as soon as he can do this without running any risk.

(68) Trephining for Meningitis.

McArdle (*The Dublin Journ. of Med. Science*, July, 1892) reports a case the good results of which favour the view that trephining may do good in some forms, at least, of meningeal inflammation. In other regions than the head, when inflammatory tension is evidently leading to a fatal termination, relief is often afforded by incision and free drainage. The time has now arrived, the author thinks, when this principle may be applied in brain surgery. The patient was a coal porter, aged 40, who fell into the hold of a vessel, and struck the left side of his head. He remained unconscious for some hours, but on the third day was able to resume his work. There was no trace of injury to the right side of the scalp. The patient continued at his laborious occupation for sixteen days, but after this interval suffered from nausea and pain in the head: soon afterwards he lost the use of both limbs on the left side. Four days later he suffered from severe convulsive attacks, each beginning with firm flexion of the fingers of the left hand; as death was imminent from laryngeal spasm, a small disc of bone was removed from the skull on the right side over the upper end of the fissure of Rolando. Serum, not blood, was found to be the immediate cause of the pressure symptoms. After removal of the piece of bone, the dura mater projected into the wound. On incising this, a greenish serous fluid gushed out. The membranes were thickened, and showed that meningitis had been set up. The man made an uninterrupted recovery, and went back to his work one month after the operation.

(69) Removal of Tuberculous Mesenteric and Retroperitoneal Glands.

A. Bier (*Deutsche med. Woch.*, No. 23, 1892) reports the following case. A young man, aged 15, was admitted to hospital on September 1st, 1890, and gave the following history. He had had good health, and had no family taint. In the autumn of 1889 he suffered from attacks of pain in the region of the umbilicus. These disappeared in the winter but came on again in the spring of 1890, and were then accompanied by nausea, vomiting, and giddiness; they had become worse, and continued at intervals till admission. He had lost flesh for six months. On admission he was seen to be a strong, muscular young man. He complained of attacks of abdominal pains which caused him to roll on the floor during an attack. These attacks were accompanied with nausea, vomiting, and giddiness. Deep in the abdomen and on the left side of the umbilicus there could be felt two tumours, each the size of a walnut, very sensitive to pressure, and only slightly movable. The stools were regular, normal in colour, amount, and consistency; the urine also was normal; the diagnosis was retroperitoneal tumour. Laparotomy was performed on Sept. 10th, an incision being made 15 centimetres long in the linea alba. The tumours were then found to be masses of lymph glands, each about the size of half the fist, one being situated on the left side of the root of the mesentery, and the other in the mesentery close to the small intestine. The one at the root of the mesentery easily shelled out, and was found to consist of caseating gland. The other tumour was removed with greater difficulty; it was adherent to the peritoneum covering it, and had to be scraped away, some parts being nothing more than pus-containing cavities. After complete removal of the tumours, the cavities left were filled with a solution of iodoform in alcohol and ether, and the peritoneum united with catgut sutures over them. The peritoneal cavity was now cleansed, and the parietal wound closed with silk sutures. After the operation no further attacks of pain, nausea, vomiting, or giddiness took place. A few days after the operation an abscess formed in the abdominal wall at the seat of the wound, but this was relieved by removing the suture, and the patient soon recovered. On October 8th he was discharged quite well, and remained so till October, 1891, when he was last heard of.

MIDWIFERY AND DISEASES OF WOMEN.

(70) Pregnancy and Goitre.

Joffroy (*Union Méd.*, May 10th, 1892) sums up the experience of others on the relation of pregnancy to simple and to exophthalmic goitre. The appearance of simple goitre in pregnancy and childbed has been noted by Tarnier, Lawson Tait, and other authorities, and the simple local disease may develop into exophthalmos. A patient of Joffroy's came from a Swiss canton where endemic goitre did not exist, but where he had himself observed three cases of exophthalmos. She was free from goitre when she married at the age of 19. At her first pregnancy a goitre appeared, during the second it increased, and in the course of the third palpitations set in. During the fourth pregnancy all

the symptoms of exophthalmos were observed. Simple goître usually diminishes or disappears after delivery. The above experience shows that to become pregnant is not a necessary cure for goître; on the contrary, a worse form of disease may develop. It is true that exophthalmos usually subsides after delivery, but, on the other hand, even a simple goître may grow so large during pregnancy as to call for the induction of labour.

(71) Easy Labours in Cases of Contracted Pelvis.

Tarnier (*Journal des Sages Femmes*, April 16th, 1892) warns his pupils against the fallacy that because a woman has had three or four easy labours the next future labour will certainly be easy. The contrary is often the case. Every day we see instances of women with a conjugate of 9 centimetres (3½ inches) delivered spontaneously. After four or five such labours the next proves difficult. The explanation is not always easy; probable the size of the fœtal head had not been estimated or measured, proving larger in the last than in earlier labours. When a student, Professor Tarnier once was summoned to a case, and found a big baby in a cradle. It was big when born the mother said. On examining the mother, who was in labour, he found that the pelvis was contracted. The previous child had been delivered spontaneously. The labour in hand proved very difficult, and could not be concluded without the use of the cephalotrite.

(72) Total Absence of Menstruation in a Patient aged 24.

H. W. Mitchell (*N. Y. Medical Record*, March 19th, 1892) has had this case under his observation since April, 1889. The patient was born in Ireland, and emigrated to New York in March, 1888. Up to that time she had never so much as heard that such a function as menstruation existed. In New York she became a domestic servant, and her colleagues found out that she never menstruated. They told her that all sorts of evil results, ending in insanity, would follow. For the first time, she became ill and nervous. On April 7th, 1889, Dr. Mitchell examined her. The pelvic viscera appeared to be perfectly healthy. He told her that her condition was compatible with perfect health, and she soon recovered her former good spirits. Iron and other tonics were given, but the menses have never appeared. In January, 1892, she was again examined. Her weight was 105 lbs., and it appeared that she weighed 25 lbs. heavier before leaving Ireland. There was, however, no sign of phthisis—indeed, all the viscera appeared healthy. In figure she was erect, plump, and symmetrical. The mammæ were well developed, firm and round; the nipples small, with no areola. The vagina was short, the cervix very small, projecting but slightly into the vaginal canal. The depth of the uterus from os to fundus was 2¾ inches, or nearly normal. The mons veneris was almost destitute of hair, and the labia ill-developed. As far as could be ascertained, the sexual instinct was entirely absent. The patient's general health was excellent.

(73) Gauze Compress Left Behind in Abdominal Cavity after Ovariotomy.

Salin, of Stockholm (*Centralbl. f. Gynäk.*, No. 24, 1892), uses, instead of sponges, sterilised gauze compresses. On October 31st, 1890, he removed an ovarian tumour from a woman aged 55, who made a good recovery. At the end of the summer of 1891 she complained of swelling to the left of the hypogastrium. At the end of October, one year after the operation, an abscess formed in the lower extremity of the abdominal cicatrix. On November 7th it opened spontaneously, and a great quantity of fœtid pus escaped. A swelling, not very tender, was detected on bimanual palpation, to the left of the uterus, and a sound could be passed towards it from the orifice of the fistula in the abdominal wound. This fistula was dilated with plugs of iodoform gauze, then some threads came away. On inspection they proved to be cotton, not silk, so that they did not arise from the pedicle ligatures. The fistula was enlarged with the knife, then a gauze compress was discovered and removed. On the next day much fæculent fluid, evidently the contents of the small intestine, came away through the wound. Gradually this fæcal fistula began to close. It was believed that a compress had been unwarily cut in two during the operation, so that the full number was counted though one compress still remained behind.

(74) Induction of Abortion in Cardiac Disease.

Doléris (*Nouv. Arch. d'Obstét. et de Gynéc.*, May, 1892) performed this operation, recently, on a woman, aged 25, who had aortic insufficiency and dilatation of the aorta. She was advised never to become pregnant, but did not regard this advice. Her last period ended on November 9th, 1891. The cardiac symptoms grew worse, and uncontrollable vomiting set in. Pregnancy was evident, and on December 31st it was determined to induce abortion. For four days antiseptic sublimate injections were thrown up and iodoform tampons applied. On January 4th a laminaria stem was placed in the cervix. On the 5th a second and larger stem was introduced. On the 6th the ovum was extracted; the amniotic pouch was opened by the curette. The embryo was extracted in two pieces. The uterine wall was carefully scraped in order to detach the decidua vera. After an intrauterine injection a tampon was applied to the vagina. Small pieces of already detached chorion were expelled on the evening of, and the day after, the operation. After about a fortnight's rest, the patient felt quite free from all the bad symptoms caused by the pregnancy. The catamenia reappeared on January 28th. The advantages claimed by Doléris for his method are: limitation of flooding (in this case hardly a drop of blood was lost), strict antisepsis, and rapid evacuation of the uterine contents.

(75) Precocious Hæmorrhage in Placenta Prævia.

Tissier, of Paris (*Nouv. Arch. d'Obstét. et de Gynéc.*, May, 1892), read notes of this case at the April meeting of the Société Obstétricale de France. The patient began to flood in the first month of her twelfth pregnancy. The hæmorrhages continued until delivery at the end of the eighth month. Painful uterine contractions accompanied each flooding. Although these symptoms did not indicate a vicious insertion of the placenta, it was found that partial placenta prævia existed. The early appearance of hæmorrhage was a feature of special interest. Putting aside abortions attributed, on insufficient evidence, to placenta prævia, it is rare to see hæmorrhage before the fifth month. In this case that symptom was present throughout pregnancy. Gaulard, in discussing Tissier's paper, said that the case was not unique, and he believed that many abortions were really due to placenta prævia. Pinard was of the same opinion, and said that hæmorrhage throughout pregnancy was commoner than was usually supposed. Tissier noted that the placenta often comes down very near the cervix in early pregnancy. Lefour, of Bordeaux, held that it was important to diagnose hæmorrhage from vicious insertion of the placenta at the earliest stages of pregnancy; as Tissier said, the symptoms in his case were not characteristic, according to current teaching. Professor Tarnier also insisted on the importance of diagnosis; this case was misleading. The patient was kept at rest for some time, being already exhausted by the floodings. The final flooding, though not severe, was sufficient to kill her.

THERAPEUTICS.

(76) Treatment of Headaches.

Collins (*Med. Record*, April 2nd, 1892), leaving out of consideration migraine and neuralgia, adopts Dana's classification, with a few modifications, based on the etiology of headache, namely, 1. hæmic: (*a*) anæmia, (*b*) hyperæmia, (*c*) diathetic states (gout, rheumatism, lithæmic and auto-toxæmic conditions); (*d*) infections, (*e*) uræmia, diabetes. 2. Toxic: lead, alcohol, tobacco, drugs. 3. Neuropathic states: epilepsy, neurasthenia, chorea, hysteria, etc. 4. Reflex: ocular, dental, naso-pharyngeal, auditory, dyspeptic, sexual, uterine, etc. He considers that the salicylates and chloride of ammonium rank first among medicinal agents. Salol or salicylic acid is the best form in which to give this remedy, and it is of most importance in diathetic, toxic, and auto-toxæmic states. It is of advantage to combine this drug with a mineral acid in these conditions, as the latter prevents the formation of uric acid com-

pounds. Chloride of ammonium is particularly useful when headache is associated with loss of appetite, sickness, bad taste in the mouth, flatulence, stuffiness of the bronchial tubes, etc., and should be given in the form of wafers containing ℥ss to ℥j every two to four hours for three doses. Headaches dependent on diminished blood pressure are frequently relieved by sipping, for example, taking a glass of cold water by mouthfuls. Mastication, sniffing irritant substances, exposure to cold, and excitement serve the same purpose. The action of cardiac neurotics is evanescent, particularly the diffusible stimulants, which have the additional disadvantage of often leading to the formation of a habit. Where congestion is the cause ergot should be given internally, and derivatives applied to the extremities, or the external application of cold, frequently assisted by a dose of bromide, is of service. Galvanism to the cervical sympathetic also frequently gives relief. When it depends on stomachic hyperacidity without constipation, bicarbonate of soda gives relief; but when sluggish digestion with constipation is present, acids and simple bitters should be used. In reflex headaches the cause must of course be removed. Collins considers that the employment of the recently introduced coal tar products such as antipyrin, etc., is to be avoided, as, while relieving transitory neuralgic headaches, they exert no influence on the cause. The treatment between attacks consists in preventing and overcoming every perverted condition on which the pain may depend, and building up the system. One measure is especially of use, namely, water, both internally and externally, but especially the latter. Those headaches which are dependent on hæmic and vascular changes are most benefited by the application of cold water in the form of shower, plunge, or needle bath, etc.; while those dependent on neuropathic conditions derive most good from the cold pack.

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(77) Antirabic Treatment by Means of a Non-virulent Injection.

POPPI (*Gazz. degli Ospitali*, June 16th, 1892) gives the results of some further experiments with regard to a new application of serum to the treatment of rabies. They are as follows:—(*a*) The serum of normal rabbits has no destroying effect on the virus of rabies *in vitro*, although Evangelista (EPITOME, March 5th, 1892, par. 220) found that this property was possessed by the serum of dogs and pigeons. (*b*) The serum from rabid animals sometimes destroyed the virulence of fresh rabid nervous tissue; sometimes it only diminished it, and at other times had no effect upon it. (*c*) The serum from animals previously submitted to antirabic treatment had a much more uniform destroying action on the virulence; this was more marked in proportion to the amount of Pasteur's vaccine which had been first employed. (*d*) The serum of animals dead of rabies has no power to prevent the development of rabies in inoculated dogs, whether given subcutaneously or by intravenous injection. (*e*) An emulsion of fresh virulent nerve tissue made with the serum of an immunised animal is non-virulent, and has, besides, a distinctly favourable action when injected into inoculated animals. In fact, this method succeeded in the case of two rabbits and a dog, even when control animals, which received only serum from an immunised animal, succumbed to inoculation with the same virus.

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(78) Ichthyol in Facial Erysipelas.

S. J. RADCLIFFE (*Therap. Gazette*, May, 1892) has treated several cases of facial erysipelas with ichthyol, being influenced to use it by the very favourable report of Klein (*vide* SUPPLEMENT, BRITISH MEDICAL JOURNAL, November 7th, 1891), who regarded ichthyol almost as a specific against the S. erysipelatis. Radcliffe's experience has been equally favourable. He found that the fever never continued high beyond the second day that the ichthyol was applied, being almost immediately reduced to 100° or 101°; in fact, temperature may be quite normal after the first day. The drug is applied freely as an ointment, consisting of equal parts of ichthyol and vaseline or lanoline, over every portion of the affected surface. This is done at least twice daily. If the ointment be washed off after the third day a very marked improvement is observed in the local condition, all the inflammation having generally disappeared except, perhaps, at the extreme margins. Radcliffe advises that treatment should be continued as long as there is the slightest sign of trouble. No relapses have taken place in his cases, and convalescence was satisfactory and without sequelæ.

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(79) Iodide of Potassium in Exophthalmic Goître.

S. A. LENTOVSKY (*Meditzinskïa Priblavlenïa K' Morskomü Sbornikü*, No. 4, 1892) relates a case of typical Graves's disease in a girl, aged 16, cured by the internal use of iodide of potassium (℥ij to ℥vj aq., in tablespoonful doses, with addition to each from 10 to 20 of tinct. ferri acetici ætherea). Simultaneously inunctions of an iodine ointment were made, and a liberal diet ordered. Considerable improvement was observable in two months, while two months later the goître, the exophthalmos, the accelerations of the pulse, etc., disappeared altogether. No relapse had occurred up to the time of the report, four years later.

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(80) Salol in Cystitis.

ARNOLD (*Therap. Monatsch.*, May, 1892) relates cases of acute and chronic catarrh of the bladder which have been much benefited by the use of salol in gramme doses in addition to the local treatment. Even tuberculous cystitis has been relieved by it. Arnold observes that salol makes the urine acid, and renders it ultimately almost clear and free from smell; that the drug is well borne, even when administered for some length of time, and that it is a useful adjunct to the treatment, especially when only weak antiseptic solutions can be tolerated by the bladder.

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(81) Creasote in Tuberculosis.

IN *Berl. klin. Woch.*, June 27th, 1892, Sommerbrodt states that the earlier creasote is employed in the treatment of tuberculosis the better are the results. For this reason he has used it in so-called scrofulous children with very good effect. It should be especially useful when combined with other appropriate methods of treatment. The author gives creasote in larger doses than usual; he says that small doses are useless. Thus, in children over 7 years he would begin with drop doses three times a day, and gradually increase it up to 1 g. in the day. It must be taken after the chief meals to avoid any gastric irritation, and the administration should be extended over several months.

PATHOLOGY.

(82) The Differentiation of Albuminoid Substances.

DUCLAUX (*Annales de l'Institut Pasteur*, May, 1892) has made some important observations which show that solutions of quinine and of certain other alkaloids are precipitated by the addition of neutral salts in a similar manner to albuminous substances. If a saturated solution of quinine be slightly diluted and ammonium sulphate or magnesium sulphate be added little by little, a portion of the quinine is precipitated when a certain amount of the salt has been added. Precipitation then ceases, and if the solution be filtered the addition of more of the neutral salt is not at once followed by the appearance of any further precipitate, although a second precipitate eventually appears. After filtering this off, a solution is obtained which yields a further precipitate when the salt has been added to saturation. Quinine is therefore precipitated from its solution by a series of steps, and he insists upon the similarity of these phenomena to those observed when fibrin, globulin, albumin, etc., are precipitated from their solutions by neutral salts. He believes that the precipitates are of the same chemical composition; and he finds that the point at which precipitation commences depends upon the degree of dilution of the original solution. In separating toxins (whether albumo-toxins, globulo-toxins, or pepto-toxins) from their solutions, he recognises and points out the likelihood of alkaloidal substances being precipitated at the same time, in varying quantity dependent upon the amount of these alkaloids present. The fact that the precipitate may be of different composition when obtained from different cultures of the same microbe may, he points out, account for the very contradictory results which have so often been obtained by those working with albuminous substances obtained from cultures.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(83) Infective Pneumonia.

Gaston (*Arch. Gén. de Méd.*, May and June, 1892) gives a critical review of a recent epidemic in Paris, evidently connected with the arrival and distribution of some parrots, and hence called an epidemic of "perruches infectieuses." The details of some eleven cases are given. In some the illness began with intense headache, severe pain in the side, a rigor, and rise of temperature. By the next day the author says that there were signs of pneumonia. This pneumonia was not quite of the ordinary kind. The patients had a typhoid appearance, and there was diarrhœa and in some cases petechiæ. Others presented similar symptoms, but only after a premonitory stage, with headache, giddiness, etc. In a few cases there were "false membranes" in the throat, in addition to the pulmonary manifestations. Intense prostration was mostly present, but the typhoid appearance constantly so. The disease terminated rapidly, either in death or in a prolonged convalescence. In all fatal cases the internal organs were found engorged. Along with the hepatisation of the lung there were broncho-pneumonic foci in both lungs. In one case there was a recent vegetative endocarditis. The exact course of the epidemic is then traced. Peter believes that these parrots were suffering from typhoid fever. As first sight it would seem as if these parrots (ill themselves) had communicated their disease to the patients, but this view the author does not accept. Gaston concludes that the disease in man was an infective pneumonia; that a study of the contagion and the experimental evidence (bacteriological and other) was against its being transmitted from the parrots to man; that the severity of the disease was due (as in a similar epidemic in 1881 in Hamburg, also connected with parrots) to the insanitary conditions and defective health of those attacked; that its varied manifestations would place it among the influenzal infective pneumonias; and that the parrots favoured its propagation by bringing individuals in contact with one another, and in carrying the germs in their plumage in much the same way as people do in their clothes.

(84) Traumatic Hemiplegia and Hemianopia.

Potts (*Journ. of Nerv. and Ment. Dis.*, April, 1892) describes a case of right hemiplegia, with left single hemianopia, resulting from a penetrating wound of the brain. One prong of a hay fork, which had fallen from the boy on the load, entered the outer side of patient's left orbit as he was lifting hay on to a wagon. He instantly dropped unconscious, and the fork—the prong of which had penetrated at least two inches, and was still in the brain—fell through an arc of 90° or more. The right limbs were paralysed. Coma lasted for several days; patient then recovered consciousness, but could only talk in the Yorkshire dialect, which he had not used for fifteen years. In the course of three months he regained some ability to express himself in ordinary English. Patient's condition two and a-half years after the accident was—right hemiplegia, the affected muscles being somewhat wasted and contracted; patient could walk fairly well, and use his right arm to some extent; slight paresis of right side of face; right knee-jerk increased; no anæsthesia. Right eye $V = \frac{6}{9}$, fundus and field normal. Left eye $V = \frac{6}{18}$, nerve quite atrophied, visual field contracted on temporal side, superior half blind. The author thinks that the prong had divided the lower, and some of the inner, fibres of the optic nerve behind the entrance of the central artery, and then injured the striate body and some motor fibres of the internal capsule.

(85) Tuberculosis of the Larynx in Children.

A. F. Plicque (*Ann. des Mal. de l'Oreille*, April, 1892) remarks on the small number of clinical observations published, and refers to Rheindorff's memoir (*Jahrb. f. Kinderheilkunde*, 1891, vol. xxxiii) where only twenty cases could be collected from the whole literature. Pathological investigations show a somewhat greater frequency, and probably for the reason that during life the laryngeal affection is a minor epiphenomenon added to the generalised tuberculosis; whereas, in adults, it may be the chief or even the only manifestation of the disease. The symptoms seldom present themselves till the tuberculous disease is far advanced. Hoarseness is the only common one. Pain is three times rarer, and painful dysphagia has not been recorded. The cough is not characteristic. Dyspnœa, strange to say, is of the rarest occurrence. Laryngoscopic examination is most difficult, but may show "the mucous membrane red, injected, striated, with prominent vesicles, or dotted with red patches; the vocal cords may be covered with muco-pus, swollen, eroded." The muscles of the larynx act feebly. The ulcers may be punched-out, rounded, and pale. A proliferative type (*forme végétante*) is described from pathological observation as occurring, but very rarely. The chief difficulty is the diagnosis from hereditary syphilis, or its combination with tubercle. Lupus is much more rare, has a slower course, with a different general state. The prognosis is one of speedy fatal termination, not from the laryngeal disease, but from the advanced state of general tuberculosis which, in children, it implies. Barthez and Sanne recommend curettage, galvano-cauterisation, lactic acid application, and insufflation of iodoform, if the patient is not too exhausted, in which case local treatment may be limited to the occasional application of cocaine.

(86) Small-pox in the Fœtus.

Lambinon (*Journ. d'Accouchements*, June 15th, 1892) reports a case under the care of Dr. Fraipoint, of Liége, in which a pregnant woman was attacked by small-pox, which was communicated to the fœtus and caused its death. The mother was 24 years old. The last period occurred on October 20th, 1891. She then became pregnant for the first time. Vaccinated when 2½ years old, she did not escape the epidemic of small-pox which set in at Liége during the course of last spring. In the sixth month of pregnancy she had rigors and lumbar pains, followed by a characteristic eruption of variola discreta. She was carefully nursed, so that she recovered without pitting. After the attack she felt no more fœtal movements. On May 30th, during the seventh month, she was seized with labour pains and was admitted into a lying-in hospital. The feet presented. The membranes were ruptured and the child was extracted. It was in a high state of maceration. It measured 13 inches in length. There were characteristic small-pox pustules on the back, arms, and thighs. As seems to be the rule in fœtal small-pox, the eruption did not attack the face. The placenta came away ten minutes later. The uterus contracted badly, so an intrauterine douche of hot water and a hypodermic injection of ergotine were administered. The patient made a good recovery, and left the hospital on the ninth day. Charpentier admits that small-pox is rare in the fœtus. Lambinon further notes that bacteriologists have proved that the placenta is not a barrier which specific germs cannot pass. The passage of the germs of malignant pustules, glanders, famine fever, and pneumonia have been proved by experiment. Malvos and Birch-Hirschfeld have found that structural changes in the placental tissue, such as hæmorrhages, favour the transmission of bacteria to the fœtus.

SURGERY.

(87) Intussusception.

Lindeman (*Berl. klin. Woch.*, June 27th, 1892) reviews the statistics of cases of intussusception, and says that out of 66 only 12 could be saved by an operation. Senn reported two which he had treated by inflation with hydrogen gas, and these recovered. One point was especially noticeable in going through the literature of the subject, namely, that in those cases which died after a simple laparotomy and disinvagination of the intussusception death took place a very short time afterwards, on an average about 16 hours. This early death the author attributes to shock consequent on the pulling and stretching of the invaginated part of the intestine during disin-

vagination. Lindeman reports a case of intussusception with gangrene in a boy, aged 11, who, whilst being treated in Berlin for middle ear disease, was seized with abdominal pains and vomiting on July 27th, 1891. On July 29th the bowels were opened after calomel, but the boy got worse and vomited everything. A tumour was found in the left epigastrium which extended downwards towards the pelvis. On August 1st he was sent to the Augusta Hospital for operation. He was a lean weakly-built boy. A rectal injection was given but only blood-stained shreds came away. Small doses of opium and a large water injection were tried, but without producing any amelioration of the symptoms. Laparotomy was performed, and the small intestines pulled out and laid upon warm cloths. The intussusception was found to be in the colon, the lower part in the right iliac fossa and the neck or upper part just below the margin of the left ribs. This intussusception was disinvaginated with some difficulty; at one point the intestinal wall was found to have a gangrenous patch about the size of a sixpence. Owing to the general condition it was considered not advisable to perform resection. The gangrenous part was fixed in the abdominal wound and the remaining part of the wound closed with wire sutures. The patient was put to bed and fed on small quantities of wine and water and opium given at night. Next day he was much better. An artificial anus formed in the position of the gangrenous part of the gut, and all went well till August 21st, when the boy had an attack of typhoid fever. On October 22nd, having recovered from the fever, closure of the artificial anus was attempted. The intestine was forced from its attachment to the abdominal wall; only a small spur was found to exist, so the edges of the artificial anus were freshened and the opening closed with sutures of silk. The intestine was then dropped back into the cavity of the abdomen and the abdominal wound closed; this healed by primary union, and the boy was discharged well on November 22nd.

(88) Gastro-Enterostomy.

M. P. Michaux, at the French Academy of Medicine (*Sem. Méd.*, June 29th, 1892), reported the case of a man, aged 42, suffering from carcinoma of the stomach. For ten years he had had stomach troubles, which he attributed to swallowing a piece of a tooth. For five years he had been subject to fits of vomiting, first of food and then of material resembling coffee grounds. He also had melæna, for two years there had been a swelling in the epigastric region, which was found to extend downwards to the level of the umbilicus and upwards above this for about 2½ inches; transversely the swelling measured about 4 inches, and lay more on the left side than on the right. The urine, small in quantity (half a litre in twenty-four hours), contained only 10 grammes of urea to the litre. The abdomen was opened in the linea alba above the umbilicus, by an incision 4 inches long; and a carcinoma was found affecting the pylorus, the anterior part and the lesser curvature of the stomach. Removal of this was considered to be impossible, and gastro-enterostomy was performed, the posterior surface of the stomach being united to a coil of the upper part of the small intestine just beyond the duodenum. The anastomosis was carried out with the intestine drawn out of the abdominal wound; when completed the intestines were returned and the wound in the abdominal walls closed up with sutures. The operation occupied an hour and a-half. At first the patient was fed by the rectum, but at the end of five days he was fed by the mouth. The abdominal wound healed by primary union, and at the end of a month and a-half the man was discharged. After the operation there was less nausea and vomiting, and pain disappeared. He gained 18 pounds in weight. The quantity of urine had increased, and contained 17½ grammes of urea in a litre, and the man was much stronger and less liable to fatigue. These results M. Michaux considered justified the performance of gastro-enterostomy in pyloric obstruction due to carcinoma.

(89) The Tuning-fork Test of the Permeability of the Eustachian Tube.

Professor Politzer (*Annales des Mal. de l'Oreille, etc.*, March, 1892) makes use of his observation, published in 1869, that a vibrating tuning-fork (C_2=512 vibrations per second) held below the nostrils is heard in both ears, but distinctly louder during the act of deglutition in a normal condition of parts. Absence of this intensification indicates absence of the normal opening of the Eustachian tube in swallowing. The diagnostic results are chiefly the following: (1) In cases of unilateral affection of the middle ear with obstruction of the Eustachian tube the fork is more distinctly heard in the normal ear. (2) In cases of unilateral affection of the middle ear without Eustachian obstruction it is heard more loudly in the affected ear. (3) In unilateral labyrinthine affections the fork is heard only on the sound side, both during and apart from deglutition.

(90) Herniotomy: Treatment of Intestine Apparently Gangrenous.

Rovzing (*Centralb. f. Chirurgie*, July 16th, 1892) discusses the treatment which should be adopted in a case of hernia when the loop of intestine is apparently gangrenous, and the methods now adopted. Three modes of treatment, he says, are recommended—namely, (1) reposition; (2) resection; and (3) formation of an artificial anus. After reposition, he states that one-third of the cases die of perforation of the intestine and peritonitis. In resection the mortality is 50 per cent., and after the formation of an artificial anus still more than this. He then recommends, when the intestine appears to be almost gangrenous, that the loop of intestine should be attached to the margins of the operation wound by means of a few fine silk or catgut sutures passed only through the serous coat of the bowel, and then fixed to the wound margin. The affected part is then to be covered with sterilised gauze; afterwards, the further treatment must depend on whether the gut recovers or becomes gangrenous. If, after a time, the bowel returns to its normal condition, the sutures are to be taken out, the loop of intestine dropped back into the abdominal cavity, and the wound closed with sutures. If, however, gangrene occurs, resection of the affected part or the formation of an artificial anus is advised. The author then relates a case in which this method of treatment was carried out. The patient was a woman aged 43, who came to the hospital with a strangulated inguinal hernia. Herniotomy was performed, and the intestine was found to be apparently gangrenous. The intestine was fixed to the wound in the manner described above, irrigated with sterilised solution of sodium chloride (6 per cent.), and then covered with sterilised gauze fixed in position with a sterilised water bandage. On the fourth day afterwards the affected loop of intine had recovered its normal condition, the sutures were removed, the loop dropped back into the cavity of the abdomen, and the sac of the hernia sutured and removed, as in an operation for radical cure. The patient entirely recovered, was fitted with a truss, and left the hospital well.

MIDWIFERY AND DISEASES OF WOMEN.

(91) Puerperal Convulsions.

Goldberg (*Centralbl. f. Gynäk.*, No. 26, 1892) read a paper on 81 cases of eclampsia, at a recent meeting of the Dresden Gynæcological Society. The cases occurred in the course of 10,718 labours which took place within eight years at a lying-in hospital. The proportion of cases with fits was, it will be seen, only ¾ per cent. No fewer than seven-eighths of the cases of eclampsia occurred in primiparæ. In all the 81 except 2, the head presented. The proportion of twins was large. In 44 cases, it was evident that the advancing head did not press on the ureters. In some of the remaining 37, that accident might have occurred, but it could only be demonstrated in a very few. The amount of albumen in the urine was greater, and the occurrence of albuminuria far more constant, in the fatal cases than in those that recovered. Anasarca occurred in about half, but was not specially marked in the worst cases. The usual prodromata were headache for several days, vertigo, nausea, nervous irritability, rapid irregular pulse, persistent cyanosis, dyspnœa, and mental confusion. In 17 cases which died purely from eclampsia, acute chronic renal disease was present in 16. Cerebral lesions were found in 14 of these cases, namely: hæmorrhage in 4, nervous

hyperæmia in 1, œdema in 8, generally associated with anæmia, but in 1 with hyperæmia. The total mortality was 24.7 per cent. In the primiparæ it was 21.43 per cent.; in the multiparæ, 45.45 per cent. Though the latter class made up only one-sixth of the total, they suffered worst when attacked. The mildest cases were those in which the symptoms began at or during delivery or in the puerperium. The earlier before term the fits occurred, the more aggravated were the symptoms. The death of the child *in utero* did not benefit the patient in any way, as some obstetricians have endeavoured to show. In the very great majority of the cases, where instrumental or other active interference was employed, the fits were thereby cut short. The right treatment, in fact, is speedy delivery. Chloroform inhalations, morphine injections, hydrate of chloral, warm baths, and isolation in a quiet dark room, are the best agents for treatment of puerperal eclampsia.

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(92) Asthenia from Childbearing.

J. G. Perry (*N. Y. Journ. of Gynec. and Obstet.*, April, 1892) endeavours to show, from an analysis of seven cases under his care, that in certain women there is a predisposition from unknown causes to yield their vitality in the natural processes of childbearing in such a manner as to interrupt the retrograde metamorphosis or involution of the pelvic cellular tissue independent and apart from the muscular fibres, and that this metamorphosis once interfered, tends to atrophy and fatty degeneration, which cannot be arrested by any known method of treatment. From this atrophy the pelvic organs and those above the pelvis lose their proper support and provoke certain sensations and mental phenomena. Dragging pains, abdominal cramps, and pain on walking are the chief symptoms. Great mental depression is frequent. Plastic operations and massage prove unavailing; indeed Perry considers that many of these cases do not yield to any form of treatment. These patients are, of course, quite unfitted to bear more children.

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(93) Fœtal Head retained over Three Months in the Uterus.

Loisnel, of Lisieux (*Nouv. Arch. d'Obstét. et de Gynéc.*, May, 1892, Supplement), relates an extraordinary example of malpraxis. Dr. Notta was consulted in November, 1891, by a woman, who felt labour pains at term in the preceding August. She had been delivered of two children before spontaneously. As this labour was slow, she sent for a doctor. He seems to have attempted turning, and certainly amputated a leg. Next day he returned and cut off the other leg. On the next day he decapitated and removed the trunk and arms. He prescribed antiseptic injections, which were never given, the patient not knowing what an injection meant. She went back to work in the fields, and noticed that the lochia seemed to continue much longer than usual. Dr. Notta discovered a vesico-uterine fistula, and found that the uterus was occupied by a solid body. With the aid of forceps he extracted a piece of the maxilla. The patient was admitted into a hospital. The os was dilated by laminaria tents, and the fœtal skull removed piecemeal. Before operation there was no appreciable sign of septicæmia. Afterwards she had an occasional rise of temperature during recovery. The vesico-uterine fistula closed, but a communication between the rectum and genital tract established itself. Dr. Herrgott once extracted a placenta from a woman delivered seven months previously. There had been no septic symptoms. Professor Tarnier noted how some women resisted infection and how others recovered from it. Sloughing of the whole bladder did not always prove fatal. He had seen recovery after diffuse abscesses and suppuration of both eyeballs. Drs. Notta and Loisnel had, on extracting the head piecemeal, done the best possible thing, considering that they had not the choice of many instruments.

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(94) Atrophy of the Uterus in Young Women.

Gottschalk (*Volkmann's Sammlung klin. Vorträge*, No. 49, 1892) devotes a monograph to this important subject, so closely associated with sterility. He gives clinical histories of a large number of cases which he has observed in girls and young women. Without any doubt atrophy of the uterus is often the direct or indirect result of scarlet fever, typhoid fever, and acute articular rheumatism. The uterus may be directly involved—indeed, ovarian disease, particularly scarlatinal oöphoritis, often proceeds slowly, and undergoes spontaneous cure, though when severe or very chronic it usually involves uterine atrophy. Gottschalk particularly notes that in four of his cases the patients were attacked by typhoid fever at the time of their first menstruation. These researches are held to show that it is necessary to maintain tonic treatment in all cases of the above-named acute diseases, when they attack young women, long after the disappearance of fever. The return of strength is then usually followed by the reappearance of the period. Santonin and permanganate of potassium seem to hasten the disappearance of amenorrhœa. The pelvis must be explored, and if the ovaries feel enlarged warm baths, iodine, and ichthyol will be needed. Should this complication be neglected, the atrophic condition of the uterus will soon become incurable.

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(95) Broad Ligament Fibroids.

Gross, of Nancy (*Sem. Méd.*, April 20th, 1892) finds that myomata of the broad ligament, physically and clinically unconnected with the uterus, have undoubtedly been observed. It is, however, impossible to insist that they did not originally arise from uterine tissue. Of necessity they are nearly always sessile, only five authentic cases of pedunculated broad ligament fibroids have been described. A sixth case has occurred in Gross's own practice. He recently removed a pedunculated tumour of the right broad ligament, weighing 5 lbs. 7 ozs. A growth of this class is hard to diagnose from a solid ovarian tumour. Surgically speaking, it may be treated as any other pedunculated tumour, such as an ovarian cyst or a subperitoneal fibroid.

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(96) Removal of Fibroids during Pregnancy.

N. Flaischlen (*Centralbl. f. Gynäk.*, No. 10, 1892) attended a married multipara, aged 32. She was in the third month of pregnancy, and was troubled with a solid abdominal tumour, diagnosed as ovarian, for it moved very freely from the uterus. On August 7th, 1890, Flaischlen operated. Two fibroids were present; one was connected with the uterus by a thin pedicle, which arose close to the left cornu; hence it had been mistaken for an ovarian growth. An interstitial fibroid, of the size of an apple, lay in the walls of the uterus to the left anteriorly. The pedicle of the first tumour was transfixed, tied, and then divided. The interstitial growth was enucleated from the walls of the pregnant uterus. The uterine walls were united with catgut sutures. The patient recovered, and was delivered at term, and without instruments, of a living male child on February 14th, 1891. A week later parametritis set in, and kept her for weeks in bed. On August 14th, 1891, over a year from the operation, the uterus was found to be healthy, and no trace of exudation remained.

THERAPEUTICS.

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(97) Dermatol and Europhen in Soft Chancres.

S. N. Parenaho and P. A. Bürtzeff (*Meditzinskia Pribavlenia k' Morskomü Sborniku*, No. 3, 1892, p. 211) have made a series of comparative experiments with dermatol, europhen and iodoform in eleven cases of multiple (from 3 to 12), deep, and indolent soft chancres. The experiments were conducted in such way that in the same patient some ulcers were powdered with iodoform, others with dermatol, and still others with europhen. In the case of a large ulcer, one-half of the surface was treated with one of the drugs, and the remaining part with another. The authors found that: (1) Under iodoform the lesions heal, on an average, in 11 days, under dermatol in 12, and under europhen in 13. (2) Iodoform acts uniformly well in all stages of the process. (3) In the stage of suppuration dermatol has a drying effect, promoting the absorption of the discharge, as well as the formation of dense, closely adherent crusts, while europhen does not favour absorption, and induces the formation of a thin scurf, with a profuse accumulation of pus beneath. (4) On the whole, iodoform is decidedly superior to both dermatol and europhen.—O. V. Petersen (*ibid.*, p. 210), having made a long series of observations on both remedies, came to

the conclusion that they had a favourable effect on the course of soft chancres, but that europhen should be preferred to dermatol, since (1) in the former case cicatrisation proceeded more rapidly than in the latter; and (2) in cases of ulcers on the glans penis or inner aspect of the foreskin dermatol may give rise to a dark or almost black discoloration of tissues, due to decomposition of the substance in the presence of smegma.

(98) Hydrastinin in Epilepsy.

V. G. Kiseleff (*Vratch*, No. 20, 1892), experimenting on dogs and guinea-pigs, has found that intravenous injections of hydrastinin (see Epitome, April 23rd, 1892, p. 66; and May 28th, p. 87), even in small doses (0.04 gramme per 1 kilogramme in dogs), distinctly lowered the excitability of the brain cortex, and mitigated or prevented epileptic fits induced by absinthe. These observations induced him to try hydrastinin in six cases of epilepsy. It was given internally, in an aqueous solution, from ½ to ¾ grain *pro dosi*, up to 1 or 2 grains a day. In four patients, in two or three weeks the fits decreased both in frequency and in intensity, while in the remaining two the treatment was less efficacious. No unpleasant accessory effects were noticed. F. Kh. Gadziacki also employed hydrastinin in a case of epilepsy, but without result. The hydrastinin treatment of epilepsy, as well as of hydrophobia and strychnine poisoning, was first suggested by P. I. Arkhangelsky (*St. Petersburg Inaugural Dissertation*, 1891, No. 59), whose experiments on animals showed that the alkaloid ($C_{11}H_{13}NO_3$) possessed powerful antispasmodic properties.

(99) Dermatol in Venereal Ulcers.

P. A. Bürtzeff (*Meditzinskia Pribavlenia k' Morskomü Sborniků*, No. 3, 1892) has used dermatol in 70 cases of soft and hard chancres and incised indolent buboes, all in men. The subgallate was used either in powder, twice a day, or, in cases of very flabby and deep ulcers, in the form of a 10 or 15 per cent. vaseline ointment. In the case of shallow ulcers and recently incised buboes the discharge diminished, and in some cases entirely disappeared on the second or third day, while the surface rapidly became covered with healthy granulations and very quickly cicatrised. Indolent or excavated ulcers healed somewhat less readily. The advantages of the bismuth salt are said to be these: (1) It induces far more rapid cicatrisation than iodol or naphthalin; (2) it never irritates the surrounding skin; (3) it is quite free from unpleasant smell or toxic effects; (4) it is relatively cheap. The author also tried dermatol as an urethral injection in the form of a "suspension" in cases of gonorrhœa, but found it quite useless.

(100) Salipyrin in Rheumatism.

A. L. Trechtenberg (*Vratch*, No. 18, 1892) has used salipyrin in eleven successive cases of acute articular rheumatism, with uniformly excellent results. The drug was given in 1-gramme doses five times daily. In one of the cases—which was of an extremely severe nature, the right hip-joint and the left knee and hand being most intensely inflamed—the ordinary antirheumatics, including antipyrin (internally and subcutaneously) and salicylate of soda, had been previously tried in vain. After a few doses of salipyrin pain entirely and permanently ceased, the temperature fell to the normal level, etc., while in a few days all the inflammatory symptoms subsided.

PATHOLOGY.

(101) Tetanus.

Valliard and Rouget have made (*Ann. de l'Institut Pasteur*, June, 1892), the following additions to the observations on tetanus published by one of them last year (*Annales*, 1891):—(1) The toxine of tetanus is greatly weakened, but not absolutely destroyed (as has been stated) by prolonged exposure to a temperature of 80° C. (2) Tetanus bacilli and spores contain in themselves large quantities of toxine, which it is very difficult to remove by either warming or prolonged washing on a filter. (3) Rabbits can resist a dose of toxine 2,000 and even 3,000 times greater than that which is fatal to guinea-pigs. (4) Temperatures of 70° or 80° C. do not kill the spores, for on injecting them along with a minute trace of lactic acid, they at once become active and intensely virulent. (5) When toxine-free spores are introduced into an animal, they do not germinate, but become rapidly engulfed in leucocytes. After two or three days no free spores can be seen, and degeneration may be already taking place in some of those enclosed in cells. This is still more marked after about a week, when the leucocytes have again become for the most part distributed with lactic acid; on the other hand, the leucocytes do not congregate as before, and the spores are able to germinate in the somewhat devitalised tissue, and produce their toxine. (6) Tetanus spores can, however, develop under certain abnormal conditions: thus, the existence of necrosed tissues, hæmorrhagic effusions, bruised muscles, subcutaneous fractures, etc., often enables the spores to get a footing; clean, aseptic, and surgical wounds do not seem, however, to supply the necessary favourable conditions. (7) Sterile foreign bodies impregnated with toxine free spores, do not seem to aid their growth. Should the wound become septic, then tetanus rapidly supervenes. (8) A tetanigenous earth will produce tetanus in guinea-pigs. If previously heated to 85°, it loses this power. Such a temperature destroys all other microbes present save the tetanus spores. If these be again associated with the aërobic microbes, they once more become active. (9) This association with other microbes is found to be what actually occurs in the human subject; pus taken from the primary injury always contained numerous other microbes besides the tetanus bacillus. (10) These extra microbes act by attracting leucocytes to the spot; the leucocytes are then weakened or killed by the metabolic products of the auxiliary bacteria, and are thus rendered fit pabulum for the tetanus bacilli. (11) Inoculation of tetanus from animal to animal soon fails completely owing to the ease with which the auxiliary bacilli lose their power of developing in the tissues. After about the third passage these practically disappear, and there is left nearly a pure culture of tetanus bacilli. This would account for the difficulty with which the affection spreads. (12) So-called idiopathic tetanus is due to a previous infective injury. Spores may be introduced, and though engulfed by leucocytes, may escape rapid destruction, and any departure from health (such as a bruise, chill, etc.), turns the scale in favour of the spore. (13) Large wounds are less often followed by tetanus than small ones, probably because they are more carefully and rapidly treated with antiseptics, etc.

(102) Cystic Degeneration of the Cardiac Muscle.

Meigs (*Amer. Journ. of the Med. Sci.*, May, 1892) says that this disease, hitherto undescribed, consists in a hollowing out of the muscle fibres, the nuclei often lying free in the cavities so formed. There is always present more or less material of an indistinguishable structure in the cavities themselves. The change is most marked in the fibres near the endo- and pericardium, and affects chiefly the ends of the fibres. The author says that it is impossible to predict at present in what cases this morbid change will be found. He has met with it in cases of organic cardiac disease, Bright's disease, enteric fever, ulcerative endocarditis, and in young infants dying of wasting, but in other cases of Bright's disease and enteric fever it has been absent. It is not an effect of the preparation of the tissue for the microscope, nor yet the result of the central portions of the fibres falling out. About a year ago the author showed that the muscle fibres of the heart are penetrated by capillaries; he would look upon the cavities in these fibres as retention cysts formed by the blocking of the capillary in two places, the intervening portion being dilated. He says that if this view should be found correct it will be the first time that cysts have been shown to originate in vascular channels.

(103) The Pathological Anatomy of Exophthalmic Goître.

Mendel (*Deutsche. med. Wochenschrift*, No. 5, 1892) records a case in which, at the *post-mortem* examination, the left restiform body was found atrophied, and under the microscope, there was a deficiency of fibres; there was also distinct atrophy of the solitary bundle on the right side of the medulla, with deficiency of fibres. These results agree in the main with those arrived at by Hale White, Filehne, Durdufi, and Bienfait.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(104) Diseases of the Digestive Tract.

Ewald (*Berl. klin. Woch.*, 1892, Nos. 26 and 27) says that in recent years the deficient secretion of hydrochloric acid by the stomach has come to be looked upon as the general expression of disturbed function, and not as diagnostic of any definite organic lesion. In the first stage of digestion this acid is used up to neutralise the inorganic and organic bases with which it forms unstable combinations. The amount of free hydrochloric acid then increases, so that after a certain time the amount present in the stomach contents varies between 1.5 and 2.5 *pro mille*. Thus, if free hydrochloric acid be altogether absent, it does not necessarily mean that the secreting power of the stomach is entirely lost. The presence of the loose combinations above referred to permit of a certain if not complete peptic digestion. There are three conditions which may give rise to the absence of free hydrochloric acid: (1) gastric carcinoma; (2) chronic catarrh of the stomach, leading to atrophy of the mucous membrane (anadenia); and (3) severe nervous depression. Atrophy of the gastric mucous membrane occurs most often in old people who have long suffered from dyspeptic troubles. Examination of the stomach contents shows no free hydrochloric acid, no pepsin, and no rennet ferment. The difficulty in differential diagnosis in these three conditions may be great. The author then records a case, probably of anadenia, in a man, aged 29, who was under observation for two years and a-half. There was always anachlorhydria, and the peptic functions were quite absent. Treatment produced great improvement. Digestion occurred in this case in the intestine, and, the motility of the stomach being good, there was no stagnation and therefore no fermentation in the stomach contents. Occasionally carcinoma may exist for a long time under the aspect of a severe neurosis, when a sudden deterioration in the patient's health occurs, and the hitherto latent tumour grows rapidly. The objects to be aimed at in the treatment of such cases as the above is (1) to improve the muscular tone of the stomach, and (2) to prevent fermentative changes. For the former purposes such drugs as strychnine, belladonna, and physostigmine are used, and in temporary disturbances they may be of great value. Exercise and massage are also beneficial. Internal faradisation of the stomach has given the author very good results. He describes a modified electrode. The disinfection of the alimentary canal is obtained by making the contents unsuitable for the growth of micro-organisms. With this object resorcin, naphthalin, the salicylates—especially bismuth salicylate—are used. The author very strongly recommends benzo-naphthol in doses of 2 to 5 g. in the day. It is non-irritant and without taste. It is unacted upon in the stomach, and is split up in the intestine into naphthol and benzoic acid.

(105) The Otic Sign in Cerebral Diseases.

Gellé (*Ann. des Mal. de l'Oreille*, May, 1892) applies his test of synergic binauricular accommodation (diminution of hearing in one ear when the air in the opposite meatus is compressed) to diseases of the encephalon. The diminution of hearing is attributed to a synergic contraction of the tensor tympani in response to pressure on the labyrinth of the other ear. It would be absent in case of paralysis or wasting of the tensor tympani from old aural catarrh on the side not compressed, and in destructive disease of the labyrinth, or sclerotic fixation of the stapes on the side compressed. He locates the coordinating centre in the protuberance of the medulla, and in disease of this region he finds loss of this "otic sign." He quotes the following clinical observations: loss of the "otic sign" in a case of a fall apparently destroying the labyrinth of one ear, also in a case of sudden labyrinthine disease. Preservation of the sign in cases of deafness from meningitis and cerebral syphilis, and in a case of right hemiplegia with aphasia. In a case of paralysis of the facial and sixth nerves without deafness, but with complete absence of the "otic sign," he localised the lesion as lying in the "protuberance." Similarly the sign was absent in a case of right hemiplegia and left facial paralysis, with deafness in the left ear. Finally, in a case of right hemiplegia, with paralysis of the facial and sixth nerves, and unimpaired hearing, the absence of the "sign" confirmed the indication of disease in the protuberantial region at the level of the point of emergence of the nerves mentioned.

(106) A Case of Cocainism.

Percy Smith records (*Journ. Mental Science*, July, 1892) the case of a nurse, aged 39, who entered Bethlem Hospital as a voluntary boarder for the cocaine habit. She was a German by birth, and had previously been addicted to the use of morphine and laudanum, and her mother had been the victim of the morphine habit. She had commenced to take cocaine about eight months previously, and had gradually increased the dose until 10 grains was her usual quantity, though she occasionally took 24 and even 36 grains at a single dose. For the first six hours after a dose of 10 grains she felt more able and inclined for work whilst sitting, but she could not go about, as it produced a feeling of weakness; at the end of that time she would be disinclined to do anything and would lie down, but could not sleep; about a quarter of an hour after a dose she usually suffered from vertigo for an hour and from palpitation for some hours; she also had great dryness of mouth, thirst, and anorexia. After a large dose there was difficulty in swallowing. She had hallucinations, and imagined she saw people and heard them talking to her, and used to carry on conversations with them although she knew that they were hallucinations. The hallucinations soon disappeared after her admission, and after four months, including a stay at the country convalescent home, she left apparently well, and two months later reported herself as quite well.

(107) The Association between Tabes Dorsalis and Locomotor Ataxy.

Guinon and Souques (*Arch. de Neurol.*, vol. xxii, No. 66) record the following cases: a case of tabes in which the mother had diabetes; a case of tabes in which the son had diabetes; a family of three in which the eldest son, who was healthy, had a child who suffered from diabetes—the elder suffered from diabetes, and the one younger had tabes dorsalis; in another case the father had diabetes and the son had tabes; in another the mother had diabetes and the son had tabes; in another family the father had diabetes, the daughter tabes, and the son diabetes. The last given is a case in which the father had diabetes and the son tabes. The authors also give a very full account of the relation of tabes to insanity.

(108) Syphilis and Tabes.

Minor (*Neurologisches Centralbl.*, July 1st, 1892) has obtained the following statistics from his investigation of 1,642 patients suffering from disease of the nervous system. In the 496 Russian males the minimum percentage of syphilitics was 24, and of tabetics 4½; 90.9 per cent. of the latter were undoubtedly syphilitic. Of the 264 Russian women 9 to 11 per cent. were syphilitic, and 1 per cent. suffered from tabes, all the latter being the subjects of syphilis. Only about 7 per cent. of the 449 Jews had suffered from syphilis, and ½ per cent. manifested tabes, syphilitic infection having occurred in 100 per cent. of the tabetics. The 433 Jewesses included about 1½ per cent. of syphilitics and only 1 case of tabes. The tabetic patient had been syphilised.

SURGERY.

(109) Traumatic Strictures of the Urethra.

In the *Archives Provinciales de Chirurgie* (No. 1, 1892) Vignard discusses the treatment of traumatic strictures of the urethra. For impermeable traumatic strictures and strictures of traumatic origin which are permeable but undilatable he proposed resection, whole or partial, of the part of the urethra which is affected by the pathological process. The patient is placed in the lithotomy position, a sound passed along the urethra to the stricture, and then an in-

cision is made along the median raphé over the stricture, and carried downwards until the hard mass of cicatricial tissue around the narrowed part of the urethra is reached. The tissues around the urethra are now separated from it in front of, around, and behind the narrowed part. If the cicatricial tissue is now found to extend all the way around the urethral canal the urethra is divided in front and behind the mass of hardened tissue, and a segment of the canal is removed, along with the scar tissue surrounding it. The two ends are now brought together, and a number of fine sutures passed through the submucous tissues from one part to the other. A sound is next passed first along the urethra to the proximal end and then in at the other aperture, and so into the bladder. The sutures are tied, and thus the canal is made complete again. The tissues around are now united with sutures, and then the skin wound is closed. If only one part of the circumference of the urethra is affected with cicatricial tissue, this alone is removed, and the opening closed in the manner mentioned above. In many cases healing takes place by primary union, and only a very fine linear scar is left in the walls of the urethra. After-treatment with catheters is not then requisite; if, however, suppuration takes place it will be necessary to resort to the use of catheters for a time. Vignard then relates the case of a man, aged 41, whom he had treated in this way with a good result.

(110) Results of Operations for Rectal Carcinoma.

Schmidt (*Berl. klin. Woch.*, June 18th, 1892) discusses the present methods of dealing with rectal carcinoma, and points out that all the operative measures for resection of rectal carcinoma fall under two headings, the sacral method and the perineal method. He then gives the results obtained from both methods of treatment in Czerny's clinic. As a general rule, the death-rate in those operated on by the sacral method is greater, not on account of the severity of the operation, but because by this method many cases were treated which could not have been operated on by the perineal method, owing to the advanced state of the disease. In 36 patients operated upon by the sacral method, the mortality was 7, or 19.4 per cent.; out of 32 cases operated upon by the perineal method, the death-rate was 1, or 3.1 per cent. Hence in 68 operations for cancer of the rectum, the total mortality was 8. Out of 59 radical operations, 25 died during the last six years; of 28 still surviving, 18 were operated on by the sacral method, and 10 by the perineal method. Of 12 living two years after the operation, 4 showed a recurrence of the disease. The longest survival after operation was 5 years and 9 months.

(111) The Operative Treatment of Intussusception.

Hutchinson (*Arch. of Surgery*, July, 1892), says that the rule of practice in the early stages of intussusception ought to be invariably to try insufflation and injection, and it is only when they have failed that laparotomy ought to be thought of; they are not without risk, and must be tried with judgment and caution. There is no reason for preferring insufflation to the injection of water; for the latter he prefers hydrostatic pressure to the use of a syringe. In infants under two years of age laparotomy is so uniformly fatal that it should not be resorted to. Above that age, if injection has failed, a prompt resort to laparotomy should be recommended. It is desirable that this should be done early before the serous surfaces have become adherent. In the operation the chief difficulty is in releasing the incarcerated part. This is best done by pressure from below, not by traction from above. The older the patient the slower will be the progress of symptoms, and the longer the period during which it is possible to effect relief by operation. In adults a successful operation is possible even after a very long interval.

MIDWIFERY AND DISEASES OF WOMEN.

(112) Repeated Molar Pregnancies.

Warman and Fritsch (*Centralbl. f. Gynäk.*, No. 19, 1892) relate cases where the same patient was repeatedly delivered of moles. Warman's case was in a woman, aged 22; she had been twice pregnant before, and on both occasions passed vesicular moles. She was in the sixth month of pregnancy, and was suddenly seized with vomiting, fainting, and flooding. An enema of 1 litre (1.7 pint) of a 6 per cent. solution of salt was given. The patient revived. The fundus touched the scrobiculus cordis, the uterus being of enormous size and very tense. Hydramnion with placenta prævia was diagnosed. Hardly two fingers could be introduced into the os uteri. A soft, spongy body was felt, like placenta; but Warman found a slimy fluid, untinged by blood, on his finger, and then remembered the previous molar pregnancies and corrected his diagnosis. The narrowness of the os prevented any immediate attempt to deliver the mole. A tampon was applied to the vagina; the uterus acted well and did not require ergot. Eight hours later, as the patient could not micturate, the tampon was changed. Shortly afterwards a hydatidiform mole was delivered; it weighed 5½ pounds. No fœtus could be found. The uterus contracted well at once, and the patient made a good recovery without fever. Fritsch attended a case where a woman bore a vesicular mole in all her four pregnancies. The endometrium was scraped between the third and fourth, but no sign of disease could be detected. Fritsch attributes the degeneration of the ovum to early disease of the membranes. Diagnosis is not usually difficult, as small vesicular fragments of the mole came away at the floodings. The rapid increase of the uterus, out of proportion to the stages of pregnancy, and the pain from the tenseness of the uterus are characteristic. Warman's case was, Fritsch thinks, rightly treated in an exceptional manner owing to the flooding; but as a rule the mole should be delivered at once, and, if the os be narrow, a broad curette must be introduced. By pressing down on the uterus, the curette catches portions of the mole in its lumen, and the abnormal mass may easily be extracted.

(113) Anæsthesia in Labour.

Poitou-Duplessis (*Arch. de Tocol.*, May, 1892) read notes of a difficult labour case at the April meeting of the Société Obstétricale et Gynécologique de Paris. The presentation was fronto-anterior, the head was rotated with forceps, and the child delivered and resuscitated from asphyxia by insufflation. Labour had lasted forty hours. The mother and child recovered. Anæsthesia was kept up for two hours and a-half on the mixed plan. Thirty grammes of ethyl bromide were first administered, and then 70 grammes of chloroform. A simple inhaler was used, into which the chloroform was poured drop by drop. This method, according to Poitou-Duplessis, does not require an assistant. There is no danger, as the operator can tell the exact amount of chloroform which he is giving. The ethyl-bromide makes the mucous tracts insensitive and thus renders them all the more fit to receive the influence of chloroform. The excited stage is suppressed and there is less chance of vomiting either during or after anæsthesia. The ethyl-bromide is not dangerous if it be not given too long before substitution of chloroform. Pajot, in discussion, said that he always used chloroform in labour. He had given it hundreds of times; only one accident occurred in his experience, and that was not fatal. The mask must not be pressed on to the face, but removed when the patient is well asleep, being reapplied directly she shows signs of coming to. In order to avoid struggling, full doses should be given at first. When the patient is well under smaller doses will be needed. Verrier said that it was well known that women in labour took chloroform well. As Claude Bernard had shown, the anæsthetic caused cerebral anæmia, which was counteracted by the efforts of the parturient woman, whereby blood was forced towards the encephalon.

(114) Chronic Inversion of Uterus: Amputation.

Ter-Mikaelianz (*Vratsch*, 1892, p. 99) performed a plastic operation, as it may be called, on a long-standing case. The inversion had occurred four years previously through violent traction on the cord during extraction of the placenta. All attempts at reduction under chloroform proved unavailing, nor did the colpeurynter effect its purpose. The fundus was drawn down by a volsella,

then the elastic ligature was applied, as high as possible. The uterus was then divided, first longitudinally to avoid hæmorrhage and to make sure that the uterine funnel contained no intestines. The point of insertion of each Fallopian tube was found, drawn down, the tube ligatured and divided below the ligature. The tumour was finally divided so as to form a funnel-shaped wound. The serous surfaces on each side were united by sutures which were cut short. Then the rest of the wound was closed by sutures which were left uncut in case of hæmorrhage. A temporary suture was passed through the two lips of the cervix and left there for a few days, as an extra precaution. The ovaries and outer part of the tubes were, as above shown, left in place. The cervix was dressed with iodoform gauze, the sutures came away spontaneously. On the twenty-second day after operation the patient was discharged cured. A short time afterwards the stump was found to be no larger than a nut; the catamenia had not reappeared.

(115) Treatment of Syphilis in Pregnancy. Georges Étienne (*Ann. de Gynéc. et d'Obstét.*, April, 1892), on the strength of carefully revised statistics, finds that the infantile mortality in cases of untreated maternal syphilis is always enormous. It may reach or even exceed 76.5 per cent., yet falls to 16.5, or even 11 per cent. if at any epoch of pregnancy the maternal syphilis has been seriously taken in hand. The disease attacks the fœtus most often between the fifth and seventh months. Paternal syphilis is far less dangerous to the fœtus. When the mother is infected during the first three months, and is not influenced by the treatment, the child, it appears, always dies soon after, if not before birth. The later the infection of the mother the less the danger to the child. In one case observed by Étienne, where the mother was infected at the eighth month, the child was born apparently healthy, but ultimately developed symptoms of syphilis. No inconvenience appears to attend the active treatment of syphilis in pregnant women.

(116) Post-Mortem Delivery: "Coffin Birth." Bleisch (*Centralblatt für Gynäk.*, No. 19, 1892) recently communicated to the Upper Silesian Medical Association a case of expulsion of the fœtus after the dead parent was placed in her coffin (*Sargegeburt*). The uterus was both prolapsed and inverted. To settle whether this displacement occurred before or after death is most important, medico-legally speaking; in this case the question remained apparently unsettled. Bleisch seemed to believe that *post-mortem* delivery could only be explained by the action of gases produced by decomposition. Nevertheless, it seemed probable that delivery might be completed by *post-mortem* uterine contraction, which was always tonic. This phenomenon has been proved experimentally by several authorities.

(117) The Fœtus and its Renal Functions. Rissmann (*Centralbl. f. Gynäk.*, No. 26, 1892) observes that many authorities hold that though the liquor amnii is chiefly secreted by the maternal tissues, it partly consists of fœtal urine. The kidneys, at least, they appear to believe, are active in later fœtal life, playing a share in the nutrition of the fœtus. He recently assisted, however, at a premature labour, early in the eighth month of pregnancy, where a male child was born alive, and lived over four hours. It weighed 3 lbs. 5 ozs., and was 14 inches long and well nourished; yet the kidneys and ureters were entirely absent. The bladder was small and elongated; on one side only a depression indicating the orifice of the ureter was detected. The testes lay in the pelvis, the suprarenal capsules were normal in structure and position; there was talipes. In this case at least the fœtus managed to maintain a fair degree of nutrition without kidneys.

THERAPEUTICS.

(118) Euphorin. C. Curtis (*Rif. Med.*, July 7th, 1892), as the result of some 200 clinical experiments with euphorin and of bacteriological researches made in the Pharmacological Institute of the University of Rome, has come to the following conclusions: (1) Euphorin is a powerful and safe antipyretic; it acts better when the fever is at its maximum and during the period of subsidence than in the early stage. The action of the drug shows itself in from half an hour to two hours, and lasts from three to six or even ten hours. (2) Defervescence is attended with a feeling of warmth and moderate sweating; when the temperature rises again the accompanying rigor is not severe. (3) It does not cause any serious secondary effects; sometimes there is little cyanosis, but never collapse. (4) Euphorin can be used in preference to any other antipyretic when a rapid and marked lowering of the temperature is required. (5) It answers fairly well as an antipyretic in surgical fevers. (6) It is a most potent antirheumatic; in acute rheumatism its action is certain; in the chronic forms its effect is also satisfactory, and it usually succeeds in cases which have resisted all other remedies. (7) In patients suffering from fever the dose is 1.20 g., taken in from 4 to 5 doses. In febrile rheumatic affections from 1 to 2 grammes should be given in the twenty-four hours; in chronic rheumatism 1 gramme in 3 or 4 doses. On the average 1 gramme of euphorin corresponds to 2 grammes of antipyrin. (8) Euphorin has a sure analgesic action in neuralgia unless when it is due to a specific cause. (9) Euphorin is a powerful antiseptic, its action being intermediate between that of carbolic acid and that of corrosive sublimate. (10) It is one of the most effective disinfectants in thrush. (11) In local applications it has advantages as compared with iodoform, iodol, aristol, etc.; it is more powerfully antiseptic and less desiccating than dermatol. (12) Euphorin used locally in powder or in an ointment with vaseline or lanolin is also an anodyne, and promotes the healing of wounds and ulcers. It gives excellent results in surgery and gynæcology and in diseases of the skin and syphilis.

(119) Salophen. Frohlich (*Wien. med. Woch.*, July 9th, 1892) says that in not one out of 30 cases of acute rheumatism did this remedy fail. The pain ceased in from three to four days, and the acute swelling disappeared in six to eight days. Large joint effusions were, however, not influenced. Salophen, like the other salicylic preparations, cannot prevent relapses. In two cases acute endocarditis appeared during the treatment. The author says that salophen is a prompt and efficient remedy in acute rheumatism, and is to be preferred to the salicylates because (1) being decomposed in the intestine, it does not irritate the stomach; (2) it can be given in large doses and for a long period without unpleasant effects; and (3) it is tasteless. In chronic rheumatism it is not nearly so efficient. In 6 cases only 2 were improved. Salophen has very little action as an antipyretic. In 1 out of 3 cases of cystitis it seemed to be useful. In only 3 cases were any unpleasant effects produced, and they were but slight.

(120) Action of Digitaline on the Pulmonary Circulation. Héger (*Bull. de l'Acad. R. de Belgique*, No. 5, 1892), comes to the following conclusions as the result of his researches on the action of digitaline on the pulmonary circulation: (1) Bayet's experiments have shown that digitaline acts with greatest energy on the left ventricle, and on the vessels connected therewith. (2) The same experiments show that digitaline has no direct action on the pulmonary vessels, and has no effect on the right ventricle comparable to that which it has on the left. (3) From the clinical point of view, and taking into account the reserve with which the results of experiments on animals can be applied to man, digitaline seems to be indicated particularly in cases of cardiac weakness without valvular lesions, or of mitral insufficiency; digitaline relieves the left ventricular stasis, and thereby exerts a depleting influence on the pulmonary circulation. It appears, therefore, that if the drug is powerless as a remedy in simple pneumonia, it may nevertheless be usefully employed when mechanical conditions cause obstruction in the pulmonary circulation. Under such circumstances its action is comparable to a venesection of the lung.

(121) Chloralamide. Piccinini (*Rif. Med.*, July 8th, 1892) has experimented with chloralamide on guinea-pigs, rabbits, and dogs, and has found that the substance, besides being not easily soluble, is less rapid and less effective in its action than chloral hydrate, though less injurious than the

latter. In frogs, up to a maximum of 0.03 g., it diminishes the electrical reaction of muscle, while in guinea-pigs and rabbits, in proportion to the dose, it slows the respiration, reduces the temperature by 2°, and weakens the reflexes. Sleep is induced in 15 minutes when the drug is administered hypodermically, and in about an hour if given by the mouth. It has no irritating action on the alimentary tract. In dogs, up to 1 g. and even more, it increases diuresis and diminishes the electrical reaction of muscle, as also that of the cortex, subcortical region, and internal capsule. A few milligrammes of sulphate of strychnine completely restore the diminished excitability. In man no hypnotic effect was produced by doses up to 2 g. in the day time; in only two cases a very slight effect was produced by 2.5 g.; the action of the drug was more constant in doses of 3 g., but even then the sleep was short and light. No bad effects were noticed except in one case, where marked vertigo was produced. Clinical observations made in conjunction with Capriati on 22 cases, and in doses of 1.5 to 3 g., gave the following results:—1. A sure, though somewhat tardy, hypnotic effect in affections not accompanied by great restlessness. 2. It was most useful in cases of melancholia, on which, moreover, it appears, the drug seems to have a favourable effect. 3. In cases in which there was great restlessness, the sedative effect could not be obtained unless the patients were isolated. 4. The effect of the drug was good in cases of idiocy with hallucinations, in quiet paranoia, and acute dementia, but it often failed in mania and in progressive paralysis. Sphygmographic tracings were exhibited which showed that when the drug was given in doses of 3 g. the radial pulse became fuller while the carotid became smaller; when the patient was awake these conditions were reversed.

PATHOLOGY.

(122) The Diagnosis of Glanders.

Nocard, of Alfort, has obtained from cultures of the bacillus mallei a liquid which, when concentrated and filtered, closely resembles tuberculin in character, and has apparently a specific action on the lesions of glanders (*Soc. Centrale de Méd. Vétérinaire*, April 14th, 1892). Two Russians, Kolning and Hellmann, had already found that when extracts of cultures of the bacillus mallei were injected into horses suffering from glanders an acute febrile reaction was set up, but that healthy horses were generally almost unaffected by such injections. Nocard's method of experimenting is as follows: By successive passages through animals the virulence of the bacillus is first increased so that it will kill a rabbit or white mouse—both usually resistant—in less than thirty hours. This highly-virulent bacillus is then grown in a peptone-glycerine broth for a month, at a temperature of 35° C. The culture is next sterilised at 110° C., filtered, and concentrated *in vacuo* to one-tenth of its original bulk. The resulting liquid is "malleine," and contains about 50 per cent. of glycerine. Before injection it is diluted with ten times its volume of 0.5 per cent. solution of carbolic acid. A large dose—0.5 to 1 c.c. of the original liquid, diluted as above—injected into a healthy horse, produces some local swelling, accompanied by an intense febrile reaction, beginning about eight hours after the injection and lasting for from twelve to fifteen hours. If 0.25 c.c. only be injected there is no reaction, either local or general. On the other hand, if this dose be injected into a horse affected with glanders, an intense reaction is produced; an immense swelling appears at the seat of injection, the animal becomes extremely ill, its respiration quickens, it shivers in every limb, and its temperature rises rapidly—2° and even 3° or more. The maximum is reached at about the tenth hour, but the temperature remains high for from one to two days. Nocard has tried the effects of malleine on 48 suspected horses; of these, 34 gave the violent reaction above described, and were undoubtedly affected with glanders. Of the remaining 14, 8 showed no reaction—they afterwards proved to be healthy; the other 6 had a rise of temperature of from 1° to 1.8°, and, although not affected with glanders, were found to have either enlarged lymphatic glands or chronic pulmonary lesions, which may have accounted for the incomplete reaction. Nocard concludes that: (1) if the injection produces a rise of temperature equal to or exceeding 2°, the animal is certainly affected with glanders; (2) if the temperature either does not rise at all, or rises less than 1°, the animal is not glandered; (3) if the temperature rises between 1° and 2°, the animal, though not certainly glandered, should be regarded as suspect.

(123) The Etiology of Dysentery.

Ogata (*Centralb. f. Bakt.*, March 9th, 1892) gives the results of his investigations into the causation of the epidemic dysentery occurring in summer in Japan. The stools of patients suffering from the disease, the mucous membrane of the large intestine, and the floors of ulcers situated there, were found to contain, amongst other organisms, fine, short bacilli in large numbers. They were stained by Gram's method. In hardened sections these bacilli are seen to be about one-fourth the length of tubercle bacilli; in breadth they are about equal to the latter. Gelatine is liquefied by them. In the hanging-drop the bacilli are seen for the most part in pairs, like diplococci. They move actively. Colonies develop on plates in twenty-four hours at the temperature of the room, and appear as white points to the naked eye; slightly magnified they are seen to be round, homogeneous, and of a greenish yellow colour, sharply defined. These bacilli are pathogenic for mice, guinea-pigs, and cats. When inoculated subcutaneously, given in food, or introduced in enemata, they produce in guinea-pigs and cats slimy and bloody evacuations, ulcers in the large intestine, and swelling of the mesenteric glands. It is highly probable that these organisms are the cause of epidemic dysentery in Japan, a disease which proves fatal in a large proportion of cases.

(124) Atrophy of Thyroid Gland after the Removal of One-half.

Köhler (*Berl. klin. Woch.*, June 13th, 1892) says that the thyroid gland is an organ important to life. Total extirpation does not always produce disturbances such as myxœdema or tetany. It has been maintained that in such cases a piece has been left behind, but this has not been proved either at the operation or after death some time later. Owing to resemblances in structure between the thyroid and pituitary bodies, the latter has been thought to have a similar, and therefore vicarious, function to the former. The carnivora almost always die after a total extirpation of the thyroid gland, but not the herbivora. The explanation has been sought for in the difference of size in the pituitary body, since in the rabbit it is equal to $\frac{1}{3}$, and in the dog only to $\frac{1}{10}$ of the weight of the thyroid gland. The smallness of the pituitary body in man would hardly permit of any vicarious function. The piece left behind after an operation would be diseased. But should this piece become healthy or hypertrophic (which certainly does not always occur) then an explanation would be at hand. Regeneration takes place if small pieces of the thyroid gland are removed, but it is only partial if larger pieces are excised. The result of the removal of as much as half the gland has been much disputed. The author then records the case of a girl, aged 16, in whom half the gland with the isthmus had been removed, and in whom the remaining half of the size of a man's fist, had undergone very considerable atrophy, so that the normal relation of the parts was restored.

(125) Ablation of Cerebrum in Dogs.

Goltz (*Pflüger's Archiv*, Bd. 51, *Allgemeine Wiener med. Zeitung*, July 12th, 1892) has succeeded in keeping alive for prolonged periods three dogs, from each of which he had excised the whole cerebrum and a considerable portion of the 'tween brain. The first and second animals survived fifty-one and ninety-two days respectively; the third dog was killed eighteen months after the operation, its health being good at the time. Understanding, memory, and reflection failed, otherwise all those functions which might have been expected to disappear after removal of the various centres were preserved. Tactile and auditory stimuli roused the third dog when sleeping; he snarled, barked, or snapped if irritated; ran about briskly when hungry; retained the capacity of orientation; rejected meat that had been made bitter with drugs; and in several respects his acts seemed to have a purposive character.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(126) Malignant Endocarditis.

Taylor, in a paper on malignant endocarditis, in the *Guy's Hospital Gazette*, states that the existence of a murmur is chiefly of value in those cases in which previous cardiac disease is not known to have been present. In the large proportion of cases in which chronic endocarditis takes on malignant properties distinctive characters could only be looked for in the appearance of murmurs in connection with valves previously unaffected, or in a change in the quality or character of already existing murmurs; the evidence would be much stronger in this direction when the valves on the right side were those freshly implicated. A change in the character or intensity of the murmur is not very often observed, occasionally it may acquire a musical pitch, but this would be by no means conclusive of the supervention of this form of endocarditis, and the chordæ may be ruptured without the murmur assuming a musical character. Occasionally there is no cardiac murmur. Pyrexia is a fairly constant symptom, the temperature generally being of a remittent type, high in the evening and falling to nearly normal in the morning; it is usually regular unless complications should supervene, but not infrequently the heart failure or cerebral symptoms are so prominent that little or no attention is paid to the temperature chart. The occurrence of embolism is one of the most important features and should always be carefully looked out for in a suspected case. The inflammatory lesions (whether due to embolism or merely septic is a moot point) most frequently associated with malignant endocarditis are nephritis, optic neuritis, and suppurative meningitis. Lastly, Taylor attaches a good deal of value to the existence of anæmia, which is often very pronounced, especially when the valves on the right side of the heart are affected.

(127) Leukæmia.

After referring to the unsatisfactory state of our knowledge in regard to the etiology of this disease, Pawlowsky (*Deut. med. Woch.*, July 7th, 1892) says that its infective nature was first suspected some years ago. Bacteriological investigation has hitherto given unsatisfactory results. The author then cites a typical case where there was very considerable leucocytosis (1 to 4), and the spleen extended almost down to the pubes. No other glands were involved. Short bacilli with spores in them were discovered in the blood. In two other cases similar bacilli were found. They were also present in sections prepared from the organs of three patients dead of this disease, especially in the blood and lymphatic vessels of the liver. Cultivation experiments were successful in blood serum and glycerine agar. The organisms were also found in the blood of leeches which had abstracted blood from leukæmic patients, but they showed no aptitude to increase. The author says that characteristic microbes have thus been found by him in six cases, and that upon the ground of their constant presence in the blood and tissues and of their biological properties they must be looked upon as peculiar to leukæmia and in direct causal relation with this disease. These results show that leukæmia is a disease of the blood. The bacilli exercise a certain influence upon the leucocytes in the blood-forming organs. They bring about a multiplication of leucocytes, some of which latter get into the blood in an immature condition. The leucocytes also partly increase in the blood, and in many cases karyokinesis may be seen. Brought by the blood the micro-organisms are retained in the spleen, lymphatic glands, and medulla of bones. Here, and especially in the spleen, the fight takes place between the leucocytes and microbes (phagocytosis). The hyperplasia of the spleen and other blood-forming organs is thus the result of the reaction of the individual against the poison circulating in the blood. For this reason extirpation of the spleen must be quite unwarrantable.

(128) Tumour in the Third Ventricle.

Dana (*Journal of Nervous and Mental Disease*, March, 1892) publishes the following case: A man, aged 41, prone to sexual excesses and hard smoking, developed flightiness of disposition and gradually lost his capacity for business. At the end of eighteen months insomnia, vomiting, intense headache, and slight left hemiplegia set in. Hebetude, somnolence, vertigo, and unsteady gait were next observed; also optic nerve atrophy. Terminal coma soon followed. The necropsy disclosed a sarcoma about 2 inches in diameter, nearly filling the third ventricle. The growth appeared to spring from the right thalamus. It had thinned the posterior portion of the corpus callosum and involved the right basal ganglia and quadrigeminal bodies with part of the internal capsule; to a slight extent it infiltrated the left thalamus. No descending degeneration was found.

(129) Diabetes Mellitus.

Leo (*Centralbl. f. klin. Med.*, June 25th, 1892), discusses Ebstein's theory of diabetes, in which the disease is said to be due to insufficient quantities of carbon dioxide in the tissues. As a result of the diminished formation of carbon dioxide, an increased amount of sugar is produced and excreted, because carbon dioxide regulates and restricts the ferment contained in the tissues, and exercises an inhibitory influence upon the diastatic processes. If diminution of the carbon dioxide is the cause of increased sugar production and excretion, then an increased amount of this agent in the tissues should diminish the quantity of sugar in the urine. Three diabetic patients were made to breathe an atmosphere in which the percentage of carbon dioxide was increased. It has been proved experimentally that in this way the amount of carbon dioxide in the tissues is also increased. There was, however, no diminution in the amount of sugar in the urine. It has been said that the carbon dioxide must be in a nascent condition, but the presence of this nascent compound in the tissues has not been proved. The theory is based chiefly on laboratory experiments. The proof is indeed wanting that the carbon dioxide formation is lessened in diabetes. The blood of diabetic patients shows a normal composition in this respect. It has been said that less carbon dioxide is found in the expired air in diabetes, but this was not so in five cases experimented on by the author. Diabetics with similar nourishment take up as much oxygen and give out as much carbon dioxide as a healthy individual of the same size.

(130) Acute Myelitis.

Leyden (*Deutsch. med. Woch.*, 1892, Nos. 27 and 28) reviews our knowledge of this disease. The pathological anatomy is discussed under (1) circumscribed myelitis, (2) disseminated myelitis, and (3) polio-myelitis. It is pointed out that softening is not always the result of inflammation, but may be the outcome of necrobiotic, hæmorrhagic, or degenerative changes. In circumscribed myelitis the disease is usually limited to a single focus. There may be other smaller foci of disease, but they can be neglected, as they take no part in the clinical symptoms produced. The hinder part of the cord is chiefly involved. A circumscribed myelitis may affect the dorsal or cervical cord, and it cannot be stated whether it is accompanied or not by softening. The bulbar form of the disease is quite a characteristic affection—namely, acute bulbar paralysis. The author would distinguish apoplectic, acute, and subacute myelitis, according to the mode of onset. He draws attention to slighter forms of the affection in which there is only weakness of the legs, etc., the sphincters being partly free and partly involved. Sometimes a sort of ataxy is developed. Compression paralysis of the cord may sometimes be mistaken for acute myelitis. There are few anatomical investigations belonging to acute disseminated myelitis. It would appear to come on after the acute infective diseases. It is not exclusively limited to the cord, but the pons and medulla are also affected. The patient cannot stand or walk, and there are ataxic movements of the legs and arms, with difficulty in speech. The disease thus resembles disseminated sclerosis (see Supplement, May 30th, 1891, par. 479). In acute polio-myelitis the inflammation falls chiefly on the grey matter. There is a considerable infiltration with round cells, the large ganglia cells being much involved, and in some cases destroyed. The white matter is not intact, but it is only

slightly affected. The subacute amyotrophic paralyses of the adult really belong to multiple neuritis. The author then refers to the etiological factors: (1) Trauma may set up a myelitis apart from direct injury to the cord. It is then due to the concussion. (2) Emotional factors, especially fright, may play an important part in causation. (3) The possibility of an acute myelitis being brought about by extension from an ascending neuritis has been proved by experiment. (4) There is a group of cases without distinct cause, the so-called spontaneous myelitis. (5) Infection may act either (*a*) through the local effects of micro-organisms on the cord, as is seen in the meningo-myelitis, brought about by Fraenkel's diplococcus in the case of epidemic or sporadic cerebro-spinal meningitis. Perhaps the gonorrhœal paralyses should be classed here. It is also possible that acute anterior polio-myelitis is an infective disease. Or (*b*) through toxines, where no local effect of the micro-organisms can be assumed. (6) Toxic effects of poisons are here referred to. (7) Cachectic conditions in their relation to myelitis are touched upon.

SURGERY.

(131) Gastrorrhaphy for Dilated Stomach. WEIR (*N.Y. Med. Journ.*, July 9th, 1892) reports a case of dilatation of the stomach, which he treated by "taking a tuck" in the anterior wall of this organ, and sewing together the apposed peritoneal surfaces. The patient was a man aged forty-three, on whom, in 1889, the author had performed gastro-enterostomy for non-malignant stenosis of the pylorus. Before this operation the stomach had become so distended that it would hold between eight and ten pints of fluid. In the course of the year 1891 there was much suffering from attacks of vomiting and gastric distress, which, though temporarily relieved by washing out the stomach, rendered the patient unfit for work. By pumping air into the stomach it was proved that there had not been undue contraction of the gastro-enteric opening, and although there was a ventral hernia, this was excluded as the cause of the vomiting by the fact that the use of a well-applied pad afforded no relief. The author was convinced that the troublesome symptoms were due to an atonised condition of the stomach; that either the opening made by the gastro-enterostomy was situated too near the pylorus to accomplish the thorough evacuation of the stomach, or that the part beyond, from its great relaxation, like an atonised bladder, failed to contract, and formed a *cul-de-sac*, in which the contents of the stomach collected. On March 9th, 1892, the abdomen was opened by a vertical incision, the length of which was five inches. The greater curvature of the stomach, the author found, bagged downward, but could not be drawn up to the abdominal opening by reason of an adhesion of its left extremity to the spleen. It was then decided to attach the greater to the lesser curvature along the portion of stomach to the left of the gastro-enteric opening. In the centre of the space between the upper and lower borders of the stomach, a dimpling in of the gastric wall was made, by pressure of a sound, to a distance of about an inch. A row of interrupted silk sutures was now made, passing through the serous and muscular coats for a distance of from six to eight inches. After the sound had been withdrawn, a second series of sutures, at a distance of about an inch from the first, was again made, dimpling in an additional portion of the stomach wall and in a similar manner. A third and fourth row of interrupted silk sutures were applied, until through a distance of some four or five inches the greater was applied to the lesser curvature. When this was completed, a double fold of the stomach, estimated as being equal to the breadth of the hand and nearly its length, had been made in such a way that this projected into the cavity of the stomach. At the same time an attempt was made to cure the ventral hernia by sewing together the edges of the separated recti muscles, and the posterior layer of fasciæ. The results of gastrorrhaphy in this case are reported to have been very good. The patient, it is stated, has not suffered from any further attack of vomiting, and has been relieved from all gastric disturbance, and gained in strength and weight. The author acknowleges that this case is not a novelty in surgery, and refers to the reports of three instances in which the operation had previously been performed by Bircher of Aarau. It is concluded that the operation of diminishing the size of the stomach, from the simplicity of its operative *technique*, may be assumed to be one of comparative freedom from risk, and would therefore seem to be properly applicable to those cases of gastric dilatation which so frequently resort to a hospital, and which, after relief by washing out the stomach, show so decided a tendency to relapse.

(132) Treatment of Fractured Patella. M. BERGER exhibited at the Société de Chirurgie de Paris (*Sem. Méd.*, July 19th, 1892), a patient upon whom he had practised a new operation for the cure of fractured patella. The patient when first seen had a fracture of the patella into two fragments, the upper comprising four-fifths of the bone, and the lower one-fifth. He was then fitted with a plaster casing to the knee, and kept in bed with the limb raised for forty days. At the end of this time there was no union of the fragments, although they were in good position. The following operation was performed:—The opposing surface of the fragments were freshened, and then a piece of silver wire was passed round the patella, by first passing it through the quadriceps extensor tendon at its insertion into the upper fragment, then along one side of the patella and through the upper part of the ligamentum patellæ, when it was fixed to the lower fragment, and thence to the starting point. The two fragments were thus approximated, and the two ends of the wire fixed together. The periosteum was sutured over the line of fracture, and the overlying soft tissues approximated with structures. A plaster was then applied, the results were very good, and the movements of the knee-joint were perfectly re-established.

(133) Formation of an Articulated Stump in Amputation of the Forearm. THE success recently attained by Esmarch in forming a movable and organic appendage to the stump of an amputated leg has led Albert (*Wien. med. Presse*, July 17th, 1892), to offer the following suggestions with regard to amputation in the lower third of the forearm by anterior and posterior flaps of skin. It is proposed that before division of the muscles, the tendons of the two radial extensors of the carpus, of the ulnar extensor, and of the two flexors of the carpus, be separated from their sheaths and the surrounding soft parts—their attachments to their corresponding muscles being left intact—and then divided as near as possible to their insertions. After division of the muscles and bones, and arrest of all bleeding, canals are drilled obliquely through the ends of the divided radius and ulna, into each of which canals is inserted the free end of each of the above-mentioned tendons. In this way each tendon is made to acquire a firm attachment to its corresponding bone. After the wound has healed, and the stump become quite sound, the author would endeavour to establish a freely movable false joint about a finger's breadth above the end of the two bones of the forearm, by resecting a portion of each. The patient when supplied with an artificial hand, would, it is stated, derive much advantage from the existence of this movable segment, which could be flexed and extended at will.

(134) Plugging the Posterior Nares in Severe Epistaxis. GELLÉ (*Archives de Laryngologie*, No. 3, 1892) discusses the results which may follow this procedure. In many cases suppurations of the middle ear are liable to occur, and cerebral complications may follow the affections of the ear. The suppurations in the middle ear are due to two causes, namely: (1) passage of blood from the bleeding surface along the Eustachian tube into the cavity of the middle ear either during the act of plugging the posterior nares or previous to this; (2) passage of the products of decomposition of the blood around the tampon when it has been allowed to remain in position for a few days. In the first set of cases the blood which passes into the tympanic cavity is infected with septic micro-organisms, and soon becomes the seat of septic processes, giving rise to the production of pus. This cannot well escape by the Eustachian tube, and the collection often makes an exit for itself by perforating the membrana tympani. In the second set of cases septic products or inflammatory

processes pass along the Eustachian tube into the tympanic cavity, and give rise to the same results as in the first case. The longer the tampon is left in position, the more probable is the occurrence of septic processes in the middle ear. Gellé maintains also that this procedure is not only liable to be followed by the above results, but also that it may be the cause of death. He refers to a case which he published in 1882, which terminated fatally owing to cerebral complications. He then reports the case of a man, aged 54, in whom plugging of the posterior nares was carried out for severe epistaxis. The tampon was kept in for three days and a-half. This was followed by suppuration of the right middle ear. Pus discharged by rupture of the membrana tympani through the external auditory meatus. Inflammatory swellings also appeared in the region of the mastoid process and the side of the neck. Ultimately the patient incompletely recovered.

MIDWIFERY AND DISEASES OF WOMEN.

(135) A Case of Exencephalic Iniencephalic Fœtus.

E. Bonnaire (*Archives de Tocologie*, April, 1892) reports a case in which a 2-para gave birth to an infant that showed both exencephaly and iniencephaly. The mother was healthy, and during pregnancy had suffered in no way save from overdistension of the abdomen. A normal infant first appeared, and then the deformed one with a great gush of liquor amnii. The placentæ were separate. There was ectopia of the brain, which had escaped through an opening in the occiput, and lay on the back. The bones of the cranial vault were present, but much depressed. There was complete spina bifida, and in the cervical and dorsal regions the bodies of the vertebræ were split in the middle line, allowing the œsophagus to pass through and appear posteriorly. The head was markedly extended, and the infant had a very bizarre appearance. The pathogenesis of the anterior spina bifida is explained by a fault in the development of the primitive streak on the surface of the blastoderm. The infant was living at the birth, but only gave a few gasps.

(136) Injections of Alcohol in Uterine Cancer.

Hauffer and Schultz (*Journ. d'Accouchements*, May 30th, 1892) report that since June, 1891, ten patients subject to cancer of the uterus have been treated by this method, and the results have hitherto proved satisfactory. The patient is placed in Sims's position. The urethral orifice is covered with wool. The instrument used for the purpose is five times as large as the well-known Pravaz's syringe. Absolute alcohol is employed. The point is made to penetrate 1 inch deep into the tissues. About two syringefuls are injected at one sitting. Most of the alcohol returns during the process of injection, carrying with it much detritus. Some of the patients complained of pain, especially when the needle was forced in far; but the pain was always transitory. A plug of antiseptic gauze is always introduced after the injection. At first the syringe is used every day. In some cases thirty, forty, or more injections were given. Sometimes smart hæmorrhage was set up, but this was always easily controlled. The local and general effects of the treatment have hitherto proved satisfactory. The pains, discharge, bleeding, loss of appetite, etc., all diminished or disappeared. In some cases a growth of apparently healthy epithelium appeared on the previously raw, ulcerated surface of the cervix. In the first case the improvement was maintained four months after the treatment was left off. In some the method was employed when the uterus was already fixed or the parametrium invaded, and with satisfactory results. Hauffer and Schultz promise to publish further information on the after-histories of their cases.

(137) Danger of Intrauterine Injections of Iodine.

Gördes (*Centralbl. f. Gynäk.*, No. 25, 1892), in reference to Pletzer's recent case of death after intrauterine injection of liquor ferri sesquichlorati, publishes a case in which colicky pains and tetanic spasms followed injection of iodine. The patient was a robust, sterile, married woman, aged about 27. She was subject to chronic endometritis. The curette was used, and six days later slight hæmorrhage occurred. Twenty-six hours after the bleeding had ceased, Gördes injected tincture of iodine, with a view of stimulating the granulating endometrium. Severe pain set in at once, though only a few minims appear to have been injected. Ten minutes later Gördes was recalled. The patient's face was livid grey, the pulse 126, hardly perceptible, respiration heavy, and pain severe. A general feeling of stiffness troubled the patient. The thumbs were extended and abducted. The colicky pains were very severe. A subcutaneous injection of morphine at once relieved the symptoms. The spasm in the fingers, the general rigidity and the stiffness of the jaw were the first symptoms to pass away. Tightness of the chest lasted longer. On the next morning the urine contained albumen. The patient made a speedy recovery. Gördes believes that the tetanic symptoms were reflex results of the colic. He does not think that any iodine entered the blood through an open uterine vein. It is very important, he concludes, that all cases of evil results following intrauterine injections be published, in order that both prevention and treatment may become better understood than at present.

(138) Fatal Rupture of a Sinus in a Uterine Fibroid.

Bégonin (*Nouv. Arch. d'Obstét. et de Gynéc.*, April, 1892, Supplement, p. 159) exhibited before a Bordeaux Society last February a uterine fibroid of the size of a fœtal head at term. It involved the entire uterus; the cavity of that organ measured 4½ inches. The patient was 38 years old. She was admitted into Professor Demons's ward on February 3rd for symptoms suggesting internal strangulation. She had noticed a tumour for ten years. On February 1st she struck her hypogastrium against the corner of a table. Violent pain immediately followed, and she went to bed on account of great faintness. On the next morning she vomited bile and, it was reported, fæculent material. The abdomen was greatly distended, and neither fæces nor flatus passed from the rectum. The temperature was 100° F. On February 3rd Dr. Demons did an abdominal section. The peritoneum was full of blood. There was no peritonitis, nor any kind of internal strangulation. The fibroid, when exposed, was found to fill the entire pelvic cavity. Large sinuses ran over its surface, but none seemed to be torn. When all the blood was removed, none could be seen to well up anywhere. The peritoneum was flushed and the abdomen was closed, as the patient was too weak to bear hysterectomy. She did well till early on the morning of February 6th, when she died suddenly. At the necropsy about a quart of blood was found in the peritoneal cavity. A large sinus, lying on the back of the tumour, was found open, though the aperture was blocked by a clot.

(139) Absence of Vagina: Rudimentary Uterus.

Akontz, of Clausenburg, Transylvania (*Centralbl. f. Gynäk.*, No. 25, 1892), recently examined a patient, aged 23, who had never menstruated. Since the age of 12 severe pains in the hypogastrium occurred periodically; she was married at 16, and the pains grew worse. The patient was well developed, the mammæ of moderate size, the mons veneris bore much hair. The labia majora and minora were normal, though small. The clitoris was large, the meatus urinarius somewhat enlarged. The entrance of the vulva was closed by a thickened and plicated hymen, bearing numerous minute foramina. From two of these apertures a transparent fluid exuded. The hymen was very yielding, and could be pushed by the finger almost two inches upwards. This condition, often observed in married women with occluded hymen, was clearly due to attempts at coitus. Bimanual palpation was carefully conducted under an anæsthetic. The hymen appeared to form a direct diaphragm between the peritoneal cavity and the vulva. Between the rectum and bladder a horizontal band, as stout as a goose quill, was detected. It was continuous, with a mass as big as a man's fist, which lay in the left half of the pelvic cavity. There was a smaller mass to the right, at the level of the fifth lumbar vertebra, but no connection between it and the horizontal band could be made out. The kidneys could not be detected in their normal situation. Akontz concludes that the vagina was entirely absent;

that the horizontal band was a rudimentary uterus; that the right mass was an enlarged right ovary and the left probably the left ovary. The left mass might, he also believes, have been a dislocated kidney, or a rudimentary left uterine cornu, full of blood.

(140) Atresia after Labour.

PETIT (*Ann. de Gynéc. et d'Obstét.*, May, 1892), read this case at the recent meeting of the Congrès Français de Chirurgie. A woman was in labour which proved lingering. The practitioner found an obstacle in the vagina and divided it with a bistoury. The labour was completed by forceps. A few months later Petit examined the patient. About 2½ inches from the vulva a cicatricial stricture was found. It was cylindrical, with a narrow central canal. A probe passed up the canal entered, four-fifths of an inch higher, into a wide cavity. The menses had become scanty, and after each period the patient felt increase of a weight in the hypogastrium. A large abdominal tumour was discovered by Petit. Hæmatometra was suspected and the canal in the stricture was dilated. Symptoms of peritonitis set in, and abdominal section was performed. A large sac was found, it was opened, and a litre (1.79 lb.) of pus escaped. The sac was cut away as far as possible, the remainder being sewn to the abdominal wound and drained. Later the stricture of the vagina was incised and dilated. These operations were performed many years ago. The patient is now in good health.

THERAPEUTICS.

(141) Treatment of Apparent Deaths from Drowning.

LABORDE (*Rev. Gén. de Méd.*, July 20th, 1892) reports that in two cases of submersion in which the patients seemed to be dead, he used the following procedure, which he is in the habit of employing on the animals in his laboratory. It consists in seizing the tongue, pulling it out of the mouth, and making rhythmical traction on it. This is followed in the first place by reflex hiccough, then by spontaneous contractions of the diaphragm, and finally by re-establishment of circulation and respiration. As an adjuvant to this procedure the application to the epigastrium of cloths soaked in very hot water, even at the risk of burning the skin, is found useful.

(142) Saline Enemata in Acute Anæmia.

P. T. NEUSTUBE (*Vratch*, No. 20, 1892), recommends rectal injections of a physiological saline solution as a convenient, easy, harmless, and efficacious substitute for intravenous, intraperitoneal, or subcutaneous (see EPITOME, May 21st, 1892, par. 459), transfusion in cases of acute anæmia due to *post-partum* hæmorrhage. He dissolves a teaspoonful of common salt in a bottleful of tepid water, and injects the whole into the rectum, taking the usual precautions for preventing reflux. The author employed this simple procedure in five cases (three in hospital and two in private practice), every one of the women making good recovery. One of the cases was an abortion in a patient suffering from typhoid fever with diarrhœa. Contrary to the expectations of the author's colleagues, she retained the injected fluid perfectly well.

(143) Exalgin.

A. P. MOROZOFF, of Professor S. A. Popoff's laboratory (*Inaugural Dissertation*, St. Petersburg, 1892) has studied the physiological effects of exalgin on frogs and dogs, with the following results:—A. Frogs. 1. Doses under 0.002 g. have no effect whatever. A minimum lethal dose is about 0.018 g. 2. Small and medium doses retard and large ones arrest respiration, the effect being dependent upon a direct action on the respiratory centres. 3. The drug inhibits voluntary movements through its direct action on the brain. 4. It weakens, and in large doses totally inhibits reflexes through its action on the spinal cord and peripheral ends of the sensory nerves. 5. Large doses retard, and 0.018 g. ones arrest, the heart's action, the drug inhibiting the neuro-muscular cardiac apparatus. B. Dogs. 1. Internal doses under 0.002 g. per 1 kilo. of the animal's weight have no effect. In the dose of 0.01 g. per kilo. exalgin causes very marked toxic symptoms. An intravenous injection of 0.2 per kilo. kills the animal. 2. The drug quickens respiration by irritating the respiratory centre. 3. It first retards and subsequently accelerates the heart's action through a direct influence on the cardiac ganglia. 4. It causes temporary rise of arterial tension by stimulating the vasomotor centres. 5. It acts on the whole central nervous system, the manifestations consisting in convulsions, vomiting, incontinence of urine and of fæces, dilatation of the pupils, etc. 6. On subcutaneous injection—even in such small doses as 0.006 g. —it produces local anæsthesia, which is dependent on paralysis of the peripheral ends of sensory nerves. 7. It gives rise to a temporary fall of temperature, amounting to 2° or 2.5° C., this being observed even after very small doses (0.002 g. per kilo.). It results, probably, from a decrease in oxidation of the blood. 8. The drug is very slightly antiseptic. The author believes that exalgin has some future as a nervine, but none as an antipyretic.

(144) Europhen.

O. V. PETERSEN, of St. Petersburg (*Vratch*, No. 2, 1892, p. 27), tried europhen in (1) 25 cases of circumcision. The wounds were powdered with the pure drug and dressed with sterilised gauze, etc., the dressings being changed every day or two. In all but three rapid healing by first intention was obtained, in the remainder the wounds gave way in from two to four days after the operation (in two from violent erections, in one apparently in connection with supervening influenza). (2) 20 cases of soft chancres; in 19 of them the ulcers were simply wiped with a piece of absorbent cotton wool and powdered with the substance from 1 to 5 times daily. In one of the cases (a patient with recurrent syphilis) the lesions healed in three weeks, but in the other 18 in from 12 to 15 days. In the twentieth case the application of europhen was preceded by scraping out the chancres. On the removal of the dressing on the fifth day the ulcers were found firmly healed. (3) 7 cases of hard chancres, and (4) 3 of ulcerating gumma, good and fairly quick healing took place. (5) 2 cases of suppurating buboes—after incision and scraping out, the cavity was powdered with europhen and a compress applied for seven and nine days respectively. Good union resulted, though in one of the cases dermatitis of the surrounding skin occurred. (6) A case of whitlow was cured in seven days (with two dressings). On the whole the author thinks that europhen is a useful substitute for iodoform in minor surgery and venereal ulcers. The smell is not at all strong, and can be disguised by the patient carrying about in his pocket a handkerchief scented with a few drops of lilac (*syringa*) perfume. I. A. EZOFF (*ibid.*, No. 1) also found europhen an excellent antiseptic, a prolonged application, however, giving rise to local irritation. Iakimovitch, who made comparative clinical experiments with europhen and iodoform, came to the conclusion that the former is "the best dressing material after iodoform."

(145) Abdominal Massage.

E. E. IVANOFF (*Vratch*, No. 20, 1892) suggests a modification of Sahli's method of abdominal massage. Instead of a cannon ball, he uses a hollow wooden or celloidin globe filled with shot, which is poured into the cavity through a hole furnished with a stopper. The quantity of shot should vary according to the patient's age, averaging about 1 lb. for a child under 2 years, 2 lbs. for 2 to 4 years old, 3 lbs. for older children, and up to 4 or 5 lbs. for adults. The author used the method successfully in a series of cases of very obstinate chronic constipation in children, in whom prolonged treatment with laxatives and enemata had utterly failed. The *technique* is exceedingly simple; the ball is rolled up and down along the course of the large bowel for two or three minutes, being pushed with a gentle touch of the palm of the hand. The procedure should be repeated twice daily. The author thinks this form of massage will prove beneficial, not only in atonic constipation, but in (1) intestinal stricture following dysentery, typhoid fever, etc.; (2) chronic infiltration about the womb and its appendages; (3) atony of the bladder; (4) neuralgias of limbs. In comparison with Sahli's metal globes, the wooden or celloidin balls are said to offer the following advantages: (*a*) They do not cause any unpleasant sensations of chill; (*b*) their weight can be easily varied according to the circumstances of the case; (*c*) they are very cheap.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(146) Movable Kidney.

Stiefler (*Münch. med. Woch.*, July 12th, 1892) regards this condition as more common than is usually supposed. Of 100 cases observed by him, only 8 occurred in men. In 75 cases the affection was on the right side, and in 25 on the left. Ten cases occurred before the age of 20, 20 between 20 and 30, and 40 between 30 and 40. In 3 cases the mother also suffered from the same condition. Although many cases occurred in those who had borne children, yet not a few of the patients were nulliparous. Increased thoracic and diminished abdominal pressure seemed to be the chief cause. Obesity was present in 15 cases. Ill-fitting corsets were used in 14 cases. In about 35 cases the previous lifting of heavy weights, falls, and riding were recognised as causes. The author says that in 18 cases perityphlitis and perimetritis were the chief causes for the displaced and fixed kidney. In 5 cases masturbation is apparently given as the cause of the disease. In 2 cases the spontaneous dislocation of diseased kidneys was noted. In 8 cases there was no discoverable cause. The severity of the affection depends on the nature and number of the attacks of the so-called strangulation as well as on the site of the displaced organ and on its mobility. Pain on pressure and on movement was noted in all but 8 cases. Gastric disturbances were present in most of the right-sided and also in some of the left-sided cases. Attacks of strangulation (collapse, pain, vomiting, etc.) were rare, but manifestations of an acute and temporary hydronephrosis, seldom with blood in the urine, occurred more often. Marked diuresis occurred after such attacks. Neurotic symptoms were common. In 15 cases there were manifestations of hysteria. The diagnosis of movable kidney is easy. In one case pulsation was communicated from the aorta to the displaced organ. From his experience in these 100 cases the author is very satisfied with the treatment by an abdominal belt with cushion, and any question of operative procedure hardly arose.

(147) Carbolic Poisoning in a Suckling.

V. F. Bülvebash (*Meditzinskoïé Obozrenïé*, No. 9, 1892) relates the following case: A previously healthy infant, aged 3 months, was brought into a room which had just been disinfected by spraying about 6 pints of a 5 per cent. carbolic acid solution. In about half an hour the child awoke, crying and looking exceedingly pale. Shortly afterwards there appeared diarrhœa with dark green thin stools, while the urine was dark grey in colour with an olive-green tint. The pulse was weak and rapid (140 per minute), the respiration irregular and somewhat hurried; small moist *râles* were heard in the lungs; there was also a slight short cough, with anorexia and general prostration. The treatment consisted in the administration of a large teaspoonful of castor oil and 2 drops of spiritus Mindereri (liquor ammoniæ acetatis) as a diaphoretic every two hours, a warm bath of ten or fifteen minutes' duration being ordered at bedtime. Gradual improvement took place, ending in complete recovery about the third day after the inhalation of the carbolic vapour.

(148) Von Graefe's Symptom in Exophthalmic Goître.

Ferri (*Giorn. del R. Accad. di Med. di Torino*, February, 1892), has made some interesting observations which tend to throw doubt on the commonly accepted explanation of von Graefe's symptom. He is in fact led to conclude (1) that the muscle of Müller has nothing to do with the phenomenon, and (2) that this symptom is in reality dependent on the levator palpebræ superioris, which, from an increased volume of the vessels distributed in its substance, undergoes a mechanical shortening. This explanation, it will be noticed, makes the contraction independent of any nervous origin.

(149) Infantile Infection from Mammitis.

Maygrier (*Arch. de Tocol.*, July, 1892) read before the Obstetrical Society of Paris notes of the case of a woman who had lymphangitis of the breast shortly after labour, and suckled her child with the affected organ. The child died when 14 days old. Pus was found in abundance in different organs, especially in the digestive canal and the nervous centres. The respiratory tract was not involved, and there was no evidence of suppuration of the umbilicus. The infection had evidently occurred through the alimentary tract.

(150) Chronic Hydrocephalus and Congenital Syphilis.

Heller (*Deut. med. Woch.*, June 30th, 1892) first refers to the fact that any connection between these conditions is denied by many. He gives short details of fourteen published cases in which hydrocephalus and congenital syphilis co-existed, and refers to two additional ones. He then reports the following case. Seven weeks after birth the infant had an eruption on the palms of the hands, on the soles of the feet, and on the legs quite typical in colour and in other respects of congenital syphilis. After treatment with sublimate baths and small doses of calomel the rash quickly disappeared. When 6 months old the child's head was noticed to be very large, the appearance being exactly that of hydrocephalus. The anterior fontanelle was of great size, and the intervals between the bones very distinct. The face was markedly small by contrast. The child was treated with iodide of potassium. Five months later the head did not appear to be hydrocephalic. The anterior fontanelle was much smaller, and the frontal suture could hardly be felt. There can be no doubt of the existence of congenital syphilis and hydrocephalus in this case. The enlargement of the head was not due to rickets, for there was no evidence of rickets. The result of treatment would also support the idea of the hydrocephalus being the result of syphilis. Only in one of the cases referred to above did the hydrocephalus disappear during antisyphilitic treatment. In this case, as well as in the author's, the treatment was commenced early. Heller concludes that in all cases of hydrocephalus congenital syphilis should be looked for, and if found antisyphilitic treatment should be adopted energetically and as early as possible.

(151) Pemphigus Neonatorum.

During an epidemic in the Lying-in Hospital at Göteborg, in which 134 out of 216 children were affected, and in which two mothers who nursed their children suffered from pemphigus of the mamma, Almquist (*Archiv. für Derm. und Syph.*, Heft 2, 1892), investigated the virus bacteriologically. In the cases of nine of the children in which investigations were made, the same coccus was found in large numbers in the bullæ. This coccus was very like staphylococcus aureus, and grew readily at ordinary room temperature. Two inoculations with pure cultures on the author's arm produced, after a short period of incubation, first redness, and after two or three days, typical pemphigus bullæ, which healed without any constitutional disturbance.

SURGERY.

(152) Paralysis of the Upper Extremity after Dislocation at the Shoulder.

Müller (*Centralblatt für Chirurgie*, No. 29, 1892) reports a case of slowly-developed paralysis of the upper extremity after a dislocation of the head of the right humerus, which had been reduced without difficulty on the sixth day. The forearm was much smaller than that of the opposite side, and the muscular prominences of the palm, together with the interossei, had almost completely disappeared. The skin over the whole of the upper extremity was cold and livid. There was total loss of sensibility in the ulnar region of the hand and forearm, and also over the posterior and volar surfaces of all the fingers and the hand. The sensibility of the surface of the arm above the elbow remained quite normal. There was complete loss of function in the flexors and extensors of the hand and fingers, and also of the pronators and supinators. Extension of the limb at the elbow-joint was somewhat impaired, whilst flexion could be exercised with full force. In operating in the axilla with the object of freeing the nerves of the affected limb, the author found much difficulty in exposing the cords, as they were surrounded by dense cicatricial tissue. The difficulty was increased by

an absence of any pulsation in the lower portion of the axillary artery. After careful dissection, the three larger nerve trunks, together with the axillary artery, were found to be tightly compressed between the inner surface of the articular capsule on the one side, and by a distinct transverse band of cicatricial tissue on the other. Above this band, which was about 1 centimetre in breadth, the artery, which was as large as a subclavian, pulsated distinctly. The axillary vein remained outside this band, and had not been compressed. After division of the constricting band by scissors, the circulation was at once re-established in the limb. The sensibility of the forearm was speedily restored after this operation, and at the end of two months the limb had increased in size, and the patient was able to move his hand and fingers freely both in flexion and extension.

(153) Splenectomy.

M. Lindfoss (Christianstad), at the Scandinavian Congress of Naturalists (*Sem. Méd.*, July 27th, 1892), discussed this operative procedure. The indications for operation were (1) prolapse of the spleen, (2) mobile spleen, and (3) abscess and cystic degenerations of this organ. The contra-indications were (1) leukæmia, (2) ague, and (3) amyloid degeneration of the spleen. He then related a successful case of extirpation of the organ. The patient was a woman, aged 20, who had a mobile spleen without any leukæmia. An incision was made along the outer border of the left rectus abdominis muscle, the abdomen opened, and the spleen exposed. The pedicle was secured with a silk ligature, the organ removed, and then the pedicle returned into the abdomen, and the wound closed. The wound healed up by primary union. One month after the operation the blood was examined, when an increase of red blood corpuscles was found, and a diminution in the amount of hæmoglobin. The operation was performed on February 20th, 1892, and the patient left the hospital cured on April 14th.

(154) Electrolysis in Œsophageal Stricture.

Campbell (*Medical News*, July 9th, 1892) gives the results of his method of treatment of non-malignant strictures of the œsophagus by electrolysis. He uses electrodes of small size to begin with, and these are gradually increased in size, until an electrode of 1 inch in diameter is passed down the œsophagus. At first a small electrode is passed down until it rests upon the upper part of the stricture. Then a current of 5 milliampères is passed. The strength of the current is gradually increased to 10 or even 15 milliampères, the electrode being kept continuously in contact with the stricture. In a few minutes the electrode passes through. Then at intervals of a few days larger and larger electrodes are used, until one an inch in diameter is passed through the stricture. With the larger electrode a somewhat stronger current is used up to 20 milliampères. Six cases are reported in the paper which had been treated thus. All were fibrous strictures, and were completely cured. Some of them were seen two years after treatment and then no return of the diseased condition had taken place. The author applied the same treatment to some cases of malignant stricture, but no permanent benefit was received in any case.

(155) Primary Actinomycosis of the Skin in Man.

D. Majocchi (*Rif. Med.*, June 17th, 1892) distinguishes two forms of cutaneous actinomycosis in man—the anthracoid and the ulcerative fungating forms. The following is the history of a case belonging to the latter category. The patient was a strong man of 52, with excellent general health, and no troubles save with his teeth, many of which he had lost. Three months after the last visit to the dentist there appeared a swelling near the angle of the jaw, and a little later two others, which extended to the mastoid process. They were hard at the base and distinct from the neighbouring glands, but were softer towards their centres. The lymphatic glands were hardly affected. The swellings gave no pain unless they were pressed at their bases. On being opened they gave exit to a little pus mixed with yellowish granules, which required slight pressure to dislodge them. The body of the tumours appeared cribriform, the meshes containing granular pus. The general characters of the tumours, and the fact that the neighbouring glands were unaffected, led to the diagnosis of actinomycosis, which was afterwards confirmed by microscopic examination. The author thinks that the door of entry in this case was certainly the mouth, rendered vulnerable by the condition of the teeth.

(156) The Surgery of the Gall Bladder.

Terrillon (*Bull. Gén. de Thérap.*, June 15th, 1892) adds further evidence as to the value of surgery in disease of the gall bladder. The operations performed were as follows: 8 cholecystotomies resulted in 7 cures and 1 partial cure, the patient dying a month afterwards with persisting jaundice, fistula, and progressive weakness; 2 cholecystectomies, both resulting in cure; 1 exploratory incision, with evacuation of contents, without definite cure.

(157) Urethral Calculi in a Child.

P. Nikolski (*Khirurgitcheskaia Letopis*, January, 1892), relates the following case:—A delicate peasant boy of eight had in the course of five years passed nine calculi of the size of a pea in his urine. Latterly he had been suffering from enuresis with exceedingly painful micturition and hæmaturia. On examination, a rotary-like chain of concretions could be felt along the membranous portion of the urethra. A median urethrotomy was performed without delay, and as many as ten calculi were extracted from the canal, an eleventh being at the same time taken from the bladder. The operation was not followed by any rise of temperature. For a fortnight the boy passed his water both through the wound and the urethra, but afterwards through the latter alone. On the twenty-sixth day cicatrisation was complete. On the thirty-first the patient left perfectly well, micturition being quite normal. The eleven stones consisted of phosphates, and weighed together forty-six grammes, the weight of the vesical concretion being fifteen grammes, and that of the urethral calculi varying from two to five and a-half.

MIDWIFERY AND DISEASES OF WOMEN.

(158) Vaginal Cyst complicating Labour.

Puech (*Arch. de Tocol. et de Gynéc.*, March, 1892), maintains that one case related by Peters is the sole instance already on record, where a vaginal cyst seriously affected labour. He describes a second, under his own observation. The patient was a laundress, aged 25. She was a big, strong woman, who had always enjoyed good health, and never suffered from menstrual troubles. Five years before she was delivered of her first child, and noticed on recovery that there was a swelling on the vulva. Chronic vaginal discharge set in. In October, 1889, she was confined for the second time; Puech was present on this occasion. There was a cyst as big as a hen's egg in the lower third of the vagina, posteriorly and somewhat to the left. Labour was concluded without instruments; a small male child was born; the pains were very strong. The fœtal head flattened the cyst, which was not ruptured. The patient declined any operation, the tumour did not inflame, and on recovery there was no pain during walking or coitus. On November 16th, 1891, this patient was again delivered. The cyst was found, during labour, much enlarged, so that exploration of the os was difficult. The vertex presented in the first position. The head, well-engaged in the pelvic cavity, bore against the cyst, which was thus pressed towards the vulvar cleft. As the tumour clearly impeded labour, it was punctured with a trocar. Three ounces of a pale brown puriform fluid escaped. A 1 in 2,000 sublimate solution was repeatedly injected until it returned quite clear, and the vagina was thoroughly cleaned. A large female child was then delivered without difficulty. During childbed, the cyst rapidly refilled, but the patient refused to have it removed.

(159) Ruptured Tubal Gestation: Expectant and Operative Treatment.

Waitz (*Deutsche med. Woch.*, No. 3, 1892) notes that a woman with symptoms of acute internal hæmorrhage from rupture of a fœtal sac was admitted into hospital in the middle of the night. A physician had sent her for immediate operation, but she seemed better on the next morning. Ice and opiates were given. On the third day symptoms of peritonitis appeared. Free doses of sulphate of magnesia were administered; watery stools were passed, and

the symptoms passed away. For nearly a week the patient improved, but on the eighth day after the first attack very severe symptoms of internal hæmorrhage appeared. Abdominal section was performed. Over a pint and a-half of partially coagulated blood was found in the peritoneal cavity, and a ruptured tubal sac was found and removed. The patient recovered. Waitz recommends that the pelvis be elevated during the operation, and that the abdominal wound be brought down as low as possible.

(160) Bacteriology of the Infantile Vagina.

V. V. Strogonoff (*Vratch*, No. 20, 1892), having examined the vagina bacteriologically in thirty-three girls, aged from five hours to eight days, has come to the following conclusion: (1) When examined shortly after the infant's birth, the vagina is found, as a rule, to be absolutely free from microbes. (2) Subsequently the number of infants without vaginal bacteria rapidly decreases. (3) After the first bathing most new-born girls are found to have micro-organisms in the vagina. (4) The microbes penetrate partly through the agency of the water used for the bath, partly through the customary anointing of the child's genitals with some fatty substance; they may also be introduced during the performance of artificial respiration. (5) Breech presentation favours an earlier penetration of microbes into the genital tract. (6) On the whole, the infantile vagina constitutes a favourable medium for the proliferation of bacteria. Only non-pathogenic microbes (species not stated) were found by the author.

(161) Hyperemesis Gravidarum and Railway Nausea.

Grenser (*Centralbl. f. Gynäk*, No. 26, 1892), records the following case. The patient was an English lady, aged 25, in her first pregnancy. She was healthy, but anæmic and nervous. Long railway journeys seemed to cause nausea and vomiting, just like the attacks for which she consulted the physician on the present occasion. She was married at the end of September, 1890. Pregnancy began early in December, and was accompanied by constipation and tympanites. Then nausea set in, followed by uncontrollable vomiting. For a week the patient was in great peril. She was kept absolutely still, and fed by nutritive enemata. By the mouth nothing was allowed to pass, excepting pieces of ice and iced soda water in very small doses; but after a few days a little hot tea could be swallowed with benefit. Subcutaneous injections of morphine were administered; cocaine was not deemed advisable. On September 6th, 1891, a male child, of moderate size, was delivered by aid of instruments. Grenser did not consider that the patient was hysterical. Professor Leopold believed that railway nausea might be neurotic, but it was not usual to believe that the uncontrollable vomiting of pregnancy was simply an indication of hysteria.

(162) Premature Children saved by the Couveuse.

Madame Henry, head midwife to the Maternité of Paris, has published statistics (*Journ. des Sages Femmes*, July 16th, 1892) which show that the use of the *couveuse*, with artificial feeding or "gavage," has saved the lives of a large proportion of premature children born in the institution. The mortality of the infants before and after the introduction of the *couveuse* system is indicated in the following table:—

State of Pregnancy when Child was born.	Mortality before Introduction of *Couveuse*.	Mortality since introduction of *Couveuse*.
6th month ...	100.0 per cent	84.0 per cent.
6½th ,, ...	78.5 ,,	40.0 ,,
7th ,, ...	61.0 ,,	50.2 ,,
7½th ,, ...	46.0 ,,	23.0 ,,
8th ,, ...	22.0 ,,	11.2 ,,
8½th ,, ...	12.0 ,,	0.4 ,,

(163) Menstruation in an Infant.

O. E. Tchernomordik, of Tchashniki, relates (*Vratch*, No. 4, 1892) the case of a normally-developed and generally healthy girl who has been regularly menstruating since February, 1891, when she was not quite one year old. The hæmorrhage recurs every four weeks, lasting on each occasion four or five days, and being accompanied by occasional pain about the hypogastrium. The first menstruation was preceded by some fever, an urticaria-like rash over the whole body, and general restlessness lasting for three days. The symptoms subsided with the appearance of the bleeding. The girl's mother is somewhat nervous but otherwise healthy. She began to menstruate about the age of 15.

(164) Cysts of the Vagina.

V. Chalot, of Toulouse (*Annales de Gynéc.*, July, 1892) distinguishes several distinct varieties of vaginal cyst. They are (1) glandular cysts—for small glands, which may become obliterated, are sometimes found on the vaginal mucous membrane; (2) lymphatic cysts, lined with endothelium; (3) hygromas, enlarged bursæ developed by coitus or injury; (4) serous cysts developed in spaces produced by detachment of the coats of the vagina during parturition; (5) cysts developed from hæmatomata; (6) Müllerian cysts, or lateral hæmatocolpos, pyocolpos, or mucocolpos, developed from the lower part of one of Müller's ducts; (7) paravaginal hydatids; lastly (8) cysts developed from the Wolffian ducts. Rieder has proved that without doubt relics of these ducts may persist till adult life. Chalot has shown that they are quite distinct from Skene's tubes. He describes a case of Wolffian cyst. A cyst in the antero-lateral part of the vagina, extending towards or into the broad ligament and lined with columnar epithelium, which may be ciliated, is assuredly Wolffian. Even when the epithelium is not purely cylindrical, or when it is cylindrical yet the cyst does not extend into one lateral fornix, the cyst is Wolffian. A cyst in the antero-lateral part of the vagina bearing papillæ is of Müllerian origin. When a Wolffian cyst is placed high up, or extends into or beyond the fornix, the surgeon must not attempt its excision. It should be opened by a simple incision; then its lining membrane must be scraped by means of the curette. Lastly, the cavity is well plugged with iodoform gauze. When the cyst evidently extends far into the parts adjacent to the lateral fornix, it is best, in order to insure against closure and refilling of the cyst, to excise its prominent lower part. Then the curette and the tampon must be used.

THERAPEUTICS.

(165) Treatment of Erysipelas.

Cavazzani (*Gl. Incurabili*, May 1st and 15th, 1892) draws attention to a plan of treatment first advocated by him for erysipelas as long ago as 1867. It consists in the application every two hours to the affected part by means of a brush of the following mixture: ℞ Tannin, camphor, āā 1 pt.; ether, 8 pts. With this simple treatment highly successful results are recorded in 100 cases of varying severity. In another series of 5 cases the author applied in the same way a 1 per cent. alcoholic solution of fuchsine with quite satisfactory results. As to the mode of action and the general efficacy of this latter application, he refrains from making any suggestions till a further trial has been made. Sachs (*Bull. Gén. de Thérapeutique*, May 30th, 1892) places on record 4 cases of erysipelas which progressed most favourably under the influence of ichthyol. The drug was employed dissolved in collodion in the proportion of 1 in 10, and was applied by means of a brush to the affected region.

(166) Trional and Tetronal.

Schaefer (*Berl. klin. Woch.*, 1892, No. 29) has used trional in 77 cases and tetronal in 49 cases in the Jena clinic for mental disease. These drugs were usually given in hot milk or wine in single doses of 1 to 2 g. at bedtime. The hypnotic effect was evident in from ten to twenty minutes, and the sleep lasted from six to ten hours. No such effect was produced in 14 per cent. of the cases treated by trional, and in 16 per cent. of those treated with tetronal. Single doses of 3 to 4 g., and divided doses amounting to 6 to 8 g. in the day may be given without hesitation. It is concluded that trional and tetronal have a marked hypnotic and sedative action, the latter being more evident in the case of tetronal. Trional has a more sure and prompt effect in the sleeplessness connected with the various forms of neurasthenia, functional psychoses, and organic brain disease. It is useless in the morphine and cocaine habits, as

well as in the sleeplessness due to pain. Tetronal is indicated in psychoses where bodily restlessnes of moderate degree prevents sleep. Neither drug is to be recommended in cases of much mental excitement with marked impulsion (*Bewegungsdrang*). In comparison with sulphonal, the action of trional and tetronal is more prompt and vigorous. In the above-named conditions, with bodily restlessness, these drugs are efficient whereas sulphonal fails. As sedatives in violent psychical and motor excitement they cannot take the place of hyoscine. Only occasionally was there slight digestive disturbance, and there were no ill-effects produced in the heart, lungs, or kidneys. Other effects, such as weariness, drowsiness, depression, and occasionally giddiness and unsteadiness in gait, were only at times noted. After long administration the discontinuance of these drugs produced no striking symptoms, and they did not lose their therapeutic effect after lengthened use.

(167) Iodine Trichloride as a Local Application.

Belfield, of Chicago (*N. Y. Medical Rec.*, July 16th) recommends a trial of iodine trichloride ($I Cl_3$) in the treatment of tuberculous and suppurative processes. It is formed by passing chlorine gas over iodine; it is obtained in reddish crystals, is soluble in its own weight of water, and almost as readily in alcohol, and either solution can be mixed with glycerine without decomposition. When it comes into contact with mucin, pus, or any proteid matter it is immediately decomposed, yielding iodine and chlorine gas. He believes it to be a powerful local antiseptic; he has used it in irrigating suppurating wounds in 1 to 5 per cent. solution in water, with or without the addition of glycerine. For offensive cancerous surfaces and venereal sores he has used 5 to 20 per cent. in equal parts of water, alcohol, and glycerine. Solutions stronger than 5 per cent. cause smarting in ordinary wounds. Gauze sterilised by boiling, immersed in 1 to 10 per cent. aqueous solution and dried, retains iodine trichloride for an indefinite time.

(168) Iodine in Hæmorrhoids.

N. Ivanoff (*Vratch*, No. 4, 1892) successfully treats prolapsed and inflamed hæmorrhoids by gently painting the parts with tincture of iodine. He records a severe case in a factory worker with very painful piles, the largest of which was as big as a walnut. The patient suffered great pain both in walking and in sitting. All ordinary medical measures having failed, and the man declining surgical interference, the author applied the tincture (once daily). The next day the mass had decreased to half its former size; after a second and last application, "only hardly perceptible traces remained"; on the third day the man left, declaring himself perfectly well. Preismann, of Odessa (*Wiener Medin. Presse*, May 31st, 1891) emphatically recommended the application of a compress, or a piece of cotton wool soaked in a glycerine solution of iodine and iodide of potassium. It is advisable to commence with a weak solution (2 grammes of the iodide and 0.2 of iodine to 35.0 glycerine), gradually increasing the strength up to 5.0 of iodide and 1.0 of iodine to 35.0 glycerine.

(169) Cure of Traumatic Tetanus.

Casali (*Centralbl. f. Bakteriologie*, July 19th, 1892) reports a case of traumatic tetanus cured by the antitoxin of Tizzoni and Cattani; this is the seventh so treated. The patient, aged 22, ran a wooden stake into her foot. The wound suppurated, and the parts around became inflamed. Symptoms of tetanus gradually developed, and fourteen days after the injury were as follows—rigidity of masseters, so that difficulty was experienced in separating the jaws, impaired power over tongue movements, sudden contractions of spinal muscles and of those of the eyelids, stiffness of the neck muscles, risus sardonicus, difficulty in breathing and swallowing. From the wound cultures of the tetanus bacillus were made. The patient received in all six subcutaneous injections of the antitoxin prepared from the blood serum of an immune dog, one injection every morning and evening, the dose being 25 centigrammes, except on the last occasion, when it consisted of 15 centigrammes. By the tenth day from their onset the symptoms had entirely disappeared, and a few days thereafter the patient's health was completely restored.

(170) Action of Salipyrin on the Heart.

P. Alberto (*Lo Sperimentale*, June 30th, 1892) has investigated the above question in frogs and toads, both with the heart *in situ* and separated from the body. In the latter experiments he used Williams's heart apparatus. His conclusions are as follows:—Small doses of salipyrin act favourably on the heart, facilitating its distolic filling, increasing the force of the systole, and diminishing the actual rate of contractions. Medium doses produce arrhythmia. Strong doses cause arrest in diastole. Salipyrin acts, then, undoubtedly on the heart; whether it acts chiefly on the muscle itself or on the intracardiac nerves the author has not as yet ascertained.

(171) The Cure of Rabies.

Tizzoni and Centanni (*Deutsche med. Wochenschr.*, August 4th, 1892) have cured animals which exhibited the first symptoms of rabies by inoculation with an aqueous solution of a substance obtained from the serum of rabbits rendered immune to the disease. This is precipitated from the serum by absolute alcohol; it contains the protective agent in addition to other albuminoids. Four animals injected with this substance were alive and in the best of health at periods varying from sixty to eighty days after infection with rabies, the symptoms having quickly disappeared after the injection, whereas the four control animals died from rabies at periods varying from eighteen to twenty days after infection. The authors speak of the possibility of keeping this substance, to which the serum owes its protective and curative qualities, in a form ready for immediate use in cases of rabies.

PATHOLOGY.

(172) Staining of Tubercle Bacilli in Sections.

Letulle (*Bull. de la Société Anatom. de Paris*, May, 1892, No. 14) refers to the difficulty of staining tubercle bacilli in tissues hardened in Müller's fluid, which has consequently been replaced by alcohol, a reagent which produces great alterations in the shape of the bacilli and in the surrounding structure. By the following procedure the bacilli can be stained, however long may have been the sojourn of the tissue in Müller's fluid: (1) Complete the hardening in alcohol; if already hard, pass through alcohol. Cut in celloidin. (2) Place sections in hæmatoxylin; to stain nuclei, wash in water. (3) Place in following solution, for at least a quarter of an hour: carbolised water, 2 per cent., rubin *q.s.* to saturate. Wash in water for one minute, and place (4) in abs. alcohol one-half minute. (5) Five minutes in following solution: carbolised water (2 per cent.) 100 gr.; iodine-green 1 gr. (6) Decolorise carefully in abs. alcohol. (7) Clear in bergamot followed by xylol. Mount in xylol balsam. The nuclei appear violet, hyalin bodies (Cazin-Russell) cerise-red, and tubercle bacilli carmine-red.

(173) Protective Inoculation of Animals against Cholera Asiatica.

Brieger and Wassermann publish in the *Deutsch. med. Wochenschr.*, August 4th, 1892, the results of their further investigations into this subject. Cholera bacilli were grown for twenty-four hours upon a watery extract of calf's thymus. The culture medium was then kept at 65° C. for fifteen minutes or at 80° C. for ten minutes, and subsequently placed in the ice chest for twenty-four hours. Intraperitoneal injections of this fluid were made upon guinea-pigs, which thereafter proved immune to cholera bacilli of such virulence as to produce rapid death in the control animals. The minimal dose necessary to protect a guinea-pig of from 300 to 400 g. weight against a fatal dose of cholera culture was 2 c.c. (1 c.c. injected on two successive days). The authors find that an equal effect is produced when the infected thymo-extract has been merely set aside in an ice chest for several days without any warning. Precisely similar results were obtained with ordinary bouillon cultures of cholera bacilli, which had been kept at 65° C. for fifteen minutes. In this case also 2 c.c. was the minimal dose necessary to confer protection, which was still complete after the lapse of two months. A more detailed communication is promised.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(174) Cardiac Arterio-Sclerosis of the Myo-valvular Type.

Huchard (*Arch. Gén. de Méd.*, July, 1892) divides chronic cardiac affections into valvular and arterial cardiopathies. The former is characterised by rheumatic inflammation of the valves, by a tendency to arterial hypotension, and by the disease beginning in the valve and spreading to the cardiac muscle. The latter commences in the arterial system, and is characterised by arterial hypertension. It spreads from the myocardium to the valve. Although arterio-sclerosis of the heart is always accompanied by that of other viscera, the cardiac symptoms often predominate, and the author would class these cases under the (1) stenocardiac; (2) tachycardiac; (3) asystolic, and (4) myo-valvular forms. It has been shown that under pathological conditions vessels may be found in the whole extent of the aortic and mitral valves. Sclerosis of this dystrophic origin affects the valves in the same way as the myocardium by an obliterating disease of the vessels. In arterial cardiopathies there are three periods, (1) arterial, with high arterial tension preceding and producing vascular disease; (2) cardio-arterial, with endarteritis in the viscera and myocardium, and also with high tension, and (3) mitro-arterial, with dilatation of the cardiac cavities, and of the auriculo-ventricular orifice. The myo-valvular form differs from the others above mentioned by the addition of a murmur due to cardiac dilatation or sclero-atheroma of the valves. The symptoms are produced by (1) arterial hypertension, namely, cold extremities, rheumatic pains, vertigo, headache, visual troubles, pallor of the surface, altered pulse, and loud second aortic sound; (2) diminished function of organs (meiopragia) owing to arterial sclerosis, and (3) toxic manifestations, namely, dyspnœa, delirium, vertigo. Renal insufficiency is an early symptom even in the absence of albuminuria. Huchard then describes the mitral and aortic types of this disease. In the mitral form the murmur may be either functional when it is due to dilatation of the auriculo-ventricular orifice, or to deficient action of the papillary muscles; or organic when it is caused by sclerosis with retraction of the chordæ tendineæ, and by sclero-atheromatous changes in the valves. The author then gives in tabular form the distinctions between mitral insufficiency of endocardial and rheumatic origin and that of arterio-sclerotic origin. In the aortic type the cardio-sclerosis is often accompanied by dilatation of the aorta or by aortic regurgitation and obstruction. This aortic regurgitation is very different from that of rheumatic origin. The author draws attention to the fact that in the treatment of some of the symptoms, the widespread nature of the disease must be borne in mind.

(175) Chorea-nephritis.

Thomas (*Deut. med. Woch.*, July 21st, 1892) reports a case of chorea with nephritis occurring in a lad, aged 14, who some years previously had suffered from scarlet fever not followed by dropsy. Nine months before the onset of the chorea the urine contained no albumen, and the patient's health was good. Arsenic had to be discontinued owing to digestive disturbance, and therefore he was treated with tonics. Somewhat later general dropsy supervened. The urine contained albumen and numerous hyaline casts. The second aortic sound was loud and the pulse somewhat tense. There was no reason to believe that organic cardiac disease was present. After a week's time the albumen disappeared and the dropsy gradually diminished. With the disappearance of the nephritis the choreic movements ceased. Thomas thinks it probable that the nephritis began at the same time as the chorea. He believes also that the cause of the disturbance in the co-ordination centres producing the choreic movements lay in an intoxication brought about by the urinary constituents.

(176) Ocular Changes in Pernicious Anæmia.

Elizabeth Sargent (*Archives of Ophthal.*, January, 1892) gives detailed notes of the clinical and *post-mortem* conditions in a case of pernicious anæmia with unusual ocular changes. The patient, a girl, aged 14 years, died after being in hospital for about six weeks. When admitted the skin was waxy white, lips and mucous membranes colourless, blood very pale, white corpuscles not markedly increased in number, red corpuscles unusually small, and showing no tendency to form rouleaux; bleeding from the gums frequently occurred. Eyes: right and left palpebral conjunctiva pale, ocular conjunctiva and sclera strikingly white, cornea clear, pupil dilated, sluggish, fundus reflex very pale red; optic papilla prominent, with ill-defined outline and no vessels visible upon it; retina opaque and bluish-white, knuckles of tortuous veins to be seen here and there; numerous hæmorrhages, some quite large; patient could read large print only; about four weeks later vision was reduced to perception of light, and, on ophthalmoscopic examination, no reflex could be obtained from the fundus oculi. The right eye was removed after death, and when examined the following changes, very briefly noted here, were found. The retina was detached from the choroid in its whole extent, but the space between the two tunics was not of the same depth everywhere; this space was occupied by a homogeneous granular material, devoid of cell structure. Numerous small and several large hæmorrhages were present in the detached retina, and in places the layers of this membrane were separated and greatly disorganised by the blood extravasation, so that the retina appeared to be about four times as thick as usual. In some parts there were yellowish-brown patches, evidently the remains of old hæmorrhage. The retinal vessels were for the most part empty, but in some there were a few blood corpuscles, and numbers of bright yellow granules. The uveal tract in its whole extent showed no signs of inflammation; the lens was normal, the anterior chamber filled by material similar to that found beneath the detached retina. In the cornea close to the sclero-corneal junction a hæmorrhage was found. The optic papilla was swollen to a height of 2 mm.; some of the vessels in the optic nerve although empty were surrounded by lymphoid cells. The main trunk of the ophthalmic artery in one specimen contained granular *débris*, a few blood cells and yellow refracting globules like those present in the retina. The changes in the eyes seem to have been due in great part to œdema and extravasation caused by the general lowered vitality of the vascular system. The final loss of sight shortly before death was probably caused by copious serous exudation and fresh extravasations of blood.

(177) Atheroma of the Coronary Arteries and Angina Pectoris.

Tison (*Bull. de la Soc. Anatom. de Paris*, May and June, 1892, Fasc. 14 and 15) reports two cases in which the coronary arteries were atheromatous, calcified, and rigid, and showed great narrowing of lumen; in one case, indeed, they were scarcely permeable. In neither instance had there ever been an attack of angina pectoris. The cases are recorded as bearing upon the question of the causation of this malady; the author urges that it must be conceded that grave disease of the coronary arteries does not suffice to produce angina pectoris, the cause of which remains obscure.

SURGERY.

(178) Primary Sarcoma of the Small Intestine.

Madelung (*Centralblatt für Chirurgie*, July 30th, 1892) observes that primary sarcoma of the small intestine is a rare disease. He has had three cases of his own, and has collected eleven others. The sarcoma is generally small round-celled, but occasionally composed of spindle-shaped cells. They probably always commence in the submucous tissue, and thence extend to the neighbouring tissues. The muscular coats are next attacked, then the mucous membrane, rarely the serous coat, even in those cases which have terminated in death. These growths form aneurysmal dilatations of the affected parts of the intestine, and rarely, if ever, cause any contraction of the lumen. In some cases several distinct parts of the intestine may be simultaneously the seat of these

tumours. In the advanced stage they may break through the serous coat and form large irregular cavities containing fæces or abscesses, which may have some resemblance to localised peritonitis. Secondary growths form very easily, especially in the lymphatic glands of the mesentery, in the omentum, liver, and kidneys. As regards the etiology of the disease little is known. One case was preceded by a contusion of the abdomen. The disease occurs most commonly during the third and fourth decades of life. The oldest patient was 52, and the youngest 4; all were males except one. The diagnosis of the disease is difficult. The existence of rapidly growing tumours in the abdomen, which at first are freely movable, together with general emaciation and loss of strength in people who are not old, may point to the disease. Alternating constipation and diarrhœa generally occur. The duration of the disease is short, the greater number dying within nine months. One patient lived a year and nine months, whilst another died within two weeks. Little can be done in the way of treatment. If a laparotomy has been performed to confirm the diagnosis, and a sarcomatous growth is found, it is best to close up the wound without proceeding further. Secondary growths occur at so early a stage in the disease as to put out of question the performance of resection of the affected part of the intestine. The author operated in two cases, resecting the bowel, but both died shortly afterwards. Nicolaysen and Mikulicz have each removed the growth in one case. One left the hospital in twenty-four days and the other in fifteen days, the operation wounds having healed. No further observations were made on these cases.

(179) Staphylococcus Infection.

Two different series of affections may follow suppurative otitis according to Le Goudre and Beaussinat (*Semaine Méd.*, July 27th, 1892). The disease of the ear may have existed for a long time without giving rise to any serious troubles; then there may follow in rapid succession, or separately, phlebitis of the sinuses, abscess of the brain, and other grave affections of the neighbouring parts of the head, or there may appear symptoms of general septic infection. The following case seems to prove the existence of a general septic infection. The patient was a man, aged 46, who was seized, when in good health, with a violent headache, limited to one side. Next day he had a shooting pain in the right ear, which improved on the following day after a considerable amount of pus had been discharged from the external auditory meatus of the affected side. The headache still continued and the patient became delirious, with presentiments of impending death. At this time the temperature went up gradually, and on the fourth day was 40·2° C. The urine was albuminous and remained so. On the sixth day slight pain and swelling of the right knee-joint were noticed. This was aspirated and pus evacuated. The general condition gradually became worse, and on the seventh day the patient died comatose. The necropsy showed inflammation and congestion of the lung, affections of the liver and spleen, suppurative meningitis localised at the base of the brain, sclerosed kidneys, and extensive lesion of the knee. The pus showed the presence of only one variety of micro-organism, namely, staphylococcus aureus, which was present in all the affected parts.

(180) Operations on the Mastoid Process.

In operations upon the mastoid process, Buck of New York (*Medical Record*, July 23rd, 1892), uses a piece of metal one end of which is bent into the shape of a hook. This hook is placed in the internal auditory meatus of the patient, and is held in position by the anæsthetist. The long axis of the hook when in position should correspond to the long axis of the body. By this device Buck claims that the localisation of the mastoid cells is apparent all through the operation. He advises large incisions, horizontal above and curving gradually into the vertical below. These incisions, he says, should be 1¾ inch in young children, but in adults 2¾ inches and even 4 inches where the tissues are much infiltrated. Important aid is rendered by the employment of extra broad retractors, which are best made with fenestrated ends. By the aid of these retractors the flap and auricle can be held back, and the bone well exposed.

(181) Puncture in Coprostasis.

Petroff (*Bolnitchnaia Gazeta Botkina*, No. 14, 1892) advocates tapping the bowel in cases of intestinal obstruction due to coprostasis. He relates two cases of absolute constipation of six and ten days' duration respectively, which simulated strangulation. The usual treatment by purgatives, enemata, and opium having failed, laparotomy was suggested. The author, however, resolved to try puncturing the distended bowel. In both cases a large quantity of gas escaped, which was followed (in one patient three, in the other twenty-four, hours later) by profuse stools, the patients being discharged quite well shortly afterwards. The author considers the procedure relatively harmless.

(182) Frontal Pneumatocele.

Helly (*Archiv für klin. Chir.*, Bd. 41, and *Centr. für Chirurgie*, July 23rd, 1892), gives an account of nine cases of this affection, one of which he had observed himself. They occurred in patients of different ages. One was in a boy of 12 years. Before this age the disease could not well occur, since the frontal sinuses are developed at the termination of the first decade of life. Six cases were males, two females, and in one the sex was not recorded. The principal etiological factors in the production of the disease were traumatism of some kind, and suppuration. In the author's case both these factors were combined. In some cases congenital deficiencies of the bone in the walls of the frontal sinuses were the predisposing causes. In others the existence of small vascular foramina, through which blood vessels in the exterior walls of the frontal sinus protruded, played an important part in the production of the disease. Four hundred and seventy-four skulls of individuals over 14 years of age were examined in the Anatomical Institute of Graz, and in four of these foramina were found to exist. If inflammation takes place in these foramina, the vessels become thrombosed, and a point of diminished resistance is produced. If forced expirations take place, the mucous lining of the frontal sinus is liable in time to be forced through and a frontal pneumatocele produced. In a similar way is an air-containing tumour produced in congenital cases. The diagnosis is easy, the tympanitic percussion note and the increased size of the tumour during forced expiration being characteristic. As regards treatment, various methods were adopted. Puncture and subsequent pressure cured one case. Incision, evacuation of contents, insertion of a drainage tube, and healing by granulation, cured others. In congenital cases, closure of the aperture by transplantation of periosteum, or a bone plastic operation effected a cure. In the author's case healing was brought about by an attack of erysipelas.

MIDWIFERY AND DISEASES OF WOMEN.

(183) Fatal Accidental Hæmorrhage.

Maygrier (*Arch. de Tocol.*, July, 1892) exhibited before the Obstetrical Society of Paris a placenta and uterus from a case under his observation. A woman, close upon term, was sitting over a *bidet* to cleanse the vulvar region, when flooding set in suddenly. Profound syncope followed, and the patient died speedily, all attempts to check the hæmorrhage proving futile. The child was lost. Naturally, a low attachment of the placenta was suspected; but at the necropsy it was found to be applied to the posterior part of the uterine wall, not low down. The hæmorrhage had been caused by a very limited detachment of the placenta. Under its lower border a large clot was detected. Maygrier was not certain about the precise cause of the accident. The position of the woman over the *bidet* might have caused the detachment. Guéniot remarked that these detachments of placenta not attached to the cervix were frequent in workwomen, but he had never seen them in private. The clot lay under the placenta, which might only be separated from the uterus to a limited extent; the uterine aspect of the placenta was capped by the clot. In some cases no blood issued from the vagina. In private, Guéniot had observed cases of accidental hæmorrhage at the seventh month, without any ascertainable cause. After delivery, apoplexy of the placenta, and not faulty insertion or detachment,

was discovered. In two of these cases syphilis existed. Pajot insisted that plugging was justifiable in these cases; for if the membranes were simply ruptured, the patient might die before the end of labour. On the other hand, when the uterus was empty, ergot might be given. All clots must be removed from the uterine cavity before the administration of that drug. By following the rule, "never plug unless the uterus be full or small, and never give ergot till it is empty," these cases of accidental hæmorrhage might be safely managed.

(184) Certain Sources of Infection before and after Labour.

Leopold (*Centralbl. f. Gynäk.*, No. 29, 1892) recently related before a German medical society some instructive cases where high temperature occurred during the first days of the puerperium. The causes were carefully sought for. In a few instances the patients had put off entry into a lying-in hospital until labour had commenced; they had first called in private midwives, who made digital explorations. In other cases the patient was suffering from gonorrhœa, still acute, and the obstetrician's or midwive's finger had wounded the cervix and caused infection. In one case the patient had actually contracted gonorrhœa within the last twenty-four hours before birth. No digital exploration was made. In many cases careless digital examination, with introduction of sweat, vulvar secretions, vaginal discharge, urine or fæces undoubtedly caused fever by infecting wounds of the os. He noted Döderlein's case where a dirty glass eye belonging to the patient proved a focus of infection. The possibility of danger from a midwife suffering from cancer or leucorrhœa must not be overlooked. Leopold referred to air infection, and said that he had observed a case where fever did not set in till after the birth of the child's trunk, during which process air was heard to enter the uterus. Meinert spoke of infection by retained fæces, by erysipelas, and by scarlet fever. In fever from retained lochia temperature rose slowly, without rigors, and fell slowly. Ptomaine infection from retained placental relics was not usually attended by rigors. He had seen very high fever, with rigors, come on close after delivery and pass off within a day. This occurred in three consecutive labours in the same patient. The fever in such cases had nothing to do with infection.

(185) Mismanaged Shoulder-presentations.

Tarnier (*Journ. d. Sages Femmes*, March 1st, 1892) some time ago delivered a clinical lecture on a case of this kind. The patient was taken with labour pains at term in her seventh pregnancy. On the night of January 24th the pains began; next morning they were very strong, and she sent for a midwife. At 5 P.M., on the 25th, the midwife found that the os was completely dilated. She could not diagnose the presentation, yet though she knew she was uncertain about it she ruptured the membranes. Tarnier strongly deprecates this kind of malpraxis, which is particularly serious when the shoulder happens to present. The membranes should never be ruptured until the obstetrician is at hand, and perfectly prepared to turn. Then, if the head be found to present, so much the better, and no harm is done. If the shoulder or arm present, version can be performed at once. In this case the cord and one arm prolapsed, and the amniotic fluid escaped at once. A doctor was sent for, and arrived at 6 P.M. He failed in attempting version, and sent the patient into a lying-in hospital with the correct diagnosis—right shoulder presentation, uterus void of amniotic fluid and in a state of tonic contraction on the fœtus. The cord was pulseless, the right arm projected from the vulva; uterine contractions were very strong; the shoulder was deeply engaged in the pelvis. The midwife, Mme. Victor, rightly auscultated, for a fœtus may be born alive two hours after the cord ceases to pulsate. In this case no heart sounds could be heard. On further exploration the left arm was also found prolapsed. This accident probably resulted from the attempts already made to turn. The second arm was no doubt seized by mistake, being taken for a leg. At 9.15 P.M. Tissier arrived. Chloroform had been given. The right shoulder was found to present, the head lay in the right iliac fossa, the back lay hindmost; but when Tissier explored the pains had ceased, and the fœtal shoulder no longer occupied the pelvic cavity. The fœtus lay absolutely transverse in the pelvis instead of being more or less doubled up. Although there was no hæmorrhage, the symptoms pointed to rupture of the uterus. Tissier knew that turning would be easy, but it would most probably cause the rent in the uterus to be enlarged. He therefore severed the neck of the fœtus with the *embryotome rachidien Tarnier;* a piece of integument had to be cut through with scissors. The trunk was easily delivered, the arms being dragged downwards. The head stuck in the pelvic excavation; it was delivered by application of the crotchet-like embryotome to the fœtal mouth. A rupture was found in the uterine wall to the left, and it was apparently complete. The patient vomited for three days afterwards, and Tarnier believes that this symptom indicates complete rupture. When the lecture was delivered, about a fortnight after the above labour occurred, the patient was doing fairly well.

(186) Decomposition of Liquor Amnii.

Briegleb (*Centralbl. f. Gynäk.*, No. 29, 1892) reports a case which occurred in the Jena Lying-in Institution. A strong girl, aged 18, fell off a waggon shortly before labour. During parturition the waters came away dark, turbid, and very fœtid. Five minutes after their escape the child's head was engaged in the pelvis; fœtid meconium escaped. The head was delivered forty minutes after the escape of the waters. The child vomited meconium as the face swept over the perineum. When born, the child drew a long breath and cried vigorously; there was crepitation over both lungs. For twelve hours coloured mucus passed from its throat. On the tenth day the child suffered from diarrhœa, which was cured. It left the institution in good health. The mother had a bad attack of puerperal fever, which came on about forty-eight hours after labour. On the sixth day the temperature rose to 105° F. Permanent irrigation with a 1 per cent. carbolised solution, and later on a single intra-uterine douching with a 2 per cent. solution, brought down the fever. The temperature remained normal from the thirteenth day, and the patient left the hospital on the twenty-fourth in excellent health.

THERAPEUTICS.

(187) The Cantharidin Treatment of Tuberculosis.

F. Coccia (*Rif. Med.*, July 7th, 1892) gives the following as the conclusions at which he has arrived after a trial of Liebreich's treatment of tuberculosis (by cantharidinate of potassium): (1) The injections are very painful, and the method is therefore difficult of application in the case of patients who have to attend to their employment; (2) doses of 0.0001 g. are not dangerous in the case of any kind of patient; (3) doses of 0.0002 g. are sufficiently dangerous to be contra-indicated in cases of advanced phthisis; (4) the injections, when frequently repeated during a long period of time, cause physical prostration and serious mental depression; (5) in the last stage of the disease the treatment is absolutely inadmissible; (6) in incipient cases the injections may be used with the view of modifying the bronchial mucous membrane and the expectoration, and relieving cough; (7) the night sweating and the general state may be favourably influenced by the treatment in the early stage; (8) the injections have no effect on the fever, and hæmoptysis seems to be made more frequent by them; (9) neither the pulmonary lesions nor the bacilli are in any way modified by the treatment; (10) tuberculous ulcers in the larynx are not affected except that in the very early stage they show a slight tendency to become cleaner.

(188) Treatment of Asthma.

W. Jones (*Ther. Gaz.*, July, 1892) records the results of treatment of 23 cases of asthma. The cases were under observation for two years after discontinuing treatment; 19 recovered, 2 were markedly improved, and 2 derived no benefit. Their ages ranged from 18 to 50. Duration of disease from two to eighteen years. Cases 1 to 6 presented exostoses springing from the nasal septum and pressing on the middle turbinated bone. These were removed, with the result that the asthma was quite relieved. Case 7 had great hypertrophy of both middle turbinated bones. Destruction of these by the galvano-cautery quite

cured the asthma. Cases 8 to 14 were all cured by destroying hypertrophy of the turbinated bones. In Cases 15 and 16, removal of nasal polypi produced the same effect. Cases 17, 18, and 19 were due to deviated septum. The septum was in each case straightened; in one case it remained straight, and the asthma disappeared; in the other two the operation failed. Cases 20 and 21 had asthma with atrophic rhinitis and areas of hyperæmia on the middle turbinated bones; treatment by cauterisation with chromic acid was successful. Cases 22 and 23 also had atrophic rhinitis; cauterisation in these cases, however, only intensified the trouble. The cases are held to show that in all cases of asthma attention should be given to the nose. Nasal operations were frequently curative, and duration of the asthma did not seem to affect the prognosis.

(189) The Therapeutic Value of Electricity.

IN the *Centralbl. f. d. ges. Therap.*, July, 1892, Max Weiss first contests Moebius's view that the greatest number of therapeutic successes obtained by electricity are due to suggestion. The faradic current has a stimulating action on the skin, nerves, and blood vessels. In producing contraction of the muscles it promotes their nutrition, and, as far as possible, prevents their atrophy. The internal organs may also be influenced, and the author says that hyperæmic states of the brain and spinal cord may be thus lessened. General faradisation is useful in diminished nutrition and general debility. In these cases the current may be made to pass through the operator, contact with the patient's body being effected by the hand. Galvanism acts as a sedative in neuralgia, but success depends on the density of the current. The bactericidal action of the galvanic current is referred to. In discussing the number and the duration of the sittings, the author says that in cases of acute neuralgia the current should be applied three or four times in the day. In cases of commencing degeneration the galvanic current may be of service; the motor power of the legs may be improved, and the gait become more steady. Galvano-faradisation is then referred to, and the author says that in recent times he has employed galvano-faradic massage with considerable and lasting success. Faradic baths of short duration and medium strength of current have a stimulating effect on motor activity, and are useful in functional spinal affections, in intestinal atony, and in neurasthenia. Faradic baths of greater strength of current and somewhat longer duration lessen motor irritability, and are beneficial in neuroses accompanied by spasm, convulsion, or tremor. The galvanic bath is seldom used. It is of service in exophthalmic goitre. The author concludes that electricity is a valuable therapeutic agent. The field of its action comprises the numerous neuroses, cerebral and spinal neurasthenia, and neuralgia. Neuritis, early degeneration in nerves, the various forms of myelitis, and the presence of inflammatory products in nerves, tendon sheaths, muscles, and joints are also included.

(190) Thyroid Grafting in Myxœdema.

J. MACPHERSON (*Edinburgh Medical Journal*, May, 1892) records a case in which the thyroid of a sheep was grafted into the submaxillary region, with the following results: The patient's mental condition improved markedly within a few hours, but the speech remained slow. The temperature, previously subnormal, became normal. The quantity of urine passed increased. The fear at night and the melancholia disappeared, and the headache also passed away. Menstruation became regular, the skin became soft and smooth, and the hair less dry. The anæmia disappeared.

(191) Changes in the Blood produced by Syphilis and by Mercury.

BIEGANSKI (*Archiv für Derm. und Syph.*, 1892, Heft 1) concludes from an exhaustive investigation of the number and relative proportions of the white and red corpuscles of the blood in syphilitic persons, that (1) under the influence of the syphilitic poison the number of the red corpuscles does not vary for a long time. (2) The number of the white corpuscles increases. (3) Of the white corpuscles the increase is chiefly in those with one nucleus, those with multiple nuclei being correspondingly diminished. (4) The colour of the blood (the proportion of hæmoglobin) is considerably less. (5) Through the action of mercury the number of red corpuscles is subject to numerous variations caused by the greater or less thickening of the blood, and independent of the general condition of the nutrition of the patient. (6) Under the influence of mercury the number of white corpuscles diminishes, and the relation of the white to the red corpuscles becomes nearly normal. (7) Of the white corpuscles the number of those with one nucleus diminishes, and the percentage of multinuclear cells is greater. (8) The proportion of hæmoglobin increases under the influence of mercury. (9) In the true anæmia which follows the exhibition of large quantities of mercury, the red corpuscles are subject to a change which chiefly affects their consistence (breaking up of the corpuscles, megalocytes, etc.).

(192) Cerebral Action of some Medicaments.

KRÆPELIN (*Rif. Med.*, July 11th, 1892), says that a given drug has a different action on sensory and motor functions. Thus: (1) alcohol in small doses impairs the sensory functions and excites the motor ones; in large doses it first aids the motor processes, then abolishes them. (2) Paraldehyde causes difficulty of the sensory functions and aids the motor processes; then rapid paralysis of these last. (3) Chloral impairs both sensory and motor functions. (4) Ether rapidly paralyses sensory processes and excites motor; in large doses it increases the sensory paralysis, and eventually abolishes motion. (5) Chloroform has a similar but more rapid action. (6) Amyl nitrite causes excitement of the motor functions, slight paresis of the sensory processes. (7) Tea greatly facilitates sensory processes, after a time depressing them, but has little effect on the motor functions. (8) Morphine causes at first enormous excitation of sensory functions, but subsequent rapid depression; it causes marked and persistent paralysis of motor functions.

(193) Trional and Tetronal.

A. RAMONI (*Rif. Med.*, July 7th, 1892) has tried trional and tetronal in fifty-one insane men in the Roman Lunatic Asylum and in some female patients in the S. Giovanni Hospital. The following are his conclusions: (1) The two new hypnotics are superior to sulphonal and chloral; (2) the patient awakes more easily, and there are no unpleasant after-effects, such as nausea, vomiting, loss of appetite, etc.; (3) the action of the drugs is rapid (thirty to sixty minutes); (4) trional is superior to tetronal, the sleep induced by the former being sounder and more lasting; (5) the sleep (after either of the drugs) lasts on the average six to eight hours, and is not disturbed by dreams.

PATHOLOGY.

(194) Antirabic Treatment by means of a Non-virulent Vaccine.

POPPI (*Rif. Med.*, June 17th, 1892) draws attention to some experiments on the above subject which seem important, both on account of the favourable results obtained, and because they indicate a possible new application of serum in the treatment of infective diseases. (1) Serum was found to have the power of destroying the virus of rabies *in vitro*. This power varies according as it is the serum of an animal dead of rabies or of one treated by Pasteur's method. In the first case, rabbit's serum gave negative results when mixed with the nervous matter and kept at 20° C., though positive results were obtained on using dog's serum, or pigeon's serum, as shown by Evangelista. In the second case, results were sometimes favourable, sometimes not. In a third class of cases, however, in which the animals giving the serum had been prepared by means of Pasteur's vaccines, he obtained almost uniform success. (2) The serum of animals dead of rabies was found to be protective in its action if tested as an immunising agent on animals inoculated with rabies. Further researches were directed to forming vaccines from virulent material by means of this serum. A fine emulsion of nervous substance from a rabid rabbit was mixed with serum from an animal prepared by Pasteur's treatment. Ten c.c. of this, given intravenously, would protect a rabbit from rabies by subdural inoculation. A similar quantity of the serum of a simply immunised animal, however, was quite inefficient. The same held for dogs inoculated in the sciatic. These researches are being continued with a view to confirmation.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(195) Epileptiform Facial Neuralgia.

Féré (*Rev. de Méd.*, July, 1892) remarks that in the relationship of this form of neuralgia to epilepsy the three conditions of heredity, intellectual obfuscation after the paroxysms, and coincidence of these diseases have been stated to be absent. He records a case in a man, aged 42, in which these conditions were present, and in which both affections were cured by bromide of potassium. The patient's mother had suffered from epilepsy. He himself was the only survivor of four children, the others dying in infancy of meningitis. When about 36 years old he began to suffer from facial neuralgia. The paroxysm consisted of rapid successive attacks of pain, and a number of erythematous patches were seen on the affected side of the face. At first the paroxysms came on every fortnight or every month, but four years later they became very frequent, as many as twenty occurring in the day. They were accompanied by spasmodic movements of some of the facial muscles. No treatment used was of any avail. On July 17th, 1891, he had a typical epileptic fit, and on the following day there was a second seizure. He was then treated with large doses of potassic bromide. Two more fits occurred a few days later. In the first half of August there were also two more fits. By August 25th he was taking 11 grammes of the bromide daily. The attacks of neuralgia now diminished in number, and the last attack occurred on October 4th. By the end of December there had been no more neuralgic or epileptic attacks. The treatment was continued. The author says that this case forms one of the best proofs of the identity of these affections. He adds, however, that the same good effect of treatment cannot as a general rule be hoped for.

(196) Charcot-Robin's Crystals.

Leichtenstein (*Deut. med. Woch.*, June 23rd, 1892) says that intestinal parasites are certainly the most frequent cause of the presence of these crystals in the fæces. They were almost always found in 272 cases of anchylostomum, and were only absent in a few cases where these worms occurred in small numbers. In 5 cases of anguillula intestinalis they were always seen. They are fairly often found in cases of ascaris and oxyuris, and are frequently present in tænia mediocanellata and solium. In one case of tænia nana—the first recorded in Germany—the author did not find any of these crystals. They are also often present in cases of trichocephalus, but only in small numbers. There is no doubt that the formation of these crystals is causally connected with the presence of worms. The author shows that the crystals are formed in the same situations in which the parasites abound. The crystals are important in diagnosis. If they continue in the fæces, parasites are still present. The author then cites a case in which, after the use of thymol, 335 female and 140 male anchylostoma were expelled—the females are generally driven out more easily than the males. No eggs could be found in the fæces, but the crystals were still present. After the administration of the extract of male fern 75 more male worms came away. On the other hand, if the whole of a worm is expelled the crystals disappear. The author gives the morphological and chemical evidence to show the identity of these crystals with those described by Charcot and Robin. They are not the crystals of fatty acids, etc. The conditions under which the latter are found are quite different to those prevailing in helminthiasis where the stools are otherwise healthy. Again, in the case of parasites which infest the large intestine only, and can therefore have no action on the emulsion and absorption of fat, these crystals are present. The exact chemical nature is still doubtful. The author then refers to some cases of hydatid of the lung in which echinococcus cysts and also Charcot-Robin's crystals were found in the sputum.

(197) Nervous Phenomena secondary to Thoracocentesis and to Empyema.

Jeanselme (*Rev. de Méd.*, July, 1892) has collected 45 cases, in which such manifestations appeared. They are of three kinds: (1) syncope; (2) the convulsive; (3) the hemiplegic forms. Syncope rarely occurs. It generally comes on suddenly, and rapidly proves fatal. The convulsive form takes place during convalescence from empyema. It usually begins with faintness, and this is succeeded by tonic and clonic spasms. There may be variations in the length and character of these stages. Conjugate deviation of the eyes is not rare, and dilatation of the pupil may exist. The pulse and respiration are rapid, and there may be Cheyne-Stokes breathing. A passing hemiplegia, on the same side as the empyema, may occur. It is rarely complete, and the face often escapes. The convulsive form may end in recovery or death. In a very few cases the hemiplegia comes on without convulsions or loss of consciousness. It may be accompanied by sensory symptoms. The cause may be washing out of the pleural cavity. The following premonitory symptoms have been described: (1) inequality of the pupils, and especially dilatation of the pupil at the time of the washing out, and on the same side; (2) hyperæsthesia of the pleural fistula; and (3) the presence of vasomotor troubles, and more especially blood in the discharge from the wound. As to the etiology of these complications, they occur more frequently in men, as affections of the pleura are more common in men. The purulent character of an effusion strongly predisposes. Of 43 cases, only 3 were serous effusions. In 6 cases there was pneumonia, and in 2 cases pulmonary gangrene, as well as the empyema. In about one-fifth of the cases it occurred at the time of the operation, and, in three of these, paracentesis was alone practised. The most frequent cause is washing out the pleural cavity (27 in 45). Frequently cardiac lesions (pericarditis, etc.) have been found. In a few cases only a cerebral embolus was discovered. As these accidents are so rare, some predisposing cause, such as neuropathic tendency, must be present. Any theory of of uræmia or masked epilepsy is unsatisfactory. The theory of hysterotraumatism could only account for non-fatal cases. It has been said that the convulsive attacks have been brought about by a stretching and compression of the phrenic nerve. As regards prophylaxis, the fluid should be drawn off slowly, and not too much at a time, especially if the patient is cachectic. Exploring the fistula with a probe, or washing out the pleural cavity, should be done with much caution. Such injection, when necessary, should be performed with the least possible force, and irrigators should be avoided.

SURGERY.

(198) Cholecystotomy.

Hans Kehr (*Centralbl. f. Chir.*, August 6th, 1892) relates a case of gunshot wound of the gall bladder. On January 22nd of this year the patient, a strong healthy man, aged 30, received a shot from a revolver, at a distance of ten paces. The shot entered the abdominal wall at the outer margin of the right rectus abdominis muscles, about 6 cm. above the level of the umbilicus. The injury caused the man to fall down, and gave rise to a burning pain in the whole abdominal region. On examination with a sound it could not be discovered if the ball had gone into the peritoneal cavity. A laparotomy was now performed, an incision being made by prolonging the shot wound upwards and downwards. The incision was carried down to the fascia, but no aperture could be seen. Vomiting now occurred, and on pressing upon the abdomen some omentum protruded through an opening in the fascia. This made clear the fact that the peritoneal cavity had been opened. The incision was deepened and the abdominal cavity well opened. A quantity of blood-stained yellowish fluid resembling bile was now seen in the cavity. This was sponged out and the liver examined, and found to be uninjured. The apex of the gall bladder was found to be shot through, its mucous membrane was prolapsed through the aperture, and bile was escaping into the peritoneal cavity. The cavity of the gall bladder was examined, but the ball could not be felt. The posterior abdominal wall was seen to be sugillated, and the ball was felt lying

embedded in the muscles of the back, having passed over the right kidney. The colon was examined and found to be uninjured. The margins of the wound in the gall bladder were trimmed and then united by a series of superficial and deep sutures after Czerny's method. To effect this a tranverse incision had to be made owing to the distension of the intestinal coils. The gall bladder was then dropped back into the abdominal cavity, all bile sponged out, and then the abdominal walls closed with sutures. Forty-eight hours after the operation well-marked icterus developed owing to the absorption of bile from the peritoneal cavity. No peritonitis took place. This shows that the introduction of bile itself into the peritoneal cavity is not a cause of peritonitis; but for this to take place staphylococci and streptococci must be introduced. Four weeks after this the patient was quite well and went home, the ball still remaining in the muscles of the back, but producing no symptoms. Kehr says that gunshot wounds of the gall bladder are very rare. Courvoisier has mentioned six cases. Of these two died after ten and fifteen hours. A third had a bile fistula and died from pyæmia after six weeks. A fourth died from sepsis after obstruction of the gall bladder and perforation of the colon.

(199) Treatment of Cystitis.

OTIS (*Journ. of Cutan. and Genito-Urinary Diseases*, August, 1892) says that, as a rule, local treatment is not required in the early stages of cystitis, but in some cases injection of a solution of silver nitrate into the prostatic urethra has produced a cessation of pain and frequent urination. When the affection becomes subacute he recommends the injection of mild solutions of silver nitrate into the bladder, so as to fill it. By this means the inflammation in the neighbourhood of the prostate is cured, and a week later stronger solutions are injected. In some cases bichloride of mercury solution was injected, with satisfactory results. In the chronic cystitis of old men, good results were obtained by using injections of salicylic acid, especially when a good deal of mucus was present. Otis also discussed the method of cauterising the affected spots of the bladder with the galvano-cautery, aided by the cystoscope; he did not think this form of treatment of much value, owing to the hæmorrhage which is produced. He said that when treating patients with the cautery it was better to open the bladder.

(200) Obstruction after Ovariotomy and Allied Operations.

KLOTZ (*Centralbl. f. Gynäk*, No. 29, 1892), in a communication read before the Dresden Gynæcological Society last spring, stated that he had detected thirty-one cases of ileus in 569 abdominal sections; five out of the thirty-one died. This high percentage (5.4 per cent., cases of obstruction; 0.8 per cent., deaths from obstruction) occurred when rigorous antiseptics and prolonged tedious dressings were in vogue. Since 1889, when this practice was set aside, only five cases of obstruction had occurred. On that account Klotz was not inclined to look on ileus as a septic affection. In secondary abdominal sections or at necropsies undertaken to relieve the obstruction, he always found coils of small intestine immersed in great coagula and fixed there. As to diagnosis, sickness on the second day was suspicious, whilst vomiting on the third, with no passage of flatus, undoubtedly denoted obstruction of the intestines. The way to prevent ileus was to avoid antiseptics and "toilette" of the peritoneum, to check completely all hæmorrhage from wounded surfaces, and to regulate peristalsis of the uninjured intestine as soon as possible. This was accomplished by seidlitz powders and enemata on the second day after operation. When occlusion had set in Klotz washed out the stomach under high pressure, and inflated the rectum with air. The latter practice was highly recommended. When these means failed he washed out the stomach once more, and after complete emptying of that organ he administered great doses of castor oil, up to fifty grammes (over an ounce and a-half). In all cases where the oil was given it was retained without vomiting, and the intestine was freed from its adhesions. In this way secondary abdominal section was avoided. Klotz did not believe that these cases were septic; there was little or no rise of temperature, and this was rare in sepsis. Nor was the obstruction caused by bands of fibrine. The intestine was always found imbedded in a clot and fixed to it, almost always at a point where the serous coat had been wounded.

MIDWIFERY AND DISEASES OF WOMEN.

(201) Cancer of Vagina: Extirpation of Healthy Uterus.

MACKENRODT (*Centralbl. f. Gynäk.*, No. 27, 1892) described, at the June meeting of the Berlin Obstetrical Society, a case which had excited some discussion. A patient, aged 57, had cancer of the posterior vaginal wall, which reached as far as the insertion of the vagina to the cervix. At this point the operator, in endeavouring to remove the diseased part of the vagina, could not feel sure that he was cutting into healthy tissue at a safe distance from the limits of the growth. When as much was cut away as seemed possible, nothing was left of the posterior vaginal wall except a stout piece, ¾ inch broad, next to the perineum. The entire anterior layer of Douglas's pouch was also removed, as it was infected. Hence a hole remained large enough to admit the fist. This could not be closed without total extirpation of the uterus, which Mackenrodt did without scruple, as he was not sure that the cervix was not infected close to the posterior fornix. After removing the uterus, he found that the anterior vaginal wall could readily be fixed by sutures to the remains of the posterior wall, so that the defect was readily closed in. The uterus, which bore every sign of senile atrophy, was found to be entirely free from disease. Veit contended that removal of the uterus for plastic reasons was not justifiable. In cases where hæmorrhage could not otherwise be checked, or where infection of the uterus was evident, extirpation was allowable. In Mackenrodt's case, the hole which opened into the peritoneal cavity might easily have been closed by an iodoform gauze tampon. The age of the patient contra-indicated a severe operation. Mackenrodt insisted that extirpation was justified in his case. The uterus was of no service to her, and its removal was not so difficult nor so dangerous as in a younger subject. As the growth came close to the cervix, there was strong presumption that the uterus might be involved in the cancer. Plugging the hole with iodoform was a very unsatisfactory proceeding.

(202) Peritonitis and Perforation in Eighth Month of Pregnancy.

LIHOTZKY (*Centralblatt f. Gynäk.*, No. 26, 1892) describes a remarkable case which was observed last May in Professor Chrobak's wards. A woman, aged 33, was admitted moribund, with all the signs of acute peritonitis. She died on the next day. The uterus contained an eight months' fœtus, beginning to macerate. The peritoneum was universally injected and sticky. The handle of a small spoon projected from a small perforation in the outer side of the descending part of the duodenum. The patient, two and a half years previously, had suffered from great mental derangement after an attack of influenza, domestic affairs also giving her trouble. She attempted to suffocate herself by swallowing a small coffee spoon. She was admitted into Professor Billroth's wards, but no sign of any foreign body in the alimentary canal could be discovered, and, as she was still much deranged, her own account was received with little credit. From thenceforward all went well until four days before her death. Her appetite and digestion were good, and she never complained of abdominal pains. Her last pregnancy (the preceding pregnancy occurred over five years previously) went on well, until a violent attack of pain and sickness set in, and carried her off in four days, as above described. How far the pregnancy influenced the position of the spoon and caused perforation remains, in Lihotzky's opinion, uncertain.

(203) Intestinal Obstruction after Elevation of Pelvis during Abdominal Section.

SCHAUTA (*Wien. med. Woch.*, Nos. 1, 2, and 3, 1892) speaks highly of "Trendelenburg's position," or elevation of the pelvis, as a means of facilitating abdominal section, especially when pelvic tumours or diseased uterine appendages

are operated upon. Nevertheless, he admits that the proceeding is not devoid of danger. Two cases of obstruction occurred in the course of 104 abdominal sections where the patient was placed in Trendelenburg's position. In the first case the patient was forty years old, and a uterine fibroid was removed, the pedicle being treated extraperitoneally. Vomiting set in on the sixth day, and the patient died on the tenth. About a quart of serous pus, with masses of fæces were discovered extravasated over the peritoneum. Volvulus was detected, the ileum having rotated round the mesentery from right to left. A large perforation was found at the point where the upper extremely distended part of the small intestine joined the contracted part below the obstruction. In the second case (the patient was 47 years old) a small adeno-carcinoma of the right ovary was removed; but the uterus was so damaged that it also was amputated. On the sixth day symptoms of obstruction set in. Three days later, as fæcal vomiting had occurred, the abdomen was once more opened. As in the first case, the small intestine had rotated round the mesentery. A sharp groove marked the point of obstruction. The volvulus was reduced, but the patient died in about twenty-four hours from pneumonia of apparently embolic origin, as occurs after operations for strangulated hernia. Professor Schauta has experimented on the cadaver with a view to note how the viscera are displaced when the pelvis is elevated. As a practical result of his experiments, he recommends that, when an abdominal section is performed, the pelvis should always be lowered after the deep sutures have been introduced into the abdominal wound. Then a gentle shake should be given to the abdomen; this manœuvre will allow the intestines to fall into place. Lastly, the deep sutures are tied.

(204) Narcosis in Obstetrics.

Dührssen (*Berlin. klin. Wochenschr.*, No. 15, 1892) considers that an anæsthetic is of great diagnostic as well as therapeutic value. The patient (often much excited) can be kept quiet by a few drops of chloroform whilst certain important factors in labour are being ascertained, such as the frequency of the fœtal heart sounds. Primiparæ are often very troublesome to explore, and it is then only by the aid of anæsthetics that the obstetrician can make sure whether the head has already entered the pelvic cavity. Narcosis is valuable for the timely diagnosis of occipito-posterior and transverse presentations. In explorations where the entire hand must be introduced into the uterus, anæsthetics are, of course, indispensable. For therapeutic purposes narcosis is needed for turning, especially combined external and internal version, for detaching adherent placenta, manual removal of ovum and membranes in abortion, reposition of impacted tumours during birth, the management of prolapsed foot in breech presentation, and turning in incomplete dilatation of the os in multiparæ. In irregular contractions of the uterus chloroform often hastens labour. Sepsis is, in Dührssen's opinion, a contraindication for anæsthetics, and deep or long-maintained narcosis is dangerous in cases of eclampsia. It should only be induced, in such cases, to facilitate rapid delivery by operation. Tetanus uteri is also a contraindication. In acute anæmia a very little chloroform will take effect. When chloroform is given, Dührssen advises the obstetrician to get the patient well under, and then to leave the mask in the charge of the midwife, who must from time to time pour a few drops into it.

(205) Cancer of a Fibroid Polypus.

Ehrendorfer (*Centralbl. f. Gynäk.*, July 7th, 1892) in a memoir on malignant disease complicating uterine myoma, describes a case under his care last year. The patient was 54 years old. For fifteen years she had been subject to irregular floodings, whilst the catamenia remained regular. It appears that menstruation still went on, notwithstanding the patient's age, but it was very irregular. Her last confinement occurred sixteen years before admission into hospital; recently the floodings were very severe. On examination, a firm tumour, of the size of a lemon, was found protruding from the cervix and filling the vagina. It was connected with the posterior lip of the cervix by a short pedicle as thick as a finger. The uterus was small and movable. The temperature rose at night to 101°. On October 28th the tumour was removed. There were some suspicious growths on the anterior as well as the posterior lip of the cervix, beyond the insertion of the pedicle of the tumour. A few weeks later the wound left after division of the pedicle seemed to be undergoing malignant degeneration. The suspicious area was watched, and at the end of about a month, as infiltration of the cervix was evident, total extirpation of the uterus was proposed. The patient, however, free from all flooding and in fair health, refused to submit to any more operation; she was alive when Ehrendorfer's report was published. The fibroid polypus was carefully examined. It was a true fibromyoma, and bore on its surface a cancerous ulcer. Cancerous elements had freely invaded the muscular tissue of the polypus.

(206) Uterine Fibroid and Syphilis.

Prochownick (*Deutsche med. Wochenschrift*, No. 7, 1892) has distinctly traced a relation between constitutional syphilis and fibromyoma of the uterus in certain cases which he has reported. The administration of mercury and iodides led, in these cases, to a distinct, though not very marked, diminution in the size of the tumour, whilst pain and flooding disappeared. To the objection that these so-called fibroids might have been gummatous deposits in the uterus, he replies that the hardness and other characters of the tumours all indicated fibroid disease, whilst there were no signs of breaking down and no cicatricial contractions on the surface of the tumours, such as are observed in gummata. In two cases of fibroid disease, where the patients were free from syphilis, iodides and mercury did no good whatever. Prochownick has no belief in any specific action of these drugs on fibroids. On the other hand, he finds that syphilis may set up chronic metritis and endometritis. Such cases defy the curette and other kinds of local treatment, but may speedily be cured by antisyphilitic remedies. Prochownick is not inclined to attempt any explanation of the origin of myoma uteri. He inclines to the theory that the germs of myoma lie dormant for years and set up a tumour in response to some undetermined stimulus which most probably arises in the blood vessels.

(207) Symphyseotomy or Sigault's Operation.

Charpentier (*Nouv. Arch. d'Obstét. et de Gynéc.*, June, 1892) declares that, thanks to antiseptics, symphyseotomy is an operation which gives excellent results when the pelvis is contracted to a conjugate between 2½ and 3⅕ inches. It almost assuredly allows the operator to save both mother and child. It spares the obstetrician the cruel necessity of sacrificing a live child, or of waiting for its slow death when he cannot make up his mind to perform cephalotripsy as long as the sounds of the fœtal heart persist. This delay seriously affects the mother. Symphyseotomy has a very limited scope, clearly defined. It stands between premature delivery and Cæsarean section, and associated to the first of these obstetrical interventions it allows the otherwise forfeited lives of the children to be saved. Like Cæsarean section, embryotomy should become an exceptional operation, and it is especially embryotomy that the operation of symphyseotomy should render a thing of the past in obstetric surgery.

(208) Severe Secondary Syphilis: Premature Delivery: Multiple Malformations of Fœtus.

Toujan, of Toulouse (*Annales de Gynéc. et d'Obstet.*, July, 1892), was called in on November 20th, 1891, to a primipara fourteen hours in labour. She had been married on May 23rd, and the last period was seen a month after marriage. Her husband had a hard sore on the lower lip when he married. She was soon infected, roseola appeared, and her hair began to fall. At labour the cervical and inguinal glands were found large and indurated; there was a number of mucous tubercles on the vulva, and a cicatrising ulcer on the lip. When Dr. Toujan arrived the body of the fœtus was delivered; the membranes had yielded nine hours previously. In making a very gentle effort to extract the fœtus he tore off the trunk from the head; the cord was not torn. He devided the cord, introduced a speculum, and, following the cord, reached the placenta and a soft white mass, evidently the head. As the placenta was the more accessible, he removed it by

aid of ovum forceps. It adhered to the lower segment of the uterine wall. A crochet was fixed to the head, which was seized with the ovum forceps and delivered without damage to maternal structures. The internal and outer genitals were thoroughly washed with a sublimate solution. The fœtus was putrid. Its cranium was perfect, but hardly any brain had developed. The face seemed covered by a veil; the buccal, nasal, and ocular orifices could not be detected. The neck and trunk showed numerous malformations. The atrophy of the facial arches was evidently due to syphilis. The mother, treated with specific remedies, made a good recovery.

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(209) Hydatid of Pelvis.

C. Fournel (*Arch. de Tocol.*, June, 1892) operated on a case of this kind in a patient aged 28. The walls of the cystic tumour, which was removed, bore the characters observed in true hydatid cysts, but no traces of the characteristic parasite were found. It was probably a vaginal hydatid, but as the evidence was not conclusive, Fournel prefers to call it a parovarian cyst, burrowing downwards. At the operation much adherent intestine and omentum were detached, and the cyst was found lying behind the uterus and a little to the left. It was enucleated, and contained colloid masses of a pearly white colour. There was no pedicle, some bleeding vessels were secured, the peritoneum was washed out, but bleeding from the site of enucleation continued. The pelvic peritoneum was therefore plugged, after Mikulicz's method. Eight strips of iodoform gauze (20 per cent.), each 4 inches wide and 20 inches long, were fastened one to another and packed into Douglas's pouch. The outer extremity was left dependent from the lower angle of the abdominal incision. There was much shock after the operation. On the eighth day the tampon was removed. Enough blood to fill a tumbler escaped from beneath it. The patient recovered. Fournel concludes that the tampon is of value because if it acts as a hæmostatic it fulfils its purpose, and if it does not it allows the hæmorrhage to be seen, as it soaks rapidly. In the latter case other steps can be taken to check the hæmorrhage. At least it saves the surgeon from reopening the abdomen to arrest a hæmorrhage which proves imaginary.

THERAPEUTICS.

(210) Lannelongue's Sclerogenic Method in Glandular Tuberculosis.

The method of Professor Lannelongue consists in injecting around the tuberculous focus a more or less concentrated solution of chloride of zinc. Moncorvo (*Les Nouveaux Remèdes*, August 8th, 1892) reports the result of treating a case by this method. The patient was a girl who showed many signs of congenital syphilis, and had also passed through attacks of malaria. She actually came, however, for treatment of a large glandular mass situated beneath the inferior maxilla. There were also signs of incipient phthisis at both apices. Having decided to try the sclerogenic treatment, the author made injections of from three to four drops of a 1 in 40 solution of zinc chloride in the neighbourhood of the swelling. This was repeated on three occasions, but as it caused some pain it was then discontinued for a time. After five days treatment was resumed, and a few days later the strength of the solution was increased to 1 in 20. Two injections of this strength were made at intervals of a fortnight, after which active treatment was discontinued. The gland rapidly underwent a shrinking process, and after three months nothing was left of the tumour but three very small remnants of gland, which were only just perceptible to the touch, and quite painless. At the same time there was a marked improvement in the child's nutrition and general condition.

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(211) Treatment of Vitreous Opacities by Fluid Extract of Jaborandi.

De Schweinitz (*Ther. Gaz.*, July, 1892) gives notes of some cases of vitreous opacities treated with jaborandi, as first suggested by Dr. J. A. Spalding (*Arch. of Ophthal.*, April, 1892). Five cases were thus treated, in every instance with the most satisfactory results. The following case is a type of the rest: A patient, aged 65, with commencing cortical cataract, and slight astigmatism, had V= $\frac{5}{7.5}$ in both eyes. Vision rather suddenly got worse, so that in one eye it fell to $\frac{1}{5}$. The vitreous was found very hazy, with many floating bodies. Locally, eserine sulphate $\frac{1}{4}$ gr. to the ounce was ordered, and 10 drops internally of ext. jaborandi three times daily. After twenty-six days the vision in the bad eye had improved to $\frac{4}{5}$, and the vitreous had practically cleared. The patient's condition continued satisfactory. De Schweinitz lays stress on the simultaneous local use of eserine, both as a safeguard against rise of tension and to relieve any accommodative asthenopia. Though in some of the cases other drugs as well were used, the author thinks the main credit was due to the jaborandi, which may be used either as fluid extract or as the nitrate of pilocarpin.

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(212) Dermatol in Eye Disease.

R. Roselli (*Rif. Med.*, July 7th, 1892) encouraged by the favourable results of numerous experiments on rabbits, has tried dermatol in the human subject in 25 cases of pustular conjunctivitis, 14 of simple or phlyctenular keratitis, 11 of parenchymatous keratitis, 9 of ulcer of the cornea, 5 of trachoma and pannus, 4 of blepharitis, 3 of kerato-hypopyon with complete infiltration of the cornea, and 2 of diphtherial conjunctivitis. The insufflation of dermatol in cases of pustular conjunctivitis of scrofulous origin, with or without the simultaneous administration of the iodides, gave excellent results. Good results were also obtained in cases of corneal opacity and simple and parenchymatous keratitis, iodides being given internally and atropine being instilled when indicated. Dermatol was found useful in corneal ulcers, especially those of traumatic origin, and also in the cases of kerato-hypopyon after emptying the anterior chamber. In blepharitis it was of little or no use. It proved very serviceable in the cases of pannus, but no effect was observed in the trachoma cases. In the cases of diphtherial conjunctivitis the insufflation of dermatol modified the secretion and prevented the formation of false membranes.

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(213) Therapeutic Effects of Testicle Juice.

Capriati (*Rif. Med.*, July 8th, 1892) has studied the therapeutic effects of injections of testicle juice, first in four lunatics suffering from acute forms of mental disease with depression, and next in healthy persons. In the former series of cases, after sixteen days of treatment, no real modification of the morbid state, bodily or mental, was ever observed. In all of them, however, throughout the treatment, and especially in the first few hours immediately following an injection, a definite effect was clearly produced on the cardio-vascular apparatus: this consisted in the strengthening of the heart's impulse and an increased tonicity of the walls of the blood vessels. These effects ceased on discontinuance of the treatment. In the case of the healthy patients, it was chiefly the effect on the muscular power that was studied; the results were entirely negative. From these experiments Capriati concludes that testicle juice has no dynamogenic influence on the nerve centres, its effect being limited to temporary stimulation of the nervous system. He attributes the wonderful effects reported by other observers, not to the action of the substance, but to the influence of a powerful psychical factor such as suggestion.

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(214) Spermine.

Poehl (*Bull. de l'Académie des Sciences*, July 25th, 1892) makes a further contribution to our knowledge of spermine. He is convinced that the activity of Brown-Séquard's injections is due to this substance. Spermine is found not only in the testicles, but in all glandular organs, especially in the pancreas, which contains large quantities. Some Russian physicians have made experiments on the effects of hydrochlorate of spermine. Their results lead them to consider this substance as quite free from danger, if used with care, and to act as an excellent nervine tonic. Hydrochlorate of spermine acts on the body after the manner of a true ferment, producing an increased rapidity of oxidation in the tissues.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(215) Bradycardia.

Sendler (*Centralbl. f. klin. Med.*, August 6th, 1892) records the following case, with the morbid anatomy. A woman, aged 35, had suffered for six months from general debility, with attacks of fainting. On admission there was general pallor of the surface, and the heart was beating only 40 times per minute. The apex beat could hardly be felt. The cardiac dulness was much increased, and a loud systolic murmur was heard all over the præcordium, but most distinctly in the aortic and pulmonary areas. The second sound was accentuated. After an attack of fainting the pulse fell rapidly to 35, and then more gradually to 22. Faradisation of the vagus alone increased the rate at all permanently. She died in a fainting fit. At the necropsy the heart was found to be greatly enlarged in all directions, and covered with much fat. The muscular substance of the right side was considerably hypertrophied, but flabby, and the right ventricle and auricle were much dilated. The valves themselves were unaffected, but 1 cm. below the opening of the pulmonary artery there was a hard fibroma of the size of a walnut, producing stenosis of this orifice. The blood getting into the left ventricle and thence ultimately into the coronary arteries being thus diminished, the nutrition of the heart was impaired; hence the bradycardia. Death was brought about by the overfilling of the cerebral vessels, with consequent serous exudation into the brain substance due to the hindered flow through the right heart.

(216) Paradoxical Patellar Reflex.

Eichhorst (*Centralbl. f. klin. Med.*, August 6th, 1892) relates a case of acute anterior poliomyelitis in the regression stage in which tapping the patellar tendon elicited no contraction in the extensor cruris muscle, but produced several well-marked contractions in the anterior tibial group of muscles. These slow contractions somewhat resembled peristaltic movements. The author is disposed to think that the reflex arc between the patellar tendon and the extensor cruris was broken, and the impulse made its way, so to speak, by some side path to the centres for the above-named muscles. Perhaps these centres, in the process of regaining their functions, were more susceptible to the reflex stimulus.

(217) Rupture of Liver during Epileptic Fit.

P. A. Polakoff (*Proceedings of the Caucasian Medical Society*, No. 15, 1892) relates the following case. A recruit, aged 22, shortly after his admission to hospital on account of right-sided croupous pneumonia, was seized with an epileptic fit, during which he fell out of bed. The convulsions soon ceased, and the patient fell asleep. On awaking he complained of intense pain about the right side, which was ascribed to the pulmonary inflammation, and accordingly on the next morning he was dry-cupped. A few hours later he died with symptoms of acute anæmia. At the *post-mortem* examination the abdominal cavity was found to contain about 5 pints of straw-coloured serum, while the right side was occupied by a large quantity of blood clots. The liver was extremely anæmic, but of a normal consistence, its measurements being $27 \times 19 \times 12$ centimetres. The right lobe was torn across, the rent, which measured 6 centimetres long by 2 deep, running parallel to and about 5 centimetres from the right edge, and involving the peritoneal coat. No microscopical examination of the organ was made.

(218) Infantile Tuberculosis.

With the view of determining the frequency of infantile tuberculosis, N. F. Engelnäh (*Vratch*, No. 18, 1892) has examined bacterioscopically the lungs and the bronchial and mesenteric glands in 120 infants which died in the St. Petersburg Vospitatelnys Dom from October 3rd to November 15th, 1891. The ages varied from 5 days to 8 months and 3 days. Of this number, in 14 (11.7 per cent.) tubercle bacilli were found, the age of the infants varying from 2 months and 4 days to 7 months and 7 days. In the lungs the bacteria were detected in 93 per cent. of the tuberculous cases; in the bronchial glands similarly in 93; and in the abdominal glands in 86. Pulmonary tuberculosis alone was present in 7 per cent., abdominal alone in 7, and both simultaneously in 93. An analysis of the registers of the same institution for the last decennium has shown that the average yearly frequency of tuberculosis is about 2.62 per cent. of all *post-mortem* examinations. The percentage in different years varies between 0.82 and 5.18, while the monthly frequency oscillates between 0 and 12.94 per cent. The disease occurs most frequently in infants of 2 or 3 months.

(219) Malarial Hæmoglobinuria.

Bastianelli and Bignami (*Rif. Med.*, June 7th, 1892) describe four cases of malaria presenting the phenomenon of hæmoglobinuria, in which systematic examinations of the blood were made. In two of these the blood showed numerous malarial parasites in various stages of development. Resort was had to quinine, with the result that the hæmoglobinuria, which had lasted for twenty-one hours in one case, was quite arrested, the parasites disappearing from the blood at the same time. In the second case the hæmoglobinuria appeared on the fourth day of a recurrence, and lasted thirty-six hours. Quinine was here equally efficacious. In the third case there was hæmoglobinuria, which lasted over twenty-four hours. During this attack no parasites could be found in the blood. Following this there was fever of three days' duration, but even then no parasites were discoverable. Quinine was not given in this case. The fourth case was also one in which examination during life had failed to demonstrate any parasites. All these observations were made in the summer of 1890 and 1891. The authors are of opinion that hæmoglobinuria occurs probably only in cases of an æstivo-autumnal type, for in these the phenomenon of destruction of red blood corpuscles is incomparably more frequent and extensive than in the malaria occurring in the spring. Another point to be noted is the promptly beneficial effect of quinine, both in causing disappearance of parasites and also of the fever.

(220) Actinomyces of the Liver and Lungs.

Brigidi (*Gazz. degli Ospitali*, August 11th, 1892) records a case of actinomyces in which the disease occurred primarily in the liver, and became disseminated through the lungs, giving rise to clinical signs, and, indeed, to macroscopic appearances (*post-morteni*), which could hardly be distinguished from disseminated tuberculosis. Another point of interest is the fact that the disease had extended to the adjacent part of the suprarenal capsule, a part which has not been before recognised as affected with actinomycosis.

SURGERY.

(221) Gangrene of Penis after Influenza.

Carl Devrient (*St. Peter. med. Woch.*, June 11th, 1892) records the following case: A man, aged 41, became very ill with influenza on January 15th, 1892. On the 17th, when the acute symptoms had passed off, the whole of his penis became red and swollen, and very painful; the glands in the groin were also enlarged and painful. No history of venereal or other infection, or of injury, could be elicited; the patient was not addicted to alcohol, and was not the subject of phimosis. The urine was clear, and contained neither sugar nor albumen. When seen on the 18th the penis was enormously swollen. A suspensory bandage was applied, lead lotion ordered, and ¼ gr. of morphine given internally to relieve pain, which was intense. On the 19th a large bulla developed on the end of the penis, and in a few hours extended over about one-third of the skin of the organ. The skin in the neighbourhood of the bulla was absolutely insensitive. On the 20th the dead skin was removed under an anæsthetic, when it was found that the gangrenous process had extended to the fibrous structures of the corpora cavernosa. The urethra was intact, but all the veins within the affected area were thrombosed. The process had destroyed the skin over the end and under surface of the penis, and partly that over the dorsum. There was no further extension

of the process; the wound became clean in a few days under antiseptic dressings, which were renewed every twenty-four hours, and healed by granulation. After eight weeks of treatment the patient was discharged, the loss of skin over the gangrenous area being to a considerable extent repaired.

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(222) Splenectomy.

E. TRICOMI, of Padua, reports (*Rif. Med.*, June 24th, 25th, 27th, and 28th, 1892) three cases of splenectomy: (1) A married childless woman, aged 26, eighteen months before coming under observation, noticed a painless swelling in the left side of her abdomen. She had at the time suffered from tertian ague for about two months. The tumour gradually increased in size, and the patient became pale, emaciated, and very weak. On examination, the tumour, which was freely movable and which followed the movements of respiration, was found to extend from the left hypochondrium to within a finger's breadth of the left iliac crest, reaching two fingers' breadth to the right of the middle line in front. Its surface was smooth, convex, firm, and elastic, and on the internal margin two notches could be felt. The proportion of white to red corpuscles was about 1 to 14. The case was diagnosed as one of chronic splenic leukæmia, and on June 15th, 1891, splenectomy was performed. The vessels of the hilum were of "enormous" size and about half a litre of blood was lost before the pedicle could be tied and divided. The operation lasted one hour and a quarter. After removal, the spleen was found to measure 30 centimetres in length by 15½ in breadth and 7 in thickness. The weight of the organ with the blood in it was 2.53; without the blood 2.143 kilos. The patient died of collapse four hours and a half after the operation. The author attributes the fatal result to the hæmorrhage during the operation, and to the relatively large amount of blood withdrawn with the excised organ. He thinks splenectomy in cases of leukæmia dangerous in direct proportion to the enlargement of the spleen, and hence he holds that the operation is contra-indicated when the organ weighs more than 3 or 4 kilos. In this case the blood was examined for micro-organisms with a negative result, and inoculations of blood, splenic pulp, and bone marrow on gelatine and agar were also unsuccessful. (2) A married woman with one child who had suffered from malarial fever, tertian in type, noticed a swelling in the splenic region about eleven months before coming under observation. The tumour increased in size, and she complained of sharp pain with a feeling of weight in the left hypochondrium. Her general health became affected, and she was almost completely bedridden. Treatment with quinine, arsenic, and iodide of potassium had been useless. The proportion of white to red corpuscles varied from 1 in 350 to 1 in 480. The tumour was easily recognised as the spleen, which was abnormally movable as well as enlarged. On December 20th, 1891, splenectomy was performed. The organ after removal measured 29 centimetres in length by 12.8 in breadth and 5.5 in thickness; it weighed 968 g. with its blood, and 768 g. without it. The patient made an excellent recovery. The wound was dressed for the first time on the ninth day, when it was found that union by first intention had taken place. On January 10th, 1892, twenty days after the operation, she was discharged well. (3) A woman, aged 32, with five children, had noticed after the birth of her third child, some four years before coming under observation, a painful tumour in the left hypochondrium. She had not suffered from malaria. The tumour steadily increased in size, and for about a year before admission to the clinic she had been quite unable to work. Medicinal treatment had proved ineffectual. On examination, the tumour was recognised to be the spleen greatly enlarged. The proportion of white blood corpuscles in the blood was from 1 in 436 to 1 in 520. Splenectomy was performed on February 22nd, 1892; the spleen after removal weighed 1.080 kilos with its blood, and 780 g. without it; it measured 20 centimetres in length by 11 in breadth and 6.3 in thickness. The patient made an uninterrupted recovery, and was discharged well on March 8th. The author adds that he has examined both the last-mentioned patients quite recently, and has found them free from any enlargement of the thyroid, lymphatic glands, tonsils, or liver.

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(223) Surgical Intervention in Cases of Non-Calculous Affections of the Liver.

TERRIER (*Rev. de Chir.*, July, 1892) reports two cases of cholecystostomy performed for the treatment of hepatic affections which had previously been regarded as strictly within the province of the physician. In one case he performed exploratory laparotomy, and established a biliary fistula in a man, aged 33, for the relief of symptoms of congestion and hypertrophy of the liver, with intense jaundice and febrile attacks. On the fourth day after the operation the jaundice had almost completely disappeared, and the liver had diminished in size. The patient soon recovered from the hepatic affection, and when last seen, about eighteen months from the date of the operation, had remained free from relapse. The second case was one of chronic jaundice, with hypertrophic cirrhosis of the liver and hypertrophy of the spleen, in a girl, aged 12. The gall bladder, which was distended, was exposed by a vertical incision made along the outer edge of the right rectus muscle, and then opened and fixed to the abdominal wall. No good results were obtained from this operation. The jaundice persisted, and the liver, together with the spleen, increased in size. In this paper Terrier publishes the results of all his operations on the gall bladder and the biliary ducts, the latest report having in many cases been taken long after the operation. Of 8 cases of cholecystectomy 2 were fatal, 1 on the eighth day, the other after an interval of twelve months. In the other 6 cases the operation resulted in complete and abiding success. The list includes only 1 case of cholecystotomy which was a fatal one, and 3 cases of cholecystostomy, of which 2 were successful. One case of cholecystenterostomy is recorded in which this operation was performed with poor results for the relief of obstructive jaundice due to cancer of the pancreas.

THERAPEUTICS.

(224) Quinine in Malarial Hæmaturia.

H. A. HARE (*Ther. Gaz.*, July, 1892) has tried to solve the problem as to whether the hæmaturia sometimes complicating malaria can ever be put down fairly to quinine used in treatment, and also whether quinine is desirable in those cases in which hæmaturia is a symptom. Correspondence with men practising in malarial districts elicited the following opinions: considered useful by 19, harmful by 28, as curing hæmaturia by 12, as causing it by 27. Now there are several distinct conditions under which hæmaturia may appear in malaria, and it is the mixing of these which has probably given rise to the different opinions expressed. There is no doubt, however, that quinine has a specially irritative effect on the genito-urinary tract, and may in full doses cause congestion of this tract, so that if hæmaturia has appeared at an early stage of treatment it would be well to refrain from giving the drug. In very severe cases of malaria the arrest of the malarial process at any cost may be the paramount consideration. In such a case its use should be followed by a brisk cholagogue purgative. In chronic cases quinine may be withheld in favour of other measures. There seems no doubt, too, that malaria distinctly predisposes some patients to hæmaturia as a result of taking quinine. This is fully established by quotations from a valuable paper by Karamitmas, of Athens (*Bull. de Thérap.*), who observed no fewer than seven cases of quinine hæmaturia. This author declares that he has never seen hæmaturia occur in any patient from the use of quinine unless he had been at some time a victim of malaria. Tommaselli also has seen cases of long-continued intermittent fever in which quinine would bring on attacks of bilious hæmaturic fever. Summarising the question as to whether quinine should be given in malaria or not, Hare says (1) in the milder forms of the disease it should be withheld if hæmaturia be present, or if any idiosyncrasy exist; (2) it is indicated in those cases which are malignant in other ways than the mere hæmaturia, and depend on a malarial paroxysm superimposed on a malarial dyscrasia; (3) in the hæmaturia following prolonged subacute or chronic malarial poisoning it is to be given, not in full but in tonic doses, relying on change of climate, nourishing food, tonics, and other drugs to renovate the patient's tissues.

(225) Thyroid Grafting and Injection of Thyroid Juice in Myxœdema.

V. Robin (*Lyon Méd.*, August 7th, 1892), after giving a brief account of the work of the physiologists as to the function of the thyroid gland, describes a fresh clinical observation of his own which may be briefly summarised as follows:—Case of congenital myxœdema greatly improved by injections of thyroid juice; grafting of fresh thyroid glands—the injections were made daily, and the improvement was immediate. The patient, a child of seven years, almost immediately became less torpid, its movements rapid, its complexion clear, and face animated. Its skin has become smooth, and nearly all trace of œdema has vanished. In fact, the child is quite unrecognisable to those who knew it before treatment. The thyroid juice is obtained from fresh sheeps' thyroids by simple pressure. This treatment was then supplemented by grafting in the sub-mammary region the two lobes of a sheep's thyroid, taking care that the operation should be speedy and aseptic. In the case described this operation, undertaken with the idea of maintaining the improvement produced by the thyroid juice, has been successful—at least, as concerns the actual grafting. In conclusion, the author draws attention to a thermogenic function of the thyroid. This opinion is based on the following reasons:—In myxœdema the temperature is below normal. In the case described the temperature rose twice—during attacks of measles and whooping cough. Each time the myxœdema disappeared. Directly the temperature fell again, the disease returned. Now the injections for their first effect produced a rise of temperature, followed by rapid improvement in the myxœdema. Robin is making some experiments with the idea of substantiating the view that thyroid juice has pyrogenic functions.

(226) Treatment of Cholera.

Volovsky (*Vratch*, No. 31, 1892, p. 770) says the following method gave excellent results in his hands during a severe epidemic in 1872. Immediately after admission the patient is placed in a bath as hot as can be borne (not under 30° R.), and an icebag applied to the head. A few minutes later he is given a scruple of calomel and an ounce of castor oil, with some wine or brandy. In about half an hour, or as soon as he begins to complain of giddiness, he is taken out of the bath, put to bed, and rubbed dry, after which a large sinapism is applied to the whole abdomen, sides, and lower half of the chest, and kept on for fifteen or twenty minutes. Mild cases recovered most quickly, but even many of those admitted in the algid stage were discharged well in forty-eight hours.—A. D. Pavlovsky, of Kieff (*Kievskoïe Slovo*, August 4th, 1892), suggests the following plan for eliminating the cholera bacilli and their toxins in the early stage: A purgative dose of calomel with naphthalin should be given at once, and half an hour later hot weak tea with rum or brandy. If the patient's general strength and the action of the heart are still good the subsequent treatment should consist in the administration of small doses of calomel with naphthalin, and hot tea, with claret, brandy, etc. If cramps are complained of, hot packs and baths should be used, and the tinctures of valerian and convallaria given in doses of thirty drops hourly. If there be profuse diarrhœa and tendency to cardiac failure hypodermic injections of a 0.7 per cent. solution of chloride of sodium with carbonate of soda must be resorted to as early as possible. Opium should be avoided.—A. G. Rosenoel (*Vratch*, No. 31, 1892, p. 770) has studied the action of the following substances on the cholera microbe in pure cultivation: Bisulphide of carbon, aniline water, iodine, carbolic acid, iodoform, resorcin, boracic acid, alum, salicylic acid, and thymol. He has come to the conclusion that: (1) All these drugs, except thymol, kill the microbes only when used in very strong solutions. (2) In order to destroy the microbes in a cholera patient's intestines the drugs should be introduced in quantities which would poison the macrobe as well. (3) Thymol, however, kills the bacteria in five minutes, even when used in the proportion of 1 to 1,000; (4) therefore, to disinfect the intestinal tract in a cholera case it would be sufficient to inject into the patient's bowels not more than 4 grammes of thymol dissolved in 4,000 grammes of water—a quantity which may be regarded as perfectly safe. Only five minutes' contact of the fluid with the intestinal contents and walls is necessary for all purposes.—V. A. Manassein says (*Vratch*, No. 32, 1892, p. 811) that he has received a telegram from I. I. Lvebomüdroff, of Tionet, stating that salol as well as hydrochloric acid seem to act excellently well in cholera.

(227) Peroxide of Hydrogen in Gastric Disturbances.

A. N. Iakovleff (*St. Petersburg Inaugural Dissertation*, 1892, No. 109) has made nine experiments on eight subjects, of whom some were suffering from chronic gastritis, some from nervous dyspepsia, one from cancer of the stomach, and one from hyperacidity of the gastric juice, while the eighth was healthy. In all but two cases the patients were given a 3 per cent. solution of H_2O_2—4 cubic centimetres before breakfast, dinner, and supper. The patient with malignant disease and the one with hyperacidity took a 2 per cent. solution, 4 cubic centimetres from three to six times a day. The following is a summary of the results of these experiments: (1) Under the influence of H_2O_2 the general acidity of the gastric juice and the proportion of free HCl invariably increase. (2) The proportion of lactic acid always decreases, while in later stages of digestion the acid disappears altogether from the gastric contents. The phenomenon should be attributed to the well-known antifermentative properties of H_2O_2. (3) The digestive power of the gastric juice is markedly intensified. (4) In the case of hyperacidity (as well as in another similar case in the author's private practice) the administration of the peroxide was followed by a distinct aggravation of all gastric symptoms, while in all others, including that of cancer, marked improvement was observed—the appetite improved, the epigastric pain ceased, eructations and vomiting decreased or entirely disappeared, the bowels became more regular, etc. The author further made experiments on frogs and dogs, his object being to elucidate the effects of H_2O_2 on the circulation. The results agree pretty closely with those published by Guttmann and Schwerin, the essential point being that H_2O_2 is decomposed by the blood, and hence can give rise to gaseous embolism with its consequences, such as dyspnœa, dilatation of the cardiac cavities, etc. From these facts Iakovleff concludes that injections of H_2O_2 into the circulation for therapeutical purposes, as suggested by some authors, are absolutely inadmissible.

(228) Therapeutics of Pneumonia.

Federici (*Rif. Med.*, June 2nd, 1892) gives the following hints on the treatment of pneumonia: One of the first symptoms requiring relief is pain. It may be relieved by applying a piece of cotton wool soaked in chloroform to the spot, and covering it with a piece of wool. This generally succeeds, but if it fail, an injection of morphine with a little atropine, or, should even this fail, four or five leeches applied to the painful spot, will give the desired relief. As for the treatment of the disease itself, mercurials are much in favour with the author. Corrosive sublimate is his favourite preparation, the dose being 5 to 8 milligrammes, with a little alcohol, in 3 ounces of water. The next drugs are the expectorants; these act by exciting the motor nerves of the bronchial muscles; they excite, too, the secretory fibres, and also lessen the blood supply by acting on the vasomotor fibres. Expectorants are of three classes: weak, as senega; more energetic, as ipecacuanha and ammonium carbonate; powerful, as antimonials. Of these drugs it must be remembered that the more potent ones have a powerful depressant action on the heart. As regards tartar emetic, there can be no doubt that it is much better borne during the acme than during the period of resolution. It may be, however, that this difference has something to do with the change from a fluid to a solid diet. Cardiac paralysis is a danger especially to be feared in pneumonia; the pulse must, therefore, be very carefully watched. Digitalis must not be given as a matter of routine, for it may prepare the way for that very cardiac paralysis which it is intended to prevent. Tonic treatment should be adopted; excitants correspond very well to temporary needs, but tonics produce a lasting effect on the tissues. Of tonics, those most recommended are quinine and serpentary. Rapid prostration on the sixth or seventh day is met by alcohol in some form, or by ether, or,

again, by injections of ethereal tincture of musk; this latter drug Federici at first uses once every twenty-four hours, increasing the frequency gradually. Lastly, the author draws attention to the value of bleeding in pneumonia, a plan of treatment which has rather undeservedly fallen into disuse.

(229) Tetanus Treated by Cold Baths.

RIVIERE (*Lyon Méd.*, July 31st, 1892) describes two cases of tetanus with high temperature treated with cold baths. In each case chloral and opium had failed to give relief, and as the temperature was high (41° C. and 40.2° C.) it occurred to the author to try the effect of immersing the patients in cold baths. This was done with marked success, there being in one case no recurrence of trismus or rise of temperature, and convalescence taking place in about a week. In the other case the bath was repeated several times, always with good results, both as regards fall of temperature and disappearance of the spasms. The author draws attention to the favour with which the treatment by cold was regarded by veterinary surgeons, and refers to some work by Brodie to the same effect.

PATHOLOGY.

(230) Protective Inoculation against Cholera Intoxication.

G. KLEMPERER (*Berl. klin. Woch.*, August 8th, 1892) says that there is no longer any doubt that cholera is caused by the comma bacillus. This bacillus cannot develop in animals, and is thus non-infective for them. The question of the pathogenic action of micro-organisms is not limited to the indefinite power of growth in the body, but includes their toxic properties. Thus micro-organisms may be toxi-pathogenic but non-infective. Thus enteric fever bacilli do not develop in in animals, but if injected into the peritoneal cavity these animals quickly die from the toxic effects. So it is with the comma bacillus. The first object then is to protect these animals against this fatal intoxication. A sure inoculation against such intoxication is a protection against the most infective bacteria, as may be seen in the case of pneumococcus immunity. It would appear that one-half the community is immune against cholera and protection is conferred by one attack for four or five years. Hitherto immunity has only been brought about in animals by the addition of the extract of the thymus gland to the injected culture of cholera bacilli. The cholera virus proves itself much more resistent to attenuating influences than the pneumococcus poison. The author then records his experiments. (1) Inoculation against intraperitoneal intoxication by means of heated cultures. It was found that seventeen hours after the injection of the virus thus attenuated, the fatal dose of cholera bacilli did not kill, and that the serum from rabbits made immune against cholera protected guinea-pigs from that disease. (2) Inoculation against cholera intoxication starting from the intestinal tract. A disease like human cholera can be brought about in guinea-pigs by introducing cholera bacilli into the stomach, if the gastric juice be neutralised by soda and peristaltic action prevented by opium. It is more like human cholera than that produced by intraperitoneal injection, and a greater degree of immunity is necessary to prevent it. Two intraperitoneal injections of the warmed culture will produce certain protection against it. (3) Protective substances introduced through the mouth. The amount of cholera bacilli given to the guinea-pig after the soda-opium treatment may be such as just to avoid a fatal result. A few days later an absolutely fatal dose is without effect although control animals invariably die. The author believes that this is the first time that immunity has been conferred experimentally through the mouth—a fact of much interest. (4) Protective inoculation by means of cultures treated with electricity. It was proved that a constant current of 20 milliampères and of twenty-four hours' duration completely killed the cholera bacilli in a bouillon culture one day old. The poison was so weakened as to be of use in conferring immunity and acted like a culture kept at 70° C. for two hours.

(231) Excretion of Bacteria by the Organism.

PERNICE AND SCAGLIOSI record (*Deutsche medicin. Wochenschr.*, August 25th, 1892) the results of an elaborate inquiry into this subject. The main conclusions arrived at are as follows: (1) Staph. p. aureus, B. subtilis, B. pyocyaneus, and B. prodigiosus, when injected into the body pass out in various ways. Almost always they are excreted with the bile and urine, but sometimes also through the different mucous membranes (of nose, mouth, trachea, stomach, vagina, etc.). They may further pass into the milk and semen, and into serous exudates. Transference of the hay bacillus from mother to fœtus has been observed by the authors. (2) The excretion of bacteria begins in from four to six hours after permeation of the organism, and continues until the animal dies, in the case of pathogenic bacteria. It is delayed for from twenty-four to forty-eight hours when non-pathogenic bacteria are introduced. (3) B. anthracis and B. pyocyaneus retain their virulence when excreted. 4. The kidneys show changes in all cases in which the injected bacteria (whether pathogenic or not) appear in the urine. These consist chiefly in hyperæmia, blood extravasation, and degenerative states of the renal epithelium; they take place before the excretion of the organisms, for which they probably prepare the way. (5) Bacteria are found in the blood in from four to six hours after subcutaneous inoculation. (6) Cultures are obtainable from various organs before bacteria can be demonstrated in the blood. This is explicable on the supposition that many of the injected organisms are destroyed in the blood; those which escape settle in different organs, proliferate, and discharge fresh parasites into the blood, which has now lost its bactericidal property, and consequently permits their circulation. The authors have observed that deprivation of water promotes the liability to anthrax in animals normally more or less immune, and they urge the importance of a plentiful supply of fluid to the infected organism, in order that its excretory efforts may be furthered as much as possible.

(232) Pathogenic Action of the Influenza Bacillus.

BRUSCHETTINI (*Rif. Med.*, June 22nd, 1892) has completed further researches on the pathogenic effects of the bacillus of influenza. From a large number of new experiments he concludes as follows: (1) The bacillus is not pathogenic for the dog or white mouse, but is distinctly pathogenic for rabbits and guinea-pigs. (2) When injected into the trachea, or sometimes when introduced into the circulation, it produces a diffuse bronchitis in the less serious cases with considerable rise of temperature; in the more severe cases it causes an interstitial broncho-pneumonia. (3) Injected into the serous cavities it gives rise to an abundant sero-fibrinous exudation. The author adds that in nine influenza patients out of eleven he has constantly found the same micro-organism in a state of purity, that he has cultivated it in the very blood in which he found it, and that consequently there can be practically no doubt as to the genuineness of his microbe.

(233) Effect of Light upon Bacteria.

BUCHNER (*Centralbl. f. Bakteriologie*, August 18th, 1892) gives the following as a simple and effective method of demonstrating the influence of light upon bacteria. Nutrient agar is liquefied, and inoculated with a given sample of a micro-organism—in the case here described typhoid bacillus; as uniform distribution of the germs as possible is secured. The agar is then poured into a glass dish with glass cover (Petri's, Soyka's), and allowed to set. A cross of black paper is then fixed upon the under-surface of the dish, and this surface exposed to direct sunlight for one hour to one hour and a half, or diffuse sunlight for five hours. The agar plate is then placed in the dark. In twenty-four hours there is seen beneath the paper cross another, sharply defined, formed by the colonies which have developed; the rest of the plate remains sterile. That this effect upon growth is not due to mere inequality of temperature is shown by immersing the plate, before exposure, in water; a depth of 0.5 mm. is employed by the author. Precisely similar results are then obtained.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(234) The Tuberculous Infection.

Billet (*Arch. Gén. de Méd.*, August, 1892) refers here chiefly to cases in which the diagnosis of tuberculosis is given up generally in favour of enteric fever, and chiefly because the patient recovers. It is among these cases, so to speak, of false enteric fever that the disease called by the author infective tuberculous fever must be sought for. In the question of the possibility of the arrest of acute tuberculosis the author refers to the evidence of morbid anatomy which shows not infrequently the healing of pulmonary tuberculosis. There is no reason why tubercle bacilli should not behave like other micro-organisms, and fail to develop either owing to unfitness of soil or their own diminished virulence. Abortive attacks of other infective processes such as variola, scarlet fever, are admitted. The author then gives in detail two cases of this infective tuberculous fever. Both patients recovered and have remained well, the one for sixteen months and the other for eight months after the illness. The points in the clinical behaviour of the disease are then discussed. The onset begins with digestive disturbances. Headache is usually present but there is no epistaxis. The temperature soon rises and presents an irregular course, but this is often interfered with by treatment. The pulse is more rapid than in enteric fever, and there is no dicrotism. The headache generally disappears early, and any cerebral symptoms present are but slightly marked. There is no stupor. The abdomen is not distended and diarrhœa is rare. Special attention should be paid to the lungs. Adventitious sounds, including subcrepitant *râles* are heard, especially over the apices, and the breathing is harsh in this situation. If the patient recovers these signs disappear, and if he dies, only a few tubercles are found in the apices. A third method of ending is by chronic tuberculosis. Other diseases which have to be borne in mind are malaria and intoxications from food stuffs. In the treatment special mention is made of antipyrin and of small doses of tartar emetic.

(235) Tachycardia.

Hempeln (*Deut. med. Woch.*, September 1st, 1892) relates a case which ended in recovery after a period of fifteen years, and in which the habitual form of the disease was accompanied by paroxysmal exacerbations. A man, aged 47, had acute rheumatism in 1876, complicated by a fibrino-serous pericarditis. In the fifth week of the disease, the pulse was 152, and during the next two weeks it varied between 140 and 160. Notwithstanding this, the patient improved and left his bed in the eighth week, the pulse being 140 to 148. In 1876-77 the pulse fell to 120. The habitual tachycardia did not seem to cause any inconvenience. In 1886 there were superadded paroxysmal attacks of two distinct kinds, namely: (1) Palpitation; and (2) a paroxysm of greatly increased tachycardia. The former was brought about by exertion, and was characterised by violent and rapid cardiac action. The latter had no such cause. This attack began by a lessening of the frequency of the pulse, then a feeling of oppression, and the pulse rate mounted to 240 or even 280 per minute. There was great anxiety as well as nausea and sweating. The attack lasted two, four, six, or even eight and a-half hours. These attacks repeated themselves each year. In 1891 he had an attack of palpitation lasting fifteen minutes, and followed by a feeling of suffocation and great weakness. This continued during eight days, when the heart's action became so violent and irregular that the patient thought he was about to die. He fell into a sleep, and woke up with a pulse of 88. From this time the tachycardia entirely disappeared. The author does not think that the habitual tachycardia was a cardiac neurosis. It was not due to paralysis of the vagus or irritation of the sympathetic on account of the long duration and ultimate recovery. Hempeln is of opinion that it was brought about by the pericardial adhesions, and that it was a compensatory measure. He would, however, attribute the paroxysms to a neurosis, and would explain the recovery by the adhesions being broken down in the last violent attack of tachycardia.

(236) Spontaneous Opening of a Phthisical Cavity.

N. L. Tchistovitch (*Bolnitchnaia Gazeta Botkina*, Nos. 15, 16, 17, and 18, 1892, p. 345) reports the following case: A phthisical musician, aged 35, had a cavity in the left apex, of the size of a hen's egg, which spontaneously burst through the second and third intercostal spaces, close to the sternum, two fistulæ remaining. The patient died from exhaustion fifty days later. Bacteriological examination of purulent discharge from the pneumo-pleuro-cutaneous fistulæ, made during the patient's life, revealed the presence of tubercle bacilli, yellow staphylococcus, and three new species of microbes, one of which was named by the author "coccus albus non liquefaciens" (on account of its behaviour with regard to jelly), another "bacillus agilis" (on account of its vivid motion), and the third "bacillus fungoides" (pure cultures on potato slices being characterised by a mushroom appearance). As inoculation experiments on rabbits showed, when injected each *per se*, the white coccus and bacillus agilis developed only a trifling pathogenic action, while the bacillus fungoides gave rise only to a high fever of one or two days' duration, with a similarly temporary prostration, the animal ultimately remaining alive and well. The combination of the bacillus agilis with the bacillus fungoides, however, invariably induced a general septic affection, rapidly ending in death. The author points out that international literature contains not more than about 22 instances of a spontaneous opening of pulmonary cavity externally; of this number, 12 were collected by Bouchat in the *Gazette des Hôpitaux*, No. 50, 1854, while the remaining were published by Lebidois, Wocts, Stewart Allen, Stafford, Cruveilheir, H. Schuber, Flamarion, Boehm, Quint, and an unknown author in the *London Medical Gazette*, vol. vii, 1830, p. 80.

SURGERY.

(237) Complete Laryngectomy for Cancer.

E. Orecchia, Director of the Hospital of Massa-Carrara, reports (*Rif. Med.*, August 31st, 1892) the following case:—A man, aged 55, whose sister and two maternal aunts had died of scirrhus of the breast, came under observation on April 26th, 1892. Four years previously he began to suffer from hoarseness and slight dyspnœa, and about a year after the first appearance of these symptoms a small polypus was extracted by the endolaryngeal method by a laryngologist in Florence. This operation was followed by improvement of the voice. From four to five months later the symptoms returned, and gradually became more severe, till in September, 1891, suffocation seemed to be imminent. On two or three occasions the dyspnœa only ceased on the occurrence of hæmorrhage from the larynx. On admission, a swelling was observed in the middle of the neck, bounded on each side by the sterno mastoid muscle, and extending from the hyoid bone to the episternal notch. The skin over the swelling was œdematous. The breath was fœtid, the breathing noisy, the voice reduced to a hoarse whisper. There was no difficulty in swallowing. With the laryngoscope nothing could be seen but a fungating mass at the root of the epiglottis completely hiding the interior of the larynx. Microscopic examination of the polypus removed by the Florence specialist showed that the disease was epithelioma. No enlarged glands could be felt in the neck. The swelling having been reduced by continuous inhalations of a boric solution, and the mouth, teeth, and pharynx having been cleansed by frequent washing and gargling during some days with a similar solution, the larynx was completely excised on May 14th. The operation lasted one hour and a quarter, and very little blood was lost. The upper end of the trachea was fixed to the skin with silk sutures. A gum elastic catheter was passed into the stomach through the mouth, and the wound stuffed with iodoform gauze. The temperature never rose above normal. The œsophageal tube was left *in situ* for two days, and after that introduced only when food was to be given. For twenty days the patient was fed through

the tube—eight or ten eggs, 1½ litre of milk, a bowl of broth, and 1½ litre of red wine being given in the twenty-four hours. Three weeks after the operation the wound was so far healed that the patient could feed himself without the help of the tube, and ten days later only a linear median cicatrix was left, with a circular aperture representing the tracheal orifice, through which a metal cannula was inserted. On June 30th the man left the hospital, much improved in health. He was able to make himself understood in speaking, and Orecchia thinks that, with the help of a simple mechanical contrivance, and with practice, his speech will become more intelligible.

(238) Craniectomy.

AT the Congress of Mental Medicine recently held at Blois (*Sem. Méd.*, August 10th, 1892), Bourneville showed a number of idiots' skulls which presented no trace of synostosis or of premature ossification. He showed at the same time several skulls of children on whom craniectomy had been performed, and in these, as in the others, the sutures were preserved. According to Bourneville, this proves that Lannelongue's theory of microcephalus, in which the operation of craniectomy finds its warrant, rests on no sound basis, either anatomical or physiological, and the procedure should therefore be definitively abandoned. In reply to G. Ballet, Bourneville said he had not yet met with a single case of complete synostosis in an idiotic or backward child. Régis of Bordeaux stated that about a dozen craniectomies had been performed in that city, and, so far as he knew, without any great benefit to the little patients. In one case death had occurred. Bouchereau said he was absolutely convinced of the uselessness of the operation, and he pinned his faith on the hygienic and educational treatment instituted by Bourneville at Bicêtre. (See BRITISH MEDICAL JOURNAL, 1891, i, p. 1247.) Rouby stated that he had trephined without success an idiot child which had a congenital depression of the cranial bones.

(239) A New Method of Removing the Prostate Gland.

PYLE (*Med. Record*, August 6th, 1892) describes an operation for removal of the hypertrophied prostate, which he has performed with success on a patient aged 70. The space immediately in front of the rectum and behind the bulb of the urethra was chosen as the route through which to reach the base of the bladder and the prostate gland. A semicircular incision was made immediately in front of the anus, and carried through the connective tissue between the bulb of the urethra and the rectum. This incision, it is stated, gives a ready access to the field of operation, and is made with very little hæmorrhage, as all spurting vessels are situated to the outside and in front of the wound. After the integument and tough fascia have been divided, the handle of the scalpel may be used to separate the loose connective tissue between the rectum and urethra, until the fascia covering the levator ani is exposed. After division of these structures the enlarged prostate will be seen. The finger is the most convenient instrument in this operation, and should be freely used in opening up the deeper parts of the wound. The prostrate should now be seized with a pair of vulsellum forceps, and dragged to the surface. If the gland be very large, the lobes may be removed separately. A curved steel sound should be introduced into the bladder before the operation, in order to indicate the situation of the urethra, and to keep the base of the bladder from slipping upwards whilst the prostate is being separated.

(240) Benign Tumours of the Tongue.

I. P. LANG (*Khirurgitcheskaia Letopis*, No. 3, 1892, p. 305) reports the two following cases:—(1) A, woman, aged 22, had an indolent, roundish, very hard tumour of the size of a hazel nut, which was situated on the dorsal aspect of the tongue, just to the left of the median line, nearer to the root of the organ. The new growth was slightly elevated above the surface, the base being broad, the mucous membrane pale but intact. It had been growing very slowly but steadily for about twelve years, causing no discomfort beyond some difficulty in swallowing solids. The neoplasm was removed under cocaine by Sklifosovsky, the wound being closed with silk; hæmorrhage was trifling. The sutures were extracted on the fifth day. Except a small central portion, the wound healed by first intention. The tumour proved to be a fibro-chondro-osteoma lipomatodes. (2) A Hebrew girl, aged 13, had a typical adenoma, of the size of a plum, growing from the root of the tongue, close to the epiglottis, and causing indistinct articulation with a nasal twang. The mucous membrane was traversed with dilated blood vessels, and showed patches of incipient sloughing and ulceration. The swelling had first been noticed three years previously. It was excised similarly under cocaine by the same surgeon. Sharp arterial hæmorrhage followed, which was controlled by tying a vessel (probably, either the dorsal or the right lingual artery). The wound healed in about seventeen days, the patient being discharged with a perfectly normal voice. The author has been able to find only one case of lingual osteofibroma (Zahn) and one of adenoma (Testut) recorded in medical literature.

(241) Graves's Disease Cured by an Intranasal Operation.

MUSEHOLD (*Rev. de Laryngologie*, July 15th, 1892) describes a case of Basedow's disease which was accompanied by an enlargement of the posterior half of the right inferior turbinated bone. This portion was removed by the galvanocaustic snare, with the result that the headache at once disappeared, the palpitation gradually improved, and, seven days after, the heart was nearly normal. The goitre, however, persisted, and was treated by mild continuous currents; two months after nearly all the trouble had disappeared. This case seems to indicate that Basedow's disease is sometimes due to reflex causes, removal of which will also remove the trouble.

MIDWIFERY AND DISEASES OF WOMEN.

(242) Laceration of Vagina from Indirect Violence.

OSTERMAYER (*Centralbl. f. Gynäk.*, No. 31, 1892) gives full details of an instructive case of laceration of the vagina not due to any criminal operation or to sexual violence. The patient was 40 years old and single, but had borne a child five years previously. She had been deaf for ten years owing to aural disease following typhoid fever. She was employed at a paper mill. Three weeks before admission into hospital she fell downstairs when carrying a heavy bundle of paper in her arms, pressed against the chest. The bundle was dropped, and as she fell she struck her abdomen against the corner of a step, and at once felt intense pain in the hypogastrium, then she became insensible. About half an hour later she revived, found herself at the bottom of the steps and crawled up them, reached home, and went to bed. She then noticed blood issuing from the vagina; she thought it must be menstrual. Four days later she returned to work at the mill. Ostermayer found an oblique rent in the posterior vaginal fornix. It was 2 inches long, and ran from the right close to the middle line downwards to the left. It looked like a clean, recent incised wound; its edges were incurved towards the left. The wound was easily united by catgut and dressed with iodoform; it healed well. The vaginal wall was lax, and Ostermayer believes that it had been torn by the force of the abdominal and pelvic organs pressing suddenly against it when the abdomen struck against the step. He quotes Henry's case, where the bladder and anterior vaginal wall were lacerated when the patient was thrown out of a cart, and struck her abdomen against a post.

(243) Separation of the Recti after Pregnancy and Labour: Operation.

MURATOW (*Vratch*, 1892, p. 1015) had to deal with a troublesome case of separation of the recti in a sickly woman, aged 19. She had been delivered, five months before, with forceps after thirty-six hours' labour. She was very anæmic, and the abdominal walls were so thin that all the viscera could be distinguished with ease on palpation. On incision through the very thin integument, the peritoneum, pushed forward by intestine, came in sight. Although the patient was well under chloroform, the inner borders of the recti, drawn back by the action of the obliques, could not be found and brought together without great difficulty. The edges of the recti were vivified and united by silk sutures

placed close together. Four stouter sutures were passed through the substance of the muscles further from their edges, and through the other layers of the abdominal walls. On the ninth day the sutures were removed. The wound had united except at its lower end, where a small fistulous track remained; a piece of silk suture came away six months later. Fourteen months after the operation the patient remained free from any sign of a recurrence of her complaint.

(244) Amenorrhœa in a Fertile Woman.

Terrier (*Annales de Gynéc. et d'Obstét.*, August, 1892) publishes the following case: A girl, aged 14, menstruated in May, 1874. The catamenia appeared for the second time in September in the same year, for the third in August, 1875, and for the fourth in September, 1876. After the last date they were suppressed for twenty-three months, and recurred in August, 1878, after hydropathic treatment. They did not reappear till November, 1879. Once more they ceased, and did not recur till May, 1881, on her wedding day. But they did not return, and she became pregnant in September, 1881, and was delivered in June, 1882. In March, 1883, the catamenia appeared for the eighth time in the life of the patient, now aged 23. A month later she became pregnant, and was delivered at term in January, 1884. The ninth occurrence of menstruation was under precisely the same circumstances as the eighth, pregnancy following a month later (June, 1885). She was delivered of her third child in March, 1886. On February 10th, 1887, the catamenia appeared for the tenth time, and once more was followed by pregnancy; the patient was delivered at term, for the fourth time, in December, 1887. Since that date she has not become pregnant, but after hydropathic treatment the period was seen in January, July, and October, 1888, January and April, 1889, January and October, 1890, and April and June, 1891. Since the last date no period has been seen. Thus this woman, free from hysteria or ill health, has only seen her period nineteen times in eighteen years, yet has borne four healthy children.

(245) Pyæmia after Puerperal Inflammation of Breast.

Grosse (*Centralbl. f. Gynäk.*, No. 34, 1892) read before the Leipzig Obstetrical Society in March a case where a married woman, aged 22, living in very comfortable circumstances, was normally delivered of her first child on December 20th, 1891. On the ninth day she left her bed; on the eleventh the right breast become hard and tender, the temperature rising to 103°. On January 3rd, 1892, two incisions were made and the breast was drained. The patient's condition improved, but on the 7th the temperature rose. Thorough drainage was ensured next day by careful dressing, but the temperature rose to 105°, and on January 12th there was urticaria; the spleen was enlarged. On January 14th, after due deliberation, the breast was removed as a dangerous focus of sepsis. The abdominal, thoracic, and pelvic viscera, except the spleen, then seemed healthy, according to clinical evidence. The patient lost much blood and died a few hours after the operation. The patient had never succeeded in getting her child to take the breast. Grosse believes that the staphylococcus pyogenes aureus and albus (found in great abundance in the breast, which was riddled with abscesses) entered through some abrasion caused by fruitless attempts to suckle. Brieger and Rosenbach have already shown that the staphylococcus, considered by some authorities as a relatively harmless germ, may set up pyæmia. Grosse regrets that no *post-mortem* examination was permitted in his case.

THERAPEUTICS.

(246) Injections of Strychnine in Cholera.

T. French-Mullen states (*Indian Med. Gaz.*, July, 1892) that he has given hypodermic injections of strychnine in some hundreds of cases of cholera, with very satisfactory results. He uses the method in every case in which collapse has set in, or seems to be coming on. He gives ♏v of liquor strychninæ in an equal quantity of water. As his patients were almost all seen in their own homes, and there were so many to be visited, it was, as a rule, only possible to give two injections in the day (morning and evening) to any one case. He has, however, given five injections in twenty-four hours, and two more during the following twelve hours in the case of a prisoner where the effects could be watched, and has no doubt the man owed his recovery to the remedy. When the urinary secretion has not been re-established within twelve hours or so of the cessation of the other symptoms, French-Mullen has given hypodermic injections of pilocarpin with marked success in many cases, urine being passed within less than five minutes after the use of the syringe.

(247) Injections of Testicle Juice in Cancer.

Brown-Séquard (*Sem. Méd.*, September 7th, 1892), after referring to his previous reports on the value of hypodermic injections of testicle juice in increasing the energy of the nervous centres, improving nutrition and secretion, and giving tone and strength, said he had hitherto purposely abstained from speaking of the effect of the remedy in cancer, although he was acquainted with facts which appeared to demonstrate with certainty the happy influence of the injections in patients suffering from malignant disease. Facts which had recently come to his knowledge, however, no longer permitted him to keep silence. He then gave particulars of a case communicated to him by Dr. Labrosse, of Mustapha in Algeria, who had treated by injections of testicle juice (rabbit's) a woman with cancer of the womb beyond operation. After a dozen injections the patient, who was in the cachectic stage, and was so weak that she could not leave her room, was able to walk about and to go out on foot or driving, which she had been unable to do for a year. Moreover, under the influence of the injections alone, the discharge, which had been very profuse and offensive, ceased altogether. Brown-Séquard promises to publish further facts of the same nature at some future time.

(248) A New Treatment for Phthisis.

De Renzi (*Riv. Clin. e. Terap.*, No. 6, 1892) publishes a new treatment for phthisis, consisting in the use of iodine internally in the following form: ℞ Aq. dest., 1000 gr.; iodine, 1 gr.; pot. iod., 3 gr.; sodium chlor., 6 gr. This was first injected into the ear vein of healthy and tuberculous rabbits, into the subcutaneous tissue of dogs, rabbits, and guinea-pigs. Complete tolerance being established, he tried the remedy on phthisical patients. Hypodermic injections were first given, and as much as 100 gr. were given; these were not, however, well borne, so the drug was then given by the mouth, using from 500 to 550 gr. Nineteen patients, nearly all with advanced phthisis, were thus treated. In all the treatment produced increased appetite and increased flow of urine. Symptoms of iodism arose in a few instances, but disappeared on leaving off the treatment. The author is of opinion that the results of this treatment will compare very favourably with those of any other at present tried; the body-weight increases, the number of bacilli diminishes in the sputum, and the temperature is reduced to normal.

(249) Saprol: a New Disinfectant.

Laser (*Centralbl. f. Bakt.*, August 18th, 1892) gives an account of an inquiry made by him into the properties of saprol. This is a dark brown, oily substance, which lies upon the surface of fluids to which it is added, and these extract from it its disinfecting constituents—phenol, creasol, and other products of coal-tar, which are soluble in water. Urine and fæces impregnated with micro-organisms—st. pyogenes, bacilli of cholera and typhoid, etc.—can be effectually sterilised by saprol in the proportion of 1 per cent., and it is likely to prove of value in the disinfection of the dejecta and of fluids on a large scale, as in the case of barracks, prisons, and schools. Its price is about 6d. per litre. Sewage treated with saprol is said to retain its manurial value.

(250) Treatment of Strychnine Poisoning.

At the recent Pharmaceutical Congress Mackenzie (*Pharm. Journ.*, September 3rd, 1892) reported a successful application of the electro-magnetic current to a dog that had been poisoned with strychnine. The animal had probably taken about a grain of the poison, and presented unmistakable symptoms; but directly the current was applied to the

spinal column the muscular rigidity subsided, and at the end of four hours the dog was sufficiently recovered to be able to walk home. In subsequent experiments on dogs under various conditions similar results were obtained. The author suggested that the method was worthy of further investigation.

(251) Visual Disturbances Produced by Male Fern.

Katayama and Okamoto (*Sei-I-Kwai*, June 25th, 1892) draw attention to a number of reported cases in which the administration of extract of male fern has been followed by either temporary or permanent amblyopia. In each case the dose given had been about 10 grammes. Five out of the twenty-five cases recorded have occurred in Japan, and it is interesting to note also that no case of visual disturbance was noticed till the last ten years; it is suggested that the reason for this lies in the fact that the dose we are accustomed to give at the present time is much larger than that formerly deemed sufficient.

(252) Treatment of Burns in Children.

Wertheimer (*Münch. med. Woch.*, August 2nd, 1892) says that the absorption of some poisonous product would appear to be the most probable cause of death in burns. This poison has been said to be a ptomaine not unlike muscarine in action. Ointment-like applications are more efficient than dry ones, although the latter have some advantages, such as not requiring frequent change, etc., but lymphangitis is more often observed. The object of treatment is to apply some anodyne and antiseptic agent, and to lessen the irritability of the nervous system. Iodoform vaseline is among the best ointments, but the author does not use it in children, owing to the danger of intoxication. Carron oil is a valuable anodyne application, but it is without antiseptic properties, hence the author adds thymol to it (0·05 to 0·10 per cent.). Another combination is an ointment containing bismuth subnitrate and boracic acid, with lanoline and olive oil. The author recommends thymolised carron oil for the first two weeks, and then the above-named ointment, or the latter may be used from the first. Morphine and sometimes chloral hydrate may be required internally, but in children under 2 years they are best avoided. Stimulants are more often needed, even apart from the severe collapse which, in adults, requires prompt treatment (camphor injections and such like).

(253) Asepsis of the Respiratory Passages.

Delthil recently presented to the Académie de Médecine (*Sem. Méd.*, September 7th, 1892) a communication in which he recommended the following inhalation as an excellent means of making the respiratory passages aseptic. ℞ Essence of turpentine, 350 g.; essence of lavender, 100 g.; iodoform, 10 g.; sulphuric ether, 20 g.

PATHOLOGY.

(254) Chemistry of the Cholera Bacillus.

Ferran (*Compt. Rend. de l'Acad. des Sciences*, cxv, 101) states that when the comma bacillus is cultivated in a slightly alkaline bouillon, containing lactose, paralactic acid is produced in quantity sufficient to render the liquid distinctly acid. When this microbe is sown upon agar that is slightly alkaline, and containing lactose as well as litmus, the medium becomes red from the formation of paralactic acid. A cultivation in a slightly alkaline bouillon containing lactose presents, after being left at rest at 30° C. for five days, a floating mycoderm, consisting of large comma bacilli, in the interior of which may be seen one or two very small granulations analogous to spores; eventually all the protoplasm of the bacillus disappears, leaving exposed these small granulations, which are readily coloured by methyl violet. The same bacillus sown in a small quantity of alkaline bouillon, contained in a capacious flask, may remain alive for more than three years, provided that the flask is closed by cotton wool, which will allow of the renewal of the air. Under the very same conditions, and with the sole difference that the bouillon contains some lactose, the vitality of the microphyte is rapidly extinguished by reason of the acid character communicated to the medium by its own action. In ordinary culture bouillons the growth of this microbe is always rapid and luxuriant; but when the bouillon contains lactose it is disproportionately less prolific. The colonies become very numerous in consequence of the addition of that substance within a few hours; but the growth ceases completely as soon as the medium becomes acid, and before long the vitality of the microbe is destroyed. Ferran calls attention to the resemblances between the chemical function of this microbe and that of B. coli communis. In many particulars their pathogenic functions are also similar. Paralactic acid paralyses the chemical activity of both. The known value of that acid as a remedy for the diarrhœa caused by B. coli suggests the probability that its administration in cases of diarrhœa caused by the comma bacillus might be equally efficacious and beneficial. M. Ferran therefore thinks that as a remedy for cholera it would be reasonable to administer lactic acid in the form of lemonade and to assist its action by morphine, which might probably prevent the absorption of toxines and prolong the influence of the lactic acid by reducing the rapidity of its elimination.

(255) Inoculation of Cholera Bacillus in Animals.

L. Vincenzi (*Arch. delle Scienze Med.*, vol. xxi, fasc. 3, 1892) has made experiments on animals with cultures of the comma bacillus isolated at Massowah. By injecting a minute quantity of such cultures in guinea-pigs he produced acute subcutaneous œdema followed by the characteristic phenomena of cholera intoxication and death in less than twenty-four hours. On injecting a few drops of culture into the peritoneal or pleural cavity death speedily occurred. Attempts to produce the infection by introducing the virus into the stomach failed. Vincenzi further made a series of experiments on the production of immunity, and succeeded in making pigeons and guinea-pigs insusceptible of cholera by inoculating them with cultures grown in broth and filtered by Kitasato's method. In this way immunity was very quickly conferred. The serum of animals rendered immune was found to have the power of killing the cholera bacillus, and subcutaneous injections of it instead of being followed by œdematous infiltration with scanty leucocytes caused œdematous inflammation with rapid and effective phagocytosis. Vincenzi also made guinea-pigs insusceptible of cholera by inoculating them with a few centimetres of blood drawn from a guinea-pig rendered immune in the way just described, but the immunity produced by the serum of vaccinated guinea-pigs lasts only a very short time.

(256) Tuberculosis of the Stomach.

O. Barbacci (*Lo Sperimentale*, No. 13, 1892) reports a case of tuberculosis of the stomach from the Anatomo-Pathological Institute of Florence. In the body of a woman, aged 79, of whose clinical history nothing was known, the following conditions were found: In the pharynx there were two ulcers, irregularly rounded in shape, with a few miliary nodules of caseous aspect dotted about their edges. The epiglottis was swollen and covered with tuberculous ulcers and nodules. Similar lesions were found in the larynx down to the level of the vocal cords. In the interior of the cervical glands there were tuberculous nodules, some grey, others caseous. In the lungs there was a moderate number of grey miliary tubercles. In the pyloric portion of the stomach there were two small round ulcers, about 1 centimetre in diameter, with clean-cut edges; in the base of each was a caseous nodule. In the last part of the ileum there were six tuberculous ulcers of varying size. The bacteriological examination demonstrated the presence of tubercle bacilli in large numbers. Barbacci has no doubt that the case was one of primary tuberculosis of the digestive organs, the pulmonary lesions being clearly secondary, inasmuch as they consisted solely of grey tubercles all in the same stage of evolution, there being no trace throughout the lung tissue of any lesion pointing to tuberculosis of older date. Evidence to the same effect was supplied by the peribronchial glands, which were quite healthy, whereas they very soon become involved when the lung is the seat of active disease. Of the lesions scattered throughout the digestive tract, Barbacci thinks those in the pharynx the oldest.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

SURGERY.

(257) Recovery after Extensive Injury of the Brain.

E. Areilza (*Rev. de Cien. Med. de Barcelona*, August 10th) reports the following case. A lad, aged 18, sustained a comminuted fracture of the skull with injury to the brain from a dynamite explosion of May 8th. He lost consciousness, but only for a quarter of an hour. It was observed by those who first came to his assistance that his head was inclined to the right side, and that efforts to turn it to the left were difficult and painful, though there was no appearance of injury in the neck. This, and a tendency to drowsiness, were the only symptoms presented by the patient. He came under Areilza's care four days after the receipt of the injury; the temperature was then raised (39° C.), and the edges of the wound were inflamed. The membranes were destroyed over the area of the wound, and hernia cerebri was present, the protrusion being increased by every effort on the part of the patient. The disorganised tissue was removed, and the fragments of bone with which the wound was filled were carefully extracted, about a dozen pieces being found embedded in the brain substance, some at a depth of more than 4 centimetres from the surface. The wound in the skull formed an irregular rectangle 4½ centimetres in length by 3 in breadth, involving the right part of the frontal bone, 2 centimetres in front of the parietal suture, and bounded on the inner side by the middle antero-posterior line of the skull. The loss of brain matter was considerable, and comprised the junction of the middle and posterior thirds of the first and anterior frontal convolutions, especially the former. The excavation was sufficient to allow of the passage of a drainage tube to a depth of 5 centimetres from the cranial surface. The wound was thoroughly cleansed, closed with stitches, and covered with an antiseptic dressing. In two days the temperature fell to normal. The drainage tube was taken out in ten days, and by the end of June the patient was completely cured. The wound was firmly healed, the brain adherent, and pulsation not very marked.

(258) Operative Treatment of Congenital Dislocation of the Hip.

Lorenz (*Centralbl. für Chir.*, August 6th, 1892) reports six cases of congenital dislocation of the hip, which he has treated by a modification of Hoffa's operation. He holds, in opposition to the view on which Hoffa based the steps of his operation, that the chief difficulty in bringing down the head of the femur is not caused by contracture of the pelvi-trochanteric muscles. On the contrary, these muscles will be found relaxed, whilst those taking the same direction as the long axis of the shaft of the femur are strongly contracted, and form tense and rigid cords. The muscles most contracted are the semimembranosus, semitendinosus, biceps, and rectus, whilst the adductors share in the contraction in a lesser degree, as they deviate more and more from the vertical direction. The following are the steps of the operation practised by Lorenz: during forcible extension of the lower limb and counter-extension the adductors are divided subcutaneously, and through the same puncture in the skin the stretched and prominent hamstring muscles are detached from the tuberosity of the ischium. Extension being still maintained, a skin incision, about 3 inches in length, is carried directly downwards from the antero-superior spine of the ilium. The margins of this wound being separated, the deep fascia, and the anterior borders of the tensor vaginæ and of the gluteus medius are divided in a transverse direction. After exposure of the rectus and division of its tendon close to the antero-inferior spine, the anterior portion of the capsular ligament is divided by a crucial incision. Extension of the limb is now discontinued, and the region of the acetabulum is rendered accessible by flexing, adducting, and thrusting upwards the femur. It is necessary at this stage to detach some of the tense portions of the capsule from the anterior and inner surfaces of the neck of the bone. This should be done very carefully with a blunt-pointed knife guided by the finger. The acetabulum, or the region corresponding to this cavity, can now be readily attacked by a gouge or sharp spoon passed along the forefinger of the left hand, and may also, on forcible separation of the sides of the wound, be exposed to view. The cotyloid cavity is now deepened, care being taken to spare the osseous elevation which forms its posterior and upper boundaries. Finally, the head of the femur is drawn down and placed in the deepened cavity. The edges of the wound, except in the middle, which is left open for drainage, are brought together by catgut sutures, and a plaster-of-paris bandage is applied with the femur slightly abducted. Old and irreducible traumatic luxation at the hip might, the author states, be treated by a similar operation, but, in order to expose freely the head of the femur and the capsule, it would probably be necessary to make a second incision behind the trochanter.

(259) Tonsillotomy as a Preventive of Diphtheria.

Lancry (*Journ. des Sciences Méd. de Lille*, August 26th, 1892) attributes the predisposition of the children in some families to contract diphtheria and croup to the presence of hypertrophy of the tonsils. He has very frequently had occasion to observe the coincidence of enlarged tonsils in parents and children with liability to infectious "sore throat" and diphtheria. In a very large proportion of his cases of tonsillotomy the enlargement was hereditary, and the brothers and sisters of the children operated on were often the subjects of croup. Moreover, the sporadic cases of diphtheria which have come under his notice have almost always been in children whose tonsils were hypertrophied. He, therefore, believes that removal of the tonsils is indicated in children in whom these bodies are enlarged if any other child in the family has suffered from diphtheria. Some weeks should, however, be allowed to elapse after exposure to infection before the operation is done, to allow time for the destruction of any germs that may have found their way into the child's throat.

(260) Results of Excision of Cancer of the Rectum.

Schmidt (*Beiträge zur klinischen Chirurgie*, Bd. 9, Heft 2) analyses 68 cases in which, since 1885, Czerny has practised excision of portions of the rectum for cancer. In 32 of these cases the perineal method was performed, and in the remaining 36 cases the sacral method. In one case only was the perineal operation attended with a fatal result, whilst after the sacral method 7 patients died from the immediate effects of surgical intervention. These tables show that in Czerny's practice the average duration of life after the perineal method is about two years. Of 14 patients who were living at the time when these tables were being prepared, 3 were quite free from relapse after intervals of over five years. Of the 15 patients who survived the sacral operation, 6 were free from relapse after intervals from the date of operation of more than two years.

(261) Suture of the Spinal Cord.

Chipault (*Rev. de Chir.*, August, 1892) criticises the proposal made by Maydl and others that in cases of old division of the cord, or of its functional destruction over a certain extent from sclerosis, two fresh and healthy surfaces made by clean section might be brought together and maintained in contact by sutures. In these two categories of cases the author holds that such treatment is anatomically impossible. In three subjects examined after death from fracture of the spine, it was found that the retraction of the medullary segments and the extent of the sclerosis necessitated free resection, and that the inelasticity of the cord and the resistance of the ligaments formed by the pia mater prevented apposition of the cut surfaces. On the other hand, in cases of recent division of the cord by a cutting instrument, in which it is not necessary to practise medullary resection, suture of the cord, or, strictly speaking, suture of its sheath of pia mater, is possible on the cadaver, and very probably would be found so on the living subject. The steps of the operation are very simple. A half-circle of sutures of very fine silk having been applied to the anterior portion of the pia mater, the divided surfaces of the

cord are brought together and kept in contact by hooked forceps attached to the meninges whilst these sutures are tied. After this has been done, another half-circle of similar sutures is applied to the posterior part of the cord. If the cord has been but incompletely divided, it will be found sufficient to apply a few lateral and posterior sutures. It often happens that one or more nerve roots are found divided together with the cord, particularly at the lumbar swelling, along which the nerves forming thick bundles take a parallel course. It would always be possible in such cases, the author states, to suture the peripheral end of the divided nerve, either to its central end or to an intact nerve root corresponding to a portion of the cord placed below the seat of injury.

(262) Extirpation of Cancer of the Stomach.

DEFONTAINE (*Arch. Prov. de Chir.*, July, 1892) reports the following case. The patient was a woman, aged 34, who commenced to suffer from stomach troubles in October, 1891. She first had attacks of flatulent dyspepsia and pain in the stomach at various times. In January, 1892, attacks of vomiting came on. They were not frequent, but were violent, and much material was ejected. These at first consisted of food, but lately the vomit has been of a chocolate colour. This patient was seen on April 15th, 1892, when a tumour was discovered in the left side of the abdomen, and just above the umbilicus; it was rounded in shape, about the size of a kidney, and was perfectly movable; it could easily be moved from one side of the middle line to the other. A malignant tumour, probably in the wall of the stomach, and without important adhesions to neighbouring structures, having been diagnosed, on May 1st the patient was chloroformed, and an incision was made in the linea alba. On examining the abdominal cavity a tumour was felt on the left of the incision. It was globular in shape, smooth, about the size of an apple, its surface covered with injected blood vessels; and it was apparently situated in the wall of the stomach, since attached to its lower border there was the great omentum. Above it was fixed to the anterior surface of gastro-hepatic omentum. This adhesion was easily separated, but as this part of the omentum felt a little indurated, it was divided into two parts, ligatured and removed. The tumour was then excised with scissors. The stomach was opened, and, the finger being used as a guide, the separation was effected about 1 centimetre from the margin of the tumour. The mucous membrane bled considerably, but this was stopped with pressure forceps. The tumour was then removed, and then, after the stoppage of hæmorrhage and washing out the stomach, the margins of the wound in the stomach walls were brought together and united with a double row of sutures. The deeper row was passed through the mucous membrane and submucous tissue, and sometimes through the muscular coat. The superficial row was applied after Lembert's method through the serous and subserous coats. After this was done, the skin incision was closed, and dressings of iodoform gauze applied. The operation occupied two hours and a-half. The patient recovered, and on May 26th was well, and had increased in weight.

MIDWIFERY AND DISEASES OF WOMEN.

(263) Oophorectomy for Mollities Ossium.

E. KUMMER (*Revue Méd. de la Suisse Romande*, July, 1892) publishes a table of statistics of this operation. On April 9th, 1892, he operated on a patient aged 39. She had borne seven children, and mollities began during the fifth pregnancy. She could not walk, and suffered severe pain. The operation proved successful; the pains disappeared a few days later. Three months later she was able to walk without a stick. Oöphorectomy for mollities has been performed 38 times; in 14 of these cases by Fehling. Only 1 patient was lost, but in this instance hysteropexy was also performed, and caused death, a coil of intestine being included in one of the sutures which fixed the uterus to the abdominal walls. All the other 37 cases recovered rapidly, and all the patients received great benefit. The longest observation of a patient after operation extended to three years. In 26 the pains disappeared, in 4 they distinctly diminished; in 7 cases no note as to the pain has been published, and the fatal case died before the effect on the pain could be observed. Twenty-six patients could walk "well" after recovery, 2 "fairly," 1 "with crutches." The remaining cases are very recent or imperfectly reported. In short, the rapid relief from pain is clearly due to more than mere "suggestion." It usually ceases within forty-eight hours; whilst the patient nearly always (if not always) regains power over her limbs. On the other hand, as might be expected, the deformity of the bones is not cured, although it is permanently arrested. Hence Kummer considers that oöphorectomy should be performed as soon as mollities is diagnosed.

(264) Separation of Symphysis Pubis in a Forceps Delivery.

MARSCHNER (*Centralbl. f. Gynäk.*, No. 31, 1892), in the course of a discussion on symphyseotomy, at the Dresden Gynæcological Society, stated that about two years ago he was managing an "easy forceps case," when the woman, under chloroform, sprang up and threw herself on one side. He then found that the symphysis pubis had parted. The appearance of the parts was alarming; the position of the urethra could not be made out on the first day. He applied three very stout silver sutures, passing them through the bone on each side. But when the patient's legs were unfastened, one suture snapped and the others came undone. A second suturing with silk and with four-fold twined silver wire proved successful. The patient was in good health, and when the case was reported (June, 1892) was expecting to be confined again. She could walk very well, but in bad weather, or after walking over heavy ground, neuralgic pains were felt in the pelvis and left leg. The sutures were left in place for about three months.

(265) Abrasion of the Endometrium in Childbed.

PETROFF (*Vratch*, 1892, p. 528) strongly urges free abrasion of the uterine mucosa and subsequent antiseptic dressing when intrauterine injections fail to disinfect the parts after childbirth. A woman, aged 33, was prematurely confined after a fall downstairs. Next day she returned to her work at the sewing-machine. On the fourth day the placenta came away; on the sixth the temperature rose to 105° F., the pulse to 132. A fœtid discharge was discovered. The patient was put under chloroform, the decomposing remains of the placenta removed, the uterus dressed antiseptically, and a tampon placed in the vagina. The patient recovered, the temperature falling. Dr. Neugebauer, in a note on this case (*Nouv. Arch. d'Obstét. et de Gynéc.*, July, 1892) observes that Petroff does not appear to have heard of the serious objections against this practice raised by Fritsch and others.

(266) Striæ on the Breasts of a Nullipara.

P. PETIT (*Nouv. Arch. d'Obstét. et de Gynéc.*, July, 1892) exhibited at a recent meeting of the Obstetrical Society of Paris a photograph of the mammæ of a woman, aged 17. They bore marked striæ, which developed at puberty. The subject had never borne a child, nor was she stout, nor had she suffered from œdema or enteric fever.

(267) Racemose Growth on Labium Minus.

BENICKE (*Centralbl. f. Gynäk.*, No. 27, 1892) read this case before a recent meeting of the Obstetrical Society of Berlin. The patient was 36 years old. Since her last confinement (the third) she noticed a small red growth in the middle of the right lesser labium, and for a long time it gave her no trouble. Suddenly it began to increase in size, and within twenty-four hours it grew as big as a pigeon's egg. It also became painful. Benicke was consulted, and examined the growth. It looked like a bunch of a dozen small, blue grapes, without stalks, and tense. The pedicle, about a tenth of an inch broad, was divided and the growth removed. Benicke reckons the growth as elephantiasis, and notes that it very rarely attacks the labia minora.

(268) Cancer of Cervix pressing on Ureters.

JOURDAN (*Journ. de Méd. de Bordeaux*, May 15th, 1892) observed this case in Dr. Gervais's wards. The patient was 34 years old. She was admitted on April 24th, with dyspnœa and suppression of urine. The kidneys were cystic,

uterine cancer was present, the heart's action was very irregular. On the second day she died. Much serous effusion into the pleuræ, pericardium, and peritoneum was discovered. A cancerous growth, arising from the cervix, compressed the bladder at the level of the trigone. The ureters were greatly dilated on both sides, being as big as small intestine. The kidneys showed all the characters observed in obstruction from pressure on the ureters in cases of malignant growths.

(269) Disseminated Uterine Cancer Diagnosed as Cirrhosis of Liver.

Constantin (*Nouv. Arch. d'Obstét. et de Gynéc.*, July, 1892) read notes before a Bordeaux society last winter of a case where the clinical features of cirrhosis of the liver seemed to be well marked. The patient was intemperate. There was much ascites, the collateral circulation highly developed, and the urine loaded with urates; the ascitic fluid was lemon coloured. There was no evidence of pelvic disease during life. After death, all the abdominal viscera, excepting the liver, spleen, and kidneys, were infested with cancerous nodules. The original seat of cancer was evidently the body of the uterus; the cervix was nearly healthy.

THERAPEUTICS.

(270) Exalgin in Chorea.

Dana (*Journ. of Nerv. and Ment. Dis.*, July, 1892) considers that in ordinary chorea this drug has a specific action. Commencing with 2 grains thrice daily, he increases the dose, if necessary, to 3 grains five times daily, and gives iron after meals. Acute anæmia and cyanosis are the only unpleasant symptoms he has seen to be caused by the exalgin. The average duration of chorea in his cases treated with exalgin and iron has been five weeks.

(271) Chloroform in Cholera.

Desprez describes (*Sem. Méd.*, September 14th, 1892) the treatment which he has employed in cases of cholera since 1864. The indications according to him are (1) to destroy the comma bacilli in the digestive tract, and to neutralise their products of secretion; (2) to subdue the painful spasms of the stomach which make that organ incapable of retaining liquids introduced into it; (3) to stimulate the functions of the skin which are so closely connected with those of the digestive tube and the kidney; (4) to introduce into the system, as soon as absorption of them is possible, remedies capable of restoring the normal composition of the blood, and rendering it fluid and fit for circulation through the capillaries. For this purpose he gives the following mixture:—℞: Chloroform, 1 g.; alcohol, 8 g.; acetate of ammonia, 10 g.; water, 110 g.; syrup of hydrochlorate of morphine, 40 g.; M. One tablespoonful to be taken every half hour till the symptoms are relieved. By way of preventive treatment Desprez recommends persons who have to be in contact with cholera patients to take several times a day, before or after meals, half a glass of chloroform water (1 to 2 per cent), sweetened to taste.

(272) Antirabic Injections (Pasteur) in the Treatment of Epilepsy.

A. de Giovanni (*Rif. Med.*, July 12th, 1892), struck with the report from Paris that an epileptic who had been submitted to Pasteur's antirabic treatment had been at the same time cured of epilepsy, tried a similar treatment in the following case, with very satisfactory results. In this case the patient had been subject to fits for five years, and lately had had as many as five or six daily. She had, besides, maniacal attacks, impairment of speech, limited intelligence, stupor, etc. The treatment adopted was the same as that for a case of hydrophobia. Good effects were noticeable on the second day of treatment, and the improvement went on steadily in all the symptoms; the convulsions ceased, the disposition and appearance of the patient improved, and it seemed likely that a permanent cure had been brought about.

(273) Arrest of Vomiting.

L. Sabbatani (*Bull. d. Sci. Med. di Bologna*, August, 1892) finds that it is easy to stop vomiting in dogs, except after the ingestion of sulphate of copper. Having induced vomiting in six dogs by means of hypodermic injections of apomorphine, he was able to stop it without difficulty in two cases by making the animals inhale chloroform vapour, in two others by placing a sponge saturated with ammonia close to the animal's nose, and again in two by applying the faradic current. In a second series of experiments made on the human subject, however, the results were inconclusive. The arrest of vomiting was found to be much less easy in man than in the dog, and Sabbatani succeeded in only two out of five cases. In the remaining three, emesis could not be checked, either by means of ammonia or the electric current.

(274) Orexin Hydrochlorate.

A. Rizzi (*Gazz. Med. Lombarda*, June 18th, 1892) has taken up the study of this drug, which was first introduced to the notice of the profession by Penzoldt in 1891. Many conflicting statements have been made by different observers as to its action, and there has been a strong tendency to disbelieve in the claims originally made for it as a stomachic and aid to digestion. The new research tends once more to encourage the belief that orexin may be of real good in certain cases of failure of appetite. The author has employed the drug first on healthy subjects, and then on those with various gastric derangements. As regards the first class he found, with Penzoldt, that the drug caused the appearance of a keen sense of hunger, and produced increase both of the secretory energy and of the peristaltic movements of the stomach. In cases of atonic dyspepsia, complicated or not with chlorosis or anæmia, the author seems to have been equally successful with the original introducer, and to have obtained some striking results. He suggests that failure to obtain benefit from the drug has probably in many cases been due either to the unsuitability of the case or to the fact that the specimen of the drug used has not been pure. Gastralgia or hyperæsthesia of the gastric mucous membrane should, however, always be taken as contra-indications to the employment of orexin, as in such conditions the drug may by an irritant action do more harm than good. It is recommended that the drug be administered in the form of powder, enclosed in wafers, and that its ingestion should be immediately followed by a draught of water or broth in order to prevent the drug from remaining confined to a small part of the stomach and exercising too strong an irritant action there.

(275) Bromide of Strontium and Bromide of Potassium in Epilepsy.

Deny (*Sem. Méd.*, August 10th, 1892), between December 1st, 1891, and July 1st, 1892, treated seven epileptics with bromide of strontium. During that time the seven patients had in all 246 fits. During the corresponding period of 1890-91 they had been treated with bromide of potassium and had 331 fits, being a difference of 85 in favour of the strontium treatment. Both drugs were given in exactly the same doses; bromidism was never observed. One of the patients who derived most benefit from the strontium treatment ceased to suffer from attacks of maniacal excitement to which he was previously subject after each epileptic fit. Deny, therefore, agrees with Féré in thinking bromide of strontium a valuable auxiliary to bromide of potassium in the treatment of epilepsy, and even more effectual than the latter drug in diminishing the number of fits. Vallon, on the other hand, has had to discontinue bromide of strontium in three cases, as it seemed to make the seizures more frequent.

PATHOLOGY.

(276) Artificial Immunisation of Animals against Cholera.

L. Brieger and A. Wassermann (*Deutsche med. Woch.*, August 4th, 1892) report the results of experiments made by them in the artificial immunisation of animals against cholera. They cultivated comma bacilli (obtained from Massowah) in a watery extract of calf's thymus. After the bacilli had been left on the nutrient medium for twenty-four hours, it was kept for fifteen minutes at a temperature of 65° C., or for ten minutes at 80° C. The culture prepared in this way was then kept for twenty-four hours in an ice chamber before it was used for inoculation. As a rule the animals (guinea-pigs) had 4 cubic centimetres of the culture injected into the peritoneal cavity on four consecutive days. The animals generally appeared to suffer more or less *mal-*

aise after the injections, particularly after the first one, but the next day they were quite well again. When the *malaise* was very slight the temperature rose to 40° C., from three to five hours after the injection (the normal temperature of guinea-pigs is between 38° C. and 39° C.). When, on the other hand, the symptoms were more severe, the temperature fell for some hours from 2° to 3° Centigrade below the normal point. Animals treated in the manner described showed themselves immediately after the last injection, that is to say four or five days after the first one, immune against infection even when a dose of the poison triple the strength of that which killed "controls" in from twelve to fifteen hours was used. Immediately after the injection of these highly virulent cultures the animal's temperature rose 1°, but generally fell again from 2° to 3° in the course of two or three hours. The "controls," on the other hand, after the injection, lay asleep on their sides; the temperature fell to 32° C., and they were frequently convulsed and speedily died. The authors next sought to determine the minimum dose of the fluid inoculated, which was necessary to make a guinea-pig immune to a certainly fatal dose of virulent cholera cultures. They came to the conclusion that 1 cubic centimetre injected on each of two consecutive days would render a guinea-pig weighing from 300 to 400 grammes proof against the infection. As, however, the method described presents certain difficulties in respect of the preparation of the cultures from the thymus, the authors, at the suggestion of Koch, tried the effect of cholera vibrios cultivated in the ordinary meat peptone bouillon, and heated on the following day to 65° C. for a quarter of an hour. Guinea-pigs treated with the fluid thus prepared showed themselves refractory to doses of cholera culture double in amount to those which proved sufficient to kill "controls." The smallest dose of the *bouillon* cultures required to produce immunity was 2 cubic centimetres; at the end of forty-eight hours the inoculated animal was insusceptible, and the immunity was maintained at the end of two months. Thus animals inoculated on May 12th were refractory to virulent cultures on the 14th, and remained perfectly healthy till July 6th, when double the deadly dose of cholera poison was injected without any ill effect, the "controls," on the other hand all dying on the following day. By further experiments the authors found that in order to produce immunity it was not necessary to heat the cultures. They are still prosecuting their researches, and will publish the results in due course.—G. Klemperer (*Berlin klin. Woch.*, No. 32, 1892) who has been experimenting in the same direction, finds that simple heating is sufficient to diminish the virulence of cultures of the cholera vibrio, and to produce a material which confers immunity against the disease. Cultures which had been growing for three days, at a temperature of 40.5° C., could be injected in doses up to 1 cubic centimetre into the peritoneal cavity of guinea-pigs without inducing any perceptible indisposition. Each of the animals received 1 cubic centimetre of the fluid on two occasions, at intervals of twenty-four hours, then, two days later 1.5 cubic centimetre, and on the fifth day they were inoculated with a culture of full virulence, which killed control animals in ten hours, but produced no other effect on the protected ones beyond slight drowsiness. They remained alive and bore further intraperitoneal injections of highly virulent material without ill effect. Similar results were obtained by the use of cultures which had been kept at a temperature of 70° C. for two hours. Within seventeen hours of the injection of 2.5 cubic centimetres of this fluid immunity was established. Cultures which had been kept for two hours at 60° or 65° had a much weaker protective effect. Klemperer further found that the serum of immunised rabbits made guinea-pigs proof against deadly doses of virulent cultures. Eight cubic centimetres of a culture kept for two hours at 70° C., of which a guinea-pig, weighing 400 grammes, received 3 cubic centimetres without any particular inconvenience, caused death with symptoms of collapse when injected into the veins of a rabbit weighing 2,000 grammes. Smaller doses were tolerated by the animals, and after the indisposition caused by the injection had passed off they were found to be immune against a deadly dose. The blood serum of rabbits so protected, when injected into the peritoneal cavity of guinea-pigs, made these animals immune if the inoculation had been made three hours before the injection of the virulent material. Further experiments showed that injections of protective cultures also conferred immunity against intoxication through the digestive canal, but in this case a higher degree of protection was required. It was found that by introducing the protective substances into the stomach the animals were rendered immune against deadly doses of the virus. Three days after the introduction into the stomach of 5 to 8 cubic centimetres of cultures, kept at 70° C. for two hours, immunity was so perfect that the animals could bear the deadly dose given either intraperitoneally or by the stomach. To ensure success, however, it is necessary that before the protective substance is ingested, 5 cubic centimetres of soda solution should be given. Klemperer also found that immunity could be produced by electrised cultures. By subjecting *bouillon* cultures to the action of a constant current of 20 milliamperes for twenty-four hours, the bacilli were completely killed, whilst the poison was so far weakened that the culture was rendered suitable for use as a protective substance.

(277) Virulence of Pathogenic Microbes.

THE virulence of a microbe is known to vary according to the media in which it is placed and the changes it undergoes in consequence of a sojourn in the bodies of refractory animals have long been a subject of study. At the Institut Pasteur, Roux, and Chamberland have increased the virulence of anthrax vaccine by causing it to pass successively through the bodies of more and more refractory animals. They have obtained very virulent cultures by passing it through fowls. The observations of others have not been uniformly in agreement with the above, many finding that passage through refractory animals produces attenuation, not increase of virulence. Mlle. Tsiklinsky (*Annales de l'Institut Pasteur*, July, 1892) has taken up the question with the view of ascertaining the changes undergone by attenuated anthrax vaccine, 1st, during its stay in animals of different sensibility; 2nd, under the influence of serum outside the body. Her conclusions are as follows:—(1) A vaccine acquires in the body of an animal of slight susceptibility (rabbit) a considerable increase in its virulence, being in fact converted into true virulent anthrax. (2) In the organism of a sensitive animal (mouse), the reinforcement, if it occur, is always inconsiderable, the vaccine never being converted into true virus. (3) The reinforcement of the vaccine cannot be attributed exclusively to a selection of the strongest bacteria. It must also be attributed to a functional reinforcement of the microbe.

(278) The White Corpuscles as Protectors of the Blood.

WERIGO (*Annales de l'Institut Pasteur*, July, 1892), when examining under the microscope the blood of a rabbit which had received, some minutes before, an injection of several cubic centimetres of a culture of B. prodigiosus in the auricular vein, was surprised to find the blood almost destitute of leucocytes. He repeated the experiment, with the same result, and became convinced that the phenomenon was constant. In order to prove this, he made a series of experiments, in which he injected cultures of different microbes into the blood, counting the leucocytes before and afterwards. The main fact brought forward receives the following explanation:—The leucocytes disappear from the blood under the above-named circumstances, because when they have engulfed the microbes injected (which they speedily do), they are arrested in the organs, especially in the liver, where they pass on the ingested material to the endothelial cells of the organ. The rapidity with which the microbes become enclosed in the leucocytes is most astonishing—it is far greater than we have been accustomed to suppose. It is not the leucocytes alone, however, which undertake the clearance of the microbes from the blood, for the cells of the spleen pulp, and also the endothelial cells of the liver, take on direct phagocytic functions. The author's researches also lead him to consider that the first event after the injection of any microbes, of whatever virulence, is their inclusion in cells.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(279) Bacteriological Diagnosis of Cholera. Pfeiffer (*Deut. med. Woch.*, September 8th, 1892) draws attention to the importance of diagnosis in the first cases. The presence of cholera can be proved by finding the actual cause of the disease, and this cause exists only in the stools. The microscopic proof is mostly insufficient. The shape of the bacillus is a characteristic one. It is from half to two-thirds the length of the tubercle bacillus, much plumper and thicker at the ends and distinctly curved. The S-form is occasionally seen. There are, however, cases in which the intestinal contents contain almost a pure culture of the bacillus, and here the microscopic proof would suffice. Usually there are many bacteria present, and the cholera bacillus has to be carefully looked for. The flocculent masses made up of degenerate epithelial cells contain most bacilli. In diarrhœa stools comma-shaped bacilli may be found, which come from the mouth, and have nothing to do with cholera. A negative result is without value, as the number of cholera bacilli present may be small. In all doubtful cases cultivation experiments should be made. Gelatine plates are inoculated and kept at 20° to 24° C. In twenty to twenty-four hours colonies of the cholera bacillus will be found. Young colonies look like minute bladders, are irregular in outline, and have a granular aspect. The funnel-shaped appearance produced by the liquefaction of the gelatine is of value in diagnosis. The growth of these bacilli on gelatine plates is quite characteristic. The spirochœte and comma bacillus of the mouth do not grow in colonies on the gelatine plates. The number of bacteria in the intestine which show growth in the nutrient gelatine are few, and those that do grow do not liquefy it. If in twenty-four hours the funnel-shaped liquefaction be seen, and these colonies show the above-described bacillus, the diagnosis is certain, and nothing further is needed. Other methods except that of Schotzelius (and this should be confirmed by the gelatine-plate method) are not available. The material to be examined should be sent as soon as possible, as the growth of other bacteria makes the examination more difficult, and no antiseptic should be added. Pieces of soiled linen, which answer the purpose admirably, should be kept moist, as the bacilli perish if dried. The author concludes that a microscopic examination of the stools should be made in every suspicious case, and then if the least doubt remain, the gelatine plate method should be used. The result is decisive, and the diagnosis can be made under ordinary circumstances in from twenty-four to thirty-six hours.

(280) Hæmorrhage from Intact Skin. A. Deriabin of Osa (*Vratch*, No. 31, 1892, p. 784) reports the case of a previously healthy girl, aged 18, in whom there suddenly appeared, without obvious cause, a profuse hæmorrhage from the centre of the tip of the nose, the anterior surface of the forearms, and the volar aspect of the finger tips. From the skin of the nose the blood escaped in the form of a single fairly thick stream, while from the upper limbs it ran in the form of numberless thin jets and drops, as if "from a watering-can." Sometimes the blood spouted in a jet more than a foot high, at others it simply oozed, while now and then the bleeding stopped altogether. The phenomenon lasted, with short intermissions, nearly four hours, and was followed by all the typical symptoms of acute anæmia (pallor of the face and mucous membranes, vomiting, giddiness, prostration, etc.), the girl gradually recovering in about four days. Careful and repeated examinations failed to detect any lesion of the integuments, except, perhaps, over the tip of the nose, where there could be seen "a largish orifice of a cutaneous gland plugged with a blood clot." The latter disappeared in a few days, "leaving a permanent bright red spot." The thoracic organs were sound, menstruation normal. The dermorrhagia did not recur up to the date of report (four months after the bleeding).

(281) Pyrexia in Delirium Tremens. Frûs (*Neurolog. Centralbl.*, No. 15, 1892) has examined the temperature in 129 cases of delirium tremens. In rather less than 9 per cent. there was no pyrexia; all the remainder exhibited rise of temperature, which usually started with the commencement of the delirium, and was considered by the author as due to increased cerebral activity. In most cases there was no marked difference between the morning and evening temperatures. In 48 per cent. of the cases the maximum was reached on the second day, in 33 per cent. on the first day. In 4 cases fatal hyperpyrexia developed from the normal within a few hours. After sleep a fall to normal was almost invariably observed.

(282) Estimation of Acetone. R. Supino (*Riv. Gen. Ital. di Clin. Med.*, June 15th, 1892) describes a method of estimating acetone. It is known that if acetone-containing solutions be alkalinised and treated with a mixture of iodine and potassium iodide, the acetone is converted into iodoform. Now it is known that 394 parts of iodoform correspond to 58 parts of acetone, so that the calculation is then easy. The actual method is as follows: The urine is distilled, the distillate being strongly alkalinised and treated with the iodo-iodide of potassium; more alkali is then added, and afterwards ether. The ether being evaporated, the iodoform is converted into iodide of soda, which is estimated by means of a titrated solution of silver nitrate. Knowing the quantity of iodide of soda, it is easy to calculate the iodine contained in it, and thence the amount of iodoform. The method has been frequently tested by working with known quantities of acetone, and seems to have given very satisfactory results.

(283) Traumatic Jacksonian Epilepsy. Pershing (*Journ. Nerv. and Ment. Dis.*, August) records the case of a young man who received a blow on the right side of the head one evening with a billiard cue. Next morning he lost the use of his left side, but regained it in about three weeks. Six months later he began to suffer from attacks commencing with clonic spasm of the orbicularis muscle of the left eye, next the left hand became numb, then the spasm began to flex the left fingers, and extending upwards in orderly succession flexed the wrist and elbow, and adducted the arm; lastly the head was drawn violently down upon the left shoulder, and it seemed to the patient as though the blood were rushing violently through his body, and he was turning a somersault; he gasped and foamed at the mouth, but did not bite his tongue or lose consciousness. After the attack he was dull, stupid, and weary. A year after the injury he was trephined over the right temporal ridge just behind the coronal suture, and an old blood cyst was opened and drained. There was some weakness of the left side of the face and left arm for a few days after the operation, but it passed off, and during the three months which had elapsed at the time of reporting he had been free from his attacks.

SURGERY.

(284) Osseous Suture in Osteotomy. Hennequin (*Rev. de Chir.*, August 10th, 1892) discusses the indications and contraindications of osseous suture. The procedure does not in itself involve any great danger, although most of the complications of surgical wounds are due to foreign bodies which are left there, but it necessitates more or less extensive incision of the soft parts and free exposure and section of bone. Osseous suture can have but a mechanical effect, and only assures a closer approximation and a more exact contact of fragments which are separated by an interval too great to be occupied by a continuous layer of callus, or to be diminished by the use of appropriate splints. But when the segments of divided bone remain in close contact and are not separated by other structures, or when the interval between the ends is not very great, sutures have no influence on the formation of callus, which takes place with or without such agents when the constitution of the patient is favourable to such growth, but which fails notwithstanding resection of bone and the application of suture, when the economy is under the influence of one of the still unknown conditions which prevent osseous reunion. That such reunion can only be brought about by suture in cases

of fractures of the patella and olecranon is no argument in support of any extended application of this method. The patella, like a parasite, derives from neighbouring parts the elements necessary for its nutrition and repair; and the olecranon when detached from the ulna presents similar conditions. Both bones are acted upon by powerful muscles, which by their contraction cause a wide separation of the fragments, which cannot be made good by osseous callus nor be obviated by any other means except the metallic suture. The only other instances in which osseous suture can be applied with advantage are those of pseudarthrosis after fracture, in which the lower fragment of the bone so far overrides the upper, and also is so far separated from this by interposed soft structures and in consequence of adhesions contracted to surrounding parts that the corresponding ends of these fragments cannot be apposed or kept in contact by any apparatus. In all other cases, the author holds, the utility of osseous sutures is very problematical if not illusory.

(285) Intubation of the Larynx.

R. W. Lartt (*Med. News*, August 27th, 1892) gives a critical account of the operations performed for croup in the Boston City Hospital since 1864. Tracheotomy was performed 327 times between 1864 and 1887. Of these cases, 232 died and 95 recovered, making a recovery percentage of 29.05. Ten of the cases died during or immediately after the operation, 4 from hæmorrhage. In 4 cases difficulty was experienced in the removal of the tube, several months elapsing before it could be finally dispensed with. All these cases, however, ultimately recovered. Intubation was first practised on December 31st, 1886, and from this date till January 1st, 1891, this operation had been done 392 times. During this period tracheotomy was performed 139 times, the operation being adopted in the most severe and desperate cases, when intubation seemed hopeless; 19 of these cases were moribund at the time of the operation. The recovery percentage was 11.5. Of the 392 cases of intubation, 312 died, and 80 recovered, making a percentage recovery of 20.41. In 21 cases intubation was attempted, and immediate tracheotomy was necessitated, owing to cessation of breathing. Of these cases only 2 recovered. In three cases death occurred during the attempt to insert the tube. Two children died during the choking spells. In 2 cases the tube was drawn into a bronchus, with fatal results. In 2 cases convulsions followed insertion of the tube, and in 2 the introducer was broken. Accidents are more common in intubation than in tracheotomy. From these statistics Lartt concludes that on comparing the two operations, the death-rate of intubation is 9 per cent. higher, whilst accidents are much more common. The author then compares the two operations as regards the age of the patient. Of 42 patients under 2 years of age in whom tracheotomy was performed, 3 recovered, and in 123 children under 3 years of age, in whom intubation was performed, 14.63 per cent. recovered. Secondary tracheotomy after intubation is a very fatal procedure, as out of 57 cases so treated, only 5 recovered. Early performance of tracheotomy, if it has to be done, is recommended, and not primary intubation to be followed by tracheotomy. Other disadvantages of intubation are: (1) Much less drainage is permitted than in tracheotomy; and (2) only a limited amount of nourishment can be taken by the intubated patient. As regards drainage, after tracheotomy large quantities of mucus pass, and diphtheritic membranes are expelled, whilst in intubation this does not occur, hence the septic material is either swallowed or inhaled, and its retention in the body is harmful.

(286) Treatment of Suppurative Panophthalmitis.

Chibret (*Ann. d'Oculi.*, June, 1892) describes a method of dealing with cases of suppurative panophthalmitis, in which for any reason enucleation is inadvisable. This plan he thinks has advantages over exenteration. He has followed it in twelve cases; the average time of interference was the seventh day of suppuration; in some he operated as early as the second day, in others as late as the twenty-first day. His procedure is as follows: With a Graefe knife he divides the cornea at its periphery below, extending the incision to include half the circumference; he opens with the knife any membrane in the pupil and the lens capsule; the lens then usually escapes. An Anel's syringe with a large nozzle, and filled with a 1 in 1,500 solution of cyanide of mercury is next introduced through the incision, and a series of injections made into the vitreous chamber, in different directions and with sufficient force to detach and wash out the suppurating portions. In recent cases the suppurating anterior part of the vitreous not infrequently comes out *en masse*, and the fluid subsequently injected returns quite clear. In all cases the injections should be continued until the solution flows out clear. Fever and pain disappear in twenty-four to forty-eight hours, and the patient is able to leave four or five days after the operation. In four of Chibret's twelve cases, the eyeball after recovery remained one-quarter to two-thirds the size of its healthy fellow.

(287) Radical Cure of Femoral Hernia.

Salzer (*Centralbl. f. Chir.*, August 20th, 1892) describes a new method of radical cure of large femoral herniæ. Attempts at radical cure have been made much less frequently in cases of femoral than in cases of inguinal hernia. The former seldom occurs in adult males, is usually of small size, and, in many instances, does not recur after herniotomy for strangulation. Removal of the sac with ligature of its neck has proved a successful operation in cases of small femoral hernia, but when the hernial protrusion is larger than a hen's egg this simple procedure is more likely to be followed by speedy recurrence than by an abiding cure. In cases of large femoral hernia Salzer would object to any attempt to bring together the margins of the ring by sutures, as the resistance of the fibrous structures would very probably cause local gangrene and sloughing. The plan of closing the canal by cicatricial tissue, either by removing its fatty and glandular contents, or by inserting foreign material, is also open to objection, as the new tissue thus produced is apt to become absorbed. Salzer's method consists in first removing the sac, and, in the next place, in closing the external orifice by a flap formed by the fascia covering the pectineus muscle. This flap, the free convex margin of which is divided downwards, whilst its upper portion remains attached to the muscle, is turned upwards, and fixed by sutures to the middle third of Poupart's ligament. In this way the septum crurale is replaced by a tough and resistant layer of fibrous tissue. The thickness of the pectineal fascia, it is stated, varies in different subjects, but the membrane is most likely to be found sufficiently resistant in old persons, and in those who have for a long time worn a truss for femoral hernia.

MIDWIFERY AND DISEASES OF WOMEN.

(288) Delivery of Fœtus with Cystic Kidney.

Tarnier (*Journ. des Sages-Femmes*, September 16th, 1892) states that in March, 1892, a healthy woman was delivered in his wards at term. The breech presented, and labour was not prolonged, but the child died an hour after birth. The pupils who had conducted the labour accused each other of the loss of the child, some saying there had been too much hurry, others that too much had been left to Nature. A necropsy was made, and, although the abdomen was not distended, both kidneys were found in a state of small-cystic degeneration. In cases of this disease the child seldom lives, and in this particular case there was no evidence of malpraxis. In some instances the child recovers, the cystic disease remaining in abeyance for years, and it is not till adult life that it takes to rapid growth, and forms a tumour of more serious character than a hydronephrosis. Most frequently, however, the cystic disease has reached an advanced stage before birth, so that a large tumour is present. The head, in a head presentation, is delivered, yet the body resists all traction. Shortness of the funis, twins, fibroid tumour of the uterus, are suspected, or, if the practitioner rightly judges that the obstruction lies in the fœtal abdomen, he may believe that it is due to ascites, to full bladder, or to putrefaction and development of gas. On this ground he punctures; then he finds that the swelling is semi-solid. In a forceps case the same obstruction may occur. In breech cases the abdominal distension is more readily detected, when the obstetrician tries to find out

why the body cannot be delivered naturally. In a shoulder presentation the morbid condition is found out when turning is attempted. In one case, which occurred at Copenhagen, the vertex presented, and the midwife tore off the head in attempts to deliver. An obstetrician was called in; he fixed two crotchets in the axillæ, pulled with force, and tore off both arms. Dr. Jacobson was then sent for. He suspected ascites or retention of urine in a malformed bladder, punctured, but obtained no liquid. Then he explored very carefully, and detected two symmetrical tumours in the abdomen. He said that there must be cystic kidney, and his suspicion proved correct. He is the first man who ever diagnosed this disease before delivery. Tarnier teaches that evisceration is the only course justifiable in these cases. The fœtal abdomen must be laid open with a large pair of scissors. Then the hand is passed into the abdomen, and the tumour or pair of tumours extracted.

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(289) Effects of Removal of the Ovaries or Uterus.

Grammatikati (*Vratch*, 1892, No. 1) has reviewed the after-histories of a number of cases in which the ovaries have been removed, the uterus being left behind, and compared them with the histories of cases where the uterus has been removed by vaginal hysterectomy (Péan and Segond's operation), the ovaries being left behind. Removal of the ovaries, if complete, is followed in at least half of the cases by menstrual molimina which last for a few months. Then appear climacteric troubles. The mental and physical symptoms seen at the normal menopause appear; sometimes melancholia sets in. In about 42 per cent. the remarkable deposits of fat in the breasts, abdominal walls, and buttocks appear. This is not due to an excess of nutrition, but to vasomotor influence. When the uterus is removed and the ovaries left behind, the effects are far more serious, especially in young subjects. The menstrual molimen, which cannot find its natural relief, becomes very trying. Hence Grammatikati insists that when the uterus is removed in young patients the ovaries should always be taken away as well. Contrary to what is taught by the supporters of hysterectomy, it appears that the ovaries do not atrophy if left behind. Grammatikati had the opportunity of examining the ovaries of a woman who died at the age of 43, three years after he had removed her uterus. He found the ovaries quite normal and full of follicles, some ripening or breaking.

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(290) Primary Sarcoma of the Fallopian Tube.

Sänger (*Centralbl. f. Gynäk.*, No. 32, 1892) recently read notes of a case of this rare disease before the Obstetrical Society of Leipzig. Only two cases have been previously described. The patient was 42 years of age, married eighteen years, and sterile; she suffered from violent attacks of hypogastric pain. About six months previously she had a fall, striking the left flank, and she afterwards grew corpulent. The period was regular and very profuse, with a watery discharge in the intervals. She was thin and cachectic; an immovable tumour filled the left half of the abdomen, and extended to the right inferiorly. It descended into the pelvis, and pushed the uterus to the right. On November 26th, 1891, it was removed with difficulty, owing to its peritoneal and intestinal connections; it held over three pints of a dirty-brown fluid. The uterine end of the left tube was divided by the cautery, after distal and proximal ligature. The right tube formed a pyosalpinx, and was also removed. The tumour was a cyst invading the left broad ligament, and connected with the left Fallopian tube. The tube contained large papillomatous masses, which were small round-celled sarcomata. The right tube also bore small malignant growths. The disease originated in the left tube. In April, 1892, solid deposits were detected around the uterus, the inguinal glands enlarged, and the patient died in June. In all the three recorded cases of primary sarcoma of the tube there was evidence of previous salpingitis, perimetritis, and development of a cyst—in the left parovarium in Sänger's case. The thres cases of primary sarcoma of the tube, like the three cases of primary carcinoma recorded in literature, all assumed the character of papillomatous growths. All six, except Sänger's case, underwent operation.

THERAPEUTICS.

(291) The Treatment of Cholera.

Cantani, of Naples (*Berl. klin. Woch.*, September 12th, 1892) gives a long account of this subject based on his experience of several epidemics. The character of the epidemic is not always the same; at times the danger lies in the loss of fluid and consequent thickening of the blood, at other times in the intoxication produced by the cholera poison. The indications of treatment are (1) to limit the growth of the bacilli in the intestine, (2) to render the chemical poison inert, (3) to eliminate the already absorbed poison, and (4) to counteract the thickening of the blood due to the loss of fluid. In the initial stage of the disease the first two above-named indications for treatment are carried out by large and hot rectal injections of tannic acid (5, 10 to 20 g. to 1½ to 2 litres of water at 38° to 40° C.), to which 20 to 30 drops of laudanum may be added. From his experience the author maintains that the resistance of the ileo-cæcal valve may be overcome and the fluid find its way into the small intestine. The injections are given after each stool, usually every three or four hours. They can be given by the friends. The author gives statistics to show that if this treatment (enteroclysis) be adopted in the early stage of cholera diarrhœa, nearly every case recovers. In addition to increasing the acidity of the intestinal contents tannic acid kills the cholera bacilli and lessens their toxic effects. No medicine is given by the mouth, but wine, champagne, dilute hydrochloric and lactic acids are allowed. In the algid stage the only means of counteracting the poisoning and the thickening of the blood is the addition of water to the blood and tissues. After referring to the unfavourable statistics of transfusion into the veins, the author describes the injections of hot saline fluids into the subcutaneous tissue (hypodermoclysis) first used by him in 1867. As much as half a litre may be injected into two places at a time. The injection should not be made into the region of the neck. These injections are most useful at the beginning of the algid stage, and can be of little use before fluid has been lost to the blood. These injections are to be preferred to intravenous transfusion, because of the more complete mixture with the blood and the ease and safety with which they may be given. The hot rectal injections should be continued, for they also supply fluid. When these have been used early the necessity for hot subcutaneous injections is not so frequent, but hypodermoclysis is essential when the blood has become thick. The external application of warmth is not nearly so efficient as these hot rectal and subcutaneous injections, and when the blood has become thickened a hot bath may be injurious. Of the subcutaneous injections the author says that although he has seen several remarkable successes and undoubted saving of life by them, they have not answered his expectations in nearly the same degree as the rectal injections. Some illustrative cases of the use of these subcutaneous injections in cases of loss of blood are also given (see Epitome, May 21st, 1892, par. 459). In the reaction stage the object is to get rid of the waste products in the tissues. Here also injections should be continued. The author says that, according to his own experience and that of others, the above treatment is, at any rate at the present moment, the best that there is. He does not anticipate much from protective inoculation, for he saw in the Naples epidemic well-marked second attacks of cholera four to six weeks after the first equally well-marked attack.

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(292) Quinine in Cholera.

A. Niedzwiecki (*Vratch*, No. 33, 1892, p. 841) recommends subcutaneous injections of quinine in cholera. The following is the formula: ℞ Quinini bihydrochlorici, 30 g.; aq. destil. ebulli-entis, *q.s.* ad 100 fl. g.; sodii chloridi, 0.6 g., M.D.S. Two (Lewin) syringefuls (=1.2 g. of the bihydrochlorate) to be injected on the first day; later on, from 1 to 2 syringefuls daily. After the cessation of vomiting a combination of the quinine salt with salicylate of bismuth and opium should be given internally. Of adjuvants, morphine should be used subcutaneously when abdominal pain and cramps are present. Enemata of tannic acid should also be administered, while in the algid stage hypodermic injections of a physiological saline

solution are to be resorted to. The author believes that the cholera is nothing else than a "malaria larvata epidemica perniciosa," since (*a*) quinine gives "brilliant" results, and (*b*) a cholera patient's blood contains malarial plasmodia in large numbers.—A. Kh. Sabinin (*Meditzinskaia Beseda*, No. 15, 1892, p. 363) points out that in 1871, during an epidemic of cholera in St. Petersburg, the late Professor S. P. Botkin recommended quinine (from 2 to 5 grs. every morning internally) as a good prophylactic. At the same time, he began to treat cholera with the following mixture, which is sold at present under the name of "Botkin's anticholeraic drops": ℞ Liq. anodyni (Hoffmann's), tinct. quinæ compositæ, *Ph. Ross.*, āā., ʒj; quinini hydrochlorici, ʒj; acidi hydrochlorici diluti, ʒjss; olei menthæ piperitæ, gtt. x; tinct. opii simpl., *Ph. Ross.*, ʒij, M.D.S. From 20 to 30 drops to be given every two hours. Tinct. quinæ comp. vel elixir roborans Whyttii, *Ph. Ross.*, is prepared of 5 parts of grey cinchona bark, 1 gentian root, 1 flavedo corticis aurantii, 16 of a 90 per cent. spirit of wine, and 8 cinnamon water. Tinct. opii simpl., *Ph. Ross.*, contains 1 in 10 of opium.

(293) Atropine in Cholera.

A. KOROLTCHÜK (*Vratch*, No. 34, 1892, p. 867) argues that the most characteristic symptoms of cholera closely resemble those induced by muscarine, or ptomaines, or toxins of the muscarine group. In view of the well-known fact that atropine is a powerful antidote agent in muscarine poisoning, he suggests that the algid stage of cholera should be treated by hypodermic injections of atropine. In an editorial note V. A. Manasseïn points out: (1) That belladonna has already been tried in cholera, without any particular result; and (2) that in any case atropine must be used very cautiously, since otherwise after the subsidence of algid manifestations, and after the return of the patient's circulation and absorption to the standard point, toxic symptoms may develop.

(294) Salol in Cholera.

I. A. MITROPOLSKY (*Vratch*, No. 34, 1892, p. 864), from an experience of several scores of cases of cholera, speaks favourably of the internal administration of salol in 5-grain doses every hour. At the same time he gives a mixture, consisting of 20 drops of tincture of opium *Ph. Ross.*, 1 ounce of dilute hydrochloric acid, and 6 ounces of marsh-mallow root, the dose being one tablespoonful every hour. The interval between the mixture and salol should be about half an hour.

(295) Oxygen and Hot Baths in Cholera.

S. TRIVUS (*Vratch*, No. 34, 1892, p. 867) obtains good results from oxygen inhalations in the vomiting of cholera as well as in the algid stage. He finds also that hot baths (30° Réaum.) exercise an excellent influence on cramps and vomiting. In algid cases the bath water should not reach above the patient's navel.

(296) Vibration as a Remedial Agent.

CHARCOT (*Progr. Méd.*, August 27th, 1892) calls attention to the good results which attend the employment of vibration in cases of paralysis agitans. After giving a history of the subject, in which reference was made to the work of Vigouroux, Boudet, and Mortimer Granville, Charcot said he had long noticed the good effect that railway journeys and carriage drives had on persons suffering from paralysis agitans. He has accordingly subjected some patients to treatment by vibration by placing them in an armchair to which are imparted rapid oscillatory movements by means of a special mechanism set in motion by electricity. Amelioration is generally felt after the fifth or sixth sitting. The painful phenomena are chiefly influenced; the shaking becomes less, the stiffness seems to disappear; they walk better and sleep quietly and well. Gilles de la Tourette, assuming that the good results are due to diffusion of the vibrations over the whole cranium to the brain, constructed a helmet, the sheets of which exactly encased the head of the subject, and which was surmounted by a plate on which was placed a little motor. Insomnia not due to organic brain disease, migraine, and neurasthenia were greatly benefited by this method of application. Charcot, who has also tried it with good effect in a melancholic patient, considers it a powerful sedative to the nervous system.

(297) Aconite Poisoning.

ROBINSON (*Bost. Med. and Surg. Journ.*, August 25th) reports the case of a soldier who, after a debauch, took about 2 drachms of tincture of aconite. He was seen an hour later when he was recumbent, tossing his limbs about and complaining of numbness and cramps in the arms and hands; his radial pulse was imperceptible, carotid 119, respirations 19, pupils slightly dilated but sensitive, nose pinched, extremities cold, face bedewed with cold sweat; at times he lapsed into unconsciousness. Between $\frac{1}{75}$ and $\frac{1}{4}$ grain of apomorphine hypodermically produced vomiting, and the stomach was thoroughly washed out by means of a tube. At intervals in the course of four hours—by which time he was out of danger—he was given hypodermic injections, amounting in all to 25 minims of tincture of digitalis, 45 minims of aromatic spirits of ammonia, and 2 drachms of brandy. The author considers that digitalis is far superior to atropine or strychnine as an antidote to aconite, but that stimulants must also be used to gain time for the digitalis to act.

PATHOLOGY.

(298) Immunity against Typhoid.

BRUSCHETTINI, in November, 1891, during an epidemic of typhoid which occurred at Bologna, made some observations on the disease, of which he has now published a preliminary report (*Rif. Med.*, August 9th, 1892). Cultures were obtained by withdrawing a little blood from the spleen of a patient, and inoculating media therewith. They generally consisted of Eberth's bacillus in a state of purity, but occasionally this occurred together with a streptococcus pyogenes albus, or sometimes only this latter organism was present, showing that the case was not one of true typhoid. The bacillus corresponded in every point with that of Eberth, yet cultures, however inoculated, never caused the death of the animals, or, in fact, any symptom save slight rise of temperature. In the face of these negative results he was led to try the effect of cultures in rabbit's blood, a method which had given good results in the case of the influenza bacillus. With these he found that the liquid portions, when injected under the skin, did not cause death, but a marked and prolonged rise of temperature and progressive wasting, lasting from eight to fifteen days, according to the dose given. Injections into the peritoneum constantly caused death in three to five days, preceded by rise of temperature and wasting. Such animals showed a diffuse peritonitis and enlargement of the spleen. Injections into the blood of 3 to 5 c.c. of similar cultures also caused death with the same symptoms in rabbits after three or four days. Attempts were then made to study the question of immunity to the disease with the aid of these cultures, heated for an hour at 60° C., and also with old gelatine and broth cultures. The results proved (1) that it is possible with such cultures to obtain complete immunity; (2) that to obtain such a result, it is necessary to employ about 20 c.c. of heated blood culture, or 50 c.c. of old broth or gelatine cultures, given subcutaneously; (3) that the serum of such immunised animals has very great bactericidal powers in relation to the typhoid bacillus, much greater than that of the normal rabbit; (4) finally, the serum of such immunised rabbits possesses a very marked antitoxic action against the typhoid bacillus.

(299) Lupus from Inoculation of Tubercle Bacilli.

WOLTERS (*Deutsch med. Woch.*, September 8th, 1892), after reference to the fact that tuberculosis can be produced by inoculation with the bacilli of lupus, remarks that Jadassohn was the first to report a case of lupus produced by inoculation of tubercle bacilli. He himself now relates a case which came under his observation. A medical student received a scalp wound in a duel. Whilst this was healing he pursued his ordinary avocations, in the course of which he had frequently to examine tuberculous sputum. The wound itched a great deal, and this led to scratching. After scratching he often observed that the finger used was moist, but continued to relieve the itching so without disinfecting the finger, though at the time he was actually engaged in examining sputum. Presently typical lupus developed at the seat of injury. There was no doubt about the diagnosis.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(300) Etiology of Granular Kidney.

Some time ago Eisenlohr reported a case of acute infective nephritis complicating enteric fever, and ultimately developing into the granular kidney. He now records (*Deut. med. Woch.*, August 11th, 1892) a similar result in a case of acute nephritis complicating acute pneumonia in a woman, aged 39. Much albumen, red blood cells, leucocytes, and casts were found in the urine on the eighth day of the disease. A few days later there was œdema. There was no cardiac hypertrophy, and the arterial tension was abnormally low. A month later she had uræmic attacks, with headache, vomiting, and diarrhœa. A few months later the urine was found to be considerably increased in quantity, of low specific gravity, and contained very little albumen. The arterial tension was very slightly increased. Nine months after the attack of acute pneumonia she died of uræmia. At the necropsy the kidneys presented the appearance of the ordinary red granular disease, both naked eye and microscopically, and the heart was only very slightly hypertrophied. The previous existence of a chronic nephritis must, of course, be excluded. Nine years previously the patient was in hospital, and the urine was noted to be quite normal. The development of the granular kidney in the meantime is in the highest degree improbable, chiefly because there was hardly any cardiac hypertrophy. The slight degree of hypertrophy found corresponded to the short duration of the disease. The author has been unable to find any record of a similar case after acute pneumonia. It is well known that acute nephritis not infrequently occurs in the various infective diseases, that it may not give rise to characteristic symptoms, and that it may thus be easily overlooked. In the above recorded case, and also in the one previously reported by the author, there was apparently a progressive shrinking of the kidney without previous enlargement. These cases are not advanced as evidence of any general operation of such a cause in the production of the granular kidney.

(301) Traumatic Neurosis.

König lately discovered (*Berl. klin. Woch.*, No. 31, 1891) that the so-called "Förster's type" of visual field contraction (that is, a perimetric record is obtained by always moving the test object centripetally; next, the visual field is measured by moving the object from the centre to the periphery; the latter record is smaller in every direction than the first) may occur in traumatic neurosis, and prove valuable as an objective indication of that disorder. Placzek has since ascertained that the phenomenon was present in all but one of the patients suffering from traumatic neurosis examined by him in whom there was any concentric narrowing of the visual field. More recently König (*Neurolog. Centralbl.*, August 1st, 1892) has demonstrated enlargement of the blind spot in hysteria and periodic dipsomania on systematic tiring of the retina. His researches showed that the blind spot enlarged only towards the periphery, not towards the fovea. Fatigue effect was most apparent at the commencement of the experiment and ceased before the blind area reached the periphery of the field of vision. The enlargement was greater in the eye of the hemianæsthetic side.

(302) Œdema of the Lungs in Acute Pneumonia.

Kornfeld (*Centralbl. f. klin. Med.*, September 19th, 1892) relates the following instance occurring at the time of the crisis, and ending in recovery. A man, aged 37, addicted to drink, had acute pneumonia, the chief physical signs of which were found over the infraspinous fossa, a favourite site when the disease affects drunkards. There was extensive herpes on both lips, and also on the soft and hard palate. In spite of considerable prostration, blueness of the face, and delirium, the pulse continued to be of good force and volume. The focus of pneumonia ultimately spread over the whole of the right lung, and also to the lower lobe of the left lung. At the time of the crisis on the seventh day there was stertorous breathing, marked cyanosis, and sweating. Abundant moist *râles* of various sizes were heard over the lungs, showing the presence of pulmonary œdema. In spite of these threatening symptoms the pulse was only 100, regular, and of good volume. In three hours' time these unfavourable symptoms began to disappear, and the patient ultimately made a good recovery. Kahane reported a case of transitory œdema of the lung at the time of the crisis, which is said to have disappeared very rapidly. The cause of the œdema in the above-described case was certainly not cardiac failure, but whether it was a pure angioneurotic manifestation within the area of inflammation cannot be definitely decided. Whether the sustained force of the cardiac action was due to the infusion of digitalis which had been given during the whole course of the disease, is also uncertain, although it is very possible.

(303) Ambulatory Automatism in a Dipsomaniac.

Souques (*Arch. de Neur.*, July, 1892) relates the case of a man, aged 33, affected with dipsomania since his 20th year. In May, 1890, when starting to his work after a ten days' debauch, the man suddenly developed an ambulatory obsession. Involuntarily and without aim he walked from Paris to Vincennes, passed the night in a wood, and only emerged from his subconscious condition on reaching home the next evening. To a great extent he could recall what he had done and where he had been while in the obnubilated state. A few months later a drinking bout lasting fifteen days was followed by another semi-automatic excursion. Under bromide treatment the propensity to drink disappeared. Sougues points out that his patient was not an ordinary alcoholic, but manifestly was a hereditary degenerate in whom the dipsomania was merely an episodic syndrome.

SURGERY.

(304) Surgical Treatment of Hepatic Abscess.

W. Korte (*Berliner klin. Woch.*, August 8th, 1892), in his article on hepatic abscess, says that he himself has treated five cases during the past five years, none of which were of tropical origin. The commonest cause is cholelithiasis, two of the author's cases being due to this. Other causes are impacted gallstones with subsequent inflammation and suppuration around the seat of impaction, either in the ducts or by causing inflammation in the gall bladder, which spreads by continuity to the liver substance; suppuration in the liver can also be set up in typhoid fever, dysentery, and perityphlitis by the conveyance of septic material through the portal vein. These forms resemble pyæmic abscesses of the liver. Another cause is suppuration around the appendix vermiformis, which spreads upwards in the cellular tissues behind the cæcum and ascending colon and reaches the lower and posterior surface of the liver. Traumatism may also be a cause, as in injuries to the liver due to punctured wounds and fractured ribs. Hydatid cysts may suppurate and so cause an abscess. As regards symptoms, so long as the hepatic abscess is small, often nothing is apparent. In larger abscesses enlargement of the liver, especially upwards, takes place, whilst it can be felt below the margin of the ribs. Tenderness in the most prominent part of the enlargement is generally present. To make certain of the diagnosis the tender point should be punctured with the needle of an aspirator. Icterus is not always present, except in the cases due to gall stones. The diagnosis of hepatic abscess from suppurations in the neighbourhood is not always possible. The author operated on 9 cases of subphrenic abscess; 7 of these were due to perityphlitis, 2 to gall stones, and 1 to renal suppuration. As regards treatment, two methods are mentioned. In one the abscess cavity is punctured with a trocar, and its contents evacuated through the cannula, which is left *in situ* and replaced at a later period with a rubber drainage tube. In the other free exposure by incision of the liver surface over the most prominent part of the abscess if possible is performed, and then the liver surface is attached to the margin of the incision by sutures, and the abscess opened freely and evacuated. Of Korte's five cases, three recovered and two died. Two were due to perityphlitis, and two to gall stones.

(305) The Relative Virulence of Microbes found in Wounds which Heal by First Intention.

BÜDINGER (*Wien. klin. Wock.*, No. 22, 24, 25, 1892) describes some experiments undertaken in Billroth's clinic, in order to test the reliability of certain methods of wound treatment. As regards wounds healing by first intention, it is certain that any microbes that are found in them have come from the air, and have settled there during the operation. They have been able to resist even the floods of antiseptics often employed; they appear even to be capable of multiplying there. It is, in the author's opinion, practically impossible to talk of the treatment of wounds free from microbes. No method has been devised which will prevent the fall of microbes on to a wound during operation, or will kill them and prevent them from developing there. However, in the case of a clean wound, neither pathogenic nor non-pathogenic microbes can prevent it from healing by first intention. Now, are the microbes found under these circumstances—the pyogenic staphylococci—virulent or non-virulent? The author's inoculations, made on his own forearm, show that each of the varieties commonly found under these circumstances (S. albus, S. aureus, and S. citreus) is actually virulent, and there is no doubt that the so-called "traumatic fever," sometimes accompanying even "aseptic wounds," is due to the absorption of some of the above-named microbes.

(306) Extirpation of the Rectum.

SCHELKLY, of Utrecht (*Berl. klin. Wock.*, August 8th, 1892) describes a new method of extirpation of the rectum. The patient is placed in the lithotomy position, the buttocks brought to the edge of the operating table and raised, so that the intestines may fall back into the abdominal cavity. A skin incision is then made, commencing at the inner margin of the right ischial tuberosity, and carried over the coccyx to the left ischial tuberosity. The coccygeal attachment of the sphincter ani is next divided close to the bone. With the left forefinger the perirectal connective tissue is separated, and with a pair of scissors the levator ani muscle is divided, first to the left, then to the right, as far as the limits of the skin incision. The posterior wall of the rectum at this stage of the operation usually appears in the bottom of the wound. If it is necessary to expose the pelvic organs further, it is advisable to divide the coccyx by a transverse incision. The part of the rectum to be removed is next separated from the surrounding tissues, and is then cut across transversely just above the sphincter ani externus. The rectum is seized with forceps, and further separated from its surroundings until the upper limit of the disease has been passed. In cases of carcinoma which extend high up, it is necessary to open the pouch of Douglas. The part of the rectum above the seat of disease is so separated and made movable that after the diseased part has been resected it is drawn down and sutured to the lower segment which was left just above the anus, without giving rise to a state of tension. In cases where the pouch of Douglas has been opened, the aperture is closed up with sutures before the rectal segments are brought together. This method of operation is applicable, according to the author, to rectal carcinomas (even when placed high up) to syphilitic strictures, to congenital strictures, and also to some forms of pelvic growth. Schelkly himself has operated in this manner five times: three times in rectal carcinomas not high up, once in syphilitic stricture, and once in congenital atresia recti. All these cases recovered. In a sixth case a carcinomatous tumour was removed from the middle of the sigmoid flexure, together with part of the mesocolon. The part of the sigmoid flexure above was brought down and sutured to the upper part of the rectum below. The patient died about three weeks after the operation. In the seventh case 2½ inches of the rectum were removed, Douglas's pouch opened, and an ovarian cyst and the Fallopian tube removed. The pedicle was dropped back, and the aperture closed with silk sutures, and then the intestine treated as described. The patient made a good recovery, and five months afterwards had no signs of recurrence of the disease. The eighth case, a patient with carcinoma recti, died two days after the operation.

(307) Tracheotomy and Intubation.

MAYER (*Therap. Monatsh.*, June, 1892) gives his experience of the operative treatment of diphtheria during the last eighteen years. Three hundred and sixteen of the cases were tracheotomies and 9 were intubations. Of the patients 166 were boys and 139 girls. Of the tracheotomies, 103 were successful. Nearly all the tracheotomies were "high" operations, but 31 were "low." As regards intubation, it is both more difficult in execution and more troublesome in its after-treatment, without conferring corresponding advantages.

MIDWIFERY AND DISEASES OF WOMEN.

(308) The False Scarlatina of Childbirth and Sublimate Injections.

JOSEPH ARNAUD (*Arch. de Tocol. et de Gynéc.*, September, 1892), of Marseilles, maintains that true scarlatina is very deadly in the puerperium. There is a scarlatina-like eruption, which is mild in its effects. This eruption is not true scarlatina. The cause of the eruption in question remains doubtful. A primipara, aged 20, came into a lying-in hospital to be delivered. She had an injection of sublimate, 1 in 4,000, administered on the evening of admission, and another on the next morning. On the same day a scarlatiniform rash appeared on the abdomen and thighs. Headache, fever, sore throat, nausea, and constipation were absent. Next day she was delivered at term, without trouble. The child was living and free from any rash. At the end of a week there was desquamation. The eruption did not prevent the mother from nursing her child, and the temperature had never exceeded 100.5°. The rash at its height covered the abdomen, thorax, and extremities, and the legs were swollen, the urine febrile with a trace of albumen. Convalescence was rapid. This eruption was not of the character of septic rash, where no desquamation occurs. No history or evidence of syphilis was at hand. The patient showed no signs of certain other disorders in which erythema is seen. Arnaud is, however, inclined to believe that the rash was mercurial. Very mild doses of mercury may cause erythema in subjects who cannot well tolerate that drug. Morel-Lavallée, he observes, recently recorded a case where a youth took a dose of jalap with 3¾ grains of calomel. A rash appeared before the powder acted on the bowels; it spread over the body in twenty-four hours. A young woman, the same observer relates, took a mercurial pill. Four days later a rash appeared, and it was followed by free desquamation. After a sublimate bath, the same patient was again attacked by the rash. Again, her hands desquamated after washing them in a mercurial solution. Morel-Lavallée (*Revue de Médecine*, June, 1891) describes 22 cases of the kind, and in 9 the rash appeared within twenty-four hours. As in Arnaud's case, it is just after small doses that the rash is the most prominent symptom in subjects who cannot bear mercury.

(309) Pathological Anatomy of Uncontrollable Vomiting of Pregnancy.

LINDEMANN (*Centralb. f. allgem. Path.*, August 20th, 1892) records the morbid conditions found by him in a fatal case of this affection. At the necropsy the liver and kidneys were seen to be degenerate here and there, and there was found noteworthy enlargement of the spleen. All other organs were healthy; the wasting of the body was inconsiderable. Microscopically, changes were found in certain nerves, in the liver, spleen, and kidneys. The nerves—phrenic and vagus—were in a state of parenchymatous nephritis. In the liver, spleen, and kidneys fatty changes of the cells, with cloudy swelling, and in some parts coagulation necrosis, were observed; the kidneys were most affected. Similar conditions, indicative of advanced degeneration, existed in the liver and kidneys of the fœtus, the latter being the organs most diseased. Lindemann observes that a theory of inanition is inadequate to explain neuritis, splenic enlargement, and profound renal changes, such as occurred in this case—in which, as a matter of fact, but slight wasting of the body was noted. The conditions observed resemble those found in cases of chronic poisoning or of infectious disease, and the author is disposed to explain them upon a theory of auto-intoxication.

(310) Iodoform Gauze Penetrating Intestine: Resection.

Michaux (*Nouv. Arch. d'Obstét. et de Gynéc.*, August 1892), some time ago exhibited before the Paris Société de Chirurgie, a long strip of iodoform gauze which he had removed in the following case: A young girl underwent abdominal section for tubal disease in September, 1891. A month later vaginal hysterectomy was performed; nevertheless she remained in pain. Michaux detected on palpation a swelling low down to the left in the pelvis; he attributed it to intestinal adhesions. Abdominal section was once more performed. The intestines were strongly adherent, and in freeing the coils he opened the intestinal cavity. There he found the strip of gauze. The wounded segment of intestine was resected and the divided parts united by circular enterorrhaphy. A stercoral fistula was developed during convalescence.

(311) Metrorrhagia and Uterine New Growths.

Kiréieff (*Rev. de Tocol. et de Gynéc. de St. Petersbourg*, May, 1892) writes on adeno-papilloma of the uterine cavity. He distinguishes two forms. The first bears all the clinical characters of cancer of the body of the uterus; it is pathologically cylindrical carcinoma or adenoid cancer. The second is seen in the disease sometimes termed (or confounded with) "fungous endometritis." Thus Kiréieff observed an extreme case in which the patient, a sterile woman, aged 37, suffered from metrorrhagia for four years. The uterus rose above the pubes, and was as big as the head of a child of ten. The cervix was shortened. In the uterine cavity a great number of papillomatous vegetations were found growing from the uterine wall, and from the lining of the canal of the cervix. The curette did no good, as the vegetations, which bled freely, were too intimately associated with the deeper uterine tissues. The body of the uterus was removed by abdominal section, the cervix through the vagina. Pathologically, the vegetations were myo-adeno-papillomata. This disease, "although very serious, on account of the constitutional debility which it produces, does not directly endanger the patient's life," but Kiréieff insists, nevertheless, that, as in the malignant form, the right treatment is extirpation of the uterus.

(312) Hernia of Abdominal Cicatrix after Laparotomy.

Goullioud (*Arch. de Tocol. et de Gynéc.*, July and August, 1892) compares the ventral hernia of pregnancy and abdominal tumour with the troublesome hernia of the cicatrix after ovariotomy and other forms of abdominal section. In the first form, common amongst multiparæ, the linea alba is simply relaxed through excessive distension of the tissues which compose it. The aponeurotic layer of the abdominal walls remains entire, though thin, like the skin and peritoneum, from stretching. In hernia after operation, the protrusion is due to non-union of the aponeurotic layer of the linea alba. Hence Gouillioud maintains that the aponeurotic layers of the abdominal incision should always be united by a special line of sutures. Three radical operations for the cure of hernia of the cicatrix are practised. Simon inverts all three layers and, making raw surfaces on the skin, unites them by suture. Maydl resects the entire sac and applies a special line of suture to each layer. In a third method the skin is resected, the other layers inverted, and their folded edges sutured, and lastly the edges of the skin-wound united by a separate line of suture. This operation, advocated by Chrobak, is more suited for ventral herniæ not due to operation. It has the advantage of avoiding the opening of the abdominal cavity. Complete resection, however, is as a rule preferable in hernia after ovariotomy, etc. The serous layer of the sac usually possesses secondary pouches, bands, and omental adhesions. Their removal is clearly an advantage. Gouillioud warns the surgeon of the difficulties of resection. The three layers are fused by tissue more or less dense. Hence free excision of the sac renders the operation less irksome, and is also more advisable for the patient; the further the surgeon cuts from the limits of the cicatrix the easier will be the separation of the layers. When separated, after long and careful dissection, they must be sutured separately. The fibrous ring forming the neck of the sac often gives great trouble. The operation of resection is most likely to succeed when the recti are not overstretched; when, in fact, they still contract firmly. A perfect union of the aponeurotic layer is, of course, essential. Without such union the secondary operation will be followed by a yet larger hernial protrusion.

THERAPEUTICS.

(313) Benzanilide.

Luigi Cantu (*Rif. Med.*, August 2nd, 1892) records the results of the administration of this drug in a number of patients suffering from various disorders. The drug had already been tried to a certain extent by Cahn in the Children's Hospital at Strassburg, and the therapeutic effects were declared to be very similar to those of acetanilide and salicylanide. Benzanilide has a chemical constitution closely allied to that of acetanilide, and is a white powder, melting at 161° C., and dissolving in 60 parts of cold, or 7 of hot alcohol. It is insoluble in water, and with difficulty dissolves in ether; it has a slightly caustic taste, but no marked odour. It was given by the author in the following cases: 5 of typhoid, 12 of rheumatism, 4 of pneumonia, 3 of neuritis, 3 of sciatica, 2 of malaria, 1 of chorea, and 1 of tetany. As regards the dose, the drug was at first given in the same doses as acetanilide, but this amount being insufficient, the quantity was increased first to 1 gramme, and finally to 2 grammes, at which amount it showed its full action. A daily dose of from 4 to 6 grammes was well borne, but symptoms of intolerance began to appear after several successive days' use. The drug was given in capsules. In febrile conditions the action on the temperature is very energetic, and seems greater in proportion to the elevation of temperature. The action begins from half an hour to an hour after the drug is taken, and the maximum effect is reached after four or five hours, when the temperature again begins to rise, so that in ten or twelve hours it has reached its original level. The respiration is not affected save that occasionally it is increased in frequency. On the other hand the pulse becomes slower and softer, and its tension as measured by the sphygmomanometer shows marked diminution; this effect does not seem to be in proportion to the effect on the temperature. No disturbance of the digestive organs was observed in any of the cases in which the drug was given. The urine was not altered in quantity, density, or reaction; its colour was somewhat dark, approaching a greenish tint, the colour increasing in intensity after exposure to light and air. With large doses the colour sometimes became nearly black. This urine yields the reaction of para-amido-sulphuric acid. As regards its therapeutic effects, the drug seems to be a simple antipyretic, and to have little other influence on the course of a disease.

(314) Aristol in Ulcers of the Cornea.

Vignes (*Rec. d'Ophtal.*, July, 1892) speaks favourably of the treatment of corneal ulcers of severe type by the local application of aristol in powder and made into ointment with vaseline; to this atropine may be added, if desired. This treatment he supplements by an occlusive bandage to the affected eye. The bandage is changed once in twenty-four or forty-eight hours. From his experience Vignes concludes: (1) That aristol has no irritating effect upon the eye, and acts as a disinfectant on ulcerated corneæ; (2) the treatment by aristol and occlusive bandages leads to a more rapid cure than is obtained by other methods, and the resulting leucomata are very slight.

(315) Cocaine Cantharidinate.

Hennig (*Berl. klin. Woch.*, August 29th, 1892) describes this preparation. It is more correctly termed a mixture than a chemical combination, but this is immaterial from the therapeutic point of view. It is a white powder, readily soluble in hot water. The author introduced it on account of the painlessness with which it may be injected. Swelling and infiltration at the site of injection occur much less frequently, and are less marked than with the other cantharidinates. Once only out of 2,845 injections did an abscess form. There was never

any irritation of the bowels, and very rarely of the kidneys. Like the other cantharidinates, it not only acts beneficially in chronic catarrhal processes of the nose and throat, but also in early tuberculosis of the upper air passages. It gave good results in tuberculosis of the lungs, skin, bones, and glands. In some of the cases injections of ½ domgr. sufficed. It is contraindicated in advanced tuberculosis as well as in albuminuria. If no improvement follow ten injections the treatment should be given up, and a further attempt made in six weeks' time.

(316) Tannin in Cholera.

A. ALEXINSKY, of Iaroslavl (*Vratch*, No. 34, 1892, p. 865), has found that the best treatment of cholera consists in washing out the stomach and bowels with Cantani's tepid (40° C.) solution of tannic acid, 10 grammes of the latter to 2,000 fluid grammes of infusion of camomile. A litre of the solution is slowly injected into the stomach through a hard india-rubber tube, after which the patient is put to bed, and two litres of the fluid are introduced into the rectum. The gastric injection arrests vomiting, the enema checks diarrhœa. If necessary, these procedures are repeated. Of adjuvants, the following are most serviceable: (1) A mixture of equal parts of ethereal valerian tincture and Hoffmann's liquor anodynus, 20 drops every hour internally; (2) a powder, consisting of $\frac{1}{10}$ grain of calomel, $\frac{1}{10}$ grain of opium and 5 grains of subnitrate of bismuth, to be given similarly every hour; (3) brandy or port wine, as drink; (4) frictions. Subcutaneous transfusions of saline solution proved useless in the author's hands, and patients object to the procedure.

PATHOLOGY.

(317) Diffusion of the Tetanus Poison through the Organism.

THE mode of diffusion of the tetanus poison through the body has been further studied by Bruschettini (*Rif. Med.*, July 29th and 30th, 1892). As a full summary of his observations on the subject he gives the following conclusions: He finds (1) that the poison of tetanus is diffused into the blood from the point at which it is formed; (2) that this poison loses all its toxic power when kept for eight days in the incubator at a temperature of 37° C.; (3) that the poison, besides being diffused into the blood, is disseminated through the central nervous system, and that this diffusion takes place—at least in rodents—both in an ascending and a descending direction, and from the part in which the primary infection has taken place to the most distant; (4) that the liver, the spleen, and suprarenal capsules, and muscles of a tetanised animal contain none of the toxine; (5) that the kidneys, on the other hand, of animals dead of tetanus are highly toxic; (6) that the poison of tetanus is eliminated for the most part by the urine.

(318) The Parasites of Cancer.

FOÀ (*Centralbl. f. Bakt.*, August 9th, 1892) has examined seventy carcinomatous growths, mostly from the breast, and has only four times seen bodies within the cells which could be certainly described as parasites. The developmental stages which can be seen, the bladder-like appearance, the regular striation of the capsule, the segmentation of the body, the presence of central corpuscles—these are all arguments in favour of the parasitic nature of the cell contents. The author observes that it often happens that out of many sections only very few present these bodies; and further, that they may occur only in a portion of any given section. Reviewing the work of Soudakewitch, Foà states that he is by no means of opinion that all the structures (found enclosed in cells) which this author describes are parasites, but some of them are identical with bodies regarded by him (Foà) as parasitic. The bodies found by Stroebe and Podwyssozki in cancerous cells occur also, according to Foà, in tissues not cancerous and not of new formation.

(319) Filaria Nocturna.

NABIAS AND SABRAZÈS (*Comptes Rendus de la Société de Biologie*, May 21st, 1892) point out that failure to find the filaria nocturna in the fluid of chylous dropsy of the tunica vaginalis is generally the consequence of faulty methods of examination. They direct that the parasites should be sought for, not in the fluid itself, but in the clots and fibrous threads which float in it or are deposited from it on the sides of the receiving vessel. If these are scrutinised, the embryos will be readily seen in countless numbers. These authors mention a singular circumstance with regard to the influence of osmic acid on the vitality of this parasite. They found that as soon as the bacteria of decomposition made their appearance in considerable numbers in the chylous fluid—that is, in about two days—the filariæ all died; but if decomposition and coagulation were prevented by the addition of an equal quantity of 1 per cent. osmic acid solution to the chylous fluid, the formation of bacteria was prevented, and the filariæ kept alive and active for at least five days. This fact is all the more curious, seeing that this embryo parasite dies in from one to three minutes when exposed to the vapour only of a 2 per cent. solution of the same poison. The cellular structure of the parasite and the loose sheath which envelops it were well displayed by the following method of staining. A small clot containing the filariæ is spread on a slip, and exposed till it is dry to the vapour of 2 per cent. solution of osmic acid. It is then warmed for a few seconds over a Bunsen's burner, and afterwards immersed for fifteen minutes in Gibbes's carmine-borax solution. After this it is rapidly passed through 1 per cent. hydrochloric acid in alcohol, and washed in plenty of water before being placed for twenty minutes in concentrated watery solution of methylene blue, washed, dehydrated in alcohol, cleared in oil of cloves and mounted in balsam. By this method the little embryo worm is seen to be made up of a number of minute cells whose nuclei have been stained blue; the enclosing sheath shows up a rosy red. Nabias and Sabrazès, in conclusion, give the results of a chemical and spectroscopic examination of the milk-like fluid from the tunica vaginalis in which the filariæ were found. This is the first examination of the kind recorded. The fluid was found to have a specific gravity of 1021, to contain much fat and albuminous matter besides salts and hæmolutein; under the microscope it was seen to contain fat granules, leucocytes, red blood globules, and endothelial cells.

(320) Experimental Inoculation of Glanders.

TEDESCHI (*Centr. f. Bakt.*, July 30th, 1892) has inoculated various animals with glanders, applying the virus directly to nerve centres, and draws the following conclusions from his experiments: (1) Animals very liable to glanders succumb much sooner when inoculated in the brain and spinal cord than when the virus is applied to another part; (2) animals classed as immune and as in some measure resistant to glanders die rapidly when inoculated in nerve centres; (3) the virus is strengthened by inoculation into nerve centres of sensitive animals, and still more so when animals regarded as immune are employed. Thus, a small quantity of meningeal exudate from a dog killed by inoculation into the brain, when introduced beneath the dura mater of another dog, causes the death of the latter more quickly than the most virulent culture would. This increase of virulence is not a special feature of the meningeal exudate in this case, being equally manifest in material from other parts of the body—as, for example, spleen pulp.

(321) The Spleen and Immunity.

KANTHACK (*Centralbl. f. Bakt.*, August 18th, 1892) refers to the fact—demonstrated by Tizzoni and Cattani—that the spleen is concerned in the production of the tetanus antitoxin, and points out the necessity for caution in drawing an analogy in this respect between tetanus—a prominent instance of an "intoxication malady"—and other examples of bacterial infection, in which intoxication plays a minor part. With a view to determining whether or not the spleen is concerned with the production of immunity in an instance of the latter kind, the author made several experiments with B. pyocaneus, as follows: (1) The spleen was removed from a rabbit, and as soon as it had recovered from the operation the animal was treated by some immunity-conferring method; (2) the rabbit was rendered immune, and its spleen then extirpated. It was found that removal of the spleen, whether before or after the protective inoculation, had no influence upon the production of immunity against B. pyocyaneus.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(322) Aortic Stenosis and Intrathoracic Tumours.

Witthauer (*Deut. med. Woch.*, September 1st, 1892) reports the following case: A boy, aged 9, who never had rheumatic fever, was in good health up to six months ago, when he lost his appetite, and began to waste. On admission there was some cyanosis, much dyspnœa, and considerable general dropsy. The cardiac dulness was greatly increased, both to the right and the left, and there was some bulging on the left side. A loud murmur was heard all over the præcordium, and also behind. The liver and spleen were enlarged. The patient was thought to have mitral regurgitation, and perhaps aortic stenosis. He had frequent paroxysms of cough. After some improvement under digitalis he died with symptoms of pulmonary œdema. The heart was found to be much enlarged. Both ventricles were considerably dilated, and the mitral orifice would take three fingers. A tumour of the size of a boy's fist was found surrounding the aorta, diminishing its lumen, and adherent to the pericardium. The liver was enlarged, and presented a nutmeg appearance. The author says that the tumour proved itself, both to the naked eye and microscopically, to be made up of tuberculous glands. He draws attention to the exceptional character of the growth, and with the possible exception of one other case he cannot find a record of any similar instance of compression of the aorta by a tuberculous tumour. Most of the ordinary symptoms of intrathoracic growth were absent, and the symptoms present seemed to be explained by a valvular lesion with hypertrophy and dilatation of the heart. The author gives a short account of some recorded cases of tumour producing aortic obstruction.

(323) Diagnosis of Diphtheria.

Booker (*Arch. of Pediat.*, September, 1892) reports the result of a bacteriological examination of a series of cases of angina occurring during the prevalence of an epidemic of scarlet fever in Baltimore. Eleven of the cases had scarlet fever and pseudo-membranous angina, four had scarlet fever with redness of throat, without false membrane; one had pseudo-membranous angina, like that observed in the scarlet fever cases, but without rash. In no case was the Klebs-Löffler bacillus found; in every case streptococci were present; staphylococcus was also present in a large proportion of cases (aureus in eleven cases, and albus in four). Three cases of measles were also examined; in two there was membranous laryngitis, and in the third false membrane of the throat and eyelids. Streptococci were found in these cases also, and a few staphylococci. In three cases of follicular tonsillitis streptococci were found. No difference was established between the streptococci found in these cases and in the scarlet fever cases; nor could any differences certainly be established between the streptococci found in the various cases of scarlet fever, though the mode of growth was not identical in every instance, and there appeared some ground for the belief that one form, having bluish colonies, was associated with the more serious clinical symptoms. Reference was made to Kurth's researches (*Arb. a. d. k. Gesundheitsamte*, Berlin, Bd. vii, 1891), who noticed differences in the mode of growth in bouillon.

(324) Leukæmia Acutissima.

Greiwe (*Berl. klin. Woch.*, August 15th, 1892) relates the following very rapid case occurring after a strain, and lasting only eleven days: A man, aged 28, previously in good health, had pain in the left side after lifting a heavy weight. On the following day he had hæmorrhage from the mouth, for which he came to the hospital. He was then found to have numerous hæmorrhages beneath the skin and the gums were swollen. The abdomen was distended and tender, so that a satisfactory examination was impossible. A day or two later the spleen was found to extend four finger-breadths below the ribs, and the liver was enlarged. An examination of the blood showed the presence of lymphatic leukæmia. The red cells were greatly diminished and the white cells much increased in numbers. There were only a few poikilocytes and nucleated red cells. The addition to the number of white cells consisted chiefly in large lymphocytes, with a big oval nucleus surrounded by a small amount of protoplasm. The normal multinucleated cells were considerably diminished in number. Eosinophile cells were scarce. The lymphatic glands in various parts of the body were enlarged. After death the mediastinal glands were also seen to be enlarged, and there were subpericardial hæmorrhages. The marrow of the bones was paler than usual, and contained large eosinophile cells. The spleen and lymphatic glands were affected with a simple hypertrophy. In the kidneys there were collections of lymphocytes which gave the appearance of infarcts. The hepatic enlargement was due to the infiltration of the connective tissue with leucocytes. The author says that the previous good health of the patient, the sudden lighting up of the disease after an injury, the severe hæmorrhages, and rapid death permit of the case being classed as one of very acute leukæmia. The patient, however, admitted that he had small hæmorrhages beneath the skin for some months previously, and the author says that an examination of recorded cases demonstrates the probability of the existence—as in this case—of a long latent period to the disease before the acute development. Leukæmia may exist, as is known, for some time without any very great disturbance of the general health.

(325) Gonorrhœa and Heart Disease.

His (*Berlin klin. Woch.*, October 3rd, 1892) records two cases of cardiac disease the result of gonorrhœa. In neither case had there been any previous history of rheumatism, or any ground for considering the cardiac affection rheumatic. The first was one in which there was no joint affection at any period of its course. Septic thrombosis of the prostatic veins and pulmonic plexus resulted from a gonorrhœa, and the next manifestation of the septic process was affection of the aortic valves. This was at first latent, but after intense emotion and a severe chill, it assumed the characters of an ulcerative endocarditis. Later the condition became pyæmic, with septic emboli in internal organs, multiple hæmorrhages in these and under serous surfaces, and interstitial inflammation of the heart muscle which resulted in cardiac failure and death. The second case differed from the first in having joint affection which the author considered of septic origin, and in not having thrombosis of the prostatic veins. This latter point of difference is, however, supposed to be possibly due to the condition having been overlooked by the doctor who conducted the necropsy at the patient's house.

SURGERY.

(326) Suppurative Peritonitis.

W. Körte (*Berl. klin. Woch.*, No. 31, 1892) gives the results of 19 consecutive cases of suppurative peritonitis which he has treated during the past two years. He divides his cases into three classes: (1) General septic peritonitis with little exudation and with paralysis of the intestinal walls. These cases are not capable of improvement by direct surgical interference. (2) Suppurative peritonitis without adhesions. (3) Suppurative peritonitis with adhesions. Cases of tuberculous peritonitis or of peritonitis following internal strangulation or gangrenous herniæ are not reckoned in the series of cases. In the second and third classes of cases, especially in the latter, much may be done by surgery. Removal of the purulent fluid is advised as the best method of treatment, but washing out of the peritoneal cavity with antiseptic solutions is said to be futile, and is not recommended. By these means abdominal pressure and tension are reduced, and hence interference with the lungs and heart prevented. If the peritonitis is due to perforation of the bowel, and this can be easily seen, closure of the aperture by sutures is advised; but a prolonged search for the aperture in the gut is deprecated. After incision and evacuation of the pus, drainage tubes are inserted. Of the 19 patients operated upon, 6 recovered. The ages varied between 2 and 71 years. Twelve of the cases were general peritonitis

with fibrinous exudation which formed adhesions. Out of these 12, 6 recovered; hence the value of adhesions in these cases is seen to be very considerable. Of the patients who recovered, 4 were between 18 and 31, whilst the 5th was 49, and the 6th 56. As regards the time of the operation, 16 were operated upon before the end of the fourth day from the commencement of the symptoms; the remaining 3 were operated upon at a later period. Of those operated upon before the fourth day, 6 recovered, whilst all those operated upon after this died. In 2 cases the peritonitis came on after reduction of hernia, in 2 after perforation in typhoid, in 2 after rupture of the bowel, in 1 after perforation from an ulcer of the stomach, and in 3 after injury to the abdomen. The operation was always carried out by the median incision in the linea alba, and when the purulent collection was reached it was mopped out with tampons of wool. Recovery was delayed in many cases, and further incisions were required. In some cases, intestinal fistulæ formed, which either healed spontaneously, or were submitted to further operation. For these cases the continuous water bath is advised. Körte kept some in this for five days with considerable advantage.

(327) Removal of a Tumour of the Optic Nerve.

A. B. Norton (*Arch. of Ophthal.*, July, 1892) reports the case of a patient operated upon by the late G. S. Norton. A female, aged 30, gave a history of steadily increasing proptosis of the right eye for ten or twelve years. When seen by Norton there was protrusion directly forwards of 22 mm. Vision was reduced to $\frac{2}{10}$, and the ophthalmoscope showed an atrophic condition of the optic papilla. At the operation an incision was made between the superior and internal recti muscles sufficient to allow the finger to be passed down to the tumour. Using the finger as a guide, the tissues around the tumour were divided back to the optic foramen. The nerve was then cut through at the optic foramen close to the eyeball. The tumour was next removed through the external opening. On rotating the eye, the cut end of the nerve could be seen and appeared clear and white. The orbit was washed out with 1 in 4,000 solution of perchloride of mercury, the eyeball replaced, and a compress bandage and ice-bag applied. The eyeball protruded greatly for some days in consequence of blood extravasation into the orbital tissues. There was also much swelling of lids and chemosis of conjunctiva. These symptoms gradually subsided, and eighteen months after the operation, when seen by A. B. Norton, there was little, if any, perceptible protrusion of the eyeball. Its movements were slightly limited in all directions, but the optic axes were parallel in ordinary positions. The growth, judging from macroscopical appearances, was a myxoma, and measured 25 by 17 mm.

(328) Pathogenesis of Hæmorrhoids.

A. Nanotti (*Rif. Med.*, July 27th, 1892) affirms that piles, both external and internal, may be quite independent of diseases of the liver and of all affections which interfere with the portal circulation. Disturbances of the general circulation, though they must never be disregarded, should only be considered as causes if, besides the hæmorrhoids, there are varices in other parts of the body. Hæmorrhoids depend for the most part upon local causes, and if the passage of the hæmorrhoidal veins through the muscular layers of the rectum cannot under normal conditions be regarded as a cause, yet when the muscular tissue is either tonically contracted or much hypertrophied, this hypertrophy must be considered as an important factor. The author's views are based on an extensive series of observations on the association of a hæmorrhoidal condition with hypertrophy of the rectal muscles, and receive indirect confirmation from the results of the operation of divulsion of the sphincter muscle. This operation, much practised by the French surgeons for the relief of the concomitant tenesmus, very often does much more, and by relieving the condition of tonic spasm of the muscles, contributes very materially towards the relief of the hæmorrhoidal congestion and the cure of the case.

(329) Tuberculosis of the Bladder.

J. Bell (*Journ. of Cutan. and Gen. Urin. Dis.*, August, 1892) reports three cases of tuberculous disease of the bladder which had been treated by suprapubic cystotomy and the application of Paquelin's cautery to the ulcerated surface. The first case was that of a man, aged 26, who on admission was greatly emaciated, in constant pain, passing water every half-hour or less; micturition was followed by tenesmus and the evacuation of a few drops of blood. The urine was neutral in reaction and contained much muco-pus. On passing the sound the bladder was small and bled freely. There were no other signs of tuberculous disease. Palliative measures proved of no avail, and on February 4th, 1890, the bladder was opened above the pubes. A fringe of irregular superficial ulceration surrounded the urethral orifice and bled freely. The ulcers were limited to the mucous membrane, and no induration surrounded them. Each ulcer was cauterised with Paquelin's thermo-cautery, and the bladder flushed out with a solution of salicylic acid and a large drainage tube placed in the wound. The urine soon became clear, the tube was removed thirty-six days after the operation, and the wound had completely closed up three weeks later. The urine was then acid and free from pus or albumen, and could be held for one hour. Three months after the operation he was in general good health, free from pain and irritation in the neighbourhood of the bladder, greatly increased in weight, and able to hold his urine two hours in the daytime and rather more at night. After leaving the hospital the patient was lost sight of. The second patient was a man, aged 33, who had had bladder symptoms for three years. When admitted, micturition was very frequent (every half-hour), constant pain in the neck of the bladder, and the urine was acid, containing much muco-pus with many tubercle bacilli; the left testicle and epididymis were also the seat of tuberculous disease. This was treated as above, when a similar local state of affairs was found. The ulcers were scraped with a Volkmann's spoon and then cauterised. The tube was removed three weeks after the operation, and five weeks afterwards the patient went home, a small fistula remaining. This was in October, 1890. In February, 1892, the testicle was removed. After the first operation the bladder symptoms disappeared, and the man remained well up to April 21st, 1892—when last seen—with the exception of a little incontinence of urine. In the third case, in addition to symptoms of tubercle of the bladder, the left testicle was affected. On opening the bladder, many ulcers were seen, which were cauterised; but some tubercles which were not ulcerated were left alone. Afterwards he was treated with tuberculin; the testicle was removed by operation. The immediate effects of the operation on the bladder were discouraging, but ultimately he very much improved and resumed his occupation as a carpenter.

MIDWIFERY AND DISEASES OF WOMEN.

(330) Hyperemesis Gravidarum.

Weil (*Centralbl. f. d. ges. Ther.*, August, 1892) relates a case in which menthol was used successfully. A woman, aged 23, was seized in the beginning of the third month with very severe vomiting, at first only after food, but later irrespective of it. There was great wasting and prostration, and ultimately blood was vomited. Temperature, 37° C. All the usual remedies failed. No local treatment, not even rectal feeding, was permitted by the patient. The day after the menthol treatment was commenced she vomited two or three times only, and in two days' time there was no more vomiting. The pregnancy terminated successfully at full time. The author gives some account of the drug, and says that its action is purely a local one. He uses it in smaller doses than previous writers, and in somewhat different form. He gives 10 drops of a 20 per cent. solution in olive oil (or 0.05 g. of menthol) on sugar, when there is any feeling of nausea. He does not think that suggestion has anything to do with the effect produced. — Max Weiss (*ibid.*) also reports a severe case occurring in the second month of the second pregnancy in a woman, aged 29. In the first pregnancy there had been only very slight vomiting. Ice pills, cocaine, narcotic suppositories, tr. iodi, creasote, and also painting the cervix

with a 10 per cent. nitrate of silver solution, were without effect. After five days' treatment rectal injections of 1½ litres of 2½ per cent. warm sodic chloride solution were tried, with the best results. The vomiting became less frequent than before, the almost persistent nausea ceased, and other threatening symptoms disappeared. She began to take food and to sleep. The injections were continued twice a day for eight days, and then gradually discontinued. There was no return of the vomiting.

(331) Milk Fistula in Pregnancy.

Cholmogoroff (*Centralbl. f. Gynäk.*, No. 38, 1892) notes that although neglected abscesses usually leave troublesome fistulæ, the free and continuous discharge of milk through one of these fistulæ is rare. The complication is especially serious as a milk fistula is hard to cure, and often discharges milk in such abundance as to weaken the patient. As a rule, when the patient becomes pregnant the discharge of milk diminishes or ceases. Cholmogoroff, however, relates a case in which the contrary occurred. The patient, aged 24, was delivered of her fourth child on November 15th, 1891. A mammary abscess formed; she feared the doctors, and let it break of itself. Fistulæ formed and fresh abscesses developed; the secretion of milk ceased. On February 6th, 1892, milk was found to flow from two fistulous tracts. She had been for about two months under careful medical treatment. Cholmogoroff found that she was about six weeks pregnant. Fresh abscesses formed, and more milk was discharged from the old tracts. By the middle of March the fistulæ were closed, and the pregnancy was advancing favourably. The fistulæ were most successfully treated by the introduction of crystals of hydrate of chloral. The process caused a smart burning sensation. One fistula closed after three and two others after five daily applications.

(332) Carneous Mole.

H. Walther, of Giessen (*Centralblatt für Gynäk.*, No. 36, 1892), records the following case. A woman, aged 39, bore eight children, all delivered without instrumental aid. After the eighth she miscarried twice, discharging a hydatidiform mole on both occasions. Lastly the period again ceased, and was not seen for over eleven months. The patient grew stouter, but all the subjective symptoms of pregnancy were absent. In the middle of the ninth month there was a sanious watery discharge, and at the end of the eleven months the mole was expelled with labour pains. Walther gives a pathological description of the mole, which was of the rare variety known as "tuberous subchorionic hæmatoma of the decidua." Brens described the first case in January, 1892. The clinical features were almost the same as in Walther's case. There was amenorrhœa beyond the limits of the normal term of pregnancy, absence of subjective symptoms, enlargement of the uterus till the second third of pregnancy, almost complete absence of any bleeding, and final discharge of the ovum. A few days after observing the former case, Walther came across an instance of fleshy mole in twin pregnancy. The disease, he thinks, is probably more frequent than records would seem to imply, as moles must be sometimes thrown away. The mole in his case was a red mass of the size of a man's fist, with a red, placenta-like surface. The general form of the ovum is preserved in this form of mole, but the fœtus is usually broken down and absorbed at a very early date.

(333) Rational Antisepticism in Midwifery.

J. Veit (*Berlin. klin. Woch.*, Nos. 20, 21, 1892) lays down rules for carrying out antiseptic midwifery after a method practicable in private cases. The doctor and the midwife should have clean things on when they attend a labour. Whenever possible the patient should take a bath. In any case the vulva should be washed with soap and water. After every digital exploration, and before every obstetric operation, the operator's hands and the external parts must be rigorously disinfected. The same thing must be done a little time after the birth of the child. In normal circumstances the disinfection of the internal genitals is unnecessary. Even the external organs do not require systematic antiseptic disinfection in ordinary cases. In internal exploratory manœuvres the outer hand must not be allowed to touch the perineum. The pad of wool applied to the vulva is not properly meant to keep out septic germs, but to retain a little of the discharges, in order to facilitate the diagnosis of ultimate complications. A stock of sterilised gauze should always be kept at hand, although Veit admits that the material is not absolutely needed save in a limited class of cases.

THERAPEUTICS.

(334) The Action of Some Antipyretics of the Aromatic Series on the Blood.

Schmitt (*Rev. Méd. de l'Est*, September 15th, 1892), following in the lines of Brouardel, Binet, and others, has made investigations into the action of fourteen of the better known new antipyretics on the blood with the object of avoiding the unpleasant accidents which have sometimes followed the use of some of them. He has found that all the aromatic drugs used as antithermic remedies produce, in variable degree, changes in the blood, consisting in the conversion of oxy-hæmoglobin into methæmoglobin, a diminution of the "respiratory capacity" of the blood, and even destruction of the red corpuscles. These changes vary in intensity with the nature and dose of the drug studied, but for each drug are directly proportional to the degree of reduction of temperature produced. They may be roughly divided into the following groups: (1) Those which, with a medium dose only, fix the oxygen more firmly to the hæmoglobin—antipyrin, phenacetin. (2) Those which in moderate doses produce simple intracorpuscular methæmoglobinæmia—anisic acid, thallin, antithermin, kairin, exalgin, methacetin, acetylamidophenol. (3) Those which in moderate doses, especially if repeated a few times, produce methæmoglobinæmia with destruction of corpuscles—acetanilide, benzanilide, formanilide, methylformanilide, pyrodin. Arguing from the above facts, and from the accidents which have from time to time occurred, the author concludes that, save occasionally in cases of hyperpyrexia, for their temporary action in reducing temperature, the antipyretics should be very sparingly used. In a word, they may be excellent analgesics in patients with healthy blood corpuscles, but their value as antipyretics is open to question, on account of the risk of a toxic action on the blood.

(335) Treatment of Cardio-sclerosis.

Huchard (*Rev. de Méd.*, September, 1892) concludes an exhaustive account of this disease, with a description of the therapeutic indications. (See also Epitome, August 27th, 1892, par. 174.) The first or curable stage of the disease is characterised by premonitory arterial hypertension, and by sclerosis which is arterial at the outset, and without visceral complications. The second stage, either not curable or but slightly so, is characterised by invasion of the organs. Thus the extra-cardiac symptoms of cardio-sclerosis are of much importance. The first thing, then, is to treat the arterial hypertension, which the author believes to be the real cause of the arterial disease. This is done by diet, hygienic measures, and medicinal agents. The over-indulgence in meat, especially if undercooked or high, and the abuse of tea, spirits, and other beverages, the quantity of which tends to produce vascular plethora, should be avoided. Tobacco should be entirely given up, as it increases arterial tension by producing vascular constriction. The exercise of the muscles, both active and passive (massage), produces greater activity in the peripheral circulation, along with vascular dilatation and diminution in the arterial tension; thus the heart is relieved. The functions of the skin should also be encouraged. Among drugs the iodides, nitrites, and nitroglycerine are useful. The meiopragic symptoms should be treated with as much rest as possible to the organs concerned. Toxic symptoms are due (1) to the absorption of toxines from articles of diet, such as high game, underdone meat, etc.; and (2) to renal incompetency to excrete such toxines, and hepatic insufficiency to destroy them. When such toxic symptoms (such as dyspnœa) occur, they may almost certainly be made to disappear by exclusive milk diet and intestinal antisepsis. Under the treatment of the cardiac symptoms the author points out the uselessness of acting on the heart with digitalis, when the obstruction really lies in the vessels. He divides cardio-sclerosis

into three periods (1) arterial, (2) cardio-arterial, and mitro-arterial. In the arterial stage the above-described treatment should be carried out. In the cardio-arterial stage the occasional use of digitalis, etc., should be added when symptoms of hyposystole appear. In the mitro-arterial stage the treatment is such as is employed in badly compensated mitral disease, because this stage is characterised by dilatation of the cardiac cavities and diminution of arterial tension.

(336) Ichthyol in Diseases of the Skin.

Dr Lorenzo, of Naples (*Raccoglitore Medico*, July 30th, 1892) has tried ichthyol in various affections of the skin, with the following results. He has found it an excellent remedy in certain erythematous processes with exudation, intertrigo, subacute eczema, etc. Its anæsthetic and drying effects are remarkable. In cracked nipple it has a rapid analgesic and curative action. Treatment with ichthyol lasts from a few days to some weeks, and generally the good effect is permanent. The author has given ichthyol internally in the form of pills (5 to 10 centigrammes), and externally diluted with glycerine or in an ointment of which lanolin, or better still glycerine, is the basis in the strength of 10 g. in 100.

(337) Paracentesis in Syringomyelia.

Abbe and Colby (*Journal of Nervous and Mental Disease*, July, 1892) report the case of a man, aged 26, presenting incomplete spastic paraplegia, specially localised pathic, thermic, and tactile anæsthesia, and allocheiria—the complex of symptoms suggesting the existence of partial transverse myelitis below the level of the seventh dorsal vertebra. An exploratory operation disclosed a fusiform enlargement of the cord between the eighth and eleventh dorsal vertebræ. After withdrawal of a drachm and a-half of clear watery fluid the swollen cord collapsed. Recovery from the operation was complete. At the end of the second week the spasms and rigidity of the legs diminished and some control over the bladder and rectum was regained. No further relief ensued. Death occurred six months after the operation.

(338) Antipyrin in Pannus of the Cornea.

Vignes (*Rec. d'Ophtal.*, August, 1892), following the lead of Alder and Merge, has used antipyrin as a local application in cases of pannus. He reports one case in detail, and mentions that, encouraged by the results therein obtained, he has employed the remedy in others. Cocaine is first used, and when the conjunctiva is anæsthetic a thin layer of antipyrin is applied to the surface of the cornea. In spite of the cocaine anæsthesia a certain amount of pain and lachrymation is excited. These symptoms subside in a few minutes, and then gentle massage over the closed eyelids should be employed. This treatment is followed by sharp inflammatory reaction in the conjunctiva, and the quantity of the drug used and the frequency of its application must be regulated by the severity of the reaction and the gravity of the case. If it seem advisable to excite a purulent conjunctivitis, the powder must be applied every day. As soon as this condition is produced, however, the treatment is changed for warm anodyne lotions. Vignes thinks this method most suitable for cases of strumous pannus, complete or incomplete. In trachoma cases he would only employ it if, as sometimes occurs, the pannus persists after the conjunctival granulations have disappeared. He considers this treatment much safer than inoculation with gonorrhœal pus, and more easily controlled and safer than applications of jequirity.

(339) Two Cases of Tetanus treated Successfully by Antipyrin.

Cavina and Venturoli (*Rif. Med.*, July 23rd, 1892) record two cases in which the administration of antipyrin in large doses seems to have contributed largely to the ultimate recovery of the patients. It is true that chloral was given at the same time, but the authors do not judge that drug to have been the essential part of the treatment, for the spasms were only modified as long as the antipyrin was taken and recurred when chloral alone was given. This is by no means the first case recorded in which antipyrin has been reported as successful in tetanus, and it may well be that, even if it be not actually curative, it does good by enabling the patient to live through what would otherwise be the fatal course of the disease, while the toxin is being eliminated by the ordinary channels.

PATHOLOGY.

(340) Immunity against Enteric Fever.

Stern (*Deut. med. Woch.*, September 15th, 1892) says that whether naturally acquired immunity in man is due to such changes in the blood as are analogous to those produced in artificially protected animals is a question of practical and therapeutic interest. Second attacks of enteric fever are not so rare as has been believed. In his experiments the author demonstrates that the blood from five patients convalescent from enteric fever possessed strikingly small bacteria-killing properties, whereas the blood serum from a patient who had the disease 17½ years before and from control persons had a much greater action. It has been disputed whether the disease produced in animals by enteric fever bacilli is a true infection or an intoxication. In white mice it is shown that an actual increase in the number of bacilli occurs. In experiments with bouillon cultures of enteric fever bacilli mixed with the blood serum of the convalescents referred to and injected into mice, the author demonstrated that four out of five mice were protected from the effects of the injection, and that in the remaining one death was much delayed. In a sixth mouse injected with bouillon culture to which had been added serum from the patient who had enteric fever 17½ years before, no such protective effect was observed. It is thus seen that the protective action was not due to the bacteria-killing properties of the serum, but that the serum protected against the toxic action of the enteric fever bacilli. Blood serum from these convalescents mixed with a sterile solution of the poison of enteric fever bacilli produced when injected into animals only passing symptoms, whereas if blood serum from control persons was used instead no such protective action was obtained. Whether the blood serum destroys the poison or renders the animal less susceptible to it must be left to further investigations to decide. Experiments as to this immunity must be made with a larger number of cases. It would be interesting to know how long such protective action lasts. According to these observations the transfusion of blood from those who had passed through an attack of enteric fever should be, as in acute pneumonia, of therapeutic value. The activity of such transfused blood should be previously ascertained by experiments on animals.

(341) Tuberculous Ulceration of the Stomach.

In the *Philadelphia Hosp. Rep.*, vol. i, 1890, Musser published such a case, occurring in a man, aged 44, who died of pulmonary phthisis. During life it was noticed that the patient did not expectorate much. He took food readily and without discomfort. At the necropsy a transverse ulcer (3 inches by 1½ inch) was found in the lesser curvature, 1½ inch from the pylorus. The floor was cribriform, and evidently composed of muscular fibre, but at one end it extended down to the peritoneum, which was much thickened. Small tubercles could be seen in the floor, and also in the peritoneum in the neighbourhood. The author says that tuberculous ulcer of the stomach is never primary (see, however, Epitome, September 1st, 1892, par. 256). Its infrequency has been explained in two ways, (1) by the gastric secretion being antagonistic to the growth of the tubercle bacillus, and (2) by the absence of lymphoid tissue in the submucosa. The relatively frequent occurrence in children is explained by the sputum being swallowed by them. In the recorded cases of this disease patients have been known not to expectorate. The bacillus should be demonstrated in the lesion. These ulcers are very large, usually not single, and are more often on the lesser curvature. The mucous coat is entirely destroyed, and the edges of the ulcer are undermined. There is much submucous infiltration, and the peritoneum is studded with tubercle. Symptoms are absent in most cases. In only one case did they warrant a diagnosis at a considerable period before death. Hæmorrhage occurred in one-fourth of the cases. It is more often seen in children, and is a frequent cause of death. Epigastric pain and vomiting may be present.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(342) Cerebral Tumour.

Kuttner (*Berl. klin. Woch.*, September 12th, 1892) reports two cases in which the symptoms resembled those of an ordinary apoplectic seizure. (1) A man, aged 33, in previous good health, suddenly became unconscious, and shortly afterwards was found to have a left hemiplegia, with some paresis of the whole of the left side of the face. Sensation was impaired in the paralysed limbs, but not in the face. The urine contained albumen, leucocytes, and casts. Later some recovery took place in the leg, but a month after the onset the patient became restless and complained of much pain in the head. Objects on the left side did not seem to be so easily seen as on the right, but any further examination of the eyes was impossible. Swallowing then became difficult, and he died. At the necropsy the lungs were found to be œdematous, the heart hypertrophied, and the kidneys somewhat atrophied. The right occipital lobe bulged, and the gyri here were flattened. A large cystic glioma occupied the hinder part of the right cerebral hemisphere. Both ventricles were filled with fluid except the posterior part of the right one, which was encroached upon by the growth. There was no trace of a fresh hæmorrhage. (2) A woman, aged 30, had suffered from pain in the back of the head for the past six months. She suddenly became unconscious, and remained so for thirty-six hours. The right arm and leg and lower part of the face were paralysed. The patient's condition varied between consciousness with much complaint of headache and unconsciousness. No optic neuritis could be made out. The urine contained albumen, but no formed elements. Death took place in deep coma a fortnight after the acute attack. At the necropsy carcinoma was found in the lung and brain. In the left temporal lobe there was extensive softening, and a mass with a nodulated surface, and about the size of a pigeon's egg, lay in the middle of this softening. Tumours of the brain may at times give rise to no symptoms. The apparent onset of the disease may be acute, after which symptoms persist and gradually increase, or the acute symptoms are due to a hæmorrhage into the tumour. It was different in these two cases, for death occurred tolerably soon after the acute onset, and there was no hæmorrhage. It is admitted that the paralysis may come on suddenly in cerebral tumours. According to Ladame, these apoplectic attacks are nearly always due to softening or hæmorrhage. In the second case there was softening, and the fluctuating symptoms corresponded to such a lesion. There was no such change in the other case, and the author suggests that it might be due to the exacerbation of a chronic hydrocephalus. Thus apoplectic attacks with or without previous symptoms may occur in cerebral tumour without any coarse lesion being found afterwards to account for them.

(343) Etiology of Acute Rheumatism.

Sahli (*Correspondenz-Blatt f. Schw. Aerzte*, xxii, 1892) first mentions the theoretical grounds on which acute rheumatism is looked upon as an infective disease. Hitherto the bacteriological examination has been negative except in Guttmann's case where, however, there were also abscesses in the kidney and a purulent pericarditis. The tissues themselves and not the joint exudation must be examined, but the opportunity does not often occur. The author then records a fatal case of acute rheumatism in a girl aged 16, in which there was pericarditis, double pleurisy, and fresh endocarditis of the mitral, tricuspid, and aortic valves. There was no suppuration anywhere. Pure cultures, which corresponded exactly with those of the staphylococcus citreus, were obtained from the organs, from the pericardial exudation and endocardial vegetations, but not from the articular effusions. The question arises as to the relation of the staphylococcus to the disease—whether it was the actual cause of it, or a secondary infection. As regards the latter, it must be remembered that the complications were only such as are generally met with in acute rheumatism, and that the micro-organism was relatively scarce in the blood. It cannot be said from this case that acute rheumatism is a staphylococcus infection, and yet the view is tenable, although rheumatism is only quite exceptionally associated with suppuration, because it is known that the virulence of micro-organisms, and especially of the staphylococcus, varies. The coccus found was not altogether identical with the usual pyogenic cocci, for inoculation experiments upon rabbits gave a negative result, but the author intends to make further experiments on animals with it. The most probable explanation of this observation is that acute rheumatism with its complications is a staphylococcus infection either brought about by staphylococci whose pyogenic properties have been compromised or by a micro-organism different from, but closely related to, the pus-producing cocci. Further investigations are needed.

(344) Phthisis and Insanity.

Mays (*Med. News*, July 16th, 1892) discusses the relation of phthisis to insanity and other neuroses. Phthisis is not only three times more common among the insane than among others, but it is more apt to occur in the depressed forms of the disease. The greatest proportion of cases of phthisis as of insanity occurs between the ages of 20 and 30, and the curves of these diseases are more or less parallel. Tuberculous meningitis, on the other hand, attains its maximum in the twelfth month of infancy, and sinks to a minimum after the third year. As to heredity, it is found that hysteria, chorea, and epilepsy are often mixed up with phthisis. Asthmatics are supposed to be long-lived; but of this the author can find no satisfactory evidence. He says that asthma naturally develops into pulmonary phthisis. Asthma, on the other hand, is closely related to insanity, and eleven cases are here recorded to show the alternation of insanity with asthma (see also *Rev. de Méd.*, December, 1890). Of all nervous diseases, none is so often associated with phthisis as idiocy. Phthisis is eight to ten times more frequent in families [afflicted with idiocy than among the healthy population, and death from phthisis occurs in idiots ten years earlier than among others. The greatest prevalence of insanity does not occur during the period of development of the brain. Again, a man, aged 25, falling a victim to phthisis, does not do so on account of any developmental changes in his lungs. Indeed, many of the influences which predispose to insanity also predispose to phthisis. Only one interpretation will explain all these facts, namely, that phthisis and insanity belong to the same family group of diseases. The author inquires whether phthisis may not be due to nerve degeneration. He refers to the experimental evidence obtained by section of the vagus, and maintains that deglutition pneumonia cannot be always explained by food getting into the air passages. He also refers to over 152 cases of pulmonary disease, mostly phthisis, which were associated with disease of the vagi. Although it is difficult to demonstrate that the lung disease followed the lesion in every case, yet this was undoubtedly so in very many instances. The author believes that the link which binds phthisis to insanity and to other neuroses is disease of the vagi.

(345) Osteo-arthropathy of Pulmonary Origin.

H. Schmidt (*Münch. med. Woch.*, September 6th, 1892) discusses the relation of syphilis to this disease. He says that the theory of a pulmonary origin will not hold for all cases, as the following instance shows. A woman, aged 48, noticed swelling of the ends of the fingers, with pain in them, and also thickening about the wrist and elbow-joints. Three months later the fingers presented the typical drumstick appearance. The lower end of both forearms was thickened, and the wrist-joint swollen, but the intervening parts of the hands were not involved. The toes were similarly affected, the rest of the skeleton being intact. The lungs were healthy. A distinct history of syphilis was made out, and potassic iodide given. Very soon afterwards the swelling of the finger ends began to diminish, and the author gives an illustration to show the

great improvement which had taken place in three months' time. Later the patient had a syphilitic ulcer on her tongue. Smirnoff's case is the only one which would seem to have any resemblance to this one. It occurred in a young man, aged 23, who had had a perforating ulcer of the palate three or four years previously. It was supposed to be due to congenital syphilis, and healed under suitable treatment. The same antisyphilitic remedies were, however, without effect on the osteo-arthropathy. The lungs were healthy. In both these cases there was the well-marked osteo-arthropathy of P. Marie without any previous lung disease. Perhaps the syphilitic poison may play the same part as the toxin which is supposed to be absorbed from the pulmonary lesion.

SURGERY.

(346) Carcinoma of the Rectum.

AFTER comparing the English and German methods of treating carcinoma of the rectum, Andrew McKosh (*New York Med. Journ.*, September 3rd, 1892) describes an operative procedure which he has adopted in five such cases. A vertical incision is made in the median line from the posterior border of the anus backward as far as the tip of the coccyx, and if necessary is extended upward as far as the middle of the sacrum. If the lower part of the rectum is healthy and does not need removal, this incision is deepened until the posterior part of the rectum is exposed. The gut is then divided across below the disease, having its lower segment attached to the anus. If this segment is not more than an inch or two in length, it is better to divide it with the sphincter muscles vertically through its posterior wall. If the lower part of the rectum is diseased and needs removal, it is left unopened, and two semicircular incisions are carried around it, meeting on the perineum in front of the anal opening. In either case a ligature is tied around the lower end of the rectum to prevent escape of fæces and to be used in handling the gut. If the incision to the tip of the coccyx does not give sufficient space, then the coccyx, and if necessary the lower part of the sacrum, is removed. The separation of the rectum is then effected by dissection with blunt scissors, until one gets beyond the diseased part. To control hæmorrhage, sponge pressure is recommended in place of forceps. If the anal portion has to be removed, the entire gut is drawn down until the disease is beyond the margin of the internal wound, and the rectum is then amputated about an inch above the upper limit of the cancer and the gut, and united by suture to the edges of the external wound. If the lower part with the sphincter muscles and anus has been saved, the segment of rectum containing the cancer is resected, so as to leave some healthy gut to which the lower end of the proximal part is sutured. The external wound is then partially closed by suture, drainage being effected by tubes or iodoform gauze. If the peritoneal cavity has been freely opened, no attempt to close the opening by suture is made, but the wound below is packed below with iodoform gauze. The bowels are kept constipated for four or five days, and during this time the gauze packing is left undisturbed. After the bowels have been opened, the gauze is removed, the wound irrigated and repacked. Five cases of the author's were treated in this way with good results. The statistics of various operations have been collected, and out of 375 cases operated upon by posterior incisions, 32 were perfectly well at the end of four years. Many of these patients had been submitted to operation less than four years previously, hence out of them there would be some in which the disease did not recur. One of Kocher's patients was well sixteen years and a-half after the operation, and one of Czerny's twelve years. The author concludes by saying that (1) the mortality of the operation is about 19 per cent.; (2) cases can be operated upon when the disease extends higher than the peritoneal attachment; (3) certain cases are permanently cured, probably about 11 per cent. of all operated upon; (4) in patients who have a recurrence of the disease excision gives a longer and more comfortable life than colotomy.

(347) Polypi of the Ear.

RAMON DU FOUGERAY (*Ann. des Mal. de l'Oreille, etc.*, August, 1892) refers to the symptomatology and classification of aural polypi. The symptoms range from nothing to a complexus which may threaten life. He narrates the case of a lady with chronic otorrhœa, who was attacked at a menstrual period with congestive cerebral symptoms of short duration, which yielded to the application of leeches. The following month these were more severe, and on the third recurrence life seemed to be threatened. She had violent pain on the left side of the head, pyrexia, intractable vomiting on the slightest movement, crises of asystole with violent oppression, syncopal attacks with livid pallor, frequent cough without expectoration, pulmonary congestion, extinction of voice, and pain on pressure on the vagus between the heads of origin of the sterno-mastoid. The medical attendant traced these symptoms to the ear, and referred the patient to du Fougeray. He found a polypus which arose from the mucous membrane of the tympanum, a little behind the promontory. After its removal and appropriate treatment these attacks never recurred. Such severe symptoms he attributes to irritation of the pneumogastric. Du Fougeray would strictly define the mucous polypus as "a tumour growing in a cavity lined by mucous membrane." In it we find (1) an epithelial covering, that of the tympanic mucous membrane; (2) connective tissue corresponding to the chorion of a mucous membrane somewhat modified by inflammatory changes; (3) hypertrophied papillæ; (4) blood vessels; (5) here and there some glands which, in certain cases, form cysts. He considers this growth "a hypergenesis of the elements of the mucous membrane due to inflammatory irritation at some point." To show the diversity of tumours to which the term polypus of the ear is applied, he brings forward four instances of pedunculated growths—one a granulation, the others papilloma, dermoid tumour, and mucous polypus respectively. He would classify growths according to their seat (1) auricle, (2) external meatus, (3) cavity of the tympanum, (4) internal ear; next, according to their benign or malignant character, and he would confine the term "polypus" to the mucous poly us above described.

(348) Rhinoscleroma.

COLOMBINI (*Rif. Med.*, September 13th and 14th, 1892) describes a case of rhinoscleroma which well illustrates the inefficacy of a great variety of methods of treatment. The patient underwent an antisyphilitic course, the application of an iodine ointment, local application of a sublimate ointment, treatment with Koch's tuberculin, and even partial removal of the infiltration, followed by thorough scraping; but none of these methods of treatment was of the least use in preventing the extension of the disease, which at length threatened to invade the larynx. It was at this stage that the author decided to perform tracheotomy. After the operation the patient experienced great relief from the most pressing troubles of his disease, and as his general health was good he was able to follow his usual avocations. He returns from time to time for removal of further portions. The author concludes with some remarks on the various measures that have been from time to time adopted in the treatment of rhinoscleroma—such as parenchymatous injections of antiseptics, caustics applied locally, scraping, and extirpation as complete and thorough as possible. From an analysis of the published results he thinks that no method offers such good chances of cure as that last mentioned, combined, perhaps, with the local use of antiseptics.

MIDWIFERY AND DISEASES OF WOMEN.

(349) Cæsarean Section for Mollities.

A. SOLOWIJ, of Presburg (*Centralbl. f. Gynäk.*, No. 38, 1892), operated not long ago on a married woman, aged 26. She had twice borne very small children. Since June, 1891, severe pains in the sacrum and thighs set in. The period was last seen on August 18th, 1891; the pains increased; by December she could hardly walk. On February 10th, 1892, she was thoroughly examined; there was a large fœtus in the uterus. The pelvis was already so contracted by mollities that craniotomy or abdominal section would be certainly required at term. The disease in the bones was progressing, and hence Fehling's operation—removal of

the appendages for the cure of mollities—was indicated. On June 9th, at 2.30 A.M., pains set in, the head presented, the fœtal heart sounds were clearly audible. At 7 the os was well dilated, and the membranes had broken. At 8 A.M. the abdomen was opened, the uterus drawn forwards, and the abdominal wound held together with forceps. The uterus was then laid open, the placenta presented and was removed, the child, a female, being speedily delivered. The membranes were peeled off, the uterus manually compressed by an assistant, and then ten deep and twenty-five superficial silk sutures were applied to the uterine wound. The uterus was "as hard as a rock." Lastly, both appendages were cut away; the ovaries were very small. By the tenth day the pains in the bones had almost disappeared. On July 31st a small abscess, which had formed in the lower third of the abdominal wound, opened and discharged. It was then discovered that there was adhesion between the abdominal cicatrix and the uterus inferiorly. The child died of intestinal catarrh, from bad nursing. As mollities is evidently cured, or at least greatly relieved, by oöphorectomy, Solowij considers that it should always be performed in the course of a Cæsarean section where the patient is the subject of that disease.

(350) The Œsophageal Tube in Puerperal Convulsions.

Duchamp (*Arch. d'Obstét. et de Gynéc.*, August, 1892), in a discussion on puerperal eclampsia at the Medical Society of St. Étienne, strongly advocated the use of a stomach-pump tube for the administration of chloral in that affection. When chloral is given in an enema, it is impossible to be certain how much of that drug is assimilated, whilst when poured down the tube it is at once absorbed. Very strong doses (Fochier advises 20 grammes in extreme cases) are needed. The order of treatment in convulsions should be abstraction of blood (leeches to loins, or phlebotomy), inhalation of chloroform; and, lastly, doses of chloral. The first of these measures often suffices.

(351) True Fœtal Skeleton in Dermoid Cyst.

Répin (*Annales de Gynéc. et d'Obstét.*, August, 1892) recently exhibited, before the Paris Anatomical Society, a pair of dermoid ovarian cysts. From the inner side of one cyst sprang a small tuberous mass, covered with skin and hair, and containing irregular masses of bone and cartilage. A very much larger mass was found in the interior of the cyst of the opposite ovary. It contained a rudimentary skeleton. The extremities, though much deformed, were very distinct; the phalanges and tarsal bones of the right foot and the corresponding bones of the right hand could easily be counted. The cranium was a shapeless mass, including teeth and one salivary gland. The great sciatic nerves alone represented the nervous system. No viscera could be found in the skeleton, but a coil of intestine lay outside it. Répin believes that all dermoid ovarian cysts represent rough draughts of embryos. This condition is not due to fœtal inclusion. One-yolk twins are the origin of inclusion, the allantois of the future parasite penetrating the abdominal cavity of the future autosite or host, and contracting vascular adhesions with the autosite's intestines. The parasite is an acardiac monster, and is always attached to intestine. Dermoid cysts (often bilateral) cannot be explained by inclusion. Répin believes in parthenogenesis. Segmentation of a virgin ovum is seen in birds, mammals, and even women. (Morel).

THERAPEUTICS.

(352) Treatment of Stomach Diseases.

In an inaugural dissertation published in the *Zeitsch. f. klin. Med.*, Bd. xix, Hemme describes some elaborate researches into the therapeutic effects of (1) orexin, (2) hydrochloric acid with pepsin, (3) alkali with pancreatic preparation, (4) guaiacol, and (5) pepper. The investigation was carried out in respect to (1) improvement of appetite, (2) changes in the gastric juice and its digestive properties, and (3) the appearance of the characteristic reaction with the saliva when fibrin capsules containing potassic iodide were taken into the stomach, thus showing the energy and rapidity of gastric digestion. To ascertain the changes in the gastric juice and its digestive properties, the stomach tube was used in the morning. If there was gastric retention, the contents were examined, and the stomach washed out. Then a test meal was given, and in from forty-five minutes to an hour the stomach contents were withdrawn and examined for free hydrochloric acid, lactic acid, and degree of acidity. The digestive properties were also tested with the gastric juice alone or after the addition of the above-named agents. The most important results were obtained with guaiacol, especially in cases of phthisis. The appetite was very considerably and permanently improved. No definite change in the gastric juice was made out, yet at times the acidity of the gastric contents was increased. It was doubtful whether the result was due to the antiseptic action of the guaiacol. As regards orexin, any increase in the appetite was rarely observed. The acidity of the gastric juice and the motor activity of the stomach were in most cases increased, these results being due to the stimulating action of the drug on the gastric mucous membrane. The orexin was given in doses of 0.2 to 0.6 g. with plenty of fluid. The therapeutic effects in the case of the other agents was either absent or but slightly marked.

(353) Absorption of Guaiacol in Tuberculosis.

Poggi (*Rif. Med.*, August 10th, 1892) considers that guaiacol is to be preferred to creasote, of which it is the chief active principle, being a well-defined substance, and obtainable in a state of purity. Giving, as it does, well-marked chemical reactions, its absorption can also be readily traced. He has made some investigations with the object of ascertaining in what quantities the drug is absorbed when given by the mouth, especially in cases of tuberculosis. The drug was separated from the fæces by distillation, the distillate being then examined as to the amount of guaiacol contained in it. The urine was treated in the same way. The reagents used were, for the fæces, ferric chloride and ammonio-nitrate of silver; for the urine, bromide water. The author's conclusions are as follows: 1. That guaiacol given by the digestive tract is in part absorbed. 2. That greater absorption takes place in the healthy than in the tuberculous. In healthy people a dose of 1 gramme was almost completely absorbed, and the reaction could hardly be obtained from the fæces. 3. A sufficient dose is 1 gramme daily, this amount being completely absorbed. 4. That guaiacol given daily in such doses is well borne, and produces neither nausea nor sense of weight in the stomach. 5. That the drug is excreted in the urine, not as guaiacol, but as a body giving with bromide water the reaction of phenol.

(354) Diet in Diabetes.

Leo (*Deut. med. Woch.*, August 18th, 1892) says that the limitation of carbohydrate food stuffs up to their exclusion from the diet is looked upon as the first condition necessary in the treatment of diabetes, and the patients mostly improve under this regimen. This improvement is not, however, always maintained. Notwithstanding the diminished amount of sugar in the urine, the patient loses ground. If a moderate amount of carbohydrates be then allowed the general condition of the patient is often again improved. This is probably due to the increased appetite and the diminished burdening of the digestive organs with nitrogenous food stuffs. Another point has, however, to be considered. There is no doubt that nitrogen-free food stuffs diminish nitrogenous metabolism. In most diabetics this nitrogenous metabolism is already much augmented, and the increased nitrogenous excretion contributes to the loss of strength, and must, therefore, be taken into account. In the investigation of two cases the author was able to demonstrate this albumen-sparing action of the carbohydrates in diabetes even of a severe type. Other observations have been recorded in which, bread being allowed in moderate quantity, both the sugar in the urine and the quantity of the urine were increased, and yet the patient gained considerably in weight. The advantage is thus not merely a subjective but a real one. The author believes that this improvement is due to diminished nitrogenous metabolism brought about by the above-named action of the carbohydrates. Thus the limitation of carbohydrate food stuffs is a most important matter in the treatment of diabetes, especially in an early stage, yet it may be a question how

long it should be continued. The amount of sugar present in the urine should of course be repeatedly estimated, but it is quite incorrect to look upon the quantity excreted as the sole index as to the condition of the patient and the sole guide in treatment.

(355) Nerium Oleander.

AFTER giving a historical and botanical sketch of this new cardiac tonic, V. Oefele (*Aerztl. Rundschau*, Nos. 38 and 39, 1892) records his clinical investigations with its various preparations. From its use in 73 cases of cardiac disease he concludes, among other things, that the leaves, cortex, and fruit have a therapeutic action which places the drug in the digitalis group; that alcohol dissolves out certain constituents which act as irritants to the alimentary tract; that the most suitable preparation is a concentrated infusion to which alcohol and glycerine may be added, thus converting it into a stable infusion tincture; and that the effect of the remedy is prompt and lasting. The pulse becomes slower more regular and more powerful. Diuresis with increase of the solid urinary constituents is brought about and the stools are more abundant. The palpitation, œdema, and dyspnœa of valvular disease disappear. The diuresis is more marked than with any other member of the digitalis group. Oleander, like convallaria, differs from adonis in increasing peristalsis. It has no such action on the vessels as strophanthus, and may thus be given in atheroma. It differs from carpainum hydrochlorate, which has only a momentary action, and which is to be recommended for subcutaneous injection. Oleander is indicated, both in the young and old, in cardiac and renal diseases, with their concomitants, such as irregular and feeble pulse, palpitation, œdema, and dyspnœa. It may be used also in diseases of the myocardium and in atheroma. It is contraindicated if diarrhœa or vomiting be present. A small daily dose is from 0.05 g. to 0.5 g. of the raw drug.

(356) The Cure for Developed Rabies.

ENCOURAGED by the very striking result obtained in a case of well-marked rabies by Novi and Poppi (See BRITISH MEDICAL JOURNAL, vol. i, 1891, pp. 924-1213), Zagari, of the Naples Antirabic Institute (*Rif. Med.*, September 22nd, 1892) has applied the same method of treatment—intravenous injection of the attenuated medullæ of rabid animals—in six cases which have come under his notice, suffering with the early symptoms of rabies. In every case the disease proceeded to its usual fatal issue, which was not in the least delayed by the injections, though these were given in a markedly "intensive" manner. These observations were followed by others made upon animals, the results of which, taken together with the clinical experience above noted, has forced the author to arrive at the following conclusions: If the injection of attenuated medullæ is at all capable of preventing the development of rabies as the result of the introduction of virus into the body, this result takes place only during the time which elapses between the inoculation and the appearance of symptoms. In fact, although according to the researches of Nocard, Rouz, and Protopopoff, a single intravenous injection of medulla, made some weeks before inoculation, will protect an animal against the effects of subsequent inoculation even into the central nervous system, yet when the poison has once shown by the production of symptoms that it is thoroughly diffused through the nervous system, any number of such injections must be useless. The case on which Novi and Poppi founded their ideas must have been a very exceptional one, and it may be remembered that this case had already been submitted to the ordinary Pasteur treatment.

PATHOLOGY.

(357) Pathology of the Blood.

MARAGLIANO (*Berlin. klin. Woch.*, August 1st, 1892) says that necrobiosis is accompanied by both morphological and chemical changes in the blood cells. Of all the necrobiotic changes, poikilocytosis is the most severe, and the author says he has never seen a patient recover when it is present in the freshly-drawn blood. Poikilocytosis can take place after the blood has been drawn from the body, and is a manifestation of necrobiosis. In the chemical changes affecting the white cells some granules of protoplasm may be seen to stain black with osmic acid, and others red with eosin and such acid stains. These appearances represent stages in degeneration, and throw light on eosinophile cells. The author does not think that the latter have the significance which has been attributed to them by some. In regard to the leucocytosis of infective diseases, Maragliano says that there is no relation between the severity of the illness and the number of leucocytes, and that the presence of leucocytosis in pneumonia does not necessarily make the prognosis better. (See EPITOME, March 5th, 1892, par. 203). Experiments show that blood cells placed in healthy serum remain intact, but there are pathological conditions in which the serum exercises a destructive influence upon the blood cells, and brings about necrobiosis. It is known that when red cells undergo destruction they give up their hæmoglobin to the menstruum, but this is not so in pathological conditions of the serum. The hæmoglobin then disappears. This serum often gives the absorption bands of urobilin, but not of hæmoglobin. This is not the same property which is possessed by serum, of destroying heterogeneous blood cells. The author has studied the action of the blood serum in all grades of essential anæmia, in carcinoma, lead poisoning, leukæmia, purpura, cirrhosis of the liver, nephritis, and many of the infective diseases. The destructive action of the serum in these diseases is most marked when compared with the serum of normal blood. The destructive action is not due to bacteria, nor yet to richness or poorness in albumen, but to the absence of salts. This is proved physiologically by intravenous injection of saline solution, when the serum loses its destructive properties. This destructive power of the serum the blood-forming organs try to remedy by increased activity. These results prove that there are blood diseases which depend on the condition of the serum, and not on the condition of the blood-forming organs.

(358) Plasmodia in Malaria.

BEIN (*Deut. med. Woch.*, September 22nd and 29th, 1892) recently demonstrated before one of the Berlin medical societies the various stages in the development of plasmodia in the blood of a man aged 30, who, together with his wife and child, had contracted malaria in Brazil. These protozoa are small round globules, about one-tenth the size of a red blood cell, and of a pale, greyish-white colour. They change not only their shape by throwing out and withdrawing processes, but their position by rapid movement. On careful focussing the plasmodia are seen to be surrounded by fine bright points with which they are connected by hair-like processes. The so-called amœboid or pigmentless form is found immediately after the attack, or is the first discovery when a fresh infection exists. The plasmodia then penetrate into the red cells and take up the pigment, the red cell itself becoming paler. This large pigmented form represents the second stage. A characteristic movement of the pigment granules may be seen in the plasmodium, especially on a warm stage. These pigmented bodies have great resisting powers. The third stage is that of spore formation. The plasmodia ultimately fall to pieces when the various segments escape, and are scattered in all direction. Some of these segments make their way into other red cells. With the destruction of the plasmodia the rigor occurs. The development thus takes place during the apyrexia. The above holds good for the tertian and quartan types, but there is a difference in the quotidian form. Perhaps there are here several generations of one and the same parasite. In this patient the half moon form described by Laveran was found. These half moons are very pale in colour, and exhibit no movement. Their significance is doubtful; they are only found in tropical ague. Finally the author found a special form with long hair-like processes from 1 to 3 in number. These processes may be seen loose in the blood. The number of parasites present corresponds with the severity of the disease, and the stage of development indicates the time of attack. The presence of the half moon form is unfavourable. In a case of Kohlstock's, in which methylene blue had been used with the best results, the smallest amœboid form was still present in the blood, and as was thus foreseen, the attacks began again in a few weesk.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(359) Brown-Sequard's Paralysis.

Eulenberg (*Deut. med. Woch.*, September 22nd, 1892) relates a case occurring in a girl, aged 18, who had influenza in November, 1891. She then had pain and burning sensations in her right arm and shoulder up to the second half of January, 1892, when her right leg began to get weak, and suddenly became totally paralysed on the 26th. There was also paralysis of the rectum and bladder, and total anæsthesia of the left side up to the third or fourth rib. Some weakness in the arm was already present, and this, unlike the leg affection, gradually increased. There was also hyperæsthesia and increased reflexes in the right leg. The right pupil was smaller than the left, and the right side of the face and right ear felt hotter than the left. The rectum and bladder paralysis soon disappeared, and the leg slowly recovered to some extent. A hemilesion in the right half of the cord, on a level with the lowest cervical and uppermost dorsal segment, was therefore diagnosed. In May, 1892, she came under the author's care. There was then an atrophic and increasing paralysis of the hand type in the right arm, the shoulder being unaffected. In the right leg there was also atrophic paralysis, chiefly in the distal parts. It was stationary, and seemed likely to improve. There was simultaneous faradic and Franklinic reaction of degeneration, both on direct and indirect stimulation, in one muscle (ext. hallucis longus) of the parlysed leg. There was still complete analgesia and hyperæsthesia on the left side. There was some remaining hyperæsthesia in the right foot. On the ulnar side of the forearm, and also on the inner surface of the upper arm, there was partial analgesia and hyperæsthesia. The right pupil was still smaller than the left. The author says that influenza was the most probable cause. The paralysis occurred a month and a-half later, but it was connected with it by the pain. Spinal paralysis is not often seen after influenza. The author gives an account of the Franklinic reaction of degeneration, and refers to two other recorded cases. In a postscript it is stated that the paresis in the right leg and anæsthesia of the left side continued to improve, whereas the paralysis in the arm had increased.

(360) The Etiology of Epilepsy.

Herter (*Journ. of Nerv. and Ment. Dis.*, August, 1892) has investigated the excretion of uric acid and of the organic sulphur compounds of the urine in epileptics, in relation to the occurrence of fits. He found that the amount of uric acid excreted shortly before, or for twenty-four hours before, a seizure rarely deviated from the normal limits, but generally the urine passed after a fit had a higher uric acid ratio than at other times. In *grand mal* this tendency to postparoxysmal increase of excretion was to be regarded as a consequence of conditions that determined the fits, or possibly as due to the fits. In *petit mal* a constantly high uric acid elimination was observed; in two of these cases reduction of this excess was followed by diminution in the number of fits. Respecting intestinal putrefactive changes, as measured by the organically combined sulphur, 21 out of 29 cases of *grand mal* exhibited undoubted excess of these changes, more pronounced about the time of the seizures than in the intervals. Occasionally therapeutic reduction of the putrefactive process was associated with a favourable influence upon the paroxysms.

(361) Optic Hyperæsthesia in Traumatic Hysteria.

Freund makes a preliminary report (*Neur. Centralbl.*, September 1st, 1892) concerning an anomaly of the visual field recently discovered by him in cases of traumatic hysteria. As is well known, concentric contraction of the visual field has long been considered pathognomonic of functional nervous disorder. Quite lately Förster's type of visual field contraction has been shown (Epitome, Oct. 8th, par. 301) to have a like significance. Freund now states that in traumatic hysteria he has found a striking enlargement of the visual field for white, and especially for colours. In some instances the limit for white outwards and downwards was 115° to 110°; the area of colour perception extended nearly as far. Usually the peripheral parts of the retina quickly tired. Too long fixation tended to error in the perception of the colours. A short rest after examination of each meridian was therefore necessary. In two patients the condition described by Freund was unilateral; the eye on the anæsthetic side of the body had a concentrically narrowed field of vision. All the patients had good direct vision for form, and very good central quantitative colour sense. Associated with the retinal hyperæsthesia there usually were hyperacusis, hysterogenic zones, and neuralgia. Expansion of the visual fields for colours has been produced by earlier investigators by greatly increasing the intensity of the test colours, and for white and colours by subcutaneous injection of strychnine. Freund's results, however, were obtained under ordinary conditions as regards illumination and absence of drug interference.

(362) Poisoning by Carbonic Oxide.

Ruata, of Turin, reports (*Gazz. Med. di Torino*, No. 24, 1892) a case in which a patient for five days showed signs of active delirium without any apparent cause. It was afterwards ascertained that he had for some days previously been exposed to the fumes of a coke stove in a close room, and that during this time he had complained of frontal headache, and became very depressed. There was, perhaps, also a predisposition for toxic symptoms to take on a psychic form, for the patient had some cranial malformation, and was, besides, suffering from dyspepsia at the time. There seems, however, no room for doubt that the carbonic oxide was the actual determining cause of the malady.

(363) Spasmodic Movements of the Head in Infants.

Petersen (*Med. News*, October 1st, 1892) reports five cases of rotatory spasm of the head in infants. He proposes the term "gyrospasm" for the condition, but does not seem to suggest that its etiology is different from that of other spasmodic movements, such as nodding, also observed in infants. In one case only was there any associated nystagmus, and in this the movement was confined to one eye. In another case there was convergent strabismus. The gyrospasm was first noticed in one case at 3 months of age, in one at 4 months, in one at 5 months, in one at 7 months, and in one at 8 months. Taken together, therefore, the cases do not support Henoch's view that dentition is a cause. Petersen suggests that in most of the cases cerebral concussion will be found to be the determining factor, and observes that in adults concussion, if severe, may give rise to a rapid though temporary nystagmus. The prognosis, he believes, is good, but recovery may be hastened by the administration of bromide of potassium, in doses of from 1½ to 3 grains thrice daily.

SURGERY.

(364) Intestinal Obstruction in Tuberculous Peritonitis.

Poppert (*Münch. med. Woch.*, August 23rd, 1892) relates the following exceptional case: A girl, aged 11, whose father died of phthisis, had pleurisy fifteen months previously. A little later she had diphtheria. From this time she complained of occasional pains in the abdomen, but she had a good appetite and looked in excellent health. She was, more or less suddenly, seized one day with severe pain in the abdomen, retching and then vomiting, which subsequently had a fæcal odour. No stool or flatus was passed. Enemata had no effect. In spite of opium treatment and washing out the stomach, the patient's condition became much worse. The abdomen was distended, and a band of resistance three fingers in breadth passed across the abdomen at the level of the umbilicus. It was dull on percussion, and too resistant for a coil of intestine. Visible peristalsis was present. On the fourth day of the illness the abdomen was opened. The resistance above referred to was found to be the thickened and crumpled-up omentum. The coils of intestine were adherent to each other and to the abdominal wall. Abundant large nodules of tubercle were present. In the region of the cæcum empty coils of

intestine were found. A distended coil was brought up to the abdominal wall and an artificial anus made. One litre of fluid intestinal contents came out. After the first day or so the patient rapidly improved, and on the fifth day a stool was passed naturally. The fistula was closed about six weeks later, and she left the hospital about a month after this. She was seen in excellent health eleven months after her discharge. Inoculation from one of the tubercles into the anterior chamber of a rabbit's eye produced typical tubercle of the iris. At the time of the operation it was impossible to separate the tough adhesions, and this, along with the condition of the patient, determined the making of an artificial anus. The obstruction was due to kinking, and enterotomy gives good results in these cases. Clinically the latent course of the tuberculous peritonitis, in spite of the widespread changes, is of great interest. The absence of symptoms and the good nutrition almost precluded the idea of it. In the recorded cases—numbering six, and including the author's—the tuberculosis was an unexpected discovery. Of the six cases, three died after the operation, and one four months later of general tuberculosis. The author says that it cannot be definitely stated whether the laparotomy had any influence on the local tuberculosis in this case, but in another one of the six he thinks that it certainly had. [Before the Massachusetts Medical Society, in June, 1892, Dr. Homans related very briefly another case of acute obstruction due to tuberculous peritonitis. Colotomy was performed. After death tuberculous deposits were also found in other organs.]

(365) Retroperitoneal Lipomata.

RETROPERITONEAL lipomata, according to Terrier and Guillemain (*Rev. de Chir.*, September 10th, 1892), commence in the cellular tissue lying between the peritoneum and the posterior abdominal wall. In two cases described by them the tumour started in the cellular tissue on the right side of the vertebral column, probably in the iliac fossa. These tumours grow slowly, and may, as they increase, remain behind the peritoneum, pushing before them the intestines which lie on their anterior surface, or they may insinuate themselves between the two layers of the mesentery, and thus give rise to one variety of tumour of the mesentery. In their advanced stages they form adhesions to the neighbouring organs. Histologically they may be pure lipomata, or in some cases myxo-lipomata, or in others sarcomatous myxo-lipomata. The clinical appearances of this affection are far from being characteristic, and in many cases their nature is not discovered until an operation is performed or a necropsy made. They have been diagnosed as cysts of the ovary, tumours of the kidney, and as extrauterine fœtations. The character of the swelling may be made evident by aspiration. If a cannula is inserted in the case of ovarian or mesenteric cysts, fluid will be evacuated; in the case of sarcomata, a few drops of blood will at once flow; whilst in lipomata nothing will be evacuated unless the cannula is left in and moved about, when a very small amount of blood will flow out. The authors diagnosed one of their cases in this way. These tumours may attain a very large size, and then, owing to their weight and to the pressure which they set up upon the blood and lymphatic vessels of the intestines, they give rise to diarrhœa and progressive cachexia leading to death. If the tumours are smaller and they are not actively increasing in size the prognosis is better. Owing to the size of the tumours and their extensive adhesions to neighbouring structures, their removal is a matter of considerable difficulty and danger. Eleven cases have been submitted to complete extirpation, and out of these only four recovered.

(366) Galvano-cautery in Lupus Vulgaris.

A. N. TCHERNOGÜBOFF (*Meditzinskoïë Obozrenïë*, No. 13, 1892) has successfully used the galvano-cautery in a group of cases of lupus vulgaris, in which tuberculin treatment had proved useless. Becker's battery of two cells, with bichromate of potassium, bisulphide of mercury, and sulphuric acid, and an ophthalmic cautery with a platinum point were always employed, the number of punctures at a sitting varying from 50 to 100, according to the patient's tolerance. The sittings were repeated twice a week. Not only lupoid areas, but the surrounding apparently healthy zone (1 or 2 millimetres wide) were invariably cauterised as well. A complete cure was obtained, the site of the former lesions being marked only by minute, superficial, hardly perceptible scars.

(367) Urethral Calculus.

I. KÜRBATOFF (*Khirürgitcheskaia Letopis*, No. 4, 1892) recently removed from a peasant, aged 42, an irregularly pear-shaped, greyish-white, phosphatic stone, measuring $9\frac{1}{2} \times 9$ centimetres, and weighing 13 ounces. The enormous concretion was lying in a urethral diverticulum, which occupied the right half of the greatly enlarged scrotum. The cavity communicated with the urethra by means of a channel $2\frac{1}{2}$ centimetres long and 1 wide. There were present several urethro-scrotal fistulæ, through which the whole of the urine had been passed for the preceding four weeks, the urethra having become totally obstructed. The right testicle, which was atrophied, was excised together with the diverticulum. On the twenty-seventh day after the operation the man was discharged quite well, with the wound and fistulæ soundly healed and a normally pervious urethra. According to the author, the largest urethral calculus of which there is any record in medical literature was that removed by Pulido. It measured $5 \times 3\frac{1}{2}$ inches and weighed 705 grammes. Next comes the stone removed in 1828 from a Russian sailor, named Streltzoff, the concretion measuring 18 centimetres in length and 10 in transverse circumference (the weight is not given). In 1875 N. I. Stükovenkoff, of Moscow, excised a calculus weighing 6 ounces.

(368) Family History of Glaucoma.

PUSEY (*Arch. of Ophthal.*, July, 1892) publishes the family history obtained from two male patients suffering from glaucoma. Both cases were unusual in themselves in that the patients were very young, namely, 17 and $13\frac{1}{2}$ years of age. In the family of the first patient the following history was obtained: His mother, his mother's brother, his mother's uncle, his brother, his sister, and the patient were all blind from glaucoma. In the second family the patient was nearly blind, and his father, his father's mother, his brother and sister were quite blind from glaucoma.

(369) Hepatic Abscess.

DABNEY (*Internat. Journ. Med. Sci.*, August, 1892) concludes a paper on hepatic abscess with the following summary of his views: (1) Hepatic abscesses rarely occur as a result of injuries or diseases of the bones or other parts of the body, except those directly connected with the portal system of veins, or immediately adjacent to the liver. (2) Ulceration of the bowels is a common cause of hepatic abscess, but neither the morbid changes nor the symptoms are those of dysentery. It is probable that in most cases, at least when the hepatic abscess is due to dysentery, the latter disease is amœbic in character. (3) An hepatic abscess may appear in two weeks from the commencement of the dysenteric attack, but the usual time is from four to twelve weeks. It is impossible to say how long a time must elapse after an attack of dysentery before all danger of hepatic abscess is past. (4) Abscesses originating in the bile ducts and those due to injuries of the liver itself seem to be of comparatively rare occurrence. When due to injury the abscess usually appears in a few days. (5) Abscesses occurring in connection with general septicæmia or pyæmia are probably nearly always multiple and small, but in rather more than half of all other cases the abscess is single and comparatively large. Abscesses due to gall stones, however, are usually multiple. (6) Aspiration occasionally fails to reveal an hepatic abscess, because the needle may not enter it, or the contents of the abscess may be too thick to flow through the needle. (7) There are no means of determining with certainty the presence or absence of adhesions in a given case; pain, tenderness, and œdema over the seat of the liver suggest the presence of adhesions, but are by no means certain proof of their existence. Even the up-and-down movement during respiration of a needle inserted into the liver is not a conclusive proof that adhesions do not exist. (8) Of the symptoms and signs of hepatic abscess, pain, tenderness, and swelling in the hepatic region are by far the most important. Fever is present in a large proportion of cases, is intermittent in character, and, except in pyæmic cases,

rarely rises above 102.5° or 103° F. Jaundice and ascites nearly always denote the presence of dense adhesions or gall stones; dyspnœa and cough are frequently present. (9) It is doubtful whether absorption of the contents of an hepatic abscess ever occurs; bursting is of frequent occurrence, the most usual direction being into a bronchus or the pleural cavity. Under expectant treatment death occurs in a large proportion of cases before bursting. (10) With respect to treatment, free incision and drainage give far better results than any other method. The results of aspiration are rarely satisfactory, nor is the procedure entirely free from danger.

MIDWIFERY AND DISEASES OF WOMEN.

(370) Cholera in Women.

Tipiakoff, physician to the infirmary, Saratow (*Centralbl. f. Gynäk.*, October 8th, 1892) reports that between June 27th and September 9th 243 women were admitted, and 121 died. The ratio of men to women in the cholera wards was 1 to 0.66. Of the women, 30 were from 1 to 16 years old; 12, or 40 per cent. of these died; 119 were from 17 to 40 years old, 52, or 44.5 per cent., died; 87 were from 41 to 80 years old, 53, or 60 per cent., dying; 7 were of uncertain age, 4 of these dying. Six were children, 5 dying; 44 had never borne children, 20 dying; 22 were uniparæ, 6 dying. Of the 171 multiparæ, 90 died. Seven were pregnant when admitted; of these, 4 were in the third month, 2 in the seventh month, and 1 (a primipara) had reached the ninth; she alone of all the seven survived, and all the children were lost. All were between 23 and 32 years old. In all abortion occurred. The uterine contractions began with the cholera cramps; when the latter were delayed abortion was late. The fœtus was apparently expelled in all cases, the placenta following at once except in one instance. This is contrary to recent experience of seven cases in Paris, where several women died undelivered. There was little flooding, though a little blood was always lost at the onset of labour. The survivor recovered slowly; the involution of the uterus was much retarded, the lochia scanty. Hæmorrhages in the uterus, tubes, and parametrium were discovered in many of the non-pregnant fatal cases. The uterine contractions seemed to prevent the exchange of gases between the fœtal and maternal organisms, and to cause congestion and consequent rupture of uterine sinuses. Both these influences combine to kill the fœtus. Tipiakoff does not believe that it is killed primarily by the cholera poison.

(371) Diagnosis of Endometritis by the Hot Douche.

Puech, of Montpellier (*Arch. de Tocol. et de Gynéc.*, Aug., 1892), observes that Trélat has summed up the essential clinical features of endometritis as blood, glairy mucus, and pain. When these three features are present together, inflammation of the uterine mucous membrane may safely be diagnosed. However, this is not always the case. The secretion itself is characteristic, yet the secretion is sometimes very scanty at any given moment. Schultze's method for diagnosis consists in leaving a tampon soaked in a tannin-glycerine solution (20 to 25 per cent.) pressed against the uterus for twenty-four hours or longer. At the end of that time, if the uterus be healthy, a small clot of pure mucus will be found on the tampon. If unhealthy, the tampon will be covered with pus. Grynfeldt, of Montpellier, has for long employed a simpler method. When a jet of hot water is played against the cervix, it turns pale, owing to anæmia from contraction of the uterine muscular tissue. That contraction also expels from the cavity of the womb the pathological products of chronic endometritis, a muco-purulent secretion. It escapes freely when the douche is discontinued. This test is very easy and sure; it also serves to prove whether the case be really cured after treatment.

(372) Acardiacus Amorphus with a Heart.

Julius Heller (*Virchow's Archiv*, vol. cxxix, pt. 3, September, 1892) describes at great length an alleged case of this rare monstrosity. The mother was 17 years old, and a primipara. She was delivered of a healthy child, and to the placenta was attached the acardiac, which looked like a lump of fat. It was of the variety amorphus, as there was no trace of limbs and no properly developed thorax or abdomen. As usual, there was a trace of a hairy scalp; in the interior was a piece of bone. There were no intestines, but evidence of a little liver-tissue, and a sac-like cavity represented, in Heller's opinion, the pharynx, œsophagus, and stomach, but there was no mouth. He feels almost certain that a small piece of fatty tissue, of about the size of a pea, represented the heart. It lay against the rudimentary œsophagus, and connected to it was a bundle made up of blood vessels. It contained several cavities. Heller admits that actual proof of the nature of this fatty body is impossible. Ahlfeld, he observes, records fourteen cases where a rudimentary heart was found in an acardiacus; but in the variety amorphus this phenomenon is least probable.

(373) Boils and Puerperal Fever.

Le Clerc (*Nouv. Arch. d'Obstét. et de Gynéc.*, August, 1892) reported the following case at a recent meeting of the Medical Society of Rouen. A young primipara, on the fifth day after normal labour at term, had a severe rigor and then felt quite well. On the seventh day it recurred with hypogastric pains, whilst septic diarrhœa came on and lasted for three days. On the twelfth day a third rigor occurred and the hypogastric pains appeared once more for twenty-four hours. These phenomena recurred on the sixteenth day. The last attack, more severe than the preceding, occurred on the nineteenth day. The trouble was traced to the nurse, who had a boil on her forearm. As antiseptic measures, local and general, were freely taken, the septic infection proved relatively mild. The lochia were never fœtid, nor the pelvic viscera tender. Le Clerc also described a case where a young woman who had three furunculi on her left forearm when delivered suffered from puerperal fever. He concluded that there is a furuncular form of puerperal septicæmia which may be heterogenous, like in the first case, or autogenous, as in the second; hence the obstetrician must carefully see to the surroundings of the lying-in woman, not forgetting the body of the patient herself, so that all sources of sepsis may be detected in time to avert danger.

(374) Strangulation of a Cystocele.

Rheinstädter, of Cologne (*Centrabl. f. Gynäk.*, No. 36, 1892) recently had under his care a woman, aged 68, a multipara, who had suffered for two days from acute pain in the privates, but she certainly had been subject to some form of prolapse for five years. He found the vagina distended by a livid, tense, elastic mass; no cervix could be made out. There was no dysuria. The catheter slid over the tumour, and urine could be drawn off, yet the instrument could not be passed into the tumour, as in an ordinary cystocele. On drawing the mass down it appeared to be covered in all directions by the vaginal mucous membrane, which was reflected on to it in every direction. No trace of uterus could be detected on careful rectal and bimanual palpation. On the left side of the swelling Rheinstädter detected a minute opening, which admitted a fine probe for 4 inches. He suspected inversion of the uterus, the aperture being the uterine end of the left Fallopian tube, according to that theory. But he could find no corresponding orifice on the right side. Two days later the patient was again examined. She stated that shortly after the above-described exploration she felt much more comfortable. The swelling was now less tense, and the catheter could easily be passed into it from the urethra backwards and downwards. The cervix could not be felt, but through the posterior vaginal wall the uterus was detected, atrophied, cylindrical, and retroverted; it was easily replaced. Then it was found that the minute aperture, previously taken for the uterine end of the left tube, was the os externum. The sound passed 4 inches up it, entering the uterus, which, though subject to senile atrophy, was stretched by the traction of the cystocele. When Rheinstädter first examined her this cystocele must, he thinks, have been strangulated. It was so large as to be pedunculated; its pedicle had rotated to the left, bearing with it the cervix, and the posterior diverticulum of the bladder, which normally lies in a cystocele, had been closed by the torsion, so that it would not admit the catheter. His manipulations at the first examination had reduced the strangulation. A pes-

sary was applied, as the patient refused colporrhaphy. It held up the prolapse very well.

(375) Entero-vaginal Fistula after Labour.

LAUWERS (*Ann. de Gynéc. et d'Obstét.*, August, 1892) was consulted in February, 1892, by a married woman, aged 32. She had been delivered of her third child six months previously, and since then suffered from incontinence of fæces. A complete rupture of the perineum was detected; it involved an inch of the recto-vaginal septum. On February 17th the perineum was repaired, but the incontinence of fæces continued although the perineum healed perfectly. On exploration Lauwers discovered, high up on the posterior wall of the vagina, a thick-edged fistula, which readily admitted the tip of the forefinger. On April 30th he made raw the edges of the fistula, and closed it carefully with sutures. On the second day the patient was seized with violent hypogastric pains, with a temperature of 104° and a pulse of 140, with complete retention of fæces and flatus. The sutures were cut away, and fæces escaped freely through the wound, which burst open. A few days later recto-vaginal exploration, under chloroform, showed that the fistula opened into bowel quite independent of the rectum. Motions were passing entirely through the vagina. It then transpired that a slough came away a week after her last confinement. Apparently the sigmoid flexure had been caught in a rent in the posterior vaginal wall, so that strangulation with sloughing had followed. The posterior part of the sigmoid flexure adhered to the anterior aspect of the rectum, the two forming an abnormal septum. Lauwers passed his left forefinger into the vagina and through the fistula, pushing the abnormal septum down to the anus. Then he cut a transverse hole in the septum, and passed into it one blade of a Dupuytren's enterotome introduced through the anus. The other blade was slipped along the anal aspect of the septum. Then, care being taken lest any other structure than the septum might be gripped, the screw of the enterotome was turned. On the seventh day the instrument came away, with a slough 3 inches long. On the next day most of the fæces came away through the anus. The vaginal fistula closed spontaneously within three weeks. This operation was perfectly simple, and therefore preferable, Lauwers thought, to the procedures of Casamayor, Verneuil, and Chaput in similar cases.

(376) Erroneous Diagnosis of Pregnancy.

BOIFFIN, of Nantes (*Nouv. Arch. d'Obstét. et de Gynéc.*, August, 1892), relates a curious narrative about a woman, aged 40, whose abdomen became distended, in harmony with a few months of amenorrhœa. Something very like the outline of a fœtus was detected, and a practitioner declared that he could hear the fœtal heart sounds. Shortly after, early confinement having been predicted, she was seized with spurious labour pains. Boiffin examined her, and diagnosed multilocular ovarian cyst. On opening the abdomen, a large red tumour, very like a gravid uterus, was detected. Boiffin felt doubtful again, and examined the relations carefully. The tumour proved to be an ovarian cyst, and the patient recovered after its removal.

THERAPEUTICS.

(377) Action of Ox Serum in Syphilis.

A SHORT time ago Tommasoli, of Modena, announced that he had succeeded, by making injections of the serum of lambs' blood into patients showing all the usual manifestations of syphilis, in completely subduing all these symptoms and practically curing the patients (EPITOME, April 2nd, 1892, par. 305). In a recent communication (*Gazz. degli Ospitali*, August 2nd, 1892) Sartori brings forward four fresh cases in which results similar to those already mentioned were obtained. This time, however, as lambs' blood was not obtainable, the material employed was ox serum, which seems to have been just as efficacious. Of the four patients whose cases are described, one had undergone a partial treatment with lambs' serum and was included in the previous record; the treatment having, however, been only incomplete, he had again come into the hospital. The other three were syphilitic, two of recent date and the other affected for more than ten months. None of these had previously undergone any other treatment. The injections were in every case made into the buttock on alternate sides, the mean dose being 6 c.c. The first case lost all manifestations of his disease after the eleventh injection; the second appeared also to be free after the fifth injection, and was discharged after two further doses; in the third eight injections were necessary; in the fourth and last case only seven injections were required. Slight symptoms of shock seem to have made their appearance on rare occasions after some of the injections; but nothing alarming was ever noticed, nor anything which would make it imperative to discontinue the treatment.

(378) Methylene Blue.

BOURDILLON (*Rev. de Méd.*, September, 1892) describes the use of this drug in malaria, and relates in detail three cases successfully treated with it, in two of which quinine had previously failed. The author also makes some reference to other diseases in which the drug has been used, as, for instance, neuralgia, gonorrhœa, the febrile state in general and tuberculosis in particular. In regard to neuralgia, he says that perhaps it is the malarial form in which it is most efficient. No effect was produced in tuberculosis, and the author even suggests that in doubtful cases this disease might be thus distinguished from malaria. Almost all writers agree that methylene blue produces no ill effects. It is best used in pills of 10 cg., of which 3 to 10 may be given in the twenty-four hours. The drug is eliminated in the urine, the fæces, and also in the expectoration, but not in the saliva. Nothing is definitely known about its mode of action. It has been suggested that it kills the parasites of malaria, but these micro-organisms are certainly not coloured by it.

(379) Abortive Treatment of Variolous Pustules.

COSTE (*Bull. Gén. de Thérap.*, No. 16, 1892) has attempted to shorten the duration of the eruption of small-pox on the face as follows: The method consists in making a mask of boric lint, soaking this in boric lotion, applying it to the face, with two other exactly similar masks on top of it. In this way every part of the face is closely covered with boric wool. The whole is then covered with a mask of waterproof material, and slight pressure is applied by means of a gauze bandage. The treatment is commenced as soon as the eruption appears, and continued till the fall of the crusts, which takes place about the ninth to the twelfth day. The masks are kept moist by spraying with fresh lotion every four or five hours. Under this treatment the pustules undergo less inflammation; they rapidly disperse, and from the centre of each exudes a drop of greenish pus. On the fourth or fifth day, in place of the pustules, there is a fine epidermic layer of brownish colour, which separates after five or six days, and leaves no scar. There is very rarely any pigmentation left. Not only does this treatment, therefore, hasten the course of the eruption, but it diminishes the risk of scarring.

(380) Cinchonamine.

CHARRIN, giving his experience of the above drug (*Soc. de Biologie*, July 16th, 1892), declares it to be an alkaloid more soluble than quinine, but closely allied thereto. In animals it causes convulsions and fall of temperature. This fall of temperature is most marked in animals whose temperature has been raised either by injections of microbes or of soluble poisons. The drug may be useful in some diseases, and particularly in certain forms of malaria. Its antiseptic power is but slight.

PATHOLOGY.

(381) Nervous Tissue as a Culture Medium for Microbes.

G. VASSALE (*Riv. Sper. di Freniatria*, Fasc. 1, 1892) finds that many pathogenic microbes will grow excellently on portions of the spinal cords of animals which have been carefully sterilised and put into test tubes. In this way he studied the S. pyogen., S. erysip., and B. anthracis. The results of inoculating the living brains of guinea-pigs with tubercle bacilli is very interesting. All the animals thus treated died, but on being examined they showed no local tubercle, very numerous bacilli being found free in the fluids of the ventricles, etc. Tubercle bacilli can, therefore, multiply well in the nervous system.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(382) Primary Intestinal Tuberculosis.

DEMME, in one of his last reports from the Jenner Children's Hospital in Bern (*Jahrb. f. Kinderheilkunde*, Bd. xxxiv, H. 2, 3), related an instance of, as he believed, direct infection of infants by a nurse suffering from a tuberculous affection. Attention was arrested by the fact that three children, one after the other, committed to the care of a certain nurse, died, before attaining the age of one year, of primary tuberculosis of the intestines. None of these children had a tuberculous family history. A fourth child was found to be ill, its illness dating from the time when it was put upon spoon food. This fourth child died, and the necropsy again showed primary tuberculosis of the intestine. It was ascertained that this nurse was in the habit, when engaged in feeding the children on pap, of testing the temperature of the mess with her lips, and of cooling it by blowing on it. She was found to have an old patch of lupus on the nasal septum, and tuberculous disease of the mucous membrane of the antrum of Highmore, with a dental fistula opening into the mouth.

(383) Myelitis in Influenza.

FIESSINGER (*Gaz. Méd. de Paris*, September 17th, 1892) records a case in which myelitis supervened during convalescence from influenza, but became chronic instead of quickly terminating fatally, as was the result in the only three previously recorded cases, in one of which it attacked the patient during convalescence, as in this case. Weakness of the inferior extremities, subjective sensations, and dull pain were the first symptoms, and in about six weeks' time the patient, a boy aged 14 years, was unable to walk and had sphincter troubles. A week later there was anæsthesia up to the level of the third intercostal space, with trophic disturbances and loss of control over the sphincters; the movements of the head and arms could be performed, but the inferior extremities were motionless. Later the upper part of the thorax, and the face and arms became hyperæsthetic, and symmetrical atrophy of the thighs and calves became evident. About two months after the commencement of the myelitis the anæsthesia cleared up down to the level of the fifth intercostal space, and considerable œdema of the inferior extremities was noted. From that time until September 3rd (nearly two months later) there was no change in the patient's condition.

(384) Epithelial Pearls as a Cause of Stomatitis in Infants.

GARRIGUES (*Med. News*, October 1st, 1892) states that he found epithelial pearls in the mouths of 53 out of 57 newborn infants examined for this purpose. These bodies, which have been carefully studied by A. Epstein, are to be looked upon as physiological formations; they disappear in healthy children after the second month. Epstein, who has observed them as early as the eighth week of intrauterine life, believes that they are produced by an invagination of epithelium. They are most commonly met with in the middle line of the palate, and on the alveolar process. There may be one, or as many as five such bodies present. They consist of epithelial cells resembling those of the mucous membrane of the mouth, but the central cells are flattened by pressure. Though they tend to disappear if uninjured in a healthy mouth, they may, if injured, become the starting point of ulcerative stomatitis. Cleansing of the infant's mouth, even with soft lint, may inflict enough injury to the pearls to start the ulcerative process. The presence of the pearls constitutes a weak point in the mouth. Another weak point is the spot where the hamular process of the sphenoid presents, at the junction of the tonsil and soft palate; the mucous membrane is here thinner than elsewhere, and, in sucking, the back of the tongue is pressed forcibly against it; it is, consequently, particularly liable to become the seat of ulceration, and the starting point of "Bednar's aphthæ." Garrigues, in the treatment of ulcerative stomatitis in infants, recommends swabbing with water acidulated with a few drops of acetic acid, followed by painting with borax (1 part) dissolved in glycerine (8 parts).

(385) Erythromelalgia.

GERHARDT (*Deut. med. Woch.*, September 29th, 1892) describes a case occurring in a delicate woman, aged 44. She was suddenly seized with intense pain in the fingers and toes. There was also vomiting and headache. On admission there was marked redness in both hands and feet, and the end and middle phalanges were swollen. The left thumb alone escaped, but it was affected later. There was hyperalgesia of the swollen parts, and the hands and feet sweated readily. The fingers were held in a flexed position, and any attempt to further bend or straighten them gave pain. The urine contained a trace of albumen and some casts, otherwise there was no evidence of visceral disease. The right pupil was wider than the left. The optic discs were healthy. It was obviously a case of pain and altered blood supply in the ends of the fingers and toes, known as erythromelalgia and first described by Graves about fifty years ago. Men are more often affected than women, the period of greatest liability being between the ages of 28 and 48. Cold, overuse of the members, previous debility, neuropathic tendency are among the predisposing causes, but no real direct cause is known. Pain increased by warmth is the chief and usually the first symptom, and then the swelling appears. The disease generally gets worse by attacks, and often disappears in the interim. The course is mostly very obstinate. The neuroses of the extremities have been divided into (1) the angio-spastic group, with pain and pallor, (2) the group in which there is pain without vascular symptoms, and (3) the angio-paralytic group illustrated by the case above-described. The last is apparently the rarest.

(386) Broncho-pneumonia and Infectious Disease.

RENARD (Thèse de Paris, 1892; *Rev. d. Sciences Méd.*, October 15th, 1892) reports the results of a bacteriological examination in 26 cases of broncho-pneumonia and infectious diarrhœa. In every case the bacillus coli communis was found in the stools, as a rule associated with other organisms, but always predominating. Cultivations were obtained from the lungs in 21 cases; in 4 only was the bacillus coli communis present, and in one of these it was associated with another organism. The microbe most often obtained from the lungs was the pneumococcus, but, in some cases, a staphylococcus, and in others an encapsuled bacillus was found. From these data Renard concludes that in the majority of cases broncho-pneumonia occurring in the course of infectious infantile diarrhœa is secondary, and rarely produced by the pathogenic organism of the diarrhœa.

SURGERY.

(387) Congenital Upward Displacement of the Scapula.

BOLTEN (*Münch. med. Woch.*, September 20th, 1892) reports a case in a boy, aged 3½ years. The left scapula stood 3.5 centimetres higher than the right. The trapezius was prominent, the neck thus appearing shorter and thicker than usual. There was slight dorsal scoliosis, with the convexity to the left. The movements of the arm up to the horizontal plane were unaffected. There appeared to be an exostosis from the upper margin of the scapula, but when cut down upon it was found itself to be the upper border of the scapula, which projected forward nearly as far as the clavicle, whereas the spine of the scapula had been taken for the upper border of that bone. The muscles causing the displacement were divided, and considerable improvement was obtained by means of a jacket and an elastic band passing over the shoulder. Other deformities affecting the left radius and left thumb were present in this case. The skull was also asymmetrical, the right oblique diameter being shortened. In 9 of the 12 reported cases the deformity was on the left side. In 3 cases, including the author's, the arm at birth was placed behind the back, the scapula being thus pushed up. The deformity is of intrauterine origin. The malposition of the arm in the above-named case was due to deficient liquor amnii. The contraction of the trapezius may be primary, and not, as in these instances, secondary. In 2 cases there was asymmetry of the skull, and in 6 more or less marked scoliosis.

In regard to movement, the raising of the arm above the right angle is not possible in this deformity. Contrary to the usual opinion, the treatment pursued in the above-mentioned case increased the range of movement of the arm to a considerable extent.

(388) Operative Treatment of Strangulated Diaphragmatic Hernia.

SCHWARTZ AND ROCHARD (*Revue de Chirurgie*, September, 1892) in a paper based on a report of a fatal case of strangulated diaphragmatic hernia, discuss the surgical treatment of this lesion. The subject of the case recorded by the authors was a man aged thirty-three, and the hernia, though certainly not due to injury was very probably an acquired and not a congenital affection. The diagnosis of strangulated diaphragmatic hernia is attended with much difficulty, and cannot always be established even after laparotomy. This operation, though indicated in most instances as indispensable for diagnosis, cannot be regarded as useful for treatment. It is very difficult and, in most cases, impossible to reach the seat of hernia so as to be able, by relieving the strangulation, to drag the strangulated intestines downwards into the abdominal cavity. But even if this could be done it would be imprudent to bring into contact with the healthy peritoneum the infected contents of a strangulated hernial sac. Moreover it would be found impossible by any abdominal operation to effect a radical cure by closing the orifice in the diaphragm, and thus preventing a certain and speedy return of the hernia. The authors suggest that it would be preferable to deal with strangulated diaphragmatic hernia by a transpleural method of operation. Such treatment, they are convinced, is not only possible but also easy. After the pleural cavity has been opened by a free incision of the skin, and removal of a portion of the ninth and also, if it be found necessary, of the tenth, rib, the hernia is freely exposed, and can be manipulated as readily as any form of external strangulated hernia. The constricting ring may be incised, the sac opened and, together with its contents, carefully cleansed, and every precaution observed to prevent peritoneal infection. Inflamed omentum may be resected, and if the strangulated intestine be gangrenous, the surgeon need not hesitate to resect the affected loop and practise circular suture in order to re-establish the continuity of the intestinal canal. Finally steps should be taken to establish a radical cure; the sac should be resected, and the edges of the gap in the diaphragm be refreshed and brought together by sutures, including both the muscular structure and the pleura. It would be advisable, the author holds, to leave open the upper part of the abdominal wound made in the preliminary laparotomy until the completion of the transpleural operation. It has been proved by experiments on animals that if this method be practised successfully with regard to asepsis, and if the wound in the wall of the thorax be closely and securely closed, the inevitable pneumothorax will soon disappear and the lung gradually expand as the air is removed from the pleural cavity. A similar method of treatment has also been proposed by Perman as the only means of saving life in any case of strangulation of a large diaphragmatic hernia. Postempski and other Italian surgeons have performed the transpleural operation with success in the treatment of omental diaphragmatic hernia of traumatic origin.

(389) Chemosis.

B. LANZE (*Lyon Méd.*, July 3rd, 1892) deals with chemosis of inflammatory origin—a symptom which may occur in any case of conjunctivitis. It may also accompany a group of nervous affections, and then depends on either intra-ocular inflammation or on primary or secondary circulatory disturbances. The symptom is apt to favour the occurrence of corneal mischief, ulceration, or even perforation. In his treatment the author departs from the plans usually adopted, and, bearing in mind that the œdema may be due to other than mere local causes, he adopts measures directed to the general circulatory system. To patients with chemosis and hypopyon he gives powders containing 30 cgr. of sulphate of quinine and 25 cgr. of freshly-powdered digitalis. He continues this treatment for several days, gradually reducing the dose. The quinine will have an antithermic action, besides being an efficient cardiac tonic, antiseptic, and diuretic. The action of the digitalis is stated to be that of a cardiac tonic and diuretic. The results seem in any case to have been good.

(390) Multiple Dermatomyomata.

LUKASIEWICZ (*Archiv für Dem. und Syph.*, 1892, Heft 1) describes a case of this somewhat rare affection which was first described by Besnier. The patient was a man, aged 23, and the disease had existed for four years and a-half. On the extensor surfaces of the lower half of the left thigh were present about thirty round or oval reddish-blue or pale-brown nodules, of the size of a millet seed to that of a pea. They were situated in the skin, moved with it, and projected slightly from its surface. The epidermis was intact, smooth, and shining. The lanugo hairs were present as in healthy parts. The nodules were sharply limited, firm to the touch, and became pale and tender when pressed. Another group of about sixty were present on the leg at the same side. These tumours were exceedingly tender, producing, when touched firmly, paroxysms of pain. Microscopic examination showed them to be composed of smooth muscular fibres. The author considers that they took their development in the arrector pili muscles, the fibres of which could be traced directly into the new growth. The smooth muscular fibres of the blood vessels and the sweat glands were also increased in number, and, therefore, probably also contributed to the formation of the tumours. The tumours did not extend to the deeper layers of the skin. The painfulness on pressure was attributed to pressure on the nerve fibres which lay under and through them.

(391) Excision of Syphilitic Chancre.

S. I. GOLDENBERG, of Nikolaiev (*Meditzinskoïe Obozrenïe*, No. 12, 1892) relates four cases of primary syphilitic sclerosis of the prepuce in men, aged from 21 to 30, in which he performed circumcision, excising as much as possible of the foreskin, together with the ulcer. In one of the cases the operation was done on the second day after the appearance of the lesion, or on the seventh after the last intercourse (the patient's wife was found to be covered with syphilides); in another on the third and sixth days respectively; in a third, on the fifth day after the development of the sclerosis; and in the fourth, on the fourteenth day after the last coitus, or on the fifth of the symptoms. In the latter case the operation failed to prevent the development of secondary manifestations, roseola, etc., appearing on the twenty-seventh day after excision. But the other three patients remained absolutely free from any signs of syphilis up to the present. In one of the cases seventeen months passed since the operation; in another, nine; and in the third, eighteen. The author believes that he has succeeded in cutting short the course of syphilis in all the three men.

MIDWIFERY AND DISEASES OF WOMEN.

(392) Simultaneous Fibroid and Cancerous Disease of Uterus.

Y. SCHRAMM (*Centralbl. f. Gynäk.*, No. 12, 1892) read a paper on a case of this rare combination. Since 1887 only nine authentic cases have been recorded, and amongst these in only three was the body of the uterus the seat of disease. It can hardly be said, he observes, that the irritation of a myoma sets up cancer, for the former disease has its seat of predilection in the neighbourhood of the fundus, while the latter usually attacks the cervix. The degeneration of a myoma into cancer is much disputed; it is well known that a myoma may become a sarcoma, but this is easy to understand. When a case of cancer in the endometrium close to a fibroid actually occurs, then it may reasonably be allowed that in this exceptional case the irritation of the fibroid predisposed the patient to local cancer, especially if the two diseases lay in the neighbourhood of the fundus, where cancer is rare. Such a case is recorded by Schramm. The patient was 64, and a virgin. She had menstruated regularly till 54. Throughout the first part of 1891 she suffered from irregular attacks of uterine hæmorrhage, with an uneasy rather than painful sensation in the hypogastrium. The hymen being intact, and the patient very fat, exploration was difficult. The uterus was clearly enlarged. The endometrium was scraped, and evidence of

cancerous degeneration thus obtained. On June 24th the uterus was removed through the vagina. The patient recovered. An interstitial fibroid, as big as a billiard ball, lay in the fundus, and the endometrium which covered the part that projected into the uterine cavity was found to be cancerous.

(393) Vulvo-vaginitis in Children.

Cahen-Brach (*Jahrb. f. Kinderheilkde.*, Bd. xxxiv, H. 4) examined twenty-six cases of vulvo-vaginitis in children between 1½ and 12 years, and found a diplococcus, which he believes to be the gonococcus, in every case but one. He concludes that the majority of cases of leucorrhœa in children, in which the secretion is profuse, are due to gonorrhœal infection. He believes that infection is generally contracted indirectly by sleeping in the same bed as an infected woman. The characteristic sites of the infectious process are the vulva and the urethra. The vagina is infected in a certain proportion of cases later, and occasionally the infection may spread to the cervix, the body of the uterus, and even to the Fallopian tubes and peritoneum. He warns against active local treatment, and is inclined to place most reliance on rest in bed, together with the ingestion of large quantities of fluid, in order to render the urine copious in quantity and micturition frequent. He points out that children should not be allowed to sleep in the same bed or make use of the same towels, etc., as persons suffering from a gonorrhœal infection, since the susceptibility of the vulva and vagina to this infection is very great in infancy, but subsequently diminishes.—Morax (*Prog. Méd.*, October 22nd, 1892) describes three cases in which this disorder caused gonorrhœal ophthalmia and other complications, there being no evidence that the original disease was venereal. The first patient was 7 years old. When in good health she was romping with a little girl, aged 4, who thrust her finger in her elder playmate's left eye. This infant had been subject for three weeks to profuse vulvar discharge. The patient's eye inflamed, and synovitis occurred in the left knee. She recovered, with a corneal scar outside the area of the pupil. The second patient was 4 years old, and suffered badly from vulvitis after whooping-cough. Three sisters slept in her room. She was attacked severely by purulent ophthalmia of the left eye. Morax, it must be noted, records the important fact that one of the three sisters, a girl of 17, had gonorrhœa. The third patient was 4½ years old. She was placed in an asylum by her mother, who entered hospital for an operation. When the mother was discharged she found that the patient and another child who had also been in the asylum had marked vulvitis. The patient was shortly afterwards attacked with purulent ophthalmia. In all three cases the pre-auricular lymphatic glands were involved. The gonococcus was found in the vaginal discharges of the case in which the disease developed during the debility succeeding whooping-cough, and in the instance in which it appeared, probably from neglect, during the child's residence in an asylum.

(394) Cephalhæmatoma.

J. Merttens (*Zeitschr. f. Geburtsh. u. Gynäk.*, vol. xxiv, p. 215, 1892) states that in the last thirty years 21 cases of cephalhæmatoma have been observed in the Marburg University Clinic, the proportion being 1 in 500. The presentations were: first vertex position, 14: second vertex position, 7. The majority of the children were males. The average weight, 3,115 grammes, was below the average of children in general. The mother's pelvis was normal in 16 cases, slightly narrow in various directions in 5. In 2 of the children there were two cephalhæmatomata, unilateral (parietal and occipital regions) in one and bilateral in the second. In 1 case only was the affected child a twin. In 11 cases the left and in 9 the right parietal was involved. In 14 cases the swelling lay over the anterior part of the parietal. The forceps were used in 7 out of the 21 cases. In 7 cases it was clear that more or less asphyxia occurred during birth, 4 of these cases being born more or less asphyxiated; indeed, asphyxia seems to account for cephalhæmatoma in most cases. During the past ten years expectant treatment has invariably been adopted at the Marburg Maternity, and with good results.

(395) Diabetic Coma in Pregnancy.

Born (*Korrespondenzbl. f. schweizer Aerzte*, No. 11, 1892) describes a remarkable case of error in diagnosis. The patient, aged 24, and previously healthy, was seized with nausea, vomiting, and abdominal pains in the seventh month of pregnancy. Intestinal obstruction was naturally suspected, but when treated accordingly no benefit followed. The urine was examined and found to be loaded with sugar; it was, besides, albuminous. The pains and intestinal symptoms simply represented the onset of diabetic coma. Only three days after the diagnosis was made the patient died comatose.

(396) Rupture of Ovary in Pregnancy.

Rosenstein, of Breslau (*Centralbl. f. Gynäk.*, No. 41, 1892), in a note on this case, dwells on the diagnosis between rupture of the ovary during normal pregnancy and rupture of an extra-uterine fœtal sac. The patient was first seen in January, 1891. She was 25 years old, and had recently borne and suckled her first child. The last period occurred in August, 1890. She believed that she was five months pregnant. On the night of January 12th she felt violent pain. Rosenstein found her slightly collapsed. Free vomiting occurred. At the end of a few days the pain and sickness ceased. A tumour, resembling a uterus at the fifth month of pregnancy, was detected, but the body and limbs of the fœtus were so distictly felt that they seemed as though free in the abdominal cavity immediately under the parietes. Next day sensations like labour pains were felt. The abdomen became greatly distended. On February 7th the sound was passed. It touched a fœtus. No hæmorrhage or escape of liquor amnii followed. The distension increased, and on February 15th Rosenstein operated. A half-solid half-cystic tumour of the right ovary was removed. Two large holes, with smooth surfaces, were found in its outer wall; from them colloid material was freely escaping into the peritoneum. The omentum was œdematous, and strongly adherent. On the night after the operation the patient was safely delivered of a six months' female child, which died after a few respiratory efforts. The tumour was a papillomatous adeno-carcinoma, but in December, 1891, the patient was in good health, without any sign of recurrence. The absence of any sign of severe internal hæmorrhage and of the discharge of a decidua with flooding was the chief feature distinguishing this case from rupture of a fœtal sac. Besides, the swelling (at first hard) became soft; had it been effused blood the contrary would have occurred.

THERAPEUTICS.

(397) Trional.

Boettiger (*Berl. klin. Woch.*, October 17th, 1892) has used trional in 75 cases in Professor Hitzig's clinic. The single evening dose is from 1 to 4 g. (1 or 2 g. was mostly used). It was occasionally given in divided doses during the day. Any systematic treatment was not interrupted. The cases fall into three groups: (1) Simple sleeplessness occurring in functional or organic nervous disease. Uninterrupted and mostly deep sleep occurred in from 15 to 45 minutes. In only one case was any giddiness or other ill effect noted on the following day. In some cases the drug was used every evening for two or three weeks without losing its effect. (2) Sleeplessness with bodily pain. Here the results were not nearly so good. In one case referred to of severe hypochondriasis, the result was variable according as there was pain. As regards the morphine and cocaine habits, the author, unlike Schäfer (Epitome, August 20th, 1892, par. 166) found it useful in one case. (3) The third group, including patients with mental disease, is divided into two parts according as the sleeplessness was accompanied by moderate or severe mental excitement, etc. In only 2 of 33 cases of the former class was there no hypnotic action. The drug had no effect on the mental condition. In the second class the results were variable. Whether larger doses would have been more efficient is doubtful; unpleasant results have been noted after such larger doses. The author refers to 5 cases of mental disease with marked excitement, in which fractional doses were given with the best results, but he adds that the number of the cases was too small. The drug was given by the rectum, usually in 2-g. doses, in 16 cases. It acted as promptly and efficiently as

when given by the mouth. The author concludes that trional is an excellent hypnotic and sedative, and without unpleasant results when given in moderate doses. Sleep is often induced in fifteen minutes. The drug is without effect in sleeplessness due to bodily pain, in acute alcoholism, and in cases of great mental excitement and motor restlessness. Trional has a more marked and prompt action than chloralamide, 2 g. of the former corresponding to 3 or 4 g. of the latter. Amylenhydrate approaches nearer to trional in its effects. In some cases trional may take the place of hyoscine, yet the subcutaneous injection of the latter is preferable in great mental excitement.

(398) Epidermin.

S. Kohn gives (*Arch. f. Derm. u. Syph.*, 1892, Heft 5) gives this name to a mixture of substances suitable for application to the skin. Epidermin is composed of pure beeswax, water, and glycerine, to which lime, lead, etc., may be added, the mixture being worked up into a liniment of suitable consistence, and it is stated some practice is required in its preparation. Epidermin forms a milky homogeneous mass, which, when spread upon the skin, leaves after it a feeling of coolness, and dries into a delicate, flexible, elastic pellicle. When medicinal substances are combined with the mixture, the water evaporates, and the glycerine retains the flexibility of the pellicle. Epidermin fixes on the skin according to the amount used, whatever drug is employed, for twelve to forty-eight hours. Usually the application is renewed once or twice daily.

(399) Protective Vaccination against Tubercle.

Héricourt and Richet (*Gaz. Méd. d. Paris*, October 22nd, 1892) give an account of further experiments on this subject, which fully confirm the results previously obtained by them. Of seven dogs that had undergone successive vaccinations with tuberculosis of birds, not one became affected with human tuberculosis when inoculated. They were inoculated in April last, and are still perfectly healthy and have gained weight. Twenty-one dogs inoculated with human tuberculosis, without previous vaccination, all lost weight and died on an average in four weeks; of this number eleven were treated, after the inoculation, by various therapeutic measures, all of which were absolutely ineffectual.

(400) Jaborandi in Hiccough.

Nobel and Stiller (*Centralbl. f. klin. Med.*, 1892, Nos. 32 and 42) respectively refer to the good effects produced by jaborandi in hiccough. Nobel's patient was a man suffering from influenza, and the infusion of jaborandi was used. Nobel draws attention to the fact that, notwithstanding the presence of some cyanosis, the drug had no ill effect upon the heart. He refers to other recorded cases, and adds that it remains to be proved which constituent in jaborandi brings about the good results. Stiller says that he has long used pilocarpine (10 drops of a 1 per cent. solution three or four times a day) in hiccough of nervous origin, and that it is the best remedy known for this condition. He does not employ it in the reflex hiccough of severe abdominal disease and peritonitis. At times, and especially in hysteria, only improvement or temporary cessation in the hiccough has been obtained, necessitating the further use of the drug. Stiller says that the good effects of jaborandi are due to pilocarpine.

(401) Losophan.

Saalfeld (*Therap. Monatsh.*, October, 1892) describes the use of losophan (triiodocresol) in skin diseases. He has found it of special value in parasitic affections of the skin both vegetable and animal. In 16 cases of tinea tonsurans of the face and body, 13 were cured and 3 much improved, and in 3 cases affecting the scalp 1 was cured and the others much improved. In some cases of parasitic sycosis good effects were obtained, but, when necessary, epilation was also had recourse to. It was used in a 1 or 2 per cent. spirit and water solution. In pityriasis versicolor an ointment (1 to 2 per cent.) gave good results, and in cases of pediculi capitis and pubis a 1 per cent. solution was useful. Scabies, however, seemed to improve more rapidly under the more usual methods of treatment. In some cases of prurigo, chronic eczema with infiltration, sycosis vulgaris and acne vulgaris, and rosacea this treatment was efficient. In psoriasis and primary syphilitic affections it was without result, and in urticaria it was of little service as an anodyne application. As a drying powder (1 per cent.) for wounds it had but slight effect. It is contraindicated in any acute skin disease owing to its irritant properties even in dilute solutions.

(402) Mercurial Flannels in Syphilis.

Vigier, Merge, and Carles have proposed (*Journ. of Cut. and Gen. Urin. Dis.*, September, 1892) the use of flannels saturated with mercury in a state of minute subdivision in the treatment of syphilis. The flannels are placed on the patient's chest or upon his pillow during the night. The authors think they might estimate the amount of mercury absorbed at from 8 to 9 milligrammes in eight hours. They consider that this method prevents the absorption of too large a quantity of mercury.

(403) Treatment of Anasarca.

Arnemann (*Therap. Monatsh.*, October, 1892) says that treatment by diuretics, diaphoretics, laxatives, cardiac tonics, etc., at length fails, and that measures have to be adopted to let out the fluid. He refers to the danger of infection when this is done by puncture, and for private practice a more convenient method is required than Southey's tubes. The author therefore recommends deep incisions, which should be long and few in number. The fluid is thus drained off rapidly, washing away with it any infecting agents, and so rendering the chances of infection small.

PATHOLOGY.

(404) Histology of the Unaffected Parts of the Skin in Eczema.

Campana (*Clin. Derm. e Sif. della R. Università de Genova*, 1892) has examined histologically affected parts of the skin in a chronic case of eczema rubrum. The appearances which he describes do not differ materially from those described by previous investigators. Of great interest, however, are the appearances which he found in the skin of parts of the body in the same patient in which there was no appearance of eczema. In these apparently healthy parts the epidermis was found slightly thickened at the opening of the follicles, and in the mucous layer of the interpapillary epidermic processes. The papillæ were slightly enlarged, with numerous leucocytes in the lymphatic spaces, particularly around the blood vessels. This infiltration was sufficient to produce the appearance of tracts of leucocytes in continuous series. In addition to these alterations there were a few scattered minute hæmorrhagic exudations, some recent and some characterised by slightly diffused colour. It is thus shown that in a patient the subject of eczema the apparently healthy parts of the skin were the seat of certain histological changes, the cause of which has so far escaped observation.

(405) Degenerative Changes as a Result of Extirpation of the Cœliac Plexus.

Trambusti (*Centralbl. f. allgem. Pathologie*, September 10th, 1892), experimenting with dogs, finds that, as a consequence of the removal of the cœliac plexus, glycogenic and hyaline metamorphoses supervene in organs connected with the plexus (liver, kidney), and in these alone. The changes affect not only the blood vessels but also the cells of the liver and kidney, and depend upon an actual degeneration of the protoplasm, and not upon mere infiltration. The author further experimented with rabbits and dogs in order to ascertain whether these changes could result from acetone poisoning or inanition, as has been supposed. The experiments lend no support to this supposition.

(406) The Diagnosis between Typhoid Bacillus and Bacterium Coli Commune.

Luksch (*Centralbl. f. Bakt.*, September 28th, 1892) describes an additional means of diagnosing between these organisms. He observed that the movements of B. coli commune were very slight compared with those performed by the typhoid bacillus. On making preparations after Loeffler's method for staining flagella, he found that whilst B. coli had from one to (at most) three, the typhoid bacillus possessed from eight to twelve flagella. Moreover, the flagella in the former case could only be stained with much difficulty.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(407) Perityphlitis.

Sahli (*Correspondenz-Blatt f. Schw. Aerzte*, xxii, 1892) holds that all these inflammations represent an infection of the cæcum or vermiform appendix, that their severity depends on the actual cause of the disease, and that the starting point does not explain everything in the clinical picture. Non-perforating forms may run a severe course, and perforating ones a mild one. Perforation is not explained solely by the mechanical condition of a concretion, but by the intensity of the inflammation. The division into typhlitis stercoralis and appendicitis is not tenable. The swelling which is felt in so-called typhlitis stercoralis is not fæces alone, but much more often exudation and inflammatory infiltration. It feels harder than in appendicitis, because it is a less virulent and more adhesive inflammation. Apparently in the majority of cases typhlitis stercoralis is a less virulent form of appendicitis. The author believes that constipation has a certain etiological relation, but that the retention of fæces is not the primary cause. Purgative or large enemata penetrating far up should not be used. Opium should be given to control the pain, and not to produce narcosis. Constipation need cause no trouble, as with the moderate use of opium the bowels act spontaneously. Rest in bed is, of course, necessary. The treatment should be begun by exclusion of all food by the mouth, the thirst being controlled by small enemata of water at body heat. In very troublesome cases water can be introduced subcutaneously, or even saline solutions injected into the veins. The author does not look upon the ice-bag as useless, but later in the disease he prefers warm applications. The majority of cases of perityphlitis recover with or without abscess, with or without perforation into the bowel, etc., and this holds good for those cases which answer to Roux's description of suppurative appendicitis. The question should be as to which cases ought to be operated upon, and not as to whether perityphlitis should be treated by operation or not, because exclusive operative treatment of a disease which generally ends favourably is difficult to justify. Sahli does not agree with Roux that the cases described by him as suppurative appendicitis should always be operated upon, for such cases frequently recover without it. He says that it has by no means been proved that the mortality is diminished by operating on all these cases without discrimination. The author looks upon the following as cases requiring operative treatment: (1) Acute cases with severe symptoms which give the idea that general peritonitis or sepsis is supervening; (2) cases less severe, but, which instead of improving under the above treatment, steadily get worse; (3) cases which relapse several times, though here it is pointed out that, after three or four attacks, spontaneous recovery often occurs; and (4) cases with perityphlitic abscess.

(408) Monocular Diplopia.

Bouveret and Chapotot (*Rev. de Méd.*, September, 1892) record such a case occurring in a girl, aged 22, with a tuberculous tumour of the cerebral peduncles. The left hemiplegia, headache, and vomiting appeared two months before admission; sensation was then also found to be diminished on the left side. There was slight right ptosis. All the left ocular muscles were involved. There was double vision with the left eye, and this was observed during three weeks. Although there was commencing optic neuritis, vision was but little impaired. Subsequently there was complete internal and external strabismus on both sides. After choreiform movements the right side also became paralysed. About six months after the onset of the disease the patient died. Old tuberculous lesions were present in both apices, and old scars of tuberculous abscesses in the neck. On section through the cerebral peduncles a tuberculous tumour was found. It consisted of two caseating masses, one destroying the right peduncle and extending as far as the Sylvian aqueduct, and the other occupying the posterior and median part of the cut section and extending into the left peduncle. The authors say that the diplopia was not hysterical, but due to the tumour, and that thus monocular diplopia may be nuclear in origin and due to an organic lesion.—Tilley (*Boston Med. and Surg. Journ.*, September 10th) reports the case of a girl who came under his observation in 1887, at the age of 9. She complained of pains in her head and stepped cautiously as though afraid of jarring her head; left eye partly closed, movements painful, no paralysis, pupils normal to light and accommodation, iris, lens, vitreous, and fundus normal. She complained of double vision with the left eye only; under atropine for near vision one of the images seemed much nearer than the other; various trials were made to test her statements, but she never made a mistake and never contradicted herself; she had colour blindness to the extent of being unable to distinguish between greens and greys. The head illness lasted about a month, and included one attack of convulsions; she recovered from this illness, but seemed less active and less capable mentally. She then suffered from abscesses in various parts of the body, the diplopia still persisting. She was then lost sight of for a few months, and when the doctor saw her again she had lost her diplopia and colour blindness, and seemed quite well. During the next twelve months he repeatedly saw her, and she remained well, but six months later he learnt that she was dead, but could get no details as to the nature of her fatal illness. After mentioning some other cases apparently of the same nature which he had seen, and referring to the English cases, he adopts Professor Fontan's explanation, namely, that the impressions received by each eye are transmitted respectively to the right and left hemispheres, and that in the normal condition these impressions are fused by communicating nerve fibres. When, however, these communicating nerve fibres are disturbed, double uniocular vision should occur.

(409) Carbonic Oxide Poisoning.

Voss (*Deut. med. Woch.*, October 6th, 1892) records the poisoning in the usual way of a family of five persons by carbonic oxide. The elder boy was found dead in his bed, and the younger, aged 12, was admitted into the hospital in an unconscious condition. His face was pale, the lips livid, and the pupils dilated. There was also nystagmus. Attacks of tonic spasm occurred, affecting chiefly the muscles of the extremities, of the face, and of mastication. Thus in a paroxysm the wrist and metacarpo-phalangeal joints were flexed and the interphalangeal joints extended, while the thumbs were strongly adducted. The legs were extended, and there was trismus and facial spasm. Breathing became more difficult, and he died within twenty-four hours. The lungs were œdematous, with patches of broncho-pneumonia. There were also signs of intestinal catarrh, with swelling of Peyer's patches. The father and mother presented typical symptoms, but recovered rapidly. Blood from the brother, but not from the patient, presented the characteristic CO spectrum. The author thinks that the degree of poisoning was in reality slight, and that death was due to the tetany. In children the commonest causes of tetany are gastric and intestinal affections, and among the causes in adults dilated stomach (see Epitome, March 5th, 1892, par. 199) and extirpation of the thyroid body must be reckoned. Both the boys were subject to attacks of diarrhœa since they had enteric fever seven years previously. The author thinks that the intestinal affection had much to do with the tetany in the case here recorded, the carbonic oxide increasing the irritability of the nervous centres. The fatal termination of a slight case of poisoning is thus explained, death being due to the spasm involving the respiratory muscles. The prognosis of tetany occurring in other diseases in children is far from good. Toxic substances, such as ergot, alcohol, chloroform, are mentioned by Frankl-Hochwart as causes of tetany.

SURGERY.

(410) Pylorectomy.

Defontaine (*Arch. Prov. de Chir.*, July, 1892) reports a case of successful extirpation of cancer of the stomach. The patient was a woman, aged 34, who had suffered for six months from flatulence and gastric pains, and for three months

from occasional attacks of profuse and severe vomiting. In the operation—which was performed in April of this year, and lasted over two hours and a-half—a smooth rounded tumour, which had contracted but few and slight adhesions with surrounding parts, was removed from the pyloric end of the stomach. After the upper half of the large opening in the walls of this viscus had been closed, the lower and still patent portion of this opening was fixed to the open end of the duodenum by two rows of sutures, one row uniting the edges of the mucous membranes, the other the edges of the serous coats. The author attributes much importance to his method of stitching the divided coats together. He applies what is called a segmented spiroidal continuous suture. This consists in a series of short continuous sutures interrupted after every five or six stitches. The continuous is preferred to the interrupted suture on account of its being more readily applied, and thus lessening the duration and severity of the operation. The subject of this case made a speedy and good recovery. She was able to leave her bed on the eighteenth day, and on the twenty-sixth seemed to be quite well. The paper concludes with the following summary of the author's views concerning pylorectomy: (1) It is an operation which undoubtedly holds the first place from a surgical point of view in the treatment of cancer of the stomach; (2) it is suitable in cases of gastric cancer with slight adhesions, which condition, however, is unfortunately but seldom met with when surgical aid is first called in; (3) when it cannot be performed under favourable conditions, the surgeon should fall back on the operation of gastro-enterostomy; (4) operative treatment is the only means of contending against a disease so frequent and formidable as gastric cancer, and therefore it should be resorted to in good time and with boldness, those cases being rejected in which the patients are decidedly cachectic and the disease too far advanced for any surgical interference.

(411) Intussusception.

Baur (*Berlin. klin. Woch.*, Nos. 33 to 35, 1892) gives a detailed account of 9 cases of intussusception treated in Leibermeister's clinic at Tübingen between 1871 and 1891. He says that in some cases intussusception may exist even for months without producing adhesions between the serous coat of the invaginated part and that of the sheath. The commencement of the disease is most commonly acute, and is sometimes preceded by gastro-intestinal affections. In these cases partial or complete obstruction of the intestinal lumen takes place, accompanied by a stasis of the contents of the bowel above the point of obstruction and symptoms of strangulation. In those cases in which the abdominal walls are not too thick and meteorism is not a marked feature, by palpation it is possible to feel either a definite tumour or a localised area of deep resistance. The tumour is sausage-shaped, somewhat hard in consistency, and is most easily palpable during the periods when the patient is suffering from severe attacks of colic. The tumour often changes its position in the abdominal cavity as well as the direction of its long axis. In a few cases, when the intussusception occurs in the lower part of the intestine, the tumour can be felt with the finger introduced into the rectum. Spontaneous cure may take place by expulsion of the invaginated part *per rectum*, and in some cases reduction of the intussuscepted mass is followed by recovery. As regards treatment, if palliative measures are to be adopted, the patient must be kept in bed and fed upon a diet which produces very little solid residue. Opium or morphine must be given either by the mouth or subcutaneously for the alleviation of pain and the attacks of colic. This is especially indicated when the attacks of vomiting are violent. In some cases copious lukewarm water enemata administered through a long india-rubber tube passed some distance up the intestinal canal were found to be very efficacious. In those cases in which active surgical interference is requisite, the author advises that a laparotomy should be done, followed by a manual reduction of the intussuscepted part if no adhesions of the adjacent serous surfaces have formed. If, however, reduction in this way is prevented by the presence of adhesions, resection of the affected part must be performed and the two ends of the intestine brought together with sutures. Out of the 9 cases reported, 7 terminated fatally and 2 recovered. According to Leichenstein, in those cases in which expulsion of the invaginated part takes place the prognosis is somewhat better than in those in which this does not take place; the mortality of the former is 41 per cent. and in the latter 85 per cent.

(412) Death following Enucleation of an Eyeball for Chronic Panophthalmitis.

Kalt (*Annales d'Ocul.*, September, 1892) reports two cases occurring in his practice in July and August, 1891. The first case was that of a vigorous man, aged 59, who came under care suffering from a large perforating ulcer of the cornea with prolapse of the iris and vitreous. Enucleation was performed; the operation went smoothly; the orbital cavity was washed out with the sublimate lotion, a suture put in the conjunctiva, and iodoform dressing applied. Twenty-four hours later the patient had a rigor, with high temperature; on the two following days violent headache, fever, and delirium; on the fourth day coma and death. The necropsy, made twenty-four hours after death, revealed a purulent meningitis of the convexity of the hemispheres anteriorly. No abscess in the brain substance. The orbit appeared normal to the naked eye, and there was no pus in the sheath of the optic nerve nor in the sinuses at the base of the skull. Microscopic examination of the meninges, after staining by Gram's method, resulted in the discovery of micro-organisms identical with pneumococci. The excised eyeball showed suppurative hyalitis and choroiditis; lens absent. Numerous groups of micrococci were found in the suppurating tissues. The second case was that of a boy, aged 6, whose right eye was wounded in the ciliary region; the iris prolapsed through the wound; one month later the eyeball was shrinking and painful. Enucleation was performed; the conjunctival incisions healed readily, and the child left the hospital on the eighth day. Nine days later he became suddenly ill, with severe vomiting, followed by delirium, coma, and death in forty-eight hours from the onset of symptoms. Subsequent inquiry elicited a statement from the parents that for a few days preceding the sickness, etc., the child had been strange in his manner, and more irritable than usual. No *post-mortem* examination was obtained. The excised eye, on examination, showed a chronic purulent choroiditis and hyalitis. The author considers that the case belongs to the same category as the previous one, but adds that this is probably an incorrect diagnosis, as the child was in a house in which scarlet fever was prevalent, and had been in contact with the affected inmates.

(413) Operative Treatment of Hydatid Cysts.

Morchet (*Revue de Chirurgie*, September, 1892) recently communicated to the Société de Chirurgie of Paris a case of hydatid cyst of the spleen treated with complete success by laparotomy. The patient was a woman, aged 50, who for ten years had suffered from dyspeptic symptoms, and had been aware of the gradual development of a swelling on the left side of the abdomen. This swelling during the last two years had been painful. The left hypochondrium was occupied by a large tumour, which seemed to be made up of two large cysts containing fluid. On opening the abdominal cavity the tumour was found to be a large hydatid cyst of the spleen. The sac was incised and emptied, and afterwards fixed by suture to the edge of the external wound and drained. The patient was quite well after an interval of some few months. At the next meeting of the same Society Bouilly presented a lad from whom a hydatid cyst of the lung had been removed by pneumotomy. The precise diagnosis of the case had been indicated by the character of the expectoration, and confirmed by exploratory puncture. The situation of the tumour having been clearly defined, Bouilly made a curved incision in the third intercostal space, resected the third rib, and exposed the cyst which was adherent to the pleura. After the sac had been freely incised and emptied, it was extirpated without any difficulty. The patient was completely cured at the end of fifteen days.

MIDWIFERY AND DISEASES OF WOMEN.

(413) Double Ovariotomy at the Third Month of Pregnancy.

Polaillon (*Archives de Tocol. et de Gynéc.*, October, 1892) reports this case. The patient first noticed an abdominal swelling when 23 years old. For six years it increased slowly, and gave little or no trouble. In the autumn of 1891 much discomfort was experienced, which interfered with the patient's work as a laundress. On December 28th she was attacked with violent abdominal pain. On admission into a hospital a cystic ovary was detected, with pregnancy. The patient was in a very bad general condition. She was emaciated, feverish, and in great pain. Immediate operation was indicated, and performed on January 12th, 1892. The tumour was on the left side, with strong vascular adhesions to the omentum, intestines, and right Fallopian tube. The right ovary was cystic and as large as a hen's egg. Both cysts and appendages were removed. The uterus was scrupulously left alone. On June 29th the patient was naturally delivered of a healthy, well-formed female child. The placenta was normal. The cicatrix of the ovariotomy had not yielded in any respect; it was deeply pigmented. The patient had an abundant supply of milk, and nursed her child satisfactorily. The catamenia, according to the patient, had been absent five months when she was admitted into hospital, but it is evident from the after-history that she was about three and a-half months' pregnant when the operation was performed.

(415) Ectopic Gestation.

Pinard (*Ann. de Gynéc.*, August and September, 1892) relates twelve cases of extrauterine pregnancy in which the fœtus died, and operation was performed after the sixth month. Eleven recovered and one died; the operation in the fatal case was performed *in extremis*. In only one case was there any history of previous disease of the genital tract. In all abnormal symptoms appeared before the end of the first month, due to peritonitis and to intestinal and vesical irritation. In most of the cases no decidua was passed. The period is always suppressed in ectopic gestation, and does not reappear until several months after the death of the fœtus. The relation of the uterus to the sac is indefinite. In one of Pinard's cases it lay in its normal position. It may be pushed backwards or aside. As a rule, it is pushed forwards. The cyst is nearly always fixed by adhesions, yet it may be perfectly movable. Pinard declares that he has noticed strong contractions of the wall of the sac, as in a normal gravid uterus. The sac may be inseparably adherent to intestine. It always includes two compartments, one for the fœtus and one for the placenta, and they may rupture separately. The fœtal compartment may be bilobed and so constricted at certain points as to render the complete extraction of the fœtus impossible; thus, in one case, Ribemont-Dessaignes was obliged to decapitate, and the head could not be extracted until the nineteenth day after the removal of the body, and three days after the last piece of placenta came away; even then it had to be crushed with forceps. The fœtal sac is undoubtedly, in many cases, more accessible from the vagina than from the abdomen. Two out of Pinard's twelve cases were "elytrotomies," the remainder being abdominal sections. The surgeon is by no means called upon or justified in removing the sac in all cases. The indication is what the French conveniently call simple exteriorisation of the cyst cavity. Rupture of the sac late in pregnancy may not cause either peritonitis or hæmorrhage. The intestines may tolerate the presence of a fœtus free in the abdominal cavity. These facts seem to prove (in Pinard's opinion) that after the fœtus has been three months dead the placenta may safely be removed complete during the operation. Death of the fœtus may involve grave acute symptoms, as in Pinard's fatal case, where there was urticaria and suppuration, rupture of the cyst and peritonitis. In conclusion, judicious surgical interference is always called for in the later stages of ectopic gestation. The surgeon must not be too ready to prefer abdominal section to opening of the sac through the vagina.

(416) Extrauterine Gestation Simulating Parametric Abscess.

Lenger (*Journ. d'Accouchements*, Liége, October 15th) recently had under his care a patient, aged 29. She had borne three children, and afterwards, eight years before coming under observation, she had aborted. In 1886 she was under treatment for some uterine affection. On April 23rd, 1892, the period appeared as usual. There was slight "show" throughout the greater part of May. At that time she vomited watery fluid in the morning, and fancied that she might be pregnant; but, taking the "show" for the catamenia, she soon gave up that idea. Severe pain, rigors, and fevers occurred at the end of May. The period occurred on May 25th and on June 25th, when the "show" was scanty. On July 2nd she was admitted into hospital, thin, pale, and cachectic. She suffered from violent pains in the abdomen, which was bulky and tender. There was a swelling on the right side of the pelvis, soft and fluctuating, pushing the uterus to the left and forwards. The history seeming to indicate suppurating parametritis, Lenger made a small incision in the posterior vaginal fornix. Fœtid dirty-red fluid escaped. The finger was introduced into the cavity, and a solid body was felt. This was removed; it was a fœtus, 4½ inches in length and in a state of decomposition. The opening was enlarged and freely washed out with a carbolised solution; placental fragments came away. A few hours later free hæmorrhage into the cavity took place, and the patient fainted, but was revived. The cavity was packed with iodoform gauze for several days, free douching of the cavity preceding each fresh dressing with the gauze. During the first few days the temperature ranged from 101° to 103°, and it did not fall to normal until July 20th. Recovery was complete. Lenger remarks that the symptoms were distinctly misleading. Morning sickness may occur in many other conditions besides pregnancy; the "show" confused the menstrual record, and no decidua was expelled, nor was there spasmodic pain, as is so frequent in tubal gestation.

(417) "Conglutinatio Labiorum."

Ross (*Centralbl. f. Gynäk.*, No. 15, 1892), in reference to a case of "conglutinatio," or adhesion of the labia in children through inflammatory changes, published by Sänger last year, describes a second in his own practice. The child was about a year old; the urine escaped in a stream directed forwards. The adhesion of the labia was unusually firm, so that it could not be broken down by simple traction. A director was passed carefully through the adhesion and the labia divided by short snips with dressing scissors. There was some bleeding when the posterior part of the adhesion was cut through; but the hæmorrhage was thoroughly stopped by pressure. Ross also notes that he was once sent for by a colleague to pass a catheter for a patient who had suffered for twelve hours from retention of urine. Pregnancy had been diagnosed. Ross saw at once that a large hæmatocolpos, existed. On palpation the distended bladder could be felt above the pubes, and behind it was the hæmatocolpos which reached to the umbilicus. The uterus, swollen and movable, could be distinguished on the top of the swelling. The obstructed vagina bulged at the labia; as soon as the prominence was pushed back, the catheter could easily be passed. The abnormality was successfully treated by operation. An elder sister of the same patient had also suffered from hæmatocolpos, which likewise caused retention of urine.

THERAPEUTICS.

(418) Thyroid Grafting in Myxœdema.

At the recent Congress of the French Association for the Advancement of Science, Bouchard (*Arch. Gén. de Méd.*, October) presented a communication in which he stated that as far back as in 1887 he had had a woman suffering from myxœdema under his care in the Lariboisière Hospital. It occurred to him to make some physiological experiments on the function of the thyroid gland, and with that view he removed the organ from twelve dogs, and placed all the twelve thyroids inside the peritoneal cavity of a thirteenth dog. After time had been given for the grafts to take, the latter was deprived of his own thyroid. He survived the operation ten days, whereas the other dogs had all died within five days, and on *post-mortem* examination it was found that two of the twelve grafted thyroids were living, and had established vascular relations with neighbouring parts. There being diffi-

culties in the way of grafting dogs' thyroids in the human subject, Bouchard bethought himself of the feasibility of injecting thyroid juice instead. He was confirmed in this idea by the results obtained by Brown-Séquard with his injections of testicle juice, and he ultimately carried it into execution in conjunction with Charrin, both in the patient already referred to, and in another woman in the Charité Hospital. The results in both cases were astonishingly rapid, and highly favourable as regards the chief symptoms, both bodily and mental. The treatment was, however, attended with certain drawbacks —notably headache, and pains in the limbs and chest, which several times made it necessary to interrupt the treatment for four or five days. As to whether the thyroid juice is really the active factor in the therapeutic results obtained, or whether the same end might have been attained by injections of other organic liquids, Bouchard declines to commit himself. He expresses the opinion that the improvement is only temporary, and does not believe that actual cure is likely to be effected by the method.

(419) Hyoscyamus and Atropine Poisoning.

RUDOLPH (*Centralbl. f. klin. Med.*, October 8th, 1892) reports four cases of henbane and one of atropine poisoning. The former occurred in four brothers, aged 11, 9, 7, and 5 years respectively, who had eaten the seed capsules. Symptoms common to all four were red face, dilated pupils, dry lips and mouth, restlessness and mental excitement. In one case the symptoms were but slightly marked. In the boy, aged 5, there was a period of marked apathy preceding the excitement. In only one case was there a rise of temperature (38.3° C.), and in another case there was a scarlatiniform eruption on the thorax, and especially on the buttocks. In no case was the pulse more than 110. In two days' time all the boys were discharged well, but with dilated pupils. The treatment consisted in washing out the stomach, and the subcutaneous injection of morphine. The case of atropine poisoning occurred in a woman, aged 30. She was brought in by the police, who thought her insane. She was rambling, and her gait was uncertain. The face was red, the pupils widely dilated, the lips and mouth dry, the pulse 132, and the temperature normal. The fæces and urine were passed unconsciously. The stomach was emptied, and atropine found in the contents. Morphine was injected. In twenty-four hours her mind was clear, and she was discharged well on the following day. The symptoms of atropine and hyoscyamus poisoning are almost alike. The mental condition is one of excitement, combined in henbane poisoning with hallucinations. These hallucinations may be absent in atropine poisoning. The tendency to sleep in the former condition was not noted at the beginning of any of the cases, but the deep coma in the boy, aged 9, the author would attribute to the action of the poison, and not to the small dose of morphine given. In this condition the pupils, as in ordinary sleep, were minutely contracted. Morphine is a very useful remedy to overcome the mental excitement, but it should not be given in too small doses.

(420) Subcutaneous Injections of Phosphate of Soda in Nervous Affections.

CROCQ (*Gaz. Méd. de Liége*, October 20th) has tried subcutaneous injections of phosphate of soda (2 g. in 100 g. of laurel water) in nervous diseases. Three cubic centimetres of this solution were injected under the skin of the arm or leg with strict antiseptic precautions, at first every day and afterwards on alternate days. No reaction, local or general, followed; only a slight feeling of heat at the seat of injection was complained of, but this disappeared in a few minutes. The author states that the drug, used in the manner described, is a powerful nerve tonic, which will effect a cure in cases of functional disorder, but can only have a palliative action where organic lesions of nerve centres are present. He recommends the method as equal in efficacy and much superior in simplicity to the injection of testicle juice, as practised by Brown-Séquard, or "nervous transfusion," as recommended by Constantin Paul (see EPITOME, March 19th, 1892, par. 254). He relates several cases (locomotor ataxy, etc.) in which the injections of phosphate of soda were followed by highly satisfactory results.

(421) Treatment of Lupus.

ROBINSON, of New York, who had found pyoktanin to be without effect in cancer and lupus (*Journal of Cut. and Gen. Urin. Diseases*, September, 1892, p. 365), has conceived the idea that such patients should be fed with the flesh and secretions of animals not liable to tuberculosis, as fish, lobsters, etc., and the flesh and milk of goats, upon the theory that the human protoplasm takes on the molecular constitution and properties, to a large extent, of the protoplasm of the organism upon which it feeds. By this course he believes the soil may be made unfavourable for the existence in it of the bacillus of tuberculosis.

PATHOLOGY.

(422) Immunising Principle in the Blood of Animals treated by Tuberculin.

CENTANNI observed that with the aid of tuberculin the resistance of guinea-pigs to tuberculosis could be very considerably increased, animals previously inoculated with the disease and afterwards treated with the lymph often surviving the controls for considerable periods, and presenting after death only slight and recent changes. This gave the impression that, for a time at least, the tuberculin had kept the infection localised to the point of its introduction, this being still more likely from the fact that the chief lesions were always in this neighbourhood. An explanation of these facts might perhaps be furnished if it could be proved that by the action of tuberculin on the animal a protective substance, similar to those found in some other diseases, was produced. This question Tizzoni and Centanni set themselves to study with the following results (*Rif. Med.*, December 11th, 1891): Taking the blood of tuberculous guinea-pigs which had been treated with the lymph, they separated the serum, and tested its action first on the tubercle bacillus outside the body, and then on the course of tuberculosis in the guinea-pig. To see the effect in the first case, a culture of virulent tubercle bacilli was mixed with some of the serum, and after standing for a time was used to inoculate eight guinea-pigs. As a result, at the time of writing three were dead, two had survived for four months, two five months, and one six months, all these latter being in good condition, but presenting local tuberculous lesions of varying importance at the seat of injection and in the neighbouring lymphatic glands. In the second series two guinea-pigs were used, an injection of serum being made into the peritoneum, this being followed by another injection of tubercle bacilli into the auricular vein. As regards these animals, both died, one at the seventeenth week, and the other at the sixteenth week, the first showing tuberculous changes only of recent date, and the second only a small quantity of tubercle in the lungs, while the spleen appeared contracted, as if a process of cure were taking place. Both these animals lived considerably longer than the controls. To the first series must be added two animals which died in a short time, before the controls, on the fourth and fifth week respectively. These might well have owed their acute disease to an imperfect mixture of the serum with the bacilli, and should not invalidate the general good results obtained. It is suggested that repeated injections of the "protective" serum would probably yield better results, and from an extensive series of experiments at present being carried out, the authors are disposed to think that this method should yield results as reliable and considerably safer than those obtained with the original Koch's lymph. They hold that the good effects obtained in some cases with this substance are due, not to a direct action of the lymph on the bacilli, but to the formation of a defensive substance as the result of its action on the organism.

(423) Histology of Psoriasis.

SCHUTZ infers (*Archiv f. Derm. und Syph.*, 1892, 5 Heft) from his studies of the histology of psoriasis that in this disease there is unusual development of elastic fibres. He found in sections from psoriatic skin that these fibres were larger and more numerous than in any sections of the skin which he had previously seen. He could trace without difficulty minute elastic fibres from the papillæ into the rete mucosum as far as the second or third layer of cells. In normal skin the same relation of elastic fibres to the cells of the rete could be observed but with much more difficulty, and fewer fibres were visible.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(424) Empyema.

Herz (*Centralbl. f. klin. Med.*, October 15th, 1892) maintains, in reply to Rudolph (Epitome, May 28th, 1892, par. 468), that, except in some unusual cases, resection of a rib complicates the operation as washing out the pleural cavity does the after-treatment. The delicate pleuritic adhesions by which the re-expansion of the lung is maintained are broken down by the washing out and the recovery delayed. Any masses of lymph find their way out through a sufficiently long incision kept open by two drainage tubes, or are absorbed without retarding recovery. The washing out is said by Rudolph also to exert a certain influence in producing deeper respiratory movements, and in thus favouring the more rapid re-expansion of the lung, but the same effect can be brought about in other ways. It is also stated that the washing out cannot be omitted in cases of fœtid empyema, but Herz points out that a thorough disinfection of the parts is not possible, since the infective process is not limited to the mere surface of the pleura. A case of fœtid empyema is then reported in which the patient died of cardiac failure six days after the operation. No rib was resected, and no washing out practised, and yet the empyema cavity had contracted so as to hold not more than 30 c.c. Fine pleuritic adhesions were found all over the rest of the lung. No cause for the fœtid character of the empyema could be found. There was dilatation of the heart, and marked fatty degeneration of its substance. This case shows that fœtid empyema may be cured by simple incision. It is not by the formation of granulations nor yet of masses of lymph that recovery is brought about, but by the formation of these adhesions.

(425) Serous Cysts of the Cerebellum.

Williamson (*Intern. Journ. of Med. Sci.*, August, 1892) observes that a cerebellar cyst can only be classed as simple or serous when the history and minute pathological examination have failed to show any evidence of hydatid disease, cysticercus, hæmorrhage, and more especially of tumour growth. It even seems more probable that so-called serous or simple cysts have been cystic tumours in which cystic degeneration has been so marked that the whole tumour has disappeared, or only a small portion has remained behind and has escaped detection. These points are illustrated by the two following cases: (1) A man, aged 27, first suffered from headache fourteen months ago. Six weeks ago his sight began to fail, and two weeks ago his gait became staggering. On admission there was no paralysis of the facial, ocular, or tongue muscles, or of the muscles supplied by the motor branch of the fifth nerve. There was no anæsthesia. There was marked optic neuritis, with hæmorrhages. He died in deep coma. The ventricles of the brain were found distended. The cyst, of the size of a pigeon's egg, occupied the right lobe of the cerebellum, and was apparently a so-called simple cyst, but a careful examination of the cyst wall revealed a minute growth, presenting the structure of a very vascular glioma. (2) A woman, aged 43, had suffered from headache and vomiting for two years. Five months ago the gait become unsteady. On admission there was no paralysis of the facial, ocular, or tongue muscles, nor of the muscles supplied by the motor branch of the fifth nerve. There was optic neuritis. The patient was deaf in the right ear, as the result of old middle-ear disease in childhood. She died more or less suddenly in the night. A cyst was found in the right cerebellar lobe, apparently of the simple kind, but minute examination revealed in its wall a small nodule of gliosarcoma. Cerebellar tumours, cystic tumours, and serous cysts give rise during life to the same symptoms, hence a differential diagnosis is not possible. Cystic degeneration is much more frequent in cerebellar than in cerebral tumours. Hitherto operations for the removal of cerebellar tumours have been extremely unsuccessful. It is worth considering, however, whether it might not be justifiable in some cases presenting symptoms of cerebellar tumour to trephine and puncture the cerebellum with a fine hypodermic needle, and if fluid were obtained to drain and treat as an abscess. This could only be thought of after other treatment had failed, and the history made tuberculous or syphilitic tumour improbable, and especially where there was some indication as to the side affected. In a minority of cases the lesion would be cystic.

(426) Experimental Epilepsy.

On testing the effect of hydrastin upon the electric excitability of the cerebrum in dogs and guinea-pigs, Kisseljow (*Neurolog. Centralbl.*, October 1st, 1892) found that the drug, when injected into a vein or beneath the skin, greatly reduced the excitability of the brain cortex, and, in a minor degree, that of the cerebral white substance, though doses, which afterwards were lethal, did not quite abolish reaction to the induced current. A series of gyration experiments showed that when the head of the animal was placed at the centre of the revolving disc, anæmia and diminished excitability of the brain mantle resulted, and convulsions that had been induced by absinthe or strychnine ceased.—Gallerani and Lussana (*ibid.*) have observed that kreatinin applied to the brain cortex of dogs and rabbits quickly produced epileptic convulsions and choreiform movements, while, if injected subcutaneously, no such results followed. As convulsions were absent when kreatinin was placed on the brain surface of pigeons, the authors concluded that in them there is no localisation of psychomotor centres. The timid, fluttering, and *manege* movements educed by chemical excitation of the hinder portions of the surface of a pigeon's brain were attributed by the authors entirely to terrifying hallucinations. In contrast to the selective cortical action of kreatinin, they assign to cinchonidine a special influence upon the basal ganglia. Cinchonidine convulsions from cortical application were always bilateral, and commenced with very slow contractions. Kreatinin convulsions invariably began on the side of the body opposite to the hemisphere upon which the substance was placed. Cinchonidine never excited choreiform movements. The authors conclude that chorea, as contrasted with epilepsy, always is of exclusively cortical origin.

(427) Wernicke's Hemianopic Pupillary Inaction.

Leyden (*Neurol. Centralbl.*, August 15th, 1892) has met with a case in which the localising value of this sign was confirmed by necropsy. The patient, aged 69, had left hemiplegia with right homonymous hemianopia. On illuminating the right half of either retina the pupil remained unchanged. When light was thrown on the left half of either retina marked contraction of the pupil occurred. In the right lenticular nucleus a fusiform patch of softening was found extending into the cerebral peduncle and partially involving the optic tract.

(428) Primary Carcinoma of the Common Bile Duct.

May (*Münch. med. Woch.*, August 16th, 1892) reports the following case in a man aged 67: who was said to have suffered formerly from renal colic. In the winter of 1890 he had influenza, and since then cough and dyspnœa. There were no hepatic symptoms, and he had never had jaundice. About six months later he had symptoms which were apparently due to myocarditis and cardiac dilatation. The liver was then noted as enlarged. In January, 1891, he lost his appetite and began to waste considerably. Jaundice, which had been present for a short time, became intense. It was often thought that this was the result of something more than mere back pressure, but the supposition could not be proved. Later there was general dropsy. In February, 1892, he was suddenly seized with intense pain in the right hypochondrium and vomiting. He died of collapse in two days. The heart was found to be enlarged and dilated, and the substance degenerate. There was suppurative peritonitis. There were a few small stones in the gall bladder, the walls of which were perforated in one place. Similar stones were found in greater numbers in the cystic duct, and also in the much-dilated common bile duct. At the opening of the latter into the intestine there was an annular mass of new growth, which partly projected into the lumen of the gut. The liver was enlarged, of a dark

green colour, and contained secondary deposits of columnar carcinoma. Schüppel says that the characteristic symptoms of this disease are steadily-increasing jaundice, showing no improvement, along with symptoms of biliary stasis and hepatic enlargement, but that often the diagnosis is almost impossible. The disease here lasted apparently about a year. Most of the recorded cases have died of pneumonia. It would appear from this case that gall stones play a part in producing carcinoma. Of 9 reported cases, however, gall stones were only present in one, and then they were still in the gall bladder. The author calls attention to the well-marked but passing benefit to the appetite produced by orexin in this case.

SURGERY.

(429) Artificial Anus.

CHAPUT (*Archiv. Gén de Méd.*, October, 1892) describes a new operative procedure devised by himself for the establishment of an artificial anus. The parts in the left inguinal region are rendered anæsthetic by means of cocaine, and then an incision is made parallel to Poupart's ligament and opposite the anterior superior iliac spine. The abdominal wall is then cut through, and the intestine brought into the wound. The intestine is next fixed on each side to the margin of the wound with pressure forceps. Each pair of forceps is fixed so as to hold in apposition the intestinal wall, the peritoneum, and the muscles in the lateral margins of the wound. Eight pairs of forceps are used; these are left on for twenty-four hours and then removed. The parts are washed with chloride of zinc solution, covered with an antiseptic pad, fixed with a bandage. The same operation may be carried out after complete resection of the gut in cases of tumour or of intestinal gangrene. In this manner four cases have been operated upon by the author, in three of them with good results. The first was a woman, aged 29, with syphilitic stricture of the rectum. The bowel was incised at the time of operation. The second was for cancer of the rectum. The bowel was opened next day with the thermo-cautery after removal of the forceps. The third was for syphilitic stricture of the rectum, and was treated in the same way as the second, whilst the fourth was for intestinal obstruction coming on four days after abdominal hysterectomy. The intestine was incised at once, but a fatal result soon followed.

(430) Laminectomy for Pott's Paraplegia.

S. LLOYD, of New York (*Annals of Surgery*, October, 1892) has collected details of seventy-five cases of Pott's paraplegia treated by laminectomy. From the study of these cases he has formed the conclusion that laminectomy ought to be performed (1) in cases where posterior spinal disease has been made out as the cause of paraplegia; (2) in cases where the lesion seems to indicate the failure of mechanical treatment—namely, where dislocation has occurred, or where a sequestrum is causing the compression; (3) in cases when, during the employment of intelligently applied apparatus, the symptoms continue to increase in severity; (4) in cases when, after a certain period of careful mechanical treatment—say eighteen months—the condition has remained stationary; and (5) in cases where pressure myelitis threatens the integrity of the cord. The operation, he says, is contraindicated in cases where there are other complicating tuberculous lesions, and when mechanical treatment has not been applied. In all cases when sinuses lead down to or can be safely straightened, so as to allow the probe to explore the abscess cavity with which they communicate, the author advises that they should be enlarged so as to provide free drainage, and, if sequestra are present, they should be removed. The statistics of the cervical cases are slightly less favourable than in other regions, but the dangers to life without operative interference are greater still. One cervical case died from imhibition of the phrenic nerves; hence lesions at the level of the third and fourth spinal nerves are particularly dangerous to life. In these cases, however, pachymeningitis is liable to extend upwards, and by pressure causes respiratory difficulties; hence when any symptoms of inflammatory conditions of this part of the cord occur, it is advisable to perform an operation.

(431) Isolated Hernia and Strangulation of the Appendix Vermiformis.

THIÉRY (*Bull. de la Soc. Anat. de Paris*, July, 1892) reports a very rare, if not unique, case of isolated hernia of the appendix vermiformis. A man, aged 58, came under the care of M. Verneuil with a very large, tense, and painful swelling in the left groin. This swelling had been noticed for eight months, but could always be readily reduced until three days previously, when in a brisk movement the man was suddenly seized with intense pain in the affected inguinal region. Subsequently he vomited frequently, but up to the time of admission his bowels had been frequently relieved, and gas could be passed by the anus. On incision of the inguinal swelling, which resembled in every respect a strangulated hernia, it was found to be made up of numerous layers of brownish, infiltrated, and friable tissue. At the bottom of this thick mass a small cavity was opened, which contained a small quantity of fluid with a strong fæcal odour. On opening up this cavity, which proved to be a narrow peritoneal sac, a gangrenous cord was exposed, which, after section of the constricting neck of the sac, was traced upwards and found to be the distal portion of the appendix vermiformis, measuring about 8 inches in length. This had been tightly strangulated at the junction of the inferior with the middle third. It was gangrenous below the constriction and perforated at its extremity. A ligature was put around the appendix close to the cæcum, and nearly the whole of the process was removed. The infiltrated structures forming the bulk of the inguinal tumour were carefully dissected away. The patient made a good recovery.

(432) Treatment of Detached Retina by Schoeler's Method.

BADUEL (*Rif. Med.*, May 19th to 21st, 1892) has tried a modification of Schoeler's method of treating detached retina, the points of difference being (*a*) in injecting a glycerine solution of iodine instead of the tincture; (*b*) in injecting into the postretinal sac as well as into the vitreous; (*c*) in first removing the postretinal exudation. As regards the first point, the glycerine solution, while not so irritating as the tincture, yet sets up enough choroido-retinitis; in the others he followed a plan adopted by Galezowski. The author found that just the same changes took place in the eyes of 5 cases thus treated as in Schoeler's cases. The irido-choroiditis was, however, less intense, and there were no cataractous changes induced in the lens, as had happened in some of the cases treated by the original method. The results seem to have been good as far as the actual reunion between the choroid and retina, but the improvement in vision was almost inappreciable—possibly because the cases chosen were not sufficiently recent, but probably, as the author suggests, because it does not by any means follow that re-union means restoration of the physiological functions of the retinal elements.

MIDWIFERY AND DISEASES OF WOMEN.

(433) Cancer of the Vagina: Exfoliation by Caustics.

VEIT (*Centralblatt f. Gynäk.*, No. 16, 1892) exhibited before the Berlin Obstetrical Society an exfoliated vagina, bearing a large cancerous ulcer in the posterior fornix. The patient was a woman, aged 60, very decrepit, who consulted Veit on account of a fœtid discharge. On digital exploration, malignant ulceration was detected. It was also found that the connective tissue between the rectum and vagina was infiltrated, so that a radical operation was out of the question. The surface of the ulcer was scraped with a sharp spoon, and a tampon soaked in a 50 per cent. solution of chloride of zinc was applied to the raw surface. Ten days later the entire vagina came away, having exfoliated through "dissecting suppuration." The same kind of exfoliation has been seen in the uterus (Dumontpallier) and cervix (Van de Warker, Ehlers) when treated for cancer in a similar manner. Schröder has dissected away an entire vagina for cancer; but in Veit's case that operation was impracticable; and, after all, recurrence occurred very rapidly in Schröder's case. In Veit's patient, ten days after the exfoliation of the vagina, the wound, which had granulated freely, was completely closed. The vaginal

canal no longer existed, the vulvar cleft being closed in by mucous membrane. In a woman, aged 60, there was, in Veit's opinion, no fear of any bad results from distension of the closed-up uterus.

(434) Apoplexy of the Ovary: Alleged Ovarian Pregnancy.

Eberhart, of Cologne (*Centralbl. f. Gynäkol.*, No. 41, 1892) was called in on May 20th, 1892, to a woman, aged 33, who had become greatly emaciated in six months, and had been laid up for four weeks with fever and pelvic pain. Her last confinement was on September 7th, 1892. The period had reappeared in January, and had since then been irregular with profuse show. The uterus was anteflexed, the right appendages appeared to be normal, the left ovary was low down and felt as large as a hen's egg, the thickened left tube could be distinguished, as the abdominal parietes were very thin. Ovarian abscess was suspected. On May 31st Eberhart operated. The enlarged left ovary was held down by strong adhesions; it was also covered with false membranes. The left appendages were removed, and an iodoform drain was inserted in the lower end of the abdominal wound. On its removal on the third day, the temperature rose, and the abdomen became swollen. The pelvis was drained through the vagina by a T-shaped tube. Much bloody serum escaped; the tube was removed two days later. On June 4th there was collapse, from which the patient recovered. She was quite well three weeks after the operation. The ovary showed hæmorrhage into its stroma, beginning at the hilum; some of the follicles were also full of blood. The ovary had ruptured, and the blood had escaped into a free cavity between the surface of the organ and the ostium of the tube, bounded externally by the false membranes which had prevented the escape of blood into the peritoneal cavity, and saved the patient. There was an idea that the case might represent primary ovarian pregnancy so the clot and ovarian tissue were examined, but not a trace of chorionic villi could be detected. Eberhart adds that another specimen which he exhibited at the fourth meeting of the German Gynæcological Congress at Bonn as a suppurating ovarian pregnancy had proved to be a simple ovarian abscess. The structures which were at first taken for chorionic villi were simply granulation tissue in the wall of the abscess.

(435) Fever in Recently Delivered Women.

Crouzat (*Midi Méd.*, July 9th) strongly advocates the popularisation and general diffusion of complete antisepsis from the first in all labours, however simple; otherwise a strong healthy young woman may often be lost, and for such a loss the obstetrician or midwife is responsible. Crouzat describes a sad case of this kind. The patient, aged 26, was naturally delivered on the night of May 29th; the placenta came away entire, and she did well till the second day, when rigors and fever set in. The abdomen became distended. The blood drawn from the patient's finger was full of streptococci, and set up erysipelas when inoculated into a rabbit's ear. The patient died on June 6th. The uterus was fixed by solid inflammatory deposit which filled the fornices. The public and the profession must understand that "milk fever" does not exist. A rise of temperature of over 100° in a patient delivered within two or three days should at once awaken suspicion of puerperal infection, and rigorous antiseptic treatment will at once be needed. Yet, with the greatest skill and care, that patient may be lost. Hence it is the duty of the obstetrician to prevent any chance of such rises of temperature by taking strict antiseptic precautions in the conduct of all cases of labour.

(436) Escape of Contents of Cystic Uterine Fibroid through Vagina.

Matlakowsky and Przewoski (*Centralbl. f. Gynäk.*, No. 12, 1892), in a monograph on cystomyoma uteri published last year in a Polish paper, give full notes of one case of this relatively rare disease in which remarkable clinical symptoms were observed. The patient was 34, and she noticed that for several years dysuria and hypogastric swelling followed each period. A tumour had been recognised for three years. About a week after each period a transparent fluid ran from the vagina, and the tumour became smaller, so that before the next period it lay hidden behind the symphysis. Micturition was then free. Matlakowsky could introduce the uterine sound nearly 10 inches when the tumour was at its largest. The blunt end of the instrument could then be felt as though close under the skin in the umbilical region. The escape of a quantity of amber-coloured fluid was watched through the speculum on one occasion. The tumour was found to diminish at the same time, and its subsequent increase was carefully marked. The tumour involved the posterior lip of the os. Hysterectomy was performed, and the patient recovered. The tumour was pathologically a cavernous lymphangioma; dilated lymph channels had pushed aside the uterine muscular tissue, so that the tumour consisted of a network of fibrous tissue enclosing lymph spaces. The wall of the tumour on the uterine aspect had yielded at each period, discharging the lymphatic contents of the spaces.

(437) Primary Cancer of Labium.

Zeiss, of Erfurt (*Centralbl. f. Gynäk.*, No. 40, 1892) was consulted in 1887 by a robust woman, aged 38, the mother of three children. She had noticed a small tumour in the external parts for five months. For four weeks it had caused pain. It formed a swelling of the size of a hazel nut in the posterior part of the right labium minus; its inner aspect was ulcerated. The inguinal glands were not involved. Zeiss carefully amputated the entire labium with Paquelin's cautery. The microscope proved that the growth was cancerous. In 1889 she became pregnant, in 1890 she bore a child, and, when suckling it, a swelling developed in the left breast. It slowly grew, and in the summer of this year began to be the seat of lancinating pains, most marked in bad weather or during menstruation. In February, 1892, irregular floodings began. In August, exactly five years after the removal of the labial cancer, Zeiss examined her once more. She was very much emaciated. The cervix was partly destroyed by a large excavated cancer, the uterus could not be removed. The inguinal glands were not involved, the scar of the old operation wound on the site of the labium was healthy. The left breast was the seat of scirrhus with retracted nipple, and two axillary glands were enlarged. There was no evidence of metastatic deposit in the viscera.

THERAPEUTICS.

(438) Asaprol.

Stackler (*Bull. Gén. de Thérap.*, No. 22, 1892) has a note on this new antiseptic. Asaprol is the calcium salt of β naphthol and monosulphonic acid, and occurs in the form of a white powder, very soluble in cold water (1 in 1½ of cold water, and 1 in 3 of alcohol); at 50° C. it undergoes decomposition. The tests for its presence in the urine are the same as those for naphthol. Asaprol is toxic to rabbits in the proportion of 50 centigrammes to each kilo. of body weight. Smaller doses are well borne. Clinically, Stackler has tested it in two cases of influenza with high temperature and great pain with the greatest success. In one case all symptoms were relieved in thirty-six hours, and in the other in forty-eight hours, although both quinine and antipyrin had been given without avail. The drug proved equally efficient in the various forms of rheumatism, especially in acute articular rheumatism. The author has besides obtained good results from its use in a number of other affections, such as gout, asthma, furunculosis, anthrax, various infective conditions, tonsillitis, etc. Gradually-increasing doses are recommended. Thus for adults the dose will be 2 grammes on the first day, 3 on the second, and 4 on the succeeding days, to be again gradually reduced when the desired antithermic action has been obtained. The drug should be given with plenty of water, so as to encourage diuresis. It may also be given by the rectum in doses of 2 to 7 grammes. The drug is incompatible with alkaline iodides, sulphates, and with most of the alkaline salts.

(439) Treatment of Hysterical Aphonia.

Bach (*N. Y. Med. Journ.*, October 22nd) says hysterical aphonia is due to the want of a proper central nerve stimulus. The greatest difficulty with the hysterical patient is the production of the first tone. This can always be overcome in a few minutes with the assistance of reflex action. For this purpose a mild irritant, whether mechanical or chemi-

cal, may be applied to the larynx so as to excite cough. When the interlaryngeal anæsthesia is great it may become necessary to inject some non-irritating fluid—for instance, warm water—into the larynx, which, running into the trachea, will readily induce cough. Having excited this cough once or twice, the patient will be able to reproduce it independently of the irritant. It now becomes a simple matter to continue this cough, and to pronounce more or less distinctly the vowel "a" at each effort, and after a few trials to substitute the vowel "e," and so on, until all the vowels have been coughed. After this is repeated several times the element of cough can easily be eliminated from the vocalisation when the pure vowel sound is left, which, without effort on the part of the patient, can be combined with consonants, as, for example, with "d," "ad," "ed," "id," etc., first placing the vowel before the consonant and then reversing this order. It would not be advisable to attempt the articulation of words at this stage; it is better to combine the vowels with single consonants, gradually increasing the duration of the sound. The patient is thus led to utter words without the power of resistance, either wilful or otherwise.

(440) Tannin and Boracic Acid in Dysentery.

E. A. Liebersohn (*Vratch*, No. 38, 1892) relates two cases of severe acute dysentery (in girls, aged 8 and 12 respectively), which he treated by hot (36° C.) enemata of tannin and boracic acid. The results seemed to show that (1) the injections speedily arrested intestinal hæmorrhage, (2) they quickly restored the natural character of the stools, (3) they as rapidly relieved tenesmus and pain, and (4) they materially shortened the course of the disease, convalescence being established in a few days. The enemata were given every three hours, each consisting of ½ fl. pound of a 4 per cent. solution of boracic acid, 10 grains of tannin, 3¾ drops of opium tincture (*Ph. Boss.*), and 1 or 1½ tumblerful of hot boiled water. The injected fluid was retained in the bowel for one or two minutes.

(441) Fuchsin Ointment in Paget's Disease.

Elliot, of New York, relates a case (*Journ. of Cut. and Gen. Urin. Dis.*, September, 1892) of Paget's disease in which remarkably good results were obtained by the application of a fuchsin ointment. The raw exuding patches healed, the entire surface becoming transformed into an area covered with a thin epidermis, cracked and fissured in places, with only a few points of exudation here and there. The characteristic granular appearance had become cicatrised in a space of from ½-inch to 1 inch around the affected part, the infiltration and scaling having completely disappeared and been replaced by a more or less pigmented surface. The formula employed was: fuchsin (chemically pure), 2½ grains; lanolin, 1 ounce; aq. rosæ, 7 drachms. The ointment was spread ⅛-inch thick on stout linen accurately applied to the part, and a thin layer of absorbent cotton was put over it. The dressing was changed twice a day. The strength of the fuchsin was increased gradually; but it was found that if more than 5 grains were incorporated in the ointment irritation was caused.

(442) Strontium Bromide in Vomiting.

G. Coronedi (*Lo Sperimentale*, Fasc. 3, 1892) has tried bromide of strontium in a number of cases of vomiting from various causes. The preparation is most successful as a gastric analgesic in vomiting of nervous origin. It is given in doses of 2 grammes twice daily immediately before meals. Its mode of action appears to be that of the other bromides, causing first diminution of the excitability of the nerve centres, and then of the nerve endings in the stomach. Of the bromides, that of strontium is the one which contains the least proportion of bromine; it seems probable, therefore, that some of the analgesic effect is due to the metallic element.

PATHOLOGY.

(443) The Albumoses and Toxins Secreted by the Bacillus Anthracis.

Petermann's work on the albumoses of anthrax (Epitome, February 13th, 1892) has induced Hankin and Wesbrook to reinvestigate the subject (*Ann. de l'Inst. Pasteur*, September). Hankin's earlier results were published in the British Medical Journal on October 12th, 1889, and July 12th, 1890. The authors think they have hit upon the explanation of Petermann's failure to find any immunising properties in the albumoses which he obtained. If the anthrax cultures be made at a temperature of 37° C., albumoses and peptones are formed, but the former will be found to possess no immunising action. If, however, the cultures be made at room temperature, different albumoses will apparently be produced corresponding in their properties with those originally described by Hankin. An infinitesimal dose of these substances injected into mice would confer an increased resistance to virulent anthrax. A number, varying between 10 and 50 per cent., of the animals resisted a single subsequent inoculation. Out of twelve animals which survived the first inoculation, eleven succumbed to a second, and the twelfth failed to resist a third inoculation. The protection is therefore only temporary. The following are the conclusions to which this further research has led the authors: (1) The bacillus anthracis forms, as a result of its growth, a proteolytic diastase which is capable of forming albumoses from proteid material, but possesses no immunising power against anthrax. (2) The bacillus produces directly another albumose, which can be obtained in a state of almost complete purity, if the cultivation be carried on in a medium of pure peptone. This albumose possesses distinct immunising powers. (3) In ordinary doses this albumose has no toxic effect upon animals which are susceptible to anthrax, but in animals which are comparatively resistant, it acts as an energetic toxin. (4) In young rats the albumose gives rise to no toxic effect, though in adult animals it produces acute poisoning.

(444) Sporozoa in the Graafian Follicles and Ovum.

Podwyssozki, jun. (*Centralbl. f. allgem. Path.*, iii B., No. 14, August 15th, 1892) has found sporozoa, belonging probably to the group coccidium oviforme, in the Graafian follicle and ovum of the rabbit. This he believes is the first time that parasites have been discovered in the ovum of vertebrates. Notwithstanding that the structures referred to were unencapsuled, and failed to present the characteristic coccidial spore-formation, the resemblance they bore to young (unencapsuled) coccidia from the liver of the same rabbit was sufficient evidence of their parasitic nature. In detail, the appearance of the affected Graafian follicle and ovum was as follows:—The follicle, to the naked eye, appeared as a pale white spot, and on closer examination was found to contain a colloid-looking clotted fluid, much thicker than that normally present in the follicles, and of a violet tint. In this occurred in groups large, ball-shaped, unencapsuled bodies, provided with a nucleus—the parasites; and, in addition, smaller round structures, with clear centres, such as are seen so often in the colloid substance of the thyroid; their nature is unknown. Within the ovum, near the nucleus, could be seen a clear space containing a ball-shaped, nucleated, naked mass of protoplasm, resembling the bodies first described but much smaller. This also was a parasite. The author refers to the interest of this discovery from the point of view of transmission of disease.

(445) Demonstration of Tubercle Bacilli in Sputum.

Kaufmann (*Centralbl. f. Bakt.*, July 30th, 1892) gives the following as a simple and effective method of demonstrating tubercle bacilli in sputum. A cover-glass preparation, after fixation, is stained, as usual, in warm carbol fuchsin. It is then moved gently to and fro for ½ to 3 minutes in water, either boiling or at a temperature of 98° to 99° C. The preparation can then be double stained as usual, or examined directly in water; in the latter case the tubercle bacilli appear dark red against a grey ground. The method is based upon the fact that most bacteria quickly lose the fuchsin stain in boiling water; tubercle bacilli, however, retain it for some time, even over five minutes. The preparation should be spread out in a thin layer, because thick portions of tissue may retain colouring matter even longer than tubercle bacilli. Practically, it is a good rule to leave the preparation in the water until only a light rose tint is visible in it.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(446) Aortic Aneurysm and Hæmoptysis.

Hempeln (*Berl. klin. Woch.*, October 3rd, 1892) first refers to the difficulty of diagnosis of aneurysm, and says that, according to present views, hæmoptysis due to the (internal) perforation of the sac is a rapidly fatal event. He maintains that premonitory hæmorrhages from such a perforation are not infrequent. Hæmoptysis in the course of aneurysm may be (1) independent of the aneurysm, (2) indirectly dependent on it, or (3) due to perforation into the air passages. Pulmonary infarction comes under the second heading, and the author says that tubercle not very infrequently develops in the lung as a consequence of aneurysm. He does not think that any pressure likely to be exerted on the pulmonary veins would produce such engorgement as to give rise to hæmorrhage. In this group hæmoptysis due to arteriosclerosis and interstitial nephritis must also be reckoned, as the aneurysm and the vascular disease often own a common cause. Among 18 cases of aneurysm perforation into the air passages occurred 7 times. In one of these 7 cases there was no hæmoptysis, and in two there were infarcts. In the remaining four cases there was premonitory hæmorrhage in three. The details of these cases with the morbid anatomy is then given. The hæmoptysis began in the first case five weeks, in the second eight days, and in the third four months before death. In the first two cases there could be no doubt that the hæmoptysis was due to the perforation. Clinically a slight hæmoptysis, lasting for months, as in the third case, could only be due to infarcts or new growth. There was no evidence, either during life or after death, of such lesions. The author says that continued hæmoptysis in aneurysm would appear to be not very infrequently caused by perforation, and less often by infarcts, as in two of his cases. Thus hæmorrhage from these aneurysms may be (1) profuse and quickly ending in death, or (2) continued, premonitory, and lasting days, weeks, months, or even possibly years before death. The diagnosis in the second form of hæmoptysis may be very difficult.

(447) Paralysis of Ocular Muscles after Herpes Zoster.

Schlesinger (*Wien. med. Presse*, October 23rd, 1892) recently showed a case at a meeting of the Vienna Medical Club, October 12th, 1892, of a man, aged 40, who a few days after an attack of left-sided frontal herpes zoster developed complete paralysis of the left oculo-motor with ptosis and paralysis of all the other muscles supplied by the nerve, the internal muscles not excepted. In addition there existed paresis of the first branch of the first division of the trigeminus for all sensations, also loss of sensibility of the upper segment of the conjunctiva.

(448) Cranial Deformations in Infants.

Moussous (*Arch. Clin. de Bordeaux*, October, 1892) has a note on the form of cranial asymmetry described by Gueniot as obliquity produced by unilateral pressure. The pressure has generally taken effect on the right side. The right occipito-parietal region is flattened, while the corresponding part on the left side is more prominent than usual; on the contrary, the frontal protuberance on the right side is over-prominent. The general appearance is as though the right half of the cranium had been pushed forward in front of the left. The deformity is observed chiefly in ricketty infants, and is produced by the child always lying and being suckled on the one side. It gives rise to no symptoms, and does not seem to have any unfavourable influence on cerebral development. Its only clinical importance is that if not corrected in time the deformation may become permanent. It is easily cured, while the bones are still soft, by altering the attitude in which the child usually lies.

(449) Huntington's Chorea.

Greppin (*Neurolog. Centralb.*, October 1st, 1892) has met with a case of this disease in which the heredity was exceedingly powerful, and the pathological changes were striking. The patient's father, paternal uncle, and paternal grandfather suffered from chorea; a sister was affected with hysteria major, a brother with posthemiplegic athetosis; another brother was a paranoiac. The patient, aged 56, had been choreic for five years, the movements commencing in the neck and shoulder muscles, and extending downwards to all the limbs; the muscles of the face, tongue, larynx, and back were also involved. Terminal dementia and exhaustion. Calvaria thickened; pachy- and leptomeningitis; cerebral gyri atrophied; basal vessels slightly atheromatous. In all parts of the brain were numerous masses of cells in the perivascular spaces; the vessels were thickened; the nuclei of the adventitia, and here and there of the intima and muscularis, were increased. No spider cells were found. Heaps of cells were present in the pericellular spaces, especially those of the smaller nerve cells. Many ganglion cells were atrophied or had disappeared. Degeneration affected the medullated nerve fibres. Greppin assumes that certain of the cerebral connective tissue cells remained in an embryonic state until a late period of life; they then underwent proliferation, and acted as focal irritants to the brain substance, thus giving rise to the clonic spasms.

(450) Localised Transient Œdema.

A. Starr (*N. Y. Med. Journ.*, September 17th) describes three cases of this affection, all occurring in women. The essential features of the disease are the following: A swelling of the tissues affected, of an œdematous kind, with a change in their colour, temperature, and consistence, usually without, but occasionally with, a disturbance in the sensations of the part, and an interference with the functions of the parts due to the stiffness and swelling. The swelling is usually transient, comes and goes rapidly, often after exposure to cold, but may remain permanently for some days. It appears to be of the nature of œdema of the corium itself rather than of the cutaneous connective tissue, as it is hard, does not pit on pressure, and cannot be entirely removed by pressure or manipulation. The colour of the part affected is usually red or reddish-blue, but is sometimes whitish-yellow or pale; the temperature is usually lower than in the unaffected parts. The sensations felt by the patient are those of stiffness, burning, numbness and pain, and the discomfort is increased by the application of cold; anæsthesia is rare; the hands, feet, and face are the parts most commonly affected. The duration of the attack varies from a few hours to a few days; in the majority of cases there is a complete cessation of symptoms between the attacks; in a few there is only a remission. No drugs are known to be beneficial, but in one of the cases massage seemed to do some good.

(451) The Itch Parasite.

Perroncito took a portion of the skin (*Giorn. della R. Accad. di Med. di Torino*, June, 1891) of a cat affected with itch, and found that for two days the acari were living and mobile in the liquid in which the preparation was placed. The third day the skin had a putrefactive odour, and numerous preparations made at this period showed many acari at different periods of development, but all of them dead. Putrefaction, therefore, leads to the death of acari as it does of worms.

SURGERY.

(452) Craniectomy for Microcephalus.

E. Kurz (*Wien. med. Presse*, No. 43, 1892) reports the following case. A boy, aged 11 months, was brought to the clinic on account of convulsions, which had existed since birth. During the first two months the convulsions affected the legs, but afterwards the arms were implicated. The child's face was largely developed, and the soft parts over the lower jaw were much hypertrophied. The cranium, in comparison, appeared to be small, the occipital region was flattened, but in other parts was almost normal. No trace of cranial sutures or fontanelles could be felt. The eyes were usually directed upwards, so that the cornea lay for the most part underneath the upper lid. There was also divergent strabismus. The pupils were contracted, and showed no reaction to light. The sense of hearing was not apparent. The extremities were normally developed as

regards size, but they were in a continuous state of clonic contraction. These convulsions ceased sometimes, not always, during sleep. When the child was 13 months old, craniectomy was performed. About 3 centimetres to the left of the middle line a disc of bone was removed with a trephine, and then a strip of bone 16 centimetres long and 1 centimetre wide was removed with bone forceps. The dura mater was uninjured. Hæmorrhage was stopped, and then the periosteum united over the bone aperture with catgut sutures, and the soft parts brought together with silk. The operation wound healed by primary union. After the operation the convulsions showed some diminution. Eight weeks after the operation the child was seen, when the scar of the operation was scarcely visible, and the gap in the bone which had been made at the operation could not be felt. The convulsions still occurred, but they were less violent in character, and came on at longer intervals. The appearance of the child was more human, and there were some attempts at emotions, as laughing and weeping, which had not been present before the operation. The eyes were the same, but hearing was good. As regards the effect of the operation upon the development of the brain, the author says that this will be apparent later; but he suggests that in other cases it would be better to remove a long strip of bone from each side of the middle line instead of from one side, as in the case recorded.

(453) Surgery of the Biliary System.

FRAENKEL (*Centralbl. f. Chir.*, September 3rd) states that in records of operations for biliary colic too little attention has hitherto been paid to the presence or absence of adhesions in the region of the gall bladder. Two cases are reported in which, on operating for the relief of symptoms indicated of severe cholelithiasis, Gersuny, of Vienna, discovered nothing save adhesions between the region of the gall bladder and the omentum. In one of these cases there was complete absence of the gall bladder. Division of the adhesions was followed in each case by speedy and permanent cure. These instances, Fraenkel points out, show that symptoms resembling those of cholelithiasis may be caused by the results of old inflammatory processes due in some cases to the presence of biliary calculi, and in others quite independent of any disease of the gall bladder and ducts. The fact that such symptoms may be caused solely by adhesions and tense cicatricial bands would favour a recourse to operative interference in those cases in which, with all the subjective indications of cholelithiasis, there is an absence of tumour and other palpable signs of retention. It is probable that more frequently than is generally supposed, and, indeed, even in cases of actual cholelithiasis, intense biliary colic may be due to the frequent presence of old inflammatory adhesions. Similar conditions about the female sexual organs have long been regarded by gynæcologists as indicative of exploratory laparotomy, as severe and exhausting attacks of pain have often been arrested by division of morbid uterine and ovarian adhesions. The frequent occurrence of attacks of abdominal pains as a result of old inflammatory adhesions indicates the necessity, in laparotomy, of eliminating as much as possible every wounded surface by covering it with healthy structures such as peritoneum or omentum.

(454) Treatment of Recurring Dislocation of the Shoulder-Joint.

RICARD (*Sem. Méd.*, November 2nd, 1892) says the present methods of treatment for recurrent dislocation of the shoulder-joint are defective. Both resection of a part of the capsule and resection of the head of the bone give fairly good results, but they do not allow complete recovery of the movements of the joint. In order to obviate this defect he has devised the following operation: The deltoid muscle is separated from its clavicular and acromial attachments by incision and turned backwards as a thick flap, and an assistant retracts the coraco-brachialis muscle; by this means the attachment of the subscapularis to the humerus and the front of the capsule of the joint is laid bare. The upper and lower borders of this muscle are then forced from their attachments to the capsule. The arm being rotated inwards, the operator now passes three strong silk sutures through the thickness of the capsule in front of the joint above and below; they are passed through the substance of the subscapularis muscle. The sutures are passed in a vertical direction and are placed about 2 centimetres from one another. The two ends of the sutures are now tied, and by this means the anterior wall of the capsule is made thick and rigid. The cut surfaces of the deltoid are approximated with sutures and then the superficial parts sewn up. The nerve to the deltoid is not involved in the operation, hence no paralysis follows. Ricard has performed this operation twice, in each case with a good result.

(455) Early Incision of the Tympanic Membrane in Simple Acute Median Otitis.

MOUNIER (*Ann. des Mal. de l'Oreille, etc.*, October, 1892) expresses his dissent from the rule of reserving paracentesis of the membrane for cases in which there is (1) excessive bulging of the membrane or (2) redness, with or without bulging, along with violent pain, either spontaneous or evoked by pressure round about the auricle. If there is simply congestion, he considers that incision of the membrane is the best mode of depletion, and if the tympanum contains pus, especially muco-pus, paracentesis is all the more appropriate as a means of evacuation. With clean instruments and careful disinfection of the meatus the operation is free from danger. He narrates three cases of bilateral affection nearly equal in severity in the two ears, in each of which he was only allowed to practise paracentesis in one ear. In the first case the ear operated on recovered in a few days, while the other persisted and suffered from a relapse. In the second the incised tympanum discharged mucus for a few days and then healed completely, whereas the other ruptured spontaneously, gave exit to pus, and remained permanently perforated. The third case was similar to the first. Mounier concludes that in all cases in which simple Politzerisation does not at once practically cure the patient—removing tension and tinnitus and restoring the normal ratio of air to bone conduction—paracentesis should be practised. The operation should be preceded by a cleansing of the meatus by means of a pledget of absorbent wool twisted on a probe and soaked with a solution of 1 per 1,000 sublimate, or 2 per cent. carbolic acid. Sometimes before this he applies a 20 per cent. solution of cocaine. He makes the incision in the postero-inferior quadrant as being the part farthest away from the labyrinthine wall, and as depleting most rapidly the parts in the neighbourhood of the ossicles.

MIDWIFERY AND DISEASES OF WOMEN.

(456) Convulsions at Sixth Month: No Premature Labour.

PUECH (*Nouv. Montpellier Méd.*, No. 31, 1892) attended a primipara, aged 23, who was admitted into hospital for severe eclampsia during the sixth month of pregnancy. There seemed no tendency to delivery. She was at once placed under chloroform for three hours, but every time the administration was slackened convulsive movements began. Afterwards a severe convulsion set in, followed by coma. As insensibility became profound, free venesection from the arm was practised; at once the patient's condition improved, respiration became less embarrassed, and the temperature fell from 103.6° to 101° F. an hour after the bleeding. Chloral was given, and the patient steadily improved. Albumen, which at first abounded in the urine, at length almost disappeared, the patient completely regained her senses, and the fœtal heart sounds were found to be still audible. When the report was published, there seemed every chance that the patient would continue her pregnancy to term.

(457) Missed Abortion: Ovum Retained Eleven Months.

BUDIN (*Nouv. Arch. d'Obstét. et de Gynéc.*, October, 1892), read this case at a meeting of the Obstetrical Society of Paris in July. The patient, aged 24, was a married Russian medical student. The last period, very profuse, was seen at the end of June, 1891; then her first pregnancy began. Morning sickness was severe. Early in November, when starting for France, she was upset out of her carriage into a river. She felt no shock, and continued her journey. At Berlin pains set in, with "show." When she reached Paris the symptoms of miscarriage increased. After fifteen days' rest she got up. Slight hæmorrhage

became almost constant. On March 28th, 1892, Budin examined her, and diagnosed retention of the dead ovum. The patient was watched; on June 14th a gum catheter was passed into the uterus. Contractions were set up next day by the introduction of a pig's bladder into the vagina, gradually distended with water, and held in place against the upper limits of the vagina by an air pessary. Pains set in, followed by great excitement, and then lethargy. The bladder was therefore removed four and a half hours after its introduction. Injections of sublimate were thrown up, uterine contractions became severe, then the alarming symptoms recurred. Some old decomposed clots came away, and early next morning a great fleshy mass was expelled. A rigor followed, but thenceforward the patient did well. The fleshy mass was the ovum long blighted by hæmorrhage. The fœtus had been completely destroyed. Amniotic and placental tissues were detected by microscopic examination.

(458) Suppurative Perioophoritis; The Ovary Saved.

Siraud (*Nouv. Arch. d'Obstét. et de Gynéc.*, October, 1892), operated on a woman, aged 22, for abscess around the ovary. He made the usual median incision in the abdominal wall, and drew the affected ovary with part of the broad ligament to the surface. Instead of removing the ovary he fixed it in that position and applied dressings. At the end of a month the part was cured, and the ovary was allowed to drop back into the abdominal cavity.

(459) Ruptured Tubal Pregnancy.

Mersch (*Centralbl. f. Gynäk.*, No. 44, 1892) not long ago exhibited a most instructive specimen before the Obstetrical Society of St. Petersburg. It was a tubal pregnancy discovered at a necropsy on a woman who had died of phthisis. The tubal sac had burst. The skeleton of the fœtus was found strongly adherent to the lower end of the mesentery. The soft parts had been almost completely absorbed. The entire process must have caused but little general disturbance, for there was no history of any serious illness excepting pulmonary disease.

THERAPEUTICS.

(460) Diuretin.

R. del Valle y Aldabalde (*Rev. de Med. y Cir. Pract.*, November 7th) has made a series of clinical experiments on the action of diuretin. In ascites due to hepatic cirrhosis the results were unsatisfactory, and the drug, which was given in daily doses of 5 to 7 grammes in the twenty-four hours, seemed to cause diarrhœa and loss of appetite. In ascites of renal origin the drug caused a certain amount of diuresis, but the effects were, on the whole, not well marked, and in one case such decided intolerance (pains in the head and loins, followed by vomiting and diarrhœa) was manifested that the administration of the drug had to be discontinued. In cases of cardiac dropsy, on the other hand, the results were excellent. The following case may be taken as a type: A man, aged 71, suffering from uncompensated mitral insufficiency, with cyanosis, dropsy, etc., came under treatment. Strophanthus, caffeine, bromide and iodide of potassium, digitalis and quebracho, with other measures, had previously been tried without result. The effect of the diuretin (5 grammes in the twenty-four hours) was immediate, the amount of urine being very largely increased, and the dyspnœa and other symptoms being relieved. The author does not attempt to decide the question whether diuretin owes its efficacy as a diuretic to its action on the circulation or on the renal epithelium. He sums up his conclusions as follows: (1) Diuretin is well borne, as a rule, by adults in an average daily dose of 5 grammes. (2) In many cases it causes diarrhœa, and in some vomiting; in rare cases it causes vertigo and general *malaise*. (3) In ascites of hepatic origin it is seldom of any use. (4) In renal dropsy it does some good—more than any other drug. (5) In cardiac dropsy, especially when associated with valvular mischief, it is of great value, proving beneficial when everything else has failed.

(461) Hypodermic Injections of Salol in Pulmonary Phthisis.

G. Grossi (*Rif. Med.*, October 31st) reports favourably of the effects of hypodermic injections of salol in cases of pulmonary phthisis. He has tried the method in 11 cases in different stages of the disease. He uses the following solution: Salol g. 10; oil of sweet almonds, g. 30. With a special syringe of the capacity of 5 grammes he injects at first 5 g. of this solution every day, increasing the dose after a time by half a syringeful every two days till three syringefuls (equivalent to 5 g. of salol in 15 g. of the oil) are given in the day—at 7 A.M., 12 noon, and 7 P.M. The author states, however, that there is no risk in beginning with two syringefuls a day, and after a few days suddenly increasing the dose to three. The injections are best given in the gluteal region, where they cause neither pain nor reaction; after a time, however, some local swelling is apt to arise, and it is then well to discontinue the treatment for a short time. Grossi tried cod-liver oil as an excipient for the salol, but was obliged to abandon it on account of the local inflammation which it set up. He suggests that this may have been due to the impurity of the oil. With one exception, in which the disease was very far advanced, all the cases were greatly benefited by the injections of salol; fever and night sweats ceased, cough was relieved, the number of bacilli in the sputum diminished, the patient gained strength, and the weight increased. The author, who has been careful to exclude possible sources of fallacy, is convinced that a large part of the improvement was due to the salol injections, which he claims to have been the first to use.

(462) Antipyrin Poisoning.

P. Guttmann (*Therap. Monatsh.*, October, 1892) relates a case of antipyrin poisoning in which the symptoms closely resembled those of the algid stage of cholera. A man was admitted in severe collapse, with cold extremities, vomiting, hoarse voice, and sunken eyes. The radial pulse could not be felt, and the temperature was 34.5° C. The stools were, however, solid. There was a deep rose-red rash on the trunk. He answered questions slowly, complaining of headache and noises in the ears. At times he could not see, and at others he would see two, three, or four inverted images. He had taken in all 10 g. of antipyrin. After the first dose of 1 g. he had giddiness and difficulty with his sight. Not being aware that these symptoms were due to poisoning, he continued to take the drug twice a day with the above-described result. He recovered under the use of stimulants. The author recommends smaller doses of antipyrin, and cautions against its misuse.

(463) The Constant Current in Chronic Lead Poisoning.

At a recent meeting of the Paris Académie de Médecine, Semmola, of Naples (*Sem. Méd.*, November 9th), called attention to the value of the constant current in promoting the elimination of lead by the urine in cases of chronic lead poisoning. Since 1877 he has used this method in 25 cases, made up as follows: Simple colic and paralysis of extensor muscles, 15 cases; (2) cachexia with albuminuria of varying degrees of severity, but without apparent renal changes, 8 cases; (3) encephalopathy with arteriosclerosis and its consequences, 2 cases. All the cases in the first or these groups were cured; in those of the second considerable general improvement took place, but the albumen never completely disappeared; the two cases belonging to the third group proved fatal, the treatment not having produced any particular effect.

(464) The Relief of Pain in the Eyes.

According to Jackson (*Therap. Gaz.*, August, 1892) pain in the eyes may be neuralgic, from lesion of the ophthalmic branch of the fifth nerve; smarting, from conjunctivitis; or aching and deeper from deep inflammation. Conjunctival pain is generally described as smarting, and as if a foreign body were under the lids. It is associated with disturbance of the epithelial and subepithelial layers of the membrane. It may be aggravated by any stimulant or irritant. In such cases much harm may be done by unduly protecting the eyes from use, and thus increasing the irritability of the nerve endings. Thus it is generally the worst possible treatment to bandage the eyes in a case of phlyctenular conjunctivitis. In such a case no pressure must be allowed, and a little silver nitrate solution painted

over the conjunctiva is often one of the best (ultimate) anodynes. Plunging the face into cold water may also be recommended, or, again, bathing the lids with very hot water. Cocaine, from the evanescent character of the relief afforded and the harmful effect of its frequent application to the cornea, should be used with caution. When using the drug it is well to combine it with atropine or eserine, especially when corneal disease is also present. The pain of corneal disease ranges from severe smarting to intense tenderness; for this a mixture such as the following may be prescribed: ℞ Atrop. sulph., 1 gr.; cocaine hyd., 1 gr.; aq., ℥ij; or eserine sulph., ½ gr.; cocaine hyd., 2 gr.; aq., ℥ij, to be used every four or six hours. The atropine formula is best for recent corneal injuries and in cases in which iritis is suspected; but in corneal ulcers the eserine formula is preferable, especially in chronic cases. Heat applied to the closed lids—either in the form of hot cloths, a Japanese hot box, or a moist heat from cloths wrung out of very hot water—is another excellent means of relieving pain of corneal origin. In cases of inflammatory hyperæmia local blood-letting is a valuable resource. Its use is especially indicated in cases of iritis and irido-cyclitis, and in some other violent inflammatory troubles, such as those following traumatism, there is no proceeding so valuable in temporarily relieving pain and affording rest to the patient as the abstraction of two ounces of blood from the temple. In young and vigorous patients cold may be continuously applied, but this must be used with care, and to be of any use it must be really continuous. Aching and neuralgic pain may be due to a variety of causes, but in a large number of cases it is an indication of eye strain, and must be met by removing the cause, such as ametropia and heterophoria; in these cases the use of a mydriatic relieves the aching and aids the correction of any existing ametropia. Of course the violent pain of glaucoma must be promptly diagnosed, so that the appropriate treatment may be adopted without delay. Eserine may in some cases give temporary relief, but in the presence of this disease accompanied by rapidly-failing vision iridectomy is indicated. As regards the use of general analgesics, the author does not counsel their employment save to supplement the other measures taken to relieve the pain.

PATHOLOGY.

(465) Cholera Bacilli in Water.

C. Fraenkel (*Deut. med. Woch.*, October 13th, 1892) first refers to the fact that water is the chief means of conveying the cholera poison. Yet the proof that cholera bacilli are present in it has rarely been established, partly on account of the small amount of water which can be used, and also on account of the number of saprophytic organisms present in the surface layers. Only twice, apparently, have the bacilli been demonstrated, once by Koch himself and once by Pasquale. The author then refers to the case of a man who died in Duisburg with choleraic symptoms, and in whose intestine cholera bacilli were found. Specimens of Duisburg water from various sources were bacteriologically examined by him. Colonies of cholera bacilli developed on plate cultures from one source only (Zollhafen), and after much difficulty pure cultures were obtained. There could be no doubt that they were true cholera bacilli, and other possible sources of error, such as subsequent infection of the specimen, etc., were excluded. A ship came into the harbour with a case of cholera (proved bacteriologically) on board, and vomited matters were thrown overboard. Thus the micro-organisms got into the water on September 24th, and they were found on the 27th. Either the bacilli must have multiplied, or some of the infected dejecta must have been in the specimen. The author does not agree that cholera bacilli have little resisting power in the presence of putrefactive micro-organisms, and he cites a case in which he found them in the intestine of a man exhumed after two days. No more colonies were obtained from the specimen named above. On October 1st and on October 3rd and 5th cultivation experiments from fresh specimens of the water were negative. Owing to the vigorous protective measures taken, no further case of cholera occurred.

(466) The Diffusion of Influenza by Means of the Air.

Bombicci, working in Tizzoni's laboratory, has studied the possibilities of the diffusion of influenza by the inhalation of the specific bacilli in a dry state (*Rif. Med.*, August 18th). He finds (1) that the influenza bacillus preserves both its vegetative and pathogenic powers for a considerable time after it has undergone desiccation; (2) that the symptoms of influenza can be induced in rabbits by causing them to inhale the dried bacilli; (3) that the disease produced in rabbits is in some cases limited to a transitory rise of temperature, but in others is characterised by broncho-pneumonia, more or less severe; (4) that one of the means of diffusion of the disease is certainly the air, and that one, if not the only, way by which the virus is introduced into the organism is through the respiratory apparatus.

(467) Corrosive Sublimate as a Disinfectant against the Staphylococcus Pyogenes Aureus.

A. C. Abbott (*Johns Hopkins Hosp. Bull.* No. 12, April), as the result of a series of experiments, concludes "that under most favourable conditions a given quantity of sublimate has the property of rendering inert only a certain number of individual organisms." He agrees with Henle and Behring that the process is essentially of a chemical nature, and that it consists of a direct combination, by the action of the sublimate in solution on the blood plasma of the individual bacteria. It therefore follows that the disinfecting activity of the sublimate depends directly upon the "proportion of albuminous material contained in the medium in which the bacteria are present." He concludes, however, that the relation between the staphylococcus pyogenes aureus and sublimate varies considerably in organisms from different sources and of different ages, and that organisms which survive the exposure to the action of the sublimate may be temporarily attenuated, an attenuation which "may be caused to disappear by successive cultivations in normal media." He has thus been enabled to select from a culture the most resistant forms, and he points out that many of the earlier experiments as to the action of sublimate on micro-organisms are vitiated by neglect of several sources of error indicated in the above conclusions. He also agrees with those who hold that there are serious objections to the use of sublimate upon wound surfaces. The first is that the albumen of the tissues and fluids of the body tends to render it inert, as the sublimate salt combines so rapidly with this albumen, and that in consequence of the action of the sublimate on the protoplasm of the exposed tissues these tissues are rendered less able to perform their natural function of resisting the invasion of bacterial organisms. It may be a powerful germicide, but it has very serious disadvantages as an antiseptic wash or dressing for wounds.

(468) Nerve Changes following Thyroidectomy.

Capobianco (*Rif. Med.*, September 1st and 2nd, 1892), from researches on this subject, has come to the following conclusions: (1) Complete thyroidectomy is always fatal to dogs. (2) The cause of death would appear to be a poisoning of the central nervous system by some substance which the thyroid is destined to destroy. (3) The temperature of dogs diminishes constantly from the operation until death; it rises temporarily, however, during the occurrence of convulsions. (4) The nervous system shows important lesions, consisting in circulatory disturbances and special changes in the nerve cells and nerve fibres. (5) The cellular degeneration takes the form of atrophy, vacuolation, and granular degeneration. (6) The cerebellum is specially altered in the region of Purkinje's cell layer; degenerative changes also take place, however, in the other layers, in the corpus dentatum, and the cord. (7) In the medulla oblongata the nuclei are about equally affected; perhaps that of the hypoglossal is the most altered, and after this come the facial, vagus, and the other nuclei. (8) In the cord both grey and white substance are affected; the changes are most marked in the anterior grey horn and the crossed pyramidal tract. (9) Lastly, the spinal nerve roots are not spared from the degenerative processes, although Langhans has made a statement to the contrary.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(469) A "Family Disease" characterised by Myoseismia.

Klippel and Durante (*Rev. de Méd.*, Oct., 1892) propose the term "myoseismia" for the characteristic symptom of a form of generalised nervous disorder observed by them in the members of a certain family. Of five members of one generation three (two brothers and a sister) were seen suffering from the disease in various stages; the other sister was possibly in a very early stage, and the fifth member of the generation, a brother, had not reached the age at which the disease had commenced in the other members. Their mother, and her sister, had died after presenting symptoms described as similar to those seen in the children. The authors describe three periods in the development of the disease:—(1) Onset, at the age of 30 to 35, with gastralgia and cramps or lancinating pains in the calves and loins. (2) Generalised myoseismia, which is not ataxy, but consists in repeated stops in the course of muscular contractions, by which the movement is rendered jerky; this jerky movement affects the ocular muscles, causing an irregularity which may be mistaken for nystagmus, renders the speech and writing jerky, and the gait staggering. The patient is unable to maintain his equilibrium with the eyes shut. There is fibrillary chorea. On the sensory side the patient experiences pains, cramps, and anæsthesia of the extremities, especially of the legs. (3) In addition to the above symptoms there is extreme debility, loss of muscular sense, amaurosis and marked muscular tremors. No necropsy has been made. The authors suggest that the symptoms are probably due to a very diffuse lesion of the cerebro-spinal system, involving especially the white substance and possibly the nerve roots.

(470) Abscess of the Lung.

Cohn (*Berl. klin. Woch.*, October 31st, 1892) relates the following interesting case occurring in a man, aged 48. With the exception of some bronchitis he had been well up to six months previously. He then had an acute illness, with pain in the upper part of the right chest, cough, and blood-stained sputum. He gradually got better, but his cough persisted up to the time of admission. He was then wasted, and his finger ends clubbed. There was some flattening beneath the right clavicle, and impaired percussion in front and behind over the right apex, with bronchial breathing and consonating *râles*. Moist sounds were also heard over other parts of the chest. He was thought to have phthisis, but no tubercle bacilli could be found in the sputum. A few days after admission he suddenly spat up a quantity of purulent, non-putrid, thick, greenish-yellow sputum, and in this were found small masses of lung tissue. An abscess dating from the acute pneumonia had evidently ruptured into a bronchus. A bacteriological examination of the sputum (obtained after every possible precaution as regards the disinfection of the mouth) was then made, and the presence of Friedländer's bacillus was proved both by cultivation and inoculation experiments. In fourteen days' time the above named masses disappeared from the sputum, which became muco-purulent, and small in quantity. The local signs had cleared up to a very great extent by the time of his discharge. There are only a few instances on record in which the pus from an abscess of the lung has been bacteriologically examined. The staphylococcus and diplococcus were found by Hochsinger, and the staphylococcus, putrefactive micro-organisms, and a form of oïdium by Ross, who attributed the gangrene which subsequently supervened to the last named. In 7 cases of gangrene of the lung Bunoni demonstrated the staphylococcus aureus and albus, and Hirschel in 3 similar cases showed the presence of various forms of staphylococcus of the M. tretragenes and B. pyocyaneus. Friedländer's bacillus has previously been found to be pyogenic by Zaufal in otitis media, and by Letulle and Netter in 2 cases of empyema, but this is the first time that it has been proved to cause an abscess of the lung.

(471) Gout in Childhood.

Maboux, of Contrexéville, records (*Lyon Méd.*, October 23rd, 1892) a case of acute gout in a girl aged 11. There was no hereditary history beyond the fact that the child's father had had an affection of the great toe eighteen months earlier, and was at Contrexéville for treatment. The child complained of *malaise* and sore throat on September 17th, was better the next morning, but in the afternoon began to suffer pain, first on the plantar and then on the dorsal aspect of the right great toe, accompanied by redness and venous congestion. She suffered acute pain until 4 A.M. on September 19th, when it abated; on September 20th a less severe attack began in the left great toe. Recovery appeared to be hastened by salicylate of sodium (45 grains a day). Mabboux states that the local appearances were absolutely characteristic; he refers to a few other recorded cases observed in children.

(472) Peptonuria in Paralytics.

Fronda (*Neurol. Centralbl.*, November 1st, 1892) examined the urine of fifteen insane male paralytics by Hofmeister's method, to determine whether peptones were present. In the case of each patient peptonuria was found, though sometimes not until two or three specimens of the same patient's urine had been tested. Albuminuria was invariably absent. Fronda concludes that peptonuria occurs in every paralytic, and that the absence of that condition during several consecutive days is, in doubtful cases, evidence against the existence of paralysis.

(473) Membranous Enteritis.

Bruner (*Rev. de Méd.*, September, 1892) refers to six cases, two of which occurred in men and four in women. A few days before the passage of the muco-gelatiform masses the patients were not so well, and complained of slight pains in the abdomen. In four cases there was obstinate constipation. There are two classes of cases, in one of which, after a purgative or enema, a large amount of these masses is passed, and in the other the pains are so severe as to resemble hepatic colic or commencing typhlitis. These pains cease with the evacuation of the masses, which are not in these cases mixed with fæces. Their form is varied, their consistency mucoid, and their colour grey. Under the microscope a striated-looking substance, more or less altered cylindrical cells, many micro-organisms, and triple phosphates, were found chemically; they were proved to contain mucin and albuminous bodies. In one case the attacks came on several times in the course of two years, at intervals varying from one to eight months. Before the attacks there was constipation, and in the interim often diarrhœa. In a second case there were only two evacuations of these masses. Before the first attack the symptoms were very like biliary colic. In a third case such evacuations gave way to a continued discharge of mucoid thread-like masses. Irrigation with boric or tannic acid, etc., gave the best results. Some look upon the disease as inflammatory, others as of nervous origin. The author would regard it as a special form of enteritis. The presence of mucus, altered epithelium, etc., negatives the idea of a pure neurosis. Hysteria or neurasthenia may follow as well as precede the disease. The acute form, with fever, has probably no relation with the cases recorded here. Severe cases, with cachexia, are the outcome of the bad nutrition resulting from the obstinate enteritis.

SURGERY.

(474) Necrosis of Adipose Tissue after Surgical Operations.

Pitschke (*Centralbl. f. Chir.*, No. 43, 1892) reports two cases of so-called necrosis of adipose tissue. In both cases the discharge of adipose tissue followed resection of the head of the humerus. Healing of the wound in each patient was retarded in consequence of long-continued discharge of pus from numerous fistulæ, none of which could be traced down to bare bone. From time to time attacks of pain in the axilla were followed by elimination through the narrow fistulæ of compact masses of fat resembling this tissue as seen in clearing out the axillary space in cases of cancer of the breast. In both instances the fistulæ closed completely at the end of some months, without any

exfoliation of bone. During the periods of this discharge of adipose tissue the patients remained quite free from fever. The discharge in each case usually followed free active movements of the arm, and the author is of opinion that mechanical irritation of the fatty contents of the axilla was the primary cause of its elimination. The presence of air taken up through the fistulæ during these movements may, it is thought, have played some part in the causation of the fatty necrosis. As very large quantities of adipose tissue were passed at each period of discharge, the author is convinced that the axillary fat was removed during the intervals. The chief interest of these cases consists in the suggestion they afford that in cases of protracted healing after operation in a region well supplied with adipose tissue, the delay may be due in some cases to a like elimination of this tissue, and be obviated by its removal, if no other cause can be found to account for the failure of complete union.

(475) White Patches in the Mouth: Syphilis and Smoking.

Erb (*Münch. med. Woch.*, October 18th, 1892) discusses the relation of these white patches (leucoma, etc.) which he calls *Plaquesnarben*, owing to their frequent connection with mucous plaques. When investigating the relation of syphilis to locomotor ataxy, the author collected 240 such cases, only two of which occurred in women. In 154 of the 240 the patches were present at the angles of the mouth alone, and in 204 in other parts of the mouth as well as at the angles, whereas in only 9 cases were they seen on the tongue alone. Syphilis was known to have occurred in 191 of the 240 cases. Of the remaining 49, 21 could not certainly be said never to have had syphilis, 8 had scars on the tibiæ and other signs, though they denied syphilis, and 6 had either spinal myosis or tabes dorsalis. Thus, in four-fifths of the cases syphilis was present, and in 4 or 5 the patches disappeared under anti-syphilitic treatment. In one-tenth to one-fifth of these cases there was no history of syphilis. In regard to smoking, only 148 cases were investigated, 47 of which occurred in slight or non-smokers, and 101 in moderate or heavy smokers. Of the same 148 cases, 100 had had syphilis, 64 being heavy smokers, and 36 slight or non-smokers. Of the remaining 48 non-syphilitic cases, 11 were slight or non-smokers, but 5 of the 11 were doubtful in regard to syphilis. In the 148 cases syphilis was present alone in 36, smoking alone in 37, syphilis and smoking together in 64, and neither one nor the other in 11. Erb concludes (1) that syphilis and smoking respectively may produce these patches about equally; (2) that generally both factors are present; (3) that the patches are very rare if both be absent; (4) that smoking alone can produce them if in great excess, and especially strong cigars; and (5) that in the presence of syphilis a much less degree of smoking suffices. The author is also inclined to admit a predisposition in the mucous membrane. If these patches occur in slight or non-smokers, and no other cause exist, syphilis is nearly certain to be present. In moderate smokers a suspicion of syphilis raised by other symptoms is strengthened, and treatment should be adopted. In the case of heavy smokers much caution is needed in drawing conclusions.

(476) Suture of the Peripheral Ends of the Divided Tendons.

Dubreuil (*Rev. d'Orthopédie*, November, 1892) relates the case of a patient, aged 17, who divided the tendons, both superficial and deep, of the index finger by the breaking of a glass tube in the palm of his hand. Five days after the injury, the wound having been enlarged parallel to the flexor tendon to 4 or 5 centimetres, the distal ends were easily found, but the upper ends could not be discovered. The distal ends, having been refreshed, were sutured with catgut to the tendons of the middle finger. The wound ran an aseptic course, the fingers were kept flexed for 15 days, at the end of which time it was found that the patient had paralysis of both motion and sensation in the fingers. This was attributed to the Esmarch's bandage having been applied too tightly and having caused pressure on the whole of the nerves of the forearm. Under massage and electricity the paralysis passed off. At first the power of extension in the index was incomplete, owing, it was believed, to the adhesion to the cicatrix in the palm, and it could not be flexed without also flexing the middle finger. At the date of publication, however, the patient had recovered completely all the movements of the index, and, what was perhaps a little surprising, he could flex it independently of the middle finger. He could play the piano without any trouble.

(477) Extirpation of the Cæcum for Tuberculous Tumour.

Sachs (*Arch. Gén. de Méd.*, November, 1892) describes a case in which this operation was successfully done for a tuberculous tumour of the cæcum. Two years ago a woman, aged 41, lost her appetite and began to waste, and one year ago she noticed a swelling in the abdomen. On admission the abdomen was distended and a tumour well-defined when the patient was put in Trendelenburg's position could be felt above Poupart's ligament. The lungs were healthy. The disease in the intestine was believed to be carcinoma. She also had a right hydronephrosis. Laparotomy and resection of the diseased portion of the intestine were performed. The patient made an excellent recovery from the operation, and her general condition when she was discharged was better than before the operation, but she was still wasted. She was readmitted a little later with vesical catarrh, which passed off. The resected part comprised 9 cm. of the ileum and 8 cm. of the colon. There were two lesions, one of which consisted of a swelling of the size of an orange, surrounding the intestine at the junction of the ileum with the cæcum. It was 4.5 cm. long, and only a small sound, 5 mm. in diameter, could be passed through it. In the mesentery there were some enlarged glands. The second lesion was placed in the ileum 4 cm. distant from the first named, and consisted in an annular constriction of the gut, hard to the touch. Tubercles were found in the serous coat over it. The examination in Langhans's laboratory showed the tumour to be tuberculous. The intestinal tuberculosis appeared here under the form of a tumour. The author refers to other recorded cases in which resection has been done in this condition, and out of 17 cases the tumour occupied the ileo-cæcal region in 13. The difficulty in the diagnosis consisted in its distinction from carcinoma. In 13 collected cases of extirpation of the cæcum for various affections since 1888, and of which the results are known, there were only two deaths, but not too much reliance can be placed on these statistics, for, unfortunately, only favourable cases are apt to be published.

MIDWIFERY AND DISEASES OF WOMEN.

(478) Gonorrhœal Infection of Child's Conjunctiva in Utero during Labour.

O. Feis, of the Göttingen University Maternity (*Centrabl. f. Gynäk.*, November 12th, 1892), publishes an important case where the child's eyes were infected, after the rupture of the membranes, by the exploring finger which conveyed discharge from the vagina into the uterus. The patient was a widow, aged 35, in her twelfth labour. The process was lingering, and after rupture of the membranes the presentation (vertex) was carefully determined. A greenish yellow discharge came away on the obstetrician's finger; the vagina was at once washed out with carbolised water. Not till fifty-four hours after the rupture of the membranes was the child born. It had swollen lids, with a yellowish watery discharge. Credé's treatment was at once adopted. The eyelids were wiped with a clean towel and covered with ice-water compresses. The conjunctivæ were washed out with a 2 per cent. boracic acid solution. Free purulent discharge, full of gonococci, developed, but the corneæ were saved and the disease cured. Had the carbolised water been injected before the digital exploration, the infection might have been avoided. Feis refers to several other cases where, as in the above, delivery did not take place till one, two, or three days after the escape of the waters. In a case published by Nieden, the obstetrician broke the membranes himself, delivered, and attended at once to the child's eyes, as the four previous children had suffered from gonorrhœal ophthalmia. Twenty-four hours after birth the child showed signs of that complaint, but was promptly cured. Nieden believed that the liquor amnii had conveyed the infection. Owing to strict "Credé treat-

ment," not a single case of *post-partum* gonorrhœal ophthalmia has occurred during the past four years in the Göttingen Maternity.

(479) Drainage of Uterus with Silkworm Gut.

Chéron (*Gazette des Hôpitaux*, October 29th, 1892) speaks highly of this method in cases of endometritis, etc. He uses a loop drain or a hook drain. The loop drain is simply a loop of 20 to 100 strands of silkworm gut about 5 inches long; it fits into a celluloid plate which holds the free ends of the threads. Being very blunt and light, the plate cannot wound the cervix nor drag the loop out of the uterine cavity; it follows all the movements of the parts. The hook drain is made by making a loop, as in the former kind, cutting through the loop and bending downwards all the cut ends of the threads to the extent of about a quarter of an inch. The lower end of the drain is guarded, as in the looped variety. The little hooks thus made by bending the threads retain the entire drain in the uterine cavity. The drain is introduced on a special holder, like a tent or stem. The drain is an appliance absolutely free from danger, provided that preliminary antisepsis is carried out. The patient must be left at rest as much as possible, and the parts kept clean by antiseptic dressings and solutions. The first result of the application of the drain is free escape of uterine discharge, which no doubt increases in amount, reduction of the bulk of the uterus, disappearance of congestion, and a fall to normal of the intra-uterine temperature. When the hook drain is used, slight hæmorrhage occurs for a few days. Drainage is very beneficial in subinvolution, and all forms of endometritis, especially the catarrhal variety. It is a good assistant to the curette in hæmorrhagic endometritis, and it is formally indicated after forced dilatation and curetting in salpingitis. In congestive dysmenorrhœa, and in dysmenorrhœa with slight anteflexion or stenosis, it often proves beneficial. The loop drain is best in these cases. The hook drain is preferable in congestive amenorrhœa, and also in membranous dysmenorrhœa, which, in Chéron's practice, has been much ameliorated by drainage. The drain is contraindicated in acute or subacute inflammation of the uterus and its appendages, and in cases where the uterine cavity is very sensitive.

(480) Tubal Gestation or Primary Hæmatosalpinx?

Veit, of Berlin (*Zeitschr. f. Geburtshülfe u. Gynäk.*, vol. xxiv, 1892, p. 327), lays down a rule to guide the observer in this important distinction. When the tube is found filled with fluid blood the case is to be reckoned in almost every instance as primary hæmatosalpinx, of which the causes are disease of the mucosa, wounds, or torsion of the tube. The retention of small fragments of chorion will also set up bleeding, a condition homologous to the hæmorrhages from the uterus when pieces of membrane are retained after abortion. The closure of the ostium or obstruction of the tube by the pressure of an external band of adhesion accounts for the retention of the blood and distension of the tubal canal. But when the abdominal end is open and the tube distended, nevertheless, with blood, the tube is nearly always the seat of ectopic gestation. In such a case the blood is almost certain to be found coagulated, the clot being firmly connected with one part of the tubal wall. When the blood is found fluid, with a patulous ostium, it is a sign that tubal abortion has just occurred, the ovum having been expelled and its place filled by recently-shed blood. Exceptions to the above rules—that is, irregular conditions of the tube associated with hæmorrhage—are only seen when the tube is the seat of malignant disease.

(481) Dysmenorrhœa and Cervical Abscess.

Salvat (*Nouv. Arch. d'Obstét. et de Gynéc.*, October, 1892) treated a case of dysmenorrhœa in a woman, aged 42, by the negative galvano-cautery applied to the uterine cavity. After ten applications the period occurred abundantly and without pain. The patient also suffered from suppuration of the cervical glands, and as the periods became more and more abundant and painless, the suppuration diminished.

(482) Vulvo-vaginitis in Children.

E. Martin (*Journ. of Cut. and Gen.-Urin. Dis.*, November, 1892) believes that there are two distinct forms of vulvo-vaginitis in children—the catarrhal or irritative and the gonorrhœal. The former, which is more frequently met with, rarely invades the urethra, often spares the vagina, produces slight local symptoms, no general disturbance, is non-contagious, does not excite purulent ophthalmia, and yields readily to mild antiseptic and astringent lotions when the dyscrasia (for example debility after an exanthem) and the local exciting cause (for example dirt, worms) are removed. Gonorrhœal vulvo-vaginitis invades the urethra, vagina, and even the endometrium, causing enlargement of the womb and bellyache. There is fever and local pain. The discharges are highly contagious, and the disease may be conveyed by the fingers or clothes of the child or by "wash rags" or bathing water. The disease may be cured in 3 to 5 weeks, but if treatment is neglected the inflammation may become chronic and is then of indefinite duration. The treatment recommended is to wash out the vagina by means of an irrigator and soft rubber catheter, first with a solution of bicarbonate of soda (1 per cent.) followed by perchloride of mercury (1 in 10,000). After each irrigation, which is repeated twice a day, the external parts are to be dried with absorbent cotton wool, dusted with iodoform, or if that is irritating, with zinc oxide, and a thin wad of absorbent cotton placed between the labia. The discharges contain micrococci apparently identical with the gonococci, and if such organisms are found, the case should be treated as one of gonorrhœal infection, though it would not be safe to attach much weight to their presence as evidence in medico-legal cases. The source of infection cannot as a rule be traced. In one case in which there was not "the slightest history of contagion," the discharge, when introduced into the urethra of a man (with his consent) produced well-marked gonorrhœa complicated by orchitis and followed by gleet.

THERAPEUTICS.

(483) Therapeutic Effects of Testicle Juice.

Brown-Séquard (*Soc. de Biol.*, October 29th) sums up the experience so far accumulated as to the therapeutic effects of testicle juice as follows: In more than 100,000 injections the procedure has only on two occasions been followed by rise of temperature; hardly any pain has been complained of, and no symptoms of septic infection have been observed. In 120 cases of ataxy in which the method has been used there have been only 2 instances of failure. In 4 cases of cancer improvement has taken place, discharge being diminished, pain ceasing, bleeding being checked, œdema disappearing, and the tumour seeming to shrink. In cases of uterine fibromata the tumour has always been reduced in size. Of 7 cases of paralysis agitans 2 have been improved, one of them being almost cured. In all the cases of lateral sclerosis in which it has been tried, the method has given good results. In tuberculosis it has been very successful; diabetes has also been favourably influenced, and one case has been cured. The preparation, as prepared by d'Arsonval, is now of the strength of 1 in 2.5 instead of 1 in 5, as it used to be. An equal weight of water should be added to it before use; this prevents the injections causing pain.

(484) Injections of Extract of Sheep's Thyroid in Myxœdema.

A. Napier (*Glasgow Med. Journ.*, September) reports the following case. A woman, aged 54, suffering from myxœdema, was treated with subcutaneous injections of extract of sheep's thyroid. Treatment was begun on May 12th, when one gramme of a watery extract of fresh thyroid was injected into the subcutaneous tissues between the shoulder blades with a carefully disinfected Koch's syringe. The treatment was continued till June 25th, when the patient was discharged much improved, sixteen injections in all having been given. A variable degree of rise of temperature was noticed after each injection, and a small abscess formed near the site of injection. As early as May 16th the patient herself noticed that her skin was looser and softer than it had been, and the author states that there can be no reasonable doubt that most marked and manifest improvement followed immediately on the adoption of the treatment.

(485) Creasote in the Tuberculosis of Children.

At the Pædiatric Congress recently held at Naples, T. Guida (*Rif. Med.*, October 25th, stated that he had used creasote in various tuberculous affections in children. He preferred giving the drug by the rectum in an emulsion of almond and olive oil with yolk of egg, or in a hydro-alcoholic solution. The dose was progressively increased from a minimum of 25 milligrammes to a maximum of $\frac{1}{2}$ to 1 gramme in the twenty-four hours. In every case great irritability of the rectal mucous membrane was manifested, this being followed after a time by dysenteric symptoms. He had made a number of experiments on guinea-pigs and rabbits, which had led him to the following conclusions: 1. The injection of creasote (however prepared) by the rectum in children is undesirable when any gastro-intestinal disturbance is present. 2. The experiments on guinea-pigs show that the administration of creasote by the rectum is an efficacious means of preventing invasion by the tubercle bacillus, or of lessening its virulence. 3. Administration by the mouth is inadequate for this purpose, inasmuch as it is impossible in that way to introduce a sufficient amount of the remedy to produce a therapeutic effect. If the mucous membrane of the rectum is in a sound condition, even large doses do not cause irritation.

(486) Salophen.

Caminer (*Therap. Monats.*, October, 1892), has used this drug in gramme doses in cases of cephalalgia, neuralgia, and migraine. In two cases of supra-orbital neuralgia it was efficient. If used in the early stages of migraine it aborts the attacks, but it has no influence on their frequency. In two cases of acute rheumatism the author used the drug with good results, and there was no relapse.

(487) Atropine in Hæmoptysis.

M. B. Blumenau (*Meditzinskoïe Obozreniïe*, No. 9, 1892), emphatically confirms recent statements (see the Epitome, May 28th, 1892, par. 87), as to the powerful hæmostatic properties of atropine. He relates the case of a phthisical soldier, who was expectorating one and a half or two tumblerfuls of pure blood daily, in spite of the application of ice bags to the chest, and the internal use of ergot and mineral acids in full doses. On the fourth day of the hæmoptysis $\frac{1}{75}$ grain of sulphate of atropine was injected under the skin. The blood spitting at once considerably decreased, and, after a second injection on the following morning, speedily ceased altogether. The patient's sputum remained slightly tinged with blood for a few days afterwards, but the discoloration soon disappeared, and the man was discharged in a satisfactory state. In the way of secondary effects only slight dryness of the throat and some acceleration of the pulse were observed for a short time.

(488) Treatment of Ascites.

Glax (*Centrabl. f. d. ges. Ther.*, November, 1892) refers to cases in which faradisation of the abdominal muscles has led to the disappearance of the fluid. This method of treatment seems to have been tried in ascites brought about by various causes. The author maintains that the effect is due to the mechanical compression of the fluid, and not to increased diuresis, as is held by some writers. He says, however, that in thin individuals the sympathetic may be influenced by the faradisation, and unpleasant results such as fainting, etc. be brought about. Experimentally it has been proved that a considerable pressure by electrodes on the recti muscles of the frog may sometimes bring the heart to a standstill. In healthy individuals or in those with ascites no such result could occur.

(489) Ichthyol in Endometritis.

N. P. Mariantchik (*Vratch*, Nos. 32 and 34, 1892) tried sulpho-ichthyolate of ammonium in 19 cases of endometritis, of hæmorrhagic (8), gonorrhœal (4), and catarrhal (7) origin, and 10 of cervical endometritis, with erosions (6), eversion of the os (2), and stenosis of the orifice (2). The drug was always employed locally, either alone (applied with the brush) or in a 10 per cent. glycerine or aqueous solution (for tampons), or in a 2 or 4 per cent. solution (for irrigation). The paintings and plugging were repeated two or three times weekly. The only beneficial effect observed was that the tenderness of the cervix and body of the uterus was somewhat lessened. The drug failed to relieve pain depending upon peri- or parametritis, perisalpingitis, perioöphoritis, etc. The drug had no influence whatever on the inflammatory processes themselves.—E. Curatolo (*Rif. Med.*, May 31st, 1892) has used ichthyol in endometritis—glandular and hæmorrhagic—introducing it either by means of a syringe or on a Playfair's sound, with excellent results. He also found it efficacious in peri- or parametritis and in salpingo-ovaritis. In these cases he also administered it internally and by vaginal pessaries. He found it useless, however, in pyosalpinx and metritis. The preparation used was sulpho-ichthyolate of ammonia dissolved in glycerine (20 per cent.) for the vaginal tampons and capsules, each containing 4 g., for internal use.

PATHOLOGY.

(490) Intracellular Parasitism of Cancerous Neoplasms.

Soudakewitch, (*Annal. de l'Inst. Pasteur*, August, 1892) as the result of further study of cancerous tissues, describes fresh intracellular bodies. Fifteen cases of cancer, primary or metastatic, have come under his observation since the publication of his first paper. In these he has not found that variety of form and development which characterised the bodies found in the cancers of the pancreas, but in all cases parasites were undoubtedly present. In order to avoid confusion between these parasites and the nuclei of cancer cells, the author has taken advantage of the metachromia exhibited by the former when stained with hæmatoxylene, the parasites taking on an intense violet, or nearly black colour. The sporozoa of melanotic carcinoma have an undoubted resemblance to those found in the cancers of the pancreas; in both conditions parasitic forms occur both in the nucleus and in the cell itself. Many of these included bodies have a capsule which, besides containing the falciform bodies, which stain deeply, contain also a central spherical body which hardly stains at all. The relations between the parasites and the cancer cells lead the author to believe that the parasites, if not the direct cause of the disease, with the accompanying hypertrophy of the cells and of the nucleus, and the active cell division, at least oppose no obstacle to these processes. The parasite develops slowly in the cell, destroying the protoplasm. When it is no longer enclosed by the cell membrane, being set free, it infects with its spores a great number of the surrounding cells. Besides this method of propagation, there is another—the intracellular method. In this case an infected nucleus undergoes karyokinesis, giving rise to two daughter cells, both infected. All these phenomena, in the author's opinion, point to the specificity of the parasites. Holding with Ziegler that neoplasiæ are produced by an excessive hyperactivity of certain cells, he thinks that this hyperactivity of the cancerous cells is due to the influence of the sporozoa.

(491) Disintegration of Liver in Cholera.

N. I. Küskoff (*Bolnitchnaia Gazeta Botkina*, No. 40, 1892) states that in all the bodies of cholera patients examined by him microscopically, he discovered the presence of characteristic hepatic cells in the vena portæ and hepatic veins. The elements were partly lying free in the blood, partly embedded in thrombi. They occurred mostly isolated, but now and then were met with in groups of two, three, or four cells, forming then the characteristic figures of hepatic trabeculæ. Frequently they appeared to be perfectly intact, but as a rule they showed signs of a more or less pronounced degeneration. The hepatic parenchyma was always found to contain extravasations and necrotic areas, the disintegrated foci sometimes communicating with the lumina of the hepatic vessels through rents in their walls. In one case the cells were seen in the cardiac vessels as well, while in some cases they were also present in the lungs and kidneys. Occasionally the vessels were found to contain, in addition to the hepatic cells, those of the cylindrical epithelium of the biliary ducts, and even various elements of the splenic parenchyma. The author adds that he frequently detected hepatic cells in the vena portæ and hepatic veins in cases of influenza.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(492) Nutmeg Poisoning.

G. E. Reading (*Therap. Gaz.*, September, 1892) records the following case of poisoning by nutmeg. The patient was a lady, three months pregnant, who, in order to procure abortion, swallowed three powdered nutmegs, and was only prevented by fear of vomiting from taking a larger amount, and thus losing the whole. She was well till three hours after when she vomited several times, passed into the following condition: Low, muttering delirium, with occasional silly laughter, and hallucinations of a ridiculous character. She could be aroused from this by shaking, but would relapse almost immediately. There was also a strong sense of impending death. The pulse was strong and rapid. The treatment adopted was to give a 20-grain dose of chloral hydrate, which lessened the delirium, and allowed the patient to obtain sleep. The delirium continued to recur, however, at intervals for the next twenty-four hours, during which grain doses of calomel were given every hour; the next day the patient was quite rational. It may be added that the object for which the nutmeg was taken was not accomplished, the whole energy of the agent appearing to have been expended on the nervous system and gastro-intestinal tract. The general symptoms of poisoning strongly recall those which appear in some cases of poisoning by cannabis indica.

(493) Multiple Hydatid Disease.

Westhoff (*Deut. med. Woch.*, October 3rd, 1892) refers to the infrequency of the multiple form of this disease, and relates two cases of the disease affecting the abdomen. (1) A labourer had a large cyst in the right lobe of the liver, which was incised and drained. Six months later another cyst was discovered in the enlarged left lobe. After shutting off the peritoneal cavity an opening was subsequently made into the suppurating cyst with Paquelin's cautery. In three months' time the patient was quite well. (2) A man, aged 43, was admitted with obstinate constipation. When the abdominal distension became less two tumours could be felt, one below the left lobe of the liver, and the other above the pubes. Echinococcus cysts were then passed by the rectum. The lower cyst was stitched to the abdominal wall, and subsequently opened and drained; while another cyst in the great omentum, of the size of a goose's egg, was extirpated. An incision was then made over the upper tumour, and the peritoneum was shut off; later the cyst was incised and drained. In both cases daughter cysts escaped, and in both cases the inner cyst wall was entirely pulled out. In four months both wounds were healed. After the ova find access to the alimentary canal the embryos are set free, and get into the circulation through the absorbing powers of the epithelium or by their own power of movement. They mostly get into the branches of the portal vein, as is proved by the frequency of hydatid disease of the liver and by the presence of embryos in the portal blood, as shown in Leuckhardt's experiments. The embryos may find their way into the lymphatics, thence into the thoracic duct, and so to the heart and lungs, or they may remain in the lymph channels, giving rise to mesenteric cysts, or get into the peritoneal cavity and there develop. Thus the various foci of hydatid disease develop independently. The reason for the infrequency of the multiple affection is that the gastric juice acts deleteriously on the embryos. Owing to the absence of mechanical resistance the peritoneum is favourable to their growth. Secondary infection is proved by the growth of cysts experimentally introduced into the abdominal cavity of rabbits and by the development of multiple cysts after rupture, either traumatic or spontaneous, of the primary cyst. In multiple cysts operative treatment (as against puncture) is especially to be preferred on account of the exact localisation of the extent of the disease and the prevention of auto-infection.

(494) Acute Peritonitis in the Newly-born.

Cassel (*Berl. klin. Woch.*, October 17th, 1892, draws attention to the differences between the peritonitis of the newly-born and that of later childhood. Apart from the septic peritonitis which was not infrequent in former times, congenital syphilis, stenosis and atresia of the alimentary canal are recognised as causes of this affection. Not infrequently cases occur in which no such cause is present, and three instances are here given. They occurred in infants aged 14, 12, and 21 days respectively. The mothers did not suffer from any puerperal affection. There was no evidence of congenital syphilis, and no stenosis of the intestine. The umbilicus was healthy. There was pain and tenderness in the abdomen, which was much distended, and presented a shining appearance, with enlarged veins over it. No fluid could be made out. The stools were irregular, and there was fever, with a tendency to collapse. Vomiting was only present in one case. In two of the cases the necropsy showed a circumscribed fibrinous peritonitis, chiefly about the transverse and ascending colon, as well as a catarrh of the intestine. The third case was thought to be one of suppurative peritonitis, as there were small abscesses present in other parts, but no examination was permitted after death. The diagnosis of peritonitis at this age is not always easy. There is, of course, no complaint of pain, and vomiting is mostly absent. As regards etiology, the author thinks that the peritonitis was here secondary to an intestinal catarrh, which was present in all three cases. The prognosis is bad. The third case seemed to be improving a little up to the time that abscesses appeared elsewhere. The author is of opinion that this peritonitis of the newly-born is not so very rare although owing to the absence of necropsies attention has not been directed to it.

(495) Acute Pneumonia Terminating in Induration.

A. Fraenkel (*Deut. med. Woch.*, October 27th, 1892) reports a case which occurred in a man, aged 49, with aortic aneurysm. Four weeks previously he had an acute illness, with cough, rusty sputum, and signs of consolidation at the left base. This was followed by a remittent temperature, and later there was dulness all over the left side of the chest. A metapneumonic empyema was thought of. Shortly after 1,200 c.c. of a bloodstained fluid were withdrawn, but with no great relief to the breathing. The diagnosis between aneurysm and growth was very difficult. The patient died a few days later. Besides the aneurysm, which was much larger than a man's fist, and which projected from the aortic arch against the trachea, the left lung was found to be solid and hard to the touch. Many yellow points corresponding to alveoli and representing fatty changes were seen. Acute pneumonia with delayed resolution is not so very rare. The author believes that this is mostly due to induration. In these cases the alveoli of the lung are filled with connective tissue. This is attached to the alveolar wall at one place only by a narrow pedicle, and thus forms a polypoid mass. The space between this and the alveolar wall is filled with proliferating epithelial cells. Different stages in the process were observed in this case, the changes being most marked at the base of the lung. In this latter situation no such polypoidal mass was seen, but the whole alveolus was filled with a connective tissue rich in spindle-shaped fibres, and this was mostly in organic union with the alveolar wall. Opinions differ as to the cause of this induration of the lung. Some think it due to the vascularisation of the exudation. In one case the author obtained a pure cultivation of the streptococcus. He thinks that the complication is brought about by some cause penetrating from without.

SURGERY.

(496) Removal of Hydatid Cyst of Brain.

Llobet (*Rev. de Chir.*, November) reports a case of extirpation of a hydatid cyst in the brain by temporary and extensive resection of the cranial vault. The patient was a boy aged 13. The presence of an increasing and compressing tumour in the motor region of the left cerebral hemisphere was indicated by the following symptoms: Cephalalgia, Jacksonian epilepsy, almost complete hemiplegia on the right side, contractures of the paralysed limbs, exaggerated patellar reflex on the right side, partial aphasia, almost total loss of intelligence and memory; diminished vision, and extreme mydriasis in the right

eye. The general health was good, and the patient robust and vigorous. As there was no history of syphilis in either of the parents, it was difficult to establish a precise diagnosis. The author was led to suspect the existence of a hydatid cyst by the progressive character of the symptoms and the good general health of the patient. As medical treatment had proved useless, it was decided to expose the brain by temporary resection of the vault of the cranium on the left side. A flap was marked out, which measured 8 centimetres in the horizontal, and 10 centimetres in the vertical direction. The summit of the flap reached a point about one centimetre and a half below the sagittal suture, and the pedicle, which was not more than 3 centimetres in width, was situated about two finger-breadths above the external ear. After incision of the scalp, and elevation of the periosteum along the margin of the flap, the exposed bone was cut through with a circular saw. The portion of bone beneath the skin forming the pedicle of the flap was then fractured, and the large osteo-cutaneous flap turned downwards. The presence of clear fluid under the smooth and elevated dura mater having been proved by an exploratory puncture, this membrane was incised, and the brain exposed over an extent of about two centimetres. The cyst, which contained 260 grammes of fluid, was removed without difficulty. In the situation of the cyst there was a deep excavation in the left hemisphere, and the portion of cortical substance which had covered the tumour was reduced to a thin and loose layer. After careful examination of the cavity the osteo-cutaneous flap was replaced, and fixed in its normal situation by sutures of silk. The wound was drained by a tube passed through the lowest part of the flap. The patient made a fair recovery, and when seen again about six months after the date of operation, the author found that there had been no return of any of the above mentioned symptoms with the exception of the impairment of sight and of memory. The acuity of vision on the right side was still diminishing, and the memory was so feeble that the boy could not be taught even the letters of the alphabet.

(497) Thyroidectomy.

W. T. Hayward (*Austral. Med. Gaz.*, September, 1892) reports the following case: A girl, aged 13½ years, was suffering from a rapidly-growing goître, which produced symptoms of anæmia, with headache, shortness of breath on exertion, and palpitation of the heart. The pressure symptoms increasing, thyroidectomy was decided on, and on April 8th the left lobe of the thyroid was removed with strict antiseptic precautions. The portion removed measured 3½ inches in length, 2½ in breadth, and 1 in thickness, and weighed 5 ounces. On April 21st the patient left the hospital feeling quite well, though rather weak and pale; the wound was firmly healed, the scar being 4½ inches long. On June 30th—twelve weeks after the operation—she was apparently in perfect health, had a good colour, had gained flesh, was able to walk long distances and over hilly ground without fatigue, had a good appetite, and digested her food well. The catamenia had reappeared and were normal in every way. The neck was greatly reduced in size, and, on measuring the collar of the dress she had worn the week before the operation and one she was wearing when shown to the members of the South Australian Branch of the British Medical Association on August 18th, the difference was found to be nearly four inches. The tumour itself was hardly noticeable.

(498) Treatment of Strumous Cicatrices of the Neck.

Calot (*Rev. de Chir.*, May 10th) reports two cases in which he has obtained good results by operation. In the first case the whole of the scarred skin, which measured 4 centimetres by 3, was dissected up, together with about 1 to 2 millimetres of the surrounding normal integument. This was removed, and the edges of the wound were freed for a short distance, and then completely united with sutures, no drainage of any kind being employed. The result was very satisfactory, the original scarred surface being replaced by a fine cicatricial line, which was scarcely visible. In the second case the same method was adopted with a similar good result. Calot proposes the same plan for scrofulous ulcers, and also for ulcers which are kept up by the presence of a suppurating gland. He advises total removal of the suppurating gland, along with the surrounding ulcerating tissues and skin, and then close suture of the wound and no drainage.

(499) Absence of Microbes in the Fluid of the Hernial Sac.

Rovsing (*Centralbl. f. Chir.*, August 13th) gives the results of a bacteriological examination of the fluid in the sac of five cases of incarcerated hernia. In one the period of incarceration was twenty-four hours, in another forty-eight hours, and in the remainder not more than three days. In all these cases the fluid was found to be absolutely sterile. These observations confirm those of Garré, who says, as a result of his researches on this subject, that no micro-organisms are found in the fluid of a hernial sac, and that they do not pass through the walls of intestine, which are simply incarcerated.

MIDWIFERY AND DISEASES OF WOMEN.

(500) Pregnancy: Fibroid Disease Overlooked.

Tarnier (*Journ. des Sages Femmes*, October 16th, 1892) reports the following case: A woman, aged 30, was admitted close upon term. It was her first pregnancy. Three months before the beginning of gestation she lost much blood during the period, and the two succeeding periods lasted from fifteen to twenty days. Then the patient became pregnant, and there was no further show until term. Then rupture of the membranes occurred, with flooding, which continued for five days. At the end of that time the first pains began. Labour was concluded within twenty-four hours; the presentation was left occipito-anterior. The child was much under weight, so that it was suspected to be premature. A skilled midwife examined the mother with care, to see if a twin remained in the uterus. None was found, and she seemed to have failed to make out any abnormality in the uterus. Shortly afterwards severe flooding set in. The placenta was removed manually from the uterus. It was narrow, thick, and bilobed. Some of the membranes remained behind. As the midwife suspected that a piece of placenta might also remain behind, she once more introduced her hand and detected a prominence on the uterine wall. Tarnier and Tissier were called in, and found that there were three such prominences. Multiple fibroids evidently existed. The membranes were all cleared away. Tarnier himself administered an intrauterine injection of permanganate of potash. Later on tincture of iodine was injected into the uterus. The patient recovered. Five months after delivery she was in good general health, but the abdomen was distended as in the fifth month of pregnancy. Tarnier expressed surprise that the real nature of the disease was overlooked for so long. A submucous fibroid used often to be delivered after labour, the mucosa sloughing. He had seen this occur three times in the same woman. Antiseptics appeared to prevent sloughing of the mucous membrane covering a fibroid, hence the spontaneous expulsion of these tumours after delivery was now rare.

(501) Pregnancy in Uterus Bicornis.

Scheepers (*Deut. med. Woch.*, No. 20, 1892) relates a case of uterus bicornis unicollis, where the fœtus developed in the right horn. Abortion occurred at the sixth month. Before the expulsion of the ovum, a decidua was discharged entire from the left horn. The parts were examined during labour; the pregnant cornua felt unusually long and slender, running obliquely from below upwards and to the right. On the left side of the abdomen, immediately above the symphysis, a hard body, about the size of a fist, was detected. It was connected with the uterus. After delivery, the cornua were readily detected. They united at an obtuse angle in the middle line.

(502) Puerperal Diaphragmatic Abscess.

Peyrot (*Arch. de Tocol. et de Gynéc.*, November, 1892) took charge of a patient, aged 28, in the Lariboisière Hospital on February 28th, 1891. She had aborted nine days previously; diarrhœa and fever set in. He applied the curette at once to the interior of the uterus, and brought away fœtid placental relics; the uterus was washed out with sublimate

and packed with iodoform gauze. Pain was soon felt over the base of the right lung. On March 9th a smaller area of dulness was detected; a puncture brought away pus. An incision was therefore made at the level of the ninth intercostal space. Two inches of the tenth rib were resected subperiosteally. The pleura was incised, but no fluid escaped. A fresh puncture was made through the diaphragm. Much pus escaped. The diaphragm was fixed by suture to the edges of the incision in the pleura, and the muscular layer laid open for over an inch. The finger and an exploring needle plunged into the substance of the liver detected a bony mass. The patient, still ailing, discharged herself on April 16th, and reentered on April 24th in a moribund condition. A subdiaphragmatic abscess was found; the right kidney contained a large calcified hydatid cyst. The connective tissue around the cyst was full of pus, which extended from the diaphragm to the right iliac fossa.

(503) Osteosarcoma of Pelvis taken for Pelvic Inflammation.

G. Braun (*Centralbl. f. Gynäk*, No. 45, 1892) read before a recent meeting of the Vienna Obstetrical Society the case of a woman, aged 25, who was first seen on August 5th, 1891. There was a swelling in the left broad ligament. The diagnosis was "inflammatory pelvic exudation." By October the swelling had increased five-fold. The left leg and the thigh were distinctly swollen. In December the growth extended to the left hypochondrium. It seemed as though about to burst. Braun therefore made an exploratory incision 2½ inches long near the iliac crest. Then it was discovered that the tumour was an osteosarcoma uteri. The patient died six weeks later. In the discussion on this case Schauta related a similar case. There seemed to be much pelvic exudation filling Douglas's pouch; it showed no signs of reabsorption, and, three years later, the entire pelvis was filled with deposit. Professor Gussenbaur resected the sacrum, and discovered that the deposit was really a sarcomatous tumour. The patient died on the table. Chrobak and Hofmokl laid stress on pain with œdema of the corresponding lower extremity as diagnostic of sarcoma of the true pelvis from a very early stage.

(504) Micro-organisms in the Milk of Healthy Lying-in Women.

Palleske (*Virchow's Archiv*, vol. cxxx., p. 185, November, 1892), concludes, as the result of a series of researches, that micro-organisms are to be found in the milk of many healthy women—possibly in 50 per cent. These germs belong to the cocci, and solely, as far as Palleske has himself determined, to the variety known as staphylococcus pyogenes albus. It is doubtful whether the germ reaches the mammary gland through the blood current, or enters the ducts from without. It is certain that the staphyloccocus may actually abound in milk fresh from the mammary gland without the simultaneous or consequent occurrence of inflamed breast or general symptoms of fever.

(505) Bacillus Lanceolatus in Pyosalpinx.

Witte, of Berlin (*Deutsche med. Woch.*, No. 20, 1892), states that Martin diagnosed suppuration of the left Fallopian tube with peritonitis in a woman who had suffered for about a year from hypogastric pains and for a fortnight from fever. Abdominal section was performed; unfortunately the pyosalpinx burst during extraction, and the pus escaped into the peritoneal cavity. Notwithstanding careful cleansing of the peritoneum, the patient died of sepsis in forty-one hours. The pus and the tube were examined. Not only staphylococcus existed in small quantities, but the pus also contained diplococcus lanceolatus. Witte believes that the germs had been conveyed into the tubes after existing for a while in normal vaginal mucus.

(506) Frequency of Teratological Cases in General Practice.

G. W. H. Kemper (*Phil. Med. News*, September 12th, 1891), in a paper on "One Thousand Cases of Labour," states that he had met with four anencephalic children. One occurred in a primipara, the other three in multiparæ; one was a male, the others were females, and all occurred in his last 100 cases. He also met with an example of encephalocele, with one of lumbar spina bifida, and with two of single talipes.

THERAPEUTICS.

(507) Tetanus Antitoxin in Tetanus.

Berger (*Sem. Méd.*, November 30th), at a meeting of the Academy of Medicine on November 29th, related the case of a young man, aged 28, who was wounded on the little finger of the left hand on July 23rd. Fifteen days later he began to develop the symptoms of tetanus, which became more and more marked in spite of the administration of chloral, and on August 16th he had the first attack of general tetanic convulsions. This was followed by daily attacks of increased severity. Chloral was pushed to 24 grammes a day in conjunction with 0.06 centigramme of morphine without avail, and death seemed imminent. The finger was amputated on September 2nd, and on that and the following days antitetanic serum, in doses of 40 grammes, representing 4 grammes of the dry extract (antitoxin) was injected every day, according to the method of Tizzoni and Cattani. Amelioration followed, the tetanic attacks ceased, and the patient left the hospital in the course of a month cured.

(508) Direct Application of Menthol to the Stomach.

A. L. Benedict (*Inter. Med. Mag.*, November), speaks well of the effect of a menthol spray applied directly to the mucous membrane of the stomach in cases of atony or catarrh of that organ. The method of procedure is as follows: The patient should be directed to take no food within four hours of the application, and the last meal should be a light one. Lavage is carried out in the ordinary way, plain water or a weak alkaline solution of about the body temperature being used, and the washing being repeated until the fluid returns free from shreds of mucus. A 1 to 5 per cent. oily solution of menthol should then be sprayed into the stomach through the tube; an ordinary nickel tube perfume atomiser serves the purpose perfectly well. The spray may be directed into the funnel, or the latter may be removed, and the tip of the atomiser introduced into the tube. The vapour, like the fluid previously used, should have an alternate ingress and egress; by pinching the tube close around the tip of the atomiser the stomach may be fully distended, and it should then be allowed to contract upon its gaseous contents, when the vapour and even drops of water will be expelled with considerable force from the mouth of the tube. The patient almost always states that he perceives the taste of peppermint in his mouth. The vapour should be introducted into the stomach, and that organ allowed to contract upon it six or seven times, so as to ensure the remedy coming in contact with the whole internal surface of the viscus. Details of several cases in which this method was used with great advantage are given, and the author suggests that other medicinal agents, such as nitrate of silver, might be applied to the internal surface of the stomach in the same way in cases of gastric ulcer, etc.

(509) Ichthyol.

Latteux (Reprint from *Bull. et Mém. de la Soc. de Méd. Prat.*, April) has tested bacteriologically the antiseptic power of ichthyol on the following micro-organisms—staphylococcus pyogenes aureus and pyogenes albus, streptococcus erysipelatis and pyogenes, streptococcus from a case of purulent pleurisy, bacillus typhosus, diplococcus pneumoniæ, micrococcus gonorrhœæ, and trichophyton tonsurans. Of these nine species of micro-organisms only one—the streptococcus pyogenes—resisted the action of 3 to 4 per cent. solutions of sulphoichthyolate of ammonia, and that microorganism was destroyed by a solution of 6 to 7 per cent. The drug can be used in practice without any inconvenience in a strength of 5 per cent. or even 10 per cent., and its employment ensures perfect antisepsis. The author states that ichthyol is likely to be particularly useful in cases in which frequent washing out is indicated. He has found it efficacious in numerous cases of vaginal inflammation, and he adds that patients greatly prefer it to iodoform on account of its comparative freedom from smell. He further states that ichthyol given internally or inhaled is very beneficial in diseases of the respiratory passages. —E. Acosta and F. Grande Rossi (*Cron. Med. Quir. de la Habana*, November) have also made experiments to test the antiseptic power of ichthyol in the fol-

lowing manner: Taking ten test tubes, each containing 10 grammes of sterilised broth, ichthyol was added to each of these in graduated doses from 1 up to 10 drops. In these tubes a very virulent culture of anthrax was sown, and they were then placed in an incubator at a temperature of 37° C. On examining the tubes five days later there was no evidence of growth appreciable to the naked eye, owing to the fact that in those which contained more than four drops of ichthyol that substance had given the contents a dark red colour. Under the microscope, however, anthrax bacilli were found in all the tubes, besides bacilli and micrococci which had unquestionably been contained in the ichthyol. On sowing these micro-organisms in agar and gelatine, thick milky-white colonies were very rapidly produced. These were formed by a streptococcus which seemed to prevent the growth of the other micro-organisms inasmuch as careful microscopic examination failed to reveal the presence of any other. In similar experiments with staphylococcus pyogenes aureus and micrococcus prodigiosus, ichthyol showed no greater bactericidal potency. The authors conclude that if ichthyol has any antiseptic power it is only for a particular species of micro-organism. They add that the substance itself contains in it numerous germs, the existence of which is easily proved by sowing it directly in a nutrient medium.

(510) Treatment of Rabies.

IN a previous communication (*Rif. Med.*, No. 109, 1892) Tizzoni and Centanni showed that the serum of a rabbit fully immunised against tetanus would serve not only to prevent rabies or to hinder its development when injected in the first moments of the period of incubation, but also to cure the disease in a more advanced stage, and when symptoms have become well developed. Tizzoni and Schwartz (*Rif. Med.*, January, 1892) had described their attempts to obtain the curative substance in the solid form. They demonstrated that this substance was precipitable by alcohol, and that, when redissolved, it still retained its efficacy so far as to annul the virulence of the cords from rabid animals when placed in contact with them. This substance would not, however, protect inoculated animals from death. The material having been obtained, however, from animals only imperfectly immunised, these results ought not to be considered as final. In a recent paper (*Rif. Med.*, August 10th, 1892) Tizzoni and Centanni describe further experiments in the same direction, the material in this case coming from animals more thoroughly immunised (being refractory even to the *virus fixe*). The blood was taken from a large artery, and the serum separated and then precipitated with 10 volumes of absolute alcohol; the precipitate was then separated, and dried *in vacuo*. The immunising power of the serum of these animals had in several cases been ascertained, and the dose required to produce a cure was also known. The power of these products was tested by inoculating animals in the sciatic nerve with the *virus* "*di strada*," and not commencing the protective injections till at least eight days had elapsed. At this time the first symptoms of the disease were plainly apparent. The precipitate from 14 to 21 c.c. of serum was dissolved in sterile distilled water, and divided into from five to six doses, which were administered by injection into the subcutaneous tissue of the animals. Four animals were inoculated with rabies, and submitted to the curative injections, commencing on the eighth or ninth day afterwards. In each case the success was complete, and the animals recovered. Seeing the uniform results here obtained, the authors did not think it necessary to repeat the experiment more frequently. The cures seem to have been permanent in each case, so that there is no longer a doubt that alcohol has the power of precipitating the immunising principle from the serum of fully immunised rabbits without destroying its curative powers. The results are thus strictly comparable with those obtained in the case of tetanus.

(511) Treatment of Syphilitic Ulcers.

V. T. SVERTCHKOFF (*Vratch*, No. 38, 1892) finds that inveterate or obstinate syphilitic ulcers of any kind are best treated as follows: The lesion should be thoroughly cleansed with a 2 per cent. solution of hydrogen peroxide, then dried with absorbent cotton wool, and covered with a piece of wool soaked in a 1 to 2 mixture of carbolic acid and camphor. The dressing should be changed two or three times a day. In from three to five days the ulcer becomes cleaner, and studded all over with abundant succulent granulations. After this it should be dressed twice daily, either with a 1 to 4 mixture of aristol and vaseline oil, or with a mixture of dermatol and vaseline in equal parts, the layer being covered with a piece of mercurial plaster twice as large as the ulcer. Rapid cicatrisation ensues, the lesion healing soundly according to its size, in from fifteen to forty days from the commencement of the treatment. The author mentions that in his hands the campho-phenol mixture alone proved of great service in cases of simple ulcers, suppurating wounds, soft chancres, and chancroid buboes.

PATHOLOGY.

(512) Tuberculosis and Lactation.

AT the Pædiatric Congress recently held at Naples, N. Fede (*Rif. Med.*, October 25th) said he had made experiments as to the transmissibility of tuberculosis by mother's milk by inoculating, with antiseptic precautions, guinea-pigs (under the skin and into the peritoneal cavity) and rabbits with the milk of tuberculous women. In no single instance did any of the animals show signs of tuberculosis. He added that in no case did the milk contain bacilli, however far advanced the pulmonary disease was. De Bonis, from experiments made by himself, had come to the same conclusion as De Fede.

(513) Diabetes Mellitus after Extirpation of the Pancreas.

MINKOWSKI (*Centralbl. für allgem. Pathologie*, B. iii, No. 9) has endeavoured to ascertain whether the diabetes mellitus which supervenes in dogs after extirpation of the pancreas can be prevented by transplantation of a small portion of the gland to some part of the abdominal cavity; this experiment is justified by the observation that diabetes does not appear when portions of the pancreas are accidentally left behind in the operation for removal. Dogs rendered diabetic by removal of this organ succumb readily to operation. The proposed experiment was therefore conducted thus: A healthy dog was selected, and from the tail of the pancreas a portion, connected with the body merely by a vascular stalk, was cut off and fixed to the peritoneum of the abdominal wall and also to the skin, a fistula being established. Having assured himself that no atrophy of the transplanted portion had taken place Minkowski next extirpated the remainder of the pancreas. The dog remained free from diabetes. The disease appeared, however, when the transplanted portion was removed or when the vessels supplying it were ligatured.

(514) Artificial Eczema.

UNNA (*Monats. f. prakt. Derm.*, No. 10, 1892) demonstrated to the Medical Society of Hamburg eczematous spots on himself and his laboratory servant, produced by inoculation with a special coccus, which had been cultivated from eczematous fluids. The cultivation of the coccus required special conditions as regards contact with the oxygen of the air, and sufficient moisture.

(515) Syringomyelia.

CRAMER (*Centralbl. f. allgem. Path.*, September 27th, 1892), after a review of recent literature, summarises our knowledge upon this subject as follows:—1. The causation of the disease is obscure. In some cases it appears to have a congenital basis, and a history of trauma is given. 2. The symptoms of the disease may be produced by various lesions; in most cases, however, there is a chronic overgrowth of the neuroglia. 3. The chief seat of the lesion is in the grey matter behind the central canal of the cord. 4. Morvan's disease (paresis, with analgesia, and necrotic conditions, noticeable in the upper limbs) is clinically and pathologico-anatomically a form of syringomyelia. But in it the peripheral nerves may be diseased. 5. Syringomyelia may last two to three years (glioma), or 3 to 4 decenniums (simple overgrowth of glia). 6. The cavity originates in destruction of the diseased tissue. 7. The central canal of the spinal cord participates only secondarily in the formation of the cavity.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(516) Erythromelalgia.

Senator (*Berl. klin. Woch.*, November 7th, 1892) showed a case of this disease before one of the Berlin medical societies at the same meeting as Gerhardt showed his case (see Epitome, November 5th, 1892, par. 385). A man, aged 44, previously healthy, was seized one and a half year before with neuralgic pains and weakness in the arms and then in the legs. Later a more or less symmetrical redness appeared. When seen there was a deep-coloured redness, disappearing on pressure, over the metacarpo-phalangeal and first phalangeal joints of both hands and also over the region of the elbows. Some redness was also present over the malleoli, the dorsa of the feet, and in the region of the left knee. The redness varied in intensity, being worse in the summer, and no pain existed now. Some small nodules were seen in the reddened patches on the backs of the hands. The bones and joints were healthy, and there was no visceral disease. Drawing the nail over the skin of the arm or chest produced a streak similar to that seen in urticaria. Among other remarks, the author says that this disease differs from erythema caloricum by affecting the feet and sparing the hands, by its onset with pain preceding the redness and by its persisting for years. It is possible that some of the recorded cases of habitual erythema may have belonged to erythromelalgia. The disease is an angio-neurosis. As regards the nodules, vasomotor disturbances are known to be accompanied by anomalies of hypertrophy and atrophy, but these nodules have not apparently been hitherto described in erythromelalgia. The patient felt better after electrical treatment, but no objective improvement was noted. Antifebrin considerably relieved the pains when present. Bernhardt (*ibid.*) also showed a case in a woman, aged 50. Five years before she had pain in the hands and feet followed by redness and swelling. Both palmar and dorsal surfaces of the hands were affected. The redness was not uniform, and the skin over the wrist-joint was not involved. There was swelling and tenderness over the reddened parts and pain on active movements. The joints were unaffected. The nerves and muscles of the arms were also tender on pressure. Contrary to other cases, she was worse in the cold weather. The fingers felt as if stuffed, but sensation was unaffected. The condition of the feet had much improved, so that the patient could walk well.

(517) Enteroptosis.

After giving a historical sketch Krez (*Münch. med. Woch.*, August 30th, 1892) refers to Bartel's view with regard to the occurrence together of movable kidney and dilatation of the stomach. If owing to tight lacing the kidney is pushed down the descending portion of the duodenum may be pressed upon and the outflow from the stomach made difficult. In one case recorded by Heller the duodenum was actually found to be dilated. Glénard was the first to point to prolapse of the various organs as a cause of nervous dyspepsia. The hepatic flexure of the colon, the transverse colon, and the stomach sink in position. It is said that enterostenosis may thus arise and that by prolapse of the duodenum a kinking may take place. The frequent displacement of the kidney is only one link in the chain of these displaced organs, and prolapse of the uterus completes the condition. The diagnosis of enteroptosis is made by pressure on the hypogastrium upwards and inwards, when the symptoms are relieved. The author relates the case of a woman whose symptoms were referred to enteroptosis, and who died subsequently of tuberculosis. The stomach was dilated and displaced downwards, and the transverse colon was situated three fingers' breadth below the navel. The hepatic flexure was on a level with the crista ilii. Both kidneys, especially the right, were displaced. The right kidney could be brought forward towards the navel and put back into its place. The liver showed a constriction and was adherent to the diaphragm. The spleen was unaffected. The duodenum was not dilated. The displacement of these organs in the sense used by Glénard is not to be doubted. The author refers to five cases of enteroptosis and analyses the symptoms present. He believes that the whole process is commenced by the sinking of the hepatic flexure of the colon as this has the loosest connections with the posterior abdominal wall. Of the causes of enteroptosis child bearing is the most important, but others, such as tight lacing, rapid disappearance of fat, riding, dancing, etc., must be taken into account. The author refers also to hereditary predisposition. The treatment is chiefly by the hypogastric belt.

(518) Poisoning by Carbon Bisulphide.

Petersen records (*Boston Med. and Surg. Jour.*, October 6th, 1892) three cases of acute mania from this cause. In none was there any hereditary taint; all were healthy, strong young men, working in the same department of a rubber factory, where they were exposed to the fumes of the mixture of CS_2 and S_2Cl commonly used in the preparation of rubber goods; in all it was the first attack. One of them presented other manifestations of this form of poisoning the others were in so maniacal a condition that it was impossible to ascertain whether any of the symptoms were present or not. None of them presented any neuritis, and they all recovered. The first and most prominent symptoms amongst rubber factory operatives who handle this poison is intense headache in the forehead and temples; these headaches are common amongst rubber workers, even though no further symptoms develop. As the intoxication proceeds, giddiness and even actual drunkenness become manifest, the workpeople becoming excitable, talkative, and hilarious. Among later chronic manifestations are muscular paresis due to a multiple neuritis, mental weakening and apathy, amblyopia, tinnitus, formication, anæsthesia of the feet, muscular cramps, occasionally convulsions, at first increase of sexual appetite, later impotence in men and sterility in women.

SURGERY.

(519) Craniectomy for Microcephalus.

W. H. Morrison (Reprint from *Trans. Philadelphia Co. Med. Soc.*, May, 1892), reports the following case: A boy born in August, 1888, and delivered with forceps, presented, a few days after birth, a slough behind the left external process and another in front of the right ear, the result of the pressure. When the child had reached the age of a few months it became evident that his mental condition was not up to the average, and as he grew older the deficiency became more marked, and he presented every appearance of drifting into complete idiocy. The parents were young and healthy, and there was no known tendency to mental disease or deficiency, on either side. Two children born subsequently were normal in every way. On April 17th, 1891, linear craniotomy was performed with the usual antiseptic precautions. An incision was made through the scalp beginning at the line of the hair, 2 inches above the upper edge of the left orbit, and extending backward 8 inches parallel with the median line, and 1 inch distant from it. A half-inch trephine was applied at the anterior extremity of the wound, its centre being three-quarters of an inch from the median line, and so placed that the hole in the bone did not correspond with the incision in the scalp. The disc of bone removed was one-sixteenth of an inch in thickness. A strip of the skull three-eighths of an inch wide was then removed with forceps, beginning at the trephine opening and extending backwards 7 inches parallel with the median line, and 1 inch distant from it. The dura looked healthy and was not markedly adherent. Bleeding from the bone ceased spontaneously and no ligatures were required for the scalp vessels. The wound was thoroughly cleansed and united by numerous silk sutures. A few strands of catgut were placed at each extremity for drainage, and a moist bichloride dressing applied. In two weeks the wound was completely healed. As soon as the patient had recovered from the direct effects of the operation, it was clear that a change had taken place in his mental condition. His attention could readily be engaged, and he would follow the speaker with his eyes. Within a few weeks he was able to indicate food or drink by pointing to it, and he began to pick up new words. The case was first reported in the New York *Medical Record* of July 18th, 1891. At the date of

the present report, thirteen months after the operation, a decided improvement both in the mental and the physical condition was noticeable. Morrison points out that for four months after surgical intervention was suggested the child was kept under careful observation, and every effort made to improve him by education, but without result. Within a few weeks after the operation, however, the other conditions remaining the same, there was a distinct and positive improvement. He refers to a paper by Allen Starr, published in the New York *Medical Record* of January, 23rd, 1892, which embodies reports of 25 similar operations, 18 of which were performed in the United States. Of the latter number 7 died within a short time after the operation. In the remaining 11 cases improvement was noted, but sufficient time had not elapsed at the time of the reports to warrant any definite deductions.

(520) Sympathetic Ophthalmitis.

RANDOLPH (*Arch. of Ophthal.*, July, 1892) records a case of sympathetic ophthalmitis in a man, aged 41. The right eye was wounded by a chip of metal, and six weeks later symptoms developed in the left eye. The injured eye was excised ten weeks after the accident; it was then blind, painful, and tender when touched. The sympathising eye had well-marked evidences of iritis, and vision was reduced to $\frac{1}{70}$. At the operation careful cultures were made on agar and in Esmarch tubes with material from the aqueous and vitreous humours taken with every precaution to avoid accidental inoculation of the jelly, and cover-glass preparations were made and stained for micro-organisms. The tubes were kept in an oven at a suitable temperature for ten days, and all without exception remained sterile. No micro-organisms could be found in the cover-glass preparations. A piece of iris was removed by an ordinary iridectomy from the enucleated eye, and introduced through a corneal incision into the anterior chamber of a rabbit; it was moved about in the chamber, and then partially withdrawn and left in the wound. In about two weeks' time the rabbit's eye had entirely recovered, and only a small prolapse of iris marked the site of the incision. Randolph records this case and the experiments as evidence confirmatory of the results obtained by himself, Gifford, Mozza, and Limbourg and Levy by experiments on rabbits, dogs, etc., and as opposed to those obtained by Deutschmann and published in 1882. He is strongly of opinion that Deutschmann's experiments on rabbits, in which he produced an irido-choroiditis in the second eye by injections of staphylococcus aureus into the vitreous cavity of the first eye, are not sufficient proof of the infectious origin of sympathetic ophthalmitis in man, especially as Deutschmann's results have not been confirmed by subsequent experimenters. A noteworthy piece of clinical evidence against Deutschmann's views is the well-known fact that suppurative panophthalmitis in man, in which the pus producing organisms abound, very rarely leads to sympathetic disease in the fellow eye.

(521) Transillumination.

CHEVALIER JACKSON, of Pittsburg, (*N. Y. Med. Rec.*, October 29th, 1892) states that for some years he has used transillumination in the examination of the nose and accessory cavities. He describes an instrument which obviates some of the practical disadvantages which have prevented the general use of this method of illumination. It consists of two parts, an electric lamp and a silvered glass rod. The lamp is of 50 candle power, enclosed in a case silvered within and blackened without. Projecting from the side of the case is a metal neck into which fits a perforated asbestos cork; through the cork passes the glass rod, otherwise the case is light tight. The glass rod, which may be bent into any convenient shape, is silvered over except at the ends, and the silvering is protected by varnish. The brilliant light within the lamp case is transmitted axially through this rod and issues from the distal end "with undiminished intensity." The rod does not get hot and should be slightly warmed before introduction. A rod, hooked at the distal end, can be passed behind the soft palate; if the patient then close his lips inspection through the anterior nares shows the nasal cavities brilliantly illuminated. Placed on the tongue "brilliant and practical transillumination of the antrum is had" and the "nasal cavities are brilliantly transilluminated, the outer wall under the overhanging inferior turbinated more thoroughly than can be done in any other way.....The distal end in one nostril brilliantly illuminates the other nasal chamber. Placed externally over the thyroid cartilage the larynx may be seen with the laryngoscope to be a bright red glare." Jackson has also passed a long curved glass rod into the stomach "the light glowing brightly through the anterior abdominal wall."

MIDWIFERY AND DISEASES OF WOMEN.

(522) Creation of Ureteric Fistula in Advanced Uterine Cancer.

JABOULAY, of Lyons (*Arch. de Tocol. et de Gynéc.*, November, 1892), has long noticed, as the result of *post-mortem* examinations, that when cancer of the uterus invades the broad ligaments and ureters, the patient naturally succumbs to obstruction to the escape of urine. On June 9th, 1892, a woman, aged 53, was admitted into his ward with anasarca of the face and extremities. She was semi-comatose, and could only say that she had passed no water for a week. There was advanced cancer of the cervix, and only a few drops of urine could be drawn off from the bladder. An incision about 4 inches long, was made along the outer border of the left sacro-lumbalis muscle. The aponeuroses were divided, and the retroperitoneal connective tissue exposed. The left forefinger was introduced into the wound, and a soft compressible cord, apparently as thick as a finger, was detected and drawn to the surface. It was clearly the ureter. On puncture with a bistoury a jet of urine escaped with great force. The puncture was extended, till an aperture four-fifths of an inch was made, then a hollow sound was introduced, and the edges of the wound in the ureter sewn to the incision through the integuments. A small drain was placed in the upper end of the ureter. When the sound was taken out the ureter slipped back, drawing with it the edges of the skin. Jaboulay thinks that it would have been best to divide the ureter transversely and fix the ends separately to the skin wound. Urine flowed away very freely after the operation, but on the second day the patient was very ill. Jaboulay therefore decided to open the right ureter. As there were objections to laying the patient on her left side, he performed a "paraperitoneal" operation, and succeeded in dragging the ureter forward. It was opened, fixed to the wound, and drained. Urine escaped at once, but the temperature rose high on the second day, complete suppression occurred on the third, and the patient died on the fourth. The kidneys were found small and atrophied, with dilated but empty ureters. Jaboulay maintains that the operations which he performed were justifiable; unfortunately the case was too advanced. He regrets that he left drainage tubes in the ureters.

(523) Retained Placenta; Previous Alexander's Operation.

CHALEIX (*Nouv. Arch. d'Obstét. et de Gynéc.*, Oct., 1892) delivered a woman who had undergone the operation for shortening of the round ligament on one side only. The child was born normally, but *post-partum* hæmorrhage occurred, and the placenta was incarcerated in the right cornu. As it was the right round ligament which had been shortened, Chaleix believed that the operation might have caused the irregular contraction of the uterus which incarcerated the placenta. In the discussion on this case at a Bordeaux society, Oui considered that the operation had nothing to do with the trouble at delivery. The insertion of the round ligament was sufficiently low to allow the corresponding cornu perfect freedom. The case was simply a typical one of hour-glass contraction of the uterus. Rivière had collected cases of delivery in patients who had undergone shortening of the round ligaments, and none had been troubled in respect to the expulsion of the after-birth.

(524) Syphilis and Puerperal Convulsions.

GUSTAVE LANG (*Archives de Tocol. et de Gynéc.*, November, 1892) has collected statistics in relation to this subject. His labours were originally suggested by a case of eclampsia in a syphilitic subject. There was complete coma in the intervals between the fits. The child was delivered spontaneously, and died, as well as the mother. In order to solve the question at issue, Lang searched statistics which showed the frequency

of simple albuminuria in the pregnant in general and in syphilitic pregnant women, and the frequency of albuminuria with casts in the same two classes of patients and in puerperal eclampsia. The percentage of affected cases reported by Wieger, Ingerslev, Hiridoyen, Leopold Meyer, Galabin, and Olshausen is given in the following table:

	Average.
Simple albuminuria:	
Pregnancy in general	3.4
Pregnancy with syphilis	5.55
Albuminuria with casts:	
Pregnancy in general	1.5
Pregnancy with syphilis	2.5
Puerperal convulsions	88.0

Lang is suspicious as to the low percentage of albuminuria with casts in syphilis complicating pregnancy as contrasted with the percentage of simple albuminuria in syphilis similarly complicated, for it is the former kind of change in the urine which is especially frequent in syphilitic patients in general. The percentage in question will probably prove too low. From the above statistics and from other sources he concludes: (1) that syphilis predisposes to albuminuria and nephritis; (2) that albuminuria of pregnancy is more frequent in syphilitic cases; (3) that in syphilitic cases the albuminuria is more frequently of the type seen in eclampsia; and (4) that syphilis is apparently a predisposing and an aggravating cause of eclampsia.

(525) Breech Presentation: Cephalic Version.

Tarnier (*Journ. des Sages Femmes*, November 16th) reports a case which serves as a warning against cephalic version in most cases of breech presentation. The patient had been admitted with a breech presentation; on palpation no part of the extremities could be reached. As extraction is difficult when one foot cannot be seized, Tarnier decided to perform cephalic version by the external method. This task being undertaken with the assistance of Tissier, the vagina was then explored, when it was discovered that the head indeed presented, but a hand had prolapsed. A little later the cord prolapsed as well. Under the circumstances the first complication was perhaps fortunate, as it involved some protection to the cord; on the other hand, the membranes had ruptured, a condition endangering the cord. Tarnier gave orders on leaving the ward that the cord should be watched, and if there were any fear for the child, that the cord should be reduced and the labour ended artificially. He admitted that it would have been better not to have turned. A recent breech case in the same ward had done well; one foot was brought down after the os had become thoroughly dilated, and the child was saved.

(526) Chain and Pulley for Large Uterine Fibroid.

A. Reverdin, of Geneva (*Nouv. Arch. d'Obstét. et de Gynéc.*, October 25th, 1892), finding that when a ponderous fibroid is removed by hysterectomy the assistant cannot hold it without getting in the operator's way, has contrived a chain-and-pulley apparatus, working from the ceiling. The chain is divided into two branches, each bearing a hook, which is fixed into the tumour. The assistant works the pulley. The tumour can be drawn well up, so that Douglas's pouch and the vaginal fornices are easily reached and brought into sight. The entire uterus can then be extirpated with comparative facility, and the peritoneum sewn over the vacant space.

THERAPEUTICS.

(527) Alumnol.

M. Chotzen (*Berl. klin. Woch.*, No. 48, 1892) has investigated the therapeutic action of alumnol, a substance discovered by Filehne, of Breslau. Alumnol is an aluminal salt, which contains about 15 per cent. silver and 5 per cent. aluminium. It is a fine white powder, very soluble in water, in glycerine, and in warm alcohol. It is insoluble in ether. Heinz and Leibrecht have already reported on its physiological action, and have shown it to be a harmless, odourless, and antiseptic astringent. The author has used it in more than 300 cases. It was found curative, when applied pure, to soft chancres and abscesses mixed in the proportion of 10 to 20 per cent.; with inert powders in balanitis, erosions, moist eczemas, etc. One to 5 per cent. solutions were used in moist and papular eczemas, acne of the face, boils, and urethritis. Two and a half to 10 per cent. solution in alcohol was used for the treatment of eczema, urticaria, sycosis, favus, psoriasis of the head and face; and 2½, 5, 10, and 20 per cent. lanolin ointment for eczema, seborrhœa capitis, psoriasis, and favus. Alumnol varnishes were used in papular and squamous eczemas. It was found that alumnol was efficacious in acute superficial inflammatory affections of the skin, as well as in chronic processes in which the inflammation was deeper; and in parasitic diseases (under which head the author includes erysipelas, favus, lupus, soft chancre, erosions, and gonorrhœa); and in acute and chronic inflammations of the mucous membrane.

(528) Guaiacol in Pulmonary Tuberculosis.

A. Jacobi (*Inter. Med. Mag.*, November) has used the guaiacol treatment in more than a hundred cases of pulmonary tuberculosis. Most of the patients were adults, a few were children from 4 to 13 years of age. The remedy was almost exclusively given in four daily doses after meals and at bedtime in sweetened water or in milk; in a few cases it was administered in a mild wine, or in a mixture of whisky and water. Adults took 4 drops, children from 1 to 3, each time. In no case did the amount given in one day exceed 12 drops in the case of a child, or 28 in the case of an adult. In no case had the drug to be absolutely discontinued, but three patients refused to go on with it on account of its bad taste and the disagreeable symptoms which it produced, and in two cases the administration was suspended for a time on account of slight diarrhœa. In ten cases the drug was inhaled as well as taken internally; for this purpose, soaking a sponge with guaiacol, exposing guaiacol in a plate, mixing it with water and gently heating it, and thus filling the room with the vapour, were all found satisfactory methods. The results of the treatment were almost uniformly good. Most of the patients gained strength and weight, appetite and digestion improved, cough became looser, and, after a month or two, appeared to be more mucous and less purulent. It should be said that in at least half of the cases arsenic and digitalis were given as well as guaiacol; they were exhibited in pills containing 2 milligrammes of arsenious acid (1/50), and 2 or 3 milligrammes of Merck's digitaline three times a day. Cod-liver oil and other remedies were also given as required.

(529) Antipyrin Eruption.

Moeller (*Therapeut. Monatshefte*, November, 1892), describes two attacks of erythema from which he suffered after taking antipyrin (1 gramme). In a few hours the finger-joints became swollen, and the skin covering them and the backs of the hands erythematous. The lips, nostrils, auditory canals, and conjunctivæ were reddened, swollen, and somewhat painful. Patches of erythema also appeared upon the scrotum and glans penis, and upon the latter a small ulcer formed, which healed in a fortnight, leaving no scar. Another attack, similar in every respect, occurred six weeks later after another gramme dose. In spite of careful protection, too, an ulcer again formed upon the glans. Moeller had before frequently taken antipyrin from time to time without any such effects, which could not presumably be ascribed to impure samples of the drug.—Short (*Therapeut. Monatsh.*, September, 1892) also reports a case of erythema affecting the same sites after a dose of antipyrin, which had been taken previously without unusual results.

(530) Trional and Tetronal.

Raimondi and Mariottini (*Rif. Med.*, August 17th, 1892), from a series of observations on trional and tetronal, comparing them also with sulphonal, arrive at the following conclusions: (1) Both drugs act as powerful hypnotics in the same sense as sulphonal, exercising their action on the cerebral cortex. (2) They succeeded in many cases in which sulphonal had altogether failed. (3) The influence of the ethyl group on the hypnotic action in man was marked; it was unfortunate, however, that with an increased number of ethyl groups in the molecule the toxicity of the compound steadily increased. In fact, the toxicity of sulphonal, trional, and tetronal was about as 1 to 1½ to 3. (4) The drugs have but little harmful action on the vital functions, even on the respiration, but their

action on these functions increases also in the above order. (5) They both have a slight cumulative action; in fact, if the hypnotic action of trional and tetronal is more prompt, it passes off less rapidly than that of sulphonal, and there is more danger of a cumulative effect from the very slow decomposition of the drugs in the organism after frequent successive doses. (6) With neither trional nor tetronal does there seem to be any tendency to the establishment of a condition of tolerance, nor does the dose require to be increased after a time. (7) After small doses neither drug appears to have any influence on sweat or temperature: the sleep seems to be quite natural and respiration normal. (8) The symptoms of slight poisoning by these drugs are similar to those seen in the case of sulphonal. The symptoms need not, however, give rise to alarm, as no permanent harm is done to the vital centres. In cases of severe or criminal poisoning, however, the stomach should be emptied, or if the drug is probably nearly all absorbed, its elimination should be hurried by the use of diuretics, while stimulants are given. (9) Observations on patients suffering from sleeplessness from various causes, and on lunatics, show that good effects can be got on single occasions with doses of ½, 1, or 2 grammes; for prolonged use, however, tetronal is not recommended, but trional should be alternated with sulphonal. Even with trional, however, a first large dose should be given to overcome the insomnia, and if necessary to repeat on the next day, only half or two-thirds should be given. This will keep the effect without causing any danger. (10) As to dose and time for administration: (*a*) the dose may vary from ½ 1, to 3 grammes, according to age, sex, habit, etc.; (*b*) it may be given suspended in warm milk, broth, etc.; (*c*) while with sulphonal the drug has to be given about an hour before its effect is desired, with these the administration may be deferred till it is desired to produce sleep, the hypnotic action commencing about a quarter of an hour after.

(531) Uræmia Treated by Subcutaneous Injections of Kidney Extract.

Dieulafoy (*Soc. Méd. des Hôp.*, October 14th) reports a case in which this method was adopted. The patient, a man aged 43, presented well-marked uræmic symptoms, with œdema of the lungs and oliguria, which rapidly passed into anuria. Other treatment failing to produce the least effect, a glycerine-saline extract of the cortical portion of the fresh kidneys, first of guinea-pigs and then of oxen, was prepared according to the method of Brown-Séquard; and after sterilisation by filtering, this liquid was injected hypodermically in doses of 3·5 g. thrice daily with temporary benefit. The coma passed off, and the kidneys again became active. A relapse occurred, however, after three days of this improved condition, and the patient succumbed.

(532) Quinine Poisoning.

Grosskopff (*Therap. Monatsh.*, October, 1892) reports the case of a man suffering from malaria who took against orders 2·5 g. of quinine in a single dose. An hour later he was unconscious, the face was very pale, the surface of the body cold, the pulse small and frequent, and the respiration shallow and quick. He was given two camphor and ether injections. In an hour he came to himself, but could not see. He then fell into a sleep lasting for eight or nine hours. When he woke up he still complained of his sight; this rapidly got well, and he went to his work on the next day. There was never at any time any complaint of deafness or noises in the ears. There was no return of the malaria.

PATHOLOGY.

(533) Transmission of Syphilis to Offspring.

Neumann (*Archiv für Derm. und Syph.*, Heft 4, 1892) has published an analysis of the data collected in his clinic for more than ten years regarding the transmission of syphilis to offspring. The following is a summary of his conclusions: (1) It may be transmitted to offspring through the sperm or the ovum, and the transmission may be either hereditary or after conception. (2) It is conveyed from the father much oftener than from the mother, because there are more syphilitic men than syphilitic women. When transmitted from the mother, the disease is more severe; because not only the ovum but the blood by which the embryo is nourished contains the poison. (3) Transmission takes place most frequently in the secondary stage, and the more recent the infection of the parent the more intense the disease in the fœtus. Transmission is most frequent in the first year of the disease, although it occasionally is transmitted at later stages; and exceptionally may take place from ten to twenty years after infection. (4) Infection before conception. One hundred and fifteen mothers, infected before they conceived, gave birth to 208 children; and 52 mothers suffering from tertiary syphilis gave birth to 109 children. Of these 109 conceptions there were 17 abortions, 1 premature birth, 50 children dead either at or after birth, 41 children living, healthy, and mature. Seventy-one mothers in the secondary stage gave birth 99 times, namely, 40 abortions, 4 premature confinements, 4 stillbirths, 24 died after birth, 5 living but syphilitic, 2 living, atrophic, 20 living, healthy and mature. (5) Conception and infection simultaneous. In 72 cases observed there were 38 abortions, 10 premature labours, 6 born dead, 2 living but in a suspicious condition, 5 living, syphilitic, 11 living, healthy and mature. In simultaneous infection and conception the intensity of the transmission is greatest; but even here it is shown that in recent syphilis of both parents and without treatment, a healthy child may be born. In this respect the figures contradict the statements of previous observers. (6) Infection after conception. In 72 cases there were 23 abortions, 7 premature labours, 6 macerated, 7 died after birth, 10 living, syphilitic, 2 living, atrophic, 21 living, healthy and mature. (7) Syphilis acquired by the mother in the first months of pregnancy kills the child; in the last months of pregnancy, as a rule, it is not transmitted to the offspring. (8) If the mother acquires syphilis in the ninth month of her pregnancy, transmission does not take place, owing to the fact that the disease is for a time localised, and there is no blood infection of the mother before the birth of the child. (9) Mothers may bear syphilitic children to a syphilitic father, and themselves remain free from syphilis. Such mothers are not infected when suckling their children, which shows that an immunity has been established similar to that which follows the acute exanthemata. A mother, pregnant with a syphilitic child by a syphilitic father, may become infected from other external sources, showing that the fœtus has not given her syphilis. (10) Transmission from grandparents has never yet been proved. (11) After the third year transmission slowly diminishes.

(534) Diphtheria Bacilli upon the Fauces of Patients Convalescent from that Disease.

Tobiesen (*Centralbl. f. Bakt.*, October 31st, 1892) found Loeffler's diptheria bacillus upon the fauces of twenty-four out of forty-six patients convalescent from that disease, about to be discharged from hospital. In these cases the disease had not been unusually severe, and the patients were discharged after a period of seclusion of the average duration. From these investigations it seemed possible that one-half of the discharged patients might be sources of contagion. Tobiesen was able personally to ascertain the facts in twenty one of the twenty-four cases, and his inquiries showed that one only had (probably) been a source of infection. He therefore infers that the community is practically subject to no risk from patients discharged convalescent from diphtheria, notwithstanding that many of the latter probably still have the specific bacilli upon the fauces and adjacent parts at the time of discharge.

(535) Zinc Poisoning.

Amore and Falcone (*Progr. Méd.*, November 26th) communicated a note to the Society of Biology, on November 12th, 1892, on this subject. Doses of 50 centigrammes of the oxide of zinc administered to animals by the mouth, produced vomiting, hæmoglobinuria, and albuminuria. As a rule the animals died before the end of the second week, with epithelial lesions especially marked in the kidneys. The most interesting point was the existence of glycosuria during life, and the detection of epithelial lesions in the pancreas after death, similar to those met with in the abdominal viscera.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(536) Enlarged Spleen in Children.

Kuttner (*Berl. klin. Woch.*, Nos. 44 and 45, 1892) agrees as to the uselessness of the percussion dulness in ascertaining any splenic enlargement in children. Dislocation of the spleen from pressure from above the diaphragm, and the very rarely movable spleen, must be distinguished from the enlarged spleen. Acute enlargement occurs as in the adult especially in the acute infective illnesses; among these illnesses, less generally recognised as causes of splenic enlargement, meningitis, vaccine intoxication, icterus, etc., are mentioned. As to diphtheria there is some difference of opinion. In scarlet fever and measles enlargement of the spleen is frequently mentioned by writers. It may also occur in faucial angina and erysipelas. Sometimes, however, the enlargement has existed before the illness, and to avoid errors this must be borne in mind; changes in the size of the spleen may then be of service. Chronic enlargements may result from cardiac disease, and much more rarely from genuine portal obstruction. The enlarged spleen of malaria, leukæmia, and pseudo-leukæmia are well known. In sixty cases of rickets observed by the author the spleen was enlarged in forty-four. The first symptoms of rickets—dyspepsia, intestinal catarrh, etc.—may exist for some time before the affection of the bones permits one to say that they are due to rickets. When discussing congenital syphilis as a cause, the author says that this affection leads, in the majority of cases, to rickets. He does not give any numbers in regard to the relation of this form of syphilis to enlarged spleen. A cachectic appearance, with a yellowish-white waxy-looking colour is apparently only present in children when the splenic enlargement is considerable. Examination of the blood gives too variable results to be relied upon. A case of pseudo-leukæmia is referred to in which many nucleated erythrocytes and many esinophile cells, but no karyokinesis, were observed. The author thinks that pseudo-leukæmia be an early stage of leukæmia. He to cases in which considerable minution in the size of the spleen occurs under suitable treatment.

(537) Suppurative Diaphragmatic Pleurisy and Cerebral Abscess.

Leblond (*Arch. Gén. de Méd.*, November, 1892) reports a case of basal empyema. The patient, a woman, aged 33, left the hospital practically well three months after incision and drainage. Six weeks later (September 20th, 1892) she returned complaining of cough and wasting. The sinus had reopened during the past few days. On September 29th she was suddenly seized with vertigo and clonic spasm affecting the left side of the face, but subsequently spreading to the right side. A little later in the day there was a further attack of convulsions. There was much pain in the right side of the head. On the 30th the pain continued, and there was right facial paralysis. On October 2nd, there were convulsions affecting the left arm and leg, dilated pupils, retracted neck, and slight stupor. On October 3rd she was semicomatose. There was paresis of the left side, slight clonic spasms of the right arm, and hyperæsthesia of the abdomen and thighs. On the 5th the left pupil was smaller than the right, and she was delirious. There were again convulsions on the left side. There was nausea, but no vomiting. The next day the left hemiplegia was complete and the coma absolute, and she died on the following day. There was a sinuous track, about 10 centimetres long, between the lung and diaphragm; otherwise the lung, diaphragm, and liver formed one mass. There were no other remains of the empyema cavity. A few tubercles were present in the right apex. The right hemisphere of the brain was larger than the left. There were two collections of pus: the one central, destroying the right internal capsule and adjacent ganglia and bursting into the ventricle; the other, older and subcortical, occupied the posterior part of the first and second frontal convolutions, the ascending frontal and part of the paracentral lobule. The abscesses communicated with each other by a fistulous passage, and the subcortical abscess came very near the surface at one point, where there was a patch of meningitis. The pus contained streptococci. The author refers to a case of abscess of the liver complicated by cerebral abscess. The course of events is easily traced in the this case, the first attack of vertigo corresponding to the subcortical lesion. The spasms of the right arm and the facial paralysis on the right side could not, however, be explained by the lesions found. If the abscess could have been recognised at first, trephining would certainly have been indicated, but the author does not seem to be very sanguine about the results.

(538) Sleep Movements of Epilepsy.

Putnam (*Journ. of Nerv. and Ment. Dis.*, August, 1892) suggests that a study of the movements (apart from the mere restlessness of unsound sleep) occurring in some epileptics while asleep may possibly demonstrate that the site in which the discharging lesion originates is indicated by the movements. One patient, who usually had a fit about 10 P.M., was noticed by him slowly to raise her left arm over her head, momentarily hold it in that position, then let it slide down the pillow. The act was repeated several times within a few minutes. No fit occurred that night. In a young girl who had been epileptic for ten years, definite sleep movements were habitual; the left arm was suddenly drawn up above the head, then let fall. When in a fit, the body was drawn to the left side and the left fist rested on the corresponding shoulder. Removal of a layer of cortex from the arm centre in the right cerebral hemisphere of this patient was not followed by any benefit.

(539) The Facial and Hypoglossal Nerves in Functional Hemiplegia.

From the study of extensive series of cases of functional and organic hemiplegia, König (*Neurol. Centralbl.* June 1st and 15th, July 1st, 1892) draws the following conclusions: (1) Pure functional facial, or facio-hypoglossal, paresis uncomplicated with spasticity is rare. (2) Paresis in those territories, combined with spastic conditions of various muscles, chiefly on the opposite side, is less infrequent. The presence of spasm must raise suspicion against the organic nature of the paresis. (3) Charcot's teaching that hysterical facial paresis is distinguished by its slight intensity, and the accompanying sensory disturbances is substantiated. (4) In glosso-labial hemispasm it may happen that the tongue does not deviate to the side of the spasm: the inability to move the tongue midwards from the deviation point is a more important indication of glossal spasm than abnormal position of the tongue when extended, or when lying within the oral cavity, or than the peculiar spontaneous movements of the organ. (5) The appearance of spasms, especially during voluntary movements, in the neck and shoulder muscles of the nonparalysed side may perhaps be estimated as in favour of the hemiplegia being functional.

SURGERY.

(540) Appendicitis.

Poncet and Jaboulay (*Rev. de Chir.*, November 10th), record their observations upon twenty-seven cases of appendicitis. They class them in six groups. In the first group are four cases of appendicitis, with general purulent peritonitis and gangrene of the appendix. Two of these were operated upon early, and one on the fifteenth day, by median laparotomy and washing out of the peritoneal cavity, all with a fatal result. In the second group are placed three cases of acute infectious peritonitis. In these cases there was no perforation of the intestinal wall, infection of the peritoneum taking place from a fæcal mass, or the pressure of pathogenic microbes in the lumen of the appendix. Two of them died from general peritonitis, and one recovered. In the third group are cases of incepted purulent peritonitis, with a sero-fibrinous effusion into the general peritoneal cavity. There were seven of this variety. In all the abscesses were opened by incision, and the appendix resected if it could be easily reached, and then the wound dressed with iodoform gauze. All recovered except one, in which the abscess burst into the peritoneal cavity during manipulation, and gave rise to a fatal general peritonitis. The fourth series

comprise cases of peri-appendicular abscess, without actual encroachment upon the peritoneal cavity. Nine of these were treated by anterior incision; eight recovered, and one died from abscess in the lung. In the fifth class are placed two cases of pericæcal inflammation, with false membranes, giving rise to a chronic inflammation and the production of lardaceous masses. These were treated by drainage. The sixth class includes cases of chronic dry appendicitis, accompanied by the formation of false membranes, which cause adhesions of neighbouring parts of the peritoneum. In both these cases the appendix was resected. From these cases the authors draw the following conclusions: (1) In cases of retroperitoneal, acute, subacute, or chronic appendicitis, incisions should be made as early as possible, and the appendix should be sought for and resected. (2) In cases of intraperitoneal appendicitis, with general peritonitis, septic or suppurative, they advise laparotomy, followed by washing out and drainage of the peritoneal cavity. The pelvis must be examined, and if found full of fluid, as is generally the case, it must be drained from the vagina in the female and by the ischio-rectal method in the male. (3) In localised suppurative peritonitis, incision and drainage must be done together with resection of the appendix, if possible.

(541) Brachial Neuralgia due to Exostosis of the First Rib.

Verneuil (*Rev. Gén. de Clin. et de Thér.*, November 30th), reports the following case: A girl, aged 20, came under his care at the Pitié Hospital in 1884. Five years previously she had begun to complain of numbness in the left arm; a year later she noticed a small tumour in the supraclavicular region, and soon the pain caused by this tumour extended all over the scapular region and the upper limb. On examination, a hard tumour was found springing from the first rib, close to the insertion of the scalenus posticus. The subclavian artery and the branches of the brachial plexus were pushed up and compressed by the growth. The latter was removed, and the pain ceased. Six months later the pain returned, and it was found that the tumour had recurred; it was again removed, and the patient seemed to be permanently cured. More than seven years subsequently, however (in May, 1892), she again presented herself, complaining of renewal of the pain. No bony projection could be felt on the first rib, but the cicatrix was tender to the touch, and the pain radiated over the whole arm, shoulder, and upper part of the thorax. Ricard, who was doing duty for Verneuil at the time, thinking that the brachial plexus had probably become adherent to the cicatrix, completely freed it therefrom; but this operation was not followed by any relief of the pain. Medication of the most varied kind was employed without avail, and Verneuil was on the point of giving up the case as hopeless, when it occurred to him to expose the brachial plexus, and to apply a solution of cocaine (20 per cent.) to its branches. This measure proved completely successful; the patient, on waking up from the anæsthesia, was entirely free from pain, and has not since suffered from it.

(542) Perforations of the Nasal Septum.

Hajek (*Ann. des Mal. de l'Oreille*, etc., October, 1892), classifies perforations of the nasal septum in three divisions. The first class comprises those which are due to a tuberculous process. These commence by a bilateral infiltration of the submucous tissue over the cartilaginous septum. This infiltration forms a fungous mass of tissue which breaks through the mucosa and partially fills the nasal fossæ. Perforation now takes place, and is generally limited to the inferior part of the cartilaginous septum. The second class includes those of syphilitic origin. These commence as bilateral submucous swellings in the neighbourhood of the tubercle of the septum. This soon softens in the centre, forms an ulcer with edges of thickened mucosa, and irregular in shape. The perforation always involves the bony septum, and spreads to the cartilage. The disease is accompanied by an intense purulent rhinitis. This ulcer heals under specific treatment, but often a large gap remains in the septum, with a thick irregular cicatricial border. The third class is due to what the author calls perforating ulcers. These commence by repeated epistaxis from a whitish superficial ulcer. The ulceration extends, and forms a round or oval ulcer with regular margins, which perforate the cartilaginous part of the septum. The surrounding mucous membrane of the nose is not involved. This affection undergoes a spontaneous cure, with no consecutive deformity of the nose.

(543) Spontaneous Cure of Complete Senile Cataract.

Mitvalsky (*Centralbl. f. Augenheilk.*, October, 1892), collects all the published cases which seem well authenticated. These number eighteen, to which he adds notes of two cases recently under his own observation. As all these cases have been reported within a comparatively short time, Mitvalsky concludes that the spontaneous disappearance of senile cataract is not so uncommon as has generally been supposed. The changes which occur appear to be, in most instances, degeneration of the cortical layers of the opaque lens into a milky fluid, that is, the formation of a so-called Morgagnian cataract; this fluid cortex then becomes absorbed, leaving a shrunken capsule containing a hard nucleus of varying size, which sinks to the bottom of the sac of the capsule. In other cases the fluid cortex becomes nearly or quite clear, and contains the opaque nucleus, which is freely movable within the capsule. Sooner or later this clear thin cortex undergoes absorption. In a considerable proportion (6 out of 20) of the cases, the changes in the cataractous lenses have begun after an attack of glaucoma.

(544) Perforation of the Mastoid Antrum on its Median Aspect.

Guye (*Arch. of Otol.*, vol. xxi, No. 3, 1892) relates two cases of Bezold's perforation of the mastoid antrum. The first concerns a man, aged 50, in whom, in addition to perforation of the membrane and facial paralysis, there was a fistula on the posterior wall of the meatus with a polypoid granulation and a hard swelling in the neck and retromaxillary fossa. Pressure on this caused pus to exude from the fistula. A diagnosis of double perforation of the antrum was made. After the application of moist heat, the abscess pointed in front of the sterno-mastoid; it was opened and liquid syringed through it came out of the meatus. Complete recovery ensued. In the second case, the patient, a man of 65, who suffered from long standing ozæna, temporary otorrhœa, and obstinate headache, presented a bulging of the posterior wall of the canal, and a hard sensitive swelling along the lower margin of the skull. The antrum was chiselled, pus being found in it, and pus escaped on pressing the tumour. The latter had almost disappeared when a large postpharyngeal abscess was found. This was opened, as well as two other abscesses deeper in the pharynx. Recovery. The author recommends, after opening the antrum, to wait for an indication for making a counteropening, rather than break through the inner wall, as advised by Bezold.

MIDWIFERY AND DISEASES OF WOMEN.

(545) "Cuneihysterectomy."

Thiriar, of Brussels (*Ann. de Gynéc. et d'Obstét.*, October), advocates the treatment of anteflexion by excision of a wedge-shaped piece of uterine tissue, including the most prominent part of the flexion. The raw surfaces are then united by suture. In one case in which he operated the patient was 22; she had borne a child eighteen months previously. She had always been subject to dysmenorrhœa. For five months menstruation was attended with unusually violent pain and fits of vomiting. There was free leucorrhœa between the periods, and micturition was difficult. The anteflexion, which was very acute, was straightened with the hysterometer a pessary was applied, but it could not be borne. "Cuneihysterectomy" was, therefore, performed. An abdominal incision was made, over four and a-half inches long. The uterus was drawn up with the help of a volsella. An elliptical piece of the uterus, four-fifths of an inch broad, was cut out of the sharp angle at the back of the anteflexed uterus. It included the entire thickness of the uterus excepting the mucous membrane. There was but little hæmorrhage. Five No. 2 catgut sutures were applied to bring the edges of the wound together, and the uterus at once assumed its natural axis. The organ was supported by an iodoform gauze tampon. Two

months later the patient was in excellent health. The period had occurred a week previously, unattended by any of the old troubles. Thiriar holds that this plastic operation offers a perfect remedy for anteflexion, just as hysteropexy and Alexander's operation are the admitted surgical remedies for retroflexion.

(546) Alexander's Operation Modified.

Chalot (*Nouv. Arch. d'Obstét. et de Gynéc.*, October) shortens the round ligaments in a more complete manner than has hitherto been practised. The inguinal canal is laid almost completely open, so that without difficulty the entire thickness of the round ligament is detected even in the fattest women. Each ligament is dissected deeply up to and beyond the internal ring, even into the peritoneal cavity. The uterus is not held in its reduced or normal position by an assistant, but reduction is performed by firm traction on the two round ligaments. Each ligament is fixed by suture along the whole of its course in the inguinal canal. No pessary is applied after the operation. Chalot has successfully operated in six cases of painful reducible retroflexion. In the earliest case, performed fourteen months before publication, the uterus remained in its normal position. Chalot maintains that his operation is certain of its aim, and more complete than its prototype established by Alexander. Owing to more thorough exposure of the parts, it is simpler and easier.

(547) Urinary Tuberculosis of Genitals.

Hünermann (*Archiv f. Gynäk.*, vol. xliii., 1892, p. 40) reports the following case: A woman, aged 25, and of healthy family, was normally delivered in 1886 In November, 1890, began her second pregnancy. She had, up till that date, felt well and menstruated regularly. Sacral pains set in early in January, 1891, and her health became impaired. On March 11th she aborted. Her temperature rose to 101° two hours later, and in a few days she was very ill. On March 18th there was acute pulmonary catarrh, cyanosis, and evidence of peritonitis. Some fœtid solid material was removed from the uterine cavity by aid of the curette. The temperature was over 105°, the pulse 132. All the symptoms of acute miliary tuberculosis set in; the ankle-joints were involved, the respiration very laboured. The patient died on March 27th. Both tubes and the endometrium were the seat of broken-down caseous tubercle. There was miliary tubercle in the inflamed peritoneum, and the lungs and diaphragm were studded with quite recent miliary deposits. The liver, spleen, and kidneys were similarly involved. Death was therefore due to acute miliary tuberculosis, associated with septic peritonitis, and the primary focus of the tubercle lay in the internal organs. The disease was recent, even in the tubes, probably not older than six or eight weeks. There was no evidence of gonorrhœal infection, nor was the husband tuberculous. Schellong relates a case where acute miliary tuberculosis and general tuberculous peritonitis occurred in childbed, and was traced to old tuberculous disease of the right tube.

(548) Twin Ectopic Gestation: Abortion per Vias Naturales.

A. L. Robinson (*N. Y. Med. Jour.*, June 18th, 1892) attended multipara, aged 27, who suffered from influenza. The last period occurred on November 4th, 1891. Vomiting and metrorrhagia occurred. On February 6th, 1892, the cervix was dilated and the uterine cavity explored. Some clots were removed, but no trace of a fœtus or placenta could be found. Alarming symptoms followed. On February 17th the patient gave birth to an embryo; there was much flooding next day, and another embryo was expelled. The uterus was curetted and a large clot and shreds of membrane removed, as well as small pieces of placenta, which were scraped with difficulty from the uterine end of the right tube. The embryos were of about fourteen weeks' development. They were more than five inches in length, and had been clearly subject to pressure, which caused them to be elongated. The heads were shapeless masses. A rigor occurred on February 23rd; an entire placenta was removed from the uterus on February 29th, but the patient was very ill, and died on March 1st. Robinson is convinced that the case was an interstitial pregnancy on the right sight, the growth of the embryos enlarging the uterine orifice of the tube and permitting their entrance into the uterus. The shape of the uterine cavity, as disclosed by the several examinations, negatives the probability that this was a case of pregnancy in one portion of a uterus bicornis. Unfortunately a *post-mortem* examination was not obtained.

(549) Serous Cyst of the Gastro-Splenic Ligament.

Pomier (*Nouv. Arch. d'Obstét. et de Gynéc.*, October, 1892), removed a specimen of this very rare tumour at the Pau Hospital in 1891. It contained more than 1,500 grammes of purely serous fluid; no trace of echinococci could be found. The capsule required "marsupialisation," that is to say, its edges were brought up to the skin-wound by a purse string suture. There was no severe symptom after the operation, but two months elapsed before complete cicatrisation and cessation of all oozing.

THERAPEUTICS.

(550) Injections of Thyroid Extract in Myxœdema.

Mendel (*Münch. med. Woch.*, November 29th), reports the results of treatment of a case of myxœdema by subcutaneous injections of the extract of the thyroid glands of sheep. The patient, a woman, aged 58, was shown before the Berlin Medical Society four years since as a doubtful case of myxœdema, developing after erysipelas and rheumatism. A month ago, however, the symptoms became very defined: she became very apathetic, with no idea of time or place; skin waxy-looking and bloated; eyes almost hidden from swelling of eyelids. There was œdema over the lower part of the neck; the skin of the hands and feet was thinned, the nails splitting, and the hair lost. The axillary temperature varied from 94° to 97° F. Urine passed in small quantities; about 215 grains of urea secreted daily. Pulse of small volume; 60 per minute (formerly 70). Lower limbs hypersensitive to cold; hyposensitive to heat. After daily injections of thyroid extract, the patient appears now much better, both physically and mentally. Pulse 72 to 76; urine 2½ to 3½ pints daily; urea 310 to 540 grains; temperature 95° to 97° F.; œdema slightly diminished.

(551) Vaseline in Middle Ear Affections.

Delstanche (*Sem. Méd.*, November 30th), speaks in high terms of the value of instillations of liquid vaseline in certain middle ear affections. He says it has no bad effects of any kind, and he has discarded all other modes of treating plastic inflammations. It is also a most useful adjuvant to, and sometimes even a substitute for, paracentesis for the removal of accumulated secretions in the tympanum in chronic middle ear catarrhs. In the first stage of acute median otitis, vaseline injections are said to relieve pain instantly, and to bring about recovery in five or six days. Delstanche adds that the same treatment is of surprising efficacy in purulent middle ear affections, especially if iodoformed vaseline used.

(552) Dermatitis due to Opium.

A. J. Lanz, of Moscow (*Meditzinskoïë Obozrienïë*, No. 14, 1892), reports an unusual case of idiosyncrasy to opium. A woman, aged 29, suffering from acute bronchitis, was given eight ordinary doses of Dover's powder (two to be taken daily). About eight hours after the first powder severe rigor, fever, and headache, came on, and the whole skin turned quite red. On the third day universal desquamation occurred. When first seen by the author (four days later), the woman looked exceedingly ill, complaining of incessant shivering, thirst, anorexia, headache sleeplessness, and a feeling of tension all over the integuments. The entire cutaneous surface, from head to feet, was congested, dry, and covered with epidermic scales of varying size. From the body the epidermis could be detached in large sheets, while from the hands and feet it could be taken off in the shape of gloves and slippers. In four or five days the skin became pale, and the desquamation nearly ceased. The cough being still present, two 5-grain doses of Dover's powder were ordered. About seven hours after the first dose a severe rigor came on, and lasted several hours; and, after the second powder, the skin again became intensely congested, swollen, hot, and painful, and the patient complained of

headache, thirst, fever, etc. Two days later general desquamation again took place. Two 5-drop doses of opium tincture (*Ph. Ross.*) were again given, some time afterwards, and this was again followed by a similar train of symptoms. The woman was finally discharged well.

(553) The Action of Bromide of Ethyl.

THE observations of E. Thornton and E. Meixell (*Therap. Gaz.*, September, 1892) on the effect of bromide of ethyl on dogs and rabbits lead them to the following conclusions:—1. The chief action is exercised on the respiratory, not on the circulatory, system. 2. A depressant effect on the respiration only occurs after very large, practically excessive, doses. 3. Cardiac failure, when it occurs, follows the presence of continuous asphyxia, as the result of imperfect aëration of the blood. 4. No exception was found to the rule that death from prolonged use of the drug occurred from respiratory failure, the heart beating some time after breathing had ceased. 5. In all the experiments there was a slowing of the pulse with increase in the individual pulse waves. Associated with this there was a slight temporary fall of blood pressure. This fall did not become permanent save in cases in which the drug was pushed to the production of asphyxia, with corresponding respiratory failure. The cardiac depression produced under these circumstances seemed due rather to changes in the blood than to the direct effect of the drug on the heart. It would also seem probable that the slowing of the heart was due to stimulation of the cardio-inhibitory fibres of the vagus. This view is strengthened by the fact that the slowing does not often take place after section of these nerves. 6. In no case was there sudden failure of the respiration, and it was noted that breathing might gradually cease entirely, and then recommence if the amount had been excessive. This is probably due to the extreme volatility of the anæsthetic. Bromide of ethyl has the advantage of not irritating the respiratory tract, so that the experimenter is not confused by the effects of reflex movements. A point greatly in favour of ethyl bromide as an anæsthetic is its extreme volatility; even if the patient has had a slight over-dose, he soon loses the excess and begins to breathe again, and this can be brought about more rapidly still by a few quiet compressions of the ribs. On the whole, the authors conclude that ethyl bromide is a very good and safe anæsthetic for minor operations.

(554) Digitalis in Pneumonia.

M. A. STRIZOVER (*Meditzinskoïe Obozrenïe*, Nos. 15 and 16, 1892) fully endorses Petrescu's statements (*Deutsche med. Zeitung*, No. 70, 1890) concerning the abortive treatment of croupous pneumonia by digitalis in large doses ℞: Infus. fol. digitalis, 2.0 vel 4.0: 200.0, syr. simpl. 30.0, M.D.S. A tablespoonful every half hour. The whole to be taken in the course of 24 hours. The writer's 9 consecutive cases show that under the influence of the treatment on the following day (that is after the said quantity of the mixture has been taken) the temperature falls from 40° C. to 38°, and the subjective state markedly improves, the patient feeling practically well. In cases in the incipient stage the lungs become free from abnormal signs in a day or two, while in more advanced cases complete resolution occurs about the seventh day. In none of the author's patients were any toxic manifestations noticed.

(555) Mechanical Vibrations in the Treatment of Mental and Nervous Diseases.

MORSELLI (*Neurol. Centralbl.*, November 15th) finds that this mode of treatment (vibrations from tuning fork) is sometimes useful in mild forms of mental derangement, complicated with local symptoms, such as neuralgia. It is contra-indicated in all kinds of mania, excepting hysterical, in melancholia with excitement, and especially in epileptic psychoses. It aggravates auditory hallucinations, and is useless in stuporose conditions.

(556) Cocaine in Acute Inflammation of the Ear.

WOLFENSTEIN (*N. Y. Med. Journ.*, November 5th) recommends more frequent application of cocaine than is usually made. Since adopting this plan of treatment he has found that almost all his patients with acute otitis media recover without suppuration, while it formerly supervened in many cases. As soon as "earache" is complained of, he instils five to six drops of a 5 per cent. solution of hydrochlorate of cocaine into the ear, the head being bent towards the opposite side. The pain disappears in ten or fifteen minutes, and the instillation is repeated when it returns. Sometimes a single instillation aborts the attack, especially in those cases arising from bathing. Cases of acute otitis media generally require only two or three days, with four or five instillations daily. The pain and inflammation rapidly disappear, and the hearing is restored very quickly. In severe cases where suppuration impends or has occurred, the solution must be used every hour or two till the pain ceases. In six cases of scarlatinal otitis the remedy was applied hourly, till the pain ceased and in all suppuration was avoided. He uses a 5 per cent. solution (in very severe cases 8 to 10 per cent.) in distilled water, with a few grains of boric acid to each ounce. He has never seen the slightest toxic effect in these cases.

PATHOLOGY.

(557) Hereditary Infection.

DOHRN (*Deut. med. Woch.*, September 15th, 1892) draws attention to the two separate systems of vessels in the placenta, and to the question whether the tissue separating them will allow of the transference of the syphilitic poison. Some breach of surface is necessary for the entrance of the syphilitic poison. Some materials can pass from the maternal into the fœtal blood, but these are not of a corpuscular nature, as the syphilitic poison apparently is. Clinical experience bears out this view. If mother and fœtus are both syphilitic, not only the maternal but also the fœtal placenta shows morbid changes. Again, if the child is syphilitic and the mother healthy, disease has been found in the fœtal portion of the placenta alone. Five such cases were examined by Rosinski. In no case in which a pregnant woman has been subsequently infected has the author seen the fœtus born with any signs of syphilis. Although this evidence is negative, it is valuable when based on many cases. Maternal syphilis can lead to abortion without the fœtus being infected. It is stated that mothers with syphilitic children acquire immunity against syphilis. They may nurse and suckle the children with impunity, and yet these children may convey the disease to another. It is said that the mother gets the disease through the fœtus in minimal doses, and thus any momentary effect of the poison is weakened. The author thinks this a forced explanation, and that it is more likely that the initial lesion has been overlooked. The above-named immunity of the mother is not always observed. The author concludes that syphilis is only conveyed to the fœtus at the time of conception, and that in this respect the sperm and ovum are equally potent. If the ovum is then healthy it will remain so, even if the mother be subsequently infected. If the mother has syphilis it has been brought about through the father of the fœtus, and not through the fœtus itself. The syphilitic poison passes the placental separation neither from the fœtus to the mother nor *vice versâ*.

(558) Toxicity of the Urine of Patients with Suppurative Affections.

NANOTTI AND BACIOCCHI (*Rif. Med.*, August 16th, 1892) have sought to ascertain whether in all suppurative processes, from the most trivial to the most severe, the pyogenic organisms are eliminated by the kidneys. As the result of their labours they affirm: (1) That in every suppurative process, no matter how limited, even if there be absence of any general reaction, the microbes are eliminated by the kidneys without producing any appreciable renal lesion. (2) That pyogenic organisms eliminated in this way are still possessed of considerable virulence. (3) That the urine of such patients has a toxicity distinctly greater than that of normal urine. (4) That such urine is capable of producing wound infection. The practical deductions to be drawn from these results are as follows: First, in suppurative affections to encourage elimination by the kidney, choosing, however, those diuretics which do not greatly affect the renal circulation. Secondly, the infective nature of the urine is a sufficient indication of the desirability of disposing of this efficiently.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(559) Paramyoclonus Multiplex.

Lemoine (*Rev. de Méd.*, November) reports the following case: A sawyer, aged 41, of excitable temperament, was in good health until he sustained a mental shock from narrowly escaping being crushed by falling timber. For several days after the accident his mind was engrossed by his recent peril; he had no sleep during the first seventy-two hours, and he suffered from palpitation and pain in the cardiac region. A few days later slight tremor appeared in all his limbs; this soon developed into attacks of clonic spasms that recurred with great frequency, were increased by attention or emotion, and could be induced by percussing or compressing the muscles. The attacks commenced with fine tremor in the limbs, objectively perceptible only by palpation; the amplitude and force of the contractions then gradually rose to an acme in which the hands and fingers were contorted, the forearms convulsively extended, the arms thrust forwards or behind the head, the shoulders raised, the knees adducted, and the neck arched backwards. These clonic movements would either cease abruptly or by degrees; they were less frequent at night, but often interrupted sleep. The facial muscles and many of the trunk muscles were not involved; the diaphragm, however, was affected, causing hiccough and panting respiration. Some voluntary movements could be executed without any ataxy; as a rule, they inhibited the clonic spasms. Echolalia and "echokinesia" were present in slight degree; the latter happened especially when the imitated movement was sudden and unexpected. When the patient lay in bed his lower limbs were free from spasm; when standing or walking, if an attack supervened, titubation, extension of toes and elevation of heels were observed. Struck by the strangeness of his disorder, the patient became a paranoiac with suicidal propensity. The author believes that this case is the first in which paramyoclonus has been associated with mental derangement, and the only one in which echolalia and echokinesia have coexisted. The instantaneousness of the spasms, their absolute inco-ordination, and the influence upon them of the patient's posture, differentiate the affection from convulsive tic. He regards paramyoclonus, convulsive tic, and electrical chorea as mere varieties of the same neuropathic state.

(560) Hysteria Simulating Hemiplegia.

Comby (*Semaine Médicale*, November 30th, 1892) relates the case of a woman, aged 42. A fortnight before admission into hospital she was seized with transient loss of power in the left extremities. Just before admission a similar attack affected the right side. The face was unaffected, cutaneous sensibility was retained, but the pharyngeal reflex abolished. After a few days of treatment by electricity the patient was able to walk and to use her arm. She was, in fact, cured, and was preparing to leave the hospital, when she was seized with three violent hysterical convulsions, at short intervals. The third ended in her death. At the *post-mortem* the brain, membranes, heart, lungs, and kidneys all appeared to be healthy. In a discussion on this case Raymond suggested that the cause of death was not hysteria. The urine had not been examined, and it was probable that a paroxysmal retention of urinary poison had set up the fits. Siredey had observed a fatal attack of Jacksonian epilepsy, where no organic lesions were found after death.

(561) Allochiria.

The condition in which a sensory stimulus received on one side of the body is referred to the opposite side, described under the name of "allochiria" by Obersteiner in 1881, is the subject of a paper by Bosc (*Rev. de Méd.*, November, 1892), which includes the details of a case observed by himself. The patient, a man aged 42, on admission in 1882, had a neurotic family history and a personal history of alcoholic excesses. His radials were atheromatous, myotatic irritability was exaggerated, and there was pronounced mental enfeeblement. Increasing dementia was the only noteworthy change until left hemiparesis, without loss of consciousness, occurred in 1889. The tongue and lower half of the face were implicated as well as the limbs. Perception of stimuli applied to any part of the left half of body was greatly retarded, and localisation of the stimulus was much impaired. The next day motor paralysis was complete in the left limbs and left half of the face; articulation was difficult, vocal *timbre* altered. On applying a painful stimulus to the left arm, the patient gesticulated as if suffering, quickly withdrew his right arm, and complained of pain in it at a part corresponding to the point of contact on the left arm, and of acute cephalalgia. Analogous effects were produced by pricking the left lower limb, but, in addition thereto, a painful stimulus applied to the left thigh was sometimes referred to the right leg and arm. Whenever the left side of trunk was pricked the patient cried out with pain in his head, and rubbed the lower sternal region. Thermal stimuli were only perceived as pain, and were transferred to the right side. Cutaneous sensibility of the latter side was unimpaired. Visual acuity and audition were diminished on left side. Terminal coma set in three or four days later. No account of a necropsy is given.

(562) Production of Cramps by Faradism.

Babinski (*Sem. Méd.*, December 7th) reports his experience of the action of faradism in cholera patients chiefly, but also in certain others. The cramps produced continue after the current is removed, and present the same characters as those developed spontaneously. They can also be evoked in acute peritonitis, lead poisoning, alcoholism, and peripheral neuritis, and less frequently in tabes, spastic paraplegia, and functional disorders of the nervous system; many of the cases being subject to spontaneous cramps. The condition induced is considered of the nature of a true cramp, and not analogous to the muscular stiffness in Thomsen's disease, or in the myotonia acquisita of Talma.

SURGERY.

(563) Extirpation of an Intradural Tumour of the Spinal Canal.

A. Caponotto and Bellom Pescarolo (*Rif. Med.*, November 25th), report the following case: A man, aged 33, had sustained a severe general shaking by jumping from a height of six feet on to some hay at the age of 5 years and 8 months. At the age of 7½ years he suddenly lost power in his legs for four or five minutes without becoming unconscious; this never occurred again. He continued to grow normally like his brothers up to his 20th year, when he began at intervals to suffer from pain localised in a line extending from the third to the seventh intercostal space, midway between the parasternal and the nipple lines: this rapidly became worse and continuous, especially at the level of the fourth, fifth, and sixth interspaces. Some months later the man noticed hyperæsthesia, first of the right, then of the left thigh. This was followed in about a month by the appearance of patches of anæsthesia, and about the end of 1878 he first noticed some motor disturbance in the lower limbs, the muscles of which showed a tendency to spasmodic contraction at every step, thus rendering walking difficult. The pain in the side of the chest gradually extended backwards towards the spine, and micturition became difficult. In April, 1879, he could only walk with the aid of two sticks; the sensibility of the lower limbs continued to diminish, the bladder and rectum became paralysed, and paraplegia was complete. In this condition he remained for eleven years, without suffering much in his general health. In May, 1890, when he came under the notice of the authors, the spinal column presented no sign of lateral curvature; the seventh cervical and first dorsal spines were very prominent. The patient's lower limbs, as he lay on his back, were slightly flexed, the muscles of the thighs were atrophied, the feet in a position of slight equinism. The patellar reflexes and ankle clonus were greatly exaggerated, but every trace of voluntary movement in the lower limbs had disappeared. Sensibility was abolished over the whole body up to the level of a somewhat irregular line passing through the fourth dorsal vertebra and the fifth intercostal space on each side. There was incomplete para-

lysis of the bladder, necessitating catheterisation twice a day, but no dribbling. The intestine was paralysed, but not the sphincters; erection occurred reflexly; reaction to the faradic and galvanic current was diminished to a fourth or fifth of the normal in the lower limbs; urine slightly turbid, with a trace of serum albumen. The situation of the pain and the upper limit of the loss of sensibility allowed the point of compression of the cord to be determined as about the level of the first to the seventh dorsal nerves, and the long duration of the disease pointed to a slowly growing tumour. On June 28th, 1890, after disinfection of the skin, an incision was made in the middle line behind from the seventh cervical to below the third dorsal vertebra. The muscular bundles were detached from the bones, and held aside with hooks. The periosteum was stripped off from the spinous processes and laminæ of the second and third dorsal vertebræ, and the two corresponding spinous processes having been cut through with forceps, the laminæ were divided about one centimetre from the base of the divided spinous process; the two vertebral arches were then gently levered up and separated from the dura mater. The dura, which had a very tense appearance, was incised in the middle line, exit being given to clear cerebro-spinal fluid. A roundish mass, of whitish colour, was then seen in the subdural space, its upper limit corresponding to the level of the upper margin of the arch of the third dorsal vertebra, and extending downwards out of sight. The arches of the fourth and fifth dorsal vertebræ were then resected in the manner already described, and on incising the dura, the tumour was seen still extending downwards to the level of the arch of the sixth dorsal vertebra, which partly hid it. The tumour was easily separated with the fingers from its attachment to the dura, which was found to be adherent to the spinal canal. No trace of the cord could be discovered at the level of the seat of operation; it seemed, at a point corresponding to the upper extremity of the tumour, to be suddenly flattened out, and to become merged in the smooth, white, firm surface of the dura. The edges of the incision in the dura were brought together, but not sutured; the muscles were united with a deep and superficial layer of catgut sutures; a drainage tube was placed in the lower angle of the wound, extending up to the dura (this the author calls an error of the antiseptic dressing of that time); the skin wound was united with silk sutures, and dressed with aseptic gauze. The operation lasted fifty minutes. There was some rise of temperature and occasional escape of cerebro-spinal fluid up to July 13th. From that date the wound slowly healed, and on August 14th the patient was sent to the country. He returned in the following October in excellent general health, with a firm cicatrix, and no appreciable want of solidity in the spinal column. Except for some diminution in the exaggeration of the reflexes of the lower limbs, there was no change in the patient's condition, either as regards the motor or the sensory paralysis. Nevertheless, he expressed himself as satisfied that the operation had cleared up all doubt as to the nature of the disease, and freed him from a tumour which would certainly have continued to grow, and would have further damaged the spinal cord. The tumour, which presented a gelatinous appearance on section, proved, on microscopic examination, to be a fibrosarcoma, showing here and there traces of myxomatous structure.

(564) Congenital Syphilis.

Erlenmeyer (*Der Kinderarzt*, December, 1892) finds that congenital syphilis may develop as late as the twelfth year, or even at a still later age. As determining causes of the appearance of symptoms at a late age he instances the onset of puberty, traumatism, and febrile diseases. A woman who has borne a congenitally syphilitic child may or may not be syphilised; but immunity to syphilis is not the same condition as syphilisation. Later-born children may be more severely affected than the earlier, and the appearance or non-appearance of symptoms may be related to the sex of the child. Further, the birth of a child free from syphilitic signs cannot be accepted as proof that the subsequent children will not suffer; safe conclusions on this head can only be drawn from a consideration of all the circumstances of the family history. Antisyphilitic treatment of the parents has a favourable influence on the later-born children. He considers that cerebral disease in children characterised by arrest of development on one side and convulsions is generally due to congenital syphilis, and that the so-called cerebral palsy of children is often due to the same cause, as is also very frequently congenital epilepsy with or without idiocy.

(565) Suture of Severed Finger Tips.

Finney showed the following case at a meeting of the Johns Hopkins Medical Society on November 7th (*Johns Hopkins Hosp. Bull.*, October-November). Nearly three years before, the patient had had the ends of the ring and middle fingers of his left hand cut cleanly off by the knife of a machine used for cutting blocks of tin. The middle finger was severed through the last phalanx, just beyond the last joint; the ring finger was cut off just at the root of the nail. The patient came to the hospital seven hours after the accident, bringing the finger ends with him wrapped up in a piece of newspaper. Though the prospect of saving them did not seem hopeful, they were placed in a basin of warm water with no antiseptic whatever. The fingers were soaked for some time in a 1 in 2,000 hot bichloride solution. The edges of the severed finger ends and of the wounded fingers having been freshened, the ends were carefully replaced and fixed in each case with four sutures through the skin, one on the dorsal and palmar surfaces on each side. Narrow strips of *crèpe lisse* were next applied and kept in place with flexible collodion. The two fingers were bound together, placed on a palmar splint, and covered with a large antiseptic dressing. In a fortnight firm union had taken place. The man was then lost sight of, but came under treatment for another accident nearly three years afterwards. It was then seen that motion and sensation were perfect in the injured fingers; there was only the slightest deformity in the ring finger to indicate the point of union, and it was difficult to detect even the slightest scar in the middle finger. The author says he avoided using any antiseptic solution in this case because bichloride of mercury and carbolic acid solutions make a thin layer of coagulation necrosis which might have prevented union.

(566) Functional Torticollis dependent upon Ocular Muscle Paralysis.

Nieden (*Centr. f. Augenheilk.*, November, 1892) adds a case to the small number on record in which torticollis has been induced by paralysis or paresis of one or more ocular muscles, and consequent diplopia; to correct the latter symptom, the oblique position of the head is assumed and kept up. Nieden's patient was a lad, aged 11, in whom the torticollis had been noticed at the age of 5, and had gradually become a constant condition, in spite of treatment by various apparatus. There was marked defect, though not complete paralysis of the left superior rectus, with noticeable limitation of movement of the left eye up and in. The eye deviated outwards and downwards; this deviation was said to have come on after a convulsive attack in early childhood. Correction of the strabismus by operative measures was speedily followed by improvement, and eventually by complete cure of the torticollis. Cuignet, Landolt, Wordsworth, and Morosow have recorded cases more or less closely resembling the above.

MIDWIFERY AND DISEASES OF WOMEN.

(567) Buttonhole Laceration of the Posterior Lip of the Cervix.

Tarnier (*Journ. des Sages-Femmes*, December 1st, 1892), relates a case which he describes as unique in his experience. The patient was a primipara, aged 34; the presentation right occipito-posterior. She was admitted into Tarnier's wards at 9 P.M., on March 19th, two hours after the onset of labour pains. The membranes had ruptured spontaneously, the os was patulous. At 10 A.M. next morning, the os was almost 1 inch in diameter. At the end of the day (March 20th) labour was still going on slowly. The edge of the os, which was soft in the morning now felt very thin and rigid. In the night the patient was put in a bath; she then stated that she felt something happen. The pains became very strong. On examination, after she had been put back in bed, the vulvar cleft was found widely open, so that the fœtal head was visible. Between the head and the pubes was a great red

pad; at first sight it seemed to be the anterior lip of the os; but its edge, towards the head, was unusually thin and distinctly ragged. The forceps was at once applied as the fœtal heart sounds were failing. After the placenta was delivered, an injection was thrown up, in the direction whence the placenta had issued. The great œdema of the supposed anterior lip interfered with the syringing. On passing the fore-finger into the aperture whence the fœtus had been delivered it could be passed forwards and, when turned downwards, the tip of the finger issued from the true os uteri, and could be seen in the vagina. In fact the lower segment had yielded, but posteriorly not anteriorly. Tarnier left the parts to heal naturally, believing that the laceration would cicatrise without any plastic operation. On the score of long experience he does not believe in routine examination of women two or three days after labour, and suture of all lacerations of the cervix. As a rule, he finds, these lacerations heal spontaneously.

(568) Poisoning by Intrauterine Mercurial Injections.

R. Weiss, of Havana (*Archivos de la Policlinica*, November), reports the following case: A 2-para, aged 20, after a normal delivery, began to suffer on the third day from *malaise*, headache, slight shivering, and rise of temperature. As some fœtor of the lochia was perceptible, the uterus was washed out, 4 litres of a 1 in 2,000 solution of bichloride of mercury being injected through Budin's catheter. Twenty minutes afterwards the patient had a very severe rigor, which lasted a quarter of an hour, and was accompanied by pain in the lower part of the belly. Thereupon the nurse gave three further injections in three successive hours through the catheter which had been left in the uterus; the total quantity injected on these occasions being 10 litres of a 1 in 2,000 solution. At this time Weiss saw the patient and ordered the injections to be discontinued and the catheter withdrawn. Soon afterwards the patient began to complain of colicky pains, and on the following morning she was seized with violent diarrhœa with tenesmus, the abdomen being distended and tender. On the second morning, thirty-six hours after the injections, mercurial stomatitis was well marked; the diarrhœa was worse, the stools being blood-stained; no urine was passed, and the bladder was found to be empty; the patient was in a state of stupor; temperature, 36° C.; pulse, 148. In a few hours bilious vomiting came on; the fæces, which were black and very offensive, escaped involuntarily; and an erythematous rash like that of measles appeared on the chest, arms, and abdomen; the face, hands, and feet were œdematous. After complete suppression for thirty-six hours, the patient spontaneously passed 90 grammes of urine loaded with albumen, after which the coma became less deep, and a few hours later—seventy-two hours after the injections—distinct improvement set in. Recovery took place gradually; the patient left her bed sixteen days after the accident, the urine being still albuminous. On the twenty-second day, the albumen having disappeared, she was discharged apparently well. On the fiftieth day, however, slight œdema of both ankles was noticed, and the urine was again found to contain a little albumen. This disappeared in a few days under treatment. Weiss points out that in this case two distinct sets of symptoms were observable, both due to the mercurial injections. 1. The rigor, rise of temperature, etc., lasting two hours and ending in profuse sweating, were signs of reflex disturbance, which sometimes follows intrauterine injection, and must be taken as an absolute contraindication of that method of treatment. 2. Characteristic signs of mercurial poisoning—colic, diarrhœa, stomatitis, and anuria. Weiss protests against the routine use of bichloride of mercury for intrauterine injections, recommending thymol, boric acid, salicylic acid, or hot water for that purpose. If bichloride of mercury is used, it should be in weak solutions (1 in 5,000 or 6,000), and only at considerable intervals. It should not be employed when any laceration of the genital tract has taken place, nor when *post-partum* hæmorrhage has occurred, nor the patient is markedly anæmic. It should never be used when albuminuria or kidney disease is present, nor in feeble and cachectic patients. The treatment consists in the immediate discontinuance of the mercurial injections, antiseptic washes for the mouth, opium enemata for the diarrhœa, the promotion of elimination through the kidneys, the intestine, and the skin, and the free use of tonics and stimulants. The prognosis must always be guarded, since death may occur suddenly when the patient appears to be doing well.

(569) Pedunculated Fibroma of Labia.

Esser (*Centralbl. f. Gynäk.*, No. 44, 1892) adds two new cases to the records of this kind of tumour of the labium majus. The first patient was aged 34 and single. The growth was as big as a child's head; its pedicle, 3½ inches long and as thick as a man's little finger, grew from the right labium. Four years previously it was first noticed as a hard lump not larger than a small bean. It was successfully removed. It consisted of loose connective tissue, and contained three cysts as large as beans and full of pus. The second patient was 51. In the course of two years a tumour had developed on the left labium majus. It was of the size of a small pear, and its pedicle was about an inch in length. It was removed. In structure it resembled the former tumour, but contained no cysts.

(570) Induction of Premature Labour in Kyphotic Pelvis.

Delthil (*Nouv. Arch. d'Obstét. et de Gynéc.*, October, 1892) considers that when craniotomy has been found necessary at a first labour, induction of premature labour will be needed in subsequent pregnancies. Directly dilatation is complete, active intervention must follow. The long forceps should be applied so as to save the child. When born the infant is plunged into water at 102°, and left there for from twenty-five to forty minutes, in order to keep up its temperature. When by its energetic cries it shows that respiration is well established, it is transferred to a room of a temperature of 70°, and is well clad in wool. Delthil does not employ the *couveuse* in these cases, as it is costly and hard to manage; besides it is difficult to avoid taking the child out to feed or clean without exposing it to a temperature often not higher than 64°.

THERAPEUTICS.

(571) Subcutaneous Injections of Ether.

M. P. Mikhailoff (*Boln. Gazeta Botkina*, No. 44, 1892) points out that in febrile conditions the subcutaneous injection of sulphuric ether is invariably followed by rapid development of a diffuse subcutaneous swelling, which to the finger gives the impression of an emphysematous crepitation. In a few minutes the swelling disappears spontaneously. The phenomenon is observed in all cases where the axillary temperature rises above 38° C., and it is more pronounced in proportion to the degree of pyrexia. The author advances the following explanation: The boiling point of the ether being 35° C.—that is, below the normal body temperature—the fluid, when introduced into the subcutaneous cellular tissue of a febrile subject rapidly transforms into vapour, which distends the tissue. Probably the evaporation takes place even in persons whose temperature is normal, but proceeds too slowly to be detected. It is not difficult to conceive a case of a patient dying of fever, in which the practitioner resorts to a hypodermic injection of ether as the last resource, and the patient dies with a large swelling of the kind. The deceased's friends will, of course, attribute the death to the injection. In a grave case of typhoid fever, complicated with laryngeal peritonitis, under the author's care, a Pravaz syringeful of ether was injected into the cardiac region at about the level of the fourth rib. This was at once followed by the appearance of a conspicuous crepitating tumour, spreading upwards to the second rib, downwards to the sixth, inwards to the sternal, and outwards to the mid-axillary line. The phenomenon caused mental depression and aggravation of dyspnœa, but happily soon disappeared, without leaving any disagreeable consequences.

(572) Salol in Typhoid Fever.

V. D. Posajnyi (*Bolnitchnaia Gazeta Botkina*, Nos. 28 and 29, 1892) tried salol as an intestinal antiseptic in 49 cases of typhoid fever in patients aged from 11 to 32. Cases were selected in which there were present either severe diarrhœa or meteorism, or indican in the urine. In about 50 per cent. of the

cases the primary disease was complicated with bronchitis or catarrhal pneumonia, otitis, nephritis, etc. The daily dose varied from 0.35 to 1.5 gramme, the drug being given thrice daily alone in water. The administration was continued from one to eighteen days. Of the 49 patients, 3 died (from complications, such as croupous pneumonia, chronic catarrhal pneumonia, and pachymeningitis); relapse occurred once, intestinal hæmorrhage twice. In about 25 per cent. salol did not appear to have any favourable effect on the patient's condition. In the remaining 75 per cent. the remedy markedly inhibited the intestinal fermentation processes. The stools quickly lost their specific typhoid features; while the abdominal distension and tenderness subsided, appetite improved, and the proportion of indican gradually decreased. In about 25 per cent. of cases the diarrhœa, etc., ceased after one or two days' administration of the drug, and never recurred after discontinuing the latter. Not infrequently subsequent constipation occurred, necessitating the use of enemata. No antipyretic effects were observed, nor were any unfavourable effects on the heart or kidneys noticed.

(573) Salol in Gonorrhœa.

G. N. GRIVTZOFF, of Sebastopol (*Meditz. Pribavl. k' Morsk. Sborníkü*, No. 9, 1892), obtains excellent results in gonorrhœa by the internal administration of salol in the dose of 1.5 gramme (in powder, with a few drops of peppermint oil to improve the flavour) three or four times a day. The effects are particularly good in acute and subacute cases. Patients who come under observation within the first four days of the affection may be cured by salol alone in from ten to fourteen days. It is advisable, however, to use simultaneously warm general baths which accelerate the disappearance of dysuria and painful erections. In subacute forms it is sometimes useful to combine salol with cubebs. In more or less neglected cases salol should be employed in the shape of injections as well (℞ Salol. puri, 10 grammes; gummi Arabici, 5.0; aq. dest., 2,000.0. M. Ft. emulsio. To be injected into the urethra 3 or 4 times daily). No disagreeable effects whatever were observed.

(574) Dermatol in Otorrhœa.

S. A. SHANIAVSKY (*Meditzinskoïe Obozrenïe*, No. 10, 1892) has used dermatol in thirty cases of acute and chronic purulent otitis, externa or media. Having washed out the ear with a 3 per cent. boracic acid lotion, he thoroughly dries the parts with absorbent cotton wool, and then introduces deep into the meatus a piece of the wool impregnated with dermatol powder. The results are very satisfactory, the antisuppurative effect of the substance being very marked, more especially in acute otorrhœa. In cases of otitis externa, a marked decrease in the discharge was pretty frequently noticed within three days, while a complete cure was far more quickly effected than in cases treated by iodoform, tannin, calomel, boracic acid, subnitrate of bismuth, and other ordinary drugs. In cases of otitis media, with perforation of the drumhead, however, the healing process advanced somewhat more slowly than in those of external otitis.

PATHOLOGY.

(575) Influence of Wine upon the Development of Typhoid and Cholera Bacilli.

PICK (*Centralbl. f. Bakt.* August 26th, 1892) has endeavoured to ascertain whether there is any scientific basis for the popular belief that the addition of wine to water diminishes the risk of infection from the latter source during epidemics of typhoid and cholera. His experiments consisted in the addition of a definite quantity of typhoid or cholera culture to water, wine, and a mixture of the two in equal parts, from which fluids, after they have stood for a given time, tubes of nutrient media were inoculated. The results showed that wine had a distinctly detrimental influence upon the growth of both typhoid and cholera bacilli (especially the latter), entirely preventing it, in either case, if allowed to act for a sufficient length of time. Further experiments are necessary to fix the proper degree in which the wine should be diluted, and the period during which the mixture should be allowed to stand. At present it may be regarded as advisable, when wine is to be diluted, to make the dilution twenty-four hours before use; and further, to drink wine only from vessels which have contained it for at least twenty-four hours.

(576) Effects of Extirpating the Cœliac Plexus.

A. LUSTIG (*Lo Sperimentale*, fasc. v. and vi., 1891) gave a brief summary of his investigations on the effects of ablation of the cœliac plexus. In two papers published during the winter of 1889-90 (*Arch. per le Scienze Mediche*) the author stated that removal of the cœliac plexus was nearly always followed by a transitory glycosuria. This seldom lasted, however, beyond two days, and was unaccompanied by changes in the pancreas. Acetonuria, persistent and accompanied after a time by albuminuria, was a constant result of the operation. Such animals generally die with acetonic coma, exhibiting lesions like those accompanying diabetic coma. In a certain proportion of cases, however, recovery is complete. As regards the constancy of the occurrence of acetone in the urine of these animals the author, not satisfied with his own analysis, has obtained the opinion of Cimiciani, of Bologna, who entirely confirms the original statement (*Sperimentale*, iii, 1892). The test chiefly relied upon was that of an alkaline solution of nitroprusside of soda, which gives, with traces of acetone, a ruby-red colour, changing to yellow and becoming violet on acidifying and boiling.—Peiper (*Zeitschr. f. klin. Med.*, Bd. xvii, H.6) came to a different conclusion. Out of 15 experiments on rabbits he only twice observed acetonuria, and even then it was inconsiderable. Albuminuria was also wanting save in two instances. There seems, however, little room for doubt that Lustig was correct in his original assertion. Lustig has also investigated the influence of ablation of other parts of the sympathetic on the production of acetonuria. He finds, however, that their influence is quite inconsiderable in comparison with that of the cœliac plexus, their removal producing at most only transitory disturbances.—R. Oddi, in a series of notes (*Sperimentale*, fasc. v. and vi., 1891, and fasc. iii, 1892) of a number of entirely independent experiments, corroborates the above results of Lustig, agreeing with him in every respect save with regard to the fatal character of the operation of removal of the cœliac plexus. In these experiments coma did not appear, and in no case did death ensue, the animals at first losing flesh considerably but afterwards recovering. It would appear, therefore, that the cœliac plexus is not absolutely necessary to life but that its function can in a measure be fulfilled by some other part of the nervous system.

(577) Elimination of Round Worms in Febrile States.

DEMATEIS (*Centralbl. f. Bakt. u. Parasitenkunde*, Band xi, No. 21) records twenty-seven cases of fever, chiefly due to enteric and pneumonia, in which round worms were eliminated spontaneously (by the anus usually, rarely by the mouth) either during or directly after the attack. Perroncito's observations are quoted, to the effect that the movements of these parasites are increased by a rise of temperature up to 45° C. These can be verified by direct observation of the larvæ upon a warm stage. In the cases now recorded the movements which brought about spontaneous elimination are referred to the increased temperature, though possibly in some instances the parasite is incited to movement by bacterial toxines present in the bowel. In none of the cases were the worms or their eggs discoverable in the fæces after the febrile attack; elimination was apparently complete. In one instance the ascaris had passed out into the peritoneal cavity, and caused peritonitis. Demateis is of opinion that the worm is able, under the stimulus of increased temperature, to perforate the floor of an ulcer already present in the bowel wall by its own movements.

(578) Lichen Scrofulosorum.

DARIER (*Ann. de Derm. et de Syph.* May 1892) has investigated the histology of a case of lichen scrofulosorum. He finds that the affection had as an anatomical lesion an especial perifolliculitis, the lesions being those common to tuberculous affections. In the few sections at his disposal he was not able to show the presence of bacilli; but he refers to a case of Jacobi, in which Koch's bacilli were found.

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